

# Liftcrane Luffing Jib Capacities

Luffing Jib No. LJ11:680-681-682 on  
 Boom No. B65:685-680  
 with Mast No. M11:684  
 881,800 lb VPC (Variable Position Counterweight)  
 360 Degree Rating

**MLC650  
 VPC-MAX  
 SERIES 3**



**LIFTING CAPACITIES:** Lifting capacities for various boom lengths, boom angles, luffing jib lengths, and luffing jib operating radii are for freely suspended loads and may be based on percent of static tipping or strength of structural components. Capacities must be reduced by applicable deducts.

Upper luffing jib point capacity for liftcrane service with single part whip line from Drum 3 is 30,000 lb or 60,000 lb with two part whip line. When Drum 1 or Drum 2 is used, capacity with single part whip line is 48,800 lb, or 73,500 lb with two part whip line. In all cases, upper luffing jib point capacities cannot exceed those listed for main luffing jib capacity.

Weight of all load blocks, hooks, weight ball, slings, hoist lines, etc., beneath boom and luffing jib point sheaves is considered part of load. Boom and luffing jib are not to be lowered beyond radii where combined weights are greater than rated capacity. Operation is only approved for boom and luffing jib angle range shown in capacity chart.

**LUFFING JIB BACKWARD STABILITY:** Capacities indicated by (b) require 14,000 lb minimum weight suspended beneath luffing jib point, (c) require 28,000 lb minimum weight, and (d) require 40,000 lb minimum weight. **Caution: Do not luff into areas indicated by (b), (c), or (d) without required minimum weight.** *Luffing jib may not luff down and luffing jib hoist wire rope may go slack. Luffing jib hoist wire rope may overhaul luffing jib and cause wire rope damage or failure.*

**OPERATING CONDITIONS:** Machine to operate on a firm, level, and uniformly supporting surface. Supporting surface and bearing turntable are to be level within a tolerance of 1/2 in. in 10 ft. Refer to Luffing Jib Rigging **No. 84038308**, Mast Rigging **No. 84050187**, Wire Rope Specifications chart **No. 9539-A**, Counterweight Arrangements chart **No. 9349-A**, Luffing Jib Raising Procedure chart **No. 9536-A**, and Wind Conditions chart **No. 9538-A**. Crane operator judgment must be used to allow for dynamic load effects of swinging, hoisting or lowering, travel, wind conditions, as well as adverse operating conditions and physical machine depreciation. Refer to the Operator Manual for operating guidelines.

**MACHINE TRAVEL:** Machine to travel on a firm, level, and uniformly supporting surface. Boom and luffing jib must be within angle range shown in capacity chart. Refer to Maximum Allowable Travel Specifications chart **No. 9537-A**.



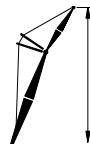
**OPERATING RADIUS:** Operating radius is horizontal distance from axis of rotation to center of vertical hoist line or load block. Boom angle and luffing jib angle are an indication of operating radius. In all cases, operating radius shall govern capacity.



**BOOM ANGLE:** Boom angle in degrees (°) is angle between horizontal and centerline of boom butt and inserts.



**LUFFING JIB ANGLE:** Luffing jib angle in degrees (°) is angle between horizontal and centerline of luffing jib butt and inserts.



**LUFFING JIB POINT ELEVATION:** Luffing jib point elevation is vertical distance from ground level to centerline of luffing jib point shaft.

**MACHINE EQUIPMENT:** Machine equipped with VPC-MAX, 36 ft 6 in. crawlers, 60 in. or 80 in. treads, 36 ft 1 in. live mast, 118.1 ft mast, 16 part boom hoist reeving, boom support straps, 20 part luffing jib hoist reeving, luffing jib and backstay support straps, and 881,800 lb VPC.

Select counterweight position from Luffing Jib Raising Procedure chart **No. 9536-A** that will allow raising and lowering of boom and luffing jib length. Counterweight position selection may be changed with luffing jib on ground or while luffing jib is within operating range of capacity chart.

**Explanation of Symbols**



Luffing Jib No. LJ11:680-681-682  
+  
Boom No. B65:685-680



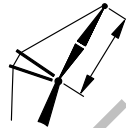
VPC (Variable Position Counterweight)



360 Degree Rating



Boom Length



Luffing Jib Length



Boom Angle  
(see page 1)

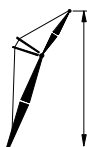
**Explanation of Symbols**  
(continued)



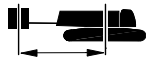
Operating Radius  
(see page 1)



Luffing Jib Angle  
(see page 1)



Luffing Jib Elevation  
(see page 1)



Counterweight Position  
from Axis of Rotation

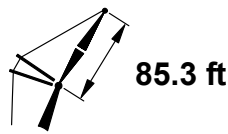
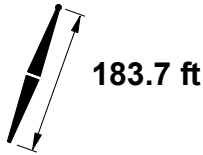


Lifting Capacities  
(see page 1)

REFERENCE ONLY!

# MLC650 VPC-MAX S-3

ASME B30.5

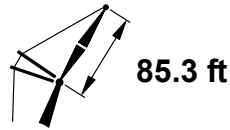
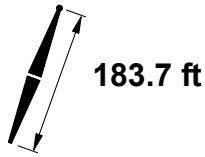


ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
55	71.9	273.2	771,600 c	771,600 c									55
60	68.2	271.1	737,100 c	771,600 c	72.9	273.0	718,900 c	771,600 c					60
65	64.5	268.6	672,100 c	754,800 c	69.3	270.9	655,500 c	771,600 c					65
70	60.6	265.7	617,000 b	724,800 b	65.5	268.5	601,700 b	771,500 b					70
75	56.5	262.2	569,700 b	696,400 b	61.7	265.7	555,600 b	747,500 b	68.9	269.1	534,500 b	771,500 b	75
80	52.2	258.2	528,600	669,900	57.7	262.4	515,500 b	718,700 b	65.2	266.7	495,900 b	771,500 b	80
85	47.6	253.6	492,500	645,400	53.5	258.6	480,400	691,400	61.3	263.8	462,200 b	741,200 b	85
90	42.6	248.0	460,600	609,600	49.0	254.2	449,300	666,000	57.3	260.5	432,300 b	695,300 b	90
95	37.1	241.4	432,100	557,100	44.1	248.9	421,600	624,400	53.0	256.6	405,700	653,000	95
100	30.5	233.0	406,400	472,700	38.7	242.6	396,700	575,100	48.5	252.1	381,800	615,300	100
105	22.0	221.4	382,900	390,000	32.4	234.8	374,100	510,000	43.6	246.7	360,200	581,500	105
110					24.7	224.3	353,300	427,200	38.1	240.3	340,500	551,100	110
115					12.0	206.1	333,500	333,500	31.8	232.3	322,500	522,000	115
120									23.8	221.5	305,700	437,100	120
125									9.6	201.0	289,500	334,100	125
130													130
135													135
140													140
145													145
150													150
155													155
160													160
165													165
170													170



# MLC650 VPC-MAX S-3

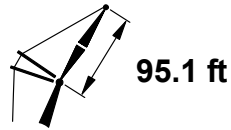
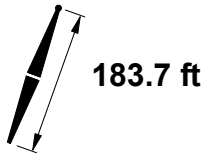
ASME B30.5



ft	75°				70°				65°				ft
	ft	ft	lb	lb	ft	ft	lb	lb	ft	ft	lb	lb	
55													55
60													60
65													65
70													70
75													75
80													80
85													85
90													90
95													95
100	61.8	260.5	356,800 b	595,600 b									100
105	57.8	257.2	336,600 b	562,900 b									105
110	53.6	253.4	318,400	533,400									110
115	49.1	249.0	301,700	506,700									115
120	44.2	243.7	286,400	482,300	58.0	252.3	266,400	466,800					120
125	38.9	237.5	272,200	460,000	53.8	248.5	253,400	445,200					125
130	32.7	229.7	259,100	439,600	49.3	244.1	241,300	425,400					130
135	25.0	219.4	246,700	420,600	44.5	238.9	230,000	407,200					135
140	12.6	201.7	234,600	377,800	39.1	232.7	219,500	390,300	53.6	241.9	203,300	377,700	140
145					33.0	225.0	209,600	374,600	49.1	237.4	194,300	362,600	145
150					25.4	214.9	200,200	359,900	44.2	232.2	185,800	348,400	150
155					13.6	198.0	190,900	346,100	38.8	225.9	177,800	335,300	155
160									32.7	218.2	170,200	322,900	160
165									24.9	207.8	162,900	311,200	165
170									12.6	190.2	155,400	300,100	170

# MLC650 VPC-MAX S-3

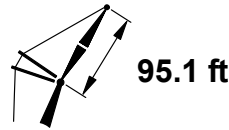
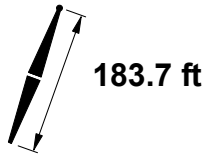
ASME B30.5



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
55	73.8	283.7	771,500 c	771,500 c									55
60	70.6	281.8	734,700 c	758,900 c									60
65	67.3	279.6	669,700 b	731,100 b	71.5	281.6	652,700 b	771,500 b					65
70	64.0	277.1	614,700 b	703,400 b	68.3	279.5	599,100 b	752,600 b					70
75	60.5	274.1	567,500 b	676,800 b	64.9	277.0	553,100 b	725,700 b					75
80	56.8	270.8	526,500	651,400	61.5	274.2	513,100 b	699,200 b	67.9	277.7	493,100 b	766,600 b	80
85	53.0	266.9	490,600	627,600	57.9	270.9	478,100	673,400	64.6	275.2	459,400 b	734,300 b	85
90	49.0	262.4	458,800	605,500	54.1	267.2	447,100	649,000	61.1	272.3	429,600 b	691,800 b	90
95	44.7	257.3	430,500	569,700	50.2	263.0	419,600	626,000	57.5	269.0	403,100	649,700	95
100	40.0	251.3	405,100	528,100	45.9	258.0	394,800	582,500	53.7	265.2	379,400	612,200	100
105	34.7	244.0	382,100	491,600	41.3	252.3	372,500	539,500	49.8	260.9	357,900	578,600	105
110	28.5	235.0	361,100	426,100	36.2	245.4	352,100	501,600	45.5	255.9	338,400	548,300	110
115	20.4	222.5	341,600	354,800	30.3	237.0	333,500	458,800	40.9	250.1	320,700	520,800	115
120					22.9	225.7	316,200	387,600	35.7	243.1	304,300	495,800	120
125					10.5	205.7	299,600	302,600	29.7	234.4	289,200	465,600	125
130									22.1	222.8	275,000	397,000	130
135									7.9	199.9	261,000	302,600	135
140													140
145													145
150													150
155													155
160													160
165													165
170													170
175													175
180													180

# MLC650 VPC-MAX S-3

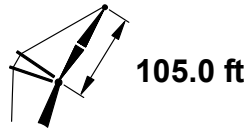
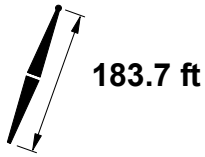
ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
55													55
60													60
65													65
70													70
75													75
80													80
85													85
90													90
95													95
100													100
105	61.6	268.9	333,600	559,600									105
110	58.0	265.7	315,500	530,300									110
115	54.2	262.0	298,900	503,700									115
120	50.3	257.7	283,800	479,500									120
125	46.1	252.8	269,800	457,300	58.2	260.8	250,200	442,200					125
130	41.5	247.1	256,900	437,000	54.4	257.1	238,300	422,500					130
135	36.4	240.3	244,900	418,200	50.5	252.9	227,200	404,400					135
140	30.5	231.9	233,600	400,900	46.3	248.0	216,800	387,600					140
145	23.2	220.8	223,000	384,700	41.7	242.3	207,200	372,000	54.2	250.5	191,100	359,700	145
150	11.1	201.4	212,400	344,900	36.7	235.6	198,100	357,500	50.3	246.2	182,800	345,700	150
155					30.8	227.3	189,500	344,000	46.1	241.3	174,900	332,600	155
160					23.6	216.3	181,300	331,300	41.5	235.6	167,500	320,400	160
165					12.1	197.9	173,100	319,200	36.4	228.8	160,500	308,900	165
170									30.5	220.4	153,800	298,100	170
175									23.2	209.2	147,400	287,800	175
180									11.1	189.9	140,700	278,000	180

# MLC650 VPC-MAX S-3

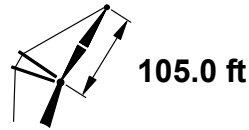
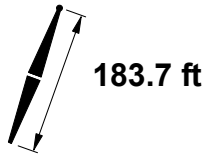
ASME B30.5



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
60	72.5	292.3	732,100 b	732,100 b									60
65	69.6	290.4	668,500 b	707,500 b									65
70	66.6	288.1	613,500 b	682,500 b	70.4	290.2	597,700 b	727,700 b					70
75	63.5	285.5	566,400 b	658,000 b	67.4	288.0	551,700 b	704,000 b					75
80	60.4	282.6	525,500	634,200	64.4	285.5	511,800 b	679,900 b					80
85	57.1	279.3	489,700	611,600	61.3	282.7	476,900	656,200	67.2	286.2	457,900 b	718,900 b	85
90	53.7	275.5	458,000	590,200	58.0	279.4	446,100	633,200	64.1	283.7	428,200	689,300	90
95	50.1	271.2	429,800	570,200	54.6	275.8	418,600	611,200	61.0	280.8	401,800	647,400	95
100	46.3	266.4	404,500	533,800	51.1	271.7	393,900	588,300	57.7	277.5	378,100	610,000	100
105	42.2	260.8	381,700	497,200	47.4	267.0	371,700	545,100	54.3	273.8	356,700	576,600	105
110	37.7	254.3	360,900	464,700	43.4	261.6	351,500	507,200	50.8	269.7	337,400	546,400	110
115	32.7	246.5	342,000	434,100	39.0	255.4	333,100	473,700	47.0	264.9	319,700	519,100	115
120	26.7	236.8	324,500	387,200	34.2	248.0	316,200	443,700	43.0	259.5	303,600	494,200	120
125	18.9	223.4	308,100	324,900	28.5	239.0	300,600	408,600	38.6	253.1	288,700	471,100	125
130					21.4	226.9	285,900	353,900	33.7	245.6	274,800	441,500	130
135					9.1	205.0	271,700	276,400	27.9	236.4	262,000	413,300	135
140									20.6	223.9	249,800	363,200	140
145									6.2	198.2	237,600	275,200	145
150													150
155													155
160													160
165													165
170													170
175													175
180													180
185													185
190													190

# MLC650 VPC-MAX S-3

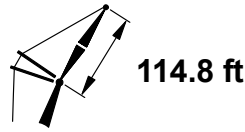
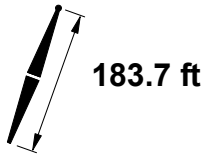
ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
60													60
65													65
70													70
75													75
80													80
85													85
90													90
95													95
100													100
105	64.5	280.2	331,900	557,400									105
110	61.4	277.4	313,900	528,200									110
115	58.1	274.2	297,400	501,700									115
120	54.8	270.6	282,300	477,600									120
125	51.2	266.5	268,500	455,600									125
130	47.5	261.8	255,700	435,300	58.3	269.3	236,600	420,600					130
135	43.5	256.4	243,800	416,700	54.9	265.7	225,600	402,600					135
140	39.2	250.2	232,800	399,400	51.4	261.6	215,400	385,900					140
145	34.3	242.9	222,500	383,400	47.7	256.9	205,800	370,400					145
150	28.7	233.9	212,700	368,500	43.7	251.6	196,900	356,000	54.8	259.1	181,100	343,900	150
155	21.7	222.0	203,400	354,600	39.4	245.5	188,500	342,600	51.2	254.9	173,300	330,900	155
160	9.8	200.9	194,200	316,600	34.6	238.2	180,600	330,000	47.5	250.3	166,100	318,800	160
165					29.0	229.3	173,100	318,200	43.5	244.9	159,200	307,400	165
170					22.1	217.6	165,800	307,100	39.2	238.7	152,700	296,700	170
175					10.8	197.6	158,500	296,400	34.3	231.4	146,500	286,600	175
180									28.7	222.4	140,600	277,100	180
185									21.7	210.5	134,800	268,000	185
190									9.8	189.3	128,800	259,200	190

# MLC650 VPC-MAX S-3

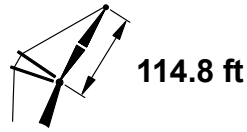
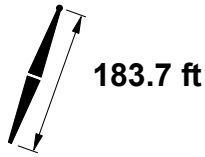
ASME B30.5



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
60	74.1	302.7	690,600 b	690,600 b									60
65	71.4	301.0	666,000 b	678,300 b									65
70	68.8	298.9	611,100 b	660,300 b	72.2	300.7	594,900 b	685,800 b					70
75	66.0	296.6	564,000 b	638,100 b	69.5	298.7	549,000 b	675,500 b					75
80	63.2	294.0	523,200	616,200	66.8	296.5	509,200	659,000					80
85	60.3	291.1	487,400	594,900	64.0	294.0	474,400	637,700	69.2	297.0	454,900	675,600	85
90	57.3	287.8	455,800	574,700	61.1	291.1	443,600	616,500	66.5	294.7	425,300	668,200	90
95	54.2	284.1	427,700	555,400	58.2	287.9	416,200	595,900	63.7	292.1	399,000	644,100	95
100	51.0	279.9	402,400	527,200	55.1	284.4	391,600	576,100	60.8	289.2	375,400	606,900	100
105	47.6	275.3	379,700	495,100	51.9	280.4	369,400	547,700	57.9	286.0	354,100	573,600	105
110	44.0	270.0	359,100	465,700	48.5	275.8	349,400	509,700	54.8	282.4	334,800	543,500	110
115	40.1	264.0	340,300	438,200	45.0	270.8	331,100	476,200	51.6	278.3	317,300	516,300	115
120	35.8	257.1	323,000	412,100	41.2	265.0	314,300	446,300	48.2	273.8	301,200	491,500	120
125	31.0	248.8	307,100	382,900	37.0	258.3	298,900	419,400	44.6	268.7	286,400	468,800	125
130	25.3	238.5	292,300	346,000	32.4	250.5	284,600	395,100	40.8	262.8	272,700	443,900	130
135	17.7	224.2	278,400	297,200	27.0	240.8	271,200	361,900	36.6	256.0	260,100	417,400	135
140					20.1	228.0	258,700	323,000	31.9	248.0	248,300	393,400	140
145					7.8	204.0	246,300	251,300	26.4	238.2	237,200	366,500	145
150									19.3	224.9	226,600	327,800	150
155									4.2	195.1	215,700	247,100	155
160													160
165													165
170													170
175													175
180													180
185													185
190													190
195													195
200													200

# MLC650 VPC-MAX S-3

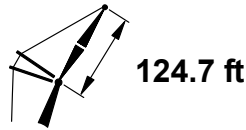
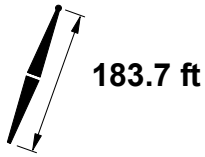
ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
60													60
65													65
70													70
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110	64.1	288.7	310,800	525,000									110
115	61.2	285.9	294,400	498,700									115
120	58.2	282.7	279,400	474,700									120
125	55.2	279.1	265,600	452,700									125
130	52.0	275.1	252,900	432,600									130
135	48.6	270.6	241,200	414,000	58.4	277.8	222,400	399,700					135
140	45.1	265.6	230,300	396,900	55.3	274.2	212,300	383,100					140
145	41.3	259.8	220,100	380,900	52.2	270.2	202,800	367,700					145
150	37.1	253.2	210,500	366,100	48.8	265.8	194,000	353,300					150
155	32.5	245.4	201,500	352,300	45.3	260.8	185,700	340,000					155
160	27.1	235.8	193,000	339,400	41.5	255.0	178,000	327,500	52.0	263.6	162,900	316,000	160
165	20.3	223.2	184,800	327,200	37.4	248.5	170,600	315,800	48.6	259.1	156,100	304,700	165
170	8.6	200.1	176,600	289,700	32.8	240.7	163,600	304,800	45.1	254.1	149,800	294,100	170
175					27.4	231.3	157,000	294,400	41.3	248.3	143,700	284,100	175
180					20.7	218.8	150,500	284,600	37.1	241.7	137,900	274,600	180
185					9.6	197.1	143,900	275,100	32.5	233.9	132,400	265,700	185
190									27.1	224.3	127,100	257,200	190
195									20.3	211.6	122,000	249,100	195
200									8.5	188.5	116,500	241,300	200

# MLC650 VPC-MAX S-3

ASME B30.5

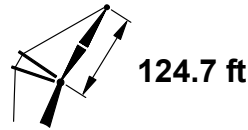
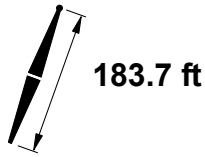


ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
65	73.0	311.4	624,400 b	624,400 b									65
70	70.5	309.6	604,400 b	604,400 b									70
75	68.0	307.5	585,500	585,500	71.2	309.3	580,000 b	580,000 b					75
80	65.5	305.1	567,600	567,600	68.7	307.3	559,600	566,500					80
85	62.9	302.5	534,800	567,600	66.2	305.0	521,600	566,500					85
90	60.2	299.5	500,500	561,100	63.6	302.5	488,100	566,500	68.5	305.5	469,600	622,900	90
95	57.5	296.3	470,000	542,900	61.0	299.6	458,300	566,500	66.0	303.2	440,900	616,200	95
100	54.7	292.6	442,600	516,200	58.3	296.4	431,600	563,600	63.4	300.6	415,100	605,900	100
105	51.7	288.6	417,900	486,000	55.4	292.9	407,500	545,900	60.7	297.7	391,900	572,700	105
110	48.6	284.1	395,600	457,600	52.5	289.0	385,700	514,100	58.0	294.5	370,900	542,700	110
115	45.4	279.1	375,200	431,300	49.5	284.6	365,800	480,400	55.2	291.0	351,800	515,600	115
120	41.9	273.5	356,600	407,300	46.3	279.8	347,700	450,400	52.2	287.0	334,300	490,900	120
125	38.2	267.1	339,500	385,800	42.9	274.3	331,000	423,600	49.2	282.6	318,200	468,300	125
130	34.1	259.7	323,600	367,000	39.2	268.2	315,500	399,300	46.0	277.7	303,400	447,600	130
135	29.4	250.9	308,900	343,200	35.3	261.1	301,300	377,300	42.6	272.2	289,600	421,500	135
140	23.9	240.1	295,200	311,700	30.8	252.8	287,900	356,800	38.9	265.9	276,900	397,500	140
145	16.6	224.9	272,600	272,600	25.6	242.6	275,500	325,700	34.9	258.8	265,000	375,700	145
150					18.9	229.0	263,700	292,500	30.3	250.3	253,800	355,800	150
155					6.6	202.6	229,300	229,300	25.0	239.9	243,300	330,100	155
160									18.2	225.8	233,300	296,700	160
165													165
170													170
175													175
180													180
185													185
190													190
195													195
200													200
205													205
210													210



# MLC650 VPC-MAX S-3

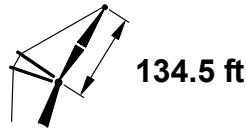
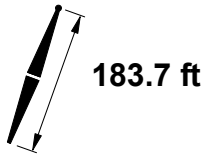
ASME B30.5



ft	75°				70°				65°				ft
	ft	ft	lb	lb	ft	ft	lb	lb	ft	ft	lb	lb	
65													65
70													70
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115	63.7	297.2	328,600	497,900									115
120	61.1	294.4	312,100	474,000									120
125	58.3	291.2	297,100	452,100									125
130	55.5	287.7	283,200	432,100									130
135	52.6	283.8	270,300	413,600									135
140	49.6	279.4	258,400	396,500	58.5	286.3	240,100	382,600					140
145	46.4	274.6	247,300	380,600	55.7	282.8	229,700	367,300					145
150	43.0	269.2	236,900	365,900	52.8	278.9	220,000	353,000					150
155	39.4	263.0	227,200	352,200	49.7	274.6	211,000	339,700					155
160	35.4	256.0	218,000	339,300	46.6	269.8	202,400	327,300					160
165	30.9	247.7	209,400	327,200	43.2	264.4	194,400	315,600	52.6	272.3	179,600	304,400	165
170	25.8	237.6	201,100	315,900	39.5	258.3	186,900	304,700	49.6	267.9	172,600	293,900	170
175	19.2	224.2	193,200	305,200	35.6	251.2	179,700	294,400	46.4	263.1	166,000	283,900	175
180	7.4	199.0	185,200	266,300	31.2	243.0	172,900	284,700	43.0	257.7	159,700	274,500	180
185					26.0	233.0	166,300	275,500	39.4	251.5	153,700	265,700	185
190					19.6	219.9	160,000	266,700	35.4	244.5	148,000	257,300	190
195					8.5	196.3	153,500	258,300	30.9	236.2	142,500	249,300	195
200									25.8	226.1	137,200	241,700	200
205									19.2	212.6	132,100	234,400	205
210									7.3	187.4	126,600	227,300	210

# MLC650 VPC-MAX S-3

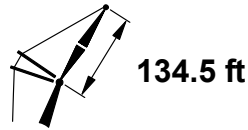
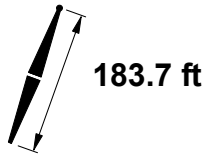
ASME B30.5



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
65	74.3	321.8	594,600 b	594,600 b									65
70	72.0	320.1	585,700	585,700									70
75	69.7	318.2	573,200	573,200	72.6	319.8	567,700	567,700					75
80	67.4	316.0	555,900	555,900	70.4	317.9	550,600	550,600					80
85	65.1	313.6	532,500	551,900	68.1	315.9	519,000	550,600					85
90	62.6	311.0	498,200	545,300	65.7	313.5	485,500	550,600					90
95	60.2	308.0	467,700	528,300	63.3	310.9	455,800	550,600	67.8	314.1	438,000	576,400	95
100	57.6	304.8	440,400	501,500	60.9	308.1	429,100	548,600	65.5	311.7	412,300	570,400	100
105	55.0	301.2	415,700	474,000	58.4	304.9	405,100	532,100	63.1	309.1	389,200	563,800	105
110	52.3	297.3	393,500	447,500	55.8	301.4	383,300	514,700	60.6	306.2	368,200	539,900	110
115	49.5	292.9	373,200	422,400	53.1	297.6	363,500	480,900	58.1	303.0	349,100	512,800	115
120	46.5	288.1	354,600	399,100	50.3	293.4	345,400	450,900	55.5	299.5	331,700	488,200	120
125	43.4	282.8	337,500	377,500	47.4	288.7	328,800	424,000	52.8	295.6	315,700	465,700	125
130	40.1	276.8	321,800	357,900	44.3	283.5	313,400	399,800	50.0	291.4	300,900	445,100	130
135	36.5	270.0	307,200	340,300	41.0	277.7	299,200	377,900	47.1	286.6	287,300	421,900	135
140	32.6	262.2	293,700	325,000	37.5	271.2	286,100	357,900	44.0	281.4	274,600	397,900	140
145	28.1	253.0	281,000	307,600	33.7	263.7	273,700	339,500	40.7	275.5	262,800	376,200	145
150	22.8	241.5	269,100	280,300	29.4	254.9	262,200	319,600	37.2	268.9	251,800	356,400	150
155	15.6	225.4	247,000	247,000	24.4	244.2	251,400	292,700	33.3	261.3	241,400	338,200	155
160					17.9	229.9	241,000	263,700	29.0	252.4	231,700	321,400	160
165					5.2	200.5	204,500	204,500	23.8	241.4	222,400	296,900	165
170									17.1	226.6	213,500	267,700	170
175													175
180													180
185													185
190													190
195													195
200													200
205													205
210													210
215													215
220													220

# MLC650 VPC-MAX S-3

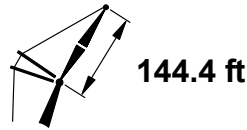
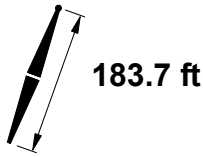
ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
65													65
70													70
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120	63.4	305.7	309,100	471,100									120
125	60.9	302.8	294,100	449,300									125
130	58.4	299.7	280,300	429,300									130
135	55.8	296.2	267,500	410,900									135
140	53.2	292.4	255,600	393,900									140
145	50.4	288.2	244,600	378,100	58.6	294.7	226,600	364,500					145
150	47.5	283.5	234,300	363,400	56.0	291.3	217,000	350,300					150
155	44.4	278.3	224,600	349,700	53.3	287.5	208,000	337,100					155
160	41.1	272.6	215,600	336,900	50.5	283.3	199,500	324,700					160
165	37.7	266.1	207,000	324,900	47.6	278.7	191,600	313,100					165
170	33.8	258.6	199,000	313,700	44.6	273.5	184,100	302,200	53.2	280.9	169,500	291,200	170
175	29.5	249.9	191,300	303,000	41.3	267.8	177,000	292,000	50.4	276.7	162,900	281,300	175
180	24.5	239.2	184,000	293,000	37.8	261.3	170,300	282,300	47.5	272.0	156,700	272,000	180
185	18.1	225.1	176,900	282,900	34.0	253.9	163,900	273,200	44.4	266.8	150,800	263,200	185
190	6.2	197.5	169,600	239,200	29.8	245.2	157,800	264,600	41.1	261.0	145,200	254,800	190
195					24.8	234.7	152,000	256,300	37.6	254.5	139,800	246,900	195
200					18.5	220.8	146,300	248,500	33.8	247.1	134,700	239,400	200
205					7.4	195.3	140,400	240,900	29.5	238.3	129,800	232,200	205
210									24.5	227.7	125,000	225,400	210
215									18.1	213.5	120,300	218,900	215
220									6.2	185.9	115,300	212,400	220

# MLC650 VPC-MAX S-3

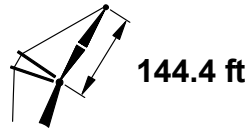
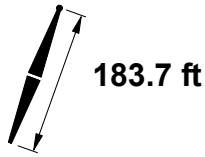
ASME B30.5



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
70	73.3	330.5	544,800	544,800									70
75	71.2	328.7	540,600	540,600									75
80	69.1	326.8	532,000	532,000	71.8	328.5	536,500	536,500					80
85	66.9	324.6	523,200	523,200	69.7	326.5	517,200	527,300					85
90	64.7	322.1	496,500	514,300	67.5	324.4	483,700	527,300					90
95	62.4	319.4	466,000	505,400	65.3	322.0	454,000	524,100	69.4	324.8	436,100	527,200	95
100	60.1	316.5	438,700	486,500	63.1	319.4	427,400	516,200	67.3	322.6	410,400	527,200	100
105	57.8	313.3	414,200	461,900	60.8	316.5	403,400	508,200	65.1	320.2	387,300	527,200	105
110	55.3	309.7	391,900	437,800	58.4	313.4	381,600	500,100	62.8	317.6	366,400	521,900	110
115	52.8	305.9	371,600	414,500	56.0	310.0	361,900	482,100	60.5	314.7	347,300	510,600	115
120	50.2	301.6	353,100	392,300	53.5	306.2	343,800	451,900	58.2	311.5	329,900	486,100	120
125	47.5	297.0	336,100	371,400	51.0	302.1	327,200	424,900	55.8	308.0	313,900	463,700	125
130	44.7	291.9	320,400	352,000	48.3	297.6	311,900	400,700	53.3	304.2	299,200	443,100	130
135	41.7	286.2	305,900	334,000	45.5	292.6	297,800	378,700	50.7	300.1	285,600	422,700	135
140	38.5	279.9	292,500	317,700	42.5	287.1	284,700	358,600	48.0	295.5	273,000	398,700	140
145	35.0	272.8	279,900	303,200	39.4	280.9	272,400	340,300	45.2	290.5	261,200	376,900	145
150	31.2	264.6	268,200	290,500	36.0	274.0	261,000	323,500	42.2	284.9	250,300	357,100	150
155	26.9	254.9	257,100	277,800	32.3	266.2	250,300	307,900	39.1	278.7	240,000	339,000	155
160	21.7	242.8	246,700	253,800	28.2	257.0	240,200	288,500	35.7	271.7	230,400	322,300	160
165	14.7	225.9	223,800	223,800	23.3	245.7	230,700	265,000	31.9	263.8	221,300	306,800	165
170					17.0	230.6	221,500	239,300	27.7	254.4	212,700	292,200	170
175					3.4	197.0	181,900	181,900	22.7	242.9	204,500	269,000	175
180									16.2	227.2	196,500	243,100	180
185													185
190													190
195													195
200													200
205													205
210													210
215													215
220													220
230													230

# MLC650 VPC-MAX S-3

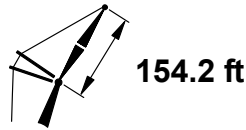
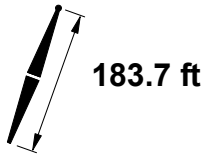
ASME B30.5



ft	75°				70°				65°				ft	
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb		
70													70	
75													75	
80													80	
85													85	
90													90	
95													95	
100													100	
105													105	
110													110	
115													115	
120													120	
125	63.1	314.2	292,100	447,100									125	
130	60.8	311.3	278,300	427,200									130	
135	58.5	308.2	265,500	408,800									135	
140	56.1	304.7	253,700	391,900									140	
145	53.6	301.0	242,700	376,100									145	
150	51.0	296.9	232,500	361,500	58.6	303.2	214,900	348,300					150	
155	48.4	292.4	222,900	347,900	56.2	299.8	206,000	335,100					155	
160	45.6	287.4	213,900	335,100	53.7	296.1	197,600	322,800					160	
165	42.6	281.9	205,400	323,200	51.2	292.0	189,700	311,300					165	
170	39.5	275.8	197,400	312,000	48.5	287.5	182,300	300,400					170	
175	36.1	268.9	189,900	301,400	45.7	282.5	175,200	290,200	53.6	289.5	160,900	279,400	175	
180	32.4	261.1	182,700	291,500	42.8	277.1	168,600	280,600	51.0	285.3	154,700	270,100	180	
185	28.3	251.9	175,900	282,100	39.7	271.0	162,300	271,500	48.4	280.8	148,800	261,400	185	
190	23.4	240.7	169,300	273,200	36.3	264.2	156,300	263,000	45.6	275.9	143,300	253,100	190	
195	17.2	225.9	163,000	257,200	32.6	256.4	150,600	254,800	42.6	270.4	138,000	245,200	195	
200	4.9	195.3	156,300	215,700	28.5	247.3	145,100	247,100	39.5	264.3	132,900	237,800	200	
205					23.7	236.3	139,800	239,700	36.1	257.4	128,100	230,700	205	
210					17.6	221.6	134,600	232,600	32.4	249.6	123,500	223,900	210	
215					6.4	193.9	129,200	225,800	28.3	240.4	119,000	217,400	215	
220										23.4	229.2	114,700	211,300	220
230										4.8	183.7	105,800	199,400	230

# MLC650 VPC-MAX S-3

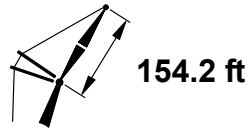
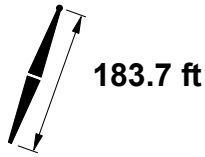
ASME B30.5



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
70	74.4	340.8	499,000	499,000									70
75	72.4	339.2	499,000	499,000									75
80	70.5	337.4	499,000	499,000	73.0	338.9	493,600	493,600					80
85	68.5	335.3	494,300	494,300	71.0	337.1	493,600	493,600					85
90	66.4	333.1	486,500	486,500	69.0	335.1	481,100	493,600					90
95	64.4	330.6	463,700	478,600	67.0	332.9	451,400	493,600					95
100	62.2	327.9	436,400	468,700	64.9	330.5	424,800	487,700	68.8	333.3	407,600	483,300	100
105	60.1	325.0	411,900	447,200	62.8	327.9	400,900	480,700	66.8	331.1	384,500	483,300	105
110	57.9	321.8	389,600	425,700	60.7	325.0	379,200	473,600	64.7	328.7	363,600	483,300	110
115	55.6	318.3	369,400	404,600	58.5	321.9	359,500	466,300	62.6	326.0	344,600	483,300	115
120	53.3	314.5	350,900	384,000	56.2	318.5	341,400	451,400	60.5	323.1	327,300	480,300	120
125	50.9	310.3	334,000	364,400	53.9	314.8	324,900	424,400	58.3	320.0	311,300	461,000	125
130	48.4	305.8	318,300	345,800	51.6	310.7	309,600	400,100	56.0	316.5	296,700	440,500	130
135	45.8	300.9	303,900	328,200	49.1	306.3	295,500	378,100	53.7	312.8	283,100	421,600	135
140	43.0	295.5	290,500	312,000	46.5	301.5	282,500	358,100	51.3	308.7	270,500	398,100	140
145	40.1	289.5	278,000	297,100	43.8	296.3	270,300	339,800	48.8	304.3	258,800	376,300	145
150	37.0	282.9	266,300	283,500	41.0	290.5	258,900	323,000	46.2	299.5	247,900	356,500	150
155	33.7	275.4	255,400	271,400	37.9	284.0	248,300	307,500	43.5	294.1	237,700	338,400	155
160	30.0	266.8	245,100	260,900	34.7	276.8	238,300	293,200	40.7	288.3	228,100	321,800	160
165	25.8	256.7	235,400	251,300	31.1	268.5	228,900	279,300	37.6	281.8	219,100	306,400	165
170	20.8	244.1	226,200	230,100	27.0	258.9	220,000	261,000	34.3	274.4	210,600	292,200	170
175	13.9	226.3	202,800	202,800	22.3	247.1	211,600	240,200	30.7	266.1	202,600	278,700	175
180					16.1	231.3	203,400	217,300	26.6	256.3	194,900	264,900	180
185									21.8	244.2	187,600	244,100	185
190									15.4	227.8	180,500	220,900	190
195													195
200													200
205													205
210													210
215													215
220													220
230													230
240													240

# MLC650 VPC-MAX S-3

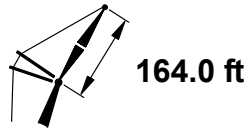
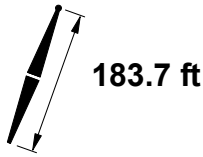
ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
70													70
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125	65.0	325.3	289,100	444,300									125
130	62.9	322.6	275,300	424,400									130
135	60.8	319.8	262,600	406,100									135
140	58.6	316.6	250,900	389,200									140
145	56.3	313.2	239,900	373,600									145
150	54.0	309.5	229,700	359,000									150
155	51.6	305.5	220,200	345,400	58.7	311.7	202,900	332,400					155
160	49.2	301.1	211,200	332,700	56.4	308.3	194,600	320,200					160
165	46.6	296.3	202,800	320,800	54.1	304.6	186,700	308,700					165
170	43.9	291.1	194,900	309,600	51.7	300.6	179,300	297,900					170
175	41.0	285.3	187,400	299,100	49.3	296.3	172,400	287,700					175
180	38.0	278.9	180,300	289,200	46.7	291.5	165,800	278,200	54.0	298.0	151,600	267,500	180
185	34.8	271.7	173,600	279,900	44.0	286.3	159,500	269,200	51.6	294.0	145,800	258,800	185
190	31.2	263.5	167,200	271,000	41.2	280.5	153,600	260,600	49.2	289.6	140,300	250,500	190
195	27.2	253.9	161,100	262,600	38.2	274.1	148,000	252,500	46.6	284.8	135,000	242,700	195
200	22.4	242.2	155,200	254,600	34.9	266.9	142,600	244,800	43.9	279.6	130,100	235,300	200
205	16.4	226.6	149,400	234,000	31.4	258.8	137,400	237,500	41.0	273.8	125,300	228,300	205
210	3.1	191.4	143,200	192,100	27.4	249.3	132,500	230,500	38.0	267.4	120,800	221,600	210
215					22.7	237.7	127,700	223,900	34.8	260.1	116,400	215,200	215
220					16.7	222.4	123,000	217,500	31.2	251.9	112,200	209,000	220
230									22.4	230.6	104,200	197,600	230
240									3.1	179.7	95,800	186,700	240

# MLC650 VPC-MAX S-3

ASME B30.5

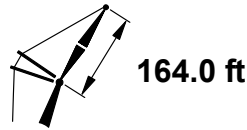
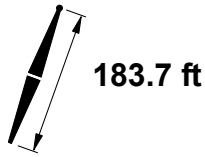


ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
75	73.5	349.6	457,300	457,300									75
80	71.7	347.9	456,900	456,900									80
85	69.8	346.0	456,200	456,200	72.2	347.6	452,600	452,600					85
90	67.9	343.9	454,900	454,900	70.3	345.7	452,600	452,600					90
95	66.0	341.6	451,700	451,700	68.5	343.7	450,800	452,600					95
100	64.1	339.1	435,900	444,600	66.5	341.5	424,200	452,600					100
105	62.1	336.4	411,400	431,600	64.6	339.0	400,300	452,600	68.3	341.9	383,800	443,800	105
110	60.0	333.4	389,200	412,900	62.6	336.4	378,600	446,800	66.4	339.6	362,900	443,800	110
115	58.0	330.2	369,000	394,000	60.6	333.5	358,900	440,400	64.4	337.2	343,900	443,800	115
120	55.9	326.8	350,500	375,300	58.6	330.4	340,900	433,900	62.4	334.5	326,600	443,800	120
125	53.7	323.1	333,600	357,100	56.5	327.0	324,400	419,900	60.4	331.6	310,700	443,800	125
130	51.4	319.0	318,000	339,600	54.3	323.3	309,100	401,100	58.4	328.5	296,000	439,400	130
135	49.1	314.6	303,500	322,800	52.1	319.4	295,100	379,500	56.2	325.1	282,500	420,500	135
140	46.7	309.8	290,100	307,000	49.8	315.1	282,000	359,400	54.1	321.4	269,900	399,500	140
145	44.2	304.7	277,700	292,100	47.4	310.4	269,900	341,100	51.8	317.4	258,300	377,600	145
150	41.5	299.0	266,100	278,400	44.9	305.4	258,600	324,300	49.5	313.1	247,400	357,800	150
155	38.7	292.7	255,200	265,700	42.3	299.8	248,000	308,800	47.1	308.4	237,200	339,600	155
160	35.7	285.7	245,000	254,200	39.5	293.7	238,100	294,400	44.6	303.2	227,700	322,900	160
165	32.5	277.9	235,400	244,000	36.6	287.0	228,800	281,100	42.0	297.7	218,700	307,600	165
170	28.9	268.9	226,400	235,100	33.4	279.4	220,000	268,300	39.2	291.5	210,300	293,400	170
175	24.8	258.4	217,800	227,800	29.9	270.8	211,600	255,900	36.3	284.7	202,300	280,200	175
180	19.9	245.2	209,600	211,000	26.0	260.7	203,700	238,800	33.1	277.0	194,800	267,800	180
185	13.2	226.5	185,800	185,800	21.4	248.4	196,100	220,300	29.6	268.3	187,600	255,400	185
190					15.4	231.9	188,800	199,500	25.6	258.0	180,700	242,600	190
195									20.9	245.5	174,200	224,000	195
200									14.6	228.3	167,700	203,100	200
205													205
210													210
215													215
220													220
230													230
240													240



# MLC650 VPC-MAX S-3

ASME B30.5



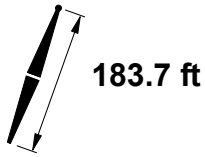
ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130	64.7	333.8	274,500	408,300									130
135	62.7	331.1	261,800	404,900									135
140	60.7	328.2	250,100	388,100									140
145	58.6	325.1	239,100	372,500									145
150	56.5	321.8	229,000	358,000									150
155	54.4	318.1	219,400	344,400									155
160	52.1	314.2	210,500	331,800	58.7	320.2	193,700	319,100					160
165	49.8	309.9	202,200	319,900	56.6	316.8	185,900	307,700					165
170	47.4	305.2	194,300	308,800	54.5	313.2	178,500	296,900					170
175	45.0	300.2	186,800	298,300	52.2	309.3	171,600	286,800					175
180	42.4	294.6	179,800	288,400	49.9	305.0	165,000	277,300					180
185	39.6	288.6	173,100	279,100	47.6	300.4	158,800	268,300	54.4	306.6	144,900	257,800	185
190	36.7	281.8	166,800	270,300	45.1	295.3	153,000	259,800	52.1	302.6	139,400	249,600	190
195	33.5	274.3	160,800	261,900	42.5	289.8	147,400	251,700	49.8	298.4	134,200	241,800	195
200	30.1	265.7	155,000	254,000	39.8	283.8	142,000	244,100	47.4	293.7	129,300	234,400	200
205	26.1	255.7	149,500	246,200	36.8	277.1	136,900	236,800	45.0	288.7	124,600	227,400	205
210	21.5	243.5	144,200	234,900	33.7	269.6	132,100	229,900	42.4	283.1	120,100	220,800	210
215	15.6	227.2	138,900	215,200	30.2	261.1	127,400	223,300	39.6	277.0	115,700	214,400	215
220					26.4	251.1	122,900	217,000	36.7	270.3	111,600	208,300	220
230					15.9	223.0	114,200	205,100	30.1	254.2	103,800	197,000	230
240									21.5	232.0	96,500	186,500	240

# MLC650 VPC-MAX S-3

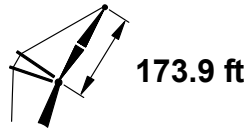
ASME B30.5



881,800 lb



183.7 ft

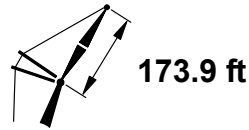
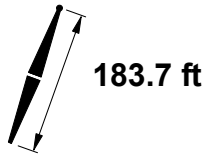


173.9 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
75	74.5	359.9	420,200	420,200									75
80	72.8	358.3	420,200	420,200									80
85	71.0	356.5	420,000	420,000									85
90	69.3	354.6	419,300	419,300	71.5	356.2	416,700	416,700					90
95	67.5	352.4	418,100	418,100	69.7	354.3	416,700	416,700					95
100	65.6	350.1	416,300	416,300	68.0	352.3	416,700	416,700					100
105	63.8	347.6	409,100	413,200	66.2	350.0	397,800	416,700	69.6	352.5	381,000	402,500	105
110	61.9	344.9	386,900	398,100	64.3	347.5	376,100	416,700	67.8	350.4	360,200	402,500	110
115	60.0	341.9	366,700	381,600	62.5	344.9	356,400	416,700	66.0	348.2	341,200	402,500	115
120	58.1	338.7	348,200	365,000	60.5	342.0	338,500	411,900	64.1	345.7	323,900	402,500	120
125	56.1	335.3	331,300	348,600	58.6	338.9	322,000	406,200	62.3	343.0	308,000	402,500	125
130	54.0	331.6	315,700	332,500	56.6	335.5	306,800	390,200	60.4	340.1	293,400	402,500	130
135	51.9	327.7	301,300	316,900	54.6	331.9	292,700	373,500	58.4	337.0	279,900	402,500	135
140	49.7	323.4	288,000	301,900	52.5	328.0	279,700	357,000	56.4	333.6	267,400	398,300	140
145	47.5	318.7	275,600	287,700	50.4	323.8	267,600	340,000	54.4	329.9	255,800	376,500	145
150	45.2	313.7	264,000	274,300	48.1	319.3	256,300	323,200	52.3	326.0	244,900	356,600	150
155	42.7	308.2	253,200	261,600	45.8	314.4	245,800	307,700	50.1	321.8	234,800	338,500	155
160	40.2	302.3	243,000	250,000	43.4	309.0	235,900	293,400	47.9	317.2	225,300	321,800	160
165	37.4	295.7	233,500	239,300	40.9	303.2	226,600	280,100	45.6	312.3	216,400	306,500	165
170	34.5	288.5	224,500	229,600	38.2	296.8	217,900	267,800	43.2	306.9	208,000	292,300	170
175	31.4	280.3	216,000	221,000	35.4	289.8	209,600	255,900	40.6	301.0	200,000	279,100	175
180	27.9	271.0	208,000	213,500	32.3	281.9	201,800	244,400	38.0	294.6	192,500	266,900	180
185	23.9	260.0	200,300	207,500	28.9	272.9	194,400	233,500	35.1	287.5	185,400	255,400	185
190	19.1	246.3	192,300	192,300	25.1	262.4	187,300	217,500	32.0	279.5	178,700	244,000	190
195	12.5	226.7	168,900	168,900	20.6	249.7	180,500	200,800	28.6	270.4	172,200	233,100	195
200					14.6	232.4	173,900	182,000	24.7	259.7	166,100	221,100	200
205									20.1	246.7	160,100	204,400	205
210									13.9	228.7	154,300	185,400	210
215													215
220													220
230													230
240													240
250													250

# MLC650 VPC-MAX S-3

ASME B30.5



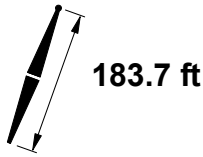
ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135	64.4	342.3	258,900	374,600									135
140	62.5	339.6	247,200	374,600									140
145	60.6	336.7	236,300	369,900									145
150	58.7	333.6	226,100	355,400									150
155	56.7	330.3	216,700	341,900									155
160	54.7	326.7	207,800	329,300									160
165	52.6	322.8	199,400	317,500	58.8	328.7	182,900	305,100					165
170	50.4	318.6	191,600	306,400	56.8	325.3	175,500	294,400					170
175	48.2	314.1	184,200	296,000	54.8	321.7	168,700	284,300					175
180	45.9	309.2	177,200	286,100	52.7	317.9	162,100	274,800					180
185	43.5	303.8	170,600	276,900	50.5	313.7	156,000	265,900					185
190	41.0	298.0	164,300	268,100	48.3	309.2	150,100	257,400	54.7	315.1	136,300	247,100	190
195	38.3	291.7	158,300	259,800	46.0	304.3	144,600	249,400	52.6	311.3	131,200	239,300	195
200	35.5	284.7	152,700	251,900	43.6	299.0	139,300	241,700	50.4	307.1	126,300	232,000	200
205	32.4	276.8	147,200	244,400	41.1	293.2	134,300	234,500	48.2	302.5	121,600	225,000	205
210	29.0	267.9	142,000	235,500	38.4	286.9	129,500	227,600	45.9	297.6	117,100	218,300	210
215	25.2	257.4	137,000	225,100	35.6	279.9	124,900	221,100	43.5	292.3	112,900	212,000	215
220	20.7	244.8	132,200	215,000	32.6	272.1	120,500	214,800	41.0	286.5	108,800	206,000	220
230					25.4	252.9	112,100	203,100	35.5	273.1	101,200	194,700	230
240					15.2	223.6	104,100	192,200	29.0	256.3	94,000	184,300	240
250									20.7	233.2	87,300	174,800	250

# MLC650 VPC-MAX S-3

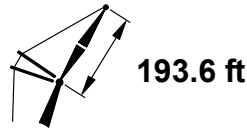
ASME B30.5



881,800 lb



183.7 ft

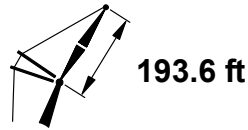
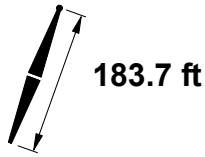


193.6 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
80	74.6	378.9	354,800	354,800									80
85	73.0	377.4	354,800	354,800									85
90	71.5	375.6	354,600	354,600									90
95	69.9	373.8	353,900	353,900	71.9	375.3	350,400	350,400					95
100	68.3	371.7	353,200	353,200	70.3	373.5	350,400	350,400					100
105	66.7	369.5	352,100	352,100	68.7	371.5	350,400	350,400					105
110	65.0	367.1	350,800	350,800	67.1	369.3	350,400	350,400					110
115	63.4	364.6	349,200	349,200	65.5	367.0	350,400	350,400	68.6	369.7	337,600	339,200	115
120	61.7	361.8	341,600	341,600	63.8	364.5	335,300	350,400	67.0	367.5	320,400	339,200	120
125	60.0	358.9	328,500	328,900	62.1	361.8	318,900	350,400	65.3	365.2	304,600	339,200	125
130	58.2	355.7	312,900	316,000	60.4	358.9	303,700	350,200	63.7	362.7	290,000	339,200	130
135	56.4	352.3	298,600	303,100	58.7	355.8	289,700	347,200	62.0	359.9	276,500	339,200	135
140	54.6	348.7	285,200	290,500	56.9	352.5	276,700	338,100	60.3	357.0	264,100	339,200	140
145	52.7	344.9	272,900	278,000	55.1	349.0	264,700	326,000	58.5	353.9	252,500	339,200	145
150	50.8	340.8	261,300	266,000	53.3	345.2	253,400	313,100	56.8	350.6	241,700	339,200	150
155	48.8	336.3	250,600	254,400	51.4	341.1	242,900	300,200	54.9	347.0	231,600	332,300	155
160	46.8	331.6	240,500	243,300	49.4	336.8	233,100	287,600	53.1	343.2	222,100	321,100	160
165	44.7	326.5	231,000	232,800	47.4	332.2	223,900	275,300	51.2	339.1	213,300	305,700	165
170	42.5	321.0	222,100	223,000	45.3	327.2	215,200	263,400	49.2	334.8	204,900	291,500	170
175	40.2	315.0	213,700	213,700	43.1	321.8	207,000	252,100	47.2	330.1	197,100	278,400	175
180	37.8	308.6	205,100	205,100	40.8	315.9	199,300	241,400	45.1	325.1	189,600	266,100	180
185	35.2	301.5	197,200	197,200	38.4	309.6	191,900	231,300	42.9	319.6	182,600	254,700	185
190	32.4	293.6	190,000	190,000	35.9	302.7	185,000	221,900	40.6	313.8	175,900	244,100	190
195	29.4	284.8	183,700	183,700	33.2	295.1	178,400	213,200	38.2	307.4	169,600	234,100	195
200	26.1	274.8	177,700	178,300	30.3	286.6	172,100	205,400	35.7	300.4	163,600	224,200	200
205	22.3	262.9	171,500	173,900	27.1	276.9	166,100	196,300	33.0	292.7	157,800	214,800	205
210	17.7	248.2	162,000	162,000	23.4	265.7	160,300	183,200	30.0	284.1	152,300	205,900	210
215	11.2	226.7	141,500	141,500	19.1	251.9	154,700	169,400	26.8	274.3	147,100	197,300	215
220					13.4	233.1	149,200	153,500	23.1	262.9	142,000	186,500	220
230									12.6	229.2	132,200	156,600	230
240													240
250													250
260													260
270													270

# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°				65°				ft
	ft	ft	lb	lb	ft	ft	lb	lb	ft	ft	lb	lb	
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145	63.9	359.2	232,500	314,400									145
150	62.2	356.6	222,400	314,400									150
155	60.5	353.7	212,900	314,400									155
160	58.8	350.6	204,100	314,400									160
165	57.0	347.3	195,800	314,100									165
170	55.2	343.7	188,100	303,100									170
175	53.3	340.0	180,700	292,700	58.8	345.6	164,700	280,800					175
180	51.4	335.9	173,800	282,900	57.1	342.3	158,300	271,300					180
185	49.5	331.6	167,200	273,700	55.3	338.8	152,200	262,400					185
190	47.4	327.0	161,000	265,000	53.4	335.1	146,400	254,000					190
195	45.3	322.0	155,100	256,700	51.5	331.0	140,900	246,100					195
200	43.2	316.6	149,500	248,900	49.6	326.7	135,700	238,500					200
205	40.9	310.8	144,200	241,400	47.5	322.1	130,700	231,300	53.3	328.5	117,600	221,600	205
210	38.5	304.5	139,100	234,400	45.5	317.1	126,000	224,500	51.4	324.4	113,200	215,000	210
215	36.0	297.6	134,200	226,200	43.3	311.8	121,500	218,000	49.5	320.1	109,000	208,700	215
220	33.3	290.0	129,500	216,800	41.0	306.0	117,100	211,800	47.4	315.4	105,000	202,700	220
230	27.2	271.9	120,700	199,200	36.1	292.8	109,000	200,200	43.2	305.1	97,500	191,600	230
240	19.3	247.0	112,500	182,100	30.5	276.9	101,500	189,600	38.5	293.0	90,600	181,300	240
250					23.8	256.2	94,500	179,800	33.3	278.5	84,200	171,900	250
260					13.9	224.5	87,700	170,600	27.2	260.4	78,200	163,200	260
270									19.2	235.5	72,400	155,100	270

# MLC650 VPC-MAX S-3

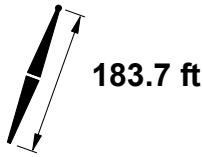
ASME B30.5



881,800 lb



360°



183.7 ft



213.3 ft

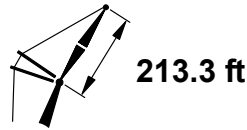
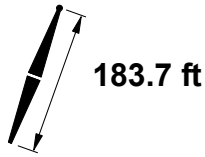
ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
85	74.6	398.0	301,900	301,900									85
90	73.2	396.4	301,800	301,800									90
95	71.8	394.7	301,500	301,500									95
100	70.4	392.9	301,000	301,000	72.2	394.4	297,700	297,700					100
105	68.9	390.9	300,200	300,200	70.8	392.7	297,700	297,700					105
110	67.5	388.8	299,200	299,200	69.4	390.7	297,700	297,700					110
115	66.0	386.6	298,100	298,100	67.9	388.6	297,700	297,700					115
120	64.5	384.1	296,800	296,800	66.4	386.4	297,700	297,700	69.2	388.9	287,900	287,900	120
125	63.0	381.5	295,300	295,300	64.9	384.0	297,700	297,700	67.8	386.8	287,900	287,900	125
130	61.5	378.8	292,900	292,900	63.4	381.5	297,600	297,600	66.3	384.6	286,500	287,900	130
135	59.9	375.8	283,000	283,000	61.9	378.8	286,600	297,000	64.8	382.2	273,100	287,900	135
140	58.3	372.7	273,000	273,000	60.3	375.9	273,700	296,200	63.3	379.6	260,700	287,900	140
145	56.7	369.4	263,000	263,000	58.8	372.8	261,600	295,300	61.8	376.9	249,100	287,900	145
150	55.1	365.8	253,100	253,100	57.2	369.5	250,400	293,300	60.2	374.0	238,400	287,900	150
155	53.4	362.1	243,200	243,200	55.5	366.0	240,000	283,400	58.6	370.9	228,300	287,900	155
160	51.7	358.1	233,700	233,700	53.9	362.3	230,200	273,300	57.0	367.6	218,900	287,900	160
165	49.9	353.8	224,400	224,400	52.2	358.4	221,000	263,200	55.4	364.1	210,100	287,900	165
170	48.1	349.3	215,400	215,400	50.4	354.2	212,300	253,300	53.7	360.4	201,800	287,900	170
175	46.2	344.4	206,800	206,800	48.6	349.8	204,200	243,500	52.0	356.4	193,900	276,500	175
180	44.3	339.3	198,600	198,600	46.7	345.0	196,500	233,900	50.2	352.2	186,600	264,300	180
185	42.3	333.7	190,800	190,800	44.8	339.9	189,200	224,700	48.4	347.7	179,600	252,900	185
190	40.2	327.8	183,500	183,500	42.9	334.5	182,300	215,900	46.6	342.9	172,900	242,300	190
195	38.0	321.4	176,600	176,600	40.8	328.7	175,700	207,400	44.6	337.8	166,700	232,300	195
200	35.7	314.4	170,200	170,200	38.6	322.4	169,500	199,400	42.7	332.4	160,700	222,900	200
205	33.3	306.8	164,300	164,300	36.4	315.6	163,600	191,800	40.6	326.5	155,000	214,100	205
210	30.6	298.4	159,000	159,000	34.0	308.2	157,900	184,700	38.4	320.2	149,600	205,700	210
215	27.8	289.0	154,300	154,300	31.4	300.0	152,500	178,300	36.1	313.3	144,400	197,400	215
220	24.6	278.3	150,200	150,200	28.6	290.9	147,300	172,400	33.7	305.8	139,400	189,500	220
230	16.5	249.8	136,700	136,700	22.0	268.6	137,500	154,900	28.3	288.4	130,100	174,800	230
240					12.2	233.5	128,200	129,500	21.7	265.7	121,500	158,000	240
250									11.5	229.4	113,100	132,400	250
260													260
270													270
280													280
290													290

# MLC650 VPC-MAX S-3

ASME B30.5



881,800 lb



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150	65.0	378.8	218,600	265,700									150
155	63.5	376.2	209,200	265,700									155
160	61.9	373.5	200,400	265,700									160
165	60.4	370.6	192,200	265,700									165
170	58.8	367.5	184,400	265,700									170
175	57.2	364.3	177,100	265,700									175
180	55.6	360.8	170,300	265,700									180
185	53.9	357.1	163,700	265,700	58.9	362.6	148,300	246,900					185
190	52.2	353.2	157,600	261,800	57.3	359.3	142,500	246,900					190
195	50.5	349.0	151,700	253,600	55.7	355.9	137,100	242,700					195
200	48.7	344.6	146,200	245,800	54.0	352.2	131,900	235,200					200
205	46.8	339.8	140,900	238,400	52.3	348.3	127,000	228,100					205
210	44.9	334.8	135,800	231,400	50.5	344.1	122,300	221,300					210
215	42.9	329.3	131,000	224,300	48.7	339.7	117,900	214,800	53.9	345.6	105,100	205,400	215
220	40.9	323.5	126,400	215,500	46.9	335.0	113,600	208,700	52.2	341.7	101,100	199,400	220
230	36.4	310.5	117,800	199,200	43.0	324.5	105,600	197,200	48.7	333.0	93,700	188,300	230
240	31.5	294.9	109,800	183,700	38.8	312.5	98,300	186,700	44.9	323.2	86,900	178,200	240
250	25.6	275.6	102,400	169,600	34.2	298.4	91,400	177,000	40.9	312.0	80,700	168,900	250
260	18.0	249.0	95,400	154,700	28.8	281.2	85,100	168,000	36.4	299.0	74,800	160,300	260
270					22.3	259.2	79,100	159,700	31.5	283.4	69,300	152,300	270
280					12.8	225.1	73,200	148,900	25.6	264.1	64,200	144,900	280
290									18.0	237.5	59,200	137,900	290

# MLC650 VPC-MAX S-3

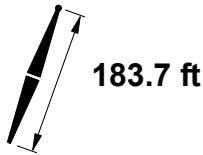
ASME B30.5



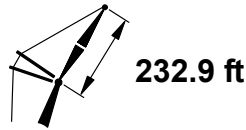
881,800 lb



360°



183.7 ft



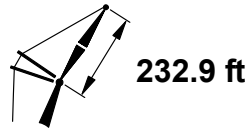
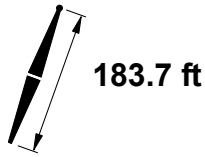
232.9 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
90	74.7	417.0	273,200	273,200									90
95	73.4	415.5	273,000	273,000									95
100	72.1	413.8	272,600	272,600									100
105	70.8	412.1	272,000	272,000	72.5	413.5	268,700	268,700					105
110	69.5	410.2	271,200	271,200	71.2	411.8	268,700	268,700					110
115	68.2	408.1	270,400	270,400	69.9	409.9	268,700	268,700					115
120	66.8	405.9	269,400	269,400	68.5	407.9	268,700	268,700					120
125	65.5	403.6	268,300	268,300	67.2	405.8	268,600	268,600	69.7	408.1	258,600	258,600	125
130	64.1	401.1	267,000	267,000	65.8	403.5	268,200	268,200	68.4	406.1	258,600	258,600	130
135	62.7	398.5	265,700	265,700	64.5	401.0	267,700	267,700	67.1	404.0	258,600	258,600	135
140	61.3	395.7	263,400	263,400	63.1	398.5	267,100	267,100	65.7	401.7	254,800	258,600	140
145	59.9	392.8	255,100	255,100	61.7	395.7	256,300	266,400	64.3	399.2	243,300	258,600	145
150	58.4	389.7	246,700	246,700	60.3	392.8	245,100	265,600	63.0	396.6	232,600	258,600	150
155	57.0	386.4	238,200	238,200	58.8	389.8	234,700	264,700	61.6	393.9	222,600	258,600	155
160	55.5	382.9	229,800	229,800	57.4	386.5	224,900	263,800	60.1	390.9	213,300	258,600	160
165	53.9	379.2	221,500	221,500	55.9	383.1	215,800	257,700	58.7	387.9	204,500	258,600	165
170	52.4	375.3	213,400	213,400	54.4	379.4	207,200	249,300	57.2	384.6	196,200	258,600	170
175	50.8	371.2	205,400	205,400	52.8	375.6	199,100	240,800	55.7	381.1	188,500	258,600	175
180	49.1	366.8	197,700	197,700	51.2	371.5	191,400	232,400	54.2	377.5	181,100	258,300	180
185	47.5	362.2	190,200	190,200	49.6	367.2	184,200	224,100	52.7	373.6	174,200	249,300	185
190	45.7	357.3	183,100	183,100	47.9	362.7	177,300	215,900	51.1	369.5	167,600	238,700	190
195	44.0	352.0	176,200	176,200	46.2	357.9	170,800	207,900	49.4	365.2	161,400	228,800	195
200	42.1	346.5	169,700	169,700	44.5	352.7	164,600	200,200	47.8	360.6	155,500	219,500	200
205	40.2	340.5	163,500	163,500	42.6	347.3	158,800	192,700	46.1	355.8	149,800	210,700	205
210	38.2	334.2	157,700	157,700	40.8	341.4	153,200	185,600	44.3	350.6	144,500	202,500	210
215	36.1	327.3	152,300	152,300	38.8	335.2	147,800	178,800	42.5	345.1	139,300	194,700	215
220	33.9	319.9	147,200	147,200	36.7	328.5	142,700	172,400	40.6	339.3	134,400	187,400	220
230	29.1	302.8	138,400	138,500	32.3	313.3	133,100	160,000	36.5	326.2	125,300	173,000	230
240	23.3	281.5	129,200	131,700	27.1	295.0	124,300	147,800	32.0	310.9	116,800	159,900	240
250	15.4	251.1	114,000	114,000	20.8	271.2	116,000	129,800	26.8	292.4	109,000	147,700	250
260					11.2	233.6	107,800	107,800	20.4	268.3	101,600	132,700	260
270									10.5	229.2	94,500	110,400	270
280													280
290													290
300													300
310													310



# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160	64.5	395.8	194,100	238,600									160
165	63.1	393.2	185,900	238,600									165
170	61.7	390.5	178,300	238,600									170
175	60.3	387.6	171,000	238,600									175
180	58.9	384.5	164,200	238,600									180
185	57.4	381.3	157,800	238,600									185
190	55.9	377.8	151,600	238,600									190
195	54.4	374.2	145,800	238,600	58.9	379.6	130,700	219,800					195
200	52.9	370.4	140,300	238,600	57.5	376.3	125,600	219,800					200
205	51.3	366.3	135,100	233,600	56.0	372.9	120,700	219,800					205
210	49.6	362.0	130,100	226,700	54.5	369.3	116,100	216,200					210
215	48.0	357.5	125,400	220,000	52.9	365.5	111,700	209,800					215
220	46.3	352.7	120,800	212,000	51.3	361.4	107,500	203,700					220
230	42.7	342.1	112,300	195,900	48.1	352.6	99,600	192,300	52.9	358.9	87,300	183,200	230
240	38.8	330.0	104,500	181,500	44.6	342.7	92,400	181,900	49.6	350.5	80,600	173,100	240
250	34.6	316.1	97,300	167,800	40.9	331.5	85,700	172,300	46.3	341.2	74,400	163,900	250
260	29.9	299.6	90,500	155,200	36.9	318.6	79,500	163,500	42.7	330.6	68,700	155,400	260
270	24.3	279.0	84,200	143,400	32.4	303.5	73,700	155,300	38.8	318.5	63,400	147,500	270
280	16.9	250.7	78,200	130,300	27.3	285.3	68,300	147,600	34.6	304.6	58,400	140,200	280
290					21.1	261.9	63,100	138,700	29.9	288.0	53,800	133,400	290
300					11.8	225.4	58,100	125,600	24.2	267.5	49,300	127,000	300
310									16.9	239.2	45,000	120,900	310

# MLC650 VPC-MAX S-3

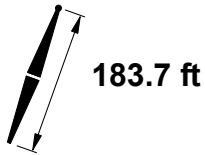
ASME B30.5



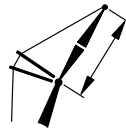
881,800 lb



360°



183.7 ft

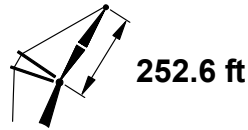
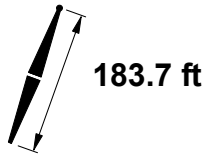


252.6 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
95	74.7	436.1	234,600	234,600									95
100	73.6	434.6	234,200	234,200									100
105	72.4	432.9	233,700	233,700									105
110	71.2	431.2	233,100	233,100	72.7	432.6	230,200	230,200					110
115	70.0	429.3	232,300	232,300	71.5	430.9	230,200	230,200					115
120	68.7	427.3	231,500	231,500	70.3	429.1	230,100	230,100					120
125	67.5	425.2	230,500	230,500	69.1	427.1	229,800	229,800					125
130	66.3	423.0	229,500	229,500	67.9	425.0	229,400	229,400					130
135	65.0	420.6	228,500	228,500	66.6	422.8	229,000	229,000	69.0	425.3	221,500	221,500	135
140	63.7	418.1	227,300	227,300	65.4	420.5	228,400	228,400	67.7	423.2	221,500	221,500	140
145	62.5	415.5	226,100	226,100	64.1	418.0	227,800	227,800	66.5	421.0	221,500	221,500	145
150	61.2	412.7	224,900	224,900	62.8	415.4	227,200	227,200	65.2	418.7	221,500	221,500	150
155	59.8	409.7	222,100	222,100	61.5	412.7	226,400	226,400	64.0	416.2	219,100	221,500	155
160	58.5	406.6	215,400	215,400	60.2	409.8	221,700	225,600	62.7	413.6	209,800	221,500	160
165	57.2	403.4	208,700	208,700	58.9	406.7	212,600	224,800	61.4	410.8	201,000	221,500	165
170	55.8	399.9	202,000	202,000	57.5	403.5	204,000	223,900	60.1	407.9	192,800	221,500	170
175	54.4	396.3	195,300	195,300	56.2	400.1	195,900	223,000	58.8	404.8	185,000	221,500	175
180	53.0	392.5	188,700	188,700	54.8	396.5	188,300	219,200	57.4	401.6	177,700	221,500	180
185	51.5	388.5	182,200	182,200	53.4	392.8	181,100	212,400	56.0	398.2	170,800	221,500	185
190	50.0	384.2	175,900	175,900	51.9	388.8	174,200	205,700	54.6	394.6	164,300	221,500	190
195	48.5	379.8	169,700	169,700	50.4	384.6	167,800	199,000	53.2	390.8	158,100	221,300	195
200	46.9	375.0	163,800	163,800	48.9	380.2	161,600	192,400	51.8	386.8	152,200	216,900	200
205	45.3	370.1	158,000	158,000	47.4	375.6	155,800	185,900	50.3	382.6	146,600	208,200	205
210	43.7	364.8	152,600	152,600	45.8	370.7	150,200	179,500	48.8	378.2	141,200	200,000	210
215	42.0	359.2	147,300	147,300	44.2	365.5	144,900	173,300	47.2	373.5	136,200	192,200	215
220	40.2	353.3	142,300	142,300	42.5	360.0	139,800	167,300	45.6	368.6	131,300	184,900	220
230	36.5	340.2	133,000	133,000	38.9	348.0	130,300	156,100	42.3	357.9	122,200	171,400	230
240	32.4	325.0	125,000	125,000	35.1	334.2	121,600	145,900	38.7	345.7	113,800	158,700	240
250	27.7	307.0	118,300	118,300	30.8	318.1	113,500	136,100	34.9	331.9	106,100	146,900	250
260	22.1	284.4	110,600	113,100	25.8	298.7	106,000	125,400	30.5	315.7	99,000	136,100	260
270					19.7	273.6	98,900	109,600	25.5	296.1	92,300	126,000	270
280					10.3	233.4	90,100	90,100	19.3	270.6	86,000	112,400	280
290									9.6	228.8	79,800	92,700	290
300													300
310													310
320													320
330													330

# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160													160
165													165
170	64.1	412.8	174,400	204,100									170
175	62.9	410.2	167,200	204,100									175
180	61.6	407.4	160,400	204,100									180
185	60.3	404.5	154,000	204,100									185
190	58.9	401.5	147,900	204,100									190
195	57.6	398.2	142,200	204,100									195
200	56.2	394.9	136,700	204,100									200
205	54.8	391.3	131,500	204,100	59.0	396.5	116,800	187,000					205
210	53.4	387.5	126,500	204,100	57.6	393.3	112,200	187,000					210
215	51.9	383.6	121,800	204,100	56.3	389.9	107,800	187,000					215
220	50.5	379.4	117,300	204,100	54.9	386.4	103,700	187,000					220
230	47.4	370.4	108,900	193,300	52.0	378.7	95,900	187,000					230
240	44.2	360.3	101,100	179,000	49.0	370.2	88,700	178,800	53.4	376.0	76,600	169,900	240
250	40.8	349.0	94,000	166,100	45.9	360.7	82,100	169,300	50.5	367.9	70,500	160,700	250
260	37.1	336.2	87,400	154,000	42.6	350.0	76,000	160,500	47.4	358.9	64,900	152,300	260
270	33.0	321.4	81,200	142,700	39.1	338.0	70,300	152,400	44.2	348.8	59,700	144,500	270
280	28.5	303.9	75,500	132,200	35.2	324.3	65,000	144,800	40.8	337.5	54,800	137,200	280
290	23.0	282.2	70,000	122,400	30.9	308.4	60,000	137,800	37.1	324.7	50,300	130,500	290
300	15.9	252.2	64,800	110,500	26.0	289.1	55,300	128,100	33.0	309.9	46,000	124,100	300
310					20.0	264.4	50,800	118,400	28.5	292.4	41,900	118,200	310
320					10.8	225.4	46,400	106,600	23.0	270.7	38,000	112,600	320
330									15.9	240.7	34,200	107,400	330

# MLC650 VPC-MAX S-3

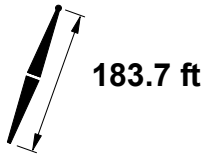
ASME B30.5



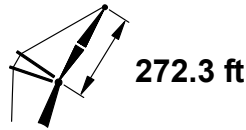
881,800 lb



360°



183.7 ft

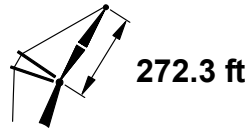
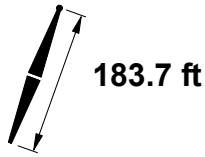


272.3 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
100	74.8	455.1	203,000	203,000									100
105	73.7	453.6	202,500	202,500									105
110	72.6	452.0	202,000	202,000									110
115	71.5	450.3	201,300	201,300	72.9	451.7	199,300	199,300					115
120	70.4	448.5	200,600	200,600	71.8	450.0	199,100	199,100					120
125	69.2	446.5	199,800	199,800	70.7	448.2	198,900	198,900					125
130	68.1	444.5	198,900	198,900	69.5	446.3	198,600	198,600					130
135	66.9	442.3	198,000	198,000	68.4	444.3	198,100	198,100					135
140	65.8	440.0	197,000	197,000	67.3	442.2	197,600	197,600	69.4	444.5	191,700	191,700	140
145	64.6	437.6	196,000	196,000	66.1	439.9	197,100	197,100	68.3	442.5	191,700	191,700	145
150	63.4	435.1	195,100	195,100	64.9	437.5	196,400	196,400	67.2	440.4	191,700	191,700	150
155	62.2	432.4	193,800	193,800	63.8	435.0	195,900	195,900	66.0	438.1	191,700	191,700	155
160	61.0	429.6	192,600	192,600	62.6	432.4	195,000	195,000	64.8	435.7	191,700	191,700	160
165	59.8	426.7	191,500	191,500	61.4	429.6	194,300	194,300	63.7	433.2	191,700	191,700	165
170	58.6	423.6	188,300	188,300	60.2	426.7	193,500	193,500	62.5	430.5	190,500	191,700	170
175	57.3	420.3	182,900	182,900	58.9	423.7	192,600	192,600	61.3	427.8	182,800	191,700	175
180	56.1	416.9	177,500	177,500	57.7	420.5	186,300	191,700	60.0	424.8	175,500	191,500	180
185	54.8	413.4	172,100	172,100	56.4	417.1	179,100	190,900	58.8	421.8	168,700	191,100	185
190	53.4	409.6	166,800	166,800	55.1	413.6	172,300	189,900	57.6	418.6	162,200	190,800	190
195	52.1	405.7	161,600	161,600	53.8	409.9	165,900	187,100	56.3	415.2	156,000	190,400	195
200	50.7	401.6	156,400	156,400	52.5	406.0	159,800	181,800	55.0	411.7	150,100	189,900	200
205	49.4	397.2	151,400	151,400	51.1	402.0	153,900	176,400	53.7	407.9	144,500	189,500	205
210	47.9	392.7	146,500	146,500	49.7	397.7	148,400	171,100	52.4	404.0	139,200	189,000	210
215	46.5	387.9	141,700	141,700	48.3	393.2	143,100	165,800	51.0	400.0	134,200	188,500	215
220	45.0	382.9	137,100	137,100	46.9	388.5	138,100	160,700	49.6	395.7	129,300	183,600	220
230	41.9	372.0	128,400	128,400	43.9	378.3	128,600	150,500	46.7	386.4	120,300	170,000	230
240	38.5	359.7	120,400	120,400	40.7	366.9	120,000	141,100	43.7	376.2	112,000	157,800	240
250	35.0	345.9	113,300	113,300	37.3	354.1	112,000	132,400	40.5	364.7	104,400	146,600	250
260	31.0	329.9	107,000	107,000	33.6	339.6	104,600	124,400	37.1	351.9	97,300	136,000	260
270	26.5	310.9	101,800	101,800	29.4	322.7	97,700	117,100	33.4	337.2	90,800	126,200	270
280	21.0	287.1	95,700	96,200	24.6	302.2	91,300	107,100	29.2	320.2	84,600	117,000	280
290	13.6	253.1	80,800	80,800	18.7	275.8	85,100	93,300	24.4	299.5	78,900	108,500	290
300					9.4	232.9	75,300	75,300	18.4	272.7	73,400	95,900	300
310									8.7	228.0	67,900	78,200	310
320													320
330													330
340													340
350													350

# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160													160
165													165
170													170
175	65.0	432.3	164,600	176,400									175
180	63.8	429.8	157,900	176,400									180
185	62.6	427.1	151,500	176,400									185
190	61.4	424.4	145,500	176,400									190
195	60.2	421.5	139,700	176,400									195
200	59.0	418.4	134,300	176,400									200
205	57.7	415.2	129,100	176,400									205
210	56.4	411.9	124,200	176,400									210
215	55.2	408.4	119,500	176,400	59.0	413.5	105,200	162,700					215
220	53.9	404.7	115,100	176,400	57.8	410.3	101,100	162,700					220
230	51.2	396.7	106,700	176,400	55.2	403.4	93,400	162,700					230
240	48.4	388.0	99,000	176,400	52.6	395.9	86,300	162,700					240
250	45.4	378.3	91,900	164,700	49.9	387.6	79,700	162,700	53.9	393.2	67,900	149,900	250
260	42.4	367.6	85,400	153,000	47.0	378.4	73,700	158,500	51.2	385.2	62,400	149,900	260
270	39.1	355.6	79,300	142,300	44.0	368.3	68,100	150,400	48.4	376.5	57,200	142,400	270
280	35.5	342.0	73,700	132,200	40.8	357.0	62,900	142,900	45.4	366.8	52,400	135,200	280
290	31.6	326.4	68,400	122,700	37.4	344.2	58,000	136,000	42.4	356.1	47,900	128,500	290
300	27.2	308.0	63,400	113,800	33.7	329.8	53,400	128,100	39.1	344.1	43,700	122,200	300
310	22.0	285.1	58,600	105,500	29.6	312.9	49,100	118,900	35.5	330.5	39,800	116,400	310
320	15.0	253.5	54,000	94,500	24.9	292.7	45,000	110,300	31.6	314.9	36,100	110,900	320
330					19.0	266.6	41,100	102,100	27.2	296.4	32,500	105,700	330
340					10.0	225.1	37,100	91,100	22.0	273.6	29,100	100,800	340
350									15.0	241.9	25,700	96,100	350

# MLC650 VPC-MAX S-3

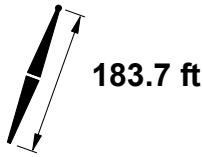
ASME B30.5



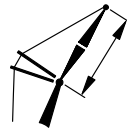
881,800 lb



360°



183.7 ft

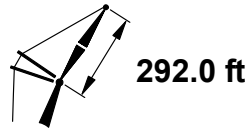
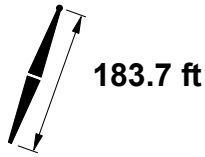


292.0 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
105	74.8	474.2	189,700	189,700									105
110	73.8	472.7	189,200	189,200									110
115	72.8	471.1	188,500	188,500									115
120	71.7	469.4	187,800	187,800									120
125	70.7	467.6	187,000	187,000	72.0	469.1	185,700	185,700					125
130	69.6	465.7	186,200	186,200	71.0	467.3	185,300	185,300					130
135	68.6	463.7	185,300	185,300	69.9	465.5	184,900	184,900					135
140	67.5	461.6	184,300	184,300	68.9	463.5	184,400	184,400					140
145	66.5	459.4	183,300	183,300	67.8	461.4	183,800	183,800	69.8	463.7	178,400	178,400	145
150	65.4	457.1	182,300	182,300	66.7	459.3	183,200	183,200	68.8	461.7	178,400	178,400	150
155	64.3	454.6	181,200	181,200	65.7	457.0	182,500	182,500	67.7	459.6	178,400	178,400	155
160	63.2	452.1	180,200	180,200	64.6	454.6	181,800	181,800	66.6	457.5	178,400	178,400	160
165	62.1	449.4	179,100	179,100	63.5	452.0	181,000	181,000	65.6	455.1	178,200	178,200	165
170	60.9	446.6	177,900	177,900	62.4	449.4	180,200	180,200	64.5	452.7	178,000	178,000	170
175	59.8	443.6	176,800	176,800	61.2	446.6	179,300	179,300	63.4	450.2	174,600	177,800	175
180	58.6	440.6	173,900	173,900	60.1	443.7	178,500	178,500	62.3	447.5	167,300	177,400	180
185	57.5	437.3	169,200	169,200	59.0	440.6	171,400	177,600	61.1	444.7	160,500	177,000	185
190	56.3	434.0	164,400	164,400	57.8	437.5	164,700	176,700	60.0	441.8	154,000	176,600	190
195	55.1	430.4	159,700	159,700	56.6	434.1	158,200	175,800	58.9	438.7	147,900	176,200	195
200	53.9	426.7	154,900	154,900	55.4	430.6	152,100	174,800	57.7	435.5	142,100	175,700	200
205	52.6	422.9	150,300	150,300	54.2	427.0	146,400	173,900	56.5	432.2	136,500	175,200	205
210	51.4	418.9	145,800	145,800	53.0	423.2	140,800	169,600	55.3	428.7	131,300	174,600	210
215	50.1	414.6	141,300	141,300	51.7	419.2	135,600	164,900	54.1	425.0	126,200	174,000	215
220	48.8	410.2	136,700	136,900	50.4	415.1	130,600	160,100	52.9	421.2	121,400	173,500	220
230	46.1	400.8	127,000	128,500	47.8	406.1	121,200	150,800	50.3	413.0	112,500	164,300	230
240	43.2	390.3	118,200	120,500	45.1	396.3	112,600	141,300	47.7	404.1	104,300	152,000	240
250	40.2	378.8	110,000	113,300	42.2	385.5	104,700	130,900	44.9	394.2	96,700	140,900	250
260	37.0	365.9	102,500	106,600	39.1	373.5	97,400	121,100	42.0	383.4	89,700	130,700	260
270	33.6	351.3	95,500	100,600	35.8	360.0	90,600	112,100	39.0	371.3	83,200	121,000	270
280	29.7	334.5	88,900	95,500	32.2	344.7	84,200	103,700	35.7	357.7	77,200	112,000	280
290	25.4	314.6	82,800	88,600	28.2	326.9	78,300	95,800	32.1	342.3	71,500	103,700	290
300	20.1	289.7	76,700	76,700	23.6	305.5	72,700	86,400	28.0	324.4	66,200	95,800	300
310	12.8	253.8	62,800	62,800	17.8	277.8	67,300	74,200	23.4	302.8	61,200	88,400	310
320					8.6	232.1	57,300	57,300	17.5	274.6	56,400	76,600	320
330									7.9	226.8	51,500	60,500	330
340													340
350													350
360													360
370													370

# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160													160
165													165
170													170
175													175
180													180
185	64.6	449.3	142,500	163,900									185
190	63.5	446.8	136,600	163,900									190
195	62.4	444.1	130,900	163,900									195
200	61.3	441.3	125,500	163,900									200
205	60.1	438.4	120,400	163,900									205
210	59.0	435.4	115,500	163,900									210
215	57.8	432.2	110,900	163,900									215
220	56.7	428.9	106,500	163,900									220
230	54.3	421.8	98,200	163,900	57.9	427.3	84,300	150,200					230
240	51.8	414.0	90,600	163,900	55.5	420.5	77,300	150,200					240
250	49.2	405.5	83,600	158,900	53.1	413.1	70,900	150,200					250
260	46.5	396.2	77,200	147,100	50.6	404.9	64,900	150,200	54.2	410.3	53,000	137,400	260
270	43.7	385.9	71,200	136,500	47.9	396.1	59,400	143,700	51.8	402.5	48,000	135,300	270
280	40.7	374.5	65,600	126,700	45.2	386.3	54,300	136,300	49.2	394.0	43,300	128,200	280
290	37.6	361.8	60,400	117,500	42.3	375.5	49,500	129,400	46.5	384.6	39,000	121,600	290
300	34.1	347.5	55,500	108,800	39.2	363.6	45,100	122,500	43.7	374.4	34,900	115,400	300
310	30.4	331.1	51,000	100,700	36.0	350.2	40,900	113,800	40.7	363.0	31,000	109,600	310
320	26.1	311.8	46,600	93,100	32.4	334.9	36,900	105,400	37.5	350.3	27,400	104,200	320
330	21.0	287.8	42,400	85,800	28.4	317.3	33,100	97,500	34.1	336.0	24,000	99,100	330
340	14.2	254.5	38,400	75,600	23.8	296.1	29,500	90,100	30.4	319.6	20,700	94,300	340
350					18.1	268.7	26,000	83,000	26.1	300.3		89,800	350
360					9.2	224.5	22,500	72,700	21.0	276.3		85,500	360
370									14.2	243.0		79,700	370

# MLC650 VPC-MAX S-3

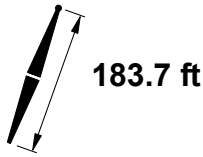
ASME B30.5



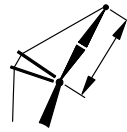
881,800 lb



360°



183.7 ft



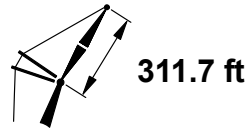
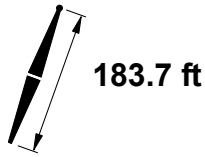
311.7 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
110	74.9	493.2	164,600	164,600									110
115	73.9	491.7	164,000	164,000									115
120	72.9	490.2	163,300	163,300									120
125	72.0	488.5	162,400	162,400									125
130	71.0	486.7	161,700	161,700	72.2	488.2	160,400	160,400					130
135	70.0	484.9	160,900	160,900	71.3	486.5	160,200	160,200					135
140	69.0	482.9	160,000	160,000	70.3	484.6	159,600	159,600					140
145	68.0	480.9	159,100	159,100	69.3	482.7	158,900	158,900					145
150	67.0	478.7	158,100	158,100	68.3	480.7	158,300	158,300					150
155	66.0	476.5	157,100	157,100	67.3	478.6	157,700	157,700	69.2	480.9	153,600	153,600	155
160	65.0	474.1	156,200	156,200	66.3	476.3	157,000	157,000	68.2	478.9	153,500	153,500	160
165	64.0	471.6	155,200	155,200	65.3	474.0	156,200	156,200	67.2	476.8	153,300	153,300	165
170	62.9	469.1	154,100	154,100	64.3	471.6	155,500	155,500	66.2	474.5	153,000	153,000	170
175	61.9	466.4	154,100	154,100	63.2	469.0	154,700	154,700	65.2	472.2	152,700	152,700	175
180	60.8	463.5	152,100	152,100	62.2	466.3	153,900	153,900	64.2	469.7	152,300	152,300	180
185	59.8	460.6	151,100	151,100	61.1	463.5	153,100	153,100	63.1	467.2	151,900	151,900	185
190	58.7	457.5	150,000	150,000	60.1	460.6	152,300	152,300	62.1	464.5	151,500	151,500	190
195	57.6	454.3	149,000	149,000	59.0	457.6	151,500	151,500	61.0	461.7	149,900	151,100	195
200	56.5	451.0	145,400	145,400	57.9	454.4	150,400	150,600	60.0	458.8	140,100	150,600	200
205	55.4	447.5	141,500	141,500	56.8	451.1	144,600	149,800	58.9	455.7	134,600	150,100	205
210	54.2	443.8	137,700	137,700	55.7	447.7	139,100	148,900	57.8	452.5	129,300	149,500	210
215	53.1	440.1	133,900	133,900	54.6	444.1	133,900	148,000	56.7	449.2	124,300	149,000	215
220	51.9	436.1	130,100	130,100	53.4	440.3	128,900	147,200	55.6	445.7	119,600	148,400	220
230	49.5	427.7	122,700	122,700	51.1	432.4	119,500	142,800	53.3	438.4	110,600	147,200	230
240	47.0	418.5	115,600	115,600	48.6	423.7	111,000	135,200	50.9	430.4	102,500	146,100	240
250	44.4	408.5	108,500	108,900	46.1	414.2	103,100	127,700	48.5	421.6	94,900	139,700	250
260	41.7	397.5	101,000	102,600	43.4	403.8	95,800	120,600	46.0	412.1	88,000	129,600	260
270	38.8	385.3	94,100	96,800	40.7	392.4	89,000	111,600	43.3	401.7	81,500	120,300	270
280	35.7	371.7	87,600	91,500	37.7	379.8	82,800	103,400	40.5	390.2	75,600	111,600	280
290	32.3	356.4	81,500	86,700	34.5	365.6	76,900	95,700	37.5	377.5	70,000	103,300	290
300	28.6	338.9	75,900	82,600	31.0	349.6	71,400	88,500	34.3	363.3	64,700	95,700	300
310	24.4	318.1	70,500	74,700	27.2	331.0	66,200	81,700	30.9	347.2	59,800	88,500	310
320	19.2	292.0	64,100	64,100	22.6	308.6	61,300	72,900	27.0	328.4	55,100	81,700	320
330	12.0	254.2	51,700	51,700	17.0	279.6	56,600	62,000	22.4	305.8	50,700	75,200	330
340					7.9	230.9	46,200	46,200	16.7	276.3	46,400	64,300	340
350									7.1	225.2	42,100	49,600	350
360													360
370													370
380													380
390													390



# MLC650 VPC-MAX S-3

ASME B30.5



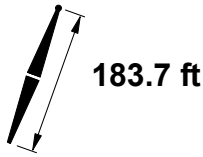
ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160													160
165													165
170													170
175													175
180													180
185													185
190													190
195	64.3	466.3	128,600	140,600									195
200	63.3	463.7	123,200	140,600									200
205	62.2	461.1	118,200	140,600									205
210	61.2	458.3	113,300	140,600									210
215	60.1	455.4	108,700	140,600									215
220	59.0	452.3	104,300	140,600									220
230	56.8	445.9	96,100	140,600									230
240	54.6	438.9	88,500	140,600	58.0	444.2	74,900	128,200					240
250	52.3	431.2	81,600	140,600	55.8	437.5	68,500	128,200					250
260	49.9	422.9	75,200	140,600	53.5	430.2	62,700	128,200					260
270	47.4	413.8	69,200	135,300	51.2	422.3	57,200	128,200	54.6	427.3	45,600	116,500	270
280	44.8	403.9	63,700	125,600	48.7	413.6	52,200	128,200	52.3	419.7	40,900	116,500	280
290	42.1	393.1	58,600	116,700	46.2	404.2	47,400	127,600	49.9	411.4	36,600	116,500	290
300	39.2	381.1	53,700	108,400	43.6	393.8	43,000	121,200	47.4	402.3	32,600	113,500	300
310	36.2	367.8	49,200	100,400	40.8	382.4	38,900	112,800	44.8	392.4	28,800	107,800	310
320	32.9	352.8	45,000	93,000	37.8	369.9	35,000	104,900	42.1	381.6	25,200	102,400	320
330	29.2	335.6	40,900	86,000	34.6	355.8	31,300	97,200	39.2	369.6	21,900	97,400	330
340	25.1	315.4	37,100	79,400	31.2	339.9	27,800	90,100	36.2	356.3		92,600	340
350	20.1	290.4	33,400	73,000	27.3	321.4	24,400	83,300	32.9	341.3		88,100	350
360	13.4	255.4	29,700	63,600	22.8	299.2	21,200	76,800	29.2	324.1		83,800	360
370					17.3	270.5		70,500	25.1	303.9		79,800	370
380					8.4	223.6		61,000	20.1	278.8		73,900	380
390									13.4	243.8		67,700	390

# MLC650 VPC-MAX S-3

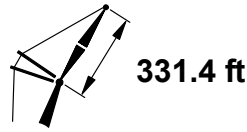
ASME B30.5



881,800 lb



183.7 ft



331.4 ft

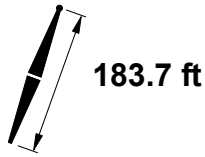
ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
115	74.9	512.3	141,500	141,500									115
120	74.0	510.8	140,900	140,900									120
125	73.1	509.2	140,200	140,200									125
130	72.2	507.6	139,400	139,400									130
135	71.2	505.9	138,600	138,600	72.4	507.3	137,700	137,700					135
140	70.3	504.0	137,800	137,800	71.5	505.6	137,100	137,100					140
145	69.4	502.1	137,000	137,000	70.6	503.8	136,600	136,600					145
150	68.5	500.1	136,100	136,100	69.7	501.9	135,900	135,900					150
155	67.5	498.0	135,200	135,200	68.7	499.9	135,300	135,300					155
160	66.6	495.8	134,300	134,300	67.8	497.8	134,600	134,600	69.6	500.1	131,100	131,100	160
165	65.6	493.5	133,400	133,400	66.9	495.7	133,900	133,900	68.6	498.1	130,900	130,900	165
170	64.7	491.1	132,400	132,400	65.9	493.4	133,200	133,200	67.7	496.0	130,600	130,600	170
175	63.7	488.6	131,500	131,500	64.9	491.0	132,500	132,500	66.8	493.9	130,200	130,200	175
180	62.7	486.0	130,600	130,600	64.0	488.6	131,700	131,700	65.8	491.6	129,900	129,900	180
185	61.8	483.3	129,600	129,600	63.0	486.0	131,000	131,000	64.9	489.2	129,500	129,500	185
190	60.8	480.5	128,700	128,700	62.0	483.3	130,200	130,200	63.9	486.7	129,000	129,000	190
195	59.8	477.5	127,800	127,800	61.0	480.5	129,400	129,400	62.9	484.1	128,600	128,600	195
200	58.7	474.5	126,800	126,800	60.0	477.6	128,600	128,600	61.9	481.4	128,100	128,100	200
205	57.7	471.3	125,900	125,900	59.0	474.6	127,800	127,800	60.9	478.6	127,600	127,600	205
210	56.7	468.0	125,000	125,000	58.0	471.4	127,000	127,000	59.9	475.7	125,900	127,000	210
215	55.6	464.5	124,000	124,000	57.0	468.1	126,200	126,200	58.9	472.7	120,900	126,500	215
220	54.6	460.9	121,400	121,400	55.9	464.7	125,500	125,500	57.9	469.5	116,100	125,900	220
230	52.4	453.3	115,100	115,100	53.8	457.5	116,300	123,900	55.8	462.8	107,200	124,800	230
240	50.2	445.1	109,100	109,100	51.6	449.6	107,700	122,400	53.7	455.5	99,100	123,700	240
250	47.8	436.1	103,100	103,100	49.3	441.1	99,900	120,100	51.5	447.6	91,600	122,500	250
260	45.4	426.4	97,500	97,500	47.0	431.9	92,600	114,000	49.2	439.1	84,700	121,400	260
270	42.9	415.9	91,000	92,200	44.5	421.9	85,900	108,000	46.9	429.9	78,200	117,200	270
280	40.3	404.3	84,600	87,200	42.0	411.0	79,600	101,200	44.4	419.8	72,300	108,800	280
290	37.5	391.5	78,600	82,500	39.3	399.0	73,800	93,600	41.8	408.9	66,700	101,100	290
300	34.5	377.3	73,000	78,200	36.4	385.8	68,400	86,500	39.1	396.8	61,500	93,600	300
310	31.2	361.4	67,700	74,400	33.3	371.0	63,200	79,900	36.3	383.5	56,700	86,500	310
320	27.6	343.0	62,700	69,600	29.9	354.3	58,400	73,600	33.2	368.7	52,100	79,900	320
330	23.5	321.4	57,900	60,900	26.2	334.9	53,900	67,700	29.8	351.8	47,700	73,700	330
340	18.4	294.1	51,400	51,400	21.8	311.6	49,500	59,400	26.0	332.3	43,600	67,700	340
350	11.4	254.4	40,100	40,100	16.3	281.2	45,300	49,600	21.5	308.7	39,700	61,600	350
360					7.1	229.4	34,700	34,700	15.9	277.9	35,900	51,800	360
370									6.3	223.1	31,900	38,100	370
380													380
390													390
400													400
410													410

# MLC650 VPC-MAX S-3

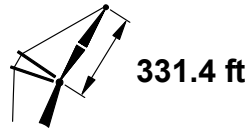
ASME B30.5



881,800 lb



183.7 ft

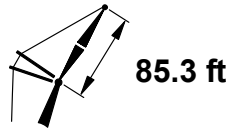
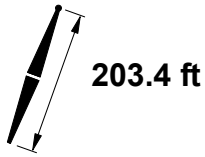


331.4 ft

ft	75°				70°				65°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160													160
165													165
170													170
175													175
180													180
185													185
190													190
195													195
200	65.0	485.8	119,100	119,100									200
205	64.0	483.3	114,400	119,100									205
210	63.0	480.7	109,500	119,100									210
215	62.1	478.0	104,900	119,100									215
220	61.1	475.2	100,600	119,100									220
230	59.1	469.3	92,400	119,100									230
240	57.0	462.9	84,900	119,100									240
250	54.9	455.9	78,000	119,100	58.1	461.2	64,700	108,100					250
260	52.7	448.4	71,600	119,000	56.0	454.5	58,800	108,100					260
270	50.5	440.3	65,700	118,600	53.9	447.3	53,400	108,100					270
280	48.2	431.4	60,200	118,200	51.7	439.5	48,400	108,100	54.9	444.4	37,000	97,600	280
290	45.8	421.8	55,100	113,600	49.4	431.0	43,700	108,100	52.7	436.9	32,700	97,600	290
300	43.3	411.4	50,300	105,500	47.1	421.9	39,300	108,100	50.5	428.7	28,700	97,600	300
310	40.7	400.0	45,800	98,100	44.6	411.9	35,200	108,100	48.2	419.9	25,000	97,600	310
320	37.9	387.4	41,600	90,900	42.1	401.0	31,400	102,000	45.8	410.3	21,400	97,600	320
330	34.9	373.5	37,600	84,000	39.4	389.1	27,700	94,900	43.3	399.9		94,400	330
340	31.7	357.8	33,900	77,600	36.5	375.9	24,300	87,900	40.7	388.5		89,700	340
350	28.2	339.9	30,300	71,500	33.4	361.2	21,000	81,300	37.9	375.9		85,200	350
360	24.1	318.8	26,900	65,700	30.1	344.5		75,100	34.9	362.0		81,000	360
370	19.3	292.7	23,600	60,100	26.3	325.3		69,200	31.7	346.3		77,000	370
380	12.7	256.0	20,300	51,300	22.0	302.1		63,500	28.2	328.4		72,300	380
390					16.5	272.2		57,900	24.1	307.3		66,500	390
400					7.7	222.4		48,900	19.3	281.2		61,000	400
410									12.7	244.5		55,400	410

# MLC650 VPC-MAX S-3

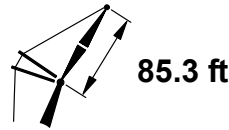
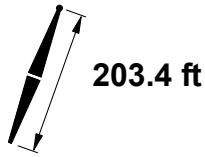
ASME B30.5



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
55	73.1	293.5	769,500 c	769,500 c									55
60	69.5	291.5	735,000 c	743,800 c									60
65	65.8	289.1	670,200 c	717,400 c	71.0	291.5	651,100 c	766,100 c					65
70	61.9	286.3	615,200 b	691,300 b	67.3	289.3	597,700 c	741,200 c					70
75	57.9	283.1	568,100 b	665,900 b	63.6	286.7	551,900 b	715,700 b					75
80	53.7	279.3	527,100	642,000	59.6	283.6	512,100 b	690,400 b	67.7	287.8	489,600 b	754,800 b	80
85	49.3	274.9	491,200	619,800	55.5	280.1	477,200 b	666,100 b	64.0	285.2	456,300 b	725,700 b	85
90	44.4	269.7	459,400	599,700	51.1	275.9	446,400	642,900	60.1	282.2	426,800 b	687,400 b	90
95	39.1	263.4	431,000	566,100	46.5	271.1	418,900	621,500	56.0	278.7	400,500 b	645,700 b	95
100	32.9	255.7	405,400	483,800	41.4	265.3	394,100	597,800	51.6	274.7	376,900	608,600	100
105	25.3	245.5	382,100	405,700	35.6	258.3	371,700	530,700	47.0	269.9	355,600	575,200	105
110	13.3	228.4	318,000	318,000	28.7	249.3	351,300	449,900	41.9	264.2	336,300	545,200	110
115					19.3	236.3	332,200	368,200	36.2	257.4	318,500	518,000	115
120									29.5	248.7	302,100	477,000	120
125									20.6	236.3	286,800	393,600	125
130													130
135													135
140													140
145													145
150													150
155													155
160													160
165													165
170													170
175													175

# MLC650 VPC-MAX S-3

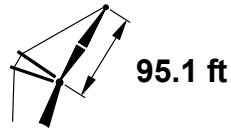
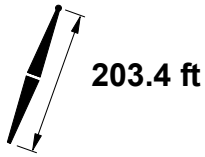
ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
55													55
60													60
65													65
70													70
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110	61.9	279.6	328,500 b	554,000 b									110
115	57.9	276.3	310,600 b	525,100 b									115
120	53.7	272.5	294,400 b	498,800 b									120
125	49.2	268.1	279,400	474,900									125
130	44.3	262.8	265,700	453,000	59.4	272.0	243,800	436,100					130
135	39.0	256.6	252,900	432,900	55.3	268.4	232,100	416,700					135
140	32.8	248.9	241,000	414,300	50.9	264.2	221,300	398,900					140
145	25.1	238.6	229,800	397,100	46.2	259.3	211,300	382,400					145
150	13.0	221.3	218,700	365,500	41.1	253.5	201,800	367,000					150
155					35.2	246.4	192,900	352,700	52.1	258.3	175,800	339,500	155
160					28.3	237.3	184,500	339,400	47.5	253.6	168,300	326,700	160
165					18.7	223.9	176,200	326,700	42.5	248.1	161,100	314,700	165
170									36.9	241.4	154,400	303,400	170
175									30.3	232.9	147,900	292,800	175
									21.7	221.1	141,500	282,700	175

# MLC650 VPC-MAX S-3

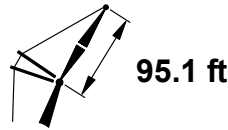
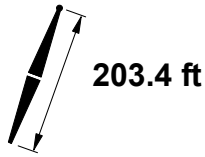
ASME B30.5



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
55	74.9	303.8	738,700 c	738,700 c									55
60	71.7	302.1	716,400 c	716,400 c									60
65	68.5	300.0	667,700 c	693,000 c									65
70	65.1	297.6	612,900 b	669,300 b	69.8	300.1	595,000 b	715,300 b					70
75	61.7	294.8	565,800 b	645,800 b	66.5	297.8	549,300 b	692,800 b					75
80	58.1	291.6	525,000	623,200	63.1	295.1	509,600 b	669,900 b					80
85	54.4	287.9	489,200	601,600	59.6	292.1	474,800 b	647,300 b	66.9	296.3	453,300 b	708,700 b	85
90	50.4	283.6	457,500	581,500	55.9	288.6	444,100	625,300	63.5	293.7	424,000 b	682,500 b	90
95	46.2	278.8	429,300	548,500	52.1	284.6	416,700	604,400	60.0	290.7	397,800 b	642,400 b	95
100	41.7	273.1	403,900	516,700	48.0	280.0	392,100	584,800	56.3	287.3	374,300	605,400	100
105	36.6	266.3	381,000	489,300	43.6	274.7	369,900	559,400	52.5	283.3	353,200	572,300	105
110	30.8	258.0	360,100	433,600	38.8	268.4	349,800	519,200	48.4	278.8	334,000	542,400	110
115	23.5	247.0	340,900	366,300	33.3	260.8	331,300	474,600	44.1	273.5	316,400	515,300	115
120	11.8	228.3	287,900	287,900	26.7	251.1	314,300	405,500	39.3	267.4	300,300	490,600	120
125					17.8	237.1	298,200	333,900	33.9	259.9	285,500	468,000	125
130									27.5	250.6	271,600	430,500	130
135									19.0	237.2	258,500	357,400	135
140													140
145													145
150													150
155													155
160													160
165													165
170													170
175													175
180													180
185													185

# MLC650 VPC-MAX S-3

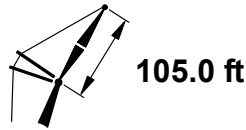
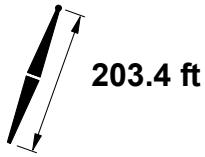
ASME B30.5



ft	75°				70°				65°				ft
	ft	ft	lb	lb	ft	ft	lb	lb	ft	ft	lb	lb	
55													55
60													60
65													65
70													70
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110	61.6	288.0	307,500	521,900									110
115	58.0	284.8	291,400	495,700									115
120	54.3	281.1	276,600	472,000									120
125	50.4	276.8	263,000	450,200									125
130	46.1	271.9	250,400	430,200	59.4	280.4	228,900	413,700					130
135	41.6	266.2	238,700	411,800	55.7	276.9	218,200	396,000					135
140	36.5	259.4	227,800	394,700	51.9	272.9	208,300	379,600					140
145	30.6	251.1	217,600	378,900	47.8	268.3	199,000	364,300					145
150	23.3	240.0	207,800	364,100	43.4	262.9	190,300	350,200					150
155	11.5	221.0	198,100	333,000	38.5	256.5	182,100	336,900	52.9	267.0	165,100	323,900	155
160					33.0	248.9	174,400	324,500	48.9	262.5	158,100	312,000	160
165					26.3	239.0	166,900	312,900	44.6	257.3	151,500	300,800	165
170					17.1	224.6	159,600	301,800	39.8	251.3	145,200	290,300	170
175									34.5	244.0	139,200	280,400	175
180									28.3	234.9	133,500	271,000	180
185									20.1	222.2	127,800	262,100	185

# MLC650 VPC-MAX S-3

ASME B30.5

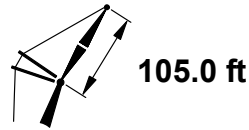
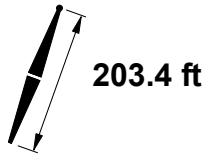


ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
60	73.5	312.5	681,100 c	681,100 c									60
65	70.6	310.7	666,400 b	668,600 b									65
70	67.6	308.5	611,600 b	647,500 b									70
75	64.6	306.1	564,700 b	626,300 b	71.8	310.6	593,500 b	683,300 b					75
80	61.5	303.3	523,900 b	605,400 b	68.9	308.6	547,800 b	669,400 b					80
					65.9	306.3	508,200 b	649,200 b					
85	58.2	300.1	488,200	585,100	62.8	303.6	473,500 b	628,800 b	69.2	307.1	451,700 b	677,400 b	85
90	54.9	296.4	456,600	565,700	59.6	300.6	442,900	608,500	66.2	304.8	422,400 b	664,400 b	90
95	51.4	292.4	428,500	532,400	56.3	297.1	415,600	588,900	63.1	302.2	396,300 b	640,000 b	95
100	47.6	287.7	403,300	501,200	52.8	293.3	391,100	570,000	59.9	299.2	373,000	603,200	100
105	43.6	282.4	380,500	472,500	49.2	288.8	369,100	552,200	56.6	295.8	351,900	570,200	105
110	39.3	276.2	359,900	447,100	45.3	283.8	349,100	525,300	53.2	292.0	332,800	540,400	110
115	34.5	268.9	341,000	425,200	41.2	278.0	330,800	489,700	49.6	287.6	315,400	513,500	115
120	28.9	260.0	323,600	391,500	36.6	271.3	314,000	458,100	45.8	282.7	299,400	488,900	120
125	22.0	248.3	307,400	332,500	31.4	263.1	298,500	421,800	41.6	277.0	284,700	466,400	125
130	10.5	227.9	262,100	262,100	25.1	252.8	284,100	368,000	37.1	270.3	271,100	445,800	130
135					16.4	237.7	270,500	304,500	32.0	262.3	258,500	426,700	135
140									25.8	252.3	246,600	391,100	140
145									17.6	238.0	235,300	326,400	145
150													150
155													155
160													160
165													165
170													170
175													175
180													180
185													185
190													190
195													195



# MLC650 VPC-MAX S-3

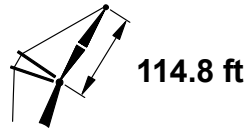
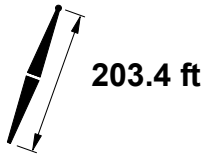
ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
60													60
65													65
70													70
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110	64.6	299.3	305,800	519,700									110
115	61.4	296.5	289,700	493,700									115
120	58.2	293.3	275,000	470,000									120
125	54.8	289.7	261,500	448,400									125
130	51.3	285.6	249,000	428,500									130
135	47.6	280.9	237,500	410,200	59.4	288.9	216,400	394,100					135
140	43.6	275.6	226,700	393,200	56.1	285.5	206,600	377,800					140
145	39.2	269.4	216,700	377,500	52.6	281.6	197,400	362,600					145
150	34.4	262.1	207,300	362,800	49.0	277.1	188,800	348,500					150
155	28.8	253.1	198,300	349,100	45.1	272.1	180,800	335,400					155
160	21.8	241.3	189,800	336,300	40.9	266.2	173,200	323,100	53.6	275.6	156,300	310,300	160
165	10.2	220.6	181,300	304,800	36.3	259.4	166,000	311,600	50.0	271.3	149,800	299,200	165
170					31.1	251.1	159,200	300,700	46.2	266.4	143,700	288,800	170
175					24.7	240.6	152,600	290,500	42.1	260.8	137,900	279,000	175
180					15.8	225.1	146,100	280,700	37.6	254.3	132,300	269,700	180
185									32.5	246.4	127,000	261,000	185
190									26.6	236.7	121,900	252,600	190
195									18.6	223.1	116,800	244,600	195

# MLC650 VPC-MAX S-3

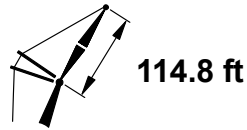
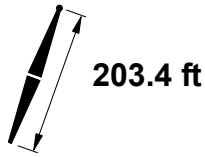
ASME B30.5



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
60	75.0	322.9	623,800 b	623,800 b									60
65	72.4	321.2	623,800 b	623,800 b									65
70	69.7	319.3	609,100 b	622,300 b									70
75	67.0	317.1	562,200 b	605,900 b	70.8	319.3	545,000 b	627,000 b					75
80	64.2	314.6	521,500	586,900	68.1	317.2	505,500 b	627,000 b					80
85	61.3	311.7	485,800	568,100	65.3	314.8	470,900	609,300					85
90	58.4	308.6	454,300	546,900	62.5	312.1	440,300	591,000	68.4	315.7	419,400	621,300	90
95	55.3	305.0	426,300	516,300	59.6	309.1	413,100	572,800	65.6	313.3	393,400	621,300	95
100	52.1	301.0	401,100	487,000	56.6	305.7	388,700	555,000	62.8	310.6	370,100	600,000	100
105	48.8	296.6	378,500	459,300	53.4	301.9	366,700	538,000	59.9	307.7	349,100	567,100	105
110	45.2	291.5	357,900	433,800	50.2	297.6	346,800	513,200	56.9	304.3	330,100	537,500	110
115	41.4	285.8	339,200	410,500	46.7	292.8	328,600	484,900	53.8	300.6	312,800	510,600	115
120	37.3	279.2	322,000	390,000	43.0	287.4	312,000	458,600	50.5	296.3	296,900	486,100	120
125	32.7	271.4	306,100	372,500	39.1	281.2	296,700	432,300	47.1	291.6	282,300	463,800	125
130	27.3	261.9	291,400	351,400	34.7	273.9	282,500	406,800	43.4	286.3	268,900	443,200	130
135	20.6	249.4	277,700	302,800	29.7	265.3	269,300	372,400	39.5	280.2	256,400	424,300	135
140	9.3	227.3	238,100	238,100	23.7	254.3	257,000	334,700	35.2	273.0	244,800	406,700	140
145					15.2	238.2	245,100	277,700	30.3	264.6	233,900	384,700	145
150									24.4	253.9	223,600	347,700	150
155									16.4	238.6	213,700	298,300	155
160													160
165													165
170													170
175													175
180													180
185													185
190													190
195													195
200													200
205													205

# MLC650 VPC-MAX S-3

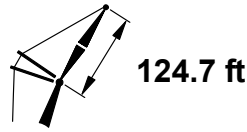
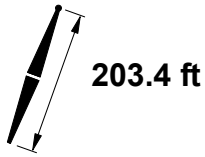
ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
60													60
65													65
70													70
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115	64.1	307.8	286,600	490,600									115
120	61.3	305.0	271,900	467,000									120
125	58.3	301.8	258,500	445,400									125
130	55.2	298.2	246,100	425,600									130
135	52.1	294.2	234,600	407,400									135
140	48.7	289.8	224,000	390,500	59.4	297.4	203,300	374,800					140
145	45.2	284.7	214,100	374,900	56.4	294.0	194,200	359,800					145
150	41.4	279.0	204,800	360,300	53.3	290.2	185,800	345,800					150
155	37.2	272.3	196,000	346,700	50.0	285.9	177,800	332,700					155
160	32.6	264.6	187,800	334,000	46.5	281.1	170,300	320,500					160
165	27.3	255.0	180,000	322,100	42.8	275.6	163,300	309,000	54.1	284.2	146,600	296,400	165
170	20.5	242.5	172,400	310,800	38.8	269.3	156,600	298,300	50.9	280.0	140,500	286,000	170
175	9.0	219.9	164,800	278,600	34.4	262.0	150,300	288,100	47.5	275.3	134,800	276,300	175
180					29.4	253.3	144,200	278,600	43.8	270.1	129,300	267,100	180
185					23.3	242.1	138,300	269,500	39.9	264.0	124,200	258,500	185
190					14.6	225.5	132,500	260,800	35.7	257.0	119,200	250,200	190
195									30.8	248.7	114,500	242,400	195
200									25.1	238.4	109,800	235,000	200
205									17.4	223.8	105,200	227,800	205

# MLC650 VPC-MAX S-3

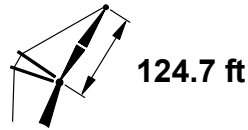
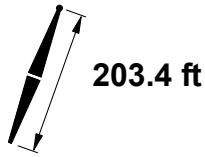
ASME B30.5



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
65	73.8	331.6	574,600 b	574,600 b									65
70	71.4	329.9	570,500 b	570,500 b									70
75	68.9	327.8	553,600 b	553,600 b	72.4	329.8	547,700 b	547,700 b					75
80	66.4	325.6	537,600	537,600	69.9	327.9	531,700 b	531,700 b					80
85	63.8	323.0	522,300	522,300	67.4	325.7	516,500	516,500					85
90	61.2	320.2	499,100	522,300	64.9	323.3	484,900	516,500					90
95	58.4	317.0	468,700	502,200	62.3	320.6	455,300	516,500	67.7	324.2	435,400	568,500	95
100	55.6	313.5	441,400	475,400	59.6	317.5	428,700	516,500	65.1	321.8	409,900	568,500	100
105	52.7	309.7	416,800	449,500	56.8	314.2	404,800	516,500	62.5	319.1	387,000	566,200	105
110	49.7	305.3	394,500	425,000	53.9	310.5	383,200	502,100	59.9	316.1	366,200	536,700	110
115	46.5	300.5	374,200	402,100	51.0	306.3	363,400	475,800	57.1	312.8	347,300	509,900	115
120	43.1	295.1	355,600	381,000	47.8	301.7	345,400	450,600	54.3	309.1	330,000	485,600	120
125	39.5	289.0	338,600	361,900	44.5	296.6	328,800	426,900	51.3	305.0	314,100	463,300	125
130	35.5	282.0	322,800	345,100	41.0	290.8	313,500	404,900	48.2	300.5	299,500	442,800	130
135	31.1	273.8	308,200	330,800	37.2	284.2	299,300	385,000	44.9	295.4	285,900	423,900	135
140	26.0	263.7	294,500	316,000	33.0	276.5	286,100	365,500	41.4	289.7	273,400	406,500	140
145	19.5	250.5	276,700	276,700	28.2	267.3	273,800	334,300	37.6	283.2	261,600	390,300	145
150	8.2	226.5	218,700	218,700	22.4	255.7	262,100	302,200	33.5	275.6	250,600	369,600	150
155					14.2	238.5	250,900	256,000	28.8	266.6	240,300	345,300	155
160									23.1	255.3	230,500	313,600	160
165									15.3	239.1	221,000	275,200	165
170													170
175													175
180													180
185													185
190													190
195													195
200													200
205													205
210													210
215													215

# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
65													65
70													70
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120	63.8	316.3	304,700	466,300									120
125	61.1	313.4	289,900	444,800									125
130	58.4	310.3	276,300	425,100									130
135	55.6	306.8	263,800	406,900									135
140	52.7	302.9	252,100	390,100									140
145	49.6	298.5	241,200	374,600	59.4	305.9	221,100	359,300					145
150	46.4	293.7	231,100	360,100	56.7	302.5	211,700	345,400					150
155	43.1	288.3	221,600	346,600	53.8	298.8	203,000	332,400					155
160	39.4	282.2	212,700	333,900	50.8	294.6	194,700	320,200					160
165	35.5	275.1	204,300	322,100	47.7	290.0	187,000	308,800					165
170	31.0	266.9	196,300	310,900	44.4	284.8	179,700	298,100	54.6	292.7	163,300	285,800	170
175	25.9	256.8	188,700	300,400	40.8	279.0	172,800	288,100	51.6	288.7	156,900	276,100	175
180	19.3	243.5	181,300	290,500	37.0	272.3	166,200	278,600	48.5	284.2	150,900	267,000	180
185	7.8	219.0	173,900	256,900	32.8	264.5	160,000	269,600	45.3	279.2	145,300	258,300	185
190					27.9	255.3	154,000	261,000	41.8	273.5	139,800	250,200	190
195					22.0	243.5	148,200	252,900	38.1	267.1	134,700	242,400	195
200					13.6	225.7	142,500	245,200	34.0	259.7	129,700	235,100	200
205									29.3	250.9	124,900	228,000	205
210									23.8	239.9	120,300	221,300	210
215									16.3	224.5	115,700	214,900	215

# MLC650 VPC-MAX S-3

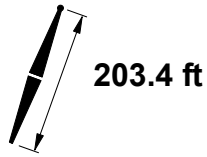
ASME B30.5



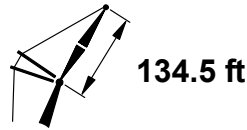
881,800 lb



360°



203.4 ft

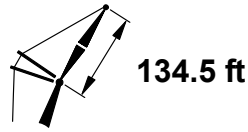
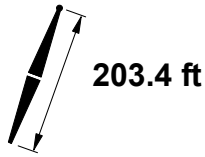


134.5 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
70	72.8	340.3	528,700 b	528,700 b									70
75	70.5	338.5	528,100	528,100									75
80	68.2	336.4	523,300	523,300	71.5	338.4	517,600	517,600					80
85	65.9	334.1	508,800	508,800	69.2	336.4	503,200	503,200					85
90	63.5	331.5	494,900	494,900	66.9	334.2	482,300	500,800					90
95	61.0	328.7	466,300	484,400	64.5	331.8	452,700	500,800	69.4	334.9	432,400	518,900	95
100	58.5	325.5	439,100	460,500	62.1	329.0	426,200	500,800	67.1	332.7	407,000	518,900	100
105	55.9	322.1	414,500	437,000	59.6	326.0	402,300	500,800	64.7	330.3	384,200	518,900	105
110	53.3	318.3	392,300	414,200	57.0	322.7	380,700	487,300	62.3	327.6	363,400	518,900	110
115	50.5	314.1	372,100	392,400	54.4	319.0	361,000	463,600	59.8	324.6	344,600	507,100	115
120	47.6	309.4	353,600	372,000	51.6	315.0	343,100	440,400	57.3	321.3	327,400	482,800	120
125	44.5	304.3	336,600	353,000	48.8	310.5	326,500	417,900	54.7	317.7	311,500	460,600	125
130	41.3	298.5	320,900	335,500	45.8	305.6	311,300	396,600	51.9	313.7	297,000	440,200	130
135	37.8	292.0	306,400	319,800	42.6	300.1	297,200	376,600	49.1	309.3	283,500	421,400	135
140	34.0	284.6	292,800	306,100	39.3	294.0	284,100	358,300	46.1	304.4	271,000	404,000	140
145	29.7	275.9	280,200	294,500	35.6	287.0	271,900	341,700	43.0	299.0	259,300	387,900	145
150	24.7	265.4	268,400	283,600	31.5	278.9	260,500	326,600	39.6	292.9	248,400	370,100	150
155	18.4	251.4	254,000	254,000	26.9	269.2	249,700	299,700	36.0	286.0	238,200	350,800	155
160	7.1	225.3	199,000	199,000	21.3	256.9	239,500	271,900	32.0	278.1	228,600	333,100	160
165					13.2	238.7	229,600	234,700	27.4	268.6	219,500	309,700	165
170									21.9	256.7	210,900	282,200	170
175									14.3	239.5	202,500	250,600	175
180													180
185													185
190													190
195													195
200													200
205													205
210													210
215													215
220													220

# MLC650 VPC-MAX S-3

ASME B30.5



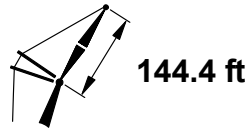
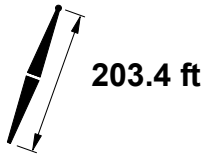
ft	75°				70°				65°				ft
	ft	ft	lb	lb	ft	ft	lb	lb	ft	ft	lb	lb	
70													70
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125	63.4	324.7	286,800	441,900									125
130	61.0	321.9	273,300	422,300									130
135	58.5	318.8	260,800	404,200									135
140	55.9	315.3	249,200	387,400									140
145	53.2	311.5	238,400	371,900									145
150	50.4	307.3	228,300	357,500	59.4	314.4	208,500	342,600					150
155	47.5	302.6	218,900	344,000	56.9	311.0	199,800	329,600					155
160	44.5	297.5	210,100	331,500	54.2	307.3	191,700	317,500					160
165	41.2	291.7	201,700	319,700	51.5	303.3	184,000	306,200					165
170	37.7	285.2	193,900	308,600	48.6	298.8	176,800	295,600					170
175	33.9	277.8	186,400	298,200	45.6	293.9	169,900	285,500	54.9	301.3	153,700	273,400	175
180	29.6	269.1	179,400	288,300	42.5	288.3	163,500	276,100	52.2	297.3	147,800	264,300	180
185	24.6	258.5	172,600	279,000	39.1	282.1	157,300	267,200	49.4	293.0	142,100	255,700	185
190	18.3	244.4	166,000	270,200	35.4	275.1	151,500	258,700	46.5	288.2	136,800	247,600	190
195	6.7	217.7	159,200	235,200	31.3	266.9	145,900	250,700	43.3	282.8	131,700	239,900	195
200					26.6	257.1	140,500	243,100	40.0	276.8	126,900	232,600	200
205					20.9	244.7	135,300	235,800	36.4	270.0	122,200	225,700	205
210					12.6	225.9	130,100	228,800	32.4	262.1	117,700	219,000	210
215									28.0	252.9	113,400	212,700	215
220									22.6	241.3	109,200	206,700	220

# MLC650 VPC-MAX S-3

ASME B30.5



881,800 lb



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
70	74.0	350.7	486,200 b	486,200 b									70
75	71.9	349.0	486,200	486,200									75
80	69.8	347.1	485,800	485,800	72.8	348.9	483,600	483,600					80
85	67.6	344.9	483,700	483,700	70.7	347.0	483,600	483,600					85
90	65.4	342.6	480,000	480,000	68.5	345.0	480,400	482,300					90
95	63.2	340.0	464,600	466,600	66.4	342.7	450,900	482,300					95
100	60.9	337.1	437,400	445,900	64.1	340.2	424,400	482,300	68.8	343.5	405,000	477,600	100
105	58.6	334.0	412,900	424,900	61.9	337.5	400,600	482,300	66.6	341.2	382,200	477,600	105
110	56.2	330.6	390,700	404,200	59.6	334.5	379,000	471,800	64.4	338.8	361,500	477,600	110
115	53.7	326.9	370,500	384,000	57.2	331.2	359,400	451,100	62.1	336.1	342,700	477,600	115
120	51.1	322.8	352,100	364,700	54.7	327.6	341,400	430,300	59.8	333.1	325,500	477,600	120
125	48.5	318.3	335,100	346,300	52.2	323.6	324,900	409,700	57.4	329.8	309,700	458,500	125
130	45.7	313.3	319,500	329,100	49.6	319.3	309,700	389,700	55.0	326.2	295,200	438,200	130
135	42.7	307.8	305,000	313,200	46.9	314.6	295,700	370,600	52.5	322.3	281,800	419,400	135
140	39.6	301.8	291,600	298,600	44.0	309.3	282,700	352,500	49.9	318.1	269,300	402,100	140
145	36.3	294.9	279,100	285,500	40.9	303.5	270,500	335,600	47.2	313.3	257,700	386,000	145
150	32.6	287.1	267,400	274,100	37.7	297.0	259,200	320,100	44.3	308.2	246,900	371,000	150
155	28.5	278.0	256,400	264,500	34.1	289.6	248,600	306,100	41.3	302.4	236,700	351,700	155
160	23.6	266.9	246,000	256,500	30.2	281.1	238,600	294,000	38.0	296.0	227,200	334,000	160
165	17.5	252.2	230,700	230,700	25.7	271.0	229,100	270,900	34.5	288.7	218,200	317,700	165
170	6.0	223.8	181,200	181,200	20.3	258.1	220,100	246,400	30.7	280.4	209,800	302,500	170
175					12.4	238.8	211,300	215,500	26.3	270.4	201,700	280,000	175
180									20.9	257.9	194,000	255,800	180
185									13.5	239.8	186,500	227,700	185
190													190
195													195
200													200
205													205
210													210
215													215
220													220
230													230

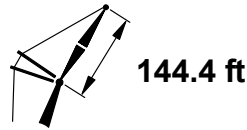
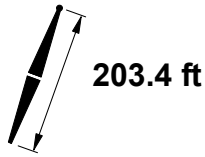


# MLC650 VPC-MAX S-3

ASME B30.5



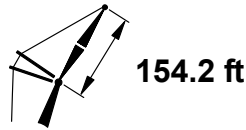
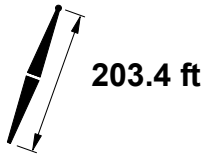
881,800 lb



ft	75°				70°				65°				ft
	ft	ft	lb	lb	ft	ft	lb	lb	ft	ft	lb	lb	
70													70
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130	63.2	333.2	271,300	420,100									130
135	60.9	330.4	258,800	402,100									135
140	58.5	327.2	247,200	385,400									140
145	56.1	323.8	236,500	370,000									145
150	53.7	320.1	226,400	355,600									150
155	51.1	316.0	217,100	342,200	59.4	322.8	197,700	327,700					155
160	48.4	311.5	208,300	329,700	57.1	319.5	189,600	315,600					160
165	45.6	306.5	200,000	317,900	54.6	315.9	182,000	304,300					165
170	42.7	301.0	192,200	306,900	52.1	311.9	174,800	293,700					170
175	39.6	294.9	184,800	296,500	49.4	307.6	168,000	283,700					175
180	36.2	288.1	177,900	286,700	46.7	302.8	161,600	274,300					180
185	32.5	280.3	171,200	277,500	43.8	297.5	155,500	265,500	52.8	306.0	140,100	253,900	185
190	28.4	271.1	164,900	268,700	40.8	291.7	149,800	257,100	50.2	301.7	134,800	245,800	190
195	23.5	260.0	158,800	260,400	37.5	285.1	144,300	249,100	47.4	297.1	129,800	238,200	195
200	17.3	245.2	152,900	252,400	33.9	277.7	139,000	241,500	44.6	291.9	125,000	230,900	200
205	5.5	215.9	146,700	214,800	30.0	269.1	134,000	234,300	41.6	286.2	120,400	224,000	205
210					25.5	258.9	129,100	227,500	38.4	279.9	116,000	217,400	210
215					19.9	245.8	124,400	220,900	34.9	272.7	111,800	211,200	215
220					11.8	225.9	119,600	214,500	31.1	264.5	107,700	205,200	220
230									21.6	242.6	100,000	193,900	230

# MLC650 VPC-MAX S-3

ASME B30.5



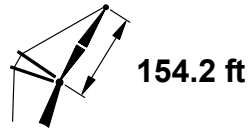
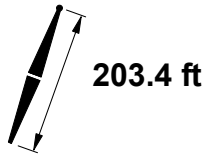
ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
75	73.1	359.4	448,900	448,900									75
80	71.1	357.6	448,900	448,900									80
85	69.2	355.7	447,700	447,700	72.0	357.5	446,500	446,500					85
90	67.1	353.5	445,500	445,500	70.0	355.6	446,500	446,500					90
95	65.1	351.1	442,100	442,100	68.0	353.5	446,500	446,500					95
100	63.0	348.5	428,800	428,800	65.9	351.2	421,800	446,500					100
105	60.8	345.6	410,500	410,500	63.8	348.7	398,000	446,500	68.2	352.0	379,300	439,700	105
110	58.6	342.5	388,400	392,100	61.7	346.0	376,500	446,500	66.1	349.8	358,700	439,700	110
115	56.4	339.1	368,300	373,800	59.6	343.0	356,900	435,800	64.1	347.3	339,900	439,700	115
120	54.1	335.4	349,800	355,900	57.3	339.7	339,000	417,600	62.0	344.5	322,800	439,700	120
125	51.7	331.4	332,900	338,700	55.1	336.1	322,500	399,200	59.8	341.6	307,100	439,700	125
130	49.2	327.0	317,300	322,300	52.7	332.3	307,400	381,000	57.6	338.3	292,600	435,600	130
135	46.7	322.3	302,900	306,800	50.3	328.0	293,400	363,200	55.3	334.8	279,200	416,900	135
140	44.0	317.0	289,500	292,300	47.8	323.4	280,400	346,000	53.0	330.9	266,700	399,600	140
145	41.2	311.3	277,100	279,000	45.1	318.4	268,300	329,700	50.5	326.8	255,200	383,600	145
150	38.1	304.9	265,500	266,700	42.3	312.9	257,000	314,300	48.0	322.2	244,400	368,700	150
155	34.9	297.7	254,600	255,800	39.4	306.7	246,500	300,000	45.4	317.2	234,300	351,100	155
160	31.3	289.5	244,400	246,400	36.3	299.9	236,600	286,900	42.6	311.7	224,900	333,400	160
165	27.3	280.0	234,700	238,400	32.8	292.2	227,200	275,200	39.7	305.7	216,000	317,200	165
170	22.6	268.4	225,500	232,200	29.0	283.3	218,400	265,000	36.6	298.9	207,600	302,200	170
175	16.6	253.0	209,200	209,200	24.7	272.6	210,000	245,200	33.2	291.3	199,700	288,200	175
180	4.8	221.6	164,200	164,200	19.3	259.2	202,000	223,400	29.5	282.5	192,100	274,000	180
185					11.6	238.8	194,200	196,900	25.2	272.1	184,900	253,500	185
190									20.0	259.1	178,000	232,100	190
195									12.7	240.0	171,300	206,700	195
200													200
205													205
210													210
215													215
220													220
230													230
240													240

# MLC650 VPC-MAX S-3

ASME B30.5



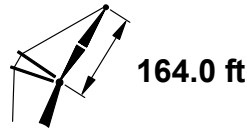
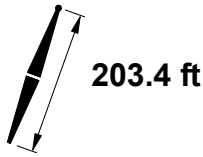
881,800 lb



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135	62.9	341.7	255,800	399,300									135
140	60.8	338.8	244,300	382,700									140
145	58.6	335.7	233,500	367,300									145
150	56.4	332.3	223,600	353,000									150
155	54.1	328.6	214,200	339,600									155
160	51.7	324.6	205,500	327,200	59.4	331.3	186,500	312,900					160
165	49.2	320.2	197,300	315,500	57.2	328.0	178,900	301,700					165
170	46.6	315.5	189,500	304,500	54.9	324.4	171,800	291,100					170
175	43.9	310.2	182,200	294,100	52.6	320.6	165,000	281,200					175
180	41.1	304.4	175,300	284,400	50.1	316.3	158,700	271,800					180
185	38.1	298.0	168,800	275,200	47.6	311.7	152,600	263,000					185
190	34.8	290.8	162,500	266,500	45.0	306.6	146,900	254,600	53.2	314.6	131,600	243,200	190
195	31.3	282.6	156,600	258,200	42.2	301.1	141,500	246,700	50.8	310.4	126,600	235,600	195
200	27.3	273.1	150,900	250,400	39.2	294.9	136,300	239,200	48.3	305.9	121,900	228,400	200
205	22.5	261.4	145,400	242,900	36.1	288.0	131,400	232,100	45.7	301.0	117,400	221,500	205
210	16.5	245.9	140,000	229,500	32.7	280.2	126,600	225,200	42.9	295.5	113,100	215,000	210
215	4.2	213.2	134,300	193,700	28.8	271.3	122,100	218,700	40.0	289.5	108,900	208,800	215
220					24.4	260.5	117,600	212,500	37.0	282.9	104,900	202,800	220
230					11.0	225.8	108,900	200,800	29.9	266.7	97,400	191,700	230
240									20.6	243.8	90,300	181,400	240

# MLC650 VPC-MAX S-3

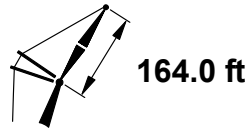
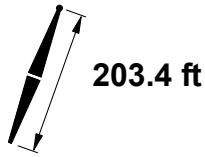
ASME B30.5



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
75	74.2	369.7	413,800	413,800									75
80	72.3	368.1	413,800	413,800									80
85	70.5	366.2	413,400	413,400									85
90	68.6	364.2	411,900	411,900	71.2	366.2	411,900	411,900					90
95	66.7	362.0	409,900	409,900	69.4	364.2	411,900	411,900					95
100	64.7	359.6	407,000	407,000	67.5	362.1	411,900	411,900					100
105	62.8	356.9	395,300	395,300	65.5	359.8	397,400	411,900	69.6	362.7	378,500	400,800	105
110	60.7	354.1	379,100	379,100	63.6	357.2	375,900	411,900	67.7	360.6	357,900	400,800	110
115	58.7	351.0	362,700	362,700	61.6	354.4	356,300	411,500	65.7	358.3	339,200	400,800	115
120	56.6	347.6	346,500	346,500	59.6	351.4	338,400	403,500	63.8	355.8	322,000	400,800	120
125	54.4	344.0	330,600	330,600	57.5	348.2	322,000	387,400	61.8	353.0	306,300	400,800	125
130	52.2	340.0	315,200	315,200	55.3	344.7	306,900	371,000	59.8	350.0	291,900	400,800	130
135	49.9	335.8	300,300	300,300	53.1	340.9	292,900	354,800	57.7	346.8	278,500	400,800	135
140	47.5	331.1	286,300	286,300	50.9	336.7	279,900	338,800	55.6	343.3	266,100	398,600	140
145	45.1	326.1	273,100	273,100	48.5	332.3	267,900	323,400	53.4	339.5	254,600	382,600	145
150	42.5	320.6	260,900	260,900	46.1	327.4	256,600	308,500	51.1	335.4	243,800	367,800	150
155	39.7	314.5	249,500	249,500	43.5	322.1	246,100	294,400	48.8	331.0	233,800	351,800	155
160	36.8	307.8	239,200	239,200	40.9	316.2	236,300	281,300	46.4	326.2	224,400	334,200	160
165	33.6	300.3	229,900	229,900	38.0	309.8	227,000	269,000	43.8	320.9	215,500	318,000	165
170	30.2	291.8	221,900	221,900	35.0	302.7	218,300	257,800	41.2	315.2	207,200	303,000	170
175	26.3	281.8	215,200	215,200	31.7	294.6	210,000	247,700	38.3	308.8	199,300	289,100	175
180	21.7	269.7	209,000	210,400	28.0	285.3	202,200	239,000	35.3	301.7	191,900	276,200	180
185	15.8	253.6	191,700	191,700	23.7	274.2	194,700	224,300	32.0	293.8	184,800	264,200	185
190	3.2	217.9	149,000	149,000	18.5	260.1	187,500	204,700	28.4	284.6	178,100	250,100	190
195					10.8	238.7	180,400	180,600	24.2	273.8	171,600	232,000	195
200									19.1	260.1	165,400	212,800	200
205									11.9	240.0	159,300	189,700	205
210													210
215													215
220													220
230													230
240													240
250													250

# MLC650 VPC-MAX S-3

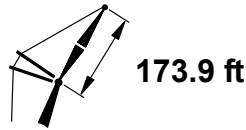
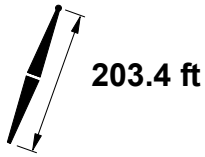
ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135	64.7	352.8	254,900	375,800									135
140	62.7	350.2	243,400	375,800									140
145	60.7	347.3	232,700	366,200									145
150	58.7	344.2	222,700	351,900									150
155	56.6	340.8	213,500	338,600									155
160	54.4	337.2	204,700	326,200									160
165	52.2	333.3	196,600	314,500	59.4	339.8	177,900	300,600					165
170	49.9	329.0	188,900	303,600	57.4	336.5	170,800	290,100					170
175	47.5	324.3	181,600	293,300	55.2	333.0	164,200	280,200					175
180	45.0	319.3	174,700	283,600	53.0	329.2	157,800	270,900					180
185	42.4	313.8	168,200	274,400	50.8	325.0	151,800	262,100					185
190	39.7	307.7	162,000	265,700	48.4	320.5	146,200	253,800					190
195	36.7	301.0	156,200	257,500	46.0	315.6	140,800	245,900	53.6	323.1	125,700	234,600	195
200	33.6	293.5	150,600	249,700	43.4	310.3	135,600	238,400	51.4	319.1	121,000	227,400	200
205	30.1	284.9	145,200	242,300	40.7	304.4	130,700	231,300	49.0	314.7	116,500	220,600	205
210	26.2	274.9	140,100	235,200	37.9	298.0	126,100	224,500	46.6	309.9	112,200	214,100	210
215	21.6	262.8	135,100	228,500	34.8	290.8	121,600	218,100	44.1	304.7	108,100	207,900	215
220	15.7	246.6	130,200	210,800	31.5	282.6	117,300	211,900	41.4	299.0	104,200	202,000	220
230					23.5	262.1	109,100	200,300	35.6	285.7	96,800	191,000	230
240					10.2	225.5	101,100	189,600	28.8	268.9	90,000	180,800	240
250									19.7	245.0	83,400	171,400	250

# MLC650 VPC-MAX S-3

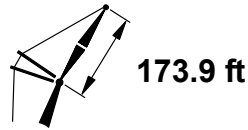
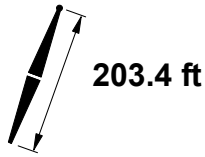
ASME B30.5



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
80	73.4	378.5	381,700	381,700									80
85	71.6	376.8	381,600	381,600									85
90	69.9	374.9	380,800	380,800	72.3	376.6	378,400	378,400					90
95	68.1	372.8	379,600	379,600	70.6	374.8	378,400	378,400					95
100	66.3	370.5	377,900	377,900	68.8	372.8	378,400	378,400					100
105	64.4	368.1	375,400	375,400	67.0	370.6	378,400	378,400					105
110	62.6	365.4	365,900	365,900	65.2	368.3	373,300	378,400	69.0	371.3	355,100	369,800	110
115	60.7	362.6	351,600	351,600	63.4	365.7	353,800	378,400	67.2	369.1	336,400	369,800	115
120	58.7	359.5	337,200	337,200	61.5	362.9	335,900	378,400	65.4	366.8	319,300	369,800	120
125	56.8	356.1	322,900	322,900	59.5	359.9	319,500	375,000	63.6	364.2	303,600	369,800	125
130	54.7	352.5	308,700	308,700	57.6	356.7	304,400	360,900	61.7	361.5	289,200	369,800	130
135	52.6	348.7	294,900	294,900	55.6	353.2	290,500	346,500	59.8	358.5	275,800	369,800	135
140	50.5	344.5	281,700	281,700	53.5	349.4	277,600	332,100	57.8	355.3	263,500	369,800	140
145	48.3	340.0	269,000	269,000	51.4	345.4	265,500	317,900	55.8	351.8	252,000	369,800	145
150	46.0	335.1	257,000	257,000	49.2	341.0	254,300	304,000	53.7	348.1	241,300	365,400	150
155	43.6	329.8	245,700	245,700	46.9	336.3	243,900	290,600	51.6	344.1	231,300	351,400	155
160	41.1	324.0	235,200	235,200	44.6	331.2	234,000	277,800	49.4	339.8	221,900	333,700	160
165	38.4	317.7	225,500	225,500	42.1	325.6	224,800	265,600	47.2	335.1	213,100	317,400	165
170	35.6	310.7	216,700	216,700	39.5	319.5	216,100	254,300	44.8	330.0	204,800	302,400	170
175	32.5	302.8	208,800	208,800	36.8	312.8	207,900	243,800	42.4	324.5	197,000	288,500	175
180	29.1	293.9	201,900	201,900	33.8	305.3	200,200	234,200	39.8	318.4	189,600	275,600	180
185	25.4	283.6	196,300	196,300	30.6	296.9	192,800	225,600	37.1	311.8	182,600	263,600	185
190	20.9	271.0	192,300	192,400	27.0	287.2	185,800	218,200	34.1	304.4	175,900	252,400	190
195	15.1	254.2	174,800	174,800	22.9	275.7	179,100	204,500	30.9	296.1	169,600	241,800	195
200					17.7	261.0	172,600	186,800	27.4	286.6	163,500	227,900	200
205					10.1	238.4	164,500	164,500	23.3	275.3	157,700	211,700	205
210									18.4	261.1	152,100	194,300	210
215									11.2	240.0	146,500	173,200	215
220													220
230													230
240													240
250													250
260													260

# MLC650 VPC-MAX S-3

ASME B30.5



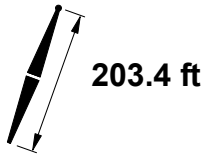
ft	75°				70°				65°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140	64.4	361.3	240,400	345,800									140
145	62.5	358.7	229,700	345,800									145
150	60.6	355.8	219,800	345,800									150
155	58.7	352.7	210,600	336,100									155
160	56.7	349.3	201,900	323,700									160
165	54.7	345.7	193,700	312,100									165
170	52.6	341.9	186,100	301,200	59.4	348.3	167,700	287,500					170
175	50.5	337.7	178,900	290,900	57.5	345.0	161,100	277,600					175
180	48.2	333.2	172,000	281,200	55.5	341.5	154,800	268,300					180
185	45.9	328.3	165,600	272,100	53.4	337.8	148,900	259,600					185
190	43.5	323.0	159,400	263,500	51.3	333.7	143,200	251,300					190
195	41.0	317.2	153,600	255,300	49.1	329.3	137,900	243,400					195
200	38.4	310.8	148,100	247,500	46.8	324.5	132,800	236,000	54.0	331.7	117,900	224,900	200
205	35.5	303.8	142,800	240,100	44.5	319.4	127,900	228,900	51.9	327.7	113,400	218,100	205
210	32.5	296.0	137,700	233,100	42.0	313.8	123,300	222,200	49.7	323.4	109,200	211,600	210
215	29.1	287.1	132,900	226,400	39.4	307.7	118,900	215,800	47.4	318.8	105,100	205,500	215
220	25.3	276.7	128,200	220,000	36.6	300.9	114,600	209,700	45.1	313.7	101,300	199,600	220
230	15.0	247.1	119,200	192,800	30.4	284.9	106,600	198,200	40.1	302.3	94,000	188,600	230
240					22.6	263.5	99,100	187,700	34.5	288.4	87,300	178,600	240
250					9.5	225.1	91,700	177,800	27.8	270.9	81,000	169,300	250
260									19.0	246.0	74,900	160,700	260

# MLC650 VPC-MAX S-3

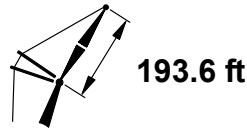
ASME B30.5



881,800 lb



203.4 ft



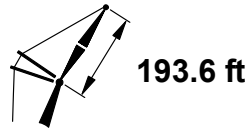
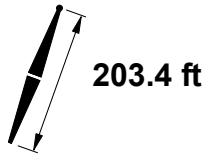
193.6 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
85	73.6	397.5	326,400	326,400									85
90	72.0	395.9	325,900	325,900									90
95	70.4	394.0	325,400	325,400	72.7	395.7	323,000	323,000					95
100	68.8	392.0	324,500	324,500	71.1	393.9	323,000	323,000					100
105	67.2	389.9	323,500	323,500	69.5	392.0	323,000	323,000					105
110	65.6	387.6	322,100	322,100	67.9	389.9	323,000	323,000					110
115	63.9	385.1	320,600	320,600	66.3	387.7	323,000	323,000	69.7	390.5	313,300	313,300	115
120	62.3	382.4	314,300	314,300	64.6	385.3	323,000	323,000	68.1	388.4	313,300	313,300	120
125	60.6	379.5	303,100	303,100	63.0	382.7	316,300	323,000	66.4	386.2	300,000	313,300	125
130	58.8	376.4	291,700	291,700	61.3	379.9	301,300	322,700	64.8	383.8	285,600	313,300	130
135	57.0	373.1	280,300	280,300	59.5	376.9	287,400	321,700	63.1	381.2	272,300	313,300	135
140	55.2	369.6	269,100	269,100	57.8	373.7	274,500	313,400	61.4	378.4	260,000	313,300	140
145	53.4	365.8	258,000	258,000	56.0	370.2	262,500	302,100	59.7	375.5	248,600	313,300	145
150	51.5	361.8	247,300	247,300	54.2	366.6	251,300	290,600	58.0	372.3	237,900	313,300	150
155	49.5	357.5	237,000	237,000	52.3	362.7	240,900	279,300	56.2	368.9	228,000	313,300	155
160	47.5	352.9	227,000	227,000	50.3	358.5	231,200	268,100	54.4	365.2	218,600	313,300	160
165	45.4	347.9	217,600	217,600	48.3	354.0	222,000	257,200	52.5	361.3	209,900	313,300	165
170	43.3	342.5	208,700	208,700	46.3	349.1	213,400	246,600	50.6	357.2	201,700	301,100	170
175	41.0	336.7	200,300	200,300	44.2	343.9	205,200	236,500	48.6	352.7	193,900	287,300	175
180	38.6	330.4	192,600	192,600	41.9	338.3	197,600	226,800	46.5	347.9	186,600	274,400	180
185	36.1	323.6	185,500	185,500	39.6	332.3	190,300	217,800	44.4	342.8	179,600	262,500	185
190	33.4	316.0	179,000	179,000	37.2	325.6	183,400	209,300	42.2	337.2	173,100	251,300	190
195	30.5	307.6	173,200	173,200	34.5	318.4	176,800	201,400	39.9	331.2	166,800	240,800	195
200	27.3	298.0	168,200	168,200	31.7	310.3	170,600	194,300	37.4	324.6	160,900	231,000	200
205	23.7	286.9	164,200	164,200	28.7	301.3	164,600	187,900	34.8	317.4	155,200	221,800	205
210	19.4	273.3	161,500	161,500	25.3	290.8	158,900	182,400	32.0	309.5	149,800	213,100	210
215	13.8	255.0	146,700	146,700	21.3	278.4	153,400	171,800	29.0	300.5	144,600	204,500	215
220					16.4	262.6	148,000	157,100	25.6	290.3	139,600	191,500	220
230									17.0	262.8	130,100	163,700	230
240													240
250													250
260													260
270													270
280													280



# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°				65°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150	63.9	378.3	215,900	292,700									150
155	62.2	375.6	206,700	292,700									155
160	60.5	372.7	198,100	292,700									160
165	58.8	369.7	190,000	292,700									165
170	57.0	366.4	182,400	292,700									170
175	55.2	362.8	175,200	287,500									175
180	53.3	359.1	168,500	277,900	59.4	365.2	150,700	264,700					180
185	51.4	355.0	162,100	268,900	57.7	362.0	144,900	256,000					185
190	49.5	350.7	156,000	260,300	55.9	358.6	139,300	247,800					190
195	47.5	346.1	150,200	252,200	54.1	354.9	134,000	240,000					195
200	45.4	341.1	144,800	244,400	52.2	351.0	129,000	232,600					200
205	43.2	335.7	139,600	237,100	50.2	346.7	124,200	225,600					205
210	40.9	329.9	134,600	230,200	48.2	342.2	119,600	219,000	54.5	348.8	105,000	208,100	210
215	38.6	323.6	129,800	223,500	46.2	337.4	115,300	212,600	52.7	345.0	101,100	202,000	215
220	36.1	316.7	125,300	217,200	44.0	332.2	111,100	206,500	50.8	340.8	97,300	196,200	220
230	30.5	300.7	116,700	205,400	39.5	320.4	103,300	195,200	46.7	331.6	90,100	185,400	230
240	23.6	279.9	108,800	192,000	34.4	306.5	96,100	184,800	42.4	321.0	83,600	175,400	240
250	13.7	247.9	101,100	162,900	28.5	289.3	89,400	175,200	37.7	308.6	77,500	166,300	250
260					21.1	266.2	83,000	166,400	32.4	293.6	71,800	157,800	260
270					8.2	224.0	76,600	157,900	26.0	274.7	66,400	149,900	270
280									17.6	247.9	61,300	142,600	280

# MLC650 VPC-MAX S-3

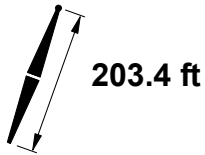
ASME B30.5



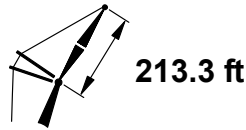
881,800 lb



360°



203.4 ft

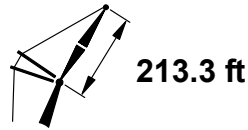
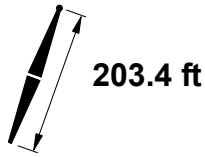


213.3 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
90	73.7	416.6	278,200	278,200									90
95	72.3	415.0	278,000	278,000									95
100	70.9	413.2	277,700	277,700	72.9	414.8	274,900	274,900					100
105	69.4	411.3	277,100	277,100	71.5	413.1	274,900	274,900					105
110	68.0	409.2	276,300	276,300	70.0	411.2	274,900	274,900					110
115	66.5	407.0	275,200	275,200	68.6	409.2	274,900	274,900					115
120	65.0	404.6	274,000	274,000	67.1	407.0	274,900	274,900					120
125	63.5	402.1	272,600	272,600	65.7	404.7	274,900	274,900	68.8	407.7	267,800	267,800	125
130	62.0	399.3	271,200	271,200	64.2	402.3	274,900	274,900	67.3	405.5	267,800	267,800	130
135	60.5	396.5	262,500	262,500	62.6	399.6	274,900	274,900	65.8	403.2	267,800	267,800	135
140	58.9	393.4	253,500	253,500	61.1	396.8	271,300	274,300	64.3	400.8	256,500	267,800	140
145	57.3	390.1	244,600	244,600	59.5	393.8	259,400	273,400	62.8	398.2	245,100	267,800	145
150	55.6	386.7	235,700	235,700	57.9	390.7	248,300	272,500	61.3	395.4	234,500	267,800	150
155	54.0	383.0	226,900	226,900	56.3	387.3	237,900	264,000	59.7	392.4	224,600	267,800	155
160	52.3	379.1	218,300	218,300	54.7	383.7	228,100	255,100	58.1	389.3	215,300	267,800	160
165	50.5	374.9	209,900	209,900	53.0	379.9	219,000	246,200	56.5	385.9	206,600	267,800	165
170	48.7	370.5	201,800	201,800	51.2	375.8	210,400	237,300	54.8	382.3	198,400	267,800	170
175	46.9	365.7	194,000	194,000	49.5	371.5	202,300	228,500	53.2	378.5	190,700	267,800	175
180	45.0	360.7	186,600	186,600	47.6	366.9	194,700	219,900	51.4	374.5	183,400	267,800	180
185	43.0	355.3	179,400	179,400	45.8	362.0	187,500	211,600	49.7	370.2	176,500	261,300	185
190	40.9	349.5	172,800	172,800	43.8	356.7	180,600	203,600	47.8	365.6	170,000	250,100	190
195	38.8	343.2	166,500	166,500	41.8	351.1	174,100	195,800	46.0	360.8	163,800	239,600	195
200	36.5	336.5	160,600	160,600	39.7	345.0	167,900	188,500	44.0	355.5	157,900	229,800	200
205	34.1	329.1	155,200	155,200	37.5	338.5	162,000	181,600	42.0	350.0	152,300	220,600	205
210	31.6	321.0	150,300	150,300	35.1	331.4	156,400	175,100	39.9	343.9	146,900	211,900	210
215	28.8	311.9	146,000	146,000	32.6	323.6	151,100	169,200	37.7	337.5	141,800	203,700	215
220	25.7	301.7	142,200	142,200	30.0	315.0	145,900	163,700	35.4	330.4	136,900	196,000	220
230	18.1	275.3	137,200	137,200	23.8	294.1	136,200	154,700	30.3	314.2	127,700	181,600	230
240					15.2	263.9	127,100	132,700	24.1	293.7	119,200	162,100	240
250									15.8	264.2	111,200	138,600	250
260													260
270													270
280													280
290													290
300													300

# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160	63.5	395.3	194,200	250,900									160
165	62.0	392.6	186,200	250,900									165
170	60.4	389.7	178,600	250,900									170
175	58.9	386.6	171,500	250,900									175
180	57.2	383.4	164,800	250,900									180
185	55.6	379.9	158,400	250,900									185
190	53.9	376.2	152,400	250,900	59.4	382.2	135,300	229,900					190
195	52.2	372.3	146,700	249,000	57.9	379.0	130,000	229,900					195
200	50.5	368.1	141,300	241,300	56.2	375.6	125,100	229,300					200
205	48.7	363.7	136,100	234,000	54.6	372.0	120,300	222,300					205
210	46.8	358.9	131,200	227,100	52.9	368.2	115,800	215,700					210
215	44.9	353.9	126,500	220,500	51.2	364.1	111,500	209,400					215
220	43.0	348.5	122,000	214,200	49.4	359.8	107,400	203,300					220
230	38.7	336.4	113,600	202,500	45.7	350.2	99,700	192,100	51.6	358.1	86,100	182,000	230
240	34.1	322.2	105,900	191,700	41.7	339.3	92,600	181,800	48.0	349.3	79,700	172,200	240
250	28.7	305.1	98,700	178,400	37.3	326.6	86,100	172,300	44.2	339.3	73,700	163,100	250
260	22.2	282.9	91,900	163,100	32.5	311.7	80,000	163,600	40.1	327.8	68,200	154,800	260
270	12.6	248.5	85,300	138,300	26.9	293.2	74,200	155,500	35.6	314.4	63,000	147,000	270
280					19.7	268.6	68,800	147,900	30.6	298.3	58,200	139,800	280
290					6.9	222.1	63,200	133,800	24.5	278.1	53,600	133,000	290
300									16.3	249.4	49,100	126,700	300

# MLC650 VPC-MAX S-3

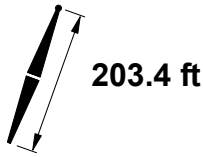
ASME B30.5



881,800 lb



360°



203.4 ft

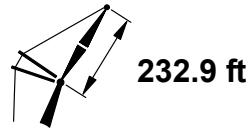
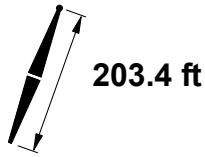


232.9 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
95	73.9	435.7	253,000	253,000									95
100	72.6	434.0	252,700	252,700									100
105	71.3	432.3	252,300	252,300									105
110	70.0	430.4	251,700	251,700	71.8	432.2	249,900	249,900					110
115	68.6	428.4	251,000	251,000	70.5	430.4	249,900	249,900					115
120	67.3	426.3	250,100	250,100	69.2	428.4	249,900	249,900					120
125	65.9	424.0	249,000	249,000	67.8	426.3	249,900	249,900					125
130	64.6	421.6	247,900	247,900	66.5	424.1	249,800	249,800	69.3	426.9	241,600	241,600	130
135	63.2	419.0	246,700	246,700	65.1	421.8	249,400	249,400	68.0	424.8	241,600	241,600	135
140	61.8	416.3	242,800	242,800	63.8	419.3	248,900	248,900	66.6	422.6	241,600	241,600	140
145	60.4	413.4	235,300	235,300	62.4	416.6	248,900	248,900	65.3	420.3	239,200	241,600	145
150	58.9	410.4	227,700	227,700	61.0	413.8	242,800	247,600	63.9	417.8	228,600	241,600	150
155	57.5	407.1	220,100	220,100	59.5	410.8	232,500	246,800	62.5	415.1	218,800	241,600	155
160	56.0	403.7	212,600	212,600	58.1	407.6	222,800	245,900	61.1	412.3	209,500	241,600	160
165	54.5	400.1	205,100	205,100	56.6	404.3	213,700	238,700	59.7	409.4	200,900	241,600	165
170	52.9	396.3	197,700	197,700	55.1	400.7	205,200	231,100	58.2	406.2	192,700	241,600	170
175	51.3	392.2	190,500	190,500	53.6	397.0	197,100	223,500	56.8	402.9	185,000	241,600	175
180	49.7	387.9	183,500	183,500	52.0	393.1	189,500	216,000	55.3	399.4	177,800	241,600	180
185	48.0	383.4	176,800	176,800	50.4	388.9	182,400	208,500	53.7	395.7	171,000	241,600	185
190	46.3	378.6	170,300	170,300	48.7	384.4	175,600	201,100	52.2	391.8	164,500	241,600	190
195	44.6	373.5	164,200	164,200	47.1	379.8	169,100	193,900	50.6	387.6	158,300	235,500	195
200	42.8	368.0	158,300	158,300	45.3	374.8	163,000	186,900	48.9	383.2	152,500	225,800	200
205	40.9	362.2	152,700	152,700	43.5	369.5	157,100	180,200	47.2	378.5	146,900	216,600	205
210	38.9	356.0	147,400	147,400	41.7	363.8	151,600	173,800	45.5	373.6	141,600	208,100	210
215	36.9	349.3	142,500	142,500	39.7	357.8	146,300	167,700	43.7	368.3	136,600	200,000	215
220	34.7	342.1	138,000	138,000	37.7	351.3	141,200	161,800	41.9	362.7	131,800	192,300	220
230	30.0	325.6	130,000	130,000	33.4	336.7	131,700	151,300	37.9	350.3	122,700	178,300	230
240	24.4	305.2	123,800	123,800	28.4	319.3	122,900	142,400	33.6	335.8	114,400	165,500	240
250	17.0	277.1	114,100	114,100	22.5	297.2	114,800	130,900	28.7	318.6	106,700	153,800	250
260					14.1	264.9	107,000	110,200	22.8	296.8	99,500	135,800	260
270									14.7	265.4	92,600	115,600	270
280													280
290													290
300													300
310													310
320													320

# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160													160
165	64.6	414.8	179,700	223,500									165
170	63.2	412.3	172,300	223,500									170
175	61.8	409.5	165,200	223,500									175
180	60.3	406.6	158,500	223,500									180
185	58.9	403.6	152,300	223,500									185
190	57.4	400.3	146,300	223,500									190
195	55.9	396.9	140,600	223,500									195
200	54.4	393.3	135,300	223,500	59.5	399.1	118,500	205,200					200
205	52.9	389.5	130,200	223,500	58.0	396.0	113,800	205,200					205
210	51.3	385.4	125,300	222,300	56.5	392.6	109,300	205,200					210
215	49.7	381.1	120,700	215,700	55.0	389.1	105,100	204,200					215
220	48.0	376.6	116,200	209,500	53.5	385.3	101,100	198,200					220
230	44.6	366.7	108,000	197,900	50.3	377.2	93,500	187,100					230
240	40.8	355.4	100,300	187,200	47.0	368.0	86,500	176,900	52.3	375.4	73,100	167,000	240
250	36.8	342.5	93,300	175,000	43.4	357.7	80,100	167,500	49.1	366.9	67,200	158,000	250
260	32.4	327.4	86,800	162,600	39.6	346.0	74,100	158,900	45.7	357.3	61,800	149,700	260
270	27.3	309.1	80,600	151,200	35.5	332.4	68,600	150,900	42.1	346.5	56,800	142,100	270
280	21.0	285.6	74,800	137,100	30.9	316.5	63,400	143,400	38.2	334.2	52,100	135,000	280
290	11.5	248.7	69,200	115,600	25.5	296.9	58,500	136,500	33.9	319.8	47,700	128,400	290
300					18.6	270.8	53,800	129,900	29.0	302.8	43,500	122,200	300
310					5.7	219.5	48,900	111,400	23.2	281.3	39,500	116,300	310
320									15.3	250.7	35,600	110,800	320

# MLC650 VPC-MAX S-3

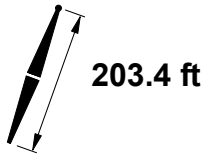
ASME B30.5



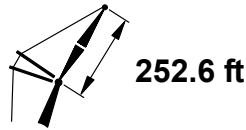
881,800 lb



360°



203.4 ft

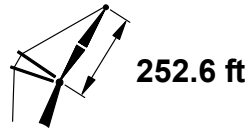
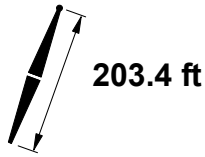


252.6 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
100	74.0	454.7	218,500	218,500									100
105	72.8	453.1	218,100	218,100									105
110	71.6	451.4	217,600	217,600									110
115	70.4	449.6	217,000	217,000	72.1	451.3	215,200	215,200					115
120	69.2	447.6	216,300	216,300	70.9	449.5	215,200	215,200					120
125	67.9	445.6	215,500	215,500	69.7	447.6	215,200	215,200					125
130	66.7	443.4	214,600	214,600	68.4	445.6	215,000	215,000					130
135	65.4	441.1	213,600	213,600	67.2	443.5	214,700	214,700	69.8	446.1	207,300	207,300	135
140	64.2	438.6	212,600	212,600	66.0	441.2	214,300	214,300	68.6	444.1	207,300	207,300	140
145	62.9	436.0	211,500	211,500	64.7	438.8	213,800	213,800	67.3	441.9	207,300	207,300	145
150	61.6	433.3	210,300	210,300	63.4	436.2	213,300	213,300	66.1	439.7	207,300	207,300	150
155	60.3	430.4	205,400	205,400	62.1	433.6	212,600	212,600	64.8	437.3	207,300	207,300	155
160	59.0	427.3	199,300	199,300	60.8	430.7	211,900	211,900	63.6	434.8	205,900	207,300	160
165	57.6	424.1	193,200	193,200	59.5	427.7	210,400	211,200	62.3	432.1	197,300	207,300	165
170	56.3	420.7	187,000	187,000	58.2	424.6	201,900	210,400	61.0	429.3	189,200	207,300	170
175	54.9	417.2	181,000	181,000	56.8	421.3	193,900	209,500	59.7	426.3	181,500	207,300	175
180	53.4	413.4	175,000	175,000	55.4	417.8	186,300	203,600	58.3	423.2	174,300	207,300	180
185	52.0	409.5	169,100	169,100	54.0	414.1	179,200	197,500	57.0	419.9	167,500	207,300	185
190	50.5	405.3	163,300	163,300	52.6	410.3	172,400	191,400	55.6	416.4	161,100	207,300	190
195	49.0	400.9	157,800	157,800	51.1	406.2	166,000	185,300	54.2	412.8	154,900	207,300	195
200	47.5	396.3	152,300	152,300	49.6	401.9	159,900	179,300	52.8	409.0	149,100	207,300	200
205	45.9	391.4	147,100	147,100	48.1	397.4	154,100	173,400	51.3	404.9	143,600	207,300	205
210	44.3	386.3	142,000	142,000	46.6	392.6	148,500	167,600	49.8	400.6	138,400	205,500	210
215	42.6	380.8	137,300	137,300	44.9	387.6	143,300	162,000	48.3	396.1	133,300	197,500	215
220	40.8	375.0	132,700	132,700	43.3	382.2	138,200	156,600	46.7	391.4	128,500	189,800	220
230	37.2	362.2	124,400	124,400	39.8	370.5	128,800	146,200	43.5	381.1	119,600	175,800	230
240	33.1	347.4	117,100	117,100	36.0	357.2	120,200	136,900	40.0	369.5	111,400	163,200	240
250	28.5	330.0	110,900	110,900	31.8	341.8	112,100	128,700	36.2	356.2	103,800	151,700	250
260	23.1	308.4	106,200	106,200	27.1	323.3	104,700	121,800	32.1	340.9	96,700	141,200	260
270	16.0	278.6	95,600	95,600	21.3	300.0	97,700	110,300	27.4	322.6	90,100	130,400	270
280					13.2	265.6	91,000	92,300	21.7	299.6	83,900	114,800	280
290									13.8	266.3	78,000	97,200	290
300													300
310													310
320													320
330													330
340													340

# MLC650 VPC-MAX S-3

ASME B30.5



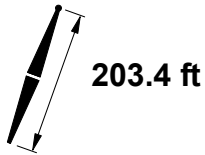
ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160													160
165													165
170													170
175	64.2	431.8	161,300	192,000									175
180	62.9	429.2	154,600	192,000									180
185	61.6	426.5	148,400	192,000									185
190	60.3	423.6	142,500	192,000									190
195	58.9	420.5	136,900	192,000									195
200	57.6	417.3	131,500	192,000									200
205	56.2	413.9	126,500	192,000									205
210	54.8	410.4	121,600	192,000	59.5	416.1	105,300	175,400					210
215	53.4	406.6	117,000	192,000	58.1	412.9	101,100	175,400					215
220	52.0	402.7	112,600	192,000	56.8	409.6	97,100	175,400					220
230	49.0	394.1	104,400	192,000	54.0	402.4	89,600	175,400					230
240	45.9	384.6	96,900	184,200	51.1	394.5	82,700	173,700					240
250	42.5	374.0	89,900	172,500	48.0	385.7	76,400	164,400	52.9	392.6	63,200	154,700	250
260	39.0	361.9	83,500	160,300	44.9	375.8	70,500	155,800	50.0	384.3	57,900	146,500	260
270	35.2	348.2	77,500	149,100	41.5	364.8	65,000	147,900	46.9	375.1	52,900	138,900	270
280	30.9	332.2	71,900	138,800	37.8	352.3	60,000	140,500	43.6	364.8	48,300	131,900	280
290	25.9	312.9	66,600	129,300	33.9	337.9	55,200	133,700	40.2	353.3	44,000	125,300	290
300	19.9	288.0	61,600	116,300	29.4	321.0	50,700	127,200	36.4	340.2	40,000	119,200	300
310	10.6	248.6	56,600	97,400	24.2	300.3	46,400	121,200	32.3	325.0	36,100	113,500	310
320					17.5	272.7	42,300	115,500	27.6	306.9	32,500	108,100	320
330					4.4	215.6	37,900	93,200	22.0	284.2	29,000	103,000	330
340									14.3	251.8	25,500	98,100	340

# MLC650 VPC-MAX S-3

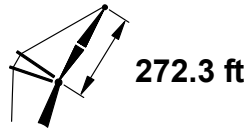
ASME B30.5



881,800 lb



203.4 ft



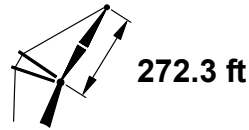
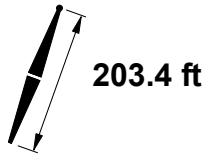
272.3 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
105	74.1	473.8	188,500	188,500									105
110	73.0	472.2	187,700	187,700									110
115	71.9	470.5	187,200	187,200									115
120	70.7	468.7	187,000	187,000	72.3	470.4	185,400	185,400					120
125	69.6	466.8	186,000	186,000	71.2	468.6	185,300	185,300					125
130	68.5	464.8	185,300	185,300	70.1	466.8	185,100	185,100					130
135	67.3	462.7	184,500	184,500	69.0	464.8	185,100	185,100					135
140	66.2	460.5	183,700	183,700	67.8	462.7	184,600	184,600					140
145	65.0	458.1	182,800	182,800	66.7	460.5	184,100	184,100	69.1	463.3	179,200	179,200	145
150	63.8	455.6	181,900	181,900	65.5	458.2	183,700	183,700	67.9	461.2	179,200	179,200	150
155	62.7	453.0	180,900	180,900	64.3	455.8	183,200	183,200	66.8	459.0	179,200	179,200	155
160	61.5	450.2	179,900	179,900	63.1	453.2	182,600	182,600	65.6	456.7	179,200	179,200	160
165	60.2	447.3	178,900	178,900	62.0	450.5	181,900	181,900	64.5	454.3	179,200	179,200	165
170	59.0	444.3	175,200	175,200	60.7	447.7	181,300	181,300	63.3	451.8	179,200	179,200	170
175	57.8	441.1	170,400	170,400	59.5	444.7	180,600	180,600	62.1	449.1	179,200	179,200	175
180	56.5	437.7	165,500	165,500	58.3	441.6	179,900	179,900	60.9	446.2	172,100	179,200	180
185	55.2	434.2	160,600	160,600	57.0	438.3	177,200	179,100	59.7	443.3	165,300	179,200	185
190	53.9	430.5	155,800	155,800	55.7	434.8	170,400	178,300	58.4	440.2	158,900	179,200	190
195	52.6	426.7	151,000	151,000	54.4	431.2	164,000	175,100	57.2	436.9	152,800	179,200	195
200	51.2	422.6	146,200	146,200	53.1	427.4	158,000	170,200	55.9	433.5	147,000	178,900	200
205	49.8	418.4	141,700	141,700	51.8	423.5	152,200	165,400	54.6	429.9	141,500	178,500	205
210	48.4	413.9	137,100	137,100	50.4	419.3	146,700	160,500	53.3	426.1	136,300	178,200	210
215	47.0	409.2	132,700	132,700	49.0	414.9	141,500	155,700	51.9	422.2	131,300	177,800	215
220	45.5	404.2	128,500	128,500	47.6	410.3	136,400	150,900	50.6	418.0	126,500	177,400	220
230	42.4	393.5	120,500	120,500	44.6	400.4	127,100	141,800	47.7	409.1	117,600	175,300	230
240	39.1	381.5	113,100	113,100	41.5	389.3	118,500	133,100	44.8	399.2	109,500	162,500	240
250	35.6	368.0	106,500	106,500	38.1	376.9	110,600	125,000	41.7	388.2	101,900	150,900	250
260	31.7	352.4	100,700	100,700	34.5	362.8	103,300	117,600	38.3	375.9	95,000	140,400	260
270	27.3	334.0	95,900	95,900	30.5	346.5	96,400	111,200	34.7	361.9	88,500	130,800	270
280	22.1	311.3	92,300	92,300	25.9	327.1	90,000	105,700	30.7	345.7	82,500	121,900	280
290	15.1	279.9	80,700	80,700	20.3	302.5	84,000	93,900	26.1	326.5	76,800	111,600	290
300					12.3	266.2	77,900	77,900	20.6	302.3	71,400	98,100	300
310									12.9	267.0	66,200	82,400	310
320													320
330													330
340													340
350													350
360													360



# MLC650 VPC-MAX S-3

ASME B30.5



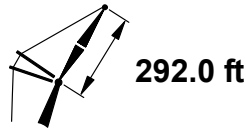
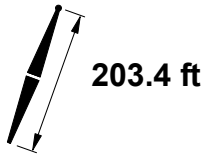
ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160													160
165													165
170													170
175													175
180	65.0	451.3	152,000	165,400									180
185	63.8	448.8	145,800	165,400									185
190	62.6	446.2	139,900	165,400									190
195	61.4	443.4	134,300	165,400									195
200	60.2	440.5	129,000	165,400									200
205	59.0	437.5	124,000	165,400									205
210	57.7	434.3	119,200	165,400									210
215	56.5	431.0	114,600	165,400									215
220	55.2	427.4	110,300	165,400	59.5	433.1	94,400	152,500					220
230	52.6	419.9	102,100	165,400	57.0	426.6	87,000	152,500					230
240	49.8	411.6	94,600	165,400	54.4	419.5	80,100	152,500					240
250	47.0	402.4	87,800	165,400	51.7	411.8	73,900	152,500					250
260	44.0	392.2	81,400	159,400	48.9	403.2	68,100	152,500	53.4	409.7	55,200	139,700	260
270	40.8	380.9	75,500	148,200	46.0	393.7	62,700	145,900	50.7	401.7	50,300	136,700	270
280	37.4	368.2	70,000	137,900	43.0	383.2	57,700	138,600	47.9	392.8	45,800	129,700	280
290	33.7	353.6	64,800	128,600	39.7	371.5	53,000	131,800	44.9	382.9	41,500	123,300	290
300	29.5	336.8	60,000	119,900	36.3	358.2	48,600	125,400	41.8	372.0	37,600	117,200	300
310	24.8	316.5	55,400	111,900	32.4	343.1	44,500	119,400	38.5	359.7	33,900	111,500	310
320	18.9	290.3	51,000	99,700	28.1	325.3	40,600	113,900	34.9	345.9	30,300	106,200	320
330	9.8	248.2	46,600	82,800	23.1	303.5	36,800	108,600	30.9	329.8	27,000	101,200	330
340					16.6	274.3	33,200	100,300	26.4	310.8	23,800	96,400	340
350					2.6	208.8	29,200	77,900	21.0	286.9	20,700	91,900	350
360									13.4	252.6		87,600	360

# MLC650 VPC-MAX S-3

ASME B30.5



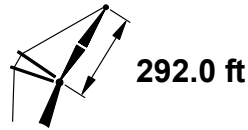
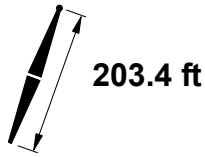
881,800 lb



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
110	74.2	492.8	177,000	177,000									110
115	73.1	491.3	176,500	176,500									115
120	72.1	489.6	175,900	175,900									120
125	71.1	487.9	175,300	175,300	72.5	489.4	174,200	174,200					125
130	70.0	486.0	174,600	174,600	71.5	487.7	174,000	174,000					130
135	69.0	484.0	173,900	173,900	70.4	485.9	173,700	173,700					135
140	67.9	482.0	173,000	173,000	69.4	484.0	173,400	173,400					140
145	66.8	479.8	172,200	172,200	68.3	482.0	173,000	173,000					145
150	65.7	477.5	171,300	171,300	67.3	479.9	172,500	172,500	69.5	482.5	167,800	167,800	150
155	64.7	475.1	170,400	170,400	66.2	477.6	172,000	172,000	68.4	480.5	167,800	167,800	155
160	63.6	472.6	169,400	169,400	65.1	475.3	171,400	171,400	67.4	478.3	167,800	167,800	160
165	62.4	469.9	168,400	168,400	64.0	472.8	170,800	170,800	66.3	476.1	167,800	167,800	165
170	61.3	467.2	167,300	167,300	62.9	470.2	170,100	170,100	65.2	473.8	167,800	167,800	170
175	60.2	464.3	164,800	164,800	61.8	467.5	169,400	169,400	64.1	471.3	167,800	167,800	175
180	59.0	461.2	160,500	160,500	60.7	464.6	168,600	168,600	63.0	468.7	163,700	167,800	180
185	57.9	458.1	156,100	156,100	59.5	461.7	167,900	167,900	61.9	466.0	156,900	167,600	185
190	56.7	454.7	151,800	151,800	58.4	458.5	162,700	167,100	60.8	463.2	150,600	167,400	190
195	55.5	451.3	147,400	147,400	57.2	455.3	156,300	166,200	59.6	460.2	144,500	167,000	195
200	54.3	447.6	143,100	143,100	56.0	451.9	150,300	165,400	58.5	457.1	138,800	166,700	200
205	53.1	443.8	138,900	138,900	54.8	448.3	144,500	161,500	57.3	453.9	133,300	166,300	205
210	51.8	439.9	134,700	134,700	53.6	444.6	139,000	157,200	56.1	450.5	128,200	165,900	210
215	50.5	435.7	130,500	130,500	52.3	440.7	133,800	152,800	54.9	447.0	123,200	165,400	215
220	49.2	431.4	126,500	126,500	51.1	436.6	128,900	148,600	53.7	443.2	118,500	165,000	220
230	46.6	422.1	118,800	118,800	48.5	427.9	119,600	140,100	51.2	435.3	109,700	164,000	230
240	43.7	411.8	111,600	111,600	45.7	418.3	111,000	131,900	48.6	426.6	101,600	156,100	240
250	40.8	400.5	104,900	104,900	42.9	407.7	103,200	124,100	45.9	417.1	94,100	144,500	250
260	37.6	387.8	98,900	98,900	39.9	396.0	95,900	116,800	43.0	406.6	87,200	134,100	260
270	34.2	373.5	93,500	93,500	36.6	382.9	89,200	110,000	40.0	395.0	80,900	124,500	270
280	30.4	357.2	88,300	88,700	33.1	368.1	82,900	104,000	36.8	381.9	74,900	115,700	280
290	26.2	337.9	82,100	84,900	29.2	351.0	77,000	98,000	33.3	367.2	69,300	107,600	290
300	21.1	314.1	75,900	75,900	24.8	330.6	71,500	86,500	29.5	350.3	64,100	100,100	300
310	14.3	281.0	62,500	62,500	19.4	304.9	66,200	74,400	25.0	330.1	59,200	90,200	310
320					11.6	266.4	60,000	60,000	19.7	304.7	54,500	78,300	320
330									12.1	267.5	49,900	64,200	330
340													340
350													350
360													360
370													370
380													380

# MLC650 VPC-MAX S-3

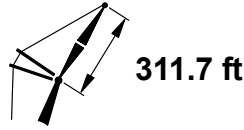
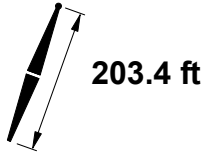
ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160													160
165													165
170													170
175													175
180													180
185													185
190	64.6	468.3	130,700	154,500									190
195	63.5	465.8	125,200	154,500									195
200	62.4	463.2	120,000	154,500									200
205	61.3	460.4	115,000	154,500									205
210	60.2	457.5	110,300	154,500									210
215	59.0	454.5	105,800	154,500									215
220	57.9	451.3	101,500	154,500									220
230	55.5	444.5	93,400	154,500	59.5	450.0	77,600	141,300					230
240	53.0	437.1	86,100	154,500	57.1	443.6	70,900	141,300					240
250	50.5	428.9	79,300	154,500	54.7	436.6	64,700	141,300					250
260	47.9	420.0	73,000	153,000	52.3	429.0	59,100	141,300					260
270	45.1	410.3	67,200	141,800	49.7	420.6	53,800	139,000	53.8	426.8	40,800	129,500	270
280	42.3	399.5	61,800	131,600	47.0	411.5	48,900	131,800	51.3	418.9	36,400	122,600	280
290	39.2	387.5	56,700	122,200	44.3	401.4	44,300	125,100	48.7	410.3	32,300	116,200	290
300	35.9	374.1	52,000	113,700	41.3	390.3	40,000	118,800	46.0	400.8	28,400	110,200	300
310	32.3	358.8	47,500	105,700	38.2	377.9	36,000	112,900	43.2	390.4	24,800	104,600	310
320	28.3	341.1	43,300	98,400	34.8	363.9	32,200	107,400	40.2	378.8	21,400	99,300	320
330	23.7	319.8	39,300	91,500	31.1	348.0	28,600	102,200	37.0	365.9		94,400	330
340	18.0	292.3	35,400	79,900	27.0	329.3	25,200	96,400	33.5	351.3		89,800	340
350	9.0	247.6	31,500	64,600	22.1	306.5	21,900	89,700	29.7	334.4		85,400	350
360					15.8	275.8		80,700	25.3	314.5		81,200	360
370									20.0	289.4		77,200	370
380									12.6	253.3		73,400	380

# MLC650 VPC-MAX S-3

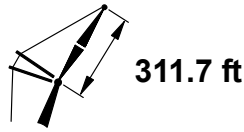
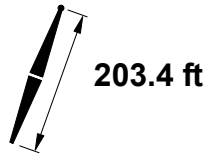
ASME B30.5



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
115	74.2	511.9	154,200	154,200									115
120	73.3	510.3	153,700	153,700									120
125	72.3	508.7	153,100	153,100									125
130	71.3	507.0	152,500	152,500	72.7	508.5	151,300	151,300					130
135	70.3	505.2	151,800	151,800	71.7	506.8	150,900	150,900					135
140	69.4	503.2	151,000	151,000	70.8	505.1	150,700	150,700					140
145	68.4	501.2	150,200	150,200	69.8	503.2	150,200	150,200					145
150	67.4	499.1	149,300	149,300	68.8	501.2	149,700	149,700					150
155	66.4	496.9	148,500	148,500	67.8	499.1	149,300	149,300	69.9	501.6	145,200	145,200	155
160	65.4	494.6	147,700	147,700	66.8	497.0	148,700	148,700	68.9	499.7	145,100	145,100	160
165	64.3	492.1	146,700	146,700	65.8	494.7	148,200	148,200	67.9	497.6	145,100	145,100	165
170	63.3	489.6	145,900	145,900	64.8	492.3	147,600	147,600	66.9	495.5	145,000	145,000	170
175	62.3	486.9	144,900	144,900	63.7	489.8	146,900	146,900	65.9	493.2	144,900	144,900	175
180	61.2	484.1	144,000	144,000	62.7	487.2	146,200	146,200	64.9	490.8	144,700	144,700	180
185	60.1	481.2	143,100	143,100	61.6	484.4	145,500	145,500	63.8	488.3	144,500	144,500	185
190	59.1	478.2	141,700	141,700	60.6	481.6	144,800	144,800	62.8	485.7	144,200	144,200	190
195	58.0	475.0	138,100	138,100	59.5	478.6	144,100	144,100	61.8	483.0	142,500	143,900	195
200	56.9	471.7	134,500	134,500	58.4	475.5	143,300	143,300	60.7	480.2	136,800	143,500	200
205	55.8	468.3	130,800	130,800	57.3	472.3	142,600	142,600	59.6	477.2	131,300	143,200	205
210	54.6	464.7	127,300	127,300	56.2	468.9	137,300	141,800	58.5	474.1	126,200	142,800	210
215	53.5	461.0	123,700	123,700	55.1	465.4	132,100	141,000	57.5	470.9	121,200	142,300	215
220	52.3	457.1	120,300	120,300	54.0	461.7	127,100	139,700	56.3	467.5	116,500	141,900	220
230	49.9	448.8	113,400	113,400	51.6	453.9	117,800	132,700	54.1	460.4	107,800	140,900	230
240	47.5	439.7	106,900	106,900	49.2	445.4	109,400	125,600	51.8	452.6	99,700	139,900	240
250	44.9	429.9	100,700	100,700	46.7	436.1	101,500	118,800	49.3	444.1	92,300	138,900	250
260	42.2	419.0	94,900	94,900	44.1	425.9	94,300	112,100	46.8	434.9	85,500	132,900	260
270	39.3	407.1	89,500	89,500	41.3	414.8	87,600	105,900	44.2	424.8	79,100	123,400	270
280	36.2	393.8	84,700	84,700	38.4	402.5	81,400	100,000	41.5	413.7	73,200	116,600	280
290	32.9	378.8	80,400	80,400	35.3	388.7	75,600	94,600	38.6	401.4	67,700	106,600	290
300	29.3	361.7	75,200	76,600	31.9	373.2	70,100	89,700	35.5	387.8	62,500	99,100	300
310	25.1	341.5	69,900	73,500	28.1	355.3	65,000	83,000	32.1	372.3	57,700	92,200	310
320	20.2	316.6	63,300	63,300	23.8	334.0	60,100	72,800	28.3	354.6	53,100	85,700	320
330	13.6	281.9	51,300	51,300	18.5	307.0	55,500	62,100	24.1	333.5	48,800	76,300	330
340					10.8	266.5	49,100	49,100	18.8	306.9	44,600	65,700	340
350									11.4	267.7	40,500	53,000	350
360													360
370													370
380													380
390													390
400													400

# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°				65°				
	ft	ft	lb	lb	ft	ft	lb	lb	ft	ft	lb	ft	
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160													160
165													165
170													170
175													175
180													180
185													185
190													190
195													195
200	64.3	485.4	117,600	133,100									200
205	63.3	482.8	112,700	133,100									205
210	62.2	480.1	108,000	133,100									210
215	61.2	477.4	103,500	133,100									215
220	60.1	474.5	99,200	133,100									220
230	58.0	468.3	91,200	133,100									230
240	55.7	461.5	83,900	133,100	59.5	467.0	68,400	121,100					240
250	53.5	454.2	77,100	133,100	57.3	460.6	62,300	121,100					250
260	51.1	446.2	70,900	133,100	55.0	453.7	56,700	121,100					260
270	48.7	437.6	65,100	133,100	52.7	446.2	51,500	121,100					270
280	46.2	428.1	59,800	130,400	50.4	438.0	46,600	121,100	54.2	443.9	110,600		280
290	43.5	417.8	54,800	121,100	47.9	429.1	42,100	121,100	51.9	436.2	110,600		290
300	40.7	406.4	50,100	112,600	45.3	419.4	37,900	116,900	49.5	427.8	108,200		300
310	37.8	393.8	45,700	104,700	42.7	408.7	33,900	111,100	47.0	418.6	102,700		310
320	34.6	379.7	41,500	97,400	39.8	397.0	30,200	105,600	44.4	408.5	97,500		320
330	31.1	363.7	37,600	90,600	36.8	383.9	26,600	100,500	41.6	397.5	92,600		330
340	27.3	345.2	33,900	84,300	33.5	369.3	23,300	95,400	38.7	385.3	88,000		340
350	22.8	322.9	30,300	78,100	30.0	352.6	20,100	88,800	35.6	371.7	83,600		350
360	17.2	294.1	26,900	67,400	25.9	333.1		82,600	32.3	356.4	79,500		360
370	8.2	246.6	23,300	53,400	21.2	309.3		76,700	28.6	338.8	75,600		370
380					15.0	277.1		68,200	24.3	317.9	71,900		380
390									19.1	291.8	68,300		390
400									11.9	253.7	64,800		400

# MLC650 VPC-MAX S-3

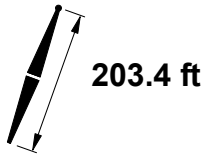
ASME B30.5



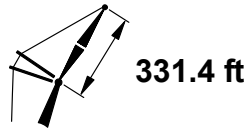
881,800 lb



360°



203.4 ft

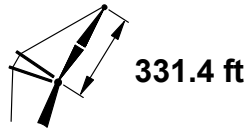
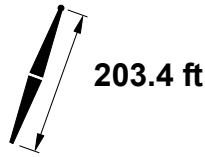


331.4 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
120	74.3	530.9	133,200	133,200									120
125	73.4	529.4	132,600	132,600									125
130	72.5	527.8	132,000	132,000									130
135	71.6	526.1	131,300	131,300	72.9	527.6	130,400	130,400					135
140	70.6	524.3	130,600	130,600	71.9	525.9	130,000	130,000					140
145	69.7	522.4	129,900	129,900	71.0	524.2	129,600	129,600					145
150	68.8	520.4	129,100	129,100	70.1	522.3	129,100	129,100					150
155	67.9	518.4	128,400	128,400	69.2	520.4	128,600	128,600					155
160	66.9	516.2	127,600	127,600	68.2	518.4	128,100	128,100					160
165	66.0	514.0	126,800	126,800	67.3	516.3	128,100	128,100	69.3	518.9	124,300	124,300	165
170	65.0	511.6	125,900	125,900	66.4	514.0	126,900	126,900	68.3	516.9	124,100	124,100	170
175	64.0	509.1	125,100	125,100	65.4	511.7	126,300	126,300	67.4	514.8	124,000	124,000	175
180	63.1	506.6	124,300	124,300	64.4	509.3	125,700	125,700	66.5	512.5	123,800	123,800	180
185	62.1	503.9	123,400	123,400	63.5	506.8	125,000	125,000	65.5	510.2	123,500	123,500	185
190	61.1	501.1	122,600	122,600	62.5	504.1	124,400	124,400	64.5	507.8	123,200	123,200	190
195	60.1	498.2	121,700	121,700	61.5	501.4	123,700	123,700	63.6	505.3	122,900	122,900	195
200	59.1	495.2	120,900	120,900	60.5	498.5	123,000	123,000	62.6	502.7	122,500	122,500	200
205	58.1	492.0	120,000	120,000	59.5	495.6	122,300	122,300	61.6	500.0	122,100	122,100	205
210	57.0	488.7	118,200	118,200	58.5	492.5	121,600	121,600	60.6	497.1	121,700	121,700	210
215	56.0	485.3	115,300	115,300	57.5	489.2	120,900	120,900	59.6	494.1	117,700	121,300	215
220	54.9	481.8	112,300	112,300	56.4	485.9	120,200	120,200	58.6	491.1	113,000	120,800	220
230	52.8	474.3	106,500	106,500	54.3	478.8	114,600	118,700	56.5	484.5	104,300	119,900	230
240	50.5	466.1	100,800	100,800	52.1	471.1	106,100	117,300	54.4	477.4	96,300	119,000	240
250	48.2	457.3	95,300	95,300	49.9	462.8	98,300	111,700	52.2	469.8	88,900	118,000	250
260	45.8	447.8	90,100	90,100	47.5	453.8	91,100	106,000	50.0	461.5	82,100	117,000	260
270	43.3	437.3	85,100	85,100	45.1	443.9	84,400	100,400	47.7	452.5	75,800	116,000	270
280	40.7	425.9	80,500	80,500	42.6	433.3	78,300	95,100	45.3	442.8	69,900	111,600	280
290	38.0	413.4	76,200	76,200	39.9	421.5	72,500	90,100	42.7	432.1	64,400	103,700	290
300	35.0	399.5	72,200	72,200	37.1	408.6	67,100	85,300	40.1	420.5	59,300	96,300	300
310	31.8	383.9	67,000	68,700	34.1	394.2	62,000	81,000	37.3	407.6	54,500	89,500	310
320	28.2	366.0	62,100	65,800	30.8	378.0	57,200	76,700	34.2	393.3	50,000	83,100	320
330	24.2	345.0	57,400	60,000	27.1	359.4	52,700	68,300	31.0	377.2	45,700	77,100	330
340	19.4	319.0	50,600	50,600	22.9	337.2	48,400	59,200	27.3	358.7	41,700	71,400	340
350	12.9	282.6	39,700	39,700	17.7	309.0	44,300	49,600	23.2	336.7	37,800	62,400	350
360					10.2	266.3	37,700	37,700	18.1	309.0	34,100	52,900	360
370									10.7	267.7	30,400	41,400	370
380													380
390													390
400													400
410													410
420													420

# MLC650 VPC-MAX S-3

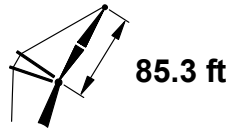
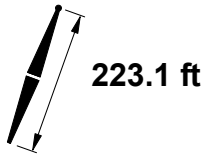
ASME B30.5



ft	75°				70°				65°				ft
	°	ft	lb	lb	°	ft	lb	lb	°	ft	lb		
120												120	
125												125	
130												130	
135												135	
140												140	
145												145	
150												150	
155												155	
160												160	
165												165	
170												170	
175												175	
180												180	
185												185	
190												190	
195												195	
200												200	
205	65.0	504.8	108,800	113,000								205	
210	64.0	502.4	104,100	113,000								210	
215	63.1	499.8	99,600	113,000								215	
220	62.1	497.1	95,400	113,000								220	
230	60.1	491.4	87,400	113,000								230	
240	58.1	485.2	80,100	113,000								240	
250	56.0	478.5	73,400	113,000	59.5	483.9	58,300	102,400				250	
260	53.8	471.3	67,200	113,000	57.4	477.6	52,700	102,400				260	
270	51.6	463.5	61,500	113,000	55.3	470.7	47,600	102,400				270	
280	49.4	455.0	56,200	113,000	53.2	463.3	42,800	102,400				280	
290	47.0	445.8	51,200	113,000	50.9	455.3	38,300	102,400	54.5	461.0	92,700	290	
300	44.6	435.9	46,600	109,500	48.7	446.6	34,100	102,400	52.4	453.4	92,700	300	
310	42.0	425.0	42,200	101,800	46.3	437.2	30,200	102,400	50.1	445.1	92,700	310	
320	39.3	413.0	38,100	94,600	43.8	427.0	26,500	102,400	47.8	436.2	92,700	320	
330	36.5	399.8	34,200	88,000	41.2	415.7	23,000	97,600	45.4	426.5	89,500	330	
340	33.4	385.1	30,600	81,700	38.5	403.4		92,600	42.9	415.9	84,900	340	
350	30.0	368.4	27,100	75,800	35.5	389.8		86,100	40.2	404.3	80,600	350	
360	26.3	349.1	23,800	70,200	32.4	374.5		80,000	37.4	391.5	76,600	360	
370	21.9	325.9	20,600	64,300	28.9	357.1		74,200	34.4	377.3	72,700	370	
380	16.4	295.8		54,600	25.0	336.7		68,800	31.1	361.3	69,000	380	
390	7.5	245.2		41,800	20.4	311.9		63,600	27.5	342.9	65,500	390	
400					14.3	278.2		55,600	23.4	321.2	62,200	400	
410									18.4	293.9	59,000	410	
420									11.2	253.8	55,300	420	

# MLC650 VPC-MAX S-3

ASME B30.5

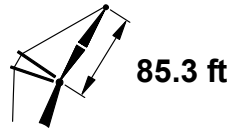
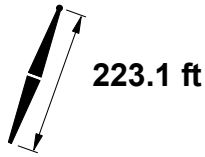


ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
55	74.3	313.7	750,500 d	750,500 d									55
60	70.7	311.8	726,500 c	726,500 c									60
65	67.1	309.6	665,900 c	701,300 c	72.7	312.0	643,800 c	739,700 c					65
70	63.3	306.9	611,300 c	675,700 c	69.1	309.9	591,000 c	716,900 c					70
75	59.3	303.9	564,400 b	650,400 b	65.4	307.5	545,700 c	692,900 c					75
80	55.2	300.3	523,700 b	626,100 b	61.5	304.7	506,300 b	668,700 b					80
85	50.8	296.1	488,000	603,100	57.5	301.4	471,800 b	644,700 b	66.6	306.4	447,500 c	700,000 c	85
90	46.1	291.2	456,500	581,700	53.3	297.5	441,300 b	621,600 b	62.7	303.7	418,600 b	677,600 b	90
95	41.0	285.3	428,300	562,300	48.8	293.0	414,100	599,300	58.8	300.6	392,800 b	636,900 b	95
100	35.1	278.2	402,900	515,200	43.9	287.7	389,700	578,700	54.6	296.9	369,700 b	600,400 b	100
105	28.1	269.0	379,800	435,900	38.4	281.4	367,600	559,700	50.2	292.6	348,800	567,600	105
110	18.5	255.5	354,700	354,700	32.2	273.5	347,400	491,900	45.4	287.6	329,800	538,000	110
115					24.3	262.9	328,800	411,700	40.2	281.6	312,500	511,200	115
120					11.1	243.8	311,000	317,200	34.2	274.3	296,500	486,700	120
125									27.0	264.7	281,600	454,700	125
130									16.6	250.1	267,500	367,300	130
135													135
140													140
145													145
150													150
155													155
160													160
165													165
170													170
175													175
180													180
185													185



# MLC650 VPC-MAX S-3

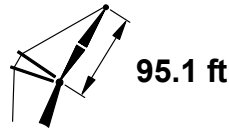
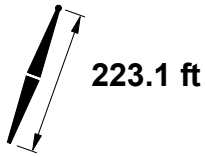
ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
55													55
60													60
65													65
70													70
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110	62.0	298.6	299,900 b	514,800 b									110
115	58.0	295.4	284,200 b	489,100 b									115
120	53.7	291.6	269,800 b	465,700 b									120
125	49.3	287.2	256,500	444,300									125
130	44.4	282.0	244,200	424,600									130
135	39.1	275.7	232,800	406,400	56.7	288.2	209,600	388,600					135
140	32.9	268.1	222,000	389,600	52.5	284.2	200,100	372,500					140
145	25.3	257.9	211,900	373,900	47.9	279.6	191,100	357,600					145
150	13.4	240.8	201,800	359,200	42.9	274.1	182,700	343,700					150
155					37.4	267.5	174,800	330,700	55.0	278.9	155,500	316,000	155
160					30.9	259.2	167,300	318,500	50.6	274.7	148,900	304,400	160
165					22.5	247.9	159,900	307,000	45.9	269.7	142,600	293,500	165
170									40.7	263.8	136,700	283,300	170
175									34.8	256.6	131,000	273,600	175
180									27.7	247.3	125,400	264,400	180
185									17.8	233.4	119,900	255,600	185

# MLC650 VPC-MAX S-3

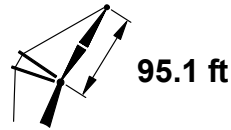
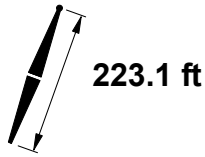
ASME B30.5



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
60	72.8	322.3	701,300 c	701,300 c									60
65	69.6	320.4	663,300 c	679,200 c									65
70	66.3	318.1	608,800 b	656,100 b	71.4	320.6	588,100 c	693,400 c					70
75	62.9	315.4	562,100 b	632,900 b	68.1	318.5	542,900 b	672,400 b					75
80	59.4	312.3	521,500 b	610,000 b	64.8	316.0	503,700 b	650,600 b					80
85	55.7	308.8	485,900	588,200	61.3	313.2	469,300 b	628,600 b	69.2	317.3	444,400 b	678,600 b	85
90	51.8	304.8	454,500	567,300	57.7	309.9	438,900 b	607,000 b	65.8	314.9	415,600 b	659,300 b	90
95	47.7	300.1	426,400	547,900	54.0	306.1	411,800	586,000	62.4	312.2	389,900 b	633,500 b	95
100	43.3	294.7	401,300	530,100	50.0	301.8	387,600	565,800	58.9	309.1	366,900 b	597,100 b	100
105	38.4	288.4	378,500	502,100	45.8	296.9	365,600	546,900	55.2	305.5	346,200	564,500	105
110	32.9	280.7	357,800	460,700	41.1	291.1	345,700	529,500	51.3	301.3	327,300	535,100	110
115	26.2	270.8	338,800	392,800	36.0	284.2	327,500	500,200	47.1	296.6	310,200	508,400	115
120	16.9	256.2	321,000	321,400	30.1	275.6	310,700	442,000	42.6	291.1	294,400	484,100	120
125					22.6	264.2	295,100	372,600	37.7	284.6	279,800	461,900	125
130					9.5	243.2	279,900	287,100	32.0	276.6	266,300	441,400	130
135									25.2	266.3	253,700	411,400	135
140									15.1	250.4	241,500	334,000	140
145													145
150													150
155													155
160													160
165													165
170													170
175													175
180													180
185													185
190													190
195													195

# MLC650 VPC-MAX S-3

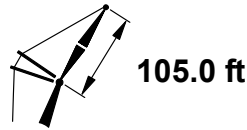
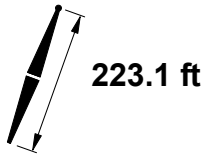
ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
60													60
65													65
70													70
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115	61.7	307.1	281,000 b	486,000 b									115
120	58.1	303.9	266,700	462,700									120
125	54.4	300.2	253,600	441,400									125
130	50.4	295.9	241,400	421,800									130
135	46.2	291.1	230,200	403,800									135
140	41.7	285.4	219,700	387,100	57.0	296.7	196,800	369,600					140
145	36.6	278.6	209,800	371,600	53.2	292.9	188,000	354,800					145
150	30.8	270.3	200,500	357,100	49.2	288.4	179,800	341,000					150
155	23.5	259.3	191,700	343,600	44.9	283.3	172,000	328,100					155
160	11.9	240.7	182,800	330,800	40.2	277.4	164,700	316,100					160
165					35.0	270.2	157,700	304,800	51.6	283.4	139,400	290,700	165
170					28.8	261.3	151,100	294,100	47.5	278.7	133,600	280,600	170
175					20.8	249.0	144,600	284,000	43.0	273.2	128,100	271,000	175
180									38.1	266.8	122,800	262,000	180
185									32.6	259.0	117,700	253,500	185
190									25.8	249.0	112,800	245,300	190
195									16.3	234.0	107,800	237,400	195

# MLC650 VPC-MAX S-3

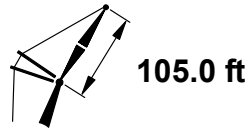
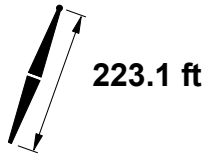
ASME B30.5



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
60	74.5	332.7	673,700 c	673,700 c									60
65	71.6	331.0	654,500 c	654,500 c									65
70	68.7	328.9	607,500 b	634,400 b									70
75	65.7	326.6	560,800 b	613,800 b	70.3	329.2	541,400 b	648,900 b					75
80	62.6	323.9	520,300 b	593,200 b	67.3	327.0	502,200 b	629,900 b					80
85	59.4	320.8	484,800	573,000	64.3	324.5	467,900 b	610,300 b					85
90	56.0	317.4	453,500	553,400	61.1	321.6	437,600 b	590,700 b	68.3	325.8	414,000 b	637,400 b	90
95	52.6	313.4	425,600	534,600	57.9	318.4	410,700	571,300	65.2	323.4	388,400 b	619,900 b	95
100	48.9	309.0	400,500	517,100	54.5	314.7	386,500	552,500	62.1	320.6	365,400 b	594,900 b	100
105	45.0	303.9	377,900	487,600	51.0	310.6	364,700	534,500	58.9	317.5	344,800	562,400	105
110	40.9	298.1	357,400	460,500	47.2	305.9	344,900	517,400	55.6	314.0	326,000	533,100	110
115	36.2	291.2	338,700	436,900	43.2	300.5	326,800	501,500	52.1	310.0	309,000	506,600	115
120	31.0	282.9	321,400	414,100	38.8	294.2	310,300	472,800	48.4	305.5	293,300	482,400	120
125	24.6	272.4	305,500	356,300	34.0	286.8	295,000	443,000	44.5	300.3	278,900	460,200	125
130	15.6	256.7	290,400	293,000	28.3	277.6	280,800	400,000	40.2	294.4	265,600	439,900	130
135					21.1	265.4	267,500	339,200	35.5	287.3	253,300	421,100	135
140					8.1	242.2	254,400	261,100	30.2	278.8	241,700	403,800	140
145									23.6	267.8	230,800	374,500	145
150									13.8	250.7	220,200	305,300	150
155													155
160													160
165													165
170													170
175													175
180													180
185													185
190													190
195													195
200													200
205													205

# MLC650 VPC-MAX S-3

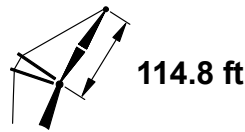
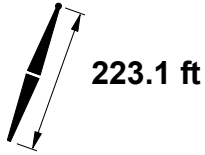
ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
60													60
65													65
70													70
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115	64.6	318.4	279,300	483,900									115
120	61.5	315.6	265,000	460,700									120
125	58.2	312.4	252,000	439,500									125
130	54.9	308.8	239,900	420,000									130
135	51.4	304.7	228,700	402,100									135
140	47.6	300.0	218,400	385,500									140
145	43.7	294.7	208,700	370,100	57.3	305.2	186,200	353,000					145
150	39.3	288.5	199,600	355,700	53.9	301.5	178,100	339,300					150
155	34.5	281.3	191,000	342,300	50.3	297.2	170,400	326,500					155
160	28.9	272.3	182,900	329,800	46.5	292.4	163,300	314,500					160
165	22.0	260.6	175,100	318,000	42.4	286.8	156,500	303,300					165
170	10.6	240.3	167,300	306,800	38.0	280.4	150,000	292,800	52.4	292.0	131,800	278,900	170
175					33.0	272.7	143,900	282,800	48.7	287.6	126,400	269,500	175
180					27.1	263.1	138,000	273,400	44.8	282.4	121,300	260,500	180
185					19.4	250.0	132,200	264,400	40.6	276.6	116,400	252,100	185
190									36.0	269.6	111,700	244,000	190
195									30.7	261.3	107,100	236,400	195
200									24.2	250.6	102,700	229,100	200
205									15.0	234.4	98,200	222,100	205

# MLC650 VPC-MAX S-3

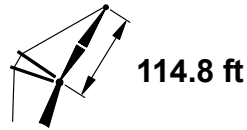
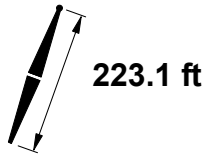
ASME B30.5



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
65	73.3	341.4	631,200 b	631,200 b									65
70	70.6	339.6	604,900 b	613,600 b									70
75	67.9	337.5	558,300 b	595,200 b	72.1	339.7	538,500 b	626,600 b					75
80	65.1	335.1	517,800 b	576,500 b	69.4	337.7	499,400 b	610,100 b					80
85	62.3	332.3	482,400	558,000	66.7	335.5	465,200 b	592,800 b					85
90	59.4	329.3	451,100	539,600	63.9	333.0	435,000	575,000					90
95	56.4	325.9	423,300	521,800	61.0	330.1	408,000	557,300	67.5	334.3	385,300	601,500	95
100	53.2	322.0	398,300	504,600	58.0	326.9	383,900	539,800	64.7	331.9	362,500	585,600	100
105	49.9	317.8	375,800	475,500	55.0	323.3	362,200	522,700	61.9	329.1	341,900	559,300	105
110	46.5	312.9	355,400	448,500	51.8	319.3	342,500	506,300	59.0	326.0	323,200	530,100	110
115	42.8	307.5	336,800	423,900	48.4	314.7	324,600	490,700	55.9	322.5	306,200	503,700	115
120	38.8	301.2	319,700	402,000	44.8	309.6	308,100	475,300	52.8	318.7	290,700	479,600	120
125	34.3	293.9	304,000	382,900	41.0	303.8	293,000	445,500	49.5	314.3	276,400	457,500	125
130	29.3	285.1	289,400	365,700	36.8	297.1	279,000	418,800	46.0	309.4	263,200	437,300	130
135	23.2	273.8	275,800	323,900	32.2	289.2	266,000	391,600	42.2	303.8	251,000	418,600	135
140	14.4	257.0	262,800	267,000	26.7	279.5	253,900	354,800	38.2	297.4	239,600	401,300	140
145					19.8	266.5	242,400	309,200	33.7	289.9	228,900	385,300	145
150					6.7	240.8	230,900	236,400	28.5	280.9	218,900	370,400	150
155									22.2	269.2	209,400	337,000	155
160									12.7	250.8	200,100	279,000	160
165													165
170													170
175													175
180													180
185													185
190													190
195													195
200													200
205													205
210													210
215													215

# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
65													65
70													70
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120	64.2	326.9	261,800	457,600									120
125	61.3	324.0	248,800	436,500									125
130	58.4	320.9	236,800	417,100									130
135	55.3	317.3	225,700	399,300									135
140	52.1	313.3	215,400	382,700									140
145	48.8	308.9	205,900	367,400									145
150	45.2	303.8	196,900	353,200	57.5	313.7	174,800	336,400					150
155	41.4	298.1	188,500	339,900	54.4	310.0	167,300	323,700					155
160	37.3	291.5	180,500	327,400	51.1	305.9	160,200	311,800					160
165	32.7	283.7	173,000	315,700	47.7	301.3	153,500	300,700					165
170	27.4	274.3	165,900	304,700	44.1	296.1	147,100	290,200					170
175	20.6	261.8	159,000	294,300	40.3	290.1	141,200	280,300	53.0	300.7	123,100	266,700	175
180	9.4	239.7	152,000	283,300	36.0	283.2	135,400	271,000	49.8	296.3	118,000	257,800	180
185					31.2	275.0	130,000	262,200	46.3	291.5	113,200	249,400	185
190					25.6	264.9	124,700	253,800	42.6	286.0	108,700	241,500	190
195					18.2	250.9	119,500	245,800	38.5	279.6	104,300	233,900	195
200									34.1	272.3	100,100	226,800	200
205									29.0	263.4	96,000	219,900	205
210									22.8	252.0	92,000	213,400	210
215									13.8	234.6	87,900	207,000	215

# MLC650 VPC-MAX S-3

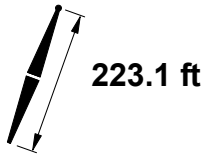
ASME B30.5



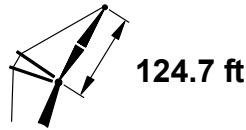
881,800 lb



360°



223.1 ft



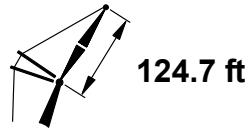
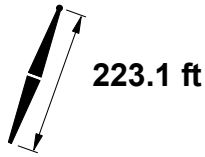
124.7 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
65	74.6	351.8	579,200 b	579,200 b									65
70	72.2	350.1	561,500 b	561,500 b									70
75	69.7	348.2	544,600 b	544,600 b									75
80	67.2	346.0	528,600 b	528,600 b	71.1	348.3	521,800 b	521,800 b					80
85	64.7	343.5	513,400	513,400	68.6	346.3	506,700 b	506,700 b					85
90	62.1	340.8	496,000	503,800	66.1	344.0	479,600	506,700					90
95	59.4	337.8	465,700	503,800	63.5	341.4	450,300	506,700	69.4	345.1	427,300	552,100	95
100	56.6	334.4	438,600	492,900	60.9	338.6	424,000	506,700	66.9	342.8	402,300	552,100	100
105	53.7	330.6	414,200	465,700	58.1	335.4	400,400	506,700	64.3	340.4	379,800	552,100	105
110	50.8	326.5	392,000	439,800	55.3	331.8	378,900	497,200	61.7	337.6	359,400	529,300	110
115	47.6	321.8	371,900	415,700	52.4	327.9	359,400	482,100	59.0	334.5	340,800	503,000	115
120	44.3	316.6	353,400	393,400	49.4	323.5	341,500	467,800	56.2	331.1	323,800	479,000	120
125	40.8	310.8	336,400	373,200	46.2	318.7	325,100	444,100	53.3	327.3	308,200	457,000	125
130	36.9	304.1	320,800	355,200	42.7	313.2	310,000	420,700	50.3	323.0	293,800	436,800	130
135	32.7	296.3	306,200	339,700	39.1	307.0	296,000	398,400	47.2	318.3	280,500	418,300	135
140	27.8	287.0	292,700	327,200	35.1	299.9	282,900	376,500	43.8	313.1	268,100	401,100	140
145	21.9	275.2	279,900	295,900	30.6	291.5	270,700	350,300	40.3	307.1	256,600	385,100	145
150	13.4	257.3	246,400	246,400	25.4	281.2	259,300	319,000	36.4	300.3	245,800	370,300	150
155					18.6	267.4	248,400	285,300	32.1	292.3	235,700	356,400	155
160					5.2	238.6	216,000	216,000	27.1	282.8	226,100	336,500	160
165									21.0	270.4	217,000	304,200	165
170									11.6	250.7	208,100	258,000	170
175													175
180													180
185													185
190													190
195													195
200													200
205													205
210													210
215													215
220													220



# MLC650 VPC-MAX S-3

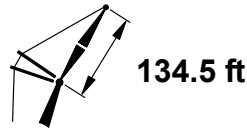
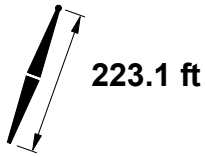
ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
65													65
70													70
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125	63.8	335.3	280,200	435,900									125
130	61.2	332.5	267,000	416,600									130
135	58.4	329.3	254,800	398,800									135
140	55.6	325.8	243,500	382,300									140
145	52.7	322.0	233,000	367,100									145
150	49.7	317.6	223,200	352,900									150
155	46.5	312.8	214,000	339,600	57.6	322.2	192,400	323,300					155
160	43.1	307.4	205,300	327,200	54.8	318.6	184,500	311,500					160
165	39.5	301.3	197,200	315,600	51.9	314.6	177,100	300,400					165
170	35.5	294.3	189,500	304,700	48.8	310.1	170,200	290,000					170
175	31.1	286.1	182,200	294,400	45.5	305.2	163,600	280,200					175
180	26.0	276.0	175,200	284,700	42.1	299.6	157,300	270,900	53.6	309.3	139,600	257,600	180
185	19.5	262.8	168,400	275,500	38.4	293.2	151,400	262,200	50.6	305.1	134,200	249,200	185
190	8.2	238.9	161,500	262,000	34.3	285.9	145,700	253,900	47.5	300.4	129,100	241,300	190
195					29.7	277.2	140,300	246,100	44.1	295.2	124,300	233,900	195
200					24.2	266.4	135,100	238,600	40.6	289.3	119,700	226,800	200
205					17.0	251.6	129,900	231,400	36.7	282.6	115,300	220,000	205
210									32.5	274.7	111,000	213,500	210
215									27.6	265.3	106,900	207,400	215
220									21.6	253.3	102,800	201,400	220

# MLC650 VPC-MAX S-3

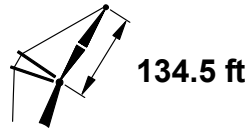
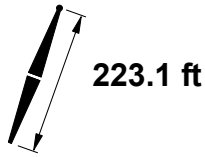
ASME B30.5



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
70	73.6	360.5	543,800 b	543,800 b									70
75	71.3	358.7	528,000 b	528,000 b									75
80	69.0	356.7	513,000	513,000	72.6	358.8	506,400 b	506,400 b					80
85	66.7	354.5	498,600	498,600	70.3	356.9	492,200	492,200					85
90	64.3	352.0	484,900	484,900	68.0	354.8	476,900	481,200					90
95	61.9	349.3	463,300	484,900	65.6	352.5	447,600	481,200					95
100	59.4	346.3	436,300	479,400	63.2	349.9	421,400	481,200	68.7	353.6	399,300	532,700	100
105	56.8	342.9	411,900	454,500	60.8	347.0	397,800	481,200	66.4	351.4	376,800	532,700	105
110	54.2	339.2	389,800	430,500	58.2	343.9	376,400	481,200	64.0	348.8	356,500	523,800	110
115	51.4	335.2	369,700	407,500	55.7	340.4	356,900	469,800	61.5	346.1	338,000	500,100	115
120	48.6	330.7	351,300	385,800	53.0	336.5	339,100	456,300	59.0	343.0	321,000	476,200	120
125	45.6	325.7	334,400	365,700	50.2	332.3	322,800	436,600	56.5	339.6	305,500	454,300	125
130	42.4	320.2	318,800	347,200	47.3	327.6	307,700	413,900	53.8	335.9	291,200	434,200	130
135	39.0	314.0	304,400	330,400	44.2	322.4	293,800	392,600	51.1	331.7	277,900	415,700	135
140	35.3	306.9	290,900	315,600	40.9	316.6	280,800	372,900	48.2	327.2	265,600	398,600	140
145	31.2	298.7	278,400	302,900	37.4	310.0	268,800	355,000	45.2	322.2	254,200	382,700	145
150	26.5	288.9	266,700	292,700	33.5	302.4	257,500	339,100	42.0	316.5	243,500	367,900	150
155	20.8	276.4	255,600	266,300	29.2	293.6	246,800	313,900	38.5	310.2	233,500	354,100	155
160	12.4	257.4	225,200	225,200	24.1	282.8	236,800	286,800	34.8	303.0	224,100	341,200	160
165					17.6	268.2	227,200	257,400	30.6	294.6	215,200	327,700	165
170					2.9	234.3	191,700	191,700	25.8	284.5	206,700	302,400	170
175									19.9	271.5	198,600	274,300	175
180									10.7	250.5	190,600	236,400	180
185													185
190													190
195													195
200													200
205													205
210													210
215													215
220													220
230													230

# MLC650 VPC-MAX S-3

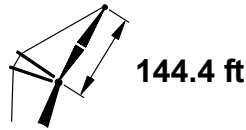
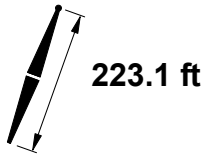
ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
70													70
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130	63.5	343.8	263,900	413,600									130
135	61.0	341.0	251,700	395,900									135
140	58.5	337.8	240,500	379,500									140
145	55.9	334.4	230,000	364,400									145
150	53.3	330.6	220,300	350,200									150
155	50.5	326.4	211,100	337,000									155
160	47.6	321.7	202,600	324,700	57.8	330.7	181,300	308,700					160
165	44.5	316.6	194,500	313,200	55.2	327.2	174,000	297,700					165
170	41.3	310.8	186,900	302,300	52.5	323.2	167,100	287,300					170
175	37.8	304.3	179,700	292,100	49.6	318.9	160,500	277,600					175
180	34.0	296.9	172,900	282,500	46.7	314.1	154,400	268,400					180
185	29.7	288.3	166,400	273,400	43.6	308.8	148,500	259,700	54.0	317.8	130,900	246,500	185
190	24.7	277.7	160,100	264,700	40.3	302.9	143,000	251,500	51.3	313.8	125,900	238,700	190
195	18.4	263.7	154,000	256,500	36.7	296.1	137,700	243,700	48.4	309.3	121,100	231,200	195
200	7.2	237.8	147,700	239,800	32.8	288.4	132,600	236,300	45.4	304.3	116,600	224,200	200
205					28.3	279.2	127,700	229,200	42.2	298.7	112,300	217,500	205
210					23.1	267.9	122,900	222,500	38.8	292.4	108,100	211,100	210
215					16.1	252.2	118,200	216,000	35.1	285.3	104,100	205,000	215
220									31.0	277.1	100,200	199,200	220
230									20.5	254.4	92,800	188,200	230

# MLC650 VPC-MAX S-3

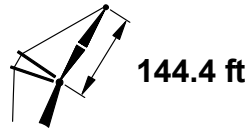
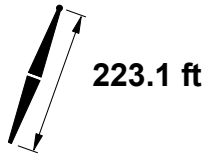
ASME B30.5



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
70	74.7	370.8	509,600 b	509,600 b									70
75	72.6	369.2	509,600 b	509,600 b									75
80	70.5	367.4	502,000	502,000									80
85	68.4	365.3	488,200	488,200	71.7	367.5	481,900	481,900					85
90	66.2	363.0	475,100	475,100	69.6	365.5	468,800	468,800					90
95	64.0	360.5	461,600	463,800	67.4	363.4	445,800	468,800					95
100	61.7	357.8	434,600	463,800	65.2	361.0	419,600	468,800					100
105	59.4	354.7	410,200	442,100	63.0	358.4	396,000	468,800	68.1	362.2	374,800	503,600	105
110	57.0	351.4	388,200	420,100	60.7	355.5	374,600	468,800	65.9	359.9	354,500	503,600	110
115	54.6	347.8	368,100	398,800	58.3	352.3	355,200	459,500	63.7	357.3	336,000	497,300	115
120	52.0	343.8	349,700	378,300	55.9	348.9	337,400	446,800	61.4	354.5	319,100	474,000	120
125	49.4	339.5	332,900	358,900	53.4	345.1	321,100	428,100	59.1	351.5	303,600	452,200	125
130	46.7	334.7	317,300	340,700	50.9	341.0	306,100	406,800	56.7	348.1	289,300	432,200	130
135	43.8	329.4	303,000	323,800	48.2	336.4	292,200	386,500	54.2	344.4	276,100	413,700	135
140	40.7	323.5	289,600	308,300	45.4	331.4	279,300	367,200	51.7	340.4	263,900	396,600	140
145	37.4	317.0	277,200	294,400	42.4	325.9	267,300	349,200	49.0	336.0	252,500	380,800	145
150	33.9	309.5	265,600	282,100	39.3	319.8	256,100	332,500	46.3	331.2	241,900	366,100	150
155	29.9	300.9	254,700	271,600	35.9	312.8	245,600	317,400	43.4	325.8	231,900	352,300	155
160	25.4	290.6	244,400	263,200	32.2	304.9	235,700	304,000	40.3	319.9	222,600	339,500	160
165	19.8	277.5	234,700	241,100	28.0	295.6	226,400	283,100	37.0	313.2	213,800	327,400	165
170	11.6	257.3	207,100	207,100	23.1	284.3	217,600	259,400	33.4	305.6	205,500	312,400	170
175					16.7	269.0	209,000	233,400	29.3	296.8	197,600	296,700	175
180									24.7	286.2	190,100	273,400	180
185									18.9	272.5	182,900	248,600	185
190									9.8	250.1	175,700	216,900	190
195													195
200													200
205													205
210													210
215													215
220													220
230													230
240													240

# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
70													70
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135	63.2	352.3	249,700	393,800									135
140	60.9	349.4	238,400	377,500									140
145	58.6	346.3	228,000	362,400									145
150	56.2	342.9	218,300	348,300									150
155	53.7	339.2	209,200	335,200									155
160	51.1	335.1	200,700	322,900									160
165	48.5	330.6	192,700	311,400	57.9	339.2	171,900	295,800					165
170	45.7	325.6	185,100	300,600	55.5	335.7	165,000	285,400					170
175	42.7	320.2	178,000	290,400	53.0	331.8	158,500	275,700					175
180	39.6	314.1	171,200	280,800	50.4	327.6	152,400	266,600					180
185	36.3	307.2	164,800	271,800	47.7	323.0	146,600	258,000					185
190	32.6	299.4	158,700	263,200	44.8	317.9	141,100	249,800	54.4	326.4	123,800	236,800	190
195	28.5	290.3	152,900	255,000	41.8	312.3	135,900	242,000	51.9	322.4	119,100	229,400	195
200	23.6	279.2	147,300	247,300	38.7	306.0	130,900	234,700	49.3	318.0	114,600	222,400	200
205	17.5	264.6	141,800	239,900	35.2	298.9	126,100	227,700	46.5	313.2	110,300	215,700	205
210	6.0	236.2	136,000	217,400	31.4	290.8	121,500	221,000	43.6	307.9	106,200	209,400	210
215					27.1	281.2	117,100	214,600	40.5	302.0	102,200	203,300	215
220					22.0	269.3	112,800	208,500	37.3	295.4	98,500	197,600	220
230									29.7	279.3	91,300	186,700	230
240									19.5	255.5	84,500	176,700	240

# MLC650 VPC-MAX S-3

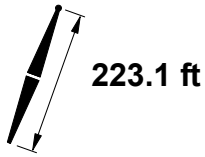
ASME B30.5



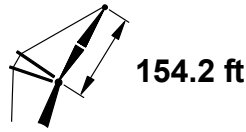
881,800 lb



360°



223.1 ft

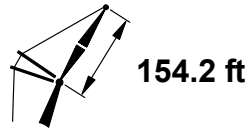
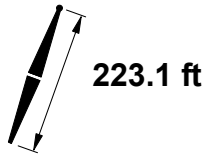


154.2 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
75	73.8	379.6	470,000	470,000									75
80	71.8	377.9	470,000	470,000									80
85	69.8	376.0	468,500	468,500	72.9	377.9	467,100	467,100					85
90	67.8	373.9	463,400	463,400	70.9	376.1	457,300	457,300					90
95	65.8	371.5	451,300	451,300	68.9	374.1	443,100	448,800					95
100	63.7	369.0	432,200	448,100	66.9	371.9	416,900	448,800					100
105	61.6	366.2	407,800	428,700	64.8	369.5	393,400	448,800	69.6	372.9	371,900	458,100	105
110	59.4	363.2	385,800	409,100	62.7	366.9	372,100	448,800	67.5	370.7	351,600	458,100	110
115	57.2	359.9	365,800	389,700	60.6	364.0	352,700	445,700	65.5	368.4	333,200	458,100	115
120	54.9	356.3	347,400	370,800	58.4	360.8	334,900	434,100	63.4	365.8	316,300	458,100	120
125	52.5	352.4	330,600	352,500	56.2	357.4	318,700	418,800	61.3	363.0	300,800	449,500	125
130	50.1	348.2	315,100	335,000	53.8	353.7	303,700	399,400	59.1	359.9	286,600	429,500	130
135	47.6	343.6	300,800	318,600	51.5	349.6	289,800	380,400	56.9	356.6	273,400	411,100	135
140	44.9	338.5	287,500	303,200	49.0	345.2	277,000	362,100	54.6	353.0	261,200	394,100	140
145	42.1	332.9	275,200	289,000	46.4	340.4	265,000	344,700	52.2	349.0	249,900	378,300	145
150	39.2	326.7	263,600	275,900	43.7	335.1	253,900	328,200	49.8	344.8	239,300	363,700	150
155	36.0	319.8	252,800	264,200	40.8	329.3	243,400	312,700	47.2	340.1	229,400	350,000	155
160	32.6	312.0	242,700	253,900	37.8	322.8	233,600	298,600	44.5	334.9	220,100	337,200	160
165	28.8	303.0	233,100	245,200	34.5	315.5	224,400	285,800	41.7	329.3	211,400	325,200	165
170	24.3	292.3	224,000	238,300	30.9	307.2	215,700	274,500	38.8	323.0	203,200	312,300	170
175	18.9	278.5	215,300	218,700	26.9	297.5	207,500	256,300	35.6	316.0	195,400	297,600	175
180	10.8	257.2	189,600	189,600	22.1	285.6	199,600	235,300	32.1	308.1	188,000	284,000	180
185					15.8	269.6	192,000	211,900	28.2	298.8	181,000	268,600	185
190									23.7	287.8	174,300	248,000	190
195									18.0	273.4	167,800	225,900	195
200									9.0	249.5	161,300	196,900	200
205													205
210													210
215													215
220													220
230													230
240													240
250													250

# MLC650 VPC-MAX S-3

ASME B30.5



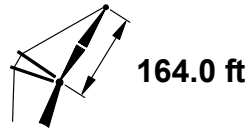
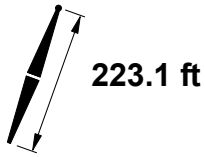
ft	75°				70°				65°				ft
	ft	lb	ft	lb	ft	lb	ft	lb	ft	lb	ft	lb	
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140	63.0	360.8	235,300	374,700									140
145	60.8	357.9	225,000	359,600									145
150	58.6	354.8	215,300	345,600									150
155	56.4	351.4	206,300	332,500									155
160	54.1	347.7	197,800	320,300									160
165	51.7	343.7	189,800	308,900									165
170	49.2	339.3	182,300	298,100	58.0	347.7	161,800	282,800					170
175	46.7	334.6	175,300	288,000	55.7	344.2	155,400	273,100					175
180	44.0	329.3	168,600	278,400	53.4	340.4	149,300	264,000					180
185	41.2	323.6	162,200	269,400	51.0	336.3	143,600	255,400					185
190	38.1	317.2	156,200	260,900	48.5	331.8	138,100	247,300					190
195	34.9	310.0	150,500	252,800	45.9	326.9	133,000	239,600	54.8	335.0	115,800	226,800	195
200	31.3	301.8	145,000	245,100	43.2	321.6	128,000	232,200	52.4	331.0	111,300	219,800	200
205	27.3	292.3	139,700	237,800	40.3	315.6	123,300	225,300	50.0	326.8	107,100	213,200	205
210	22.6	280.7	134,600	230,800	37.2	309.0	118,800	218,700	47.4	322.1	103,100	206,900	210
215	16.6	265.3	129,600	224,200	33.9	301.6	114,500	212,400	44.8	317.0	99,200	200,800	215
220	4.9	234.1	124,300	196,700	30.2	293.0	110,300	206,300	42.0	311.4	95,500	195,100	220
230					21.1	270.6	102,300	195,000	35.9	298.3	88,500	184,400	230
240									28.5	281.3	82,000	174,500	240
250									18.6	256.5	75,700	165,300	250

# MLC650 VPC-MAX S-3

ASME B30.5



881,800 lb

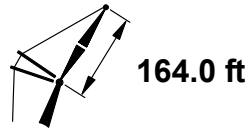
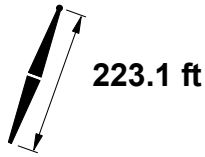


ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
75	74.8	389.9	432,900	432,900									75
80	73.0	388.3	432,900	432,900									80
85	71.1	386.5	432,400	432,400									85
90	69.2	384.6	430,900	430,900	72.1	386.6	430,900	430,900					90
95	67.3	382.4	428,400	428,400	70.3	384.7	430,900	430,900					95
100	65.4	380.1	424,500	424,500	68.4	382.7	416,200	430,900					100
105	63.4	377.5	407,300	413,600	66.5	380.4	392,700	430,900					105
110	61.4	374.7	385,300	396,300	64.5	378.0	371,400	430,900	69.0	381.4	350,700	421,600	110
115	59.4	371.7	365,200	378,900	62.5	375.3	352,000	430,600	67.1	379.3	332,300	421,600	115
120	57.3	368.4	347,000	361,600	60.5	372.5	334,300	424,000	65.1	376.9	315,500	421,600	120
125	55.2	364.9	330,200	344,700	58.5	369.3	318,100	406,900	63.2	374.3	300,100	421,600	125
130	53.0	361.0	314,700	328,300	56.4	365.9	303,100	389,600	61.2	371.5	285,900	421,600	130
135	50.7	356.9	300,400	312,500	54.2	362.3	289,300	372,300	59.1	368.4	272,700	410,000	135
140	48.4	352.4	287,200	297,600	52.0	358.3	276,500	355,200	57.0	365.1	260,600	393,100	140
145	45.9	347.5	274,800	283,600	49.7	354.0	264,600	338,700	54.9	361.5	249,200	377,300	145
150	43.4	342.1	263,300	270,400	47.3	349.3	253,500	322,800	52.7	357.7	238,700	362,700	150
155	40.7	336.3	252,600	258,400	44.8	344.2	243,100	307,700	50.4	353.5	228,800	349,000	155
160	37.8	329.8	242,500	247,300	42.2	338.6	233,300	293,500	48.0	348.9	219,600	336,300	160
165	34.7	322.6	233,000	237,400	39.4	332.5	224,200	280,300	45.6	344.0	210,900	324,300	165
170	31.4	314.4	224,000	228,600	36.5	325.7	215,500	268,200	43.0	338.5	202,700	313,100	170
175	27.7	305.0	215,600	221,200	33.3	318.1	207,400	257,200	40.3	332.6	195,000	298,500	175
180	23.4	293.8	207,500	215,400	29.8	309.5	199,600	247,600	37.4	326.0	187,700	284,900	180
185	18.1	279.4	199,700	200,400	25.8	299.3	192,200	234,200	34.3	318.7	180,800	272,300	185
190	10.0	256.9	175,400	175,400	21.2	286.9	185,200	215,400	30.9	310.4	174,200	260,500	190
195					15.1	270.1	178,300	194,400	27.1	300.8	167,900	245,400	195
200									22.7	289.2	161,800	227,100	200
205									17.2	274.2	156,000	207,300	205
210									8.2	248.8	150,000	180,600	210
215													215
220													220
230													230
240													240
250													250
260													260



# MLC650 VPC-MAX S-3

ASME B30.5



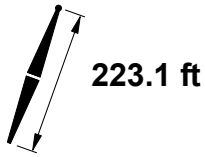
ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140	64.7	371.9	234,400	373,500									140
145	62.8	369.2	224,100	358,500									145
150	60.8	366.4	214,400	344,500									150
155	58.7	363.3	205,400	331,500									155
160	56.6	359.9	197,000	319,300									160
165	54.4	356.3	189,000	307,900									165
170	52.2	352.3	181,600	297,200									170
175	49.9	348.1	174,500	287,100	58.1	356.2	154,400	272,100					175
180	47.5	343.4	167,900	277,600	56.0	352.7	148,400	263,000					180
185	45.1	338.4	161,600	268,600	53.8	349.0	142,700	254,400					185
190	42.5	332.9	155,600	260,100	51.5	345.0	137,300	246,400					190
195	39.7	326.8	149,900	252,100	49.2	340.6	132,100	238,700					195
200	36.8	320.1	144,500	244,400	46.8	335.9	127,200	231,400					200
205	33.6	312.6	139,300	237,200	44.3	330.7	122,600	224,500	52.9	339.7	106,100	212,200	205
210	30.2	304.1	134,400	230,200	41.7	325.0	118,100	217,900	50.6	335.5	102,100	205,900	210
215	26.3	294.1	129,600	223,600	38.9	318.8	113,900	211,600	48.2	331.0	98,300	200,000	215
220	21.7	282.1	125,000	217,300	35.9	311.9	109,800	205,600	45.8	326.0	94,600	194,300	220
230	3.4	230.6	115,400	178,900	29.1	295.2	102,000	194,400	40.5	314.8	87,800	183,600	230
240					20.2	271.7	94,700	184,100	34.6	301.0	81,400	173,800	240
250									27.5	283.3	75,400	164,800	250
260									17.8	257.4	69,600	156,400	260

# MLC650 VPC-MAX S-3

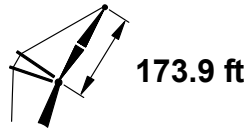
ASME B30.5



881,800 lb



223.1 ft

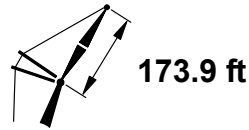
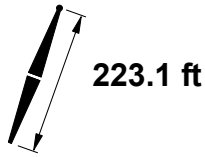


173.9 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
80	74.0	398.6	400,600	400,600									80
85	72.2	397.0	400,000	400,000									85
90	70.5	395.1	399,100	399,100									90
95	68.7	393.1	397,800	397,800	71.4	395.2	398,300	398,300					95
100	66.9	390.9	395,600	395,600	69.7	393.3	398,300	398,300					100
105	65.1	388.6	392,300	392,300	67.9	391.2	390,000	398,300					105
110	63.2	386.0	382,400	382,400	66.1	389.0	368,800	398,300					110
115	61.3	383.2	362,900	367,100	64.2	386.5	349,400	398,300	68.4	390.0	329,400	388,900	115
120	59.4	380.2	344,600	351,600	62.4	383.8	331,800	397,500	66.6	387.8	312,700	388,900	120
125	57.4	376.9	327,800	336,200	60.5	380.9	315,600	393,700	64.8	385.4	297,300	388,900	125
130	55.4	373.4	312,400	321,100	58.5	377.8	300,600	378,500	63.0	382.8	283,100	388,900	130
135	53.4	369.6	298,100	306,400	56.5	374.4	286,800	363,200	61.1	380.0	270,000	388,900	135
140	51.2	365.6	284,900	292,300	54.5	370.8	274,100	347,800	59.1	376.9	257,900	388,900	140
145	49.1	361.2	272,600	278,800	52.4	366.9	262,200	332,600	57.2	373.6	246,600	374,900	145
150	46.8	356.4	261,200	266,100	50.3	362.7	251,100	317,700	55.2	370.1	236,100	360,300	150
155	44.4	351.3	250,500	254,100	48.0	358.1	240,700	303,300	53.1	366.3	226,200	346,700	155
160	41.9	345.6	240,400	243,000	45.7	353.2	231,000	289,600	50.9	362.1	217,000	333,900	160
165	39.3	339.5	231,000	232,700	43.3	347.9	221,900	276,600	48.7	357.7	208,400	322,000	165
170	36.6	332.7	222,100	223,300	40.8	342.0	213,300	264,400	46.5	352.9	200,200	310,800	170
175	33.6	325.2	213,700	214,900	38.1	335.6	205,200	253,100	44.1	347.7	192,600	297,400	175
180	30.3	316.7	205,700	207,500	35.3	328.5	197,500	242,800	41.6	342.0	185,300	283,900	180
185	26.7	307.0	198,100	201,300	32.2	320.6	190,300	233,400	39.0	335.8	178,400	271,300	185
190	22.5	295.3	190,900	196,400	28.8	311.6	183,300	225,100	36.2	328.9	171,900	259,600	190
195	17.3	280.3	182,500	182,500	24.9	301.1	176,700	213,200	33.2	321.3	165,700	248,600	195
200	9.3	256.5	159,400	159,400	20.4	288.2	170,400	196,300	29.9	312.6	159,800	238,300	200
205					14.3	270.6	164,200	177,200	26.2	302.6	154,100	223,500	205
210									21.9	290.6	148,600	207,100	210
215									16.5	275.0	143,300	189,100	215
220									7.4	247.9	137,800	164,300	220
230													230
240													240
250													250
260													260
270													270

# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°				65°				ft
	ft	lb	ft	lb	ft	lb	ft	lb	ft	lb	ft	lb	
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145	64.4	380.4	221,000	355,800									145
150	62.6	377.7	211,400	341,900									150
155	60.7	374.9	202,400	328,900									155
160	58.7	371.8	194,000	316,700									160
165	56.8	368.4	186,100	305,400									165
170	54.7	364.8	178,700	294,700									170
175	52.7	361.0	171,700	284,600									175
180	50.5	356.8	165,100	275,200	58.2	364.7	145,300	260,400					180
185	48.3	352.3	158,800	266,200	56.2	361.3	139,600	251,900					185
190	46.0	347.4	152,900	257,800	54.1	357.6	134,200	243,800					190
195	43.6	342.1	147,300	249,800	52.0	353.6	129,100	236,200					195
200	41.1	336.3	141,900	242,200	49.9	349.4	124,300	228,900					200
205	38.4	330.0	136,800	234,900	47.6	344.7	119,700	222,000					205
210	35.6	323.0	131,900	228,000	45.3	339.7	115,200	215,500	53.3	348.3	98,900	203,400	210
215	32.5	315.1	127,200	221,500	42.9	334.3	111,000	209,300	51.1	344.2	95,200	197,400	215
220	29.2	306.3	122,700	215,200	40.3	328.4	107,000	203,300	48.9	339.8	91,500	191,800	220
230	20.9	283.3	114,100	203,500	34.7	314.6	99,400	192,200	44.3	329.8	84,700	181,200	230
240					28.1	297.2	92,300	181,900	39.2	318.0	78,500	171,500	240
250					19.4	272.8	85,600	172,500	33.4	303.6	72,600	162,500	250
260									26.5	285.2	67,100	154,200	260
270									17.0	258.2	61,800	146,400	270

# MLC650 VPC-MAX S-3

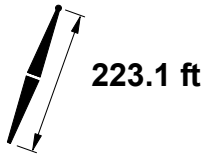
ASME B30.5



881,800 lb



360°



223.1 ft

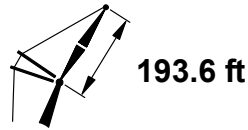
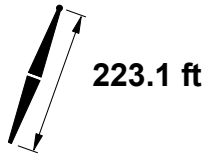


193.6 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
85	74.1	417.7	340,700	340,700									85
90	72.5	416.1	340,600	340,600									90
95	71.0	414.3	339,800	339,800									95
100	69.4	412.4	339,100	339,100	71.8	414.4	337,600	337,600					100
105	67.8	410.3	337,900	337,900	70.3	412.5	337,600	337,600					105
110	66.2	408.0	336,500	336,500	68.7	410.5	337,600	337,600					110
115	64.5	405.6	334,200	334,200	67.1	408.3	337,600	337,600					115
120	62.8	402.9	329,500	329,500	65.4	406.0	328,400	337,600	69.2	409.2	308,900	326,900	120
125	61.1	400.1	317,500	317,500	63.8	403.5	312,300	337,600	67.6	407.1	293,500	326,900	125
130	59.4	397.1	305,400	305,400	62.1	400.8	297,400	337,000	65.9	404.8	279,400	326,900	130
135	57.7	393.9	293,200	293,200	60.4	397.9	283,600	335,900	64.3	402.4	266,400	326,900	135
140	55.9	390.5	281,100	281,100	58.6	394.8	270,900	329,900	62.6	399.7	254,300	326,900	140
145	54.0	386.8	269,300	269,300	56.9	391.5	259,000	317,800	60.9	396.9	243,100	326,900	145
150	52.1	382.8	257,800	257,800	55.0	387.9	248,000	305,500	59.2	393.9	232,600	326,900	150
155	50.2	378.6	246,700	246,700	53.2	384.1	237,700	293,300	57.4	390.6	222,800	326,900	155
160	48.2	374.1	236,100	236,100	51.3	380.0	228,100	281,300	55.6	387.1	213,700	326,900	160
165	46.1	369.2	226,100	226,100	49.3	375.7	219,000	269,600	53.8	383.4	205,100	318,800	165
170	44.0	364.0	216,600	216,600	47.3	371.0	210,500	258,200	51.9	379.4	197,000	307,600	170
175	41.8	358.4	207,600	207,600	45.2	366.0	202,400	247,400	49.9	375.2	189,400	296,600	175
180	39.4	352.3	199,400	199,400	43.0	360.6	194,800	237,000	47.9	370.6	182,200	283,100	180
185	37.0	345.6	191,700	191,700	40.7	354.8	187,600	227,200	45.9	365.7	175,400	270,500	185
190	34.4	338.3	184,800	184,800	38.3	348.4	180,800	218,000	43.7	360.4	168,900	258,800	190
195	31.5	330.2	178,600	178,600	35.8	341.5	174,300	209,500	41.5	354.7	162,800	247,900	195
200	28.4	321.0	173,000	173,000	33.1	333.8	168,200	201,700	39.1	348.6	157,000	237,700	200
205	25.0	310.5	168,500	168,500	30.2	325.3	162,300	194,700	36.6	341.8	151,400	228,100	205
210	21.0	297.9	163,600	165,100	26.9	315.6	156,600	188,500	34.0	334.4	146,100	219,000	210
215	16.0	281.7	153,600	153,600	23.3	304.2	151,200	179,300	31.1	326.2	141,000	210,500	215
220	8.0	255.2	133,500	133,500	18.9	290.3	146,000	165,300	28.0	316.8	136,100	201,200	220
230									20.4	293.1	126,900	174,700	230
240									5.9	245.3	117,700	137,600	240
250													250
260													260
270													270
280													280
290													290

# MLC650 VPC-MAX S-3

ASME B30.5



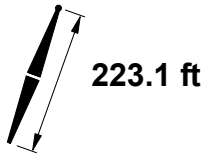
ft	75°				70°				65°				ft
	ft	ft	lb	lb	ft	ft	lb	lb	ft	ft	lb	lb	
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155	63.9	397.4	198,400	304,300									155
160	62.3	394.7	190,000	304,300									160
165	60.6	391.8	182,200	301,800									165
170	58.8	388.7	174,900	291,200									170
175	57.0	385.4	167,900	281,200									175
180	55.2	381.9	161,400	271,800									180
185	53.4	378.1	155,200	262,900									185
190	51.5	374.1	149,300	254,500	58.3	381.6	130,100	240,200					190
195	49.5	369.8	143,700	246,500	56.5	378.3	125,100	232,700					195
200	47.5	365.2	138,400	239,000	54.7	374.7	120,300	225,500					200
205	45.4	360.2	133,400	231,800	52.8	370.8	115,700	218,600					205
210	43.3	354.8	128,600	225,000	50.9	366.7	111,400	212,200					210
215	41.0	349.0	124,000	218,500	48.9	362.3	107,200	206,000					215
220	38.6	342.8	119,600	212,300	46.9	357.6	103,300	200,100	53.9	365.4	87,300	188,200	220
225	36.2	336.2	115,400	206,400	44.9	352.8	99,600	194,400	50.1	357.2	80,700	177,800	225
230	33.4	328.3	111,300	200,700	42.6	347.0	95,800	189,000	46.0	347.8	74,500	168,200	230
240	27.3	310.3	103,700	190,100	37.9	334.7	89,000	178,900	41.7	336.9	68,800	159,300	240
250	19.4	285.6	96,400	179,500	32.6	319.8	82,600	169,600	36.8	324.1	63,600	151,200	250
260					26.3	301.1	76,600	161,000	31.4	308.6	58,600	143,600	260
270					18.0	274.8	70,900	153,000	24.8	288.7	53,900	136,500	270
280									15.7	259.6	49,300	129,900	280
290													290

# MLC650 VPC-MAX S-3

ASME B30.5



881,800 lb



223.1 ft

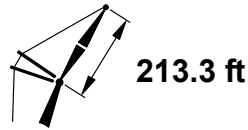
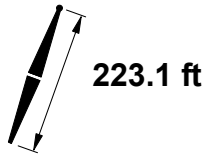


213.3 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
90	74.2	436.7	289,900	289,900									90
95	72.8	435.1	289,900	289,900									95
100	71.4	433.4	289,500	289,500									100
105	69.9	431.5	288,900	288,900	72.2	433.5	286,800	286,800					105
110	68.5	429.5	287,900	287,900	70.7	431.7	286,800	286,800					110
115	67.0	427.4	286,800	286,800	69.3	429.7	286,800	286,800					115
120	65.5	425.0	285,500	285,500	67.8	427.6	286,800	286,800					120
125	64.0	422.6	284,200	284,200	66.4	425.4	286,800	286,800	69.7	428.4	277,500	277,500	125
130	62.5	419.9	282,200	282,200	64.9	423.0	286,800	286,800	68.3	426.4	275,700	277,500	130
135	61.0	417.1	275,100	275,100	63.4	420.5	280,400	286,500	66.8	424.2	262,700	277,500	135
140	59.4	414.1	265,600	265,600	61.8	417.7	267,700	285,800	65.3	421.9	250,700	277,500	140
145	57.8	410.9	256,100	256,100	60.3	414.8	255,800	284,900	63.8	419.4	239,500	277,500	145
150	56.2	407.5	246,500	246,500	58.7	411.7	244,800	283,800	62.3	416.7	229,100	277,500	150
155	54.5	403.9	237,100	237,100	57.1	408.5	234,600	277,900	60.8	413.9	219,300	277,500	155
160	52.9	400.0	227,900	227,900	55.5	405.0	225,000	268,300	59.2	410.8	210,200	277,500	160
165	51.1	396.0	218,900	218,900	53.8	401.3	215,900	258,700	57.6	407.6	201,700	277,500	165
170	49.3	391.6	210,200	210,200	52.1	397.3	207,400	249,200	56.0	404.2	193,600	277,500	170
175	47.5	387.0	201,900	201,900	50.3	393.1	199,400	239,800	54.3	400.5	186,000	277,500	175
180	45.6	382.1	193,800	193,800	48.5	388.7	191,900	230,500	52.6	396.7	178,900	277,500	180
185	43.7	376.8	186,300	186,300	46.7	383.9	184,700	221,600	50.9	392.6	172,100	269,500	185
190	41.6	371.1	179,100	179,100	44.8	378.8	178,000	212,900	49.1	388.2	165,700	257,700	190
195	39.5	365.0	172,400	172,400	42.8	373.4	171,500	204,600	47.3	383.5	159,600	246,700	195
200	37.3	358.5	166,100	166,100	40.7	367.5	165,400	196,700	45.4	378.5	153,900	236,500	200
205	35.0	351.3	160,300	160,300	38.5	361.2	159,600	189,300	43.4	373.2	148,400	226,800	205
210	32.5	343.5	155,100	155,100	36.3	354.4	154,100	182,300	41.4	367.5	143,100	217,800	210
215	29.8	334.8	150,300	150,300	33.9	346.9	148,800	175,800	39.2	361.3	138,100	209,300	215
220	26.8	325.0	146,200	146,200	31.3	338.7	143,700	169,800	37.0	354.7	133,300	201,200	220
230	19.7	300.3	140,300	140,300	25.4	319.2	134,100	159,700	32.1	339.5	124,300	186,400	230
240	6.7	253.2	111,500	111,500	17.6	292.2	125,200	139,800	26.4	320.7	116,000	170,300	240
250									19.1	295.4	108,200	148,000	250
260									4.2	241.1	100,300	114,600	260
270													270
280													280
290													290
300													300
310													310

# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160													160
165	63.5	414.3	178,300	260,300									165
170	62.0	411.6	171,000	260,300									170
175	60.5	408.8	164,100	260,300									175
180	58.9	405.7	157,600	260,300									180
185	57.3	402.4	151,400	259,500									185
190	55.6	399.0	145,600	251,200									190
195	54.0	395.3	140,100	243,300	60.0	401.7	120,900	229,100					195
200	52.3	391.4	134,800	235,800	58.4	398.6	116,200	222,000					200
205	50.5	387.2	129,800	228,700	56.8	395.3	111,700	215,200					205
210	48.7	382.8	125,100	221,900	55.2	391.8	107,400	208,800					210
215	46.9	378.0	120,500	215,400	53.5	388.0	103,300	202,600					215
220	45.0	373.0	116,200	209,300	51.8	384.0	99,400	196,800					220
230	40.9	361.8	108,100	197,800	48.2	375.3	92,100	185,900	54.5	382.5	76,500	174,300	230
240	36.5	348.8	100,600	187,200	44.4	365.3	85,300	175,800	51.0	374.6	70,500	164,800	240
250	31.6	333.3	93,600	177,500	40.3	353.9	79,100	166,600	47.4	365.6	64,900	156,100	250
260	25.7	314.0	87,100	168,600	35.8	340.5	73,300	158,100	43.6	355.3	59,700	148,000	260
270	18.2	287.7	80,900	152,600	30.8	324.6	67,900	150,200	39.4	343.5	54,900	140,500	270
280					24.8	304.6	62,800	142,900	34.8	329.7	50,400	133,600	280
290					16.7	276.5	57,800	136,000	29.6	313.1	46,100	127,100	290
300									23.3	291.9	42,100	121,000	300
310									14.5	260.6	38,000	115,200	310

# MLC650 VPC-MAX S-3

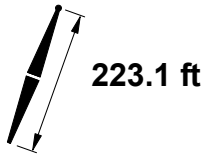
ASME B30.5



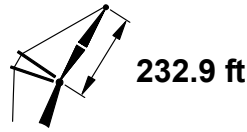
881,800 lb



360°



223.1 ft



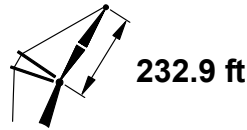
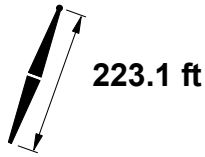
232.9 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
95	74.3	455.8	263,900	263,900									95
100	73.0	454.2	263,600	263,600									100
105	71.7	452.5	263,200	263,200									105
110	70.4	450.7	262,600	262,600	72.4	452.5	260,200	260,200					110
115	69.1	448.7	261,800	261,800	71.1	450.8	260,200	260,200					115
120	67.8	446.7	260,800	260,800	69.8	448.9	260,200	260,200					120
125	66.4	444.4	259,700	259,700	68.5	446.9	260,200	260,200					125
130	65.0	442.1	258,400	258,400	67.1	444.7	260,200	260,200					130
135	63.7	439.5	257,100	257,100	65.8	442.5	260,000	260,000	68.9	445.6	251,700	251,700	135
140	62.3	436.9	254,900	254,900	64.4	440.0	259,400	259,400	67.6	443.5	244,500	251,700	140
145	60.9	434.0	246,900	246,900	63.0	437.4	250,300	258,800	66.2	441.3	233,400	251,700	145
150	59.4	431.0	238,700	238,700	61.6	434.7	239,300	258,000	64.9	438.9	223,000	251,700	150
155	58.0	427.9	230,600	230,600	60.2	431.8	229,100	257,100	63.5	436.4	213,400	251,700	155
160	56.5	424.5	222,400	222,400	58.8	428.7	219,500	256,100	62.1	433.7	204,300	251,700	160
165	55.0	421.0	214,400	214,400	57.3	425.4	210,500	251,400	60.7	430.8	195,800	251,700	165
170	53.4	417.2	206,500	206,500	55.8	422.0	202,100	243,200	59.2	427.8	187,800	251,700	170
175	51.9	413.2	198,700	198,700	54.3	418.4	194,100	235,100	57.8	424.6	180,300	251,700	175
180	50.3	409.0	191,200	191,200	52.7	414.5	186,600	226,900	56.3	421.2	173,200	251,700	180
185	48.6	404.6	184,000	184,000	51.2	410.5	179,500	218,800	54.8	417.6	166,500	251,700	185
190	46.9	399.9	177,100	177,100	49.5	406.1	172,800	210,900	53.2	413.8	160,100	251,700	190
195	45.2	394.9	170,500	170,500	47.9	401.6	166,400	203,100	51.7	409.8	154,100	242,500	195
200	43.4	389.5	164,200	164,200	46.2	396.7	160,400	195,600	50.0	405.6	148,400	232,300	200
205	41.5	383.9	158,200	158,200	44.4	391.6	154,600	188,400	48.4	401.1	142,900	222,800	205
210	39.6	377.8	152,600	152,600	42.6	386.1	149,100	181,400	46.7	396.4	137,700	213,900	210
215	37.6	371.3	147,300	147,300	40.7	380.3	143,900	174,800	44.9	391.3	132,800	205,400	215
220	35.5	364.3	142,400	142,400	38.7	374.0	138,900	168,500	43.1	386.0	128,000	197,500	220
230	30.8	348.3	133,800	133,800	34.5	360.0	129,500	157,100	39.3	374.1	119,200	182,900	230
240	25.4	328.7	127,000	127,000	29.7	343.3	120,800	147,300	35.2	360.4	111,000	169,800	240
250	18.5	302.4	118,400	118,400	24.0	322.6	112,800	136,100	30.5	344.2	103,500	157,700	250
260	5.4	250.3	90,900	90,900	16.5	293.9	105,200	116,500	25.0	324.3	96,400	142,800	260
270									17.9	297.4	89,800	123,800	270
280													280
290													290
300													300
310													310
320													320
330													330



# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160													160
165													165
170	64.6	433.9	164,400	231,600									170
175	63.2	431.3	157,600	231,600									175
180	61.8	428.6	151,100	231,600									180
185	60.4	425.7	145,000	231,600									185
190	58.9	422.7	139,300	231,600									190
195	57.5	419.4	133,800	231,600									195
200	56.0	416.0	128,600	230,700									200
205	54.5	412.4	123,700	223,700	60.0	418.7	104,900	209,800					205
210	52.9	408.6	119,000	216,900	58.5	415.6	100,700	203,400					210
215	51.3	404.5	114,500	210,500	57.0	412.3	96,700	197,300					215
220	49.7	400.2	110,200	204,400	55.5	408.8	92,800	191,500					220
230	46.3	390.9	102,200	193,000	52.4	401.3	85,600	180,700					230
240	42.8	380.3	94,900	182,600	49.2	392.8	79,000	170,800	54.9	399.6	63,600	159,400	240
250	38.9	368.3	88,100	173,000	45.8	383.3	72,900	161,700	51.8	391.8	58,200	150,800	250
260	34.7	354.4	81,800	164,100	42.2	372.5	67,300	153,300	48.5	383.2	53,100	142,800	260
270	30.0	337.9	75,900	155,900	38.3	360.3	62,000	145,500	45.1	373.4	48,500	135,500	270
280	24.4	317.5	70,300	145,900	34.0	346.0	57,100	138,300	41.4	362.4	44,100	128,600	280
290	17.0	289.4	65,000	128,100	29.2	329.1	52,400	131,500	37.5	349.8	40,000	122,200	290
300					23.4	307.8	48,000	125,200	33.1	335.0	36,100	116,200	300
310					15.7	277.9	43,700	119,200	28.1	317.4	32,500	110,600	310
320									22.0	294.9	28,900	105,300	320
330									13.5	261.5	25,400	100,300	330

# MLC650 VPC-MAX S-3

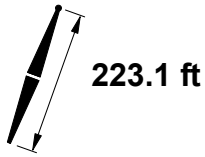
ASME B30.5



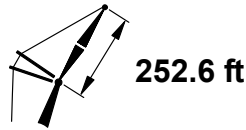
881,800 lb



360°



223.1 ft



252.6 ft

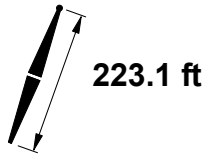
ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
100	74.4	474.8	227,400	227,400									100
105	73.2	473.3	227,000	227,000									105
110	72.0	471.6	226,600	226,600									110
115	70.8	469.8	225,900	225,900	72.7	471.6	223,700	223,700					115
120	69.6	467.9	225,200	225,200	71.5	469.9	223,700	223,700					120
125	68.4	465.9	224,300	224,300	70.2	468.1	223,700	223,700					125
130	67.1	463.8	223,300	223,300	69.0	466.1	223,500	223,500					130
135	65.9	461.5	222,300	222,300	67.8	464.0	223,200	223,200					135
140	64.6	459.1	221,100	221,100	66.6	461.8	222,800	222,800	69.4	464.8	215,400	215,400	140
145	63.3	456.5	219,900	219,900	65.3	459.5	222,300	222,300	68.2	462.8	215,400	215,400	145
150	62.1	453.8	218,600	218,600	64.0	457.0	221,700	221,700	66.9	460.6	215,400	215,400	150
155	60.8	451.0	215,500	215,500	62.8	454.4	221,000	221,000	65.7	458.3	209,600	215,400	155
160	59.4	448.0	208,900	208,900	61.5	451.6	216,200	220,300	64.4	455.9	200,600	215,400	160
165	58.1	444.8	202,400	202,400	60.2	448.7	207,200	219,400	63.2	453.3	192,100	215,400	165
170	56.7	441.5	195,800	195,800	58.8	445.7	198,800	218,500	61.9	450.6	184,200	215,400	170
175	55.3	438.0	189,200	189,200	57.5	442.4	190,800	217,600	60.6	447.8	176,700	215,400	175
180	53.9	434.3	182,800	182,800	56.1	439.0	183,400	214,300	59.2	444.7	169,600	215,400	180
185	52.5	430.5	176,400	176,400	54.7	435.5	176,300	207,700	57.9	441.6	162,900	215,400	185
190	51.0	426.4	170,200	170,200	53.3	431.7	169,600	201,100	56.5	438.2	156,600	215,400	190
195	49.5	422.1	164,200	164,200	51.8	427.7	163,300	194,500	55.2	434.7	150,600	215,400	195
200	48.0	417.5	158,400	158,400	50.4	423.5	157,200	188,100	53.7	431.0	144,900	215,400	200
205	46.4	412.7	152,800	152,800	48.9	419.1	151,500	181,600	52.3	427.1	139,500	215,400	205
210	44.8	407.7	147,500	147,500	47.3	414.5	146,000	175,400	50.8	423.0	134,400	211,300	210
215	43.2	402.3	142,300	142,300	45.7	409.6	140,800	169,300	49.3	418.6	129,400	202,900	215
220	41.4	396.6	137,500	137,500	44.1	404.4	135,800	163,500	47.8	414.1	124,700	195,000	220
230	37.8	384.1	128,400	128,400	40.7	393.0	126,500	152,400	44.6	404.1	116,000	180,400	230
240	33.8	369.7	120,600	120,600	36.9	380.1	118,000	142,300	41.2	393.0	107,900	167,400	240
250	29.4	352.8	114,000	114,000	32.9	365.2	110,100	133,500	37.5	380.3	100,400	155,600	250
260	24.2	332.1	108,800	108,800	28.3	347.6	102,700	125,800	33.5	365.8	93,500	144,700	260
270	17.5	304.3	99,400	99,400	22.8	325.7	95,900	114,900	29.0	348.7	87,100	134,700	270
280	4.0	246.0	74,000	74,000	15.6	295.3	89,300	97,800	23.8	327.6	81,100	120,900	280
290									16.9	299.1	75,300	104,400	290
300													300
310													310
320													320
330													330
340													340
350													350

# MLC650 VPC-MAX S-3

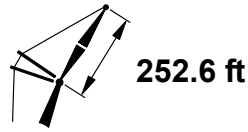
ASME B30.5



881,800 lb



223.1 ft



252.6 ft

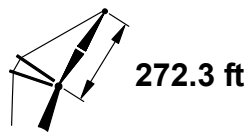
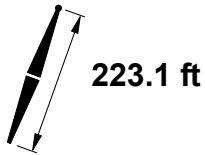
ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160													160
165													165
170													170
175													175
180	64.2	450.9	147,100	198,600									180
185	62.9	448.3	141,100	198,600									185
190	61.6	445.6	135,300	198,600									190
195	60.3	442.7	129,900	198,600									195
200	59.0	439.6	124,800	198,600									200
205	57.6	436.4	119,900	198,600									205
210	56.3	433.0	115,200	198,600									210
215	54.9	429.5	110,800	198,600	59.9	435.6	92,500	180,000					215
220	53.4	425.7	106,500	198,600	58.6	432.6	88,700	180,000					220
230	50.5	417.6	98,600	189,900	55.9	425.9	81,600	177,400					230
240	47.5	408.6	91,300	179,600	53.0	418.4	75,100	167,500					240
250	44.3	398.6	84,600	170,000	50.1	410.2	69,000	158,500					250
260	40.8	387.3	78,400	161,200	47.0	401.1	63,500	150,200	52.4	409.1	49,000	139,500	260
270	37.2	374.5	72,600	153,100	43.8	390.8	58,300	142,500	49.5	400.7	44,400	132,200	270
280	33.1	359.7	67,200	143,900	40.3	379.4	53,500	135,300	46.4	391.3	40,100	125,400	280
290	28.6	342.3	62,100	134,000	36.6	366.3	49,000	128,600	43.1	380.8	36,100	119,100	290
300	23.2	320.7	57,300	124,900	32.5	351.2	44,700	122,400	39.6	369.1	32,400	113,200	300
310	16.0	290.9	52,600	108,500	27.8	333.3	40,700	116,500	35.8	355.6	28,800	107,700	310
320					22.3	310.8	36,800	111,000	31.6	340.0	25,500	102,500	320
330					14.7	279.0	33,000	105,800	26.8	321.3	22,300	97,600	330
340									20.9	297.6		92,900	340
350									12.5	262.0		88,400	350

# MLC650 VPC-MAX S-3

ASME B30.5



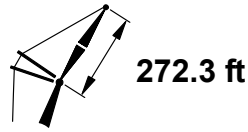
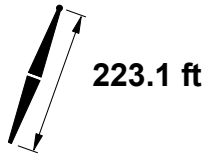
881,800 lb



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
105	74.4	493.9	197,800	197,800									105
110	73.3	492.4	196,900	196,900									110
115	72.2	490.7	196,400	196,400									115
120	71.1	489.0	195,700	195,700	72.8	490.7	194,100	194,100					120
125	70.0	487.1	195,000	195,000	71.7	489.0	194,100	194,100					125
130	68.9	485.1	194,200	194,200	70.6	487.2	193,900	193,900					130
135	67.7	483.1	193,300	193,300	69.5	485.3	193,600	193,600					135
140	66.6	480.9	192,400	192,400	68.4	483.3	193,300	193,300					140
145	65.4	478.5	191,300	191,300	67.2	481.2	192,800	192,800	69.8	484.0	186,900	186,900	145
150	64.2	476.1	190,300	190,300	66.1	478.9	192,300	192,300	68.7	482.0	186,900	186,900	150
155	63.1	473.5	189,100	189,100	64.9	476.5	191,700	191,700	67.6	479.9	186,900	186,900	155
160	61.9	470.8	188,000	188,000	63.7	474.0	191,000	191,000	66.4	477.7	186,900	186,900	160
165	60.7	467.9	186,700	186,700	62.5	471.4	190,300	190,300	65.3	475.4	186,900	186,900	165
170	59.4	464.9	183,100	183,100	61.3	468.6	189,500	189,500	64.1	472.9	181,800	186,900	170
175	58.2	461.8	177,800	177,800	60.1	465.7	188,700	188,700	62.9	470.3	174,300	186,900	175
180	56.9	458.5	172,400	172,400	58.9	462.6	181,300	187,900	61.7	467.6	167,300	186,900	180
185	55.7	455.1	167,100	167,100	57.6	459.4	174,300	186,900	60.5	464.7	160,600	186,900	185
190	54.4	451.4	161,900	161,900	56.4	456.1	167,600	186,000	59.3	461.7	154,400	186,900	190
195	53.0	447.6	156,600	156,600	55.1	452.5	161,300	183,300	58.0	458.5	148,400	186,900	195
200	51.7	443.6	151,500	151,500	53.8	448.8	155,300	178,000	56.8	455.2	142,700	186,600	200
205	50.3	439.5	146,600	146,600	52.4	444.9	149,600	172,700	55.5	451.7	137,300	186,200	205
210	48.9	435.1	141,700	141,700	51.1	440.9	144,100	167,400	54.2	448.1	132,200	185,800	210
215	47.5	430.4	137,100	137,100	49.7	436.6	138,900	162,200	52.8	444.3	127,300	185,300	215
220	46.0	425.6	132,500	132,500	48.3	432.1	134,000	157,000	51.5	440.3	122,700	184,800	220
230	43.0	415.1	124,000	124,000	45.3	422.4	124,800	147,100	48.7	431.6	113,900	179,200	230
240	39.7	403.3	116,200	116,200	42.2	411.6	116,300	137,800	45.8	422.1	105,900	166,000	240
250	36.2	390.1	109,200	109,200	39.0	399.5	108,500	129,100	42.7	411.5	98,600	154,200	250
260	32.4	374.9	103,100	103,100	35.4	385.9	101,200	121,200	39.5	399.6	91,700	143,400	260
270	28.1	357.1	97,900	97,900	31.5	370.2	94,500	114,200	36.0	386.3	85,400	133,500	270
280	23.0	335.3	93,900	93,900	27.0	351.7	88,200	108,300	32.1	370.9	79,500	124,400	280
290	16.5	306.0	84,000	84,000	21.8	328.6	82,200	97,700	27.8	352.9	73,900	116,000	290
300	1.8	236.7	59,100	59,100	14.7	296.5	76,500	82,700	22.7	330.7	68,700	103,200	300
310									16.0	300.6	63,700	88,700	310
320													320
330													330
340													340
350													350
360													360
370													370

# MLC650 VPC-MAX S-3

ASME B30.5



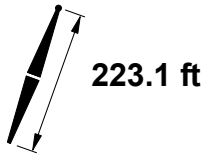
ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160													160
165													165
170													170
175													175
180													180
185													185
190	63.8	467.9	132,700	173,000									190
195	62.7	465.3	127,300	173,000									195
200	61.5	462.5	122,200	173,000									200
205	60.2	459.6	117,300	173,000									205
210	59.0	456.6	112,700	173,000									210
215	57.8	453.4	108,300	173,000									215
220	56.5	450.0	104,100	173,000									220
230	53.9	442.8	96,200	173,000	58.6	449.5	78,800	157,100					230
240	51.2	434.9	89,000	173,000	56.1	442.9	72,400	157,100					240
250	48.4	426.2	82,300	168,000	53.5	435.6	66,400	156,300					250
260	45.5	416.5	76,200	159,300	50.8	427.6	60,900	148,000					260
270	42.4	405.8	70,500	151,200	48.0	418.7	55,900	140,400	53.0	426.3	41,700	129,900	270
280	39.1	393.9	65,200	142,500	45.1	408.9	51,100	133,300	50.2	418.1	37,400	123,200	280
290	35.6	380.3	60,200	132,800	42.0	398.0	46,700	126,700	47.4	409.0	33,500	116,900	290
300	31.7	364.7	55,500	123,800	38.6	385.8	42,500	120,500	44.4	399.0	29,800	111,100	300
310	27.3	346.4	51,100	115,500	35.0	372.0	38,600	114,700	41.3	387.9	26,400	105,600	310
320	22.1	323.6	46,900	107,100	31.1	356.1	34,900	109,300	37.9	375.4	23,100	100,500	320
330	15.1	292.2	42,800	92,600	26.6	337.2	31,400	104,100	34.3	361.2	20,000	95,700	330
340					21.2	313.6	28,000	99,300	30.2	344.7		91,100	340
350					13.8	280.0	24,600	94,700	25.6	325.0		86,800	350
360									19.9	300.0		82,700	360
370									11.7	262.3		78,700	370

# MLC650 VPC-MAX S-3

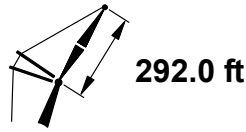
ASME B30.5



881,800 lb



223.1 ft

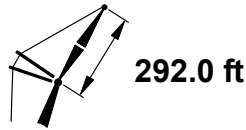
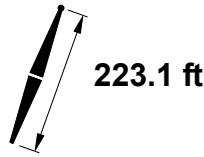


292.0 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
110	74.5	512.9	184,300	184,300									110
115	73.5	511.4	183,800	183,800									115
120	72.4	509.8	183,100	183,100									120
125	71.4	508.1	182,400	182,400									125
130	70.4	506.3	181,700	181,700	72.0	508.1	180,900	180,900					130
135	69.3	504.3	180,900	180,900	70.9	506.3	180,600	180,600					135
140	68.3	502.3	180,000	180,000	69.9	504.5	180,200	180,200					140
145	67.2	500.2	179,000	179,000	68.8	502.5	179,800	179,800					145
150	66.1	497.9	178,000	178,000	67.8	500.4	179,300	179,300					150
155	65.0	495.6	177,000	177,000	66.7	498.2	178,700	178,700	69.2	501.2	174,000	174,000	155
160	63.9	493.1	175,900	175,900	65.6	495.9	178,000	178,000	68.1	499.2	174,000	174,000	160
165	62.8	490.5	174,800	174,800	64.5	493.5	177,300	177,300	67.0	497.0	174,000	174,000	165
170	61.7	487.7	173,700	173,700	63.4	491.0	176,600	176,600	66.0	494.8	173,100	174,000	170
175	60.6	484.9	172,500	172,500	62.3	488.3	175,800	175,800	64.9	492.4	165,700	174,000	175
180	59.4	481.9	168,400	168,400	61.2	485.6	173,300	175,000	63.8	489.9	158,700	173,900	180
185	58.3	478.8	163,700	163,700	60.1	482.6	166,300	174,100	62.7	487.3	152,100	173,700	185
190	57.1	475.5	159,000	159,000	58.9	479.6	159,700	173,200	61.6	484.5	145,900	173,400	190
195	55.9	472.1	154,400	154,400	57.8	476.4	153,400	172,300	60.4	481.7	140,000	173,100	195
200	54.7	468.5	149,700	149,700	56.6	473.1	147,400	171,400	59.3	478.7	134,400	172,700	200
205	53.5	464.8	145,100	145,100	55.4	469.6	141,800	170,000	58.1	475.5	129,000	172,200	205
210	52.2	460.9	140,500	140,500	54.2	465.9	136,400	165,300	56.9	472.2	123,900	171,800	210
215	51.0	456.8	136,100	136,100	52.9	462.1	131,200	160,700	55.8	468.8	119,100	171,300	215
220	49.7	452.5	131,800	131,800	51.7	458.1	126,300	156,000	54.5	465.2	114,500	170,700	220
230	47.0	443.3	123,600	123,600	49.1	449.6	117,100	146,800	52.1	457.5	105,800	169,600	230
240	44.2	433.2	115,800	115,800	46.4	440.2	108,700	137,900	49.5	449.1	97,900	160,300	240
250	41.3	422.1	107,900	108,600	43.6	429.9	101,000	129,500	46.8	439.8	90,600	148,400	250
260	38.2	409.7	100,400	102,100	40.6	418.5	93,800	121,600	44.0	429.7	83,900	137,500	260
270	34.8	395.7	93,500	96,300	37.4	405.8	87,100	114,300	41.1	418.5	77,600	127,700	270
280	31.1	379.8	87,100	91,200	34.0	391.4	80,900	107,700	37.9	406.0	71,800	118,600	280
290	26.9	361.1	81,000	87,000	30.2	374.9	75,100	101,200	34.6	391.9	66,400	110,300	290
300	22.0	338.2	75,300	78,600	25.9	355.5	69,700	89,800	30.8	375.8	61,200	102,600	300
310	15.7	307.4	65,700	65,700	20.8	331.3	64,500	78,000	26.6	356.8	56,400	94,700	310
320					13.9	297.4	59,500	64,600	21.7	333.6	51,800	83,000	320
330									15.2	301.9	47,400	70,100	330
340													340
350													350
360													360
370													370
380													380
390													390

# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°				65°				
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	ft	
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160													160
165													165
170													170
175													175
180													180
185													185
190													190
195	64.7	487.4	117,900	159,700									195
200	63.6	484.9	112,900	159,700									200
205	62.4	482.2	108,100	159,700									205
210	61.3	479.5	103,500	159,700									210
215	60.2	476.6	99,200	159,700									215
220	59.0	473.5	95,000	159,700									220
230	56.7	467.0	87,300	159,700									230
240	54.3	459.9	80,200	159,700	58.7	466.5	62,900	145,200					240
250	51.8	452.2	73,600	159,700	56.4	459.9	57,100	145,200					250
260	49.2	443.7	67,600	152,600	53.9	452.7	51,700	140,900					260
270	46.6	434.4	62,000	144,600	51.4	444.8	46,700	133,300					270
280	43.7	424.1	56,800	136,700	48.8	436.2	42,100	126,300	53.4	443.4	115,800		280
290	40.8	412.8	51,900	126,900	46.2	426.8	37,700	119,800	50.9	435.4	109,700		290
300	37.6	400.1	47,300	118,000	43.3	416.4	33,700	113,700	48.3	426.6	103,900		300
310	34.2	385.8	43,000	109,700	40.3	404.8	29,900	108,000	45.6	417.0	98,500		310
320	30.4	369.5	39,000	102,100	37.1	392.0	26,300	102,600	42.7	406.4	93,500		320
330	26.2	350.2	35,100	94,900	33.7	377.4	22,900	97,600	39.7	394.6	88,700		330
340	21.1	326.4	31,400	86,800	29.8	360.7		92,800	36.4	381.4	84,300		340
350	14.3	293.3	27,800	73,800	25.5	340.9		88,300	32.9	366.4	80,000		350
360					20.2	316.2		84,100	29.0	349.2	76,000		360
370					13.0	280.7		76,500	24.5	328.5	72,200		370
380									19.0	302.3	68,600		380
390									10.9	262.4	65,000		390

# MLC650 VPC-MAX S-3

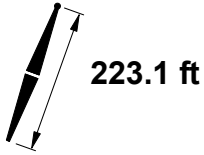
ASME B30.5



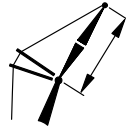
881,800 lb



360°



223.1 ft



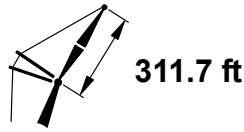
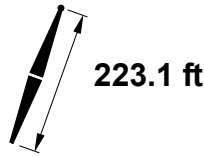
311.7 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
115	74.6	532.0	159,900	159,900									115
120	73.6	530.5	159,400	159,400									120
125	72.6	528.9	158,800	158,800									125
130	71.7	527.2	158,100	158,100									130
135	70.7	525.4	157,300	157,300	72.2	527.2	156,600	156,600					135
140	69.7	523.5	156,500	156,500	71.2	525.5	156,200	156,200					140
145	68.7	521.5	155,700	155,700	70.2	523.6	155,800	155,800					145
150	67.7	519.5	155,000	155,000	69.3	521.7	155,300	155,300					150
155	66.7	517.3	153,900	153,900	68.3	519.7	154,700	154,700					155
160	65.7	515.0	153,100	153,100	67.3	517.6	154,100	154,100	69.6	520.4	150,100	150,100	160
165	64.7	512.6	152,100	152,100	66.3	515.3	153,600	153,600	68.6	518.4	150,000	150,000	165
170	63.7	510.1	151,100	151,100	65.2	513.0	152,900	152,900	67.6	516.3	150,000	150,000	170
175	62.6	507.4	150,100	150,100	64.2	510.5	152,200	152,200	66.6	514.1	149,800	149,800	175
180	61.6	504.7	149,100	149,100	63.2	508.0	151,400	151,400	65.6	511.8	149,600	149,600	180
185	60.5	501.8	148,000	148,000	62.1	505.3	150,600	150,600	64.5	509.4	149,400	149,400	185
190	59.4	498.9	147,000	147,000	61.1	502.5	149,900	149,900	63.5	506.9	143,700	149,100	190
195	58.4	495.7	144,700	144,700	60.0	499.6	149,100	149,100	62.5	504.3	137,900	148,700	195
200	57.3	492.5	140,900	140,900	59.0	496.5	145,600	148,200	61.4	501.5	132,300	148,300	200
205	56.1	489.1	137,000	137,000	57.9	493.4	139,900	147,400	60.4	498.6	126,900	147,900	205
210	55.0	485.6	133,200	133,200	56.8	490.1	134,500	146,500	59.3	495.6	121,900	147,500	210
215	53.9	481.9	129,300	129,300	55.6	486.6	129,400	145,700	58.2	492.5	117,100	147,000	215
220	52.7	478.1	125,500	125,500	54.5	483.0	124,500	144,800	57.1	489.2	112,500	146,500	220
230	50.3	469.9	118,200	118,200	52.2	475.3	115,400	139,300	54.9	482.3	103,900	145,400	230
240	47.9	461.0	111,200	111,200	49.8	467.0	107,000	131,600	52.6	474.7	96,000	144,300	240
250	45.3	451.2	104,500	104,500	47.3	457.9	99,300	124,200	50.2	466.5	88,700	143,200	250
260	42.6	440.6	98,300	98,300	44.7	448.0	92,100	117,100	47.7	457.5	82,000	136,400	260
270	39.8	428.8	92,100	92,600	42.0	437.1	85,500	110,300	45.1	447.7	75,800	126,600	270
280	36.8	415.8	85,700	87,400	39.1	425.1	79,400	103,900	42.4	437.0	70,000	117,500	280
290	33.5	401.1	79,700	82,700	36.1	411.7	73,600	98,100	39.6	425.1	64,600	109,300	290
300	29.9	384.4	74,100	78,600	32.7	396.6	68,300	92,800	36.6	412.0	59,600	101,600	300
310	25.9	364.9	68,800	75,200	29.1	379.4	63,200	85,900	33.3	397.2	54,900	94,500	310
320	21.1	341.0	63,800	65,700	24.9	359.0	58,400	75,800	29.7	380.4	50,400	87,800	320
330	14.9	308.7	54,200	54,200	19.9	333.8	53,800	65,300	25.6	360.6	46,100	80,200	330
340					13.1	298.2	49,400	53,200	20.8	336.3	42,100	69,900	340
350									14.4	303.1	38,100	58,400	350
360													360
370													370
380													380
390													390
400													400
410													410



# MLC650 VPC-MAX S-3

ASME B30.5



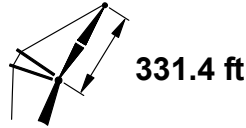
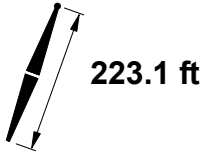
ft	75°				70°				65°				ft
	ft	lb	ft	lb	ft	lb	ft	lb	ft	lb	ft	lb	
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160													160
165													165
170													170
175													175
180													180
185													185
190													190
195													195
200													200
205	64.3	504.4	105,700	137,300									205
210	63.3	501.9	101,100	137,300									210
215	62.3	499.2	96,800	137,300									215
220	61.2	496.4	92,700	137,300									220
230	59.1	490.5	85,000	137,300									230
240	56.9	484.0	77,900	137,300									240
250	54.6	477.0	71,400	137,300	58.8	483.4	54,500	124,200					250
260	52.3	469.4	65,400	137,300	56.6	476.9	49,200	124,200					260
270	49.9	461.1	59,900	137,300	54.3	469.8	44,300	124,200					270
280	47.5	452.0	54,700	135,400	52.0	462.1	39,700	124,200					280
290	44.9	442.2	49,900	125,700	49.6	453.7	35,400	117,800	53.8	460.5	107,500		290
300	42.2	431.3	45,400	116,800	47.1	444.5	31,400	111,800	51.5	452.7	101,800		300
310	39.3	419.4	41,100	108,600	44.5	434.5	27,700	106,100	49.1	444.1	96,500		310
320	36.2	406.1	37,100	101,000	41.8	423.5	24,100	100,800	46.6	434.8	91,500		320
330	32.9	391.1	33,400	94,000	38.9	411.4	20,800	95,800	43.9	424.6	86,800		330
340	29.3	374.0	29,800	87,400	35.8	397.9		91,100	41.2	413.4	82,400		340
350	25.2	353.9	26,400	81,300	32.4	382.6		86,700	38.2	401.0	78,200		350
360	20.2	328.9	23,100	73,500	28.7	365.1		82,500	35.1	387.1	74,200		360
370	13.6	294.2		61,900	24.5	344.4		78,500	31.7	371.5	70,500		370
380					19.4	318.5		74,700	27.9	353.4	66,900		380
390					12.3	281.2		64,500	23.5	331.8	63,500		390
400									18.1	304.4	60,200		400
410									10.2	262.2	57,000		410

# MLC650 VPC-MAX S-3

ASME B30.5



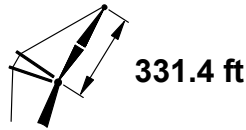
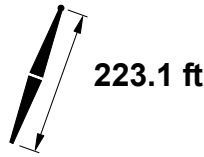
881,800 lb



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
120	74.6	551.0	138,100	138,100									120
125	73.7	549.5	137,500	137,500									125
130	72.8	547.9	136,800	136,800									130
135	71.9	546.3	136,100	136,100									135
140	71.0	544.5	135,300	135,300	72.4	546.3	134,600	134,600					140
145	70.0	542.7	134,600	134,600	71.5	544.6	134,200	134,200					145
150	69.1	540.7	133,700	133,700	70.5	542.8	133,700	133,700					150
155	68.2	538.7	132,900	132,900	69.6	540.9	133,100	133,100					155
160	67.2	536.6	132,000	132,000	68.7	538.9	132,500	132,500					160
165	66.3	534.3	131,100	131,100	67.8	536.8	131,900	131,900	69.9	539.6	128,400	128,400	165
170	65.3	532.0	130,200	130,200	66.8	534.7	131,200	131,200	69.0	537.6	128,200	128,200	170
175	64.4	529.6	129,400	129,400	65.9	532.4	130,600	130,600	68.0	535.6	128,000	128,000	175
180	63.4	527.1	128,400	128,400	64.9	530.0	129,900	129,900	67.1	533.5	127,800	127,800	180
185	62.4	524.4	127,500	127,500	63.9	527.5	129,200	129,200	66.2	531.2	127,500	127,500	185
190	61.4	521.7	126,600	126,600	63.0	525.0	128,500	128,500	65.2	528.9	127,200	127,200	190
195	60.4	518.8	125,600	125,600	62.0	522.3	127,700	127,700	64.2	526.4	126,800	126,800	195
200	59.4	515.8	124,700	124,700	61.0	519.5	127,000	127,000	63.3	523.9	126,400	126,400	200
205	58.4	512.7	123,800	123,800	60.0	516.5	126,200	126,200	62.3	521.2	123,300	126,000	205
210	57.4	509.5	122,800	122,800	59.0	513.5	125,400	125,400	61.3	518.5	118,300	125,500	210
215	56.4	506.1	120,700	120,700	58.0	510.3	124,700	124,700	60.3	515.6	113,500	125,100	215
220	55.3	502.6	117,600	117,600	56.9	507.1	121,200	123,900	59.3	512.6	108,900	124,600	220
230	53.1	495.2	111,300	111,300	54.8	500.1	112,000	122,300	57.2	506.2	100,300	123,600	230
240	50.9	487.2	105,100	105,100	52.7	492.5	103,700	120,800	55.2	499.3	92,500	122,500	240
250	48.6	478.5	99,300	99,300	50.4	484.4	96,000	117,100	53.0	491.9	85,200	121,400	250
260	46.3	469.1	93,600	93,600	48.1	475.5	88,900	110,900	50.8	483.8	78,600	120,300	260
270	43.8	458.8	88,300	88,300	45.7	465.9	82,300	104,900	48.5	475.1	72,400	119,300	270
280	41.2	447.6	82,600	83,300	43.2	455.4	76,200	99,200	46.1	465.6	66,700	114,500	280
290	38.4	435.3	76,700	78,600	40.6	444.0	70,500	93,700	43.6	455.2	61,300	106,300	290
300	35.5	421.6	71,100	74,400	37.8	431.4	65,200	88,600	41.0	443.9	56,300	98,800	300
310	32.4	406.3	65,900	70,700	34.8	417.4	60,200	83,900	38.2	431.5	51,600	91,800	310
320	28.9	388.9	61,000	67,400	31.6	401.7	55,400	78,100	35.3	417.8	47,200	85,300	320
330	25.0	368.5	56,300	62,100	28.0	383.7	51,000	70,900	32.1	402.3	43,000	79,100	330
340	20.3	343.6	51,900	52,800	24.0	362.4	46,700	61,900	28.6	384.7	39,100	73,400	340
350	14.2	309.8	42,400	42,400	19.1	336.1	42,700	52,500	24.7	364.1	35,300	66,000	350
360					12.4	298.7	38,700	41,600	19.9	338.8	31,700	56,800	360
370									13.7	304.0	28,100	46,300	370
380													380
390													390
400													400
410													410
420													420
430													430

# MLC650 VPC-MAX S-3

ASME B30.5



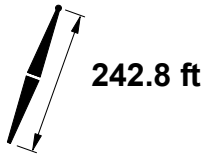
ft	75°				70°				65°				
	ft	ft	lb	lb	ft	ft	lb	lb	ft	ft	lb	ft	
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160													160
165													165
170													170
175													175
180													180
185													185
190													190
195													195
200													200
205													205
210													210
215	64.0	521.4	92,800	116,600									215
220	63.1	518.9	88,700	116,600									220
230	61.1	513.4	81,100	116,600									230
240	59.1	507.5	74,100	116,600									240
250	57.0	501.0	67,600	116,600									250
260	54.9	494.1	61,700	116,600	58.8	500.4	45,200	104,900					260
270	52.8	486.6	56,100	116,600	56.7	493.9	40,300	104,900					270
280	50.5	478.4	51,000	116,600	54.6	486.9	35,700	104,900					280
290	48.2	469.6	46,200	116,600	52.4	479.3	31,500	104,900					290
300	45.8	460.1	41,800	113,700	50.2	471.1	27,600	104,900	54.2	477.6	95,400		300
310	43.3	449.6	37,600	105,700	47.9	462.1	23,800	103,100	52.0	469.9	93,300		310
320	40.7	438.3	33,600	98,200	45.5	452.5	20,400	97,800	49.7	461.5	88,300		320
330	38.0	425.7	29,900	91,300	43.0	441.9		92,900	47.4	452.5	83,700		330
340	35.0	411.8	26,400	84,800	40.3	430.3		88,200	45.0	442.6	79,300		340
350	31.8	396.2	23,100	78,700	37.5	417.6		83,800	42.4	431.9	75,200		350
360	28.2	378.3		73,000	34.5	403.5		79,600	39.8	420.1	71,200		360
370	24.2	357.3		67,600	31.3	387.6		75,700	36.9	407.1	67,500		370
380	19.4	331.3		60,200	27.7	369.3		71,900	33.9	392.6	64,000		380
390	12.9	294.9		49,700	23.6	347.7		67,100	30.6	376.3	60,600		390
400					18.6	320.7		62,000	26.9	357.4	57,400		400
410					11.6	281.5		52,200	22.6	334.9	54,400		410
420									17.4	306.3	51,400		420
430									9.5	261.7	48,500		430

# MLC650 VPC-MAX S-3

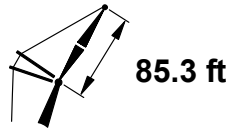
ASME B30.5



881,800 lb



242.8 ft

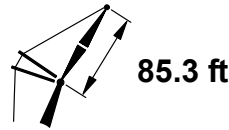
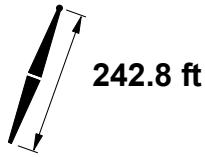


85.3 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
60	72.0	332.1	668,300 d	668,300 d									60
65	68.3	330.0	646,600 c	646,600 c									65
70	64.6	327.5	607,900 c	624,300 c	70.9	330.5	585,000 c	661,200 c					70
75	60.7	324.6	561,300 b	602,100 b	67.2	328.3	540,200 c	640,500 c					75
80	56.6	321.2	520,800 b	580,400 b	63.4	325.6	501,200 c	619,300 c					80
85	52.4	317.2	485,300 b	559,600 b	59.5	322.6	467,100 b	597,900 b	69.1	327.4	439,700 c	647,700 c	85
90	47.8	312.5	454,000	540,100	55.3	319.0	436,900 b	577,100 b	65.4	325.0	411,300 c	628,700 c	90
95	42.8	307.1	425,900	522,000	51.0	314.8	410,000	556,900	61.5	322.2	385,900 b	608,900 b	95
100	37.2	300.4	400,700	505,700	46.3	309.9	385,800	537,900	57.5	318.9	363,200 b	588,800 b	100
105	30.7	292.1	377,900	465,000	41.1	304.1	364,000	520,200	53.3	315.0	342,700 b	560,500 b	105
110	22.3	280.6	356,800	385,900	35.3	297.1	344,100	504,100	48.7	310.5	324,100	531,300	110
115					28.4	288.0	325,700	452,400	43.8	305.2	307,000	504,900	115
120					18.8	274.7	308,600	369,600	38.4	298.8	291,400	480,800	120
125									32.1	290.9	276,900	458,700	125
130									24.3	280.3	263,300	430,500	130
135									11.0	261.2	250,000	332,700	135
140													140
145													145
150													150
155													155
160													160
165													165
170													170
175													175
180													180
185													185
190													190
195													195

# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
60													60
65													65
70													70
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115	62.0	317.7	275,100 b	480,200 b									115
120	58.0	314.5	261,100 b	457,300 b									120
125	53.8	310.7	248,200 b	436,300 b									125
130	49.4	306.3	236,300	417,000									130
135	44.5	301.1	225,300	399,200									135
140	39.2	294.9	214,900	382,700	58.2	307.9	189,900 b	363,500 b					140
145	33.0	287.2	205,200	367,400	54.0	304.2	181,400 b	349,000 b					145
150	25.5	277.1	196,000	353,100	49.5	299.8	173,400	335,400					150
155	13.7	260.3	186,800	339,500	44.7	294.6	165,900	322,800					155
160					39.4	288.5	158,800	310,900					160
165					33.3	280.9	152,000	299,800	53.5	295.4	131,900	284,400	165
170					25.7	270.8	145,500	289,300	49.0	290.9	126,400	274,500	170
175					14.3	254.5	138,900	279,200	44.2	285.7	121,100	265,200	175
180									38.8	279.4	116,100	256,400	180
185									32.6	271.6	111,200	248,000	185
190									24.9	261.3	106,400	240,000	190
195									12.4	243.4	101,400	232,100	195

# MLC650 VPC-MAX S-3

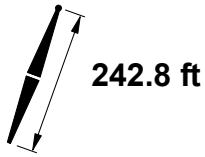
ASME B30.5



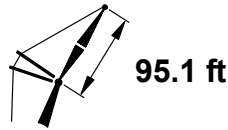
881,800 lb



360°



242.8 ft

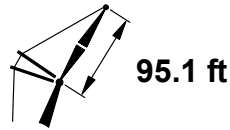
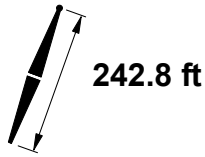


95.1 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
60	73.9	342.6	644,500 c	644,500 c									60
65	70.7	340.7	625,400 c	625,400 c									65
70	67.4	338.5	605,300 c	605,500 c									70
75	64.1	336.0	558,800 b	585,200 b	72.9	341.0	582,100 c	638,400 c					75
80	60.6	333.0	518,500 b	565,100 b	69.7	339.1	537,300 c	620,600 c					80
					66.4	336.8	498,500 b	601,700 b					
85	57.0	329.7	483,100 b	545,500 b	63.0	334.1	464,400 b	582,300 b					85
90	53.2	325.8	451,900	526,800	59.5	331.0	434,400 b	563,000 b	68.1	335.9	408,200 b	610,200 b	90
95	49.1	321.4	424,000	509,000	55.8	327.5	407,600	544,100	64.8	333.5	382,900 b	592,800 b	95
100	44.8	316.3	399,000	492,600	51.9	323.5	383,500	525,900	61.3	330.6	360,300 b	574,800 b	100
105	40.1	310.3	376,400	470,800	47.8	318.9	361,800	508,600	57.7	327.4	339,900 b	556,700 b	105
110	34.9	303.1	355,800	448,400	43.4	313.5	342,100	492,400	53.9	323.6	321,400	528,400	110
115	28.7	294.1	337,000	418,100	38.6	307.2	324,100	477,400	50.0	319.3	304,500	502,100	115
120	20.6	281.7	319,400	349,300	33.1	299.5	307,600	463,900	45.7	314.3	289,100	478,100	120
125					26.4	289.7	292,200	408,200	41.1	308.5	274,800	456,200	125
130					17.3	275.4	277,700	335,500	36.0	301.6	261,600	436,000	130
135									30.0	293.1	249,200	417,400	135
140									22.5	281.6	237,600	390,500	140
145									9.4	260.5	226,000	301,800	145
150													150
155													155
160													160
165													165
170													170
175													175
180													180
185													185
190													190
195													195
200													200
205													205

# MLC650 VPC-MAX S-3

ASME B30.5



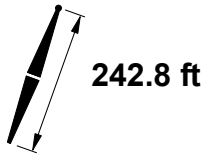
ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
60													60
65													65
70													70
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120	61.8	326.2	257,900 b	454,200 b									120
125	58.2	323.0	245,100 b	433,300 b									125
130	54.5	319.3	233,300	414,100									130
135	50.5	315.0	222,400	396,400									135
140	46.3	310.2	212,300	380,100									140
145	41.8	304.5	202,800	364,900	58.3	316.4	178,000	346,000					145
150	36.7	297.8	193,800	350,700	54.6	312.7	170,200	332,600					150
155	30.9	289.5	185,400	337,500	50.6	308.5	162,800	320,000					155
160	23.7	278.6	177,300	325,000	46.5	303.7	155,900	308,300					160
165	12.2	260.3	169,200	313,200	41.9	298.0	149,300	297,300					165
170					36.9	291.3	143,100	286,900	54.2	304.0	123,000	271,700	170
175					31.1	283.1	137,100	277,100	50.2	299.7	117,800	262,400	175
180					23.9	272.3	131,300	267,800	46.0	294.8	113,000	253,700	180
185					12.8	254.5	125,300	258,900	41.4	289.1	108,300	245,500	185
190									36.4	282.2	103,800	237,600	190
195									30.5	273.8	99,400	230,100	195
200									23.1	262.7	95,100	223,000	200
205									10.9	243.1	90,600	215,900	205

# MLC650 VPC-MAX S-3

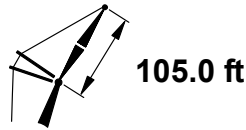
ASME B30.5



881,800 lb



242.8 ft



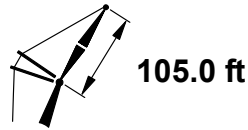
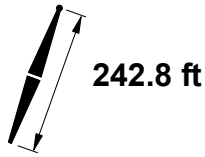
105.0 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
65	72.6	351.2	604,600 c	604,600 c									65
70	69.7	349.3	586,900 c	586,900 c									70
75	66.7	347.0	557,500 b	568,700 b									75
80	63.6	344.4	517,300 b	550,300 b	71.7	349.6	535,700 c	600,600 c					80
85	60.5	341.5	482,000 b	532,100 b	68.8	347.6	496,900 b	584,000 b					85
90	57.2	338.2	450,800	514,400	65.8	345.3	463,000 b	566,800 b					90
95	53.8	334.4	423,100	497,400	62.7	342.6	433,000 b	549,200 b					95
100	50.2	330.2	398,200	481,300	59.5	339.5	406,300 b	531,700 b	67.3	344.5	381,200 b	576,300 b	100
105	46.4	325.3	375,700	455,900	56.1	336.1	382,400	514,600	64.3	341.9	358,700 b	560,500 b	105
110	42.3	319.8	355,300	432,000	52.7	332.2	360,800	498,100	61.1	339.1	338,400 b	544,100 b	110
115	37.9	313.3	336,700	410,800	49.0	327.7	341,200	482,300	57.9	335.9	320,000	526,300	115
120	32.9	305.6	319,600	392,800	45.2	322.7	323,300	467,400	54.5	332.2	303,200	500,200	120
125	26.9	296.0	303,800	379,000	41.0	316.9	307,000	453,500	50.9	328.0	287,800	476,300	125
130	19.2	282.7	288,900	318,500	36.4	310.0	291,900	437,200	47.2	323.3	273,700	454,500	130
135					31.1	301.8	277,900	418,200	43.2	317.9	260,700	434,500	135
140					24.8	291.4	264,800	371,400	38.8	311.6	248,500	416,000	140
145					15.9	275.9	252,300	306,700	33.9	304.2	237,200	398,800	145
150									28.2	295.1	226,600	382,900	150
155									21.0	282.8	216,500	356,800	155
160									8.0	259.4	206,300	275,300	160
165													165
170													170
175													175
180													180
185													185
190													190
195													195
200													200
205													205
210													210
215													215



# MLC650 VPC-MAX S-3

ASME B30.5



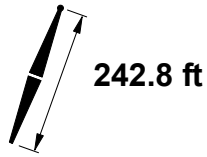
ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
65													65
70													70
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120	64.7	337.4	256,000	452,100									120
125	61.5	334.6	243,300	431,300									125
130	58.3	331.4	231,700	412,200									130
135	55.0	327.8	220,800	394,600									135
140	51.4	323.8	210,800	378,400									140
145	47.7	319.1	201,400	363,300									145
150	43.7	313.8	192,600	349,200	58.4	324.9	168,300	330,800					150
155	39.4	307.7	184,400	336,100	55.1	321.3	161,100	318,300					155
160	34.6	300.4	176,600	323,800	51.5	317.2	154,200	306,600					160
165	29.1	291.6	169,200	312,200	47.8	312.6	147,800	295,700					165
170	22.1	279.9	162,100	301,300	43.9	307.3	141,700	285,400					170
175	10.9	260.0	154,800	290,900	39.6	301.2	135,900	275,800	54.7	312.6	116,000	260,700	175
180					34.8	294.0	130,300	266,600	51.2	308.4	111,200	252,100	180
185					29.3	285.2	125,000	257,900	47.5	303.8	106,600	243,900	185
190					22.4	273.7	119,800	249,700	43.5	298.4	102,300	236,200	190
195					11.5	254.4	114,500	241,700	39.1	292.2	98,100	228,800	195
200									34.3	284.9	94,100	221,800	200
205									28.7	275.9	90,200	215,100	205
210									21.6	263.9	86,300	208,600	210
215									9.6	242.5	82,100	202,300	215

# MLC650 VPC-MAX S-3

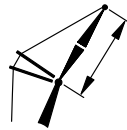
ASME B30.5



881,800 lb



242.8 ft

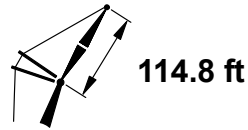
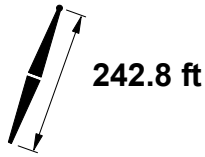


114.8 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
65	74.2	361.6	572,200 c	572,200 c									65
70	71.5	359.9	564,600 b	564,600 b									70
75	68.8	357.8	548,500 b	548,500 b									75
80	66.1	355.5	514,700 b	532,100 b	70.7	358.3	494,000 b	562,200 b					80
85	63.3	352.9	479,500 b	515,500 b	68.0	356.1	460,100 b	547,300 b					85
90	60.4	350.0	448,400	499,200	65.2	353.7	430,200 b	531,700 b					90
95	57.4	346.7	420,700	483,300	62.4	351.0	403,600	515,800	69.4	355.2	378,100 b	555,000 b	95
100	54.3	343.0	395,900	468,000	59.5	348.0	379,700	500,100	66.6	353.0	355,600 b	541,600 b	100
105	51.1	338.9	373,500	444,100	56.4	344.6	358,200	484,800	63.9	350.4	335,400	527,400	105
110	47.7	334.3	353,200	420,500	53.3	340.8	338,700	469,800	61.0	347.6	317,100	512,700	110
115	44.1	329.0	334,700	398,700	50.0	336.5	321,000	455,600	58.0	344.4	300,400	497,200	115
120	40.2	323.0	317,800	378,900	46.6	331.7	304,700	442,000	54.9	340.8	285,100	473,500	120
125	35.9	316.1	302,200	361,600	42.9	326.2	289,800	426,100	51.7	336.7	271,100	451,800	125
130	31.1	307.9	287,700	347,100	38.9	320.0	275,900	405,200	48.4	332.2	258,100	431,800	130
135	25.4	297.7	274,200	336,200	34.5	312.7	263,100	386,800	44.8	327.1	246,100	413,400	135
140	18.0	283.5	261,500	289,700	29.5	304.0	251,100	371,300	41.0	321.3	234,900	396,400	140
145					23.4	292.8	239,800	336,700	36.8	314.6	224,500	380,500	145
150					14.8	276.3	229,000	279,300	32.1	306.6	214,700	365,800	150
155									26.7	296.9	205,500	352,100	155
160									19.7	283.9	196,600	325,200	160
165									6.5	257.9	187,600	249,300	165
170													170
175													175
180													180
185													185
190													190
195													195
200													200
205													205
210													210
215													215
220													220

# MLC650 VPC-MAX S-3

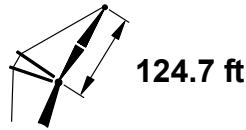
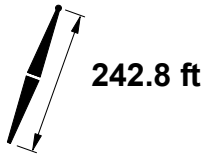
ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
65													65
70													70
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125	64.2	345.9	240,000	428,200									125
130	61.4	343.1	228,400	409,200									130
135	58.4	339.9	217,700	391,700									135
140	55.4	336.4	207,700	375,500									140
145	52.2	332.4	198,400	360,500									145
150	48.8	328.0	189,800	346,500									150
155	45.3	322.9	181,600	333,500	58.5	333.4	157,700	315,400					155
160	41.5	317.2	174,000	321,300	55.5	329.9	150,900	303,800					160
165	37.4	310.6	166,700	309,800	52.3	325.9	144,600	293,000					165
170	32.8	302.9	159,900	299,100	48.9	321.5	138,600	282,800					170
175	27.5	293.5	153,300	288,900	45.4	316.5	132,900	273,100					175
180	20.8	281.1	147,000	279,300	41.6	310.8	127,500	264,100					180
185	9.7	259.5	140,500	270,000	37.5	304.2	122,300	255,500	52.0	317.1	103,300	241,100	185
190					33.0	296.5	117,400	247,400	48.6	312.6	99,000	233,400	190
195					27.7	287.2	112,600	239,600	45.1	307.5	94,900	226,200	195
200					21.0	274.9	107,900	232,200	41.3	301.8	91,000	219,200	200
205					10.3	254.0	103,100	225,000	37.1	295.1	87,300	212,600	205
210									32.5	287.3	83,700	206,300	210
215									27.1	277.7	80,100	200,300	215
220									20.3	265.0	76,600	194,500	220

# MLC650 VPC-MAX S-3

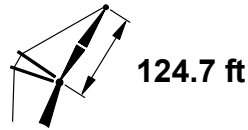
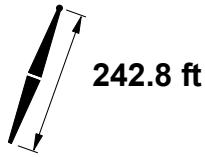
ASME B30.5



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
70	73.0	370.3	530,800 b	530,800 b									70
75	70.6	368.5	516,700 b	516,700 b									75
80	68.1	366.4	502,300 b	502,300 b	72.3	368.8	495,000 b	495,000 b					80
85	65.6	364.0	488,500 b	488,500 b	69.8	366.8	481,400 b	481,400 b					85
90	63.0	361.4	475,300	475,300	67.3	364.7	468,300 b	468,300 b					90
95	60.3	358.5	462,700	462,700	64.8	362.2	445,900	468,300					95
100	57.6	355.2	436,200	457,100	62.2	359.5	419,900	468,300	68.6	363.8	395,500	505,600	100
105	54.7	351.6	411,900	433,700	59.5	356.5	396,400	468,300	66.1	361.5	373,300	505,600	105
110	51.8	347.6	389,900	411,200	56.7	353.1	375,200	461,100	63.5	358.9	353,200	501,300	110
115	48.7	343.1	369,800	390,000	53.8	349.4	355,800	447,500	60.9	356.0	334,900	488,000	115
120	45.5	338.1	351,500	370,200	50.8	345.2	338,100	434,400	58.1	352.8	318,200	472,900	120
125	42.0	332.5	334,600	352,100	47.7	340.6	321,900	418,100	55.3	349.3	302,800	451,200	125
130	38.3	326.1	319,000	335,800	44.4	335.4	306,900	397,400	52.4	345.4	288,700	431,300	130
135	34.2	318.8	304,600	321,600	40.9	329.6	293,000	378,100	49.3	341.0	275,600	413,000	135
140	29.6	310.1	291,100	309,800	37.1	322.9	280,100	360,700	46.1	336.1	263,400	396,000	140
145	24.1	299.2	278,500	301,100	32.8	315.2	268,100	345,400	42.7	330.6	252,100	380,300	145
150	16.9	284.3	266,500	267,300	28.0	306.0	256,700	332,500	39.1	324.4	241,500	365,700	150
155					22.1	294.2	246,000	303,600	35.1	317.3	231,600	352,000	155
160					13.7	276.6	235,700	258,100	30.6	308.9	222,200	339,200	160
165									25.3	298.6	213,300	327,200	165
170									18.6	284.8	204,800	294,500	170
175									4.9	255.6	196,000	228,000	175
180													180
185													185
190													190
195													195
200													200
205													205
210													210
215													215
220													220
230													230

# MLC650 VPC-MAX S-3

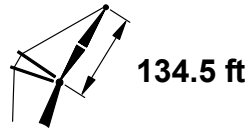
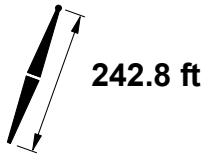
ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
70													70
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130	63.9	354.4	258,600	408,700									130
135	61.2	351.6	246,800	391,200									135
140	58.5	348.4	235,800	375,100									140
145	55.7	344.9	225,500	360,100									145
150	52.8	341.0	216,000	346,200									150
155	49.8	336.7	207,100	333,200									155
160	46.6	331.9	198,700	321,100	58.6	341.9	175,200	303,500					160
165	43.2	326.5	190,800	309,700	55.8	338.4	168,200	292,700					165
170	39.6	320.4	183,300	299,000	52.9	334.5	161,500	282,500					170
175	35.6	313.4	176,200	288,900	49.9	330.2	155,200	273,000					175
180	31.2	305.2	169,500	279,400	46.7	325.4	149,200	263,900					180
185	26.1	295.3	163,100	270,400	43.3	320.1	143,600	255,400					185
190	19.6	282.1	156,800	261,800	39.7	314.0	138,200	247,400	52.6	325.7	119,400	233,300	190
195	8.6	258.8	150,400	253,600	35.8	307.0	133,000	239,700	49.6	321.4	114,800	226,000	195
200					31.4	298.9	128,100	232,400	46.4	316.6	110,500	219,100	200
205					26.3	289.0	123,300	225,500	43.0	311.1	106,400	212,600	205
210					19.9	276.0	118,600	218,800	39.3	305.0	102,400	206,400	210
215					9.3	253.4	113,700	212,300	35.3	297.9	98,600	200,400	215
220									30.9	289.6	94,900	194,700	220
230									19.1	266.0	87,600	183,900	230

# MLC650 VPC-MAX S-3

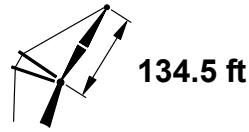
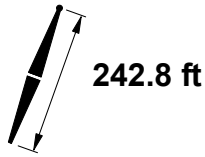
ASME B30.5



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
70	74.3	380.7	491,300 b	491,300 b									70
75	72.1	379.0	490,900 b	490,900 b									75
80	69.8	377.1	488,800 b	488,800 b									80
85	67.5	374.9	477,600	477,600	71.4	377.4	470,600 b	470,600 b					85
90	65.1	372.5	464,900	464,900	69.1	375.4	458,000	458,000					90
95	62.7	369.9	452,700	452,700	66.8	373.2	443,100	450,400					95
100	60.3	366.9	433,800	442,500	64.4	370.7	417,200	450,400					100
105	57.7	363.7	409,600	421,200	62.0	368.0	393,800	450,400	68.0	372.3	370,300	492,000	105
110	55.1	360.1	387,600	400,500	59.5	365.0	372,600	449,800	65.6	370.0	350,200	486,700	110
115	52.4	356.2	367,600	380,400	56.9	361.6	353,300	437,100	63.2	367.4	332,000	475,000	115
120	49.6	351.9	349,300	361,400	54.3	357.9	335,700	424,700	60.8	364.5	315,300	462,900	120
125	46.6	347.1	332,500	343,500	51.5	353.9	319,500	408,800	58.2	361.3	300,100	448,500	125
130	43.5	341.8	317,000	327,000	48.7	349.4	304,500	389,000	55.6	357.8	286,000	428,600	130
135	40.2	335.8	302,600	311,900	45.7	344.5	290,700	370,100	52.9	354.0	272,900	410,400	135
140	36.6	329.0	289,300	298,400	42.5	339.0	277,900	352,500	50.2	349.7	260,800	393,500	140
145	32.7	321.3	276,900	286,700	39.1	332.8	266,000	336,300	47.2	345.0	249,600	377,800	145
150	28.2	312.1	265,200	277,000	35.4	325.7	254,800	321,700	44.2	339.8	239,100	363,200	150
155	22.9	300.7	254,200	270,200	31.4	317.6	244,300	308,900	40.9	334.0	229,200	349,600	155
160	15.9	284.9	243,700	245,000	26.7	307.8	234,400	298,400	37.4	327.4	220,000	336,900	160
165					21.0	295.4	225,000	273,200	33.5	319.9	211,300	325,000	165
170					12.8	276.8	215,800	236,700	29.2	311.0	203,000	313,800	170
175									24.1	300.2	195,100	294,800	175
180									17.6	285.6	187,500	265,600	180
185													185
190													190
195													195
200													200
205													205
210													210
215													215
220													220
230													230
240													240

# MLC650 VPC-MAX S-3

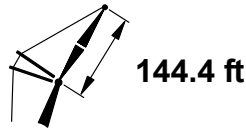
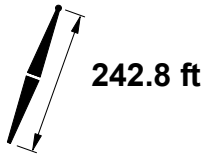
ASME B30.5



ft	75°				70°				65°				ft
	ft	ft	lb	lb	ft	ft	lb	lb	ft	ft	lb	lb	
70													70
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135	63.5	362.9	243,500	388,300									135
140	61.1	360.0	232,600	372,300									140
145	58.6	356.9	222,400	357,400									145
150	56.0	353.5	213,000	343,500									150
155	53.3	349.7	204,100	330,600									155
160	50.5	345.5	195,800	318,500									160
165	47.6	340.8	187,900	307,200	58.7	350.4	164,800	289,900					165
170	44.6	335.7	180,600	296,500	56.1	346.9	158,200	279,800					170
175	41.3	330.0	173,600	286,500	53.4	343.1	152,000	270,300					175
180	37.9	323.5	167,000	277,100	50.6	339.0	146,100	261,300					180
185	34.1	316.1	160,700	268,100	47.7	334.3	140,500	252,800					185
190	29.8	307.4	154,700	259,700	44.7	329.2	135,200	244,800					190
195	24.8	296.9	148,900	251,600	41.4	323.5	130,100	237,200	53.1	334.4	111,500	223,300	195
200	18.6	283.1	143,300	243,900	38.0	317.1	125,300	230,000	50.3	330.1	107,200	216,500	200
205	7.6	257.8	137,400	236,500	34.2	309.7	120,700	223,200	47.4	325.5	103,200	210,000	205
210					30.0	301.1	116,200	216,600	44.4	320.3	99,300	203,800	210
215					25.0	290.7	111,900	210,300	41.1	314.5	95,500	197,900	215
220					18.8	277.0	107,600	204,300	37.6	308.0	91,900	192,300	220
230									29.5	291.8	85,100	181,700	230
240									18.1	266.9	78,500	171,900	240

# MLC650 VPC-MAX S-3

ASME B30.5

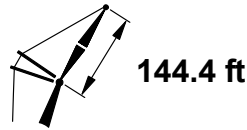
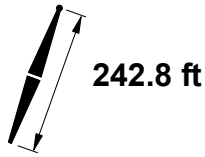


ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
75	73.4	389.4	454,800 b	454,800 b									75
80	71.3	387.6	454,100	454,100									80
85	69.1	385.6	452,000	452,000	72.7	387.9	454,200	454,200					85
90	67.0	383.4	448,900	448,900	70.6	386.0	447,300	447,300					90
95	64.7	381.0	442,400	442,400	68.4	384.0	435,800	435,800					95
100	62.5	378.3	428,200	428,200	66.3	381.7	415,300	435,800					100
105	60.2	375.4	407,900	409,300	64.0	379.2	391,900	435,800	69.6	383.0	368,200	448,300	105
110	57.8	372.2	385,900	390,500	61.8	376.5	370,800	435,800	67.4	380.9	348,200	448,300	110
115	55.4	368.7	366,000	372,000	59.5	373.4	351,500	425,200	65.2	378.5	330,000	448,300	115
120	52.9	364.8	347,700	354,100	57.1	370.1	333,900	413,700	63.0	375.9	313,400	448,300	120
125	50.3	360.6	330,900	337,000	54.6	366.5	317,800	400,100	60.7	373.0	298,100	438,000	125
130	47.6	356.0	315,500	320,700	52.1	362.5	302,900	381,700	58.3	369.8	284,100	426,600	130
135	44.8	350.9	301,200	305,600	49.5	358.2	289,100	363,800	55.9	366.4	271,100	408,400	135
140	41.8	345.2	287,900	291,700	46.7	353.4	276,400	346,800	53.4	362.6	259,000	391,600	140
145	38.6	338.9	275,600	279,000	43.9	348.2	264,500	330,600	50.8	358.4	247,800	375,900	145
150	35.1	331.8	264,100	267,700	40.8	342.3	253,400	315,600	48.2	353.9	237,400	361,400	150
155	31.3	323.6	253,200	257,800	37.5	335.8	243,000	301,800	45.4	348.9	227,600	347,900	155
160	27.0	314.0	243,000	249,800	34.0	328.4	233,200	289,400	42.4	343.4	218,400	335,200	160
165	21.9	302.1	233,400	244,300	30.1	319.8	224,000	278,600	39.3	337.2	209,800	323,300	165
170	15.0	285.4	223,900	223,900	25.5	309.6	215,300	269,800	35.9	330.3	201,600	312,100	170
175					20.0	296.6	206,900	247,600	32.1	322.4	193,900	301,600	175
180					11.9	276.8	198,800	217,500	28.0	313.1	186,500	290,700	180
185									23.0	301.7	179,500	267,100	185
190									16.6	286.4	172,700	241,200	190
195													195
200													200
205													205
210													210
215													215
220													220
230													230
240													240
250													250



# MLC650 VPC-MAX S-3

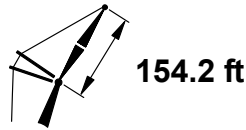
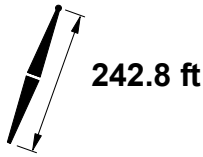
ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140	63.3	371.4	230,500	370,200									140
145	61.0	368.5	220,400	355,300									145
150	58.6	365.4	210,900	341,500									150
155	56.2	362.0	202,100	328,700									155
160	53.8	358.2	193,800	316,600									160
165	51.2	354.1	186,000	305,300									165
170	48.5	349.7	178,700	294,700	58.7	358.8	156,100	277,800					170
175	45.7	344.7	171,800	284,800	56.3	355.4	149,900	268,400					175
180	42.8	339.3	165,200	275,400	53.8	351.7	144,000	259,500					180
185	39.7	333.2	159,000	266,500	51.3	347.6	138,500	251,000					185
190	36.3	326.4	153,100	258,100	48.6	343.2	133,200	243,100					190
195	32.7	318.6	147,500	250,100	45.8	338.2	128,200	235,500					195
200	28.5	309.5	142,100	242,500	42.9	332.8	123,500	228,300	53.6	342.9	105,100	214,600	200
205	23.7	298.5	136,900	235,300	39.8	326.8	118,900	221,500	51.0	338.8	101,100	208,200	205
210	17.6	283.9	131,700	228,400	36.4	320.0	114,500	215,000	48.3	334.3	97,200	202,000	210
215	6.5	256.4	126,400	219,900	32.8	312.2	110,300	208,800	45.6	329.4	93,500	196,200	215
220					28.7	303.2	106,300	202,900	42.6	323.9	90,000	190,600	220
230					17.9	277.8	98,500	191,700	36.1	310.9	83,300	180,100	230
240									28.3	293.8	77,100	170,500	240
250									17.1	267.7	71,000	161,500	250

# MLC650 VPC-MAX S-3

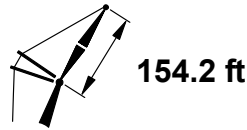
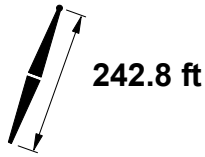
ASME B30.5



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
75	74.5	399.7	421,400 b	421,400 b									75
80	72.5	398.1	421,400	421,400									80
85	70.5	396.2	420,600	420,600									85
90	68.5	394.2	418,700	418,700	71.9	396.5	421,200	421,200					90
95	66.5	392.0	415,700	415,700	69.9	394.6	421,200	421,200					95
100	64.4	389.5	411,400	411,400	67.9	392.5	412,600	421,200					100
105	62.3	386.8	395,300	395,300	65.8	390.2	389,200	421,200					105
110	60.2	383.9	378,500	378,500	63.8	387.7	368,100	420,800	68.9	391.6	345,200	414,900	110
115	57.9	380.7	361,700	361,700	61.6	384.9	348,900	414,000	66.9	389.4	327,100	414,900	115
120	55.7	377.2	345,200	345,200	59.5	381.9	331,300	403,400	64.8	387.0	310,500	414,900	120
125	53.4	373.4	328,600	329,200	57.2	378.6	315,200	389,100	62.7	384.3	295,300	414,900	125
130	50.9	369.3	313,200	313,800	55.0	375.1	300,400	372,400	60.6	381.5	281,300	414,900	130
135	48.4	364.8	299,000	299,200	52.6	371.2	286,700	356,000	58.4	378.3	268,300	405,800	135
140	45.8	359.9	285,400	285,400	50.2	366.9	274,000	339,900	56.1	374.9	256,300	389,000	140
145	43.1	354.5	272,600	272,600	47.6	362.3	262,100	324,500	53.8	371.2	245,200	373,400	145
150	40.2	348.5	260,700	260,700	45.0	357.3	251,100	309,800	51.4	367.1	234,700	359,000	150
155	37.1	341.9	250,100	250,100	42.2	351.7	240,800	295,900	49.0	362.7	225,000	345,500	155
160	33.8	334.5	240,600	240,600	39.3	345.5	231,100	283,200	46.4	357.9	215,900	332,800	160
165	30.1	325.9	231,700	232,500	36.1	338.7	221,900	271,400	43.7	352.6	207,300	321,000	165
170	25.9	315.8	222,700	225,900	32.7	330.9	213,300	260,900	40.8	346.7	199,200	309,900	170
175	20.9	303.3	214,100	221,500	28.9	321.9	205,200	251,900	37.8	340.3	191,600	299,400	175
180	14.2	285.8	203,000	203,000	24.5	311.2	197,400	244,600	34.5	333.0	184,300	289,500	180
185					19.1	297.6	189,900	224,600	30.9	324.7	177,500	279,900	185
190					11.1	276.7	182,600	197,800	26.8	315.0	170,900	263,000	190
195									22.0	303.1	164,600	242,200	195
200									15.8	287.0	158,400	219,000	200
205													205
210													210
215													215
220													220
230													230
240													240
250													250
260													260

# MLC650 VPC-MAX S-3

ASME B30.5



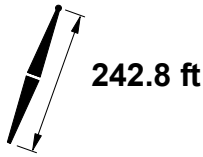
ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145	63.0	379.8	217,200	352,500									145
150	60.9	377.0	207,800	338,800									150
155	58.7	373.9	199,000	326,000									155
160	56.4	370.5	190,800	314,000									160
165	54.1	366.8	183,100	302,800									165
170	51.8	362.8	175,800	292,200									170
175	49.3	358.4	168,900	282,300	58.8	367.3	146,600	265,700					175
180	46.7	353.7	162,400	272,900	56.5	364.0	140,800	256,800					180
185	44.0	348.4	156,300	264,100	54.2	360.3	135,300	248,400					185
190	41.2	342.7	150,400	255,700	51.8	356.3	130,100	240,500					190
195	38.2	336.3	144,900	247,800	49.4	351.9	125,200	233,000					195
200	35.0	329.1	139,600	240,300	46.8	347.2	120,500	225,800	54.0	351.5	97,700	205,500	200
205	31.4	321.0	134,500	233,100	44.1	342.0	116,000	219,100	51.6	347.5	94,000	199,400	205
210	27.4	311.5	129,600	226,300	41.3	336.2	111,700	212,600	49.1	343.1	90,300	193,600	210
215	22.7	300.0	124,900	219,700	38.3	329.9	107,600	206,500	46.6	338.3	86,800	188,000	215
220	16.8	284.7	120,200	213,500	35.1	322.7	103,600	200,600	41.0	327.3	80,300	177,600	220
230					27.6	305.2	96,100	189,600	34.7	313.6	74,200	168,100	230
240					17.0	278.6	88,900	179,400	27.1	295.8	68,500	159,300	240
250									16.3	268.4	62,900	151,000	250
260													260

# MLC650 VPC-MAX S-3

ASME B30.5



881,800 lb



242.8 ft



164.0 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
80	73.6	408.5	391,000	391,000									80
85	71.7	406.7	390,800	390,800									85
90	69.9	404.9	389,600	389,600									90
95	68.0	402.8	387,400	387,400	71.2	405.2	390,300	390,300					95
100	66.1	400.5	384,400	384,400	69.3	403.2	390,300	390,300					100
105	64.1	398.0	380,600	380,600	67.4	401.1	388,500	390,300					105
110	62.1	395.3	366,100	366,100	65.5	398.7	367,400	390,300					110
115	60.1	392.4	351,100	351,100	63.5	396.2	348,200	389,200	68.4	400.2	326,200	383,700	115
120	58.0	389.2	336,000	336,000	61.5	393.4	330,700	387,200	66.5	397.9	309,600	383,700	120
125	55.9	385.7	321,300	321,300	59.5	390.4	314,600	377,200	64.5	395.5	294,400	383,700	125
130	53.7	382.0	306,700	306,700	57.4	387.1	299,800	362,400	62.5	392.8	280,500	383,700	130
135	51.5	378.0	292,900	292,900	55.2	383.6	286,100	347,500	60.5	389.9	267,600	383,700	135
140	49.2	373.6	279,500	279,500	53.0	379.8	273,400	332,600	58.5	386.8	255,600	383,700	140
145	46.8	368.8	267,000	267,000	50.8	375.6	261,600	318,100	56.4	383.4	244,500	372,400	145
150	44.3	363.6	255,200	255,200	48.4	371.1	250,600	304,000	54.2	379.7	234,100	358,000	150
155	41.6	358.0	244,200	244,200	46.0	366.3	240,300	290,500	52.0	375.8	224,400	344,500	155
160	38.8	351.7	234,200	234,200	43.4	360.9	230,700	277,800	49.7	371.5	215,300	331,900	160
165	35.8	344.8	225,000	225,000	40.8	355.1	221,600	265,900	47.3	366.8	206,700	320,100	165
170	32.6	337.0	216,900	216,900	37.9	348.6	213,100	254,800	44.8	361.7	198,700	309,000	170
175	29.0	328.0	210,100	210,100	34.8	341.4	205,000	244,700	42.2	356.1	191,100	298,600	175
180	25.0	317.5	204,500	204,500	31.5	333.3	197,300	235,700	39.4	350.0	183,900	288,800	180
185	20.1	304.5	198,600	200,900	27.8	324.0	190,100	227,900	36.5	343.2	177,100	279,500	185
190	13.4	286.1	186,200	186,200	23.5	312.8	183,100	221,700	33.3	335.6	170,700	268,500	190
195					18.3	298.6	176,400	205,900	29.8	326.9	164,500	256,900	195
200					10.4	276.5	169,800	181,400	25.8	316.8	158,600	240,500	200
205									21.2	304.4	152,900	221,900	205
210									15.0	287.5	147,300	201,100	210
215													215
220													220
230													230
240													240
250													250
260													260
270													270

# MLC650 VPC-MAX S-3

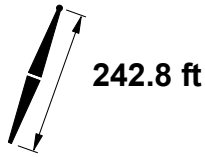
ASME B30.5



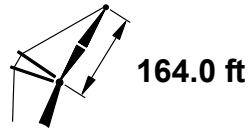
881,800 lb



360°



242.8 ft



164.0 ft

ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145	64.8	390.9	216,200	351,400									145
150	62.8	388.3	206,900	337,700									150
155	60.8	385.5	198,100	324,900									155
160	58.7	382.4	189,900	313,000									160
165	56.6	379.0	182,200	301,800									165
170	54.5	375.4	175,000	291,300									170
175	52.3	371.4	168,100	281,400									175
180	50.0	367.2	161,700	272,000	58.8	375.8	139,800	255,800					180
185	47.6	362.6	155,600	263,200	56.7	372.5	134,400	247,400					185
190	45.1	357.5	149,800	254,900	54.5	368.8	129,200	239,500					190
195	42.5	352.0	144,300	247,000	52.3	364.9	124,300	232,000					195
200	39.8	346.0	139,000	239,500	50.0	360.7	119,600	224,900					200
205	36.9	339.3	134,000	232,400	47.7	356.1	115,100	218,200					205
210	33.7	331.8	129,200	225,600	45.2	351.0	110,900	211,800	54.3	360.1	92,900	198,400	210
215	30.3	323.3	124,600	219,100	42.6	345.5	106,800	205,700	52.1	356.1	89,300	192,600	215
220	26.4	313.4	120,200	212,900	39.9	339.5	102,900	199,800	49.8	351.8	85,900	187,100	220
230	16.0	285.3	111,600	201,300	33.8	325.4	95,600	188,900	44.9	342.1	79,400	176,800	230
240					26.5	307.1	88,700	178,900	39.6	330.5	73,500	167,300	240
250					16.2	279.3	82,100	169,500	33.5	316.2	67,900	158,600	250
260									26.1	297.6	62,600	150,500	260
270									15.5	269.0	57,400	142,900	270

# MLC650 VPC-MAX S-3

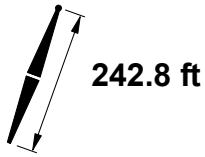
ASME B30.5



881,800 lb



360°



242.8 ft



173.9 ft

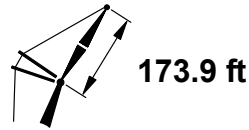
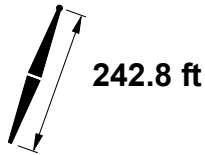
ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
80	74.6	418.8	362,000	362,000									80
85	72.8	417.2	362,000	362,000									85
90	71.1	415.4	361,700	361,700									90
95	69.3	413.4	360,300	360,300	72.3	415.6	360,100	360,100					95
100	67.5	411.3	358,500	358,500	70.5	413.8	360,100	360,100					100
105	65.7	409.0	355,900	355,900	68.7	411.8	360,100	360,100					105
110	63.9	406.5	352,600	352,600	67.0	409.6	360,100	360,100					110
115	62.0	403.8	340,100	340,100	65.1	407.2	345,600	360,100	69.7	410.8	323,200	351,800	115
120	60.1	400.8	326,700	326,700	63.3	404.7	328,100	360,100	67.9	408.7	306,700	351,800	120
125	58.1	397.7	313,400	313,400	61.4	401.9	312,000	358,600	66.1	406.4	291,600	351,800	125
130	56.1	394.3	300,200	300,200	59.5	398.9	297,200	351,800	64.2	404.0	277,600	351,800	130
135	54.1	390.6	287,200	287,200	57.5	395.6	283,600	338,700	62.4	401.3	264,700	351,800	135
140	52.0	386.6	274,700	274,700	55.5	392.1	270,900	325,400	60.5	398.4	252,800	351,800	140
145	49.8	382.3	262,600	262,600	53.4	388.4	259,200	312,100	58.5	395.3	241,700	351,800	145
150	47.6	377.7	251,100	251,100	51.3	384.3	248,200	299,000	56.5	391.9	231,400	351,800	150
155	45.2	372.7	240,300	240,300	49.1	379.9	237,900	286,300	54.5	388.3	221,700	342,100	155
160	42.8	367.2	230,100	230,100	46.8	375.2	228,300	274,000	52.4	384.4	212,700	329,500	160
165	40.2	361.3	220,700	220,700	44.5	370.0	219,300	262,400	50.3	380.2	204,200	317,800	165
170	37.5	354.8	212,100	212,100	42.0	364.4	210,800	251,300	48.0	375.6	196,100	306,700	170
175	34.6	347.5	204,300	204,300	39.4	358.3	202,800	241,000	45.7	370.7	188,600	296,400	175
180	31.5	339.4	197,400	197,400	36.6	351.6	195,200	231,400	43.3	365.3	181,500	286,600	180
185	28.0	330.1	191,500	191,500	33.7	344.1	188,000	222,800	40.8	359.5	174,700	277,300	185
190	24.0	319.2	186,900	186,900	30.4	335.6	181,200	215,000	38.1	353.1	168,300	267,900	190
195	19.3	305.6	182,800	184,000	26.8	325.9	174,600	208,400	35.2	346.0	162,200	256,400	195
200	12.7	286.3	169,700	169,700	22.7	314.3	168,400	203,100	32.1	338.1	156,400	245,600	200
205					17.5	299.4	162,300	187,900	28.7	329.0	150,800	235,500	205
210					9.7	276.1	156,200	165,300	24.9	318.5	145,500	219,400	210
215									20.3	305.6	140,300	202,700	215
220									14.3	288.0	135,200	183,700	220
230													230
240													240
250													250
260													260
270													270
280													280

# MLC650 VPC-MAX S-3

ASME B30.5



881,800 lb



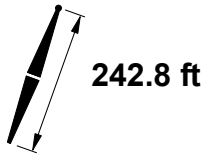
ft	75°				70°				65°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150	64.5	399.4	203,700	331,200									150
155	62.6	396.8	195,000	322,200									155
160	60.7	393.9	186,900	310,300									160
165	58.8	390.8	179,200	299,200									165
170	56.8	387.5	172,000	288,700									170
175	54.8	383.9	165,200	278,900									175
180	52.7	380.1	158,800	269,600									180
185	50.5	375.9	152,700	260,800	58.8	384.3	131,200	244,800					185
190	48.3	371.4	147,000	252,500	56.9	381.0	126,000	236,900					190
195	46.0	366.5	141,500	244,700	54.8	377.4	121,100	229,500					195
200	43.6	361.2	136,300	237,200	52.8	373.5	116,500	222,400					200
205	41.1	355.4	131,400	230,100	50.6	369.4	112,100	215,700					205
210	38.5	349.1	126,600	223,400	48.4	364.9	107,900	209,300					210
215	35.6	342.1	122,100	216,900	46.1	360.0	103,900	203,200	54.6	368.6	86,100	190,000	215
220	32.6	334.3	117,700	210,800	43.7	354.7	100,000	197,400	52.6	364.8	82,700	184,500	220
230	25.4	315.1	109,500	199,300	38.5	342.7	92,800	186,600	48.2	356.0	76,300	174,300	230
240	15.3	285.9	101,600	188,700	32.7	327.9	86,100	176,600	43.5	345.8	70,400	164,900	240
250					25.6	308.8	79,800	167,400	38.3	333.6	65,000	156,200	250
260					15.5	279.9	73,700	158,900	32.4	318.7	59,800	148,200	260
270									25.2	299.4	55,000	140,800	270
280									14.8	269.5	50,200	133,700	280

# MLC650 VPC-MAX S-3

ASME B30.5



881,800 lb



242.8 ft



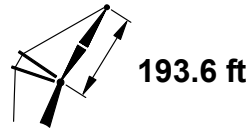
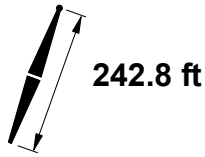
193.6 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
85	74.6	437.8	311,800	311,800									85
90	73.1	436.2	311,800	311,800									90
95	71.5	434.5	311,300	311,300									95
100	69.9	432.6	310,500	310,500	72.6	434.7	309,000	309,000					100
105	68.3	430.6	309,400	309,400	71.0	433.0	309,000	309,000					105
110	66.7	428.4	307,900	307,900	69.4	431.0	309,000	309,000					110
115	65.1	426.0	306,000	306,000	67.8	428.9	309,000	309,000					115
120	63.4	423.5	303,500	303,500	66.2	426.7	309,000	309,000					120
125	61.7	420.7	294,300	294,300	64.6	424.2	308,600	309,000	68.7	428.0	287,700	302,000	125
130	60.0	417.8	283,600	283,600	62.9	421.6	293,900	309,000	67.0	425.8	273,800	302,000	130
135	58.3	414.6	272,800	272,800	61.2	418.8	280,300	307,900	65.4	423.5	261,000	302,000	135
140	56.5	411.3	262,100	262,100	59.5	415.8	267,700	306,400	63.8	421.0	249,100	302,000	140
145	54.7	407.7	251,600	251,600	57.7	412.6	256,000	295,900	62.1	418.2	238,100	302,000	145
150	52.8	403.8	241,400	241,400	55.9	409.2	245,000	285,200	60.4	415.3	227,800	302,000	150
155	50.9	399.7	231,400	231,400	54.1	405.5	234,800	274,500	58.6	412.2	218,200	302,000	155
160	48.9	395.3	221,900	221,900	52.2	401.6	225,300	263,900	56.8	408.9	209,200	302,000	160
165	46.9	390.6	212,900	212,900	50.3	397.4	216,300	253,500	55.0	405.4	200,700	302,000	165
170	44.7	385.5	204,200	204,200	48.3	392.9	207,900	243,400	53.2	401.6	192,800	302,000	170
175	42.6	380.0	196,100	196,100	46.2	388.0	199,900	233,500	51.3	397.5	185,300	293,200	175
180	40.3	374.0	188,600	188,600	44.1	382.8	192,400	224,200	49.3	393.2	178,200	283,400	180
185	37.8	367.6	181,600	181,600	41.8	377.2	185,300	215,300	47.3	388.5	171,500	274,200	185
190	35.3	360.5	175,200	175,200	39.5	371.1	178,500	206,900	45.2	383.5	165,200	265,500	190
195	32.5	352.7	169,400	169,400	37.1	364.4	172,100	199,100	43.0	378.1	159,200	255,300	195
200	29.5	343.9	164,300	164,300	34.4	357.1	166,000	191,900	40.7	372.2	153,400	244,600	200
205	26.2	333.9	160,100	160,100	31.6	349.0	160,200	185,400	38.3	365.9	148,000	234,600	205
210	22.4	322.2	156,700	156,700	28.5	339.9	154,600	179,600	35.8	358.9	142,800	225,100	210
215	17.9	307.5	154,800	154,800	25.1	329.5	149,300	174,700	33.1	351.3	137,800	216,300	215
220	11.4	286.4	142,500	142,500	21.1	317.0	144,100	170,800	30.2	342.7	133,000	207,900	220
230					8.3	275.0	134,000	138,600	23.3	321.7	124,000	184,700	230
240									13.0	288.6	115,300	154,800	240
250													250
260													260
270													270
280													280
290													290
300													300



# MLC650 VPC-MAX S-3

ASME B30.5



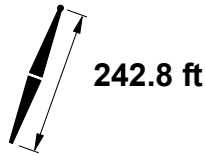
ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160	64.0	416.4	182,700	281,700									160
165	62.3	413.8	175,100	281,700									165
170	60.6	410.9	168,000	281,700									170
175	58.9	407.8	161,300	275,300									175
180	57.1	404.5	154,900	266,100									180
185	55.3	401.0	148,900	257,400									185
190	53.4	397.2	143,200	249,200									190
195	51.5	393.2	137,800	241,400	58.9	401.3	116,900	225,800					195
200	49.6	388.9	132,700	234,000	57.1	398.0	112,300	218,800					200
205	47.6	384.3	127,800	226,900	55.3	394.5	108,000	212,200					205
210	45.5	379.3	123,100	220,200	53.5	390.7	103,800	205,900					210
215	43.3	374.0	118,700	213,900	51.6	386.7	99,900	199,900					215
220	41.0	368.2	114,400	207,800	49.6	382.4	96,100	194,100					220
230	36.1	355.0	106,400	196,400	45.5	372.8	89,000	183,400	53.3	381.9	72,000	170,800	230
240	30.6	339.1	99,000	186,000	41.1	361.7	82,500	173,500	49.4	373.6	66,300	161,500	240
250	23.8	318.4	92,100	176,400	36.2	348.6	76,400	164,500	45.3	363.9	61,000	152,900	250
260	14.0	286.8	85,400	165,200	30.7	332.7	70,800	156,100	40.9	352.7	56,000	145,100	260
270					23.9	312.2	65,400	148,300	36.0	339.5	51,400	137,700	270
280					14.2	280.9	60,100	141,000	30.4	323.4	47,000	130,900	280
290									23.5	302.6	42,900	124,500	290
300									13.5	270.3	38,700	118,400	300

# MLC650 VPC-MAX S-3

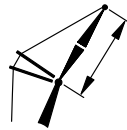
ASME B30.5



881,800 lb



242.8 ft

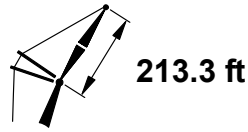
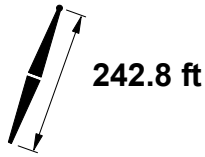


213.3 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
90	74.7	456.9	267,400	267,400									90
95	73.3	455.3	267,400	267,400									95
100	71.9	453.6	267,100	267,100									100
105	70.4	451.8	266,600	266,600	72.8	453.8	264,800	264,800					105
110	69.0	449.8	265,900	265,900	71.4	452.1	264,800	264,800					110
115	67.5	447.7	264,700	264,700	70.0	450.2	264,800	264,800					115
120	66.1	445.5	264,300	264,300	68.5	448.2	264,800	264,800					120
125	64.6	443.0	263,200	263,200	67.1	446.0	264,800	264,800					125
130	63.1	440.4	261,300	261,300	65.6	443.7	264,800	264,800	69.3	447.2	258,000	258,000	130
135	61.5	437.7	255,500	255,500	64.1	441.2	264,800	264,800	67.8	445.1	257,200	258,000	135
140	60.0	434.7	247,000	247,000	62.6	438.6	264,300	264,300	66.4	442.9	245,400	258,000	140
145	58.4	431.6	238,600	238,600	61.0	435.8	252,700	263,500	64.9	440.5	234,400	258,000	145
150	56.8	428.3	230,000	230,000	59.5	432.8	241,800	262,400	63.4	437.9	224,200	258,000	150
155	55.1	424.8	221,600	221,600	57.9	429.6	231,600	259,100	61.8	435.2	214,600	258,000	155
160	53.4	421.0	213,300	213,300	56.3	426.2	222,100	250,700	60.3	432.3	205,600	258,000	160
165	51.7	417.0	205,200	205,200	54.6	422.6	213,200	242,200	58.7	429.2	197,200	258,000	165
170	50.0	412.8	197,400	197,400	52.9	418.8	204,800	233,700	57.1	425.9	189,300	258,000	170
175	48.1	408.2	189,800	189,800	51.2	414.7	196,800	225,300	55.5	422.4	181,900	258,000	175
180	46.3	403.4	182,500	182,500	49.4	410.4	189,400	217,000	53.8	418.7	174,800	258,000	180
185	44.4	398.2	175,600	175,600	47.6	405.8	182,300	208,900	52.1	414.8	168,200	258,000	185
190	42.3	392.7	169,100	169,100	45.7	400.8	175,600	201,100	50.3	410.6	161,900	255,100	190
195	40.3	386.8	162,900	162,900	43.7	395.6	169,200	193,600	48.5	406.1	155,900	246,700	195
200	38.1	380.4	157,200	157,200	41.7	389.9	163,200	186,400	46.7	401.4	150,200	238,300	200
205	35.8	373.4	151,800	151,800	39.6	383.8	157,400	179,600	44.7	396.3	144,800	229,900	205
210	33.3	365.8	147,000	147,000	37.4	377.3	152,000	173,100	42.8	390.8	139,700	221,700	210
215	30.7	357.5	142,600	142,600	35.0	370.1	146,700	167,200	40.7	385.0	134,800	213,800	215
220	27.9	348.1	138,800	138,800	32.5	362.3	141,700	161,700	38.5	378.7	130,100	206,100	220
230	21.1	324.9	133,100	133,100	26.9	343.9	132,200	152,200	33.8	364.4	121,200	191,300	230
240	10.3	286.2	119,800	119,800	19.8	319.4	123,400	145,500	28.5	347.0	113,100	177,400	240
250					7.1	273.3	114,800	116,200	21.8	324.5	105,500	156,500	250
260									11.9	288.9	98,100	130,900	260
270													270
280													280
290													290
300													300
310													310
320													320

# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°				65°				ft
	ft	ft	lb	lb	ft	ft	lb	lb	ft	ft	lb	lb	
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160													160
165													165
170	63.6	433.4	164,000	242,400									170
175	62.0	430.7	157,300	242,400									175
180	60.5	427.8	151,000	242,400									180
185	58.9	424.8	145,000	242,400									185
190	57.3	421.5	139,400	242,400									190
195	55.7	418.0	134,000	238,000									195
200	54.0	414.4	128,900	230,700									200
205	52.3	410.5	124,100	223,700	59.0	418.2	103,800	208,700					205
210	50.6	406.3	119,500	217,000	57.4	415.0	99,700	202,400					210
215	48.8	401.9	115,100	210,700	55.7	411.5	95,800	196,400					215
220	46.9	397.1	110,900	204,700	54.1	407.8	92,100	190,700					220
230	43.0	386.7	103,000	193,400	50.6	399.8	85,100	180,100					230
240	38.8	374.7	95,800	183,100	47.0	390.7	78,700	170,300	53.9	399.1	62,000	158,000	240
250	34.2	360.6	89,000	173,600	43.1	380.2	72,700	161,400	50.4	391.0	56,800	149,600	250
260	28.9	343.5	82,800	164,800	38.9	368.2	67,200	153,100	46.8	381.8	52,000	141,800	260
270	22.3	321.4	76,900	156,600	34.3	354.2	62,100	145,400	42.9	371.3	47,500	134,600	270
280	12.8	287.4	71,100	140,300	28.9	337.1	57,200	138,300	38.7	359.2	43,300	127,800	280
290					22.5	315.2	52,600	131,600	34.0	345.0	39,300	121,600	290
300					13.0	281.5	48,000	125,200	28.7	327.8	35,600	115,700	300
310									22.1	305.5	31,900	110,200	310
320									12.4	270.7	28,300	104,800	320

# MLC650 VPC-MAX S-3

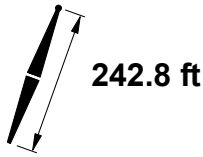
ASME B30.5



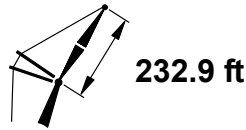
881,800 lb



360°



242.8 ft

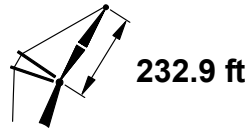
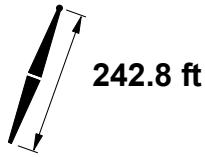


232.9 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
95	74.7	475.9	243,600	243,600									95
100	73.5	474.4	243,500	243,500									100
105	72.2	472.7	243,100	243,100									105
110	70.9	470.9	242,600	242,600									110
115	69.5	469.0	241,900	241,900	71.8	471.2	241,000	241,000					115
120	68.2	467.0	241,000	241,000	70.4	469.4	241,000	241,000					120
125	66.9	464.8	239,900	239,900	69.1	467.4	241,000	241,000					125
130	65.5	462.5	238,700	238,700	67.8	465.3	241,000	241,000					130
135	64.1	460.0	237,600	237,600	66.4	463.1	240,900	240,900	69.8	466.4	232,900	232,900	135
140	62.8	457.4	236,000	236,000	65.1	460.7	240,400	240,400	68.5	464.4	232,900	232,900	140
145	61.3	454.6	228,900	228,900	63.7	458.2	239,900	239,900	67.1	462.2	228,100	232,900	145
150	59.9	451.7	221,600	221,600	62.3	455.6	236,200	239,200	65.8	459.9	218,000	232,900	150
155	58.5	448.6	214,300	214,300	60.9	452.7	226,000	238,400	64.4	457.5	208,500	232,900	155
160	57.0	445.3	207,000	207,000	59.5	449.7	216,600	237,400	63.0	454.9	199,600	232,900	160
165	55.5	441.8	199,800	199,800	58.0	446.6	207,700	233,900	61.6	452.2	191,200	232,900	165
170	54.0	438.1	192,700	192,700	56.5	443.2	199,300	226,600	60.2	449.3	183,400	232,900	170
175	52.4	434.2	185,700	185,700	55.0	439.7	191,500	219,400	58.8	446.2	176,000	232,900	175
180	50.8	430.1	179,000	179,000	53.5	435.9	184,000	212,100	57.3	442.9	169,000	232,900	180
185	49.2	425.8	172,400	172,400	51.9	432.0	177,000	204,900	55.8	439.5	162,400	232,900	185
190	47.5	421.1	166,100	166,100	50.3	427.8	170,400	197,800	54.3	435.8	156,200	232,900	190
195	45.8	416.2	160,100	160,100	48.7	423.3	164,000	190,800	52.7	432.0	150,200	232,900	195
200	44.0	411.0	154,300	154,300	47.0	418.6	158,000	184,000	51.1	427.9	144,600	232,900	200
205	42.2	405.5	148,900	148,900	45.2	413.6	152,300	177,500	49.5	423.6	139,300	226,200	205
210	40.3	399.5	143,800	143,800	43.5	408.3	146,900	171,200	47.9	419.0	134,200	218,900	210
215	38.3	393.2	139,000	139,000	41.6	402.7	141,700	165,100	46.1	414.2	129,300	211,100	215
220	36.2	386.3	134,400	134,400	39.7	396.6	136,800	159,400	44.4	409.1	124,700	202,900	220
230	31.7	370.8	126,500	126,500	35.5	383.1	127,500	148,900	40.7	397.7	116,000	187,700	230
240	26.4	352.0	120,200	120,200	30.9	367.2	118,900	139,800	36.6	384.7	108,000	174,100	240
250	19.9	327.3	116,100	116,100	25.5	347.6	111,000	132,500	32.1	369.5	100,600	161,700	250
260	9.3	285.6	98,800	98,800	18.6	321.5	103,500	122,100	27.0	351.1	93,700	149,500	260
270					5.9	270.8	95,300	95,300	20.6	327.2	87,200	131,100	270
280									10.9	288.9	80,800	108,900	280
290													290
300													300
310													310
320													320
330													330
340													340

# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160													160
165													165
170													170
175	64.6	453.0	150,600	215,900									175
180	63.2	450.4	144,400	215,900									180
185	61.8	447.7	138,500	215,900									185
190	60.4	444.8	132,900	215,900									190
195	59.0	441.7	127,600	215,900									195
200	57.5	438.5	122,600	215,900									200
205	56.0	435.1	117,800	215,900									205
210	54.5	431.5	113,200	212,000									210
215	52.9	427.6	108,900	205,700	59.0	435.2	89,000	191,000					215
220	51.4	423.6	104,800	199,700	57.5	432.0	85,300	185,300					220
230	48.1	414.8	97,000	188,500	54.5	424.9	78,400	174,800					230
240	44.6	404.9	89,900	178,300	51.4	417.1	72,100	165,200					240
250	40.9	393.7	83,300	168,900	48.1	408.3	66,300	156,300	54.4	416.2	49,800	144,100	250
260	36.9	380.8	77,200	160,200	44.7	398.4	61,000	148,100	51.3	408.3	45,200	136,400	260
270	32.5	365.7	71,500	152,200	41.0	387.2	56,000	140,600	48.0	399.5	40,800	129,300	270
280	27.4	347.5	66,200	144,700	37.0	374.3	51,300	133,500	44.5	389.5	36,700	122,700	280
290	21.1	324.1	61,100	137,700	32.5	359.3	46,900	127,000	40.8	378.2	32,900	116,500	290
300	11.8	287.7	56,100	117,400	27.5	341.2	42,700	120,800	36.8	365.3	29,300	110,800	300
310					21.2	317.9	38,700	115,000	32.3	350.1	25,900	105,400	310
320					12.0	281.9	34,700	109,500	27.2	331.8	22,700	100,300	320
330									20.9	308.2		95,400	330
340									11.4	270.9		90,800	340

# MLC650 VPC-MAX S-3

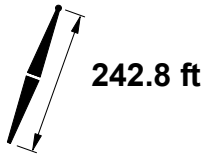
ASME B30.5



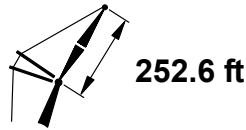
881,800 lb



360°



242.8 ft

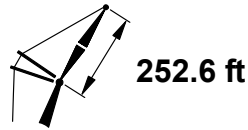
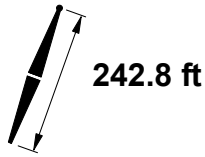


252.6 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
100	74.8	495.0	211,100	211,100									100
105	73.6	493.4	211,000	211,000									105
110	72.4	491.8	210,600	210,600									110
115	71.2	490.1	210,100	210,100									115
120	70.0	488.2	209,500	209,500	72.0	490.3	208,300	208,300					120
125	68.8	486.2	208,800	208,800	70.8	488.5	208,300	208,300					125
130	67.5	484.1	207,900	207,900	69.6	486.6	208,300	208,300					130
135	66.3	481.9	207,000	207,000	68.4	484.6	208,200	208,200					135
140	65.0	479.5	205,900	205,900	67.2	482.4	207,900	207,900					140
145	63.8	477.0	204,700	204,700	65.9	480.2	207,500	207,500	69.0	483.6	201,400	201,400	145
150	62.5	474.4	203,600	203,600	64.7	477.8	207,000	207,000	67.8	481.5	201,400	201,400	150
155	61.2	471.6	200,100	200,100	63.4	475.2	206,500	206,500	66.6	479.3	201,400	201,400	155
160	59.9	468.6	194,300	194,300	62.1	472.5	205,800	205,800	65.3	477.0	195,800	201,400	160
165	58.6	465.5	188,300	188,300	60.8	469.7	204,300	205,000	64.0	474.5	187,500	201,400	165
170	57.2	462.3	182,400	182,400	59.5	466.7	195,900	204,200	62.8	471.9	179,700	201,400	170
175	55.8	458.8	176,500	176,500	58.1	463.5	188,100	203,400	61.5	469.1	172,300	201,400	175
180	54.4	455.2	170,600	170,600	56.8	460.2	180,700	199,900	60.2	466.2	165,400	201,400	180
185	53.0	451.4	164,900	164,900	55.4	456.7	173,700	194,000	58.8	463.1	158,800	201,400	185
190	51.5	447.4	159,300	159,300	54.0	453.1	167,100	188,100	57.5	459.9	152,600	201,400	190
195	50.1	443.2	153,800	153,800	52.5	449.2	160,800	182,200	56.1	456.5	146,700	201,400	195
200	48.5	438.7	148,500	148,500	51.1	445.1	154,800	176,300	54.7	452.9	141,100	201,400	200
205	47.0	434.0	143,300	143,300	49.6	440.8	149,200	170,500	53.3	449.2	135,800	201,400	205
210	45.4	429.1	138,500	138,500	48.1	436.3	143,800	164,900	51.8	445.2	130,700	201,400	210
215	43.7	423.8	133,700	133,700	46.5	431.5	138,600	159,300	50.4	441.0	125,900	201,400	215
220	42.0	418.2	129,300	129,300	44.9	426.4	133,700	154,000	48.8	436.6	121,300	195,900	220
230	38.5	406.0	121,000	121,000	41.5	415.4	124,500	143,900	45.7	427.0	112,700	184,200	230
240	34.5	391.9	113,700	113,700	37.9	402.9	116,000	134,700	42.4	416.3	104,700	171,700	240
250	30.2	375.5	107,600	107,600	33.9	388.6	108,200	126,400	38.8	404.2	97,400	159,500	250
260	25.1	355.6	102,800	102,800	29.5	371.7	101,000	119,300	35.0	390.4	90,700	148,300	260
270	18.8	329.5	99,700	99,700	24.2	351.0	94,200	113,600	30.7	374.3	84,400	138,000	270
280	8.3	284.6	81,900	81,900	17.6	323.4	87,700	102,800	25.7	354.8	78,400	126,700	280
290					4.6	267.2	78,300	78,300	19.5	329.5	72,800	110,900	290
300									10.0	288.6	67,300	91,300	300
310													310
320													320
330													330
340													340
350													350
360													360

# MLC650 VPC-MAX S-3

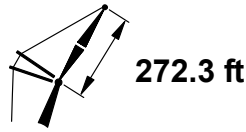
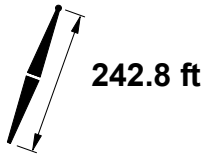
ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160													160
165													165
170													170
175													175
180													180
185	64.2	470.0	134,400	186,000									185
190	62.9	467.4	128,800	186,000									190
195	61.6	464.6	123,600	186,000									195
200	60.3	461.7	118,600	186,000									200
205	59.0	458.7	113,900	186,000									205
210	57.7	455.5	109,300	186,000									210
215	56.3	452.1	105,000	186,000									215
220	54.9	448.5	100,900	186,000									220
230	52.0	440.9	93,200	185,400	57.7	448.9	74,300	170,400					230
240	49.1	432.3	86,200	175,200	54.9	442.0	68,100	161,800					240
250	45.9	422.8	79,700	165,900	52.1	434.3	62,300	153,000					250
260	42.6	412.2	73,700	157,300	49.1	425.8	57,000	144,900	54.8	433.3	40,900	133,000	260
270	39.1	400.2	68,100	149,300	46.0	416.3	52,100	137,400	51.9	425.6	36,600	126,000	270
280	35.2	386.5	62,900	141,900	42.7	405.7	47,500	130,500	49.0	417.0	32,600	119,400	280
290	31.0	370.6	58,000	134,900	39.1	393.8	43,300	124,000	45.8	407.5	28,900	113,300	290
300	26.0	351.4	53,300	128,500	35.3	380.1	39,200	117,900	42.5	396.8	25,400	107,600	300
310	20.0	326.6	48,900	117,700	31.0	364.2	35,400	112,200	39.0	384.8	22,100	102,300	310
320	10.9	287.7	44,500	99,000	26.1	345.1	31,800	106,800	35.1	371.0		97,300	320
330					20.1	320.4	28,300	101,800	30.8	355.0		92,600	330
340					11.1	282.0	24,700	96,900	25.9	335.6		88,100	340
350									19.8	310.6		83,800	350
360									10.4	270.8		79,700	360

# MLC650 VPC-MAX S-3

ASME B30.5

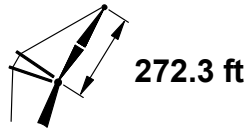
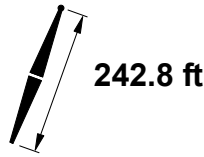


ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
105	74.8	514.0	182,900	182,900									105
110	73.7	512.5	182,300	182,300									110
115	72.6	510.9	181,900	181,900									115
120	71.5	509.2	181,400	181,400									120
125	70.4	507.4	180,900	180,900	72.3	509.4	180,000	180,000					125
130	69.3	505.4	180,200	180,200	71.2	507.6	180,000	180,000					130
135	68.1	503.4	179,500	179,500	70.0	505.8	179,800	179,800					135
140	67.0	501.2	178,700	178,700	68.9	503.8	179,600	179,600					140
145	65.8	498.9	177,800	177,800	67.8	501.7	179,300	179,300					145
150	64.7	496.5	176,900	176,900	66.6	499.5	179,000	179,000	69.5	502.8	174,000	174,000	150
155	63.5	494.0	175,900	175,900	65.5	497.2	178,500	178,500	68.4	500.8	174,000	174,000	155
160	62.3	491.3	174,900	174,900	64.3	494.8	178,000	178,000	67.2	498.6	174,000	174,000	160
165	61.1	488.5	173,900	173,900	63.1	492.2	177,400	177,400	66.1	496.4	174,000	174,000	165
170	59.9	485.6	171,100	171,100	61.9	489.5	176,800	176,800	64.9	494.0	174,000	174,000	170
175	58.6	482.5	166,400	166,400	60.7	486.6	176,100	176,100	63.7	491.5	169,900	174,000	175
180	57.4	479.3	161,600	161,600	59.5	483.6	175,400	175,400	62.5	488.8	162,900	174,000	180
185	56.1	475.9	156,700	156,700	58.2	480.5	171,600	174,600	61.3	486.1	156,400	174,000	185
190	54.8	472.3	152,000	152,000	57.0	477.2	165,000	173,900	60.1	483.2	150,200	174,000	190
195	53.5	468.6	147,300	147,300	55.7	473.8	158,800	172,200	58.9	480.1	144,400	174,000	195
200	52.2	464.6	142,600	142,600	54.4	470.2	152,800	167,500	57.6	476.9	138,800	174,000	200
205	50.8	460.5	138,100	138,100	53.1	466.4	147,200	162,700	56.4	473.5	133,500	174,000	205
210	49.4	456.2	133,700	133,700	51.7	462.4	141,800	158,000	55.1	470.0	128,500	174,000	210
215	48.0	451.7	129,400	129,400	50.4	458.2	136,700	153,300	53.8	466.3	123,700	173,800	215
220	46.5	446.9	125,200	125,200	49.0	453.8	131,800	148,600	52.4	462.4	119,100	173,400	220
230	43.5	436.6	117,300	117,300	46.1	444.3	122,700	139,500	49.7	454.0	110,600	172,600	230
240	40.3	425.0	110,000	110,000	43.0	433.8	114,300	130,900	46.8	444.8	102,700	166,300	240
250	36.8	412.1	103,500	103,500	39.8	422.1	106,500	122,800	43.8	434.6	95,500	156,900	250
260	33.1	397.3	97,800	97,800	36.3	408.9	99,400	115,500	40.6	423.2	88,800	147,500	260
270	28.9	380.0	92,900	92,900	32.5	393.7	92,700	108,900	37.2	410.4	82,600	137,300	270
280	24.0	359.0	89,100	89,100	28.2	376.0	86,500	103,300	33.5	395.8	76,800	127,900	280
290	17.8	331.5	86,800	86,900	23.1	354.2	80,600	98,800	29.3	378.8	71,300	119,200	290
300	7.4	283.1	68,300	68,300	16.7	325.1	75,000	87,300	24.5	358.3	66,200	108,500	300
310					3.0	261.2	64,100	64,100	18.5	331.7	61,300	94,700	310
320									9.1	287.9	56,400	77,100	320
330													330
340													340
350													350
360													360
370													370
380													380



# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°				65°			ft
	°	ft	lb	lb	°	ft	lb	lb	°	ft	lb	
105												105
110												110
115												115
120												120
125												125
130												130
135												135
140												140
145												145
150												150
155												155
160												160
165												165
170												170
175												175
180												180
185												185
190												190
195	63.9	487.0	120,800	161,800								195
200	62.7	484.3	115,900	161,800								200
205	61.5	481.6	111,200	161,800								205
210	60.3	478.7	106,700	161,800								210
215	59.0	475.6	102,400	161,800								215
220	57.8	472.5	98,400	161,800								220
230	55.2	465.6	90,800	161,800								230
240	52.6	458.1	83,800	161,800	57.8	465.9	65,300	148,400				240
250	49.9	449.8	77,300	161,800	55.3	459.1	59,600	148,400				250
260	47.0	440.6	71,400	155,200	52.6	451.5	54,400	142,700				260
270	44.0	430.5	65,900	147,300	49.9	443.3	49,600	135,300				270
280	40.8	419.1	60,800	140,000	47.1	434.1	45,100	128,300	52.5	442.8	117,100	280
290	37.4	406.4	56,000	133,100	44.1	424.0	40,800	121,900	49.8	434.4	111,100	290
300	33.7	392.0	51,400	126,700	40.9	412.7	36,900	115,900	46.9	425.2	105,400	300
310	29.6	375.2	47,200	120,100	37.5	400.0	33,200	110,300	43.9	415.1	100,200	310
320	24.9	354.9	43,100	112,000	33.8	385.6	29,700	105,000	40.7	403.7	95,200	320
330	19.0	328.9	39,200	101,000	29.7	368.8	26,300	100,000	37.3	391.0	90,600	330
340	10.0	287.5	35,300	84,300	25.0	348.6	23,100	95,300	33.6	376.4	86,200	340
350					19.1	322.7	20,000	90,900	29.5	359.5	82,000	350
360					10.2	281.8		86,500	24.7	339.1	78,100	360
370									18.8	312.8	74,300	370
380									9.6	270.3	70,600	380

# MLC650 VPC-MAX S-3

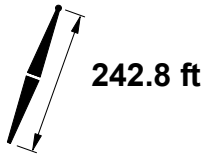
ASME B30.5



881,800 lb



360°



242.8 ft

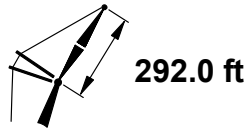
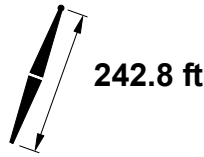


292.0 ft

ft	85°				83°				80°				ft	
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb		
110	74.9	533.0	171,600	171,600									110	
115	73.8	531.6	171,300	171,300									115	
120	72.8	530.0	170,800	170,800									120	
125	71.8	528.3	170,300	170,300									125	
130	70.7	526.5	169,600	169,600	72.5	528.5	168,900	168,900					130	
135	69.7	524.6	168,900	168,900	71.4	526.7	168,800	168,800					135	
140	68.6	522.6	168,200	168,200	70.4	524.9	168,600	168,600					140	
145	67.6	520.5	167,400	167,400	69.3	523.0	168,300	168,300					145	
150	66.5	518.3	166,500	166,500	68.3	521.0	167,900	167,900					150	
155	65.4	516.0	165,600	165,600	67.2	518.8	167,500	167,500	69.9	522.0	162,700	162,700	155	
160	64.3	513.6	164,600	164,600	66.1	516.6	167,000	167,000	68.8	520.0	162,700	162,700	160	
165	63.2	511.0	163,600	163,600	65.1	514.2	166,400	166,400	67.8	517.9	162,700	162,700	165	
170	62.1	508.3	162,500	162,500	64.0	511.8	165,800	165,800	66.7	515.7	162,700	162,700	170	
175	61.0	505.5	160,400	160,400	62.9	509.2	165,100	165,100	65.6	513.4	161,000	162,700	175	
180	59.8	502.6	156,200	156,200	61.7	506.4	164,400	164,400	64.5	511.0	154,200	162,700	180	
185	58.7	499.5	151,900	151,900	60.6	503.6	163,600	163,700	63.4	508.5	147,700	162,700	185	
190	57.5	496.3	147,500	147,500	59.5	500.6	157,000	162,900	62.3	505.8	141,600	162,700	190	
195	56.3	492.9	143,300	143,300	58.3	497.5	150,800	162,100	61.2	503.0	135,800	162,700	195	
200	55.1	489.4	139,100	139,100	57.1	494.2	144,900	161,200	60.1	500.1	130,300	162,700	200	
205	53.9	485.7	134,800	134,800	56.0	490.8	139,300	158,200	58.9	497.1	125,100	162,500	205	
210	52.7	481.8	130,800	130,800	54.7	487.2	133,900	154,000	57.7	493.9	120,100	162,100	210	
215	51.4	477.8	126,700	126,700	53.5	483.5	128,900	149,800	56.6	490.5	115,300	161,700	215	
220	50.1	473.6	122,700	122,700	52.3	479.6	124,000	145,500	55.4	487.0	110,800	161,300	220	
230	47.5	464.6	115,100	115,100	49.7	471.2	114,900	137,200	52.9	479.6	102,300	160,400	230	
240	44.7	454.7	108,100	108,100	47.1	462.1	106,600	129,100	50.4	471.4	94,600	159,400	240	
250	41.8	443.7	101,500	101,500	44.3	452.0	98,900	121,400	47.8	462.5	87,400	152,300	250	
260	38.7	431.5	95,500	95,500	41.3	440.9	91,900	114,100	45.0	452.7	80,800	141,100	260	
270	35.4	417.9	90,200	90,200	38.2	428.5	85,300	107,400	42.1	441.8	74,700	130,900	270	
280	31.8	402.3	85,500	85,500	34.9	414.6	79,200	101,300	39.0	429.8	69,000	121,600	280	
290	27.7	384.1	80,000	81,600	31.2	398.6	73,400	95,900	35.7	416.3	63,600	113,100	290	
300	23.0	362.2	74,300	78,600	27.0	380.0	68,000	91,400	32.1	400.9	58,600	105,100	300	
310	17.0	333.2	68,600	68,600	22.1	357.2	62,900	81,400	28.1	383.1	53,900	97,800	310	
320	6.5	281.2	51,100	51,100	15.8	326.6	58,000	68,600	23.5	361.6	49,400	87,500	320	
330										17.7	333.6	45,100	75,300	330
340										8.3	287.0	40,700	59,300	340
350														350
360														360
370														370
380														380
390														390
400														400

# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°				65°				
	ft	ft	lb	lb	ft	ft	lb	lb	ft	ft	lb	ft	
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160													160
165													165
170													170
175													175
180													180
185													185
190													190
195													195
200	64.7	506.5	106,400	149,900									200
205	63.6	503.9	101,800	149,900									205
210	62.5	501.3	97,400	149,900									210
215	61.3	498.5	93,200	149,900									215
220	60.2	495.6	89,100	149,900									220
230	57.9	489.4	81,700	149,900									230
240	55.5	482.7	74,800	149,900									240
250	53.1	475.2	68,500	149,900	57.9	482.9	50,000	137,300					250
260	50.6	467.1	62,600	148,500	55.6	476.1	44,900	135,400					260
270	47.9	458.2	57,200	140,600	53.1	468.7	40,200	128,100					270
280	45.2	448.5	52,200	133,300	50.6	460.6	35,800	121,200					280
290	42.3	437.7	47,500	126,600	48.0	451.7	31,700	114,900	53.0	459.9	103,600		290
300	39.3	425.7	43,100	120,200	45.2	442.0	27,800	109,000	50.5	451.8	98,100		300
310	36.0	412.4	38,900	113,800	42.4	431.2	24,200	103,400	47.8	442.9	92,900		310
320	32.4	397.1	35,000	105,900	39.3	419.3	20,800	98,200	45.1	433.1	88,000		320
330	28.4	379.5	31,300	98,500	36.0	405.9		93,300	42.2	422.3	83,400		330
340	23.8	358.3	27,800	91,600	32.5	390.8		88,700	39.1	410.3	79,100		340
350	18.1	330.9	24,300	81,200	28.5	373.1		84,300	35.9	396.8	75,100		350
360	9.2	286.9	20,800	66,100	23.9	352.0		80,200	32.3	381.6	71,200		360
370					18.2	324.8		76,200	28.3	363.8	67,600		370
380					9.4	281.3		71,500	23.6	342.5	64,100		380
390									17.9	314.8	60,700		390
400									8.8	269.5	57,400		400

# MLC650 VPC-MAX S-3

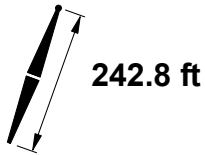
ASME B30.5



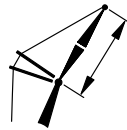
881,800 lb



360°



242.8 ft

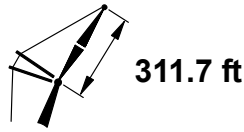
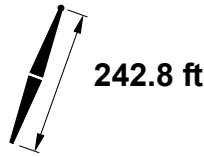


311.7 ft

ft	85°				83°				80°				ft	
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb		
115	74.9	552.1	150,000	150,000									115	
120	73.9	550.6	149,600	149,600									120	
125	73.0	549.0	148,900	148,900									125	
130	72.0	547.4	148,400	148,400									130	
135	71.0	545.6	147,700	147,700	72.7	547.5	147,000	147,000					135	
140	70.0	543.8	147,100	147,100	71.7	545.8	146,800	146,800					140	
145	69.1	541.8	146,400	146,400	70.7	544.1	146,500	146,500					145	
150	68.1	539.8	145,600	145,600	69.7	542.2	146,100	146,100					150	
155	67.1	537.6	144,800	144,800	68.7	540.2	145,800	145,800					155	
160	66.0	535.4	144,000	144,000	67.7	538.1	145,400	145,400					160	
165	65.0	533.0	143,200	143,200	66.7	535.9	144,900	144,900	69.3	539.2	141,200	141,200	165	
170	64.0	530.6	142,400	142,400	65.7	533.7	144,300	144,300	68.3	537.2	141,200	141,200	170	
175	63.0	528.0	141,400	141,400	64.7	531.3	143,700	143,700	67.3	535.0	141,200	141,200	175	
180	61.9	525.3	140,500	140,500	63.7	528.8	143,100	143,100	66.3	532.8	141,200	141,200	180	
185	60.9	522.5	139,600	139,600	62.6	526.1	142,500	142,500	65.2	530.5	141,200	141,200	185	
190	59.8	519.5	138,000	138,000	61.6	523.4	141,800	141,800	64.2	528.0	139,400	141,000	190	
195	58.7	516.4	134,400	134,400	60.5	520.5	141,100	141,100	63.2	525.5	133,600	140,800	195	
200	57.6	513.2	130,900	130,900	59.5	517.6	140,400	140,400	62.1	522.8	128,100	140,600	200	
205	56.5	509.9	127,300	127,300	58.4	514.5	137,400	139,600	61.1	520.0	122,900	140,300	205	
210	55.4	506.4	123,800	123,800	57.3	511.2	132,100	138,900	60.0	517.1	118,000	140,000	210	
215	54.3	502.8	120,200	120,200	56.2	507.8	127,000	138,100	58.9	514.0	113,200	139,600	215	
220	53.1	499.0	116,800	116,800	55.1	504.3	122,200	137,100	57.9	510.8	108,700	139,200	220	
230	50.8	490.9	110,000	110,000	52.8	496.8	113,100	130,100	55.6	504.1	100,300	138,400	230	
240	48.3	482.2	103,500	103,500	50.4	488.6	104,800	123,000	53.4	496.7	92,600	137,500	240	
250	45.8	472.6	97,400	97,400	47.9	479.7	97,200	116,300	51.0	488.7	85,500	136,500	250	
260	43.1	462.1	91,700	91,700	45.4	470.0	90,200	109,700	48.6	480.0	78,900	135,500	260	
270	40.3	450.5	86,500	86,500	42.7	459.4	83,600	103,400	46.0	470.5	72,800	129,800	270	
280	37.3	437.7	81,600	81,600	39.8	447.6	77,600	97,500	43.4	460.1	67,100	120,500	280	
290	34.1	423.4	77,300	77,300	36.8	434.6	71,900	92,100	40.6	448.7	61,900	112,000	290	
300	30.6	407.1	73,100	73,600	33.6	420.0	66,600	87,200	37.6	436.0	56,900	104,100	300	
310	26.6	388.1	67,800	70,500	30.0	403.3	61,600	82,900	34.4	421.9	52,300	96,900	310	
320	22.0	365.1	62,800	68,000	26.0	383.8	56,900	78,700	31.0	405.8	47,900	90,100	320	
330	16.2	334.8	56,800	56,800	21.2	360.0	52,400	68,400	27.1	387.1	43,700	83,700	330	
340	5.7	278.6	40,600	40,600	15.0	327.9	48,000	56,900	22.5	364.6	39,800	73,900	340	
350										16.8	335.4	35,900	63,000	350
360										7.5	285.6	32,000	48,400	360
370														370
380														380
390														390
400														400
410														410
420														420

# MLC650 VPC-MAX S-3

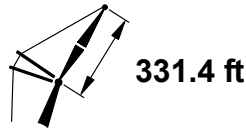
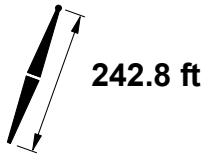
ASME B30.5



ft	75°				70°				65°				
	ft	ft	lb	lb	ft	ft	lb	lb	ft	ft	lb	ft	
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160													160
165													165
170													170
175													175
180													180
185													185
190													190
195													195
200													200
205													205
210	64.4	523.5	94,800	129,400									210
215	63.3	520.9	90,700	129,400									215
220	62.3	518.3	86,700	129,400									220
230	60.2	512.6	79,200	129,400									230
240	58.0	506.4	72,400	129,400									240
250	55.8	499.7	66,200	129,400									250
260	53.5	492.4	60,400	129,400	58.0	499.9	42,300	117,700					260
270	51.2	484.4	55,000	129,400	55.8	493.1	37,600	117,700					270
280	48.7	475.8	50,000	129,400	53.5	485.8	33,300	117,700					280
290	46.2	466.3	45,400	124,800	51.2	477.9	29,300	112,900					290
300	43.6	456.0	41,000	118,500	48.8	469.3	25,500	107,000	53.4	477.1	95,900		300
310	40.8	444.6	36,900	112,600	46.2	459.8	21,900	101,500	51.1	469.1	90,800		310
320	37.8	432.1	33,100	104,800	43.6	449.5		96,400	48.7	460.4	86,000		320
330	34.7	418.0	29,500	97,500	40.8	438.2		91,500	46.1	451.0	81,400		330
340	31.2	402.1	26,000	90,700	37.9	425.6		86,900	43.5	440.6	77,200		340
350	27.3	383.6	22,700	84,400	34.7	411.6		82,600	40.7	429.2	73,200		350
360	22.9	361.4		78,400	31.3	395.7		78,500	37.7	416.6	69,400		360
370	17.3	332.8		68,500	27.4	377.3		74,700	34.5	402.5	65,700		370
380	8.5	286.0		54,800	22.9	355.2		71,000	31.1	386.5	62,300		380
390					17.4	326.7		67,400	27.2	367.9	59,000		390
400					8.7	280.6		59,800	22.7	345.6	55,900		400
410									17.1	316.6	52,900		410
420									8.0	268.4	49,900		420

# MLC650 VPC-MAX S-3

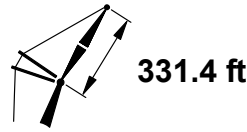
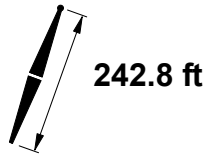
ASME B30.5



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
120	74.9	571.1	130,000	130,000									120
125	74.0	569.7	129,500	129,500									125
130	73.1	568.1	129,000	129,000									130
135	72.2	566.5	128,400	128,400									135
140	71.3	564.7	127,700	127,700	72.8	566.6	127,000	127,000					140
145	70.4	562.9	127,100	127,100	71.9	564.9	126,700	126,700					145
150	69.4	561.0	126,400	126,400	71.0	563.2	126,300	126,300					150
155	68.5	559.0	125,600	125,600	70.1	561.3	125,900	125,900					155
160	67.6	556.9	124,900	124,900	69.1	559.4	125,500	125,500					160
165	66.6	554.7	124,100	124,100	68.2	557.4	125,000	125,000					165
170	65.7	552.4	123,300	123,300	67.3	555.3	124,400	124,400	69.6	558.4	121,200	121,200	170
175	64.7	550.0	122,500	122,500	66.3	553.0	123,900	123,900	68.7	556.4	121,100	121,100	175
180	63.7	547.6	121,700	121,700	65.4	550.7	123,300	123,300	67.8	554.3	121,000	121,000	180
185	62.8	544.9	120,900	120,900	64.4	548.3	122,700	122,700	66.8	552.1	120,900	120,900	185
190	61.8	542.2	120,000	120,000	63.4	545.7	122,100	122,100	65.9	549.9	120,700	120,700	190
195	60.8	539.4	119,200	119,200	62.5	543.1	121,500	121,500	64.9	547.5	120,500	120,500	195
200	59.8	536.5	118,300	118,300	61.5	540.4	120,800	120,800	63.9	545.0	120,200	120,200	200
205	58.8	533.4	117,500	117,500	60.5	537.5	120,200	120,200	63.0	542.4	119,200	119,900	205
210	57.7	530.2	115,200	115,200	59.5	534.5	119,500	119,500	62.0	539.7	114,300	119,600	210
215	56.7	526.9	112,200	112,200	58.5	531.4	118,800	118,800	61.0	536.9	109,600	119,300	215
220	55.7	523.5	109,300	109,300	57.4	528.2	118,100	118,100	60.0	534.0	105,100	118,900	220
230	53.5	516.1	103,500	103,500	55.3	521.3	109,700	116,700	58.0	527.8	96,700	118,100	230
240	51.3	508.2	97,800	97,800	53.2	513.9	101,500	115,300	55.9	521.1	89,000	117,200	240
250	49.0	499.7	92,300	92,300	51.0	505.9	93,900	109,400	53.7	513.9	81,900	116,300	250
260	46.7	490.4	87,100	87,100	48.7	497.3	86,900	103,700	51.5	506.0	75,400	115,400	260
270	44.2	480.2	82,100	82,100	46.3	487.8	80,400	98,200	49.3	497.5	69,300	114,400	270
280	41.6	469.2	77,500	77,500	43.8	477.6	74,300	92,900	46.9	488.3	63,700	113,500	280
290	38.9	457.1	73,200	73,200	41.2	466.4	68,700	87,800	44.5	478.3	58,500	109,000	290
300	36.0	443.7	69,300	69,300	38.5	454.1	63,400	83,000	41.9	467.3	53,600	101,300	300
310	32.9	428.7	64,900	65,900	35.6	440.4	58,500	78,600	39.2	455.3	49,000	94,100	310
320	29.5	411.6	60,000	62,900	32.4	425.1	53,800	74,600	36.3	442.0	44,600	87,500	320
330	25.7	391.9	55,400	60,400	28.9	407.8	49,400	71,200	33.2	427.2	40,600	81,200	330
340	21.2	367.9	51,000	54,900	25.0	387.4	45,300	64,500	29.9	410.4	36,700	75,300	340
350	15.4	336.2	44,800	44,800	20.4	362.6	41,200	55,300	26.1	391.0	33,000	69,500	350
360	4.7	275.3	29,500	29,500	14.3	329.0	37,400	44,900	21.7	367.5	29,500	60,400	360
370									16.1	337.0	26,000	50,600	370
380									6.8	283.8	22,500	37,100	380
390													390
400													400
410													410
420													420
430													430
440													440

# MLC650 VPC-MAX S-3

ASME B30.5



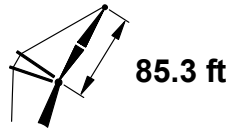
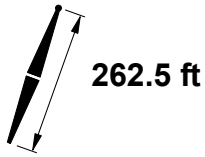
ft	75°				70°			65°			ft
	°	ft	lb	lb	ft	lb	°	ft	lb		
120											120
125											125
130											130
135											135
140											140
145											145
150											150
155											155
160											160
165											165
170											170
175											175
180											180
185											185
190											190
195											195
200											200
205											205
210											210
215											215
220	64.1	540.5	82,700	110,300							220
230	62.1	535.2	75,300	110,300							230
240	60.1	529.5	68,500	110,300							240
250	58.1	523.4	62,300	110,300							250
260	56.0	516.7	56,500	110,300							260
270	53.9	509.5	51,200	110,300	58.1	516.8	99,600				270
280	51.7	501.7	46,300	110,300	56.0	510.2	99,600				280
290	49.4	493.2	41,700	110,300	53.9	503.0	99,600				290
300	47.1	484.1	37,300	110,300	51.7	495.2	99,600				300
310	44.6	474.1	33,300	109,700	49.5	486.7	98,400	53.8	494.2	87,500	310
320	42.1	463.2	29,500	101,900	47.1	477.6	93,300	51.6	486.4	82,700	320
330	39.4	451.3	25,900	94,800	44.7	467.6	88,500	49.3	477.9	78,300	330
340	36.5	438.1	22,500	88,100	42.1	456.7	83,900	47.0	468.7	74,000	340
350	33.5	423.4		81,800	39.4	444.8	79,700	44.6	458.7	70,000	350
360	30.1	406.7		75,900	36.6	431.7	75,600	42.0	447.8	66,300	360
370	26.3	387.5		70,300	33.5	417.0	71,800	39.3	435.8	62,700	370
380	22.0	364.4		65,100	30.2	400.4	68,100	36.4	422.6	59,300	380
390	16.5	334.5		55,700	26.4	381.2	64,700	33.3	407.8	56,100	390
400	7.8	284.8		43,100	22.1	358.2	61,400	30.0	391.1	53,000	400
410					16.6	328.4	58,200	26.2	371.8	50,100	410
420					8.0	279.5	47,800	21.8	348.5	47,300	420
430								16.3	318.3	44,500	430
440								7.3	267.0	41,800	440

# MLC650 VPC-MAX S-3

ASME B30.5



881,800 lb

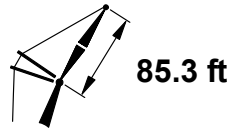
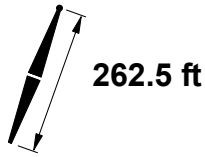


ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
60	73.2	352.3	600,200 d	600,200 d									60
65	69.6	350.4	581,100 d	581,100 d									65
70	65.9	348.0	563,000 c	563,000 c	72.6	351.0	554,200 d	554,200 d					70
75	62.1	345.2	545,900 c	545,900 c	69.0	348.9	537,200 c	537,200 c					75
80	58.1	342.0	529,700 b	529,700 b	65.2	346.5	521,000 c	521,000 c					80
85	53.9	338.2	514,300 b	514,300 b	61.4	343.6	505,800 c	505,800 c					85
90	49.4	333.8	495,800	504,500	57.3	340.3	476,800 b	505,800 b	67.9	346.1	448,200 c	536,800 c	90
95	44.6	328.7	465,500	487,800	53.1	336.4	447,700 b	505,800 b	64.2	343.5	420,800 c	536,800 c	95
100	39.2	322.5	438,300	472,500	48.6	331.9	421,600	503,900	60.3	340.6	396,300 b	536,800 b	100
105	33.1	314.8	413,600	458,900	43.7	326.6	398,000	487,400	56.2	337.1	374,100 b	534,400 b	105
110	25.5	304.7	391,000	415,700	38.2	320.2	376,500	472,200	51.9	333.0	354,000 b	516,900 b	110
115	13.8	288.1	328,000	328,000	31.9	312.2	356,800	458,500	47.2	328.3	335,700	498,500	115
120					23.9	301.4	338,600	412,800	42.2	322.7	318,900	474,700	120
125					10.0	281.4	315,200	315,200	36.5	315.9	303,300	453,000	125
130									29.9	307.3	288,900	433,000	130
135									21.1	295.3	275,200	405,600	135
140													140
145													145
150													150
155													155
160													160
165													165
170													170
175													175
180													180
185													185
190													190
195													195
200													200



# MLC650 VPC-MAX S-3

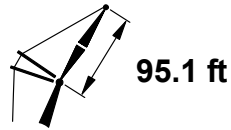
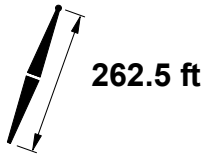
ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
60													60
65													65
70													70
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120	62.1	336.8	284,900 b	448,700 b									120
125	58.1	333.5	271,100 b	428,100 b									125
130	53.9	329.8	258,400 b	409,200 b									130
135	49.4	325.4	246,500 b	391,800 b									135
140	44.6	320.2	235,500	375,700									140
145	39.3	314.0	225,200	360,700	59.6	327.6	198,300 b	340,200 b					145
150	33.2	306.4	215,400	346,700	55.4	324.0	189,800 b	327,000 b					150
155	25.6	296.3	206,100	333,500	51.1	319.9	181,800 b	314,700 b					155
160	14.0	279.8	197,000	321,100	46.4	315.0	174,300	303,200					160
165					41.3	309.2	167,100	292,400					165
170					35.5	302.2	160,400	282,200					170
175					28.6	293.2	153,800	272,500	52.1	311.8	133,000	256,600	175
180					19.2	280.1	147,400	263,300	47.5	307.1	127,700	248,100	180
185									42.4	301.5	122,700	240,000	185
190									36.8	294.8	117,800	232,400	190
195									30.2	286.4	113,100	225,000	195
200									21.6	274.5	108,400	218,000	200

# MLC650 VPC-MAX S-3

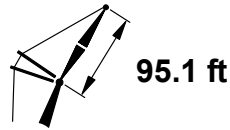
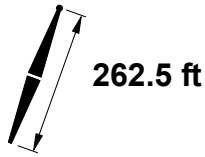
ASME B30.5



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
65	71.8	361.0	564,700 c	564,700 c									65
70	68.6	358.9	547,600 c	547,600 c									70
75	65.2	356.5	531,400 c	531,400 c	71.3	359.6	522,900 c	522,900 c					75
80	61.8	353.7	515,900 b	515,900 b	68.0	357.4	507,600 c	507,600 c					80
85	58.2	350.5	501,300 b	501,300 b	64.6	355.0	493,000 b	493,000 b					85
90	54.5	346.8	487,300	487,300	61.2	352.1	474,100 b	487,600 b					90
95	50.5	342.6	463,500	473,600	57.6	348.8	445,100 b	487,600 b	67.1	354.6	417,700 b	523,800 b	95
100	46.3	337.7	436,400	458,500	53.8	345.1	419,100	487,600	63.7	352.0	393,200 b	523,800 b	100
105	41.8	332.1	412,000	439,600	49.8	340.7	395,700	474,300	60.2	349.0	371,200 b	519,100 b	105
110	36.8	325.3	389,800	419,500	45.6	335.7	374,400	459,400	56.5	345.6	351,200 b	503,200 b	110
115	30.9	317.1	369,400	403,100	41.0	329.9	355,000	445,400	52.7	341.7	333,000	487,500	115
120	23.7	306.2	350,600	374,800	35.8	322.9	337,200	432,600	48.7	337.2	316,400	472,000	120
125	12.4	288.0	296,700	296,700	29.8	314.3	320,700	421,100	44.3	332.0	301,000	450,300	125
130					22.2	302.7	305,200	373,100	39.6	325.9	286,800	430,500	130
135					8.4	280.4	284,300	284,300	34.2	318.5	273,600	412,100	135
140									27.9	309.3	261,200	395,100	140
145									19.5	296.3	249,400	367,900	145
150													150
155													155
160													160
165													165
170													170
175													175
180													180
185													185
190													190
195													195
200													200
205													205
210													210

# MLC650 VPC-MAX S-3

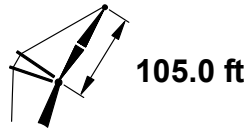
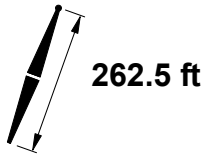
ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
65													65
70													70
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125	61.8	345.2	267,800 b	425,000 b									125
130	58.3	342.0	255,200 b	406,300 b									130
135	54.5	338.4	243,500 b	388,900 b									135
140	50.6	334.1	232,600	372,900									140
145	46.4	329.3	222,400	358,000									145
150	41.9	323.6	212,900	344,100	59.6	336.1	186,300	324,000					150
155	36.8	316.9	203,900	331,200	55.9	332.6	178,500	311,800					155
160	31.0	308.7	195,400	319,000	52.0	328.6	171,100	300,400					160
165	23.8	297.8	187,300	307,600	47.9	324.0	164,100	289,700					165
170	12.6	279.8	179,100	296,700	43.5	318.6	157,500	279,600					170
175					38.7	312.3	151,200	270,100					175
180					33.2	304.7	145,200	261,100	52.9	320.5	124,300	245,300	180
185					26.6	295.0	139,400	252,500	48.9	316.0	119,400	237,300	185
190					17.6	280.8	133,600	244,300	44.5	310.8	114,700	229,700	190
195									39.8	304.7	110,200	222,600	195
200									34.5	297.5	105,900	215,700	200
205									28.2	288.3	101,600	209,100	205
210									20.0	275.6	97,400	202,800	210

# MLC650 VPC-MAX S-3

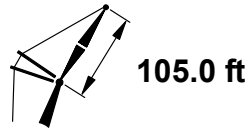
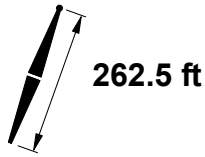
ASME B30.5



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
65	73.6	371.4	541,000 c	541,000 c									65
70	70.7	369.6	533,400 c	533,400 c									70
75	67.7	367.4	518,000 c	518,000 c									75
80	64.7	365.0	503,400 b	503,400 b	70.2	368.2	495,300 c	495,300 c					80
85	61.6	362.2	489,400 b	489,400 b	67.2	366.0	481,400 b	481,400 b					85
90	58.3	359.0	476,100	476,100	64.2	363.4	468,200 b	468,200 b					90
95	55.0	355.4	462,400	462,500	61.0	360.6	443,800 b	468,200 b	69.4	365.4	415,900 b	493,800 b	95
100	51.5	351.3	435,500	447,800	57.8	357.3	417,900	468,200	66.4	363.1	391,500 b	493,800 b	100
105	47.7	346.7	411,200	425,200	54.4	353.6	394,500	464,100	63.3	360.5	369,600 b	493,800 b	105
110	43.8	341.4	389,100	404,100	50.8	349.5	373,400	449,800	60.1	357.5	349,700 b	492,100 b	110
115	39.5	335.2	369,000	385,300	47.1	344.7	354,100	436,000	56.8	354.1	331,600	477,600	115
120	34.7	328.0	350,600	368,900	43.0	339.3	336,400	423,200	53.4	350.3	315,000	463,300	120
125	29.1	319.2	333,500	355,900	38.6	333.0	320,100	411,100	49.8	346.0	299,800	448,600	125
130	22.2	307.5	317,600	341,300	33.7	325.5	305,100	393,600	46.0	341.1	285,700	428,900	130
135	11.1	287.8	270,900	270,900	28.0	316.3	291,000	379,400	41.8	335.4	272,700	410,600	135
140					20.7	303.9	277,800	340,400	37.3	328.8	260,600	393,800	140
145					6.8	279.0	258,400	258,400	32.2	320.9	249,200	378,100	145
150									26.2	311.0	238,500	363,500	150
155									18.1	297.1	228,200	336,700	155
160													160
165													165
170													170
175													175
180													180
185													185
190													190
195													195
200													200
205													205
210													210
215													215
220													220

# MLC650 VPC-MAX S-3

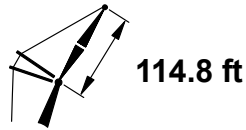
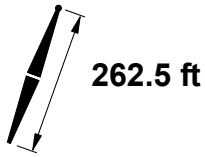
ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
65													65
70													70
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125	64.7	356.5	265,900 b	423,000 b									125
130	61.6	353.7	253,400	404,300									130
135	58.4	350.5	241,700	387,100									135
140	55.0	346.9	230,900	371,100									140
145	51.5	342.9	220,900	356,300									145
150	47.8	338.2	211,500	342,600									150
155	43.8	332.9	202,700	329,700	59.6	344.5	176,500	310,000					155
160	39.5	326.8	194,300	317,700	56.2	341.1	169,200	298,700					160
165	34.7	319.6	186,500	306,400	52.8	337.2	162,400	288,000					165
170	29.2	310.8	179,000	295,700	49.1	332.8	155,900	278,000					170
175	22.3	299.2	171,800	285,600	45.3	327.8	149,700	268,600					175
180	11.3	279.6	164,500	276,000	41.1	322.0	143,800	259,700					180
185					36.5	315.2	138,300	251,300	53.6	329.1	117,500	235,600	185
190					31.3	307.0	132,900	243,300	50.0	324.8	112,900	228,100	190
195					25.0	296.6	127,700	235,600	46.1	319.9	108,500	221,000	195
200					16.3	281.4	122,500	228,300	42.0	314.3	104,300	214,300	200
205									37.6	307.7	100,300	207,800	205
210									32.5	299.9	96,400	201,700	210
215									26.5	290.1	92,500	195,800	215
220									18.6	276.5	88,700	190,000	220

# MLC650 VPC-MAX S-3

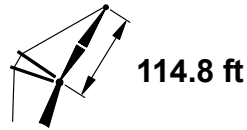
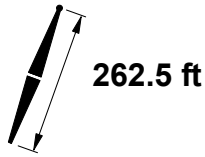
ASME B30.5



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
70	72.4	380.1	501,600 c	501,600 c									70
75	69.8	378.2	498,200 b	498,200 b									75
80	67.0	376.0	488,400 b	488,400 b	72.0	378.7	480,600 b	480,600 b					80
85	64.2	373.5	475,300 b	475,300 b	69.3	376.7	467,500 b	467,500 b					85
90	61.4	370.6	462,700	462,700	66.6	374.5	455,000 b	455,000 b					90
95	58.4	367.5	450,600	450,600	63.8	371.9	441,000 b	446,300 b					95
100	55.4	363.9	433,100	433,900	60.9	369.0	415,200	446,300	68.5	373.9	388,300 b	477,400 b	100
105	52.2	360.0	408,900	412,300	57.9	365.8	391,900	446,300	65.8	371.6	366,500 b	477,400 b	105
110	48.9	355.5	387,000	391,900	54.8	362.2	370,800	439,400	63.0	368.9	346,700	477,400	110
115	45.3	350.5	366,900	372,800	51.6	358.2	351,600	426,300	60.1	366.0	328,700	466,200	115
120	41.5	344.8	348,600	355,300	48.3	353.6	334,000	413,700	57.1	362.6	312,200	453,000	120
125	37.4	338.2	331,800	339,800	44.7	348.5	317,900	399,200	53.9	358.9	297,000	440,000	125
130	32.8	330.5	316,200	326,500	40.8	342.6	303,000	380,800	50.7	354.7	283,000	426,200	130
135	27.5	321.1	301,600	316,000	36.7	335.9	289,100	364,200	47.3	350.0	270,100	408,000	135
140	20.9	308.7	288,000	309,700	32.0	327.9	276,200	349,800	43.6	344.7	258,100	391,200	140
145	9.9	287.3	246,500	246,500	26.5	318.1	264,100	338,300	39.7	338.6	246,900	375,700	145
150					19.4	304.9	252,700	310,600	35.4	331.6	236,400	361,100	150
155					5.1	276.7	232,600	232,600	30.5	323.2	226,500	347,600	155
160									24.7	312.7	217,100	334,900	160
165									16.9	297.8	208,000	307,900	165
170													170
175													175
180													180
185													185
190													190
195													195
200													200
205													205
210													210
215													215
220													220
230													230

# MLC650 VPC-MAX S-3

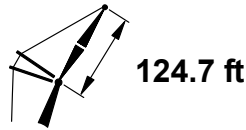
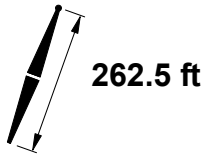
ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
70													70
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130	64.3	365.0	250,000	401,200									130
135	61.4	362.2	238,400	384,100									135
140	58.5	359.0	227,700	368,200									140
145	55.4	355.5	217,800	353,500									145
150	52.2	351.5	208,400	339,800									150
155	48.9	347.1	199,700	327,000									155
160	45.4	342.1	191,500	315,100	59.5	353.0	165,800	295,700					160
165	41.6	336.4	183,800	303,900	56.5	349.6	159,000	285,200					165
170	37.5	329.8	176,500	293,300	53.4	345.8	152,600	275,200					170
175	32.9	322.1	169,500	283,400	50.1	341.6	146,500	265,900					175
180	27.6	312.7	162,900	274,000	46.7	336.8	140,800	257,000					180
185	20.9	300.3	156,400	265,000	43.0	331.3	135,300	248,700					185
190	10.1	279.2	149,900	256,400	39.0	325.1	130,100	240,800	54.1	337.7	109,500	225,300	190
195					34.6	317.9	125,100	233,300	50.9	333.5	105,200	218,300	195
200					29.6	309.2	120,300	226,100	47.4	328.8	101,000	211,600	200
205					23.6	298.1	115,600	219,300	43.8	323.5	97,100	205,200	205
210					15.1	281.9	110,900	212,700	39.9	317.5	93,300	199,100	210
215									35.6	310.5	89,700	193,300	215
220									30.8	302.2	86,100	187,800	220
230									17.3	277.2	79,100	177,200	230

# MLC650 VPC-MAX S-3

ASME B30.5

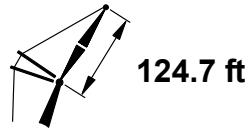
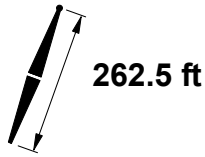


ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
70	73.9	390.5	467,600 c	467,600 c									70
75	71.4	388.7	466,100 b	466,100 b									75
80	69.0	386.7	462,900 b	462,900 b									80
85	66.4	384.5	458,300 b	458,300 b	71.0	387.3	460,700 b	460,700 b					85
90	63.9	381.9	451,800 b	451,800 b	68.5	385.3	448,600 b	448,600 b					90
95	61.2	379.1	438,600	438,600	66.0	383.0	437,000 b	437,000 b					95
100	58.5	376.0	422,100	422,100	63.4	380.4	415,400	437,000					100
105	55.7	372.5	402,300	402,300	60.8	377.5	392,100	437,000	67.8	382.5	366,500 b	468,600 b	105
110	52.8	368.6	383,000	383,000	58.0	374.3	371,100	428,700	65.3	380.1	346,800	465,000	110
115	49.8	364.3	364,600	364,600	55.2	370.8	352,000	416,500	62.7	377.4	328,800	453,500	115
120	46.6	359.5	347,200	347,200	52.3	366.8	334,500	404,500	60.0	374.4	312,300	441,600	120
125	43.2	354.1	331,100	331,100	49.2	362.4	318,400	391,300	57.3	371.1	297,300	429,800	125
130	39.6	348.0	316,500	316,500	46.0	357.5	303,500	373,200	54.4	367.5	283,300	418,000	130
135	35.7	341.0	302,700	303,500	42.6	352.0	289,800	356,200	51.4	363.4	270,500	406,500	135
140	31.3	332.8	289,300	292,600	38.9	345.8	277,000	340,600	48.3	358.9	258,500	390,900	140
145	26.1	322.9	276,800	284,200	34.9	338.6	265,100	326,600	45.1	353.8	247,400	375,400	145
150	19.7	309.8	265,000	279,400	30.4	330.2	254,000	314,600	41.6	348.1	237,000	361,000	150
155	8.8	286.6	226,500	226,500	25.1	319.8	243,400	305,100	37.8	341.7	227,200	347,500	155
160					18.3	305.8	233,400	285,900	33.7	334.2	218,100	334,900	160
165									29.0	325.3	209,400	323,000	165
170									23.4	314.2	201,100	311,900	170
175									15.8	298.4	193,100	283,800	175
180													180
185													185
190													190
195													195
200													200
205													205
210													210
215													215
220													220
230													230
240													240



# MLC650 VPC-MAX S-3

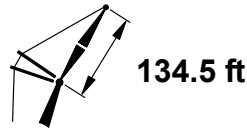
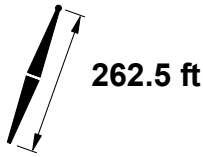
ASME B30.5



ft	75°				70°				65°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
70													70
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135	63.9	373.5	238,500	383,600									135
140	61.3	370.6	227,800	367,800									140
145	58.6	367.5	217,900	353,100									145
150	55.8	364.0	208,600	339,500									150
155	52.8	360.1	199,900	326,700									155
160	49.8	355.8	191,800	314,800									160
165	46.6	351.0	184,100	303,700	59.5	361.5	159,000	284,800					165
170	43.3	345.7	176,900	293,200	56.8	358.1	152,600	274,900					170
175	39.6	339.6	170,100	283,300	53.9	354.4	146,600	265,600					175
180	35.7	332.6	163,600	274,000	50.9	350.3	140,900	256,900					180
185	31.3	324.4	157,400	265,200	47.8	345.7	135,500	248,600					185
190	26.2	314.5	151,500	256,800	44.5	340.5	130,400	240,700					190
195	19.8	301.4	145,700	248,800	41.0	334.7	125,500	233,300	54.5	346.2	105,200	218,100	195
200	9.0	278.6	139,700	241,100	37.2	328.1	120,800	226,200	51.6	342.2	101,200	211,400	200
205					33.0	320.4	116,300	219,400	48.5	337.7	97,300	205,100	205
210					28.1	311.2	112,000	213,000	45.2	332.6	93,600	199,100	210
215					22.3	299.5	107,700	206,800	41.8	327.0	90,000	193,300	215
220					14.0	282.2	103,400	200,800	38.0	320.6	86,600	187,800	220
230									29.3	304.3	80,000	177,500	230
240									16.2	277.9	73,600	167,900	240

# MLC650 VPC-MAX S-3

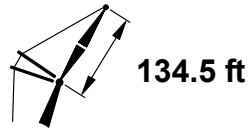
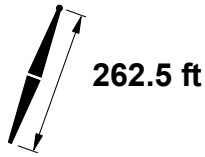
ASME B30.5



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
75	72.9	399.2	434,500 b	434,500 b									75
80	70.6	397.4	432,700 b	432,700 b									80
85	68.3	395.3	429,600 b	429,600 b	72.5	397.8	435,600 b	435,600 b					85
90	65.9	393.0	425,500	425,500	70.2	395.9	435,600 b	435,600 b					90
95	63.6	390.4	420,500	420,500	67.9	393.8	426,100	426,100					95
100	61.1	387.6	407,500	407,500	65.5	391.5	412,600	419,800					100
105	58.6	384.5	389,500	389,500	63.1	388.9	389,400	419,800	69.5	393.2	363,400	432,000	105
110	56.0	381.0	371,900	371,900	60.7	386.0	368,500	417,700	67.2	391.0	343,700	432,000	110
115	53.3	377.2	354,500	354,500	58.1	382.8	349,400	406,300	64.9	388.6	325,800	432,000	115
120	50.6	373.0	338,000	338,000	55.5	379.3	331,900	395,100	62.4	385.9	309,400	430,100	120
125	47.7	368.4	322,200	322,200	52.9	375.4	315,900	381,200	60.0	382.9	294,400	419,300	125
130	44.6	363.3	307,500	307,500	50.1	371.2	301,100	364,100	57.4	379.6	280,500	408,500	130
135	41.4	357.5	294,000	294,000	47.1	366.5	287,400	347,700	54.8	376.0	267,700	397,700	135
140	37.9	351.1	281,800	281,800	44.1	361.2	274,800	332,100	52.1	372.1	255,800	387,200	140
145	34.1	343.7	271,100	271,100	40.8	355.4	262,900	317,600	49.2	367.7	244,800	372,900	145
150	29.8	335.1	262,000	262,000	37.2	348.8	251,900	304,400	46.3	362.8	234,400	358,500	150
155	24.9	324.6	252,600	255,300	33.4	341.2	241,500	292,600	43.2	357.4	224,800	345,100	155
160	18.6	310.7	242,200	251,800	29.0	332.3	231,800	282,600	39.8	351.4	215,700	332,500	160
165	7.7	285.7	206,700	206,700	23.9	321.4	222,500	274,900	36.2	344.5	207,100	320,800	165
170					17.3	306.6	213,600	258,400	32.2	336.6	199,000	309,700	170
175									27.7	327.3	191,300	299,300	175
180									22.3	315.5	184,000	287,100	180
185									14.8	298.8	176,800	256,100	185
190													190
195													195
200													200
205													205
210													210
215													215
220													220
230													230
240													240
250													250

# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140	63.6	381.9	224,500	364,900									140
145	61.1	379.1	214,600	350,300									145
150	58.6	376.0	205,400	336,700									150
155	56.0	372.5	196,800	324,000									155
160	53.4	368.7	188,800	312,200									160
165	50.6	364.6	181,200	301,100									165
170	47.7	359.9	174,000	290,600	59.5	370.0	149,200	272,100					170
175	44.6	354.8	167,300	280,800	57.0	366.7	143,300	262,900					175
180	41.4	349.1	160,900	271,600	54.3	363.0	137,700	254,100					180
185	37.9	342.6	154,800	262,800	51.6	358.9	132,300	245,900					185
190	34.1	335.3	149,000	254,500	48.7	354.5	127,300	238,100					190
195	29.9	326.6	143,500	246,600	45.8	349.6	122,500	230,700					195
200	25.0	316.2	138,100	239,100	42.6	344.1	117,900	223,700	54.9	354.8	97,700	208,600	200
205	18.7	302.4	132,900	232,000	39.2	337.9	113,500	217,000	52.2	350.8	93,900	202,400	205
210	8.0	277.7	127,500	225,000	35.5	330.9	109,200	210,600	49.4	346.5	90,300	196,400	210
215					31.5	322.8	105,200	204,500	46.4	341.6	86,800	190,700	215
220					26.8	313.1	101,200	198,700	43.3	336.3	83,400	185,300	220
230					13.1	282.4	93,400	187,700	36.4	323.4	77,100	175,100	230
240									27.9	306.3	71,100	165,700	240
250									15.3	278.4	65,200	156,800	250

# MLC650 VPC-MAX S-3

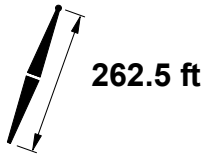
ASME B30.5



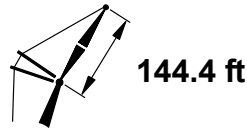
881,800 lb



360°



262.5 ft

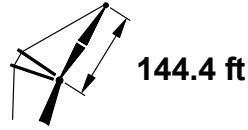
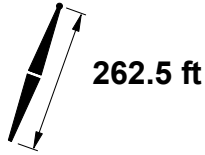


144.4 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
75	74.1	409.6	404,800 b	404,800 b									75
80	72.0	407.9	404,200 b	404,200 b									80
85	69.9	406.0	402,400	402,400									85
90	67.7	403.8	399,600	399,600	71.6	406.5	405,600	405,600					90
95	65.5	401.5	395,800	395,800	69.5	404.5	405,600	405,600					95
100	63.3	398.9	391,600	391,600	67.3	402.4	405,400	405,400					100
105	61.0	396.1	377,000	377,000	65.1	400.0	387,500	403,700					105
110	58.7	392.9	361,000	361,000	62.9	397.3	366,600	401,200	68.9	401.7	341,600	401,800	110
115	56.3	389.5	345,000	345,000	60.6	394.5	347,500	396,600	66.7	399.5	323,700	401,800	115
120	53.8	385.8	329,500	329,500	58.2	391.3	330,100	386,200	64.5	397.1	307,400	401,800	120
125	51.2	381.7	314,600	314,600	55.8	387.8	314,100	371,100	62.2	394.4	292,400	401,800	125
130	48.6	377.2	300,300	300,300	53.3	384.0	299,400	355,400	59.9	391.4	278,600	399,200	130
135	45.8	372.3	286,900	286,900	50.8	379.9	285,800	340,000	57.6	388.1	265,800	389,300	135
140	42.8	366.8	274,400	274,400	48.1	375.3	273,200	325,100	55.1	384.6	254,000	379,500	140
145	39.7	360.8	263,000	263,000	45.3	370.3	261,400	310,800	52.6	380.7	242,900	369,800	145
150	36.4	354.0	252,800	252,800	42.3	364.8	250,400	297,500	50.0	376.4	232,700	356,600	150
155	32.7	346.2	243,800	243,800	39.1	358.6	240,100	285,200	47.3	371.8	223,100	343,300	155
160	28.6	337.1	236,300	236,300	35.7	351.6	230,500	273,800	44.4	366.6	214,000	330,800	160
165	23.8	326.1	230,800	230,800	32.0	343.6	221,400	263,900	41.4	360.9	205,500	319,100	165
170	17.7	311.6	222,700	222,700	27.8	334.3	212,800	255,600	38.2	354.5	197,500	308,000	170
175	6.7	284.4	189,200	189,200	22.8	322.8	204,600	249,200	34.7	347.3	190,000	297,700	175
180					16.4	307.3	196,700	234,300	30.9	339.0	182,800	287,900	180
185									26.5	329.1	175,900	278,600	185
190									21.2	316.8	169,300	260,100	190
195									13.9	299.2	162,900	232,500	195
200													200
205													205
210													210
215													215
220													220
230													230
240													240
250													250
260													260

# MLC650 VPC-MAX S-3

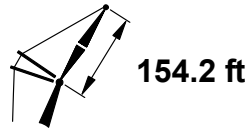
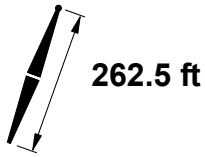
ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145	63.3	390.4	212,500	348,200									145
150	61.0	387.6	203,300	334,700									150
155	58.7	384.5	194,800	322,100									155
160	56.3	381.1	186,700	310,300									160
165	53.8	377.3	179,200	299,200									165
170	51.2	373.2	172,100	288,800									170
175	48.6	368.8	165,400	279,000	59.5	378.5	141,100	260,900					175
180	45.8	363.8	159,000	269,800	57.2	375.2	135,500	252,200					180
185	42.9	358.4	153,000	261,100	54.7	371.5	130,200	244,000					185
190	39.7	352.3	147,300	252,900	52.2	367.6	125,200	236,300					190
195	36.4	345.5	141,900	245,000	49.6	363.3	120,400	228,900					195
200	32.7	337.8	136,700	237,600	46.8	358.5	115,900	221,900					200
205	28.6	328.7	131,600	230,500	43.9	353.3	111,500	215,300					205
210	23.8	317.7	126,800	223,800	40.9	347.4	107,400	209,000	52.7	359.4	88,100	194,600	210
215	17.8	303.3	122,100	217,300	37.6	340.9	103,400	202,900	50.1	355.2	84,700	188,900	215
220	7.0	276.5	117,100	211,000	34.1	333.5	99,600	197,200	47.4	350.5	81,400	183,500	220
230					25.7	314.8	92,300	186,400	41.6	339.7	75,100	173,400	230
240					12.2	282.5	85,100	176,300	34.9	326.2	69,400	164,100	240
250									26.7	308.2	63,900	155,500	250
260									14.4	278.8	58,400	147,400	260

# MLC650 VPC-MAX S-3

ASME B30.5



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
80	73.2	418.3	385,600 b	385,600 b									80
85	71.2	416.5	375,100	375,100									85
90	69.2	414.5	373,400	373,400	72.8	416.9	375,300	375,300					90
95	67.2	412.4	370,900	370,900	70.9	415.1	375,300	375,300					95
100	65.1	410.0	368,000	368,000	68.9	413.1	375,300	375,300					100
105	63.0	407.4	363,900	363,900	66.8	410.9	375,300	375,300					105
110	60.9	404.5	349,600	349,600	64.8	408.5	363,900	374,800					110
115	58.7	401.4	335,300	335,300	62.7	405.8	344,900	372,800	68.3	410.3	320,700	372,700	115
120	56.5	398.0	321,100	321,100	60.5	402.9	327,500	370,200	66.2	408.0	304,400	372,700	120
125	54.2	394.4	307,100	307,100	58.3	399.8	311,500	360,400	64.2	405.6	289,400	372,700	125
130	51.8	390.4	293,700	293,700	56.1	396.3	296,900	346,300	62.1	402.8	275,700	372,700	130
135	49.3	386.0	280,700	280,700	53.7	392.6	283,300	332,200	59.9	399.9	262,900	372,700	135
140	46.8	381.2	268,500	268,500	51.4	388.6	270,700	318,400	57.7	396.6	251,200	368,000	140
145	44.1	376.0	257,000	257,000	48.9	384.1	259,000	304,900	55.4	393.1	240,200	359,200	145
150	41.2	370.3	246,400	246,400	46.3	379.3	248,100	291,900	53.1	389.3	230,000	350,400	150
155	38.2	363.9	236,700	236,700	43.6	374.0	237,800	279,600	50.7	385.1	220,400	340,800	155
160	35.0	356.7	228,000	228,000	40.7	368.1	228,300	268,100	48.2	380.6	211,400	328,400	160
165	31.4	348.6	220,500	220,500	37.7	361.6	219,200	257,500	45.5	375.6	203,000	316,700	165
170	27.5	339.1	214,300	214,300	34.4	354.3	210,700	247,800	42.8	370.2	195,100	305,700	170
175	22.8	327.6	209,800	209,800	30.8	346.0	202,700	239,400	39.9	364.2	187,600	295,400	175
180	16.8	312.3	204,500	207,900	26.7	336.2	195,000	232,300	36.8	357.4	180,500	285,700	180
185	5.7	282.7	171,700	171,700	21.9	324.2	187,700	227,000	33.4	349.9	173,700	276,500	185
190					15.5	307.9	180,600	212,900	29.7	341.2	167,300	267,800	190
195									25.4	330.9	161,100	257,700	195
200									20.3	318.0	155,200	236,300	200
205									13.1	299.4	149,300	211,400	205
210													210
215													215
220													220
230													230
240													240
250													250
260													260
270													270

# MLC650 VPC-MAX S-3

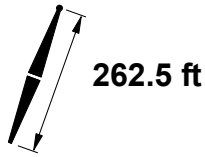
ASME B30.5



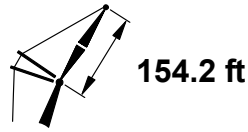
881,800 lb



360°



262.5 ft



154.2 ft

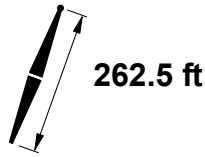
ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150	63.1	398.9	200,100	331,900									150
155	60.9	396.1	191,600	319,300									155
160	58.7	393.0	183,600	307,600									160
165	56.5	389.6	176,100	296,600									165
170	54.2	385.9	169,100	286,200									170
175	51.8	381.9	162,400	276,500									175
180	49.3	377.5	156,100	267,300	59.5	386.9	132,200	249,500					180
185	46.8	372.8	150,200	258,700	57.3	383.7	126,900	241,300					185
190	44.1	367.6	144,500	250,500	55.0	380.1	122,000	233,600					190
195	41.3	361.8	139,100	242,700	52.7	376.2	117,200	226,300					195
200	38.3	355.4	134,000	235,300	50.2	372.0	112,800	219,400					200
205	35.0	348.3	129,100	228,300	47.7	367.4	108,500	212,800					205
210	31.5	340.2	124,400	221,600	45.1	362.3	104,400	206,500					210
215	27.5	330.7	119,900	215,200	42.3	356.8	100,500	200,500	53.2	368.0	81,300	186,200	215
220	22.8	319.2	115,500	209,100	39.4	350.7	96,700	194,800	50.8	363.9	78,100	180,900	220
230	5.9	275.0	106,500	197,400	32.8	336.1	89,600	184,100	45.7	354.4	72,000	170,800	230
240					24.6	316.5	82,900	174,200	40.0	343.0	66,300	161,600	240
250					11.4	282.4	76,300	165,000	33.6	328.8	61,000	153,100	250
260									25.6	310.0	56,000	145,200	260
270									13.6	279.1	51,000	137,800	270

# MLC650 VPC-MAX S-3

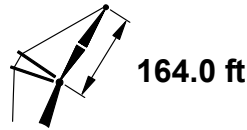
ASME B30.5



881,800 lb



262.5 ft



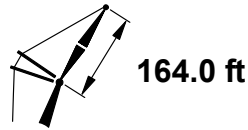
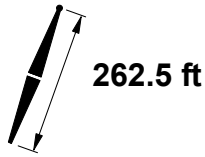
164.0 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
80	74.2	428.6	350,300	350,300									80
85	72.4	427.0	350,100	350,100									85
90	70.5	425.1	349,200	349,200									90
95	68.6	423.1	347,500	347,500	72.1	425.6	349,700	349,700					95
100	66.7	420.9	345,400	345,400	70.2	423.7	349,700	349,700					100
105	64.8	418.5	342,500	342,500	68.3	421.7	349,700	349,700					105
110	62.8	415.9	337,700	337,700	66.4	419.4	349,700	349,700					110
115	60.8	413.0	324,900	324,900	64.4	417.0	344,100	348,800	69.7	421.0	319,700	343,700	115
120	58.8	409.9	312,000	312,000	62.5	414.3	326,800	347,100	67.8	418.9	303,500	343,700	120
125	56.7	406.6	299,200	299,200	60.5	411.4	310,900	344,900	65.8	416.6	288,600	343,700	125
130	54.5	402.9	286,600	286,600	58.4	408.3	296,200	336,100	63.9	414.0	274,800	343,700	130
135	52.3	399.0	274,300	274,300	56.3	404.9	282,700	323,400	61.9	411.3	262,100	343,700	135
140	50.0	394.7	262,600	262,600	54.1	401.2	270,100	310,700	59.9	408.3	250,400	343,700	140
145	47.6	390.1	251,400	251,400	51.9	397.2	258,400	298,100	57.8	405.1	239,400	343,700	145
150	45.1	385.1	240,800	240,800	49.6	392.9	247,600	285,800	55.7	401.7	229,200	343,600	150
155	42.5	379.6	230,900	230,900	47.2	388.2	237,400	273,900	53.5	397.9	219,700	335,500	155
160	39.8	373.5	221,800	221,800	44.7	383.1	227,800	262,700	51.2	393.8	210,800	327,400	160
165	36.9	366.9	213,500	213,500	42.1	377.5	218,900	251,900	48.9	389.4	202,400	315,800	165
170	33.7	359.4	206,000	206,000	39.3	371.3	210,400	241,900	46.5	384.6	194,500	304,900	170
175	30.3	350.9	199,500	199,500	36.3	364.5	202,400	232,700	44.0	379.4	187,000	294,600	175
180	26.4	341.0	194,300	194,300	33.2	356.9	194,900	224,400	41.3	373.6	180,000	284,200	180
185	21.9	329.0	190,500	190,500	29.6	348.2	187,700	217,000	38.5	367.3	173,300	273,200	185
190	16.0	313.0	189,200	189,200	25.7	338.0	180,800	211,000	35.5	360.3	167,000	262,800	190
195	4.5	280.4	157,500	157,500	21.0	325.5	174,300	206,400	32.2	352.4	160,900	253,200	195
200					14.7	308.4	167,800	195,300	28.6	343.3	155,100	244,700	200
205									24.4	332.5	149,600	235,800	205
210									19.4	319.1	144,200	216,700	210
215									12.4	299.6	138,900	194,100	215
220													220
230													230
240													240
250													250
260													260
270													270
280													280



# MLC650 VPC-MAX S-3

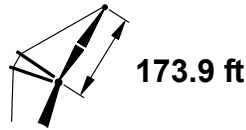
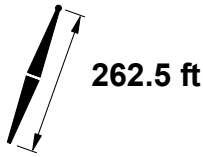
ASME B30.5



ft	75°				70°				65°				ft
	ft	ft	lb	lb	ft	ft	lb	lb	ft	ft	lb	lb	
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150	64.8	410.0	199,100	326,000									150
155	62.8	407.4	190,600	318,200									155
160	60.8	404.5	182,700	306,500									160
165	58.8	401.4	175,200	295,500									165
170	56.7	398.1	168,200	285,200									170
175	54.5	394.5	161,600	275,500									175
180	52.3	390.5	155,300	266,400									180
185	50.0	386.3	149,400	257,800	59.5	395.4	125,900	240,300					185
190	47.6	381.7	143,800	249,600	57.4	392.2	121,000	232,600					190
195	45.2	376.6	138,400	241,900	55.3	388.6	116,300	225,300					195
200	42.6	371.1	133,400	234,500	53.1	384.8	111,800	218,400					200
205	39.8	365.1	128,500	227,500	50.8	380.7	107,600	211,900					205
210	36.9	358.4	123,900	220,900	48.5	376.2	103,500	205,600					210
215	33.8	350.9	119,400	214,500	46.1	371.3	99,600	199,700					215
220	30.3	342.5	115,200	208,500	43.5	366.0	95,900	194,000	53.6	376.6	77,000	179,900	220
230	21.9	320.6	107,000	197,100	38.0	353.7	88,900	183,300	49.0	368.2	71,000	169,900	230
240	4.8	272.9	98,700	184,200	31.6	338.5	82,500	173,600	44.1	358.2	65,400	160,800	240
250					23.7	318.1	76,300	164,500	38.6	346.2	60,200	152,400	250
260					10.7	282.3	70,200	156,000	32.4	331.3	55,400	144,600	260
270									24.7	311.6	50,700	137,300	270
280									12.8	279.3	46,100	130,400	280

# MLC650 VPC-MAX S-3

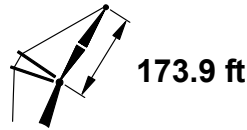
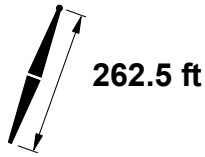
ASME B30.5



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
85	73.4	437.3	326,500	326,500									85
90	71.7	435.6	326,100	326,100									90
95	69.9	433.7	325,200	325,200									95
100	68.1	431.7	323,700	323,700	71.4	434.2	325,800	325,800					100
105	66.3	429.4	321,500	321,500	69.6	432.3	325,800	325,800					105
110	64.5	427.0	318,900	318,900	67.8	430.2	325,800	325,800					110
115	62.6	424.3	313,400	313,400	66.0	427.9	325,800	325,800					115
120	60.7	421.5	301,900	301,900	64.2	425.5	324,100	324,900	69.1	429.6	300,500	319,800	120
125	58.8	418.4	290,400	290,400	62.3	422.8	308,200	323,500	67.3	427.4	285,600	319,800	125
130	56.8	415.1	278,800	278,800	60.4	419.9	293,600	321,600	65.5	425.1	271,900	319,800	130
135	54.8	411.5	267,500	267,500	58.5	416.8	280,100	313,600	63.6	422.5	259,200	319,800	135
140	52.7	407.6	256,400	256,400	56.5	413.4	267,600	302,200	61.8	419.8	247,500	319,800	140
145	50.6	403.4	245,800	245,800	54.4	409.7	255,900	290,700	59.9	416.8	236,600	319,800	145
150	48.3	398.9	235,600	235,600	52.3	405.8	245,100	279,400	57.9	413.6	226,500	319,800	150
155	46.0	394.1	225,900	225,900	50.2	401.6	234,900	268,200	55.9	410.2	217,000	319,800	155
160	43.6	388.8	216,800	216,800	47.9	397.0	225,400	257,400	53.8	406.5	208,100	319,800	160
165	41.1	383.0	208,300	208,300	45.6	392.1	216,500	247,100	51.7	402.5	199,700	312,800	165
170	38.5	376.7	200,500	200,500	43.2	386.7	208,100	237,200	49.6	398.2	191,900	301,500	170
175	35.7	369.7	193,400	193,400	40.7	380.9	200,200	227,900	47.3	393.5	184,400	290,400	175
180	32.6	361.9	187,000	187,000	38.0	374.4	192,700	219,200	45.0	388.4	177,400	279,400	180
185	29.2	353.0	181,600	181,600	35.1	367.3	185,500	211,400	42.5	382.9	170,800	268,700	185
190	25.5	342.8	177,200	177,200	32.0	359.4	178,800	204,200	39.9	376.9	164,500	258,500	190
195	21.0	330.2	174,100	174,100	28.6	350.3	172,300	197,900	37.2	370.3	158,500	248,800	195
200	15.3	313.6	173,300	173,300	24.8	339.7	166,200	192,800	34.3	363.0	152,800	239,700	200
205	2.9	276.3	141,300	141,300	20.2	326.6	160,200	189,100	31.1	354.7	147,400	231,400	205
210					14.0	308.8	154,400	178,100	27.6	345.3	142,100	224,000	210
215									23.6	334.1	137,100	214,900	215
220									18.7	320.1	132,200	197,700	220
230													230
240													240
250													250
260													260
270													270
280													280
290													290

# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155	64.5	418.5	187,400	302,100									155
160	62.7	415.9	179,500	302,100									160
165	60.8	413.0	172,100	292,900									165
170	58.8	409.9	165,100	282,600									170
175	56.8	406.6	158,500	273,000									175
180	54.8	403.0	152,300	263,900									180
185	52.7	399.1	146,500	255,300									185
190	50.6	395.0	140,900	247,200	59.5	403.9	117,700	229,900					190
195	48.4	390.5	135,600	239,500	57.6	400.6	113,000	222,700					195
200	46.1	385.6	130,500	232,100	55.5	397.2	108,600	215,800					200
205	43.7	380.3	125,700	225,200	53.5	393.4	104,400	209,300					205
210	41.2	374.6	121,200	218,600	51.4	389.3	100,400	203,100					210
215	38.5	368.2	116,800	212,300	49.2	385.0	96,600	197,200					215
220	35.7	361.3	112,600	206,300	46.9	380.2	92,900	191,500					220
230	29.3	344.6	104,600	195,000	42.1	369.5	86,000	180,900	51.8	381.2	67,700	167,300	230
240	21.1	321.9	97,200	184,600	36.7	356.7	79,700	171,300	47.4	372.3	62,200	158,300	240
250	3.5	269.6	89,500	166,600	30.5	340.8	73,700	162,300	42.6	361.7	57,100	149,900	250
260					22.8	319.5	68,100	154,000	37.3	349.2	52,400	142,200	260
270					10.0	282.0	62,400	146,200	31.3	333.7	47,900	135,000	270
280									23.8	313.2	43,600	128,300	280
290									12.1	279.4	39,300	121,900	290

# MLC650 VPC-MAX S-3

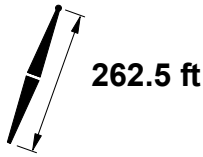
ASME B30.5



881,800 lb



360°



262.5 ft



193.6 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
90	73.6	456.4	283,000	283,000									90
95	72.0	454.7	282,600	282,600									95
100	70.5	452.9	281,900	281,900									100
105	68.9	450.9	280,800	280,800	71.8	453.4	281,200	281,200					105
110	67.3	448.8	279,400	279,400	70.2	451.5	281,200	281,200					110
115	65.6	446.5	277,800	277,800	68.6	449.5	281,200	281,200					115
120	64.0	444.0	275,800	275,800	67.0	447.3	281,200	281,200					120
125	62.3	441.3	272,400	272,400	65.4	445.0	281,200	281,200	69.7	448.8	274,100	274,100	125
130	60.6	438.4	263,200	263,200	63.7	442.4	280,500	280,500	68.1	446.7	268,000	274,100	130
135	58.9	435.4	253,900	253,900	62.0	439.7	276,700	279,400	66.5	444.5	255,400	274,100	135
140	57.1	432.1	244,600	244,600	60.3	436.8	264,200	278,100	64.9	442.1	243,700	274,100	140
145	55.3	428.5	235,300	235,300	58.6	433.7	252,600	275,100	63.2	439.5	232,900	274,100	145
150	53.4	424.8	226,300	226,300	56.8	430.4	241,800	265,900	61.5	436.7	222,800	274,100	150
155	51.5	420.8	217,500	217,500	55.0	426.8	231,700	256,600	59.8	433.8	213,300	274,100	155
160	49.6	416.5	209,000	209,000	53.1	423.0	222,300	247,400	58.1	430.6	204,500	274,100	160
165	47.6	411.8	200,800	200,800	51.2	419.0	213,400	238,300	56.3	427.2	196,200	274,100	165
170	45.5	406.9	193,000	193,000	49.2	414.6	205,100	229,300	54.4	423.6	188,400	274,100	170
175	43.3	401.5	185,700	185,700	47.2	409.9	197,200	220,600	52.6	419.7	181,000	274,100	175
180	41.1	395.7	178,800	178,800	45.1	404.9	189,800	212,200	50.6	415.6	174,100	269,000	180
185	38.7	389.5	172,400	172,400	42.9	399.5	182,700	204,200	48.7	411.1	167,500	259,900	185
190	36.2	382.6	166,400	166,400	40.6	393.6	176,100	196,600	46.6	406.3	161,300	250,800	190
195	33.5	375.1	161,100	161,100	38.2	387.2	169,700	189,500	44.5	401.2	155,400	241,900	195
200	30.6	366.7	156,400	156,400	35.7	380.3	163,700	182,900	42.3	395.7	149,800	233,200	200
205	27.4	357.1	152,300	152,300	33.0	372.6	157,900	176,800	40.0	389.7	144,400	224,800	205
210	23.8	346.0	149,100	149,100	30.1	364.0	152,400	171,400	37.6	383.1	139,300	216,700	210
215	19.6	332.6	147,000	147,000	26.8	354.2	147,100	166,700	35.0	376.0	134,400	209,100	215
220	14.0	314.5	146,800	146,800	23.1	342.8	142,100	162,800	32.2	368.1	129,700	202,000	220
230					12.8	309.3	132,300	150,100	25.8	349.0	120,900	189,800	230
240									17.3	321.9	112,500	167,000	240
250													250
260													260
270													270
280													280
290													290
300													300
310													310

# MLC650 VPC-MAX S-3

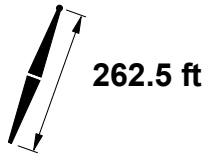
ASME B30.5



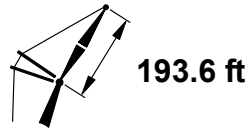
881,800 lb



360°



262.5 ft



193.6 ft

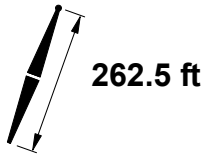
ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160													160
165	64.0	435.5	167,900	259,000									165
170	62.3	432.8	161,000	259,000									170
175	60.6	430.0	154,500	259,000									175
180	58.9	426.9	148,300	259,000									180
185	57.1	423.6	142,500	251,800									185
190	55.3	420.1	137,000	243,700									190
195	53.5	416.3	131,700	236,100									195
200	51.6	412.3	126,800	228,800	59.5	420.8	104,300	212,100					200
205	49.6	408.0	122,000	221,900	57.8	417.6	100,100	205,700					205
210	47.6	403.4	117,500	215,400	56.0	414.2	96,200	199,500					210
215	45.5	398.4	113,200	209,100	54.1	410.5	92,400	193,700					215
220	43.3	393.1	109,100	203,200	52.2	406.6	88,800	188,100					220
230	38.7	381.0	101,400	192,000	48.3	397.9	82,100	177,600					230
240	33.5	366.6	94,200	181,800	44.1	387.9	75,800	168,000	52.7	398.5	57,900	154,700	240
250	27.4	348.7	87,600	172,400	39.6	376.2	70,100	159,200	48.8	389.9	52,900	146,500	250
260	19.6	324.2	81,200	163,600	34.5	362.3	64,700	151,100	44.6	380.0	48,300	138,900	260
270					28.6	345.1	59,700	143,500	40.1	368.5	44,100	131,800	270
280					21.2	322.3	54,900	136,400	35.1	354.9	40,000	125,200	280
290					8.7	281.0	49,900	129,700	29.3	338.2	36,200	119,100	290
300									22.2	316.2	32,500	113,300	300
310									10.9	279.4	28,700	107,700	310

# MLC650 VPC-MAX S-3

ASME B30.5



881,800 lb



262.5 ft

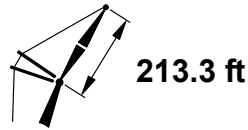
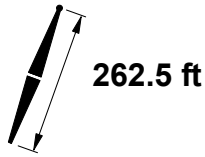


213.3 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
95	73.8	475.5	245,600	245,600									95
100	72.4	473.8	245,200	245,200									100
105	70.9	472.1	244,700	244,700									105
110	69.5	470.1	243,900	243,900	72.1	472.5	243,900	243,900					110
115	68.0	468.1	242,900	242,900	70.7	470.7	243,900	243,900					115
120	66.6	465.9	241,700	241,700	69.2	468.7	243,900	243,900					120
125	65.1	463.5	241,000	241,000	67.8	466.6	243,900	243,900					125
130	63.6	461.0	239,400	239,400	66.3	464.4	243,900	243,900					130
135	62.0	458.3	236,500	236,500	64.8	462.0	243,400	243,400	68.8	465.9	238,500	238,500	135
140	60.5	455.4	229,100	229,100	63.3	459.4	242,700	242,700	67.4	463.8	238,500	238,500	140
145	58.9	452.3	221,500	221,500	61.8	456.7	241,800	241,800	65.9	461.5	229,100	238,500	145
150	57.3	449.1	214,000	214,000	60.2	453.8	238,500	240,800	64.4	459.1	219,000	238,500	150
155	55.7	445.6	206,500	206,500	58.6	450.7	228,500	239,600	62.9	456.5	209,600	238,500	155
160	54.0	441.9	199,100	199,100	57.0	447.4	219,000	233,300	61.3	453.7	200,800	238,500	160
165	52.3	438.0	191,900	191,900	55.4	443.9	210,200	225,800	59.8	450.7	192,600	238,500	165
170	50.6	433.9	184,800	184,800	53.7	440.2	201,900	218,300	58.2	447.6	184,800	238,500	170
175	48.8	429.4	178,100	178,100	52.0	436.2	194,100	210,800	56.6	444.2	177,500	238,500	175
180	46.9	424.7	171,500	171,500	50.3	432.0	186,700	203,500	54.9	440.7	170,600	238,500	180
185	45.0	419.7	165,300	165,300	48.5	427.5	179,700	196,300	53.2	436.9	164,100	238,500	185
190	43.0	414.3	159,300	159,300	46.6	422.8	173,100	189,300	51.5	432.9	157,900	238,500	190
195	41.0	408.5	153,700	153,700	44.7	417.7	166,800	182,500	49.8	428.6	152,000	231,300	195
200	38.8	402.3	148,500	148,500	42.7	412.2	160,800	176,000	47.9	424.0	146,500	223,900	200
205	36.6	395.5	143,600	143,600	40.6	406.4	155,100	169,800	46.1	419.2	141,200	216,600	205
210	34.2	388.1	139,200	139,200	38.5	400.0	149,700	164,000	44.1	414.0	136,100	209,300	210
215	31.6	380.1	135,100	135,100	36.2	393.2	144,500	158,500	42.1	408.4	131,300	202,300	215
220	28.9	371.1	131,500	131,500	33.8	385.7	139,500	153,400	40.0	402.4	126,700	195,300	220
230	22.4	349.0	126,200	126,200	28.4	368.3	130,200	144,600	35.5	388.9	118,000	182,500	230
240	12.9	315.1	124,800	124,800	21.7	345.7	121,500	138,200	30.4	372.8	110,000	171,000	240
250					11.6	309.6	113,200	126,400	24.3	352.4	102,600	161,500	250
260									16.0	323.4	95,500	141,300	260
270													270
280													280
290													290
300													300
310													310
320													320
330													330

# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160													160
165													165
170													170
175	63.6	452.5	150,400	224,600									175
180	62.1	449.8	144,300	224,600									180
185	60.5	446.9	138,500	224,600									185
190	58.9	443.8	133,000	224,600									190
195	57.3	440.6	127,800	224,600									195
200	55.7	437.1	122,900	224,600									200
205	54.0	433.5	118,200	218,600									205
210	52.3	429.5	113,800	212,100	59.5	437.8	91,900	196,000					210
215	50.6	425.4	109,500	205,900	57.9	434.6	88,200	190,100					215
220	48.8	421.0	105,400	200,000	56.3	431.2	84,600	184,600					220
230	45.0	411.2	97,800	188,900	53.0	423.8	78,000	174,200					230
240	41.0	400.0	90,800	178,800	49.4	415.4	71,900	164,800					240
250	36.6	387.1	84,300	169,500	45.7	405.9	66,300	156,000	53.3	415.6	48,600	143,000	250
260	31.7	371.6	78,300	160,900	41.8	395.0	61,000	148,000	49.8	407.4	44,200	135,500	260
270	25.9	352.5	72,600	152,900	37.4	382.4	56,100	140,500	46.2	398.0	40,000	128,500	270
280	18.3	326.3	67,200	145,400	32.6	367.5	51,600	133,600	42.2	387.2	36,100	122,000	280
290					27.0	349.1	47,200	127,100	37.9	374.8	32,400	116,000	290
300					19.9	324.7	43,000	121,000	33.2	360.2	28,900	110,300	300
310					7.4	279.5	38,600	115,100	27.7	342.3	25,600	105,000	310
320									20.8	318.8	22,400	100,000	320
330									9.7	278.9	9,100	95,100	330

# MLC650 VPC-MAX S-3

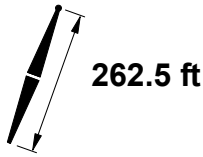
ASME B30.5



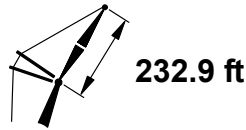
881,800 lb



360°



262.5 ft



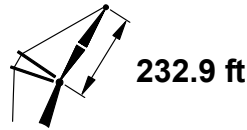
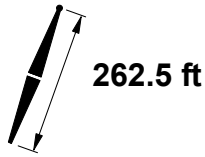
232.9 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
100	73.9	494.5	223,700	223,700									100
105	72.6	492.9	223,300	223,300									105
110	71.3	491.2	222,800	222,800									110
115	70.0	489.3	222,100	222,100	72.4	491.6	221,700	221,700					115
120	68.7	487.3	221,300	221,300	71.1	489.8	221,700	221,700					120
125	67.3	485.2	220,300	220,300	69.8	487.9	221,700	221,700					125
130	66.0	482.9	219,200	219,200	68.4	485.9	221,700	221,700					130
135	64.6	480.5	217,800	217,800	67.1	483.7	221,600	221,600					135
140	63.2	477.9	216,700	216,700	65.7	481.4	221,200	221,200	69.4	485.2	215,400	215,400	140
145	61.8	475.2	211,500	211,500	64.4	479.0	220,600	220,600	68.1	483.1	215,400	215,400	145
150	60.4	472.3	205,000	205,000	63.0	476.4	219,900	219,900	66.7	480.9	212,700	215,400	150
155	59.0	469.3	198,600	198,600	61.6	473.6	219,100	219,100	65.4	478.6	203,400	215,400	155
160	57.5	466.0	192,100	192,100	60.2	470.7	213,400	218,200	64.0	476.1	194,600	215,400	160
165	56.0	462.6	185,700	185,700	58.7	467.7	204,600	216,600	62.6	473.4	186,400	215,400	165
170	54.5	459.0	179,300	179,300	57.2	464.4	196,400	210,300	61.2	470.6	178,700	215,400	170
175	53.0	455.2	173,100	173,100	55.8	460.9	188,600	203,900	59.8	467.7	171,500	215,400	175
180	51.4	451.2	167,000	167,000	54.2	457.3	181,200	197,500	58.3	464.6	164,600	215,400	180
185	49.8	446.9	161,200	161,200	52.7	453.4	174,300	191,200	56.8	461.2	158,200	215,400	185
190	48.1	442.4	155,500	155,500	51.1	449.4	167,700	184,800	55.3	457.7	152,100	215,400	190
195	46.4	437.6	150,100	150,100	49.5	445.0	161,500	178,600	53.8	454.0	146,200	215,400	195
200	44.6	432.5	144,900	144,900	47.8	440.5	155,600	172,500	52.2	450.1	140,700	215,400	200
205	42.8	427.0	139,900	139,900	46.1	435.6	149,900	166,600	50.6	446.0	135,500	211,200	205
210	40.9	421.2	135,200	135,200	44.3	430.5	144,500	160,900	49.0	441.6	130,500	204,900	210
215	39.0	415.0	130,800	130,800	42.5	425.0	139,400	155,500	47.3	436.9	125,700	198,600	215
220	36.9	408.4	126,800	126,800	40.6	419.1	134,500	150,300	45.6	432.0	121,100	192,300	220
230	32.5	393.3	119,400	119,400	36.6	406.1	125,400	140,700	42.0	421.2	112,600	180,200	230
240	27.4	375.1	113,600	113,600	32.1	390.8	116,900	132,400	38.1	408.8	104,800	168,700	240
250	21.1	351.8	109,700	109,700	26.9	372.3	109,100	125,500	33.7	394.4	97,500	158,200	250
260	11.9	315.5	104,500	104,500	20.5	348.2	101,700	120,700	28.9	377.2	90,800	149,000	260
270					10.6	309.5	94,600	104,800	23.0	355.6	84,400	138,100	270
280									15.0	324.6	78,300	118,100	280
290													290
300													300
310													310
320													320
330													330
340													340
350													350



# MLC650 VPC-MAX S-3

ASME B30.5



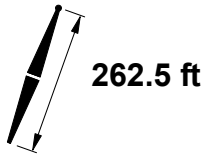
ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160													160
165													165
170													170
175													175
180	64.6	472.0	137,400	200,200									180
185	63.2	469.5	131,700	200,200									185
190	61.8	466.7	126,300	200,200									190
195	60.4	463.9	121,200	200,200									195
200	59.0	460.8	116,400	200,200									200
205	57.5	457.6	111,700	200,200									205
210	56.0	454.2	107,300	200,200									210
215	54.5	450.6	103,100	200,200									215
220	53.0	446.7	99,100	194,900	59.5	454.8	77,600	179,100					220
230	49.8	438.4	91,600	184,000	56.6	448.2	71,100	168,800					230
240	46.4	429.1	84,800	174,000	53.5	441.0	65,200	159,500					240
250	42.8	418.6	78,400	164,700	50.4	432.8	59,700	150,800					250
260	39.0	406.6	72,500	156,200	47.0	423.7	54,600	142,900	53.9	432.8	37,100	130,000	260
270	34.8	392.7	67,000	148,300	43.5	413.4	49,800	135,500	50.7	424.7	33,000	123,100	270
280	30.1	376.3	61,900	141,000	39.7	401.7	45,400	128,700	47.4	415.7	29,300	116,700	280
290	24.5	356.0	57,000	134,200	35.6	388.2	41,200	122,300	43.9	405.6	25,700	110,800	290
300	17.2	328.1	52,300	127,700	31.0	372.3	37,300	116,300	40.1	394.0	22,400	105,300	300
310					25.6	352.8	33,500	110,700	36.1	380.8		100,000	310
320					18.7	326.9	29,900	105,400	31.5	365.2		95,100	320
330					6.3	277.3	26,000	100,200	26.2	346.2		90,500	330
340									19.6	321.2		86,100	340
350									8.7	278.0		81,800	350

# MLC650 VPC-MAX S-3

ASME B30.5



881,800 lb



262.5 ft

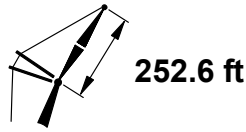
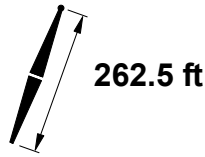


252.6 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
105	74.0	513.6	193,500	193,500									105
110	72.8	512.0	193,200	193,200									110
115	71.6	510.3	192,700	192,700									115
120	70.4	508.5	192,200	192,200	72.6	510.6	191,300	191,300					120
125	69.2	506.5	191,600	191,600	71.4	508.9	191,300	191,300					125
130	68.0	504.5	190,800	190,800	70.2	507.1	191,300	191,300					130
135	66.7	502.3	190,000	190,000	69.0	505.1	191,300	191,300					135
140	65.5	500.0	189,000	189,000	67.8	503.0	191,200	191,200					140
145	64.2	497.5	188,700	188,700	66.5	500.8	190,900	190,900	69.9	504.3	185,300	185,300	145
150	62.9	494.9	187,900	187,900	65.3	498.5	190,400	190,400	68.6	502.3	185,300	185,300	150
155	61.6	492.2	185,800	185,800	64.0	496.0	189,900	189,900	67.4	500.2	185,300	185,300	155
160	60.3	489.3	180,600	180,600	62.7	493.4	189,300	189,300	66.2	498.0	185,300	185,300	160
165	59.0	486.2	175,300	175,300	61.4	490.6	188,700	188,700	64.9	495.6	182,600	185,300	165
170	57.7	483.0	170,100	170,100	60.1	487.7	187,900	187,900	63.6	493.1	174,900	185,300	170
175	56.3	479.7	164,900	164,900	58.8	484.6	185,200	187,200	62.4	490.4	167,700	185,300	175
180	54.9	476.1	159,600	159,600	57.4	481.4	177,800	186,300	61.1	487.6	160,900	185,300	180
185	53.5	472.4	154,500	154,500	56.1	478.0	170,900	181,100	59.7	484.6	154,500	185,300	185
190	52.0	468.4	149,500	149,500	54.7	474.4	164,400	176,000	58.4	481.5	148,400	185,300	190
195	50.6	464.3	144,500	144,500	53.2	470.6	158,200	170,800	57.0	478.2	142,600	185,300	195
200	49.1	459.9	139,700	139,700	51.8	466.6	152,300	165,600	55.7	474.8	137,100	185,300	200
205	47.5	455.3	135,100	135,100	50.3	462.4	146,700	160,400	54.3	471.1	131,900	185,300	205
210	45.9	450.4	130,600	130,600	48.8	458.0	141,300	155,400	52.8	467.3	127,000	185,300	210
215	44.3	445.2	126,300	126,300	47.2	453.4	136,200	150,400	51.4	463.3	122,200	185,300	215
220	42.6	439.8	122,200	122,200	45.7	448.4	131,400	145,600	49.9	459.0	117,700	184,100	220
230	39.1	427.8	114,600	114,600	42.3	437.7	122,300	136,300	46.8	449.8	109,200	173,900	230
240	35.2	414.1	107,800	107,800	38.8	425.6	113,900	127,900	43.5	439.5	101,500	163,600	240
250	31.0	398.2	102,100	102,100	34.9	411.7	106,200	120,300	40.1	427.9	94,300	153,900	250
260	26.1	379.0	97,500	97,500	30.6	395.6	99,000	113,700	36.3	414.7	87,700	144,600	260
270	20.0	354.3	94,600	94,600	25.6	376.0	92,400	108,200	32.2	399.5	81,500	136,300	270
280	10.9	315.5	87,300	87,300	19.4	350.6	86,000	104,500	27.5	381.3	75,700	128,800	280
290					9.7	309.0	79,800	87,700	21.8	358.5	70,200	117,200	290
300									14.0	325.6	64,900	99,700	300
310													310
320													320
330													330
340													340
350													350
360													360
370													370

# MLC650 VPC-MAX S-3

ASME B30.5



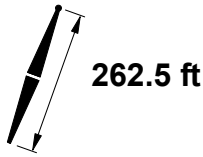
ft	75°				70°				65°				
	ft	lb	ft	lb	ft	lb	ft	lb	ft	lb	ft	lb	
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160													160
165													165
170													170
175													175
180													180
185													185
190	64.2	489.0	122,200	172,500									190
195	63.0	486.4	117,100	172,500									195
200	61.7	483.7	112,300	172,500									200
205	60.4	480.8	107,700	172,500									205
210	59.0	477.8	103,300	172,500									210
215	57.7	474.6	99,200	172,500									215
220	56.3	471.2	95,200	172,500									220
230	53.5	463.9	87,800	172,500	59.5	471.7	66,800	157,900					230
240	50.6	455.8	81,000	170,800	56.8	465.3	60,900	156,000					240
250	47.5	446.8	74,700	161,600	54.0	458.1	55,500	147,500					250
260	44.3	436.8	68,900	153,200	51.1	450.2	50,500	139,600					260
270	40.9	425.5	63,500	145,400	48.1	441.3	45,800	132,300	54.3	449.9	119,700		270
280	37.2	412.8	58,500	138,100	44.9	431.5	41,500	125,500	51.4	442.0	113,400		280
290	33.2	398.0	53,700	131,400	41.5	420.5	37,400	119,200	48.4	433.3	107,500		290
300	28.6	380.7	49,300	125,000	37.9	408.0	33,600	113,300	45.3	423.6	102,000		300
310	23.3	359.2	45,000	119,100	34.0	393.7	30,000	107,800	41.9	412.7	96,900		310
320	16.2	329.7	40,900	110,100	29.5	376.9	26,600	102,600	38.3	400.4	92,000		320
330					24.3	356.3	23,300	97,700	34.4	386.3	87,500		330
340					17.7	328.8	20,100	93,000	30.0	369.8	83,200		340
350					5.1	274.2		88,400	24.9	349.7	79,100		350
360									18.5	323.3	75,200		360
370									7.7	276.7	71,300		370

# MLC650 VPC-MAX S-3

ASME B30.5



881,800 lb



262.5 ft

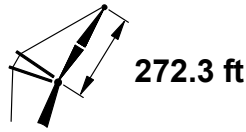
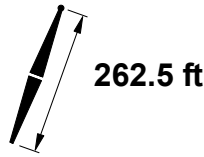


272.3 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
110	74.1	532.6	169,800	169,800									110
115	73.0	531.1	169,100	169,100									115
120	71.9	529.4	168,700	168,700									120
125	70.8	527.6	168,200	168,200	72.8	529.7	167,500	167,500					125
130	69.6	525.7	167,600	167,600	71.7	528.0	167,500	167,500					130
135	68.5	523.7	167,000	167,000	70.6	526.2	167,500	167,500					135
140	67.4	521.6	166,200	166,200	69.4	524.3	167,400	167,400					140
145	66.2	519.4	165,400	165,400	68.3	522.3	167,200	167,200					145
150	65.1	517.0	164,600	164,600	67.2	520.1	166,900	166,900					150
155	63.9	514.5	163,600	163,600	66.0	517.9	166,500	166,500	69.1	521.5	162,600	162,600	155
160	62.7	511.9	162,700	162,700	64.8	515.5	166,100	166,100	68.0	519.5	162,600	162,600	160
165	61.5	509.1	161,700	161,700	63.7	513.0	165,500	165,500	66.8	517.3	162,600	162,600	165
170	60.3	506.2	158,800	158,800	62.5	510.3	165,000	165,000	65.7	515.0	162,600	162,600	170
175	59.0	503.2	154,500	154,500	61.3	507.6	164,300	164,300	64.5	512.6	162,600	162,600	175
180	57.8	500.0	150,100	150,100	60.1	504.6	163,700	163,700	63.3	510.0	158,400	162,600	180
185	56.5	496.7	145,800	145,800	58.8	501.6	162,900	162,900	62.1	507.4	152,000	162,600	185
190	55.2	493.2	141,400	141,400	57.6	498.4	162,200	162,200	60.9	504.6	146,000	162,600	190
195	53.9	489.5	137,200	137,200	56.3	495.0	156,100	160,300	59.7	501.6	140,200	162,600	195
200	52.6	485.6	133,000	133,000	55.0	491.5	150,200	156,100	58.5	498.5	134,800	162,600	200
205	51.3	481.6	128,900	128,900	53.7	487.7	144,600	151,800	57.2	495.2	129,600	162,600	205
210	49.9	477.3	124,800	124,800	52.4	483.9	139,300	147,500	55.9	491.8	124,700	162,600	210
215	48.5	472.9	121,000	121,000	51.0	479.8	134,300	143,200	54.7	488.2	120,000	162,600	215
220	47.0	468.2	117,100	117,100	49.6	475.5	129,400	139,000	53.3	484.5	115,500	162,500	220
230	44.0	458.0	109,900	109,900	46.8	466.2	120,400	130,800	50.6	476.4	107,100	161,700	230
240	40.9	446.7	103,300	103,300	43.8	456.0	112,100	123,000	47.8	467.5	99,400	155,900	240
250	37.5	434.0	97,300	97,300	40.6	444.6	104,500	115,600	44.9	457.6	92,300	147,600	250
260	33.8	419.6	92,000	92,000	37.1	431.7	97,400	108,900	41.7	446.6	85,700	139,300	260
270	29.6	402.8	87,500	87,500	33.4	417.1	90,800	102,900	38.4	434.3	79,600	131,400	270
280	24.9	382.5	84,000	84,000	29.2	400.1	84,700	97,700	34.8	420.4	74,000	124,000	280
290	19.0	356.5	81,800	81,800	24.4	379.5	78,900	93,500	30.8	404.3	68,600	117,300	290
300	10.1	315.2	73,200	73,200	18.4	352.7	73,400	90,600	26.3	385.2	63,600	111,400	300
310					8.8	308.3	68,000	73,500	20.8	361.1	58,800	100,000	310
320									13.2	326.3	54,200	84,500	320
330													330
340													340
350													350
360													360
370													370
380													380
390													390

# MLC650 VPC-MAX S-3

ASME B30.5



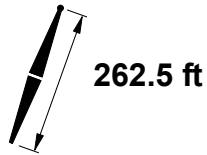
ft	75°				70°				65°				ft
	ft	ft	lb	lb	ft	ft	lb	lb	ft	ft	lb	lb	
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160													160
165													165
170													170
175													175
180													180
185													185
190													190
195													195
200	63.9	506.0	109,400	151,500									200
205	62.7	503.4	104,900	151,500									205
210	61.5	500.6	100,600	151,500									210
215	60.3	497.8	96,500	151,500									215
220	59.1	494.7	92,500	151,500									220
230	56.5	488.2	85,200	151,500									230
240	54.0	481.0	78,500	151,500	59.5	488.7	58,000	138,500					240
250	51.3	473.1	72,300	151,500	57.0	482.2	52,700	138,500					250
260	48.5	464.4	66,500	151,100	54.4	475.2	47,700	137,300					260
270	45.6	454.8	61,200	143,400	51.8	467.4	43,200	130,100					270
280	42.5	444.1	56,200	136,200	49.0	458.9	38,900	123,400	54.7	467.0	111,000		280
290	39.2	432.1	51,600	129,500	46.1	449.4	34,900	117,100	52.1	459.3	105,200		290
300	35.7	418.6	47,300	123,200	43.1	438.9	31,200	111,300	49.3	450.8	99,700		300
310	31.8	403.1	43,200	117,300	39.8	427.2	27,700	105,800	46.4	441.5	94,700		310
320	27.4	384.8	39,300	111,800	36.3	414.0	24,400	100,700	43.4	431.1	89,900		320
330	22.2	362.2	35,600	106,600	32.5	398.9	21,200	95,900	40.2	419.5	85,400		330
340	15.3	331.0	31,900	94,000	28.2	381.2		91,300	36.7	406.5	81,200		340
350					23.2	359.5		87,000	32.9	391.6	77,200		350
360					16.8	330.5		82,800	28.7	374.2	73,400		360
370					3.7	269.4		78,700	23.8	353.1	69,800		370
380									17.6	325.2	66,300		380
390									6.8	274.9	62,800		390

# MLC650 VPC-MAX S-3

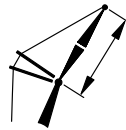
ASME B30.5



881,800 lb



262.5 ft

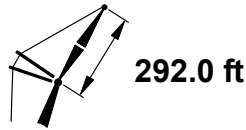
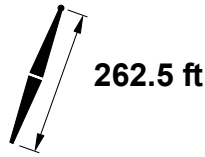


292.0 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
115	74.2	551.7	158,600	158,600									115
120	73.2	550.1	158,300	158,300									120
125	72.1	548.5	157,800	157,800									125
130	71.1	546.7	157,500	157,500	73.0	548.8	156,700	156,700					130
135	70.0	544.9	156,600	156,600	71.9	547.1	156,700	156,700					135
140	69.0	542.9	155,900	155,900	70.9	545.4	156,500	156,500					140
145	67.9	540.9	155,200	155,200	69.9	543.5	156,300	156,300					145
150	66.9	538.7	154,400	154,400	68.8	541.5	156,100	156,100					150
155	65.8	536.4	153,600	153,600	67.7	539.4	155,700	155,700					155
160	64.7	534.0	152,700	152,700	66.7	537.2	155,300	155,300	69.6	540.7	151,500	151,500	160
165	63.6	531.5	151,700	151,700	65.6	534.9	154,800	154,800	68.5	538.7	151,500	151,500	165
170	62.5	528.9	150,700	150,700	64.5	532.5	154,300	154,300	67.4	536.6	151,500	151,500	170
175	61.4	526.1	148,000	148,000	63.4	530.0	153,700	153,700	66.4	534.4	151,500	151,500	175
180	60.2	523.2	144,100	144,100	62.3	527.3	153,100	153,100	65.3	532.1	149,500	151,500	180
185	59.1	520.2	140,300	140,300	61.2	524.5	152,400	152,400	64.2	529.6	143,200	151,500	185
190	57.9	517.0	136,400	136,400	60.0	521.6	151,700	151,700	63.1	527.0	137,200	151,500	190
195	56.7	513.7	132,500	132,500	58.9	518.5	148,000	150,900	62.0	524.3	131,500	151,500	195
200	55.5	510.2	128,700	128,700	57.7	515.3	142,200	150,100	60.8	521.5	126,100	151,500	200
205	54.3	506.6	124,900	124,900	56.5	512.0	136,600	146,500	59.7	518.5	121,000	151,500	205
210	53.1	502.8	121,200	121,200	55.3	508.5	131,400	142,700	58.5	515.5	116,100	151,500	210
215	51.8	498.8	117,500	117,500	54.1	504.9	126,300	139,000	57.4	512.2	111,400	151,200	215
220	50.6	494.7	113,900	113,900	52.9	501.0	121,500	135,200	56.2	508.8	107,000	150,900	220
230	47.9	485.8	107,100	107,100	50.3	492.9	112,600	127,600	53.8	501.6	98,700	150,100	230
240	45.2	476.0	100,600	100,600	47.7	483.9	104,400	120,300	51.3	493.7	91,100	149,200	240
250	42.3	465.3	94,600	94,600	45.0	474.1	96,800	113,300	48.7	485.0	84,100	144,100	250
260	39.3	453.3	89,200	89,200	42.1	463.2	89,800	106,800	46.0	475.5	77,600	136,700	260
270	36.0	439.9	84,200	84,200	39.0	451.1	83,300	100,600	43.1	465.0	71,600	129,300	270
280	32.4	424.7	80,000	80,000	35.7	437.6	77,300	95,000	40.1	453.4	66,000	122,300	280
290	28.4	407.1	76,400	76,400	32.1	422.2	71,600	90,100	36.9	440.5	60,800	115,700	290
300	23.8	385.9	73,200	73,600	28.1	404.3	66,300	85,800	33.4	425.8	55,900	107,800	300
310	18.1	358.6	67,900	71,300	23.4	382.7	61,300	82,500	29.6	408.9	51,300	100,200	310
320	9.3	314.7	55,700	55,700	17.5	354.6	56,400	72,300	25.2	388.8	46,900	91,900	320
330					8.0	307.2	51,600	56,000	19.8	363.6	42,700	80,000	330
340									12.4	326.9	38,600	66,200	340
350													350
360													360
370													370
380													380
390													390
400													400
410													410

# MLC650 VPC-MAX S-3

ASME B30.5



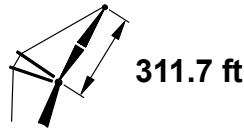
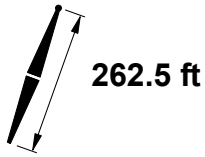
ft	75°				70°				65°				ft
	°	ft	lb	lb	°	ft	lb	lb	°	ft	lb		
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160													160
165													165
170													170
175													175
180													180
185													185
190													190
195													195
200													200
205	64.7	525.5	95,300	139,900									205
210	63.6	523.0	91,000	139,900									210
215	62.5	520.4	87,000	139,900									215
220	61.4	517.6	83,100	139,900									220
230	59.1	511.7	75,900	139,900									230
240	56.7	505.2	69,300	139,900									240
250	54.3	498.1	63,200	139,900	59.5	505.6	42,800	127,900					250
260	51.9	490.4	57,600	139,900	57.2	499.2	38,000	127,900					260
270	49.3	481.9	52,300	136,600	54.8	492.3	33,500	122,700					270
280	46.6	472.6	47,500	129,400	52.3	484.6	29,400	116,100					280
290	43.8	462.3	43,000	122,800	49.8	476.3	25,500	109,900					290
300	40.8	451.0	38,700	116,600	47.1	467.2	21,900	104,200	52.6	476.5	92,200		300
310	37.7	438.4	34,700	110,800	44.3	457.1		98,800	50.0	468.2	87,200		310
320	34.3	424.2	31,000	105,400	41.4	446.0		93,800	47.4	459.2	82,500		320
330	30.5	407.8	27,400	100,300	38.3	433.6		89,000	44.6	449.2	78,100		330
340	26.3	388.6	24,000	95,100	34.9	419.7		84,500	41.7	438.2	74,000		340
350	21.2	364.9	20,700	87,800	31.2	403.8		80,300	38.6	426.0	70,100		350
360	14.5	332.2		74,900	27.1	385.2		76,300	35.3	412.3	66,400		360
370					22.2	362.5		72,500	31.6	396.6	62,800		370
380					15.9	332.0		68,800	27.6	378.4	59,500		380
390									22.8	356.2	56,300		390
400									16.7	327.0	53,200		400
410									5.8	272.5	50,100		410

# MLC650 VPC-MAX S-3

ASME B30.5



881,800 lb

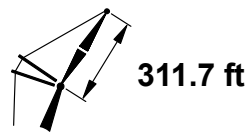
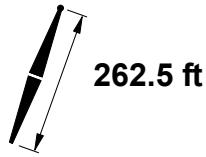


ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
120	74.3	570.7	139,300	139,300									120
125	73.3	569.2	138,700	138,700									125
130	72.3	567.6	138,200	138,200									130
135	71.4	565.9	137,900	137,900									135
140	70.4	564.0	137,200	137,200	72.2	566.2	137,000	137,000					140
145	69.4	562.1	136,600	136,600	71.2	564.5	136,800	136,800					145
150	68.4	560.1	135,900	135,900	70.2	562.6	136,500	136,500					150
155	67.4	558.0	135,200	135,200	69.2	560.7	136,300	136,300					155
160	66.4	555.8	134,400	134,400	68.2	558.7	135,900	135,900					160
165	65.4	553.5	133,700	133,700	67.2	556.5	135,500	135,500	69.9	559.9	131,900	131,900	165
170	64.4	551.0	132,900	132,900	66.2	554.3	135,100	135,100	68.9	557.9	131,900	131,900	170
175	63.3	548.5	132,000	132,000	65.2	552.0	134,700	134,700	67.9	555.9	131,900	131,900	175
180	62.3	545.8	131,300	131,300	64.2	549.5	134,100	134,100	66.9	553.7	131,900	131,900	180
185	61.2	543.0	130,300	130,300	63.1	546.9	133,500	133,500	65.9	551.5	131,900	131,900	185
190	60.2	540.1	127,500	127,500	62.1	544.3	132,900	132,900	64.9	549.1	131,900	131,900	190
195	59.1	537.1	124,300	124,300	61.0	541.5	132,300	132,300	63.9	546.6	129,200	131,900	195
200	58.0	534.0	121,000	121,000	60.0	538.5	131,600	131,600	62.9	544.0	123,900	131,900	200
205	56.9	530.7	117,800	117,800	58.9	535.5	131,000	131,000	61.8	541.3	118,700	131,900	205
210	55.8	527.2	114,600	114,600	57.8	532.3	129,400	130,300	60.8	538.5	113,900	131,600	210
215	54.7	523.7	111,300	111,300	56.7	529.0	124,400	129,600	59.7	535.5	109,300	131,400	215
220	53.5	519.9	108,200	108,200	55.6	525.5	119,700	127,200	58.6	532.4	104,800	131,100	220
230	51.2	512.0	102,000	102,000	53.3	518.2	110,700	120,800	56.4	525.8	96,600	130,400	230
240	48.7	503.3	96,100	96,100	51.0	510.2	102,500	114,500	54.1	518.7	89,000	129,600	240
250	46.2	493.9	90,500	90,500	48.5	501.5	95,000	108,200	51.8	510.9	82,100	128,800	250
260	43.6	483.6	85,300	85,300	46.0	492.0	88,100	102,200	49.4	502.5	75,600	127,900	260
270	40.8	472.2	80,400	80,400	43.3	481.5	81,600	96,600	46.9	493.3	69,700	123,200	270
280	37.8	459.6	76,100	76,100	40.5	470.1	75,600	91,200	44.3	483.2	64,100	117,100	280
290	34.7	445.6	72,100	72,100	37.6	457.4	70,000	86,200	41.6	472.1	59,000	111,000	290
300	31.2	429.6	68,700	68,700	34.4	443.2	64,800	81,700	38.7	459.9	54,100	105,200	300
310	27.4	411.2	65,800	65,800	30.9	427.1	59,800	77,700	35.6	446.3	49,600	99,300	310
320	22.9	389.0	61,800	63,700	27.0	408.3	55,200	74,300	32.2	430.9	45,300	92,300	320
330	17.3	360.5	57,100	59,300	22.4	385.8	50,800	71,300	28.4	413.2	41,200	85,800	330
340	8.5	313.8	45,000	45,000	16.7	356.4	46,500	60,200	24.2	392.3	37,400	77,800	340
350					7.2	305.7	42,200	45,300	19.0	365.9	33,600	67,300	350
360									11.6	327.2	30,000	54,800	360
370													370
380													380
390													390
400													400
410													410
420													420
430													430



# MLC650 VPC-MAX S-3

ASME B30.5



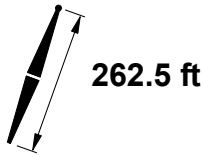
ft	75°				70°			65°			ft
	ft	ft	lb	lb	ft	lb	ft	lb	ft		
120											120
125											125
130											130
135											135
140											140
145											145
150											150
155											155
160											160
165											165
170											170
175											175
180											180
185											185
190											190
195											195
200											200
205											205
210											210
215	64.4	542.5	84,400	121,400							215
220	63.3	540.0	80,500	121,400							220
230	61.2	534.6	73,400	121,400							230
240	59.1	528.6	66,800	121,400							240
250	56.9	522.2	60,800	121,400							250
260	54.7	515.2	55,200	121,400	59.5	522.6	110,100				260
270	52.4	507.6	50,000	121,400	57.3	516.2	110,100				270
280	50.0	499.3	45,200	121,400	55.1	509.3	110,100				280
290	47.5	490.3	40,800	120,900	52.8	501.8	107,900				290
300	44.9	480.4	36,600	114,800	50.4	493.7	102,200				300
310	42.2	469.6	32,600	109,000	48.0	484.8	96,800	53.0	493.6	85,000	310
320	39.4	457.6	28,900	103,600	45.4	475.1	91,800	50.7	485.5	80,400	320
330	36.3	444.4	25,500	98,600	42.7	464.4	87,100	48.2	476.7	76,000	330
340	33.0	429.5	22,100	93,800	39.9	452.7	82,700	45.7	467.1	71,900	340
350	29.4	412.4		87,600	36.9	439.7	78,500	43.0	456.6	68,100	350
360	25.2	392.3		81,400	33.6	425.1	74,500	40.2	445.0	64,400	360
370	20.3	367.5		74,400	30.0	408.5	70,800	37.2	432.2	61,000	370
380	13.7	333.1		62,900	26.0	389.0	67,200	34.0	417.8	57,700	380
390					21.3	365.3	63,800	30.5	401.4	54,500	390
400					15.1	333.4	60,500	26.5	382.3	51,500	400
410								21.9	359.1	48,600	410
420								15.9	328.5	45,800	420
430								4.9	269.2	43,000	430

# MLC650 VPC-MAX S-3

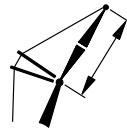
ASME B30.5



881,800 lb



262.5 ft

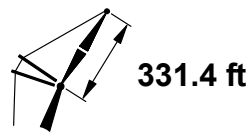
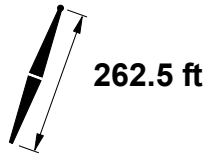


331.4 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
125	74.3	589.8	121,100	121,100									125
130	73.4	588.3	120,700	120,700									130
135	72.5	586.7	120,200	120,200									135
140	71.6	585.0	119,700	119,700									140
145	70.7	583.2	119,200	119,200	72.3	585.3	118,800	118,800					145
150	69.7	581.3	118,600	118,600	71.4	583.6	118,500	118,500					150
155	68.8	579.3	117,900	117,900	70.5	581.8	118,200	118,200					155
160	67.9	577.3	117,200	117,200	69.6	579.9	117,900	117,900					160
165	66.9	575.1	116,500	116,500	68.7	577.9	117,500	117,500					165
170	66.0	572.9	115,800	115,800	67.7	575.8	117,100	117,100					170
175	65.0	570.5	115,100	115,100	66.8	573.6	116,600	116,600	69.3	577.1	113,800	113,800	175
180	64.1	568.0	114,400	114,400	65.8	571.4	116,200	116,200	68.4	575.1	113,800	113,800	180
185	63.1	565.5	113,600	113,600	64.9	569.0	115,700	115,700	67.5	573.0	113,800	113,800	185
190	62.1	562.8	112,800	112,800	63.9	566.5	115,100	115,100	66.5	570.8	113,700	113,700	190
195	61.1	560.0	112,000	112,000	62.9	563.9	114,600	114,600	65.6	568.5	113,600	113,600	195
200	60.1	557.1	111,200	111,200	61.9	561.2	114,000	114,000	64.6	566.1	113,500	113,500	200
205	59.1	554.1	109,200	109,200	61.0	558.4	113,400	113,400	63.6	563.6	113,300	113,300	205
210	58.1	550.9	106,500	106,500	60.0	555.5	112,800	112,800	62.7	561.0	110,100	113,000	210
215	57.1	547.7	103,800	103,800	58.9	552.5	112,200	112,200	61.7	558.3	105,500	112,800	215
220	56.0	544.3	101,100	101,100	57.9	549.3	111,500	111,500	60.7	555.4	101,100	112,500	220
230	53.9	537.0	95,800	95,800	55.8	542.6	107,300	110,300	58.7	549.4	92,900	111,900	230
240	51.7	529.2	90,600	90,600	53.7	535.3	99,200	107,000	56.6	542.8	85,400	111,200	240
250	49.4	520.8	85,500	85,500	51.5	527.4	91,700	101,700	54.5	535.8	78,500	110,400	250
260	47.1	511.6	80,700	80,700	49.2	518.9	84,700	96,500	52.3	528.1	72,100	109,600	260
270	44.6	501.7	76,200	76,200	46.9	509.7	78,300	91,400	50.1	519.9	66,100	108,800	270
280	42.1	490.8	71,900	71,900	44.4	499.7	72,400	86,500	47.7	510.9	60,600	107,900	280
290	39.4	478.8	68,000	68,000	41.9	488.7	66,800	81,800	45.3	501.2	55,500	104,900	290
300	36.5	465.7	64,400	64,400	39.2	476.7	61,600	77,400	42.8	490.6	50,700	99,800	300
310	33.5	451.0	61,200	61,200	36.3	463.4	56,700	73,400	40.1	478.9	46,200	94,800	310
320	30.1	434.3	58,500	58,500	33.2	448.5	52,100	69,800	37.3	466.1	42,000	89,700	320
330	26.4	415.1	54,300	56,200	29.8	431.7	47,800	66,500	34.3	451.9	38,000	83,300	330
340	22.0	392.0	50,000	54,500	26.0	412.2	43,700	63,800	31.1	435.8	34,200	77,300	340
350	16.6	362.2	45,800	47,000	21.6	388.6	39,700	57,900	27.4	417.4	30,600	71,600	350
360	7.8	312.7	33,900	33,900	16.0	357.9	35,900	48,000	23.3	395.5	27,200	63,900	360
370					6.5	303.7	32,000	34,100	18.2	368.0	23,800	54,400	370
380									11.0	327.3	20,500	43,100	380
390													390
400													400
410													410
420													420
430													430
440													440
450													450

# MLC650 VPC-MAX S-3

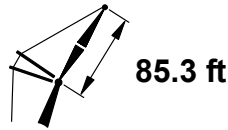
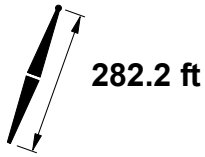
ASME B30.5



ft	75°				70°			65°			ft
	ft	ft	lb	lb	ft	lb	ft	lb	ft	lb	
125											125
130											130
135											135
140											140
145											145
150											150
155											155
160											160
165											165
170											170
175											175
180											180
185											185
190											190
195											195
200											200
205											205
210											210
215											215
220											220
230	63.1	557.0	69,300	103,900							230
240	61.1	551.5	62,800	103,900							240
250	59.1	545.6	56,800	103,900							250
260	57.1	539.2	51,300	103,900							260
270	55.0	532.3	46,200	103,900	59.5	539.5	93,500				270
280	52.8	524.7	41,400	103,900	57.5	533.2	93,500				280
290	50.6	516.6	37,000	103,900	55.4	526.4	93,500				290
300	48.3	507.8	32,800	103,900	53.2	519.0	93,500				300
310	45.9	498.3	29,000	103,900	51.0	511.0	93,500				310
320	43.4	487.9	25,300	100,700	48.7	502.3	88,700	53.4	510.8	77,100	320
330	40.8	476.5	21,900	95,700	46.3	492.9	84,000	51.2	502.8	72,800	330
340	38.0	464.0		90,900	43.9	482.7	79,600	49.0	494.2	68,700	340
350	35.1	450.1		84,900	41.3	471.5	75,500	46.6	484.9	64,900	350
360	31.8	434.5		78,800	38.5	459.2	71,600	44.1	474.8	61,300	360
370	28.3	416.7		73,100	35.6	445.6	67,900	41.6	463.7	57,900	370
380	24.3	395.8		67,700	32.4	430.3	64,300	38.8	451.5	54,600	380
390	19.5	369.9		61,000	29.0	412.9	61,000	35.9	438.1	51,500	390
400	13.0	333.9		50,600	25.1	392.7	57,800	32.8	423.0	48,600	400
410					20.5	367.9	54,700	29.4	405.9	45,700	410
420					14.4	334.5	51,700	25.5	386.0	43,000	420
430								21.0	361.9	40,400	430
440								15.2	329.8	37,900	440
450								3.8	264.6	34,900	450

# MLC650 VPC-MAX S-3

ASME B30.5



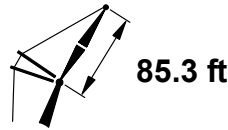
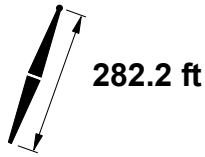
ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
60	74.4	372.6	545,700 d	545,700 d									60
65	70.9	370.7	542,000 d	542,000 d									65
70	67.2	368.5	533,600 c	533,600 c									70
75	63.4	365.9	518,200 c	518,200 c	70.7	369.5	509,100 d	509,100 d					75
80	59.5	362.8	502,300 b	502,300 b	67.0	367.2	494,500 c	494,500 c					80
85	55.3	359.2	485,500 b	485,500 b	63.2	364.6	480,700 c	480,700 c					85
90	51.0	355.0	469,500 b	469,500 b	59.3	361.5	467,500 b	467,500 b					90
95	46.3	350.1	454,400	454,400	55.2	357.9	442,600 b	467,500 b	66.7	364.7	412,700 c	494,700 c	95
100	41.1	344.3	435,400	440,300	50.8	353.7	416,700 b	467,500 b	62.9	362.0	388,600 c	494,700 c	100
105	35.3	337.3	410,900	425,900	46.1	348.8	393,400	455,100	59.0	358.9	366,900 b	494,700 b	105
110	28.4	328.2	388,600	411,600	40.9	342.9	372,200	441,000	54.8	355.3	347,200 b	483,400 b	110
115	18.8	314.9	362,400	362,400	35.1	335.8	352,800	428,100	50.4	351.0	329,200 b	468,200 b	115
120					28.0	326.6	334,900	416,600	45.7	346.0	312,700	453,500	120
125					18.3	313.0	318,100	369,100	40.5	340.1	297,500	439,500	125
130									34.6	332.8	283,400	426,500	130
135									27.4	323.4	270,200	408,900	135
140									17.3	309.2	257,500	377,400	140
145													145
150													150
155													155
160													160
165													165
170													170
175													175
180													180
185													185
190													190
195													195
200													200
205													205
210													210

# MLC650 VPC-MAX S-3

ASME B30.5



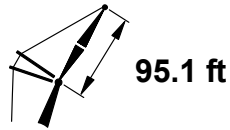
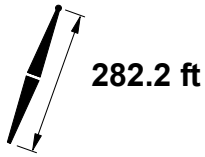
881,800 lb



ft	75°				70°				65°				ft
	ft	ft	lb	lb	ft	ft	lb	lb	ft	ft	lb	lb	
60													60
65													65
70													70
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125	62.2	355.8	261,500 b	419,300 b									125
130	58.2	352.6	249,200 b	400,800 b									130
135	54.0	348.9	237,700 b	383,800 b									135
140	49.5	344.5	227,100 b	368,000 b									140
145	44.7	339.3	217,200	353,300									145
150	39.4	333.2	207,800	339,600									150
155	33.3	325.6	199,000	326,800	56.9	343.8	171,400 b	305,900 b					155
160	25.8	315.6	190,500	314,800	52.6	339.9	164,300 b	294,700 b					160
165	14.4	299.3	182,100	303,400	48.1	335.3	157,600 b	284,200 b					165
170					43.1	329.8	151,200	274,300					170
175					37.6	323.3	145,100	265,000					175
180					31.1	315.1	139,200	256,100	55.0	332.4	116,600	239,000	180
185					22.9	303.9	133,500	247,700	50.6	328.1	112,000	231,200	185
190					6.0	279.3	127,100	239,200	45.8	323.2	107,500	223,900	190
195									40.6	317.3	103,200	216,900	195
200									34.7	310.1	99,100	210,200	200
205									27.6	300.7	95,000	203,700	205
210									17.7	286.8	90,800	197,500	210

# MLC650 VPC-MAX S-3

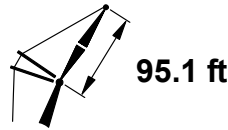
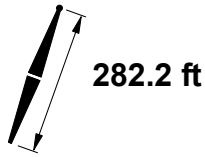
ASME B30.5



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
65	72.9	381.2	507,000 d	507,000 d									65
70	69.7	379.3	502,400 c	502,400 c									70
75	66.4	377.0	496,400 c	496,400 c									75
80	63.0	374.3	487,800 b	487,800 b	72.8	380.0	495,100 c	495,100 c					80
85	59.5	371.3	472,200 b	472,200 b	69.6	378.0	481,300 c	481,300 c					85
90	55.8	367.8	457,000 b	457,000 b	66.3	375.7	468,100 c	468,100 c					90
95	51.9	363.7	442,500	442,500	62.8	373.1	455,500 b	455,500 b	69.3	375.5	409,400 c	466,900 c	95
100	47.8	359.1	426,900	426,900	59.3	370.0	439,900 b	449,300 b	66.0	373.2	385,400 b	466,900 b	100
105	43.4	353.7	407,100	407,100	55.6	366.5	414,200 b	449,300 b	62.6	370.5	363,800 b	466,900 b	105
110	38.6	347.4	387,100	389,300	51.8	362.4	391,000	444,300	59.0	367.4	344,200 b	466,900 b	110
115	33.0	339.7	366,900	374,400	47.7	357.8	370,000	430,500	55.3	363.8	326,400 b	457,700 b	115
120	26.4	330.0	348,300	363,300	43.2	352.4	350,800	417,600	51.5	359.7	310,000	443,900	120
125	17.3	315.6	328,600	328,600	38.4	346.0	333,200	405,600	47.3	355.0	295,000	430,400	125
130					32.8	338.3	317,000	394,600	42.9	349.6	281,100	417,600	130
135					26.1	328.4	301,800	385,000	38.0	343.1	268,200	405,500	135
140					16.8	313.7	287,400	335,200	32.3	335.2	256,100	389,800	140
145									25.5	325.1	244,700	374,200	145
150									15.8	309.7	233,700	343,500	150
155													155
160													160
165													165
170													170
175													175
180													180
185													185
190													190
195													195
200													200
205													205
210													210
215													215
220													220

# MLC650 VPC-MAX S-3

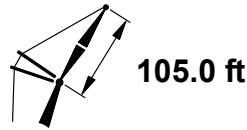
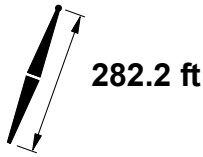
ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
65													65
70													70
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130	61.9	364.3	245,800 b	397,700 b									130
135	58.3	361.1	234,500 b	380,800 b									135
140	54.6	357.4	224,000 b	365,100 b									140
145	50.7	353.2	214,200	350,600									145
150	46.5	348.4	205,000	337,000									150
155	41.9	342.8	196,400	324,300									155
160	36.9	336.1	188,200	312,500	57.2	352.3	160,900	291,800					160
165	31.1	327.9	180,500	301,300	53.4	348.5	154,300	281,400					165
170	24.0	317.1	173,000	290,700	49.4	344.1	148,000	271,600					170
175	12.9	299.4	165,500	280,700	45.1	339.1	142,100	262,300					175
180					40.4	333.1	136,400	253,600					180
185					35.2	326.0	131,000	245,400					185
190					29.1	317.2	125,800	237,500	51.6	336.9	104,100	221,100	190
195					21.2	305.1	120,700	230,000	47.4	332.2	99,900	214,100	195
200									43.0	326.7	96,000	207,600	200
205									38.1	320.3	92,100	201,300	205
210									32.5	312.5	88,400	195,300	210
215									25.8	302.4	84,700	189,500	215
220									16.2	287.3	80,900	183,800	220

# MLC650 VPC-MAX S-3

ASME B30.5

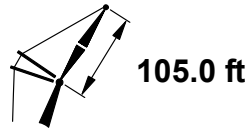
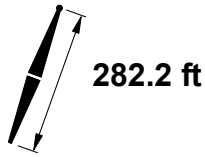


ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
65	74.6	391.6	471,700 d	471,700 d									65
70	71.7	389.9	470,300 c	470,300 c									70
75	68.8	387.8	465,800 c	465,800 c									75
80	65.7	385.5	460,100 b	460,100 b	71.6	388.6	473,100 c	473,100 c					80
85	62.7	382.8	453,500 b	453,500 b	68.6	386.6	460,300 c	460,300 c					85
90	59.5	379.7	443,300 b	443,300 b	65.6	384.2	448,100 b	448,100 b					90
95	56.1	376.3	429,600	429,600	62.5	381.5	436,400 b	436,400 b					95
100	52.7	372.4	413,200	413,200	59.3	378.5	412,900 b	436,400 b	68.4	384.1	383,600 b	464,000 b	100
105	49.0	368.0	393,800	393,800	56.0	375.0	389,800	432,000	65.4	381.7	362,100 b	464,000 b	105
110	45.2	362.9	375,500	375,500	52.5	371.1	368,900	419,000	62.3	379.0	342,600 b	457,700 b	110
115	41.0	357.1	358,900	358,900	48.9	366.6	349,800	406,600	59.1	375.9	324,900 b	445,000 b	115
120	36.4	350.3	344,300	344,300	45.0	361.5	332,300	394,800	55.8	372.4	308,600	432,300	120
125	31.1	342.0	331,200	332,100	40.8	355.7	316,300	383,300	52.3	368.4	293,700	419,800	125
130	24.8	331.6	315,500	323,500	36.2	348.8	301,400	367,600	48.6	363.9	279,900	407,600	130
135	15.9	316.1	299,300	299,300	30.9	340.5	287,600	354,200	44.7	358.8	267,100	396,000	135
140					24.5	329.9	274,600	344,200	40.5	352.8	255,200	384,800	140
145					15.5	314.2	262,200	305,700	35.8	345.9	244,100	372,900	145
150									30.5	337.5	233,600	358,500	150
155									23.9	326.6	223,700	345,100	155
160									14.5	310.1	214,100	313,800	160
165													165
170													170
175													175
180													180
185													185
190													190
195													195
200													200
205													205
210													210
215													215
220													220
230													230



# MLC650 VPC-MAX S-3

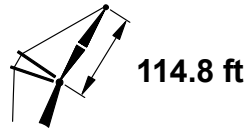
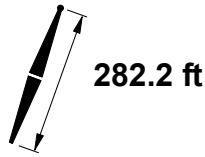
ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
65													65
70													70
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130	64.8	375.6	243,900 b	395,800 b									130
135	61.7	372.8	232,600 b	378,900 b									135
140	58.4	369.6	222,200	363,300									140
145	55.1	366.0	212,500	348,800									145
150	51.6	361.9	203,400	335,300									150
155	47.9	357.3	194,900	322,800									155
160	43.9	352.1	186,900	311,000									160
165	39.6	346.0	179,300	299,900	57.4	360.8	152,400	279,600					165
170	34.8	338.8	172,200	289,500	54.0	357.1	146,200	269,900					170
175	29.3	330.0	165,300	279,700	50.4	352.9	140,400	260,700					175
180	22.4	318.4	158,700	270,400	46.6	348.1	134,800	252,100					180
185	11.6	299.2	152,000	261,400	42.6	342.6	129,600	243,900					185
190					38.2	336.2	124,600	236,200					190
195					33.2	328.5	119,700	228,800	52.4	345.5	98,100	212,500	195
200					27.3	319.1	115,000	221,800	48.7	341.0	94,200	206,000	200
205					19.8	306.1	110,400	215,000	44.8	335.9	90,500	199,800	205
210									40.6	330.0	86,900	193,900	210
215									35.9	323.1	83,400	188,200	215
220									30.6	314.7	80,000	182,800	220
230									14.8	287.7	73,200	172,400	230

# MLC650 VPC-MAX S-3

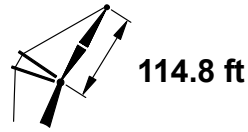
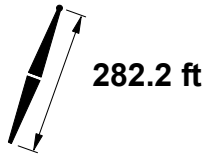
ASME B30.5



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
70	73.3	400.3	439,600 c	439,600 c									70
75	70.7	398.5	437,100 c	437,100 c									75
80	68.0	396.4	432,900 b	432,900 b									80
85	65.2	394.0	427,600 b	427,600 b	70.6	397.3	441,200 b	441,200 b					85
90	62.4	391.3	421,700 b	421,700 b	67.9	395.1	436,800 b	436,800 b					90
95	59.5	388.2	414,100	414,100	65.1	392.7	425,600 b	425,600 b					95
100	56.4	384.8	399,100	399,100	62.3	390.0	410,100 b	422,500 b					100
105	53.3	381.0	381,000	381,000	59.3	386.9	387,100	421,000	67.7	392.6	358,900 b	440,700 b	105
110	50.0	376.7	363,400	363,400	56.3	383.5	366,200	408,800	64.9	390.2	339,500 b	440,700 b	110
115	46.6	371.9	346,800	346,800	53.2	379.7	347,200	397,000	62.0	387.4	321,800 b	433,500 b	115
120	42.9	366.5	331,400	331,400	49.9	375.4	329,900	385,600	59.1	384.3	305,600	421,900	120
125	38.9	360.2	317,600	317,600	46.4	370.6	313,900	371,600	56.1	380.9	290,800	410,300	125
130	34.5	352.9	305,500	305,500	42.7	365.1	299,200	355,400	52.9	377.0	277,100	398,900	130
135	29.5	344.2	295,800	295,800	38.7	358.8	285,500	340,700	49.6	372.7	264,400	387,800	135
140	23.4	333.0	286,000	289,100	34.3	351.5	272,800	327,600	46.1	367.8	252,600	377,000	140
145	14.8	316.5	273,000	273,000	29.2	342.6	260,900	316,600	42.4	362.3	241,600	366,700	145
150					23.1	331.4	249,600	308,600	38.4	355.9	231,300	356,100	150
155					14.3	314.5	238,800	279,100	33.9	348.5	221,700	342,800	155
160									28.8	339.5	212,500	330,300	160
165									22.5	328.0	203,800	318,500	165
170									13.3	310.3	195,300	287,000	170
175													175
180													180
185													185
190													190
195													195
200													200
205													205
210													210
215													215
220													220
230													230
240													240

# MLC650 VPC-MAX S-3

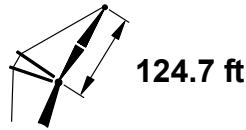
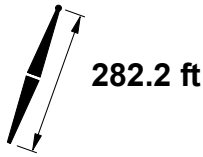
ASME B30.5



ft	75°				70°				65°				ft	
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb		lb
70														70
75														75
80														80
85														85
90														90
95														95
100														100
105														105
110														110
115														115
120														120
125														125
130														130
135	64.3	384.0	229,200	375,800										135
140	61.5	381.2	218,900	360,300										140
145	58.5	378.1	209,200	345,900										145
150	55.5	374.6	200,200	332,500										150
155	52.3	370.6	191,800	320,000										155
160	49.0	366.2	183,900	308,300										160
165	45.4	361.2	176,400	297,300										165
170	41.7	355.5	169,400	287,000	57.6	369.3	142,800	267,000						170
175	37.6	348.9	162,700	277,300	54.5	365.7	137,000	257,900						175
180	33.0	341.3	156,400	268,100	51.3	361.6	131,600	249,300						180
185	27.7	331.9	150,300	259,400	47.9	357.0	126,400	241,200						185
190	21.1	319.6	144,300	251,100	44.3	351.8	121,500	233,600						190
195	10.4	298.9	138,300	243,100	40.4	345.9	116,800	226,300						195
200					36.2	339.0	112,300	219,400	53.0	354.1	90,700	203,200		200
205					31.4	330.9	107,900	212,700	49.7	349.8	87,100	197,000		205
210					25.8	320.8	103,700	206,400	46.2	345.0	83,600	191,200		210
215					18.5	307.0	99,500	200,300	42.5	339.4	80,200	185,600		215
220									38.5	333.1	77,000	180,300		220
230									29.0	316.8	70,800	170,200		230
240									13.7	287.9	64,500	160,800		240

# MLC650 VPC-MAX S-3

ASME B30.5



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
70	74.7	410.7	411,800 c	411,800 c									70
75	72.3	409.0	410,900 c	410,900 c									75
80	69.8	407.1	408,100 b	408,100 b									80
85	67.3	404.9	404,300 b	404,300 b	72.2	407.8	413,200 b	413,200 b					85
90	64.8	402.5	399,500 b	399,500 b	69.7	405.8	412,800 b	412,800 b					90
95	62.1	399.7	393,900	393,900	67.2	403.7	410,900 b	410,900 b					95
100	59.5	396.7	386,900	386,900	64.7	401.2	408,000 b	408,000 b					100
105	56.7	393.3	370,200	370,200	62.0	398.5	387,300	404,000	69.5	403.3	358,900 b	410,600 b	105
110	53.8	389.6	353,800	353,800	59.4	395.4	366,500	399,500	67.0	401.1	339,500 b	410,600 b	110
115	50.8	385.4	337,800	337,800	56.6	392.0	347,600	389,400	64.5	398.7	321,900	410,600	115
120	47.7	380.8	322,800	322,800	53.7	388.3	330,300	378,500	61.8	395.9	305,700	410,600	120
125	44.4	375.6	308,600	308,600	50.7	384.1	314,400	362,700	59.1	392.8	290,900	402,500	125
130	40.9	369.8	295,700	295,700	47.6	379.5	299,700	347,100	56.4	389.4	277,300	391,900	130
135	37.1	363.2	284,100	284,100	44.3	374.3	286,100	332,300	53.5	385.6	264,700	381,400	135
140	32.8	355.4	274,100	274,100	40.7	368.4	273,500	318,500	50.5	381.4	253,000	371,100	140
145	28.0	346.2	266,200	266,200	36.9	361.7	261,800	305,900	47.3	376.7	242,000	361,200	145
150	22.1	334.4	260,900	260,900	32.6	354.0	250,800	294,900	44.0	371.5	231,900	351,700	150
155	13.7	316.8	251,900	252,100	27.8	344.6	240,400	285,800	40.4	365.6	222,300	342,600	155
160					21.8	332.7	230,500	279,400	36.6	358.8	213,300	330,200	160
165					13.3	314.7	221,000	258,000	32.3	350.9	204,800	318,500	165
170									27.4	341.5	196,800	307,600	170
175									21.3	329.3	189,100	297,200	175
180									12.3	310.3	181,400	265,700	180
185													185
190													190
195													195
200													200
205													205
210													210
215													215
220													220
230													230
240													240
250													250

# MLC650 VPC-MAX S-3

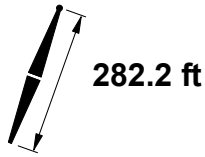
ASME B30.5



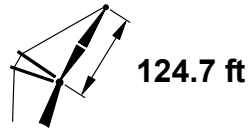
881,800 lb



360°



282.2 ft

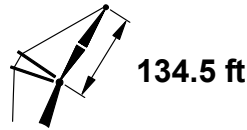
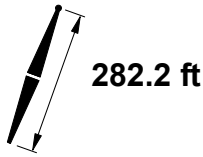


124.7 ft

ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
70													70
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140	64.0	392.5	218,900	359,800									140
145	61.3	389.7	209,300	345,500									145
150	58.6	386.6	200,300	332,100									150
155	55.8	383.1	191,900	319,700									155
160	52.9	379.2	184,100	308,000									160
165	49.9	374.9	176,700	297,100									165
170	46.7	370.2	169,700	286,900									170
175	43.3	364.8	163,100	277,200	57.7	377.8	137,000	257,600					175
180	39.7	358.7	156,900	268,100	54.9	374.2	131,600	249,100					180
185	35.8	351.8	150,900	259,400	52.0	370.3	126,500	241,100					185
190	31.4	343.6	145,300	251,300	48.9	365.8	121,700	233,400					190
195	26.3	333.7	139,800	243,500	45.7	360.9	117,000	226,200					195
200	19.9	320.7	134,400	236,100	42.2	355.3	112,600	219,300					200
205	9.4	298.3	128,900	228,900	38.5	349.0	108,400	212,800	53.6	362.8	87,100	196,900	205
210					34.5	341.7	104,300	206,500	50.6	358.6	83,700	191,100	210
215					29.9	333.1	100,400	200,600	47.4	353.9	80,400	185,500	215
220					24.5	322.4	96,500	194,800	44.1	348.7	77,200	180,200	220
230									36.7	336.0	71,200	170,300	230
240									27.5	318.8	65,600	161,200	240
250									12.6	288.1	59,800	152,500	250

# MLC650 VPC-MAX S-3

ASME B30.5



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
75	73.6	419.4	383,000 b	383,000 b									75
80	71.4	417.6	381,700 b	381,700 b									80
85	69.1	415.6	379,100 b	379,100 b									85
90	66.8	413.4	375,600 b	375,600 b	71.3	416.4	384,400 b	384,400 b					90
95	64.4	410.9	371,500	371,500	69.0	414.4	383,800 b	383,800 b					95
100	62.0	408.2	366,200	366,200	66.7	412.2	382,100	382,100					100
105	59.5	405.2	358,100	358,100	64.3	409.7	379,500	379,500					105
110	56.9	401.8	343,200	343,200	61.9	406.9	363,700	376,100	68.8	411.9	336,300	382,200	110
115	54.3	398.2	328,400	328,400	59.4	403.9	344,900	372,300	66.5	409.6	318,800	382,200	115
120	51.5	394.1	314,000	314,000	56.8	400.6	327,600	366,900	64.1	407.1	302,700	382,200	120
125	48.7	389.6	300,300	300,300	54.2	396.9	311,800	352,800	61.7	404.4	288,000	382,200	125
130	45.7	384.7	287,400	287,400	51.4	392.8	297,200	338,200	59.2	401.3	274,400	379,500	130
135	42.5	379.2	275,400	275,400	48.6	388.3	283,700	324,100	56.6	397.9	261,800	369,900	135
140	39.1	373.0	264,500	264,500	45.6	383.3	271,200	310,500	53.9	394.2	250,200	360,400	140
145	35.4	365.9	254,700	254,700	42.4	377.8	259,500	297,800	51.2	390.1	239,300	351,100	145
150	31.4	357.8	246,500	246,500	39.0	371.6	248,600	285,900	48.3	385.6	229,200	342,100	150
155	26.7	348.0	239,900	239,900	35.3	364.5	238,400	275,300	45.3	380.6	219,700	333,400	155
160	21.0	335.6	235,900	235,900	31.2	356.3	228,700	266,000	42.1	375.0	210,800	325,000	160
165	12.8	317.0	230,200	230,200	26.5	346.5	219,600	258,400	38.7	368.7	202,400	316,200	165
170					20.7	333.9	210,900	253,200	35.0	361.6	194,500	305,300	170
175					12.3	314.8	202,400	235,800	30.9	353.3	187,000	295,000	175
180									26.1	343.3	179,900	285,300	180
185									20.2	330.4	173,000	275,600	185
190									11.4	310.2	166,100	243,100	190
195													195
200													200
205													205
210													210
215													215
220													220
230													230
240													240
250													250
260													260

# MLC650 VPC-MAX S-3

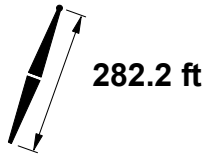
ASME B30.5



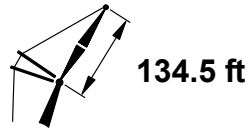
881,800 lb



360°



282.2 ft



134.5 ft

ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145	63.6	401.0	205,900	342,600									145
150	61.2	398.2	197,000	329,300									150
155	58.7	395.1	188,700	316,900									155
160	56.1	391.6	180,900	305,300									160
165	53.4	387.8	173,600	294,400									165
170	50.6	383.7	166,700	284,200									170
175	47.7	379.0	160,200	274,600									175
180	44.7	373.9	154,000	265,600	57.9	386.3	128,200	246,300					180
185	41.5	368.2	148,200	257,000	55.3	382.8	123,200	238,300					185
190	38.0	361.8	142,600	248,900	52.6	378.9	118,400	230,700					190
195	34.2	354.4	137,300	241,200	49.8	374.6	113,800	223,500					195
200	30.0	345.8	132,200	233,900	46.8	369.8	109,500	216,700					200
205	25.1	335.4	127,200	226,900	43.7	364.5	105,300	210,200					205
210	18.8	321.7	122,400	220,200	40.4	358.6	101,400	204,100	54.0	371.3	80,200	188,300	210
215	8.3	297.6	117,400	213,700	36.9	351.9	97,500	198,200	51.3	367.2	77,000	182,800	215
220					32.9	344.2	93,800	192,500	48.4	362.7	73,900	177,600	220
230					23.3	323.9	86,800	181,900	42.2	352.2	68,100	167,800	230
240									35.1	338.8	62,600	158,700	240
250									26.2	320.6	57,400	150,400	250
260									11.7	288.0	52,100	142,400	260

# MLC650 VPC-MAX S-3

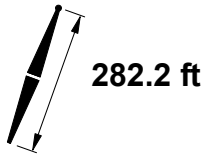
ASME B30.5



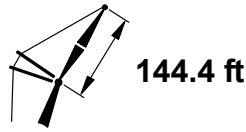
881,800 lb



360°



282.2 ft



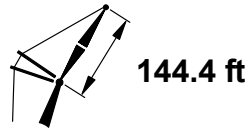
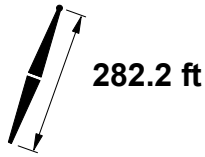
144.4 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
75	74.8	429.7	358,300 b	358,300 b									75
80	72.7	428.1	357,900 b	357,900 b									80
85	70.6	426.2	356,300 b	356,300 b									85
90	68.4	424.2	353,900	353,900	72.6	426.9	358,700 b	358,700 b					90
95	66.3	421.9	350,500	350,500	70.5	425.0	358,700	358,700					95
100	64.0	419.4	347,000	347,000	68.4	423.0	358,500	358,500					100
105	61.8	416.7	342,400	342,400	66.2	420.7	356,900	356,900					105
110	59.5	413.7	332,400	332,400	64.0	418.2	354,600	354,600					110
115	57.1	410.3	318,800	318,800	61.7	415.4	343,000	351,800	68.2	420.5	316,700	357,000	115
120	54.6	406.7	305,400	305,400	59.4	412.4	325,800	348,500	66.0	418.2	300,600	357,000	120
125	52.1	402.8	292,500	292,500	57.0	409.1	310,000	342,400	63.8	415.6	285,900	357,000	125
130	49.5	398.4	280,000	280,000	54.5	405.4	295,400	329,100	61.5	412.8	272,400	357,000	130
135	46.7	393.7	268,300	268,300	52.0	401.5	282,000	316,000	59.2	409.8	259,900	357,000	135
140	43.9	388.4	257,200	257,200	49.4	397.1	269,500	303,200	56.8	406.4	248,200	352,800	140
145	40.8	382.5	246,900	246,900	46.6	392.3	257,900	290,800	54.3	402.8	237,400	344,200	145
150	37.5	376.0	237,700	237,700	43.7	387.0	247,100	279,000	51.8	398.8	227,400	335,600	150
155	34.0	368.6	229,500	229,500	40.7	381.2	236,900	267,900	49.2	394.4	217,900	327,300	155
160	30.1	360.0	222,600	222,600	37.4	374.6	227,400	257,800	46.4	389.6	209,100	319,200	160
165	25.5	349.8	217,200	217,200	33.8	367.1	218,400	248,700	43.5	384.2	200,800	311,500	165
170	20.0	336.8	214,100	214,100	29.9	358.5	209,900	240,800	40.4	378.3	193,000	299,700	170
175	11.9	317.0	212,000	212,000	25.3	348.2	201,800	234,500	37.1	371.7	185,500	288,600	175
180					19.7	335.0	194,100	230,400	33.6	364.2	178,500	278,300	180
185					11.4	314.7	186,500	217,400	29.6	355.4	171,800	269,200	185
190									25.0	345.0	165,400	261,500	190
195									19.2	331.5	159,200	253,100	195
200									10.5	310.0	153,000	222,200	200
205													205
210													210
215													215
220													220
230													230
240													240
250													250
260													260
270													270



# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150	63.3	409.5	194,900	327,300									150
155	61.1	406.7	186,600	314,900									155
160	58.7	403.5	178,800	303,400									160
165	56.3	400.1	171,600	292,500									165
170	53.9	396.4	164,700	282,400									170
175	51.3	392.3	158,200	272,800									175
180	48.6	387.9	152,100	263,800									180
185	45.9	383.0	146,300	255,300	58.0	394.8	121,000	236,400					185
190	42.9	377.5	140,800	247,200	55.6	391.3	116,200	228,900					190
195	39.8	371.5	135,500	239,600	53.1	387.5	111,700	221,700					195
200	36.5	364.7	130,500	232,300	50.5	383.3	107,400	214,900					200
205	32.8	357.0	125,700	225,400	47.8	378.7	103,300	208,500					205
210	28.7	347.9	121,100	218,800	45.0	373.6	99,400	202,400					210
215	23.9	337.0	116,600	212,500	42.0	368.0	95,600	196,500	54.4	379.9	74,800	181,000	215
220	17.9	322.6	112,200	206,400	38.8	361.8	92,000	190,900	51.9	375.9	71,700	175,800	220
230					31.6	346.6	85,200	180,400	46.5	366.7	66,000	166,000	230
240					22.2	325.3	78,700	170,700	40.5	355.5	60,700	157,100	240
250									33.7	341.4	55,700	148,800	250
260									25.1	322.3	50,900	141,200	260
270									10.8	287.9	46,000	133,800	270

# MLC650 VPC-MAX S-3

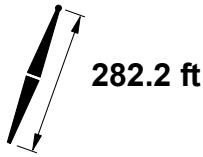
ASME B30.5



881,800 lb



360°



282.2 ft

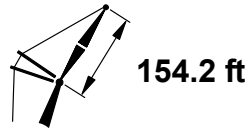
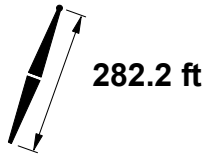


154.2 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
80	73.8	438.4	334,700 b	334,700 b									80
85	71.9	436.7	334,000	334,000									85
90	69.9	434.9	332,400	332,400									90
95	67.9	432.8	330,200	330,200	71.8	435.5	335,100	335,100					95
100	65.8	430.4	327,300	327,300	69.8	433.6	335,100	335,100					100
105	63.8	427.9	323,600	323,600	67.8	431.5	334,500	334,500					105
110	61.6	425.1	319,900	319,900	65.8	429.2	333,200	333,200					110
115	59.5	422.1	308,400	308,400	63.7	426.7	331,200	331,200	69.7	431.1	313,500	331,000	115
120	57.2	418.8	296,200	296,200	61.5	423.9	323,100	328,800	67.6	429.0	297,500	331,000	120
125	55.0	415.3	284,200	284,200	59.4	420.9	307,300	326,000	65.6	426.7	282,900	331,000	125
130	52.6	411.4	272,400	272,400	57.2	417.6	292,800	319,100	63.5	424.1	269,400	331,000	130
135	50.2	407.2	261,100	261,100	54.9	414.0	279,400	307,100	61.4	421.3	256,900	331,000	135
140	47.6	402.5	250,400	250,400	52.5	410.1	267,000	295,200	59.2	418.3	245,400	331,000	140
145	45.0	397.5	240,200	240,200	50.1	405.8	255,400	283,600	57.0	414.9	234,600	331,000	145
150	42.2	391.9	230,700	230,700	47.5	401.2	244,600	272,200	54.7	411.3	224,600	327,900	150
155	39.3	385.8	222,100	222,100	44.9	396.1	234,500	261,400	52.3	407.4	215,200	320,100	155
160	36.1	378.9	214,200	214,200	42.1	390.5	225,100	251,200	49.9	403.1	206,400	312,400	160
165	32.7	371.1	207,300	207,300	39.2	384.4	216,200	241,700	47.3	398.5	198,200	304,600	165
170	28.9	362.2	201,500	201,500	36.0	377.5	207,800	233,000	44.7	393.4	190,400	293,300	170
175	24.5	351.4	197,200	197,200	32.6	369.7	199,800	225,200	41.9	387.7	183,000	282,400	175
180	19.1	337.8	194,800	194,800	28.7	360.6	192,300	218,600	38.9	381.5	176,100	271,900	180
185	11.1	316.9	194,800	194,800	24.3	349.8	185,100	213,300	35.7	374.5	169,500	262,200	185
190					18.8	336.0	178,100	210,100	32.3	366.6	163,200	253,300	190
195					10.6	314.5	171,300	198,100	28.4	357.5	157,200	245,400	195
200									23.9	346.5	151,400	238,900	200
205									18.4	332.4	145,800	229,700	205
210									9.7	309.6	140,200	201,700	210
215													215
220													220
230													230
240													240
250													250
260													260
270													270
280													280

# MLC650 VPC-MAX S-3

ASME B30.5



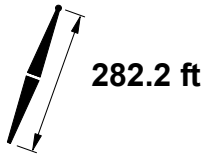
ft	75°				70°				65°				ft
	ft	ft	lb	lb	ft	ft	lb	lb	ft	ft	lb	lb	
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155	63.1	418.0	183,300	312,100									155
160	61.0	415.1	175,600	300,600									160
165	58.8	412.0	168,400	289,900									165
170	56.5	408.7	161,600	279,700									170
175	54.2	405.0	155,200	270,200									175
180	51.9	401.0	149,100	261,200									180
185	49.4	396.6	143,300	252,800									185
190	46.8	391.9	137,900	244,700	58.1	403.3	112,900	226,100					190
195	44.1	386.7	132,700	237,100	55.8	399.9	108,400	219,000					195
200	41.3	381.0	127,800	229,900	53.5	396.1	104,200	212,300					200
205	38.3	374.6	123,000	223,000	51.1	392.0	100,100	205,900					205
210	35.1	367.5	118,500	216,500	48.6	387.5	96,200	199,800					210
215	31.5	359.4	114,200	210,300	46.0	382.6	92,500	194,000					215
220	27.6	349.9	110,000	204,300	43.3	377.3	89,000	188,400	54.8	388.5	68,300	173,000	220
230	17.0	323.4	101,900	193,000	37.3	364.8	82,300	178,000	50.0	380.3	62,600	163,400	230
240					30.4	348.9	76,100	168,500	44.8	370.5	57,400	154,500	240
250					21.3	326.6	70,100	159,600	39.0	358.7	52,600	146,400	250
260									32.4	343.9	48,000	138,800	260
270									24.1	323.9	43,600	131,700	270
280									10.0	287.5	39,000	124,900	280

# MLC650 VPC-MAX S-3

ASME B30.5



881,800 lb



282.2 ft



164.0 ft

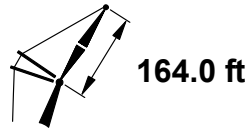
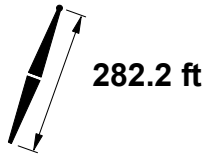
ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
80	74.8	448.8	313,300 b	313,300 b									80
85	73.0	447.2	313,200	313,200									85
90	71.2	445.4	312,200	312,200									90
95	69.3	443.4	310,700	310,700	72.9	446.0	312,700	312,700					95
100	67.4	441.3	308,600	308,600	71.1	444.2	312,700	312,700					100
105	65.5	439.0	306,100	306,100	69.2	442.2	312,700	312,700					105
110	63.5	436.4	303,000	303,000	67.3	440.1	312,600	312,600					110
115	61.5	433.6	298,500	298,500	65.4	437.7	311,400	311,400					115
120	59.5	430.6	287,400	287,400	63.4	435.2	309,700	309,700	69.1	439.7	296,600	309,300	120
125	57.4	427.3	276,300	276,300	61.4	432.4	306,600	307,600	67.2	437.5	282,000	309,300	125
130	55.2	423.8	265,400	265,400	59.4	429.3	292,200	305,300	65.2	435.2	268,500	309,300	130
135	53.0	420.0	254,700	254,700	57.3	426.1	278,800	298,400	63.3	432.6	256,100	309,300	135
140	50.8	415.8	244,400	244,400	55.2	422.5	266,400	287,600	61.3	429.8	244,500	309,300	140
145	48.4	411.4	234,500	234,500	53.0	418.7	254,800	276,700	59.2	426.7	233,800	309,300	145
150	46.0	406.5	225,100	225,100	50.7	414.5	244,100	266,100	57.1	423.5	223,800	309,300	150
155	43.4	401.1	216,300	216,300	48.3	410.0	234,000	255,700	55.0	419.9	214,500	309,300	155
160	40.8	395.3	208,100	208,100	45.9	405.1	224,600	245,700	52.8	416.0	205,700	306,700	160
165	37.9	388.8	200,700	200,700	43.3	399.8	215,700	236,200	50.5	411.8	197,500	297,600	165
170	34.8	381.7	193,900	193,900	40.6	393.9	207,400	227,300	48.2	407.3	189,700	287,100	170
175	31.5	373.5	188,000	188,000	37.8	387.4	199,500	219,000	45.7	402.4	182,400	276,700	175
180	27.8	364.2	183,000	183,000	34.7	380.2	192,100	211,400	43.1	397.0	175,500	266,500	180
185	23.5	353.0	179,300	179,300	31.4	372.0	185,000	204,600	40.4	391.1	169,000	256,800	185
190	18.3	338.8	177,500	177,500	27.7	362.6	178,200	198,900	37.6	384.5	162,800	247,600	190
195	10.4	316.7	177,500	177,500	23.3	351.4	171,800	194,400	34.5	377.3	156,900	238,900	195
200					18.0	337.0	165,500	191,700	31.1	369.0	151,200	231,100	200
205					9.9	314.2	159,300	181,700	27.3	359.5	145,800	224,100	205
210									23.0	348.0	140,600	218,400	210
215									17.5	333.3	135,500	210,800	215
220									8.9	309.1	130,300	185,100	220
230													230
240													240
250													250
260													260
270													270
280													280
290													290

# MLC650 VPC-MAX S-3

ASME B30.5



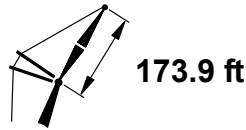
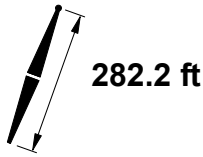
881,800 lb



ft	75°				70°				65°				ft
	ft	°	lb	lb	ft	°	lb	lb	ft	°	lb	lb	
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155	64.9	429.1	182,300	294,300									155
160	62.9	426.4	174,600	294,300									160
165	60.9	423.6	167,400	288,800									165
170	58.8	420.5	160,600	278,700									170
175	56.7	417.2	154,200	269,200									175
180	54.6	413.5	148,200	260,300									180
185	52.3	409.6	142,500	251,800									185
190	50.1	405.4	137,100	243,900									190
195	47.7	400.8	131,900	236,300	58.2	411.8	107,400	218,000					195
200	45.2	395.7	127,000	229,100	56.0	408.4	103,100	211,300					200
205	42.6	390.3	122,400	222,300	53.9	404.7	99,100	204,900					205
210	39.9	384.2	117,900	215,800	51.6	400.6	95,300	198,900					210
215	37.0	377.6	113,600	209,500	49.3	396.3	91,600	193,100					215
220	33.8	370.1	109,500	203,600	46.9	391.6	88,100	187,600					220
230	26.5	351.8	101,700	192,500	41.8	380.8	81,500	177,300	52.8	393.1	61,600	162,400	230
240	16.2	324.1	94,300	182,200	36.0	367.6	75,400	167,800	48.2	384.4	56,500	153,600	240
250					29.2	351.1	69,700	159,000	43.2	374.1	51,700	145,500	250
260					20.4	327.8	64,200	150,900	37.6	361.7	47,200	138,000	260
270									31.2	346.3	43,000	131,100	270
280									23.1	325.4	38,900	124,500	280
290									9.3	287.1	34,700	118,200	290

# MLC650 VPC-MAX S-3

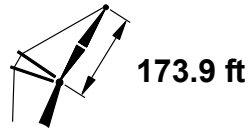
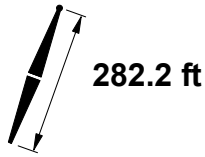
ASME B30.5



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
85	74.0	457.5	293,000	293,000									85
90	72.3	455.9	292,700	292,700									90
95	70.5	454.0	291,700	291,700									95
100	68.7	452.0	290,200	290,200	72.2	454.6	292,400	292,400					100
105	67.0	449.8	288,400	288,400	70.5	452.8	292,400	292,400					105
110	65.1	447.5	285,800	285,800	68.7	450.8	292,400	292,400					110
115	63.3	444.9	283,100	283,100	66.9	448.6	292,100	292,100					115
120	61.4	442.1	277,600	277,600	65.1	446.2	291,000	291,000					120
125	59.5	439.1	267,600	267,600	63.2	443.6	289,500	289,500	68.5	448.3	278,900	288,800	125
130	57.5	435.8	257,600	257,600	61.3	440.8	287,800	287,800	66.7	446.1	265,500	288,800	130
135	55.5	432.3	247,800	247,800	59.4	437.8	276,100	285,900	64.9	443.7	253,100	288,800	135
140	53.4	428.6	238,100	238,100	57.4	434.6	263,800	278,900	63.1	441.1	241,600	288,800	140
145	51.3	424.5	228,700	228,700	55.4	431.1	252,300	269,100	61.2	438.3	230,900	288,800	145
150	49.1	420.1	219,700	219,700	53.3	427.3	241,500	259,200	59.2	435.2	221,000	288,800	150
155	46.8	415.4	211,100	211,100	51.2	423.2	231,500	249,600	57.3	432.0	211,700	288,800	155
160	44.5	410.2	203,000	203,000	49.0	418.8	222,100	240,100	55.3	428.4	202,900	288,800	160
165	42.0	404.7	195,300	195,300	46.8	414.0	213,300	231,000	53.2	424.6	194,800	288,400	165
170	39.4	398.5	188,300	188,300	44.4	408.9	205,000	222,300	51.1	420.5	187,100	280,100	170
175	36.6	391.8	181,900	181,900	41.9	403.3	197,200	214,000	48.9	416.1	179,800	270,500	175
180	33.7	384.3	176,100	176,100	39.3	397.1	189,800	206,200	46.6	411.3	172,900	261,100	180
185	30.4	375.8	171,000	171,000	36.5	390.4	182,800	199,000	44.2	406.1	166,400	251,800	185
190	26.8	366.1	166,900	166,900	33.6	382.8	176,100	192,500	41.7	400.5	160,300	242,700	190
195	22.7	354.5	163,900	163,900	30.3	374.3	169,700	186,700	39.1	394.3	154,400	234,100	195
200	17.5	339.6	162,600	162,600	26.7	364.5	163,700	181,800	36.3	387.5	148,800	226,100	200
205	9.6	316.3	162,600	162,600	22.5	352.8	157,800	178,000	33.3	379.9	143,500	218,500	205
210					17.3	337.8	152,200	175,900	30.0	371.3	138,400	211,700	210
215					9.2	313.8	146,500	165,400	26.4	361.4	133,500	205,600	215
220									22.1	349.4	128,700	200,700	220
230									8.2	308.4	119,300	168,600	230
240													240
250													250
260													260
270													270
280													280
290													290
300													300

# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160	64.5	437.6	171,400	273,700									160
165	62.7	434.9	164,200	273,700									165
170	60.8	432.1	157,500	273,700									170
175	58.9	429.0	151,100	266,600									175
180	56.9	425.7	145,100	257,700									180
185	54.9	422.1	139,500	249,300									185
190	52.8	418.2	134,100	241,400									190
195	50.6	414.1	129,000	233,800									195
200	48.4	409.6	124,100	226,700	58.2	420.3	99,800	208,600					200
205	46.1	404.7	119,500	219,900	56.3	416.9	95,900	202,300					205
210	43.7	399.4	115,100	213,400	54.2	413.2	92,100	196,300					210
215	41.2	393.7	110,900	207,200	52.1	409.3	88,400	190,500					215
220	38.6	387.4	106,800	201,300	49.9	405.0	85,000	185,000					220
230	32.7	372.7	99,200	190,300	45.4	395.4	78,500	174,800					230
240	25.6	353.6	92,100	180,200	40.4	384.1	72,500	165,400	51.1	397.6	53,100	151,000	240
250	15.5	324.7	85,300	170,800	34.8	370.4	66,900	156,700	46.6	388.5	48,500	143,000	250
260					28.2	353.1	61,600	148,700	41.8	377.6	44,100	135,600	260
270					19.6	328.9	56,600	141,200	36.4	364.7	40,000	128,700	270
280									30.1	348.5	36,100	122,200	280
290									22.3	326.8	32,400	116,200	290
300									8.5	286.5	28,300	110,300	300

# MLC650 VPC-MAX S-3

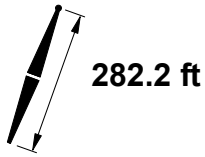
ASME B30.5



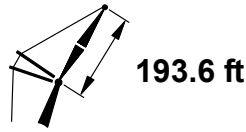
881,800 lb



360°



282.2 ft



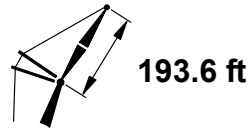
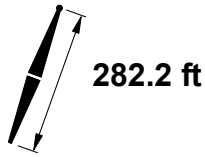
193.6 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
90	74.1	476.6	255,700	255,700									90
95	72.6	474.9	255,600	255,600									95
100	71.0	473.2	255,000	255,000									100
105	69.4	471.2	254,100	254,100	72.5	473.7	254,400	254,400					105
110	67.8	469.2	252,900	252,900	71.0	472.0	254,400	254,400					110
115	66.2	466.9	251,300	251,300	69.4	470.0	254,400	254,400					115
120	64.6	464.5	249,400	249,400	67.8	467.9	254,400	254,400					120
125	62.9	461.8	247,300	247,300	66.1	465.7	254,300	254,300					125
130	61.2	459.0	242,200	242,200	64.5	463.2	253,500	253,500	69.2	467.5	249,700	249,700	130
135	59.5	456.0	234,200	234,200	62.8	460.6	252,500	252,500	67.6	465.4	249,100	249,700	135
140	57.7	452.8	226,000	226,000	61.1	457.8	251,200	251,200	66.0	463.1	237,700	249,700	140
145	55.9	449.4	218,000	218,000	59.4	454.8	248,900	249,800	64.4	460.7	227,100	249,700	145
150	54.1	445.7	210,000	210,000	57.6	451.6	238,200	245,500	62.7	458.0	217,200	249,700	150
155	52.2	441.8	202,200	202,200	55.8	448.1	228,300	237,500	61.0	455.2	207,900	249,700	155
160	50.3	437.6	194,700	194,700	54.0	444.4	218,900	229,500	59.3	452.2	199,200	249,700	160
165	48.3	433.1	187,400	187,400	52.1	440.5	210,200	221,500	57.5	448.9	191,100	249,700	165
170	46.2	428.2	180,400	180,400	50.2	436.3	201,900	213,600	55.7	445.5	183,500	249,700	170
175	44.1	423.0	173,900	173,900	48.2	431.7	194,100	206,000	53.9	441.8	176,300	249,700	175
180	41.8	417.4	167,600	167,600	46.1	426.9	186,800	198,500	52.0	437.8	169,500	249,500	180
185	39.5	411.3	161,800	161,800	44.0	421.7	179,900	191,400	50.0	433.6	163,000	241,800	185
190	37.0	404.7	156,500	156,500	41.8	416.0	173,300	184,600	48.0	429.0	156,900	233,900	190
195	34.4	397.4	151,700	151,700	39.4	409.9	167,000	178,200	46.0	424.1	151,100	226,100	195
200	31.6	389.3	147,300	147,300	36.9	403.2	161,100	172,200	43.8	418.9	145,600	218,600	200
205	28.5	380.2	143,600	143,600	34.3	395.9	155,400	166,700	41.6	413.2	140,400	211,100	205
210	25.1	369.7	140,500	140,500	31.5	387.8	149,900	161,700	39.2	407.1	135,400	204,000	210
215	21.1	357.2	138,400	138,400	28.4	378.6	144,700	157,300	36.8	400.3	130,600	197,100	215
220	16.1	341.1	137,700	137,700	25.0	368.1	139,700	153,600	34.1	393.0	126,000	190,800	220
230					15.9	339.2	130,200	149,500	28.2	375.5	117,400	179,500	230
240									20.6	352.0	109,300	171,100	240
250									6.7	306.4	101,300	141,600	250
260													260
270													270
280													280
290													290
300													300
310													310
320													320



# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°				65°				ft
	ft	ft	lb	lb	ft	ft	lb	lb	ft	ft	lb	lb	
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160													160
165													165
170	64.0	454.6	153,200	236,500									170
175	62.4	451.9	146,900	236,500									175
180	60.7	449.0	141,000	236,500									180
185	58.9	446.0	135,400	236,500									185
190	57.1	442.7	130,000	236,500									190
195	55.3	439.2	125,000	230,400									195
200	53.5	435.4	120,200	223,300									200
205	51.6	431.4	115,700	216,500									205
210	49.6	427.1	111,300	210,100	58.4	437.3	87,700	192,600					210
215	47.6	422.5	107,200	204,000	56.6	433.9	84,100	186,900					215
220	45.5	417.5	103,200	198,200	54.8	430.3	80,700	181,500					220
230	41.1	406.4	95,700	187,300	51.0	422.4	74,400	171,400					230
240	36.2	393.3	88,900	177,300	47.0	413.3	68,500	162,100					240
250	30.7	377.4	82,500	168,100	42.7	402.8	63,100	153,500	52.0	414.9	44,100	139,400	250
260	23.9	356.9	76,500	159,500	38.0	390.4	58,000	145,600	48.1	406.2	39,800	132,100	260
270	14.2	325.7	70,600	151,500	32.7	375.6	53,300	138,300	43.9	396.0	35,900	125,300	270
280					26.4	357.0	48,800	131,400	39.3	384.2	32,200	119,000	280
290					18.2	330.9	44,400	125,000	34.2	370.2	28,700	113,100	290
300									28.2	352.8	25,400	107,600	300
310									20.7	329.4	22,100	102,300	310
320									7.1	284.8		97,200	320

# MLC650 VPC-MAX S-3

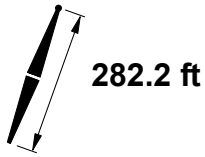
ASME B30.5



881,800 lb



360°



282.2 ft

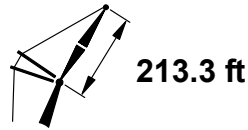
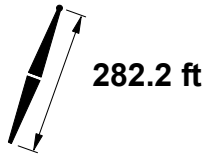


213.3 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
95	74.2	495.6	223,800	223,800									95
100	72.8	494.0	223,600	223,600									100
105	71.4	492.3	223,200	223,200									105
110	70.0	490.4	222,500	222,500	72.8	492.8	222,600	222,600					110
115	68.5	488.4	221,500	221,500	71.4	491.1	222,600	222,600					115
120	67.1	486.2	220,300	220,300	69.9	489.2	222,600	222,600					120
125	65.6	483.9	218,900	218,900	68.5	487.2	222,600	222,600					125
130	64.1	481.5	217,300	217,300	67.0	485.0	222,600	222,600					130
135	62.6	478.8	215,600	215,600	65.5	482.7	222,100	222,100	69.8	486.7	217,500	217,500	135
140	61.0	476.0	211,300	211,300	64.0	480.2	221,300	221,300	68.4	484.7	217,500	217,500	140
145	59.5	473.0	204,600	204,600	62.5	477.6	220,400	220,400	66.9	482.5	217,500	217,500	145
150	57.9	469.8	198,000	198,000	61.0	474.7	219,300	219,300	65.4	480.2	213,300	217,500	150
155	56.3	466.4	191,400	191,400	59.4	471.7	218,100	218,100	63.9	477.7	204,100	217,500	155
160	54.6	462.8	184,800	184,800	57.8	468.5	215,600	215,700	62.4	475.0	195,500	217,500	160
165	52.9	459.0	178,400	178,400	56.2	465.1	206,900	209,100	60.9	472.2	187,400	217,500	165
170	51.2	454.9	172,100	172,100	54.5	461.5	198,700	202,600	59.3	469.1	179,800	217,500	170
175	49.4	450.6	166,100	166,100	52.8	457.7	190,900	196,000	57.7	465.9	172,700	217,500	175
180	47.6	446.0	160,100	160,100	51.1	453.6	183,600	189,500	56.1	462.5	165,900	217,500	180
185	45.7	441.0	154,600	154,600	49.3	449.3	176,700	183,100	54.4	458.9	159,500	217,500	185
190	43.7	435.8	149,200	149,200	47.5	444.6	170,200	176,900	52.7	455.0	153,500	217,500	190
195	41.7	430.1	144,100	144,100	45.6	439.7	164,000	170,900	51.0	450.9	147,700	215,100	195
200	39.6	424.1	139,400	139,400	43.7	434.4	158,100	165,100	49.2	446.6	142,300	208,700	200
205	37.4	417.5	135,000	135,000	41.6	428.8	152,500	159,500	47.4	441.9	137,100	202,300	205
210	35.0	410.4	131,000	131,000	39.5	422.7	147,100	154,200	45.5	437.0	132,100	196,000	210
215	32.5	402.5	127,200	127,200	37.3	416.1	142,000	149,200	43.5	431.6	127,400	189,700	215
220	29.9	393.9	123,900	123,900	34.9	408.9	137,100	144,600	41.5	425.9	122,900	183,600	220
230	23.6	372.9	118,900	118,900	29.7	392.4	127,900	136,500	37.1	413.2	114,400	172,100	230
240	15.0	342.3	117,100	117,100	23.5	371.3	119,400	130,400	32.2	398.1	106,600	161,600	240
250					14.7	340.4	111,300	127,600	26.5	379.4	99,300	152,800	250
260									19.3	354.3	92,500	146,400	260
270									5.3	303.3	85,500	118,500	270
280													280
290													290
300													300
310													310
320													320
330													330
340													340

# MLC650 VPC-MAX S-3

ASME B30.5



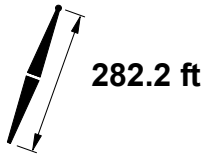
ft	75°				70°				65°				ft
	ft	ft	lb	lb	ft	ft	lb	lb	ft	ft	lb	lb	
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160													160
165													165
170													170
175													175
180	63.6	471.5	136,800	206,400									180
185	62.1	468.8	131,200	206,400									185
190	60.5	466.0	126,000	206,400									190
195	59.0	462.9	121,000	206,400									195
200	57.4	459.7	116,200	206,400									200
205	55.7	456.2	111,700	206,400									205
210	54.1	452.5	107,400	206,400									210
215	52.4	448.6	103,300	200,700									215
220	50.6	444.5	99,400	194,900	58.5	454.2	76,400	177,900					220
230	47.0	435.4	92,100	184,100	55.2	447.4	70,100	167,900					230
240	43.1	424.9	85,300	174,200	51.8	439.7	64,400	158,700					240
250	38.9	412.9	79,100	165,100	48.3	430.9	59,100	150,200					250
260	34.3	398.9	73,300	156,700	44.5	421.0	54,100	142,400	52.8	432.1	35,500	128,600	260
270	29.0	381.8	67,800	148,900	40.4	409.6	49,500	135,200	49.2	423.7	31,700	121,900	270
280	22.5	359.9	62,700	141,600	35.9	396.3	45,200	128,500	45.5	414.1	28,100	115,700	280
290	13.1	326.4	57,600	134,700	30.9	380.4	41,200	122,200	41.5	403.1	24,700	109,900	290
300					24.9	360.6	37,300	116,300	37.2	390.4	21,500	104,500	300
310					16.9	332.7	33,500	110,700	32.3	375.3		99,400	310
320									26.6	356.7		94,500	320
330									19.4	331.7		89,900	330
340									5.8	282.1		85,400	340

# MLC650 VPC-MAX S-3

ASME B30.5



881,800 lb



282.2 ft

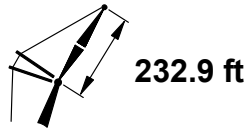
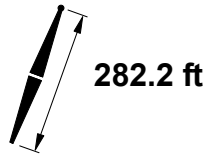


232.9 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
100	74.3	514.7	204,000	204,000									100
105	73.0	513.1	203,800	203,800									105
110	71.8	511.4	203,300	203,300									110
115	70.4	509.6	202,600	202,600	73.0	511.9	202,300	202,300					115
120	69.1	507.6	201,800	201,800	71.7	510.2	202,300	202,300					120
125	67.8	505.5	200,900	200,900	70.4	508.4	202,300	202,300					125
130	66.4	503.3	199,700	199,700	69.1	506.4	202,300	202,300					130
135	65.1	501.0	198,400	198,400	67.7	504.3	202,300	202,300					135
140	63.7	498.4	197,000	197,000	66.4	502.1	202,000	202,000					140
145	62.3	495.8	194,400	194,400	65.0	499.7	201,400	201,400	69.0	503.9	197,700	197,700	145
150	60.9	492.9	188,600	188,600	63.7	497.2	200,700	200,700	67.6	501.8	197,700	197,700	150
155	59.5	490.0	182,900	182,900	62.3	494.5	199,800	199,800	66.3	499.6	197,700	197,700	155
160	58.0	486.8	177,200	177,200	60.8	491.7	198,800	198,800	64.9	497.2	189,100	197,700	160
165	56.5	483.4	171,500	171,500	59.4	488.7	197,800	197,800	63.5	494.6	181,100	197,700	165
170	55.0	479.9	165,900	165,900	58.0	485.5	193,000	194,000	62.1	492.0	173,600	197,700	170
175	53.5	476.1	160,400	160,400	56.5	482.2	185,400	188,300	60.7	489.1	166,500	197,700	175
180	51.9	472.2	155,000	155,000	55.0	478.6	178,100	182,700	59.3	486.1	159,800	197,700	180
185	50.3	468.0	149,700	149,700	53.4	474.9	171,300	177,100	57.8	482.9	153,500	197,700	185
190	48.7	463.6	144,600	144,600	51.9	470.9	164,800	171,500	56.4	479.5	147,500	197,700	190
195	47.0	458.9	139,800	139,800	50.3	466.7	158,600	166,000	54.8	476.0	141,800	197,700	195
200	45.2	453.9	135,100	135,100	48.6	462.2	152,800	160,600	53.3	472.2	136,400	197,700	200
205	43.4	448.5	130,600	130,600	46.9	457.5	147,200	155,400	51.7	468.2	131,200	195,700	205
210	41.6	442.9	126,400	126,400	45.2	452.5	141,900	150,300	50.1	464.0	126,400	190,200	210
215	39.7	436.8	122,400	122,400	43.4	447.2	136,800	145,400	48.5	459.5	121,700	184,700	215
220	37.6	430.3	118,700	118,700	41.5	441.5	132,000	140,700	46.8	454.8	117,200	179,300	220
230	33.3	415.7	112,000	112,000	37.6	428.9	122,900	132,000	43.2	444.4	108,900	168,500	230
240	28.3	398.2	106,700	106,700	33.2	414.2	114,600	124,400	39.4	432.6	101,200	158,300	240
250	22.3	375.9	103,000	103,000	28.2	396.6	106,900	118,100	35.3	418.9	94,100	148,900	250
260	13.9	343.3	102,100	102,100	22.2	374.3	99,700	113,500	30.6	402.8	87,500	140,500	260
270					13.7	341.3	92,700	111,700	25.1	383.0	81,300	133,500	270
280									18.1	356.3	75,500	125,800	280
290									3.6	298.4	69,300	96,800	290
300													300
310													310
320													320
330													330
340													340
350													350
360													360

# MLC650 VPC-MAX S-3

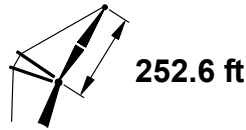
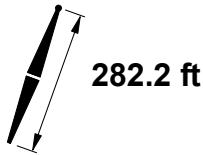
ASME B30.5



ft	75°				70°				65°				
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	ft	
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160													160
165													165
170													170
175													175
180													180
185	64.7	491.1	124,300	184,300									185
190	63.3	488.5	119,100	184,300									190
195	61.9	485.8	114,200	184,300									195
200	60.5	482.9	109,500	184,300									200
205	59.0	479.9	105,100	184,300									205
210	57.6	476.7	100,800	184,300									210
215	56.1	473.2	96,800	184,300									215
220	54.5	469.6	92,900	184,300									220
230	51.4	461.8	85,700	179,000	58.6	471.2	63,100	162,300					230
240	48.1	453.0	79,100	169,200	55.6	464.5	57,500	153,300					240
250	44.7	443.1	73,000	160,200	52.5	456.9	52,300	144,900					250
260	41.0	431.9	67,300	151,900	49.3	448.5	47,500	137,200					260
270	37.0	419.1	62,100	144,200	45.9	439.0	43,000	130,100	53.3	449.3	116,400		270
280	32.6	404.1	57,100	137,000	42.3	428.2	38,900	123,400	50.2	441.1	110,300		280
290	27.5	386.0	52,400	130,300	38.4	416.0	34,900	117,300	46.8	431.9	104,600		290
300	21.2	362.7	48,000	124,100	34.1	401.8	31,300	111,500	43.3	421.6	99,200		300
310	12.0	326.7	43,600	118,100	29.3	384.9	27,800	106,000	39.5	409.8	94,200		310
320					23.6	363.8	24,400	100,900	35.3	396.2	89,500		320
330					15.8	334.1	21,100	96,000	30.7	380.1	85,100		330
340									25.2	360.3	80,900		340
350									18.2	333.8	76,900		350
360									4.3	278.1	72,800		360

# MLC650 VPC-MAX S-3

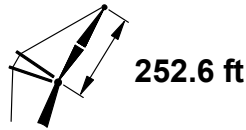
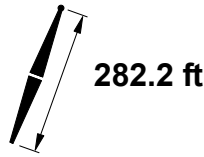
ASME B30.5



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
105	74.4	533.7	177,800	177,800									105
110	73.2	532.2	177,400	177,400									110
115	72.0	530.5	177,100	177,100									115
120	70.8	528.7	176,600	176,600									120
125	69.6	526.8	175,900	175,900	72.0	529.3	176,100	176,100					125
130	68.4	524.8	175,200	175,200	70.8	527.5	176,100	176,100					130
135	67.2	522.7	174,300	174,300	69.6	525.6	176,100	176,100					135
140	65.9	520.4	173,400	173,400	68.3	523.6	175,900	175,900					140
145	64.7	518.0	172,400	172,400	67.1	521.4	175,600	175,600					145
150	63.4	515.4	171,300	171,300	65.9	519.1	175,200	175,200	69.5	523.1	171,200	171,200	150
155	62.1	512.7	170,200	170,200	64.6	516.7	174,600	174,600	68.2	521.1	171,200	171,200	155
160	60.8	509.9	166,300	166,300	63.3	514.2	174,000	174,000	67.0	518.9	171,200	171,200	160
165	59.5	506.9	161,600	161,600	62.0	511.5	173,300	173,300	65.8	516.6	171,200	171,200	165
170	58.1	503.8	156,900	156,900	60.7	508.6	172,600	172,600	64.5	514.2	169,700	171,200	170
175	56.8	500.4	152,200	152,200	59.4	505.6	171,800	171,800	63.2	511.6	162,600	171,200	175
180	55.4	497.0	147,500	147,500	58.1	502.5	170,900	170,900	61.9	508.9	156,000	171,200	180
185	54.0	493.3	142,900	142,900	56.7	499.2	167,200	167,200	60.6	506.1	149,700	171,200	185
190	52.5	489.4	138,400	138,400	55.3	495.7	161,400	162,600	59.3	503.1	143,700	171,200	190
195	51.1	485.3	134,000	134,000	53.9	492.0	155,200	158,100	58.0	499.9	138,100	171,200	195
200	49.6	481.0	129,700	129,700	52.5	488.1	149,400	153,500	56.6	496.5	132,700	171,200	200
205	48.1	476.5	125,500	125,500	51.0	484.0	143,900	148,800	55.2	493.0	127,600	171,200	205
210	46.5	471.7	121,500	121,500	49.5	479.7	138,600	144,300	53.8	489.3	122,800	171,200	210
215	44.9	466.7	117,600	117,600	48.0	475.2	133,600	139,900	52.4	485.4	118,100	171,200	215
220	43.2	461.3	113,900	113,900	46.4	470.4	128,800	135,600	50.9	481.3	113,700	170,600	220
230	39.7	449.6	107,000	107,000	43.1	459.9	119,800	127,300	47.9	472.5	105,400	161,600	230
240	35.9	436.2	100,800	100,800	39.6	448.2	111,600	119,600	44.7	462.5	97,800	152,700	240
250	31.7	420.7	95,600	95,600	35.9	434.8	104,000	112,700	41.3	451.4	90,800	143,900	250
260	27.0	402.2	91,400	91,400	31.7	419.2	96,900	106,700	37.6	438.8	84,300	135,700	260
270	21.2	378.7	88,700	88,700	26.9	400.6	90,300	101,700	33.7	424.4	78,300	128,100	270
280	13.0	344.0	88,000	88,000	21.0	377.0	84,100	98,100	29.2	407.3	72,600	121,400	280
290					12.8	341.9	78,100	93,900	23.9	386.4	67,300	115,700	290
300									17.1	358.1	62,200	106,500	300
310													310
320													320
330													330
340													340
350													350
360													360
370													370
380													380

# MLC650 VPC-MAX S-3

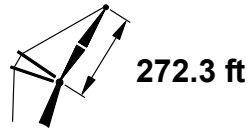
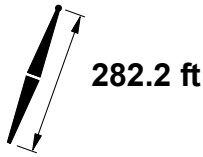
ASME B30.5



ft	75°				70°				65°				
	ft	ft	lb	lb	ft	ft	lb	lb	ft	ft	lb	ft	
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160													160
165													165
170													170
175													175
180													180
185													185
190													190
195	64.3	508.1	109,900	159,900									195
200	63.0	505.5	105,300	159,900									200
205	61.7	502.8	100,900	159,900									205
210	60.4	499.9	96,700	159,900									210
215	59.1	496.8	92,700	159,900									215
220	57.7	493.6	88,900	159,900									220
230	54.9	486.7	81,800	159,900									230
240	52.1	479.0	75,200	159,900	58.6	488.2	53,100	146,100					240
250	49.1	470.5	69,200	157,100	55.9	481.5	48,000	141,500					250
260	46.0	461.1	63,600	148,800	53.1	474.1	43,300	133,800					260
270	42.7	450.4	58,400	141,200	50.1	465.9	38,900	126,800					270
280	39.1	438.5	53,600	134,100	47.1	456.7	34,900	120,200	53.8	466.4	106,800		280
290	35.3	424.8	49,100	127,500	43.8	446.6	31,000	114,100	50.9	458.5	101,200		290
300	31.0	408.9	44,800	121,300	40.4	435.1	27,500	108,400	47.9	449.6	95,900		300
310	26.1	389.8	40,700	115,500	36.7	422.1	24,100	103,000	44.7	439.7	91,000		310
320	20.1	365.2	36,800	110,000	32.6	407.0	20,900	98,000	41.3	428.6	86,300		320
330	11.1	326.8	32,900	100,600	27.9	389.2		93,300	37.7	416.0	82,000		330
340					22.4	366.8		88,700	33.7	401.6	77,900		340
350					14.9	335.3		84,400	29.2	384.6	74,000		350
360									24.0	363.7	70,200		360
370									17.2	335.6	66,700		370
380									2.1	269.8	62,900		380

# MLC650 VPC-MAX S-3

ASME B30.5

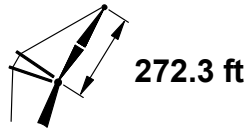
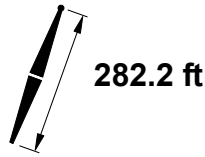


ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
110	74.5	552.8	156,800	156,800									110
115	73.4	551.2	156,500	156,500									115
120	72.3	549.6	156,100	156,100									120
125	71.2	547.8	155,400	155,400									125
130	70.0	546.0	154,800	154,800	72.2	548.4	155,200	155,200					130
135	68.9	544.0	154,200	154,200	71.1	546.6	154,900	154,900					135
140	67.8	541.9	153,400	153,400	70.0	544.8	154,800	154,800					140
145	66.6	539.7	152,600	152,600	68.9	542.8	154,600	154,600					145
150	65.5	537.4	151,800	151,800	67.7	540.7	154,400	154,400					150
155	64.3	535.0	150,900	150,900	66.6	538.5	154,000	154,000	69.9	542.3	150,500	150,500	155
160	63.1	532.4	150,000	150,000	65.4	536.2	153,600	153,600	68.8	540.3	150,500	150,500	160
165	61.9	529.7	149,100	149,100	64.2	533.7	153,100	153,100	67.6	538.2	150,500	150,500	165
170	60.7	526.9	146,400	146,400	63.1	531.2	152,500	152,500	66.5	536.0	150,500	150,500	170
175	59.5	523.9	142,500	142,500	61.9	528.4	151,900	151,900	65.3	533.7	150,500	150,500	175
180	58.2	520.7	138,600	138,600	60.6	525.6	151,300	151,300	64.1	531.2	150,500	150,500	180
185	57.0	517.4	134,700	134,700	59.4	522.6	150,600	150,600	63.0	528.6	147,200	150,500	185
190	55.7	514.0	130,800	130,800	58.2	519.5	149,900	149,900	61.8	525.9	141,200	150,500	190
195	54.4	510.4	127,000	127,000	56.9	516.2	148,300	148,300	60.6	523.0	135,600	150,500	195
200	53.1	506.6	123,100	123,100	55.6	512.7	144,400	144,400	59.3	520.0	130,300	150,500	200
205	51.7	502.6	119,500	119,500	54.3	509.1	140,600	140,600	58.1	516.9	125,200	150,500	205
210	50.4	498.4	115,800	115,800	53.0	505.3	136,600	136,800	56.8	513.6	120,400	150,500	210
215	49.0	494.0	112,200	112,200	51.7	501.3	131,600	132,900	55.5	510.1	115,800	150,500	215
220	47.5	489.4	108,800	108,800	50.3	497.1	126,800	129,100	54.2	506.4	111,400	150,500	220
230	44.6	479.4	102,300	102,300	47.5	488.1	117,900	121,700	51.6	498.6	103,200	149,800	230
240	41.4	468.4	96,300	96,300	44.5	478.1	109,700	114,700	48.8	490.0	95,700	145,000	240
250	38.1	455.9	90,800	90,800	41.3	467.0	102,200	108,100	45.9	480.5	88,700	137,600	250
260	34.4	441.8	86,000	86,000	38.0	454.5	95,200	102,000	42.8	469.9	82,300	130,200	260
270	30.4	425.4	81,900	81,900	34.3	440.4	88,700	96,400	39.6	458.1	76,400	123,100	270
280	25.8	405.9	78,600	78,600	30.3	424.0	82,700	91,600	36.1	444.8	70,800	116,400	280
290	20.2	381.2	76,500	76,500	25.7	404.4	77,000	87,700	32.2	429.5	65,600	110,400	290
300	12.1	344.4	76,200	76,200	20.0	379.5	71,600	85,000	27.9	411.5	60,700	104,900	300
310					11.9	342.3	66,300	79,200	22.8	389.5	56,100	100,400	310
320									16.2	359.7	51,600	90,600	320
330													330
340													340
350													350
360													360
370													370
380													380
390													390



# MLC650 VPC-MAX S-3

ASME B30.5



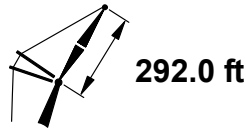
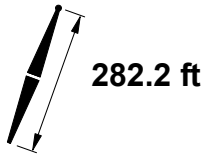
ft	75°				70°				65°				
	ft	ft	lb	lb	ft	ft	lb	lb	ft	ft	lb	ft	
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160													160
165													165
170													170
175													175
180													180
185													185
190													190
195													195
200													200
205	63.9	525.1	98,000	141,000									205
210	62.7	522.5	93,900	141,000									210
215	61.5	519.7	89,900	141,000									215
220	60.3	516.8	86,100	141,000									220
230	57.8	510.6	79,100	141,000									230
240	55.3	503.8	72,600	141,000									240
250	52.7	496.2	66,600	141,000	58.7	505.1	45,100	128,500					250
260	49.9	488.0	61,100	141,000	56.2	498.5	40,400	128,500					260
270	47.1	478.8	56,000	139,100	53.6	491.2	36,100	124,500					270
280	44.1	468.7	51,300	132,100	50.9	483.2	32,100	118,000					280
290	40.9	457.4	46,800	125,500	48.1	474.4	28,400	111,900	54.3	483.6	98,700		290
300	37.5	444.7	42,700	119,400	45.1	464.6	24,900	106,300	51.6	475.7	93,500		300
310	33.8	430.3	38,700	113,700	42.0	453.7	21,600	101,000	48.8	467.1	88,700		310
320	29.7	413.5	35,000	108,300	38.7	441.6		96,000	45.9	457.6	84,100		320
330	25.0	393.4	31,400	103,200	35.1	427.8		91,300	42.9	447.1	79,800		330
340	19.1	367.5	28,000	98,400	31.2	411.9		86,900	39.6	435.3	75,800		340
350			24,500	85,500	26.7	393.1		82,700	36.1	422.0	71,900		350
360					21.3	369.6		78,800	32.3	406.7	68,300		360
370					14.0	336.3		74,900	28.0	388.8	64,800		370
380									22.9	366.9	61,500		380
390									16.3	337.2	58,300		390

# MLC650 VPC-MAX S-3

ASME B30.5



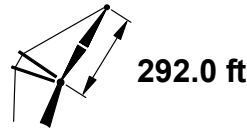
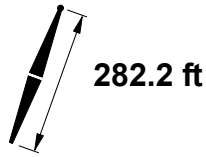
881,800 lb



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
115	74.5	571.8	146,000	146,000									115
120	73.5	570.3	145,600	145,600									120
125	72.5	568.7	145,200	145,200									125
130	71.4	567.0	144,700	144,700									130
135	70.4	565.1	144,100	144,100	72.4	567.5	144,400	144,400					135
140	69.3	563.2	143,500	143,500	71.4	565.7	144,300	144,300					140
145	68.3	561.2	142,700	142,700	70.4	563.9	144,100	144,100					145
150	67.2	559.1	142,000	142,000	69.3	562.0	143,900	143,900					150
155	66.1	556.8	141,100	141,100	68.2	560.0	143,600	143,600					155
160	65.1	554.5	140,300	140,300	67.2	557.8	143,200	143,200					160
165	64.0	552.0	139,400	139,400	66.1	555.6	142,700	142,700	69.2	559.5	140,100	140,100	165
170	62.9	549.4	138,400	138,400	65.0	553.2	142,200	142,200	68.2	557.5	140,100	140,100	170
175	61.7	546.7	135,600	135,600	63.9	550.7	141,700	141,700	67.1	555.3	140,100	140,100	175
180	60.6	543.8	132,100	132,100	62.8	548.1	141,100	141,100	66.0	553.1	140,100	140,100	180
185	59.5	540.8	128,700	128,700	61.7	545.4	140,400	140,400	64.9	550.7	138,100	140,100	185
190	58.3	537.7	125,200	125,200	60.6	542.5	139,700	139,700	63.8	548.2	132,300	140,100	190
195	57.1	534.4	121,700	121,700	59.4	539.6	139,000	139,000	62.7	545.6	126,700	140,100	195
200	56.0	531.0	118,300	118,300	58.3	536.4	138,100	138,100	61.6	542.8	121,400	140,100	200
205	54.7	527.5	114,900	114,900	57.1	533.2	133,700	134,700	60.5	540.0	116,400	140,100	205
210	53.5	523.7	111,500	111,500	55.9	529.7	128,500	131,300	59.3	537.0	111,700	140,100	210
215	52.3	519.8	108,200	108,200	54.7	526.2	123,500	127,900	58.2	533.8	107,100	139,900	215
220	51.0	515.7	104,900	104,900	53.5	522.4	118,800	124,500	57.0	530.5	102,800	139,500	220
230	48.4	507.0	98,800	98,800	51.0	514.4	110,000	117,800	54.6	523.5	94,700	138,800	230
240	45.7	497.4	92,900	92,900	48.4	505.7	101,900	111,200	52.1	515.9	87,200	137,900	240
250	42.8	486.8	87,500	87,500	45.6	496.1	94,400	104,900	49.6	507.5	80,400	133,200	250
260	39.8	475.1	82,500	82,500	42.8	485.4	87,500	98,900	46.9	498.2	74,100	126,600	260
270	36.6	462.0	78,100	78,100	39.7	473.7	81,100	93,400	44.1	488.1	68,200	120,100	270
280	33.1	447.1	74,200	74,200	36.5	460.5	75,100	88,400	41.2	476.9	62,700	113,800	280
290	29.2	429.9	70,900	70,900	33.0	445.6	69,600	83,900	38.0	464.4	57,600	107,700	290
300	24.7	409.5	68,400	68,400	29.1	428.4	64,300	80,000	34.6	450.4	52,900	102,200	300
310	19.2	383.5	66,700	66,900	24.6	407.9	59,400	76,900	30.9	434.4	48,300	97,100	310
320	11.3	344.6	59,400	59,400	19.1	381.8	54,700	74,800	26.7	415.5	44,100	92,700	320
330					11.1	342.4	50,000	61,200	21.8	392.4	40,000	84,500	330
340									15.4	361.1	36,000	71,700	340
350													350
360													360
370													370
380													380
390													390
400													400
410													410

# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°			65°			ft
	ft	lb	lb	lb	ft	lb	lb	ft	lb	lb	
115											115
120											120
125											125
130											130
135											135
140											140
145											145
150											150
155											155
160											160
165											165
170											170
175											175
180											180
185											185
190											190
195											195
200											200
205											205
210	64.7	544.6	84,100	129,600							210
215	63.6	542.1	80,200	129,600							215
220	62.5	539.4	76,500	129,600							220
230	60.3	533.8	69,600	129,600							230
240	57.9	527.6	63,200	129,600							240
250	55.6	520.8	57,400	129,600							250
260	53.1	513.4	52,000	129,600	58.7	522.1	118,200				260
270	50.6	505.3	47,000	129,600	56.4	515.5	116,900				270
280	48.0	496.4	42,300	125,200	54.0	508.3	110,500				280
290	45.2	486.7	38,000	118,700	51.5	500.5	104,600				290
300	42.4	475.9	33,900	112,700	48.9	491.9	99,000	54.6	500.6	85,800	300
310	39.3	464.0	30,100	107,000	46.2	482.5	93,800	52.2	493.0	81,000	310
320	36.0	450.7	26,500	101,700	43.4	472.1	88,900	49.6	484.6	76,600	320
330	32.5	435.5	23,100	96,500	40.4	460.6	84,300	46.9	475.4	72,300	330
340	28.5	417.9		91,100	37.2	447.7	80,000	44.1	465.3	68,400	340
350	23.9	396.8		85,900	33.7	433.2	75,900	41.2	454.1	64,600	350
360	18.2	369.6		80,900	29.9	416.6	72,000	38.1	441.6	61,100	360
370	9.5	326.2		67,200	25.6	396.8	68,300	34.7	427.6	57,700	370
380					20.4	372.2	64,800	31.0	411.6	54,500	380
390					13.2	337.1	61,400	26.8	392.8	51,500	390
400								21.9	369.8	48,500	400
410								15.5	338.6	45,700	410

# MLC650 VPC-MAX S-3

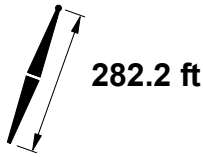
ASME B30.5



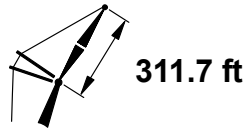
881,800 lb



360°



282.2 ft

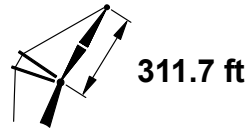
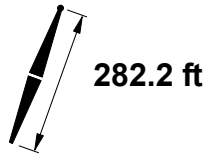


311.7 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
120	74.6	590.8	128,800	128,800									120
125	73.6	589.3	128,400	128,400									125
130	72.7	587.8	128,000	128,000									130
135	71.7	586.1	127,600	127,600									135
140	70.7	584.3	126,900	126,900	72.6	586.5	127,000	127,000					140
145	69.7	582.4	126,300	126,300	71.6	584.9	126,700	126,700					145
150	68.7	580.4	125,700	125,700	70.7	583.1	126,700	126,700					150
155	67.7	578.3	125,100	125,100	69.7	581.2	126,300	126,300					155
160	66.7	576.2	124,400	124,400	68.7	579.2	126,000	126,000					160
165	65.7	573.9	123,600	123,600	67.7	577.1	125,700	125,700					165
170	64.7	571.5	122,800	122,800	66.7	574.9	125,300	125,300	69.6	578.7	122,500	122,500	170
175	63.7	569.0	122,000	122,000	65.7	572.6	124,900	124,900	68.6	576.7	122,500	122,500	175
180	62.6	566.4	121,200	121,200	64.7	570.2	124,400	124,400	67.6	574.6	122,500	122,500	180
185	61.6	563.6	119,900	119,900	63.6	567.7	123,900	123,900	66.6	572.4	122,500	122,500	185
190	60.5	560.8	117,000	117,000	62.6	565.1	123,300	123,300	65.6	570.1	122,500	122,500	190
195	59.5	557.8	114,000	114,000	61.6	562.4	122,800	122,800	64.6	567.7	122,500	122,500	195
200	58.4	554.7	111,100	111,100	60.5	559.5	122,200	122,200	63.6	565.2	119,100	122,500	200
205	57.3	551.4	108,200	108,200	59.4	556.5	121,500	121,500	62.5	562.5	114,200	122,500	205
210	56.2	548.0	105,200	105,200	58.3	553.4	120,800	120,800	61.5	559.8	109,400	122,500	210
215	55.1	544.5	102,300	102,300	57.2	550.1	119,800	119,800	60.4	556.9	104,900	122,400	215
220	53.9	540.8	99,500	99,500	56.1	546.8	116,900	117,000	59.3	553.9	100,600	122,100	220
230	51.6	533.0	93,900	93,900	53.9	539.5	108,100	111,300	57.2	547.5	92,500	121,500	230
240	49.2	524.5	88,500	88,500	51.5	531.7	100,000	105,500	54.9	540.6	85,100	120,800	240
250	46.7	515.2	83,500	83,500	49.1	523.2	92,600	99,900	52.6	533.0	78,300	120,000	250
260	44.0	505.0	78,700	78,700	46.6	513.8	85,700	94,500	50.2	524.8	72,000	119,200	260
270	41.3	493.8	74,300	74,300	44.0	503.7	79,400	89,400	47.8	515.9	66,200	114,100	270
280	38.4	481.5	70,300	70,300	41.2	492.5	73,500	84,400	45.2	506.1	60,800	108,500	280
290	35.2	467.7	66,700	66,700	38.3	480.1	67,900	80,000	42.5	495.4	55,800	103,100	290
300	31.8	452.1	63,500	63,500	35.2	466.3	62,800	75,800	39.7	483.6	51,000	97,900	300
310	28.0	434.2	60,900	60,900	31.8	450.7	57,900	72,200	36.6	470.5	46,600	92,900	310
320	23.7	412.8	58,900	58,900	28.0	432.7	53,300	69,100	33.4	455.8	42,400	88,300	320
330	18.4	385.7	56,000	57,900	23.6	411.2	49,000	66,600	29.8	439.0	38,500	84,200	330
340	10.6	344.6	48,500	48,500	18.3	383.9	44,800	63,300	25.7	419.3	34,700	80,500	340
350					10.4	342.3	40,600	50,200	20.9	395.1	31,100	71,300	350
360									14.6	362.3	27,500	59,800	360
370													370
380													380
390													390
400													400
410													410
420													420
430													430

# MLC650 VPC-MAX S-3

ASME B30.5



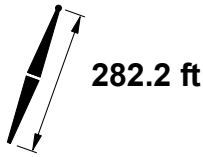
ft	75°				70°				65°				ft
	ft	lb	lb	ft	ft	lb	lb	ft	ft	lb	lb	ft	
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160													160
165													165
170													170
175													175
180													180
185													185
190													190
195													195
200													200
205													205
210													210
215													215
220	64.4	561.6	73,800	113,000									220
230	62.3	556.4	67,000	113,000									230
240	60.2	550.7	60,700	113,000									240
250	58.0	544.6	54,900	113,000									250
260	55.8	537.8	49,600	113,000									260
270	53.6	530.5	44,600	113,000	58.8	539.1	102,200						270
280	51.2	522.6	40,000	113,000	56.6	532.5	102,200						280
290	48.8	514.0	35,700	113,000	54.3	525.4	102,200						290
300	46.3	504.5	31,700	110,800	52.0	517.7	96,900						300
310	43.6	494.2	27,900	105,200	49.6	509.3	91,800	55.0	517.7	78,800			310
320	40.8	482.9	24,400	99,900	47.1	500.2	86,900	52.7	510.2	74,400			320
330	37.9	470.3	21,100	94,500	44.5	490.2	82,400	50.3	502.0	70,200			330
340	34.7	456.3		89,100	41.8	479.2	78,100	47.8	493.0	66,300			340
350	31.3	440.4		84,100	38.9	467.1	74,100	45.2	483.3	62,600			350
360	27.4	422.0		79,200	35.8	453.6	70,200	42.6	472.6	59,100			360
370	23.0	399.9		74,600	32.5	438.4	66,600	39.7	460.8	55,800			370
380	17.4	371.5		69,300	28.8	421.0	63,100	36.7	447.7	52,600			380
390	8.7	325.4		55,800	24.6	400.4	59,800	33.4	433.0	49,600			390
400					19.5	374.6	56,700	29.8	416.2	46,800			400
410					12.5	337.7	53,600	25.8	396.6	44,000			410
420								21.0	372.5	41,400			420
430								14.7	339.8	38,800			430

# MLC650 VPC-MAX S-3

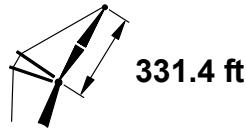
ASME B30.5



881,800 lb



282.2 ft

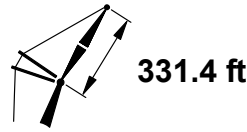
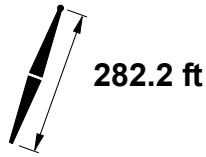


331.4 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
125	74.6	609.9	112,500	112,500									125
130	73.7	608.4	112,100	112,100									130
135	72.8	606.8	111,700	111,700									135
140	71.9	605.2	111,300	111,300									140
145	71.0	603.4	110,800	110,800	72.8	605.6	110,500	110,500					145
150	70.1	601.6	110,200	110,200	71.9	604.0	110,400	110,400					150
155	69.1	599.6	109,700	109,700	71.0	602.2	110,100	110,100					155
160	68.2	597.6	109,100	109,100	70.0	600.3	109,900	109,900					160
165	67.3	595.5	108,400	108,400	69.1	598.4	109,500	109,500					165
170	66.3	593.2	107,800	107,800	68.2	596.4	109,200	109,200					170
175	65.4	590.9	107,100	107,100	67.2	594.2	108,800	108,800	70.0	597.8	105,900	105,900	175
180	64.4	588.5	106,400	106,400	66.3	592.0	108,400	108,400	69.0	595.9	105,900	105,900	180
185	63.4	586.0	105,700	105,700	65.3	589.7	107,900	107,900	68.1	593.9	105,900	105,900	185
190	62.5	583.3	104,900	104,900	64.4	587.3	107,500	107,500	67.2	591.7	105,900	105,900	190
195	61.5	580.6	104,200	104,200	63.4	584.7	107,000	107,000	66.2	589.5	105,900	105,900	195
200	60.5	577.7	102,600	102,600	62.4	582.1	106,500	106,500	65.3	587.1	105,900	105,900	200
205	59.5	574.7	100,100	100,100	61.4	579.3	105,900	105,900	64.3	584.7	105,900	105,900	205
210	58.5	571.6	97,700	97,700	60.4	576.5	105,400	105,400	63.3	582.2	105,600	105,600	210
215	57.4	568.4	95,200	95,200	59.4	573.5	104,800	104,800	62.3	579.5	101,100	105,600	215
220	56.4	565.1	92,700	92,700	58.4	570.4	104,200	104,200	61.4	576.8	96,800	105,400	220
230	54.3	557.9	87,900	87,900	56.3	563.8	103,000	103,000	59.4	570.9	88,800	104,900	230
240	52.1	550.2	83,100	83,100	54.2	556.6	96,600	98,500	57.3	564.5	81,400	104,300	240
250	49.8	541.9	78,500	78,500	52.0	548.9	89,200	93,600	55.2	557.6	74,700	103,700	250
260	47.5	532.9	74,200	74,200	49.8	540.6	82,400	88,900	53.0	550.2	68,400	102,900	260
270	45.1	523.0	70,000	70,000	47.4	531.5	76,000	84,300	50.8	542.2	62,600	102,200	270
280	42.5	512.3	66,100	66,100	45.0	521.7	70,200	79,800	48.5	533.4	57,300	101,400	280
290	39.9	500.6	62,500	62,500	42.5	511.0	64,700	75,600	46.2	524.0	52,300	97,100	290
300	37.0	487.6	59,200	59,200	39.8	499.2	59,600	71,600	43.7	513.7	47,600	92,500	300
310	34.0	473.2	56,400	56,400	37.0	486.2	54,700	67,900	41.1	502.4	43,200	88,000	310
320	30.7	457.0	53,800	53,800	33.9	471.8	50,200	64,600	38.3	490.0	39,100	83,700	320
330	27.0	438.2	51,700	51,700	30.6	455.5	45,900	61,600	35.4	476.3	35,200	79,600	330
340	22.8	415.9	48,900	50,200	27.0	436.7	41,900	59,100	32.2	460.9	31,500	75,800	340
350	17.6	387.6	44,700	49,100	22.7	414.3	38,000	57,100	28.7	443.4	28,000	72,500	350
360	9.9	344.3	37,100	37,100	17.5	385.8	34,300	50,800	24.8	422.8	24,600	67,200	360
370					9.7	341.9	30,500	38,800	20.1	397.7	21,400	58,000	370
380									13.9	363.3		47,700	380
390													390
400													400
410													410
420													420
430													430
440													440
450													450

# MLC650 VPC-MAX S-3

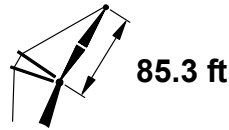
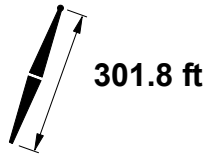
ASME B30.5



ft	75°				70°			65°			ft
	°	ft	lb	lb	°	ft	lb	°	ft	lb	
125											125
130											130
135											135
140											140
145											145
150											150
155											155
160											160
165											165
170											170
175											175
180											180
185											185
190											190
195											195
200											200
205											205
210											210
215											215
220											220
230	64.1	578.6	62,800	97,100							230
240	62.2	573.4	56,600	97,100							240
250	60.2	567.7	50,900	97,100							250
260	58.1	561.5	45,600	97,100							260
270	56.1	554.9	40,700	97,100							270
280	53.9	547.7	36,100	97,100	58.8	556.0	87,100				280
290	51.7	539.9	31,900	97,100	56.8	549.5	87,100				290
300	49.5	531.4	27,900	97,100	54.7	542.5	87,100				300
310	47.1	522.3	24,200	97,100	52.5	534.9	87,100				310
320	44.7	512.3	20,700	96,500	50.3	526.7	83,800				320
330	42.1	501.4		90,800	47.9	517.8	79,300	53.1	527.3	66,900	330
340	39.4	489.5		85,500	45.5	508.1	75,000	50.9	519.3	63,000	340
350	36.6	476.4		80,500	43.0	497.6	71,000	48.6	510.6	59,300	350
360	33.5	461.7		75,700	40.4	486.1	67,200	46.2	501.1	55,900	360
370	30.2	445.1		71,200	37.6	473.4	63,600	43.7	490.8	52,600	370
380	26.4	425.9		66,900	34.6	459.3	60,200	41.1	479.6	49,500	380
390	22.1	402.9		62,800	31.4	443.4	57,000	38.4	467.2	46,500	390
400	16.7	373.2		56,500	27.8	425.2	53,900	35.4	453.5	43,700	400
410	8.0	324.4		44,100	23.7	403.7	50,900	32.3	438.1	41,000	410
420					18.7	376.8	48,000	28.8	420.6	38,100	420
430					11.8	338.1	44,600	24.8	400.2	35,300	430
440								20.1	375.1	32,500	440
450								14.0	340.8	29,700	450

# MLC650 VPC-MAX S-3

ASME B30.5

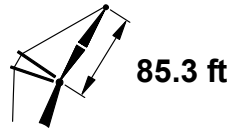
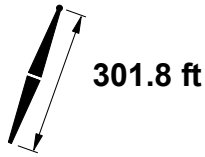


ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
65	72.1	391.0	489,800 d	489,800 d									65
70	68.5	388.9	485,000 d	485,000 d									70
75	64.7	386.4	478,200 c	478,200 c	72.4	390.0	484,700 d	484,700 d					75
80	60.8	383.5	470,300 c	470,300 c	68.8	387.9	471,400 d	471,400 d					80
85	56.8	380.1	457,000 b	457,000 b	65.1	385.5	458,600 c	458,600 c					85
90	52.5	376.2	442,200 b	442,200 b	61.2	382.6	446,500 c	446,500 c					90
95	47.9	371.5	428,200 b	428,200 b	57.2	379.2	434,900 b	434,900 b	69.3	385.7	403,000 c	450,500 c	95
100	43.0	366.1	415,100	415,100	52.9	375.3	410,800 b	434,900 b	65.6	383.3	379,500 c	450,500 c	100
105	37.4	359.5	401,500	401,500	48.4	370.8	387,800 b	429,900 b	61.7	380.5	358,200 c	450,500 c	105
110	30.9	351.2	385,200	387,500	43.5	365.4	366,900	416,600	57.7	377.2	339,000 b	450,500 b	110
115	22.6	339.9	364,800	378,500	38.0	359.0	347,800	404,300	53.5	373.4	321,400 b	442,600 b	115
120					31.6	350.9	330,200	393,100	49.0	368.9	305,300 b	429,000 b	120
125					23.6	340.0	313,800	383,400	44.1	363.7	290,500	415,900	125
130					8.8	318.7	297,800	311,000	38.7	357.3	276,700	403,500	130
135									32.5	349.5	263,900	391,900	135
140									24.7	339.1	251,800	376,000	140
145									12.1	321.0	239,900	344,200	145
150													150
155													155
160													160
165													165
170													170
175													175
180													180
185													185
190													190
195													195
200													200
205													205
210													210
215													215
220													220



# MLC650 VPC-MAX S-3

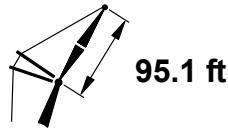
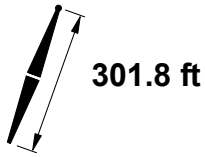
ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
65													65
70													70
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130	62.3	374.9	238,400 b	391,300 b									130
135	58.3	371.7	227,400 b	374,700 b									135
140	54.1	368.0	217,200 b	359,300 b									140
145	49.6	363.6	207,700 b	345,000 b									145
150	44.8	358.5	198,800	331,700									150
155	39.5	352.3	190,300	319,200									155
160	33.4	344.8	182,300	307,500	58.3	363.5	152,700 b	285,000 b					160
165	26.0	334.8	174,700	296,500	54.1	359.8	146,400 b	274,900 b					165
170	14.7	318.8	167,000	285,900	49.7	355.5	140,400 b	265,300 b					170
175					44.9	350.3	134,700	256,300					175
180					39.6	344.2	129,300	247,800					180
185					33.5	336.7	124,100	239,700					185
190					26.1	326.8	119,000	232,000	53.5	348.9	95,500 b	214,200 b	190
195					14.9	311.0	113,700	224,400	49.0	344.4	91,600	207,500	195
200									44.1	339.2	87,900	201,100	200
205									38.8	332.9	84,200	195,000	205
210									32.5	325.1	80,700	189,100	210
215									24.8	314.7	77,200	183,500	215
220									12.3	296.7	73,300	177,800	220

# MLC650 VPC-MAX S-3

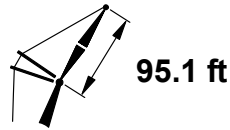
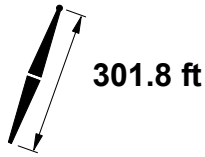
ASME B30.5



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
65	74.0	401.4	458,000 d	458,000 d									65
70	70.8	399.6	454,900 d	454,900 d									70
75	67.5	397.4	450,100 c	450,100 c									75
80	64.2	394.9	443,500 c	443,500 c	71.1	398.6	459,500 c	459,500 c					80
85	60.7	392.0	436,300 b	436,300 b	67.9	396.4	448,600 c	448,600 c					85
90	57.1	388.6	428,200 b	428,200 b	64.5	393.9	436,900 c	436,900 c					90
95	53.3	384.8	415,000 b	415,000 b	61.0	391.1	425,600 b	425,600 b					95
100	49.3	380.4	402,200	402,200	57.4	387.8	408,100 b	425,600 b	68.3	394.2	376,200 c	443,800 c	100
105	45.0	375.3	384,800	384,800	53.6	384.0	385,300 b	417,200 b	64.9	391.8	355,100 c	443,800 c	105
110	40.3	369.3	368,600	368,600	49.7	379.6	364,600	404,600	61.5	388.9	335,900 b	442,200 b	110
115	35.0	362.2	354,600	354,600	45.4	374.6	345,700	392,600	57.9	385.7	318,500 b	429,600 b	115
120	28.9	353.3	343,500	343,500	40.8	368.7	328,300	381,300	54.1	382.0	302,500 b	417,200 b	120
125	20.9	341.0	328,100	336,900	35.6	361.7	312,300	370,900	50.2	377.7	287,800	404,800	125
130					29.5	353.0	297,500	361,400	46.0	372.8	274,200	393,000	130
135					21.8	341.2	283,500	353,300	41.4	367.0	261,600	381,600	135
140					7.1	317.2	269,600	279,400	36.3	360.2	249,800	370,900	140
145									30.4	351.7	238,800	358,600	145
150									23.0	340.5	228,300	343,900	150
155									10.6	320.6	217,900	311,900	155
160													160
165													165
170													170
175													175
180													180
185													185
190													190
195													195
200													200
205													205
210													210
215													215
220													220
230													230

# MLC650 VPC-MAX S-3

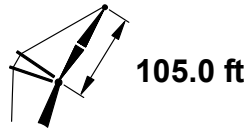
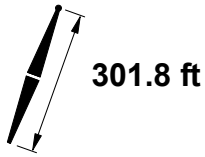
ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
65													65
70													70
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135	62.0	383.4	224,000 b	371,700 b									135
140	58.4	380.2	213,900 b	356,400 b									140
145	54.7	376.5	204,500 b	342,200 b									145
150	50.7	372.3	195,700	328,900									150
155	46.6	367.5	187,400	316,600									155
160	42.0	361.9	179,700	305,000									160
165	37.0	355.2	172,300	294,100	58.4	372.0	142,900 b	271,900 b					165
170	31.3	347.0	165,200	283,900	54.7	368.4	137,000	262,500					170
175	24.1	336.3	158,400	274,200	50.8	364.2	131,500	253,600					175
180	13.2	318.9	151,600	264,800	46.6	359.4	126,200	245,100					180
185					42.1	353.8	121,200	237,200					185
190					37.1	347.1	116,300	229,600					190
195					31.3	339.0	111,700	222,400	54.2	357.5	88,000	204,600	195
200					24.3	328.3	107,100	215,500	50.2	353.2	84,400	198,300	200
205					13.5	311.1	102,300	208,700	46.0	348.3	81,000	192,300	205
210									41.4	342.5	77,600	186,600	210
215									36.3	335.7	74,400	181,100	215
220									30.4	327.3	71,200	175,800	220
230									10.8	296.3	64,400	165,500	230

# MLC650 VPC-MAX S-3

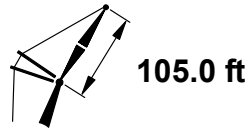
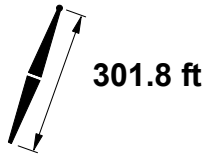
ASME B30.5



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
70	72.7	410.1	427,900 c	427,900 c									70
75	69.8	408.2	424,400 c	424,400 c									75
80	66.8	405.9	419,200 c	419,200 c	73.0	409.1	430,100 c	430,100 c					80
85	63.7	403.4	413,300 b	413,300 b	70.1	407.2	429,800 c	429,800 c					85
90	60.6	400.4	406,800 b	406,800 b	67.1	404.9	426,400 c	426,400 c					90
95	57.3	397.1	398,700 b	398,700 b	64.0	402.4	417,300 b	417,300 b					95
100	53.9	393.4	388,900	388,900	60.9	399.5	406,700 b	407,300 b					100
105	50.3	389.1	371,700	371,700	57.6	396.3	384,000 b	407,300 b	67.5	402.7	353,200 b	429,500 b	105
110	46.5	384.3	355,400	355,400	54.2	392.6	363,300	395,600	64.4	400.2	334,200 b	428,200 b	110
115	42.5	378.8	340,300	340,300	50.7	388.4	344,500	384,100	61.3	397.4	316,800 b	419,600 b	115
120	38.0	372.3	326,800	326,800	46.9	383.6	327,300	373,000	58.0	394.2	300,900 b	408,100 b	120
125	33.0	364.7	315,200	315,200	42.9	378.1	311,500	362,500	54.7	390.5	286,300	396,700	125
130	27.1	355.1	306,400	306,400	38.5	371.8	296,900	349,200	51.1	386.4	272,900	385,500	130
135	19.5	342.0	298,000	301,700	33.5	364.3	283,300	336,400	47.4	381.7	260,400	374,500	135
140					27.8	354.9	270,500	326,200	43.4	376.4	248,800	364,100	140
145					20.4	342.3	258,500	319,500	39.0	370.1	237,900	354,100	145
150					5.1	314.8	246,300	252,200	34.2	362.8	227,800	343,400	150
155									28.6	353.8	218,200	329,900	155
160									21.5	341.7	209,000	317,100	160
165									9.2	319.9	199,800	285,300	165
170													170
175													175
180													180
185													185
190													190
195													195
200													200
205													205
210													210
215													215
220													220
230													230
240													240

# MLC650 VPC-MAX S-3

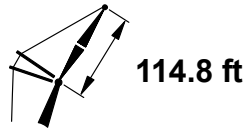
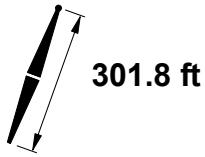
ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
70													70
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135	64.8	394.6	222,100 b	369,700 b									135
140	61.7	391.8	212,000 b	354,500 b									140
145	58.5	388.7	202,700 b	340,300 b									145
150	55.1	385.1	194,000	327,200									150
155	51.6	381.0	185,800	314,900									155
160	47.9	376.4	178,200	303,400									160
165	44.0	371.2	170,900	292,700									165
170	39.7	365.1	164,100	282,500	58.5	380.5	135,000	260,700					170
175	34.9	357.9	157,500	273,000	55.2	377.0	129,600	251,900					175
180	29.4	349.2	151,300	263,900	51.7	372.9	124,400	243,500					180
185	22.6	337.7	145,200	255,300	48.0	368.3	119,500	235,600					185
190	11.9	318.8	139,100	247,000	44.0	363.1	114,800	228,100					190
195					39.7	357.0	110,300	221,000					195
200					35.0	349.8	106,000	214,200	54.7	366.0	82,500	196,600	200
205					29.5	341.1	101,800	207,800	51.2	361.9	79,100	190,700	205
210					22.7	329.7	97,600	201,500	47.4	357.2	75,800	185,000	210
215					12.2	311.1	93,300	195,400	43.4	351.9	72,700	179,600	215
220									39.1	345.7	69,700	174,500	220
230									28.6	329.3	63,800	164,700	230
240									9.4	295.7	57,600	155,300	240

# MLC650 VPC-MAX S-3

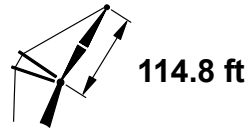
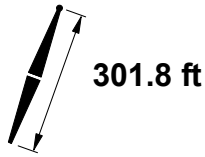
ASME B30.5



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
70	74.2	420.5	400,700 c	400,700 c									70
75	71.6	418.7	399,100 c	399,100 c									75
80	68.9	416.7	395,400 b	395,400 b									80
85	66.2	414.4	390,600 b	390,600 b	71.9	417.7	402,500 c	402,500 c					85
90	63.4	411.8	384,700 b	384,700 b	69.2	415.7	400,900 b	400,900 b					90
95	60.5	408.9	378,500 b	378,500 b	66.4	413.5	398,000 b	398,000 b					95
100	57.5	405.6	372,000	372,000	63.6	410.9	394,000 b	394,000 b					100
105	54.4	402.0	359,200	359,200	60.8	408.0	381,100 b	389,300 b	69.5	413.5	349,900 b	401,500 b	105
110	51.2	397.9	343,600	343,600	57.8	404.8	360,600	384,200	66.8	411.2	330,900 b	401,300 b	110
115	47.8	393.2	328,700	328,700	54.7	401.1	341,900	374,900	64.0	408.7	313,600 b	400,400 b	115
120	44.2	388.0	314,800	314,800	51.5	397.1	324,800	364,200	61.1	405.9	297,800 b	397,700 b	120
125	40.3	382.1	302,000	302,000	48.1	392.5	309,000	352,500	58.2	402.7	283,300	387,300	125
130	36.0	375.2	290,800	290,800	44.5	387.3	294,500	337,900	55.1	399.1	269,900	376,800	130
135	31.3	367.0	281,300	281,300	40.7	381.5	281,100	324,300	51.9	395.1	257,600	366,400	135
140	25.6	356.8	274,300	274,300	36.5	374.7	268,600	312,000	48.6	390.6	246,000	356,400	140
145	18.2	342.9	270,700	271,000	31.8	366.6	256,800	301,400	45.0	385.5	235,300	346,700	145
150					26.2	356.7	245,800	293,000	41.2	379.7	225,300	337,500	150
155					19.1	343.3	235,300	287,900	37.0	373.1	215,900	327,700	155
160									32.4	365.2	207,000	315,200	160
165									27.0	355.6	198,600	303,400	165
170									20.1	342.8	190,500	292,100	170
175									8.0	319.0	182,200	259,900	175
180													180
185													185
190													190
195													195
200													200
205													205
210													210
215													215
220													220
230													230
240													240
250													250

# MLC650 VPC-MAX S-3

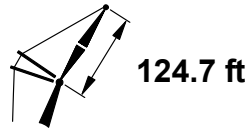
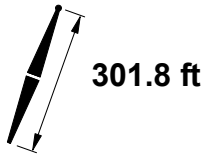
ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
70													70
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140	64.4	403.1	208,600	351,400									140
145	61.5	400.3	199,300	337,400									145
150	58.6	397.2	190,700	324,300									150
155	55.5	393.6	182,600	312,100									155
160	52.4	389.7	175,000	300,700									160
165	49.0	385.3	167,900	290,000									165
170	45.5	380.3	161,100	279,900									170
175	41.7	374.6	154,700	270,400	58.6	389.0	126,100	249,000					175
180	37.6	368.1	148,700	261,500	55.6	385.5	121,000	240,700					180
185	33.1	360.4	142,900	253,000	52.4	381.6	116,100	232,800					185
190	27.8	351.1	137,300	245,000	49.1	377.1	111,500	225,400					190
195	21.2	338.9	131,900	237,300	45.6	372.2	107,100	218,400					195
200	10.8	318.5	126,300	229,800	41.8	366.5	102,900	211,700					200
205					37.7	360.0	98,900	205,300					205
210					33.2	352.4	95,000	199,200	51.9	370.6	72,300	182,200	210
215					27.9	343.1	91,200	193,400	48.6	366.1	69,300	176,900	215
220					21.3	331.0	87,400	187,700	45.0	361.0	66,400	171,800	220
230									37.1	348.6	60,800	162,200	230
240									27.0	331.2	55,500	153,300	240
250									8.1	294.8	49,800	144,700	250

# MLC650 VPC-MAX S-3

ASME B30.5

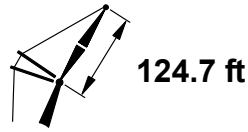
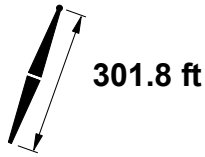


ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
75	73.1	429.2	374,900 c	374,900 c									75
80	70.7	427.4	372,800 b	372,800 b									80
85	68.2	425.3	369,300 b	369,300 b									85
90	65.6	422.9	365,100 b	365,100 b	70.9	426.3	376,500 b	376,500 b					90
95	63.1	420.3	360,300 b	360,300 b	68.4	424.3	375,200 b	375,200 b					95
100	60.4	417.4	354,400	354,400	65.9	422.0	372,500 b	372,500 b					100
105	57.7	414.1	348,800	348,800	63.3	419.4	368,900 b	368,900 b					105
110	54.8	410.5	334,800	334,800	60.7	416.5	360,800	364,800	68.7	422.0	330,900 b	375,300 b	110
115	51.9	406.5	320,600	320,600	57.9	413.3	342,200	360,200	66.2	419.8	313,700 b	375,300 b	115
120	48.8	402.1	307,000	307,000	55.1	409.7	325,100	355,500	63.6	417.2	297,900	375,000	120
125	45.6	397.1	294,100	294,100	52.2	405.7	309,400	344,100	61.0	414.3	283,500	373,200	125
130	42.1	391.5	282,300	282,300	49.1	401.3	295,000	330,200	58.3	411.2	270,100	367,200	130
135	38.4	385.2	271,500	271,500	45.9	396.4	281,600	316,900	55.5	407.6	257,800	357,700	135
140	34.3	377.8	262,000	262,000	42.5	390.9	269,200	304,200	52.5	403.7	246,300	348,300	140
145	29.7	369.2	254,300	254,300	38.8	384.6	257,600	292,500	49.5	399.4	235,700	339,200	145
150	24.3	358.4	248,600	248,600	34.7	377.4	246,800	282,100	46.3	394.5	225,700	330,400	150
155	17.1	343.6	246,400	246,400	30.2	368.9	236,600	273,100	42.9	389.1	216,400	321,900	155
160					24.9	358.4	227,000	266,200	39.3	382.9	207,700	313,800	160
165					18.0	344.2	217,700	262,300	35.3	375.9	199,400	304,200	165
170									30.8	367.5	191,600	293,200	170
175									25.6	357.4	184,100	282,700	175
180									19.0	343.8	176,900	272,700	180
185									6.7	317.6	169,400	238,300	185
190													190
195													195
200													200
205													205
210													210
215													215
220													220
230													230
240													240
250													250
260													260



# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145	64.0	411.6	199,300	336,900									145
150	61.4	408.8	190,700	323,900									150
155	58.7	405.7	182,700	311,800									155
160	55.9	402.2	175,100	300,400									160
165	53.0	398.3	168,000	289,700									165
170	49.9	394.0	161,400	279,700									170
175	46.8	389.3	155,000	270,300									175
180	43.4	383.9	149,100	261,400	58.7	397.5	121,000	240,400					180
185	39.8	377.9	143,400	253,000	55.9	394.0	116,200	232,600					185
190	35.9	370.9	137,900	245,000	53.0	390.2	111,600	225,200					190
195	31.5	362.8	132,700	237,400	50.0	385.9	107,300	218,200					195
200	26.4	352.9	127,700	230,200	46.8	381.1	103,100	211,600					200
205	20.0	340.0	122,800	223,300	43.4	375.8	99,200	205,300					205
210	9.7	318.1	117,700	216,600	39.8	369.8	95,400	199,200					210
215					35.9	362.8	91,700	193,500	52.6	379.2	69,300	176,700	215
220					31.6	354.7	88,200	188,000	49.5	374.9	66,500	171,700	220
230					20.2	332.1	81,300	177,500	42.9	364.6	61,100	162,200	230
240									35.3	351.4	56,000	153,500	240
250									25.7	332.9	51,100	145,400	250
260									6.9	293.5	45,800	137,400	260

# MLC650 VPC-MAX S-3

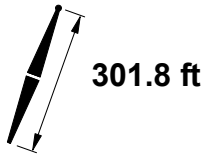
ASME B30.5



881,800 lb



360°



301.8 ft

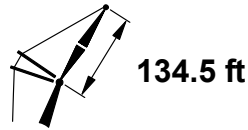
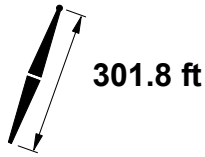


134.5 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
75	74.4	439.5	351,500 c	351,500 c									75
80	72.2	437.9	350,400 b	350,400 b									80
85	69.9	436.0	348,100 b	348,100 b									85
90	67.6	433.8	344,900 b	344,900 b	72.4	436.8	352,400 b	352,400 b					90
95	65.2	431.4	341,000 b	341,000 b	70.1	434.9	352,100 b	352,100 b					95
100	62.8	428.8	336,700	336,700	67.8	432.8	350,600 b	350,600 b					100
105	60.3	425.9	331,400	331,400	65.4	430.5	348,100	348,100					105
110	57.8	422.6	323,600	323,600	63.0	427.8	345,000	345,000					110
115	55.2	419.1	310,500	310,500	60.6	424.9	339,400	341,400	68.1	430.6	310,500	351,200	115
120	52.5	415.2	297,600	297,600	58.0	421.7	322,400	337,500	65.7	428.3	294,800	351,200	120
125	49.7	410.8	285,300	285,300	55.4	418.2	306,800	333,200	63.3	425.7	280,400	351,000	125
130	46.7	406.1	273,600	273,600	52.7	414.3	292,400	320,600	60.9	422.8	267,100	349,500	130
135	43.6	400.8	262,600	262,600	49.9	410.1	279,100	307,900	58.4	419.7	254,800	347,500	135
140	40.3	394.8	252,500	252,500	47.0	405.3	266,800	295,700	55.8	416.2	243,400	340,300	140
145	36.7	388.1	243,400	243,400	43.9	400.1	255,300	284,100	53.1	412.4	232,900	331,700	145
150	32.8	380.4	235,400	235,400	40.6	394.2	244,500	273,200	50.3	408.1	223,000	323,200	150
155	28.4	371.2	229,000	229,000	37.1	387.6	234,500	263,200	47.4	403.5	213,700	315,100	155
160	23.1	359.9	224,600	224,600	33.2	379.9	225,000	254,300	44.3	398.3	205,000	307,100	160
165	16.1	344.3	223,200	223,200	28.8	371.0	216,000	246,800	41.1	392.5	196,900	299,600	165
170					23.7	359.9	207,500	241,100	37.6	385.9	189,200	290,800	170
175					16.9	344.9	199,300	238,200	33.7	378.5	181,800	280,500	175
180									29.4	369.7	174,900	270,700	180
185									24.4	359.0	168,200	261,400	185
190									17.9	344.7	161,800	252,400	190
195									5.4	315.7	155,000	217,000	195
200													200
205													205
210													210
215													215
220													220
230													230
240													240
250													250
260													260
270													270

# MLC650 VPC-MAX S-3

ASME B30.5



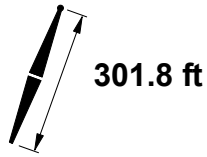
ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150	63.7	420.1	187,300	321,000									150
155	61.2	417.2	179,300	308,900									155
160	58.7	414.1	171,900	297,600									160
165	56.1	410.7	164,800	287,000									165
170	53.5	406.9	158,200	277,000									170
175	50.7	402.8	152,000	267,700									175
180	47.8	398.2	146,100	258,800									180
185	44.8	393.0	140,400	250,500	58.8	406.0	112,700	229,800					185
190	41.5	387.3	135,100	242,600	56.2	402.6	108,200	222,400					190
195	38.1	380.9	130,000	235,100	53.5	398.8	103,900	215,500					195
200	34.3	373.6	125,200	227,900	50.7	394.6	99,800	208,900					200
205	30.1	365.0	120,500	221,100	47.8	390.0	96,000	202,600					205
210	25.2	354.6	115,900	214,600	44.8	384.9	92,200	196,700					210
215	19.0	341.0	111,500	208,400	41.6	379.2	88,700	191,000					215
220	8.7	317.4	106,800	202,300	38.1	372.8	85,200	185,500	53.1	387.8	63,000	168,900	220
230					30.1	357.0	78,700	175,300	47.4	379.0	57,700	159,500	230
240					19.1	333.1	72,400	165,800	41.1	368.0	52,800	150,900	240
250									33.8	354.0	48,100	142,900	250
260									24.4	334.5	43,700	135,500	260
270									5.6	291.7	38,700	128,200	270

# MLC650 VPC-MAX S-3

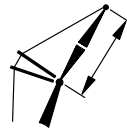
ASME B30.5



881,800 lb



301.8 ft

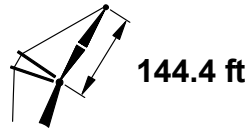
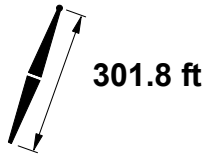


144.4 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
80	73.4	448.3	329,400 b	329,400 b									80
85	71.3	446.5	328,100 b	328,100 b									85
90	69.2	444.5	325,800 b	325,800 b									90
95	67.0	442.3	322,800	322,800	71.5	445.5	330,500 b	330,500 b					95
100	64.8	439.9	319,400	319,400	69.4	443.5	329,900	329,900					100
105	62.6	437.3	315,600	315,600	67.2	441.4	328,400	328,400					105
110	60.3	434.3	310,700	310,700	65.0	439.0	326,300	326,300					110
115	57.9	431.1	301,100	301,100	62.8	436.3	323,500	323,500	69.7	441.3	308,300	327,800	115
120	55.5	427.6	289,200	289,200	60.5	433.4	320,500	320,500	67.5	439.1	292,700	327,800	120
125	53.0	423.8	277,500	277,500	58.1	430.2	305,000	316,800	65.3	436.8	278,300	327,800	125
130	50.4	419.6	266,200	266,200	55.7	426.8	290,600	311,600	63.1	434.2	265,100	327,800	130
135	47.7	415.0	255,500	255,500	53.2	422.9	277,400	299,800	60.8	431.3	252,800	327,800	135
140	44.9	409.9	245,400	245,400	50.6	418.8	265,100	288,300	58.4	428.1	241,500	326,200	140
145	41.9	404.2	235,900	235,900	48.0	414.2	253,600	277,100	56.0	424.7	230,900	324,100	145
150	38.7	398.0	227,300	227,300	45.1	409.2	242,900	266,400	53.6	420.9	221,100	316,800	150
155	35.2	390.9	219,600	219,600	42.2	403.6	232,900	256,300	51.0	416.8	211,900	309,100	155
160	31.5	382.7	213,000	213,000	39.0	397.4	223,500	246,800	48.3	412.3	203,300	301,500	160
165	27.2	373.2	207,600	207,600	35.6	390.4	214,700	238,200	45.5	407.3	195,100	294,200	165
170	22.1	361.3	204,100	204,100	31.8	382.4	206,400	230,700	42.6	401.8	187,500	286,600	170
175	15.2	344.8	203,400	203,400	27.6	373.0	198,400	224,300	39.4	395.7	180,300	276,400	175
180					22.6	361.4	190,900	219,600	36.0	388.8	173,400	266,800	180
185					16.0	345.6	183,500	217,500	32.3	380.9	166,900	258,100	185
190									28.2	371.7	160,700	250,400	190
195									23.3	360.5	154,700	243,000	195
200									17.0	345.5	148,900	234,900	200
205									3.8	312.5	142,600	197,100	205
210													210
215													215
220													220
230													230
240													240
250													250
260													260
270													270
280													280

# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155	63.4	428.6	177,100	306,900									155
160	61.1	425.7	169,700	295,600									160
165	58.8	422.6	162,700	285,100									165
170	56.4	419.2	156,100	275,200									170
175	53.9	415.5	149,900	265,800									175
180	51.3	411.4	144,100	257,000									180
185	48.7	407.0	138,500	248,700									185
190	45.9	402.1	133,200	240,800	58.8	414.5	106,000	220,500					190
195	43.0	396.6	128,200	233,400	56.4	411.1	101,700	213,600					195
200	39.9	390.6	123,400	226,300	53.9	407.4	97,700	207,100					200
205	36.5	383.8	118,800	219,500	51.4	403.3	93,900	200,800					205
210	32.9	376.1	114,400	213,100	48.7	398.8	90,200	194,900					210
215	28.8	367.1	110,200	207,000	45.9	393.9	86,700	189,200					215
220	24.0	356.2	106,100	201,100	43.0	388.5	83,300	183,800					220
230	7.7	316.5	97,700	189,800	36.6	375.7	76,900	173,700	51.0	392.3	55,500	157,700	230
240					28.9	359.1	71,000	164,400	45.5	382.8	50,700	149,200	240
250					18.1	334.0	65,200	155,700	39.4	371.2	46,200	141,300	250
260									32.4	356.5	41,900	134,000	260
270									23.3	336.1	37,800	127,100	270
280									4.1	288.9	33,100	120,300	280

# MLC650 VPC-MAX S-3

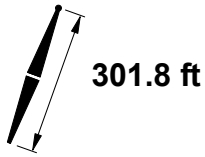
ASME B30.5



881,800 lb



360°



301.8 ft

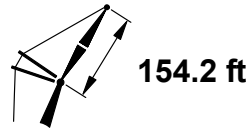
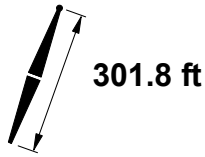


154.2 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
80	74.5	458.6	308,900 b	308,900 b									80
85	72.6	457.0	308,300 b	308,300 b									85
90	70.6	455.1	306,800	306,800									90
95	68.6	453.1	304,700	304,700	72.8	455.9	309,200 b	309,200 b					95
100	66.5	450.9	302,000	302,000	70.8	454.1	309,200	309,200					100
105	64.5	448.4	298,800	298,800	68.8	452.1	308,700	308,700					105
110	62.4	445.7	294,900	294,900	66.7	449.9	307,400	307,400					110
115	60.2	442.8	290,900	290,900	64.7	447.5	305,400	305,400					115
120	58.0	439.6	280,000	280,000	62.6	444.8	303,100	303,100	69.0	449.9	289,500	306,900	120
125	55.8	436.1	269,200	269,200	60.4	441.9	300,400	300,400	67.0	447.7	275,200	306,900	125
130	53.4	432.4	258,600	258,600	58.2	438.7	287,900	297,500	64.9	445.3	262,000	306,900	130
135	51.0	428.3	248,400	248,400	56.0	435.3	274,700	290,900	62.8	442.6	249,800	306,900	135
140	48.5	423.8	238,600	238,600	53.7	431.5	262,500	280,200	60.7	439.8	238,500	306,900	140
145	45.9	418.9	229,200	229,200	51.3	427.5	251,100	269,700	58.5	436.6	228,000	305,800	145
150	43.2	413.5	220,500	220,500	48.8	423.0	240,400	259,500	56.3	433.2	218,200	304,100	150
155	40.3	407.6	212,400	212,400	46.2	418.2	230,500	249,700	54.0	429.5	209,100	302,100	155
160	37.2	401.0	205,000	205,000	43.5	412.8	221,200	240,300	51.6	425.5	200,500	294,800	160
165	33.9	393.5	198,500	198,500	40.6	406.9	212,400	231,500	49.1	421.1	192,400	287,800	165
170	30.2	385.0	193,000	193,000	37.5	400.4	204,100	223,400	46.5	416.3	184,800	279,800	170
175	26.1	375.0	188,600	188,600	34.2	393.1	196,300	216,000	43.8	411.0	177,700	270,000	175
180	21.1	362.6	185,800	185,800	30.6	384.7	188,900	209,500	41.0	405.2	170,900	260,500	180
185	14.4	345.3	185,600	185,600	26.5	374.8	181,800	204,200	37.9	398.8	164,500	251,500	185
190					21.6	362.7	175,000	200,300	34.7	391.5	158,300	243,100	190
195					15.2	346.1	168,400	198,800	31.1	383.3	152,500	235,600	195
200									27.1	373.7	146,900	228,900	200
205									22.3	361.9	141,500	223,600	205
210									16.2	346.1	136,200	218,000	210
215													215
220													220
230													230
240													240
250													250
260													260
270													270
280													280

# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°				65°				ft
	ft	ft	lb	lb	ft	ft	lb	lb	ft	ft	lb	lb	
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160	63.1	437.0	166,400	292,800									160
165	61.0	434.2	159,400	282,300									165
170	58.8	431.1	152,900	272,400									170
175	56.6	427.7	146,800	263,200									175
180	54.3	424.1	140,900	254,400									180
185	51.9	420.1	135,400	246,100									185
190	49.4	415.7	130,200	238,300									190
195	46.9	411.0	125,200	230,900	58.9	423.0	98,300	210,900					195
200	44.2	405.8	120,500	223,800	56.6	419.6	94,300	204,300					200
205	41.4	400.1	116,000	217,100	54.3	415.9	90,500	198,200					205
210	38.4	393.7	111,700	210,800	51.9	412.0	86,900	192,300					210
215	35.1	386.6	107,500	204,700	49.5	407.6	83,400	186,600					215
220	31.6	378.5	103,500	198,900	46.9	402.9	80,100	181,300					220
230	23.0	357.7	95,900	187,900	41.4	392.0	73,900	171,200	54.0	405.0	52,000	155,000	230
240	6.8	315.3	88,200	177,600	35.2	378.5	68,100	162,000	49.1	396.6	47,300	146,500	240
250					27.7	361.1	62,600	153,500	43.8	386.5	42,900	138,700	250
260					17.3	334.8	57,300	145,500	38.0	374.3	38,800	131,500	260
270									31.1	358.8	34,900	124,800	270
280									22.4	337.5	31,100	118,400	280

# MLC650 VPC-MAX S-3

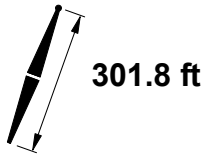
ASME B30.5



881,800 lb



360°



301.8 ft



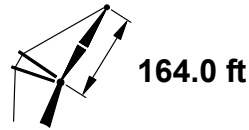
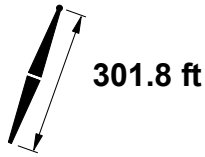
164.0 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
85	73.6	467.3	292,500 b	292,500 b									85
90	71.8	465.6	287,900	287,900									90
95	69.9	463.7	286,500	286,500									95
100	68.0	461.7	284,500	284,500	72.0	464.6	289,000	289,000					100
105	66.1	459.4	282,200	282,200	70.1	462.7	289,000	289,000					105
110	64.2	456.9	279,400	279,400	68.2	460.7	288,300	288,300					110
115	62.2	454.2	275,900	275,900	66.3	458.4	287,100	287,100					115
120	60.2	451.3	272,000	272,000	64.4	455.9	285,400	285,400					120
125	58.1	448.1	262,200	262,200	62.4	453.3	283,400	283,400	68.5	458.4	274,200	286,500	125
130	56.0	444.7	252,400	252,400	60.4	450.4	281,000	281,000	66.6	456.2	261,100	286,500	130
135	53.8	440.9	242,800	242,800	58.3	447.2	274,000	278,600	64.6	453.8	248,900	286,500	135
140	51.6	436.9	233,400	233,400	56.2	443.8	261,800	273,200	62.6	451.1	237,600	286,500	140
145	49.2	432.5	224,400	224,400	54.0	440.1	250,500	263,500	60.6	448.2	227,200	286,500	145
150	46.8	427.8	215,700	215,700	51.8	436.1	239,900	254,000	58.6	445.1	217,400	285,900	150
155	44.3	422.6	207,600	207,600	49.5	431.8	229,900	244,600	56.5	441.7	208,300	284,500	155
160	41.7	417.0	200,000	200,000	47.1	427.1	220,700	235,500	54.3	438.1	199,700	282,900	160
165	38.9	410.7	193,000	193,000	44.6	421.9	211,900	226,800	52.1	434.1	191,700	280,100	165
170	35.9	403.8	186,600	186,600	42.0	416.3	203,700	218,600	49.8	429.8	184,200	273,700	170
175	32.7	396.0	180,900	180,900	39.2	410.2	196,000	210,800	47.4	425.2	177,000	264,700	175
180	29.1	387.2	176,100	176,100	36.2	403.3	188,600	203,600	44.9	420.1	170,300	255,600	180
185	25.1	376.7	172,300	172,300	33.0	395.6	181,600	197,200	42.3	414.6	163,900	246,800	185
190	20.2	363.8	170,000	170,000	29.5	386.9	175,000	191,600	39.5	408.5	157,800	238,300	190
195	13.7	345.6	170,000	170,000	25.5	376.6	168,700	186,900	36.6	401.7	152,100	230,300	195
200					20.8	364.0	162,500	183,600	33.4	394.2	146,600	222,900	200
205					14.4	346.6	156,600	182,500	30.0	385.5	141,300	216,100	205
210									26.0	375.5	136,300	210,300	210
215									21.4	363.2	131,400	205,600	215
220									15.4	346.7	126,500	202,800	220
230													230
240													240
250													250
260													260
270													270
280													280
290													290



# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160	64.9	448.1	165,300	274,000									160
165	62.9	445.5	158,400	274,000									165
170	60.9	442.7	151,900	271,400									170
175	58.9	439.6	145,800	262,100									175
180	56.8	436.2	140,000	253,400									180
185	54.6	432.6	134,500	245,200									185
190	52.4	428.7	129,300	237,400									190
195	50.1	424.5	124,400	230,000									195
200	47.7	419.9	119,700	223,000	58.9	431.4	93,200	203,300					200
205	45.3	414.9	115,200	216,300	56.8	428.1	89,500	197,200					205
210	42.7	409.4	111,000	210,000	54.6	424.5	85,900	191,300					210
215	39.9	403.4	106,900	203,900	52.4	420.6	82,500	185,700					215
220	37.0	396.7	103,000	198,100	50.1	416.3	79,200	180,400					220
230	30.5	380.8	95,500	187,300	45.3	406.7	73,000	170,400					230
240	22.1	359.1	88,600	177,300	40.0	395.3	67,300	161,300	52.1	409.6	46,200	145,600	240
250	5.8	313.8	81,400	167,900	33.9	381.2	62,000	152,800	47.4	400.7	41,900	137,800	250
260					26.7	363.0	57,000	145,000	42.3	390.1	37,900	130,700	260
270					16.5	335.5	52,000	137,600	36.6	377.2	34,100	124,000	270
280									30.0	361.1	30,500	117,800	280
290									21.5	338.8	27,000	111,900	290

# MLC650 VPC-MAX S-3

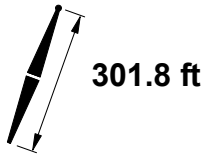
ASME B30.5



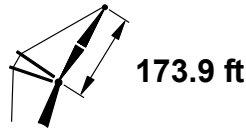
881,800 lb



360°



301.8 ft

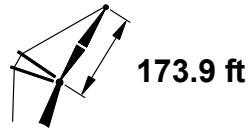
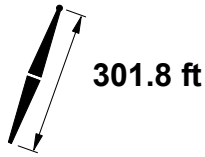


173.9 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
85	74.6	477.6	270,800 b	270,800 b									85
90	72.9	476.0	270,500	270,500									90
95	71.1	474.3	269,600	269,600									95
100	69.4	472.3	268,200	268,200									100
105	67.6	470.2	266,400	266,400	71.3	473.2	270,800	270,800					105
110	65.8	467.9	264,300	264,300	69.5	471.3	270,600	270,600					110
115	63.9	465.4	262,000	262,000	67.7	469.2	270,000	270,000					115
120	62.0	462.7	258,700	258,700	65.9	466.9	268,900	268,900					120
125	60.1	459.8	253,500	253,500	64.1	464.4	267,500	267,500	69.8	469.1	266,900	266,900	125
130	58.2	456.6	244,500	244,500	62.2	461.7	265,700	265,700	68.0	467.0	258,000	266,900	130
135	56.2	453.2	235,700	235,700	60.3	458.8	263,900	263,900	66.2	464.7	245,900	266,900	135
140	54.1	449.5	226,900	226,900	58.4	455.7	259,200	261,600	64.3	462.3	234,600	266,900	140
145	52.0	445.6	218,400	218,400	56.4	452.3	247,800	255,700	62.5	459.6	224,200	266,900	145
150	49.9	441.3	210,100	210,100	54.3	448.7	237,300	247,000	60.6	456.7	214,500	266,900	150
155	47.6	436.7	202,200	202,200	52.2	444.7	227,400	238,300	58.6	453.6	205,400	266,900	155
160	45.3	431.7	194,700	194,700	50.1	440.5	218,100	229,700	56.6	450.2	196,900	266,900	160
165	42.9	426.2	187,600	187,600	47.9	435.9	209,500	221,400	54.6	446.6	188,900	265,600	165
170	40.3	420.3	181,100	181,100	45.5	431.0	201,300	213,400	52.5	442.7	181,400	264,200	170
175	37.6	413.8	175,000	175,000	43.1	425.6	193,600	205,700	50.4	438.5	174,300	258,100	175
180	34.7	406.6	169,500	169,500	40.6	419.7	186,300	198,500	48.1	434.0	167,600	249,700	180
185	31.6	398.5	164,700	164,700	37.9	413.2	179,400	191,700	45.8	429.1	161,300	241,400	185
190	28.1	389.2	160,600	160,600	35.0	406.1	172,800	185,500	43.4	423.8	155,300	233,200	190
195	24.2	378.3	157,500	157,500	31.9	398.1	166,500	179,900	40.9	418.0	149,500	225,400	195
200	19.4	364.9	155,700	155,700	28.5	389.0	160,600	175,100	38.2	411.6	144,100	217,900	200
205	13.0	345.8	155,700	155,700	24.6	378.3	154,800	171,200	35.4	404.5	138,900	210,800	205
210					19.9	365.1	149,300	168,500	32.3	396.7	133,900	204,300	210
215					13.7	346.9	143,900	167,800	28.9	387.7	129,200	198,400	215
220									25.1	377.2	124,600	193,300	220
230									14.7	347.2	115,700	186,900	230
240													240
250													250
260													260
270													270
280													280
290													290
300													300

# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160													160
165	64.6	456.6	155,100	255,600									165
170	62.7	454.0	148,700	255,600									170
175	60.8	451.1	142,600	255,600									175
180	58.9	448.1	136,800	250,800									180
185	56.9	444.7	131,400	242,600									185
190	54.9	441.2	126,300	234,800									190
195	52.8	437.3	121,400	227,500									195
200	50.7	433.2	116,700	220,500									200
205	48.5	428.7	112,300	213,900	58.9	439.9	86,100	194,500					205
210	46.2	423.8	108,100	207,600	56.9	436.6	82,500	188,600					210
215	43.8	418.6	104,000	201,500	54.9	433.0	79,200	183,100					215
220	41.3	412.8	100,100	195,800	52.8	429.2	75,900	177,800					220
230	35.8	399.6	92,900	185,100	48.5	420.6	69,900	167,900					230
240	29.4	383.0	86,100	175,200	43.8	410.4	64,300	158,800	54.6	422.1	42,800	142,900	240
250	21.3	360.4	79,700	166,000	38.7	398.4	59,000	150,400	50.4	414.0	38,600	135,200	250
260	4.8	311.7	73,000	157,300	32.8	383.7	54,200	142,700	45.9	404.6	34,600	128,100	260
270					25.7	364.8	49,500	135,500	40.9	393.5	30,900	121,500	270
280					15.7	336.2	45,000	128,600	35.4	380.1	27,500	115,400	280
290									29.0	363.2	24,100	109,600	290
300									20.6	340.0	20,800	104,200	300

# MLC650 VPC-MAX S-3

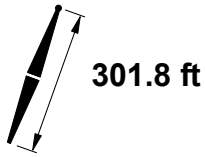
ASME B30.5



881,800 lb



360°



301.8 ft

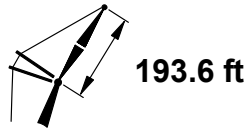
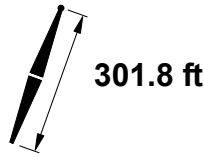


193.6 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
90	74.7	496.7	238,600	238,600									90
95	73.1	495.1	238,400	238,400									95
100	71.6	493.4	237,900	237,900									100
105	70.0	491.5	237,000	237,000									105
110	68.4	489.5	235,700	235,700	71.7	492.4	239,400	239,400					110
115	66.8	487.3	234,300	234,300	70.1	490.5	238,100	238,100					115
120	65.1	484.9	232,200	232,200	68.5	488.5	237,800	237,800					120
125	63.5	482.4	230,600	230,600	66.9	486.3	237,200	237,200					125
130	61.8	479.6	228,100	228,100	65.3	483.9	236,400	236,400					130
135	60.1	476.7	221,600	221,600	63.6	481.4	235,300	235,300	68.7	486.2	234,300	234,300	135
140	58.3	473.6	214,200	214,200	61.9	478.7	234,100	234,100	67.1	484.1	230,600	234,300	140
145	56.5	470.2	206,900	206,900	60.2	475.8	232,600	232,600	65.5	481.8	220,200	234,300	145
150	54.7	466.6	199,600	199,600	58.5	472.7	230,900	230,900	63.8	479.2	210,600	234,300	150
155	52.8	462.8	192,500	192,500	56.7	469.3	224,000	225,400	62.2	476.5	201,600	234,300	155
160	50.9	458.7	185,600	185,600	54.9	465.8	214,900	218,100	60.4	473.7	193,100	234,300	160
165	49.0	454.3	178,900	178,900	53.0	461.9	206,200	210,900	58.7	470.6	185,200	234,300	165
170	46.9	449.5	172,400	172,400	51.1	457.9	198,100	203,800	56.9	467.3	177,700	234,300	170
175	44.8	444.5	166,400	166,400	49.2	453.5	190,400	196,700	55.1	463.7	170,700	234,100	175
180	42.6	439.0	160,600	160,600	47.1	448.8	183,200	189,900	53.3	459.9	164,000	233,100	180
185	40.3	433.1	155,200	155,200	45.0	443.8	176,400	183,300	51.4	455.9	157,800	230,100	185
190	37.9	426.6	150,200	150,200	42.8	438.3	169,900	177,000	49.4	451.6	151,800	223,100	190
195	35.3	419.5	145,500	145,500	40.6	432.4	163,700	171,100	47.4	446.9	146,200	216,100	195
200	32.6	411.8	141,400	141,400	38.1	426.0	157,900	165,400	45.3	441.9	140,800	209,200	200
205	29.6	403.0	137,800	137,800	35.6	419.1	152,300	160,200	43.1	436.5	135,700	202,500	205
210	26.3	393.1	134,900	134,900	32.9	411.3	146,900	155,500	40.8	430.7	130,800	195,900	210
215	22.6	381.4	132,700	132,700	29.9	402.7	141,800	151,300	38.5	424.4	126,100	189,600	215
220	18.0	366.8	131,600	131,600	26.7	392.9	136,900	147,600	35.9	417.5	121,700	183,700	220
230					18.5	367.2	127,600	142,900	30.3	401.3	113,300	172,900	230
240									23.5	380.5	105,400	164,500	240
250									13.4	348.0	97,900	157,600	250
260													260
270													270
280													280
290													290
300													300
310													310
320													320

# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°				65°				
	ft	ft	lb	lb	ft	ft	lb	lb	ft	ft	lb	ft	
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160													160
165													165
170													170
175	64.1	473.6	138,200	222,600									175
180	62.4	471.0	132,500	222,600									180
185	60.7	468.1	127,200	222,600									185
190	59.0	465.0	122,100	222,600									190
195	57.2	461.7	117,200	222,600									195
200	55.4	458.2	112,700	217,000									200
205	53.5	454.5	108,300	210,500									205
210	51.6	450.5	104,100	204,200									210
215	49.7	446.2	100,200	198,200	59.0	456.9	74,700	179,400					215
220	47.7	441.6	96,400	192,500	57.2	453.6	71,500	174,100					220
230	43.4	431.3	89,200	181,900	53.6	446.4	65,600	164,300					230
240	38.8	419.3	82,700	172,200	49.7	438.1	60,100	155,400					240
250	33.6	405.0	76,600	163,200	45.6	428.5	55,000	147,100					250
260	27.6	387.1	70,900	154,900	41.2	417.4	50,300	139,500	51.4	431.4	124,600		260
270	19.8	362.8	65,400	147,100	36.3	404.4	45,900	132,400	47.4	422.4	118,100		270
280					30.8	388.5	41,800	125,800	43.1	412.0	112,000		280
290					24.1	368.1	37,800	119,600	38.5	399.9	106,400		290
300					14.4	337.2	33,800	113,700	33.3	385.4	101,100		300
310									27.1	367.2	96,200		310
320									19.2	342.3	91,400		320

# MLC650 VPC-MAX S-3

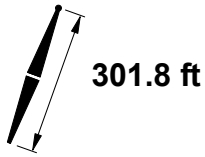
ASME B30.5



881,800 lb



360°



301.8 ft

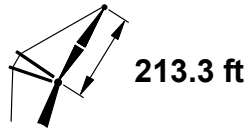
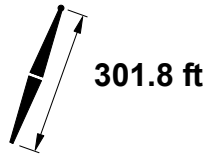


213.3 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
95	74.7	515.7	210,100	210,100									95
100	73.3	514.2	210,000	210,000									100
105	71.9	512.5	209,600	209,600									105
110	70.5	510.7	208,700	208,700									110
115	69.0	508.7	207,700	207,700	72.0	511.5	209,200	209,200					115
120	67.6	506.6	206,400	206,400	70.6	509.7	209,200	209,200					120
125	66.1	504.4	205,100	205,100	69.2	507.7	209,200	209,200					125
130	64.6	501.9	203,700	203,700	67.7	505.6	208,900	208,900					130
135	63.1	499.3	201,900	201,900	66.2	503.4	208,300	208,300					135
140	61.6	496.6	200,100	200,100	64.8	501.0	207,600	207,600	69.4	505.5	205,100	205,100	140
145	60.0	493.7	193,900	193,900	63.2	498.4	206,600	206,600	67.9	503.4	205,100	205,100	145
150	58.4	490.5	187,900	187,900	61.7	495.7	205,500	205,500	66.4	501.2	205,100	205,100	150
155	56.8	487.2	181,800	181,800	60.2	492.7	204,200	204,200	64.9	498.8	197,700	205,100	155
160	55.2	483.7	175,800	175,800	58.6	489.6	202,900	202,900	63.4	496.2	189,300	205,100	160
165	53.5	479.9	169,900	169,900	57.0	486.3	198,700	198,700	61.9	493.5	181,400	205,100	165
170	51.8	476.0	164,100	164,100	55.3	482.8	192,700	192,700	60.4	490.6	174,000	205,100	170
175	50.0	471.7	158,500	158,500	53.7	479.1	186,700	186,700	58.8	487.5	167,000	205,100	175
180	48.2	467.2	153,000	153,000	51.9	475.1	180,000	180,800	57.2	484.3	160,400	205,100	180
185	46.3	462.4	147,900	147,900	50.2	470.9	173,200	174,900	55.5	480.8	154,200	205,100	185
190	44.4	457.2	142,800	142,800	48.4	466.4	166,700	169,200	53.9	477.1	148,300	205,100	190
195	42.4	451.7	138,100	138,100	46.5	461.6	160,600	163,600	52.2	473.1	142,700	204,700	195
200	40.3	445.8	133,700	133,700	44.6	456.5	154,800	158,200	50.4	469.0	137,300	199,100	200
205	38.1	439.4	129,500	129,500	42.6	451.1	149,300	153,000	48.6	464.5	132,300	193,300	205
210	35.9	432.5	125,600	125,600	40.5	445.2	144,000	148,100	46.8	459.8	127,400	187,500	210
215	33.4	424.9	122,100	122,100	38.4	438.8	139,000	143,500	44.8	454.7	122,800	181,800	215
220	30.8	416.6	119,000	119,000	36.1	432.0	134,200	139,100	42.9	449.3	118,400	176,300	220
230	24.8	396.6	114,100	114,100	31.1	416.2	125,100	131,300	38.6	437.2	110,200	165,600	230
240	16.8	368.5	111,900	111,900	25.1	396.5	116,700	125,400	34.0	422.9	102,600	155,800	240
250					17.3	369.0	108,800	121,900	28.6	405.7	95,500	147,400	250
260									22.0	383.4	88,800	140,800	260
270									12.3	348.4	82,400	133,200	270
280													280
290													290
300													300
310													310
320													320
330													330
340													340

# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°				65°			
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	ft
95												95
100												100
105												105
110												110
115												115
120												120
125												125
130												130
135												135
140												140
145												145
150												150
155												155
160												160
165												165
170												170
175												175
180												180
185	63.6	490.6	122,900	195,000								185
190	62.1	487.9	117,900	195,000								190
195	60.6	485.0	113,100	195,000								195
200	59.0	482.0	108,600	195,000								200
205	57.4	478.7	104,200	195,000								205
210	55.8	475.3	100,100	195,000								210
215	54.1	471.6	96,200	194,900								215
220	52.4	467.7	92,500	189,200								220
230	48.9	459.2	85,400	178,700	57.4	470.6	61,200	160,800				230
240	45.1	449.4	79,000	169,000	54.1	463.5	55,800	151,900				240
250	41.1	438.3	73,000	160,200	50.7	455.4	50,900	143,700				250
260	36.7	425.4	67,500	152,000	47.0	446.3	46,300	136,200				260
270	31.8	410.0	62,300	144,300	43.2	436.0	42,000	129,200	52.2	448.6	114,600	270
280	26.0	390.9	57,400	137,200	39.0	424.0	38,000	122,700	48.6	440.0	108,600	280
290	18.5	364.9	52,700	130,600	34.4	410.0	34,200	116,600	44.9	430.2	103,100	290
300					29.1	393.0	30,700	111,000	40.8	419.0	97,900	300
310					22.6	371.2	27,200	105,600	36.4	405.9	93,000	310
320					13.3	338.0	23,700	100,400	31.4	390.3	88,400	320
330									25.6	370.9	84,100	330
340									17.9	344.2	79,900	340

# MLC650 VPC-MAX S-3

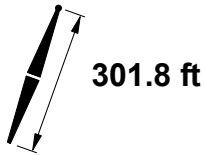
ASME B30.5



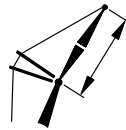
881,800 lb



360°



301.8 ft



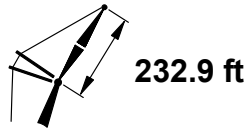
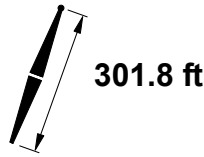
232.9 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
100	74.8	534.8	190,000	190,000									100
105	73.5	533.3	189,900	189,900									105
110	72.2	531.6	189,500	189,500									110
115	70.9	529.8	189,000	189,000									115
120	69.6	527.9	188,200	188,200	72.3	530.6	188,900	188,900					120
125	68.2	525.9	187,300	187,300	71.0	528.8	188,900	188,900					125
130	66.9	523.7	186,200	186,200	69.7	526.9	188,900	188,900					130
135	65.6	521.4	184,900	184,900	68.4	524.9	188,600	188,600					135
140	64.2	518.9	183,600	183,600	67.0	522.7	188,200	188,200					140
145	62.8	516.3	182,300	182,300	65.7	520.4	187,700	187,700	69.9	524.6	184,400	184,400	145
150	61.4	513.5	178,800	178,800	64.3	518.0	187,000	187,000	68.5	522.6	184,400	184,400	150
155	60.0	510.6	173,700	173,700	62.9	515.4	186,300	186,300	67.2	520.5	184,400	184,400	155
160	58.5	507.5	168,500	168,500	61.5	512.6	185,400	185,400	65.9	518.2	182,800	184,400	160
165	57.0	504.2	163,300	163,300	60.1	509.7	184,300	184,300	64.5	515.8	174,900	184,400	165
170	55.5	500.7	158,200	158,200	58.7	506.6	183,200	183,200	63.1	513.2	167,600	184,400	170
175	54.0	497.1	153,100	153,100	57.2	503.3	179,100	179,100	61.7	510.5	160,700	184,400	175
180	52.5	493.2	148,100	148,100	55.7	499.9	174,000	174,000	60.3	507.6	154,100	184,400	180
185	50.9	489.1	143,200	143,200	54.2	496.2	167,600	168,900	58.8	504.5	148,000	184,400	185
190	49.2	484.7	138,600	138,600	52.6	492.4	161,200	163,800	57.4	501.2	142,100	184,400	190
195	47.6	480.1	134,000	134,000	51.0	488.3	155,200	158,800	55.9	497.8	136,600	184,400	195
200	45.8	475.2	129,600	129,600	49.4	483.9	149,400	153,800	54.4	494.2	131,300	184,400	200
205	44.1	470.0	125,400	125,400	47.7	479.4	143,900	149,000	52.8	490.4	126,300	184,400	205
210	42.2	464.5	121,400	121,400	46.0	474.5	138,700	144,300	51.2	486.3	121,600	181,400	210
215	40.3	458.5	117,700	117,700	44.2	469.3	133,700	139,700	49.6	482.0	117,000	176,500	215
220	38.3	452.2	114,100	114,100	42.4	463.8	129,000	135,400	47.9	477.4	112,700	171,500	220
230	34.1	438.0	107,900	107,900	38.5	451.6	120,100	127,200	44.5	467.5	104,500	161,800	230
240	29.2	421.0	102,700	102,700	34.3	437.5	111,900	120,000	40.8	456.2	97,000	152,500	240
250	23.5	399.8	99,000	99,000	29.5	420.7	104,300	113,900	36.7	443.2	90,100	143,700	250
260	15.7	369.9	97,700	97,700	23.8	399.8	97,200	109,300	32.3	428.1	83,700	135,800	260
270					16.2	370.5	90,400	106,900	27.1	409.7	77,700	129,000	270
280									20.8	386.0	72,000	123,800	280
290									11.2	348.5	66,400	111,300	290
300													300
310													310
320													320
330													330
340													340
350													350
360													360



# MLC650 VPC-MAX S-3

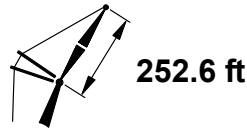
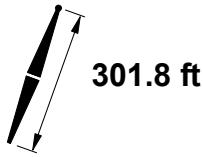
ASME B30.5



ft	75°				70°				65°				
	ft	ft	lb	lb	ft	ft	lb	lb	ft	ft	lb	ft	
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160													160
165													165
170													170
175													175
180													180
185													185
190	64.7	510.1	110,800	173,600									190
195	63.3	507.6	106,100	173,600									195
200	61.9	504.9	101,700	173,600									200
205	60.5	502.0	97,400	173,600									205
210	59.0	498.9	93,400	173,600									210
215	57.6	495.7	89,500	173,600									215
220	56.1	492.3	85,800	173,600									220
230	53.0	484.9	78,900	173,500									230
240	49.8	476.6	72,600	164,000	57.6	487.6	48,700	146,300					240
250	46.5	467.3	66,800	155,200	54.6	480.6	43,900	138,300					250
260	42.9	456.8	61,400	147,100	51.5	472.8	39,400	130,800					260
270	39.1	444.9	56,300	139,600	48.2	464.0	35,300	124,000					270
280	34.9	431.0	51,600	132,600	44.7	454.1	31,400	117,600	52.8	465.8	103,000		280
290	30.2	414.7	47,200	125,700	41.1	442.9	27,800	111,600	49.6	457.5	97,600		290
300	24.6	394.4	43,000	118,900	37.1	430.1	24,400	106,000	46.2	448.1	92,500		300
310	17.4	366.8	38,900	112,300	32.6	415.2	21,200	100,800	42.7	437.5	87,800		310
320					27.6	397.1		95,900	38.8	425.5	83,300		320
330					21.4	374.0		91,200	34.6	411.5	79,100		330
340					12.3	338.4		86,700	29.8	394.9	75,100		340
350									24.2	374.3	71,200		350
360									16.8	345.9	67,600		360

# MLC650 VPC-MAX S-3

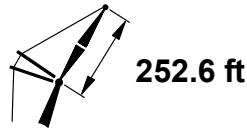
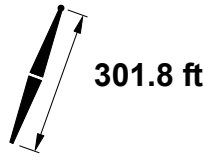
ASME B30.5



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
105	74.8	553.8	167,500	167,500									105
110	73.6	552.3	167,400	167,400									110
115	72.4	550.7	167,000	167,000									115
120	71.2	549.0	166,600	166,600									120
125	70.0	547.1	166,000	166,000	72.6	549.6	166,300	166,300					125
130	68.8	545.1	165,200	165,200	71.4	547.9	166,300	166,300					130
135	67.6	543.0	164,300	164,300	70.1	546.1	166,300	166,300					135
140	66.3	540.8	163,300	163,300	68.9	544.1	166,100	166,100					140
145	65.1	538.4	162,300	162,300	67.7	542.0	165,800	165,800					145
150	63.8	535.9	161,200	161,200	66.5	539.8	165,300	165,300					150
155	62.5	533.3	160,100	160,100	65.2	537.4	164,800	164,800	69.1	541.9	162,200	162,200	155
160	61.2	530.5	157,300	157,300	63.9	535.0	164,200	164,200	67.9	539.8	162,200	162,200	160
165	59.9	527.6	152,900	152,900	62.7	532.3	163,500	163,500	66.6	537.6	162,200	162,200	165
170	58.6	524.5	148,600	148,600	61.4	529.6	162,900	162,900	65.4	535.2	162,200	162,200	170
175	57.2	521.2	144,300	144,300	60.1	526.6	162,000	162,000	64.1	532.8	156,700	162,200	175
180	55.9	517.8	139,900	139,900	58.7	523.6	161,100	161,100	62.8	530.2	150,300	162,200	180
185	54.5	514.2	135,700	135,700	57.4	520.3	158,600	158,600	61.5	527.4	144,100	162,200	185
190	53.0	510.4	131,500	131,500	56.0	516.9	154,400	154,400	60.2	524.5	138,300	162,200	190
195	51.6	506.4	127,400	127,400	54.6	513.3	150,100	150,100	58.9	521.5	132,800	162,200	195
200	50.1	502.1	123,400	123,400	53.2	509.5	145,900	145,900	57.5	518.2	127,600	162,200	200
205	48.6	497.7	119,400	119,400	51.7	505.5	140,600	141,600	56.2	514.8	122,600	162,200	205
210	47.0	493.0	115,700	115,700	50.2	501.3	135,400	137,400	54.8	511.3	117,900	162,000	210
215	45.4	488.0	112,100	112,100	48.7	496.9	130,400	133,300	53.4	507.5	113,400	161,500	215
220	43.8	482.8	108,600	108,600	47.2	492.2	125,700	129,300	51.9	503.6	109,100	161,100	220
230	40.3	471.3	102,100	102,100	43.9	482.1	116,900	121,600	48.9	495.0	101,000	154,000	230
240	36.6	458.2	96,400	96,400	40.5	470.7	108,800	114,400	45.8	485.4	93,600	145,800	240
250	32.5	443.2	91,400	91,400	36.8	457.7	101,300	107,900	42.5	474.8	86,800	137,800	250
260	27.8	425.2	87,400	87,400	32.7	442.7	94,300	102,200	38.9	462.7	80,500	130,100	260
270	22.3	402.8	84,700	84,700	28.1	425.0	87,900	97,400	35.1	448.9	74,600	123,000	270
280	14.7	371.1	83,900	83,900	22.6	402.9	81,800	93,900	30.8	432.9	69,100	116,600	280
290					15.2	371.8	75,900	92,100	25.8	413.5	63,900	111,200	290
300									19.7	388.4	58,900	107,100	300
310									10.3	348.3	54,000	93,400	310
320													320
330													330
340													340
350													350
360													360
370													370
380													380

# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°				65°				
	ft	ft	lb	lb	ft	ft	lb	lb	ft	ft	lb	ft	
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160													160
165													165
170													170
175													175
180													180
185													185
190													190
195													195
200	64.3	527.1	97,300	151,800									200
205	63.0	524.6	93,100	151,800									205
210	61.7	521.8	89,100	151,800									210
215	60.4	518.9	85,300	151,800									215
220	59.1	515.9	81,700	151,800									220
230	56.4	509.3	74,900	151,800									230
240	53.6	502.1	68,600	151,800									240
250	50.6	494.0	62,900	151,800	57.8	504.6	39,500	134,800					250
260	47.6	485.0	57,600	143,900	55.0	497.7	35,100	127,400					260
270	44.4	475.0	52,600	136,500	52.1	490.0	31,100	120,600					270
280	41.0	463.8	48,000	129,400	49.2	481.5	27,300	114,300					280
290	37.3	451.0	43,700	122,200	46.0	472.0	23,800	108,400	53.4	483.0	94,100		290
300	33.3	436.4	39,600	115,500	42.7	461.5	20,500	102,900	50.4	474.9	89,100		300
310	28.7	419.1	35,800	109,100	39.2	449.5		97,700	47.4	465.8	84,400		310
320	23.4	397.7	32,100	103,100	35.4	435.9		92,900	44.2	455.8	80,000		320
330	16.4	368.4	28,500	97,300	31.1	420.0		88,300	40.7	444.4	75,800		330
340					26.2	401.0		83,900	37.1	431.6	71,900		340
350					20.2	376.5		79,800	33.0	416.8	68,200		350
360					11.3	338.6		75,800	28.4	399.2	64,700		360
370									23.0	377.5	61,300		370
380									15.8	347.4	58,000		380

# MLC650 VPC-MAX S-3

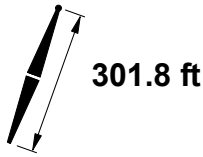
ASME B30.5



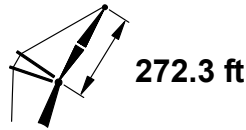
881,800 lb



360°



301.8 ft

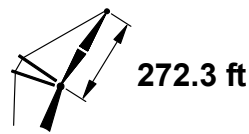
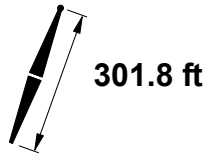


272.3 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
110	74.9	572.9	148,500	148,500									110
115	73.8	571.4	148,300	148,300									115
120	72.7	569.8	147,900	147,900									120
125	71.5	568.1	147,200	147,200									125
130	70.4	566.3	146,600	146,600	72.8	568.7	147,100	147,100					130
135	69.3	564.3	146,000	146,000	71.6	567.0	146,900	146,900					135
140	68.2	562.3	145,400	145,400	70.5	565.2	146,800	146,800					140
145	67.0	560.1	144,400	144,400	69.4	563.3	146,600	146,600					145
150	65.9	557.8	143,600	143,600	68.3	561.3	146,300	146,300					150
155	64.7	555.4	142,600	142,600	67.1	559.1	146,000	146,000					155
160	63.5	552.9	141,700	141,700	66.0	556.9	145,600	145,600	69.5	561.0	143,100	143,100	160
165	62.3	550.3	140,700	140,700	64.8	554.5	145,100	145,100	68.4	559.0	143,100	143,100	165
170	61.1	547.5	138,600	138,600	63.6	552.0	144,500	144,500	67.3	556.9	143,100	143,100	170
175	59.9	544.5	135,000	135,000	62.4	549.3	143,800	143,800	66.1	554.6	143,100	143,100	175
180	58.7	541.4	131,400	131,400	61.2	546.5	143,200	143,200	64.9	552.3	143,100	143,100	180
185	57.4	538.2	127,800	127,800	60.0	543.6	142,400	142,400	63.8	549.8	141,500	143,100	185
190	56.1	534.8	124,100	124,100	58.8	540.5	141,600	141,600	62.6	547.1	135,700	143,100	190
195	54.8	531.2	120,500	120,500	57.5	537.3	140,700	140,700	61.4	544.4	130,300	143,100	195
200	53.5	527.5	117,000	117,000	56.3	533.9	137,200	137,200	60.2	541.5	125,100	143,100	200
205	52.2	523.6	113,500	113,500	55.0	530.4	133,600	133,600	58.9	538.4	120,200	143,100	205
210	50.8	519.5	110,100	110,100	53.7	526.7	130,100	130,100	57.7	535.2	115,500	143,100	210
215	49.4	515.2	106,800	106,800	52.3	522.8	126,500	126,500	56.4	531.9	111,000	143,000	215
220	48.0	510.6	103,600	103,600	51.0	518.7	123,000	123,000	55.1	528.3	106,700	142,600	220
230	45.1	500.8	97,400	97,400	48.2	509.9	114,900	116,100	52.5	520.8	98,700	141,800	230
240	42.0	490.0	91,800	91,800	45.2	500.1	106,900	109,400	49.8	512.4	91,400	138,200	240
250	38.6	477.8	86,600	86,600	42.1	489.3	99,400	103,200	46.9	503.2	84,600	131,300	250
260	35.1	464.0	82,100	82,100	38.8	477.2	92,600	97,500	43.9	493.0	78,400	124,500	260
270	31.1	448.1	78,200	78,200	35.2	463.5	86,200	92,300	40.7	481.7	72,600	117,900	270
280	26.6	429.2	75,100	75,100	31.3	447.7	80,300	87,700	37.3	468.9	67,200	111,700	280
290	21.2	405.6	73,000	73,000	26.8	429.0	74,700	83,900	33.6	454.4	62,100	105,900	290
300	13.9	372.1	72,500	72,500	21.5	405.7	69,400	81,200	29.4	437.4	57,300	100,800	300
310					14.3	372.9	64,300	80,000	24.7	417.0	52,800	96,500	310
320									18.7	390.6	48,500	93,300	320
330									9.5	347.8	44,200	78,800	330
340													340
350													350
360													360
370													370
380													380
390													390
400													400

# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°			65°			ft
	ft	ft	lb	lb	ft	lb	ft	lb	ft		
110										110	
115										115	
120										120	
125										125	
130										130	
135										135	
140										140	
145										145	
150										150	
155										155	
160										160	
165										165	
170										170	
175										175	
180										180	
185										185	
190										190	
195										195	
200										200	
205										205	
210	63.9	544.1	86,200	134,400						210	
215	62.8	541.5	82,400	134,400						215	
220	61.5	538.8	78,800	134,400						220	
230	59.1	532.9	72,100	134,400						230	
240	56.6	526.4	65,900	134,400						240	
250	54.0	519.2	60,300	134,400						250	
260	51.3	511.3	55,000	134,400	57.9	521.5	123,800			260	
270	48.5	502.6	50,100	134,400	55.3	514.7	118,200			270	
280	45.6	493.0	45,600	127,000	52.7	507.2	112,000			280	
290	42.5	482.3	41,400	119,900	50.0	498.9	106,100			290	
300	39.3	470.4	37,400	113,300	47.1	489.8	100,700	53.8	500.1	86,700	300
310	35.7	456.9	33,600	107,000	44.1	479.7	95,600	51.1	492.2	82,000	310
320	31.9	441.4	30,100	101,200	41.0	468.4	90,800	48.3	483.4	77,700	320
330	27.5	423.2	26,700	95,600	37.6	455.8	86,300	45.4	473.8	73,600	330
340	22.3	400.7	23,500	90,300	33.9	441.4	82,000	42.3	463.0	69,700	340
350	15.5	369.8	20,300	85,200	29.8	424.7	78,000	39.0	451.0	66,100	350
360					25.1	404.6	74,200	35.5	437.4	62,600	360
370					19.2	378.8	70,500	31.6	421.8	59,300	370
380					10.5	338.5	66,900	27.2	403.3	56,200	380
390								21.9	380.4	53,200	390
400								14.9	348.6	50,300	400

# MLC650 VPC-MAX S-3

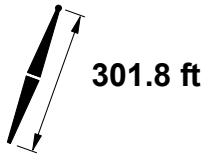
ASME B30.5



881,800 lb



360°



301.8 ft

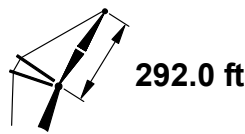
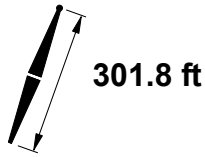


292.0 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
115	74.9	591.9	137,900	137,900									115
120	73.9	590.4	137,600	137,600									120
125	72.8	588.9	137,300	137,300									125
130	71.8	587.2	136,700	136,700									130
135	70.8	585.4	136,100	136,100	72.9	587.8	136,500	136,500					135
140	69.7	583.5	135,500	135,500	71.9	586.1	136,500	136,500					140
145	68.6	581.5	134,800	134,800	70.9	584.4	136,300	136,300					145
150	67.6	579.4	134,000	134,000	69.8	582.5	136,100	136,100					150
155	66.5	577.2	133,100	133,100	68.8	580.5	135,800	135,800					155
160	65.4	574.9	132,200	132,200	67.7	578.4	135,400	135,400					160
165	64.3	572.5	131,300	131,300	66.6	576.2	134,900	134,900	69.9	580.2	132,400	132,400	165
170	63.2	569.9	130,400	130,400	65.5	573.9	134,400	134,400	68.9	578.3	132,400	132,400	170
175	62.1	567.2	127,800	127,800	64.4	571.5	133,900	133,900	67.8	576.2	132,400	132,400	175
180	61.0	564.4	124,600	124,600	63.3	568.9	133,300	133,300	66.8	574.0	132,400	132,400	180
185	59.9	561.5	121,400	121,400	62.2	566.3	132,600	132,600	65.7	571.7	132,300	132,400	185
190	58.7	558.4	118,100	118,100	61.1	563.5	131,900	131,900	64.6	569.3	126,600	132,400	190
195	57.5	555.2	114,900	114,900	60.0	560.5	131,200	131,200	63.5	566.8	121,200	132,400	195
200	56.4	551.8	111,700	111,700	58.8	557.5	130,400	130,400	62.4	564.1	116,100	132,400	200
205	55.2	548.3	108,500	108,500	57.7	554.3	127,300	127,300	61.3	561.3	111,200	132,400	205
210	53.9	544.6	105,400	105,400	56.5	550.9	124,100	124,100	60.1	558.4	106,600	132,400	210
215	52.7	540.8	102,300	102,300	55.3	547.4	120,200	121,000	59.0	555.4	102,100	132,400	215
220	51.4	536.8	99,300	99,300	54.1	543.8	115,600	117,800	57.8	552.2	97,900	132,000	220
230	48.9	528.2	93,500	93,500	51.6	535.9	106,900	111,600	55.4	545.4	90,000	131,200	230
240	46.2	518.7	88,000	88,000	49.0	527.4	98,900	105,500	53.0	537.9	82,800	130,300	240
250	43.3	508.3	82,900	82,900	46.3	518.0	91,600	99,600	50.5	529.8	76,100	126,200	250
260	40.3	496.8	78,300	78,300	43.5	507.6	84,800	94,000	47.8	520.9	70,000	120,200	260
270	37.1	483.9	74,100	74,100	40.5	496.2	78,500	88,900	45.1	511.1	64,300	114,200	270
280	33.7	469.4	70,400	70,400	37.3	483.4	72,600	84,100	42.2	500.3	59,000	108,300	280
290	29.9	452.7	67,300	67,300	33.9	468.9	67,200	79,900	39.1	488.3	54,000	102,700	290
300	25.5	432.9	64,900	64,900	30.1	452.3	62,000	76,100	35.8	474.8	49,300	97,500	300
310	20.3	408.2	63,400	63,400	25.7	432.7	57,100	73,100	32.2	459.5	45,000	92,700	310
320	13.1	372.8	60,200	62,600	20.6	408.3	52,500	71,000	28.2	441.7	40,800	88,500	320
330					13.5	373.8	48,000	65,500	23.6	420.3	36,900	85,000	330
340									17.8	392.6	33,100	76,600	340
350									8.7	347.0	29,200	61,000	350
360													360
370													370
380													380
390													390
400													400
410													410
420													420

# MLC650 VPC-MAX S-3

ASME B30.5



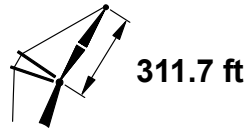
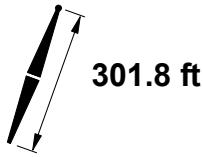
ft	75°				70°				65°				ft
	ft	ft	lb	lb	ft	ft	lb	lb	ft	ft	lb	lb	
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160													160
165													165
170													170
175													175
180													180
185													185
190													190
195													195
200													200
205													205
210													210
215	64.7	563.6	72,500	123,100									215
220	63.6	561.1	69,000	123,100									220
230	61.4	555.7	62,400	123,100									230
240	59.1	549.8	56,300	123,100									240
250	56.8	543.4	50,800	123,100									250
260	54.4	536.3	45,700	123,100									260
270	51.9	528.5	40,900	123,100	58.0	538.5	110,500						270
280	49.3	520.1	36,500	117,900	55.6	531.7	104,400						280
290	46.7	510.8	32,300	110,900	53.2	524.4	98,600						290
300	43.9	500.6	28,500	104,400	50.7	516.3	93,300						300
310	40.9	489.3	24,800	98,200	48.0	507.4	88,300	54.2	517.2	74,200			310
320	37.7	476.7	21,400	92,500	45.3	497.7	83,600	51.7	509.5	69,900			320
330	34.3	462.5		87,100	42.4	487.0	79,100	49.2	500.9	65,900			330
340	30.6	446.2		81,900	39.4	475.0	75,000	46.5	491.6	62,200			340
350	26.3	427.1		77,000	36.1	461.7	71,000	43.7	481.3	58,600			350
360	21.3	403.5		72,300	32.5	446.6	67,300	40.7	469.9	55,300			360
370	14.6	371.0		67,800	28.6	429.0	63,800	37.5	457.2	52,100			370
380					24.0	408.0	59,900	34.1	442.9	49,000			380
390					18.3	380.9	56,000	30.3	426.5	46,100			390
400					9.7	338.1	52,000	26.0	407.1	43,300			400
410								20.9	383.1	40,600			410
420								14.1	349.7	37,500			420

# MLC650 VPC-MAX S-3

ASME B30.5



881,800 lb

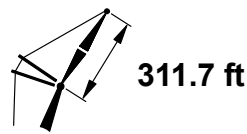
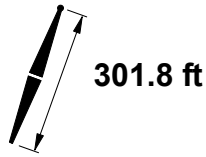


ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
120	74.9	611.0	122,100	122,100									120
125	73.9	609.5	121,800	121,800									125
130	73.0	607.9	121,400	121,400									130
135	72.0	606.3	120,900	120,900									135
140	71.0	604.5	120,400	120,400									140
145	70.1	602.7	119,900	119,900	72.1	605.2	120,400	120,400					145
150	69.1	600.7	119,100	119,100	71.1	603.5	120,300	120,300					150
155	68.1	598.7	118,600	118,600	70.2	601.6	120,100	120,100					155
160	67.1	596.5	117,800	117,800	69.2	599.7	119,700	119,700					160
165	66.1	594.3	117,100	117,100	68.2	597.7	119,300	119,300					165
170	65.1	591.9	116,300	116,300	67.2	595.5	119,000	119,000					170
175	64.0	589.5	115,500	115,500	66.2	593.3	118,500	118,500	69.3	597.4	116,600	116,600	175
180	63.0	586.9	114,700	114,700	65.2	590.9	118,100	118,100	68.3	595.4	116,600	116,600	180
185	62.0	584.2	113,000	113,000	64.1	588.5	117,600	117,600	67.3	593.3	116,600	116,600	185
190	60.9	581.4	110,300	110,300	63.1	585.9	117,000	117,000	66.3	591.1	116,600	116,600	190
195	59.8	578.4	107,500	107,500	62.1	583.2	116,500	116,500	65.3	588.7	116,600	116,600	195
200	58.8	575.4	104,800	104,800	61.0	580.4	115,800	115,800	64.3	586.3	113,700	116,600	200
205	57.7	572.2	102,100	102,100	59.9	577.5	115,200	115,200	63.2	583.7	108,900	116,600	205
210	56.6	568.8	99,400	99,400	58.9	574.4	114,500	114,500	62.2	581.1	104,200	116,600	210
215	55.4	565.3	96,600	96,600	57.8	571.3	113,300	113,300	61.1	578.3	99,800	116,400	215
220	54.3	561.7	94,000	94,000	56.7	567.9	110,600	110,600	60.1	575.4	95,600	116,200	220
230	52.0	554.0	88,700	88,700	54.4	560.9	104,900	105,300	57.9	569.2	87,800	115,600	230
240	49.6	545.6	83,700	83,700	52.1	553.2	97,000	100,000	55.7	562.4	80,600	114,900	240
250	47.1	536.4	78,900	78,900	49.7	544.8	89,700	94,700	53.4	555.1	74,000	114,100	250
260	44.5	526.4	74,500	74,500	47.2	535.7	83,000	89,600	51.1	547.1	67,900	113,200	260
270	41.8	515.5	70,300	70,300	44.6	525.7	76,700	84,800	48.6	538.4	62,200	108,200	270
280	38.9	503.3	66,500	66,500	41.9	514.8	70,900	80,200	46.1	528.9	57,000	103,100	280
290	35.8	489.8	63,100	63,100	39.0	502.7	65,500	75,900	43.4	518.6	52,100	98,000	290
300	32.4	474.6	60,100	60,100	35.9	489.3	60,400	72,000	40.7	507.2	47,500	93,200	300
310	28.7	457.1	57,700	57,700	32.6	474.2	55,600	68,500	37.7	494.5	43,200	88,600	310
320	24.5	436.4	55,800	55,800	28.9	456.8	51,100	65,600	34.5	480.4	39,100	84,300	320
330	19.4	410.5	54,600	54,700	24.7	436.3	46,800	63,200	31.0	464.4	35,200	80,300	330
340	12.3	373.3	50,100	51,400	19.7	410.8	42,800	61,500	27.2	445.8	31,600	76,900	340
350					12.8	374.5	38,700	54,200	22.7	423.4	28,100	74,000	350
360									17.0	394.4	24,700	64,300	360
370									7.9	345.9	21,200	50,000	370
380													380
390													390
400													400
410													410
420													420
430													430
440													440



# MLC650 VPC-MAX S-3

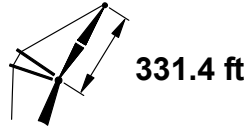
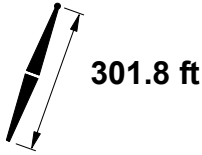
ASME B30.5



ft	75°				70°			65°			ft
	°	ft	lb	lb	°	ft	lb	°	ft	lb	
120											120
125											125
130											130
135											135
140											140
145											145
150											150
155											155
160											160
165											165
170											170
175											175
180											180
185											185
190											190
195											195
200											200
205											205
210											210
215											215
220											220
230	63.4	578.1	59,700	107,700							230
240	61.3	572.7	53,700	107,700							240
250	59.2	566.8	48,200	107,700							250
260	57.0	560.3	43,200	107,700							260
270	54.7	553.4	38,500	107,700							270
280	52.4	545.8	34,100	107,700	58.1	555.5	98,300				280
290	50.0	537.5	30,000	107,700	55.9	548.8	96,400				290
300	47.6	528.5	26,200	102,100	53.6	541.5	91,100				300
310	45.0	518.6	22,600	96,000	51.2	533.6	86,200				310
320	42.3	507.8		90,300	48.8	524.9	81,500	54.6	534.3	67,700	320
330	39.4	495.9		84,900	46.3	515.5	77,100	52.3	526.7	63,700	330
340	36.4	482.7		79,900	43.7	505.2	73,000	49.9	518.4	60,000	340
350	33.1	467.8		75,100	40.9	493.9	69,100	47.4	509.3	56,500	350
360	29.4	450.8		70,500	37.9	481.4	65,400	44.8	499.4	53,200	360
370	25.3	430.8		66,200	34.8	467.4	61,800	42.1	488.5	50,000	370
380	20.4	406.1		62,000	31.3	451.5	57,800	39.2	476.5	47,000	380
390	13.9	372.0		57,900	27.5	433.2	54,000	36.2	463.2	44,200	390
400					23.0	411.2	50,400	32.8	448.2	41,200	400
410					17.5	382.9	46,800	29.2	431.0	38,200	410
420					9.0	337.5	43,200	25.0	410.7	35,400	420
430								20.1	385.6	32,600	430
440								13.3	350.5	29,800	440

# MLC650 VPC-MAX S-3

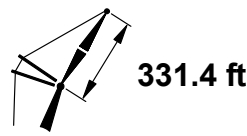
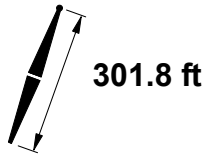
ASME B30.5



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
125	74.9	630.0	107,000	107,000									125
130	74.0	628.5	106,700	106,700									130
135	73.1	627.0	106,300	106,300									135
140	72.2	625.4	105,800	105,800									140
145	71.3	623.6	105,400	105,400									145
150	70.4	621.8	104,900	104,900	72.3	624.3	105,100	105,100					150
155	69.5	619.9	104,300	104,300	71.4	622.6	104,900	104,900					155
160	68.5	617.9	103,700	103,700	70.5	620.8	104,700	104,700					160
165	67.6	615.8	103,100	103,100	69.5	618.9	104,300	104,300					165
170	66.6	613.6	102,500	102,500	68.6	616.9	104,100	104,100					170
175	65.7	611.3	101,800	101,800	67.7	614.8	103,700	103,700					175
180	64.7	609.0	101,100	101,100	66.7	612.6	103,300	103,300	69.7	616.6	101,000	101,000	180
185	63.8	606.5	100,400	100,400	65.8	610.4	102,900	102,900	68.7	614.6	101,000	101,000	185
190	62.8	603.9	99,700	99,700	64.8	608.0	102,400	102,400	67.8	612.6	101,000	101,000	190
195	61.8	601.1	98,900	98,900	63.9	605.5	101,900	101,900	66.9	610.4	101,000	101,000	195
200	60.8	598.3	96,800	96,800	62.9	602.9	101,400	101,400	65.9	608.1	101,000	101,000	200
205	59.8	595.4	94,500	94,500	61.9	600.2	100,900	100,900	65.0	605.8	101,000	101,000	205
210	58.8	592.3	92,100	92,100	60.9	597.4	100,400	100,400	64.0	603.3	100,400	101,000	210
215	57.8	589.1	89,800	89,800	59.9	594.5	99,800	99,800	63.0	600.7	96,000	100,900	215
220	56.7	585.8	87,500	87,500	58.9	591.4	99,200	99,200	62.0	598.0	91,800	100,700	220
230	54.6	578.8	82,900	82,900	56.8	584.9	97,600	97,600	60.0	592.3	84,000	100,200	230
240	52.5	571.2	78,400	78,400	54.7	577.9	93,100	93,100	58.0	586.1	76,900	99,700	240
250	50.2	563.0	74,100	74,100	52.6	570.4	86,300	88,600	55.9	579.4	70,300	99,000	250
260	47.9	554.1	69,900	69,900	50.3	562.2	79,600	84,100	53.8	572.2	64,200	98,300	260
270	45.5	544.4	66,000	66,000	48.0	553.3	73,300	79,700	51.6	564.4	58,600	97,600	270
280	43.0	533.8	62,400	62,400	45.6	543.7	67,600	75,600	49.3	555.9	53,400	96,500	280
290	40.3	522.3	59,000	59,000	43.1	533.2	62,200	71,600	47.0	546.7	48,500	92,100	290
300	37.5	509.6	55,900	55,900	40.5	521.7	57,100	67,800	44.5	536.7	44,000	87,800	300
310	34.5	495.4	53,100	53,100	37.7	509.0	52,400	64,300	42.0	525.8	39,700	83,600	310
320	31.3	479.5	50,700	50,700	34.7	494.9	48,000	61,100	39.3	513.8	35,700	79,600	320
330	27.7	461.3	48,700	48,700	31.5	479.1	43,800	58,300	36.4	500.5	31,900	75,700	330
340	23.6	439.7	47,300	47,300	27.9	461.0	39,800	55,800	33.3	485.8	28,300	72,200	340
350	18.6	412.7	43,400	46,500	23.8	439.6	36,000	53,900	30.0	469.0	24,900	69,000	350
360	11.6	373.6	39,300	39,900	18.9	413.0	32,300	52,700	26.2	449.7	21,600	66,100	360
370					12.1	374.9	28,700	42,400	21.8	426.3		61,500	370
380									16.3	396.0		51,700	380
390									7.2	344.3		38,600	390
400													400
410													410
420													420
430													430
440													440
450													450
460													460

# MLC650 VPC-MAX S-3

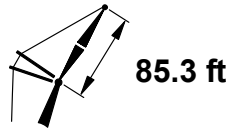
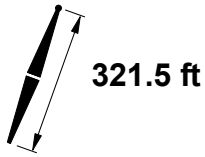
ASME B30.5



ft	75°				70°			65°			ft
	°	ft	lb	lb	°	ft	lb	°	ft	lb	
125											125
130											130
135											135
140											140
145											145
150											150
155											155
160											160
165											165
170											170
175											175
180											180
185											185
190											190
195											195
200											200
205											205
210											210
215											215
220											220
230											230
240	63.1	595.1	49,500	92,800							240
250	61.2	589.7	44,100	92,800							250
260	59.2	583.7	39,100	92,800							260
270	57.1	577.3	34,400	92,800							270
280	55.0	570.4	30,100	92,800							280
290	52.9	562.9	26,100	92,800	58.2	572.5	83,800				290
300	50.6	554.8	22,300	92,800	56.1	565.8	83,800				300
310	48.3	546.0		92,200	54.0	558.6	82,900				310
320	45.9	536.5		86,500	51.8	550.8	78,300				320
330	43.4	526.1		81,200	49.5	542.4	73,900	54.9	551.4	60,300	330
340	40.8	514.8		76,200	47.2	533.2	69,900	52.7	543.9	56,600	340
350	38.1	502.3		71,400	44.7	523.3	66,000	50.5	535.7	53,200	350
360	35.1	488.4		66,900	42.2	512.5	62,000	48.2	526.9	49,900	360
370	31.9	472.9		62,700	39.5	500.6	57,900	45.8	517.3	46,600	370
380	28.4	455.1		58,600	36.6	487.4	54,000	43.3	506.8	43,300	380
390	24.4	434.2		54,700	33.6	472.8	50,300	40.7	495.4	40,200	390
400	19.6	408.5		50,900	30.2	456.2	46,700	37.9	482.8	37,200	400
410	13.2	372.7		47,200	26.5	437.1	43,300	34.9	468.9	34,300	410
420					22.2	414.2	40,000	31.7	453.2	31,500	420
430					16.8	384.6	36,800	28.1	435.3	28,800	430
440					8.3	336.5	33,500	24.1	414.2	26,200	440
450								19.3	388.0	23,600	450
460								12.6	351.1	21,000	460

# MLC650 VPC-MAX S-3

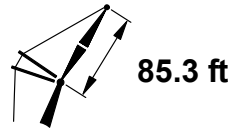
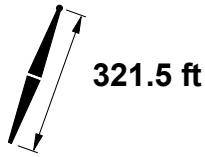
ASME B30.5



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
65	73.3	411.2	425,200 d	425,200 d									65
70	69.7	409.3	422,800 d	422,800 d									70
75	66.0	406.9	417,500 d	417,500 d									75
80	62.2	404.2	411,300 c	411,300 c	70.6	408.5	426,500 d	426,500 d					80
85	58.2	400.9	403,800 c	403,800 c	66.9	406.2	423,500 d	423,500 d					85
90	54.0	397.2	396,600 b	396,600 b	63.1	403.6	419,100 c	419,100 c					90
95	49.5	392.8	390,100 b	390,100 b	59.1	400.5	412,900 c	412,900 c					95
100	44.7	387.7	384,300	384,300	55.0	396.8	405,100 b	406,800 b	68.1	404.3	370,600 c	426,900 c	100
105	39.4	381.5	369,300	369,300	50.6	392.6	382,400 b	400,300 b	64.4	401.8	349,900 c	424,100 c	105
110	33.3	373.9	356,700	356,700	45.9	387.7	361,800	388,900	60.5	398.9	331,000 c	421,000 c	110
115	25.8	363.9	347,500	347,500	40.7	381.8	343,000	377,600	56.4	395.4	313,900 b	413,000 b	115
120	14.4	347.6	334,000	334,000	34.8	374.6	325,700	367,200	52.1	391.4	298,100 b	401,000 b	120
125					27.7	365.3	309,700	357,900	47.5	386.7	283,600 b	387,800 b	125
130					17.8	351.4	294,500	349,900	42.5	381.2	270,200	370,200	130
135									36.9	374.5	257,700	353,800	135
140									30.3	366.0	246,000	338,600	140
145									21.7	354.2	234,800	324,100	145
150													150
155													155
160													160
165													165
170													170
175													175
180													180
185													185
190													190
195													195
200													200
205													205
210													210
215													215
220													220

# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
65													65
70													70
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135	62.3	394.0	217,400 c	365,900 c									135
140	58.3	390.8	207,600 b	350,900 b									140
145	54.2	387.0	198,500 b	336,900 b									145
150	49.7	382.7	189,900 b	323,900 b									150
155	44.9	377.6	181,900	311,800									155
160	39.6	371.5	174,200	300,400									160
165	33.5	363.9	167,000	289,700	59.7	383.2	135,400 b	265,800 b					165
170	26.1	354.1	160,000	279,500	55.6	379.7	129,800 b	256,600 b					170
175	15.0	338.3	153,000	269,800	51.3	375.5	124,500 b	247,900 b					175
180					46.6	370.7	119,500 b	239,600 b					180
185					41.5	365.0	114,700	231,800					185
190					35.7	358.0	110,000	224,400					190
195					28.9	349.1	105,500	217,300					195
200					19.6	336.3	100,900	210,500	52.0	365.3	76,800 b	192,200 b	200
205									47.4	360.6	73,500 b	186,400 b	205
210									42.4	355.0	70,400	180,800	210
215									36.8	348.3	67,300	175,500	215
220									30.2	339.8	64,300	170,300	220

# MLC650 VPC-MAX S-3

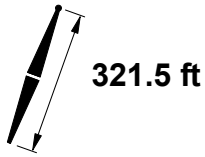
ASME B30.5



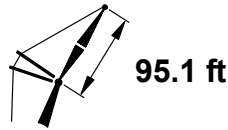
881,800 lb



360°



321.5 ft

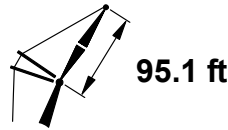
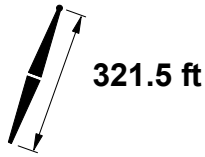


95.1 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
70	71.9	419.9	397,700 d	397,700 d									70
75	68.7	417.8	394,200 c	394,200 c									75
80	65.3	415.4	389,000 c	389,000 c	72.7	419.0	400,700 d	400,700 d					80
85	61.9	412.6	383,100 c	383,100 c	69.4	417.0	398,900 c	398,900 c					85
90	58.3	409.4	376,000 b	376,000 b	66.1	414.7	395,500 c	395,500 c					90
95	54.6	405.8	369,400 b	369,400 b	62.7	412.0	390,900 c	390,900 c					95
100	50.7	401.6	363,400	363,400	59.2	408.9	385,600 b	385,600 b					100
105	46.5	396.7	353,700	353,700	55.5	405.4	379,600 b	379,600 b	67.2	412.9	346,600 c	398,700 c	105
110	41.9	391.1	339,700	339,700	51.6	401.3	359,300	373,900	63.8	410.3	327,800 c	396,700 c	110
115	36.9	384.4	327,200	327,200	47.5	396.6	340,700	368,100	60.4	407.3	310,800 b	393,700 b	115
120	31.1	376.2	317,000	317,000	43.0	391.2	323,600	357,700	56.7	404.0	295,200 b	389,600 b	120
125	24.0	365.4	309,900	309,900	38.1	384.8	307,900	347,800	52.9	400.1	280,800 b	380,200 b	125
130	12.9	347.7	303,000	303,000	32.6	377.0	293,300	336,200	48.9	395.6	267,500	367,500	130
135					25.8	367.0	279,600	327,200	44.5	390.4	255,200	351,400	135
140					16.3	351.9	266,500	322,600	39.8	384.4	243,800	336,300	140
145									34.5	377.1	233,000	322,300	145
150									28.2	368.0	222,900	309,100	150
155									20.0	355.2	213,200	296,500	155
160													160
165													165
170													170
175													175
180													180
185													185
190													190
195													195
200													200
205													205
210													210
215													215
220													220
230													230

# MLC650 VPC-MAX S-3

ASME B30.5



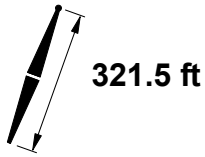
ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
70													70
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140	62.0	402.4	204,200 b	347,800 b									140
145	58.5	399.3	195,100 b	334,000 b									145
150	54.7	395.6	186,700 b	321,100 b									150
155	50.8	391.4	178,800	309,000									155
160	46.6	386.6	171,300	297,700									160
165	42.1	381.0	164,200	287,100									165
170	37.1	374.4	157,600	277,200	59.7	391.7	126,200 b	253,600 b					170
175	31.4	366.2	151,100	267,700	56.0	388.2	121,100 b	245,000 b					175
180	24.3	355.6	144,900	258,800	52.2	384.2	116,100	236,800					180
185	13.5	338.4	138,700	250,100	48.1	379.6	111,400	229,100					185
190					43.7	374.3	106,900	221,800					190
195					38.9	368.1	102,600	214,900					195
200					33.4	360.5	98,500	208,200					200
205					26.9	350.9	94,400	201,900	52.9	373.9	70,000	183,500	205
210					18.1	337.1	90,200	195,700	48.8	369.5	67,000	178,000	210
215									44.5	364.3	64,100	172,800	215
220									39.8	358.2	61,200	167,800	220
230									28.2	341.8	55,700	158,300	230

# MLC650 VPC-MAX S-3

ASME B30.5



881,800 lb



321.5 ft



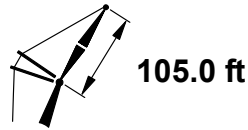
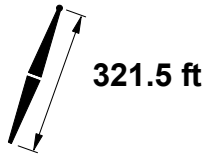
105.0 ft

ft	85°				83°				80°				ft
	ft	ft	lb	lb	ft	lb	lb	ft	lb	lb	ft		
70	73.7	430.3	372,900 d	372,900 d									70
75	70.8	428.5	370,800 c	370,800 c									75
80	67.8	426.3	367,100 c	367,100 c									80
85	64.8	423.9	362,300 c	362,300 c	71.5	427.6	374,100 c	374,100 c					85
90	61.7	421.1	356,500 b	356,500 b	68.5	425.6	372,200 c	372,200 c					90
95	58.4	417.9	350,500 b	350,500 b	65.5	423.2	369,200 c	369,200 c					95
100	55.1	414.3	344,600	344,600	62.4	420.5	364,800 b	364,800 b					100
105	51.6	410.3	339,100	339,100	59.2	417.4	360,000 b	360,000 b	69.5	423.6	344,700 c	373,000 c	105
110	47.9	405.7	327,700	327,700	55.9	413.9	354,700 b	354,700 b	66.5	421.4	326,000 b	372,500 b	110
115	43.9	400.4	314,600	314,600	52.4	410.0	339,500	349,600	63.4	418.8	309,000 b	370,700 b	115
120	39.6	394.3	302,700	302,700	48.7	405.5	322,500	344,800	60.3	415.8	293,500 b	367,900 b	120
125	34.8	387.1	292,400	292,400	44.8	400.4	306,900	336,000	57.0	412.5	279,200 b	364,500 b	125
130	29.3	378.3	284,000	284,000	40.6	394.5	292,500	323,300	53.6	408.7	266,100	359,200	130
135	22.4	366.7	278,600	278,600	36.0	387.6	279,100	311,800	50.0	404.4	253,900	349,400	135
140	11.6	347.5	275,600	275,600	30.7	379.2	266,600	302,200	46.2	399.5	242,600	335,100	140
145					24.2	368.5	254,800	294,900	42.1	393.9	232,000	321,200	145
150					15.0	352.3	243,500	291,900	37.6	387.3	222,100	308,200	150
155									32.5	379.5	212,700	296,000	155
160									26.5	369.8	203,900	284,500	160
165									18.6	356.1	195,300	273,400	165
170													170
175													175
180													180
185													185
190													190
195													195
200													200
205													205
210													210
215													215
220													220
230													230
240													240



# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°				65°				ft
	ft	ft	lb	lb	ft	ft	lb	lb	ft	ft	lb	lb	
70													70
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140	64.9	413.7	202,100 b	345,900 b									140
145	61.8	410.9	193,200 b	332,100 b									145
150	58.6	407.8	184,800 b	319,300 b									150
155	55.2	404.2	177,000 b	307,300 b									155
160	51.7	400.1	169,600	296,100									160
165	48.0	395.5	162,700	285,600									165
170	44.0	390.3	156,100	275,700									170
175	39.8	384.2	149,900	266,400	59.7	400.2	119,000	243,200					175
180	35.0	377.1	144,000	257,500	56.4	396.7	114,200	235,100					180
185	29.5	368.4	138,300	249,200	52.9	392.9	109,600	227,500					185
190	22.7	357.0	132,800	241,200	49.3	388.5	105,200	220,300					190
195	12.2	338.4	127,100	233,500	45.4	383.5	101,000	213,400					195
200					41.3	377.7	97,000	206,800					200
205					36.7	371.0	93,100	200,600					205
210					31.5	362.9	89,400	194,600	53.5	382.6	65,000	176,400	210
215					25.3	352.6	85,700	188,900	49.9	378.3	62,200	171,200	215
220					16.7	337.7	81,900	183,300	46.1	373.4	59,400	166,300	220
230									37.5	361.2	54,200	157,000	230
240									26.4	343.5	49,200	148,400	240

# MLC650 VPC-MAX S-3

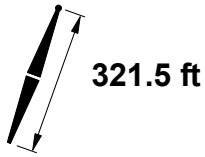
ASME B30.5



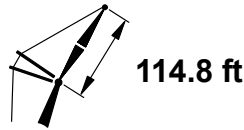
881,800 lb



360°



321.5 ft

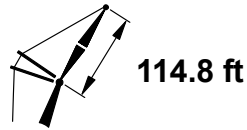
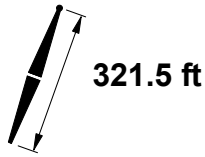


114.8 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
75	72.5	439.0	349,300 c	349,300 c									75
80	69.8	437.1	346,700 c	346,700 c									80
85	67.1	434.9	342,900 b	342,900 b									85
90	64.3	432.4	338,500 b	338,500 b	70.5	436.2	350,500 c	350,500 c					90
95	61.5	429.6	333,000 b	333,000 b	67.8	434.1	348,400 b	348,400 b					95
100	58.5	426.4	327,700	327,700	65.0	431.7	345,300 b	345,300 b					100
105	55.5	422.9	322,300	322,300	62.1	429.0	341,400 b	341,400 b					105
110	52.3	418.9	316,200	316,200	59.2	425.9	337,000	337,000	68.7	432.2	322,700 b	350,300 b	110
115	49.0	414.5	303,400	303,400	56.2	422.5	332,300	332,300	65.9	429.9	305,800 b	349,200 b	115
120	45.4	409.5	291,400	291,400	53.1	418.6	319,900	327,700	63.1	427.2	290,300 b	347,500 b	120
125	41.7	403.8	280,200	280,200	49.8	414.3	304,400	323,200	60.2	424.3	276,100 b	345,100 b	125
130	37.6	397.3	270,100	270,100	46.3	409.4	290,100	312,400	57.2	421.0	263,100	342,000	130
135	33.0	389.6	261,600	261,600	42.6	403.9	276,800	300,600	54.1	417.3	251,000	338,600	135
140	27.7	380.2	254,800	254,800	38.6	397.6	264,500	289,700	50.9	413.1	239,700	332,300	140
145	21.1	368.0	250,700	250,700	34.1	390.2	252,900	280,100	47.5	408.4	229,200	318,500	145
150	10.4	347.2	250,700	250,700	29.0	381.3	242,100	272,000	43.8	403.2	219,400	305,600	150
155					22.8	369.9	231,900	266,200	39.9	397.1	210,300	293,600	155
160					13.8	352.6	221,900	264,300	35.6	390.1	201,600	282,200	160
165									30.8	381.8	193,400	271,500	165
170									25.0	371.4	185,600	261,300	170
175									17.4	356.9	178,000	251,500	175
180													180
185													185
190													190
195													195
200													200
205													205
210													210
215													215
220													220
230													230
240													240
250													250

# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145	64.4	422.2	189,700 b	329,100 b									145
150	61.6	419.4	181,400	316,300									150
155	58.6	416.2	173,600	304,400									155
160	55.6	412.7	166,400	293,300									160
165	52.4	408.8	159,500	282,800									165
170	49.1	404.4	153,000	273,000									170
175	45.6	399.4	146,900	263,800									175
180	41.8	393.7	141,100	255,000	59.7	408.6	110,600	232,200					180
185	37.7	387.2	135,600	246,800	56.7	405.3	106,100	224,600					185
190	33.2	379.6	130,300	238,900	53.5	401.5	101,700	217,400					190
195	27.9	370.3	125,200	231,400	50.3	397.2	97,600	210,600					195
200	21.4	358.2	120,200	224,300	46.8	392.5	93,700	204,200					200
205	11.1	338.2	115,100	217,400	43.1	387.0	90,000	198,000					205
210					39.2	380.9	86,400	192,100					210
215					34.8	373.7	82,900	186,500	54.1	391.1	58,600	168,300	215
220					29.8	365.0	79,500	181,100	50.8	387.0	55,900	163,500	220
230					15.5	338.2	72,700	170,800	43.8	377.0	50,900	154,300	230
240									35.6	364.0	46,200	145,900	240
250									25.0	345.2	41,600	138,000	250

# MLC650 VPC-MAX S-3

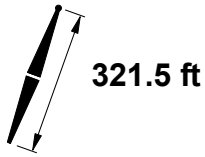
ASME B30.5



881,800 lb



360°



321.5 ft



124.7 ft

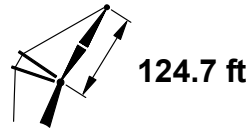
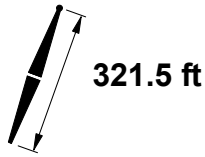
ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
75	73.9	449.4	330,100 c	330,100 c									75
80	71.5	447.6	328,500 c	328,500 c									80
85	69.0	445.6	325,800 b	325,800 b									85
90	66.5	443.4	322,200 b	322,200 b	72.1	446.8	331,200 c	331,200 c					90
95	64.0	440.9	317,800 b	317,800 b	69.6	444.8	330,200 b	330,200 b					95
100	61.3	438.0	313,100 b	313,100 b	67.1	442.6	327,900 b	327,900 b					100
105	58.6	434.9	308,200	308,200	64.6	440.2	324,900 b	324,900 b					105
110	55.8	431.4	303,400	303,400	61.9	437.4	321,500 b	321,500 b					110
115	52.9	427.6	295,000	295,000	59.2	434.4	317,400	317,400	68.0	440.7	305,800 b	329,900 b	115
120	49.9	423.3	283,200	283,200	56.5	431.0	313,200	313,200	65.4	438.4	290,400 b	329,000 b	120
125	46.7	418.5	272,100	272,100	53.6	427.2	304,700	309,100	62.8	435.7	276,200 b	327,600 b	125
130	43.3	413.1	261,800	261,800	50.6	423.0	290,500	304,400	60.1	432.8	263,200	325,400	130
135	39.7	407.0	252,200	252,200	47.5	418.4	277,300	292,900	57.4	429.5	251,100	322,800	135
140	35.8	400.1	243,700	243,700	44.1	413.1	265,100	281,900	54.6	425.8	239,900	319,800	140
145	31.4	391.9	236,500	236,500	40.6	407.2	253,600	271,700	51.6	421.8	229,500	316,700	145
150	26.3	382.0	231,100	231,100	36.7	400.5	243,000	262,300	48.5	417.3	219,800	306,000	150
155	19.9	369.1	228,100	228,100	32.5	392.7	232,900	254,100	45.3	412.3	210,700	294,000	155
160	9.3	346.6	228,100	228,100	27.6	383.3	223,500	247,300	41.8	406.6	202,200	282,800	160
165					21.6	371.2	214,500	242,600	38.0	400.2	194,100	272,200	165
170					12.8	352.7	205,600	241,600	33.9	392.8	186,500	262,200	170
175									29.3	383.9	179,200	252,700	175
180									23.7	373.0	172,300	243,700	180
185									16.3	357.5	165,500	234,900	185
190													190
195													195
200													200
205													205
210													210
215													215
220													220
230													230
240													240
250													250
260													260

# MLC650 VPC-MAX S-3

ASME B30.5



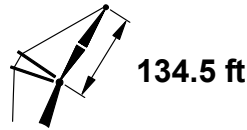
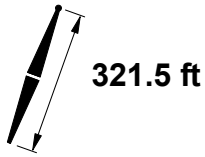
881,800 lb



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150	64.1	430.7	181,300	315,900									150
155	61.4	427.8	173,600	304,000									155
160	58.7	424.7	166,400	292,900									160
165	55.9	421.3	159,600	282,500									165
170	53.0	417.4	153,200	272,800									170
175	50.0	413.1	147,100	263,600									175
180	46.8	408.4	141,400	254,900									180
185	43.5	403.0	136,000	246,700	59.6	417.1	106,000	224,300					185
190	39.9	397.0	130,800	238,900	56.9	413.8	101,800	217,200					190
195	35.9	390.1	125,800	231,500	54.0	410.1	97,700	210,500					195
200	31.6	382.0	121,100	224,500	51.0	405.9	93,800	204,000					200
205	26.5	372.2	116,500	217,800	47.9	401.4	90,100	197,900					205
210	20.2	359.3	112,000	211,400	44.6	396.2	86,600	192,100					210
215	10.0	337.8	107,300	205,100	41.1	390.4	83,200	186,500					215
220					37.3	383.8	79,900	181,200	54.5	399.7	55,900	163,300	220
230					28.3	367.1	73,700	171,200	48.5	391.2	51,000	154,200	230
240					14.5	338.6	67,400	161,800	41.7	380.5	46,500	145,900	240
250									33.9	366.6	42,100	138,200	250
260									23.7	346.7	37,900	130,900	260

# MLC650 VPC-MAX S-3

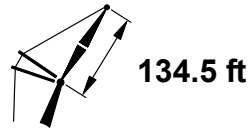
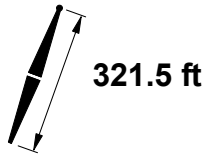
ASME B30.5



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
80	72.9	458.1	309,400 c	309,400 c									80
85	70.7	456.2	307,600 b	307,600 b									85
90	68.4	454.2	304,900 b	304,900 b									90
95	66.0	451.9	301,500 b	301,500 b	71.2	455.4	310,500 b	310,500 b					95
100	63.6	449.3	297,400	297,400	68.9	453.4	309,400 b	309,400 b					100
105	61.2	446.5	293,200	293,200	66.6	451.2	307,200 b	307,200 b					105
110	58.7	443.4	288,800	288,800	64.2	448.7	304,600	304,600					110
115	56.1	439.9	284,500	284,500	61.8	445.9	301,400	301,400	69.7	451.4	302,500 b	308,600 b	115
120	53.4	436.2	274,000	274,000	59.3	442.9	297,800	297,800	67.3	449.3	287,100 b	308,600 b	120
125	50.6	432.0	263,400	263,400	56.7	439.5	294,100	294,100	65.0	446.9	273,000	308,600	125
130	47.7	427.4	253,200	253,200	54.0	435.8	287,800	290,300	62.6	444.2	260,100	307,400	130
135	44.7	422.3	243,500	243,500	51.3	431.7	274,700	283,900	60.1	441.2	248,100	305,500	135
140	41.5	416.5	234,600	234,600	48.4	427.2	262,500	273,400	57.6	438.0	237,000	303,200	140
145	38.0	410.1	226,500	226,500	45.4	422.2	251,200	263,300	54.9	434.4	226,600	300,700	145
150	34.2	402.7	219,300	219,300	42.2	416.6	240,600	253,700	52.2	430.4	217,000	297,900	150
155	30.0	394.2	213,400	213,400	38.8	410.4	230,700	244,900	49.4	426.1	207,900	291,200	155
160	25.1	383.7	209,000	209,000	35.1	403.3	221,400	236,900	46.4	421.3	199,500	280,100	160
165	18.8	370.0	206,800	206,800	31.0	395.0	212,600	229,800	43.3	415.9	191,500	269,600	165
170	8.3	345.9	206,800	206,800	26.3	385.1	204,200	224,200	40.0	409.9	183,900	259,700	170
175					20.5	372.4	196,200	220,500	36.4	403.1	176,800	250,300	175
180					11.8	352.7	188,300	220,200	32.4	395.2	170,100	241,500	180
185									27.9	385.9	163,600	233,000	185
190									22.6	374.4	157,400	224,900	190
195									15.3	358.1	151,300	217,000	195
200													200
205													205
210													210
215													215
220													220
230													230
240													240
250													250
260													260
270													270

# MLC650 VPC-MAX S-3

ASME B30.5



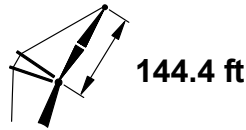
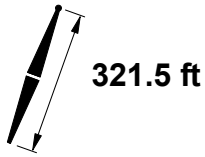
ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155	63.7	439.1	170,200	300,600									155
160	61.3	436.3	163,000	290,100									160
165	58.8	433.2	156,300	279,700									165
170	56.2	429.8	150,000	270,000									170
175	53.5	426.0	144,000	260,900									175
180	50.8	421.9	138,300	252,300									180
185	47.9	417.3	132,900	244,100									185
190	44.8	412.2	127,800	236,400	59.6	425.6	98,200	214,300					190
195	41.6	406.5	122,900	229,100	57.1	422.3	94,200	207,600					195
200	38.1	400.1	118,300	222,100	54.4	418.6	90,400	201,300					200
205	34.4	392.8	113,800	215,500	51.7	414.6	86,800	195,200					205
210	30.2	384.2	109,500	209,100	48.9	410.2	83,300	189,400					210
215	25.3	373.9	105,400	203,100	45.9	405.3	80,000	183,900					215
220	19.1	360.4	101,300	197,300	42.7	399.8	76,800	178,700					220
230					35.7	386.7	70,700	168,800	52.2	404.3	47,500	151,500	230
240					27.0	369.0	65,000	159,700	46.4	395.1	43,100	143,200	240
250					13.5	338.9	59,300	151,100	39.9	383.7	38,900	135,600	250
260									32.4	369.1	35,000	128,500	260
270									22.5	348.1	31,100	121,900	270

# MLC650 VPC-MAX S-3

ASME B30.5



881,800 lb

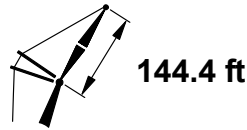
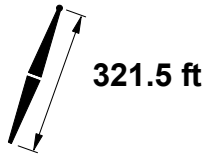


ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
80	74.1	468.4	290,200 b	290,200 b									80
85	72.0	466.7	289,200 b	289,200 b									85
90	69.9	464.8	287,300 b	287,300 b									90
95	67.8	462.7	284,800 b	284,800 b	72.5	465.9	290,800 b	290,800 b					95
100	65.6	460.4	281,800	281,800	70.4	464.0	290,400 b	290,400 b					100
105	63.3	457.8	278,200	278,200	68.3	462.0	289,200	289,200					105
110	61.1	455.0	274,500	274,500	66.1	459.7	287,300	287,300					110
115	58.7	451.9	270,700	270,700	63.9	457.2	284,900	284,900					115
120	56.3	448.5	266,200	266,200	61.6	454.4	282,300	282,300	69.0	460.0	285,000	289,000	120
125	53.9	444.7	256,200	256,200	59.3	451.3	279,100	279,100	66.8	457.8	270,900	289,000	125
130	51.3	440.7	246,500	246,500	56.9	448.0	275,900	275,900	64.6	455.4	258,000	288,700	130
135	48.6	436.2	237,200	237,200	54.4	444.4	272,600	272,600	62.4	452.7	246,000	287,700	135
140	45.8	431.3	228,300	228,300	51.9	440.4	260,800	266,400	60.0	449.7	235,000	286,200	140
145	42.9	425.8	219,900	219,900	49.3	436.0	249,500	256,700	57.7	446.5	224,600	284,300	145
150	39.8	419.8	212,200	212,200	46.5	431.2	239,000	247,500	55.3	442.9	215,000	282,100	150
155	36.5	413.0	205,300	205,300	43.6	425.9	229,100	238,600	52.7	439.1	206,000	279,800	155
160	32.8	405.3	199,200	199,200	40.6	420.0	219,900	230,300	50.1	434.8	197,600	277,400	160
165	28.7	396.3	194,200	194,200	37.3	413.4	211,200	222,600	47.4	430.2	189,700	267,800	165
170	23.9	385.3	190,600	190,600	33.7	405.9	202,900	215,700	44.6	425.0	182,200	257,900	170
175	17.9	370.9	189,100	189,100	29.7	397.2	195,200	209,700	41.6	419.3	175,200	248,700	175
180	7.3	344.9	189,100	189,100	25.1	386.8	187,700	205,000	38.4	413.0	168,500	239,900	180
185					19.5	373.5	180,600	202,000	34.9	405.8	162,100	231,600	185
190					11.0	352.6	173,500	202,000	31.1	397.6	156,100	223,600	190
195									26.7	387.8	150,300	216,000	195
200									21.5	375.7	144,700	208,800	200
205									14.4	358.5	139,200	201,600	205
210													210
215													215
220													220
230													230
240													240
250													250
260													260
270													270
280													280



# MLC650 VPC-MAX S-3

ASME B30.5



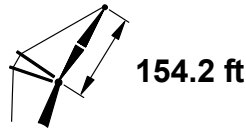
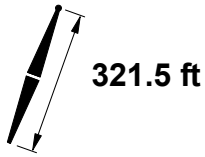
ft	75°				70°				65°				ft
	ft	ft	lb	lb	ft	ft	lb	lb	ft	ft	lb	lb	
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160	63.4	447.6	160,800	281,000									160
165	61.1	444.8	154,100	277,800									165
170	58.8	441.7	147,800	268,100									170
175	56.4	438.3	141,900	259,000									175
180	53.9	434.6	136,200	250,400									180
185	51.4	430.5	130,900	242,300									185
190	48.7	426.1	125,800	234,600									190
195	46.0	421.2	121,000	227,300	59.6	434.1	92,000	205,700					195
200	43.0	415.8	116,400	220,400	57.2	430.8	88,200	199,400					200
205	39.9	409.7	112,100	213,800	54.8	427.2	84,600	193,400					205
210	36.6	403.0	107,900	207,600	52.3	423.2	81,200	187,600					210
215	33.0	395.3	103,800	201,600	49.7	418.9	77,900	182,100					215
220	28.9	386.3	99,900	195,900	46.9	414.2	74,700	176,900					220
230	18.2	361.3	92,400	185,000	41.0	403.2	68,800	167,100					230
240					34.2	389.3	63,300	158,200	50.1	408.7	40,900	141,400	240
250					25.9	370.8	58,000	149,800	44.6	398.9	36,800	133,900	250
260					12.6	339.0	52,700	141,900	38.3	386.8	33,000	126,900	260
270									31.0	371.4	29,400	120,400	270
280									21.5	349.4	25,800	114,200	280

# MLC650 VPC-MAX S-3

ASME B30.5



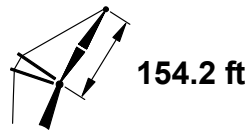
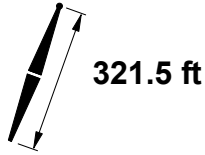
881,800 lb



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
85	73.2	477.2	272,400 b	272,400 b									85
90	71.3	475.4	271,100 b	271,100 b									90
95	69.3	473.4	269,300	269,300									95
100	67.2	471.3	267,000	267,000	71.7	474.5	273,000 b	273,000 b					100
105	65.2	468.9	264,300	264,300	69.7	472.6	272,500	272,500					105
110	63.1	466.3	260,900	260,900	67.7	470.5	271,300	271,300					110
115	61.0	463.4	257,600	257,600	65.7	468.2	269,600	269,600					115
120	58.8	460.4	254,100	254,100	63.6	465.6	267,500	267,500					120
125	56.5	457.0	247,900	247,900	61.5	462.8	265,100	265,100	68.4	468.6	267,700	271,100	125
130	54.2	453.3	238,800	238,800	59.3	459.8	262,200	262,200	66.4	466.3	254,800	271,100	130
135	51.9	449.3	229,900	229,900	57.1	456.5	259,400	259,400	64.3	463.8	242,900	271,000	135
140	49.4	445.0	221,400	221,400	54.8	452.9	256,500	256,500	62.2	461.1	231,900	270,200	140
145	46.8	440.2	213,200	213,200	52.4	449.0	246,900	249,200	60.0	458.2	221,600	268,900	145
150	44.1	435.0	205,500	205,500	50.0	444.7	236,400	240,400	57.8	455.0	212,100	267,300	150
155	41.3	429.3	198,300	198,300	47.4	440.1	226,600	231,800	55.5	451.5	203,100	265,400	155
160	38.3	422.9	191,700	191,700	44.8	435.0	217,400	223,700	53.2	447.7	194,800	263,400	160
165	35.1	415.8	185,700	185,700	42.0	429.4	208,800	215,900	50.8	443.5	186,900	261,300	165
170	31.5	407.7	180,700	180,700	39.0	423.2	200,600	208,600	48.3	439.0	179,500	255,200	170
175	27.6	398.2	176,500	176,500	35.9	416.2	192,900	202,000	45.7	434.1	172,500	246,000	175
180	22.9	386.8	173,600	173,600	32.4	408.4	185,600	196,100	42.9	428.6	165,900	237,300	180
185	17.0	371.7	172,600	172,600	28.6	399.3	178,700	191,000	40.0	422.6	159,600	229,000	185
190	6.4	343.5	172,600	172,600	24.1	388.4	172,000	187,100	36.9	416.0	153,600	221,200	190
195					18.6	374.5	165,600	184,800	33.6	408.4	147,900	213,700	195
200					10.1	352.3	159,200	184,800	29.9	399.8	142,500	206,600	200
205									25.7	389.6	137,300	199,700	205
210									20.6	376.9	132,200	193,100	210
215									13.6	358.8	127,200	186,700	215
220													220
230													230
240													240
250													250
260													260
270													270
280													280
290													290

# MLC650 VPC-MAX S-3

ASME B30.5



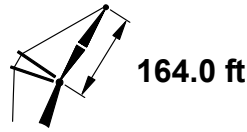
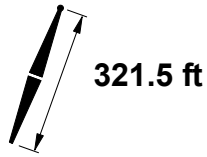
ft	75°				70°				65°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160													160
165	63.2	456.1	150,700	263,200									165
170	61.0	453.3	144,500	263,200									170
175	58.9	450.2	138,600	256,300									175
180	56.6	446.8	133,000	247,700									180
185	54.3	443.2	127,700	239,700									185
190	51.9	439.2	122,700	232,000									190
195	49.5	434.8	118,000	224,800									195
200	46.9	430.1	113,400	217,900	59.6	442.5	84,700	196,600					200
205	44.3	424.9	109,100	211,400	57.4	439.3	81,200	190,600					205
210	41.4	419.2	105,000	205,200	55.1	435.7	77,800	184,900					210
215	38.4	412.9	101,000	199,200	52.8	431.9	74,600	179,500					215
220	35.2	405.8	97,200	193,500	50.3	427.7	71,500	174,300					220
230	27.7	388.3	90,000	182,900	45.2	418.0	65,600	164,600					230
240	17.3	362.1	83,100	172,700	39.5	406.4	60,300	155,700	53.2	421.5	37,400	138,700	240
250					32.9	391.9	55,200	147,500	48.3	412.9	33,400	131,200	250
260					24.8	372.4	50,400	139,800	42.9	402.5	29,700	124,300	260
270					11.8	339.1	45,500	132,500	36.9	389.8	26,300	117,900	270
280									29.8	373.6	22,900	111,900	280
290									20.5	350.6		106,200	290

# MLC650 VPC-MAX S-3

ASME B30.5



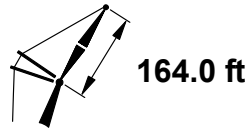
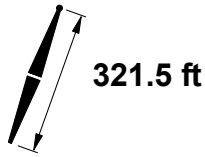
881,800 lb



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
85	74.3	487.5	257,000 b	257,000 b									85
90	72.4	485.8	256,300 b	256,300 b									90
95	70.6	484.0	255,000	255,000									95
100	68.7	482.0	253,200	253,200	72.9	485.0	257,000 b	257,000 b					100
105	66.8	479.8	251,100	251,100	71.0	483.2	257,000	257,000					105
110	64.8	477.4	248,600	248,600	69.1	481.2	256,400	256,400					110
115	62.9	474.8	245,400	245,400	67.2	479.1	255,300	255,300					115
120	60.9	471.9	242,400	242,400	65.3	476.7	253,700	253,700					120
125	58.8	468.8	239,300	239,300	63.3	474.1	251,700	251,700	69.8	479.2	254,300	254,300	125
130	56.7	465.5	232,100	232,100	61.3	471.3	249,700	249,700	67.9	477.1	253,900	254,300	130
135	54.6	461.9	223,800	223,800	59.3	468.3	247,000	247,000	65.9	474.8	242,000	254,300	135
140	52.3	457.9	215,600	215,600	57.2	465.0	244,500	244,500	64.0	472.3	231,000	254,300	140
145	50.1	453.7	207,700	207,700	55.1	461.5	241,900	241,900	62.0	469.6	220,800	254,300	145
150	47.7	449.1	200,200	200,200	52.9	457.6	234,300	234,300	60.0	466.7	211,200	253,200	150
155	45.2	444.1	193,000	193,000	50.6	453.4	226,000	226,200	57.9	463.5	202,300	251,800	155
160	42.6	438.6	186,200	186,200	48.2	448.9	216,900	218,300	55.8	460.0	194,000	250,200	160
165	39.9	432.6	179,900	179,900	45.8	444.0	208,300	210,600	53.6	456.3	186,100	248,500	165
170	37.0	425.9	174,200	174,200	43.2	438.6	200,200	203,400	51.4	452.2	178,800	246,600	170
175	33.8	418.4	169,100	169,100	40.5	432.7	192,500	196,500	49.0	447.8	171,800	244,500	175
180	30.4	410.0	164,600	164,600	37.7	426.2	185,300	190,100	46.6	443.0	165,200	236,600	180
185	26.5	400.1	161,100	161,100	34.6	419.0	178,400	184,300	44.1	437.8	159,000	228,400	185
190	22.0	388.2	158,700	158,700	31.2	410.8	171,900	179,100	41.4	432.1	153,100	220,600	190
195	16.2	372.4	158,000	158,000	27.5	401.3	165,700	174,700	38.6	425.8	147,400	213,200	195
200	5.4	341.7	158,000	158,000	23.2	389.9	159,700	171,300	35.6	418.8	142,100	206,200	200
205					17.8	375.3	153,900	169,400	32.4	410.9	137,000	199,400	205
210					9.4	351.9	148,000	169,400	28.8	401.9	132,000	193,000	210
215									24.7	391.3	127,300	186,800	215
220									19.7	378.0	122,700	180,800	220
230													230
240													240
250													250
260													260
270													270
280													280
290													290
300													300

# MLC650 VPC-MAX S-3

ASME B30.5



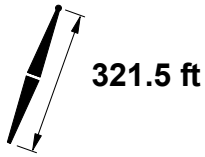
ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160													160
165	64.9	467.2	149,600	244,600									165
170	63.0	464.6	143,400	244,600									170
175	60.9	461.7	137,600	244,600									175
180	58.9	458.7	132,000	244,600									180
185	56.8	455.3	126,800	238,700									185
190	54.6	451.7	121,800	231,100									190
195	52.4	447.8	117,100	223,900									195
200	50.1	443.6	112,600	217,000									200
205	47.8	439.0	108,300	210,500	59.6	451.0	80,000	189,600					205
210	45.3	434.0	104,200	204,300	57.5	447.8	76,700	183,900					210
215	42.7	428.5	100,300	198,400	55.4	444.3	73,500	178,500					215
220	40.0	422.5	96,600	192,800	53.2	440.5	70,400	173,400					220
230	34.0	408.4	89,500	182,200	48.6	431.9	64,700	163,700					230
240	26.7	390.2	82,900	172,500	43.6	421.7	59,400	154,900					240
250	16.5	362.8	76,500	162,500	38.1	409.5	54,400	146,700	51.3	426.1	32,400	130,300	250
260					31.7	394.3	49,800	139,200	46.6	416.9	28,700	123,500	260
270					23.8	374.0	45,300	132,100	41.4	405.9	25,300	117,100	270
280					11.1	339.0	40,800	125,300	35.6	392.6	22,100	111,200	280
290									28.7	375.7		105,600	290
300									19.7	351.8		100,300	300

# MLC650 VPC-MAX S-3

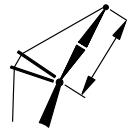
ASME B30.5



881,800 lb



321.5 ft

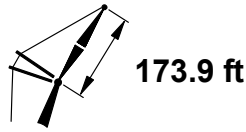
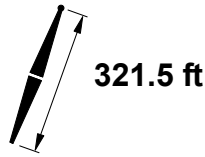


173.9 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
90	73.5	496.2	241,400	241,400									90
95	71.7	494.5	240,600	240,600									95
100	70.0	492.6	239,300	239,300									100
105	68.2	490.6	237,400	237,400	72.1	493.6	241,500	241,500					105
110	66.4	488.3	235,600	235,600	70.4	491.8	241,400	241,400					110
115	64.5	485.9	233,000	233,000	68.6	489.8	240,700	240,700					115
120	62.7	483.3	230,500	230,500	66.8	487.6	239,600	239,600					120
125	60.8	480.4	227,800	227,800	65.0	485.2	238,300	238,300					125
130	58.9	477.3	224,400	224,400	63.1	482.6	236,600	236,600	69.2	487.8	238,700	238,700	130
135	56.9	474.0	216,700	216,700	61.2	479.8	234,800	234,800	67.4	485.7	238,700	238,700	135
140	54.9	470.4	209,100	209,100	59.3	476.8	232,300	232,300	65.6	483.3	227,900	238,700	140
145	52.8	466.6	201,700	201,700	57.3	473.5	230,100	230,100	63.7	480.8	217,700	238,700	145
150	50.6	462.4	194,500	194,500	55.3	470.0	227,200	227,200	61.9	478.1	208,200	238,700	150
155	48.4	457.9	187,500	187,500	53.3	466.2	219,700	219,700	60.0	475.1	199,400	237,900	155
160	46.1	453.0	180,900	180,900	51.1	462.1	212,300	212,300	58.0	472.0	191,100	236,800	160
165	43.7	447.8	174,600	174,600	48.9	457.7	205,100	205,100	56.0	468.5	183,300	235,500	165
170	41.2	442.0	168,700	168,700	46.7	452.9	197,700	198,000	54.0	464.8	175,900	234,000	170
175	38.6	435.7	163,300	163,300	44.3	447.8	190,100	191,300	51.8	460.8	169,000	232,400	175
180	35.7	428.7	158,400	158,400	41.8	442.1	182,900	184,800	49.7	456.5	162,500	230,500	180
185	32.7	421.0	153,900	153,900	39.2	436.0	176,100	178,800	47.4	451.9	156,300	223,300	185
190	29.4	412.2	150,200	150,200	36.4	429.2	169,600	173,300	45.1	446.9	150,400	216,300	190
195	25.6	401.9	147,200	147,200	33.4	421.6	163,500	168,200	42.6	441.4	144,800	209,400	195
200	21.2	389.5	145,300	145,300	30.2	413.0	157,600	163,800	40.1	435.4	139,500	202,900	200
205	15.5	373.0	144,900	144,900	26.5	403.2	152,000	160,000	37.4	428.8	134,500	196,600	205
210	4.2	339.2	144,900	144,900	22.3	391.4	146,600	157,200	34.4	421.5	129,600	190,600	210
215					17.0	376.2	141,300	155,800	31.3	413.3	125,000	184,500	215
220					8.7	351.3	135,900	155,800	27.8	404.0	120,500	178,600	220
230									18.9	379.1	112,000	167,500	230
240													240
250													250
260													260
270													270
280													280
290													290
300													300
310													310

# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°				65°			ft
	°	ft	lb	lb	°	ft	lb	lb	°	ft	lb	
90												90
95												95
100												100
105												105
110												110
115												115
120												120
125												125
130												130
135												135
140												140
145												145
150												150
155												155
160												160
165												165
170	64.6	475.7	140,100	228,900								170
175	62.8	473.1	134,200	228,900								175
180	60.9	470.2	128,700	228,900								180
185	58.9	467.1	123,500	228,900								185
190	57.0	463.8	118,600	228,500								190
195	54.9	460.3	113,900	221,300								195
200	52.9	456.4	109,500	214,500								200
205	50.7	452.3	105,300	208,000								205
210	48.5	447.8	101,200	201,900	59.6	459.5	73,200	181,200				210
215	46.2	442.9	97,300	196,000	57.6	456.3	70,100	175,800				215
220	43.8	437.7	93,600	190,400	55.6	452.8	67,100	170,700				220
230	38.7	425.7	86,700	179,900	51.5	445.0	61,400	161,100				230
240	32.8	411.0	80,200	169,900	47.0	435.9	56,200	152,300				240
250	25.8	392.0	74,200	160,200	42.2	425.3	51,400	144,300	53.9	438.7	127,600	250
260	15.8	363.5	68,300	150,900	36.8	412.5	46,800	136,800	49.6	430.4	120,800	260
270					30.7	396.6	42,600	129,800	45.1	420.7	114,500	270
280					23.0	375.5	38,500	123,300	40.0	409.2	108,700	280
290					10.4	338.8	34,200	117,000	34.4	395.3	103,200	290
300									27.7	377.7	98,000	300
310									18.9	352.8	93,100	310

# MLC650 VPC-MAX S-3

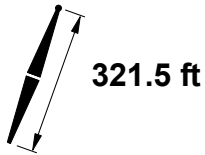
ASME B30.5



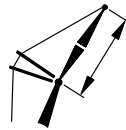
881,800 lb



360°



321.5 ft



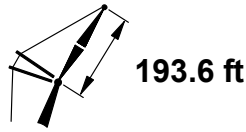
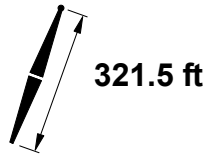
193.6 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
95	73.7	515.3	213,900	213,900									95
100	72.1	513.6	213,400	213,400									100
105	70.5	511.8	212,400	212,400									105
110	68.9	509.8	211,300	211,300	72.5	512.7	213,600	213,600					110
115	67.3	507.7	209,900	209,900	70.9	511.0	213,600	213,600					115
120	65.7	505.4	208,200	208,200	69.3	509.0	213,300	213,300					120
125	64.0	502.9	206,000	206,000	67.7	506.9	212,700	212,700					125
130	62.4	500.2	204,000	204,000	66.1	504.6	211,800	211,800					130
135	60.7	497.3	201,800	201,800	64.4	502.2	210,700	210,700	69.8	507.0	210,000	210,000	135
140	58.9	494.3	196,700	196,700	62.8	499.6	209,500	209,500	68.2	505.0	210,000	210,000	140
145	57.1	491.0	190,400	190,400	61.1	496.7	207,700	207,700	66.6	502.8	210,000	210,000	145
150	55.3	487.5	184,000	184,000	59.3	493.7	206,500	206,500	65.0	500.4	204,200	210,000	150
155	53.5	483.7	177,700	177,700	57.6	490.5	204,400	204,400	63.3	497.8	195,400	210,000	155
160	51.6	479.7	171,600	171,600	55.8	487.0	200,700	200,700	61.6	495.0	187,200	210,000	160
165	49.6	475.4	165,800	165,800	53.9	483.3	194,500	194,500	59.9	492.1	179,400	210,000	165
170	47.6	470.8	160,000	160,000	52.0	479.4	188,200	188,200	58.2	488.9	172,100	209,700	170
175	45.5	465.9	154,700	154,700	50.1	475.2	182,100	182,100	56.4	485.6	165,300	208,800	175
180	43.4	460.5	149,500	149,500	48.1	470.6	176,200	176,200	54.5	481.9	158,800	207,900	180
185	41.1	454.8	144,600	144,600	46.0	465.8	170,300	170,300	52.7	478.1	152,700	206,800	185
190	38.8	448.5	140,100	140,100	43.9	460.5	164,800	164,800	50.7	473.9	146,900	205,500	190
195	36.2	441.7	136,000	136,000	41.7	454.9	159,400	159,400	48.8	469.5	141,300	199,700	195
200	33.6	434.1	132,300	132,300	39.3	448.7	154,400	154,400	46.7	464.7	136,100	193,800	200
205	30.7	425.7	128,900	128,900	36.8	442.0	149,300	149,700	44.6	459.6	131,100	187,900	205
210	27.5	416.3	126,200	126,200	34.2	434.7	144,000	145,500	42.4	454.1	126,400	182,200	210
215	23.9	405.2	124,000	124,000	31.4	426.5	139,000	141,600	40.1	448.1	121,800	176,700	215
220	19.7	391.9	122,800	122,800	28.3	417.3	134,200	138,200	37.7	441.6	117,500	171,300	220
230					20.8	394.0	125,000	133,400	32.3	426.7	109,300	161,800	230
240					7.3	349.6	116,000	132,500	26.0	407.7	101,700	153,800	240
250									17.5	380.9	94,500	145,500	250
260													260
270													270
280													280
290													290
300													300
310													310
320													320
330													330



# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°				65°			
	ft	ft	lb	lb	ft	lb	lb	ft	lb	ft	lb	
95												95
100												100
105												105
110												110
115												115
120												120
125												125
130												130
135												135
140												140
145												145
150												150
155												155
160												160
165												165
170												170
175												175
180	64.1	492.7	124,300	200,800								180
185	62.4	490.0	119,200	200,800								185
190	60.7	487.2	114,300	200,800								190
195	59.0	484.1	109,700	200,800								195
200	57.2	480.8	105,300	200,800								200
205	55.4	477.3	101,100	200,800								205
210	53.6	473.6	97,200	198,400								210
215	51.7	469.6	93,400	192,600								215
220	49.7	465.3	89,700	187,100	59.6	476.5	62,500	166,900				220
230	45.6	455.8	82,900	176,500	56.0	469.8	57,000	157,500				230
240	41.2	444.7	76,600	166,300	52.3	462.3	51,900	148,800				240
250	36.3	431.6	70,800	156,800	48.4	453.6	47,200	140,900				250
260	30.8	415.8	65,400	148,000	44.2	443.6	42,800	133,500	54.5	455.8	117,100	260
270	24.1	395.4	60,200	139,700	39.7	431.9	38,700	126,700	50.7	447.8	111,000	270
280	14.5	364.5	55,200	131,800	34.6	418.1	34,900	120,300	46.7	438.6	105,200	280
290					28.8	401.0	31,200	114,300	42.4	428.0	99,800	290
300					21.4	378.3	27,700	108,700	37.6	415.5	94,800	300
310					9.1	338.0	23,900	103,200	32.3	400.5	90,100	310
320									26.0	381.5	85,600	320
330									17.5	354.6	81,300	330

# MLC650 VPC-MAX S-3

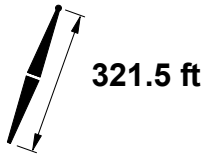
ASME B30.5



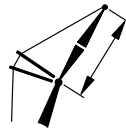
881,800 lb



360°



321.5 ft

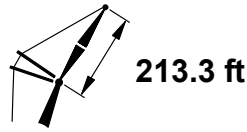
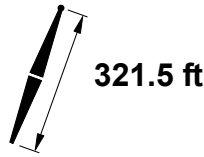


213.3 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
100	73.8	534.3	187,900	187,900									100
105	72.4	532.7	187,500	187,500									105
110	71.0	530.9	186,800	186,800									110
115	69.5	529.0	186,100	186,100	72.7	531.8	187,300	187,300					115
120	68.1	527.0	184,900	184,900	71.3	530.1	187,300	187,300					120
125	66.6	524.8	183,900	183,900	69.9	528.2	187,300	187,300					125
130	65.1	522.4	182,300	182,300	68.4	526.2	187,000	187,000					130
135	63.6	519.9	181,100	181,100	67.0	524.0	186,400	186,400					135
140	62.1	517.2	179,200	179,200	65.5	521.7	185,700	185,700					140
145	60.5	514.3	177,500	177,500	64.0	519.2	184,800	184,800	68.9	524.2	184,400	184,400	145
150	59.0	511.2	173,100	173,100	62.5	516.5	183,900	183,900	67.4	522.1	184,400	184,400	150
155	57.4	508.0	167,900	167,900	60.9	513.7	182,500	182,500	66.0	519.8	184,400	184,400	155
160	55.7	504.5	162,600	162,600	59.3	510.7	181,300	181,300	64.5	517.4	183,200	184,400	160
165	54.1	500.9	157,400	157,400	57.7	507.5	180,000	180,000	63.0	514.8	175,500	184,400	165
170	52.4	497.0	152,400	152,400	56.1	504.1	177,800	177,800	61.4	512.0	168,300	184,400	170
175	50.6	492.8	147,400	147,400	54.5	500.5	172,600	172,600	59.9	509.0	161,500	184,400	175
180	48.8	488.4	142,600	142,600	52.8	496.6	167,500	167,500	58.3	505.9	155,000	184,200	180
185	47.0	483.7	137,900	137,900	51.0	492.5	162,300	162,300	56.7	502.6	149,000	183,500	185
190	45.1	478.7	133,500	133,500	49.3	488.2	157,400	157,400	55.0	499.0	143,200	182,800	190
195	43.1	473.3	129,200	129,200	47.4	483.5	152,500	152,500	53.3	495.2	137,700	182,600	195
200	41.1	467.5	125,200	125,200	45.5	478.6	147,700	147,700	51.6	491.2	132,600	181,200	200
205	38.9	461.3	121,400	121,400	43.6	473.3	143,100	143,100	49.8	487.0	127,600	178,800	205
210	36.7	454.5	117,900	117,900	41.5	467.6	138,700	138,700	48.0	482.4	122,900	173,900	210
215	34.3	447.2	114,700	114,700	39.4	461.5	134,500	134,500	46.2	477.6	118,400	169,000	215
220	31.7	439.1	111,800	111,800	37.2	454.9	130,600	130,600	44.2	472.4	114,100	164,200	220
230	25.9	420.0	107,200	107,200	32.3	439.8	122,400	123,500	40.1	460.9	106,100	154,900	230
240	18.4	393.9	104,900	104,900	26.7	421.2	114,200	117,800	35.6	447.5	98,600	146,200	240
250					19.4	396.3	106,500	114,300	30.5	431.4	91,800	138,500	250
260					5.9	347.1	98,700	113,800	24.5	411.2	85,300	132,200	260
270									16.3	382.5	79,100	126,300	270
280													280
290													290
300													300
310													310
320													320
330													330
340													340
350													350

# MLC650 VPC-MAX S-3

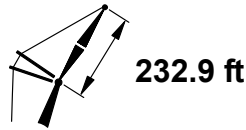
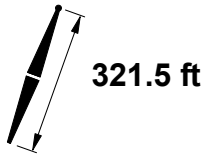
ASME B30.5



ft	75°				70°				65°				
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	ft	
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160													160
165													165
170													170
175													175
180													180
185													185
190	63.7	509.7	110,000	176,000									190
195	62.2	507.0	105,400	176,000									195
200	60.6	504.1	101,100	176,000									200
205	59.0	501.1	97,000	176,000									205
210	57.4	497.8	93,000	176,000									210
215	55.8	494.4	89,300	176,000									215
220	54.1	490.7	85,700	176,000									220
230	50.7	482.7	79,000	172,600	59.6	493.4	52,500	153,900					230
240	47.1	473.6	72,800	162,500	56.4	486.9	47,500	145,300					240
250	43.2	463.2	67,100	153,100	53.0	479.5	42,900	137,400					250
260	39.0	451.2	61,800	144,500	49.5	471.1	38,600	130,100					260
270	34.4	437.2	56,900	136,400	45.8	461.6	34,700	123,400	55.0	472.9	107,400		270
280	29.1	420.2	52,200	128,800	41.8	450.7	31,000	117,100	51.6	465.1	101,700		280
290	22.6	398.4	47,800	121,700	37.5	438.2	27,500	111,200	48.0	456.3	96,400		290
300	13.3	365.3	43,400	114,800	32.7	423.3	24,100	105,800	44.2	446.3	91,500		300
310					27.1	405.0	21,000	100,600	40.1	434.7	86,800		310
320					20.1	380.8		95,700	35.6	421.3	82,400		320
330					7.9	336.8		90,900	30.5	405.2	78,300		330
340									24.4	385.0	74,400		340
350									16.2	356.2	70,600		350

# MLC650 VPC-MAX S-3

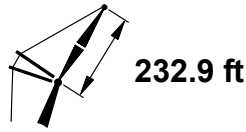
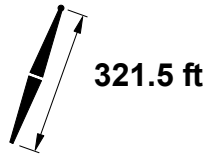
ASME B30.5



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
105	73.9	553.4	171,100	171,100									105
110	72.6	551.8	170,800	170,800									110
115	71.3	550.1	170,200	170,200									115
120	70.0	548.2	169,500	169,500	72.9	550.9	170,300	170,300					120
125	68.7	546.2	168,700	168,700	71.6	549.2	170,300	170,300					125
130	67.4	544.1	167,700	167,700	70.3	547.4	170,300	170,300					130
135	66.0	541.8	166,300	166,300	69.0	545.4	170,100	170,100					135
140	64.7	539.4	165,100	165,100	67.7	543.3	169,600	169,600					140
145	63.3	536.8	163,700	163,700	66.3	541.1	169,100	169,100					145
150	61.9	534.1	162,300	162,300	65.0	538.7	168,400	168,400	69.5	543.4	167,000	167,000	150
155	60.5	531.2	158,700	158,700	63.6	536.2	167,600	167,600	68.1	541.4	167,000	167,000	155
160	59.0	528.2	154,200	154,200	62.2	533.5	166,600	166,600	66.8	539.2	167,000	167,000	160
165	57.6	525.0	149,700	149,700	60.8	530.6	165,600	165,600	65.4	536.8	167,000	167,000	165
170	56.1	521.6	145,100	145,100	59.4	527.6	164,500	164,500	64.1	534.4	161,800	167,000	170
175	54.5	518.0	140,600	140,600	57.9	524.5	163,300	163,300	62.7	531.7	155,000	167,000	175
180	53.0	514.2	136,200	136,200	56.4	521.1	159,400	159,400	61.3	528.9	148,700	167,000	180
185	51.4	510.1	132,000	132,000	54.9	517.5	154,900	154,900	59.8	526.0	142,700	167,000	185
190	49.8	505.9	127,800	127,800	53.4	513.8	150,500	150,500	58.4	522.9	137,000	167,000	190
195	48.1	501.3	123,700	123,700	51.8	509.8	146,100	146,100	56.9	519.6	131,600	166,500	195
200	46.4	496.5	119,800	119,800	50.2	505.6	141,800	141,800	55.4	516.1	126,400	166,200	200
205	44.7	491.4	116,000	116,000	48.5	501.1	137,500	137,500	53.9	512.4	121,500	165,200	205
210	42.9	486.0	112,500	112,500	46.8	496.4	133,300	133,300	52.3	508.5	116,900	164,500	210
215	41.0	480.2	109,200	109,200	45.1	491.4	129,300	129,300	50.7	504.3	112,500	162,000	215
220	39.0	474.0	106,000	106,000	43.3	486.0	125,400	125,400	49.1	500.0	108,200	157,700	220
230	34.8	460.2	100,200	100,200	39.5	474.2	117,300	118,100	45.7	490.4	100,300	149,300	230
240	30.1	443.8	95,600	95,600	35.3	460.6	109,200	111,600	42.1	479.6	93,000	141,100	240
250	24.5	423.5	92,100	92,100	30.7	444.6	101,700	106,100	38.2	467.3	86,300	133,400	250
260	17.3	395.8	90,700	90,700	25.3	424.9	94,800	101,800	33.9	452.9	80,000	126,300	260
270					18.3	398.4	88,200	99,300	29.0	435.8	74,200	120,200	270
280					4.5	343.4	81,400	94,900	23.2	414.4	68,700	114,100	280
290									15.2	383.8	63,300	107,200	290
300													300
310													310
320													320
330													330
340													340
350													350
360													360
370													370

# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°				65°				
	ft	ft	lb	lb	ft	ft	lb	lb	ft	ft	lb	ft	
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160													160
165													165
170													170
175													175
180													180
185													185
190													190
195	64.7	529.2	98,300	157,600									195
200	63.3	526.6	94,000	157,600									200
205	61.9	523.9	90,000	157,600									205
210	60.5	521.1	86,100	157,600									210
215	59.1	518.0	82,400	157,600									215
220	57.6	514.8	78,900	157,600									220
230	54.6	507.8	72,300	157,600									230
240	51.5	500.0	66,300	155,900	59.6	510.4	40,200	139,600					240
250	48.2	491.2	60,700	146,700	56.6	503.9	35,700	131,800					250
260	44.8	481.3	55,600	138,200	53.6	496.6	31,600	124,600					260
270	41.1	470.2	50,800	130,300	50.4	488.5	27,800	118,000					270
280	37.1	457.4	46,300	122,900	47.1	479.4	24,200	111,800					280
290	32.6	442.4	42,100	116,000	43.6	469.1	20,800	106,100	52.3	482.3	90,800		290
300	27.6	424.4	38,100	109,500	39.8	457.4		100,700	49.1	473.8	85,900		300
310	21.4	401.2	34,200	103,300	35.7	444.0		95,600	45.7	464.3	81,400		310
320	12.3	365.7	30,400	97,300	31.1	428.2		90,900	42.0	453.5	77,100		320
330					25.7	408.8		86,400	38.1	441.1	73,100		330
340					18.9	383.0		82,100	33.8	426.8	69,300		340
350					6.8	334.9		77,900	29.0	409.6	65,700		350
360									23.1	388.1	62,200		360
370									15.2	357.5	58,900		370

# MLC650 VPC-MAX S-3

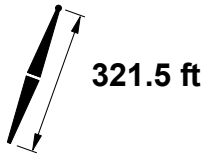
ASME B30.5



881,800 lb



360°



321.5 ft

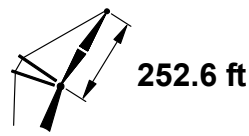
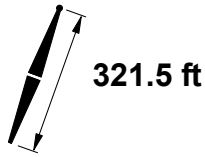


252.6 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
110	74.0	572.5	151,800	151,800									110
115	72.9	570.9	151,500	151,500									115
120	71.7	569.2	151,100	151,100									120
125	70.4	567.4	150,500	150,500									125
130	69.2	565.4	149,900	149,900	71.9	568.3	150,900	150,900					130
135	68.0	563.4	149,100	149,100	70.7	566.5	150,900	150,900					135
140	66.8	561.2	148,000	148,000	69.5	564.6	150,700	150,700					140
145	65.5	558.9	147,000	147,000	68.3	562.6	150,400	150,400					145
150	64.3	556.4	145,900	145,900	67.1	560.4	149,900	149,900					150
155	63.0	553.8	145,900	145,900	65.8	558.1	149,400	149,400	69.9	562.6	147,000	147,000	155
160	61.7	551.1	143,600	143,600	64.6	555.7	148,800	148,800	68.7	560.6	147,000	147,000	160
165	60.4	548.2	139,800	139,800	63.3	553.2	148,100	148,100	67.5	558.5	147,000	147,000	165
170	59.1	545.2	135,900	135,900	62.0	550.5	147,500	147,500	66.2	556.2	147,000	147,000	170
175	57.7	542.0	132,200	132,200	60.7	547.6	146,500	146,500	65.0	553.9	147,000	147,000	175
180	56.3	538.6	128,300	128,300	59.4	544.6	145,500	145,500	63.7	551.4	144,700	147,000	180
185	54.9	535.0	124,500	124,500	58.0	541.4	144,600	144,600	62.4	548.7	138,700	147,000	185
190	53.5	531.3	120,800	120,800	56.7	538.1	141,400	141,400	61.1	545.9	133,100	147,000	190
195	52.1	527.4	117,100	117,100	55.3	534.6	137,700	137,700	59.8	543.0	127,700	147,000	195
200	50.6	523.2	113,600	113,600	53.9	530.9	133,900	133,900	58.5	539.8	122,600	147,000	200
205	49.1	518.9	110,000	110,000	52.4	527.0	130,200	130,200	57.1	536.6	117,800	147,000	205
210	47.6	514.2	106,700	106,700	51.0	522.9	126,500	126,500	55.7	533.1	113,100	146,600	210
215	46.0	509.4	103,500	103,500	49.5	518.6	122,800	122,800	54.3	529.5	108,700	146,500	215
220	44.4	504.2	100,400	100,400	47.9	514.1	119,200	119,200	52.9	525.7	104,500	145,900	220
230	40.9	493.0	94,500	94,500	44.7	504.2	112,400	112,400	50.0	517.4	96,700	141,400	230
240	37.3	480.2	89,300	89,300	41.4	493.1	106,000	106,000	46.9	508.2	89,500	134,200	240
250	33.2	465.5	84,900	84,900	37.7	480.5	98,700	100,100	43.6	497.9	82,800	127,200	250
260	28.7	448.2	81,200	81,200	33.7	466.1	91,900	95,000	40.2	486.4	76,700	120,500	260
270	23.3	426.7	78,700	78,700	29.3	449.1	85,500	90,600	36.4	473.3	71,000	114,100	270
280	16.3	397.4	77,800	77,800	24.0	428.3	79,500	87,200	32.3	458.1	65,600	108,400	280
290					17.3	400.2	73,800	85,400	27.6	440.0	60,600	103,500	290
300					2.6	336.4	67,800	77,000	22.0	417.3	55,800	98,100	300
310									14.3	384.8	51,100	92,100	310
320													320
330													330
340													340
350													350
360													360
370													370
380													380
390													390

# MLC650 VPC-MAX S-3

ASME B30.5



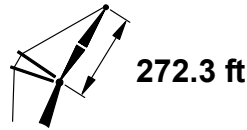
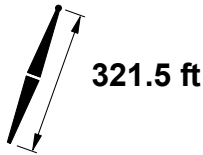
ft	75°				70°				65°				ft
	°	ft	lb	lb	°	ft	lb	lb	°	ft	lb	lb	
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160													160
165													165
170													170
175													175
180													180
185													185
190													190
195													195
200													200
205	64.3	546.2	85,600	138,500									205
210	63.0	543.6	81,800	138,500									210
215	61.7	540.9	78,100	138,500									215
220	60.4	538.0	74,700	138,500									220
230	57.8	531.8	68,200	138,500									230
240	55.0	524.9	62,200	138,500									240
250	52.1	517.2	56,700	138,500	59.6	527.3	127,900						250
260	49.2	508.7	51,700	134,300	56.9	520.9	121,100						260
270	46.0	499.3	46,900	126,400	54.1	513.7	114,600						270
280	42.7	488.7	42,600	119,200	51.2	505.8	108,500						280
290	39.2	476.8	38,400	112,400	48.2	497.0	102,800						290
300	35.4	463.1	34,600	106,000	45.0	487.2	97,500	52.9	499.5	82,400			300
310	31.1	447.3	30,900	100,000	41.6	476.2	92,500	49.9	491.3	77,900			310
320	26.2	428.2	27,400	94,300	38.0	463.8	87,800	46.9	482.1	73,700			320
330	20.3	403.8	24,000	88,900	34.0	449.5	83,400	43.6	471.8	69,800			330
340	11.4	365.9	20,600	83,500	29.6	432.7	79,200	40.1	460.2	66,100			340
350					24.4	412.2	74,900	36.4	447.1	62,500			350
360					17.8	385.0	70,400	32.3	431.9	59,200			360
370					5.7	332.3	65,800	27.6	413.8	56,000			370
380								21.9	391.1	52,900			380
390								14.2	358.5	49,900			390

# MLC650 VPC-MAX S-3

ASME B30.5



881,800 lb

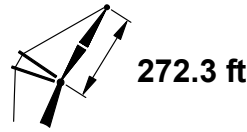
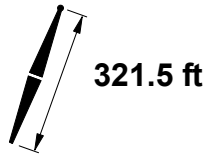


ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
115	74.1	591.5	135,100	135,100									115
120	73.0	589.9	134,900	134,900									120
125	71.9	588.3	134,500	134,500									125
130	70.8	586.5	133,900	133,900									130
135	69.7	584.6	133,200	133,200	72.2	587.4	134,200	134,200					135
140	68.5	582.6	132,500	132,500	71.1	585.6	134,200	134,200					140
145	67.4	580.5	131,800	131,800	69.9	583.8	134,000	134,000					145
150	66.3	578.3	130,800	130,800	68.8	581.8	133,700	133,700					150
155	65.1	575.9	129,900	129,900	67.7	579.7	133,300	133,300					155
160	63.9	573.4	128,900	128,900	66.5	577.5	132,900	132,900					160
165	62.7	570.8	127,900	127,900	65.4	575.2	132,300	132,300	69.2	579.8	131,000	131,000	165
170	61.5	568.0	126,700	126,700	64.2	572.7	131,700	131,700	68.1	577.8	131,000	131,000	170
175	60.3	565.2	123,500	123,500	63.0	570.1	131,100	131,100	66.9	575.6	131,000	131,000	175
180	59.1	562.1	120,300	120,300	61.8	567.4	130,400	130,400	65.7	573.3	131,000	131,000	180
185	57.8	558.9	117,000	117,000	60.6	564.6	129,600	129,600	64.6	570.9	131,000	131,000	185
190	56.6	555.6	113,800	113,800	59.4	561.6	128,800	128,800	63.4	568.3	130,400	131,000	190
195	55.3	552.1	110,600	110,600	58.1	558.4	128,000	128,000	62.2	565.7	125,100	131,000	195
200	54.0	548.4	107,400	107,400	56.9	555.1	125,600	125,600	61.0	562.9	120,000	131,000	200
205	52.7	544.6	104,300	104,300	55.6	551.6	122,500	122,500	59.8	559.9	115,200	131,000	205
210	51.3	540.5	101,200	101,200	54.3	548.0	119,400	119,400	58.5	556.8	110,700	130,700	210
215	49.9	536.3	98,300	98,300	53.0	544.2	116,200	116,200	57.3	553.6	106,300	130,300	215
220	48.5	531.8	95,400	95,400	51.6	540.2	113,000	113,000	56.0	550.1	102,100	129,900	220
230	45.6	522.2	89,900	89,900	48.8	531.6	106,900	106,900	53.4	542.8	94,300	128,900	230
240	42.5	511.5	84,700	84,700	45.9	522.1	101,000	101,000	50.7	534.8	87,200	126,800	240
250	39.2	499.6	80,100	80,100	42.9	511.5	95,400	95,400	47.9	525.9	80,600	120,800	250
260	35.7	486.1	76,000	76,000	39.6	499.8	90,100	90,300	44.9	516.0	74,500	114,800	260
270	31.8	470.6	72,400	72,400	36.1	486.5	83,800	85,500	41.8	505.1	68,900	109,000	270
280	27.4	452.3	69,600	69,600	32.3	471.2	77,900	81,400	38.5	492.8	63,600	103,500	280
290	22.2	429.7	67,600	67,600	28.0	453.3	72,400	77,900	34.9	478.9	58,700	98,300	290
300	15.4	398.7	67,100	67,100	22.9	431.4	67,200	75,300	30.9	462.9	54,100	93,700	300
310					16.3	401.8	62,300	74,100	26.4	443.9	49,700	89,700	310
320									20.9	420.0	45,500	85,200	320
330									13.4	385.7	41,400	79,800	330
340													340
350													350
360													360
370													370
380													380
390													390
400													400
410													410



# MLC650 VPC-MAX S-3

ASME B30.5



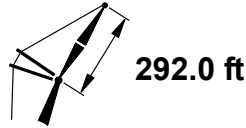
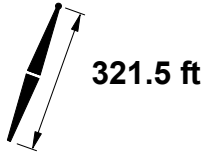
ft	75°				70°			65°			ft
	ft	ft	lb	lb	ft	lb	ft	lb	ft		
115											115
120											120
125											125
130											130
135											135
140											140
145											145
150											150
155											155
160											160
165											165
170											170
175											175
180											180
185											185
190											190
195											195
200											200
205											205
210											210
215	64.0	563.2	75,100	123,100							215
220	62.8	560.6	71,700	123,100							220
230	60.4	555.0	65,300	123,100							230
240	57.9	548.8	59,400	123,100							240
250	55.3	541.9	54,000	123,100							250
260	52.7	534.4	49,000	123,100	59.6	544.3	113,200				260
270	50.0	526.1	44,400	123,100	57.1	537.9	112,100				270
280	47.1	517.0	40,100	116,700	54.5	530.8	106,100				280
290	44.1	506.9	36,000	109,900	51.8	523.1	100,500				290
300	41.0	495.7	32,200	103,600	49.1	514.5	95,200				300
310	37.6	483.0	28,700	97,700	46.2	505.1	90,300	53.4	516.7	75,500	310
320	33.9	468.6	25,300	92,200	43.1	494.6	85,700	50.7	508.6	71,400	320
330	29.8	451.9	22,100	86,900	39.9	483.0	81,300	47.9	499.7	67,500	330
340	25.1	431.8		81,900	36.4	469.8	77,200	44.9	489.9	63,800	340
350	19.3	406.1		77,100	32.6	454.7	72,700	41.8	478.9	60,300	350
360	10.5	365.8		72,400	28.3	437.0	68,400	38.5	466.7	57,000	360
370					23.3	415.5	64,200	34.9	452.8	53,900	370
380					16.9	386.7	60,200	30.9	436.7	51,000	380
390					4.5	328.5	56,000	26.4	417.7	48,100	390
400								20.9	393.8	45,400	400
410								13.3	359.3	42,700	410

# MLC650 VPC-MAX S-3

ASME B30.5



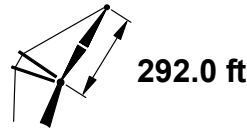
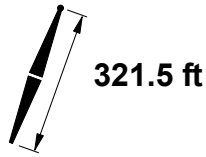
881,800 lb



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
120	74.2	610.6	124,800	124,800									120
125	73.2	609.0	124,600	124,600									125
130	72.2	607.4	124,200	124,200									130
135	71.1	605.6	123,700	123,700									135
140	70.1	603.8	123,100	123,100	72.4	606.5	123,900	123,900					140
145	69.0	601.8	122,300	122,300	71.4	604.8	123,800	123,800					145
150	68.0	599.8	121,600	121,600	70.3	602.9	123,600	123,600					150
155	66.9	597.6	120,700	120,700	69.3	601.0	123,400	123,400					155
160	65.8	595.3	119,900	119,900	68.2	599.0	123,000	123,000					160
165	64.7	592.9	118,900	118,900	67.1	596.8	122,600	122,600					165
170	63.6	590.4	118,000	118,000	66.1	594.6	122,100	122,100	69.6	599.0	120,400	120,400	170
175	62.5	587.8	116,000	116,000	65.0	592.2	121,500	121,500	68.6	597.0	120,400	120,400	175
180	61.4	585.0	113,100	113,100	63.9	589.7	120,900	120,900	67.5	594.9	120,400	120,400	180
185	60.3	582.1	110,200	110,200	62.8	587.1	120,200	120,200	66.4	592.7	120,400	120,400	185
190	59.1	579.1	107,300	107,300	61.7	584.4	119,500	119,500	65.3	590.3	120,400	120,400	190
195	57.9	575.9	104,500	104,500	60.5	581.5	118,800	118,800	64.2	587.9	115,900	120,400	195
200	56.8	572.6	101,600	101,600	59.4	578.5	118,000	118,000	63.1	585.3	110,900	120,400	200
205	55.6	569.1	98,800	98,800	58.2	575.4	115,700	115,700	62.0	582.6	106,100	120,400	205
210	54.4	565.5	96,000	96,000	57.0	572.1	112,900	112,900	60.9	579.8	101,600	120,400	210
215	53.1	561.7	93,200	93,200	55.9	568.7	110,100	110,100	59.8	576.9	97,300	120,100	215
220	51.9	557.8	90,500	90,500	54.7	565.1	107,300	107,300	58.6	573.8	93,200	119,800	220
230	49.3	549.3	85,300	85,300	52.2	557.4	101,800	101,800	56.3	567.2	85,500	118,900	230
240	46.6	540.0	80,400	80,400	49.6	549.0	96,100	96,300	53.8	559.9	78,500	117,900	240
250	43.8	529.8	75,900	75,900	47.0	539.9	88,800	91,100	51.3	552.1	72,000	115,000	250
260	40.9	518.5	71,700	71,700	44.2	529.7	82,200	86,100	48.7	543.4	66,000	109,700	260
270	37.7	505.9	67,900	67,900	41.2	518.6	76,000	81,500	46.0	533.9	60,500	104,400	270
280	34.3	491.6	64,600	64,600	38.1	506.1	70,200	77,200	43.2	523.5	55,300	99,200	280
290	30.5	475.4	61,800	61,800	34.7	492.1	64,800	73,400	40.2	511.9	50,500	94,300	290
300	26.3	456.2	59,600	59,600	31.0	476.1	59,800	70,000	37.0	499.0	45,900	88,300	300
310	21.3	432.5	58,200	58,200	26.8	457.3	55,000	67,300	33.5	484.3	41,700	82,700	310
320	14.6	399.9	57,900	57,900	21.9	434.3	50,500	65,300	29.7	467.5	37,700	77,300	320
330					15.5	403.2	46,100	64,500	25.3	447.5	33,800	72,300	330
340									20.0	422.5	30,200	67,500	340
350									12.6	386.3	26,500	62,700	350
360													360
370													370
380													380
390													390
400													400
410													410
420													420
430													430

# MLC650 VPC-MAX S-3

ASME B30.5



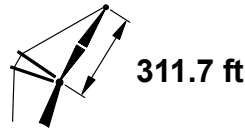
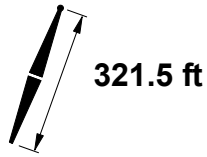
ft	75°				70°				65°				ft
	ft	ft	lb	lb	ft	ft	lb	lb	ft	ft	lb	lb	
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160													160
165													165
170													170
175													175
180													180
185													185
190													190
195													195
200													200
205													205
210													210
215													215
220	64.8	582.7	61,600	112,200									220
230	62.6	577.6	55,400	112,200									230
240	60.3	571.9	49,600	112,200									240
250	58.0	565.7	44,400	112,200									250
260	55.6	559.0	39,500	112,200									260
270	53.2	551.6	35,000	112,200	59.5	561.2	103,100						270
280	50.7	543.5	30,800	107,400	57.2	554.9	98,300						280
290	48.0	534.6	26,800	100,800	54.8	547.9	92,800						290
300	45.3	524.9	23,200	94,600	52.4	540.3	87,600						300
310	42.4	514.2		88,800	49.8	532.0	82,500						310
320	39.4	502.3		83,300	47.2	522.8	77,200	53.8	533.8	63,400			320
330	36.1	488.9		78,200	44.4	512.8	72,300	51.3	525.9	59,700			330
340	32.5	473.8		73,300	41.4	501.7	67,700	48.7	517.3	56,100			340
350	28.6	456.3		68,700	38.3	489.4	63,300	46.0	507.8	52,700			350
360	24.0	435.2		64,300	35.0	475.5	59,200	43.2	497.3	49,500			360
370	18.4	408.2		60,100	31.3	459.6	55,200	40.2	485.7	46,300			370
380	9.7	365.5		55,800	27.2	441.1	51,400	37.0	472.8	43,100			380
390					22.3	418.5	47,800	33.5	458.2	40,000			390
400					16.1	388.3	44,200	29.6	441.3	37,000			400
410					3.0	322.5	40,300	25.3	421.3	34,100			410
420								20.0	396.2	31,300			420
430								12.6	359.9	28,400			430

# MLC650 VPC-MAX S-3

ASME B30.5



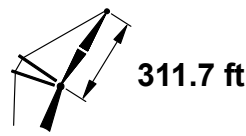
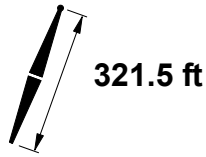
881,800 lb



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
125	74.3	629.6	111,000	111,000									125
130	73.3	628.1	110,700	110,700									130
135	72.4	626.5	110,300	110,300									135
140	71.4	624.7	109,900	109,900									140
145	70.4	622.9	109,300	109,300	72.6	625.6	109,900	109,900					145
150	69.4	621.0	108,700	108,700	71.6	623.9	109,900	109,900					150
155	68.4	619.0	108,100	108,100	70.6	622.1	109,600	109,600					155
160	67.4	616.9	107,400	107,400	69.6	620.2	109,400	109,400					160
165	66.4	614.7	106,700	106,700	68.7	618.2	109,000	109,000					165
170	65.4	612.4	105,900	105,900	67.7	616.1	108,700	108,700					170
175	64.4	609.9	105,100	105,100	66.7	613.9	108,200	108,200	70.0	618.2	106,400	106,400	175
180	63.4	607.4	104,300	104,300	65.6	611.6	107,800	107,800	69.0	616.2	106,400	106,400	180
185	62.3	604.7	102,500	102,500	64.6	609.2	107,300	107,300	68.0	614.2	106,400	106,400	185
190	61.3	602.0	100,000	100,000	63.6	606.7	106,700	106,700	67.0	612.0	106,400	106,400	190
195	60.2	599.1	97,600	97,600	62.6	604.1	106,200	106,200	66.0	609.7	106,400	106,400	195
200	59.1	596.0	95,200	95,200	61.5	601.3	105,600	105,600	65.0	607.4	106,400	106,400	200
205	58.0	592.9	92,700	92,700	60.5	598.5	104,900	104,900	63.9	604.9	103,700	106,400	205
210	56.9	589.6	90,200	90,200	59.4	595.5	104,300	104,300	62.9	602.3	99,200	106,400	210
215	55.8	586.2	87,800	87,800	58.3	592.3	102,900	102,900	61.9	599.6	94,900	106,400	215
220	54.7	582.6	85,400	85,400	57.2	589.1	100,500	100,500	60.8	596.8	90,900	106,200	220
230	52.4	575.0	80,700	80,700	55.0	582.2	95,700	95,700	58.7	590.7	83,200	105,600	230
240	50.0	566.7	76,100	76,100	52.7	574.6	91,000	91,000	56.5	584.2	76,200	104,800	240
250	47.5	557.7	71,900	71,900	50.3	566.4	86,300	86,300	54.2	577.0	69,800	104,000	250
260	44.9	547.8	67,900	67,900	47.8	557.5	80,300	81,700	51.9	569.3	63,900	103,100	260
270	42.2	537.0	64,100	64,100	45.3	547.7	74,200	77,400	49.5	560.9	58,400	98,700	270
280	39.4	525.1	60,700	60,700	42.6	537.1	68,500	73,300	47.0	551.7	53,300	94,200	280
290	36.3	511.8	57,600	57,600	39.7	525.3	63,100	69,500	44.4	541.6	48,500	89,700	290
300	33.0	496.9	55,000	55,000	36.7	512.2	58,100	65,900	41.6	530.6	44,000	85,300	300
310	29.4	479.9	52,600	52,600	33.4	497.5	53,400	62,800	38.7	518.4	39,800	80,800	310
320	25.3	459.9	51,000	51,000	29.8	480.7	49,000	60,100	35.6	504.8	35,900	75,500	320
330	20.4	435.1	49,900	49,900	25.8	461.1	44,800	57,900	32.3	489.5	32,100	70,600	330
340	13.8	400.8	48,800	49,800	21.0	437.1	40,800	56,400	28.5	471.9	28,600	65,900	340
350					14.7	404.4	36,900	55,900	24.3	451.0	25,200	61,400	350
360									19.1	424.8	21,900	57,100	360
370									11.9	386.7		52,900	370
380													380
390													390
400													400
410													410
420													420
430													430
440													440
450													450

# MLC650 VPC-MAX S-3

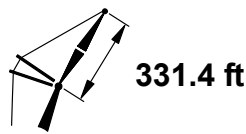
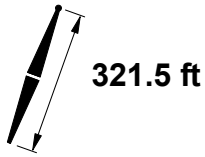
ASME B30.5



ft	75°				70°			65°			ft
	ft	lb	lb	lb	ft	lb	ft	lb	lb		
125											125
130											130
135											135
140											140
145											145
150											150
155											155
160											160
165											165
170											170
175											175
180											180
185											185
190											190
195											195
200											200
205											205
210											210
215											215
220											220
230	64.4	599.7	52,600	98,700							230
240	62.4	594.5	46,900	98,700							240
250	60.2	588.9	41,700	98,700							250
260	58.1	582.7	36,900	98,700							260
270	55.9	576.0	32,400	98,700							270
280	53.6	568.7	28,300	98,700	59.5	578.2	89,900				280
290	51.3	560.8	24,400	98,300	57.4	571.9	89,900				290
300	48.8	552.2	20,800	92,200	55.1	565.0	85,200				300
310	46.3	542.8		86,500	52.8	557.5	79,800				310
320	43.7	532.5		81,100	50.5	549.3	74,600				320
330	40.9	521.1		76,000	48.0	540.5	69,800	54.2	550.9	57,400	330
340	37.9	508.6		71,200	45.4	530.8	65,200	51.9	543.2	53,800	340
350	34.8	494.6		66,700	42.8	520.1	60,900	49.5	534.7	50,300	350
360	31.3	478.8		62,400	39.9	508.5	56,800	47.0	525.5	46,800	360
370	27.5	460.4		58,300	36.9	495.5	52,900	44.4	515.5	43,500	370
380	23.0	438.4		54,300	33.7	480.9	49,200	41.6	504.4	40,400	380
390	17.5	410.1		50,500	30.1	464.3	45,700	38.7	492.2	37,400	390
400	9.0	364.8		46,700	26.1	445.0	42,300	35.6	478.6	34,500	400
410					21.4	421.3	39,000	32.2	463.3	31,700	410
420					15.3	389.6	35,700	28.5	445.7	29,000	420
430								24.3	424.8	26,300	430
440								19.1	398.5	23,800	440
450								11.8	360.3	21,100	450

# MLC650 VPC-MAX S-3

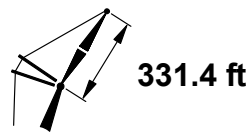
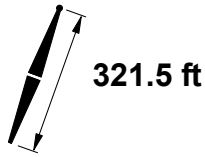
ASME B30.5



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
130	74.3	648.7	95,300	95,300									130
135	73.4	647.1	95,000	95,000									135
140	72.5	645.5	94,700	94,700									140
145	71.6	643.8	94,300	94,300									145
150	70.7	642.1	93,900	93,900	72.7	644.6	94,200	94,200					150
155	69.8	640.2	93,500	93,500	71.8	643.0	94,000	94,000					155
160	68.8	638.2	93,000	93,000	70.9	641.2	93,900	93,900					160
165	67.9	636.2	92,400	92,400	70.0	639.3	93,700	93,700					165
170	67.0	634.0	91,900	91,900	69.1	637.4	93,400	93,400					170
175	66.0	631.7	91,300	91,300	68.1	635.4	93,100	93,100					175
180	65.1	629.4	90,700	90,700	67.2	633.2	92,700	92,700					180
185	64.1	626.9	90,100	90,100	66.2	631.0	92,300	92,300	69.4	635.4	90,900	90,900	185
190	63.1	624.4	89,400	89,400	65.3	628.7	91,900	91,900	68.4	633.4	90,900	90,900	190
195	62.2	621.7	88,800	88,800	64.3	626.2	91,500	91,500	67.5	631.3	90,900	90,900	195
200	61.2	618.9	87,800	87,800	63.4	623.7	91,100	91,100	66.6	629.1	90,900	90,900	200
205	60.2	616.0	85,700	85,700	62.4	621.0	90,600	90,600	65.6	626.8	90,900	90,900	205
210	59.2	613.0	83,700	83,700	61.4	618.3	90,200	90,200	64.6	624.4	90,900	90,900	210
215	58.1	609.9	81,700	81,700	60.4	615.4	89,700	89,700	63.7	621.9	90,700	90,700	215
220	57.1	606.6	79,600	79,600	59.4	612.4	89,200	89,200	62.7	619.3	87,000	90,600	220
230	55.0	599.7	75,600	75,600	57.3	606.1	88,100	88,100	60.7	613.7	79,400	90,200	230
240	52.8	592.2	71,700	71,700	55.2	599.2	84,800	84,800	58.7	607.7	72,400	89,700	240
250	50.6	584.0	67,800	67,800	53.1	591.8	80,800	80,800	56.6	601.2	66,100	89,100	250
260	48.3	575.3	64,000	64,000	50.9	583.7	76,900	76,900	54.5	594.1	60,200	88,500	260
270	45.9	565.7	60,500	60,500	48.6	575.0	70,700	73,100	52.4	586.5	54,700	87,800	270
280	43.4	555.3	57,200	57,200	46.2	565.6	65,100	69,400	50.1	578.2	49,600	87,200	280
290	40.8	544.0	54,100	54,100	43.7	555.3	59,800	65,800	47.8	569.3	44,900	84,200	290
300	38.0	531.5	51,300	51,300	41.1	544.1	54,800	62,400	45.4	559.6	40,400	80,500	300
310	35.1	517.6	48,800	48,800	38.4	531.7	50,200	59,200	42.9	549.0	36,300	76,800	310
320	31.9	502.0	46,600	46,600	35.4	518.0	45,800	56,400	40.2	537.4	32,400	72,100	320
330	28.3	484.2	44,700	44,700	32.3	502.6	41,700	53,800	37.4	524.6	28,700	67,200	330
340	24.3	463.3	43,300	43,300	28.8	485.2	37,800	51,500	34.4	510.4	25,200	62,500	340
350	19.6	437.5	42,100	42,600	24.8	464.7	34,000	49,700	31.1	494.4	21,900	58,100	350
360	13.1	401.6	38,200	42,500	20.2	439.6	30,500	48,500	27.5	476.0		54,000	360
370					14.0	405.5	26,900	45,900	23.4	454.3		50,000	370
380									18.4	426.9		46,100	380
390									11.2	386.8		42,300	390
400													400
410													410
420													420
430													430
440													440

# MLC650 VPC-MAX S-3

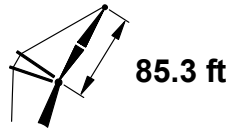
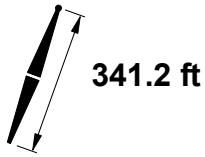
ASME B30.5



ft	75°				70°			65°			ft
	°	ft	lb	lb	ft	lb	°	ft	lb		
130											130
135											135
140											140
145											145
150											150
155											155
160											160
165											165
170											170
175											175
180											180
185											185
190											190
195											195
200											200
205											205
210											210
215											215
220											220
230											230
240	64.1	616.7	42,700	83,900							240
250	62.2	611.5	37,500	83,900							250
260	60.2	605.8	32,800	83,900							260
270	58.2	599.7	28,300	83,900							270
280	56.1	593.0	24,200	83,900							280
290	54.0	585.8	20,400	83,900	59.5	595.1	75,800				290
300	51.8	578.0		83,900	57.5	588.8	75,800				300
310	49.5	569.6		82,600	55.4	582.0	75,500				310
320	47.2	560.5		77,200	53.3	574.6	70,400				320
330	44.7	550.5		72,200	51.0	566.6	65,600				330
340	42.2	539.7		67,500	48.8	558.0	61,100	54.5	568.0	49,500	340
350	39.5	527.8		63,000	46.4	548.6	56,800	52.3	560.4	45,900	350
360	36.6	514.7		58,700	43.9	538.4	52,800	50.1	552.1	42,500	360
370	33.6	500.0		54,700	41.3	527.2	48,900	47.8	543.2	39,300	370
380	30.2	483.5		50,900	38.6	514.9	45,300	45.4	533.4	36,200	380
390	26.5	464.3		47,200	35.7	501.3	41,800	42.8	522.8	33,200	390
400	22.2	441.4		43,600	32.5	486.1	38,500	40.2	511.2	30,400	400
410	16.8	411.9		40,200	29.1	468.8	35,300	37.4	498.4	27,600	410
420	8.3	363.8		36,700	25.2	448.6	32,300	34.4	484.2	25,000	420
430					20.6	424.0	29,300	31.1	468.2	22,500	430
440					14.6	390.8	26,300	27.5	449.8	20,000	440

# MLC650 VPC-MAX S-3

ASME B30.5

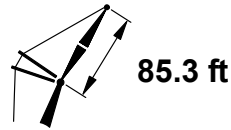
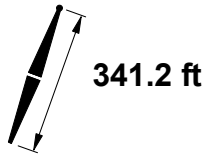


ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
65	74.5	431.4	380,000 d	380,000 d									65
70	71.0	429.6	378,900 d	378,900 d									70
75	67.3	427.4	375,300 d	375,300 d									75
80	63.5	424.8	370,300 c	370,300 c	72.3	429.0	392,000 d	392,000 d					80
85	59.6	421.7	364,100 c	364,100 c	68.7	426.9	379,800 d	379,800 d					85
90	55.5	418.2	357,800 b	357,800 b	64.9	424.4	376,300 d	376,300 d					90
95	51.1	414.0	351,900 b	351,900 b	61.1	421.5	371,600 c	371,600 c					95
100	46.4	409.1	346,700 b	346,700 b	57.0	418.2	366,300 c	366,300 c					100
105	41.3	403.4	343,000	343,000	52.7	414.3	360,600 b	360,600 b	66.9	423.0	340,500 c	380,900 c	105
110	35.5	396.3	333,500	333,500	48.2	409.7	355,300 b	355,300 b	63.1	420.3	322,100 c	378,500 c	110
115	28.6	387.3	324,200	324,200	43.2	404.3	337,500	351,000	59.2	417.2	305,400 c	373,600 c	115
120	19.2	374.2	319,200	319,200	37.7	397.7	320,500	344,100	55.1	413.6	290,100 b	369,400 b	120
125					31.3	389.6	304,800	335,200	50.7	409.4	276,000 b	364,900 b	125
130					23.2	378.5	290,000	327,300	45.9	404.5	262,900 b	353,000 b	130
135					7.3	355.5	275,300	303,000	40.8	398.6	250,800	337,400	135
140									34.9	391.4	239,400	322,800	140
145									27.8	382.2	228,700	309,100	145
150									18.0	368.4	218,300	296,000	150
155													155
160													160
165													165
170													170
175													175
180													180
185													185
190													190
195													195
200													200
205													205
210													210
215													215
220													220
230													230



# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
65													65
70													70
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140	62.4	413.0	197,000 c	341,700 c									140
145	58.4	409.9	188,300 c	328,200 c									145
150	54.2	406.1	180,100 b	315,500 b									150
155	49.8	401.8	172,400 b	303,700 b									155
160	45.0	396.7	165,200 b	292,600 b									160
165	39.7	390.6	158,300	282,200									165
170	33.7	383.1	151,800	272,300									170
175	26.3	373.3	145,400	262,500	57.1	399.5	113,300 b	238,700 b					175
180	15.3	357.7	139,000	252,700	52.8	395.5	108,600 b	230,800 b					180
185					48.3	391.0	104,200 b	223,300 b					185
190					43.3	385.6	99,900	216,100					190
195					37.8	379.1	95,800	209,400					195
200					31.4	371.0	91,800	202,900					200
205					23.3	359.9	87,800	196,600	54.9	385.9	61,700 b	177,000 b	205
210					7.9	337.6	83,200	190,200	50.5	381.6	58,900 b	171,700 b	210
215									45.8	376.7	56,200 b	166,600 b	215
220									40.6	370.7	53,600	161,800	220
230									27.6	354.2	48,400	152,500	230

# MLC650 VPC-MAX S-3

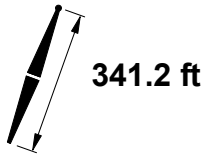
ASME B30.5



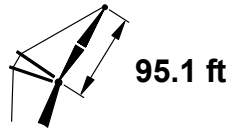
881,800 lb



360°



341.2 ft

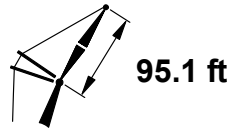
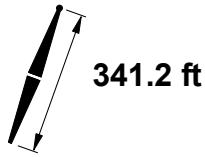


95.1 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
70	73.0	440.1	357,300 d	357,300 d									70
75	69.8	438.2	354,900 d	354,900 d									75
80	66.5	435.9	350,900 c	350,900 c									80
85	63.1	433.2	345,900 c	345,900 c	71.0	437.6	358,300 d	358,300 d					85
90	59.6	430.2	340,600 b	340,600 b	67.7	435.4	356,500 c	356,500 c					90
95	55.9	426.7	335,900 b	335,900 b	64.4	432.9	352,400 c	352,400 c					95
100	52.0	422.7	328,500 b	328,500 b	60.9	430.0	347,900 c	347,900 c					100
105	47.9	418.1	323,600	323,600	57.3	426.7	342,700 b	342,700 b	69.5	433.8	337,100 c	357,400 c	105
110	43.5	412.7	318,300	318,300	53.5	422.9	337,500 b	337,500 b	66.2	431.5	318,800 c	356,800 c	110
115	38.7	406.4	307,000	307,000	49.5	418.5	332,600	332,600	62.8	428.8	302,200 c	354,300 c	115
120	33.2	398.8	297,300	297,300	45.2	413.5	318,200	328,300	59.2	425.7	287,000 b	350,600 b	120
125	26.7	389.1	290,000	290,000	40.6	407.5	302,700	325,000	55.5	422.2	273,000 b	347,400 b	125
130	17.6	375.0	286,500	286,500	35.3	400.5	288,400	315,300	51.7	418.1	260,100 b	343,500 b	130
135					29.3	391.7	275,000	306,300	47.5	413.4	248,100	334,700	135
140					21.5	379.7	262,400	300,000	43.1	408.0	236,900	320,300	140
145					5.0	352.9	249,500	270,300	38.2	401.6	226,500	306,900	145
150									32.7	393.8	216,700	294,300	150
155									25.9	383.9	207,400	282,400	155
160									16.5	368.9	198,300	270,900	160
165													165
170													170
175													175
180													180
185													185
190													190
195													195
200													200
205													205
210													210
215													215
220													220
230													230
240													240

# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
70													70
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145	62.1	421.5	184,700 b	325,100 b									145
150	58.5	418.3	176,700 b	312,600 b									150
155	54.8	414.7	169,100 b	300,800 b									155
160	50.9	410.5	162,000 b	289,800 b									160
165	46.7	405.7	155,300	279,500									165
170	42.2	400.1	149,000	269,500									170
175	37.2	393.5	142,900	259,900									175
180	31.5	385.4	137,100	250,800	57.3	408.0	105,100 b	227,900 b					180
185	24.4	374.8	131,500	242,000	53.5	404.2	100,700 b	220,400 b					185
190	13.8	357.9	125,700	233,300	49.6	399.8	96,600	213,400					190
195					45.3	394.8	92,600	206,700					195
200					40.6	388.9	88,800	200,300					200
205					35.4	381.8	85,100	194,300					205
210					29.4	373.1	81,500	188,400					210
215					21.6	361.2	77,800	182,800	51.5	390.3	52,700	163,800	215
220					5.9	335.6	73,600	177,000	47.4	385.6	50,200	159,000	220
230									38.0	373.8	45,400	150,100	230
240									25.7	355.9	40,700	141,700	240

# MLC650 VPC-MAX S-3

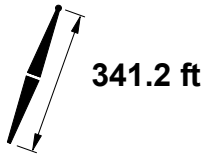
ASME B30.5



881,800 lb



360°



341.2 ft

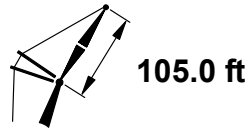
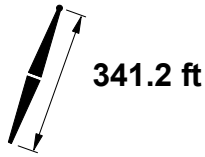


105.0 ft

ft	85°				83°				80°				ft
	ft	ft	lb	lb	ft	lb	lb	ft	lb	lb			
70	74.7	450.5	337,100 d	337,100 d									70
75	71.8	448.7	335,900 d	335,900 d									75
80	68.8	446.7	332,900 c	332,900 c									80
85	65.8	444.4	328,800 c	328,800 c	72.9	448.1	338,400 d	338,400 d					85
90	62.7	441.7	324,100 b	324,100 b	69.9	446.1	337,000 c	337,000 c					90
95	59.6	438.7	318,500 b	318,500 b	67.0	443.9	334,700 c	334,700 c					95
100	56.2	435.2	313,100 b	313,100 b	63.9	441.4	331,000 c	331,000 c					100
105	52.8	431.3	307,900	307,900	60.7	438.5	326,600 b	326,600 b					105
110	49.2	426.9	303,200	303,200	57.5	435.2	322,600 b	322,600 b	68.6	442.3	316,900 c	336,500 c	110
115	45.3	421.9	295,100	295,100	54.1	431.5	317,000	317,000	65.5	440.0	300,400 b	335,400 b	115
120	41.1	416.1	284,400	284,400	50.5	427.3	312,400	312,400	62.4	437.3	285,200 b	333,000 b	120
125	36.5	409.3	274,800	274,800	46.7	422.5	301,700	308,300	59.2	434.2	271,300 b	330,000 b	125
130	31.3	401.1	266,800	266,800	42.7	417.0	287,500	303,700	55.9	430.7	258,500 b	326,400 b	130
135	25.0	390.8	261,000	261,000	38.3	410.6	274,300	293,200	52.5	426.8	246,600	323,400	135
140	16.3	375.6	258,800	258,800	33.3	403.0	262,100	283,900	48.8	422.3	235,600	318,900	140
145					27.5	393.6	250,500	276,500	44.9	417.2	225,300	305,700	145
150					20.0	380.8	239,600	271,700	40.7	411.3	215,700	293,300	150
155									36.0	404.4	206,600	281,600	155
160									30.7	396.1	198,000	270,600	160
165									24.3	385.4	189,800	260,200	165
170									15.1	369.4	181,800	250,000	170
175													175
180													180
185													185
190													190
195													195
200													200
205													205
210													210
215													215
220													220
230													230
240													240
250													250

# MLC650 VPC-MAX S-3

ASME B30.5



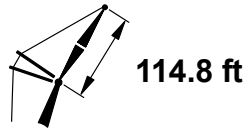
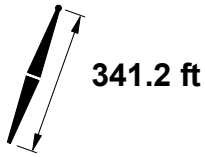
ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
70													70
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145	65.0	432.8	182,700 b	323,200 b									145
150	61.8	430.0	174,700 b	310,700 b									150
155	58.6	426.8	167,300 b	299,100 b									155
160	55.3	423.3	160,200 b	288,100 b									160
165	51.8	419.2	153,600	277,900									165
170	48.1	414.7	147,400	268,000									170
175	44.1	409.4	141,500	258,500									175
180	39.8	403.4	135,800	249,500									180
185	35.1	396.2	130,500	241,000	57.5	416.5	98,700	218,700					185
190	29.6	387.6	125,300	232,800	54.1	412.8	94,700	211,700					190
195	22.9	376.2	120,200	224,900	50.6	408.6	90,800	205,100					195
200	12.5	357.9	115,000	217,100	46.8	403.8	87,100	198,800					200
205					42.8	398.3	83,500	192,800					205
210					38.3	391.9	80,100	187,100					210
215					33.4	384.4	76,700	181,600					215
220					27.6	375.0	73,500	176,300	52.3	399.0	48,200	157,400	220
230									44.8	389.4	43,600	148,600	230
240									35.9	376.6	39,300	140,400	240
250									24.1	357.4	35,000	132,800	250

# MLC650 VPC-MAX S-3

ASME B30.5



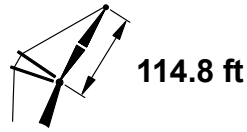
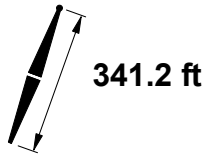
881,800 lb



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
75	73.4	459.2	316,900 c	316,900 c									75
80	70.8	457.4	315,000 c	315,000 c									80
85	68.1	455.3	311,800 c	311,800 c									85
90	65.3	452.9	307,900 b	307,900 b	71.8	456.7	317,900 c	317,900 c					90
95	62.5	450.2	303,500 b	303,500 b	69.1	454.7	316,600 c	316,600 c					95
100	59.5	447.1	299,300 b	299,300 b	66.3	452.4	313,700 b	313,700 b					100
105	56.5	443.7	293,200	293,200	63.5	449.9	310,300 b	310,300 b					105
110	53.4	439.9	288,500	288,500	60.6	446.9	306,400 b	306,400 b					110
115	50.1	435.7	284,100	284,100	57.7	443.7	302,000	302,000	67.8	450.9	297,000 b	316,300 b	115
120	46.7	430.9	273,800	273,800	54.6	440.0	297,600	297,600	65.0	448.5	281,900 b	315,000 b	120
125	43.0	425.5	263,700	263,700	51.4	436.0	293,400	293,400	62.2	445.7	268,100 b	312,900 b	125
130	39.0	419.2	254,500	254,500	48.0	431.4	285,000	289,500	59.3	442.7	255,400 b	310,200 b	130
135	34.6	412.0	246,400	246,400	44.4	426.2	271,900	282,800	56.2	439.2	243,600	307,000	135
140	29.6	403.3	239,900	239,900	40.5	420.3	259,800	272,900	53.1	435.4	232,600	303,600	140
145	23.6	392.3	235,300	235,300	36.3	413.5	248,500	263,900	49.8	431.1	222,400	300,200	145
150	15.1	376.0	234,100	234,100	31.6	405.4	237,900	256,100	46.3	426.2	212,900	290,500	150
155					26.0	395.4	227,800	249,900	42.6	420.7	204,000	279,000	155
160					18.7	381.7	218,200	246,300	38.6	414.4	195,600	268,200	160
165									34.2	407.1	187,600	258,000	165
170									29.1	398.2	180,000	248,300	170
175									22.9	386.8	172,800	239,000	175
180									14.0	369.7	165,600	230,000	180
185													185
190													190
195													195
200													200
205													205
210													210
215													215
220													220
230													230
240													240
250													250
260													260

# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150	64.5	441.2	171,200 b	307,700 b									150
155	61.6	438.4	163,800	296,100									155
160	58.7	435.3	156,800	285,200									160
165	55.7	431.8	150,300	274,600									165
170	52.5	427.9	144,100	264,700									170
175	49.2	423.5	138,300	255,300									175
180	45.6	418.5	132,800	246,500									180
185	41.9	412.9	127,500	238,100									185
190	37.8	406.4	122,500	230,100	57.7	425.0	91,100	208,800					190
195	33.3	398.8	117,700	222,400	54.6	421.3	87,300	202,300					195
200	28.0	389.5	113,100	215,100	51.4	417.3	83,600	196,000					200
205	21.5	377.5	108,500	208,000	48.0	412.7	80,200	190,100					205
210	11.4	357.8	103,800	200,800	44.4	407.5	76,800	184,500					210
215					40.6	401.6	73,600	179,100					215
220					36.4	394.8	70,500	173,900					220
230					26.1	376.7	64,500	164,100	49.7	403.3	40,100	145,800	230
240									42.5	392.9	35,900	137,800	240
250									34.0	379.2	32,000	130,300	250
260									22.7	358.8	28,100	123,300	260

# MLC650 VPC-MAX S-3

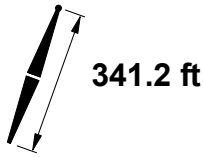
ASME B30.5



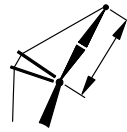
881,800 lb



360°



341.2 ft



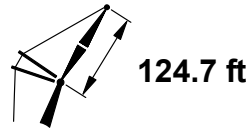
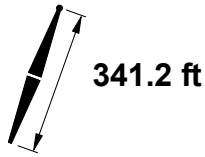
124.7 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
75	74.8	469.5	300,300 c	300,300 c									75
80	72.4	467.9	299,200 c	299,200 c									80
85	69.9	466.0	296,900 c	296,900 c									85
90	67.4	463.8	293,700 b	293,700 b									90
95	64.8	461.4	290,000 b	290,000 b	70.8	465.3	300,300 c	300,300 c					95
100	62.2	458.6	286,100 b	286,100 b	68.3	463.3	298,700 b	298,700 b					100
105	59.5	455.6	281,100	281,100	65.8	460.9	296,100 b	296,100 b					105
110	56.8	452.3	276,600	276,600	63.2	458.3	292,800 b	292,800 b					110
115	53.9	448.5	272,300	272,300	60.5	455.4	289,100 b	289,100 b	69.7	461.6	296,900 b	299,200 b	115
120	50.9	444.4	266,100	266,100	57.8	452.2	285,200	285,200	67.2	459.4	281,900 b	298,900 b	120
125	47.8	439.8	256,100	256,100	55.0	448.6	281,300	281,300	64.6	456.9	268,200 b	297,700 b	125
130	44.5	434.6	246,800	246,800	52.0	444.6	277,400	277,400	62.0	454.2	255,500 b	295,800 b	130
135	41.0	428.8	238,000	238,000	49.0	440.2	272,400	273,800	59.3	451.1	243,700	293,300	135
140	37.2	422.2	230,200	230,200	45.8	435.3	260,300	265,700	56.5	447.8	232,800	290,500	140
145	33.0	414.5	223,500	223,500	42.3	429.7	249,100	256,300	53.6	444.0	222,700	287,500	145
150	28.1	405.3	218,000	218,000	38.6	423.4	238,600	247,700	50.6	439.8	213,200	284,400	150
155	22.3	393.6	214,500	214,500	34.6	416.1	228,800	240,000	47.5	435.2	204,300	279,400	155
160	14.0	376.3	214,000	214,000	30.0	407.6	219,500	233,300	44.2	429.9	196,000	268,600	160
165					24.6	397.0	210,600	228,300	40.6	424.1	188,200	258,500	165
170					17.6	382.5	202,200	225,500	36.8	417.3	180,800	249,000	170
175									32.5	409.5	173,700	239,900	175
180									27.6	400.1	167,000	231,300	180
185									21.7	388.1	160,500	223,100	185
190									12.9	369.8	154,100	215,000	190
195													195
200													200
205													205
210													210
215													215
220													220
230													230
240													240
250													250
260													260
270													270



# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°				65°				ft
	ft	°	ft	lb	ft	°	ft	lb	ft	°	ft	lb	
75													75
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155	64.1	449.7	163,700	291,800									155
160	61.5	446.9	156,800	284,900									160
165	58.8	443.8	150,300	274,700									165
170	56.0	440.3	144,200	264,800									170
175	53.1	436.5	138,500	255,500									175
180	50.1	432.2	133,000	246,700									180
185	46.9	427.5	127,800	238,300									185
190	43.5	422.2	122,900	230,400									190
195	39.9	416.1	118,200	222,900	57.9	433.5	87,300	202,000					195
200	36.0	409.2	113,700	215,700	55.0	429.9	83,700	195,900					200
205	31.7	401.2	109,300	208,800	52.1	425.9	80,300	190,000					205
210	26.6	391.4	105,100	202,200	49.0	421.5	77,000	184,400					210
215	20.3	378.7	101,000	195,700	45.8	416.6	73,900	179,000					215
220	10.3	357.5	96,700	189,200	42.4	411.0	70,800	173,900					220
230					34.6	397.5	65,100	164,300	53.5	416.2	40,100	145,600	230
240					24.7	378.4	59,600	155,400	47.4	407.4	36,100	137,700	240
250									40.5	396.2	32,300	130,400	250
260									32.4	381.6	28,600	123,500	260
270									21.4	360.1	25,000	117,100	270

# MLC650 VPC-MAX S-3

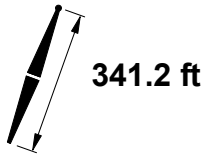
ASME B30.5



881,800 lb



360°



341.2 ft

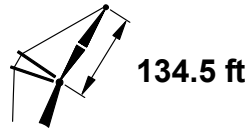
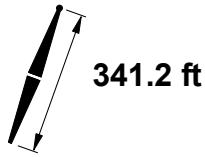


134.5 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
80	73.7	478.3	280,700 c	280,700 c									80
85	71.4	476.5	279,300 b	279,300 b									85
90	69.2	474.5	277,000 b	277,000 b									90
95	66.8	472.3	274,100 b	274,100 b	72.3	475.8	281,600 b	281,600 b					95
100	64.4	469.8	270,500 b	270,500 b	70.0	473.9	280,700 b	280,700 b					100
105	62.0	467.1	266,700	266,700	67.7	471.8	278,800 b	278,800 b					105
110	59.5	464.1	262,800	262,800	65.3	469.4	276,500 b	276,500 b					110
115	57.0	460.8	258,800	258,800	62.9	466.8	273,700	273,700					115
120	54.3	457.1	254,900	254,900	60.5	463.9	270,500	270,500	68.9	470.2	278,600 b	280,100 b	120
125	51.6	453.1	248,000	248,000	57.9	460.7	267,000	267,000	66.6	467.9	264,900 b	279,500 b	125
130	48.8	448.6	238,900	238,900	55.3	457.1	263,600	263,600	64.2	465.4	252,300	278,400	130
135	45.8	443.7	230,200	230,200	52.6	453.3	260,200	260,200	61.8	462.7	240,600	276,700	135
140	42.6	438.2	222,100	222,100	49.8	449.0	256,900	256,900	59.3	459.6	229,700	274,600	140
145	39.2	432.0	214,600	214,600	46.9	444.2	246,600	248,600	56.7	456.3	219,700	272,200	145
150	35.6	425.0	208,000	208,000	43.8	438.9	236,200	240,000	54.1	452.6	210,300	269,600	150
155	31.5	416.9	202,300	202,300	40.5	433.0	226,400	231,900	51.3	448.5	201,500	266,900	155
160	26.8	407.2	197,800	197,800	36.9	426.4	217,300	224,400	48.5	444.0	193,200	264,300	160
165	21.2	394.9	195,100	195,100	33.0	418.7	208,600	217,800	45.5	439.0	185,400	255,800	165
170	13.1	376.6	195,100	195,100	28.7	409.6	200,400	212,200	42.3	433.5	178,100	246,300	170
175					23.5	398.5	192,600	208,000	38.9	427.2	171,200	237,400	175
180					16.6	383.2	185,000	206,000	35.2	420.1	164,600	228,900	180
185									31.1	411.9	158,400	220,900	185
190									26.4	402.0	152,400	213,200	190
195									20.6	389.3	146,500	205,800	195
200									12.0	369.8	140,700	198,500	200
205													205
210													210
215													215
220													220
230													230
240													240
250													250
260													260
270													270
280													280

# MLC650 VPC-MAX S-3

ASME B30.5



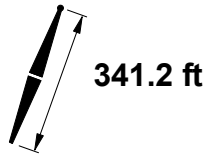
ft	75°				70°				65°				ft
	ft	ft	lb	lb	ft	ft	lb	lb	ft	ft	lb	lb	
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160	63.8	458.2	153,300	272,800									160
165	61.3	455.4	146,900	271,300									165
170	58.8	452.3	140,900	261,400									170
175	56.2	448.9	135,200	252,200									175
180	53.6	445.1	129,800	243,400									180
185	50.8	441.0	124,600	235,200									185
190	47.9	436.4	119,800	227,300									190
195	44.9	431.3	115,100	219,900									195
200	41.7	425.6	110,700	212,800	58.0	442.0	80,100	193,000					200
205	38.2	419.2	106,500	206,000	55.4	438.4	76,800	187,200					205
210	34.4	411.9	102,400	199,500	52.7	434.5	73,600	181,600					210
215	30.2	403.4	98,500	193,300	49.9	430.3	70,500	176,300					215
220	25.4	393.1	94,700	187,200	46.9	425.5	67,500	171,200					220
230	9.3	357.0	87,000	175,400	40.5	414.3	62,000	161,800					230
240					33.1	400.0	56,800	153,000	51.2	420.7	32,500	134,900	240
250					23.5	379.9	51,700	144,900	45.4	411.2	28,900	127,700	250
260									38.8	399.4	25,400	121,000	260
270									30.9	384.0	22,100	114,700	270
280									20.4	361.2		108,700	280

# MLC650 VPC-MAX S-3

ASME B30.5



881,800 lb



341.2 ft

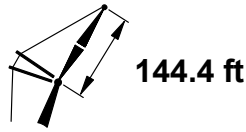
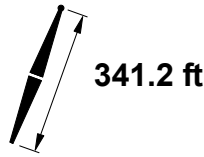


144.4 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
80	74.8	488.6	270,000 c	270,000 c									80
85	72.8	487.0	264,400 b	264,400 b									85
90	70.6	485.1	262,800 b	262,800 b									90
95	68.5	483.1	260,500 b	260,500 b									95
100	66.3	480.8	257,800 b	257,800 b	71.4	484.5	265,400 b	265,400 b					100
105	64.1	478.3	254,700	254,700	69.3	482.5	264,400 b	264,400 b					105
110	61.8	475.6	251,000	251,000	67.1	480.3	262,600	262,600					110
115	59.5	472.6	247,400	247,400	64.9	477.9	260,500	260,500					115
120	57.2	469.3	243,800	243,800	62.7	475.3	257,900	257,900					120
125	54.7	465.7	240,300	240,300	60.4	472.4	255,100	255,100	68.3	478.7	262,700	263,800	125
130	52.2	461.7	231,800	231,800	58.0	469.2	251,900	251,900	66.1	476.4	250,100	263,600	130
135	49.6	457.4	223,500	223,500	55.6	465.7	248,700	248,700	63.9	473.9	238,500	262,500	135
140	46.8	452.6	215,400	215,400	53.1	461.9	245,600	245,600	61.6	471.1	227,700	261,000	140
145	43.9	447.4	207,800	207,800	50.5	457.7	241,700	241,700	59.3	468.1	217,600	259,200	145
150	40.9	441.6	200,800	200,800	47.8	453.1	233,400	233,400	56.9	464.8	208,300	257,000	150
155	37.6	435.0	194,400	194,400	45.0	448.0	224,800	225,400	54.5	461.1	199,500	254,800	155
160	34.1	427.7	188,700	188,700	42.0	442.4	215,700	217,800	51.9	457.2	191,300	252,400	160
165	30.2	419.1	183,900	183,900	38.9	436.2	207,100	210,700	49.3	452.8	183,600	250,000	165
170	25.7	409.0	180,200	180,200	35.5	429.2	199,100	204,200	46.6	448.0	176,300	244,600	170
175	20.2	396.0	178,100	178,100	31.7	421.1	191,400	198,500	43.7	442.7	169,500	235,700	175
180	12.2	376.6	178,100	178,100	27.4	411.6	184,100	193,800	40.6	436.8	163,000	227,300	180
185					22.4	399.9	177,200	190,300	37.3	430.2	156,800	219,300	185
190					15.7	383.8	170,400	188,900	33.7	422.7	150,900	211,800	190
195									29.8	414.1	145,300	204,500	195
200									25.2	403.7	139,900	197,600	200
205									19.6	390.4	134,600	190,900	205
210									11.1	369.7	129,400	184,300	210
215													215
220													220
230													230
240													240
250													250
260													260
270													270
280													280
290													290

# MLC650 VPC-MAX S-3

ASME B30.5



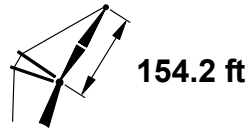
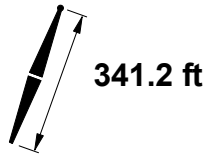
ft	75°				70°				65°				
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	ft	
80													80
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160													160
165	63.5	466.7	144,700	256,700									165
170	61.2	463.9	138,700	256,700									170
175	58.9	460.8	133,000	250,000									175
180	56.5	457.4	127,600	241,300									180
185	54.0	453.7	122,600	233,100									185
190	51.4	449.6	117,700	225,300									190
195	48.8	445.2	113,200	217,900									195
200	46.0	440.3	108,800	210,800									200
205	43.1	434.9	104,600	204,100	58.1	450.5	74,500	185,300					205
210	40.0	428.9	100,600	197,700	55.7	447.0	71,300	179,800					210
215	36.7	422.1	96,800	191,500	53.2	443.2	68,300	174,500					215
220	33.0	414.5	93,100	185,600	50.6	439.0	65,400	169,500					220
230	24.2	394.7	86,100	174,500	45.1	429.3	59,900	160,000					230
240	8.4	356.2	78,900	163,600	38.9	417.5	54,900	151,400	54.4	433.4	133,100		240
250					31.7	402.4	50,100	143,400	49.2	425.0	125,900		250
260					22.5	381.3	45,400	135,900	43.6	414.9	119,300		260
270									37.2	402.4	113,100		270
280									29.6	386.1	107,300		280
290									19.4	362.3	101,800		290

# MLC650 VPC-MAX S-3

ASME B30.5



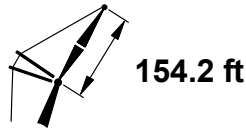
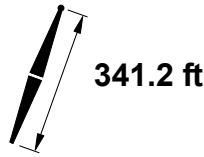
881,800 lb



ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
85	73.9	497.3	249,600 b	249,600 b									85
90	71.9	495.6	248,500 b	248,500 b									90
95	70.0	493.7	246,800 b	246,800 b									95
100	67.9	491.6	244,600	244,600	72.7	494.9	250,000 b	250,000 b					100
105	65.9	489.3	242,100	242,100	70.7	493.1	249,600 b	249,600 b					105
110	63.8	486.8	239,400	239,400	68.7	491.1	248,500	248,500					110
115	61.7	484.1	235,800	235,800	66.7	488.9	246,900	246,900					115
120	59.5	481.1	232,600	232,600	64.6	486.4	244,900	244,900					120
125	57.3	477.8	229,300	229,300	62.5	483.8	242,600	242,600	69.8	489.4	247,800	247,800	125
130	55.0	474.2	224,300	224,300	60.3	480.8	239,900	239,900	67.7	487.3	246,900	247,800	130
135	52.7	470.3	216,300	216,300	58.1	477.7	237,100	237,100	65.7	484.9	235,300	247,800	135
140	50.2	466.1	208,700	208,700	55.9	474.2	234,300	234,300	63.6	482.4	224,600	246,900	140
145	47.7	461.5	201,300	201,300	53.6	470.5	231,500	231,500	61.5	479.6	214,600	245,700	145
150	45.1	456.5	194,200	194,200	51.2	466.4	226,400	226,400	59.3	476.6	205,300	244,100	150
155	42.3	450.9	187,600	187,600	48.7	461.9	218,700	218,700	57.1	473.3	196,600	242,300	155
160	39.4	444.8	181,600	181,600	46.1	457.0	211,300	211,300	54.8	469.7	188,400	240,300	160
165	36.2	437.9	176,100	176,100	43.4	451.7	204,200	204,200	52.4	465.8	180,700	238,100	165
170	32.8	430.2	171,200	171,200	40.5	445.8	196,700	197,600	50.0	461.5	173,500	236,000	170
175	29.0	421.3	167,200	167,200	37.4	439.2	189,100	191,400	47.5	456.9	166,700	232,900	175
180	24.6	410.6	164,200	164,200	34.1	431.8	181,900	185,800	44.8	451.8	160,300	224,600	180
185	19.3	397.1	162,600	162,600	30.5	423.4	175,100	181,000	42.0	446.2	154,200	216,700	185
190	11.4	376.6	162,600	162,600	26.3	413.5	168,600	177,000	39.1	440.0	148,400	209,200	190
195					21.4	401.2	162,300	174,100	35.9	433.1	142,800	202,100	195
200					14.9	384.3	156,200	173,200	32.5	425.2	137,500	195,300	200
205									28.6	416.2	132,500	188,800	205
210									24.2	405.3	127,600	182,500	210
215									18.7	391.4	122,800	176,400	215
220									10.3	369.5	118,000	170,300	220
230													230
240													240
250													250
260													260
270													270
280													280
290													290
300													300

# MLC650 VPC-MAX S-3

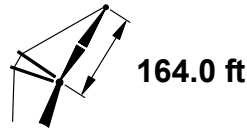
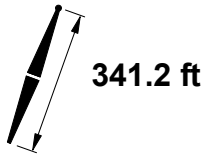
ASME B30.5



ft	75°				70°				65°				
	ft	ft	lb	lb	ft	ft	lb	lb	ft	ft	lb	ft	
85													85
90													90
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160													160
165													165
170	63.2	475.2	135,200	241,400									170
175	61.1	472.3	129,600	241,400									175
180	58.9	469.3	124,300	238,000									180
185	56.7	465.9	119,300	229,800									185
190	54.4	462.2	114,500	222,100									190
195	52.0	458.3	110,000	214,700									195
200	49.5	453.9	105,700	207,700									200
205	47.0	449.2	101,600	201,000									205
210	44.3	444.0	97,600	194,700	58.2	458.9	67,800	177,000					210
215	41.5	438.3	93,900	188,600	55.9	455.5	64,900	171,700					215
220	38.5	432.0	90,300	182,800	53.6	451.7	62,000	166,800					220
230	31.8	416.9	83,400	171,900	48.7	443.2	56,600	157,400					230
240	23.2	396.2	77,000	161,700	43.4	433.0	51,700	148,800					240
250	7.5	355.3	70,400	151,600	37.5	420.5	47,000	140,900	52.4	438.0	123,200		250
260					30.5	404.7	42,700	133,600	47.4	429.1	116,600		260
270					21.5	382.7	38,400	126,700	41.9	418.4	110,500		270
280									35.8	405.2	104,800		280
290									28.5	388.2	99,500		290
300									18.5	363.3	94,300		300

# MLC650 VPC-MAX S-3

ASME B30.5

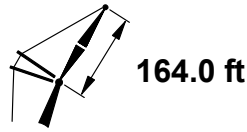
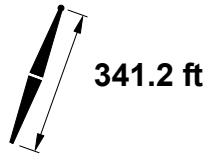


ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
85	74.9	507.6	236,000 b	236,000 b									85
90	73.1	506.0	235,500 b	235,500 b									90
95	71.2	504.3	234,300 b	234,300 b									95
100	69.3	502.3	232,600	232,600									100
105	67.4	500.2	230,600	230,600	71.9	503.6	236,000	236,000					105
110	65.5	497.9	227,900	227,900	70.0	501.7	235,500	235,500					110
115	63.6	495.3	225,200	225,200	68.2	499.7	234,400	234,400					115
120	61.6	492.5	222,400	222,400	66.2	497.4	232,900	232,900					120
125	59.5	489.5	219,500	219,500	64.3	494.9	231,000	231,000					125
130	57.4	486.3	216,500	216,500	62.3	492.2	229,000	229,000	69.2	498.0	233,900	233,900	130
135	55.3	482.8	210,400	210,400	60.3	489.3	226,400	226,400	67.3	495.8	233,900	233,900	135
140	53.1	478.9	203,100	203,100	58.2	486.2	224,000	224,000	65.3	493.5	223,600	233,800	140
145	50.8	474.8	196,000	196,000	56.1	482.7	221,400	221,400	63.4	490.9	213,600	233,100	145
150	48.5	470.3	189,100	189,100	53.9	479.0	218,900	218,900	61.4	488.1	204,400	232,000	150
155	46.1	465.4	182,500	182,500	51.7	475.0	213,200	213,200	59.3	485.1	195,700	230,600	155
160	43.5	460.1	176,400	176,400	49.4	470.7	206,100	206,100	57.2	481.8	187,600	229,000	160
165	40.8	454.3	170,600	170,600	47.0	465.9	199,200	199,200	55.1	478.2	179,900	227,200	165
170	38.0	447.9	165,300	165,300	44.5	460.8	192,600	192,600	52.9	474.4	172,700	225,300	170
175	34.9	440.7	160,500	160,500	41.8	455.2	186,300	186,300	50.6	470.2	166,000	223,300	175
180	31.6	432.6	156,300	156,300	39.1	449.0	180,400	180,400	48.3	465.7	159,600	221,400	180
185	27.9	423.3	152,800	152,800	36.1	442.1	174,800	175,000	45.8	460.8	153,500	216,000	185
190	23.7	412.2	150,300	150,300	32.9	434.4	168,400	170,000	43.3	455.4	147,700	208,600	190
195	18.4	398.1	149,100	149,100	29.3	425.6	162,300	165,800	40.6	449.5	142,300	201,500	195
200	10.7	376.4	149,100	149,100	25.3	415.2	156,400	162,300	37.7	443.1	137,100	194,800	200
205					20.5	402.4	150,700	159,900	34.6	435.8	132,100	188,400	205
210					14.1	384.7	145,200	159,300	31.3	427.6	127,300	182,200	210
215									27.5	418.2	122,700	176,300	215
220									23.2	406.8	118,300	170,600	220
230									9.6	369.1	109,500	159,500	230
240													240
250													250
260													260
270													270
280													280
290													290
300													300
310													310



# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°				65°			
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	ft
85												85
90												90
95												95
100												100
105												105
110												110
115												115
120												120
125												125
130												130
135												135
140												140
145												145
150												150
155												155
160												160
165												165
170	65.0	486.3	134,100	225,300								170
175	63.0	483.6	128,500	225,300								175
180	61.0	480.8	123,300	225,300								180
185	58.9	477.7	118,300	225,300								185
190	56.8	474.4	113,500	221,100								190
195	54.7	470.8	109,000	213,800								195
200	52.5	466.9	104,800	206,800								200
205	50.2	462.7	100,700	200,200								205
210	47.8	458.1	96,800	193,800								210
215	45.3	453.1	93,100	187,800	58.2	467.4	63,700	170,700				215
220	42.8	447.6	89,500	182,100	56.1	464.0	60,900	165,800				220
230	37.1	435.0	82,800	171,200	51.7	456.3	55,600	156,500				230
240	30.6	419.2	76,600	161,200	47.0	447.2	50,700	148,000				240
250	22.3	397.7	70,600	151,800	41.9	436.5	46,200	140,100				250
260	6.7	354.1	64,500	142,500	36.1	423.4	41,900	132,900	50.6	442.5	115,700	260
270					29.4	406.9	37,900	126,100	45.7	433.0	109,700	270
280					20.6	383.9	33,900	119,700	40.5	421.7	104,000	280
290									34.5	407.9	98,700	290
300									27.4	390.2	93,800	300
310									17.7	364.1	89,000	310

# MLC650 VPC-MAX S-3

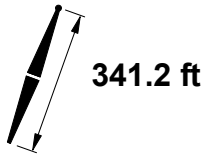
ASME B30.5



881,800 lb



360°



341.2 ft

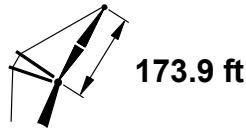
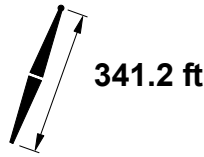


173.9 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
90	74.1	516.4	222,200 b	222,200 b									90
95	72.3	514.7	221,400	221,400									95
100	70.6	512.9	220,200	220,200									100
105	68.8	510.9	218,600	218,600	73.0	514.0	222,200	222,200					105
110	67.0	508.7	216,700	216,700	71.2	512.2	222,100	222,100					110
115	65.2	506.4	214,200	214,200	69.5	510.3	221,500	221,500					115
120	63.3	503.8	211,800	211,800	67.7	508.2	220,400	220,400					120
125	61.4	501.0	209,200	209,200	65.9	505.9	219,100	219,100					125
130	59.5	498.0	206,600	206,600	64.0	503.4	217,300	217,300					130
135	57.6	494.8	203,500	203,500	62.1	500.7	215,300	215,300	68.6	506.5	220,100	220,100	135
140	55.6	491.3	196,700	196,700	60.2	497.8	213,200	213,200	66.8	504.3	220,100	220,100	140
145	53.5	487.5	190,000	190,000	58.3	494.6	211,000	211,000	65.0	502.0	210,500	219,900	145
150	51.4	483.5	183,400	183,400	56.3	491.2	208,800	208,800	63.2	499.4	201,300	219,300	150
155	49.2	479.1	177,100	177,100	54.3	487.6	206,500	206,500	61.3	496.6	192,700	218,400	155
160	46.9	474.4	171,100	171,100	52.2	483.6	200,100	200,100	59.3	493.5	184,600	217,200	160
165	44.6	469.2	165,300	165,300	50.0	479.4	193,600	193,600	57.4	490.3	177,000	215,800	165
170	42.1	463.7	160,000	160,000	47.8	474.8	187,200	187,200	55.4	486.8	169,800	214,200	170
175	39.5	457.5	154,900	154,900	45.4	469.8	181,000	181,000	53.3	483.0	163,100	212,600	175
180	36.7	450.8	150,300	150,300	43.0	464.4	175,200	175,200	51.2	478.9	156,700	210,900	180
185	33.8	443.4	146,100	146,100	40.5	458.5	169,600	169,600	49.0	474.5	150,700	209,200	185
190	30.5	434.9	142,600	142,600	37.8	452.0	164,500	164,500	46.7	469.7	145,000	204,200	190
195	26.9	425.2	139,600	139,600	34.9	444.9	159,800	159,800	44.3	464.6	139,600	198,000	195
200	22.8	413.7	137,600	137,600	31.8	436.8	154,200	155,500	41.8	458.9	134,400	192,100	200
205	17.7	399.0	136,800	136,800	28.3	427.6	148,700	151,800	39.2	452.8	129,500	185,800	205
210	10.0	376.2	136,800	136,800	24.4	416.9	143,400	148,900	36.5	446.0	124,800	179,700	210
215					19.7	403.6	138,300	147,000	33.5	438.4	120,300	173,900	215
220					13.4	385.1	133,200	146,700	30.2	429.9	115,900	168,300	220
230									22.4	408.3	107,700	157,700	230
240									8.8	368.6	99,600	147,500	240
250													250
260													260
270													270
280													280
290													290
300													300
310													310
320													320

# MLC650 VPC-MAX S-3

ASME B30.5



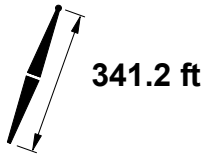
ft	75°				70°				65°			
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	ft
90												90
95												95
100												100
105												105
110												110
115												115
120												120
125												125
130												130
135												135
140												140
145												145
150												150
155												155
160												160
165												165
170												170
175	64.7	494.8	125,100	211,500								175
180	62.8	492.1	119,900	211,500								180
185	60.9	489.3	115,000	211,500								185
190	59.0	486.2	110,300	211,500								190
195	57.0	482.9	105,800	210,500								195
200	55.0	479.3	101,600	203,600								200
205	52.9	475.5	97,500	197,000								205
210	50.8	471.4	93,700	190,800								210
215	48.5	466.9	90,000	184,800								215
220	46.3	462.0	86,500	179,000	58.3	475.9	57,500	163,000				220
230	41.4	451.1	79,900	168,300	54.3	468.9	52,200	153,800				230
240	35.9	437.9	73,800	158,400	50.0	460.7	47,400	145,400				240
250	29.6	421.4	68,100	149,300	45.5	451.1	43,000	137,600				250
260	21.5	399.0	62,600	140,600	40.5	439.8	38,800	130,400	53.2	455.2	113,000	260
270	5.8	352.5	56,900	132,000	34.9	426.2	34,900	123,700	48.9	446.7	107,000	270
280					28.4	409.0	31,200	117,500	44.2	436.8	101,400	280
290					19.8	385.0	27,500	111,600	39.1	424.9	96,200	290
300									33.4	410.5	91,300	300
310									26.5	392.1	86,700	310
320									16.9	364.9	82,200	320

# MLC650 VPC-MAX S-3

ASME B30.5



881,800 lb



341.2 ft

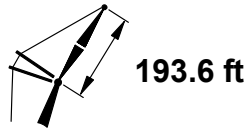
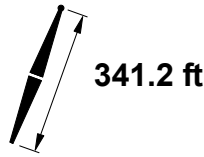


193.6 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
95	74.2	535.4	197,800	197,800									95
100	72.6	533.8	197,300	197,300									100
105	71.1	532.1	196,400	196,400									105
110	69.5	530.1	195,200	195,200									110
115	67.9	528.0	193,600	193,600	71.6	531.4	197,500	197,500					115
120	66.3	525.8	191,900	191,900	70.1	529.5	197,200	197,200					120
125	64.6	523.4	190,000	190,000	68.5	527.5	196,500	196,500					125
130	62.9	520.8	188,000	188,000	66.9	525.3	195,600	195,600					130
135	61.2	518.0	185,900	185,900	65.2	522.9	194,500	194,500					135
140	59.5	515.0	183,700	183,700	63.6	520.4	193,200	193,200	69.3	525.8	194,800	194,800	140
145	57.8	511.8	178,900	178,900	61.9	517.7	191,400	191,400	67.7	523.7	194,800	194,800	145
150	56.0	508.3	173,100	173,100	60.2	514.7	189,800	189,800	66.1	521.4	194,800	194,800	150
155	54.1	504.7	167,500	167,500	58.4	511.6	188,000	188,000	64.4	519.0	188,600	194,800	155
160	52.2	500.7	162,000	162,000	56.6	508.3	186,200	186,200	62.8	516.3	180,600	194,600	160
165	50.3	496.5	156,600	156,600	54.8	504.7	183,000	183,000	61.1	513.5	173,000	194,000	165
170	48.3	492.0	151,400	151,400	53.0	500.9	177,400	177,400	59.4	510.5	166,000	193,100	170
175	46.3	487.2	146,400	146,400	51.0	496.8	171,900	171,900	57.6	507.3	159,300	192,100	175
180	44.1	482.0	141,700	141,700	49.1	492.4	166,500	166,500	55.8	503.8	153,000	191,000	180
185	41.9	476.4	137,200	137,200	47.0	487.7	161,200	161,200	54.0	500.1	147,000	189,700	185
190	39.6	470.3	133,000	133,000	44.9	482.6	156,100	156,100	52.1	496.2	141,400	188,400	190
195	37.1	463.7	129,100	129,100	42.7	477.2	151,200	151,200	50.1	492.0	136,000	187,100	195
200	34.5	456.4	125,700	125,700	40.5	471.3	146,600	146,600	48.1	487.4	130,900	182,900	200
205	31.7	448.3	122,600	122,600	38.0	464.9	142,300	142,300	46.1	482.6	126,100	177,600	205
210	28.6	439.3	119,900	119,900	35.5	457.8	138,200	138,200	43.9	477.3	121,400	172,400	210
215	25.2	428.8	117,700	117,700	32.8	450.1	134,500	134,500	41.7	471.7	117,000	167,400	215
220	21.2	416.4	116,400	116,400	29.8	441.4	131,100	131,300	39.4	465.5	112,800	162,600	220
230	8.7	375.2	116,000	116,000	22.8	419.9	122,100	126,400	34.3	451.5	104,800	153,600	230
240					12.1	385.4	113,500	125,100	28.3	434.2	97,400	145,300	240
250									20.8	410.9	90,500	136,500	250
260									7.5	367.0	83,600	127,700	260
270													270
280													280
290													290
300													300
310													310
320													320
330													330
340													340

# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°				65°				
	ft	ft	lb	lb	ft	ft	lb	lb	ft	ft	lb	ft	
95													95
100													100
105													105
110													110
115													115
120													120
125													125
130													130
135													135
140													140
145													145
150													150
155													155
160													160
165													165
170													170
175													175
180													180
185	64.1	511.7	110,400	186,600									185
190	62.5	509.1	105,800	186,600									190
195	60.8	506.2	101,400	186,600									195
200	59.0	503.2	97,300	186,600									200
205	57.3	499.9	93,300	186,600									205
210	55.4	496.4	89,500	186,600									210
215	53.6	492.7	85,900	180,600									215
220	51.7	488.7	82,500	175,000									220
230	47.7	479.8	76,000	164,400	58.4	492.9	47,600	150,100					230
240	43.5	469.6	70,000	154,700	54.8	486.0	43,000	141,800					240
250	38.9	457.6	64,500	145,700	51.1	478.1	38,600	134,100					250
260	33.7	443.3	59,300	137,400	47.1	469.0	34,600	127,000					260
270	27.7	425.6	54,500	129,600	42.8	458.5	30,900	120,400	53.9	472.4	103,300		270
280	20.0	401.4	49,800	122,200	38.1	446.2	27,300	114,300	50.1	464.2	97,900		280
290	3.7	347.6	44,700	114,500	32.8	431.4	24,000	108,600	46.0	454.8	92,800		290
300					26.6	412.9	20,800	103,200	41.6	443.9	88,000		300
310					18.4	387.1		98,100	36.8	431.0	83,500		310
320									31.3	415.5	79,300		320
330									24.7	395.6	75,200		330
340									15.6	366.3	71,300		340

# MLC650 VPC-MAX S-3

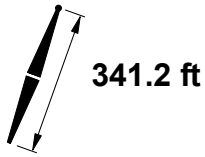
ASME B30.5



881,800 lb



360°



341.2 ft

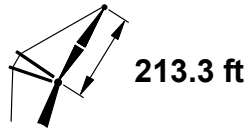
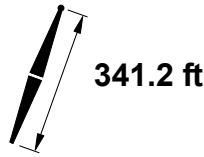


213.3 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
100	74.3	554.5	174,400	174,400									100
105	72.9	552.9	174,000	174,000									105
110	71.5	551.2	173,400	173,400									110
115	70.0	549.3	172,600	172,600									115
120	68.6	547.3	171,400	171,400	72.0	550.5	174,000	174,000					120
125	67.1	545.1	170,100	170,100	70.6	548.7	173,900	173,900					125
130	65.6	542.8	168,700	168,700	69.1	546.7	173,500	173,500					130
135	64.1	540.4	167,200	167,200	67.7	544.6	172,900	172,900					135
140	62.6	537.7	165,600	165,600	66.2	542.4	172,100	172,100					140
145	61.1	534.9	164,000	164,000	64.7	539.9	171,200	171,200	69.9	545.0	171,100	171,100	145
150	59.5	531.9	162,300	162,300	63.2	537.4	170,200	170,200	68.4	542.9	171,100	171,100	150
155	57.9	528.7	157,800	157,800	61.7	534.6	168,800	168,800	67.0	540.8	171,100	171,100	155
160	56.3	525.4	152,900	152,900	60.1	531.7	167,500	167,500	65.5	538.4	171,100	171,100	160
165	54.6	521.8	148,300	148,300	58.5	528.6	166,100	166,100	64.0	535.9	169,100	171,100	165
170	53.0	517.9	143,600	143,600	56.9	525.3	164,700	164,700	62.5	533.3	162,000	171,100	170
175	51.2	513.9	139,100	139,100	55.3	521.8	162,400	162,400	60.9	530.5	155,400	171,000	175
180	49.4	509.5	134,700	134,700	53.6	518.0	157,700	157,700	59.4	527.5	149,100	170,400	180
185	47.6	504.9	130,400	130,400	51.9	514.0	153,100	153,100	57.8	524.3	143,200	169,500	185
190	45.7	500.0	126,300	126,300	50.1	509.8	148,600	148,600	56.1	520.9	137,600	168,700	190
195	43.8	494.8	122,400	122,400	48.3	505.3	144,000	144,000	54.5	517.2	132,300	167,800	195
200	41.8	489.1	118,700	118,700	46.4	500.5	139,700	139,700	52.8	513.4	127,300	166,800	200
205	39.7	483.1	115,200	115,200	44.5	495.4	135,500	135,500	51.1	509.3	122,500	165,800	205
210	37.4	476.5	111,900	111,900	42.5	489.9	131,400	131,400	49.3	505.0	117,900	163,900	210
215	35.1	469.4	108,900	108,900	40.4	484.0	127,500	127,500	47.4	500.3	113,500	159,500	215
220	32.6	461.6	106,200	106,200	38.3	477.7	123,900	123,900	45.6	495.4	109,300	155,100	220
230	27.0	443.3	101,800	101,800	33.6	463.2	117,300	117,300	41.6	484.4	101,500	146,600	230
240	19.9	418.8	99,200	99,200	28.1	445.6	111,300	111,900	37.2	471.7	94,300	138,700	240
250	7.5	373.7	99,200	99,200	21.4	422.7	103,800	108,200	32.4	456.6	87,600	131,500	250
260					11.0	385.5	96,400	107,300	26.7	438.1	81,400	125,400	260
270									19.5	413.3	75,400	117,900	270
280									6.2	364.7	69,400	110,300	280
290													290
300													300
310													310
320													320
330													330
340													340
350													350
360													360

# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°				65°			
	ft	lb	ft	lb	ft	lb	ft	lb	ft	lb	ft	
100												100
105												105
110												110
115												115
120												120
125												125
130												130
135												135
140												140
145												145
150												150
155												155
160												160
165												165
170												170
175												175
180												180
185												185
190												190
195	63.7	528.7	97,000	164,100								195
200	62.2	526.0	92,900	164,100								200
205	60.6	523.2	89,000	164,100								205
210	59.1	520.1	85,300	164,100								210
215	57.5	516.9	81,700	164,100								215
220	55.8	513.5	78,300	164,100								220
230	52.5	505.9	72,000	160,400								230
240	48.9	497.4	66,100	150,800	58.5	509.9	38,400	138,100				240
250	45.2	487.7	60,700	141,900	55.3	503.0	34,200	130,600				250
260	41.2	476.6	55,700	133,700	51.9	495.3	30,300	123,600				260
270	36.8	463.7	51,000	126,100	48.3	486.6	26,700	117,100				270
280	31.9	448.3	46,600	118,900	44.5	476.7	23,300	111,000	54.4	489.5	94,200	280
290	26.1	429.4	42,400	112,200	40.5	465.3	20,100	105,400	51.0	481.5	89,200	290
300	18.7	403.6	38,300	105,800	36.0	452.1		100,100	47.4	472.5	84,500	300
310					31.0	436.3		95,100	43.5	462.3	80,100	310
320					25.0	416.5		89,800	39.4	450.5	76,000	320
330					17.1	388.9		84,500	34.8	436.7	72,100	330
340									29.6	420.0	68,400	340
350									23.3	398.8	64,800	350
360									14.4	367.3	61,300	360

# MLC650 VPC-MAX S-3

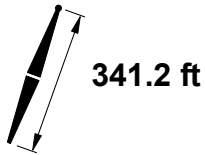
ASME B30.5



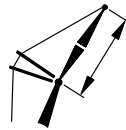
881,800 lb



360°



341.2 ft



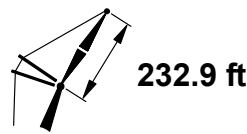
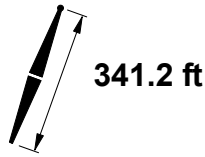
232.9 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
105	74.4	573.5	158,800	158,800									105
110	73.1	572.0	158,500	158,500									110
115	71.8	570.3	157,900	157,900									115
120	70.5	568.5	157,200	157,200									120
125	69.2	566.5	156,300	156,300	72.3	569.6	158,200	158,200					125
130	67.8	564.4	155,100	155,100	71.0	567.8	158,100	158,100					130
135	66.5	562.2	154,100	154,100	69.7	565.9	157,800	157,800					135
140	65.1	559.9	152,600	152,600	68.3	563.9	157,300	157,300					140
145	63.7	557.4	151,300	151,300	67.0	561.7	156,700	156,700					145
150	62.4	554.7	149,900	149,900	65.6	559.4	156,000	156,000					150
155	60.9	551.9	148,500	148,500	64.3	556.9	155,100	155,100	69.0	562.2	155,500	155,500	155
160	59.5	548.9	144,500	144,500	62.9	554.3	154,000	154,000	67.7	560.1	155,500	155,500	160
165	58.1	545.7	140,300	140,300	61.5	551.6	153,000	153,000	66.4	557.8	155,500	155,500	165
170	56.6	542.4	136,100	136,100	60.0	548.6	151,800	151,800	65.0	555.5	155,400	155,500	170
175	55.1	538.8	132,000	132,000	58.6	545.5	150,600	150,600	63.6	552.9	148,800	155,500	175
180	53.5	535.1	128,000	128,000	57.1	542.3	149,400	149,400	62.2	550.3	142,600	155,300	180
185	52.0	531.1	124,100	124,100	55.6	538.8	145,400	145,400	60.8	547.4	136,800	155,000	185
190	50.4	527.0	120,300	120,300	54.1	535.1	141,300	141,300	59.4	544.4	131,300	154,400	190
195	48.7	522.5	116,500	116,500	52.6	531.3	137,300	137,300	57.9	541.2	126,000	153,800	195
200	47.0	517.8	113,000	113,000	51.0	527.2	133,400	133,400	56.4	537.9	121,000	153,100	200
205	45.3	512.8	109,500	109,500	49.3	522.8	129,500	129,500	54.9	534.3	116,300	152,300	205
210	43.5	507.5	106,200	106,200	47.7	518.2	125,700	125,700	53.4	530.6	111,800	151,500	210
215	41.6	501.9	103,100	103,100	45.9	513.4	122,000	122,000	51.8	526.6	107,400	150,600	215
220	39.7	495.8	100,200	100,200	44.2	508.2	118,400	118,400	50.2	522.4	103,300	148,200	220
230	35.6	482.3	94,800	94,800	40.4	496.8	111,700	111,700	46.9	513.2	95,600	140,500	230
240	31.0	466.5	90,400	90,400	36.4	483.6	105,700	105,700	43.3	502.8	88,600	133,100	240
250	25.6	447.0	87,200	87,200	31.9	468.3	98,900	100,500	39.5	491.1	82,000	126,000	250
260	18.7	421.0	85,500	85,500	26.7	449.6	92,100	96,300	35.4	477.5	75,900	119,500	260
270	6.3	371.5	85,500	85,500	20.2	425.2	85,600	93,600	30.7	461.5	70,300	112,800	270
280					10.0	385.1	79,300	93,200	25.3	441.8	64,900	105,900	280
290									18.3	415.3	59,800	99,300	290
300									4.8	361.2	54,500	92,600	300
310													310
320													320
330													330
340													340
350													350
360													360
370													370
380													380



# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°			65°			ft
	°	ft	lb	lb	ft	lb	°	ft	lb		
105											105
110											110
115											115
120											120
125											125
130											130
135											135
140											140
145											145
150											150
155											155
160											160
165											165
170											170
175											175
180											180
185											185
190											190
195											195
200	64.7	548.3	85,700	147,100							200
205	63.4	545.7	81,800	147,100							205
210	62.0	543.0	78,200	147,100							210
215	60.5	540.1	74,700	147,100							215
220	59.1	537.1	71,400	147,100							220
230	56.1	530.5	65,100	147,100							230
240	53.1	523.1	59,400	144,100							240
250	49.9	514.8	54,100	135,300	58.6	526.8	124,800				250
260	46.5	505.5	49,300	127,300	55.7	520.1	118,000				260
270	43.0	495.1	44,700	119,800	52.6	512.6	111,600				270
280	39.2	483.1	40,500	112,800	49.4	504.1	105,600				280
290	35.0	469.3	36,500	106,300	46.0	494.7	99,900	54.9	506.6	83,400	290
300	30.3	453.0	32,700	100,100	42.4	484.0	94,100	51.8	498.8	78,900	300
310	24.7	432.9	29,100	94,300	38.5	471.8	88,600	48.5	490.1	74,600	310
320	17.5	405.5	25,500	88,700	34.2	457.6	83,400	45.1	480.4	70,500	320
330					29.4	440.8	78,500	41.4	469.3	66,700	330
340					23.7	419.8	73,800	37.4	456.7	63,100	340
350					16.0	390.4	69,300	33.1	441.9	59,700	350
360								28.1	424.2	56,500	360
370								22.0	401.7	53,300	370
380								13.4	368.1	50,300	380

# MLC650 VPC-MAX S-3

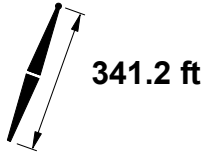
ASME B30.5



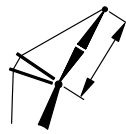
881,800 lb



360°



341.2 ft

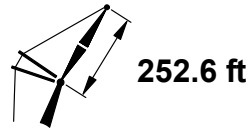
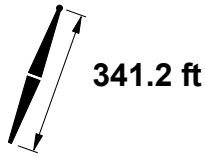


252.6 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
110	74.4	592.6	141,400	141,400									110
115	73.3	591.0	141,100	141,100									115
120	72.1	589.4	140,600	140,600									120
125	70.9	587.6	140,000	140,000									125
130	69.7	585.7	139,400	139,400	72.5	588.7	140,600	140,600					130
135	68.4	583.7	138,600	138,600	71.3	586.9	140,500	140,500					135
140	67.2	581.6	137,500	137,500	70.1	585.1	140,300	140,300					140
145	65.9	579.3	136,700	136,700	68.9	583.1	140,000	140,000					145
150	64.7	576.9	135,400	135,400	67.7	581.0	139,600	139,600					150
155	63.4	574.3	134,200	134,200	66.4	578.8	139,000	139,000					155
160	62.1	571.6	133,100	133,100	65.2	576.4	138,400	138,400	69.5	581.4	137,500	137,500	160
165	60.8	568.8	130,800	130,800	63.9	573.9	137,500	137,500	68.3	579.3	137,500	137,500	165
170	59.5	565.8	127,300	127,300	62.6	571.3	136,900	136,900	67.1	577.2	137,500	137,500	170
175	58.2	562.7	123,800	123,800	61.3	568.5	135,900	135,900	65.8	574.9	137,500	137,500	175
180	56.8	559.4	120,300	120,300	60.0	565.6	134,900	134,900	64.6	572.5	137,500	137,500	180
185	55.4	555.9	116,900	116,900	58.7	562.5	134,000	134,000	63.3	569.9	132,800	137,500	185
190	54.0	552.2	113,400	113,400	57.3	559.3	132,500	132,500	62.0	567.2	127,300	137,500	190
195	52.6	548.4	110,000	110,000	55.9	555.8	129,100	129,100	60.7	564.4	122,100	137,400	195
200	51.1	544.3	106,700	106,700	54.5	552.2	125,600	125,600	59.4	561.4	117,100	137,100	200
205	49.6	540.0	103,600	103,600	53.1	548.4	122,200	122,200	58.0	558.2	112,400	136,500	205
210	48.1	535.5	100,500	100,500	51.7	544.5	118,800	118,800	56.7	554.9	107,900	136,000	210
215	46.5	530.7	97,500	97,500	50.2	540.2	115,500	115,500	55.3	551.4	103,700	135,400	215
220	44.9	525.6	94,600	94,600	48.7	535.8	112,300	112,300	53.9	547.7	99,600	134,800	220
230	41.5	514.6	89,200	89,200	45.5	526.2	106,000	106,000	51.0	539.7	92,000	132,600	230
240	37.9	502.1	84,300	84,300	42.2	515.4	100,100	100,100	48.0	530.9	85,000	126,200	240
250	34.0	487.8	80,100	80,100	38.6	503.2	94,600	94,600	44.8	521.0	78,500	119,800	250
260	29.5	471.0	76,700	76,700	34.7	489.3	89,100	89,800	41.4	509.9	72,500	113,600	260
270	24.3	450.4	74,200	74,200	30.4	473.0	82,800	85,600	37.7	497.3	67,000	107,800	270
280	17.7	423.0	73,100	73,100	25.4	453.3	77,000	82,400	33.8	482.9	61,800	102,400	280
290	5.1	368.4	73,100	73,100	19.1	427.5	71,400	80,400	29.3	466.0	56,900	96,400	290
300					9.1	384.4	65,800	80,200	24.1	445.1	52,300	90,400	300
310									17.3	417.2	47,800	84,700	310
320									3.1	355.3	43,000	78,700	320
330													330
340													340
350													350
360													360
370													370
380													380
390													390
400													400

# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°			65°			ft
	ft	lb	lb	lb	ft	lb	lb	ft	lb	lb	
110											110
115											115
120											120
125											125
130											130
135											135
140											140
145											145
150											150
155											155
160											160
165											165
170											170
175											175
180											180
185											185
190											190
195											195
200											200
205											205
210	64.3	565.3	73,700	129,800							210
215	63.1	562.7	70,300	129,800							215
220	61.8	560.0	67,000	129,800							220
230	59.1	554.1	60,900	129,800							230
240	56.4	547.5	55,200	129,800							240
250	53.6	540.2	50,000	129,800							250
260	50.7	532.2	45,200	123,300	58.7	543.8	114,400				260
270	47.7	523.2	40,800	115,900	56.0	537.1	108,100				270
280	44.5	513.2	36,600	109,000	53.1	529.7	101,700				280
290	41.0	502.0	32,700	102,500	50.2	521.5	95,600				290
300	37.4	489.3	29,100	96,500	47.1	512.4	89,900				300
310	33.4	474.7	25,600	90,800	43.9	502.3	84,500	52.4	516.0	71,000	310
320	28.8	457.4	22,300	85,500	40.5	490.8	79,400	49.4	507.6	67,100	320
330	23.5	436.1		80,400	36.7	477.8	74,700	46.3	498.3	63,300	330
340	16.5	407.1		75,400	32.7	462.8	70,100	43.0	487.8	59,800	340
350					28.0	445.0	65,800	39.5	476.0	56,500	350
360					22.5	422.8	61,700	35.7	462.5	53,300	360
370					15.1	391.6	57,600	31.5	446.9	50,300	370
380								26.7	428.2	47,400	380
390								20.9	404.4	44,600	390
400								12.4	368.6	41,700	400

# MLC650 VPC-MAX S-3

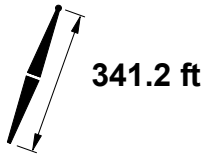
ASME B30.5



881,800 lb



360°



341.2 ft

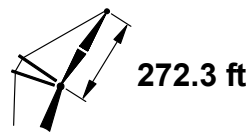
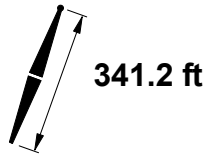


272.3 ft

ft	85°				83°				80°				ft
	ft	lb	lb	lb	ft	lb	lb	lb	ft	lb	lb	lb	
115	74.5	611.6	126,400	126,400									115
120	73.4	610.1	126,100	126,100									120
125	72.3	608.5	125,600	125,600									125
130	71.2	606.7	125,200	125,200									130
135	70.1	604.9	124,700	124,700	72.7	607.7	125,600	125,600					135
140	68.9	602.9	124,000	124,000	71.6	606.0	125,500	125,500					140
145	67.8	600.8	123,000	123,000	70.5	604.2	125,400	125,400					145
150	66.6	598.6	122,200	122,200	69.4	602.3	125,100	125,100					150
155	65.5	596.3	121,300	121,300	68.2	600.3	124,600	124,600					155
160	64.3	593.9	120,300	120,300	67.1	598.1	124,200	124,200					160
165	63.1	591.3	119,300	119,300	65.9	595.8	123,700	123,700	70.0	600.5	122,400	122,400	165
170	61.9	588.6	118,200	118,200	64.8	593.4	123,100	123,100	68.8	598.6	122,400	122,400	170
175	60.7	585.8	115,600	115,600	63.6	590.9	122,400	122,400	67.7	596.5	122,400	122,400	175
180	59.5	582.8	112,600	112,600	62.4	588.3	121,700	121,700	66.5	594.3	122,400	122,400	180
185	58.3	579.7	109,700	109,700	61.2	585.5	120,900	120,900	65.4	591.9	122,400	122,400	185
190	57.0	576.4	106,700	106,700	60.0	582.6	120,100	120,100	64.2	589.5	122,400	122,400	190
195	55.7	572.9	103,700	103,700	58.7	579.5	119,300	119,300	63.0	586.9	119,400	122,400	195
200	54.4	569.3	100,800	100,800	57.5	576.2	117,800	117,800	61.8	584.2	114,500	122,400	200
205	53.1	565.5	97,900	97,900	56.2	572.9	114,900	114,900	60.6	581.3	109,800	122,400	205
210	51.8	561.5	95,100	95,100	54.9	569.3	112,000	112,000	59.4	578.3	105,400	122,100	210
215	50.4	557.4	92,300	92,300	53.6	565.6	109,100	109,100	58.1	575.2	101,100	121,700	215
220	49.0	553.0	89,700	89,700	52.3	561.7	106,200	106,200	56.9	571.9	97,100	121,200	220
230	46.1	543.5	84,600	84,600	49.5	553.3	100,500	100,500	54.3	564.8	89,500	120,000	230
240	43.1	533.0	79,800	79,800	46.6	544.0	95,100	95,100	51.6	557.0	82,600	118,800	240
250	39.8	521.3	75,500	75,500	43.6	533.7	89,900	89,900	48.9	548.4	76,200	113,500	250
260	36.3	508.1	71,600	71,600	40.4	522.3	85,100	85,100	46.0	538.9	70,300	108,000	260
270	32.5	493.0	68,300	68,300	37.0	509.3	80,800	80,800	42.9	528.4	64,800	102,700	270
280	28.2	475.3	65,500	65,500	33.2	494.6	75,300	76,900	39.7	516.6	59,700	97,600	280
290	23.2	453.6	63,600	63,600	29.1	477.5	69,900	73,600	36.2	503.3	54,900	92,800	290
300	16.8	424.7	63,000	63,000	24.2	456.7	64,800	71,000	32.3	488.1	50,500	88,500	300
310	3.7	363.7	63,000	63,000	18.1	429.6	60,000	69,500	28.0	470.2	46,200	83,100	310
320					8.2	383.4	55,100	69,500	22.9	448.3	42,200	77,900	320
330									16.4	418.8	38,200	72,900	330
340													340
350													350
360													360
370													370
380													380
390													390
400													400
410													410
420													420

# MLC650 VPC-MAX S-3

ASME B30.5



ft	75°				70°			65°			ft
	ft	ft	lb	lb	ft	lb	ft	lb	ft		
115											115
120											120
125											125
130											130
135											135
140											140
145											145
150											150
155											155
160											160
165											165
170											170
175											175
180											180
185											185
190											190
195											195
200											200
205											205
210											210
215											215
220	64.0	582.3	64,000	115,700							220
230	61.6	576.9	57,900	115,700							230
240	59.2	571.0	52,300	115,700							240
250	56.6	564.5	47,200	115,700							250
260	54.1	557.4	42,500	115,700							260
270	51.4	549.5	38,100	113,200	58.7	560.8	105,200				270
280	48.6	540.8	34,000	106,400	56.2	554.1	98,700				280
290	45.7	531.2	30,200	100,000	53.6	546.9	92,700				290
300	42.6	520.6	26,600	94,100	50.9	538.9	87,000				300
310	39.3	508.7	23,300	88,500	48.1	530.1	81,700				310
320	35.8	495.2	20,100	83,300	45.2	520.3	76,700	52.9	533.2	64,600	320
330	31.9	479.8		78,300	42.1	509.5	72,000	50.2	525.0	60,900	330
340	27.6	461.6		73,600	38.8	497.3	67,600	47.4	516.0	57,500	340
350	22.4	439.2		69,100	35.2	483.6	63,400	44.4	506.0	54,200	350
360	15.6	408.5		64,700	31.3	467.8	59,400	41.3	494.8	51,100	360
370					26.8	449.0	55,500	37.9	482.3	48,100	370
380					21.4	425.7	51,800	34.2	468.1	45,300	380
390					14.2	392.7	48,200	30.2	451.6	42,300	390
400								25.5	431.9	39,400	400
410								19.8	406.8	36,500	410
420								11.6	368.9	33,600	420