

Liftcrane Jib Capacities

Jib No. 148 on
 Boom No. B60:680
 with Mast No. M10:684 or Mast No. M11:684
 881,800 lb VPC (Variable Position Counterweight)
 360 Degree Rating

MLC650 VPC-MAX SERIES 3



LIFTING CAPACITIES: Chart supplements Boom Capacity chart No. 9384-A. Lifting capacities for various boom lengths, jib lengths, and 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.

Weight of all load blocks, hooks, weight ball, slings, hoist lines, etc., beneath boom and jib point sheaves is considered part of load. Boom and jib are not to be lowered beyond radii where combined weights are greater than rated capacity. Where no capacity is shown, operation is not intended or approved.

BOOM BACKWARD STABILITY: Capacities indicated by (b) require 8,200 lb minimum weight suspended beneath jib point and (c) require 15,500 lb minimum weight. **Caution: Do not operate in areas indicated by (b) or (c) without required minimum weight.** Boom and jib may not lower and boom hoist wire rope may go slack causing wire rope damage or failure.

OPERATING CONDITIONS: Machine to operate on a firm, level, and uniformly supporting surface. Refer to Boom Rigging No. 81022686, Jib Rigging No. 81023385, Mast Rigging No. 81025005 or No. 84050187, Wire Rope Specifications chart No. 9532-A, Counterweight Arrangements chart No. 9349-A, and Wind Conditions chart No. 9531-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 must be within boom angle range shown in capacity chart. Refer to Maximum Allowable Travel Specification chart No. 9677-A.



OPERATING RADIUS: Operating radius is horizontal distance from axis of rotation to center of vertical hoist line or load block.



BOOM ANGLE: Boom angle in degrees (°) is angle between horizontal and centerline of boom butt and inserts, and is an indication of operating radius. In all cases, operating radius shall govern capacity.



JIB POINT ELEVATION: Jib point elevation is vertical distance from ground level to centerline of 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, and 881,800 lb VPC.

Luffing Jib Backstay Deduct	
Boom Length (ft)	Deduct (lb)
144.4	6,000
164.0	7,500
183.7	8,500
203.4	10,000
223.1	10,000
242.8	10,000
262.5	11,000
282.2	12,500
301.8	13,500
321.5	14,800
341.2	16,000
360.9	17,300
380.6	17,300
400.3	17,300
419.9	17,300

Deduct the appropriate value from capacities when luffing jib backstays are stored on boom.

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Refer to Table 1 (with luffing jib backstays stored) and Table 2 (without luffing jib backstays stored) for raising ability with the maximum weight of all load blocks, hooks, weight ball, slings, and hoist lines beneath boom and jib point sheaves. For block weights shown with #, load blocks, hooks, weight ball, and slings must remain on ground until combined weights are within rated capacity of chart. Raising is not permitted in shaded areas of table.

Select counterweight position from Tables 1 or 2 that will allow raising and lowering of boom and jib length. Counterweight position selection may be changed with jib on ground or while jib is within operating range of capacity chart.

Combined weight beneath boom and jib point sheaves must not exceed block weight shown. Total weight beneath jib point must not exceed 6,200 lb.

Table 1a: With Luffing Jib Backstays

Over End or Side of Crawlers													
Boom Length (ft)	Counterweight Position												
	38.7 ft						60.0 ft						
	Jib Length (ft)												
	39.4	59.1	78.7	98.4	118.1	137.8	39.4	59.1	78.7	98.4	118.1	137.8	
Block Weight (lb)													
144.4	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	
164.0	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	
183.7	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	
203.4	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	
223.1	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	
242.8	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	
262.5	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	
282.2	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	
301.8	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	
321.5	22,600	22,600	22,600	22,600	22,600	22,600	46,500	46,500	46,500	46,500	46,500	46,500	
341.2	22,600	22,600	22,600	22,600	22,600	16,200	46,500	46,500	46,500	46,500	46,500	46,500	
360.9	#	#	#	#	#	#	46,500	46,500	46,500	22,600	22,600	22,600	
380.6	#	#	#	#	#	#	22,600	22,600	22,600	22,600	22,600	22,600	
400.3	Raising Not Permitted							22,600	22,600	16,200	16,200	16,200	#
419.9								16,200	#	#	#	#	#
439.6							Raising Not Permitted						
459.3	Raising Not Permitted												

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Table 1b: With Luffing Jib Backstays

Over End of Blocked Crawlers												
Boom Length (ft)	Counterweight Position											
	38.7 ft						60.0 ft					
	Jib Length (ft)											
	39.4	59.1	78.7	98.4	118.1	137.8	39.4	59.1	78.7	98.4	118.1	137.8
Block Weight (lb)												
144.4	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500
164.0	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500
183.7	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500
203.4	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500
223.1	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500
242.8	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500
262.5	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500
282.2	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500
301.8	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500
321.5	22,600	22,600	22,600	22,600	22,600	22,600	46,500	46,500	46,500	46,500	46,500	46,500
341.2	22,600	22,600	22,600	22,600	22,600	16,200	46,500	46,500	46,500	46,500	46,500	46,500
360.9	#	#	#	#	#	#	46,500	46,500	46,500	22,600	22,600	22,600
380.6	#	#	#	#	#	#	22,600	22,600	22,600	22,600	22,600	22,600
400.3	#	#	#	#	#	#	22,600	22,600	16,200	16,200	16,200	#
419.9	#	#	#	#	#	#	16,200	#	#	#	#	#
439.6	Raising Not Permitted											
459.3	Raising Not Permitted											

Warning: Crane must remain in-line with crawlers when raising over end of blocked crawlers until operating radius is within 360 degree chart. *Crane tipping or structural damage can occur.*

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Table 2a: Without Luffing Jib Backstays

Over End or Side of Crawlers												
Boom Length (ft)	Counterweight Position											
	38.7 ft						60.0 ft					
	Jib Length (ft)											
	39.4	59.1	78.7	98.4	118.1	137.8	39.4	59.1	78.7	98.4	118.1	137.8
Block Weight (lb)												
144.4	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500
164.0	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500
183.7	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500
203.4	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500
223.1	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500
242.8	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500
262.5	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500
282.2	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500
301.8	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500
321.5	46,500	46,500	46,500	46,500	22,600	22,600	46,500	46,500	46,500	46,500	46,500	46,500
341.2	22,600	22,600	22,600	22,600	22,600	22,600	46,500	46,500	46,500	46,500	46,500	46,500
360.9	22,600	16,200	16,200	16,200	#	#	46,500	46,500	46,500	46,500	46,500	46,500
380.6	#	#	#	#	#	#	46,500	46,500	22,600	22,600	22,600	22,600
400.3	#	#	#	#	#	#	22,600	22,600	22,600	22,600	22,600	22,600
419.9	#	#	#	#	#	#	22,600	22,600	22,600	16,200	16,200	16,200
439.6	Raising Not Permitted						#	#	#	#	#	#
459.3	Raising Not Permitted						#	#	#	#	#	#

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Table 2b: Without Luffing Jib Backstays

Over End of Blocked Crawlers												
Boom Length (ft)	Counterweight Position											
	38.7 ft						60.0 ft					
	Jib Length (ft)											
	39.4	59.1	78.7	98.4	118.1	137.8	39.4	59.1	78.7	98.4	118.1	137.8
	Block Weight (lb)											
144.4	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500
164.0	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500
183.7	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500
203.4	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500
223.1	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500
242.8	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500
262.5	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500
282.2	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500
301.8	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500	46,500
321.5	46,500	46,500	46,500	46,500	22,600	22,600	46,500	46,500	46,500	46,500	46,500	46,500
341.2	22,600	22,600	22,600	22,600	22,600	22,600	46,500	46,500	46,500	46,500	46,500	46,500
360.9	22,600	16,200	16,200	16,200	#	#	46,500	46,500	46,500	46,500	46,500	46,500
380.6	#	#	#	#	#	#	46,500	46,500	22,600	22,600	22,600	22,600
400.3	#	#	#	#	#	#	22,600	22,600	22,600	22,600	22,600	22,600
419.9	#	#	#	#	#	#	22,600	22,600	22,600	16,200	16,200	16,200
439.6	Raising Not Permitted						#	#	#	#	#	#
459.3	Raising Not Permitted						#	#	#	#	#	#

Warning: Crane must remain in-line with crawlers when raising over end of blocked crawlers until operating radius is within 360 degree chart. Crane tipping or structural damage can occur.

Explanation of Symbols



Jib No. 148
+
Boom No. B60:680



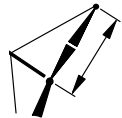
VPC (Variable Position Counterweight)



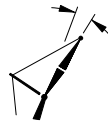
360 Degree Rating



Boom Length



Jib Length



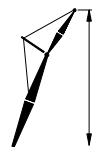
Jib Offset Angle



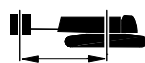
Operating Radius
(see page 1)



Boom Angle
(see page 1)



Jib Point Elevation
(see page 1)



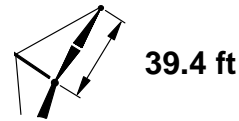
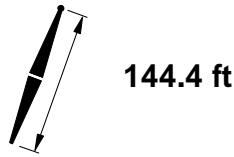
Counterweight Position
from Axis of Rotation



Lifting Capacities
(see page 1)

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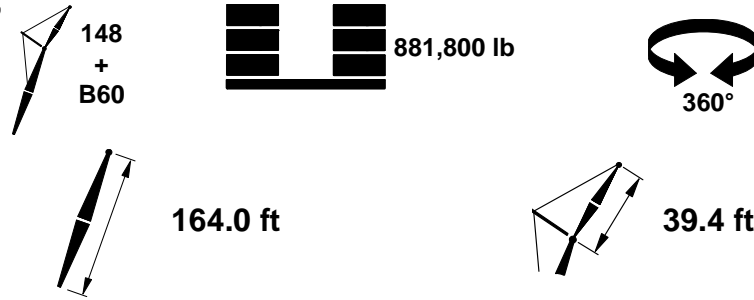
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	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
38	82.8	191.7	143,300c	143,300c					38
40	82.1	191.3	143,300c	143,300c					40
45	80.5	190.3	143,300b	143,300b	82.4	188.8	143,300c	143,300c	45
50	78.9	189.1	143,300b	143,300b	80.8	187.6	140,100b	140,100b	50
55	77.3	187.7	143,300	143,300	79.2	186.2	133,300b	133,300b	55
60	75.7	186.2	143,300	143,300	77.5	184.7	127,200	127,200	60
65	74.1	184.6	143,300	143,300	75.9	183.1	121,600	121,600	65
70	72.4	182.8	143,300	143,300	74.2	181.3	116,600	116,600	70
75	70.8	180.8	142,500	142,500	72.5	179.3	112,000	112,000	75
80	69.1	178.7	135,500	135,500	70.8	177.1	107,800	107,800	80
85	67.4	176.4	129,200	129,200	69.1	174.8	103,900	103,900	85
90	65.6	173.9	123,400	123,400	67.3	172.3	100,300	100,300	90
95	63.9	171.2	118,300	118,300	65.5	169.5	97,000	97,000	95
100	62.1	168.3	113,500	113,500	63.7	166.6	93,900	93,900	100
105	60.2	165.2	109,100	109,100	61.9	163.5	91,100	91,100	105
110	58.4	161.8	105,000	105,000	60.0	160.1	88,400	88,400	110
120	54.5	154.4	97,900	97,900	56.1	152.6	83,700	83,700	120
130	50.4	145.8	91,700	91,700	51.9	143.9	79,600	79,600	130
140	46.0	135.9	86,400	86,400	47.5	133.7	76,100	76,100	140
150	41.2	124.2	81,800	81,800	42.6	121.8	73,000	73,000	150
160	35.9	110.2	77,800	77,800	37.1	107.5	70,500	70,500	160
170	29.6	92.6	74,500	74,500	30.6	89.3	68,500	68,500	170
180	21.5	68.4	71,900	71,900					180

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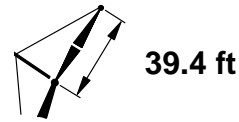
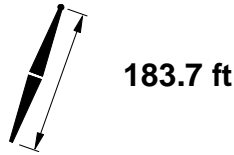
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	10°				20°				
	ft	°	ft	lb	ft	°	ft	lb	
40	82.9	211.3	143,300 ^b	143,300 ^b					40
45	81.5	210.3	143,300	143,300					45
50	80.0	209.3	143,300	143,300	81.7	207.8	143,300 ^b	143,300 ^b	50
55	78.6	208.1	143,300	143,300	80.2	206.6	137,700	137,700	55
60	77.1	206.8	143,300	143,300	78.8	205.2	131,800	131,800	60
65	75.7	205.3	143,300	143,300	77.3	203.7	126,400	126,400	65
70	74.2	203.7	143,300	143,300	75.8	202.1	121,400	121,400	70
75	72.7	201.9	143,300	143,300	74.3	200.3	116,800	116,800	75
80	71.2	200.0	143,300	143,300	72.8	198.4	112,700	112,700	80
85	69.7	198.0	137,900	137,900	71.3	196.4	108,800	108,800	85
90	68.2	195.8	132,000	132,000	69.7	194.1	105,200	105,200	90
95	66.6	193.4	126,600	126,600	68.1	191.7	101,900	101,900	95
100	65.0	190.8	121,600	121,600	66.6	189.2	98,800	98,800	100
105	63.4	188.1	117,000	117,000	64.9	186.4	96,000	96,000	105
110	61.8	185.2	112,800	112,800	63.3	183.5	93,300	93,300	110
120	58.5	178.8	105,300	105,300	59.9	177.0	88,400	88,400	120
130	55.0	171.5	98,800	98,800	56.4	169.7	84,100	84,100	130
140	51.4	163.3	93,100	93,100	52.7	161.3	80,300	80,300	140
150	47.5	153.8	88,100	88,100	48.8	151.7	77,000	77,000	150
160	43.4	143.0	83,700	83,700	44.6	140.7	74,200	74,200	160
170	38.8	130.3	79,900	79,900	40.0	127.8	71,700	71,700	170
180	33.7	115.2	76,600	76,600	34.8	112.3	69,700	69,700	180
190	27.7	96.4	73,700	73,700	28.6	92.8	68,100	68,100	190
200	19.9	70.4	71,600	71,600					200

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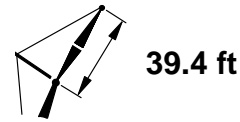
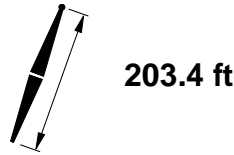
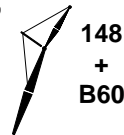
ASME B30.5



	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
45	82.2	230.4	143,300	143,300	82.4	227.8	143,300	143,300	45
50	80.9	229.4	143,300	143,300	81.1	226.8	141,500	141,500	50
55	79.6	228.3	143,300	143,300	79.8	225.5	135,800	135,800	55
60	78.3	227.1	143,300	143,300	78.5	224.2	130,500	130,500	60
65	77.0	225.8	143,300	143,300	77.1	222.7	125,700	125,700	65
70	75.6	224.3	143,300	143,300	75.8	221.1	121,200	121,200	70
75	74.3	222.7	143,300	143,300	74.4	219.4	117,100	117,100	75
80	72.9	221.0	143,300	143,300	73.0	217.6	113,200	113,200	80
85	71.6	219.2	143,300	143,300	71.6	215.6	109,700	109,700	85
90	70.2	217.2	139,900	139,900	70.2	213.4	106,400	106,400	90
95	68.8	215.1	134,400	134,400	68.8	211.1	103,300	103,300	95
100	67.4	212.8	129,300	129,300	67.4	208.7	100,400	100,400	100
105	66.0	210.4	124,600	124,600	65.9	206.1	97,700	97,700	105
110	64.5	207.8	120,100	120,100	63.0	200.4	92,700	92,700	110
120	61.6	202.2	112,300	112,300	59.9	194.0	88,400	88,400	120
130	58.6	195.8	105,500	105,500	56.7	186.7	84,400	84,400	130
140	55.4	188.7	99,500	99,500	53.4	178.6	81,000	81,000	140
150	52.1	180.6	94,200	94,200	49.9	169.5	77,900	77,900	150
160	48.7	171.6	89,500	89,500	46.2	159.1	75,200	75,200	160
170	45.0	161.3	85,400	85,400	42.2	147.2	72,800	72,800	170
180	41.1	149.6	81,700	81,700	37.8	133.4	70,700	70,700	180
190	36.8	136.1	78,400	78,400	32.8	116.8	69,000	69,000	190
200	31.9	119.9	75,600	75,600	26.8	96.0	67,900	67,900	200
210	26.2	99.9	73,100	73,100					210
220	18.6	72.2	71,300	71,300					220

MLC650 VPC-MAX S-3

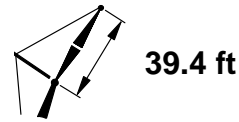
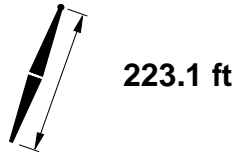
ASME B30.5



	10°				20°					
	ft	°	ft	lb	lb	ft	lb	lb		ft
45	82.9		250.3	143,300	143,300					45
50	81.7		249.4	143,300	143,300					50
55	80.5		248.4	143,300	143,300					55
60	79.3		247.3	143,300	143,300					60
65	78.1		246.1	143,300	143,300					65
70	76.8		244.8	143,300	143,300					70
75	75.6		243.4	143,300	143,300					75
80	74.4		241.8	143,300	143,300					80
85	73.1		240.1	143,300	143,300					85
90	71.9		238.3	143,300	143,300					90
95	70.6		236.4	141,700	141,700					95
100	69.4		234.3	136,500	136,500					100
105	68.1		232.1	131,600	131,600					105
110	66.8		229.8	127,100	127,100					110
120	64.1		224.8	119,000	119,000					120
130	61.4		219.1	111,900	111,900					130
140	58.6		212.8	105,700	105,700					140
150	55.8		205.7	100,100	100,100					150
160	52.8		197.9	95,200	95,200					160
170	49.6		189.2	90,800	90,800					170
180	46.4		179.4	86,800	86,800					180
190	42.9		168.4	83,300	83,300					190
200	39.1		155.9	80,100	80,100					200
210	35.0		141.5	77,300	77,300					210
220	30.3		124.4	74,800	74,800					220
230	24.8		103.1	72,700	72,700					230
240	17.4		73.7	71,100	71,100					240

MLC650 VPC-MAX S-3

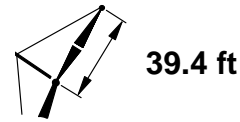
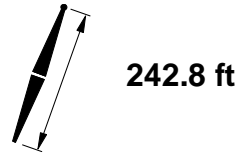
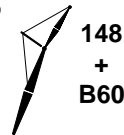
ASME B30.5



	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
50	82.3	269.4	143,300	143,300	82.5	266.9	143,300	143,300	50
55	81.2	268.5	143,300	143,300	81.4	265.9	142,300	142,300	55
60	80.1	267.5	143,300	143,300	80.2	264.8	137,400	137,400	60
65	79.0	266.4	143,300	143,300	79.1	263.5	132,800	132,800	65
70	77.8	265.1	143,300	143,300	78.0	262.2	128,500	128,500	70
75	76.7	263.8	143,300	143,300	76.8	260.7	124,500	124,500	75
80	75.6	262.4	143,300	143,300	75.7	259.2	120,800	120,800	80
85	74.4	260.8	143,300	143,300	74.5	257.5	117,400	117,400	85
90	73.3	259.2	143,300	143,300	73.4	255.8	114,100	114,100	90
95	72.1	257.4	143,300	143,300	72.2	253.9	111,000	111,000	95
100	71.0	255.6	142,600	142,600	71.0	251.9	108,200	108,200	100
105	69.8	253.6	138,200	138,200	69.8	249.7	105,500	105,500	105
110	68.6	251.4	133,600	133,600	67.4	245.1	100,500	100,500	110
120	66.2	246.8	125,300	125,300	65.0	239.9	95,900	95,900	120
130	63.8	241.7	118,000	118,000	62.4	234.2	91,900	91,900	130
140	61.3	236.0	111,500	111,500	59.8	227.9	88,300	88,300	140
150	58.7	229.7	105,800	105,800	57.2	220.8	84,900	84,900	150
160	56.1	222.8	100,700	100,700	54.4	213.1	82,000	82,000	160
170	53.3	215.1	96,100	96,100	51.5	204.6	79,300	79,300	170
180	50.5	206.7	91,900	91,900	48.5	195.1	76,800	76,800	180
190	47.5	197.3	88,100	88,100	45.3	184.5	74,600	74,600	190
200	44.3	186.8	84,700	84,700	41.9	172.6	72,700	72,700	200
210	41.0	175.1	81,700	81,700	38.2	159.1	70,900	70,900	210
220	37.3	161.8	78,900	78,900	34.1	143.5	69,500	69,500	220
230	33.4	146.6	76,400	76,400	29.5	125.0	68,300	68,300	230
240	28.9	128.5	74,200	74,200					240
250	23.5	106.1	72,300	72,300					250

MLC650 VPC-MAX S-3

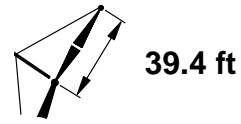
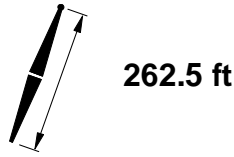
ASME B30.5



	10°				20°					
	ft	°	ft	lb	lb	ft	lb	lb		ft
50	82.8		289.4	143,300	143,300					50
55	81.8		288.5	143,300	143,300					55
60	80.8		287.6	143,300	143,300	82.0	286.0	143,300	143,300	60
65	79.8		286.5	143,300	143,300	80.9	284.9	140,300	140,300	65
70	78.7		285.4	143,300	143,300	79.9	283.8	135,900	135,900	70
75	77.7		284.2	143,300	143,300	78.8	282.5	131,700	131,700	75
80	76.6		282.8	143,300	143,300	77.8	281.2	127,800	127,800	80
85	75.6		281.4	143,300	143,300	76.7	279.8	124,200	124,200	85
90	74.5		279.9	143,300	143,300	75.7	278.2	120,800	120,800	90
95	73.4		278.3	143,300	143,300	74.6	276.6	117,600	117,600	95
100	72.4		276.5	143,300	143,300	73.5	274.8	114,500	114,500	100
105	71.3		274.7	142,900	142,900	72.4	273.0	111,600	111,600	105
110	70.2		272.8	139,900	139,900	71.3	271.0	108,900	108,900	110
120	68.0		268.5	131,400	131,400	69.1	266.8	103,900	103,900	120
130	65.8		263.8	123,900	123,900	66.9	262.1	99,400	99,400	130
140	63.5		258.7	117,300	117,300	64.6	256.9	95,300	95,300	140
150	61.2		253.0	111,300	111,300	62.2	251.1	91,600	91,600	150
160	58.8		246.7	106,000	106,000	59.8	244.8	88,200	88,200	160
170	56.3		239.8	101,200	101,200	57.3	237.9	85,200	85,200	170
180	53.8		232.3	96,800	96,800	54.8	230.3	82,400	82,400	180
190	51.1		224.1	92,900	92,900	52.1	221.9	79,800	79,800	190
200	48.4		215.0	89,300	89,300	49.3	212.8	77,500	77,500	200
210	45.5		205.0	86,000	86,000	46.4	202.6	75,400	75,400	210
220	42.5		193.9	83,000	83,000	43.4	191.4	73,500	73,500	220
230	39.3		181.5	80,300	80,300	40.1	178.8	71,800	71,800	230
240	35.8		167.5	77,900	77,900	36.6	164.6	70,300	70,300	240
250	32.0		151.4	75,700	75,700	32.6	148.2	69,000	69,000	250
260	27.6		132.4	70,300	73,700	28.2	128.7	68,100	68,100	260
270	22.4		108.8	63,000	72,100					270

MLC650 VPC-MAX S-3

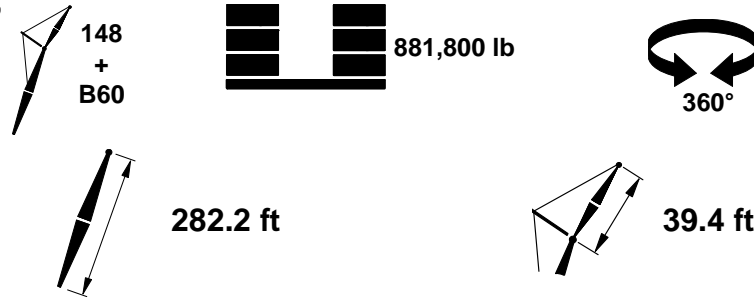
ASME B30.5



	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
55	82.4	308.5	143,300	143,300	82.5	306.0	143,300	143,300	55
60	81.4	307.6	143,300	143,300	81.5	305.0	143,000	143,000	60
65	80.4	306.6	143,300	143,300	80.6	303.9	138,600	138,600	65
70	79.5	305.6	143,300	143,300	79.6	302.8	134,600	134,600	70
75	78.5	304.4	143,300	143,300	78.6	301.5	130,800	130,800	75
80	77.5	303.2	143,300	143,300	77.6	300.2	127,200	127,200	80
85	76.5	301.9	143,300	143,300	76.6	298.8	123,900	123,900	85
90	75.5	300.5	143,300	143,300	75.6	297.3	120,700	120,700	90
95	74.6	298.9	143,300	143,300	74.6	295.6	117,700	117,700	95
100	73.6	297.3	143,300	143,300					100
105	72.6	295.6	143,300	143,300	73.6	293.9	114,800	114,800	105
110	71.6	293.8	142,900	142,900	72.6	292.1	112,100	112,100	110
120	69.5	289.9	137,200	137,200	70.6	288.2	107,200	107,200	120
130	67.5	285.6	129,500	129,500	68.5	283.8	102,700	102,700	130
140	65.4	280.8	122,700	122,700	66.4	279.0	98,600	98,600	140
150	63.2	275.6	116,600	116,600	64.2	273.8	94,800	94,800	150
160	61.0	269.9	111,100	111,100	62.0	268.0	91,400	91,400	160
170	58.8	263.7	106,200	106,200	59.8	261.8	88,300	88,300	170
180	56.5	256.9	101,700	101,700	57.5	254.9	85,400	85,400	180
190	54.2	249.5	97,500	97,500	55.1	247.4	82,800	82,800	190
200	51.7	241.4	93,800	93,800	52.6	239.3	80,400	80,400	200
210	49.2	232.6	90,400	90,400	50.1	230.4	78,100	78,100	210
220	46.6	222.9	87,200	87,200	47.4	220.6	76,200	76,200	220
230	43.8	212.3	84,400	84,400	44.6	209.9	74,300	74,300	230
240	40.9	200.6	81,700	81,700	41.7	198.0	72,600	72,600	240
250	37.8	187.5	75,700	79,300	38.5	184.8	71,100	71,100	250
260	34.4	172.8	68,200	77,000	35.1	169.8	69,000	69,800	260
270	30.7	156.0	61,100	75,100	31.3	152.6	61,800	68,700	270
280	26.5	136.1	54,500	73,300	27.0	132.2	55,000	67,900	280
290	21.4	111.4	48,200	71,900					290

MLC650 VPC-MAX S-3

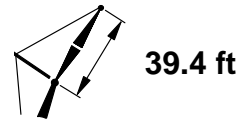
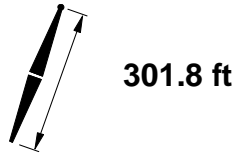
ASME B30.5



	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
55	82.8	328.4	143,300	143,300					55
60	81.9	327.6	143,300	143,300	83.0	325.9	142,900	142,900	60
65	81.0	326.7	143,300	143,300	82.1	325.0	142,600	142,600	65
70	80.1	325.7	143,300	143,300	81.2	324.0	141,200	141,200	70
75	79.2	324.6	143,300	143,300	80.2	323.0	137,300	137,300	75
80	78.3	323.5	143,300	143,300	79.3	321.8	133,500	133,500	80
85	77.4	322.2	143,300	143,300	78.4	320.6	130,100	130,100	85
90	76.5	320.9	143,300	143,300	77.5	319.2	126,700	126,700	90
95	75.5	319.5	143,300	143,300	76.6	317.8	123,600	123,600	95
100	74.6	318.0	143,300	143,300	75.6	316.3	120,700	120,700	100
105	73.7	316.4	143,300	143,300	74.7	314.7	117,800	117,800	105
110	72.7	314.7	143,300	143,300	73.7	313.0	115,100	115,100	110
120	70.8	311.1	141,200	141,200	71.8	309.4	110,200	110,200	120
130	68.9	307.1	135,000	135,000	69.9	305.3	105,700	105,700	130
140	67.0	302.7	128,000	128,000	67.9	300.9	101,600	101,600	140
150	65.0	297.8	121,800	121,800	66.0	296.0	97,800	97,800	150
160	63.0	292.6	116,200	116,200	63.9	290.7	94,400	94,400	160
170	60.9	286.9	111,100	111,100	61.9	285.0	91,200	91,200	170
180	58.8	280.6	106,400	106,400	59.8	278.7	88,300	88,300	180
190	56.7	273.9	102,200	102,200	57.6	271.9	85,700	85,700	190
200	54.5	266.6	98,300	98,300	55.4	264.5	83,100	83,100	200
210	52.2	258.7	94,600	94,600	53.1	256.6	80,900	80,900	210
220	49.9	250.1	91,400	91,400	50.7	247.9	78,800	78,800	220
230	47.4	240.7	88,300	88,300	48.3	238.4	76,800	76,800	230
240	44.9	230.5	85,600	85,600	45.7	228.1	75,000	75,000	240
250	42.2	219.3	78,900	83,000	43.0	216.8	73,400	73,400	250
260	39.4	207.0	71,100	80,600	40.1	204.3	71,900	71,900	260
270	36.4	193.3	63,800	78,400	37.1	190.4	64,800	70,500	270
280	33.1	177.9	57,000	76,400	33.8	174.8	57,800	69,400	280
290	29.5	160.3	50,600	74,600	30.1	156.8	51,200	68,400	290
300	25.4	139.6	44,600	73,000					300
310	20.5	113.8	38,800	71,700					310

MLC650 VPC-MAX S-3

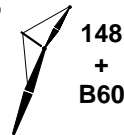
ASME B30.5



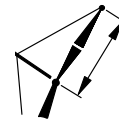
	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
60	82.4		347.5	143,300	143,300				60
65	81.5		346.7	143,300	143,300				65
70	80.7		345.8	143,300	143,300				70
75	79.8		344.8	143,300	143,300				75
80	79.0		343.7	143,300	143,300				80
85	78.1		342.5	143,300	143,300				85
90	77.3		341.3	143,300	143,300				90
95	76.4		339.9	143,300	143,300				95
100	75.5		338.5	143,300	143,300				100
105	74.6		337.0	143,300	143,300				105
110	73.8		335.5	143,300	143,300				110
120	72.0		332.1	142,800	142,800				120
130	70.2		328.3	139,600	139,600				130
140	68.4		324.2	133,200	133,200				140
150	66.6		319.7	126,800	126,800				150
160	64.7		314.8	121,000	121,000				160
170	62.8		309.5	115,800	115,800				170
180	60.9		303.8	111,000	111,000				180
190	58.9		297.6	106,600	106,600				190
200	56.9		290.9	102,600	102,600				200
210	54.8		283.7	98,900	98,900				210
220	52.7		275.9	95,500	95,500				220
230	50.5		267.5	92,300	92,300				230
240	48.2		258.4	84,700	89,400				240
250	45.9		248.5	76,300	86,700				250
260	43.4		237.8	68,500	84,100				260
270	40.8		226.1	61,300	81,800				270
280	38.1		213.2	54,600	79,700				280
290	35.2		198.9	48,200	77,700				290
300	32.0		182.8	42,300	75,800				300
310	28.5		164.5	36,700	74,200				310
320	24.5		142.9	31,300	72,800				320
330	19.7		116.0	26,200	71,500				330

MLC650 VPC-MAX S-3

ASME B30.5



321.5 ft

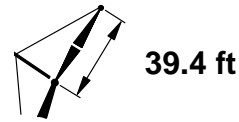
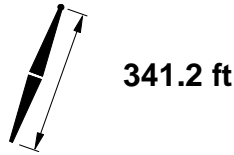


39.4 ft

	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
60	82.8	367.5	143,300	143,300	82.9	365.0	141,400	141,400	60
65	82.0	366.7	143,300	143,300	82.1	364.1	141,200	141,200	65
70	81.2	365.8	143,300	143,300	81.3	363.1	140,900	140,900	70
75	80.4	364.8	143,300	143,300	80.5	362.1	138,400	138,400	75
80	79.6	363.8	143,300	143,300	79.7	361.0	135,100	135,100	80
85	78.8	362.7	143,300	143,300	78.9	359.8	131,900	131,900	85
90	78.0	361.5	143,300	143,300	78.1	358.6	128,900	128,900	90
95	77.1	360.3	143,300	143,300	77.2	357.3	126,100	126,100	95
100	76.3	359.0	143,300	143,300	76.4	355.8	123,300	123,300	100
105	75.5	357.6	143,300	143,300					105
110	74.7	356.1	143,300	143,300	75.6	354.4	120,700	120,700	110
120	73.0	352.9	143,300	143,300	73.9	351.2	115,800	115,800	120
130	71.3	349.4	141,000	141,000	72.2	347.6	111,300	111,300	130
140	69.6	345.5	138,100	138,100	70.5	343.7	107,300	107,300	140
150	67.9	341.3	131,700	131,700	68.8	339.5	103,500	103,500	150
160	66.2	336.8	125,800	125,800	67.0	334.9	100,000	100,000	160
170	64.4	331.8	120,400	120,400	65.3	330.0	96,800	96,800	170
180	62.6	326.5	115,500	115,500	63.4	324.6	93,900	93,900	180
190	60.8	320.7	111,100	111,100	61.6	318.8	91,100	91,100	190
200	58.9	314.6	106,900	106,900	59.7	312.6	88,500	88,500	200
210	57.0	307.9	103,100	103,100	57.8	305.9	86,100	86,100	210
220	55.1	300.8	98,900	99,600	55.9	298.7	83,900	83,900	220
230	53.1	293.1	89,000	96,300	53.8	291.0	81,800	81,800	230
240	51.0	284.9	79,900	93,300	51.8	282.7	79,800	79,800	240
250	48.9	276.0	71,500	90,500	49.6	273.7	73,100	78,000	250
260	46.7	266.4	63,700	87,800	47.4	264.1	65,200	76,400	260
270	44.4	256.0	56,500	85,400	45.1	253.6	57,800	74,800	270
280	42.0	244.8	49,700	83,000	42.7	242.2	51,000	73,300	280
290	39.5	232.5	43,500	81,000	40.2	229.8	44,600	72,000	290
300	36.9	219.1	37,600	78,900	37.5	216.2	38,500	70,800	300
310	34.0	204.2	32,000	77,100	34.6	201.1	32,800	69,800	310
320	30.9	187.5	26,800	75,400	31.4	184.1	27,400	68,800	320
330	27.5	168.4	21,800	73,900	28.0	164.6	22,300	68,100	330
340	23.6	146.0	17,000	72,600					340
350	18.9	118.1	12,400	71,500					350

MLC650 VPC-MAX S-3

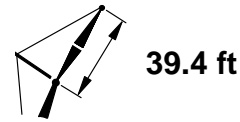
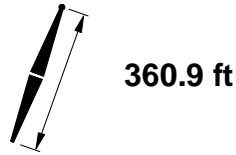
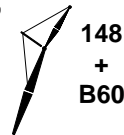
ASME B30.5



	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
65	82.4		386.6	143,300	143,300				65
70	81.7		385.8	143,300	143,300				70
75	80.9		384.9	143,300	143,300				75
80	80.1		383.9	143,300	143,300				80
85	79.4		382.9	143,300	143,300				85
90	78.6		381.8	143,300	143,300				90
95	77.8		380.6	143,300	143,300				95
100	77.1		379.3	143,300	143,300				100
105	76.3		378.0	143,300	143,300				105
110	75.5		376.6	143,300	143,300				110
120	73.9		373.6	142,800	142,800				120
130	72.3		370.3	142,200	142,200				130
140	70.7		366.6	139,400	139,400				140
150	69.1		362.7	136,400	136,400				150
160	67.5		358.4	130,500	130,500				160
170	65.8		353.8	125,000	125,000				170
180	64.2		348.8	120,000	120,000				180
190	62.4		343.4	115,400	115,400				190
200	60.7		337.7	111,200	111,200				200
210	58.9		331.5	107,300	107,300				210
220	57.1		324.9	103,600	103,600				220
230	55.3		317.9	94,500	100,200				230
240	53.4		310.3	85,000	97,100				240
250	51.5		302.2	76,300	94,100				250
260	49.5		293.5	68,200	91,400				260
270	47.4		284.2	60,700	88,800				270
280	45.3		274.1	53,800	86,400				280
290	43.1		263.3	47,300	84,200				290
300	40.8		251.6	41,200	82,100				300
310	38.3		238.8	35,500	80,200				310
320	35.7		224.8	30,100	78,300				320
330	33.0		209.3	25,000	76,600				330
340	30.0		192.0	20,100	75,100				340
350	26.6		172.2	15,500	73,700				350
360	22.8		148.9	11,100	72,400				360
370	18.2		120.0	6,700	71,400				370

MLC650 VPC-MAX S-3

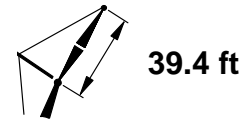
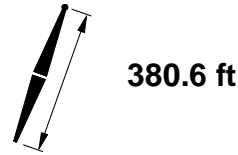
ASME B30.5



	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
65	82.8	406.5	143,300	143,300	82.9	404.0	139,400	139,400	65
70	82.1	405.7	143,300	143,300	82.2	403.2	139,200	139,200	70
75	81.4	404.9	143,300	143,300	81.5	402.2	139,000	139,000	75
80	80.6	404.0	143,300	143,300	80.7	401.3	138,200	138,200	80
85	79.9	403.0	143,300	143,300	80.0	400.2	135,900	135,900	85
90	79.2	401.9	143,300	143,300	79.3	399.1	133,000	133,000	90
95	78.4	400.8	143,100	143,100	78.5	397.9	130,200	130,200	95
100	77.7	399.6	142,800	142,800	77.8	396.6	127,500	127,500	100
105	77.0	398.4	142,500	142,500	77.0	395.3	125,000	125,000	105
110	76.2	397.0	142,100	142,100	75.6	392.4	120,200	120,200	110
120	74.7	394.2	141,600	141,600	74.0	389.3	115,800	115,800	120
130	73.2	391.0	141,000	141,000	72.5	385.8	111,700	111,700	130
140	71.7	387.6	139,900	139,900	71.0	382.1	107,900	107,900	140
150	70.2	383.9	137,500	137,500	69.4	378.0	104,400	104,400	150
160	68.7	379.9	133,300	133,300	67.9	373.7	101,300	101,300	160
170	67.1	375.5	127,800	127,800	66.3	369.0	98,200	98,200	170
180	65.5	370.8	122,800	122,800	64.7	363.9	95,400	95,400	180
190	63.9	365.8	118,100	118,100	63.1	358.5	92,800	92,800	190
200	62.3	360.4	113,900	113,900	61.4	352.7	90,400	90,400	200
210	60.7	354.6	109,900	109,900	59.7	346.5	88,100	88,100	210
220	59.0	348.5	99,500	106,200	58.0	339.9	86,000	86,000	220
230	57.3	341.9	89,200	102,800	56.2	332.8	81,900	83,900	230
240	55.5	334.9	79,700	99,700	54.4	325.3	73,000	82,000	240
250	53.7	327.4	71,000	96,600	52.6	317.3	64,800	80,300	250
260	51.9	319.5	62,900	93,900	50.7	308.7	57,200	78,600	260
270	50.0	310.9	55,500	91,300	48.7	299.5	50,100	77,100	270
280	48.1	301.8	48,500	88,900	46.7	289.7	43,500	75,600	280
290	46.1	292.1	42,000	86,600	44.6	279.1	37,300	74,300	290
300	44.0	281.6	36,000	84,500	42.5	267.7	31,500	73,000	300
310	41.9	270.3	30,300	82,500	40.2	255.4	26,000	71,900	310
320	39.6	258.1	25,000	80,600	37.8	241.9	20,800	70,800	320
330	37.2	244.8	19,900	78,900	35.2	227.2	15,900	69,900	330
340	34.7	230.3	15,200	77,300	32.5	210.9	11,300	69,100	340
350	32.0	214.3	10,600	75,800	29.5	192.7	6,800	68,300	350
360	29.1	196.3		74,400	26.2	171.7		67,800	360
370	25.8	175.8		73,200					370
380	22.1	151.7		70,000					380
390	17.6	121.7		65,400					390

MLC650 VPC-MAX S-3

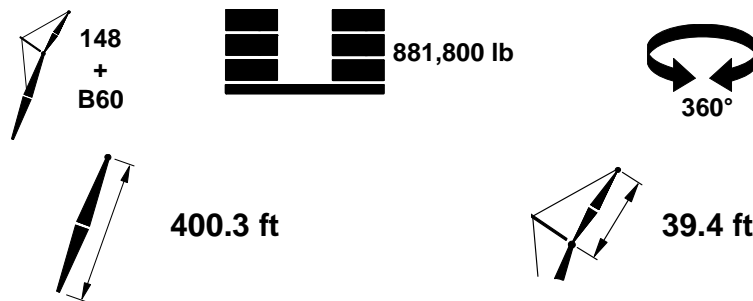
ASME B30.5



	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
70	82.5	425.7	143,300	143,300	82.6	423.1	138,000	138,000	70
75	81.8	424.8	143,300	143,300	81.9	422.3	137,800	137,800	75
80	81.1	424.0	143,100	143,100	81.2	421.3	137,600	137,600	80
85	80.4	423.0	142,700	142,700	80.5	420.3	136,800	136,800	85
90	79.7	422.0	142,300	142,300	79.8	419.2	134,800	134,800	90
95	79.0	421.0	141,900	141,900	79.1	418.1	132,000	132,000	95
100	78.3	419.8	141,600	141,600	78.4	416.9	129,300	129,300	100
105	77.6	418.7	141,200	141,200	77.7	415.7	126,800	126,800	105
110	76.9	417.4	141,000	141,000	76.3	412.9	122,000	122,000	110
120	75.5	414.7	140,300	140,300	74.8	409.9	117,700	117,700	120
130	74.1	411.7	139,800	139,800	73.4	406.7	113,600	113,600	130
140	72.6	408.5	139,300	139,300	71.9	403.1	109,900	109,900	140
150	71.2	404.9	137,900	137,900	70.5	399.3	106,400	106,400	150
160	69.7	401.1	135,600	135,600	69.0	395.2	103,100	103,100	160
170	68.2	397.0	131,000	131,000	67.5	390.7	100,200	100,200	170
180	66.8	392.6	125,900	125,900	66.0	386.0	97,300	97,300	180
190	65.2	387.8	121,200	121,200	64.4	380.9	94,700	94,700	190
200	63.7	382.8	116,900	116,900	62.9	375.4	92,200	92,200	200
210	62.2	377.4	110,600	112,900	61.3	369.6	90,000	90,000	210
220	60.6	371.6	99,300	109,200	59.7	363.5	87,700	87,700	220
230	59.0	365.5	89,000	105,700	58.1	356.9	81,800	85,700	230
240	57.4	358.9	79,500	102,500	56.4	349.9	72,900	83,800	240
250	55.7	352.0	70,800	99,400	54.7	342.5	64,700	82,100	250
260	54.0	344.6	62,700	96,700	52.9	334.5	57,100	80,300	260
270	52.3	336.7	55,300	94,100	51.1	326.1	50,000	78,800	270
280	50.5	328.3	48,400	91,600	49.3	317.1	43,500	77,300	280
290	48.7	319.4	41,900	89,200	47.4	307.5	37,300	75,900	290
300	46.8	309.9	35,900	87,100	45.4	297.2	31,500	74,700	300
310	44.9	299.7	30,200	85,000	43.4	286.2	26,100	73,400	310
320	42.8	288.8	24,900	83,100	41.3	274.4	21,000	72,300	320
330	40.7	277.0	19,900	81,300	39.1	261.6	16,100	71,300	330
340	38.5	264.4	15,200	79,600	36.7	247.7	11,500	70,400	340
350	36.2	250.6	10,700	78,100	34.2	232.4	7,200	69,500	350
360	33.8	235.6	6,500	76,600	31.6	215.6		68,700	360
370	31.1	219.0		74,600	28.6	196.7		68,200	370
380	28.2	200.5		69,800					380
390	25.1	179.3		65,300					390
400	21.4	154.4		61,000					400
410	17.0	123.3		56,900					410

MLC650 VPC-MAX S-3

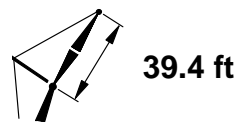
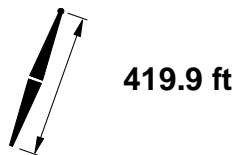
ASME B30.5



	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
70	82.8	445.6	142,500	142,500					70
75	82.1	444.8	142,200	142,200					75
80	81.5	444.0	141,800	141,800					80
85	80.8	443.1	141,400	141,400					85
90	80.2	442.1	141,100	141,100					90
95	79.5	441.1	140,700	140,700	80.2	439.4	135,300	135,300	95
100	78.8	440.0	140,400	140,400	79.6	438.3	133,700	133,700	100
105	78.2	438.9	140,100	140,100	78.9	437.1	131,200	131,200	105
110	77.5	437.7	139,800	139,800	78.2	435.9	128,700	128,700	110
120	76.1	435.1	139,200	139,200	76.9	433.4	124,000	124,000	120
130	74.8	432.3	138,700	138,700	75.5	430.5	119,700	119,700	130
140	73.4	429.2	138,200	138,200	74.2	427.4	115,700	115,700	140
150	72.1	425.8	137,800	137,800	72.8	424.0	112,000	112,000	150
160	70.7	422.2	136,000	136,000	71.4	420.4	108,500	108,500	160
170	69.3	418.3	133,900	133,900	70.0	416.5	105,300	105,300	170
180	67.9	414.1	129,500	129,500	68.6	412.3	102,200	102,200	180
190	66.4	409.6	124,800	124,800	67.1	407.8	99,500	99,500	190
200	65.0	404.8	118,100	120,400	65.7	403.0	96,800	96,800	200
210	63.5	399.7	105,500	116,300	64.2	397.8	94,400	94,400	210
220	62.0	394.3	94,200	112,500	62.7	392.4	92,000	92,000	220
230	60.5	388.5	83,800	109,000	61.2	386.6	86,500	89,800	230
240	59.0	382.4	74,300	105,700	59.7	380.4	76,800	87,700	240
250	57.5	375.9	65,600	102,700	58.1	373.9	67,900	85,800	250
260	55.9	369.0	57,600	99,800	56.5	366.9	59,700	84,000	260
270	54.3	361.7	50,100	97,000	54.9	359.6	52,100	82,300	270
280	52.6	353.9	43,200	94,500	53.3	351.7	45,000	80,700	280
290	50.9	345.7	36,700	92,100	51.6	343.5	38,400	79,200	290
300	49.2	336.9	30,700	89,900	49.8	334.6	32,300	77,700	300
310	47.4	327.6	25,000	87,800	48.0	325.2	26,500	76,400	310
320	45.6	317.7	19,700	85,800	46.2	315.2	21,100	75,100	320
330	43.7	307.1	14,700	83,900	44.3	304.6	16,000	73,900	330
340	41.7	295.8	10,000	82,100	42.3	293.1	11,100	72,800	340
350	39.7	283.6		80,500	40.2	280.9	6,600	71,800	350
360	37.5	270.5		75,400	38.0	267.6		70,900	360
370	35.3	256.2		70,500	35.7	253.2		70,000	370
380	32.9	240.7		65,800	33.3	237.5		66,300	380
390	30.3	223.6		61,300	30.7	220.1		61,700	390
400	27.5	204.5		57,000	27.8	200.6		57,300	400
410	24.3	182.6		52,900					410
420	20.8	157.0		49,000					420

MLC650 VPC-MAX S-3

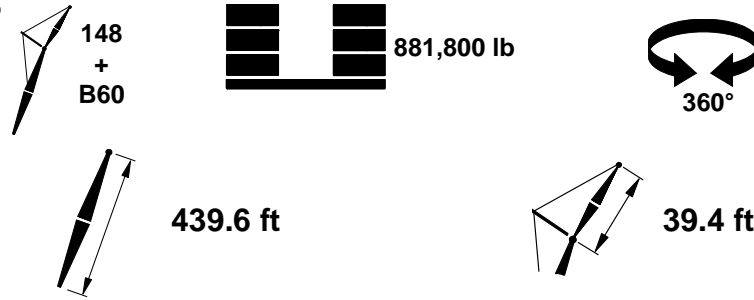
ASME B30.5



	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
75	82.5	464.7	140,300	140,300					75
80	81.8	463.9	140,000	140,000					80
85	81.2	463.1	139,700	139,700					85
90	80.6	462.2	139,300	139,300					90
95	79.9	461.2	139,000	139,000					95
100	79.3	460.2	138,700	138,700					100
105	78.7	459.1	138,400	138,400					105
110	78.0	457.9	138,100	138,100					110
120	76.8	455.5	137,600	137,600					120
130	75.5	452.8	137,100	137,100					130
140	74.2	449.8	136,600	136,600					140
150	72.9	446.6	136,200	136,200					150
160	71.5	443.2	135,800	135,800					160
170	70.2	439.5	133,900	133,900					170
180	68.9	435.5	132,100	132,100					180
190	67.5	431.2	128,100	128,100					190
200	66.1	426.7	117,400	123,700					200
210	64.8	421.9	104,900	119,500					210
220	63.4	416.7	93,500	115,700					220
230	61.9	411.3	83,200	112,200					230
240	60.5	405.5	73,700	108,800					240
250	59.0	399.4	64,900	105,700					250
260	57.6	392.9	56,900	102,700					260
270	56.0	386.0	49,400	99,900					270
280	54.5	378.8	42,500	97,400					280
290	52.9	371.1	36,100	94,900					290
300	51.3	363.0	30,000	92,700					300
310	49.7	354.4	24,400	90,500					310
320	48.0	345.2	19,100	88,400					320
330	46.3	335.6	14,100	86,400					330
340	44.5	325.2	9,400	84,700					340
350	42.6	314.3		79,900					350
360	40.7	302.5		74,700					360
370	38.7	289.9		69,800					370
380	36.6	276.4		65,100					380
390	34.4	261.7		60,600					390
400	32.0	245.7		56,400					400
410	29.5	228.0		52,300					410
420	26.8	208.3		48,500					420
430	23.7	185.8		44,800					430
440	20.2	159.4		41,200					440

MLC650 VPC-MAX S-3

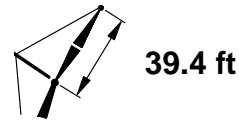
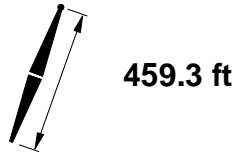
ASME B30.5



	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
75	82.8	484.6	138,400	138,400					75
80	82.2	483.9	138,100	138,100	82.9	482.1	133,000	133,000	80
85	81.6	483.0	137,800	137,800	82.3	481.3	132,900	132,900	85
90	81.0	482.2	137,500	137,500	81.7	480.4	132,700	132,700	90
95	80.4	481.2	137,200	137,200	81.1	479.5	132,600	132,600	95
100	79.8	480.3	136,900	136,900	80.5	478.5	132,500	132,500	100
105	79.1	479.2	136,600	136,600	79.8	477.5	131,700	131,700	105
110	78.5	478.1	136,400	136,400	79.2	476.4	130,900	130,900	110
120	77.3	475.8	135,900	135,900	78.0	474.0	127,400	127,400	120
130	76.1	473.2	135,400	135,400	76.8	471.4	123,200	123,200	130
140	74.8	470.4	135,000	135,000	75.5	468.6	119,300	119,300	140
150	73.6	467.3	134,500	134,500	74.3	465.5	115,600	115,600	150
160	72.3	464.0	134,300	134,300	73.0	462.2	112,200	112,200	160
170	71.1	460.5	133,600	133,600	71.7	458.7	109,000	109,000	170
180	69.8	456.7	131,900	131,900	70.4	454.8	106,000	106,000	180
190	68.5	452.6	126,200	130,200	69.1	450.8	103,200	103,200	190
200	67.2	448.3	112,300	121,600	67.8	446.4	100,600	100,600	200
210	65.9	443.7	99,800	121,600	66.5	441.8	98,100	98,100	210
220	64.5	438.9	88,400	118,700	65.2	436.9	91,500	95,700	220
230	63.2	433.7	78,000	115,000	63.8	431.8	80,900	93,500	230
240	61.8	428.2	68,500	111,600	62.5	426.3	71,200	91,400	240
250	60.5	422.4	59,800	108,500	61.1	420.5	62,300	89,500	250
260	59.1	416.3	51,700	105,600	59.7	414.3	54,100	87,700	260
270	57.6	409.9	44,200	102,700	58.2	407.8	46,500	85,900	270
280	56.2	403.1	37,300	100,100	56.8	401.0	39,400	84,200	280
290	54.7	395.9	30,900	97,600	55.3	393.8	32,800	82,700	290
300	53.2	388.3	24,800	95,200	53.8	386.1	26,700	81,100	300
310	51.7	380.3	19,200	93,000	52.3	378.0	20,900	79,700	310
320	50.1	371.8	13,900	90,900	50.7	369.5	15,500	78,400	320
330	48.5	362.8	8,900	87,200	49.1	360.5	10,400	77,100	330
340	46.9	353.3		81,300	47.4	350.9		75,900	340
350	45.2	343.3		75,800	45.7	340.8		74,800	350
360	43.4	332.6		70,600	43.9	330.1		71,500	360
370	41.6	321.2		65,700	42.1	318.6		66,500	370
380	39.7	309.1		61,000	40.2	306.4		61,700	380
390	37.8	296.1		56,600	38.2	293.2		57,200	390
400	35.7	282.1		52,300	36.2	279.1		52,900	400
410	33.6	267.0		48,300	34.0	263.8		48,800	410
420	31.3	250.5		44,500	31.6	247.1		44,900	420
430	28.8	232.3		40,800	29.1	228.6		41,100	430
440	26.1	212.0		37,200	26.4	207.9		37,500	440
450	23.1	188.9		33,900					450
460	19.6	161.7		30,600					460

MLC650 VPC-MAX S-3

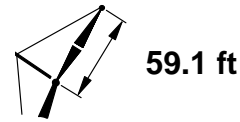
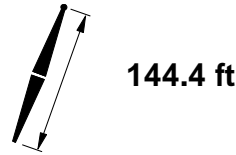
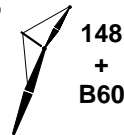
ASME B30.5



	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
80	82.5	503.8	135,700	135,700					80
85	81.9	503.0	135,400	135,400					85
90	81.3	502.1	135,100	135,100					90
95	80.7	501.3	134,900	134,900					95
100	80.2	500.3	134,600	134,600					100
105	79.6	499.3	134,400	134,400					105
110	79.0	498.3	134,200	134,200					110
120	77.8	496.0	133,700	133,700					120
130	76.6	493.5	133,200	133,200					130
140	75.4	490.8	132,800	132,800					140
150	74.3	487.9	132,300	132,300					150
160	73.0	484.8	132,000	132,000					160
170	71.8	481.4	131,700	131,700					170
180	70.6	477.8	130,900	130,900					180
190	69.4	473.9	125,400	129,400					190
200	68.1	469.8	111,500	128,000					200
210	66.9	465.4	98,900	125,300					210
220	65.6	460.8	87,500	121,300					220
230	64.3	455.9	77,100	117,600					230
240	63.1	450.7	67,600	114,200					240
250	61.7	445.2	58,900	111,000					250
260	60.4	439.4	50,800	108,000					260
270	59.1	433.3	43,300	105,100					270
280	57.7	426.9	36,400	102,500					280
290	56.3	420.1	30,000	100,000					290
300	54.9	413.0	23,900	97,500					300
310	53.5	405.4	18,300	95,300					310
320	52.0	397.5	13,000	92,500					320
330	50.5	389.2	8,000	86,300					330
340	49.0	380.3		80,400					340
350	47.4	371.0		74,900					350
360	45.8	361.2		69,800					360
370	44.2	350.8		64,800					370
380	42.4	339.8		60,200					380
390	40.7	328.0		55,800					390
400	38.8	315.5		51,500					400
410	36.9	302.1		47,500					410
420	34.9	287.7		43,700					420
430	32.8	272.1		40,100					430
440	30.5	255.2		36,600					440
450	28.1	236.5		33,200					450
460	25.4	215.6		30,000					460
470	22.5	191.9		26,600					470
480	19.1	163.8		22,900					480

MLC650 VPC-MAX S-3

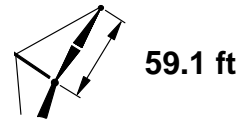
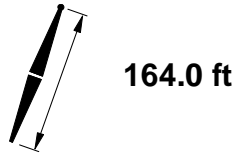
ASME B30.5



	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
45	82.9	210.0	113,700 ^c	113,700 ^c					45
50	81.5	208.9	110,600 ^b	110,600 ^b					50
55	80.1	207.7	107,600 ^b	107,600 ^b	82.5	205.5	91,200 ^c	91,200 ^c	55
60	78.6	206.4	104,700	104,700	81.1	204.2	87,100 ^b	87,100 ^b	60
65	77.1	204.9	102,000	102,000	79.6	202.7	83,300 ^b	83,300 ^b	65
70	75.7	203.3	99,500	99,500	78.1	201.1	79,800	79,800	70
75	74.2	201.5	97,200	97,200	76.6	199.3	76,700	76,700	75
80	72.7	199.6	94,800	94,800	75.1	197.4	73,800	73,800	80
85	71.1	197.6	92,700	92,700	73.5	195.3	71,100	71,100	85
90	69.6	195.3	89,000	89,000	72.0	193.1	68,700	68,700	90
95	68.0	193.0	85,300	85,300	70.4	190.6	66,300	66,300	95
100	66.5	190.4	82,000	82,000	68.8	188.1	64,200	64,200	100
105	64.9	187.7	78,800	78,800	67.2	185.3	62,200	62,200	105
110	63.2	184.8	75,900	75,900	65.5	182.3	60,300	60,300	110
120	59.9	178.4	70,800	70,800	62.1	175.8	57,000	57,000	120
130	56.4	171.1	66,300	66,300	58.6	168.4	54,100	54,100	130
140	52.8	162.8	62,400	62,400	54.9	160.0	51,500	51,500	140
150	48.9	153.3	59,000	59,000	50.9	150.3	49,200	49,200	150
160	44.7	142.4	56,000	56,000	46.7	139.2	47,200	47,200	160
170	40.2	129.7	53,300	53,300	42.0	126.1	45,500	45,500	170
180	35.0	114.5	51,000	51,000	36.7	110.4	44,000	44,000	180
190	29.0	95.5	49,000	49,000	30.3	90.4	42,900	42,900	190
200	21.1	69.1	47,500	47,500					200

MLC650 VPC-MAX S-3

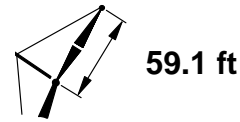
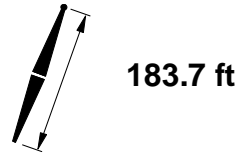
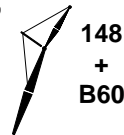
ASME B30.5



	10°				20°				
	ft	°	ft	lb	ft	°	ft	lb	
50	82.3	229.0	111,900 ^b	111,900 ^b					50
55	81.0	227.9	109,100	109,100					55
60	79.6	226.7	106,500	106,500	81.9	224.5	89,200	89,200	60
65	78.3	225.3	103,900	103,900	80.6	223.1	85,600	85,600	65
70	77.0	223.9	101,500	101,500	79.2	221.6	82,300	82,300	70
75	75.6	222.3	99,300	99,300	77.8	220.0	79,300	79,300	75
80	74.3	220.6	97,100	97,100	76.5	218.3	76,400	76,400	80
85	72.9	218.7	95,100	95,100	75.1	216.4	73,800	73,800	85
90	71.5	216.7	93,100	93,100	73.7	214.4	71,400	71,400	90
95	70.1	214.6	90,300	90,300	72.3	212.3	69,100	69,100	95
100	68.7	212.3	86,800	86,800	70.9	210.0	67,000	67,000	100
105	67.3	209.9	83,600	83,600	69.4	207.5	65,000	65,000	105
110	65.8	207.3	80,700	80,700	68.0	204.9	63,100	63,100	110
120	62.9	201.7	75,300	75,300	65.0	199.2	59,800	59,800	120
130	59.9	195.3	70,700	70,700	61.9	192.7	56,800	56,800	130
140	56.7	188.1	66,600	66,600	58.7	185.4	54,100	54,100	140
150	53.4	180.1	63,000	63,000	55.3	177.2	51,800	51,800	150
160	49.9	171.0	59,900	59,900	51.8	168.0	49,600	49,600	160
170	46.3	160.7	57,000	57,000	48.0	157.5	47,800	47,800	170
180	42.3	149.0	54,500	54,500	44.0	145.5	46,200	46,200	180
190	38.0	135.3	52,300	52,300	39.5	131.4	44,700	44,700	190
200	33.1	119.1	50,300	50,300	34.5	114.6	43,500	43,500	200
210	27.3	98.8	48,600	48,600	28.3	93.3	42,700	42,700	210
220	19.6	70.7	47,300	47,300					220

MLC650 VPC-MAX S-3

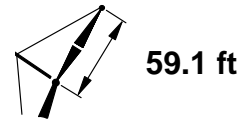
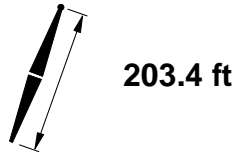
ASME B30.5



	10°				20°					
	ft	°	ft	lb	ft	°	ft	lb		ft
50	82.9		249.0	113,100	113,100					50
55	81.7		248.0	110,500	110,500					55
60	80.5		246.9	107,900	107,900	82.6	244.6	91,100	91,100	60
65	79.3		245.7	105,600	105,600	81.4	243.4	87,700	87,700	65
70	78.1		244.3	103,300	103,300	80.1	242.0	84,500	84,500	70
75	76.8		242.9	101,200	101,200	78.9	240.6	81,500	81,500	75
80	75.6		241.3	99,100	99,100	77.6	239.0	78,800	78,800	80
85	74.4		239.7	97,100	97,100	76.4	237.3	76,200	76,200	85
90	73.1		237.8	95,200	95,200	75.1	235.5	73,800	73,800	90
95	71.8		235.9	93,400	93,400	73.8	233.5	71,500	71,500	95
100	70.6		233.9	91,400	91,400	72.5	231.4	69,500	69,500	100
105	69.3		231.7	88,200	88,200	71.2	229.2	67,500	67,500	105
110	68.0		229.3	85,100	85,100	69.9	226.9	65,600	65,600	110
120	65.3		224.3	79,700	79,700	67.2	221.7	62,300	62,300	120
130	62.6		218.6	74,900	74,900	64.5	216.0	59,300	59,300	130
140	59.8		212.2	70,600	70,600	61.7	209.6	56,600	56,600	140
150	56.9		205.2	66,900	66,900	58.7	202.4	54,100	54,100	150
160	53.9		197.3	63,600	63,600	55.7	194.4	52,000	52,000	160
170	50.8		188.6	60,600	60,600	52.5	185.5	50,100	50,100	170
180	47.5		178.8	57,900	57,900	49.2	175.6	48,300	48,300	180
190	44.0		167.7	55,500	55,500	45.6	164.3	46,800	46,800	190
200	40.2		155.2	53,300	53,300	41.7	151.4	45,400	45,400	200
210	36.0		140.7	51,400	51,400	37.4	136.5	44,200	44,200	210
220	31.3		123.4	49,700	49,700	32.5	118.6	43,200	43,200	220
230	25.8		102.0	48,200	48,200					230

MLC650 VPC-MAX S-3

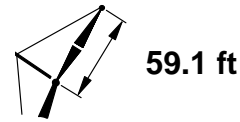
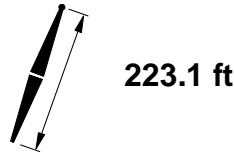
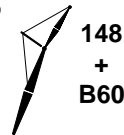
ASME B30.5



	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
55	82.3	268.0	111,400	111,400					55
60	81.2	267.0	109,100	109,100					60
65	80.1	265.9	106,900	106,900	82.0	263.6	89,400	89,400	65
70	79.0	264.7	104,700	104,700	80.9	262.3	86,400	86,400	70
75	77.8	263.3	102,700	102,700	79.7	261.0	83,500	83,500	75
80	76.7	261.9	100,700	100,700	78.6	259.5	80,800	80,800	80
85	75.6	260.4	98,800	98,800	77.4	258.0	78,300	78,300	85
90	74.4	258.7	97,000	97,000	76.3	256.3	76,000	76,000	90
95	73.3	256.9	95,300	95,300	75.1	254.5	73,800	73,800	95
100	72.1	255.1	93,600	93,600	73.9	252.6	71,700	71,700	100
105	70.9	253.1	92,000	92,000	72.8	250.6	69,800	69,800	105
110	69.7	250.9	89,300	89,300	71.6	248.5	68,000	68,000	110
120	67.3	246.3	83,700	83,700	69.1	243.8	64,600	64,600	120
130	64.9	241.2	78,800	78,800	66.7	238.6	61,600	61,600	130
140	62.4	235.5	74,500	74,500	64.1	232.8	58,900	58,900	140
150	59.8	229.2	70,700	70,700	61.5	226.5	56,400	56,400	150
160	57.1	222.2	67,200	67,200	58.8	219.4	54,200	54,200	160
170	54.4	214.5	64,100	64,100	56.0	211.6	52,200	52,200	170
180	51.5	206.1	61,300	61,300	53.1	203.0	50,400	50,400	180
190	48.5	196.6	58,700	58,700	50.1	193.4	48,800	48,800	190
200	45.4	186.1	56,400	56,400	46.8	182.7	47,200	47,200	200
210	42.0	174.4	54,400	54,400	43.4	170.7	45,900	45,900	210
220	38.4	161.1	52,400	52,400	39.7	157.0	44,800	44,800	220
230	34.4	145.7	50,800	50,800	35.6	141.2	43,800	43,800	230
240	29.8	127.5	49,300	49,300	30.8	122.3	43,000	43,000	240
250	24.4	104.8	48,000	48,000					250

MLC650 VPC-MAX S-3

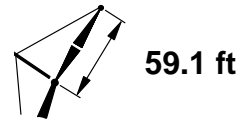
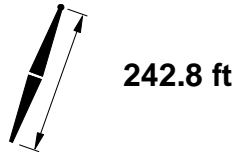
ASME B30.5



	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
55	82.9	288.0	112,100	112,100					55
60	81.8	287.1	109,900	109,900					60
65	80.8	286.1	107,800	107,800	82.6	283.7	90,900	90,900	65
70	79.8	284.9	105,800	105,800	81.5	282.5	88,000	88,000	70
75	78.7	283.7	103,800	103,800	80.5	281.3	85,200	85,200	75
80	77.7	282.4	102,000	102,000	79.4	279.9	82,700	82,700	80
85	76.6	280.9	100,200	100,200	78.4	278.5	80,200	80,200	85
90	75.6	279.4	98,500	98,500	77.3	277.0	77,900	77,900	90
95	74.5	277.8	96,800	96,800	76.2	275.3	75,800	75,800	95
100	73.4	276.0	95,200	95,200	75.1	273.6	73,800	73,800	100
105	72.3	274.2	93,700	93,700	74.0	271.7	71,900	71,900	105
110	71.2	272.2	92,200	92,200	72.9	269.7	70,000	70,000	110
120	69.0	268.0	87,500	87,500	70.7	265.5	66,700	66,700	120
130	66.8	263.3	82,600	82,600	68.5	260.7	63,700	63,700	130
140	64.5	258.1	78,100	78,100	66.1	255.5	61,000	61,000	140
150	62.2	252.4	74,200	74,200	63.8	249.7	58,500	58,500	150
160	59.8	246.1	70,600	70,600	61.4	243.3	56,300	56,300	160
170	57.3	239.3	67,400	67,400	58.9	236.4	54,300	54,300	170
180	54.8	231.7	64,500	64,500	56.3	228.7	52,400	52,400	180
190	52.1	223.4	61,800	61,800	53.6	220.3	50,700	50,700	190
200	49.4	214.3	59,400	59,400	50.8	211.1	49,100	49,100	200
210	46.5	204.3	57,200	57,200	47.9	200.9	47,700	47,700	210
220	43.5	193.1	55,200	55,200	44.8	189.5	46,400	46,400	220
230	40.2	180.7	53,400	53,400	41.5	176.8	45,300	45,300	230
240	36.7	166.6	51,700	51,700	37.9	162.4	44,300	44,300	240
250	32.9	150.4	50,200	50,200	33.9	145.7	43,500	43,500	250
260	28.5	131.3	48,900	48,900	29.3	125.8	42,800	42,800	260
270	23.2	107.5	47,800	47,800					270

MLC650 VPC-MAX S-3

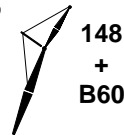
ASME B30.5



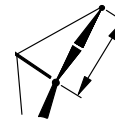
	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
60	82.4	307.1	110,500	110,500					60
65	81.4	306.1	108,600	108,600					65
70	80.4	305.1	106,700	106,700	82.1	302.7	89,500	89,500	70
75	79.5	303.9	104,900	104,900	81.1	301.5	86,800	86,800	75
80	78.5	302.7	103,100	103,100	80.1	300.2	84,300	84,300	80
85	77.5	301.4	101,400	101,400	79.2	298.9	82,000	82,000	85
90	76.5	300.0	99,800	99,800	78.2	297.5	79,800	79,800	90
95	75.5	298.4	98,200	98,200	77.2	296.0	77,600	77,600	95
100	74.5	296.8	96,600	96,600	76.2	294.3	75,700	75,700	100
105	73.5	295.1	95,200	95,200	75.1	292.6	73,800	73,800	105
110	72.5	293.3	93,700	93,700	74.1	290.8	72,000	72,000	110
120	70.5	289.4	91,000	91,000	72.1	286.8	68,700	68,700	120
130	68.4	285.1	86,100	86,100	70.0	282.5	65,700	65,700	130
140	66.3	280.3	81,600	81,600	67.9	277.6	63,000	63,000	140
150	64.2	275.1	77,600	77,600	65.7	272.4	60,600	60,600	150
160	62.0	269.3	73,900	73,900	63.5	266.6	58,300	58,300	160
170	59.8	263.1	70,600	70,600	61.2	260.3	56,200	56,200	170
180	57.5	256.3	67,600	67,600	58.9	253.4	54,300	54,300	180
190	55.1	248.9	64,800	64,800	56.5	245.8	52,600	52,600	190
200	52.6	240.8	62,400	62,400	54.0	237.6	51,000	51,000	200
210	50.1	231.9	60,000	60,000	51.5	228.7	49,500	49,500	210
220	47.5	222.2	57,900	57,900	48.8	218.8	48,200	48,200	220
230	44.7	211.6	56,000	56,000	46.0	208.0	46,900	46,900	230
240	41.8	199.8	54,300	54,300	43.0	196.0	45,900	45,900	240
250	38.6	186.7	52,600	52,600	39.8	182.6	44,900	44,900	250
260	35.3	171.9	51,100	51,100	36.3	167.4	44,000	44,000	260
270	31.5	154.9	49,800	49,800	32.4	149.9	43,300	43,300	270
280	27.3	134.9	48,600	48,600	28.0	129.0	42,700	42,700	280
290	22.2	109.9	47,600	47,600					290

MLC650 VPC-MAX S-3

ASME B30.5



262.5 ft

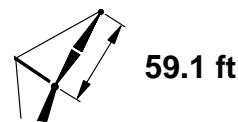
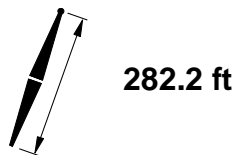


59.1 ft

	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
60	82.9		327.1	111,100	111,100				60
65	81.9		326.2	109,200	109,200				65
70	81.0		325.2	107,400	107,400	82.6	322.7	90,800	70
75	80.1		324.1	105,700	105,700	81.7	321.6	88,300	75
80	79.2		323.0	104,000	104,000	80.8	320.5	85,900	80
85	78.3		321.7	102,400	102,400	79.8	319.2	83,500	85
90	77.4		320.4	100,800	100,800	78.9	317.9	81,400	90
95	76.4		319.0	99,300	99,300	78.0	316.5	79,400	95
100	75.5		317.5	97,800	97,800	77.0	314.9	77,400	100
105	74.6		315.9	96,400	96,400	76.1	313.3	75,600	105
110	73.6		314.2	95,000	95,000	75.2	311.6	73,800	110
120	71.7		310.6	92,500	92,500	73.2	308.0	70,500	120
130	69.8		306.5	89,500	89,500	71.3	303.9	67,600	130
140	67.9		302.1	84,900	84,900	69.3	299.5	64,900	140
150	65.9		297.3	80,800	80,800	67.3	294.6	62,400	150
160	63.9		292.0	77,100	77,100	65.3	289.3	60,200	160
170	61.8		286.3	73,700	73,700	63.2	283.5	58,100	170
180	59.7		280.0	70,600	70,600	61.1	277.2	56,100	180
190	57.6		273.3	67,800	67,800	58.9	270.3	54,400	190
200	55.4		266.0	65,200	65,200	56.7	262.9	52,700	200
210	53.1		258.0	62,800	62,800	54.4	254.9	51,200	210
220	50.7		249.4	60,700	60,700	52.0	246.1	49,900	220
230	48.3		240.0	58,600	58,600	49.5	236.6	48,500	230
240	45.8		229.8	56,800	56,800	46.9	226.2	47,400	240
250	43.1		218.6	55,000	55,000	44.2	214.8	46,200	250
260	40.2		206.2	53,500	53,500	41.3	202.2	45,300	260
270	37.2		192.4	52,000	52,000	38.2	188.2	44,400	270
280	33.9		177.0	50,700	50,700	34.9	172.3	43,600	280
290	30.3		159.2	49,500	49,500	31.1	154.0	43,000	290
300	26.2		138.3	48,400	48,400				300
310	21.2		112.2	43,400	47,500				310

MLC650 VPC-MAX S-3

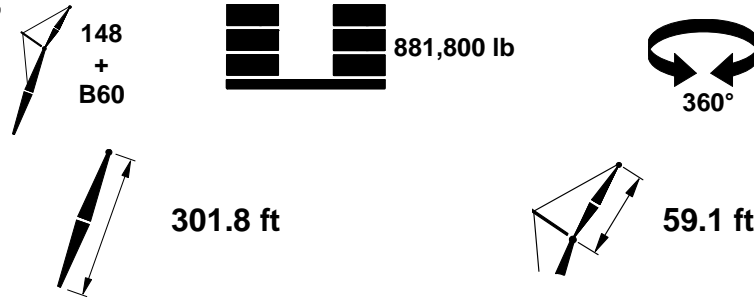
ASME B30.5



	10°				20°					
	ft	°	ft	lb	lb	ft	lb	lb		ft
65	82.4		346.2	106,600	106,600					65
70	81.6		345.2	105,000	105,000					70
75	80.7		344.2	103,500	103,500	82.2	341.7	90,500	90,500	75
80	79.8		343.1	101,900	101,900	81.3	340.6	88,800	88,800	80
85	79.0		342.0	100,500	100,500	80.4	339.5	86,500	86,500	85
90	78.1		340.7	99,000	99,000	79.6	338.2	84,300	84,300	90
95	77.3		339.4	97,700	97,700	78.7	336.9	82,300	82,300	95
100	76.4		338.0	96,300	96,300	77.8	335.5	80,300	80,300	100
105	75.5		336.5	95,000	95,000	76.9	334.0	78,500	78,500	105
110	74.6		334.9	93,800	93,800	76.1	332.4	76,600	76,600	110
120	72.9		331.5	91,400	91,400	74.3	328.9	73,300	73,300	120
130	71.1		327.8	89,100	89,100	72.5	325.1	70,300	70,300	130
140	69.2		323.7	86,900	86,900	70.6	321.0	67,600	67,600	140
150	67.4		319.2	85,000	85,000	68.8	316.5	65,000	65,000	150
160	65.5		314.3	81,500	81,500	66.9	311.5	62,700	62,700	160
170	63.6		308.9	78,000	78,000	65.0	306.2	60,500	60,500	170
180	61.7		303.2	74,700	74,700	63.0	300.4	58,600	58,600	180
190	59.7		297.0	71,700	71,700	61.0	294.1	56,800	56,800	190
200	57.7		290.3	69,000	69,000	59.0	287.3	55,100	55,100	200
210	55.6		283.1	66,500	66,500	56.9	280.0	53,500	53,500	210
220	53.5		275.2	64,200	64,200	54.7	272.1	52,000	52,000	220
230	51.3		266.8	62,000	62,000	52.5	263.6	50,600	50,600	230
240	49.0		257.7	60,000	60,000	50.2	254.3	49,400	49,400	240
250	46.7		247.8	58,100	58,100	47.8	244.3	48,300	48,300	250
260	44.2		237.0	56,400	56,400	45.3	233.3	47,200	47,200	260
270	41.6		225.3	54,900	54,900	42.7	221.4	46,200	46,200	270
280	38.9		212.3	53,400	53,400	39.9	208.2	45,300	45,300	280
290	35.9		197.9	52,000	52,000	36.8	193.5	44,500	44,500	290
300	32.7		181.8	50,800	50,800	33.6	176.9	43,800	43,800	300
310	29.2		163.3	45,500	49,700	29.9	157.8	43,300	43,300	310
320	25.2		141.5	40,000	48,700					320
330	20.3		114.3	34,800	47,800					330

MLC650 VPC-MAX S-3

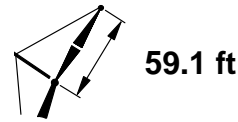
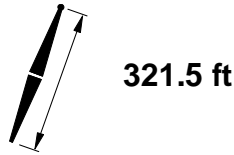
ASME B30.5



ft	10°				20°				ft
	ft	°	ft	lb	lb	ft	lb	lb	
65	82.8	366.1	106,900	106,900					65
70	82.0	365.3	105,300	105,300					70
75	81.2	364.3	103,900	103,900	82.6	361.8	90,700	90,700	75
80	80.4	363.3	102,500	102,500	81.8	360.7	89,700	89,700	80
85	79.6	362.2	101,100	101,100	81.0	359.6	87,900	87,900	85
90	78.8	361.0	99,700	99,700	80.2	358.5	85,700	85,700	90
95	78.0	359.8	98,400	98,400	79.3	357.2	83,700	83,700	95
100	77.1	358.4	97,100	97,100	78.5	355.9	81,800	81,800	100
105	76.3	357.0	95,900	95,900	77.7	354.5	80,000	80,000	105
110	75.5	355.5	94,600	94,600	76.8	353.0	78,300	78,300	110
120	73.8	352.3	92,400	92,400	75.2	349.7	75,000	75,000	120
130	72.1	348.8	90,200	90,200	73.5	346.2	72,000	72,000	130
140	70.4	345.0	88,100	88,100	71.8	342.3	69,300	69,300	140
150	68.7	340.7	86,100	86,100	70.0	338.0	66,800	66,800	150
160	67.0	336.2	84,300	84,300	68.3	333.4	64,400	64,400	160
170	65.2	331.2	80,900	80,900	66.5	328.5	62,300	62,300	170
180	63.4	325.9	77,600	77,600	64.7	323.1	60,300	60,300	180
190	61.6	320.1	74,600	74,600	62.8	317.3	58,400	58,400	190
200	59.7	313.9	71,800	71,800	60.9	311.0	56,700	56,700	200
210	57.8	307.3	69,200	69,200	59.0	304.3	55,100	55,100	210
220	55.8	300.1	66,800	66,800	57.0	297.1	53,600	53,600	220
230	53.8	292.4	64,600	64,600	55.0	289.3	52,300	52,300	230
240	51.8	284.2	62,600	62,600	52.9	280.9	51,000	51,000	240
250	49.7	275.3	60,600	60,600	50.8	271.9	49,700	49,700	250
260	47.5	265.7	58,800	58,800	48.5	262.2	48,600	48,600	260
270	45.2	255.3	57,100	57,100	46.2	251.6	47,600	47,600	270
280	42.8	244.0	55,600	55,600	43.8	240.2	46,700	46,700	280
290	40.3	231.7	54,200	54,200	41.2	227.6	45,700	45,700	290
300	37.6	218.2	48,600	52,900	38.5	213.9	45,000	45,000	300
310	34.7	203.2	43,000	51,600	35.6	198.6	44,100	44,300	310
320	31.6	186.4	37,700	50,500	32.4	181.3	38,600	43,600	320
330	28.2	167.2	32,600	49,400	28.8	161.5	33,300	43,100	330
340	24.3	144.6	27,800	48,600					340
350	19.5	116.3	23,000	47,800					350

MLC650 VPC-MAX S-3

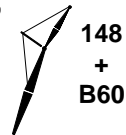
ASME B30.5



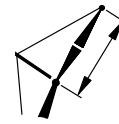
	10°				20°				
	ft	°	ft	lb	ft	°	ft	lb	
70	82.4		385.2	105,500					70
75	81.7		384.3	104,100					75
80	80.9		383.4	102,800	82.2	380.8	89,900	89,900	80
85	80.1		382.3	101,400	81.5	379.8	88,900	88,900	85
90	79.4		381.2	100,200	80.7	378.6	87,100	87,100	90
95	78.6		380.0	98,900	79.9	377.5	85,100	85,100	95
100	77.8		378.8	97,700	79.1	376.2	83,300	83,300	100
105	77.0		377.5	96,500	78.3	374.9	81,500	81,500	105
110	76.3		376.1	95,400	77.6	373.5	79,700	79,700	110
120	74.7		373.0	93,200	76.0	370.4	76,600	76,600	120
130	73.1		369.7	91,100	74.4	367.1	73,600	73,600	130
140	71.5		366.1	89,100	72.8	363.4	70,900	70,900	140
150	69.9		362.1	87,200	71.1	359.4	68,400	68,400	150
160	68.3		357.8	85,400	69.5	355.1	66,100	66,100	160
170	66.6		353.2	83,700	67.8	350.4	63,900	63,900	170
180	64.9		348.2	80,500	66.1	345.4	61,900	61,900	180
190	63.2		342.8	77,400	64.4	340.0	60,100	60,100	190
200	61.5		337.1	74,500	62.6	334.2	58,300	58,300	200
210	59.7		330.9	71,900	60.8	327.9	56,700	56,700	210
220	57.9		324.3	69,400	59.0	321.2	55,200	55,200	220
230	56.0		317.2	67,200	57.2	314.1	53,800	53,800	230
240	54.2		309.6	65,000	55.3	306.4	52,500	52,500	240
250	52.2		301.5	63,000	53.3	298.2	51,200	51,200	250
260	50.2		292.8	61,200	51.3	289.4	50,100	50,100	260
270	48.2		283.4	59,500	49.2	279.9	49,000	49,000	270
280	46.0		273.3	56,200	47.0	269.7	48,000	48,000	280
290	43.8		262.5	49,800	44.8	258.7	47,000	47,000	290
300	41.5		250.7	43,900	42.4	246.7	45,500	46,200	300
310	39.0		237.9	38,300	39.9	233.7	39,700	45,400	310
320	36.4		223.8	33,000	37.3	219.4	34,300	44,700	320
330	33.6		208.3	28,100	34.4	203.5	29,100	44,100	330
340	30.6		190.9	23,300	31.3	185.5	24,100	43,500	340
350	27.3		171.0	18,800	27.8	164.9	19,400	43,000	350
360	23.4		147.5	14,400					360
370	18.7		118.1	10,100					370

MLC650 VPC-MAX S-3

ASME B30.5



341.2 ft

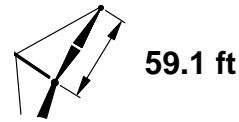
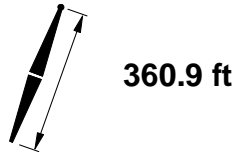


59.1 ft

	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
70	82.8	405.2	105,500	105,500					70
75	82.1	404.3	104,200	104,200					75
80	81.4	403.4	102,900	102,900	82.6	400.8	89,900	89,900	80
85	80.6	402.4	101,700	101,700	81.9	399.8	89,100	89,100	85
90	79.9	401.4	100,500	100,500	81.2	398.8	88,200	88,200	90
95	79.2	400.2	99,300	99,300	80.4	397.7	86,400	86,400	95
100	78.4	399.1	98,200	98,200	79.7	396.5	84,600	84,600	100
105	77.7	397.8	97,000	97,000	78.9	395.2	82,900	82,900	105
110	77.0	396.5	95,900	95,900	78.2	393.9	81,200	81,200	110
120	75.5	393.6	93,900	93,900	76.7	391.0	78,000	78,000	120
130	74.0	390.5	91,800	91,800	75.2	387.8	75,100	75,100	130
140	72.5	387.0	89,900	89,900	73.7	384.4	72,400	72,400	140
150	70.9	383.3	88,100	88,100	72.1	380.6	69,900	69,900	150
160	69.4	379.3	86,400	86,400	70.6	376.5	67,600	67,600	160
170	67.8	374.9	84,700	84,700	69.0	372.1	65,500	65,500	170
180	66.2	370.2	83,100	83,100	67.4	367.4	63,500	63,500	180
190	64.6	365.2	80,100	80,100	65.8	362.3	61,600	61,600	190
200	63.0	359.8	77,200	77,200	64.1	356.9	59,900	59,900	200
210	61.4	354.0	74,500	74,500	62.5	351.1	58,300	58,300	210
220	59.7	347.9	72,000	72,000	60.8	344.9	56,800	56,800	220
230	58.0	341.3	69,700	69,700	59.0	338.2	55,300	55,300	230
240	56.2	334.2	67,500	67,500	57.3	331.1	54,000	54,000	240
250	54.4	326.8	65,400	65,400	55.5	323.6	52,700	52,700	250
260	52.6	318.8	63,600	63,600	53.6	315.5	51,500	51,500	260
270	50.7	310.2	61,800	61,800	51.7	306.8	50,400	50,400	270
280	48.8	301.1	60,100	60,100	49.8	297.6	49,400	49,400	280
290	46.8	291.3	58,500	58,500	47.7	287.7	48,400	48,400	290
300	44.7	280.8	47,400	57,000	45.6	277.0	47,500	47,500	300
310	42.5	269.4	41,600	55,600	43.4	265.5	43,300	46,600	310
320	40.3	257.2	36,200	54,300	41.1	253.1	37,700	45,800	320
330	37.9	243.9	31,100	53,100	38.7	239.5	32,300	45,100	330
340	35.4	229.3	26,200	52,000	36.1	224.7	27,300	44,500	340
350	32.6	213.2	21,600	50,900	33.3	208.2	22,500	43,900	350
360	29.7	195.1	17,200	50,000	30.3	189.6	17,900	43,400	360
370	26.4	174.5	12,900	49,100					370
380	22.6	150.2	8,800	48,300					380

MLC650 VPC-MAX S-3

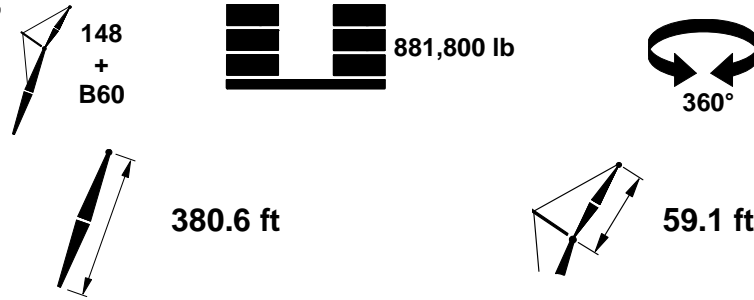
ASME B30.5



	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
75	82.5	424.3	104,000	104,000	83.0	420.8	89,900	89,900	75
80	81.8	423.4	102,800	102,800	82.3	419.9	89,000	89,000	80
85	81.1	422.5	101,600	101,600	81.6	418.9	88,200	88,200	85
90	80.4	421.5	100,500	100,500	80.9	417.8	87,400	87,400	90
95	79.7	420.4	99,400	99,400	80.2	416.7	85,600	85,600	95
100	79.0	419.3	98,300	98,300	79.5	415.5	83,900	83,900	100
105	78.3	418.1	97,200	97,200	78.8	414.2	82,200	82,200	105
110	77.6	416.8	96,200	96,200	77.3	411.5	79,100	79,100	110
120	76.2	414.1	94,200	94,200	75.9	408.5	76,300	76,300	120
130	74.8	411.1	92,300	92,300	74.5	405.2	73,500	73,500	130
140	73.3	407.9	90,400	90,400	73.0	401.6	71,100	71,100	140
150	71.9	404.3	88,600	88,600	71.5	397.8	68,800	68,800	150
160	70.4	400.5	86,900	86,900	70.0	393.6	66,700	66,700	160
170	68.9	396.4	85,300	85,300	68.5	389.2	64,700	64,700	170
180	67.4	392.0	83,800	83,800	67.0	384.4	62,800	62,800	180
190	65.9	387.2	82,000	82,000	65.5	379.3	61,100	61,100	190
200	64.4	382.1	79,100	79,100	63.9	373.8	59,400	59,400	200
210	62.8	376.7	76,300	76,300	62.3	368.0	57,900	57,900	210
220	61.3	371.0	73,800	73,800	60.7	361.8	56,500	56,500	220
230	59.7	364.8	71,400	71,400	59.1	355.2	55,100	55,100	230
240	58.0	358.3	69,200	69,200	57.4	348.2	53,800	53,800	240
250	56.4	351.3	67,200	67,200	55.7	340.7	52,600	52,600	250
260	54.7	343.9	65,300	65,300	53.9	332.7	51,500	51,500	260
270	52.9	336.0	61,900	63,400	52.1	324.2	50,400	50,400	270
280	51.2	327.6	54,900	61,800	50.3	315.2	49,400	49,400	280
290	49.3	318.7	48,400	60,200	48.4	305.5	44,300	48,500	290
300	47.4	309.1	42,200	58,700	46.4	295.2	38,400	47,600	300
310	45.5	298.9	36,500	57,300	44.3	284.1	32,800	46,800	310
320	43.5	287.9	31,100	56,000	42.2	272.1	27,500	46,000	320
330	41.4	276.2	26,000	54,700	40.0	259.2	22,600	45,300	330
340	39.2	263.5	21,200	53,500	37.6	245.2	17,800	44,700	340
350	36.8	249.7	16,600	52,400	35.1	229.8	13,300	44,100	350
360	34.4	234.6	12,300	51,400	32.4	212.7	9,000	43,700	360
370	31.7	217.9	8,100	50,400	29.4	193.5		43,200	370
380	28.8	199.2		49,600					380
390	25.6	177.9		48,800					390
400	21.9	152.8		48,200					400

MLC650 VPC-MAX S-3

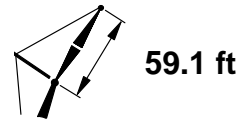
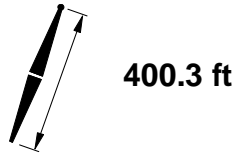
ASME B30.5



	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
75	82.8	444.2	103,600	103,600					75
80	82.2	443.4	102,500	102,500					80
85	81.5	442.5	101,400	101,400	82.6	439.9	88,900	88,900	85
90	80.8	441.5	100,300	100,300	82.0	438.9	88,100	88,100	90
95	80.2	440.5	99,200	99,200	81.3	437.9	87,400	87,400	95
100	79.5	439.5	98,200	98,200	80.6	436.8	86,600	86,600	100
105	78.8	438.3	97,200	97,200	80.0	435.7	85,000	85,000	105
110	78.2	437.1	96,200	96,200	79.3	434.5	83,300	83,300	110
120	76.8	434.5	94,300	94,300	77.9	431.9	80,200	80,200	120
130	75.5	431.7	92,500	92,500	76.6	429.0	77,400	77,400	130
140	74.1	428.6	90,700	90,700	75.2	425.9	74,700	74,700	140
150	72.7	425.2	89,000	89,000	73.8	422.5	72,300	72,300	150
160	71.3	421.6	87,400	87,400	72.4	418.9	70,000	70,000	160
170	69.9	417.7	85,900	85,900	71.0	414.9	67,900	67,900	170
180	68.5	413.5	84,400	84,400	69.6	410.7	65,900	65,900	180
190	67.1	409.0	83,000	83,000	68.1	406.2	64,000	64,000	190
200	65.6	404.2	81,100	81,100	66.7	401.4	62,300	62,300	200
210	64.2	399.1	78,400	78,400	65.2	396.2	60,600	60,600	210
220	62.7	393.7	75,800	75,800	63.7	390.7	59,100	59,100	220
230	61.2	387.9	73,400	73,400	62.2	384.9	57,600	57,600	230
240	59.7	381.8	71,200	71,200	60.7	378.7	56,300	56,300	240
250	58.1	375.2	69,100	69,100	59.1	372.1	55,000	55,000	250
260	56.5	368.3	67,100	67,100	57.5	365.2	53,700	53,700	260
270	54.9	361.0	61,500	65,300	55.9	357.8	52,600	52,600	270
280	53.3	353.2	54,500	63,600	54.2	349.9	51,500	51,500	280
290	51.6	344.9	48,000	61,900	52.5	341.6	50,400	50,500	290
300	49.8	336.2	41,900	60,400	50.7	332.7	44,100	49,500	300
310	48.0	326.8	36,200	59,000	48.9	323.3	38,200	48,700	310
320	46.2	316.9	30,800	57,600	47.1	313.2	32,700	47,900	320
330	44.3	306.3	25,700	56,300	45.1	302.4	27,500	47,000	330
340	42.3	294.9	21,000	55,100	43.1	290.9	22,500	46,300	340
350	40.3	282.7	16,400	54,000	41.1	278.5	17,800	45,600	350
360	38.1	269.5	12,100	52,900	38.9	265.2	13,400	45,000	360
370	35.9	255.3	8,100	51,900	36.6	250.6	9,100	44,400	370
380	33.4	239.7		51,000	34.1	234.7		43,900	380
390	30.8	222.5		50,100	31.4	217.1		43,500	390
400	28.0	203.2		49,300	28.5	197.3		43,100	400
410	24.9	181.2		48,600					410
420	21.2	155.3		48,000					420

MLC650 VPC-MAX S-3

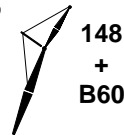
ASME B30.5



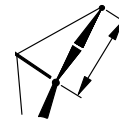
	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
80	82.5	463.3	102,000	102,000	83.0	459.9	88,600	88,600	80
85	81.9	462.5	101,000	101,000	82.3	459.0	87,900	87,900	85
90	81.2	461.6	100,000	100,000	81.7	458.0	87,100	87,100	90
95	80.6	460.6	99,000	99,000	81.0	456.9	86,500	86,500	95
100	80.0	459.6	98,000	98,000	80.4	455.8	85,800	85,800	100
105	79.3	458.5	97,100	97,100	79.8	454.7	84,300	84,300	105
110	78.7	457.3	96,200	96,200	78.5	452.2	81,400	81,400	110
120	77.4	454.9	94,400	94,400	77.2	449.5	78,600	78,600	120
130	76.1	452.2	92,600	92,600	75.9	446.5	75,900	75,900	130
140	74.8	449.2	91,000	91,000	74.5	443.3	73,500	73,500	140
150	73.5	446.0	89,300	89,300	73.2	439.8	71,200	71,200	150
160	72.2	442.6	87,800	87,800	71.9	436.1	69,100	69,100	160
170	70.8	438.9	86,300	86,300	70.5	432.1	67,200	67,200	170
180	69.5	434.9	85,000	85,000	69.2	427.8	65,300	65,300	180
190	68.1	430.6	83,600	83,600	67.8	423.2	63,500	63,500	190
200	66.8	426.1	82,300	82,300	66.4	418.3	61,900	61,900	200
210	65.4	421.2	80,500	80,500	65.0	413.2	60,300	60,300	210
220	64.0	416.1	78,000	78,000	63.5	407.7	58,900	58,900	220
230	62.6	410.6	75,500	75,500	62.1	401.8	57,500	57,500	230
240	61.1	404.8	73,200	73,200	60.6	395.7	56,200	56,200	240
250	59.7	398.7	71,100	71,100	59.1	389.1	55,000	55,000	250
260	58.2	392.2	64,000	69,200	57.6	382.2	53,800	53,800	260
270	56.7	385.4	56,500	67,200	56.0	374.9	52,200	52,700	270
280	55.1	378.1	49,400	65,500	54.4	367.1	45,500	51,700	280
290	53.5	370.4	42,900	63,900	52.8	358.9	39,200	50,700	290
300	51.9	362.3	36,800	62,300	51.1	350.2	33,300	49,800	300
310	50.3	353.6	31,100	60,800	49.4	340.9	27,800	48,900	310
320	48.6	344.5	25,700	59,400	47.7	331.1	22,600	48,100	320
330	46.9	334.8	20,600	58,000	45.9	320.6	17,600	47,300	330
340	45.1	324.4	15,900	56,800	44.0	309.5	13,000	46,600	340
350	43.2	313.4	11,400	55,600	42.0	297.6	8,600	46,000	350
360	41.3	301.6	7,100	54,500	40.0	284.7		45,300	360
370	39.3	289.0		53,500	37.9	270.9		44,800	370
380	37.2	275.4		52,500	35.6	255.9		44,200	380
390	34.9	260.7		51,600	33.2	239.5		43,700	390
400	32.6	244.6		50,700	30.6	221.3		43,300	400
410	30.0	226.8		49,900					410
420	27.3	207.0		49,200					420
430	24.2	184.4		48,500					430
440	20.6	157.6		45,500					440

MLC650 VPC-MAX S-3

ASME B30.5



419.9 ft

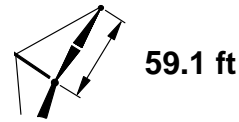
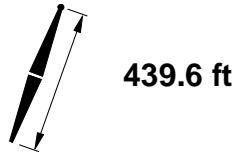


59.1 ft

	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
80	82.2	483.3	101,200	101,200					80
85	82.2	482.5	100,200	100,200					85
90	81.6	481.6	99,300	99,300	82.6	478.9	87,400	87,400	90
95	81.0	480.7	98,400	98,400	82.0	478.0	86,800	86,800	95
100	80.4	479.7	97,500	97,500	81.4	477.0	86,100	86,100	100
105	79.8	478.6	96,600	96,600	80.8	476.0	85,500	85,500	105
110	79.2	477.5	95,800	95,800	80.2	474.9	84,900	84,900	110
120	77.9	475.2	94,100	94,100	79.0	472.5	82,400	82,400	120
130	76.7	472.6	92,500	92,500	77.7	469.9	79,600	79,600	130
140	75.4	469.8	90,900	90,900	76.5	467.1	77,000	77,000	140
150	74.2	466.7	89,400	89,400	75.2	464.0	74,600	74,600	150
160	72.9	463.4	88,000	88,000	73.9	460.7	72,400	72,400	160
170	71.7	459.9	86,600	86,600	72.7	457.1	70,300	70,300	170
180	70.4	456.1	85,200	85,200	71.4	453.3	68,400	68,400	180
190	69.1	452.0	83,900	83,900	70.1	449.2	66,500	66,500	190
200	67.8	447.7	82,600	82,600	68.8	444.9	64,700	64,700	200
210	66.5	443.1	81,500	81,500	67.4	440.2	63,100	63,100	210
220	65.1	438.2	80,000	80,000	66.1	435.3	61,500	61,500	220
230	63.8	433.0	77,600	77,600	64.7	430.1	60,100	60,100	230
240	62.4	427.6	75,300	75,300	63.4	424.6	58,700	58,700	240
250	61.0	421.8	71,400	73,100	62.0	418.8	57,400	57,400	250
260	59.6	415.7	63,200	71,100	60.6	412.6	56,200	56,200	260
270	58.2	409.2	55,600	69,200	59.1	406.1	55,000	55,000	270
280	56.8	402.4	48,600	67,400	57.7	399.2	51,600	53,900	280
290	55.3	395.2	42,100	65,700	56.2	391.9	44,800	52,800	290
300	53.8	387.6	36,000	64,100	54.7	384.3	38,500	51,800	300
310	52.3	379.5	30,300	62,600	53.1	376.1	32,700	50,900	310
320	50.7	371.0	24,900	61,200	51.5	367.6	27,100	50,000	320
330	49.1	362.1	19,900	59,800	49.9	358.5	21,900	49,200	330
340	47.4	352.5	15,100	58,500	48.2	348.9	17,000	48,300	340
350	45.7	342.5	10,600	57,300	46.5	338.7	12,400	47,600	350
360	44.0	331.8		56,200	44.7	327.9	8,000	46,900	360
370	42.2	320.4		55,000	42.9	316.3		46,300	370
380	40.3	308.2		54,000	41.0	304.0		45,600	380
390	38.3	295.2		53,100	39.0	290.8		45,100	390
400	36.3	281.1		52,100	36.9	276.5		44,500	400
410	34.1	265.9		51,300	34.7	261.0		44,000	410
420	31.8	249.4		50,500	32.3	244.1		43,600	420
430	29.3	231.1		48,500	29.8	225.4		43,300	430
440	26.6	210.7		44,900					440
450	23.5	187.4		41,500					450
460	20.0	159.8		38,200					460

MLC650 VPC-MAX S-3

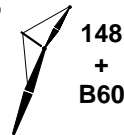
ASME B30.5



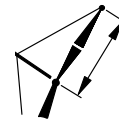
	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
85	82.5	502.4	99,400	99,400					85
90	81.9	501.6	98,600	98,600	82.9	498.9	86,900	86,900	90
95	81.3	500.7	97,700	97,700	82.4	498.0	86,300	86,300	95
100	80.8	499.7	96,900	96,900	81.8	497.1	85,700	85,700	100
105	80.2	498.7	96,100	96,100	81.2	496.1	85,100	85,100	105
110	79.6	497.7	95,300	95,300	80.6	495.0	84,500	84,500	110
120	78.4	495.4	93,700	93,700	79.4	492.7	83,300	83,300	120
130	77.2	492.9	92,200	92,200	78.2	490.2	80,600	80,600	130
140	76.0	490.2	90,700	90,700	77.0	487.5	78,100	78,100	140
150	74.8	487.3	89,300	89,300	75.8	484.6	75,700	75,700	150
160	73.6	484.2	87,900	87,900	74.6	481.4	73,400	73,400	160
170	72.4	480.8	86,600	86,600	73.4	478.0	71,400	71,400	170
180	71.2	477.1	85,300	85,300	72.1	474.4	69,400	69,400	180
190	70.0	473.3	84,100	84,100	70.9	470.5	67,600	67,600	190
200	68.7	469.2	82,900	82,900	69.7	466.3	65,800	65,800	200
210	67.5	464.8	81,800	81,800	68.4	461.9	64,200	64,200	210
220	66.2	460.1	80,700	80,700	67.1	457.2	62,700	62,700	220
230	64.9	455.2	79,500	79,500	65.8	452.3	61,200	61,200	230
240	63.6	450.0	75,200	77,100	64.5	447.1	59,800	59,800	240
250	62.3	444.5	66,300	75,000	63.2	441.5	58,500	58,500	250
260	61.0	438.7	58,100	73,000	61.9	435.7	57,300	57,300	260
270	59.6	432.6	50,600	71,000	60.5	429.5	53,900	56,100	270
280	58.3	426.2	43,500	69,200	59.1	423.0	46,700	55,000	280
290	56.9	419.4	37,000	67,500	57.7	416.2	39,900	53,900	290
300	55.5	412.2	30,900	65,800	56.3	409.0	33,600	52,900	300
310	54.0	404.7	25,200	64,300	54.9	401.4	27,800	51,900	310
320	52.6	396.8	19,800	62,800	53.4	393.4	22,200	51,100	320
330	51.1	388.4	14,700	61,400	51.9	385.0	17,000	50,100	330
340	49.5	379.6	10,000	60,100	50.3	376.0	12,100	49,300	340
350	48.0	370.2		58,900	48.7	366.6	7,500	48,600	350
360	46.4	360.4		57,700	47.1	356.7		47,900	360
370	44.7	350.0		56,600	45.4	346.1		47,100	370
380	43.0	338.9		55,500	43.7	334.9		46,500	380
390	41.2	327.1		54,500	41.9	323.0		45,900	390
400	39.4	314.6		53,600	40.0	310.3		45,300	400
410	37.4	301.1		52,200	38.1	296.6		44,800	410
420	35.4	286.7		48,300	36.0	281.9		44,300	420
430	33.3	271.0		44,600	33.8	266.0		43,900	430
440	31.0	254.0		41,000	31.5	248.6		41,600	440
450	28.6	235.2		37,600	29.0	229.4		38,100	450
460	25.9	214.2		34,300					460
470	22.9	190.3		31,200					470
480	19.5	162.0		28,100					480

MLC650 VPC-MAX S-3

ASME B30.5



459.3 ft

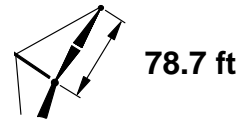
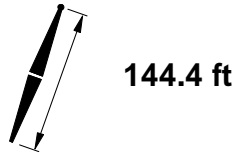


59.1 ft

	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
85	82.8	522.3	98,200	98,200					85
90	82.2	521.5	97,400	97,400					90
95	81.7	520.7	96,700	96,700	82.6	518.0	85,600	85,600	95
100	81.1	519.8	95,900	95,900	82.1	517.1	85,000	85,000	100
105	80.6	518.8	95,100	95,100	81.5	516.1	84,500	84,500	105
110	80.0	517.8	94,400	94,400	81.0	515.1	83,900	83,900	110
120	78.9	515.6	92,900	92,900	79.8	512.9	82,900	82,900	120
130	77.7	513.2	91,500	91,500	78.7	510.5	81,600	81,600	130
140	76.6	510.6	90,200	90,200	77.5	507.9	79,100	79,100	140
150	75.4	507.8	88,900	88,900	76.4	505.1	76,700	76,700	150
160	74.3	504.8	87,600	87,600	75.2	502.1	74,600	74,600	160
170	73.1	501.6	86,300	86,300	74.0	498.8	72,500	72,500	170
180	71.9	498.1	85,100	85,100	72.9	495.3	70,500	70,500	180
190	70.8	494.4	83,900	83,900	71.7	491.6	68,700	68,700	190
200	69.6	490.5	82,800	82,800	70.5	487.6	67,000	67,000	200
210	68.4	486.3	81,700	81,700	69.3	483.4	65,300	65,300	210
220	67.2	481.8	80,700	80,700	68.1	479.0	63,800	63,800	220
230	65.9	477.2	79,700	79,700	66.8	474.2	62,300	62,300	230
240	64.7	472.2	74,200	78,700	65.6	469.3	60,900	60,900	240
250	63.5	467.0	65,300	76,700	64.3	464.0	59,600	59,600	250
260	62.2	461.5	57,100	74,600	63.1	458.5	58,300	58,300	260
270	60.9	455.7	49,500	72,700	61.8	452.6	53,000	57,100	270
280	59.6	449.6	42,500	70,800	60.5	446.5	45,800	56,000	280
290	58.3	443.2	36,000	69,100	59.1	440.0	39,000	54,900	290
300	57.0	436.4	29,900	67,400	57.8	433.2	32,700	53,900	300
310	55.6	429.3	24,100	65,800	56.4	426.1	26,900	52,900	310
320	54.3	421.8	18,800	64,400	55.0	418.5	21,300	52,000	320
330	52.8	414.0	13,700	62,900	53.6	410.6	16,100	51,200	330
340	51.4	405.7	9,000	61,600	52.2	402.3	11,200	50,300	340
350	49.9	397.0		60,300	50.7	393.5	6,600	49,500	350
360	48.4	387.9		59,100	49.2	384.3		48,800	360
370	46.9	378.2		58,000	47.6	374.5		48,000	370
380	45.3	368.0		56,900	46.0	364.2		47,400	380
390	43.7	357.3		55,900	44.4	353.3		46,700	390
400	42.0	345.8		54,900	42.7	341.8		46,100	400
410	40.3	333.7		51,300	40.9	329.5		45,600	410
420	38.5	320.8		47,400	39.1	316.4		45,000	420
430	36.6	306.9		43,700	37.2	302.3		44,500	430
440	34.6	292.1		40,200	35.2	287.2		40,900	440
450	32.5	276.0		36,800	33.1	270.8		37,400	450
460	30.3	258.5		33,600	30.8	252.9		34,100	460
470	27.9	239.2		30,500	28.3	233.2		30,900	470
480	25.3	217.7		27,500					480
490	22.3	193.1		24,000					490
500	18.9	163.9		20,400					500

MLC650 VPC-MAX S-3

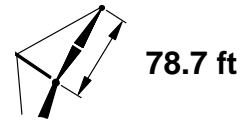
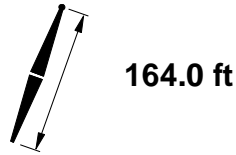
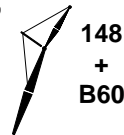
ASME B30.5



	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
55	81.8	227.9	82,200b	82,200b					55
60	80.5	226.7	80,200b	80,200b					60
65	79.2	225.3	78,100	78,100	82.2	222.8	67,900b	67,900b	65
70	77.8	223.9	76,300	76,300	80.9	221.4	64,900b	64,900b	70
75	76.5	222.3	74,400	74,400	79.5	219.8	62,200	62,200	75
80	75.1	220.6	72,700	72,700	78.2	218.0	59,700	59,700	80
85	73.8	218.7	71,100	71,100	76.8	216.1	57,400	57,400	85
90	72.4	216.7	69,500	69,500	75.4	214.1	55,200	55,200	90
95	71.0	214.6	68,000	68,000	74.0	212.0	53,300	53,300	95
100	69.6	212.3	66,600	66,600	72.5	209.7	51,400	51,400	100
105	68.2	209.9	64,500	64,500	71.1	207.2	49,700	49,700	105
110	66.7	207.3	62,000	62,000	69.6	204.6	48,100	48,100	110
120	63.8	201.7	57,500	57,500	66.6	198.8	45,200	45,200	120
130	60.7	195.3	53,600	53,600	63.5	192.4	42,600	42,600	130
140	57.6	188.1	50,100	50,100	60.3	185.1	40,400	40,400	140
150	54.3	180.1	47,200	47,200	57.0	176.9	38,400	38,400	150
160	50.8	171.0	44,500	44,500	53.4	167.6	36,600	36,600	160
170	47.1	160.7	42,100	42,100	49.7	157.1	35,000	35,000	170
180	43.2	149.0	40,000	40,000	45.6	145.1	33,500	33,500	180
190	38.8	135.3	38,100	38,100	41.1	131.0	32,300	32,300	190
200	33.9	119.1	36,400	36,400	36.0	114.0	31,300	31,300	200
210	28.1	98.8	35,000	35,000	29.9	92.6	30,400	30,400	210
220	20.5	70.6	33,800	33,800					220

MLC650 VPC-MAX S-3

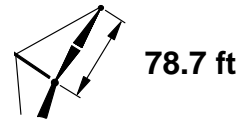
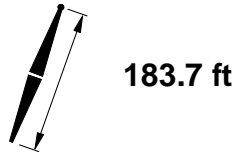
ASME B30.5



	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
55	82.5	248.0	83,100b	83,100b					55
60	81.3	246.9	81,100	81,100					60
65	80.1	245.6	79,300	79,300	82.9	243.0	69,300b	69,300b	65
70	78.9	244.3	77,500	77,500	81.7	241.7	66,500	66,500	70
75	77.6	242.9	75,800	75,800	80.4	240.2	63,900	63,900	75
80	76.4	241.3	74,200	74,200	79.2	238.6	61,400	61,400	80
85	75.2	239.6	72,600	72,600	77.9	236.9	59,200	59,200	85
90	73.9	237.8	71,100	71,100	76.6	235.1	57,100	57,100	90
95	72.6	235.9	69,600	69,600	75.4	233.2	55,200	55,200	95
100	71.4	233.8	68,200	68,200	74.1	231.1	53,400	53,400	100
105	70.1	231.6	66,900	66,900	72.8	228.9	51,700	51,700	105
110	68.8	229.3	65,500	65,500	71.5	226.5	50,100	50,100	110
120	66.1	224.2	61,000	61,000	68.8	221.4	47,200	47,200	120
130	63.4	218.5	56,900	56,900	66.0	215.6	44,700	44,700	130
140	60.6	212.2	53,400	53,400	63.2	209.2	42,300	42,300	140
150	57.7	205.1	50,300	50,300	60.3	202.0	40,300	40,300	150
160	54.7	197.3	47,500	47,500	57.2	194.0	38,400	38,400	160
170	51.6	188.5	45,000	45,000	54.0	185.1	36,800	36,800	170
180	48.3	178.7	42,800	42,800	50.6	175.1	35,300	35,300	180
190	44.8	167.7	40,800	40,800	47.0	163.8	34,000	34,000	190
200	41.0	155.1	39,000	39,000	43.1	150.9	32,800	32,800	200
210	36.8	140.6	37,400	37,400	38.8	135.8	31,800	31,800	210
220	32.1	123.3	36,000	36,000	33.9	117.8	31,000	31,000	220
230	26.5	101.9	34,700	34,700	28.0	95.0	30,300	30,300	230
240	19.1	71.8	33,700	33,700					240

MLC650 VPC-MAX S-3

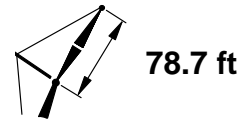
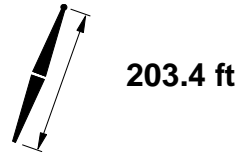
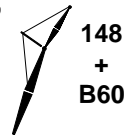
ASME B30.5



	10°				20°				
	ft	°	ft	lb	ft	°	ft	lb	
60	82.0	267.0	82,000	82,000					60
65	80.8	265.8	80,300	80,300					65
70	79.7	264.6	78,600	78,600	82.3	261.9	67,900	67,900	70
75	78.6	263.3	77,000	77,000	81.2	260.6	65,400	65,400	75
80	77.5	261.9	75,400	75,400	80.0	259.1	63,000	63,000	80
85	76.3	260.3	73,900	73,900	78.9	257.6	60,900	60,900	85
90	75.2	258.7	72,500	72,500	77.7	255.9	58,800	58,800	90
95	74.0	256.9	71,100	71,100	76.5	254.1	57,000	57,000	95
100	72.8	255.0	69,700	69,700	75.4	252.2	55,200	55,200	100
105	71.7	253.0	68,500	68,500	74.2	250.2	53,500	53,500	105
110	70.5	250.9	67,200	67,200	73.0	248.0	51,900	51,900	110
120	68.1	246.3	64,200	64,200	70.5	243.4	49,100	49,100	120
130	65.6	241.1	60,100	60,100	68.1	238.2	46,500	46,500	130
140	63.1	235.4	56,500	56,500	65.5	232.4	44,200	44,200	140
150	60.5	229.1	53,300	53,300	62.9	226.0	42,100	42,100	150
160	57.9	222.2	50,400	50,400	60.2	218.9	40,300	40,300	160
170	55.1	214.5	47,900	47,900	57.4	211.1	38,600	38,600	170
180	52.3	206.0	45,600	45,600	54.5	202.5	37,100	37,100	180
190	49.3	196.6	43,400	43,400	51.4	192.9	35,700	35,700	190
200	46.1	186.1	41,500	41,500	48.2	182.1	34,500	34,500	200
210	42.7	174.3	39,800	39,800	44.7	170.1	33,300	33,300	210
220	39.1	161.0	38,300	38,300	41.0	156.4	32,300	32,300	220
230	35.1	145.6	36,800	36,800	36.9	140.4	31,400	31,400	230
240	30.5	127.4	35,500	35,500	32.1	121.4	30,700	30,700	240
250	25.1	104.7	34,400	34,400					250

MLC650 VPC-MAX S-3

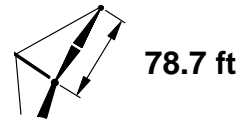
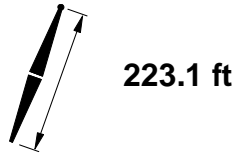
ASME B30.5



	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
60	82.5	287.0	82,700	82,700					60
65	81.5	286.0	81,000	81,000					65
70	80.5	284.8	79,400	79,400	82.9	282.1	69,200	69,200	70
75	79.4	283.6	77,900	77,900	81.8	280.8	66,700	66,700	75
80	78.4	282.3	76,400	76,400	80.8	279.5	64,400	64,400	80
85	77.3	280.9	75,000	75,000	79.7	278.0	62,400	62,400	85
90	76.2	279.3	73,600	73,600	78.6	276.5	60,400	60,400	90
95	75.2	277.7	72,300	72,300	77.5	274.9	58,500	58,500	95
100	74.1	276.0	71,000	71,000	76.4	273.1	56,800	56,800	100
105	73.0	274.1	69,800	69,800	75.4	271.2	55,100	55,100	105
110	71.9	272.2	68,700	68,700	74.3	269.3	53,600	53,600	110
120	69.7	267.9	66,400	66,400	72.0	265.0	50,700	50,700	120
130	67.5	263.2	63,200	63,200	69.8	260.2	48,200	48,200	130
140	65.2	258.1	59,500	59,500	67.4	255.0	45,900	45,900	140
150	62.9	252.3	56,100	56,100	65.1	249.2	43,900	43,900	150
160	60.5	246.1	53,200	53,200	62.6	242.8	42,000	42,000	160
170	58.0	239.2	50,500	50,500	60.1	235.8	40,200	40,200	170
180	55.4	231.6	48,200	48,200	57.6	228.2	38,600	38,600	180
190	52.8	223.3	45,900	45,900	54.9	219.8	37,300	37,300	190
200	50.1	214.2	44,000	44,000	52.1	210.5	36,000	36,000	200
210	47.2	204.2	42,200	42,200	49.1	200.2	34,700	34,700	210
220	44.1	193.0	40,500	40,500	46.0	188.8	33,700	33,700	220
230	40.9	180.6	39,000	39,000	42.7	176.1	32,700	32,700	230
240	37.4	166.5	37,600	37,600	39.1	161.6	31,900	31,900	240
250	33.5	150.3	36,300	36,300	35.1	144.8	31,100	31,100	250
260	29.1	131.1	35,200	35,200	30.5	124.7	30,500	30,500	260
270	23.9	107.3	34,200	34,200					270

MLC650 VPC-MAX S-3

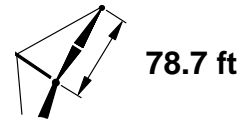
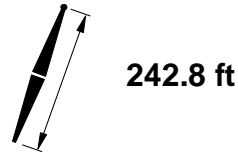
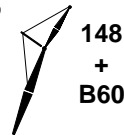
ASME B30.5



	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
65	82.1	306.1	81,500	81,500					65
70	81.1	305.0	80,100	80,100					70
75	80.1	303.9	78,600	78,600	82.4	301.0	67,900	67,900	75
80	79.1	302.6	77,200	77,200	81.4	299.8	65,700	65,700	80
85	78.2	301.3	75,800	75,800	80.4	298.4	63,600	63,600	85
90	77.2	299.9	74,600	74,600	79.4	297.0	61,700	61,700	90
95	76.2	298.3	73,300	73,300	78.4	295.4	59,900	59,900	95
100	75.2	296.7	72,100	72,100	77.4	293.8	58,200	58,200	100
105	74.2	295.0	70,900	70,900	76.4	292.1	56,600	56,600	105
110	73.2	293.2	69,800	69,800	75.4	290.3	55,100	55,100	110
120	71.1	289.3	67,600	67,600	73.3	286.3	52,300	52,300	120
130	69.1	285.0	65,500	65,500	71.2	281.9	49,700	49,700	130
140	67.0	280.2	62,200	62,200	69.1	277.1	47,500	47,500	140
150	64.8	275.0	58,900	58,900	66.9	271.8	45,400	45,400	150
160	62.6	269.2	55,800	55,800	64.7	266.0	43,500	43,500	160
170	60.4	263.0	53,100	53,100	62.4	259.7	41,800	41,800	170
180	58.1	256.2	50,600	50,600	60.1	252.8	40,200	40,200	180
190	55.7	248.7	48,400	48,400	57.7	245.2	38,700	38,700	190
200	53.3	240.6	46,300	46,300	55.2	237.0	37,400	37,400	200
210	50.7	231.8	44,500	44,500	52.6	228.0	36,200	36,200	210
220	48.1	222.1	42,700	42,700	49.9	218.1	35,100	35,100	220
230	45.3	211.5	41,200	41,200	47.1	207.3	34,100	34,100	230
240	42.4	199.7	39,700	39,700	44.1	195.2	33,100	33,100	240
250	39.3	186.6	38,300	38,300	40.9	181.8	32,300	32,300	250
260	35.9	171.8	37,100	37,100	37.4	166.5	31,500	31,500	260
270	32.1	154.8	36,000	36,000	33.5	148.9	30,800	30,800	270
280	27.9	134.7	34,900	34,900	29.1	127.8	30,300	30,300	280
290	22.8	109.7	34,100	34,100					290

MLC650 VPC-MAX S-3

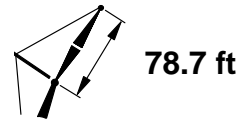
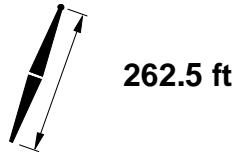
ASME B30.5



	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
65	82.6	326.1	82,000	82,000					65
70	81.6	325.1	80,600	80,600					70
75	80.7	324.0	79,200	79,200	82.9	321.1	68,900	68,900	75
80	79.8	322.9	77,900	77,900	81.9	319.9	66,800	66,800	80
85	78.9	321.6	76,600	76,600	81.0	318.7	64,900	64,900	85
90	78.0	320.3	75,400	75,400	80.1	317.4	63,000	63,000	90
95	77.1	318.9	74,200	74,200	79.1	315.9	61,200	61,200	95
100	76.1	317.4	73,000	73,000	78.2	314.4	59,500	59,500	100
105	75.2	315.8	71,900	71,900	77.3	312.8	58,000	58,000	105
110	74.2	314.1	70,800	70,800	76.3	311.1	56,500	56,500	110
120	72.4	310.5	68,700	68,700	74.4	307.4	53,700	53,700	120
130	70.4	306.4	66,800	66,800	72.4	303.4	51,200	51,200	130
140	68.5	302.0	64,900	64,900	70.5	298.9	49,000	49,000	140
150	66.5	297.2	61,500	61,500	68.5	294.0	46,900	46,900	150
160	64.5	291.9	58,400	58,400	66.4	288.7	45,000	45,000	160
170	62.4	286.2	55,600	55,600	64.4	282.9	43,200	43,200	170
180	60.3	279.9	53,100	53,100	62.2	276.5	41,600	41,600	180
190	58.2	273.2	50,700	50,700	60.1	269.7	40,200	40,200	190
200	56.0	265.8	48,600	48,600	57.8	262.3	38,800	38,800	200
210	53.7	257.9	46,700	46,700	55.5	254.2	37,600	37,600	210
220	51.3	249.3	44,900	44,900	53.1	245.4	36,400	36,400	220
230	48.9	239.9	43,300	43,300	50.6	235.9	35,400	35,400	230
240	46.3	229.6	41,800	41,800	48.0	225.5	34,400	34,400	240
250	43.7	218.4	40,300	40,300	45.3	214.0	33,500	33,500	250
260	40.8	206.0	39,000	39,000	42.4	201.4	32,700	32,700	260
270	37.8	192.3	37,700	37,700	39.3	187.2	31,900	31,900	270
280	34.5	176.8	36,600	36,600	35.9	171.3	31,200	31,200	280
290	30.9	159.0	35,600	35,600	32.1	152.8	30,700	30,700	290
300	26.7	138.1	34,700	34,700	27.8	130.8	30,200	30,200	300
310	21.8	111.9	34,000	34,000					310

MLC650 VPC-MAX S-3

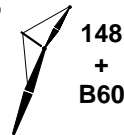
ASME B30.5



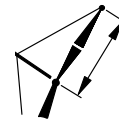
	10°				20°				
	ft	°	ft	lb	ft	°	ft	lb	
65	83.0	346.1	82,300	82,300					65
70	82.1	345.1	80,900	80,900					70
75	81.3	344.1	79,700	79,700					75
80	80.4	343.0	78,400	78,400	82.4	340.1	67,900	67,900	80
85	79.6	341.9	77,200	77,200	81.5	338.9	65,900	65,900	85
90	78.7	340.6	76,100	76,100	80.7	337.6	64,100	64,100	90
95	77.8	339.3	74,900	74,900	79.8	336.3	62,400	62,400	95
100	77.0	337.9	73,800	73,800	78.9	334.9	60,800	60,800	100
105	76.1	336.4	72,700	72,700	78.0	333.4	59,200	59,200	105
110	75.2	334.8	71,700	71,700	77.1	331.8	57,800	57,800	110
120	73.4	331.4	69,700	69,700	75.3	328.3	55,000	55,000	120
130	71.6	327.7	67,800	67,800	73.5	324.6	52,600	52,600	130
140	69.8	323.5	66,000	66,000	71.7	320.4	50,400	50,400	140
150	68.0	319.0	63,900	63,900	69.8	315.8	48,200	48,200	150
160	66.1	314.1	60,800	60,800	67.9	310.9	46,400	46,400	160
170	64.2	308.8	58,000	58,000	66.0	305.5	44,600	44,600	170
180	62.3	303.1	55,400	55,400	64.1	299.7	43,000	43,000	180
190	60.3	296.9	53,000	53,000	62.1	293.4	41,500	41,500	190
200	58.3	290.2	50,900	50,900	60.0	286.6	40,200	40,200	200
210	56.2	282.9	48,900	48,900	57.9	279.3	38,900	38,900	210
220	54.1	275.1	47,000	47,000	55.8	271.4	37,700	37,700	220
230	51.9	266.7	45,300	45,300	53.5	262.8	36,600	36,600	230
240	49.6	257.5	43,700	43,700	51.2	253.5	35,600	35,600	240
250	47.2	247.6	42,200	42,200	48.8	243.5	34,700	34,700	250
260	44.7	236.9	40,900	40,900	46.3	232.5	33,800	33,800	260
270	42.2	225.1	39,600	39,600	43.6	220.5	33,000	33,000	270
280	39.4	212.1	38,400	38,400	40.8	207.2	32,300	32,300	280
290	36.5	197.8	37,300	37,300	37.8	192.5	31,600	31,600	290
300	33.3	181.6	36,300	36,300	34.5	175.8	31,000	31,000	300
310	29.7	163.1	35,400	35,400	30.8	156.5	30,600	30,600	310
320	25.7	141.3	34,600	34,600					320
330	20.8	114.0	33,900	33,900					330

MLC650 VPC-MAX S-3

ASME B30.5



282.2 ft

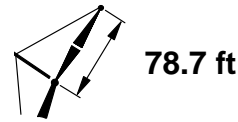
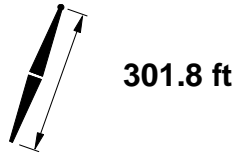


78.7 ft

	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
70	82.6		365.1	81,200	81,200				70
75	81.8		364.2	80,000	80,000				75
80	81.0		363.2	78,800	78,800	82.8	360.2	68,800	80
85	80.1		362.1	77,700	77,700	82.0	359.0	66,900	85
90	79.3		360.9	76,600	76,600	81.2	357.9	65,200	90
95	78.5		359.6	75,500	75,500	80.4	356.6	63,500	95
100	77.7		358.3	74,400	74,400	79.5	355.3	61,900	100
105	76.9		356.9	73,400	73,400	78.7	353.9	60,400	105
110	76.0		355.4	72,400	72,400	77.9	352.4	59,000	110
120	74.4		352.2	70,500	70,500	76.2	349.1	56,300	120
130	72.7		348.7	68,700	68,700	74.5	345.6	53,900	130
140	71.0		344.8	66,900	66,900	72.8	341.7	51,600	140
150	69.3		340.6	65,300	65,300	71.0	337.4	49,600	150
160	67.5		336.1	63,200	63,200	69.3	332.8	47,700	160
170	65.7		331.1	60,300	60,300	67.5	327.8	46,000	170
180	63.9		325.8	57,700	57,700	65.7	322.4	44,300	180
190	62.1		320.0	55,300	55,300	63.8	316.6	42,800	190
200	60.2		313.8	53,100	53,100	61.9	310.3	41,500	200
210	58.3		307.2	51,000	51,000	60.0	303.6	40,200	210
220	56.4		300.0	49,100	49,100	58.0	296.3	39,000	220
230	54.4		292.3	47,300	47,300	56.0	288.5	37,900	230
240	52.3		284.0	45,700	45,700	53.9	280.1	36,800	240
250	50.2		275.1	44,200	44,200	51.7	271.1	35,900	250
260	48.0		265.5	42,700	42,700	49.5	261.3	35,000	260
270	45.7		255.1	41,400	41,400	47.2	250.8	34,100	270
280	43.3		243.8	40,200	40,200	44.7	239.3	33,300	280
290	40.8		231.5	39,000	39,000	42.1	226.7	32,600	290
300	38.1		218.0	38,000	38,000	39.4	212.8	32,000	300
310	35.2		203.0	36,900	36,900	36.5	197.5	31,400	310
320	32.1		186.2	36,000	36,000	33.3	180.1	30,900	320
330	28.7		167.0	35,200	35,200	29.7	160.1	30,400	330
340	24.8		144.3	34,400	34,400				340
350	20.0		115.9	31,000	33,800				350

MLC650 VPC-MAX S-3

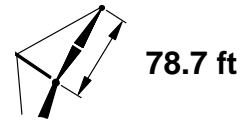
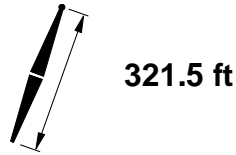
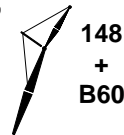
ASME B30.5



	10°				20°					
	ft	°	ft	lb	lb	ft	lb	lb		ft
70		83.0	385.1	81,300	81,300					70
75		82.2	384.2	80,200	80,200					75
80		81.4	383.2	79,100	79,100					80
85		80.7	382.2	78,000	78,000	82.4	379.1	67,800	67,800	85
90		79.9	381.1	77,000	77,000	81.7	378.0	66,200	66,200	90
95		79.1	379.9	76,000	76,000	80.9	376.8	64,500	64,500	95
100		78.3	378.7	74,900	74,900	80.1	375.6	63,000	63,000	100
105		77.6	377.3	74,000	74,000	79.3	374.2	61,500	61,500	105
110		76.8	375.9	73,000	73,000	78.5	372.8	60,100	60,100	110
120		75.2	372.9	71,200	71,200	76.9	369.8	57,500	57,500	120
130		73.6	369.6	69,400	69,400	75.3	366.4	55,100	55,100	130
140		72.0	365.9	67,700	67,700	73.7	362.8	52,900	52,900	140
150		70.4	362.0	66,200	66,200	72.1	358.8	50,800	50,800	150
160		68.8	357.7	64,700	64,700	70.4	354.4	49,000	49,000	160
170		67.1	353.1	62,500	62,500	68.8	349.8	47,200	47,200	170
180		65.4	348.1	59,900	59,900	67.1	344.7	45,600	45,600	180
190		63.7	342.7	57,400	57,400	65.3	339.3	44,100	44,100	190
200		62.0	336.9	55,200	55,200	63.6	333.5	42,700	42,700	200
210		60.2	330.8	53,100	53,100	61.8	327.2	41,400	41,400	210
220		58.4	324.1	51,100	51,100	60.0	320.5	40,200	40,200	220
230		56.5	317.0	49,300	49,300	58.1	313.3	39,100	39,100	230
240		54.7	309.5	47,600	47,600	56.2	305.7	38,000	38,000	240
250		52.7	301.3	46,000	46,000	54.2	297.4	37,100	37,100	250
260		50.7	292.6	44,500	44,500	52.2	288.6	36,100	36,100	260
270		48.7	283.2	43,200	43,200	50.1	279.1	35,200	35,200	270
280		46.5	273.2	42,000	42,000	47.9	268.8	34,400	34,400	280
290		44.3	262.3	40,700	40,700	45.7	257.8	33,700	33,700	290
300		42.0	250.5	39,600	39,600	43.3	245.8	32,900	32,900	300
310		39.5	237.7	38,500	38,500	40.8	232.7	32,300	32,300	310
320		36.9	223.6	37,500	37,500	38.1	218.3	31,700	31,700	320
330		34.1	208.1	36,600	36,600	35.3	202.3	31,200	31,200	330
340		31.1	190.6	33,400	35,800	32.1	184.2	30,700	30,700	340
350		27.7	170.7	28,800	35,000	28.6	163.5	29,600	30,300	350
360		23.9	147.1	24,400	34,300					360
370		19.2	117.7	20,100	33,700					370

MLC650 VPC-MAX S-3

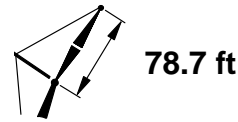
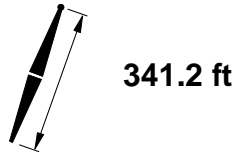
ASME B30.5



	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
75	82.6	404.2	80,300	80,300					75
80	81.9	403.3	79,300	79,300					80
85	81.1	402.3	78,200	78,200	82.8	399.2	68,500	68,500	85
90	80.4	401.2	77,200	77,200	82.1	398.1	67,000	67,000	90
95	79.7	400.1	76,300	76,300	81.3	397.0	65,500	65,500	95
100	78.9	398.9	75,300	75,300	80.6	395.8	64,000	64,000	100
105	78.2	397.7	74,400	74,400	79.9	394.5	62,500	62,500	105
110	77.4	396.3	73,500	73,500	79.1	393.2	61,100	61,100	110
120	76.0	393.5	71,700	71,700	77.6	390.3	58,600	58,600	120
130	74.5	390.3	70,000	70,000	76.1	387.2	56,200	56,200	130
140	72.9	386.9	68,400	68,400	74.6	383.7	54,000	54,000	140
150	71.4	383.2	66,900	66,900	73.0	379.9	52,000	52,000	150
160	69.9	379.1	65,400	65,400	71.5	375.8	50,200	50,200	160
170	68.3	374.8	64,000	64,000	69.9	371.4	48,400	48,400	170
180	66.7	370.1	62,000	62,000	68.3	366.7	46,800	46,800	180
190	65.1	365.0	59,500	59,500	66.7	361.6	45,400	45,400	190
200	63.5	359.6	57,200	57,200	65.0	356.2	43,900	43,900	200
210	61.8	353.9	55,100	55,100	63.4	350.3	42,700	42,700	210
220	60.2	347.7	53,100	53,100	61.7	344.1	41,400	41,400	220
230	58.4	341.1	51,200	51,200	59.9	337.5	40,200	40,200	230
240	56.7	334.1	49,500	49,500	58.2	330.4	39,200	39,200	240
250	54.9	326.6	47,900	47,900	56.4	322.8	38,100	38,100	250
260	53.1	318.6	46,400	46,400	54.5	314.7	37,200	37,200	260
270	51.2	310.0	45,000	45,000	52.6	306.0	36,300	36,300	270
280	49.2	300.9	43,600	43,600	50.6	296.7	35,500	35,500	280
290	47.2	291.1	42,400	42,400	48.6	286.8	34,700	34,700	290
300	45.2	280.6	41,300	41,300	46.5	276.1	34,000	34,000	300
310	43.0	269.2	40,200	40,200	44.3	264.6	33,300	33,300	310
320	40.7	257.0	38,400	39,100	42.0	252.1	32,700	32,700	320
330	38.3	243.7	33,400	38,100	39.5	238.4	32,000	32,000	330
340	35.8	229.1	28,700	37,200	36.9	223.5	30,200	31,500	340
350	33.1	212.9	24,300	36,400	34.1	206.9	25,500	31,000	350
360	30.1	194.9	20,000	35,600	31.1	188.2	21,000	30,600	360
370	26.9	174.2	15,800	34,800	27.6	166.7	16,600	30,200	370
380	23.1	149.8	11,800	34,200					380
390	18.5	119.3	7,900	33,700					390

MLC650 VPC-MAX S-3

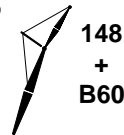
ASME B30.5



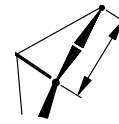
	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
75	82.9	424.2	80,200	80,200					75
80	82.2	423.3	79,300	79,300					80
85	81.5	422.3	78,300	78,300					85
90	80.9	421.3	77,400	77,400	82.5	418.2	67,800	67,800	90
95	80.2	420.3	76,500	76,500	81.8	417.1	66,400	66,400	95
100	79.5	419.1	75,600	75,600	81.1	416.0	64,800	64,800	100
105	78.8	417.9	74,700	74,700	80.4	414.8	63,500	63,500	105
110	78.1	416.7	73,800	73,800	79.6	413.5	62,100	62,100	110
120	76.6	414.0	72,100	72,100	78.2	410.8	59,600	59,600	120
130	75.2	411.0	70,600	70,600	76.8	407.8	57,300	57,300	130
140	73.8	407.7	69,000	69,000	75.3	404.5	55,100	55,100	140
150	72.3	404.2	67,500	67,500	73.9	400.9	53,200	53,200	150
160	70.9	400.4	66,100	66,100	72.4	397.1	51,300	51,300	160
170	69.4	396.2	64,800	64,800	70.9	392.9	49,600	49,600	170
180	67.9	391.8	63,500	63,500	69.4	388.5	48,000	48,000	180
190	66.4	387.1	61,600	61,600	67.9	383.7	46,500	46,500	190
200	64.9	382.0	59,200	59,200	66.3	378.5	45,100	45,100	200
210	63.3	376.6	57,100	57,100	64.8	373.1	43,700	43,700	210
220	61.7	370.8	55,000	55,000	63.2	367.2	42,500	42,500	220
230	60.1	364.6	53,100	53,100	61.6	361.0	41,400	41,400	230
240	58.5	358.1	51,400	51,400	59.9	354.4	40,300	40,300	240
250	56.8	351.1	49,700	49,700	58.2	347.4	39,300	39,300	250
260	55.1	343.7	48,200	48,200	56.5	339.9	38,300	38,300	260
270	53.4	335.8	46,700	46,700	54.7	331.9	37,400	37,400	270
280	51.6	327.4	45,400	45,400	52.9	323.4	36,600	36,600	280
290	49.8	318.5	44,100	44,100	51.1	314.3	35,700	35,700	290
300	47.9	308.9	42,900	42,900	49.2	304.6	35,000	35,000	300
310	45.9	298.7	41,700	41,700	47.2	294.2	34,200	34,200	310
320	43.9	287.7	40,600	40,600	45.1	283.1	33,600	33,600	320
330	41.8	276.0	36,300	39,700	43.0	271.1	33,000	33,000	330
340	39.6	263.2	31,400	38,700	40.7	258.1	32,300	32,300	340
350	37.3	249.4	26,800	37,800	38.4	244.0	28,500	31,800	350
360	34.8	234.3	22,500	36,900	35.8	228.5	23,900	31,400	360
370	32.1	217.6	18,300	36,100	33.1	211.4	19,500	30,900	370
380	29.2	198.9	14,300	35,400	30.1	192.0	15,200	30,500	380
390	26.0	177.6	10,400	34,700					390
400	22.3	152.4	6,600	34,100					400

MLC650 VPC-MAX S-3

ASME B30.5



360.9 ft

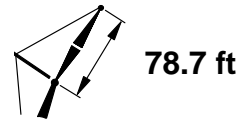
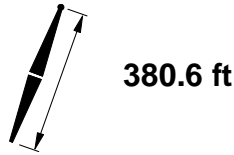


78.7 ft

	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
80	82.6		443.2	79,100	79,100				80
85	81.9		442.4	78,200	78,200				85
90	81.3		441.4	77,300	77,300	82.8	438.2	67,700	90
95	80.6		440.4	76,500	76,500	82.1	437.2	67,100	95
100	79.9		439.3	75,600	75,600	81.5	436.1	66,600	100
105	79.3		438.2	74,800	74,800	80.8	435.0	64,200	105
110	78.6		437.0	73,900	73,900	80.1	433.8	62,900	110
120	77.3		434.4	72,400	72,400	78.8	431.2	60,400	120
130	75.9		431.5	70,800	70,800	77.4	428.3	58,100	130
140	74.5		428.4	69,300	69,300	76.0	425.2	56,000	140
150	73.2		425.1	68,000	68,000	74.6	421.8	54,000	150
160	71.8		421.5	66,600	66,600	73.2	418.2	52,100	160
170	70.4		417.5	65,300	65,300	71.8	414.2	50,400	170
180	69.0		413.4	64,000	64,000	70.4	410.0	48,800	180
190	67.5		408.9	62,900	62,900	69.0	405.5	47,400	190
200	66.1		404.1	60,700	60,700	67.5	400.6	45,900	200
210	64.6		399.0	58,500	58,500	66.0	395.5	44,700	210
220	63.1		393.5	56,400	56,400	64.5	390.0	43,400	220
230	61.6		387.7	54,500	54,500	63.0	384.1	42,200	230
240	60.1		381.6	52,800	52,800	61.5	377.9	41,200	240
250	58.5		375.1	51,100	51,100	59.9	371.3	40,100	250
260	57.0		368.2	49,500	49,500	58.3	364.4	39,100	260
270	55.3		360.8	48,100	48,100	56.7	356.9	38,200	270
280	53.7		353.0	46,700	46,700	55.0	349.1	37,300	280
290	52.0		344.8	45,300	45,300	53.3	340.7	36,500	290
300	50.3		336.0	44,200	44,200	51.5	331.8	35,800	300
310	48.5		326.6	41,700	43,000	49.7	322.3	35,000	310
320	46.6		316.7	36,300	41,900	47.8	312.2	34,400	320
330	44.7		306.1	31,200	40,900	45.9	301.4	33,500	330
340	42.8		294.7	26,400	39,900	43.9	289.9	28,500	340
350	40.7		282.5	21,800	39,000	41.8	277.4	23,800	350
360	38.5		269.3	17,500	38,100	39.6	264.0	19,200	360
370	36.3		255.0	13,400	37,300	37.3	249.4	14,900	370
380	33.9		239.4	9,400	36,600	34.8	233.4	10,700	380
390	31.3		222.2		35,800	32.1	215.7	6,800	390
400	28.4		202.9		35,100	29.2	195.7		400
410	25.3		180.9		34,500				410
420	21.6		154.8		34,000				420

MLC650 VPC-MAX S-3

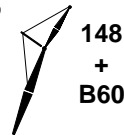
ASME B30.5



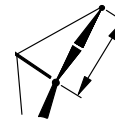
	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
80	82.9	463.2	78,800	78,800					80
85	82.3	462.3	77,900	77,900					85
90	81.6	461.4	77,100	77,100					90
95	81.0	460.5	76,300	76,300	82.5	457.3	67,000	67,000	95
100	80.4	459.4	75,500	75,500	81.8	456.2	66,300	66,300	100
105	79.7	458.3	74,700	74,700	81.2	455.1	64,900	64,900	105
110	79.1	457.2	73,900	73,900	80.6	454.0	63,600	63,600	110
120	77.8	454.7	72,400	72,400	79.3	451.5	61,200	61,200	120
130	76.5	452.0	70,900	70,900	78.0	448.8	58,900	58,900	130
140	75.2	449.1	69,600	69,600	76.6	445.8	56,800	56,800	140
150	73.9	445.9	68,200	68,200	75.3	442.6	54,900	54,900	150
160	72.6	442.4	66,900	66,900	74.0	439.1	53,000	53,000	160
170	71.3	438.7	65,700	65,700	72.7	435.3	51,400	51,400	170
180	69.9	434.7	64,500	64,500	71.3	431.3	49,700	49,700	180
190	68.6	430.4	63,300	63,300	69.9	427.0	48,200	48,200	190
200	67.2	425.9	62,200	62,200	68.6	422.5	46,900	46,900	200
210	65.8	421.1	60,000	60,000	67.2	417.6	45,500	45,500	210
220	64.4	415.9	58,000	58,000	65.7	412.4	44,300	44,300	220
230	63.0	410.5	56,000	56,000	64.3	406.9	43,200	43,200	230
240	61.5	404.7	54,200	54,200	62.9	401.0	42,000	42,000	240
250	60.1	398.5	52,500	52,500	61.4	394.8	41,000	41,000	250
260	58.6	392.0	50,900	50,900	59.9	388.3	40,000	40,000	260
270	57.1	385.2	49,500	49,500	58.3	381.3	39,100	39,100	270
280	55.5	377.9	48,100	48,100	56.8	374.0	38,200	38,200	280
290	53.9	370.2	46,700	46,700	55.2	366.2	37,400	37,400	290
300	52.3	362.1	45,500	45,500	53.6	358.0	36,600	36,600	300
310	50.7	353.4	41,200	44,300	51.9	349.2	35,800	35,800	310
320	49.0	344.3	35,800	43,200	50.2	340.0	35,200	35,200	320
330	47.3	334.5	30,700	42,100	48.4	330.1	33,200	34,500	330
340	45.5	324.2	25,900	41,200	46.6	319.6	28,200	33,900	340
350	43.6	313.2	21,400	40,200	44.7	308.4	23,500	33,300	350
360	41.7	301.4	17,100	39,300	42.7	296.5	19,000	32,800	360
370	39.7	288.8	13,000	38,500	40.7	283.6	14,800	32,200	370
380	37.6	275.2	9,100	37,700	38.6	269.7	10,700	31,800	380
390	35.3	260.4		36,900	36.3	254.6	6,800	31,300	390
400	33.0	244.3		36,200	33.9	238.1		30,900	400
410	30.4	226.5		35,600	31.2	219.8		30,600	410
420	27.6	206.7		34,900	28.4	199.3		30,400	420
430	24.6	184.0		34,400					430
440	21.0	157.2		33,900					440

MLC650 VPC-MAX S-3

ASME B30.5



400.3 ft

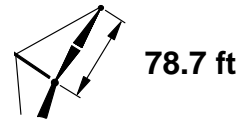
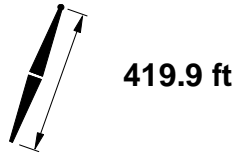


78.7 ft

ft	10°				20°				ft
	ft	°	ft	lb	lb	ft	lb	lb	
85	82.6	482.3	77,600	77,600					85
90	82.0	481.4	76,800	76,800					90
95	81.4	480.5	76,000	76,000	82.8	477.3	66,800	66,800	95
100	80.8	479.5	75,300	75,300	82.2	476.3	66,200	66,200	100
105	80.2	478.5	74,600	74,600	81.6	475.3	65,700	65,700	105
110	79.6	477.4	73,800	73,800	81.0	474.2	64,400	64,400	110
120	78.3	475.0	72,400	72,400	79.7	471.8	62,000	62,000	120
130	77.1	472.4	71,000	71,000	78.5	469.2	59,800	59,800	130
140	75.8	469.6	69,700	69,700	77.2	466.3	57,700	57,700	140
150	74.6	466.6	68,400	68,400	76.0	463.2	55,700	55,700	150
160	73.3	463.3	67,200	67,200	74.7	459.9	53,900	53,900	160
170	72.1	459.7	66,000	66,000	73.4	456.4	52,300	52,300	170
180	70.8	455.9	64,800	64,800	72.1	452.5	50,700	50,700	180
190	69.5	451.9	63,700	63,700	70.8	448.4	49,100	49,100	190
200	68.2	447.5	62,700	62,700	69.5	444.1	47,800	47,800	200
210	66.9	442.9	61,600	61,600	68.2	439.4	46,400	46,400	210
220	65.5	438.0	59,600	59,600	66.8	434.5	45,300	45,300	220
230	64.2	432.9	57,600	57,600	65.5	429.3	44,100	44,100	230
240	62.8	427.4	55,800	55,800	64.1	423.8	43,000	43,000	240
250	61.4	421.6	54,100	54,100	62.7	417.9	42,000	42,000	250
260	60.0	415.5	52,500	52,500	61.3	411.8	40,900	40,900	260
270	58.6	409.0	51,000	51,000	59.9	405.2	40,000	40,000	270
280	57.2	402.2	49,500	49,500	58.4	398.3	39,100	39,100	280
290	55.7	395.0	48,000	48,200	56.9	391.1	38,200	38,200	290
300	54.2	387.4	41,900	47,000	55.4	383.4	37,500	37,500	300
310	52.7	379.3	36,100	45,800	53.8	375.2	36,800	36,800	310
320	51.1	370.8	30,700	44,600	52.2	366.6	33,700	36,000	320
330	49.5	361.8	25,700	43,500	50.6	357.5	28,400	35,400	330
340	47.8	352.3	20,900	42,500	48.9	347.9	23,500	34,700	340
350	46.1	342.2	16,300	41,500	47.2	337.7	18,700	34,100	350
360	44.4	331.5	12,000	40,600	45.4	326.8	14,300	33,500	360
370	42.6	320.1	8,000	39,700	43.6	315.2	10,000	33,000	370
380	40.7	307.9		38,900	41.7	302.9		32,500	380
390	38.7	294.9		38,100	39.7	289.6		32,100	390
400	36.6	280.8		37,300	37.6	275.2		31,600	400
410	34.5	265.6		36,700	35.3	259.7		31,200	410
420	32.1	249.1		36,000	33.0	242.7		30,900	420
430	29.6	230.8		35,400	30.4	223.8		30,500	430
440	26.9	210.3		34,800	27.6	202.7		30,300	440
450	23.9	187.0		34,300					450
460	20.4	159.4		33,800					460

MLC650 VPC-MAX S-3

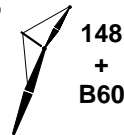
ASME B30.5



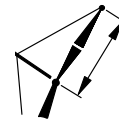
	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
85	82.9	502.2	77,000	77,000					85
90	82.3	501.4	76,300	76,300					90
95	81.7	500.5	75,500	75,500					95
100	81.1	499.6	74,800	74,800					100
105	80.6	498.6	74,200	74,200					105
110	80.0	497.5	73,500	73,500	82.5	496.3	65,900	65,900	110
120	78.8	495.3	72,200	72,200	81.3	494.3	64,900	64,900	120
130	77.6	492.8	70,900	70,900	80.1	492.0	62,700	62,700	130
140	76.4	490.1	69,600	69,600	78.9	489.5	60,500	60,500	140
150	75.2	487.1	68,400	68,400	77.7	486.8	58,500	58,500	150
160	74.0	484.0	67,300	67,300	76.5	483.8	56,600	56,600	160
170	72.8	480.6	66,100	66,100	75.3	480.7	54,800	54,800	170
180	71.6	477.0	65,100	65,100	74.1	477.2	53,100	53,100	180
190	70.4	473.1	64,000	64,000	72.9	473.6	51,500	51,500	190
200	69.1	469.0	63,000	63,000	71.6	469.7	50,100	50,100	200
210	67.9	464.6	62,000	62,000	70.4	465.5	48,700	48,700	210
220	66.6	460.0	61,000	61,000	69.1	461.1	47,400	47,400	220
230	65.3	455.0	59,200	59,200	67.8	456.4	46,100	46,100	230
240	64.0	449.8	57,400	57,400	66.5	451.5	45,000	45,000	240
250	62.7	444.3	55,600	55,600	65.2	446.2	43,800	43,800	250
260	61.4	438.5	54,000	54,000	63.9	440.7	42,800	42,800	260
270	60.0	432.4	52,500	52,500	62.6	434.8	41,800	41,800	270
280	58.7	426.0	51,000	51,000	61.2	428.7	40,900	40,900	280
290	57.3	419.2	49,700	49,700	59.8	422.2	40,000	40,000	290
300	55.9	412.0	48,400	48,400	58.4	415.3	39,200	39,200	300
310	54.4	404.5	47,100	47,100	57.0	408.1	38,300	38,300	310
320	52.9	396.6	45,900	45,900	55.6	400.5	37,600	37,600	320
330	51.4	388.2	44,800	44,800	54.1	392.5	36,800	36,800	330
340	49.9	379.4	43,800	43,800	52.6	384.0	36,200	36,200	340
350	48.3	370.0	42,800	42,800	51.0	375.1	35,500	35,500	350
360	46.7	360.2	41,800	41,800	49.4	365.6	34,900	34,900	360
370	45.1	349.7	40,900	40,900	47.8	355.6	34,300	34,300	370
380	43.3	338.6	40,100	40,100	46.1	345.1	33,800	33,800	380
390	41.6	326.9	39,300	39,300	44.4	333.8	33,200	33,200	390
400	39.7	314.3	38,500	38,500	42.5	321.8	32,700	32,700	400
410	37.8	300.8	37,800	37,800	40.7	309.1	32,200	32,200	410
420	35.8	286.4	37,100	37,100	38.7	295.4	31,800	31,800	420
430	33.6	270.7	36,400	36,400	36.6	280.6	31,400	31,400	430
440	31.4	253.7	35,800	35,800	34.5	264.6	31,100	31,100	440
450	28.9	234.9	35,200	35,200	32.1	247.1	30,700	30,700	450
460	26.2	213.8	34,700	34,700	29.6	227.7	30,500	30,500	460
470	23.3	189.8	34,200	34,200					470
480	19.8	161.4	33,800	33,800					480

MLC650 VPC-MAX S-3

ASME B30.5



439.6 ft

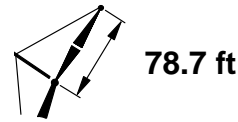
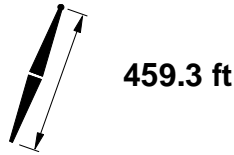


78.7 ft

ft	10°				20°				ft
	ft	°	ft	lb	lb	ft	lb	lb	
90	82.6		521.4	75,700	75,700				90
95	82.1		520.5	75,000	75,000				95
100	81.5		519.6	74,300	74,300	82.8	516.3	65,500	100
105	80.9		518.6	73,700	73,700	82.2	515.4	65,000	105
110	80.4		517.6	73,100	73,100	81.7	514.4	64,600	110
120	79.2		515.5	71,800	71,800	80.5	512.2	63,300	120
130	78.1		513.1	70,600	70,600	79.4	509.8	61,200	130
140	77.0		510.5	69,400	69,400	78.2	507.2	59,200	140
150	75.8		507.7	68,300	68,300	77.1	504.3	57,300	150
160	74.6		504.7	67,200	67,200	75.9	501.3	55,500	160
170	73.5		501.4	66,100	66,100	74.7	498.0	53,900	170
180	72.3		497.9	65,100	65,100	73.6	494.5	52,400	180
190	71.1		494.2	64,100	64,100	72.4	490.8	50,900	190
200	69.9		490.3	63,200	63,200	71.2	486.8	49,600	200
210	68.7		486.1	62,200	62,200	70.0	482.6	48,200	210
220	67.5		481.7	61,300	61,300	68.7	478.2	47,000	220
230	66.3		477.0	60,500	60,500	67.5	473.4	45,800	230
240	65.1		472.0	58,800	58,800	66.3	468.4	44,700	240
250	63.8		466.8	57,100	57,100	65.0	463.2	43,600	250
260	62.6		461.3	55,400	55,400	63.7	457.6	42,700	260
270	61.3		455.5	53,900	53,900	62.5	451.8	41,700	270
280	60.0		449.4	48,600	52,400	61.1	445.6	40,900	280
290	58.7		443.0	42,100	51,000	59.8	439.1	40,000	290
300	57.4		436.2	35,900	49,700	58.5	432.3	39,200	300
310	56.0		429.1	30,100	48,500	57.1	425.1	33,700	310
320	54.6		421.6	24,700	47,300	55.7	417.6	28,100	320
330	53.2		413.8	19,700	46,100	54.3	409.7	22,800	330
340	51.8		405.5	14,900	45,100	52.8	401.3	17,900	340
350	50.3		396.8	10,300	44,000	51.4	392.5	13,200	350
360	48.8		387.7		43,100	49.8	383.3	8,700	360
370	47.3		378.0		42,100	48.3	373.5		370
380	45.7		367.8		41,300	46.7	363.2	34,500	380
390	44.1		357.0		40,500	45.0	352.2	33,400	390
400	42.4		345.6		39,700	43.3	340.6	32,900	400
410	40.6		333.4		38,900	41.6	328.3	32,400	410
420	38.8		320.5		38,100	39.7	315.1	32,000	420
430	36.9		306.6		37,500	37.8	301.0	31,600	430
440	35.0		291.8		36,800	35.8	285.8	31,300	440
450	32.9		275.7		36,200	33.6	269.4	31,000	450
460	30.6		258.1		35,700	31.4	251.4	30,700	460
470	28.2		238.8		34,600	28.9	231.5	30,400	470
480	25.6		217.3		31,500				480
490	22.7		192.6		28,600				490
500	19.2		163.4		25,700				500

MLC650 VPC-MAX S-3

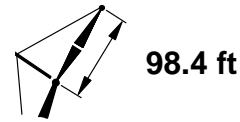
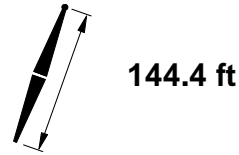
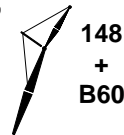
ASME B30.5



	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
90	82.9	541.3	74,800	74,800					90
95	82.3	540.5	74,200	74,200					95
100	81.8	539.6	73,600	73,600					100
105	81.3	538.7	73,000	73,000	82.5	535.4	64,500	64,500	105
110	80.7	537.7	72,400	72,400	82.0	534.4	64,100	64,100	110
120	79.6	535.6	71,200	71,200	80.9	532.3	63,300	63,300	120
130	78.5	533.3	70,100	70,100	79.8	530.0	62,000	62,000	130
140	77.4	530.8	69,000	69,000	78.7	527.5	60,000	60,000	140
150	76.3	528.1	68,000	68,000	77.6	524.8	58,100	58,100	150
160	75.2	525.2	66,900	66,900	76.4	521.9	56,400	56,400	160
170	74.1	522.1	65,900	65,900	75.3	518.7	54,700	54,700	170
180	73.0	518.8	65,000	65,000	74.2	515.4	53,200	53,200	180
190	71.9	515.2	64,000	64,000	73.1	511.8	51,700	51,700	190
200	70.7	511.5	63,100	63,100	71.9	508.0	50,300	50,300	200
210	69.6	507.4	62,200	62,200	70.8	504.0	49,000	49,000	210
220	68.4	503.2	61,400	61,400	69.6	499.7	47,800	47,800	220
230	67.2	498.7	59,800	59,800	68.4	495.2	46,600	46,600	230
240	66.1	494.0	59,700	59,700	67.2	490.4	45,500	45,500	240
250	64.9	489.0	58,400	58,400	66.0	485.4	44,500	44,500	250
260	63.7	483.8	56,700	56,700	64.8	480.1	43,500	43,500	260
270	62.5	478.2	54,600	55,100	63.6	474.5	42,500	42,500	270
280	61.2	472.4	47,500	53,700	62.3	468.7	41,600	41,600	280
290	60.0	466.3	40,900	52,200	61.1	462.5	40,700	40,700	290
300	58.7	459.9	34,800	50,900	59.8	456.1	38,700	39,900	300
310	57.4	453.2	29,000	49,600	58.5	449.3	32,700	39,200	310
320	56.1	446.2	23,600	48,400	57.2	442.2	27,100	38,400	320
330	54.8	438.7	18,500	47,300	55.9	434.7	21,800	37,700	330
340	53.5	431.0	13,700	46,300	54.5	426.9	16,900	37,000	340
350	52.1	422.8	9,200	45,200	53.1	418.6	12,200	36,400	350
360	50.7	414.2		44,200	51.7	410.0	7,700	35,800	360
370	49.2	405.2		43,300	50.2	400.8		35,100	370
380	47.8	395.8		42,400	48.8	391.3		34,600	380
390	46.3	385.8		41,500	47.2	381.1		34,000	390
400	44.7	375.2		40,700	45.7	370.5		33,600	400
410	43.1	364.1		39,900	44.1	359.2		33,100	410
420	41.5	352.3		39,200	42.4	347.2		32,600	420
430	39.8	339.8		38,400	40.6	334.5		32,300	430
440	38.0	326.5		37,800	38.8	321.0		31,800	440
450	36.1	312.3		37,200	37.0	306.5		31,500	450
460	34.2	297.0		36,500	35.0	290.9		31,100	460
470	32.1	280.5		33,700	32.9	274.0		30,800	470
480	30.0	262.5		30,700	30.6	255.6		30,500	480
490	27.6	242.7		27,800	28.2	235.1		28,400	490
500	25.0	220.5		24,800					500
510	22.1	195.3		21,400					510
520	18.7	165.3		18,000					520

MLC650 VPC-MAX S-3

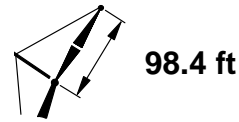
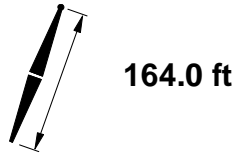
ASME B30.5



	10°				20°				
	ft	°	ft	lb	ft	°	ft	lb	
55	82.9	248.2	66,200b	66,200b					55
60	81.6	247.1	64,600b	64,600b					60
65	80.4	245.9	63,100b	63,100b					65
70	79.2	244.5	61,400	61,400	82.8	242.0	54,100b	54,100b	70
75	78.0	243.1	59,900	59,900	81.5	240.5	52,700b	52,700b	75
80	76.8	241.5	58,500	58,500	80.3	238.9	51,300	51,300	80
85	75.5	239.9	56,900	56,900	79.0	237.2	50,100	50,100	85
90	74.3	238.0	55,300	55,300	77.8	235.4	48,300	48,300	90
95	73.0	236.1	53,800	53,800	76.5	233.4	46,400	46,400	95
100	71.7	234.1	52,400	52,400	75.2	231.4	44,700	44,700	100
105	70.4	231.9	51,000	51,000	73.9	229.1	43,000	43,000	105
110	69.1	229.6	49,700	49,700	72.6	226.8	41,500	41,500	110
120	66.5	224.5	47,200	47,200	69.9	221.7	38,800	38,800	120
130	63.8	218.8	45,000	45,000	67.2	215.9	36,300	36,300	130
140	61.0	212.5	42,900	42,900	64.3	209.5	34,200	34,200	140
150	58.1	205.4	40,500	40,500	61.4	202.3	32,300	32,300	150
160	55.1	197.6	38,000	38,000	58.4	194.3	30,600	30,600	160
170	52.0	188.8	35,800	35,800	55.2	185.4	29,100	29,100	170
180	48.7	179.1	33,800	33,800	51.8	175.5	27,700	27,700	180
190	45.2	168.0	32,000	32,000	48.2	164.2	26,400	26,400	190
200	41.4	155.5	30,400	30,400	44.3	151.3	25,300	25,300	200
210	37.3	141.0	28,900	28,900	40.1	136.3	24,300	24,300	210
220	32.6	123.8	27,600	27,600	35.2	118.4	23,500	23,500	220
230	27.0	102.5	26,500	26,500	29.3	95.7	22,800	22,800	230
240	19.6	72.7	25,500	25,500					240

MLC650 VPC-MAX S-3

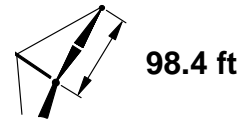
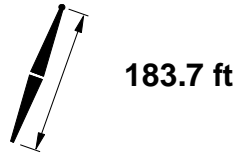
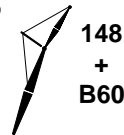
ASME B30.5



	10°				20°				
	ft	°	ft	lb	ft	°	ft	lb	
60	82.3	267.2	65,200	65,200					60
65	81.2	266.1	63,800	63,800					65
70	80.0	264.8	62,400	62,400					70
75	78.9	263.5	60,900	60,900	82.2	260.8	53,300	53,300	75
80	77.8	262.1	59,600	59,600	81.1	259.3	52,100	52,100	80
85	76.6	260.5	58,200	58,200	79.9	257.8	50,900	50,900	85
90	75.5	258.9	56,700	56,700	78.8	256.1	49,700	49,700	90
95	74.3	257.1	55,300	55,300	77.6	254.3	47,900	47,900	95
100	73.2	255.2	53,900	53,900	76.4	252.4	46,200	46,200	100
105	72.0	253.2	52,500	52,500	75.2	250.4	44,600	44,600	105
110	70.8	251.1	51,300	51,300	74.0	248.3	43,100	43,100	110
120	68.4	246.5	48,900	48,900	71.6	243.6	40,400	40,400	120
130	66.0	241.4	46,700	46,700	69.1	238.4	38,000	38,000	130
140	63.5	235.7	44,700	44,700	66.6	232.6	35,800	35,800	140
150	60.9	229.4	42,700	42,700	63.9	226.2	33,900	33,900	150
160	58.2	222.4	40,600	40,600	61.3	219.2	32,200	32,200	160
170	55.5	214.8	38,300	38,300	58.5	211.4	30,600	30,600	170
180	52.6	206.3	36,200	36,200	55.5	202.7	29,200	29,200	180
190	49.6	196.9	34,300	34,300	52.5	193.2	27,900	27,900	190
200	46.5	186.4	32,600	32,600	49.3	182.5	26,800	26,800	200
210	43.1	174.6	31,100	31,100	45.8	170.4	25,700	25,700	210
220	39.5	161.3	29,700	29,700	42.1	156.7	24,800	24,800	220
230	35.5	146.0	28,400	28,400	38.0	140.8	24,000	24,000	230
240	31.0	127.8	27,300	27,300	33.2	121.9	23,200	23,200	240
250	25.6	105.3	26,200	26,200	27.5	97.8	22,700	22,700	250
260	18.4	73.8	25,400	25,400					260

MLC650 VPC-MAX S-3

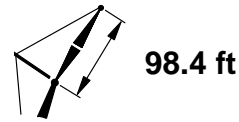
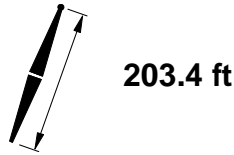
ASME B30.5



	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
60	82.8	287.2	65,800	65,800					60
65	81.8	286.2	64,400	64,400					65
70	80.8	285.1	63,200	63,200					70
75	79.7	283.8	61,900	61,900	82.8	281.0	53,900	53,900	75
80	78.7	282.5	60,600	60,600	81.7	279.7	52,700	52,700	80
85	77.6	281.1	59,300	59,300	80.7	278.2	51,500	51,500	85
90	76.5	279.6	57,900	57,900	79.6	276.7	50,500	50,500	90
95	75.5	277.9	56,600	56,600	78.5	275.0	49,300	49,300	95
100	74.4	276.2	55,200	55,200	77.4	273.3	47,700	47,700	100
105	73.3	274.3	54,000	54,000	76.3	271.4	46,100	46,100	105
110	72.2	272.4	52,800	52,800	75.2	269.4	44,600	44,600	110
120	70.0	268.2	50,400	50,400	73.0	265.2	41,900	41,900	120
130	67.8	263.5	48,300	48,300	70.7	260.4	39,500	39,500	130
140	65.5	258.3	46,300	46,300	68.4	255.2	37,400	37,400	140
150	63.2	252.6	44,500	44,500	66.0	249.4	35,400	35,400	150
160	60.8	246.3	42,700	42,700	63.6	243.0	33,700	33,700	160
170	58.3	239.4	40,700	40,700	61.1	236.0	32,100	32,100	170
180	55.8	231.9	38,500	38,500	58.5	228.4	30,600	30,600	180
190	53.1	223.6	36,600	36,600	55.9	220.0	29,300	29,300	190
200	50.4	214.5	34,800	34,800	53.1	210.7	28,200	28,200	200
210	47.5	204.5	33,200	33,200	50.1	200.5	27,000	27,000	210
220	44.5	193.4	31,700	31,700	47.0	189.1	26,100	26,100	220
230	41.3	180.9	30,300	30,300	43.7	176.4	25,100	25,100	230
240	37.8	166.9	29,100	29,100	40.1	161.9	24,400	24,400	240
250	33.9	150.7	27,900	27,900	36.1	145.1	23,600	23,600	250
260	29.5	131.6	27,000	27,000	31.5	125.1	23,000	23,000	260
270	24.3	107.9	26,100	26,100	25.9	99.7	22,500	22,500	270
280	17.2	74.6	25,300	25,300					280

MLC650 VPC-MAX S-3

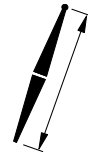
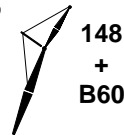
ASME B30.5



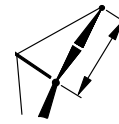
	10°				20°				
	ft	°	ft	lb	ft	°	ft	lb	
65	82.3	306.3	64,900	64,900					65
70	81.4	305.2	63,700	63,700					70
75	80.4	304.1	62,500	62,500					75
80	79.4	302.8	61,300	61,300	82.3	299.9	53,200	53,200	80
85	78.4	301.5	60,100	60,100	81.3	298.5	52,200	52,200	85
90	77.5	300.1	58,900	58,900	80.3	297.1	51,100	51,100	90
95	76.5	298.6	57,700	57,700	79.3	295.6	50,100	50,100	95
100	75.5	297.0	56,400	56,400	78.3	294.0	49,000	49,000	100
105	74.5	295.3	55,200	55,200	77.3	292.2	47,400	47,400	105
110	73.5	293.4	54,000	54,000	76.3	290.4	46,000	46,000	110
120	71.4	289.5	51,800	51,800	74.2	286.5	43,300	43,300	120
130	69.4	285.2	49,700	49,700	72.1	282.1	40,900	40,900	130
140	67.3	280.4	47,700	47,700	70.0	277.3	38,800	38,800	140
150	65.1	275.2	45,900	45,900	67.8	272.0	36,900	36,900	150
160	62.9	269.5	44,200	44,200	65.6	266.2	35,100	35,100	160
170	60.7	263.2	42,600	42,600	63.3	259.8	33,500	33,500	170
180	58.4	256.4	40,700	40,700	61.0	252.9	32,000	32,000	180
190	56.0	249.0	38,700	38,700	58.6	245.4	30,700	30,700	190
200	53.6	240.9	36,900	36,900	56.1	237.2	29,500	29,500	200
210	51.1	232.1	35,200	35,200	53.6	228.2	28,400	28,400	210
220	48.4	222.4	33,600	33,600	50.9	218.3	27,300	27,300	220
230	45.7	211.8	32,200	32,200	48.0	207.5	26,400	26,400	230
240	42.7	200.0	30,900	30,900	45.0	195.4	25,500	25,500	240
250	39.6	186.9	29,700	29,700	41.8	182.0	24,700	24,700	250
260	36.2	172.1	28,600	28,600	38.3	166.8	24,000	24,000	260
270	32.5	155.2	27,600	27,600	34.5	149.2	23,400	23,400	270
280	28.2	135.2	26,700	26,700	30.0	128.2	22,800	22,800	280
290	23.2	110.3	25,900	25,900					290

MLC650 VPC-MAX S-3

ASME B30.5



223.1 ft

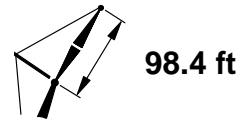
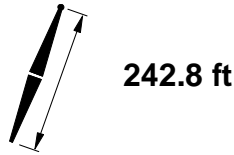


98.4 ft

	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
65	82.8	326.3	65,300	65,300					65
70	81.9	325.3	64,100	64,100					70
75	81.0	324.2	62,900	62,900					75
80	80.1	323.1	61,800	61,800	82.8	320.0	53,600	53,600	80
85	79.2	321.8	60,700	60,700	81.8	318.8	52,600	52,600	85
90	78.2	320.5	59,600	59,600	80.9	317.5	51,600	51,600	90
95	77.3	319.1	58,500	58,500	80.0	316.0	50,700	50,700	95
100	76.4	317.6	57,500	57,500	79.0	314.5	49,800	49,800	100
105	75.5	316.0	56,300	56,300	78.1	312.9	48,600	48,600	105
110	74.5	314.3	55,200	55,200	77.1	311.2	47,200	47,200	110
120	72.6	310.7	53,000	53,000	75.2	307.5	44,500	44,500	120
130	70.7	306.7	51,000	51,000	73.3	303.5	42,200	42,200	130
140	68.8	302.2	49,000	49,000	71.3	299.0	40,100	40,100	140
150	66.8	297.4	47,200	47,200	69.3	294.1	38,100	38,100	150
160	64.8	292.1	45,600	45,600	67.3	288.8	36,400	36,400	160
170	62.7	286.4	44,000	44,000	65.2	283.0	34,800	34,800	170
180	60.6	280.2	42,400	42,400	63.1	276.7	33,300	33,300	180
190	58.5	273.4	40,800	40,800	60.9	269.8	32,000	32,000	190
200	56.3	266.1	38,900	38,900	58.7	262.4	30,700	30,700	200
210	54.0	258.2	37,100	37,100	56.4	254.3	29,600	29,600	210
220	51.6	249.5	35,500	35,500	54.0	245.6	28,500	28,500	220
230	49.2	240.2	34,100	34,100	51.5	236.0	27,600	27,600	230
240	46.6	229.9	32,700	32,700	48.9	225.6	26,600	26,600	240
250	44.0	218.7	31,400	31,400	46.2	214.2	25,800	25,800	250
260	41.1	206.4	30,300	30,300	43.3	201.5	25,000	25,000	260
270	38.1	192.6	29,200	29,200	40.1	187.4	24,400	24,400	270
280	34.8	177.2	28,200	28,200	36.8	171.5	23,700	23,700	280
290	31.2	159.5	27,300	27,300	33.0	153.0	23,200	23,200	290
300	27.1	138.6	26,500	26,500	28.6	131.0	22,700	22,700	300
310	22.1	112.6	25,700	25,700					310

MLC650 VPC-MAX S-3

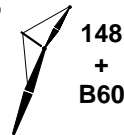
ASME B30.5



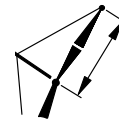
	10°				20°				
	ft	°	ft	lb	ft	°	ft	lb	
70	82.4	345.3	64,400	64,400					70
75	81.5	344.3	63,300	63,300					75
80	80.7	343.2	62,200	62,200					80
85	79.8	342.1	61,300	61,300	82.3	339.0	53,000	53,000	85
90	78.9	340.8	60,300	60,300	81.5	337.7	52,100	52,100	90
95	78.1	339.5	59,200	59,200	80.6	336.4	51,200	51,200	95
100	77.2	338.1	58,200	58,200	79.7	335.0	50,300	50,300	100
105	76.3	336.6	57,200	57,200	78.8	333.5	49,500	49,500	105
110	75.4	335.0	56,100	56,100	77.9	331.9	48,300	48,300	110
120	73.7	331.6	54,100	54,100	76.1	328.4	45,700	45,700	120
130	71.9	327.9	52,100	52,100	74.3	324.6	43,400	43,400	130
140	70.1	323.7	50,200	50,200	72.5	320.5	41,300	41,300	140
150	68.2	319.3	48,500	48,500	70.6	315.9	39,400	39,400	150
160	66.4	314.4	46,800	46,800	68.7	311.0	37,700	37,700	160
170	64.5	309.1	45,300	45,300	66.8	305.6	36,000	36,000	170
180	62.5	303.3	43,800	43,800	64.9	299.8	34,600	34,600	180
190	60.5	297.1	42,400	42,400	62.9	293.5	33,200	33,200	190
200	58.5	290.4	40,900	40,900	60.8	286.7	31,900	31,900	200
210	56.5	283.2	39,100	39,100	58.7	279.4	30,800	30,800	210
220	54.3	275.4	37,400	37,400	56.6	271.5	29,700	29,700	220
230	52.1	266.9	35,900	35,900	54.3	262.9	28,700	28,700	230
240	49.9	257.8	34,500	34,500	52.0	253.6	27,800	27,800	240
250	47.5	247.9	33,200	33,200	49.6	243.6	26,900	26,900	250
260	45.0	237.2	32,000	32,000	47.1	232.6	26,100	26,100	260
270	42.4	225.4	30,800	30,800	44.5	220.6	25,400	25,400	270
280	39.7	212.5	29,800	29,800	41.6	207.3	24,700	24,700	280
290	36.8	198.1	28,800	28,800	38.6	192.6	24,100	24,100	290
300	33.6	182.0	27,900	27,900	35.3	175.9	23,500	23,500	300
310	30.0	163.5	27,100	27,100	31.7	156.7	23,100	23,100	310
320	26.0	141.8	26,300	26,300	27.4	133.7	22,600	22,600	320
330	21.2	114.6	25,600	25,600					330

MLC650 VPC-MAX S-3

ASME B30.5



262.5 ft

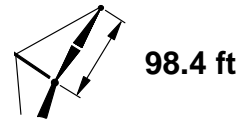
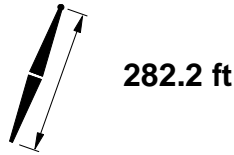


98.4 ft

	10°				20°					
	ft	°	ft	lb	lb	ft	lb	lb		ft
70	82.8		365.3	64,600	64,600					70
75	82.0		364.4	63,700	63,700					75
80	81.2		363.4	62,700	62,700					80
85	80.4		362.3	61,600	61,600	82.8	359.1	53,300	53,300	85
90	79.6		361.1	60,700	60,700	81.9	357.9	52,400	52,400	90
95	78.7		359.8	59,800	59,800	81.1	356.7	51,600	51,600	95
100	77.9		358.5	58,800	58,800	80.3	355.3	50,800	50,800	100
105	77.1		357.1	57,900	57,900	79.5	353.9	50,000	50,000	105
110	76.3		355.6	57,000	57,000	78.6	352.4	49,200	49,200	110
120	74.6		352.4	55,000	55,000	76.9	349.2	46,800	46,800	120
130	72.9		348.9	53,100	53,100	75.2	345.6	44,600	44,600	130
140	71.2		345.0	51,300	51,300	73.5	341.7	42,500	42,500	140
150	69.5		340.8	49,600	49,600	71.8	337.5	40,500	40,500	150
160	67.8		336.3	48,000	48,000	70.0	332.8	38,800	38,800	160
170	66.0		331.3	46,400	46,400	68.2	327.9	37,200	37,200	170
180	64.2		326.0	45,000	45,000	66.4	322.5	35,700	35,700	180
190	62.4		320.2	43,600	43,600	64.6	316.6	34,400	34,400	190
200	60.5		314.0	42,300	42,300	62.7	310.4	33,100	33,100	200
210	58.6		307.4	40,900	40,900	60.7	303.6	31,900	31,900	210
220	56.6		300.2	39,200	39,200	58.8	296.4	30,800	30,800	220
230	54.6		292.5	37,600	37,600	56.7	288.6	29,800	29,800	230
240	52.6		284.3	36,200	36,200	54.6	280.2	28,800	28,800	240
250	50.4		275.4	34,800	34,800	52.5	271.2	27,900	27,900	250
260	48.2		265.8	33,600	33,600	50.2	261.4	27,100	27,100	260
270	46.0		255.4	32,400	32,400	47.9	250.8	26,400	26,400	270
280	43.6		244.1	31,300	31,300	45.5	239.3	25,600	25,600	280
290	41.0		231.8	30,300	30,300	42.9	226.8	25,000	25,000	290
300	38.4		218.3	29,400	29,400	40.2	212.9	24,400	24,400	300
310	35.5		203.4	28,400	28,400	37.2	197.5	23,800	23,800	310
320	32.4		186.6	27,600	27,600	34.0	180.2	23,400	23,400	320
330	29.0		167.4	26,900	26,900	30.4	160.2	22,900	22,900	330
340	25.1		144.8	26,200	26,200	26.3	136.3	22,600	22,600	340
350	20.3		116.5	25,600	25,600					350

MLC650 VPC-MAX S-3

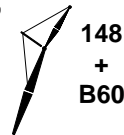
ASME B30.5



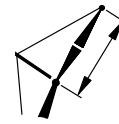
	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
75	82.4	384.4	63,800	63,800					75
80	81.7	383.4	62,900	62,900					80
85	80.9	382.4	62,000	62,000					85
90	80.1	381.3	61,100	61,100	82.4	378.1	52,800	52,800	90
95	79.3	380.1	60,200	60,200	81.6	376.9	51,900	51,900	95
100	78.6	378.8	59,300	59,300	80.8	375.6	51,200	51,200	100
105	77.8	377.5	58,400	58,400	80.0	374.3	50,400	50,400	105
110	77.0	376.1	57,600	57,600	79.2	372.8	49,700	49,700	110
120	75.4	373.1	55,900	55,900	77.6	369.8	47,900	47,900	120
130	73.8	369.8	54,000	54,000	76.0	366.4	45,600	45,600	130
140	72.2	366.1	52,200	52,200	74.4	362.8	43,500	43,500	140
150	70.6	362.2	50,600	50,600	72.8	358.8	41,600	41,600	150
160	69.0	357.9	49,000	49,000	71.1	354.5	39,900	39,900	160
170	67.3	353.3	47,500	47,500	69.5	349.8	38,300	38,300	170
180	65.6	348.3	46,100	46,100	67.8	344.7	36,800	36,800	180
190	63.9	342.9	44,800	44,800	66.0	339.3	35,500	35,500	190
200	62.2	337.1	43,500	43,500	64.3	333.5	34,200	34,200	200
210	60.4	331.0	42,200	42,200	62.5	327.2	33,000	33,000	210
220	58.6	324.4	41,000	41,000	60.7	320.5	31,900	31,900	220
230	56.8	317.3	39,400	39,400	58.8	313.4	30,800	30,800	230
240	54.9	309.7	37,900	37,900	56.9	305.7	29,900	29,900	240
250	53.0	301.6	36,500	36,500	54.9	297.4	29,000	29,000	250
260	51.0	292.9	35,200	35,200	52.9	288.6	28,100	28,100	260
270	48.9	283.5	34,000	34,000	50.8	279.1	27,300	27,300	270
280	46.8	273.4	32,900	32,900	48.6	268.9	26,600	26,600	280
290	44.5	262.6	31,800	31,800	46.4	257.8	25,900	25,900	290
300	42.2	250.8	30,800	30,800	44.0	245.8	25,300	25,300	300
310	39.8	238.0	29,800	29,800	41.5	232.7	24,700	24,700	310
320	37.2	224.0	29,000	29,000	38.8	218.3	24,200	24,200	320
330	34.4	208.4	28,200	28,200	36.0	202.3	23,600	23,600	330
340	31.4	191.0	27,400	27,400	32.8	184.3	23,200	23,200	340
350	28.0	171.1	26,700	26,700	29.3	163.5	22,800	22,800	350
360	24.2	147.6	26,100	26,100					360
370	19.5	118.3	25,500	25,500					370

MLC650 VPC-MAX S-3

ASME B30.5



301.8 ft

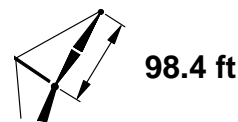
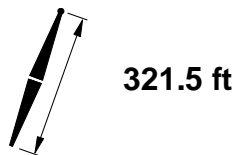


98.4 ft

	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
75	82.8	404.4	64,000	64,000					75
80	82.1	403.5	63,100	63,100					80
85	81.3	402.5	62,200	62,200					85
90	80.6	401.4	61,400	61,400	82.8	398.1	53,000	53,000	90
95	79.9	400.3	60,500	60,500	82.0	397.0	52,300	52,300	95
100	79.1	399.1	59,700	59,700	81.3	395.8	51,500	51,500	100
105	78.4	397.9	59,000	59,000	80.5	394.5	50,800	50,800	105
110	77.7	396.5	58,100	58,100	79.8	393.2	50,100	50,100	110
120	76.2	393.7	56,500	56,500	78.3	390.3	48,600	48,600	120
130	74.7	390.5	54,800	54,800	76.8	387.2	46,600	46,600	130
140	73.2	387.1	53,100	53,100	75.2	383.7	44,600	44,600	140
150	71.6	383.4	51,400	51,400	73.7	379.9	42,700	42,700	150
160	70.1	379.3	50,000	50,000	72.1	375.8	40,900	40,900	160
170	68.5	375.0	48,500	48,500	70.6	371.4	39,400	39,400	170
180	66.9	370.3	47,100	47,100	69.0	366.7	37,900	37,900	180
190	65.3	365.2	45,800	45,800	67.4	361.6	36,500	36,500	190
200	63.7	359.8	44,500	44,500	65.7	356.2	35,200	35,200	200
210	62.1	354.1	43,300	43,300	64.0	350.3	34,100	34,100	210
220	60.4	347.9	42,200	42,200	62.3	344.1	32,900	32,900	220
230	58.7	341.3	41,000	41,000	60.6	337.5	31,900	31,900	230
240	56.9	334.3	39,500	39,500	58.8	330.4	30,900	30,900	240
250	55.1	326.8	38,100	38,100	57.0	322.8	30,000	30,000	250
260	53.3	318.8	36,800	36,800	55.2	314.7	29,100	29,100	260
270	51.4	310.3	35,500	35,500	53.3	306.0	28,300	28,300	270
280	49.5	301.1	34,300	34,300	51.3	296.7	27,500	27,500	280
290	47.5	291.4	33,300	33,300	49.3	286.8	26,800	26,800	290
300	45.4	280.8	32,200	32,200	47.1	276.1	26,200	26,200	300
310	43.2	269.5	31,200	31,200	44.9	264.6	25,600	25,600	310
320	41.0	257.3	30,300	30,300	42.6	252.1	25,000	25,000	320
330	38.6	244.0	29,500	29,500	40.2	238.4	24,400	24,400	330
340	36.1	229.4	28,700	28,700	37.6	223.5	23,900	23,900	340
350	33.3	213.3	27,900	27,900	34.8	206.9	23,500	23,500	350
360	30.4	195.3	27,200	27,200	31.7	188.2	23,100	23,100	360
370	27.1	174.7	25,200	26,500	28.3	166.7	22,700	22,700	370
380	23.4	150.4	21,200	26,000					380
390	18.8	119.9	17,300	25,400					390

MLC650 VPC-MAX S-3

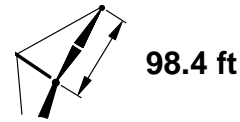
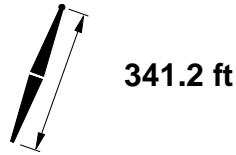
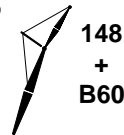
ASME B30.5



	10°				20°					
	ft	°	ft	lb	lb	ft	lb	lb		ft
80	82.4		423.5	63,100	63,100					80
85	81.8		422.5	62,400	62,400					85
90	81.1		421.5	61,500	61,500					90
95	80.4		420.5	60,700	60,700	82.4	417.1	52,400	52,400	95
100	79.7		419.3	60,000	60,000	81.7	416.0	51,700	51,700	100
105	79.0		418.1	59,200	59,200	81.0	414.8	51,100	51,100	105
110	78.3		416.9	58,500	58,500	80.3	413.5	50,400	50,400	110
120	76.8		414.2	57,000	57,000	78.9	410.8	49,000	49,000	120
130	75.4		411.2	55,500	55,500	77.4	407.8	47,600	47,600	130
140	74.0		407.9	53,900	53,900	76.0	404.5	45,600	45,600	140
150	72.5		404.4	52,300	52,300	74.5	400.9	43,700	43,700	150
160	71.1		400.6	50,800	50,800	73.0	397.1	41,900	41,900	160
170	69.6		396.4	49,400	49,400	71.6	392.9	40,400	40,400	170
180	68.1		392.0	48,000	48,000	70.0	388.4	38,900	38,900	180
190	66.6		387.3	46,700	46,700	68.5	383.6	37,500	37,500	190
200	65.1		382.2	45,500	45,500	67.0	378.5	36,200	36,200	200
210	63.5		376.8	44,300	44,300	65.4	373.0	35,000	35,000	210
220	61.9		371.0	43,200	43,200	63.8	367.2	33,900	33,900	220
230	60.3		364.9	42,100	42,100	62.2	361.0	32,900	32,900	230
240	58.7		358.3	41,000	41,000	60.5	354.4	31,900	31,900	240
250	57.0		351.3	39,700	39,700	58.9	347.3	31,000	31,000	250
260	55.3		343.9	38,300	38,300	57.1	339.8	30,100	30,100	260
270	53.6		336.1	37,100	37,100	55.4	331.9	29,200	29,200	270
280	51.8		327.7	35,900	35,900	53.6	323.3	28,500	28,500	280
290	50.0		318.7	34,700	34,700	51.7	314.3	27,700	27,700	290
300	48.1		309.2	33,600	33,600	49.8	304.6	27,100	27,100	300
310	46.2		299.0	32,700	32,700	47.8	294.2	26,400	26,400	310
320	44.1		288.0	31,700	31,700	45.8	283.1	25,800	25,800	320
330	42.0		276.2	30,800	30,800	43.6	271.1	25,300	25,300	330
340	39.8		263.5	29,900	29,900	41.4	258.1	24,700	24,700	340
350	37.5		249.7	28,800	29,200	39.0	244.0	24,200	24,200	350
360	35.0		234.6	24,600	28,400	36.5	228.5	23,800	23,800	360
370	32.4		218.0	20,600	27,700	33.7	211.3	22,200	23,400	370
380	29.5		199.3	16,700	27,100	30.7	192.0	18,000	23,000	380
390	26.3		178.1	13,000	26,400	27.4	169.7	14,000	22,700	390
400	22.6		152.9	9,400	25,900					400
410	18.1		121.4		25,400					410

MLC650 VPC-MAX S-3

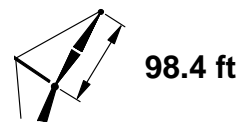
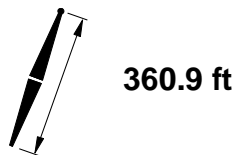
ASME B30.5



	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
80	82.8	443.4	63,200	63,200					80
85	82.1	442.5	62,300	62,300					85
90	81.5	441.6	61,600	61,600					90
95	80.8	440.6	60,900	60,900	82.8	437.2	52,600	52,600	95
100	80.1	439.5	60,100	60,100	82.1	436.1	52,000	52,000	100
105	79.5	438.3	59,400	59,400	81.4	435.0	51,300	51,300	105
110	78.8	437.1	58,800	58,800	80.7	433.8	50,600	50,600	110
120	77.4	434.6	57,300	57,300	79.4	431.1	49,400	49,400	120
130	76.1	431.7	55,900	55,900	78.0	428.3	48,200	48,200	130
140	74.7	428.6	54,500	54,500	76.6	425.2	46,500	46,500	140
150	73.4	425.3	53,000	53,000	75.2	421.8	44,600	44,600	150
160	72.0	421.6	51,600	51,600	73.8	418.1	42,900	42,900	160
170	70.6	417.7	50,200	50,200	72.4	414.2	41,300	41,300	170
180	69.2	413.5	48,800	48,800	71.0	409.9	39,900	39,900	180
190	67.7	409.1	47,600	47,600	69.6	405.4	38,500	38,500	190
200	66.3	404.3	46,400	46,400	68.1	400.6	37,200	37,200	200
210	64.8	399.2	45,300	45,300	66.6	395.4	36,000	36,000	210
220	63.3	393.7	44,100	44,100	65.1	389.9	34,900	34,900	220
230	61.8	387.9	43,100	43,100	63.6	384.1	33,800	33,800	230
240	60.3	381.8	42,000	42,000	62.1	377.9	32,900	32,900	240
250	58.7	375.3	41,000	41,000	60.5	371.3	31,900	31,900	250
260	57.2	368.4	39,900	39,900	58.9	364.3	31,000	31,000	260
270	55.5	361.0	38,600	38,600	57.3	356.9	30,200	30,200	270
280	53.9	353.2	37,300	37,300	55.6	349.0	29,400	29,400	280
290	52.2	345.0	36,200	36,200	53.9	340.6	28,600	28,600	290
300	50.5	336.2	35,100	35,100	52.1	331.7	27,900	27,900	300
310	48.7	326.9	34,000	34,000	50.3	322.3	27,300	27,300	310
320	46.8	316.9	33,100	33,100	48.4	312.2	26,700	26,700	320
330	44.9	306.3	32,100	32,100	46.5	301.4	26,100	26,100	330
340	43.0	294.9	31,300	31,300	44.5	289.8	25,500	25,500	340
350	40.9	282.7	30,400	30,400	42.4	277.4	25,000	25,000	350
360	38.8	269.6	26,900	29,600	40.2	264.0	24,500	24,500	360
370	36.5	255.3	22,800	28,900	37.9	249.3	24,000	24,000	370
380	34.1	239.7	18,900	28,200	35.4	233.3	20,600	23,600	380
390	31.5	222.5	15,100	27,500	32.7	215.6	16,500	23,200	390
400	28.7	203.3	11,400	26,900	29.8	195.6	12,600	22,900	400
410	25.5	181.3	7,900	26,300	26.5	172.6	8,800	22,600	410
420	21.9	155.4		25,800					420
430	17.4	122.8		25,300					430

MLC650 VPC-MAX S-3

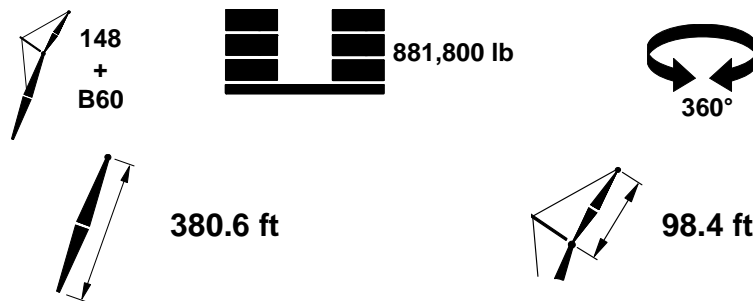
ASME B30.5



	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
85	82.5	462.5	62,200	62,200					85
90	81.8	461.6	61,500	61,500					90
95	81.2	460.6	60,800	60,800					95
100	80.6	459.6	60,100	60,100	82.4	456.2	52,100	52,100	100
105	79.9	458.5	59,500	59,500	81.8	455.1	51,400	51,400	105
110	79.3	457.4	58,800	58,800	81.1	453.9	50,800	50,800	110
120	78.0	454.9	57,500	57,500	79.8	451.5	49,600	49,600	120
130	76.7	452.2	56,200	56,200	78.5	448.7	48,400	48,400	130
140	75.4	449.2	54,900	54,900	77.2	445.8	47,200	47,200	140
150	74.1	446.0	53,500	53,500	75.9	442.5	45,300	45,300	150
160	72.8	442.6	52,100	52,100	74.6	439.0	43,700	43,700	160
170	71.4	438.9	50,800	50,800	73.2	435.3	42,100	42,100	170
180	70.1	434.9	49,500	49,500	71.9	431.3	40,600	40,600	180
190	68.7	430.6	48,200	48,200	70.5	427.0	39,300	39,300	190
200	67.4	426.1	47,100	47,100	69.1	422.4	38,000	38,000	200
210	66.0	421.3	45,900	45,900	67.7	417.5	36,800	36,800	210
220	64.6	416.1	44,800	44,800	66.3	412.3	35,600	35,600	220
230	63.2	410.7	43,700	43,700	64.9	406.8	34,600	34,600	230
240	61.7	404.9	42,800	42,800	63.4	401.0	33,600	33,600	240
250	60.3	398.7	41,800	41,800	62.0	394.8	32,600	32,600	250
260	58.8	392.3	40,800	40,800	60.5	388.2	31,700	31,700	260
270	57.3	385.4	39,700	39,700	58.9	381.3	30,900	30,900	270
280	55.7	378.1	38,500	38,500	57.4	373.9	30,100	30,100	280
290	54.1	370.4	37,300	37,300	55.8	366.2	29,400	29,400	290
300	52.5	362.3	36,200	36,200	54.1	357.9	28,700	28,700	300
310	50.9	353.7	35,100	35,100	52.5	349.2	28,000	28,000	310
320	49.2	344.5	34,100	34,100	50.8	339.9	27,300	27,300	320
330	47.5	334.8	33,200	33,200	49.0	330.1	26,800	26,800	330
340	45.7	324.5	30,700	32,300	47.2	319.6	26,200	26,200	340
350	43.8	313.5	26,200	31,500	45.3	308.4	25,600	25,600	350
360	41.9	301.7	21,900	30,600	43.3	296.4	24,400	25,100	360
370	39.9	289.1	17,800	29,900	41.3	283.5	20,100	24,600	370
380	37.8	275.5	13,900	29,200	39.1	269.6	16,000	24,200	380
390	35.5	260.7	10,200	28,500	36.9	254.5	12,000	23,800	390
400	33.2	244.6	6,600	27,800	34.4	238.0	8,200	23,400	400
410	30.6	226.9		27,200	31.8	219.7		23,100	410
420	27.9	207.1		26,700	28.9	199.1		22,800	420
430	24.8	184.4		26,100					430
440	21.2	157.7		25,700					440
450	16.8	124.0		25,300					450

MLC650 VPC-MAX S-3

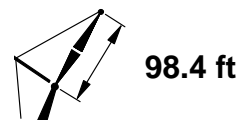
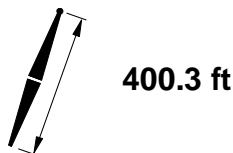
ASME B30.5



ft	10°				20°				ft
	ft	°	ft	lb	lb	ft	lb	lb	
85	82.8	482.5	62,000	62,000					85
90	82.2	481.6	61,400	61,400					90
95	81.6	480.7	60,700	60,700					95
100	81.0	479.7	60,000	60,000	82.7	476.2	52,100	52,100	100
105	80.3	478.6	59,400	59,400	82.1	475.2	51,500	51,500	105
110	79.7	477.6	58,800	58,800	81.5	474.1	50,900	50,900	110
120	78.5	475.2	57,500	57,500	80.3	471.7	49,700	49,700	120
130	77.3	472.6	56,300	56,300	79.0	469.1	48,600	48,600	130
140	76.0	469.8	55,000	55,000	77.8	466.3	47,600	47,600	140
150	74.8	466.7	53,900	53,900	76.5	463.2	46,100	46,100	150
160	73.5	463.4	52,500	52,500	75.3	459.9	44,400	44,400	160
170	72.2	459.9	51,200	51,200	74.0	456.3	42,900	42,900	170
180	71.0	456.1	50,000	50,000	72.7	452.5	41,400	41,400	180
190	69.7	452.0	48,800	48,800	71.4	448.4	40,000	40,000	190
200	68.4	447.7	47,700	47,700	70.1	444.0	38,800	38,800	200
210	67.1	443.1	46,500	46,500	68.7	439.4	37,500	37,500	210
220	65.7	438.2	45,400	45,400	67.4	434.5	36,400	36,400	220
230	64.4	433.1	44,400	44,400	66.0	429.2	35,400	35,400	230
240	63.0	427.6	43,400	43,400	64.7	423.7	34,300	34,300	240
250	61.6	421.8	42,500	42,500	63.3	417.9	33,400	33,400	250
260	60.2	415.7	41,600	41,600	61.8	411.7	32,500	32,500	260
270	58.8	409.2	40,700	40,700	60.4	405.2	31,600	31,600	270
280	57.4	402.4	39,600	39,600	58.9	398.3	30,900	30,900	280
290	55.9	395.2	38,400	38,400	57.5	391.0	30,100	30,100	290
300	54.4	387.6	37,300	37,300	55.9	383.3	29,400	29,400	300
310	52.8	379.5	36,200	36,200	54.4	375.2	28,700	28,700	310
320	51.3	371.1	35,200	35,200	52.8	366.6	28,000	28,000	320
330	49.7	362.1	34,300	34,300	51.2	357.5	27,400	27,400	330
340	48.0	352.6	30,000	33,400	49.5	347.8	26,800	26,800	340
350	46.3	342.5	25,500	32,500	47.8	337.6	26,300	26,300	350
360	44.6	331.8	21,200	31,700	46.0	326.7	24,000	25,800	360
370	42.8	320.4	17,200	30,900	44.1	315.1	19,700	25,300	370
380	40.9	308.2	13,300	30,200	42.2	302.8	15,600	24,800	380
390	38.9	295.2	9,600	29,500	40.2	289.5	11,700	24,400	390
400	36.8	281.1		28,800	38.1	275.1	8,000	24,000	400
410	34.7	266.0		28,200	35.9	259.6		23,600	410
420	32.4	249.4		27,600	33.5	242.6		23,300	420
430	29.9	231.1		27,000	30.9	223.7		23,000	430
440	27.1	210.7		26,500	28.1	202.5		22,700	440
450	24.1	187.4		26,000					450
460	20.6	159.9		25,600					460

MLC650 VPC-MAX S-3

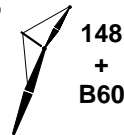
ASME B30.5



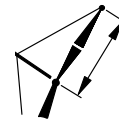
	10°				20°				
	ft	°	ft	lb	ft	°	ft	lb	
90	82.5	501.6	61,100	61,100					90
95	81.9	500.7	60,500	60,500					95
100	81.3	499.7	59,800	59,800					100
105	80.7	498.7	59,300	59,300	82.5	495.3	51,500	51,500	105
110	80.1	497.7	58,600	58,600	81.9	494.2	50,900	50,900	110
120	79.0	495.4	57,500	57,500	80.7	491.9	49,900	49,900	120
130	77.8	493.0	56,300	56,300	79.5	489.4	48,800	48,800	130
140	76.6	490.3	55,200	55,200	78.3	486.7	47,800	47,800	140
150	75.4	487.3	54,100	54,100	77.1	483.8	46,800	46,800	150
160	74.2	484.2	53,000	53,000	75.9	480.6	45,200	45,200	160
170	73.0	480.8	51,700	51,700	74.6	477.2	43,600	43,600	170
180	71.8	477.2	50,500	50,500	73.4	473.5	42,200	42,200	180
190	70.5	473.3	49,400	49,400	72.2	469.6	40,800	40,800	190
200	69.3	469.2	48,200	48,200	70.9	465.5	39,500	39,500	200
210	68.0	464.8	47,100	47,100	69.6	461.0	38,300	38,300	210
220	66.8	460.1	46,100	46,100	68.4	456.4	37,200	37,200	220
230	65.5	455.2	45,100	45,100	67.1	451.4	36,200	36,200	230
240	64.2	450.0	44,200	44,200	65.8	446.2	35,100	35,100	240
250	62.9	444.5	43,200	43,200	64.5	440.6	34,200	34,200	250
260	61.5	438.7	42,400	42,400	63.1	434.8	33,300	33,300	260
270	60.2	432.6	41,500	41,500	61.8	428.6	32,500	32,500	270
280	58.8	426.2	40,600	40,600	60.4	422.1	31,600	31,600	280
290	57.4	419.4	39,700	39,700	59.0	415.2	30,800	30,800	290
300	56.0	412.3	38,600	38,600	57.5	408.0	30,200	30,200	300
310	54.6	404.7	37,500	37,500	56.1	400.4	29,400	29,400	310
320	53.1	396.8	34,900	36,400	54.6	392.4	28,800	28,800	320
330	51.6	388.4	29,800	35,400	53.1	383.9	28,100	28,100	330
340	50.1	379.6	25,000	34,600	51.5	375.0	27,600	27,600	340
350	48.5	370.3	20,500	33,600	49.9	365.5	23,700	27,000	350
360	46.9	360.4	16,200	32,800	48.3	355.5	19,200	26,500	360
370	45.3	350.0	12,100	32,000	46.6	344.9	15,000	26,000	370
380	43.5	338.9	8,300	31,200	44.9	333.7	10,900	25,500	380
390	41.8	327.1		30,500	43.1	321.7	7,000	25,000	390
400	39.9	314.6		29,800	41.2	308.9		24,600	400
410	38.0	301.1		29,200	39.2	295.2		24,200	410
420	36.0	286.7		28,600	37.2	280.5		23,900	420
430	33.8	271.0		28,000	35.0	264.5		23,500	430
440	31.6	254.0		27,400	32.7	246.9		23,200	440
450	29.1	235.2		26,900	30.1	227.6		22,900	450
460	26.5	214.3		26,400	27.4	205.8		22,700	460
470	23.5	190.3		26,000					470
480	20.0	162.0		25,500					480

MLC650 VPC-MAX S-3

ASME B30.5



419.9 ft

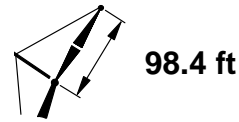
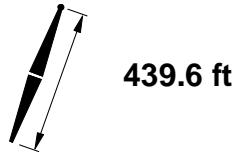


98.4 ft

	10°				20°					
	ft	°	ft	lb	lb	ft	lb	lb		ft
90	82.8		521.5	60,700	60,700					90
95	82.2		520.7	60,100	60,100					95
100	81.7		519.8	59,500	59,500					100
105	81.1		518.8	59,000	59,000	82.7	515.3	51,400	51,400	105
110	80.5		517.8	58,400	58,400	82.2	514.3	50,900	50,900	110
120	79.4		515.6	57,300	57,300	81.0	512.1	49,900	49,900	120
130	78.3		513.2	56,200	56,200	79.9	509.7	48,800	48,800	130
140	77.1		510.7	55,200	55,200	78.7	507.1	47,900	47,900	140
150	76.0		507.8	54,100	54,100	77.6	504.3	46,900	46,900	150
160	74.8		504.8	53,100	53,100	76.4	501.2	45,900	45,900	160
170	73.7		501.6	52,000	52,000	75.3	497.9	44,400	44,400	170
180	72.5		498.1	50,900	50,900	74.1	494.4	42,900	42,900	180
190	71.3		494.4	49,800	49,800	72.9	490.7	41,600	41,600	190
200	70.1		490.5	48,700	48,700	71.7	486.7	40,300	40,300	200
210	68.9		486.3	47,700	47,700	70.5	482.5	39,100	39,100	210
220	67.7		481.8	46,700	46,700	69.3	478.1	38,000	38,000	220
230	66.5		477.2	45,700	45,700	68.0	473.3	36,900	36,900	230
240	65.3		472.2	44,700	44,700	66.8	468.3	35,900	35,900	240
250	64.0		467.0	43,800	43,800	65.5	463.1	35,000	35,000	250
260	62.7		461.5	43,000	43,000	64.3	457.5	34,000	34,000	260
270	61.5		455.7	42,200	42,200	63.0	451.7	33,200	33,200	270
280	60.2		449.6	41,400	41,400	61.7	445.5	32,400	32,400	280
290	58.9		443.2	40,500	40,500	60.3	439.0	31,600	31,600	290
300	57.5		436.4	39,700	39,700	59.0	432.2	30,900	30,900	300
310	56.2		429.3	38,700	38,700	57.6	425.0	30,200	30,200	310
320	54.8		421.8	33,800	37,600	56.2	417.5	29,500	29,500	320
330	53.4		414.0	28,700	36,600	54.8	409.6	28,900	28,900	330
340	52.0		405.7	23,900	35,700	53.4	401.2	27,600	28,300	340
350	50.5		397.0	19,400	34,800	51.9	392.4	22,800	27,700	350
360	49.0		387.9	15,100	33,900	50.4	383.1	18,300	27,100	360
370	47.5		378.2	11,100	33,100	48.8	373.4	14,100	26,700	370
380	45.9		368.0	7,200	32,300	47.2	363.0	10,000	26,200	380
390	44.2		357.3		31,600	45.5	352.1		25,700	390
400	42.6		345.8		30,900	43.8	340.5		25,200	400
410	40.8		333.7		30,200	42.1	328.1		24,800	410
420	39.0		320.8		29,600	40.2	315.0		24,400	420
430	37.1		306.9		28,900	38.3	300.9		24,000	430
440	35.2		292.1		28,400	36.3	285.7		23,700	440
450	33.1		276.0		27,800	34.1	269.2		23,400	450
460	30.8		258.5		27,300	31.9	251.2		23,100	460
470	28.4		239.2		26,800	29.4	231.3		22,800	470
480	25.8		217.7		26,300	26.6	208.9		22,600	480
490	22.9		193.1		25,900					490
500	19.5		164.0		25,500					500

MLC650 VPC-MAX S-3

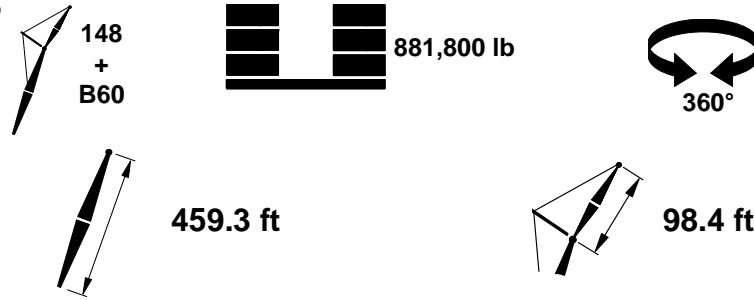
ASME B30.5



	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
95	82.5	540.6	59,600	59,600					95
100	82.0	539.8	59,100	59,100					100
105	81.4	538.8	58,600	58,600					105
110	80.9	537.9	58,100	58,100	82.5	534.3	50,800	50,800	110
120	79.8	535.8	57,000	57,000	81.4	532.2	49,800	49,800	120
130	78.7	533.5	56,100	56,100	80.3	529.9	48,900	48,900	130
140	77.6	531.0	55,100	55,100	79.2	527.4	47,900	47,900	140
150	76.5	528.3	54,100	54,100	78.1	524.7	47,000	47,000	150
160	75.4	525.4	53,100	53,100	76.9	521.8	46,100	46,100	160
170	74.3	522.3	52,200	52,200	75.8	518.6	45,000	45,000	170
180	73.2	519.0	51,200	51,200	74.7	515.3	43,600	43,600	180
190	72.0	515.4	50,100	50,100	73.6	511.7	42,300	42,300	190
200	70.9	511.6	49,100	49,100	72.4	507.9	41,000	41,000	200
210	69.7	507.6	48,000	48,000	71.2	503.9	39,800	39,800	210
220	68.6	503.4	47,100	47,100	70.1	499.6	38,700	38,700	220
230	67.4	498.9	46,100	46,100	68.9	495.1	37,600	37,600	230
240	66.2	494.2	45,200	45,200	67.7	490.3	36,600	36,600	240
250	65.0	489.2	44,400	44,400	66.5	485.3	35,700	35,700	250
260	63.8	483.9	43,500	43,500	65.3	480.0	34,800	34,800	260
270	62.6	478.4	42,700	42,700	64.1	474.4	33,900	33,900	270
280	61.4	472.6	41,900	41,900	62.8	468.6	33,100	33,100	280
290	60.1	466.5	41,200	41,200	61.6	462.4	32,300	32,300	290
300	58.9	460.1	39,900	40,400	60.3	456.0	31,600	31,600	300
310	57.6	453.4	34,200	39,700	59.0	449.2	30,900	30,900	310
320	56.3	446.4	28,700	38,700	57.7	442.1	30,200	30,200	320
330	55.0	439.0	23,700	37,800	56.4	434.6	27,800	29,600	330
340	53.6	431.2	18,900	36,800	55.0	426.7	22,800	29,000	340
350	52.2	423.0	14,400	35,900	53.6	418.5	18,100	28,400	350
360	50.8	414.5	10,100	35,000	52.2	409.8	13,600	27,800	360
370	49.4	405.5		34,100	50.7	400.7	9,300	27,300	370
380	47.9	396.0		33,300	49.2	391.1		26,800	380
390	46.4	386.0		32,600	47.7	381.0		26,300	390
400	44.9	375.5		31,800	46.2	370.3		25,800	400
410	43.3	364.4		31,200	44.5	359.1		25,400	410
420	41.7	352.6		30,500	42.9	347.1		25,000	420
430	40.0	340.1		29,900	41.1	334.4		24,600	430
440	38.2	326.8		29,300	39.3	320.8		24,200	440
450	36.3	312.6		28,700	37.4	306.3		23,900	450
460	34.4	297.3		28,100	35.5	290.7		23,600	460
470	32.3	280.8		27,600	33.3	273.8		23,300	470
480	30.1	262.8		27,100	31.1	255.3		23,000	480
490	27.8	243.1		26,700	28.7	234.9		22,800	490
500	25.2	221.0		26,200	26.0	211.9		22,600	500
510	22.3	195.7		25,800					510
520	18.9	165.8		23,000					520

MLC650 VPC-MAX S-3

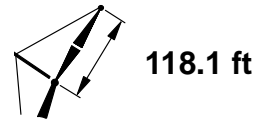
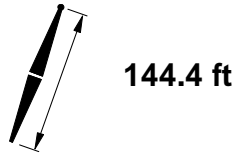
ASME B30.5



	10°				20°					
	ft	°	ft	lb	lb	ft	lb	lb		ft
95	82.8		560.6	59,000	59,000					95
100	82.3		559.7	58,500	58,500					100
105	81.7		558.8	58,100	58,100					105
110	81.2		557.9	57,600	57,600	82.7	554.3	50,600	50,600	110
120	80.2		555.9	56,600	56,600	81.7	552.3	49,700	49,700	120
130	79.1		553.7	55,700	55,700	80.6	550.1	48,800	48,800	130
140	78.1		551.3	54,800	54,800	79.6	547.7	47,900	47,900	140
150	77.0		548.7	53,900	53,900	78.5	545.1	47,000	47,000	150
160	75.9		545.9	53,000	53,000	77.4	542.3	46,200	46,200	160
170	74.8		542.9	52,100	52,100	76.3	539.2	45,400	45,400	170
180	73.8		539.7	51,200	51,200	75.3	536.0	44,300	44,300	180
190	72.7		536.3	50,300	50,300	74.2	532.6	43,000	43,000	190
200	71.6		532.7	49,300	49,300	73.1	528.9	41,700	41,700	200
210	70.5		528.8	48,400	48,400	72.0	525.1	40,500	40,500	210
220	69.4		524.8	47,400	47,400	70.8	521.0	39,400	39,400	220
230	68.3		520.5	46,500	46,500	69.7	516.6	38,300	38,300	230
240	67.1		516.0	45,600	45,600	68.6	512.1	37,300	37,300	240
250	66.0		511.2	44,700	44,700	67.4	507.3	36,400	36,400	250
260	64.8		506.2	43,900	43,900	66.3	502.2	35,500	35,500	260
270	63.7		500.9	43,100	43,100	65.1	496.9	34,600	34,600	270
280	62.5		495.4	42,400	42,400	63.9	491.3	33,800	33,800	280
290	61.3		489.6	41,600	41,600	62.7	485.5	33,000	33,000	290
300	60.1		483.5	38,700	40,900	61.5	479.3	32,300	32,300	300
310	58.9		477.1	32,900	40,200	60.3	472.9	31,500	31,500	310
320	57.7		470.4	27,500	39,500	59.0	466.1	30,800	30,800	320
330	56.4		463.4	22,400	38,800	57.8	459.1	26,700	30,200	330
340	55.1		456.1	17,600	37,800	56.5	451.7	21,700	29,600	340
350	53.8		448.4	13,100	36,800	55.2	443.9	17,000	29,000	350
360	52.5		440.3	8,800	36,000	53.8	435.7	12,500	28,400	360
370	51.2		431.8		35,100	52.5	427.2	8,200	27,900	370
380	49.8		423.0		34,300	51.1	418.2		27,400	380
390	48.4		413.7		33,500	49.7	408.8		26,900	390
400	47.0		403.9		32,800	48.2	398.9		26,400	400
410	45.5		393.6		32,100	46.7	388.5		26,000	410
420	44.0		382.7		31,400	45.2	377.5		25,500	420
430	42.4		371.3		30,700	43.6	365.8		25,100	430
440	40.8		359.2		30,100	41.9	353.5		24,800	440
450	39.1		346.3		29,500	40.2	340.5		24,400	450
460	37.4		332.7		29,000	38.5	326.6		24,100	460
470	35.6		318.1		28,400	36.6	311.7		23,700	470
480	33.7		302.4		27,900	34.7	295.6		23,500	480
490	31.6		285.5		27,400	32.6	278.3		23,200	490
500	29.5		267.1		27,000	30.4	259.4		22,900	500
510	27.2		246.8		25,200	28.0	238.4		22,700	510
520	24.6		224.2		22,000					520
530	21.8		198.3		18,800					530
540	18.5		167.6		15,700					540

MLC650 VPC-MAX S-3

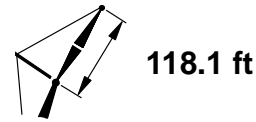
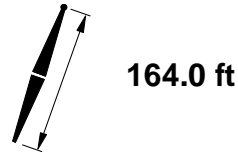
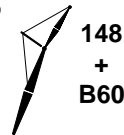
ASME B30.5



	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
65	82.3	265.9	50,100b	50,100b					65
70	81.2	264.6	48,700b	48,700b					70
75	80.1	263.3	47,300	47,300					75
80	78.9	261.9	45,900	45,900	82.9	258.8	40,000b	40,000b	80
85	77.8	260.3	44,600	44,600	81.7	257.3	38,900b	38,900b	85
90	76.6	258.7	43,300	43,300	80.6	255.6	37,800	37,800	90
95	75.5	256.9	42,000	42,000	79.4	253.8	36,800	36,800	95
100	74.3	255.0	40,900	40,900	78.2	251.9	35,900	35,900	100
105	73.1	253.0	39,700	39,700	77.0	249.9	34,900	34,900	105
110	72.0	250.9	38,600	38,600	75.8	247.7	34,000	34,000	110
120	69.6	246.3	36,500	36,500	73.4	243.0	32,300	32,300	120
130	67.1	241.1	34,500	34,500	70.9	237.8	30,600	30,600	130
140	64.6	235.4	32,700	32,700	68.4	232.0	28,700	28,700	140
150	62.0	229.1	31,000	31,000	65.7	225.6	27,000	27,000	150
160	59.4	222.2	29,400	29,400	63.0	218.6	25,500	25,500	160
170	56.6	214.5	27,900	27,900	60.2	210.7	24,200	24,200	170
180	53.7	206.0	26,600	26,600	57.3	202.1	22,900	22,900	180
190	50.7	196.6	25,400	25,400	54.3	192.5	21,800	21,800	190
200	47.6	186.1	24,300	24,300	51.0	181.7	20,800	20,800	200
210	44.2	174.3	23,200	23,200	47.6	169.6	19,900	19,900	210
220	40.6	161.0	22,300	22,300	43.8	155.9	19,100	19,100	220
230	36.6	145.6	21,400	21,400	39.6	139.9	18,400	18,400	230
240	32.0	127.4	20,700	20,700	34.9	120.7	17,700	17,700	240
250	26.6	104.7	20,100	20,100	29.0	96.3	17,200	17,200	250
260	19.3	72.9	19,500	19,500					260

MLC650 VPC-MAX S-3

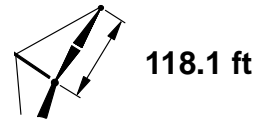
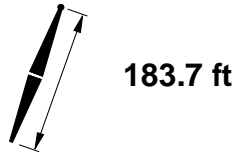
ASME B30.5



ft	10°				20°				ft
	ft	°	ft	lb	lb	ft	lb	lb	
65	82.9	285.9	50,600	50,600					65
70	81.8	284.8	49,300	49,300					70
75	80.8	283.6	48,000	48,000					75
80	79.7	282.3	46,700	46,700					80
85	78.7	280.8	45,500	45,500	82.4	277.6	39,400	39,400	85
90	77.6	279.3	44,300	44,300	81.3	276.1	38,400	38,400	90
95	76.5	277.7	43,100	43,100	80.2	274.4	37,500	37,500	95
100	75.5	275.9	42,000	42,000	79.1	272.7	36,500	36,500	100
105	74.4	274.1	40,900	40,900	78.0	270.8	35,700	35,700	105
110	73.3	272.1	39,800	39,800	76.9	268.8	34,800	34,800	110
120	71.1	267.9	37,700	37,700	74.7	264.5	33,100	33,100	120
130	68.9	263.2	35,900	35,900	72.4	259.8	31,600	31,600	130
140	66.6	258.0	34,100	34,100	70.1	254.5	29,900	29,900	140
150	64.2	252.3	32,400	32,400	67.7	248.7	28,200	28,200	150
160	61.8	246.0	30,800	30,800	65.3	242.3	26,700	26,700	160
170	59.4	239.1	29,400	29,400	62.8	235.3	25,400	25,400	170
180	56.8	231.6	28,100	28,100	60.2	227.6	24,200	24,200	180
190	54.2	223.3	26,800	26,800	57.5	219.2	23,000	23,000	190
200	51.4	214.2	25,700	25,700	54.7	209.9	22,000	22,000	200
210	48.6	204.1	24,600	24,600	51.7	199.6	21,000	21,000	210
220	45.5	193.0	23,600	23,600	48.6	188.2	20,200	20,200	220
230	42.3	180.5	22,700	22,700	45.3	175.4	19,400	19,400	230
240	38.8	166.4	21,900	21,900	41.7	160.8	18,700	18,700	240
250	34.9	150.2	21,100	21,100	37.6	143.9	18,100	18,100	250
260	30.5	131.1	20,500	20,500	33.0	123.7	17,500	17,500	260
270	25.2	107.2	20,000	20,000	27.3	97.8	17,100	17,100	270
280	18.1	73.5	19,300	19,300					280

MLC650 VPC-MAX S-3

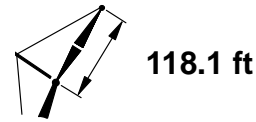
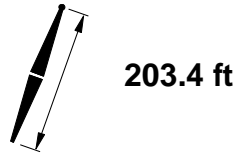
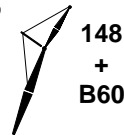
ASME B30.5



	10°				20°				
	ft	°	ft	lb	ft	°	ft	lb	
70	82.4	304.9	49,900	49,900					70
75	81.4	303.8	48,700	48,700					75
80	80.4	302.5	47,500	47,500					80
85	79.4	301.2	46,300	46,300	82.9	297.9	39,900	39,900	85
90	78.5	299.8	45,200	45,200	81.9	296.4	38,900	38,900	90
95	77.5	298.3	44,100	44,100	80.9	294.9	38,000	38,000	95
100	76.5	296.7	43,000	43,000	79.9	293.3	37,100	37,100	100
105	75.5	295.0	41,900	41,900	78.8	291.5	36,300	36,300	105
110	74.5	293.2	40,900	40,900	77.8	289.7	35,500	35,500	110
120	72.4	289.2	39,000	39,000	75.8	285.7	33,800	33,800	120
130	70.3	284.9	37,100	37,100	73.7	281.4	32,400	32,400	130
140	68.2	280.1	35,300	35,300	71.5	276.5	31,000	31,000	140
150	66.1	274.9	33,700	33,700	69.4	271.2	29,300	29,300	150
160	63.9	269.2	32,200	32,200	67.1	265.4	27,900	27,900	160
170	61.7	262.9	30,700	30,700	64.9	259.0	26,500	26,500	170
180	59.4	256.1	29,400	29,400	62.5	252.1	25,300	25,300	180
190	57.0	248.7	28,100	28,100	60.1	244.6	24,100	24,100	190
200	54.6	240.6	27,000	27,000	57.6	236.3	23,000	23,000	200
210	52.0	231.7	25,900	25,900	55.1	227.3	22,100	22,100	210
220	49.4	222.0	24,900	24,900	52.4	217.4	21,200	21,200	220
230	46.6	211.4	23,900	23,900	49.5	206.5	20,400	20,400	230
240	43.7	199.6	23,100	23,100	46.5	194.4	19,700	19,700	240
250	40.5	186.4	22,300	22,300	43.3	180.8	19,000	19,000	250
260	37.1	171.6	21,600	21,600	39.8	165.5	18,400	18,400	260
270	33.4	154.6	20,900	20,900	35.8	147.8	17,900	17,900	270
280	29.1	134.5	20,300	20,300	31.3	126.5	17,400	17,400	280
290	24.0	109.5	19,800	19,800					290

MLC650 VPC-MAX S-3

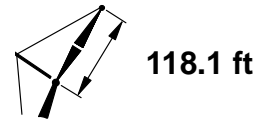
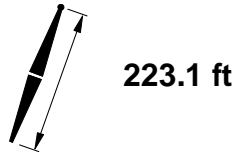
ASME B30.5



	10°				20°					
	ft	°	ft	lb	ft	°	ft	lb		ft
70	82.8		325.0	50,400	50,400					70
75	81.9		323.9	49,200	49,200					75
80	81.0		322.8	48,100	48,100					80
85	80.1		321.5	47,000	47,000					85
90	79.2		320.2	45,900	45,900	82.4	316.7	39,300	39,300	90
95	78.3		318.8	44,900	44,900	81.5	315.3	38,400	38,400	95
100	77.3		317.3	43,800	43,800	80.5	313.7	37,600	37,600	100
105	76.4		315.7	42,800	42,800	79.6	312.1	36,800	36,800	105
110	75.4		314.0	41,800	41,800	78.6	310.4	36,000	36,000	110
120	73.6		310.4	39,900	39,900	76.7	306.7	34,500	34,500	120
130	71.6		306.3	38,100	38,100	74.8	302.7	33,100	33,100	130
140	69.7		301.9	36,500	36,500	72.8	298.2	31,800	31,800	140
150	67.7		297.1	34,900	34,900	70.8	293.3	30,400	30,400	150
160	65.7		291.8	33,400	33,400	68.7	287.9	28,900	28,900	160
170	63.6		286.1	32,000	32,000	66.6	282.1	27,500	27,500	170
180	61.5		279.8	30,700	30,700	64.5	275.8	26,300	26,300	180
190	59.4		273.1	29,300	29,300	62.3	268.9	25,100	25,100	190
200	57.2		265.7	28,200	28,200	60.1	261.5	24,100	24,100	200
210	54.9		257.8	27,100	27,100	57.8	253.4	23,100	23,100	210
220	52.5		249.1	26,100	26,100	55.4	244.6	22,200	22,200	220
230	50.1		239.7	25,100	25,100	52.9	235.0	21,400	21,400	230
240	47.5		229.5	24,300	24,300	50.3	224.5	20,600	20,600	240
250	44.9		218.3	23,400	23,400	47.5	213.0	19,900	19,900	250
260	42.0		205.9	22,600	22,600	44.6	200.3	19,300	19,300	260
270	39.0		192.1	21,900	21,900	41.5	186.1	18,700	18,700	270
280	35.7		176.6	21,300	21,300	38.1	170.0	18,100	18,100	280
290	32.1		158.8	20,700	20,700	34.2	151.4	17,700	17,700	290
300	27.9		137.8	20,200	20,200	29.8	129.1	17,300	17,300	300
310	22.9		111.6	19,700	19,700					310

MLC650 VPC-MAX S-3

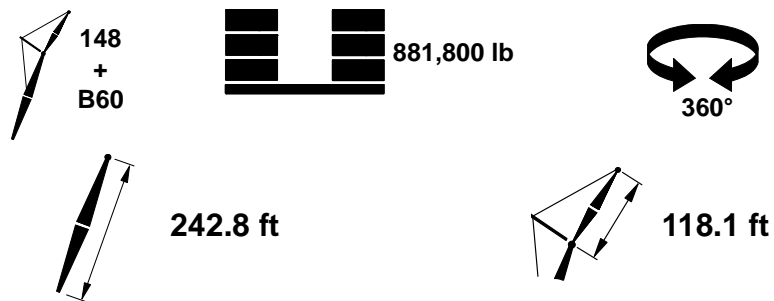
ASME B30.5



	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
75	82.4	344.0	49,600	49,600					75
80	81.6	342.9	48,500	48,500					80
85	80.7	341.7	47,600	47,600					85
90	79.8	340.5	46,500	46,500	82.9	336.9	39,600	39,600	90
95	79.0	339.2	45,500	45,500	82.0	335.6	38,900	38,900	95
100	78.1	337.8	44,500	44,500	81.1	334.1	38,000	38,000	100
105	77.2	336.3	43,600	43,600	80.2	332.6	37,300	37,300	105
110	76.3	334.7	42,700	42,700	79.3	331.0	36,500	36,500	110
120	74.5	331.3	40,800	40,800	77.5	327.6	35,100	35,100	120
130	72.8	327.5	39,100	39,100	75.7	323.8	33,800	33,800	130
140	70.9	323.4	37,500	37,500	73.9	319.6	32,500	32,500	140
150	69.1	318.9	35,900	35,900	72.0	315.0	31,200	31,200	150
160	67.2	314.0	34,500	34,500	70.1	310.1	29,900	29,900	160
170	65.3	308.7	33,100	33,100	68.2	304.7	28,500	28,500	170
180	63.4	302.9	31,800	31,800	66.2	298.9	27,200	27,200	180
190	61.4	296.7	30,500	30,500	64.2	292.6	26,100	26,100	190
200	59.4	290.0	29,300	29,300	62.2	285.8	25,000	25,000	200
210	57.3	282.8	28,300	28,300	60.0	278.4	24,100	24,100	210
220	55.2	275.0	27,300	27,300	57.9	270.5	23,100	23,100	220
230	53.0	266.5	26,300	26,300	55.6	261.9	22,300	22,300	230
240	50.7	257.4	25,400	25,400	53.3	252.5	21,500	21,500	240
250	48.3	247.5	24,500	24,500	50.9	242.4	20,800	20,800	250
260	45.9	236.7	23,700	23,700	48.4	231.4	20,100	20,100	260
270	43.3	224.9	22,900	22,900	45.7	219.3	19,500	19,500	270
280	40.5	211.9	22,300	22,300	42.9	206.0	18,900	18,900	280
290	37.6	197.5	21,600	21,600	39.8	191.1	18,400	18,400	290
300	34.4	181.4	21,000	21,000	36.5	174.3	17,900	17,900	300
310	30.8	162.8	20,500	20,500	32.8	154.9	17,500	17,500	310
320	26.8	140.9	20,100	20,100	28.5	131.6	17,200	17,200	320
330	21.9	113.6	19,600	19,600					330

MLC650 VPC-MAX S-3

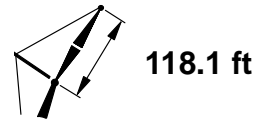
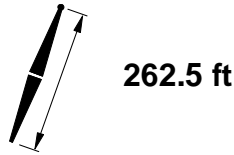
ASME B30.5



	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
75	82.8	364.0	49,900	49,900					75
80	82.0	363.0	49,000	49,000					80
85	81.2	361.9	48,000	48,000					85
90	80.4	360.7	47,100	47,100					90
95	79.6	359.5	46,100	46,100	82.4	355.8	39,200	39,200	95
100	78.8	358.2	45,200	45,200	81.6	354.4	38,400	38,400	100
105	77.9	356.8	44,200	44,200	80.8	353.0	37,700	37,700	105
110	77.1	355.3	43,400	43,400	79.9	351.5	37,000	37,000	110
120	75.4	352.1	41,700	41,700	78.2	348.3	35,600	35,600	120
130	73.7	348.5	40,000	40,000	76.5	344.7	34,300	34,300	130
140	72.0	344.7	38,400	38,400	74.8	340.8	33,100	33,100	140
150	70.3	340.5	36,900	36,900	73.1	336.5	31,900	31,900	150
160	68.6	335.9	35,500	35,500	71.3	331.9	30,800	30,800	160
170	66.8	330.9	34,100	34,100	69.5	326.9	29,400	29,400	170
180	65.0	325.6	32,900	32,900	67.7	321.5	28,200	28,200	180
190	63.2	319.8	31,600	31,600	65.8	315.6	27,100	27,100	190
200	61.3	313.6	30,400	30,400	63.9	309.4	25,900	25,900	200
210	59.4	307.0	29,300	29,300	62.0	302.6	25,000	25,000	210
220	57.4	299.8	28,300	28,300	60.0	295.3	24,100	24,100	220
230	55.4	292.1	27,300	27,300	58.0	287.5	23,200	23,200	230
240	53.4	283.8	26,500	26,500	55.9	279.1	22,400	22,400	240
250	51.2	274.9	25,600	25,600	53.7	270.0	21,700	21,700	250
260	49.0	265.3	24,700	24,700	51.5	260.2	21,000	21,000	260
270	46.7	254.9	23,900	23,900	49.1	249.6	20,300	20,300	270
280	44.3	243.6	23,300	23,300	46.7	238.0	19,700	19,700	280
290	41.8	231.3	22,600	22,600	44.1	225.4	19,200	19,200	290
300	39.1	217.7	22,000	22,000	41.3	211.4	18,700	18,700	300
310	36.3	202.7	21,400	21,400	38.4	195.9	18,200	18,200	310
320	33.2	185.9	20,800	20,800	35.1	178.4	17,700	17,700	320
330	29.7	166.6	20,400	20,400	31.5	158.2	17,400	17,400	330
340	25.8	143.9	19,900	19,900	27.3	133.9	17,100	17,100	340
350	21.0	115.4	19,600	19,600					350

MLC650 VPC-MAX S-3

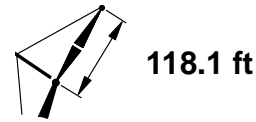
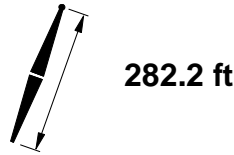
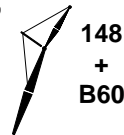
ASME B30.5



	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
80	82.4		383.1	49,300	49,300				80
85	81.7		382.0	48,400	48,400				85
90	80.9		380.9	47,500	47,500				90
95	80.1		379.7	46,600	46,600	82.8	375.9	39,500	95
100	79.4		378.5	45,700	45,700	82.1	374.7	38,700	100
105	78.6		377.2	44,900	44,900	81.3	373.3	38,100	105
110	77.8		375.8	44,000	44,000	80.5	371.9	37,300	110
120	76.2		372.7	42,400	42,400	78.9	368.9	36,100	120
130	74.6		369.4	40,800	40,800	77.3	365.5	34,900	130
140	73.0		365.8	39,200	39,200	75.7	361.8	33,700	140
150	71.4		361.8	37,700	37,700	74.0	357.8	32,500	150
160	69.8		357.5	36,400	36,400	72.4	353.5	31,500	160
170	68.1		352.9	35,100	35,100	70.7	348.8	30,300	170
180	66.4		347.9	33,800	33,800	69.0	343.7	29,000	180
190	64.7		342.5	32,700	32,700	67.2	338.3	27,900	190
200	63.0		336.7	31,500	31,500	65.5	332.4	26,800	200
210	61.2		330.6	30,400	30,400	63.7	326.2	25,800	210
220	59.4		323.9	29,400	29,400	61.9	319.5	24,900	220
230	57.5		316.8	28,400	28,400	60.0	312.3	24,100	230
240	55.7		309.2	27,400	27,400	58.1	304.5	23,300	240
250	53.7		301.1	26,500	26,500	56.1	296.3	22,500	250
260	51.7		292.4	25,700	25,700	54.0	287.4	21,800	260
270	49.6		283.0	25,000	25,000	51.9	277.9	21,100	270
280	47.5		272.9	24,200	24,200	49.8	267.6	20,500	280
290	45.3		262.0	23,500	23,500	47.5	256.4	19,900	290
300	43.0		250.3	22,800	22,800	45.1	244.4	19,400	300
310	40.5		237.4	22,300	22,300	42.6	231.2	18,900	310
320	37.9		223.3	21,700	21,700	39.9	216.7	18,400	320
330	35.1		207.7	21,100	21,100	37.0	200.6	18,000	330
340	32.1		190.3	20,700	20,700	33.9	182.3	17,600	340
350	28.7		170.3	20,200	20,200	30.3	161.3	17,300	350
360	24.8		146.7	19,900	19,900				360
370	20.1		117.1	19,500	19,500				370

MLC650 VPC-MAX S-3

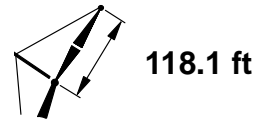
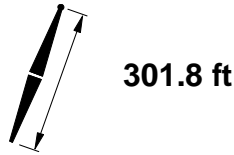
ASME B30.5



	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
80	82.8	403.1	49,500	49,500					80
85	82.1	402.1	48,700	48,700					85
90	81.4	401.0	47,800	47,800					90
95	80.6	399.9	47,000	47,000					95
100	79.9	398.7	46,200	46,200	82.5	394.9	39,000	39,000	100
105	79.1	397.5	45,300	45,300	81.7	393.6	38,400	38,400	105
110	78.4	396.1	44,500	44,500	81.0	392.2	37,800	37,800	110
120	76.9	393.3	42,900	42,900	79.5	389.4	36,500	36,500	120
130	75.4	390.1	41,400	41,400	77.9	386.2	35,200	35,200	130
140	73.9	386.7	40,000	40,000	76.4	382.7	34,100	34,100	140
150	72.4	383.0	38,500	38,500	74.9	378.9	33,000	33,000	150
160	70.8	378.9	37,200	37,200	73.3	374.8	32,000	32,000	160
170	69.3	374.6	35,900	35,900	71.7	370.4	31,000	31,000	170
180	67.7	369.9	34,700	34,700	70.1	365.7	29,900	29,900	180
190	66.1	364.8	33,600	33,600	68.5	360.6	28,700	28,700	190
200	64.4	359.4	32,500	32,500	66.8	355.1	27,600	27,600	200
210	62.8	353.6	31,300	31,300	65.2	349.2	26,700	26,700	210
220	61.1	347.5	30,300	30,300	63.5	343.0	25,800	25,800	220
230	59.4	340.9	29,400	29,400	61.7	336.3	24,900	24,900	230
240	57.6	333.9	28,400	28,400	60.0	329.2	24,100	24,100	240
250	55.9	326.4	27,500	27,500	58.1	321.6	23,300	23,300	250
260	54.0	318.3	26,700	26,700	56.3	313.4	22,600	22,600	260
270	52.1	309.8	25,900	25,900	54.4	304.7	21,900	21,900	270
280	50.2	300.6	25,200	25,200	52.4	295.4	21,300	21,300	280
290	48.2	290.8	24,500	24,500	50.3	285.4	20,700	20,700	290
300	46.1	280.3	23,800	23,800	48.2	274.7	20,100	20,100	300
310	43.9	269.0	23,200	23,200	46.0	263.1	19,600	19,600	310
320	41.7	256.7	22,500	22,500	43.7	250.5	19,100	19,100	320
330	39.3	243.3	22,000	22,000	41.2	236.8	18,700	18,700	330
340	36.7	228.7	21,500	21,500	38.6	221.7	18,300	18,300	340
350	34.0	212.6	21,000	21,000	35.8	205.0	17,900	17,900	350
360	31.1	194.5	20,500	20,500	32.7	186.1	17,600	17,600	360
370	27.8	173.8	20,200	20,200	29.2	164.3	17,300	17,300	370
380	24.0	149.3	19,800	19,800					380
390	19.3	118.6	19,400	19,400					390

MLC650 VPC-MAX S-3

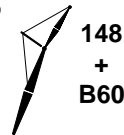
ASME B30.5



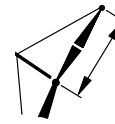
	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
85	82.5	422.1	48,900	48,900					85
90	81.8	421.1	48,100	48,100					90
95	81.1	420.1	47,300	47,300					95
100	80.4	418.9	46,600	46,600					100
105	79.7	417.7	45,700	45,700					105
110	79.0	416.5	45,000	45,000	82.8	415.0	39,300	39,300	110
120	77.6	413.8	43,500	43,500	82.1	413.8	38,600	38,600	120
130	76.1	410.8	42,100	42,100	81.4	412.5	38,000	38,000	130
140	74.7	407.5	40,600	40,600	80.0	409.8	36,800	36,800	140
150	73.2	404.0	39,300	39,300	78.5	406.7	35,700	35,700	150
160	71.8	400.1	38,000	38,000	77.1	403.5	34,600	34,600	160
170	70.3	396.0	36,800	36,800	75.6	399.9	33,600	33,600	170
180	68.8	391.6	35,500	35,500	74.1	396.0	32,500	32,500	180
190	67.3	386.8	34,400	34,400	72.7	391.8	31,600	31,600	190
200	65.8	381.8	33,300	33,300	71.1	387.4	30,700	30,700	200
210	64.2	376.3	32,200	32,200	69.6	382.6	29,600	29,600	210
220	62.6	370.6	31,200	31,200	68.1	377.4	28,500	28,500	220
230	61.0	364.4	30,300	30,300	66.5	371.9	27,500	27,500	230
240	59.4	357.8	29,300	29,300	64.9	366.1	26,500	26,500	240
250	57.7	350.9	28,500	28,500	63.3	359.8	25,600	25,600	250
260	56.0	343.5	27,600	27,600	61.6	353.2	24,900	24,900	260
270	54.3	335.6	26,800	26,800	59.9	346.1	24,100	24,100	270
280	52.5	327.2	26,100	26,100	58.2	338.6	23,300	23,300	280
290	50.7	318.2	25,300	25,300	56.4	330.6	22,700	22,700	290
300	48.8	308.6	24,600	24,600	54.6	322.0	22,000	22,000	300
310	46.8	298.4	24,000	24,000	52.8	312.9	21,400	21,400	310
320	44.8	287.4	23,400	23,400	50.8	303.2	20,800	20,800	320
330	42.7	275.6	22,800	22,800	48.8	292.8	20,300	20,300	330
340	40.5	262.9	22,300	22,300	46.8	281.6	19,800	19,800	340
350	38.2	249.1	21,800	21,800	44.6	269.5	19,300	19,300	350
360	35.7	233.9	21,200	21,200	42.4	256.5	18,900	18,900	360
370	33.0	217.2	20,800	20,800	40.0	242.2	18,500	18,500	370
380	30.1	198.5	20,400	20,400	37.4	226.6	18,100	18,100	380
390	26.9	177.1	20,000	20,000	34.6	209.3	17,700	17,700	390
400	23.2	151.8	18,800	19,700	31.6	189.8	17,500	17,500	400
410	18.6	120.0	15,200	19,400	28.2	167.2	17,200	17,200	410

MLC650 VPC-MAX S-3

ASME B30.5



321.5 ft

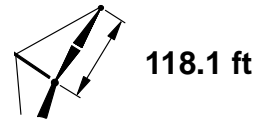
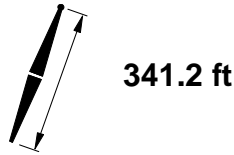


118.1 ft

	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
85	82.8	442.1	49,000	49,000					85
90	82.1	441.2	48,300	48,300					90
95	81.5	440.2	47,500	47,500					95
100	80.8	439.1	46,800	46,800					100
105	80.1	437.9	46,100	46,100	82.5	433.9	38,800	38,800	105
110	79.5	436.7	45,400	45,400	81.8	432.7	38,200	38,200	110
120	78.1	434.2	44,000	44,000	80.4	430.1	37,100	37,100	120
130	76.8	431.3	42,600	42,600	79.1	427.2	36,000	36,000	130
140	75.4	428.2	41,300	41,300	77.7	424.1	34,900	34,900	140
150	74.0	424.9	39,900	39,900	76.3	420.7	33,900	33,900	150
160	72.6	421.2	38,700	38,700	74.9	417.0	33,000	33,000	160
170	71.2	417.3	37,500	37,500	73.5	413.1	32,100	32,100	170
180	69.8	413.1	36,300	36,300	72.1	408.8	31,200	31,200	180
190	68.4	408.6	35,200	35,200	70.6	404.3	30,300	30,300	190
200	66.9	403.8	34,100	34,100	69.2	399.4	29,300	29,300	200
210	65.5	398.7	33,100	33,100	67.7	394.3	28,300	28,300	210
220	64.0	393.3	32,000	32,000	66.2	388.8	27,300	27,300	220
230	62.5	387.5	31,200	31,200	64.6	382.9	26,400	26,400	230
240	61.0	381.3	30,200	30,200	63.1	376.7	25,600	25,600	240
250	59.4	374.8	29,300	29,300	61.5	370.1	24,800	24,800	250
260	57.8	367.9	28,500	28,500	59.9	363.1	24,100	24,100	260
270	56.2	360.5	27,700	27,700	58.3	355.6	23,400	23,400	270
280	54.5	352.7	26,900	26,900	56.6	347.7	22,800	22,800	280
290	52.9	344.5	26,200	26,200	54.9	339.3	22,100	22,100	290
300	51.1	335.7	25,500	25,500	53.1	330.4	21,500	21,500	300
310	49.3	326.3	24,900	24,900	51.3	320.9	21,000	21,000	310
320	47.5	316.4	24,200	24,200	49.4	310.7	20,500	20,500	320
330	45.6	305.7	23,600	23,600	47.5	299.9	20,000	20,000	330
340	43.6	294.3	23,100	23,100	45.5	288.2	19,500	19,500	340
350	41.5	282.1	22,500	22,500	43.3	275.7	19,100	19,100	350
360	39.4	268.9	22,000	22,000	41.1	262.2	18,700	18,700	360
370	37.1	254.6	21,500	21,500	38.8	247.5	18,300	18,300	370
380	34.7	239.0	21,100	21,100	36.3	231.3	18,000	18,000	380
390	32.1	221.7	18,000	20,600	33.6	213.4	17,600	17,600	390
400	29.2	202.4	14,500	20,300	30.6	193.2	15,800	17,400	400
410	26.1	180.3	11,000	20,000	27.3	169.9	12,100	17,100	410
420	22.4	154.2	7,600	19,700					420
430	17.9	121.2		19,400					430

MLC650 VPC-MAX S-3

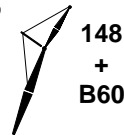
ASME B30.5



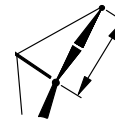
	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
90	82.5	461.2	48,400	48,400					90
95	81.9	460.2	47,700	47,700					95
100	81.2	459.2	47,100	47,100					100
105	80.6	458.1	46,400	46,400	82.8	454.0	39,000	39,000	105
110	79.9	457.0	45,700	45,700	82.2	452.9	38,500	38,500	110
120	78.7	454.5	44,300	44,300	80.9	450.4	37,400	37,400	120
130	77.4	451.8	43,000	43,000	79.6	447.6	36,300	36,300	130
140	76.1	448.8	41,700	41,700	78.3	444.7	35,300	35,300	140
150	74.7	445.6	40,500	40,500	76.9	441.4	34,300	34,300	150
160	73.4	442.2	39,300	39,300	75.6	437.9	33,400	33,400	160
170	72.1	438.4	38,100	38,100	74.2	434.2	32,500	32,500	170
180	70.7	434.5	37,000	37,000	72.9	430.1	31,700	31,700	180
190	69.4	430.2	35,900	35,900	71.5	425.8	30,800	30,800	190
200	68.0	425.6	34,800	34,800	70.1	421.2	30,000	30,000	200
210	66.6	420.8	33,800	33,800	68.7	416.3	29,000	29,000	210
220	65.2	415.7	32,900	32,900	67.3	411.1	28,000	28,000	220
230	63.8	410.2	31,900	31,900	65.9	405.6	27,200	27,200	230
240	62.4	404.4	31,000	31,000	64.4	399.8	26,400	26,400	240
250	60.9	398.3	30,200	30,200	62.9	393.5	25,500	25,500	250
260	59.4	391.8	29,300	29,300	61.4	387.0	24,800	24,800	260
270	57.9	384.9	28,500	28,500	59.9	380.0	24,100	24,100	270
280	56.3	377.6	27,800	27,800	58.3	372.6	23,400	23,400	280
290	54.8	369.9	27,100	27,100	56.7	364.8	22,800	22,800	290
300	53.2	361.8	26,300	26,300	55.1	356.5	22,200	22,200	300
310	51.5	353.1	25,700	25,700	53.4	347.8	21,700	21,700	310
320	49.8	343.9	25,100	25,100	51.7	338.5	21,100	21,100	320
330	48.1	334.2	24,400	24,400	49.9	328.6	20,600	20,600	330
340	46.3	323.9	23,800	23,800	48.1	318.0	20,200	20,200	340
350	44.4	312.8	23,300	23,300	46.2	306.8	19,700	19,700	350
360	42.5	301.0	22,800	22,800	44.2	294.7	19,300	19,300	360
370	40.5	288.4	22,300	22,300	42.2	281.8	18,900	18,900	370
380	38.4	274.7	21,800	21,800	40.0	267.8	18,500	18,500	380
390	36.1	260.0	19,900	21,300	37.7	252.6	18,200	18,200	390
400	33.8	243.8	16,300	20,900	35.3	235.9	17,800	17,800	400
410	31.2	226.0	12,800	20,500	32.6	217.4	14,400	17,500	410
420	28.4	206.1	9,500	20,200	29.7	196.6	10,800	17,300	420
430	25.3	183.4		19,900					430
440	21.7	156.4		19,600					440

MLC650 VPC-MAX S-3

ASME B30.5



360.9 ft

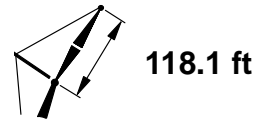
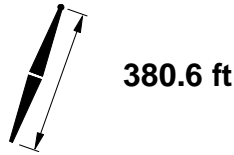


118.1 ft

	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
90	82.8	481.2	48,400	48,400					90
95	82.2	480.2	47,800	47,800					95
100	81.6	479.3	47,100	47,100					100
105	81.0	478.2	46,500	46,500					105
110	80.4	477.1	45,800	45,800	82.5	473.0	38,600	38,600	110
120	79.1	474.8	44,600	44,600	81.3	470.6	37,600	37,600	120
130	77.9	472.2	43,300	43,300	80.0	468.0	36,600	36,600	130
140	76.6	469.4	42,100	42,100	78.8	465.1	35,500	35,500	140
150	75.4	466.3	40,900	40,900	77.5	462.1	34,600	34,600	150
160	74.1	463.0	39,700	39,700	76.2	458.7	33,700	33,700	160
170	72.9	459.4	38,500	38,500	74.9	455.1	32,800	32,800	170
180	71.6	455.6	37,400	37,400	73.6	451.3	32,000	32,000	180
190	70.3	451.6	36,400	36,400	72.3	447.2	31,200	31,200	190
200	69.0	447.3	35,300	35,300	71.0	442.8	30,400	30,400	200
210	67.7	442.7	34,400	34,400	69.7	438.2	29,500	29,500	210
220	66.3	437.8	33,500	33,500	68.3	433.2	28,600	28,600	220
230	65.0	432.6	32,600	32,600	67.0	428.0	27,800	27,800	230
240	63.6	427.1	31,600	31,600	65.6	422.5	26,900	26,900	240
250	62.2	421.3	30,800	30,800	64.2	416.6	26,100	26,100	250
260	60.8	415.2	30,000	30,000	62.8	410.4	25,300	25,300	260
270	59.4	408.7	29,200	29,200	61.3	403.9	24,700	24,700	270
280	58.0	401.9	28,400	28,400	59.9	396.9	24,000	24,000	280
290	56.5	394.7	27,700	27,700	58.4	389.6	23,400	23,400	290
300	55.0	387.1	27,000	27,000	56.8	381.9	22,800	22,800	300
310	53.4	379.0	26,300	26,300	55.3	373.7	22,200	22,200	310
320	51.9	370.5	25,700	25,700	53.7	365.1	21,700	21,700	320
330	50.3	361.5	25,100	25,100	52.1	356.0	21,100	21,100	330
340	48.6	352.0	24,500	24,500	50.4	346.3	20,700	20,700	340
350	46.9	341.9	23,900	23,900	48.6	336.0	20,200	20,200	350
360	45.1	331.2	23,400	23,400	46.9	325.1	19,800	19,800	360
370	43.3	319.7	22,700	22,900	45.0	313.5	19,400	19,400	370
380	41.4	307.5	18,800	22,400	43.1	301.0	19,000	19,000	380
390	39.5	294.5	15,100	22,000	41.1	287.6	17,500	18,600	390
400	37.4	280.4	11,500	21,500	38.9	273.2	13,700	18,300	400
410	35.2	265.2	8,000	21,200	36.7	257.5	10,000	18,000	410
420	32.9	248.6		20,800	34.3	240.3	6,500	17,700	420
430	30.4	230.2		20,500	31.7	221.3		17,500	430
440	27.7	209.7		20,100	28.8	199.8		17,200	440
450	24.6	186.3		19,900					450
460	21.1	158.6		19,600					460

MLC650 VPC-MAX S-3

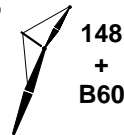
ASME B30.5



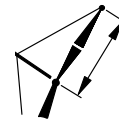
	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
95	82.5	500.2	47,700	47,700					95
100	81.9	499.3	47,100	47,100					100
105	81.3	498.3	46,500	46,500					105
110	80.7	497.3	45,900	45,900	82.8	493.1	38,700	38,700	110
120	79.6	495.0	44,700	44,700	81.6	490.8	37,700	37,700	120
130	78.4	492.5	43,500	43,500	80.4	488.3	36,700	36,700	130
140	77.2	489.8	42,300	42,300	79.2	485.6	35,800	35,800	140
150	76.0	486.9	41,200	41,200	78.0	482.6	34,900	34,900	150
160	74.8	483.7	40,100	40,100	76.8	479.4	34,000	34,000	160
170	73.6	480.3	39,000	39,000	75.6	476.0	33,200	33,200	170
180	72.3	476.7	37,900	37,900	74.3	472.3	32,400	32,400	180
190	71.1	472.8	36,900	36,900	73.1	468.4	31,600	31,600	190
200	69.9	468.7	35,900	35,900	71.8	464.2	30,800	30,800	200
210	68.6	464.3	35,000	35,000	70.6	459.8	30,000	30,000	210
220	67.3	459.7	34,000	34,000	69.3	455.1	29,200	29,200	220
230	66.1	454.7	33,100	33,100	68.0	450.2	28,300	28,300	230
240	64.8	449.5	32,300	32,300	66.7	444.9	27,500	27,500	240
250	63.5	444.0	31,400	31,400	65.4	439.3	26,700	26,700	250
260	62.1	438.2	30,700	30,700	64.0	433.5	25,900	25,900	260
270	60.8	432.1	29,900	29,900	62.6	427.3	25,300	25,300	270
280	59.4	425.7	29,100	29,100	61.3	420.8	24,600	24,600	280
290	58.0	418.9	28,300	28,300	59.9	413.9	24,000	24,000	290
300	56.6	411.7	27,600	27,600	58.4	406.6	23,400	23,400	300
310	55.2	404.2	27,000	27,000	57.0	399.0	22,800	22,800	310
320	53.7	396.2	26,400	26,400	55.5	390.9	22,200	22,200	320
330	52.2	387.9	25,800	25,800	53.9	382.4	21,700	21,700	330
340	50.7	379.0	25,200	25,200	52.4	373.5	21,200	21,200	340
350	49.1	369.7	24,600	24,600	50.8	364.0	20,800	20,800	350
360	47.5	359.8	24,100	24,100	49.2	353.9	20,300	20,300	360
370	45.8	349.3	21,900	23,600	47.5	343.3	19,900	19,900	370
380	44.1	338.3	18,000	23,100	45.7	332.0	19,500	19,500	380
390	42.3	326.5	14,300	22,600	43.9	320.0	17,000	19,100	390
400	40.5	313.9	10,800	22,200	42.0	307.1	13,300	18,800	400
410	38.5	300.4	7,400	21,700	40.0	293.3	9,700	18,500	410
420	36.5	285.9		21,400	38.0	278.4		18,200	420
430	34.4	270.2		21,000	35.7	262.3		17,900	430
440	32.1	253.1		20,600	33.4	244.6		17,600	440
450	29.6	234.3		20,400	30.8	225.0		17,300	450
460	27.0	213.2		20,100	28.0	203.0		17,200	460
470	24.0	189.1		19,800					470
480	20.5	160.6		19,600					480

MLC650 VPC-MAX S-3

ASME B30.5



400.3 ft

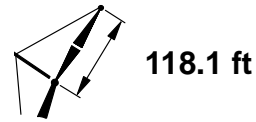
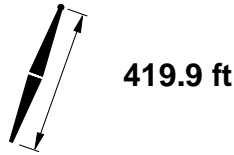


118.1 ft

	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
95	82.8	520.2	47,700	47,700					95
100	82.2	519.3	47,000	47,000					100
105	81.7	518.4	46,500	46,500					105
110	81.1	517.3	45,900	45,900					110
120	80.0	515.2	44,800	44,800	81.9	510.9	37,700	37,700	120
130	78.8	512.8	43,700	43,700	80.8	508.5	36,900	36,900	130
140	77.7	510.2	42,600	42,600	79.6	505.9	35,900	35,900	140
150	76.5	507.4	41,400	41,400	78.5	503.1	35,100	35,100	150
160	75.4	504.4	40,400	40,400	77.3	500.0	34,200	34,200	160
170	74.2	501.1	39,300	39,300	76.1	496.7	33,500	33,500	170
180	73.1	497.6	38,400	38,400	75.0	493.2	32,600	32,600	180
190	71.9	493.9	37,400	37,400	73.8	489.5	31,900	31,900	190
200	70.7	490.0	36,400	36,400	72.6	485.5	31,200	31,200	200
210	69.5	485.8	35,500	35,500	71.4	481.3	30,500	30,500	210
220	68.3	481.4	34,600	34,600	70.1	476.8	29,800	29,800	220
230	67.1	476.7	33,700	33,700	68.9	472.1	28,900	28,900	230
240	65.8	471.7	32,900	32,900	67.7	467.1	28,100	28,100	240
250	64.6	466.5	32,100	32,100	66.4	461.8	27,300	27,300	250
260	63.3	461.0	31,300	31,300	65.1	456.2	26,600	26,600	260
270	62.0	455.2	30,500	30,500	63.8	450.3	25,900	25,900	270
280	60.7	449.1	29,700	29,700	62.5	444.2	25,200	25,200	280
290	59.4	442.6	29,100	29,100	61.2	437.7	24,500	24,500	290
300	58.1	435.9	28,300	28,300	59.8	430.8	23,900	23,900	300
310	56.7	428.8	27,700	27,700	58.5	423.6	23,400	23,400	310
320	55.3	421.3	27,100	27,100	57.1	416.1	22,800	22,800	320
330	53.9	413.4	26,400	26,400	55.6	408.1	22,300	22,300	330
340	52.5	405.2	25,800	25,800	54.2	399.7	21,800	21,800	340
350	51.0	396.5	25,300	25,300	52.7	390.9	21,300	21,300	350
360	49.5	387.3	21,100	24,700	51.2	381.6	20,900	20,900	360
370	48.0	377.6	17,000	24,300	49.6	371.8	20,500	20,500	370
380	46.4	367.4	13,100	23,800	48.0	361.4	16,400	20,100	380
390	44.8	356.6	9,400	23,300	46.3	350.4	12,400	19,700	390
400	43.1	345.2		22,800	44.6	338.7	8,700	19,300	400
410	41.4	333.0		22,400	42.9	326.3		19,000	410
420	39.5	320.0		21,900	41.0	313.1		18,600	420
430	37.7	306.2		21,600	39.1	298.9		18,300	430
440	35.7	291.3		21,200	37.0	283.6		18,000	440
450	33.6	275.1		20,900	34.9	267.0		17,800	450
460	31.3	257.6		20,500	32.5	248.8		17,500	460
470	28.9	238.2		20,300	30.0	228.6		17,300	470
480	26.3	216.6		20,000	27.3	206.0		17,100	480
490	23.3	191.8		19,800					490
500	19.9	162.5		19,500					500

MLC650 VPC-MAX S-3

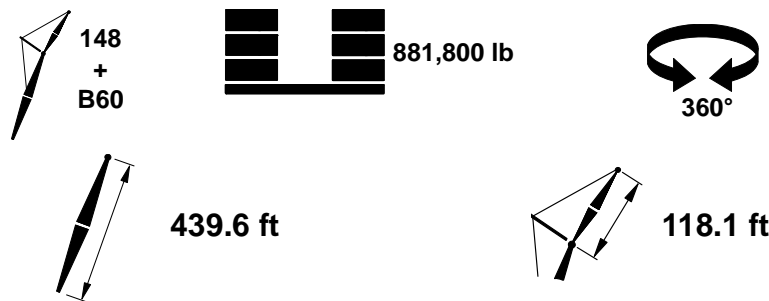
ASME B30.5



	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
100	82.5	539.3	46,900	46,900					100
105	82.0	538.4	46,400	46,400					105
110	81.4	537.4	45,800	45,800					110
120	80.3	535.3	44,800	44,800					120
130	79.3	533.0	43,700	43,700	82.2	531.0	37,800	37,800	130
140	78.2	530.5	42,700	42,700	81.1	528.7	36,900	36,900	140
150	77.1	527.8	41,700	41,700	80.0	526.2	36,100	36,100	150
160	75.9	524.9	40,700	40,700	78.9	523.5	35,300	35,300	160
170	74.8	521.8	39,600	39,600	77.8	520.6	34,500	34,500	170
180	73.7	518.5	38,700	38,700	76.7	517.4	33,700	33,700	180
190	72.6	514.9	37,700	37,700	75.5	514.1	33,000	33,000	190
200	71.4	511.2	36,900	36,900	74.4	510.5	32,200	32,200	200
210	70.3	507.1	35,900	35,900	73.3	506.7	31,500	31,500	210
220	69.1	502.9	35,100	35,100	72.1	502.6	30,800	30,800	220
230	68.0	498.4	34,200	34,200	70.9	498.3	30,100	30,100	230
240	66.8	493.7	33,400	33,400	69.7	493.8	29,500	29,500	240
250	65.6	488.7	32,600	32,600	68.6	489.0	28,700	28,700	250
260	64.4	483.4	31,800	31,800	67.4	484.0	27,900	27,900	260
270	63.2	477.9	31,100	31,100	66.1	478.7	27,100	27,100	270
280	61.9	472.1	30,400	30,400	64.9	473.1	26,400	26,400	280
290	60.7	466.0	29,700	29,700	63.7	467.2	25,800	25,800	290
300	59.4	459.6	29,000	29,000	62.4	461.1	25,100	25,100	300
310	58.1	452.9	28,300	28,300	61.1	454.6	24,500	24,500	310
320	56.8	445.8	27,700	27,700	59.8	447.8	23,900	23,900	320
330	55.5	438.4	27,100	27,100	58.5	440.6	23,400	23,400	330
340	54.2	430.6	26,500	26,500	57.2	433.1	22,800	22,800	340
350	52.8	422.5	24,200	26,000	55.8	425.3	22,400	22,400	350
360	51.4	413.9	19,900	25,400	54.4	417.0	21,900	21,900	360
370	49.9	404.9	15,800	24,900	53.0	408.3	21,400	21,400	370
380	48.5	395.4	11,900	24,400	51.5	399.1	19,500	21,000	380
390	47.0	385.4	8,200	23,900	50.0	389.5	15,400	20,600	390
400	45.4	374.8		23,400	48.5	379.3	11,500	20,200	400
410	43.8	363.7		23,000	46.9	368.6	7,800	19,800	410
420	42.2	351.9		22,500	45.3	357.3		19,400	420
430	40.5	339.4		22,100	43.6	345.3		19,100	430
440	38.7	326.0		21,700	41.9	332.5		18,800	440
450	36.8	311.8		21,400	40.1	318.8		18,500	450
460	34.9	296.5		21,100	38.2	304.2		18,200	460
470	32.8	279.9		20,700	36.2	288.5		17,900	470
480	30.6	261.9		20,500	34.0	271.5		17,700	480
490	28.2	242.0		20,200	31.8	252.8		17,500	490
500	25.7	219.8		19,900	29.3	232.1		17,300	500
510	22.7	194.4		19,700					510
520	19.4	164.3		19,500					520

MLC650 VPC-MAX S-3

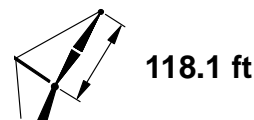
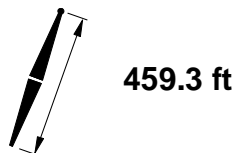
ASME B30.5



	10°				20°					
	ft	°	ft	lb	lb	ft	lb	lb		ft
100	82.8		559.3	46,600	46,600					100
105	82.3		558.4	46,200	46,200					105
110	81.7		557.4	45,700	45,700					110
120	80.7		555.4	44,700	44,700					120
130	79.6		553.2	43,700	43,700	82.5	551.1	37,800	37,800	130
140	78.6		550.8	42,700	42,700	81.5	548.9	37,000	37,000	140
150	77.5		548.2	41,800	41,800	80.4	546.5	36,200	36,200	150
160	76.5		545.4	40,800	40,800	79.3	543.9	35,400	35,400	160
170	75.4		542.4	39,900	39,900	78.3	541.0	34,600	34,600	170
180	74.3		539.2	39,000	39,000	77.2	538.0	33,900	33,900	180
190	73.2		535.8	38,100	38,100	76.1	534.8	33,100	33,100	190
200	72.1		532.2	37,200	37,200	75.0	531.3	32,500	32,500	200
210	71.0		528.4	36,300	36,300	73.9	527.7	31,800	31,800	210
220	69.9		524.3	35,500	35,500	72.8	523.8	31,100	31,100	220
230	68.8		520.0	34,600	34,600	71.7	519.7	30,400	30,400	230
240	67.7		515.5	33,800	33,800	70.5	515.4	29,800	29,800	240
250	66.5		510.7	33,100	33,100	69.4	510.8	29,200	29,200	250
260	65.4		505.7	32,400	32,400	68.2	506.0	28,400	28,400	260
270	64.2		500.4	31,600	31,600	67.1	500.9	27,700	27,700	270
280	63.0		494.8	30,900	30,900	65.9	495.6	27,000	27,000	280
290	61.8		489.0	30,200	30,200	64.7	490.0	26,300	26,300	290
300	60.6		482.9	29,500	29,500	63.5	484.1	25,700	25,700	300
310	59.4		476.5	28,900	28,900	62.3	477.9	25,100	25,100	310
320	58.2		469.9	28,300	28,300	61.1	471.5	24,500	24,500	320
330	56.9		462.8	27,700	27,700	59.8	464.7	23,900	23,900	330
340	55.6		455.5	27,100	27,100	58.5	457.6	23,400	23,400	340
350	54.4		447.8	26,600	26,600	57.2	450.2	22,900	22,900	350
360	53.0		439.7	26,000	26,000	55.9	442.4	22,400	22,400	360
370	51.7		431.2	25,500	25,500	54.6	434.2	21,900	22,000	370
380	50.3		422.4	25,000	25,000	53.2	425.6	21,500	21,500	380
390	48.9		413.0		24,500	51.8	416.6	21,100	21,100	390
400	47.5		403.2		24,000	50.4	407.2	20,700	20,700	400
410	46.0		392.9		23,600	48.9	397.2	20,300	20,300	410
420	44.5		382.1		23,200	47.4	386.7	19,900	19,900	420
430	42.9		370.6		22,700	45.9	375.7	19,600	19,600	430
440	41.3		358.4		22,300	44.3	364.0	19,300	19,300	440
450	39.6		345.6		21,900	42.7	351.6	18,900	18,900	450
460	37.9		331.9		21,600	41.0	338.5	18,600	18,600	460
470	36.0		317.2		21,300	39.2	324.5	18,300	18,300	470
480	34.1		301.5		21,000	37.3	309.5	18,100	18,100	480
490	32.1		284.6		20,700	35.3	293.4	17,800	17,800	490
500	29.9		266.1		20,400	33.2	275.9	17,600	17,600	500
510	27.6		245.7		20,100	31.0	256.7	17,400	17,400	510
520	25.1		223.0		19,900	28.6	235.5	17,200	17,200	520
530	22.2		196.9		19,700					530
540	18.8		166.0		19,400					540

MLC650 VPC-MAX S-3

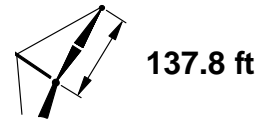
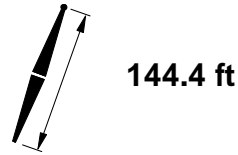
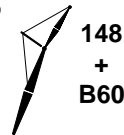
ASME B30.5



	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
105	82.5	578.4	45,800	45,800					105
110	82.0	577.5	45,400	45,400					110
120	81.0	575.5	44,500	44,500	82.8	571.2	37,700	37,700	120
130	80.0	573.4	43,600	43,600	81.8	569.0	37,000	37,000	130
140	79.0	571.1	42,700	42,700	80.7	566.7	36,200	36,200	140
150	78.0	568.6	41,800	41,800	79.7	564.2	35,500	35,500	150
160	76.9	565.9	40,900	40,900	78.7	561.4	34,700	34,700	160
170	75.9	563.0	40,000	40,000	77.6	558.5	34,000	34,000	170
180	74.9	559.9	39,200	39,200	76.6	555.4	33,300	33,300	180
190	73.8	556.6	38,300	38,300	75.5	552.1	32,600	32,600	190
200	72.8	553.1	37,400	37,400	74.5	548.6	31,900	31,900	200
210	71.7	549.4	36,600	36,600	73.4	544.9	31,300	31,300	210
220	70.6	545.5	35,800	35,800	72.3	540.9	30,700	30,700	220
230	69.6	541.4	35,000	35,000	71.2	536.8	30,100	30,100	230
240	68.5	537.1	34,300	34,300	70.1	532.4	29,500	29,500	240
250	67.4	532.5	33,500	33,500	69.0	527.8	28,900	28,900	250
260	66.3	527.7	32,700	32,700	67.9	522.9	28,200	28,200	260
270	65.2	522.6	32,000	32,000	66.8	517.8	27,500	27,500	270
280	64.0	517.3	31,400	31,400	65.7	512.5	26,900	26,900	280
290	62.9	511.8	30,700	30,700	64.5	506.9	26,200	26,200	290
300	61.8	506.0	30,000	30,000	63.4	501.0	25,600	25,600	300
310	60.6	499.9	29,400	29,400	62.2	494.8	25,000	25,000	310
320	59.4	493.5	28,800	28,800	61.0	488.4	24,400	24,400	320
330	58.2	486.8	27,400	28,200	59.8	481.7	23,900	23,900	330
340	57.0	479.9	22,500	27,600	58.6	474.6	23,400	23,400	340
350	55.8	472.6	18,000	27,100	57.3	467.2	22,600	22,900	350
360	54.5	464.9	13,600	26,500	56.1	459.5	18,100	22,500	360
370	53.3	456.9	9,500	26,000	54.8	451.4	13,700	22,000	370
380	52.0	448.6		25,500	53.5	443.0	9,600	21,600	380
390	50.7	439.8		25,000	52.1	434.1		21,100	390
400	49.3	430.7		24,600	50.8	424.8		20,800	400
410	47.9	421.0		24,100	49.4	415.0		20,400	410
420	46.5	410.9		23,700	47.9	404.8		20,000	420
430	45.1	400.3		23,200	46.5	394.0		19,700	430
440	43.6	389.1		22,900	44.9	382.6		19,400	440
450	42.0	377.3		22,500	43.4	370.6		19,100	450
460	40.5	364.9		22,100	41.8	357.9		18,700	460
470	38.8	351.6		21,800	40.1	344.4		18,500	470
480	37.1	337.6		21,400	38.3	330.0		18,200	480
490	35.3	322.6		21,100	36.5	314.6		17,900	490
500	33.4	306.5		20,800	34.6	298.1		17,700	500
510	31.4	289.1		20,600	32.5	280.1		17,600	510
520	29.3	270.2		20,300	30.3	260.5		17,300	520
530	27.0	249.3		20,100	27.9	238.8		17,200	530
540	24.5	226.0		19,900					540
550	21.7	199.3		16,900					550
560	18.3	167.6		13,900					560

MLC650 VPC-MAX S-3

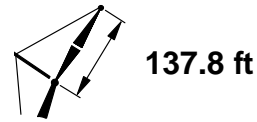
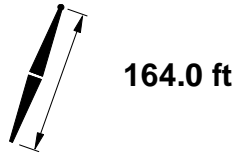
ASME B30.5



	10°				20°					
	ft	°	ft	lb	lb	ft	lb	lb		ft
65	82.6		286.4	41,900 ^b	41,900 ^b					65
70	81.5		285.3	40,500 ^b	40,500 ^b					70
75	80.5		284.1	39,100	39,100					75
80	79.4		282.7	37,900	37,900					80
85	78.4		281.3	36,700	36,700					85
90	77.3		279.8	35,600	35,600	82.7	278.5	31,600 ^b	31,600 ^b	90
95	76.3		278.2	34,500	34,500	80.6	275.3	29,600	29,600	95
100	75.2		276.4	33,400	33,400	79.5	273.6	28,700	28,700	100
105	74.1		274.6	32,300	32,300	78.4	271.7	27,900	27,900	105
110	73.0		272.7	31,200	31,200	77.3	269.7	27,000	27,000	110
120	70.8		268.4	29,300	29,300	75.1	265.5	25,400	25,400	120
130	68.6		263.7	27,400	27,400	72.8	260.7	23,900	23,900	130
140	66.3		258.6	25,700	25,700	70.5	255.5	22,500	22,500	140
150	64.0		252.9	24,100	24,100	68.2	249.7	21,200	21,200	150
160	61.6		246.6	22,600	22,600	65.7	243.4	20,100	20,100	160
170	59.1		239.7	21,300	21,300	63.2	236.4	19,000	19,000	170
180	56.6		232.2	20,100	20,100	60.7	228.8	17,900	17,900	180
190	53.9		223.9	18,900	18,900	58.0	220.4	17,000	17,000	190
200	51.2		214.8	17,900	17,900	55.2	211.1	16,200	16,200	200
210	48.3		204.8	16,900	16,900	52.3	200.9	15,400	15,400	210
220	45.3		193.7	15,900	15,900	49.2	189.5	14,700	14,700	220
230	42.1		181.3	15,100	15,100	45.9	176.8	14,000	14,000	230
240	38.6		167.3	14,400	14,400	42.3	162.4	13,400	13,400	240
250	34.7		151.2	13,600	13,600	38.3	145.7	12,900	12,900	250
260	30.4		132.2	13,000	13,000	33.7	125.8	12,400	12,400	260
270	25.2		108.6	12,400	12,400	28.2	100.5	12,100	12,100	270
280	18.2		75.6	12,000	12,000					280

MLC650 VPC-MAX S-3

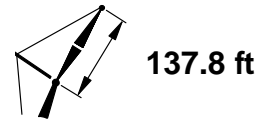
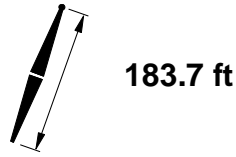
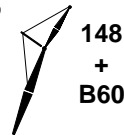
ASME B30.5



	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
70	82.1	305.4	41,300	41,300					70
75	81.1	304.3	40,000	40,000					75
80	80.2	303.0	38,700	38,700					80
85	79.2	301.7	37,600	37,600					85
90	78.2	300.3	36,500	36,500	82.2	297.3	31,100	31,100	90
95	77.2	298.8	35,400	35,400	81.2	295.8	30,200	30,200	95
100	76.2	297.2	34,400	34,400	80.2	294.2	29,300	29,300	100
105	75.2	295.5	33,300	33,300	79.2	292.4	28,500	28,500	105
110	74.2	293.7	32,300	32,300	78.2	290.6	27,600	27,600	110
120	72.2	289.8	30,400	30,400	76.2	286.7	26,100	26,100	120
130	70.1	285.4	28,600	28,600	74.1	282.3	24,600	24,600	130
140	68.0	280.7	26,900	26,900	71.9	277.5	23,300	23,300	140
150	65.9	275.5	25,400	25,400	69.8	272.2	22,100	22,100	150
160	63.7	269.7	23,900	23,900	67.6	266.4	21,000	21,000	160
170	61.4	263.5	22,600	22,600	65.3	260.1	19,900	19,900	170
180	59.1	256.7	21,300	21,300	63.0	253.2	18,900	18,900	180
190	56.8	249.3	20,200	20,200	60.6	245.6	17,900	17,900	190
200	54.3	241.2	19,100	19,100	58.1	237.4	17,100	17,100	200
210	51.8	232.4	18,100	18,100	55.5	228.4	16,300	16,300	210
220	49.2	222.7	17,200	17,200	52.8	218.6	15,500	15,500	220
230	46.4	212.1	16,300	16,300	50.0	207.8	14,800	14,800	230
240	43.5	200.3	15,500	15,500	47.0	195.7	14,200	14,200	240
250	40.4	187.3	14,700	14,700	43.8	182.3	13,600	13,600	250
260	37.0	172.5	14,000	14,000	40.3	167.1	13,200	13,200	260
270	33.3	155.6	13,400	13,400	36.5	149.6	12,700	12,700	270
280	29.0	135.7	12,800	12,800	32.0	128.6	12,300	12,300	280
290	24.0	111.0	12,300	12,300	26.6	102.0	12,000	12,000	290
300	17.1	76.2	12,000	12,000					300

MLC650 VPC-MAX S-3

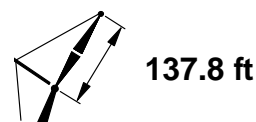
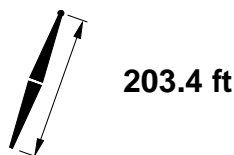
ASME B30.5



ft	10°				20°				ft
	ft	ft	lb	lb	ft	ft	lb	lb	
70	82.6	325.5	41,800	41,800					70
75	81.7	324.4	40,600	40,600					75
80	80.8	323.3	39,500	39,500					80
85	79.9	322.0	38,400	38,400					85
90	78.9	320.7	37,300	37,300	82.7	317.6	31,500	31,500	90
95	78.0	319.3	36,300	36,300	81.8	316.1	30,700	30,700	95
100	77.1	317.8	35,300	35,300	80.9	314.6	29,800	29,800	100
105	76.1	316.2	34,300	34,300	79.9	313.0	29,000	29,000	105
110	75.2	314.5	33,300	33,300	79.0	311.3	28,200	28,200	110
120	73.3	310.9	31,400	31,400	77.1	307.6	26,700	26,700	120
130	71.4	306.9	29,700	29,700	75.1	303.6	25,300	25,300	130
140	69.4	302.5	28,000	28,000	73.2	299.1	24,100	24,100	140
150	67.5	297.6	26,500	26,500	71.2	294.2	22,800	22,800	150
160	65.5	292.4	25,100	25,100	69.1	288.9	21,700	21,700	160
170	63.4	286.6	23,700	23,700	67.0	283.1	20,600	20,600	170
180	61.3	280.4	22,500	22,500	64.9	276.8	19,700	19,700	180
190	59.2	273.7	21,300	21,300	62.7	269.9	18,700	18,700	190
200	57.0	266.3	20,200	20,200	60.5	262.5	17,900	17,900	200
210	54.7	258.4	19,300	19,300	58.2	254.5	17,100	17,100	210
220	52.3	249.8	18,300	18,300	55.8	245.7	16,300	16,300	220
230	49.9	240.4	17,400	17,400	53.3	236.2	15,700	15,700	230
240	47.4	230.2	16,600	16,600	50.7	225.8	15,000	15,000	240
250	44.7	219.0	15,800	15,800	48.0	214.3	14,400	14,400	250
260	41.9	206.7	15,100	15,100	45.1	201.7	13,800	13,800	260
270	38.8	193.0	14,400	14,400	42.0	187.6	13,400	13,400	270
280	35.6	177.6	13,800	13,800	38.6	171.6	12,900	12,900	280
290	31.9	159.9	13,200	13,200	34.9	153.3	12,500	12,500	290
300	27.8	139.1	12,600	12,600	30.5	131.3	12,200	12,200	300
310	22.9	113.2	12,300	12,300	25.2	103.3	12,000	12,000	310
320	16.1	76.6	12,000	12,000					320

MLC650 VPC-MAX S-3

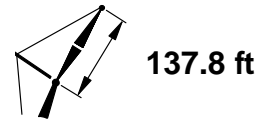
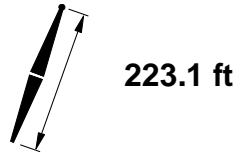
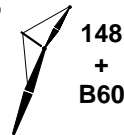
ASME B30.5



	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
75	82.2	344.5	41,100	41,100					75
80	81.3	343.4	40,100	40,100					80
85	80.5	342.3	39,000	39,000					85
90	79.6	341.0	38,000	38,000					90
95	78.7	339.7	37,000	37,000	82.3	336.4	31,000	31,000	95
100	77.8	338.3	36,100	36,100	81.4	335.0	30,300	30,300	100
105	77.0	336.8	35,100	35,100	80.5	333.5	29,500	29,500	105
110	76.1	335.2	34,200	34,200	79.7	331.9	28,700	28,700	110
120	74.3	331.8	32,400	32,400	77.9	328.5	27,300	27,300	120
130	72.5	328.1	30,700	30,700	76.0	324.7	26,000	26,000	130
140	70.7	323.9	29,100	29,100	74.2	320.5	24,700	24,700	140
150	68.9	319.5	27,600	27,600	72.4	316.0	23,500	23,500	150
160	67.0	314.6	26,100	26,100	70.5	311.0	22,400	22,400	160
170	65.1	309.3	24,800	24,800	68.5	305.6	21,400	21,400	170
180	63.2	303.5	23,600	23,600	66.6	299.8	20,400	20,400	180
190	61.2	297.3	22,400	22,400	64.6	293.5	19,500	19,500	190
200	59.2	290.6	21,400	21,400	62.5	286.8	18,700	18,700	200
210	57.1	283.4	20,300	20,300	60.4	279.4	17,800	17,800	210
220	55.0	275.6	19,400	19,400	58.3	271.5	17,100	17,100	220
230	52.8	267.2	18,400	18,400	56.0	262.9	16,400	16,400	230
240	50.5	258.1	17,600	17,600	53.7	253.7	15,800	15,800	240
250	48.2	248.2	16,800	16,800	51.3	243.6	15,100	15,100	250
260	45.7	237.4	16,100	16,100	48.8	232.6	14,600	14,600	260
270	43.1	225.7	15,400	15,400	46.2	220.6	14,100	14,100	270
280	40.4	212.8	14,700	14,700	43.4	207.4	13,600	13,600	280
290	37.4	198.4	14,100	14,100	40.3	192.6	13,200	13,200	290
300	34.3	182.3	13,600	13,600	37.1	176.0	12,700	12,700	300
310	30.7	163.9	13,000	13,000	33.4	156.8	12,400	12,400	310
320	26.7	142.2	12,600	12,600	29.1	133.8	12,100	12,100	320
330	21.9	115.2	12,200	12,200					330
340	15.2	76.8	11,900	11,900					340

MLC650 VPC-MAX S-3

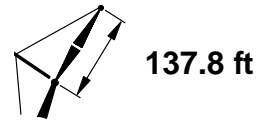
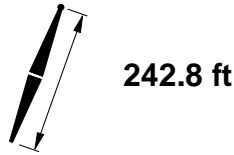
ASME B30.5



	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
75	82.6	364.6	41,500	41,500					75
80	81.8	363.5	40,500	40,500					80
85	81.0	362.4	39,500	39,500					85
90	80.2	361.3	38,600	38,600					90
95	79.4	360.0	37,600	37,600	82.7	356.6	31,400	31,400	95
100	78.5	358.7	36,700	36,700	81.9	355.3	30,600	30,600	100
105	77.7	357.3	35,800	35,800	81.1	353.9	29,900	29,900	105
110	76.9	355.8	34,900	34,900	80.2	352.4	29,200	29,200	110
120	75.2	352.6	33,200	33,200	78.6	349.1	27,800	27,800	120
130	73.5	349.1	31,500	31,500	76.9	345.6	26,500	26,500	130
140	71.8	345.2	30,000	30,000	75.1	341.7	25,300	25,300	140
150	70.1	341.0	28,500	28,500	73.4	337.4	24,200	24,200	150
160	68.4	336.5	27,100	27,100	71.6	332.8	23,100	23,100	160
170	66.6	331.5	25,800	25,800	69.9	327.8	22,100	22,100	170
180	64.8	326.2	24,600	24,600	68.0	322.4	21,100	21,100	180
190	63.0	320.4	23,500	23,500	66.2	316.6	20,200	20,200	190
200	61.1	314.2	22,400	22,400	64.3	310.3	19,400	19,400	200
210	59.2	307.6	21,400	21,400	62.4	303.6	18,600	18,600	210
220	57.2	300.4	20,400	20,400	60.4	296.3	17,800	17,800	220
230	55.2	292.8	19,400	19,400	58.4	288.5	17,100	17,100	230
240	53.2	284.5	18,600	18,600	56.3	280.1	16,500	16,500	240
250	51.1	275.6	17,800	17,800	54.1	271.1	15,800	15,800	250
260	48.9	266.0	17,100	17,100	51.9	261.3	15,300	15,300	260
270	46.6	255.6	16,300	16,300	49.5	250.8	14,700	14,700	270
280	44.2	244.4	15,700	15,700	47.1	239.3	14,200	14,200	280
290	41.7	232.1	15,000	15,000	44.5	226.7	13,700	13,700	290
300	39.0	218.6	14,400	14,400	41.8	212.9	13,300	13,300	300
310	36.2	203.7	13,900	13,900	38.9	197.5	13,000	13,000	310
320	33.1	186.9	13,300	13,300	35.6	180.1	12,600	12,600	320
330	29.6	167.8	12,900	12,900	32.1	160.1	12,300	12,300	330
340	25.7	145.2	12,500	12,500	27.9	136.2	12,100	12,100	340
350	21.0	117.1	12,100	12,100					350

MLC650 VPC-MAX S-3

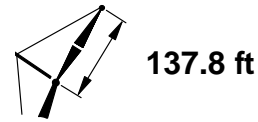
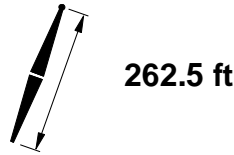
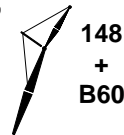
ASME B30.5



	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
75	83.0	384.6	41,800	41,800					75
80	82.2	383.6	40,900	40,900					80
85	81.5	382.5	40,000	40,000					85
90	80.7	381.4	39,100	39,100					90
95	79.9	380.3	38,200	38,200					95
100	79.1	379.0	37,300	37,300	82.3	375.5	31,000	31,000	100
105	78.4	377.7	36,400	36,400	81.6	374.2	30,200	30,200	105
110	77.6	376.3	35,600	35,600	80.8	372.7	29,600	29,600	110
120	76.0	373.3	33,900	33,900	79.2	369.7	28,300	28,300	120
130	74.4	369.9	32,300	32,300	77.6	366.3	27,000	27,000	130
140	72.8	366.3	30,800	30,800	76.0	362.7	25,900	25,900	140
150	71.2	362.4	29,400	29,400	74.3	358.7	24,700	24,700	150
160	69.6	358.1	28,100	28,100	72.7	354.3	23,700	23,700	160
170	67.9	353.4	26,800	26,800	71.0	349.7	22,700	22,700	170
180	66.2	348.5	25,500	25,500	69.3	344.6	21,800	21,800	180
190	64.5	343.1	24,400	24,400	67.6	339.2	20,900	20,900	190
200	62.8	337.3	23,300	23,300	65.8	333.4	20,000	20,000	200
210	61.0	331.2	22,300	22,300	64.0	327.1	19,300	19,300	210
220	59.2	324.6	21,300	21,300	62.2	320.4	18,500	18,500	220
230	57.4	317.5	20,400	20,400	60.3	313.2	17,800	17,800	230
240	55.5	309.9	19,600	19,600	58.4	305.6	17,100	17,100	240
250	53.5	301.8	18,800	18,800	56.4	297.3	16,600	16,600	250
260	51.5	293.1	18,000	18,000	54.4	288.5	16,000	16,000	260
270	49.5	283.7	17,300	17,300	52.3	279.0	15,400	15,400	270
280	47.4	273.7	16,600	16,600	50.2	268.7	14,800	14,800	280
290	45.1	262.8	15,900	15,900	47.9	257.7	14,400	14,400	290
300	42.8	251.1	15,300	15,300	45.5	245.6	13,900	13,900	300
310	40.4	238.3	14,700	14,700	43.0	232.5	13,500	13,500	310
320	37.8	224.2	14,200	14,200	40.4	218.1	13,100	13,100	320
330	35.0	208.7	13,700	13,700	37.5	202.1	12,800	12,800	330
340	32.0	191.3	13,200	13,200	34.4	184.1	12,400	12,400	340
350	28.6	171.5	12,700	12,700	30.8	163.3	12,200	12,200	350
360	24.8	148.1	12,400	12,400	26.8	138.4	12,000	12,000	360
370	20.2	118.9	12,100	12,100					370

MLC650 VPC-MAX S-3

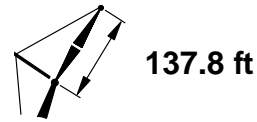
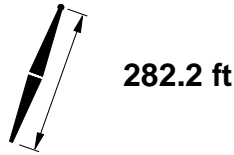
ASME B30.5



	10°				20°					
	ft	°	ft	lb	lb	ft	lb	lb		ft
80	82.6		403.6	41,200	41,200					80
85	81.9		402.6	40,400	40,400					85
90	81.2		401.6	39,500	39,500					90
95	80.4		400.4	38,700	38,700					95
100	79.7		399.3	37,800	37,800	82.7	395.7	31,300	31,300	100
105	78.9		398.0	37,000	37,000	82.0	394.4	30,600	30,600	105
110	78.2		396.7	36,200	36,200	81.2	393.1	29,900	29,900	110
120	76.7		393.8	34,600	34,600	79.7	390.2	28,700	28,700	120
130	75.2		390.7	33,000	33,000	78.2	387.0	27,500	27,500	130
140	73.7		387.3	31,600	31,600	76.7	383.5	26,300	26,300	140
150	72.2		383.5	30,200	30,200	75.2	379.8	25,300	25,300	150
160	70.6		379.5	28,900	28,900	73.6	375.7	24,300	24,300	160
170	69.1		375.1	27,600	27,600	72.0	371.3	23,300	23,300	170
180	67.5		370.4	26,400	26,400	70.4	366.5	22,400	22,400	180
190	65.9		365.4	25,300	25,300	68.8	361.4	21,500	21,500	190
200	64.3		360.0	24,200	24,200	67.2	356.0	20,700	20,700	200
210	62.6		354.2	23,200	23,200	65.5	350.2	19,900	19,900	210
220	60.9		348.1	22,300	22,300	63.8	343.9	19,200	19,200	220
230	59.2		341.5	21,300	21,300	62.1	337.3	18,400	18,400	230
240	57.5		334.5	20,500	20,500	60.3	330.2	17,800	17,800	240
250	55.7		327.0	19,600	19,600	58.5	322.6	17,100	17,100	250
260	53.9		319.0	18,800	18,800	56.6	314.5	16,600	16,600	260
270	52.0		310.5	18,200	18,200	54.7	305.8	16,000	16,000	270
280	50.0		301.3	17,400	17,400	52.7	296.5	15,500	15,500	280
290	48.0		291.6	16,800	16,800	50.7	286.6	15,000	15,000	290
300	46.0		281.1	16,100	16,100	48.6	275.9	14,600	14,600	300
310	43.8		269.7	15,500	15,500	46.4	264.3	14,100	14,100	310
320	41.5		257.5	15,000	15,000	44.1	251.8	13,700	13,700	320
330	39.2		244.2	14,400	14,400	41.6	238.2	13,300	13,300	330
340	36.6		229.7	13,900	13,900	39.0	223.2	13,000	13,000	340
350	33.9		213.6	13,500	13,500	36.2	206.6	12,600	12,600	350
360	31.0		195.6	13,000	13,000	33.2	187.9	12,400	12,400	360
370	27.7		175.0	12,600	12,600	29.7	166.3	12,200	12,200	370
380	24.0		150.8	12,300	12,300	25.7	140.5	12,000	12,000	380
390	19.4		120.5	12,100	12,100					390

MLC650 VPC-MAX S-3

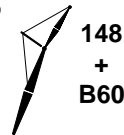
ASME B30.5



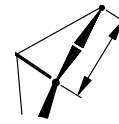
	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
80	83.0	423.6	41,500	41,500					80
85	82.3	422.7	40,700	40,700					85
90	81.6	421.7	39,900	39,900					90
95	80.9	420.6	39,100	39,100					95
100	80.2	419.5	38,200	38,200					100
105	79.5	418.3	37,500	37,500	82.4	414.6	30,900	30,900	105
110	78.8	417.0	36,700	36,700	81.7	413.3	30,200	30,200	110
120	77.4	414.3	35,200	35,200	80.2	410.6	29,000	29,000	120
130	75.9	411.3	33,700	33,700	78.8	407.6	27,900	27,900	130
140	74.5	408.1	32,300	32,300	77.4	404.3	26,800	26,800	140
150	73.1	404.5	31,000	31,000	75.9	400.7	25,800	25,800	150
160	71.6	400.7	29,700	29,700	74.4	396.8	24,800	24,800	160
170	70.1	396.6	28,400	28,400	72.9	392.7	23,800	23,800	170
180	68.6	392.2	27,300	27,300	71.4	388.2	23,000	23,000	180
190	67.1	387.4	26,100	26,100	69.9	383.4	22,000	22,000	190
200	65.6	382.4	25,100	25,100	68.4	378.3	21,200	21,200	200
210	64.0	376.9	24,100	24,100	66.8	372.8	20,500	20,500	210
220	62.5	371.2	23,100	23,100	65.2	367.0	19,800	19,800	220
230	60.9	365.0	22,200	22,200	63.6	360.8	19,000	19,000	230
240	59.2	358.5	21,300	21,300	61.9	354.1	18,400	18,400	240
250	57.6	351.5	20,500	20,500	60.2	347.1	17,800	17,800	250
260	55.9	344.1	19,700	19,700	58.5	339.6	17,200	17,200	260
270	54.1	336.2	19,000	19,000	56.8	331.6	16,600	16,600	270
280	52.4	327.8	18,300	18,300	55.0	323.1	16,100	16,100	280
290	50.5	318.9	17,600	17,600	53.1	314.0	15,600	15,600	290
300	48.6	309.4	17,000	17,000	51.2	304.3	15,100	15,100	300
310	46.7	299.2	16,300	16,300	49.2	293.9	14,700	14,700	310
320	44.7	288.2	15,800	15,800	47.1	282.8	14,200	14,200	320
330	42.6	276.5	15,200	15,200	45.0	270.8	13,800	13,800	330
340	40.4	263.8	14,700	14,700	42.7	257.8	13,500	13,500	340
350	38.0	250.0	14,300	14,300	40.4	243.6	13,200	13,200	350
360	35.6	234.9	13,800	13,800	37.8	228.1	12,800	12,800	360
370	32.9	218.3	13,300	13,300	35.1	210.9	12,500	12,500	370
380	30.0	199.6	12,900	12,900	32.1	191.5	12,300	12,300	380
390	26.8	178.4	12,600	12,600	28.7	169.2	12,100	12,100	390
400	23.2	153.3	12,200	12,200	24.8	142.4	12,000	12,000	400
410	18.7	121.9	12,000	12,000					410

MLC650 VPC-MAX S-3

ASME B30.5



301.8 ft

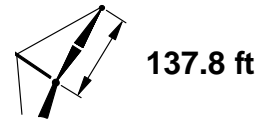
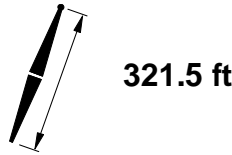


137.8 ft

	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
85	82.6	442.7	40,900	40,900					85
90	82.0	441.7	40,100	40,100					90
95	81.3	440.7	39,400	39,400					95
100	80.6	439.6	38,600	38,600					100
105	80.0	438.5	37,900	37,900	82.7	434.7	31,100	31,100	105
110	79.3	437.3	37,100	37,100	82.1	433.5	30,500	30,500	110
120	77.9	434.7	35,700	35,700	80.7	430.9	29,300	29,300	120
130	76.6	431.9	34,300	34,300	79.3	428.0	28,300	28,300	130
140	75.2	428.8	32,900	32,900	78.0	424.9	27,200	27,200	140
150	73.9	425.4	31,600	31,600	76.6	421.5	26,200	26,200	150
160	72.5	421.8	30,300	30,300	75.2	417.9	25,200	25,200	160
170	71.1	417.9	29,200	29,200	73.8	413.9	24,300	24,300	170
180	69.7	413.7	28,000	28,000	72.3	409.7	23,400	23,400	180
190	68.2	409.2	26,900	26,900	70.9	405.1	22,600	22,600	190
200	66.8	404.4	25,900	25,900	69.4	400.3	21,800	21,800	200
210	65.3	399.3	24,900	24,900	68.0	395.1	21,000	21,000	210
220	63.8	393.9	23,900	23,900	66.5	389.6	20,300	20,300	220
230	62.3	388.1	23,000	23,000	64.9	383.8	19,600	19,600	230
240	60.8	381.9	22,200	22,200	63.4	377.6	19,000	19,000	240
250	59.2	375.4	21,300	21,300	61.8	371.0	18,400	18,400	250
260	57.7	368.5	20,600	20,600	60.2	364.0	17,800	17,800	260
270	56.1	361.2	19,900	19,900	58.6	356.6	17,200	17,200	270
280	54.4	353.4	19,100	19,100	56.9	348.7	16,700	16,700	280
290	52.7	345.2	18,400	18,400	55.2	340.3	16,200	16,200	290
300	51.0	336.4	17,800	17,800	53.4	331.4	15,700	15,700	300
310	49.2	327.1	17,200	17,200	51.6	321.9	15,200	15,200	310
320	47.4	317.1	16,600	16,600	49.7	311.8	14,800	14,800	320
330	45.5	306.5	16,000	16,000	47.8	301.0	14,300	14,300	330
340	43.5	295.1	15,500	15,500	45.8	289.4	14,000	14,000	340
350	41.4	283.0	15,000	15,000	43.7	277.0	13,600	13,600	350
360	39.3	269.8	14,500	14,500	41.5	263.5	13,300	13,300	360
370	37.0	255.5	14,000	14,000	39.2	248.9	13,000	13,000	370
380	34.6	240.0	13,600	13,600	36.7	232.9	12,700	12,700	380
390	32.0	222.8	13,200	13,200	34.0	215.1	12,400	12,400	390
400	29.2	203.6	12,800	12,800	31.1	195.1	12,200	12,200	400
410	26.0	181.6	12,500	12,500	27.8	172.0	12,100	12,100	410
420	22.4	155.8	12,200	12,200					420
430	18.0	123.3	12,000	12,000					430

MLC650 VPC-MAX S-3

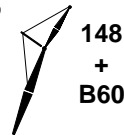
ASME B30.5



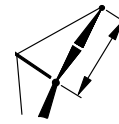
	10°				20°				
	ft	°	ft	lb	ft	°	ft	lb	
85	82.9	462.6	41,100	41,100					85
90	82.3	461.7	40,400	40,400					90
95	81.7	460.8	39,700	39,700					95
100	81.0	459.7	38,900	38,900					100
105	80.4	458.6	38,200	38,200					105
110	79.8	457.5	37,500	37,500	82.4	453.6	30,800	30,800	110
120	78.5	455.0	36,100	36,100	81.1	451.2	29,600	29,600	120
130	77.2	452.3	34,800	34,800	79.8	448.4	28,600	28,600	130
140	75.9	449.4	33,500	33,500	78.5	445.5	27,600	27,600	140
150	74.6	446.2	32,200	32,200	77.2	442.2	26,600	26,600	150
160	73.3	442.7	31,000	31,000	75.8	438.7	25,700	25,700	160
170	71.9	439.0	29,900	29,900	74.5	435.0	24,800	24,800	170
180	70.6	435.0	28,800	28,800	73.1	431.0	23,900	23,900	180
190	69.2	430.8	27,600	27,600	71.8	426.7	23,100	23,100	190
200	67.9	426.2	26,600	26,600	70.4	422.1	22,300	22,300	200
210	66.5	421.4	25,700	25,700	69.0	417.2	21,600	21,600	210
220	65.1	416.2	24,700	24,700	67.6	412.0	20,800	20,800	220
230	63.6	410.8	23,800	23,800	66.1	406.5	20,200	20,200	230
240	62.2	405.0	22,900	22,900	64.7	400.6	19,600	19,600	240
250	60.7	398.9	22,200	22,200	63.2	394.4	18,900	18,900	250
260	59.3	392.4	21,400	21,400	61.7	387.9	18,400	18,400	260
270	57.7	385.5	20,600	20,600	60.2	380.9	17,800	17,800	270
280	56.2	378.3	19,900	19,900	58.6	373.6	17,200	17,200	280
290	54.6	370.6	19,200	19,200	57.0	365.8	16,700	16,700	290
300	53.0	362.4	18,600	18,600	55.4	357.5	16,200	16,200	300
310	51.4	353.8	17,900	17,900	53.7	348.8	15,700	15,700	310
320	49.7	344.7	17,300	17,300	52.0	339.5	15,300	15,300	320
330	47.9	335.0	16,800	16,800	50.2	329.6	14,900	14,900	330
340	46.2	324.6	16,200	16,200	48.4	319.1	14,500	14,500	340
350	44.3	313.6	15,700	15,700	46.5	307.9	14,100	14,100	350
360	42.4	301.9	15,200	15,200	44.6	295.9	13,700	13,700	360
370	40.4	289.3	14,700	14,700	42.5	283.0	13,500	13,500	370
380	38.3	275.7	14,300	14,300	40.4	269.1	13,200	13,200	380
390	36.0	260.9	13,900	13,900	38.1	254.0	12,900	12,900	390
400	33.7	244.9	13,500	13,500	35.6	237.4	12,600	12,600	400
410	31.1	227.2	13,100	13,100	33.0	219.1	12,400	12,400	410
420	28.4	207.4	11,500	12,700	30.1	198.4	12,200	12,200	420
430	25.3	184.7	8,400	12,500	26.9	174.6	9,700	12,000	430
440	21.7	158.1		12,200					440
450	17.4	124.5		12,000					450

MLC650 VPC-MAX S-3

ASME B30.5



341.2 ft

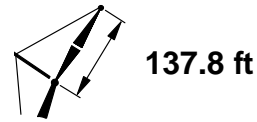
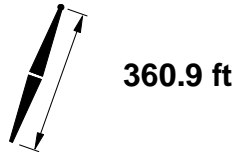


137.8 ft

ft	10°				20°				ft
	ft	°	ft	lb	lb	ft	lb	lb	
90	82.6	481.7	40,500	40,500					90
95	82.0	480.8	39,900	39,900					95
100	81.4	479.8	39,200	39,200					100
105	80.8	478.8	38,500	38,500					105
110	80.2	477.7	37,900	37,900	82.7	473.8	30,900	30,900	110
120	79.0	475.3	36,500	36,500	81.5	471.4	29,900	29,900	120
130	77.7	472.7	35,200	35,200	80.2	468.8	28,900	28,900	130
140	76.5	469.9	34,000	34,000	79.0	465.9	27,900	27,900	140
150	75.2	466.8	32,800	32,800	77.7	462.8	27,000	27,000	150
160	74.0	463.6	31,600	31,600	76.5	459.5	26,000	26,000	160
170	72.7	460.0	30,500	30,500	75.2	455.9	25,200	25,200	170
180	71.4	456.2	29,400	29,400	73.9	452.1	24,400	24,400	180
190	70.1	452.2	28,300	28,300	72.6	448.0	23,600	23,600	190
200	68.8	447.8	27,300	27,300	71.3	443.7	22,700	22,700	200
210	67.5	443.2	26,400	26,400	69.9	439.0	22,100	22,100	210
220	66.2	438.4	25,500	25,500	68.6	434.1	21,300	21,300	220
230	64.8	433.2	24,600	24,600	67.2	428.9	20,700	20,700	230
240	63.5	427.7	23,700	23,700	65.9	423.3	20,100	20,100	240
250	62.1	421.9	22,900	22,900	64.5	417.5	19,500	19,500	250
260	60.7	415.8	22,200	22,200	63.0	411.3	18,900	18,900	260
270	59.3	409.4	21,400	21,400	61.6	404.8	18,300	18,300	270
280	57.8	402.5	20,700	20,700	60.1	397.9	17,700	17,700	280
290	56.3	395.3	20,000	20,000	58.7	390.6	17,200	17,200	290
300	54.8	387.7	19,300	19,300	57.1	382.9	16,800	16,800	300
310	53.3	379.7	18,700	18,700	55.6	374.7	16,300	16,300	310
320	51.7	371.2	18,100	18,100	54.0	366.1	15,900	15,900	320
330	50.1	362.2	17,500	17,500	52.4	357.0	15,400	15,400	330
340	48.5	352.7	17,000	17,000	50.7	347.4	15,000	15,000	340
350	46.8	342.7	16,500	16,500	49.0	337.1	14,600	14,600	350
360	45.0	332.0	15,900	15,900	47.2	326.2	14,300	14,300	360
370	43.2	320.6	15,400	15,400	45.3	314.6	13,900	13,900	370
380	41.3	308.4	15,000	15,000	43.4	302.2	13,600	13,600	380
390	39.4	295.4	14,500	14,500	41.4	288.9	13,300	13,300	390
400	37.3	281.4	14,200	14,200	39.3	274.5	13,000	13,000	400
410	35.1	266.2	13,700	13,700	37.1	259.0	12,800	12,800	410
420	32.8	249.6	13,000	13,300	34.7	241.9	12,500	12,500	420
430	30.3	231.4	9,900	13,000	32.1	223.0	11,700	12,300	430
440	27.6	211.0	6,800	12,600	29.3	201.7	8,400	12,100	440
450	24.6	187.7		12,400	26.1	177.2		12,000	450
460	21.1	160.3		12,100					460
470	16.8	125.6		12,000					470

MLC650 VPC-MAX S-3

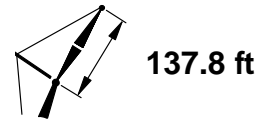
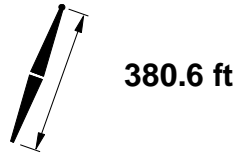
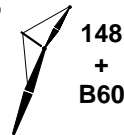
ASME B30.5



	10°				20°				
	ft	°	ft	lb	ft	°	ft	lb	
90	82.9	501.7	40,600	40,600					90
95	82.3	500.8	40,000	40,000					95
100	81.8	499.8	39,300	39,300					100
105	81.2	498.9	38,600	38,600					105
110	80.6	497.8	38,000	38,000					110
120	79.4	495.5	36,800	36,800	81.8	491.5	30,100	30,100	120
130	78.2	493.1	35,600	35,600	80.6	489.1	29,100	29,100	130
140	77.0	490.4	34,300	34,300	79.4	486.3	28,200	28,200	140
150	75.8	487.4	33,200	33,200	78.2	483.4	27,200	27,200	150
160	74.6	484.3	32,000	32,000	77.0	480.2	26,300	26,300	160
170	73.4	480.9	30,900	30,900	75.8	476.8	25,500	25,500	170
180	72.2	477.3	29,900	29,900	74.6	473.1	24,700	24,700	180
190	71.0	473.4	28,900	28,900	73.3	469.2	23,900	23,900	190
200	69.7	469.3	27,900	27,900	72.1	465.1	23,100	23,100	200
210	68.5	464.9	26,900	26,900	70.8	460.6	22,500	22,500	210
220	67.2	460.3	26,000	26,000	69.5	456.0	21,800	21,800	220
230	65.9	455.3	25,100	25,100	68.2	451.0	21,100	21,100	230
240	64.6	450.1	24,300	24,300	66.9	445.7	20,500	20,500	240
250	63.3	444.7	23,500	23,500	65.6	440.2	19,900	19,900	250
260	62.0	438.9	22,700	22,700	64.3	434.3	19,300	19,300	260
270	60.6	432.8	21,900	21,900	62.9	428.2	18,800	18,800	270
280	59.3	426.3	21,300	21,300	61.5	421.7	18,200	18,200	280
290	57.9	419.5	20,600	20,600	60.1	414.8	17,700	17,700	290
300	56.5	412.4	19,900	19,900	58.7	407.6	17,200	17,200	300
310	55.0	404.9	19,300	19,300	57.2	399.9	16,800	16,800	310
320	53.6	396.9	18,700	18,700	55.7	391.9	16,300	16,300	320
330	52.1	388.6	18,200	18,200	54.2	383.4	15,900	15,900	330
340	50.5	379.7	17,600	17,600	52.7	374.5	15,400	15,400	340
350	49.0	370.4	17,100	17,100	51.1	365.0	15,100	15,100	350
360	47.4	360.6	16,600	16,600	49.4	355.0	14,700	14,700	360
370	45.7	350.1	16,100	16,100	47.8	344.4	14,300	14,300	370
380	44.0	339.1	15,500	15,500	46.0	333.1	14,000	14,000	380
390	42.2	327.3	15,100	15,100	44.2	321.2	13,700	13,700	390
400	40.4	314.7	14,700	14,700	42.3	308.3	13,400	13,400	400
410	38.4	301.3	11,300	14,300	40.4	294.6	13,100	13,100	410
420	36.4	286.9	8,100	13,900	38.3	279.8	10,600	12,900	420
430	34.3	271.3		13,600	36.1	263.8	7,300	12,600	430
440	32.0	254.2		13,200	33.8	246.2		12,500	440
450	29.6	235.5		12,900	31.2	226.7		12,200	450
460	26.9	214.5		12,600	28.4	204.9		12,100	460
470	23.9	190.6		12,300	25.3	179.6		12,000	470
480	20.5	162.3		12,100					480
490	16.2	126.6		11,900					490

MLC650 VPC-MAX S-3

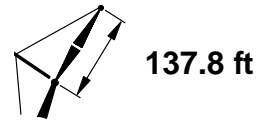
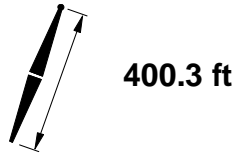
ASME B30.5



	10°				20°				
	ft	°	ft	lb	lb	ft	lb	lb	
95	82.6	520.8	39,900	39,900					95
100	82.1	519.9	39,300	39,300					100
105	81.5	518.9	38,700	38,700					105
110	80.9	517.9	38,200	38,200					110
120	79.8	515.7	37,000	37,000	82.2	511.7	30,200	30,200	120
130	78.7	513.3	35,800	35,800	81.0	509.3	29,300	29,300	130
140	77.5	510.8	34,600	34,600	79.9	506.7	28,400	28,400	140
150	76.4	508.0	33,600	33,600	78.7	503.8	27,500	27,500	150
160	75.2	504.9	32,400	32,400	77.5	500.8	26,600	26,600	160
170	74.1	501.7	31,300	31,300	76.4	497.5	25,800	25,800	170
180	72.9	498.2	30,300	30,300	75.2	494.0	25,000	25,000	180
190	71.7	494.5	29,300	29,300	74.0	490.3	24,300	24,300	190
200	70.5	490.6	28,400	28,400	72.8	486.3	23,500	23,500	200
210	69.3	486.4	27,400	27,400	71.6	482.1	22,800	22,800	210
220	68.1	482.0	26,600	26,600	70.4	477.6	22,200	22,200	220
230	66.9	477.3	25,700	25,700	69.1	472.9	21,500	21,500	230
240	65.7	472.3	24,900	24,900	67.9	467.9	20,900	20,900	240
250	64.4	467.1	24,000	24,000	66.6	462.6	20,300	20,300	250
260	63.2	461.6	23,300	23,300	65.4	457.1	19,700	19,700	260
270	61.9	455.8	22,600	22,600	64.1	451.2	19,200	19,200	270
280	60.6	449.7	21,800	21,800	62.8	445.0	18,600	18,600	280
290	59.3	443.3	21,200	21,200	61.4	438.6	18,100	18,100	290
300	58.0	436.5	20,500	20,500	60.1	431.7	17,600	17,600	300
310	56.6	429.4	19,900	19,900	58.7	424.5	17,200	17,200	310
320	55.2	422.0	19,300	19,300	57.3	417.0	16,700	16,700	320
330	53.8	414.1	18,700	18,700	55.9	409.1	16,300	16,300	330
340	52.4	405.9	18,200	18,200	54.4	400.7	15,900	15,900	340
350	50.9	397.2	17,600	17,600	53.0	391.9	15,500	15,500	350
360	49.4	388.0	17,100	17,100	51.4	382.6	15,100	15,100	360
370	47.9	378.4	16,600	16,600	49.9	372.8	14,800	14,800	370
380	46.3	368.2	16,200	16,200	48.3	362.5	14,400	14,400	380
390	44.7	357.4	15,800	15,800	46.6	351.5	14,100	14,100	390
400	43.0	346.0	13,800	15,300	44.9	339.9	13,800	13,800	400
410	41.3	333.9	10,400	14,900	43.2	327.5	13,500	13,500	410
420	39.5	320.9	7,300	14,500	41.3	314.3	10,100	13,200	420
430	37.6	307.1		14,100	39.4	300.2	6,800	13,000	430
440	35.6	292.2		13,800	37.3	284.9		12,700	440
450	33.5	276.2		13,400	35.2	268.4		12,500	450
460	31.3	258.7		13,100	32.9	250.4		12,300	460
470	28.9	239.4		12,800	30.4	230.4		12,200	470
480	26.3	217.9		12,500	27.7	207.9		12,100	480
490	23.3	193.4		12,300	24.6	181.9		12,000	490
500	19.9	164.3		12,100					500
510	15.7	127.4		11,900					510

MLC650 VPC-MAX S-3

ASME B30.5



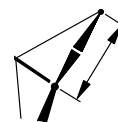
	10°				20°				
	ft	°	ft	lb	ft	°	ft	lb	
95	82.9	540.7	40,000	40,000					95
100	82.4	539.9	39,400	39,400					100
105	81.8	538.9	38,800	38,800					105
110	81.3	538.0	38,200	38,200					110
120	80.2	535.9	37,100	37,100	82.5	531.8	30,400	30,400	120
130	79.1	533.6	36,000	36,000	81.4	529.5	29,500	29,500	130
140	78.0	531.1	34,900	34,900	80.2	527.0	28,600	28,600	140
150	76.9	528.4	33,800	33,800	79.1	524.3	27,700	27,700	150
160	75.8	525.5	32,800	32,800	78.0	521.3	26,900	26,900	160
170	74.7	522.4	31,800	31,800	76.9	518.2	26,100	26,100	170
180	73.6	519.1	30,800	30,800	75.8	514.8	25,300	25,300	180
190	72.4	515.5	29,800	29,800	74.6	511.2	24,600	24,600	190
200	71.3	511.7	28,900	28,900	73.5	507.4	23,900	23,900	200
210	70.1	507.7	28,000	28,000	72.3	503.4	23,200	23,200	210
220	69.0	503.5	27,100	27,100	71.2	499.1	22,600	22,600	220
230	67.8	499.0	26,300	26,300	70.0	494.6	21,900	21,900	230
240	66.6	494.3	25,500	25,500	68.8	489.8	21,300	21,300	240
250	65.5	489.3	24,700	24,700	67.6	484.8	20,700	20,700	250
260	64.3	484.0	23,900	23,900	66.4	479.5	20,200	20,200	260
270	63.0	478.5	23,200	23,200	65.1	473.9	19,600	19,600	270
280	61.8	472.7	22,500	22,500	63.9	468.1	19,100	19,100	280
290	60.6	466.6	21,800	21,800	62.6	461.9	18,600	18,600	290
300	59.3	460.2	21,200	21,200	61.4	455.5	18,100	18,100	300
310	58.0	453.5	20,500	20,500	60.1	448.7	17,600	17,600	310
320	56.7	446.5	20,000	20,000	58.7	441.5	17,100	17,100	320
330	55.4	439.1	19,400	19,400	57.4	434.0	16,800	16,800	330
340	54.0	431.3	18,800	18,800	56.0	426.2	16,300	16,300	340
350	52.7	423.2	18,300	18,300	54.7	417.9	16,000	16,000	350
360	51.3	414.6	17,800	17,800	53.2	409.3	15,500	15,500	360
370	49.8	405.6	17,300	17,300	51.8	400.1	15,200	15,200	370
380	48.4	396.1	16,000	16,800	50.3	390.5	14,800	14,800	380
390	46.9	386.1	12,300	16,300	48.8	380.4	14,600	14,600	390
400	45.3	375.6	8,800	15,900	47.2	369.7	12,500	14,200	400
410	43.7	364.5		15,500	45.6	358.4	8,900	13,900	410
420	42.1	352.7		15,100	43.9	346.4		13,600	420
430	40.4	340.2		14,700	42.2	333.7		13,400	430
440	38.6	326.9		14,300	40.4	320.1		13,100	440
450	36.7	312.7		13,900	38.5	305.6		12,900	450
460	34.8	297.5		13,600	36.5	289.9		12,600	460
470	32.8	281.0		13,300	34.4	273.0		12,500	470
480	30.6	263.0		13,000	32.1	254.4		12,300	480
490	28.2	243.3		12,700	29.6	233.9		12,100	490
500	25.6	221.2		12,500	26.9	210.8		12,100	500
510	22.7	196.0		12,300					510
520	19.4	166.2		12,000					520
530	15.2	128.2		11,900					530

MLC650 VPC-MAX S-3

ASME B30.5



419.9 ft

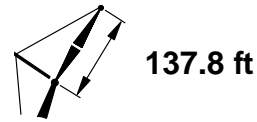
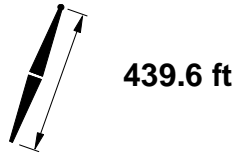


137.8 ft

	10°				20°					
	ft	°	ft	lb	lb	ft	lb	lb		ft
100	82.6		559.8	39,300	39,300					100
105	82.1		558.9	38,700	38,700					105
110	81.6		558.0	38,200	38,200					110
120	80.5		556.0	37,200	37,200					120
130	79.5		553.8	36,100	36,100	82.7	551.9	30,400	30,400	130
140	78.4		551.4	35,100	35,100	81.7	549.6	29,600	29,600	140
150	77.4		548.8	34,100	34,100	80.6	547.2	28,700	28,700	150
160	76.3		546.0	33,100	33,100	79.5	544.6	27,900	27,900	160
170	75.2		543.0	32,100	32,100	78.5	541.8	27,100	27,100	170
180	74.2		539.8	31,100	31,100	77.4	538.8	26,300	26,300	180
190	73.1		536.4	30,200	30,200	76.3	535.5	25,600	25,600	190
200	72.0		532.8	29,300	29,300	75.2	532.1	24,900	24,900	200
210	70.9		528.9	28,500	28,500	74.1	528.5	24,200	24,200	210
220	69.8		524.9	27,600	27,600	73.0	524.6	23,500	23,500	220
230	68.7		520.6	26,700	26,700	71.9	520.5	22,900	22,900	230
240	67.5		516.1	26,000	26,000	70.7	516.2	22,300	22,300	240
250	66.4		511.3	25,200	25,200	69.6	511.6	21,700	21,700	250
260	65.2		506.3	24,500	24,500	68.5	506.8	21,100	21,100	260
270	64.1		501.0	23,800	23,800	67.3	501.7	20,500	20,500	270
280	62.9		495.5	23,000	23,000	66.1	496.4	20,000	20,000	280
290	61.7		489.7	22,400	22,400	64.9	490.8	19,500	19,500	290
300	60.5		483.6	21,800	21,800	63.7	485.0	19,000	19,000	300
310	59.3		477.2	21,100	21,100	62.5	478.8	18,500	18,500	310
320	58.1		470.5	20,500	20,500	61.3	472.4	18,000	18,000	320
330	56.8		463.5	20,000	20,000	60.0	465.6	17,600	17,600	330
340	55.5		456.2	19,400	19,400	58.8	458.5	17,100	17,100	340
350	54.2		448.5	18,900	18,900	57.5	451.1	16,800	16,800	350
360	52.9		440.4	18,400	18,400	56.2	443.3	16,300	16,300	360
370	51.6		432.0	17,800	17,800	54.8	435.2	16,000	16,000	370
380	50.2		423.1	14,600	17,400	53.5	426.6	15,700	15,700	380
390	48.8		413.8	11,000	16,900	52.1	417.6	15,300	15,300	390
400	47.4		404.0	7,500	16,400	50.7	408.2	15,000	15,000	400
410	45.9		393.7		16,100	49.2	398.3	11,400	14,600	410
420	44.4		382.9		15,600	47.7	387.8	7,800	14,300	420
430	42.8		371.4		15,200	46.2	376.8		14,100	430
440	41.2		359.3		14,900	44.6	365.1		13,700	440
450	39.5		346.5		14,500	42.9	352.8		13,500	450
460	37.8		332.8		14,100	41.2	339.7		13,200	460
470	36.0		318.2		13,800	39.5	325.8		13,000	470
480	34.1		302.6		13,500	37.6	310.8		12,800	480
490	32.0		285.7		13,200	35.6	294.8		12,600	490
500	29.9		267.3		12,900	33.6	277.4		12,400	500
510	27.6		247.0		12,700	31.3	258.4		12,300	510
520	25.0		224.4		12,400	28.9	237.3		12,100	520
530	22.2		198.5		12,200	26.3	213.6		12,000	530
540	18.9		167.9		12,000					540

MLC650 VPC-MAX S-3

ASME B30.5



	10°				20°					
	ft	°	ft	lb	lb	ft	lb	lb		ft
100	82.9		579.8	39,100	39,100					100
105	82.4		578.9	38,600	38,600					105
110	81.9		578.0	38,100	38,100					110
120	80.9		576.1	37,200	37,200	83.0	571.9	30,400	30,400	120
130	79.9		573.9	36,200	36,200	82.0	569.8	29,600	29,600	130
140	78.8		571.6	35,200	35,200	80.9	567.4	28,800	28,800	140
150	77.8		569.1	34,200	34,200	79.9	564.9	28,000	28,000	150
160	76.8		566.4	33,300	33,300	78.9	562.2	27,300	27,300	160
170	75.8		563.6	32,400	32,400	77.8	559.3	26,500	26,500	170
180	74.7		560.5	31,500	31,500	76.8	556.2	25,800	25,800	180
190	73.7		557.2	30,500	30,500	75.7	552.9	25,100	25,100	190
200	72.6		553.7	29,600	29,600	74.7	549.4	24,500	24,500	200
210	71.6		550.0	28,800	28,800	73.6	545.6	23,800	23,800	210
220	70.5		546.1	28,000	28,000	72.5	541.7	23,200	23,200	220
230	69.4		542.0	27,200	27,200	71.4	537.6	22,600	22,600	230
240	68.4		537.7	26,400	26,400	70.4	533.2	22,000	22,000	240
250	67.3		533.1	25,700	25,700	69.3	528.6	21,500	21,500	250
260	66.2		528.3	25,000	25,000	68.1	523.7	20,800	20,800	260
270	65.0		523.2	24,300	24,300	67.0	518.6	20,300	20,300	270
280	63.9		518.0	23,600	23,600	65.9	513.3	19,800	19,800	280
290	62.8		512.4	22,900	22,900	64.7	507.7	19,400	19,400	290
300	61.6		506.6	22,300	22,300	63.6	501.8	18,900	18,900	300
310	60.5		500.5	21,700	21,700	62.4	495.7	18,400	18,400	310
320	59.3		494.2	21,000	21,000	61.2	489.3	18,000	18,000	320
330	58.1		487.5	20,500	20,500	60.0	482.5	17,600	17,600	330
340	56.9		480.5	20,000	20,000	58.8	475.5	17,100	17,100	340
350	55.7		473.2	19,400	19,400	57.6	468.1	16,800	16,800	350
360	54.4		465.6	17,600	18,900	56.3	460.4	16,400	16,400	360
370	53.2		457.6	13,500	18,400	55.0	452.4	16,000	16,000	370
380	51.9		449.3	9,700	18,000	53.7	443.9	14,400	15,700	380
390	50.5		440.6		17,400	52.4	435.1	10,500	15,400	390
400	49.2		431.4		17,000	51.0	425.8	6,800	15,000	400
410	47.8		421.8		16,600	49.6	416.0		14,700	410
420	46.4		411.7		16,200	48.2	405.8		14,400	420
430	45.0		401.1		15,800	46.7	395.0		14,100	430
440	43.5		389.9		15,400	45.2	383.7		13,800	440
450	42.0		378.2		15,000	43.6	371.7		13,600	450
460	40.4		365.7		14,700	42.0	359.1		13,300	460
470	38.7		352.6		14,300	40.4	345.6		13,100	470
480	37.0		338.5		14,000	38.6	331.3		12,900	480
490	35.2		323.6		13,700	36.8	316.0		12,700	490
500	33.4		307.5		13,400	34.9	299.5		12,500	500
510	31.4		290.2		13,100	32.8	281.7		12,300	510
520	29.3		271.4		12,900	30.6	262.2		12,200	520
530	27.0		250.6		12,600	28.2	240.6		12,100	530
540	24.5		227.5		12,400	25.6	216.3		12,000	540
550	21.7		201.0		12,100					550
560	18.4		169.6		12,000					560