

# Liftcrane Boom


## Extended Upper Point Capacities

Boom No. B80:680-681-682

with Mast No. M10:684 or Mast No. M11:684 and  
24.9 ft Extended Upper Boom Point

661,300 lb VPC (Variable Position Counterweight)  
360 Degree Rating


# MLC650 VPC-MAX SERIES 2


 **LIFTING CAPACITIES:** Lifting capacities for various boom lengths and operating radii are for freely suspended loads and may be based on percent of static tipping or strength of structural components. Capacities shown are for boom point or extended upper boom point and their respective operating radii. Capacities must be reduced by applicable deducts.


Weight of all load blocks, hooks, weight ball, slings, hoist lines, etc., beneath sheaves is considered part of load. Boom is 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.


**OPERATING CONDITIONS:** Machine to operate on a firm, level, and uniformly supporting surface. Refer to Boom Rigging No. 81022864, Mast Rigging No. 81025005 or No. 84050187, Wire Rope Specification chart No. 9467-A, Counterweight Arrangement chart No. 9349-A, and Wind Conditions chart No. 9466-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.

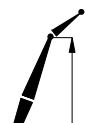
**MACHINE TRAVEL:** Machine to travel on a firm, level, and uniformly supporting surface. Boom must be within boom angle range shown in capacity chart. Refer to Maximum Allowable Travel Specification chart No. 9465-A.

 **EXTENDED UPPER BOOM POINT OPERATING RADIUS:** Extended upper boom point operating radius is horizontal distance from axis of rotation to center of vertical hoist line or load block.

 **BOOM POINT OPERATING RADIUS:** Boom point operating radius is horizontal distance from axis of rotation to center of vertical hoist line or load block on boom point.

 **BOOM ANGLE:** Boom angle in degrees ( $^{\circ}$ ) 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.

 **EXTENDED UPPER BOOM POINT ELEVATION:** Extended upper boom point elevation is vertical distance from ground level to centerline of extended upper boom point shaft.

 **BOOM POINT ELEVATION:** Boom point elevation is vertical distance from ground level to centerline of boom 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 661,300 lb VPC.

<b>Luffing Jib Backstay Deduct</b>	
Boom Length (ft)	Deduct (lb)
301.8	13,440
321.5	13,440
341.2	13,440
360.9	17,220
370.7	17,220
380.6	17,220

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

<b>Upper Boom Point (upper sheave) Capacity for Liftcrane Service - Whip Line</b>	
Drum 1 or 3	
1 Part	2 Parts
30,000 lb	60,000 lb

In all cases upper boom point (upper sheave) capacities cannot exceed those listed for extended upper boom point.

<b>Boom Point Capacity for Liftcrane Service - Whip Line</b>	
Drum 1	Drum 3
1 Part	
48,800 lb	30,000 lb
2 Parts	
97,600 lb	60,000 lb
3 Parts	
146,400 lb	90,000 lb
4 Parts	
195,200 lb	120,000 lb

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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 balls, slings, and hoist lines beneath sheaves. For block weights shown with #, load blocks, hooks, weight balls, 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 length. Counterweight position selection may be changed with boom on ground or while boom is within operating range of capacity chart.

Combined weight beneath sheaves must not exceed block weight shown.

**Table 1a: With Luffing Jib Backstays**

Over End or Side of Crawlers		
Boom Length (ft)	38.7 ft Counterweight Position	60.0 ft Counterweight Position
	Block Weight (lb)	
301.8	21,500	21,500
321.5	21,500	21,500
341.2	21,500	21,500
360.9	9,400	21,500
370.7	#	21,500
380.6	#	21,500
390.4 - 498.7	<b>Raising Not Permitted</b>	

**Table 1b: With Luffing Jib Backstays**

Over End of Blocked Crawlers		
Boom Length (ft)	38.7 ft Counterweight Position	60.0 ft Counterweight Position
	Block Weight (lb)	
301.8	21,500	21,500
321.5	21,500	21,500
341.2	21,500	21,500
360.9	9,400	21,500
370.7	#	21,500
380.6	#	21,500
390.4 - 498.7	<b>Raising Not Permitted</b>	
<b>Warning:</b> Crane must remain in-line with crawlers when raising over end of blocked crawlers until operating radius and crane configuration is within 360 degree chart. <i>Crane tipping or structural damage can occur.</i>		

Table 2a: Without Luffing Jib Backstays

Over End or Side of Crawlers		
Boom Length (ft)	38.7 ft Counterweight Position	60.0 ft Counterweight Position
	Block Weight (lb)	
301.8	21,500	21,500
321.5	21,500	21,500
341.2	21,500	21,500
360.9	17,500	21,500
370.7	9,400	21,500
380.6	#	21,500
390.4	#	21,500
400.3	#	21,500
410.1	<b>Raising Not Permitted</b>	21,500
419.9		21,500
429.8		21,500
439.6		17,500
449.5		9,400
459.3		#
469.2		#
479.0		#
488.8		#
498.7		#

Table 2b: Without Luffing Jib Backstays

Over End of Blocked Crawlers		
Boom Length (ft)	38.7 ft Counterweight Position	60.0 ft Counterweight Position
	Block Weight (lb)	
301.8	21,500	21,500
321.5	21,500	21,500
341.2	21,500	21,500
360.9	17,500	21,500
370.7	9,400	21,500
380.6	#	21,500
390.4	#	21,500
400.3	#	21,500
410.1	#	21,500
419.9	<b>Raising Not Permitted</b>	21,500
429.8		21,500
439.6		17,500
449.5		9,400
459.3		#
469.2		#
479.0		#
488.8		#
498.7		#

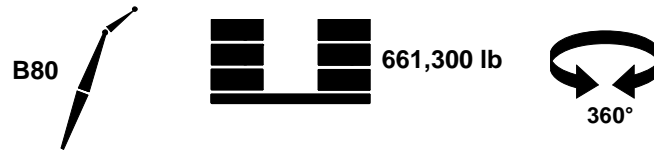
**Warning:** Crane must remain in-line with crawlers when raising over end of blocked crawlers until operating radius and crane configuration is within 360 degree chart. Crane tipping or structural damage can occur.

## Explanation of Symbols

	<p>Boom No. B80:680-681-682</p>
	<p>VPC (Variable Position Counterweight)</p>
	<p>360 Degree Rating</p>
	<p>Boom Length</p>
	<p>Extended Upper Boom Point Offset Angle</p>
	<p>Extended Upper Boom Point Operating Radius (see page 1)</p>
	<p>Extended Upper Boom Point Elevation (see page 1)</p>
	<p>Boom Point Operating Radius (see page 1)</p>
	<p>Boom Point Elevation (see page 1)</p>
	<p>Boom Angle (see page 1)</p>
	<p>Counterweight Position from Axis of Rotation</p>
	<p>Lifting Capacities (see page 1)</p>

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301.8 ft		28°				
ft	ft	ft	ft	°	38.7 ft lb	60.0 ft lb
46	333.2	36.6	308.7	84.9	341,600	341,600
47	333.1	37.5	308.6	84.7	341,600	341,600
48	333.0	38.5	308.5	84.5	341,600	341,600
49	332.8	39.4	308.4	84.3	341,600	341,600
50	332.7	40.3	308.3	84.2	341,600	341,600
51	332.6	41.2	308.2	84.0	341,600	341,600
52	332.4	42.2	308.0	83.8	341,600	341,600
53	332.3	43.1	307.9	83.6	341,600	341,600
54	332.1	44.1	307.8	83.4	341,600	341,600
55	332.0	44.9	307.7	83.3	341,600	341,600
60	331.2	49.6	307.0	82.4	341,600	341,600
65	330.3	54.2	306.3	81.5	341,600	341,600
70	329.3	58.9	305.5	80.6	341,600	341,600
75	328.2	63.4	304.6	79.7	341,600	341,600
80	327.1	68.1	303.6	78.8	340,200	340,200
85	325.9	72.7	302.6	77.9	338,400	338,400
90	324.5	77.3	301.5	77.0	336,500	336,500
95	323.1	82.0	300.3	76.1	334,500	334,500
100	321.7	86.6	299.0	75.1	324,500	332,500
105	320.1	91.3	297.7	74.2	303,300	330,400
110	318.4	95.9	296.3	73.3	284,100	328,300
115	316.7	100.5	294.7	72.4	266,600	326,300
120	314.8	105.2	293.1	71.4	250,700	324,300
125	312.9	109.9	291.4	70.5	236,100	322,300
130	310.9	114.5	289.7	69.5	222,600	320,400
135	308.8	119.1	287.8	68.6	210,200	318,600
140	306.5	123.8	285.9	67.6	198,700	316,800
145	304.2	128.5	283.8	66.6	188,000	304,800
150	301.8	133.1	281.7	65.7	178,100	291,000
155	299.2	137.7	279.4	64.7	168,800	278,100
160	296.6	142.4	277.0	63.7	160,100	266,100
165	293.8	147.1	274.6	62.7	151,900	254,900
170	290.9	151.7	272.0	61.7	144,300	244,400
175	287.9	156.4	269.4	60.6	137,000	234,600
180	284.8	161.1	266.6	59.6	130,200	225,300
185	281.6	165.7	263.7	58.5	123,800	216,600
190	278.2	170.4	260.7	57.5	117,700	208,300
195	274.7	175.1	257.5	56.4	111,900	200,500
200	271.0	179.8	254.2	55.3	106,400	193,200
205	267.2	184.5	250.8	54.2	101,100	186,200
210	263.2	189.1	247.2	53.1	96,100	179,500
215	259.1	193.8	243.5	51.9	91,400	173,200
220	254.8	198.5	239.6	50.8	86,800	167,200
225	250.3	203.2	235.6	49.6	82,500	161,400
230	245.6	207.9	231.4	48.4	78,300	155,900
235	240.7	212.6	227.0	47.2	74,400	150,700
240	235.6	217.3	222.4	45.9	70,500	145,700
245	230.3	222.0	217.6	44.6	66,900	140,800
250	224.7	226.7	212.5	43.3	63,300	136,200
255	218.8	231.5	207.2	41.9	59,900	131,800
260	212.7	236.2	201.6	40.6	56,600	127,600
265	206.2	240.9	195.8	39.1	53,500	123,500
270	199.4	245.6	189.6	37.6	50,400	119,500
280	184.6	255.1	176.1	34.5	44,600	112,000
290	167.7	264.7	160.7	31.0	39,100	105,100

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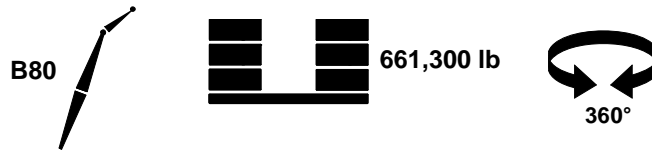
661,300 lb



ft	301.8 ft				ft	35°	
	ft	ft	ft	ft		lb	lb
46							
47							
48	332.0	36.2	308.7	84.9	283,200	283,200	
49	331.8	37.2	308.6	84.8	283,200	283,200	
50	331.7	38.1	308.5	84.6	283,200	283,200	
51	331.6	39.1	308.4	84.4	283,200	283,200	
52	331.4	39.9	308.3	84.2	283,200	283,200	
53	331.3	40.9	308.2	84.1	283,200	283,200	
54	331.1	41.8	308.1	83.9	283,200	283,200	
55	331.0	42.8	308.0	83.7	283,200	283,200	
60	330.1	47.4	307.4	82.8	283,200	283,200	
65	329.2	52.0	306.7	81.9	283,200	283,200	
70	328.3	56.7	305.9	81.0	283,200	283,200	
75	327.2	61.3	305.0	80.1	283,200	283,200	
80	326.1	66.0	304.1	79.2	283,200	283,200	
85	324.8	70.7	303.1	78.3	283,200	283,200	
90	323.5	75.3	302.0	77.4	283,200	283,200	
95	322.1	80.0	300.8	76.5	283,200	283,200	
100	320.6	84.6	299.6	75.5	283,200	283,200	
105	319.0	89.3	298.3	74.6	282,800	282,800	
110	317.4	93.9	296.9	73.7	282,200	282,200	
115	315.6	98.6	295.4	72.7	268,500	281,400	
120	313.8	103.3	293.8	71.8	252,500	280,800	
125	311.8	107.9	292.1	70.9	237,800	280,100	
130	309.8	112.7	290.4	69.9	224,200	279,600	
135	307.7	117.3	288.5	68.9	211,700	277,400	
140	305.4	122.0	286.6	68.0	200,200	273,000	
145	303.1	126.7	284.6	67.0	189,400	268,700	
150	300.7	131.4	282.5	66.0	179,400	264,600	
155	298.1	136.1	280.2	65.0	170,000	260,700	
160	295.4	140.7	277.9	64.0	161,300	257,000	
165	292.7	145.4	275.5	63.0	153,000	253,400	
170	289.8	150.1	272.9	62.0	145,300	245,200	
175	286.8	154.8	270.3	61.0	138,000	235,300	
180	283.6	159.5	267.5	59.9	131,200	226,000	
185	280.4	164.3	264.6	58.9	124,700	217,300	
190	277.0	169.0	261.6	57.8	118,500	209,000	
195	273.4	173.7	258.5	56.7	112,700	201,200	
200	269.7	178.4	255.2	55.6	107,100	193,800	
205	265.9	183.1	251.8	54.5	101,900	186,700	
210	261.9	187.8	248.2	53.4	96,800	180,000	
215	257.8	192.6	244.5	52.2	92,000	173,700	
220	253.4	197.3	240.6	51.1	87,500	167,600	
225	248.9	202.1	236.6	49.9	83,100	161,900	
230	244.2	206.8	232.4	48.7	78,900	156,300	
235	239.3	211.5	228.0	47.4	74,900	151,100	
240	234.2	216.3	223.4	46.2	71,000	146,000	
245	228.8	221.1	218.5	44.9	67,300	141,200	
250	223.2	225.8	213.5	43.6	63,700	136,500	
255	217.3	230.6	208.1	42.2	60,300	132,100	
260	211.1	235.4	202.6	40.8	57,000	127,800	
265	204.6	240.2	196.7	39.3	53,800	123,700	
270	197.7	245.0	190.4	37.8	50,700	119,700	
280	182.7	254.6	176.8	34.7	44,800	112,200	
290							

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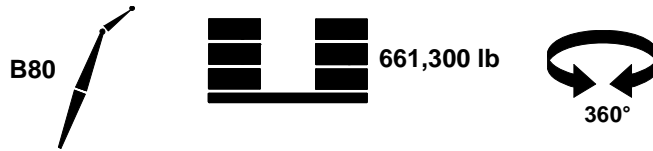


		301.8 ft		41°			
						38.7 ft	60.0 ft
						lb	lb
46							
47							
48							
49							
50	330.4	35.9	308.8	85.0	240,600	240,600	
51	330.2	36.8	308.7	84.8	240,600	240,600	
52	330.1	37.8	308.6	84.7	240,600	240,600	
53	329.9	38.7	308.5	84.5	240,600	240,600	
54	329.8	39.6	308.4	84.3	240,600	240,600	
55	329.6	40.6	308.2	84.1	240,600	240,600	
60	328.8	45.2	307.7	83.2	240,600	240,600	
65	327.9	49.9	307.0	82.3	240,600	240,600	
70	326.9	54.6	306.2	81.4	240,600	240,600	
75	325.8	59.3	305.4	80.5	240,600	240,600	
80	324.7	63.9	304.5	79.6	240,600	240,600	
85	323.4	68.6	303.5	78.7	240,600	240,600	
90	322.1	73.3	302.5	77.8	240,600	240,600	
95	320.7	78.0	301.3	76.8	240,600	240,600	
100	319.2	82.7	300.1	75.9	240,600	240,600	
105	317.6	87.4	298.8	75.0	240,600	240,600	
110	316.0	92.1	297.4	74.1	240,600	240,600	
115	314.2	96.8	296.0	73.1	240,600	240,600	
120	312.4	101.5	294.4	72.2	240,600	240,600	
125	310.4	106.2	292.8	71.2	239,400	240,600	
130	308.4	110.9	291.1	70.3	225,700	240,600	
135	306.2	115.6	289.2	69.3	213,200	240,600	
140	304.0	120.3	287.3	68.3	201,500	240,600	
145	301.6	125.1	285.3	67.3	190,700	240,600	
150	299.2	129.7	283.2	66.4	180,600	239,200	
155	296.6	134.5	281.0	65.4	171,200	236,400	
160	293.9	139.2	278.7	64.4	162,300	233,700	
165	291.1	144.0	276.2	63.3	154,100	231,100	
170	288.2	148.7	273.7	62.3	146,300	228,600	
175	285.2	153.4	271.1	61.3	138,900	226,200	
180	282.0	158.2	268.3	60.2	132,000	224,000	
185	278.8	162.9	265.4	59.2	125,500	217,900	
190	275.3	167.7	262.4	58.1	119,300	209,600	
195	271.8	172.4	259.3	57.0	113,400	201,700	
200	268.1	177.2	256.0	55.9	107,800	194,300	
205	264.2	182.0	252.6	54.8	102,500	187,200	
210	260.2	186.8	249.1	53.7	97,400	180,500	
215	256.0	191.5	245.4	52.5	92,600	174,100	
220	251.6	196.3	241.5	51.3	88,000	168,000	
225	247.1	201.1	237.4	50.1	83,600	162,200	
230	242.4	205.9	233.2	48.9	79,300	156,700	
235	237.4	210.7	228.7	47.7	75,300	151,400	
240	232.2	215.5	224.1	46.4	71,400	146,300	
245	226.8	220.4	219.3	45.1	67,600	141,400	
250	221.1	225.2	214.2	43.7	64,000	136,800	
255	215.2	230.0	208.8	42.4	60,600	132,300	
260	208.9	234.9	203.2	40.9	57,200	128,000	
265							
270							
280							
290							



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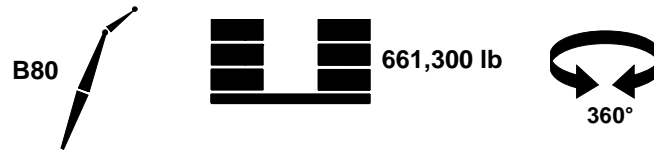
ASME B30.5



321.5 ft		28°				
ft	ft	ft	ft	°	lb	lb
47	352.9	37.7	328.4	85.0	341,600	341,600
48	352.8	38.6	328.3	84.8	341,600	341,600
49	352.7	39.5	328.2	84.7	341,600	341,600
50	352.6	40.5	328.1	84.5	341,600	341,600
51	352.4	41.4	328.0	84.3	341,600	341,600
52	352.3	42.3	327.9	84.2	341,600	341,600
53	352.2	43.3	327.8	84.0	341,600	341,600
54	352.0	44.2	327.6	83.8	341,600	341,600
55	351.9	45.1	327.5	83.7	341,600	341,600
56	351.7	46.0	327.4	83.5	341,600	341,600
60	351.1	49.8	326.9	82.8	341,600	341,600
65	350.3	54.4	326.2	82.0	341,600	341,600
70	349.3	59.1	325.5	81.1	341,600	341,600
75	348.3	63.7	324.6	80.3	341,600	341,600
80	347.3	68.4	323.7	79.4	341,600	341,600
85	346.1	73.0	322.7	78.6	341,600	341,600
90	344.9	77.7	321.7	77.7	341,600	341,600
95	343.6	82.3	320.6	76.9	341,600	341,600
100	342.2	87.0	319.4	76.0	322,800	341,600
105	340.7	91.6	318.1	75.2	301,600	341,600
110	339.2	96.3	316.8	74.3	282,300	341,600
115	337.5	101.0	315.3	73.4	264,900	341,600
120	335.8	105.6	313.8	72.5	248,900	341,600
125	334.0	110.3	312.2	71.6	338,400	338,400
130	332.1	114.9	310.6	70.8	338,400	338,400
135	330.1	119.6	308.8	69.9	208,300	334,400
140	328.0	124.3	307.0	69.0	196,800	318,200
145	325.8	129.0	305.1	68.1	186,100	303,300
150	323.6	133.6	303.0	67.2	176,100	289,400
155	321.2	138.3	300.9	66.2	166,800	276,600
160	318.8	143.0	298.8	65.3	158,100	264,600
165	316.2	147.7	296.5	64.4	149,900	253,300
170	313.5	152.4	294.1	63.4	142,200	242,800
175	310.8	157.0	291.6	62.5	135,000	233,000
180	307.9	161.7	289.0	61.5	128,100	223,700
185	304.9	166.4	286.3	60.6	121,700	215,000
190	301.8	171.1	283.5	59.6	115,600	206,700
195	298.5	175.8	280.6	58.6	109,800	198,900
200	295.2	180.4	277.6	57.6	104,300	191,500
205	291.7	185.2	274.5	56.6	99,000	184,500
210	288.1	189.8	271.2	55.6	94,000	177,900
215	284.3	194.5	267.8	54.5	89,300	171,600
220	280.4	199.2	264.3	53.5	84,700	165,500
225	276.3	203.9	260.6	52.4	80,400	159,800
230	272.1	208.6	256.8	51.3	76,200	154,300
235	267.8	213.4	252.9	50.2	72,200	149,100
240	263.2	218.1	248.7	49.1	68,400	144,000
245	258.5	222.8	244.4	48.0	64,800	139,200
250	253.5	227.5	239.9	46.8	61,200	134,600
255	248.4	232.2	235.3	45.6	57,800	130,200
260	243.0	237.0	230.4	44.4	54,600	125,900
270	231.6	246.4	220.0	41.9	48,400	117,900
280	219.0	255.9	208.5	39.2	42,600	110,500
290	205.2	265.4	195.9	36.4	37,200	103,500
300	189.7	275.0	181.7	33.3	32,100	97,100

# MLC650 VPC-MAX S-2

ASME B30.5



		321.5 ft		35°			
						38.7 ft	60.0 ft
						lb	lb
47							
48							
49							
50	351.5	38.3	328.3	84.9	288,900	288,900	
51	351.4	39.2	328.2	84.7	288,900	288,900	
52	351.3	40.1	328.1	84.6	288,900	288,900	
53	351.1	41.0	328.0	84.4	288,900	288,900	
54	351.0	42.0	327.9	84.2	288,900	288,900	
55	350.9	42.9	327.8	84.1	288,900	288,900	
56	350.7	43.8	327.7	83.9	288,900	288,900	
60	350.1	47.6	327.2	83.2	288,900	288,900	
65	349.2	52.2	326.6	82.4	288,900	288,900	
70	348.3	56.9	325.8	81.5	288,900	288,900	
75	347.3	61.6	325.0	80.7	288,900	288,900	
80	346.2	66.2	324.1	79.8	288,900	288,900	
85	345.1	70.9	323.2	79.0	288,900	288,900	
90	343.8	75.6	322.2	78.1	288,900	288,900	
95	342.5	80.3	321.1	77.3	288,900	288,900	
100	341.1	84.9	319.9	76.4	288,900	288,900	
105	339.7	89.6	318.7	75.5	288,900	288,900	
110	338.1	94.3	317.3	74.7	284,400	288,900	
115	336.5	99.0	315.9	73.8	266,800	288,900	
120	334.7	103.7	314.4	72.9	250,700	288,900	
125	332.9	108.3	312.9	72.0	236,000	288,900	
130	331.0	113.0	311.3	71.1	222,400	288,200	
135	329.0	117.8	309.5	70.2	209,900	283,600	
140	326.9	122.4	307.7	69.3	198,300	279,200	
145	324.8	127.1	305.8	68.4	187,500	274,900	
150	322.5	131.8	303.8	67.5	177,500	270,800	
155	320.1	136.5	301.8	66.6	168,100	266,900	
160	317.6	141.2	299.6	65.7	159,300	263,100	
165	315.1	146.0	297.3	64.7	151,100	254,300	
170	312.4	150.7	295.0	63.8	143,300	243,700	
175	309.6	155.4	292.5	62.8	136,000	233,800	
180	306.7	160.1	289.9	61.9	129,100	224,500	
185	303.7	164.8	287.2	60.9	122,600	215,700	
190	300.6	169.6	284.5	59.9	116,500	207,400	
195	297.3	174.3	281.6	58.9	110,600	199,600	
200	294.0	179.0	278.6	57.9	105,100	192,200	
205	290.5	183.7	275.4	56.9	99,800	185,100	
210	286.8	188.5	272.2	55.9	94,800	178,500	
215	283.0	193.2	268.8	54.8	90,000	172,100	
220	279.1	197.9	265.3	53.8	85,400	166,100	
225	275.0	202.7	261.6	52.7	81,000	160,300	
230	270.8	207.4	257.8	51.6	76,800	154,800	
235	266.4	212.2	253.9	50.5	72,800	149,500	
240	261.8	217.0	249.7	49.4	69,000	144,500	
245	257.1	221.7	245.4	48.2	65,300	139,600	
250	252.1	226.5	241.0	47.0	61,700	135,000	
255	246.9	231.3	236.3	45.8	58,300	130,500	
260	241.5	236.0	231.4	44.6	55,000	126,300	
270	230.0	245.6	220.9	42.1	48,800	118,200	
280	217.4	255.2	209.4	39.4	42,900	110,700	
290	203.4	264.9	196.7	36.5	37,400	103,700	
300							

# MLC650 VPC-MAX S-2

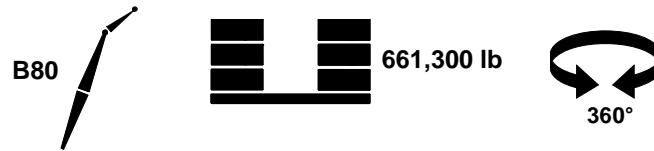
ASME B30.5



	321.5 ft		41°		38.7 ft		60.0 ft	
	ft	ft	ft	ft	ft	lb	lb	lb
47								
48								
49								
50								
51								
52	349.9	37.9	328.4	85.0	244,000	244,000		
53	349.8	38.8	328.3	84.8	244,000	244,000		
54	349.6	39.8	328.2	84.6	244,000	244,000		
55	349.5	40.7	328.1	84.5	244,000	244,000		
56	349.3	41.6	328.0	84.3	244,000	244,000		
60	348.7	45.4	327.5	83.6	244,000	244,000		
65	347.9	50.1	326.9	82.8	244,000	244,000		
70	346.9	54.8	326.2	81.9	244,000	244,000		
75	345.9	59.4	325.4	81.1	244,000	244,000		
80	344.9	64.2	324.5	80.2	244,000	244,000		
85	343.7	68.9	323.6	79.3	244,000	244,000		
90	342.5	73.6	322.6	78.5	244,000	244,000		
95	341.1	78.3	321.6	77.6	244,000	244,000		
100	339.7	83.0	320.4	76.8	244,000	244,000		
105	338.3	87.7	319.2	75.9	244,000	244,000		
110	336.7	92.4	317.9	75.0	244,000	244,000		
115	335.0	97.1	316.5	74.1	244,000	244,000		
120	333.3	101.8	315.0	73.2	244,000	244,000		
125	331.5	106.5	313.5	72.4	237,700	244,000		
130	329.6	111.2	311.9	71.5	224,000	244,000		
135	327.6	116.0	310.2	70.6	211,400	244,000		
140	325.5	120.7	308.4	69.7	199,700	244,000		
145	323.3	125.4	306.5	68.7	188,900	244,000		
150	321.0	130.2	304.5	67.8	178,700	243,600		
155	318.6	134.9	302.5	66.9	169,300	240,800		
160	316.1	139.7	300.3	66.0	160,400	238,100		
165	313.6	144.4	298.1	65.0	152,200	235,500		
170	310.9	149.2	295.7	64.1	144,400	233,000		
175	308.1	153.9	293.3	63.1	137,000	230,500		
180	305.2	158.7	290.7	62.2	130,100	225,200		
185	302.1	163.4	288.0	61.2	123,500	216,400		
190	299.0	168.2	285.3	60.2	117,300	208,100		
195	295.7	172.9	282.4	59.2	111,400	200,200		
200	292.3	177.7	279.4	58.2	105,800	192,800		
205	288.8	182.5	276.3	57.2	100,500	185,700		
210	285.1	187.3	273.0	56.1	95,400	179,000		
215	281.3	192.1	269.6	55.1	90,600	172,600		
220	277.4	196.8	266.1	54.0	86,000	166,500		
225	273.3	201.6	262.5	52.9	81,600	160,700		
230	269.0	206.4	258.6	51.8	77,400	155,200		
235	264.6	211.2	254.7	50.7	73,300	149,900		
240	260.0	216.0	250.5	49.6	69,400	144,800		
245	255.2	220.9	246.2	48.4	65,700	139,900		
250	250.2	225.7	241.7	47.2	62,100	135,300		
255	245.0	230.5	237.0	46.0	58,600	130,800		
260	239.5	235.3	232.1	44.8	55,300	126,500		
270	227.9	245.0	221.6	42.2	49,000	118,400		
280								
290								
300								

# MLC650 VPC-MAX S-2

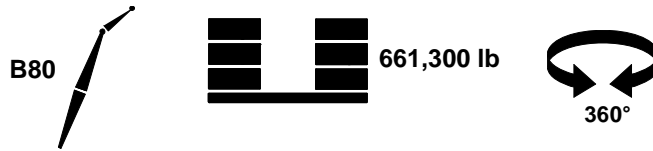
ASME B30.5



 341.2 ft		 28°				
ft	ft	ft	ft	°	lb	lb
50	372.4	40.6	347.9	84.8	341,600	341,600
51	372.3	41.5	347.8	84.6	341,600	341,600
52	372.1	42.5	347.7	84.5	341,600	341,600
53	372.0	43.4	347.6	84.3	341,600	341,600
54	371.9	44.3	347.5	84.2	341,600	341,600
55	371.7	45.3	347.4	84.0	341,600	341,600
56	371.6	46.2	347.2	83.8	341,600	341,600
57	371.5	47.1	347.1	83.7	341,600	341,600
58	371.3	48.1	347.0	83.5	341,600	341,600
60	371.0	49.9	346.8	83.2	341,600	341,600
65	370.2	54.6	346.1	82.4	341,600	341,600
70	369.3	59.3	345.4	81.6	341,600	341,600
75	368.4	63.9	344.6	80.8	341,600	341,600
80	367.4	68.6	343.7	80.0	341,600	341,600
85	366.3	73.3	342.8	79.2	341,600	341,600
90	365.1	77.9	341.8	78.4	341,600	341,600
95	363.9	82.6	340.8	77.6	341,600	341,600
100	362.6	87.3	339.6	76.8	322,700	341,600
105	361.2	92.0	338.4	76.0	301,400	341,600
110	359.7	96.7	337.1	75.2	282,200	341,600
115	358.2	101.3	335.8	74.3	264,600	341,600
120	356.6	106.0	334.4	73.5	248,600	341,600
125	354.9	110.7	332.9	72.7	340,200	340,200
130	353.1	115.4	331.3	71.8	220,500	340,200
135	351.2	120.0	329.7	71.0	208,000	334,100
140	349.3	124.7	327.9	70.2	196,400	317,900
145	347.3	129.4	326.1	69.3	185,700	303,000
150	345.1	134.1	324.2	68.5	175,700	289,100
155	342.9	138.8	322.3	67.6	166,400	276,200
160	340.6	143.5	320.2	66.7	157,700	264,200
165	338.2	148.2	318.1	65.9	149,500	253,000
170	335.8	152.9	315.8	65.0	141,800	242,500
175	333.2	157.6	313.5	64.1	134,500	232,600
180	330.5	162.3	311.1	63.2	127,700	223,300
185	327.7	167.0	308.6	62.3	121,200	214,600
190	324.8	171.6	306.0	61.4	115,100	206,400
195	321.8	176.4	303.3	60.5	109,300	198,600
200	318.7	181.1	300.5	59.6	103,800	191,200
205	315.5	185.8	297.6	58.6	98,600	184,200
210	312.2	190.5	294.6	57.7	93,600	177,500
215	308.7	195.2	291.5	56.8	88,800	171,200
220	305.1	199.9	288.2	55.8	84,300	165,200
225	301.4	204.6	284.8	54.8	80,000	159,400
230	297.6	209.4	281.4	53.8	75,800	153,900
235	293.6	214.1	277.7	52.8	71,800	148,700
240	289.5	218.8	274.0	51.8	68,000	143,700
245	285.2	223.5	270.1	50.8	64,300	138,900
250	280.7	228.2	266.0	49.7	60,800	134,300
255	276.1	233.0	261.8	48.6	57,400	129,800
260	271.3	237.7	257.5	47.6	54,200	125,600
270	261.2	247.2	248.2	45.3	48,000	117,600
280	250.2	256.7	238.1	43.0	42,300	110,200
290	238.2	266.2	227.2	40.5	36,900	103,300
300	225.1	275.7	215.1	37.9	31,900	96,800
320	194.5	294.8	187.1	32.2	22,600	85,100

# MLC650 VPC-MAX S-2

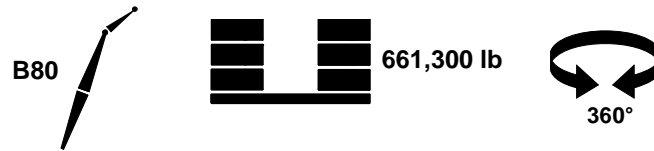
ASME B30.5



 341.2 ft		 35°			 38.7 ft	 60.0 ft
ft	ft	ft	ft	°	lb	lb
50						
51	371.3	39.3	348.0	85.0	292,800	292,800
52	371.1	40.3	347.9	84.9	292,800	292,800
53	371.0	41.1	347.8	84.7	292,800	292,800
54	370.9	42.1	347.7	84.5	292,800	292,800
55	370.7	43.0	347.6	84.4	292,800	292,800
56	370.6	44.0	347.5	84.2	292,800	292,800
57	370.4	44.9	347.4	84.1	292,800	292,800
58	370.3	45.8	347.3	83.9	292,800	292,800
60	370.0	47.7	347.1	83.6	292,800	292,800
65	369.2	52.4	346.4	82.8	292,800	292,800
70	368.3	57.1	345.7	82.0	292,800	292,800
75	367.4	61.7	345.0	81.2	292,800	292,800
80	366.4	66.5	344.1	80.4	292,800	292,800
85	365.3	71.1	343.3	79.6	292,800	292,800
90	364.1	75.8	342.3	78.8	292,800	292,800
95	362.9	80.5	341.2	78.0	292,800	292,800
100	361.6	85.2	340.1	77.1	292,800	292,800
105	360.2	89.9	339.0	76.3	292,800	292,800
110	358.7	94.6	337.7	75.5	284,300	292,800
115	357.1	99.3	336.4	74.7	266,700	292,800
120	355.5	104.1	335.0	73.9	250,500	292,800
125	353.8	108.7	333.5	73.0	235,800	292,800
130	352.0	113.4	332.0	72.2	222,200	292,800
135	350.2	118.1	330.4	71.4	209,600	289,500
140	348.2	122.9	328.6	70.5	198,000	285,100
145	346.2	127.6	326.9	69.7	187,200	280,800
150	344.0	132.3	325.0	68.8	177,100	276,700
155	341.8	137.0	323.1	67.9	167,700	272,800
160	339.5	141.7	321.0	67.1	159,000	265,200
165	337.1	146.4	318.9	66.2	150,700	253,900
170	334.6	151.1	316.7	65.3	143,000	243,400
175	332.0	155.9	314.4	64.4	135,700	233,500
180	329.3	160.6	312.0	63.5	128,800	224,200
185	326.5	165.4	309.5	62.6	122,300	215,400
190	323.6	170.1	306.9	61.7	116,100	207,100
195	320.6	174.8	304.2	60.8	110,200	199,300
200	317.5	179.5	301.5	59.9	104,700	191,800
205	314.3	184.3	298.5	58.9	99,400	184,800
210	310.9	189.0	295.5	58.0	94,400	178,100
215	307.5	193.8	292.4	57.0	89,600	171,800
220	303.9	198.5	289.2	56.1	85,000	165,700
225	300.2	203.3	285.8	55.1	80,700	159,900
230	296.3	208.0	282.4	54.1	76,500	154,400
235	292.3	212.8	278.7	53.1	72,500	149,200
240	288.1	217.5	275.0	52.1	68,600	144,100
245	283.8	222.3	271.1	51.0	64,900	139,300
250	279.4	227.1	267.0	50.0	61,400	134,700
255	274.7	231.9	262.8	48.9	58,000	130,200
260	269.9	236.6	258.5	47.8	54,700	126,000
270	259.7	246.2	249.2	45.6	48,500	117,900
280	248.6	255.8	239.1	43.2	42,700	110,500
290	236.6	265.4	228.1	40.7	37,200	103,500
300	223.4	275.0	216.0	38.1	32,100	97,000
320						

# MLC650 VPC-MAX S-2

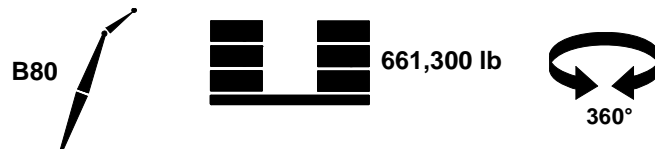
ASME B30.5



341.2 ft		41°				
ft	ft	ft	ft	°	38.7 ft lb	60.0 ft lb
50						
51						
52						
53						
54	369.5	39.9	348.0	84.9	244,000	244,000
55	369.4	40.8	347.9	84.8	244,000	244,000
56	369.2	41.8	347.8	84.6	244,000	244,000
57	369.1	42.7	347.7	84.4	244,000	244,000
58	368.9	43.7	347.5	84.3	244,000	244,000
60	368.6	45.5	347.3	84.0	244,000	244,000
65	367.8	50.2	346.7	83.2	244,000	244,000
70	367.0	55.0	346.1	82.4	244,000	244,000
75	366.0	59.6	345.3	81.6	244,000	244,000
80	365.0	64.4	344.5	80.7	244,000	244,000
85	363.9	69.1	343.7	79.9	244,000	244,000
90	362.7	73.8	342.7	79.1	244,000	244,000
95	361.5	78.5	341.7	78.3	244,000	244,000
100	360.2	83.2	340.6	77.5	244,000	244,000
105	358.8	88.0	339.5	76.7	244,000	244,000
110	357.3	92.7	338.2	75.9	244,000	244,000
115	355.7	97.4	336.9	75.0	244,000	244,000
120	354.1	102.1	335.6	74.2	244,000	244,000
125	352.4	106.9	334.1	73.4	237,500	244,000
130	350.6	111.6	332.6	72.5	223,800	244,000
135	348.7	116.3	331.0	71.7	211,200	244,000
140	346.8	121.1	329.3	70.8	199,500	244,000
145	344.7	125.8	327.5	70.0	188,600	244,000
150	342.6	130.6	325.7	69.1	178,500	244,000
155	340.3	135.3	323.7	68.2	169,000	244,000
160	338.0	140.1	321.7	67.4	160,100	242,200
165	335.6	144.8	319.6	66.5	151,800	239,600
170	333.1	149.6	317.4	65.6	144,000	237,100
175	330.5	154.3	315.1	64.7	136,700	234,300
180	327.8	159.1	312.8	63.8	129,700	224,900
185	325.0	163.8	310.3	62.9	123,200	216,100
190	322.1	168.6	307.7	62.0	117,000	207,800
195	319.1	173.4	305.0	61.1	111,100	199,900
200	315.9	178.2	302.3	60.2	105,500	192,500
205	312.7	182.9	299.4	59.2	100,200	185,400
210	309.3	187.7	296.4	58.3	95,100	178,700
215	305.8	192.5	293.3	57.3	90,300	172,300
220	302.2	197.3	290.0	56.3	85,700	166,200
225	298.5	202.1	286.7	55.3	81,300	160,400
230	294.6	206.9	283.2	54.3	77,000	154,900
235	290.5	211.7	279.6	53.3	73,000	149,600
240	286.4	216.5	275.8	52.3	69,100	144,500
245	282.0	221.3	271.9	51.2	65,400	139,700
250	277.5	226.2	267.8	50.2	61,800	135,000
255	272.9	231.0	263.6	49.1	58,400	130,600
260	268.0	235.8	259.2	48.0	55,100	126,300
270	257.7	245.5	249.9	45.7	48,800	118,200
280	246.6	255.2	239.8	43.4	42,900	110,700
290						
300						
320						

# MLC650 VPC-MAX S-2

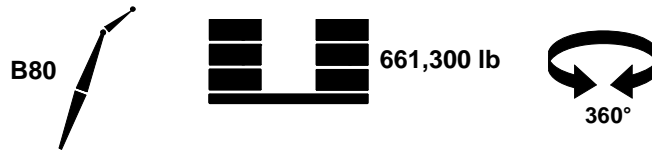
ASME B30.5



360.9 ft		28°		38.7 ft		60.0 ft	
ft	ft	ft	ft	°	lb	lb	lb
51	392.1	41.6	367.6	84.9	341,600	341,600	341,600
52	392.0	42.6	367.5	84.8	341,600	341,600	341,600
53	391.8	43.5	367.4	84.6	341,600	341,600	341,600
54	391.7	44.5	367.3	84.5	341,600	341,600	341,600
55	391.6	45.4	367.2	84.3	341,600	341,600	341,600
56	391.5	46.3	367.1	84.2	341,600	341,600	341,600
57	391.3	47.3	367.0	84.0	341,600	341,600	341,600
58	391.2	48.2	366.8	83.9	341,600	341,600	341,600
59	391.0	49.1	366.7	83.7	341,600	341,600	341,600
60	390.9	50.1	366.6	83.6	341,600	341,600	341,600
65	390.1	54.8	366.0	82.8	341,600	341,600	341,600
70	389.3	59.4	365.3	82.1	341,600	341,600	341,600
75	388.4	64.1	364.6	81.3	341,600	341,600	341,600
80	387.5	68.8	363.7	80.5	341,600	341,600	341,600
85	386.4	73.5	362.9	79.8	341,600	341,600	341,600
90	385.3	78.2	361.9	79.0	341,600	341,600	341,600
95	384.2	82.9	360.9	78.3	337,700	341,600	341,600
100	382.9	87.6	359.8	77.5	313,900	341,600	341,600
105	381.6	92.2	358.7	76.7	292,500	341,600	341,600
110	380.2	96.9	357.5	75.9	273,100	341,600	341,600
115	378.8	101.6	356.2	75.2	255,400	341,600	341,600
120	377.3	106.3	354.9	74.4	239,300	341,600	341,600
125	375.7	111.0	353.4	73.6	339,000	339,000	339,000
130	374.0	115.8	351.9	72.8	339,000	339,000	339,000
135	372.2	120.5	350.4	72.0	198,300	327,100	327,100
140	370.4	125.1	348.8	71.2	186,600	310,900	310,900
145	368.5	129.8	347.1	70.4	175,800	295,900	295,900
150	366.5	134.5	345.3	69.6	165,800	281,900	281,900
155	364.4	139.3	343.4	68.8	156,400	269,000	269,000
160	362.2	144.0	341.5	68.0	147,600	256,900	256,900
165	360.0	148.6	339.5	67.2	139,300	245,700	245,700
170	357.7	153.4	337.4	66.4	131,600	235,100	235,100
175	355.2	158.1	335.2	65.6	124,300	225,200	225,200
180	352.7	162.8	332.9	64.7	117,400	215,900	215,900
185	350.1	167.5	330.6	63.9	110,900	207,100	207,100
190	347.4	172.2	328.2	63.0	104,800	198,800	198,800
195	344.7	176.9	325.6	62.2	98,900	191,000	191,000
200	341.8	181.6	323.0	61.3	93,400	183,600	183,600
205	338.8	186.3	320.3	60.5	88,100	176,600	176,600
210	335.7	191.1	317.5	59.6	83,100	169,900	169,900
215	332.5	195.8	314.6	58.7	78,300	163,500	163,500
220	329.2	200.5	311.6	57.8	73,800	157,500	157,500
225	325.7	205.3	308.4	56.9	69,400	151,700	151,700
230	322.2	210.0	305.2	56.0	65,300	146,200	146,200
235	318.5	214.7	301.9	55.1	61,300	141,000	141,000
240	314.7	219.4	298.4	54.1	57,500	136,000	136,000
245	310.8	224.2	294.8	53.2	53,800	131,100	131,100
250	306.7	228.9	291.1	52.2	50,300	126,500	126,500
260	298.2	238.4	283.3	50.3	43,600	117,900	117,900
270	289.0	247.9	274.9	48.2	37,500	109,800	109,800
280	279.1	257.4	265.9	46.1	31,700	102,400	102,400
290	268.5	266.9	256.1	44.0	26,400	95,500	95,500
300	257.0	276.4	245.5	41.7	21,400	89,000	89,000
320	230.9	295.5	221.5	36.8	12,200	77,400	77,400
340	199.2	314.7	192.2	31.2		67,000	67,000

# MLC650 VPC-MAX S-2

ASME B30.5

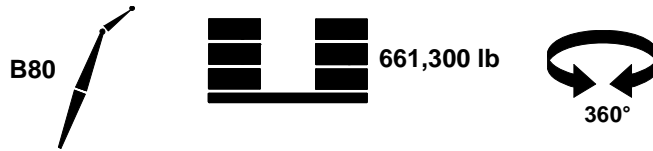


 360.9 ft		 35°				
ft	ft	ft	ft	°	lb	lb
51						
52						
53	390.8	41.3	367.6	85.0	292,800	292,800
54	390.7	42.2	367.5	84.8	292,800	292,800
55	390.6	43.1	367.4	84.7	292,800	292,800
56	390.4	44.1	367.3	84.5	292,800	292,800
57	390.3	45.0	367.2	84.4	292,800	292,800
58	390.2	45.9	367.1	84.2	292,800	292,800
59	390.0	46.9	367.0	84.1	292,800	292,800
60	389.9	47.8	366.9	83.9	292,800	292,800
65	389.1	52.5	366.3	83.2	292,800	292,800
70	388.3	57.3	365.6	82.4	292,800	292,800
75	387.4	62.0	364.9	81.6	292,800	292,800
80	386.4	66.7	364.1	80.9	292,800	292,800
85	385.4	71.4	363.3	80.1	292,800	292,800
90	384.3	76.0	362.4	79.4	292,800	292,800
95	383.1	80.8	361.4	78.6	292,800	292,800
100	381.9	85.5	360.3	77.8	292,800	292,800
105	380.6	90.2	359.2	77.1	292,800	292,800
110	379.2	94.9	358.0	76.3	275,500	292,800
115	377.7	99.6	356.8	75.5	257,700	292,800
120	376.2	104.4	355.4	74.7	241,400	292,800
125	374.6	109.1	354.1	73.9	226,500	292,800
130	372.9	113.8	352.6	73.1	212,800	292,800
135	371.1	118.5	351.0	72.4	200,100	292,800
140	369.3	123.2	349.4	71.6	188,400	290,600
145	367.4	128.0	347.7	70.8	177,500	286,300
150	365.4	132.7	346.0	70.0	167,400	282,300
155	363.3	137.4	344.2	69.1	157,900	270,200
160	361.1	142.1	342.3	68.3	149,000	258,100
165	358.9	146.8	340.3	67.5	140,700	246,700
170	356.5	151.6	338.2	66.7	132,900	236,100
175	354.1	156.4	336.0	65.9	125,600	226,200
180	351.6	161.1	333.8	65.0	118,600	216,800
185	349.0	165.8	331.4	64.2	112,100	208,000
190	346.3	170.5	329.0	63.3	105,900	199,700
195	343.5	175.3	326.5	62.5	100,000	191,800
200	340.6	180.0	323.9	61.6	94,400	184,400
205	337.6	184.8	321.2	60.7	89,100	177,300
210	334.5	189.5	318.4	59.9	84,100	170,600
215	331.3	194.3	315.5	59.0	79,200	164,200
220	327.9	199.1	312.5	58.1	74,600	158,200
225	324.5	203.8	309.4	57.2	70,300	152,400
230	320.9	208.6	306.2	56.3	66,100	146,800
235	317.2	213.3	302.8	55.3	62,000	141,600
240	313.4	218.1	299.4	54.4	58,200	136,500
245	309.5	222.9	295.8	53.4	54,500	131,700
250	305.4	227.6	292.1	52.5	50,900	127,000
260	296.8	237.2	284.3	50.5	44,200	118,300
270	287.6	246.8	275.9	48.5	38,000	110,200
280	277.7	256.4	266.8	46.4	32,200	102,800
290	267.0	266.0	257.1	44.2	26,800	95,800
300	255.5	275.6	246.5	41.9	21,700	89,300
320	229.2	294.9	222.3	37.0	12,400	77,500
340						



# MLC650 VPC-MAX S-2

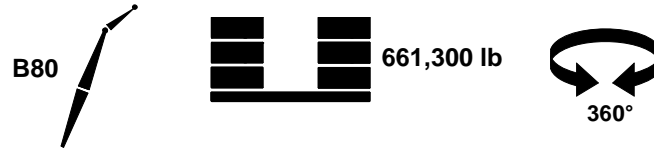
ASME B30.5



		ft	ft	ft	ft	ft	ft
						lb	lb
51							
52							
53							
54							
55		389.2	40.9	367.7	85.0	244,000	244,000
56		389.1	41.9	367.6	84.9	244,000	244,000
57		388.9	42.8	367.5	84.7	244,000	244,000
58		388.8	43.8	367.4	84.6	244,000	244,000
59		388.7	44.7	367.3	84.4	244,000	244,000
60		388.5	45.6	367.1	84.3	244,000	244,000
65		387.8	50.4	366.6	83.5	244,000	244,000
70		386.9	55.1	365.9	82.8	244,000	244,000
75		386.0	59.8	365.2	82.0	244,000	244,000
80		385.1	64.5	364.5	81.2	244,000	244,000
85		384.0	69.3	363.7	80.5	244,000	244,000
90		382.9	74.0	362.8	79.7	244,000	244,000
95		381.7	78.7	361.8	78.9	244,000	244,000
100		380.5	83.5	360.8	78.2	244,000	244,000
105		379.2	88.2	359.7	77.4	244,000	244,000
110		377.8	92.9	358.5	76.6	244,000	244,000
115		376.3	97.7	357.3	75.8	244,000	244,000
120		374.8	102.4	356.0	75.0	243,500	244,000
125		373.2	107.1	354.6	74.3	228,500	244,000
130		371.5	111.9	353.2	73.5	214,600	244,000
135		369.7	116.6	351.7	72.7	201,900	244,000
140		367.9	121.4	350.1	71.9	190,100	244,000
145		365.9	126.1	348.4	71.1	179,100	244,000
150		363.9	130.9	346.7	70.3	168,900	244,000
155		361.8	135.7	344.8	69.4	159,300	244,000
160		359.7	140.4	342.9	68.6	150,400	244,000
165		357.4	145.2	341.0	67.8	142,000	243,600
170		355.0	150.0	338.9	67.0	134,200	237,100
175		352.6	154.7	336.8	66.1	126,700	227,100
180		350.1	159.5	334.5	65.3	119,800	217,700
185		347.5	164.3	332.2	64.5	113,100	208,800
190		344.7	169.0	329.8	63.6	106,900	200,500
195		341.9	173.8	327.3	62.7	101,000	192,600
200		339.0	178.6	324.7	61.9	95,300	185,100
205		336.0	183.4	322.0	61.0	90,000	178,000
210		332.9	188.2	319.2	60.1	84,900	171,200
215		329.6	193.0	316.3	59.2	80,000	164,800
220		326.3	197.7	313.4	58.3	75,400	158,700
225		322.8	202.5	310.3	57.4	71,000	152,900
230		319.3	207.4	307.0	56.5	66,700	147,400
235		315.6	212.2	303.7	55.6	62,700	142,000
240		311.7	217.0	300.2	54.6	58,800	137,000
245		307.8	221.8	296.7	53.7	55,100	132,100
250		303.7	226.6	292.9	52.7	51,500	127,400
260		295.0	236.2	285.1	50.7	44,700	118,700
270		285.7	245.9	276.7	48.7	38,400	110,600
280		275.8	255.6	267.6	46.5	32,600	103,000
290		265.0	265.3	257.8	44.3	27,100	96,000
300		253.3	275.0	247.1	42.0	22,000	89,500
320							
340							

# MLC650 VPC-MAX S-2

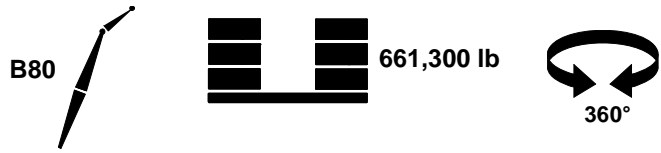
ASME B30.5



370.7 ft		28°				
ft	ft	ft	ft	°	38.7 ft lb	60.0 ft lb
52	401.9	42.6	377.3	84.9	323,900	323,900
53	401.8	43.6	377.2	84.7	323,900	323,900
54	401.6	44.5	377.1	84.6	323,900	323,900
55	401.5	45.5	377.0	84.5	323,900	323,900
56	401.4	46.4	376.9	84.3	323,900	323,900
57	401.2	47.3	376.8	84.2	323,900	323,900
58	401.1	48.3	376.7	84.0	323,900	323,900
59	401.0	49.2	376.6	83.9	323,900	323,900
60	400.8	50.1	376.5	83.7	323,900	323,900
65	400.1	54.9	375.9	83.0	323,900	323,900
70	399.3	59.5	375.2	82.3	323,900	323,900
75	398.4	64.2	374.5	81.5	323,900	323,900
80	397.5	68.9	373.7	80.8	323,900	323,900
85	396.5	73.6	372.8	80.0	323,900	323,900
90	395.4	78.3	371.9	79.3	323,900	323,900
95	394.3	83.0	370.9	78.5	323,900	323,900
100	393.1	87.7	369.9	77.8	313,600	323,900
105	391.8	92.4	368.8	77.1	292,100	323,900
110	390.5	97.1	367.6	76.3	272,700	323,900
115	389.0	101.8	366.3	75.5	255,000	323,900
120	387.6	106.5	365.0	74.8	238,800	323,900
125	386.0	111.2	363.6	74.0	224,000	323,900
130	384.4	115.9	362.2	73.3	210,400	323,900
135	382.7	120.6	360.7	72.5	197,800	320,100
140	380.9	125.3	359.1	71.7	186,200	310,600
145	379.0	130.0	357.4	71.0	175,400	295,600
150	377.1	134.7	355.7	70.2	165,300	281,600
155	375.1	139.5	353.9	69.4	155,900	268,700
160	373.0	144.1	352.0	68.6	147,100	256,600
165	370.8	148.9	350.0	67.8	138,900	245,400
170	368.5	153.6	348.0	67.0	131,100	234,800
175	366.2	158.3	345.9	66.2	123,800	224,900
180	363.7	163.0	343.7	65.4	116,900	215,600
185	361.2	167.7	341.4	64.6	110,400	206,800
190	358.6	172.4	339.1	63.8	104,300	198,500
195	355.9	177.2	336.6	62.9	98,500	190,700
200	353.1	181.9	334.1	62.1	92,900	183,300
205	350.2	186.6	331.5	61.3	87,700	176,200
210	347.2	191.3	328.7	60.4	82,600	169,600
215	344.1	196.0	325.9	59.6	77,900	163,200
220	341.0	200.8	323.0	58.7	73,300	157,200
225	337.6	205.5	320.0	57.8	69,000	151,400
230	334.2	210.2	316.9	57.0	64,800	145,900
235	330.7	215.0	313.7	56.1	60,800	140,700
240	327.1	219.7	310.3	55.2	57,000	135,600
245	323.3	224.5	306.9	54.3	53,300	130,800
250	319.4	229.2	303.3	53.3	49,800	126,200
255	315.4	233.9	299.7	52.4	46,400	121,800
260	311.2	238.7	295.8	51.5	43,200	117,500
270	302.4	248.2	287.8	49.5	37,000	109,500
280	293.0	257.7	279.2	47.5	31,300	102,100
290	283.0	267.2	269.9	45.5	26,000	95,200
300	272.1	276.7	259.9	43.3	21,000	88,800
320	247.7	295.8	237.3	38.7		77,100
340	218.5	315.0	210.4	33.6		66,800

# MLC650 VPC-MAX S-2

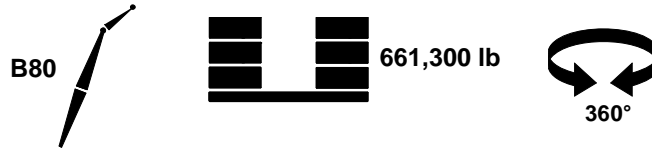
ASME B30.5



370.7 ft		35°				
ft	ft	ft	ft	°	38.7 ft lb	60.0 ft lb
52						
53						
54	400.6	42.3	377.4	85.0	292,800	292,800
55	400.5	43.2	377.3	84.8	292,800	292,800
56	400.4	44.1	377.2	84.7	292,800	292,800
57	400.2	45.1	377.1	84.5	292,800	292,800
58	400.1	46.0	377.0	84.4	292,800	292,800
59	400.0	46.9	376.9	84.2	292,800	292,800
60	399.8	47.9	376.8	84.1	292,800	292,800
65	399.1	52.6	376.2	83.3	292,800	292,800
70	398.3	57.3	375.5	82.6	292,800	292,800
75	397.4	62.0	374.8	81.9	292,800	292,800
80	396.5	66.7	374.1	81.1	292,800	292,800
85	395.5	71.5	373.2	80.4	292,800	292,800
90	394.4	76.1	372.3	79.6	292,800	292,800
95	393.2	80.9	371.4	78.9	292,800	292,800
100	392.0	85.6	370.3	78.1	292,800	292,800
105	390.8	90.3	369.3	77.4	292,800	292,800
110	389.4	95.0	368.1	76.6	275,100	292,800
115	388.0	99.7	366.9	75.9	257,300	292,800
120	386.5	104.5	365.6	75.1	241,000	292,800
125	384.9	109.2	364.2	74.4	226,100	292,800
130	383.3	113.9	362.8	73.6	212,400	292,800
135	381.6	118.6	361.3	72.8	199,700	292,800
140	379.8	123.4	359.8	72.0	188,000	292,800
145	377.9	128.1	358.1	71.3	177,100	289,000
150	376.0	132.8	356.4	70.5	166,900	282,900
155	374.0	137.6	354.6	69.7	157,400	269,900
160	371.9	142.3	352.7	68.9	148,600	257,800
165	369.7	147.0	350.8	68.1	140,300	246,400
170	367.4	151.8	348.8	67.3	132,500	235,800
175	365.1	156.5	346.7	66.5	125,100	225,900
180	362.6	161.2	344.5	65.7	118,200	216,500
185	360.1	166.0	342.3	64.9	111,600	207,700
190	357.5	170.7	339.9	64.1	105,400	199,400
195	354.8	175.5	337.5	63.2	99,500	191,500
200	352.0	180.3	335.0	62.4	94,000	184,100
205	349.1	185.0	332.4	61.6	88,700	177,000
210	346.1	189.8	329.6	60.7	83,600	170,300
215	342.9	194.5	326.9	59.9	78,800	163,900
220	339.7	199.3	324.0	59.0	74,200	157,800
225	336.4	204.0	321.0	58.1	69,800	152,100
230	333.0	208.8	317.8	57.2	65,600	146,500
235	329.5	213.6	314.6	56.3	61,600	141,200
240	325.8	218.3	311.3	55.4	57,700	136,200
245	322.0	223.1	307.9	54.5	54,000	131,400
250	318.1	227.9	304.3	53.6	50,500	126,700
255	314.0	232.7	300.6	52.7	47,100	122,300
260	309.9	237.4	296.8	51.7	43,800	118,000
270	301.1	247.0	288.8	49.8	37,600	109,900
280	291.6	256.6	280.1	47.8	31,800	102,500
290	281.5	266.2	270.9	45.7	26,400	95,500
300	270.6	275.9	260.8	43.5	21,400	89,100
320	246.0	295.1	238.3	38.9	12,100	77,300
340						

# MLC650 VPC-MAX S-2

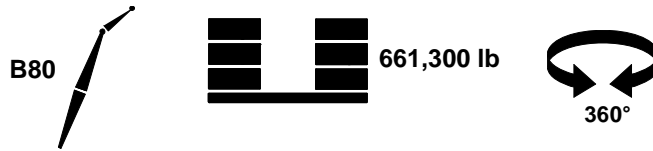
ASME B30.5



	ft	ft	ft	ft	lb	lb
52						
53						
54						
55						
56	399.0	41.9	377.4	85.0	244,000	244,000
57	398.9	42.8	377.3	84.9	244,000	244,000
58	398.7	43.8	377.2	84.7	244,000	244,000
59	398.6	44.8	377.1	84.6	244,000	244,000
60	398.4	45.7	377.0	84.4	244,000	244,000
65	397.7	50.4	376.5	83.7	244,000	244,000
70	396.9	55.1	375.8	82.9	244,000	244,000
75	396.0	59.9	375.1	82.2	244,000	244,000
80	395.1	64.6	374.4	81.5	244,000	244,000
85	394.1	69.3	373.6	80.7	244,000	244,000
90	393.0	74.1	372.7	80.0	244,000	244,000
95	391.9	78.8	371.8	79.2	244,000	244,000
100	390.6	83.5	370.8	78.5	244,000	244,000
105	389.4	88.3	369.7	77.7	244,000	244,000
110	388.0	93.0	368.6	77.0	244,000	244,000
115	386.6	97.7	367.4	76.2	244,000	244,000
120	385.1	102.5	366.1	75.4	243,100	244,000
125	383.5	107.3	364.8	74.7	228,100	244,000
130	381.9	112.0	363.4	73.9	214,200	244,000
135	380.1	116.7	361.9	73.1	201,500	244,000
140	378.3	121.5	360.4	72.3	189,600	244,000
145	376.5	126.3	358.7	71.6	178,700	244,000
150	374.5	131.1	357.0	70.8	168,400	244,000
155	372.5	135.8	355.3	70.0	158,900	244,000
160	370.4	140.6	353.4	69.2	150,000	244,000
165	368.2	145.3	351.5	68.4	141,600	244,000
170	365.9	150.1	349.5	67.6	133,700	236,800
175	363.6	154.9	347.4	66.8	126,300	226,800
180	361.1	159.7	345.3	66.0	119,300	217,400
185	358.6	164.4	343.0	65.2	112,700	208,500
190	355.9	169.2	340.7	64.3	106,500	200,200
195	353.2	174.0	338.3	63.5	100,500	192,300
200	350.4	178.7	335.8	62.7	94,900	184,800
205	347.5	183.6	333.2	61.8	89,600	177,700
210	344.5	188.3	330.5	61.0	84,500	171,000
215	341.3	193.1	327.7	60.1	79,600	164,500
220	338.1	197.9	324.8	59.2	75,000	158,400
225	334.8	202.7	321.8	58.4	70,600	152,600
230	331.3	207.5	318.7	57.5	66,300	147,100
235	327.8	212.4	315.5	56.6	62,300	141,800
240	324.1	217.1	312.2	55.7	58,400	136,700
245	320.3	222.0	308.7	54.7	54,600	131,800
250	316.4	226.8	305.2	53.8	51,100	127,200
255	312.3	231.6	301.5	52.9	47,600	122,700
260	308.1	236.4	297.6	51.9	44,300	118,400
270	299.2	246.1	289.6	50.0	38,000	110,300
280	289.7	255.8	280.9	47.9	32,200	102,800
290	279.5	265.4	271.7	45.9	26,700	95,800
300	268.5	275.2	261.6	43.7	21,600	89,300
320						
340						

# MLC650 VPC-MAX S-2

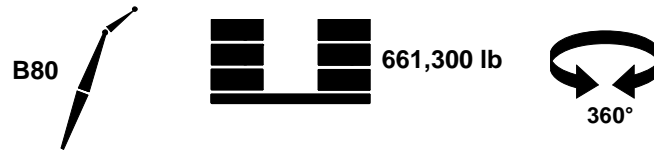
ASME B30.5



		380.6 ft		28°			
						38.7 ft	60.0 ft
ft	ft	ft	ft	°	lb	lb	
52	411.8	42.7	387.3	85.0	303,400	303,400	
53	411.7	43.7	387.2	84.9	303,400	303,400	
54	411.5	44.6	387.1	84.7	303,400	303,400	
55	411.4	45.5	387.0	84.6	303,400	303,400	
56	411.3	46.5	386.9	84.4	303,400	303,400	
57	411.2	47.4	386.8	84.3	303,400	303,400	
58	411.0	48.3	386.7	84.2	303,400	303,400	
59	410.9	49.2	386.6	84.0	303,400	303,400	
60	410.8	50.2	386.4	83.9	303,400	303,400	
61	410.6	51.2	386.3	83.7	303,400	303,400	
65	410.1	54.9	385.9	83.2	303,400	303,400	
70	409.3	59.6	385.2	82.4	303,400	303,400	
75	408.4	64.3	384.5	81.7	303,400	303,400	
80	407.5	69.0	383.7	81.0	303,400	303,400	
85	406.5	73.7	382.9	80.3	303,400	303,400	
90	405.5	78.4	382.0	79.6	303,400	303,400	
95	404.4	83.1	381.0	78.8	303,400	303,400	
100	403.2	87.8	380.0	78.1	303,400	303,400	
105	402.0	92.5	378.9	77.4	290,300	303,400	
110	400.7	97.2	377.8	76.6	270,800	303,400	
115	399.3	102.0	376.5	75.9	253,100	303,400	
120	397.8	106.6	375.3	75.2	236,900	303,400	
125	396.3	111.3	373.9	74.4	222,100	303,400	
130	394.7	116.1	372.5	73.7	208,500	303,400	
135	393.1	120.8	371.0	72.9	195,900	298,900	
140	391.3	125.5	369.5	72.2	184,200	293,700	
145	389.5	130.2	367.9	71.4	173,400	288,800	
150	387.6	135.0	366.2	70.7	163,300	280,200	
155	385.7	139.7	364.4	69.9	153,900	267,300	
160	383.6	144.4	362.6	69.2	145,100	255,200	
165	381.5	149.1	360.7	68.4	136,900	243,900	
170	379.3	153.8	358.7	67.6	129,100	233,400	
175	377.1	158.5	356.7	66.8	121,800	223,400	
180	374.7	163.3	354.5	66.0	114,900	214,100	
185	372.3	168.0	352.3	65.3	108,400	205,300	
190	369.7	172.7	350.0	64.5	102,300	197,100	
195	367.1	177.4	347.6	63.7	96,400	189,200	
200	364.4	182.1	345.2	62.9	90,900	181,800	
205	361.6	186.9	342.6	62.0	85,600	174,800	
210	358.7	191.6	340.0	61.2	80,600	168,100	
215	355.7	196.3	337.3	60.4	75,800	161,700	
220	352.6	201.1	334.5	59.6	71,300	155,700	
225	349.4	205.8	331.6	58.7	66,900	149,900	
230	346.1	210.5	328.6	57.9	62,800	144,400	
235	342.7	215.3	325.4	57.0	58,800	139,200	
240	339.2	220.1	322.2	56.2	55,000	134,100	
250	331.8	229.5	315.4	54.4	47,800	124,700	
260	324.0	239.0	308.2	52.6	41,200	116,000	
270	315.6	248.5	300.5	50.7	35,000	108,000	
280	306.6	258.1	292.2	48.8	29,300	100,600	
290	297.0	267.6	283.4	46.9	24,000	93,700	
300	286.7	277.1	274.0	44.8	19,000	87,300	
320	263.7	296.2	252.7	40.5		75,600	
340	236.6	315.4	227.6	35.7		65,300	
360	203.7	334.7	197.1	30.3		56,100	

# MLC650 VPC-MAX S-2

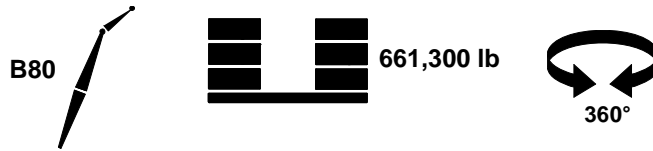
ASME B30.5



 380.6 ft		 35°				
ft	ft	ft	ft	°	lb	lb
52						
53						
54						
55	410.4	43.3	387.2	84.9	292,800	292,800
56	410.3	44.2	387.1	84.8	292,800	292,800
57	410.1	45.2	387.0	84.6	292,800	292,800
58	410.0	46.1	386.9	84.5	292,800	292,800
59	409.9	47.0	386.8	84.4	292,800	292,800
60	409.7	48.0	386.7	84.2	292,800	292,800
61	409.6	48.9	386.6	84.1	292,800	292,800
65	409.0	52.7	386.1	83.5	292,800	292,800
70	408.2	57.4	385.5	82.8	292,800	292,800
75	407.4	62.1	384.8	82.1	292,800	292,800
80	406.5	66.8	384.1	81.3	292,800	292,800
85	405.5	71.6	383.3	80.6	292,800	292,800
90	404.5	76.2	382.4	79.9	292,800	292,800
95	403.3	81.0	381.5	79.2	292,800	292,800
100	402.2	85.7	380.5	78.4	292,800	292,800
105	400.9	90.4	379.4	77.7	292,800	292,800
110	399.6	95.2	378.3	77.0	273,300	292,800
115	398.2	99.9	377.1	76.2	255,400	292,800
120	396.8	104.6	375.8	75.5	239,100	292,800
125	395.2	109.4	374.5	74.7	224,200	292,800
130	393.7	114.1	373.1	74.0	210,500	292,800
135	392.0	118.8	371.7	73.3	197,800	288,200
140	390.2	123.5	370.1	72.5	186,000	283,500
145	388.4	128.3	368.5	71.7	175,100	278,900
150	386.5	133.0	366.9	71.0	165,000	274,400
155	384.6	137.8	365.1	70.2	155,500	268,500
160	382.5	142.5	363.3	69.5	146,600	256,400
165	380.4	147.2	361.4	68.7	138,300	245,000
170	378.2	152.0	359.5	67.9	130,500	234,400
175	375.9	156.8	357.4	67.1	123,100	224,500
180	373.6	161.5	355.3	66.3	116,200	215,100
185	371.1	166.3	353.1	65.5	109,600	206,300
190	368.6	171.0	350.9	64.8	103,400	197,900
195	366.0	175.7	348.5	64.0	97,600	190,100
200	363.2	180.5	346.1	63.1	92,000	182,600
205	360.4	185.3	343.5	62.3	86,700	175,600
210	357.5	190.0	340.9	61.5	81,600	168,800
215	354.5	194.8	338.2	60.7	76,800	162,500
220	351.4	199.5	335.4	59.8	72,200	156,400
225	348.2	204.3	332.5	59.0	67,800	150,600
230	344.9	209.1	329.5	58.1	63,600	145,100
235	341.5	213.9	326.4	57.3	59,600	139,800
240	338.0	218.6	323.2	56.4	55,700	134,700
250	330.6	228.2	316.4	54.6	48,500	125,200
260	322.7	237.8	309.2	52.8	41,800	116,500
270	314.2	247.4	301.5	51.0	35,600	108,500
280	305.2	256.9	293.3	49.1	29,800	101,000
290	295.6	266.5	284.4	47.1	24,400	94,100
300	285.2	276.2	274.9	45.0	19,400	87,600
320	262.1	295.5	253.6	40.7		75,900
340	234.8	314.8	228.4	35.9		65,500
360						

# MLC650 VPC-MAX S-2

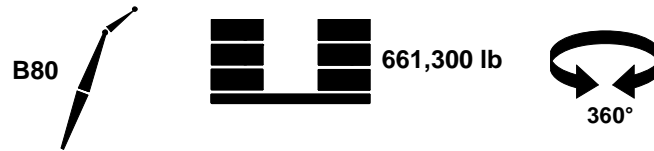
ASME B30.5



380.6 ft		41°		38.7 ft		60.0 ft	
ft	ft	ft	ft	°	lb	lb	lb
52							
53							
54							
55							
56							
57	408.8	42.9	387.3	85.0	244,000	244,000	244,000
58	408.6	43.9	387.2	84.8	244,000	244,000	244,000
59	408.5	44.8	387.1	84.7	244,000	244,000	244,000
60	408.4	45.8	387.0	84.6	244,000	244,000	244,000
61	408.2	46.7	386.9	84.4	244,000	244,000	244,000
65	407.7	50.5	386.4	83.8	244,000	244,000	244,000
70	406.9	55.2	385.8	83.1	244,000	244,000	244,000
75	406.0	59.9	385.1	82.4	244,000	244,000	244,000
80	405.1	64.7	384.4	81.7	244,000	244,000	244,000
85	404.1	69.4	383.6	80.9	244,000	244,000	244,000
90	403.1	74.2	382.8	80.2	244,000	244,000	244,000
95	401.9	78.9	381.9	79.5	244,000	244,000	244,000
100	400.8	83.6	380.9	78.8	244,000	244,000	244,000
105	399.5	88.4	379.9	78.0	244,000	244,000	244,000
110	398.2	93.2	378.7	77.3	244,000	244,000	244,000
115	396.8	97.9	377.6	76.5	244,000	244,000	244,000
120	395.4	102.7	376.3	75.8	241,300	244,000	244,000
125	393.8	107.4	375.1	75.1	226,300	244,000	244,000
130	392.2	112.2	373.7	74.3	212,400	244,000	244,000
135	390.6	116.9	372.2	73.6	199,600	244,000	244,000
140	388.8	121.7	370.7	72.8	187,800	244,000	244,000
145	387.0	126.5	369.1	72.0	176,800	244,000	244,000
150	385.1	131.2	367.5	71.3	166,600	244,000	244,000
155	383.1	136.0	365.8	70.5	157,000	244,000	244,000
160	381.1	140.8	364.0	69.7	148,100	244,000	244,000
165	378.9	145.5	362.1	69.0	139,700	244,000	244,000
170	376.7	150.3	360.2	68.2	131,800	235,400	235,400
175	374.4	155.1	358.2	67.4	124,400	225,400	225,400
180	372.1	159.8	356.1	66.6	117,400	216,000	216,000
185	369.6	164.7	353.9	65.8	110,800	207,100	207,100
190	367.1	169.4	351.6	65.0	104,500	198,800	198,800
195	364.4	174.2	349.3	64.2	98,600	190,900	190,900
200	361.7	179.0	346.8	63.4	93,000	183,400	183,400
205	358.9	183.8	344.3	62.6	87,600	176,300	176,300
210	355.9	188.6	341.7	61.8	82,500	169,500	169,500
215	352.9	193.4	339.0	60.9	77,700	163,100	163,100
220	349.8	198.2	336.2	60.1	73,000	157,000	157,000
225	346.6	203.0	333.3	59.2	68,600	151,200	151,200
230	343.3	207.8	330.3	58.4	64,400	145,600	145,600
235	339.8	212.6	327.2	57.5	60,300	140,300	140,300
240	336.3	217.4	324.0	56.6	56,400	135,200	135,200
250	328.9	227.0	317.3	54.9	49,100	125,700	125,700
260	320.9	236.7	310.1	53.0	42,300	116,900	116,900
270	312.4	246.3	302.3	51.2	36,100	108,800	108,800
280	303.4	256.0	294.1	49.3	30,200	101,300	101,300
290	293.6	265.7	285.2	47.3	24,800	94,300	94,300
300	283.2	275.4	275.7	45.2	19,700	87,800	87,800
320							
340							
360							

# MLC650 VPC-MAX S-2

ASME B30.5



 390.4 ft		 28°				
ft	ft	ft	ft	°	lb	lb
53	421.6	43.7	397.0	85.0	285,900	285,900
54	421.5	44.6	396.9	84.9	285,900	285,900
55	421.3	45.5	396.8	84.7	285,900	285,900
56	421.2	46.5	396.7	84.6	285,900	285,900
57	421.1	47.4	396.6	84.4	285,900	285,900
58	421.0	48.4	396.5	84.3	285,900	285,900
59	420.8	49.3	396.4	84.2	285,900	285,900
60	420.7	50.3	396.3	84.0	285,900	285,900
61	420.6	51.2	396.2	83.9	285,900	285,900
62	420.4	52.2	396.1	83.7	285,900	285,900
65	420.0	55.0	395.7	83.3	285,900	285,900
70	419.2	59.7	395.1	82.6	285,900	285,900
75	418.4	64.4	394.4	81.9	285,900	285,900
80	417.5	69.1	393.6	81.2	285,900	285,900
85	416.6	73.8	392.8	80.5	285,900	285,900
90	415.6	78.5	391.9	79.8	285,900	285,900
95	414.5	83.2	391.0	79.1	285,900	285,900
100	413.3	87.9	390.0	78.4	285,900	285,900
105	412.1	92.6	388.9	77.7	285,900	285,900
110	410.8	97.4	387.8	77.0	272,100	285,900
115	409.5	102.1	386.6	76.3	254,400	285,800
120	408.1	106.8	385.4	75.5	238,300	285,700
125	406.6	111.5	384.1	74.8	223,500	285,600
130	405.1	116.2	382.7	74.1	209,800	285,500
135	403.4	120.9	381.3	73.4	197,200	280,500
140	401.7	125.6	379.8	72.6	185,600	275,500
145	400.0	130.4	378.2	71.9	174,800	270,600
150	398.2	135.1	376.5	71.2	164,700	265,800
155	396.2	139.8	374.8	70.4	155,300	261,100
160	394.3	144.6	373.0	69.7	146,500	256,300
165	392.2	149.3	371.2	68.9	138,300	245,000
170	390.1	154.0	369.3	68.2	130,500	234,400
175	387.9	158.7	367.3	67.4	123,200	224,500
180	385.6	163.5	365.2	66.7	116,300	215,200
185	383.2	168.2	363.0	65.9	109,800	206,400
190	380.8	172.9	360.8	65.1	103,700	198,100
195	378.2	177.7	358.5	64.3	97,900	190,300
200	375.6	182.4	356.1	63.6	92,300	182,900
205	372.9	187.1	353.6	62.8	87,100	175,800
210	370.1	191.9	351.1	62.0	82,100	169,200
215	367.2	196.6	348.4	61.2	77,300	162,800
220	364.2	201.3	345.7	60.4	72,700	156,800
225	361.1	206.1	342.9	59.6	68,400	151,000
230	357.9	210.8	340.0	58.7	64,200	145,500
235	354.6	215.5	337.0	57.9	60,200	140,300
240	351.2	220.3	333.9	57.1	56,400	135,200
250	344.1	229.8	327.3	55.4	49,300	125,800
260	336.6	239.3	320.4	53.7	42,600	117,200
270	328.5	248.8	313.0	51.9	36,500	109,200
280	319.9	258.3	305.0	50.0	30,800	101,700
290	310.7	267.8	296.6	48.2	25,500	94,800
300	300.9	277.4	287.6	46.2	20,500	88,400
320	279.1	296.5	267.4	42.1		76,800
340	253.7	315.7	243.9	37.7		66,500
360	223.5	334.9	215.8	32.7		57,400



# MLC650 VPC-MAX S-2

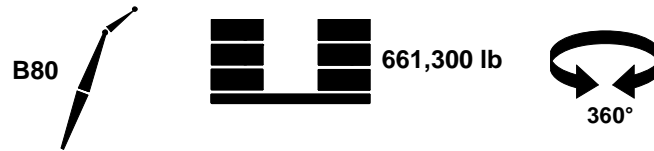
ASME B30.5



		390.4 ft		35°			
		ft		ft		lb	
ft	ft	ft	ft	ft	lb	lb	lb
53							
54							
55							
56	420.2	44.3	397.0	84.9	283,200	283,200	283,200
57	420.1	45.2	396.9	84.8	283,200	283,200	283,200
58	419.9	46.2	396.8	84.6	283,200	283,200	283,200
59	419.8	47.1	396.7	84.5	283,200	283,200	283,200
60	419.7	48.0	396.6	84.4	283,200	283,200	283,200
61	419.5	49.0	396.5	84.2	283,200	283,200	283,200
62	419.4	49.9	396.3	84.1	283,200	283,200	283,200
65	419.0	52.8	396.0	83.7	283,200	283,200	283,200
70	418.2	57.5	395.4	83.0	283,200	283,200	283,200
75	417.4	62.2	394.7	82.3	283,200	283,200	283,200
80	416.5	66.9	394.0	81.5	283,200	283,200	283,200
85	415.5	71.6	393.2	80.8	283,200	283,200	283,200
90	414.5	76.4	392.3	80.1	283,200	283,200	283,200
95	413.4	81.1	391.4	79.4	283,200	283,200	283,200
100	412.3	85.8	390.5	78.7	283,200	283,200	283,200
105	411.1	90.5	389.4	78.0	283,200	283,200	283,200
110	409.8	95.3	388.3	77.3	274,600	283,200	283,200
115	408.4	100.0	387.2	76.6	256,800	283,200	283,200
120	407.0	104.7	385.9	75.8	240,500	283,200	283,200
125	405.5	109.5	384.6	75.1	225,600	280,300	280,300
130	404.0	114.2	383.3	74.4	211,800	275,500	275,500
135	402.4	119.0	381.9	73.7	199,100	270,700	270,700
140	400.7	123.7	380.4	72.9	187,400	266,100	266,100
145	398.9	128.4	378.8	72.2	176,500	261,500	261,500
150	397.1	133.2	377.2	71.5	166,400	257,200	257,200
155	395.2	137.9	375.5	70.7	156,900	252,800	252,800
160	393.2	142.7	373.8	70.0	148,000	248,600	248,600
165	391.1	147.4	371.9	69.2	139,700	244,500	244,500
170	389.0	152.2	370.0	68.5	131,900	235,500	235,500
175	386.8	156.9	368.0	67.7	124,500	225,500	225,500
180	384.5	161.7	366.0	66.9	117,600	216,200	216,200
185	382.1	166.4	363.8	66.2	111,100	207,300	207,300
190	379.6	171.2	361.6	65.4	104,900	199,000	199,000
195	377.1	176.0	359.3	64.6	99,000	191,200	191,200
200	374.4	180.7	357.0	63.8	93,400	183,700	183,700
205	371.7	185.5	354.5	63.1	88,100	176,600	176,600
210	368.9	190.2	352.0	62.3	83,000	169,900	169,900
215	366.0	195.0	349.3	61.5	78,200	163,500	163,500
220	363.0	199.8	346.6	60.6	73,600	157,500	157,500
225	359.9	204.5	343.8	59.8	69,300	151,700	151,700
230	356.7	209.3	340.9	59.0	65,100	146,200	146,200
235	353.4	214.1	337.9	58.2	61,100	140,900	140,900
240	350.0	218.8	334.8	57.3	57,200	135,800	135,800
250	342.9	228.4	328.3	55.6	50,000	126,400	126,400
260	335.3	238.0	321.4	53.9	43,300	117,700	117,700
270	327.2	247.6	314.0	52.1	37,100	109,600	109,600
280	318.5	257.2	306.1	50.3	31,300	102,200	102,200
290	309.3	266.7	297.6	48.4	26,000	95,200	95,200
300	299.4	276.4	288.5	46.4	20,900	88,800	88,800
320	277.5	295.7	268.3	42.3		77,100	77,100
340	252.0	315.0	244.7	37.8		66,700	66,700
360							

# MLC650 VPC-MAX S-2

ASME B30.5



 390.4 ft		 41°				
ft	ft	ft	ft	°	38.7 ft lb	60.0 ft lb
53						
54						
55						
56						
57						
58	418.6	43.9	397.0	85.0	244,000	244,000
59	418.4	44.9	396.9	84.8	244,000	244,000
60	418.3	45.8	396.8	84.7	244,000	244,000
61	418.2	46.8	396.7	84.5	244,000	244,000
62	418.0	47.7	396.6	84.4	244,000	244,000
65	417.6	50.5	396.3	84.0	244,000	244,000
70	416.8	55.3	395.7	83.3	244,000	244,000
75	416.0	60.0	395.0	82.6	244,000	244,000
80	415.1	64.8	394.3	81.9	244,000	244,000
85	414.1	69.5	393.6	81.2	244,000	244,000
90	413.1	74.2	392.7	80.5	244,000	244,000
95	412.0	79.0	391.8	79.7	244,000	244,000
100	410.9	83.7	390.9	79.0	244,000	244,000
105	409.7	88.5	389.9	78.3	244,000	244,000
110	408.4	93.2	388.8	77.6	244,000	244,000
115	407.0	98.0	387.7	76.9	244,000	244,000
120	405.6	102.8	386.4	76.1	242,600	244,000
125	404.1	107.5	385.2	75.4	227,600	244,000
130	402.6	112.3	383.9	74.7	213,700	244,000
135	400.9	117.0	382.5	74.0	201,000	244,000
140	399.2	121.8	381.0	73.2	189,100	244,000
145	397.5	126.6	379.4	72.5	178,200	244,000
150	395.6	131.4	377.8	71.7	167,900	244,000
155	393.7	136.1	376.2	71.0	158,400	244,000
160	391.7	140.9	374.4	70.3	149,400	242,300
165	389.6	145.7	372.6	69.5	141,100	238,600
170	387.5	150.4	370.7	68.7	133,200	234,900
175	385.3	155.2	368.8	68.0	125,800	226,500
180	383.0	160.0	366.7	67.2	118,800	217,100
185	380.6	164.8	364.6	66.4	112,200	208,200
190	378.1	169.6	362.4	65.7	105,900	199,800
195	375.5	174.4	360.1	64.9	100,000	191,900
200	372.9	179.2	357.7	64.1	94,400	184,500
205	370.2	184.0	355.3	63.3	89,000	177,400
210	367.3	188.8	352.8	62.5	83,900	170,600
215	364.4	193.5	350.2	61.7	79,100	164,200
220	361.4	198.4	347.4	60.9	74,500	158,100
225	358.3	203.2	344.6	60.1	70,000	152,300
230	355.1	207.9	341.8	59.2	65,800	146,700
235	351.8	212.8	338.7	58.4	61,800	141,400
240	348.3	217.6	335.7	57.6	57,900	136,400
250	341.2	227.2	329.2	55.9	50,600	126,800
260	333.5	236.8	322.2	54.1	43,900	118,100
270	325.4	246.5	314.8	52.3	37,600	110,000
280	316.7	256.2	306.9	50.5	31,800	102,500
290	307.4	265.9	298.4	48.6	26,400	95,500
300	297.5	275.6	289.3	46.6	21,300	89,000
320	275.4	295.1	269.0	42.5	12,000	77,200
340						
360						

# MLC650 VPC-MAX S-2

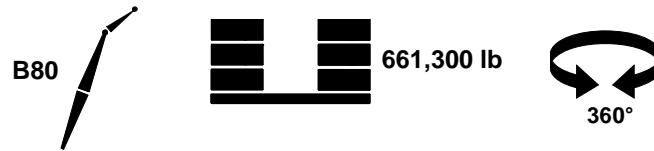
ASME B30.5



400.3 ft		28°					
ft	ft	ft	ft	°	lb	lb	lb
54	431.4	44.7	406.9	85.0	267,900	267,900	
55	431.2	45.6	406.8	84.8	267,900	267,900	
56	431.1	46.6	406.7	84.7	267,900	267,900	
57	431.0	47.5	406.6	84.6	267,900	267,900	
58	430.9	48.5	406.5	84.4	267,900	267,900	
59	430.8	49.4	406.4	84.3	267,900	267,900	
60	430.6	50.3	406.3	84.2	267,900	267,900	
61	430.5	51.3	406.2	84.0	267,900	267,900	
62	430.4	52.2	406.0	83.9	267,900	267,900	
63	430.2	53.2	405.9	83.8	267,900	267,900	
65	429.9	55.0	405.7	83.5	267,900	267,900	
70	429.2	59.8	405.1	82.8	267,900	267,900	
75	428.4	64.5	404.4	82.1	267,900	267,900	
80	427.5	69.2	403.6	81.4	267,900	267,900	
85	426.6	73.9	402.9	80.7	267,800	267,800	
90	425.6	78.6	402.0	80.1	267,700	267,700	
95	424.5	83.3	401.1	79.4	267,700	267,700	
100	423.4	88.1	400.1	78.7	267,600	267,600	
105	422.2	92.8	399.1	78.0	267,500	267,500	
110	421.0	97.5	398.0	77.3	267,400	267,400	
115	419.7	102.2	396.8	76.6	252,400	267,300	
120	418.3	107.0	395.6	75.9	236,300	267,200	
125	416.9	111.7	394.3	75.2	221,400	267,000	
130	415.4	116.4	393.0	74.5	207,800	266,900	
135	413.8	121.1	391.6	73.8	195,200	262,800	
140	412.1	125.8	390.1	73.1	183,500	257,900	
145	410.4	130.6	388.6	72.3	172,700	253,100	
150	408.6	135.3	386.9	71.6	162,600	248,500	
155	406.8	140.0	385.3	70.9	153,200	243,900	
160	404.9	144.7	383.5	70.2	144,400	239,500	
165	402.9	149.5	381.7	69.4	136,200	235,200	
170	400.8	154.2	379.9	68.7	128,400	231,000	
175	398.6	159.0	377.9	68.0	121,100	223,000	
180	396.4	163.7	375.9	67.2	114,200	213,600	
185	394.1	168.4	373.8	66.5	107,700	204,900	
190	391.7	173.2	371.6	65.7	101,600	196,600	
195	389.3	177.9	369.4	65.0	95,700	188,700	
200	386.7	182.6	367.1	64.2	90,200	181,300	
205	384.1	187.4	364.7	63.5	84,900	174,300	
210	381.4	192.1	362.2	62.7	79,900	167,600	
215	378.5	196.9	359.6	61.9	75,100	161,300	
220	375.7	201.6	357.0	61.1	70,600	155,200	
225	372.7	206.3	354.3	60.4	66,200	149,400	
230	369.6	211.1	351.4	59.6	62,100	143,900	
240	363.1	220.6	345.5	58.0	54,300	133,700	
250	356.3	230.1	339.2	56.3	47,100	124,200	
260	349.0	239.6	332.5	54.6	40,500	115,600	
270	341.2	249.1	325.3	52.9	34,400	107,600	
280	332.9	258.6	317.7	51.2	28,700	100,200	
290	324.1	268.2	309.6	49.4	23,300	93,300	
300	314.8	277.8	300.9	47.5	18,400	86,800	
320	294.0	296.8	281.7	43.6		75,200	
340	270.1	316.0	259.6	39.4		65,000	
360	242.0	335.2	233.5	34.8		55,800	
380	208.1	354.5	201.8	29.4		47,600	

# MLC650 VPC-MAX S-2

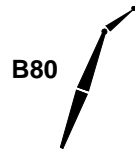
ASME B30.5



 400.3 ft		 35°				
ft	ft	ft	ft	°	lb	lb
54						
55						
56						
57	430.0	45.2	406.8	84.9	265,600	265,600
58	429.9	46.2	406.7	84.8	265,600	265,600
59	429.7	47.1	406.6	84.6	265,600	265,600
60	429.6	48.0	406.5	84.5	265,600	265,600
61	429.5	49.0	406.4	84.4	265,600	265,600
62	429.3	50.0	406.3	84.2	265,600	265,600
63	429.2	50.9	406.2	84.1	265,600	265,600
65	428.9	52.8	406.0	83.8	265,600	265,600
70	428.2	57.5	405.4	83.1	265,600	265,600
75	427.4	62.3	404.7	82.4	265,600	265,600
80	426.5	67.0	404.0	81.7	265,600	265,600
85	425.5	71.8	403.2	81.1	265,600	265,600
90	424.6	76.5	402.4	80.4	265,600	265,600
95	423.5	81.2	401.5	79.7	265,600	265,600
100	422.4	85.9	400.6	79.0	265,600	265,600
105	421.2	90.7	399.5	78.3	265,600	265,600
110	419.9	95.4	398.5	77.6	265,600	265,600
115	418.6	100.2	397.3	76.9	254,800	265,600
120	417.3	104.9	396.1	76.2	238,500	265,500
125	415.8	109.6	394.9	75.5	223,600	263,700
130	414.3	114.3	393.6	74.8	209,800	258,900
135	412.7	119.1	392.2	74.1	197,100	254,300
140	411.1	123.9	390.7	73.3	185,400	249,800
145	409.3	128.6	389.2	72.6	174,500	245,300
150	407.6	133.3	387.6	71.9	164,300	240,900
155	405.7	138.1	386.0	71.2	154,800	236,700
160	403.8	142.9	384.3	70.5	146,000	232,600
165	401.8	147.6	382.5	69.7	137,600	228,600
170	399.7	152.3	380.6	69.0	129,800	224,700
175	397.5	157.1	378.7	68.3	122,500	221,000
180	395.3	161.9	376.7	67.5	115,500	217,700
185	393.0	166.6	374.6	66.8	109,000	205,800
190	390.6	171.4	372.5	66.0	102,800	197,500
195	388.1	176.2	370.2	65.3	96,900	189,600
200	385.6	180.9	367.9	64.5	91,300	182,200
205	382.9	185.7	365.5	63.7	86,000	175,100
210	380.2	190.4	363.1	63.0	80,900	168,400
215	377.4	195.2	360.5	62.2	76,100	162,000
220	374.5	200.0	357.9	61.4	71,500	155,900
225	371.5	204.8	355.2	60.6	67,100	150,100
230	368.4	209.6	352.4	59.8	63,000	144,600
240	361.9	219.1	346.5	58.2	55,100	134,300
250	355.0	228.7	340.2	56.6	47,900	124,800
260	347.7	238.3	333.5	54.9	41,200	116,100
270	339.9	247.9	326.3	53.2	35,000	108,000
280	331.6	257.5	318.7	51.4	29,200	100,600
290	322.8	267.0	310.6	49.6	23,900	93,700
300	313.3	276.7	301.9	47.7	18,800	87,200
320	292.5	295.9	282.7	43.8		75,500
340	268.4	315.3	260.4	39.6		65,200
360	240.2	334.7	234.2	34.9		56,000
380						

# MLC650 VPC-MAX S-2

ASME B30.5



661,300 lb

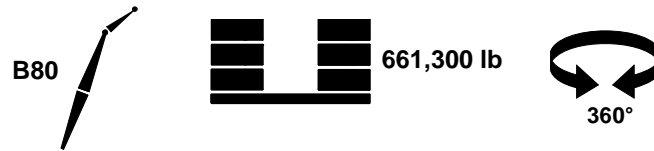


360°

		400.3 ft		41°			
						38.7 ft	
						60.0 ft	
						lb	
						lb	
54							
55							
56							
57							
58							
59	428.4	44.9	406.9	85.0	244,000	244,000	244,000
60	428.2	45.8	406.8	84.8	244,000	244,000	244,000
61	428.1	46.8	406.7	84.7	244,000	244,000	244,000
62	428.0	47.8	406.6	84.5	244,000	244,000	244,000
63	427.8	48.7	406.5	84.4	244,000	244,000	244,000
65	427.5	50.6	406.2	84.1	244,000	244,000	244,000
70	426.8	55.3	405.7	83.4	244,000	244,000	244,000
75	426.0	60.1	405.0	82.8	244,000	244,000	244,000
80	425.1	64.8	404.3	82.1	244,000	244,000	244,000
85	424.2	69.6	403.6	81.4	244,000	244,000	244,000
90	423.2	74.4	402.8	80.7	244,000	244,000	244,000
95	422.1	79.1	401.9	80.0	244,000	244,000	244,000
100	421.0	83.9	401.0	79.3	244,000	244,000	244,000
105	419.8	88.6	400.0	78.6	244,000	244,000	244,000
110	418.5	93.4	398.9	77.9	244,000	244,000	244,000
115	417.2	98.1	397.8	77.2	244,000	244,000	244,000
120	415.8	102.9	396.6	76.5	240,700	244,000	244,000
125	414.4	107.6	395.4	75.8	225,700	244,000	244,000
130	412.9	112.4	394.1	75.1	211,800	244,000	244,000
135	411.3	117.2	392.7	74.3	199,000	244,000	244,000
140	409.6	122.0	391.3	73.6	187,200	243,300	243,300
145	407.9	126.7	389.8	72.9	176,200	239,100	239,100
150	406.1	131.5	388.2	72.2	165,900	235,000	235,000
155	404.2	136.3	386.6	71.5	156,400	231,000	231,000
160	402.3	141.1	384.9	70.7	147,400	227,200	227,200
165	400.3	145.9	383.1	70.0	139,000	223,400	223,400
170	398.2	150.6	381.3	69.3	131,200	219,800	219,800
175	396.0	155.4	379.4	68.5	123,700	216,200	216,200
180	393.8	160.2	377.4	67.8	116,700	212,800	212,800
185	391.5	165.0	375.3	67.0	110,100	206,700	206,700
190	389.1	169.8	373.2	66.3	103,900	198,400	198,400
195	386.6	174.6	371.0	65.5	97,900	190,400	190,400
200	384.0	179.4	368.7	64.8	92,300	183,000	183,000
205	381.4	184.1	366.3	64.0	87,000	175,800	175,800
210	378.6	189.0	363.9	63.2	81,900	169,100	169,100
215	375.8	193.8	361.3	62.4	77,000	162,700	162,700
220	372.9	198.6	358.7	61.6	72,400	156,600	156,600
225	369.9	203.4	356.0	60.9	68,000	150,800	150,800
230	366.8	208.2	353.2	60.1	63,700	145,200	145,200
240	360.3	217.8	347.3	58.4	55,800	134,800	134,800
250	353.3	227.4	341.0	56.8	48,500	125,300	125,300
260	346.0	237.1	334.3	55.1	41,800	116,500	116,500
270	338.1	246.8	327.2	53.4	35,500	108,400	108,400
280	329.8	256.4	319.5	51.6	29,700	100,900	100,900
290	320.9	266.1	311.4	49.8	24,300	94,000	94,000
300	311.4	275.8	302.7	47.9	19,200	87,500	87,500
320	290.4	295.3	283.4	44.0		75,700	75,700
340							
360							
380							

# MLC650 VPC-MAX S-2

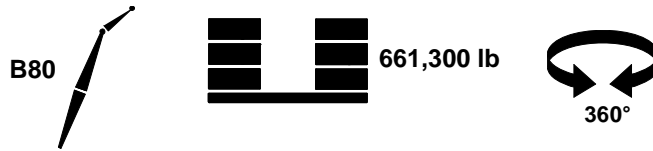
ASME B30.5



 410.1 ft		 28°				
ft	ft	ft	ft	°	38.7 ft lb	60.0 ft lb
55	441.2	45.7	416.6	85.0	251,400	251,400
56	441.0	46.7	416.5	84.8	251,400	251,400
57	440.9	47.6	416.4	84.7	251,400	251,400
58	440.8	48.5	416.3	84.6	251,400	251,400
59	440.7	49.4	416.2	84.4	251,400	251,400
60	440.5	50.4	416.1	84.3	251,400	251,400
61	440.4	51.3	416.0	84.2	251,400	251,400
62	440.3	52.2	415.9	84.0	251,400	251,400
63	440.2	53.2	415.8	83.9	251,400	251,400
64	440.0	54.2	415.7	83.8	251,400	251,400
65	439.9	55.1	415.6	83.6	251,400	251,400
70	439.1	59.8	415.0	83.0	251,300	251,300
75	438.4	64.5	414.3	82.3	251,200	251,200
80	437.5	69.3	413.6	81.6	251,200	251,200
85	436.6	74.0	412.8	81.0	251,100	251,100
90	435.6	78.7	411.9	80.3	251,000	251,000
95	434.6	83.4	411.0	79.6	250,900	250,900
100	433.5	88.1	410.1	78.9	250,800	250,800
105	432.4	92.9	409.1	78.3	250,700	250,700
110	431.1	97.6	408.0	77.6	250,600	250,600
115	429.9	102.3	406.9	76.9	250,400	250,400
120	428.5	107.1	405.7	76.2	235,700	250,300
125	427.1	111.8	404.4	75.5	220,800	250,200
130	425.6	116.5	403.1	74.8	207,200	250,000
135	424.1	121.2	401.8	74.1	194,600	246,800
140	422.5	125.9	400.3	73.5	182,900	242,100
145	420.8	130.7	398.8	72.8	172,100	237,500
150	419.1	135.4	397.3	72.1	162,000	233,000
155	417.3	140.2	395.6	71.4	152,600	228,600
160	415.4	144.9	393.9	70.6	143,800	224,300
165	413.5	149.7	392.2	69.9	135,500	220,200
170	411.4	154.4	390.3	69.2	127,800	216,200
175	409.4	159.1	388.5	68.5	120,500	212,300
180	407.2	163.8	386.5	67.8	113,600	208,500
185	404.9	168.6	384.4	67.1	107,100	204,400
190	402.6	173.4	382.3	66.3	100,900	196,100
195	400.2	178.1	380.1	65.6	95,100	188,300
200	397.8	182.8	377.9	64.9	89,600	180,900
205	395.2	187.6	375.6	64.1	84,300	173,800
210	392.6	192.3	373.2	63.4	79,300	167,200
215	389.8	197.1	370.6	62.6	74,500	160,800
220	387.0	201.8	368.1	61.9	70,000	154,800
225	384.1	206.6	365.4	61.1	65,600	149,000
230	381.1	211.3	362.7	60.3	61,500	143,500
240	374.9	220.8	357.0	58.8	53,700	133,200
250	368.2	230.3	350.8	57.2	46,500	123,800
260	361.2	239.8	344.4	55.6	39,900	115,100
270	353.7	249.4	337.5	53.9	33,700	107,100
280	345.8	258.9	330.1	52.2	28,000	99,700
290	337.3	268.4	322.3	50.5	22,700	92,800
300	328.3	278.0	314.0	48.7	17,800	86,400
320	308.5	297.1	295.7	45.0		74,800
340	285.9	316.3	274.6	41.0		64,600
360	259.6	335.5	250.2	36.7		55,400
380	228.4	354.8	221.1	31.8		47,300

# MLC650 VPC-MAX S-2

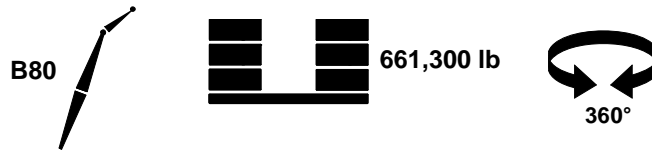
ASME B30.5



410.1 ft		35°				
ft	ft	ft	ft	°	38.7 ft lb	60.0 ft lb
55						
56						
57	439.9	45.3	416.7	85.0	249,400	249,400
58	439.8	46.2	416.6	84.9	249,400	249,400
59	439.6	47.1	416.5	84.8	249,400	249,400
60	439.5	48.1	416.4	84.6	249,400	249,400
61	439.4	49.1	416.3	84.5	249,400	249,400
62	439.3	50.1	416.2	84.3	249,400	249,400
63	439.1	51.0	416.1	84.2	249,400	249,400
64	439.0	51.9	416.0	84.1	249,400	249,400
65	438.8	52.9	415.8	83.9	249,400	249,400
70	438.1	57.6	415.3	83.3	249,400	249,400
75	437.3	62.3	414.6	82.6	249,400	249,400
80	436.5	67.1	413.9	81.9	249,300	249,300
85	435.6	71.8	413.1	81.3	249,300	249,300
90	434.6	76.5	412.3	80.6	249,200	249,200
95	433.6	81.3	411.5	79.9	249,200	249,200
100	432.5	86.0	410.5	79.2	249,100	249,100
105	431.3	90.8	409.5	78.6	249,000	249,000
110	430.1	95.5	408.5	77.9	249,000	249,000
115	428.8	100.2	407.4	77.2	248,900	248,900
120	427.5	105.0	406.2	76.5	238,000	248,800
125	426.1	109.7	405.0	75.8	223,000	248,600
130	424.6	114.5	403.7	75.1	209,300	244,000
135	423.0	119.3	402.3	74.4	196,600	239,500
140	421.4	124.0	400.9	73.7	184,800	235,000
145	419.8	128.7	399.5	73.0	173,900	230,700
150	418.0	133.5	397.9	72.3	163,700	226,500
155	416.2	138.3	396.3	71.6	154,200	222,400
160	414.3	143.0	394.6	70.9	145,400	218,300
165	412.4	147.7	392.9	70.2	137,000	214,500
170	410.3	152.5	391.1	69.5	129,200	210,700
175	408.2	157.3	389.2	68.8	121,900	207,000
180	406.1	162.1	387.2	68.1	114,900	203,500
185	403.8	166.8	385.2	67.3	108,400	200,000
190	401.5	171.5	383.1	66.6	102,200	196,700
195	399.1	176.4	381.0	65.9	96,300	189,200
200	396.6	181.1	378.7	65.1	90,700	181,700
205	394.0	185.9	376.4	64.4	85,400	174,700
210	391.4	190.6	374.0	63.6	80,300	168,000
215	388.7	195.4	371.5	62.9	75,500	161,600
220	385.8	200.2	369.0	62.1	70,900	155,500
225	382.9	205.0	366.3	61.4	66,500	149,700
230	379.9	209.7	363.6	60.6	62,300	144,200
240	373.7	219.3	357.9	59.0	54,500	133,800
250	367.0	228.9	351.8	57.4	47,300	124,400
260	359.9	238.5	345.3	55.8	40,600	115,700
270	352.4	248.0	338.5	54.2	34,400	107,600
280	344.4	257.7	331.1	52.5	28,600	100,200
290	335.9	267.2	323.3	50.7	23,300	93,200
300	326.9	276.9	315.0	48.9	18,300	86,800
320	307.0	296.2	296.6	45.2		75,100
340	284.3	315.5	275.6	41.2		64,800
360	257.8	334.9	251.0	36.8		55,600
380						

# MLC650 VPC-MAX S-2

ASME B30.5

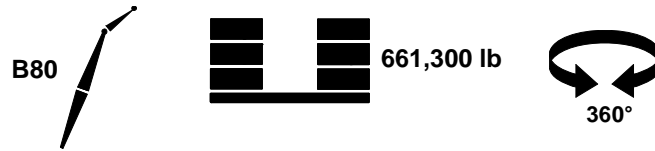


410.1 ft		41°				
ft	ft	ft	ft	°	38.7 ft lb	60.0 ft lb
55						
56						
57						
58						
59						
60	438.1	45.9	416.6	84.9	244,000	244,000
61	438.0	46.9	416.5	84.8	244,000	244,000
62	437.9	47.8	416.4	84.7	244,000	244,000
63	437.7	48.7	416.3	84.5	244,000	244,000
64	437.6	49.7	416.2	84.4	244,000	244,000
65	437.5	50.6	416.1	84.3	244,000	244,000
70	436.7	55.4	415.5	83.6	244,000	244,000
75	435.9	60.2	414.9	82.9	244,000	244,000
80	435.1	64.9	414.2	82.2	244,000	244,000
85	434.2	69.6	413.5	81.6	244,000	244,000
90	433.2	74.4	412.7	80.9	244,000	244,000
95	432.2	79.2	411.9	80.2	244,000	244,000
100	431.1	83.9	410.9	79.5	244,000	244,000
105	429.9	88.7	410.0	78.9	244,000	244,000
110	428.7	93.4	409.0	78.2	244,000	244,000
115	427.4	98.2	407.9	77.5	244,000	244,000
120	426.0	103.0	406.7	76.8	240,200	244,000
125	424.6	107.8	405.5	76.1	225,100	242,200
130	423.2	112.5	404.2	75.4	211,300	237,900
135	421.6	117.3	402.9	74.7	198,500	233,600
140	420.0	122.1	401.5	74.0	186,600	229,400
145	418.3	126.8	400.1	73.3	175,600	225,300
150	416.6	131.6	398.5	72.6	165,400	221,300
155	414.7	136.4	396.9	71.9	155,800	217,400
160	412.9	141.2	395.3	71.2	146,900	213,600
165	410.9	146.0	393.5	70.5	138,500	209,900
170	408.9	150.7	391.8	69.8	130,600	206,300
175	406.8	155.5	389.9	69.1	123,200	202,900
180	404.6	160.3	387.9	68.3	116,200	199,500
185	402.3	165.1	385.9	67.6	109,600	196,300
190	400.0	169.9	383.9	66.9	103,300	193,100
195	397.6	174.7	381.7	66.1	97,400	190,000
200	395.1	179.5	379.5	65.4	91,700	182,500
205	392.5	184.3	377.2	64.6	86,400	175,400
210	389.8	189.1	374.8	63.9	81,300	168,700
215	387.1	193.9	372.3	63.1	76,400	162,300
220	384.3	198.7	369.8	62.4	71,800	156,200
225	381.4	203.5	367.1	61.6	67,400	150,400
230	378.3	208.3	364.4	60.8	63,200	144,800
240	372.0	218.0	358.7	59.3	55,200	134,400
250	365.3	227.6	352.6	57.7	47,900	124,900
260	358.2	237.3	346.2	56.0	41,200	116,100
270	350.7	246.9	339.3	54.4	35,000	108,000
280	342.7	256.6	331.9	52.7	29,100	100,500
290	334.1	266.3	324.1	50.9	23,700	93,600
300	325.0	276.0	315.8	49.1	18,700	87,100
320	305.0	295.4	297.4	45.4		75,300
340	282.1	315.0	276.2	41.3		65,000
360						
380						



# MLC650 VPC-MAX S-2

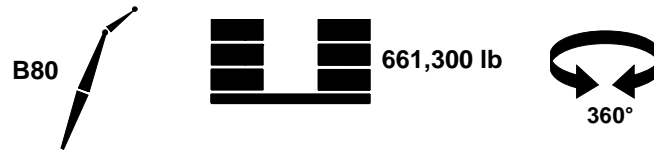
ASME B30.5



		419.9 ft		28°			
						38.7 ft	
						60.0 ft	
ft	ft	ft	ft	°	lb	lb	lb
56	450.9	46.7	426.4	84.9	243,700	243,700	243,700
57	450.8	47.6	426.3	84.8	243,700	243,700	243,700
58	450.7	48.6	426.2	84.7	243,700	243,700	243,700
59	450.6	49.5	426.1	84.6	243,700	243,700	243,700
60	450.5	50.4	426.0	84.4	243,700	243,700	243,700
61	450.3	51.4	425.9	84.3	243,700	243,700	243,700
62	450.2	52.3	425.8	84.2	243,700	243,700	243,700
63	450.1	53.3	425.7	84.0	243,700	243,700	243,700
64	449.9	54.2	425.5	83.9	243,700	243,700	243,700
65	449.8	55.2	425.4	83.8	243,700	243,700	243,700
70	449.1	59.9	424.8	83.1	243,700	243,700	243,700
75	448.3	64.6	424.2	82.5	243,600	243,600	243,600
80	447.5	69.3	423.5	81.8	243,500	243,500	243,500
85	446.6	74.1	422.7	81.2	243,500	243,500	243,500
90	445.7	78.8	421.9	80.5	243,400	243,400	243,400
95	444.7	83.5	421.0	79.8	243,300	243,300	243,300
100	443.6	88.2	420.1	79.2	243,200	243,200	243,200
105	442.5	93.0	419.1	78.5	243,100	243,100	243,100
110	441.3	97.7	418.0	77.9	242,900	242,900	242,900
115	440.0	102.4	416.9	77.2	242,700	242,700	242,700
120	438.7	107.2	415.8	76.5	229,500	242,600	242,600
125	437.3	111.9	414.6	75.9	214,700	242,500	242,500
130	435.9	116.6	413.3	75.2	201,000	242,300	242,300
135	434.4	121.4	411.9	74.5	188,300	242,100	242,100
140	432.8	126.1	410.5	73.8	176,600	241,900	241,900
145	431.2	130.8	409.1	73.2	165,700	241,700	241,700
150	429.5	135.6	407.5	72.5	155,600	241,500	241,500
155	427.8	140.3	405.9	71.8	146,200	241,300	241,300
160	425.9	145.1	404.3	71.1	137,300	241,100	241,100
165	424.0	149.8	402.6	70.4	129,000	238,200	238,200
170	422.1	154.5	400.8	69.7	121,300	227,600	227,600
175	420.0	159.3	398.9	69.0	113,900	217,600	217,600
180	417.9	164.0	397.0	68.3	107,000	208,300	208,300
185	415.7	168.7	395.1	67.6	100,500	199,500	199,500
190	413.5	173.5	393.0	66.9	94,300	191,200	191,200
195	411.1	178.3	390.8	66.2	88,500	183,300	183,300
200	408.7	183.0	388.7	65.5	82,900	175,900	175,900
205	406.2	187.7	386.4	64.8	77,600	168,800	168,800
210	403.7	192.5	384.0	64.0	72,600	162,100	162,100
215	401.0	197.3	381.6	63.3	67,800	155,800	155,800
220	398.3	202.1	379.1	62.6	63,200	149,700	149,700
225	395.5	206.8	376.5	61.8	58,800	143,900	143,900
230	392.6	211.5	373.9	61.1	54,700	138,400	138,400
240	386.5	221.0	368.3	59.6	46,900	128,100	128,100
250	380.1	230.6	362.4	58.0	39,700	118,700	118,700
260	373.3	240.1	356.1	56.5	33,000	110,000	110,000
270	366.0	249.7	349.4	54.9	26,900	102,000	102,000
280	358.4	259.1	342.4	53.2	21,100	94,500	94,500
290	350.2	268.7	334.8	51.6	15,800	87,600	87,600
300	341.6	278.2	326.8	49.9		81,200	81,200
320	322.7	297.4	309.3	46.3		69,500	69,500
340	301.1	316.5	289.2	42.5		59,300	59,300
360	276.3	335.7	266.2	38.4		50,200	50,200
380	247.3	355.1	239.1	33.8		42,000	42,000
400	212.2	374.4	206.3	28.6		34,500	34,500

# MLC650 VPC-MAX S-2

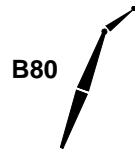
ASME B30.5



		419.9 ft		35°			
						38.7 ft	60.0 ft
						lb	lb
56							
57							
58							
59							
60	449.4	48.2	426.2	84.7	242,200	242,200	
61	449.3	49.1	426.1	84.6	242,200	242,200	
62	449.2	50.1	426.0	84.5	242,200	242,200	
63	449.0	51.0	425.9	84.3	242,200	242,200	
64	448.9	52.0	425.8	84.2	242,200	242,200	
65	448.8	52.9	425.7	84.1	242,200	242,200	
70	448.1	57.6	425.1	83.4	242,200	242,200	
75	447.3	62.4	424.5	82.8	242,200	242,200	
80	446.5	67.1	423.8	82.1	242,100	242,100	
85	445.6	71.9	423.1	81.5	242,100	242,100	
90	444.6	76.6	422.3	80.8	242,000	242,000	
95	443.6	81.3	421.4	80.1	241,900	241,900	
100	442.5	86.1	420.5	79.5	241,800	241,800	
105	441.4	90.9	419.5	78.8	241,800	241,800	
110	440.2	95.6	418.5	78.2	241,700	241,700	
115	439.0	100.3	417.4	77.5	241,600	241,600	
120	437.7	105.1	416.3	76.8	232,000	241,400	
125	436.3	109.8	415.1	76.1	217,000	241,300	
130	434.8	114.6	413.8	75.5	203,200	241,200	
135	433.3	119.4	412.5	74.8	190,400	241,100	
140	431.8	124.1	411.1	74.1	178,600	240,900	
145	430.1	128.9	409.7	73.4	167,700	240,800	
150	428.4	133.6	408.2	72.8	157,500	240,600	
155	426.7	138.4	406.6	72.1	147,900	240,500	
160	424.8	143.2	405.0	71.4	139,000	240,300	
165	422.9	147.9	403.3	70.7	130,700	239,400	
170	421.0	152.7	401.5	70.0	122,800	228,800	
175	418.9	157.5	399.7	69.3	115,400	218,800	
180	416.8	162.2	397.8	68.6	108,400	209,400	
185	414.6	166.9	395.8	67.9	101,900	200,500	
190	412.3	171.7	393.8	67.2	95,600	192,200	
195	410.0	176.5	391.7	66.5	89,700	184,300	
200	407.6	181.3	389.5	65.7	84,100	176,800	
205	405.1	186.0	387.2	65.0	78,800	169,700	
210	402.5	190.8	384.9	64.3	73,700	163,000	
215	399.9	195.6	382.5	63.6	68,900	156,600	
220	397.1	200.4	380.0	62.8	64,300	150,500	
225	394.3	205.1	377.4	62.1	59,900	144,700	
230	391.4	209.9	374.8	61.3	55,600	139,100	
240	385.3	219.5	369.2	59.8	47,700	128,800	
250	378.9	229.1	363.3	58.3	40,500	119,300	
260	372.0	238.7	357.1	56.7	33,800	110,600	
270	364.8	248.3	350.4	55.1	27,600	102,500	
280	357.1	257.9	343.3	53.5	21,800	95,000	
290	348.9	267.5	335.8	51.8	16,400	88,100	
300	340.2	277.1	327.8	50.1		81,600	
320	321.2	296.4	310.2	46.5		69,900	
340	299.5	315.7	290.2	42.7		59,600	
360	274.6	335.1	267.0	38.6		50,400	
380							
400							

# MLC650 VPC-MAX S-2

ASME B30.5



661,300 lb

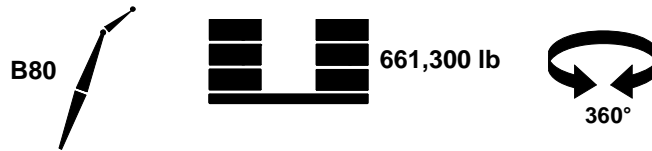


360°

419.9 ft		41°				
ft	ft	ft	ft	°	38.7 ft lb	60.0 ft lb
56						
57						
58						
59						
60						
61	447.9	46.9	426.3	84.9	241,300	241,300
62	447.8	47.8	426.3	84.8	241,300	241,300
63	447.7	48.8	426.2	84.7	241,300	241,300
64	447.5	49.7	426.1	84.5	241,300	241,300
65	447.4	50.7	426.0	84.4	241,300	241,300
70	446.7	55.4	425.4	83.7	241,300	241,300
75	445.9	60.2	424.8	83.1	241,300	241,300
80	445.1	64.9	424.1	82.4	241,300	241,300
85	444.2	69.7	423.4	81.8	241,300	241,300
90	443.2	74.4	422.6	81.1	241,300	241,300
95	442.2	79.3	421.8	80.4	241,300	241,300
100	441.1	84.0	420.9	79.8	241,300	241,300
105	440.0	88.8	420.0	79.1	241,300	241,300
110	438.8	93.5	419.0	78.4	241,200	241,200
115	437.6	98.3	417.9	77.8	241,200	241,200
120	436.2	103.0	416.8	77.1	234,400	241,100
125	434.9	107.9	415.6	76.4	219,200	241,100
130	433.4	112.6	414.4	75.8	205,300	241,000
135	431.9	117.4	413.1	75.1	192,500	240,900
140	430.3	122.2	411.7	74.4	180,600	240,800
145	428.7	127.0	410.3	73.7	169,500	240,800
150	427.0	131.7	408.8	73.0	159,200	240,700
155	425.2	136.5	407.2	72.3	149,600	240,600
160	423.4	141.3	405.6	71.6	140,600	240,500
165	421.5	146.1	403.9	70.9	132,200	238,600
170	419.5	150.9	402.2	70.2	124,300	229,900
175	417.4	155.7	400.4	69.5	116,800	219,800
180	415.3	160.4	398.5	68.8	109,800	210,400
185	413.1	165.2	396.5	68.1	103,100	201,500
190	410.8	170.1	394.5	67.4	96,800	193,100
195	408.5	174.8	392.4	66.7	90,900	185,200
200	406.1	179.6	390.2	66.0	85,200	177,700
205	403.6	184.5	388.0	65.3	79,900	170,500
210	401.0	189.3	385.7	64.5	74,700	163,800
215	398.3	194.1	383.3	63.8	69,900	157,300
220	395.6	198.9	380.8	63.0	65,200	151,200
225	392.7	203.7	378.2	62.3	60,800	145,400
230	389.8	208.5	375.6	61.6	56,500	139,800
240	383.7	218.1	370.0	60.0	48,500	129,400
250	377.2	227.7	364.2	58.5	41,200	119,900
260	370.4	237.4	357.9	56.9	34,400	111,100
270	363.1	247.1	351.2	55.3	28,200	103,000
280	355.3	256.8	344.2	53.7	22,300	95,400
290	347.1	266.4	336.6	52.0	16,900	88,500
300	338.4	276.1	328.6	50.3		81,900
320	319.2	295.6	311.0	46.7		70,200
340	297.4	315.1	290.9	42.8		59,800
360						
380						
400						

# MLC650 VPC-MAX S-2

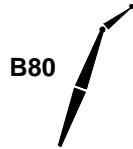
ASME B30.5



429.8 ft		28°				
ft	ft	ft	ft	°	38.7 ft lb	60.0 ft lb
57	460.7	47.7	436.2	84.9	233,200	233,200
58	460.6	48.6	436.1	84.8	233,100	233,100
59	460.5	49.5	436.0	84.7	233,100	233,100
60	460.4	50.5	435.9	84.5	233,100	233,100
61	460.3	51.5	435.8	84.4	233,100	233,100
62	460.1	52.4	435.7	84.3	233,100	233,100
63	460.0	53.3	435.6	84.2	233,100	233,100
64	459.9	54.3	435.5	84.0	233,100	233,100
65	459.7	55.3	435.4	83.9	233,100	233,100
70	459.0	59.9	434.8	83.3	233,000	233,000
75	458.3	64.7	434.2	82.6	233,000	233,000
80	457.5	69.4	433.5	82.0	232,800	232,800
85	456.6	74.1	432.7	81.4	232,800	232,800
90	455.7	78.9	431.9	80.7	232,600	232,600
95	454.7	83.6	431.1	80.1	232,500	232,500
100	453.7	88.3	430.2	79.4	232,400	232,400
105	452.6	93.1	429.2	78.8	232,200	232,200
110	451.4	97.8	428.2	78.1	232,100	232,100
115	450.2	102.6	427.1	77.5	232,000	232,000
120	448.9	107.3	425.9	76.8	230,900	231,800
125	447.6	112.1	424.7	76.2	216,000	231,600
130	446.2	116.8	423.5	75.5	202,300	231,400
135	444.7	121.5	422.2	74.9	189,700	231,200
140	443.2	126.3	420.8	74.2	178,000	231,000
145	441.6	131.0	419.4	73.5	167,100	230,900
150	439.9	135.8	417.9	72.9	157,000	230,700
155	438.2	140.5	416.3	72.2	147,600	230,500
160	436.4	145.3	414.7	71.5	138,700	230,200
165	434.6	150.0	413.0	70.9	130,400	230,000
170	432.6	154.8	411.3	70.2	122,700	228,600
175	430.7	159.5	409.5	69.5	115,300	218,700
180	428.6	164.2	407.6	68.8	108,400	209,400
185	426.5	169.0	405.7	68.1	101,900	200,600
190	424.3	173.8	403.7	67.4	95,700	192,200
195	422.0	178.5	401.6	66.7	89,900	184,400
200	419.7	183.3	399.5	66.0	84,300	177,000
205	417.2	188.0	397.3	65.3	79,000	169,900
210	414.7	192.8	395.0	64.6	74,000	163,200
215	412.2	197.5	392.6	63.9	69,200	156,900
220	409.5	202.3	390.2	63.2	64,700	150,800
225	406.8	207.0	387.7	62.5	60,300	145,000
230	404.0	211.8	385.1	61.8	56,100	139,500
235	401.1	216.6	382.4	61.0	52,100	134,200
240	398.1	221.3	379.7	60.3	48,300	129,200
250	391.8	230.8	373.9	58.8	41,100	119,800
260	385.2	240.4	367.8	57.3	34,500	111,100
270	378.2	249.9	361.4	55.8	28,300	103,100
280	370.8	259.5	354.5	54.2	22,600	95,700
290	363.0	269.0	347.2	52.6	17,300	88,800
300	354.7	278.6	339.5	50.9	12,300	82,300
320	336.5	297.7	322.6	47.5		70,700
340	315.9	316.9	303.5	43.9		60,500
360	292.4	336.1	281.6	40.0		51,400
380	265.3	355.3	256.3	35.7		43,200
400	233.0	374.7	226.1	30.9		35,800

# MLC650 VPC-MAX S-2

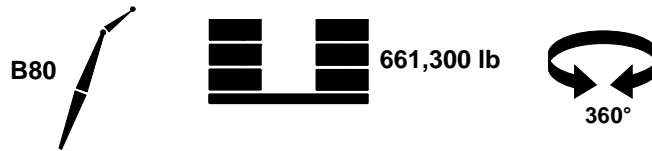
ASME B30.5

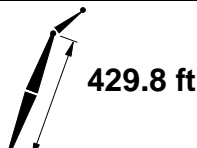
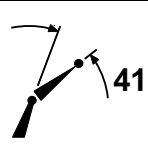
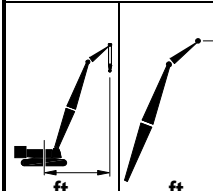
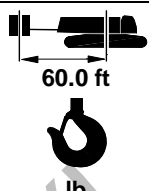


ft	ft	ft	ft	°	lb	
					38.7 ft	60.0 ft
57						
58						
59						
60	459.3	48.2	436.2	84.9	231,900	231,900
61	459.2	49.2	436.1	84.7	231,900	231,900
62	459.1	50.1	436.0	84.6	231,800	231,800
63	459.0	51.1	435.9	84.5	231,800	231,800
64	458.8	52.0	435.8	84.3	231,800	231,800
65	458.7	53.0	435.7	84.2	231,800	231,800
70	458.0	57.7	435.1	83.6	231,800	231,800
75	457.2	62.5	434.5	82.9	231,700	231,700
80	456.4	67.2	433.8	82.3	231,600	231,600
85	455.6	71.9	433.1	81.7	231,600	231,600
90	454.6	76.7	432.3	81.0	231,500	231,500
95	453.7	81.4	431.5	80.4	231,400	231,400
100	452.6	86.2	430.6	79.7	231,300	231,300
105	451.5	91.0	429.6	79.1	231,200	231,200
110	450.3	95.7	428.6	78.4	231,000	231,000
115	449.1	100.5	427.6	77.8	230,900	230,900
120	447.8	105.2	426.5	77.1	230,800	230,800
125	446.5	110.0	425.3	76.5	218,300	230,600
130	445.1	114.7	424.0	75.8	204,500	230,500
135	443.6	119.5	422.7	75.1	191,800	230,400
140	442.1	124.3	421.4	74.5	180,000	230,200
145	440.5	129.0	420.0	73.8	169,000	230,100
150	438.8	133.8	418.5	73.1	158,800	230,000
155	437.1	138.5	417.0	72.5	149,300	229,700
160	435.3	143.3	415.4	71.8	140,400	229,600
165	433.5	148.1	413.7	71.1	132,100	229,400
170	431.5	152.9	412.0	70.4	124,200	227,000
175	429.5	157.6	410.2	69.8	116,800	219,800
180	427.5	162.4	408.4	69.1	109,800	210,500
185	425.4	167.1	406.5	68.4	103,300	201,600
190	423.1	171.9	404.5	67.7	97,000	193,300
195	420.9	176.7	402.4	67.0	91,100	185,400
200	418.5	181.5	400.3	66.3	85,500	177,900
205	416.1	186.2	398.1	65.6	80,200	170,800
210	413.6	191.0	395.8	64.9	75,100	164,100
215	411.0	195.8	393.5	64.2	70,300	157,700
220	408.4	200.6	391.0	63.5	65,700	151,600
225	405.6	205.4	388.6	62.7	61,300	145,800
230	402.8	210.2	386.0	62.0	57,100	140,200
235	399.9	214.9	383.3	61.3	53,100	135,000
240	396.9	219.7	380.6	60.5	49,200	129,900
250	390.6	229.3	374.9	59.1	42,000	120,400
260	384.0	238.9	368.8	57.5	35,300	111,700
270	377.0	248.5	362.3	56.0	29,100	103,600
280	369.5	258.1	355.5	54.4	23,300	96,200
290	361.7	267.7	348.2	52.8	17,900	89,200
300	353.3	277.4	340.5	51.1	12,900	82,800
320	335.0	296.6	323.6	47.7		71,100
340	314.4	315.9	304.5	44.1		60,700
360	290.8	335.3	282.5	40.2		51,600
380	263.4	354.8	257.1	35.9		43,300
400						

# MLC650 VPC-MAX S-2

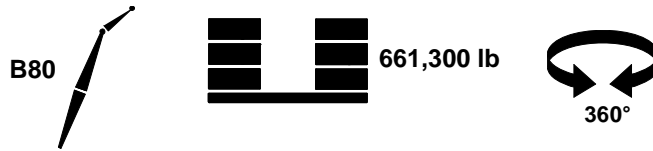
ASME B30.5



		 429.8 ft		 41°			
		 38.7 ft		 60.0 ft			
		ft		ft		lb	
57							
58							
59							
60							
61		457.8	46.9	436.3	85.0	231,200	231,200
62		457.7	47.9	436.2	84.9	231,200	231,200
63		457.6	48.8	436.1	84.8	231,200	231,200
64		457.5	49.8	436.0	84.6	231,200	231,200
65		457.3	50.7	435.9	84.5	231,200	231,200
70		456.6	55.5	435.4	83.9	231,100	231,100
75		455.9	60.2	434.8	83.2	231,100	231,100
80		455.1	65.0	434.1	82.6	231,100	231,100
85		454.2	69.8	433.4	81.9	231,000	231,000
90		453.2	74.6	432.7	81.3	231,000	231,000
95		452.3	79.3	431.9	80.7	231,000	231,000
100		451.2	84.1	431.0	80.0	230,900	230,900
105		450.1	88.8	430.1	79.4	230,800	230,800
110		448.9	93.7	429.1	78.7	230,800	230,800
115		447.7	98.4	428.0	78.0	230,700	230,700
120		446.4	103.2	426.9	77.4	230,600	230,600
125		445.1	107.9	425.8	76.7	220,600	230,600
130		443.7	112.7	424.6	76.1	206,600	230,400
135		442.2	117.6	423.3	75.4	193,800	230,300
140		440.7	122.3	422.0	74.7	181,900	230,300
145		439.1	127.1	420.6	74.1	170,900	230,100
150		437.4	131.9	419.1	73.4	160,600	230,000
155		435.7	136.7	417.6	72.7	151,000	229,900
160		433.9	141.4	416.0	72.1	142,000	227,400
165		432.0	146.2	414.4	71.4	133,600	224,200
170		430.1	151.0	412.7	70.7	125,700	221,100
175		428.1	155.9	410.9	70.0	118,200	218,000
180		426.0	160.6	409.1	69.3	111,200	211,500
185		423.9	165.4	407.2	68.6	104,500	202,600
190		421.7	170.2	405.2	67.9	98,300	194,200
195		419.4	175.1	403.1	67.2	92,300	186,300
200		417.0	179.8	401.0	66.5	86,700	178,800
205		414.6	184.6	398.8	65.8	81,300	171,600
210		412.1	189.4	396.6	65.1	76,200	164,900
215		409.5	194.3	394.2	64.4	71,300	158,400
220		406.8	199.1	391.8	63.7	66,700	152,300
225		404.0	203.9	389.3	63.0	62,200	146,500
230		401.2	208.7	386.8	62.2	58,000	140,900
235		398.3	213.5	384.1	61.5	53,900	135,600
240		395.3	218.3	381.4	60.8	50,000	130,500
250		389.0	228.0	375.7	59.3	42,700	121,000
260		382.3	237.6	369.6	57.7	35,900	112,200
270		375.3	247.3	363.2	56.2	29,700	104,100
280		367.8	257.0	356.3	54.6	23,900	96,600
290		359.9	266.7	349.1	53.0	18,400	89,600
300		351.5	276.4	341.3	51.3	13,400	83,100
320		333.1	295.8	324.4	47.9		71,300
340		312.3	315.3	305.2	44.2		61,000
360							
380							
400							

# MLC650 VPC-MAX S-2

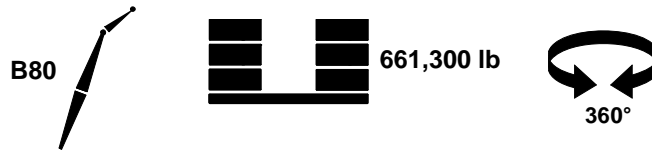
ASME B30.5



439.6 ft		28°		38.7 ft		60.0 ft	
ft	ft	ft	ft	°	lb	lb	lb
58	470.5	48.6	446.0	84.9	221,300	221,300	221,300
59	470.4	49.6	445.9	84.8	221,300	221,300	221,300
60	470.3	50.5	445.8	84.7	221,300	221,300	221,300
61	470.2	51.5	445.7	84.5	221,300	221,300	221,300
62	470.0	52.4	445.6	84.4	221,200	221,200	221,200
63	469.9	53.4	445.5	84.3	221,200	221,200	221,200
64	469.8	54.3	445.4	84.2	221,200	221,200	221,200
65	469.7	55.2	445.3	84.0	221,200	221,200	221,200
66	469.5	56.2	445.1	83.9	221,200	221,200	221,200
70	469.0	60.0	444.7	83.4	221,200	221,200	221,200
75	468.2	64.7	444.1	82.8	221,000	221,000	221,000
80	467.5	69.5	443.4	82.2	221,000	221,000	221,000
85	466.6	74.2	442.6	81.5	220,800	220,800	220,800
90	465.7	79.0	441.9	80.9	220,700	220,700	220,700
95	464.7	83.7	441.0	80.3	220,600	220,600	220,600
100	463.7	88.5	440.1	79.6	220,400	220,400	220,400
105	462.6	93.2	439.2	79.0	220,300	220,300	220,300
110	461.5	97.9	438.2	78.4	220,100	220,100	220,100
115	460.3	102.7	437.1	77.7	219,900	219,900	219,900
120	459.1	107.4	436.0	77.1	219,700	219,700	219,700
125	457.8	112.1	434.8	76.5	214,000	219,500	219,500
130	456.4	116.9	433.6	75.8	200,300	219,400	219,400
135	455.0	121.7	432.3	75.2	187,600	219,100	219,100
140	453.5	126.4	431.0	74.5	175,900	218,900	218,900
145	451.9	131.1	429.6	73.9	165,000	218,700	218,700
150	450.3	135.9	428.1	73.2	154,900	218,500	218,500
155	448.6	140.6	426.6	72.6	145,400	218,300	218,300
160	446.9	145.4	425.0	71.9	136,600	218,100	218,100
165	445.1	150.2	423.4	71.3	128,300	217,800	217,800
170	443.2	154.9	421.7	70.6	120,500	217,700	217,700
175	441.2	159.6	419.9	70.0	113,200	215,000	215,000
180	439.2	164.4	418.1	69.3	106,300	207,800	207,800
185	437.2	169.1	416.2	68.6	99,700	199,000	199,000
190	435.0	173.9	414.2	67.9	93,600	190,700	190,700
195	432.8	178.6	412.2	67.3	87,700	182,800	182,800
200	430.5	183.4	410.2	66.6	82,100	175,400	175,400
205	428.2	188.2	408.0	65.9	76,900	168,300	168,300
210	425.7	192.9	405.8	65.2	71,800	161,600	161,600
215	423.2	197.7	403.4	64.5	67,000	155,300	155,300
220	420.7	202.5	401.1	63.8	62,500	149,200	149,200
225	418.0	207.2	398.7	63.1	58,100	143,400	143,400
230	415.3	212.0	396.1	62.4	53,900	137,900	137,900
235	412.4	216.8	393.5	61.7	49,900	132,600	132,600
240	409.5	221.5	390.9	61.0	46,100	127,600	127,600
250	403.5	231.1	385.3	59.6	38,900	118,200	118,200
260	397.1	240.6	379.3	58.1	32,300	109,500	109,500
270	390.3	250.1	373.1	56.6	26,100	101,500	101,500
280	383.1	259.7	366.5	55.1	20,400	94,000	94,000
290	375.5	269.2	359.4	53.5	15,100	87,100	87,100
300	367.5	278.8	352.0	51.9		80,700	80,700
320	350.0	298.0	335.7	48.6		69,100	69,100
340	330.3	317.1	317.4	45.2		58,800	58,800
360	308.0	336.4	296.5	41.5		49,700	49,700
380	282.4	355.6	272.6	37.4		41,600	41,600
400	252.4	374.9	244.6	33.0		34,200	34,200

# MLC650 VPC-MAX S-2

ASME B30.5

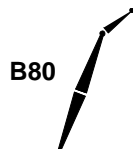


ft	ft	ft	ft	°	lb	
					38.7 ft	60.0 ft
58						
59						
60	469.2	48.2	446.0	85.0	220,300	220,300
61	469.1	49.2	445.9	84.8	220,200	220,200
62	469.0	50.2	445.8	84.7	220,200	220,200
63	468.9	51.1	445.7	84.6	220,200	220,200
64	468.8	52.1	445.6	84.5	220,200	220,200
65	468.6	53.0	445.5	84.3	220,200	220,200
66	468.5	54.0	445.4	84.2	220,200	220,200
70	467.9	57.7	445.0	83.7	220,100	220,100
75	467.2	62.5	444.4	83.1	220,000	220,000
80	466.4	67.3	443.7	82.5	219,900	219,900
85	465.6	72.0	443.0	81.8	219,800	219,800
90	464.7	76.7	442.2	81.2	219,700	219,700
95	463.7	81.6	441.4	80.6	219,600	219,600
100	462.7	86.3	440.5	79.9	219,500	219,500
105	461.6	91.0	439.6	79.3	219,400	219,400
110	460.5	95.8	438.6	78.7	219,200	219,200
115	459.3	100.5	437.6	78.0	219,100	219,100
120	458.0	105.3	436.5	77.4	218,900	218,900
125	456.7	110.0	435.4	76.8	216,300	218,700
130	455.3	114.9	434.1	76.1	202,500	218,600
135	453.9	119.6	432.9	75.5	189,800	218,400
140	452.4	124.4	431.6	74.8	177,900	218,200
145	450.8	129.2	430.2	74.2	167,000	218,100
150	449.2	133.9	428.7	73.5	156,800	217,900
155	447.5	138.6	427.3	72.9	147,200	217,700
160	445.8	143.4	425.7	72.2	138,300	217,600
165	444.0	148.2	424.1	71.5	130,000	215,800
170	442.1	153.0	422.4	70.9	122,100	212,500
175	440.1	157.7	420.7	70.2	114,700	209,300
180	438.1	162.5	418.8	69.6	107,700	206,100
185	436.1	167.3	417.0	68.9	101,100	200,100
190	433.9	172.1	415.0	68.2	94,900	191,700
195	431.7	176.9	413.0	67.5	89,000	183,800
200	429.4	181.7	410.9	66.8	83,400	176,300
205	427.0	186.4	408.8	66.2	78,100	169,200
210	424.6	191.2	406.6	65.5	73,000	162,500
215	422.1	196.0	404.3	64.8	68,200	156,100
220	419.5	200.7	402.0	64.1	63,500	150,000
225	416.8	205.6	399.5	63.4	59,100	144,200
230	414.1	210.3	397.0	62.7	54,900	138,700
235	411.3	215.1	394.4	62.0	50,900	133,400
240	408.4	219.9	391.8	61.2	47,000	128,300
250	402.3	229.5	386.2	59.8	39,800	118,800
260	395.8	239.1	380.3	58.3	33,100	110,100
270	389.0	248.7	374.1	56.8	26,900	102,000
280	381.9	258.3	367.4	55.3	21,100	94,600
290	374.2	267.9	360.4	53.7	15,800	87,600
300	366.2	277.6	353.0	52.1		81,200
320	348.6	296.8	336.7	48.8		69,500
340	328.8	316.2	318.3	45.4		59,200
360	306.4	335.5	297.5	41.6		50,000
380	280.6	355.0	273.4	37.6		41,800
400						



# MLC650 VPC-MAX S-2

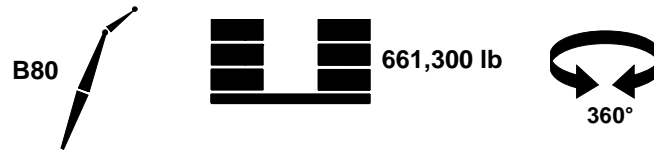
ASME B30.5



		439.6 ft		41°			
	ft	ft	ft	ft	ft	lb	lb
	ft	ft	ft	ft	ft	38.7 ft	60.0 ft
58							
59							
60							
61							
62	467.6	47.9	446.0	85.0	219,700	219,700	
63	467.5	48.9	445.9	84.9	219,700	219,700	
64	467.4	49.8	445.8	84.8	219,700	219,700	
65	467.2	50.8	445.8	84.6	219,700	219,700	
66	467.1	51.7	445.6	84.5	219,700	219,700	
70	466.6	55.5	445.2	84.0	219,700	219,700	
75	465.8	60.3	444.6	83.4	219,600	219,600	
80	465.0	65.1	444.0	82.7	219,600	219,600	
85	464.2	69.9	443.3	82.1	219,500	219,500	
90	463.3	74.6	442.6	81.5	219,400	219,400	
95	462.3	79.4	441.8	80.9	219,300	219,300	
100	461.3	84.2	440.9	80.2	219,200	219,200	
105	460.2	88.9	440.0	79.6	219,100	219,100	
110	459.0	93.7	439.1	78.9	219,100	219,100	
115	457.8	98.5	438.0	78.3	218,900	218,900	
120	456.6	103.3	437.0	77.7	218,800	218,800	
125	455.3	108.0	435.9	77.0	218,600	218,700	
130	453.9	112.9	434.7	76.4	204,700	218,600	
135	452.5	117.6	433.4	75.7	191,800	218,500	
140	451.0	122.4	432.1	75.1	179,900	218,400	
145	449.4	127.2	430.8	74.4	168,800	218,200	
150	447.8	132.0	429.3	73.8	158,500	218,100	
155	446.1	136.8	427.9	73.1	148,900	216,900	
160	444.3	141.6	426.3	72.5	139,900	213,600	
165	442.5	146.3	424.7	71.8	131,500	210,500	
170	440.6	151.2	423.0	71.1	123,600	207,400	
175	438.7	155.9	421.3	70.5	116,100	204,400	
180	436.7	160.7	419.5	69.8	109,100	201,400	
185	434.6	165.6	417.6	69.1	102,500	198,500	
190	432.4	170.3	415.7	68.5	96,200	192,700	
195	430.2	175.2	413.7	67.8	90,200	184,700	
200	427.9	180.0	411.7	67.1	84,600	177,200	
205	425.5	184.8	409.5	66.4	79,200	170,100	
210	423.1	189.6	407.3	65.7	74,100	163,300	
215	420.6	194.4	405.1	65.0	69,200	156,900	
220	418.0	199.2	402.7	64.3	64,500	150,800	
225	415.3	204.0	400.3	63.6	60,100	144,900	
230	412.5	208.8	397.8	62.9	55,800	139,400	
235	409.7	213.6	395.2	62.2	51,800	134,000	
240	406.8	218.4	392.6	61.5	47,900	128,900	
250	400.7	228.1	387.0	60.0	40,600	119,400	
260	394.2	237.8	381.1	58.5	33,800	110,600	
270	387.4	247.5	374.9	57.0	27,500	102,500	
280	380.1	257.1	368.3	55.5	21,700	95,000	
290	372.5	266.8	361.3	53.9	16,300	88,000	
300	364.4	276.5	353.8	52.3		81,500	
320	346.7	295.9	337.5	49.0		69,800	
340	326.8	315.4	319.1	45.5		59,400	
360	304.2	335.0	298.1	41.7		50,200	
380							
400							

# MLC650 VPC-MAX S-2

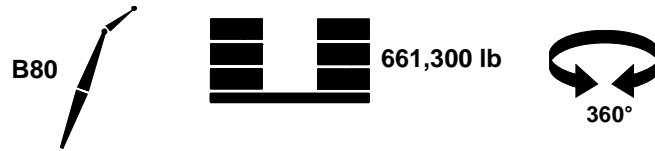
ASME B30.5



449.5 ft		28°				
ft	ft	ft	ft	°	38.7 ft lb	60.0 ft lb
58	480.4	48.7	455.9	85.0	210,500	210,500
59	480.3	49.7	455.8	84.9	210,500	210,500
60	480.2	50.6	455.7	84.8	210,500	210,500
61	480.1	51.5	455.6	84.7	210,400	210,400
62	480.0	52.5	455.5	84.5	210,400	210,400
63	479.8	53.5	455.4	84.4	210,400	210,400
64	479.7	54.4	455.3	84.3	210,400	210,400
65	479.6	55.3	455.2	84.2	210,400	210,400
66	479.5	56.3	455.1	84.0	210,400	210,400
67	479.3	57.2	455.0	83.9	210,400	210,400
70	478.9	60.1	454.6	83.6	210,300	210,300
75	478.2	64.8	454.0	82.9	210,100	210,100
80	477.4	69.6	453.4	82.3	210,000	210,000
85	476.6	74.3	452.7	81.7	209,900	209,900
90	475.7	79.0	451.9	81.1	209,700	209,700
95	474.8	83.8	451.1	80.5	209,600	209,600
100	473.8	88.6	450.2	79.9	209,300	209,300
105	472.7	93.3	449.3	79.2	209,200	209,200
110	471.6	98.1	448.3	78.6	209,000	209,000
115	470.4	102.8	447.2	78.0	208,800	208,800
120	469.2	107.5	446.2	77.4	208,600	208,600
125	467.9	112.3	445.0	76.8	208,400	208,400
130	466.6	117.0	443.8	76.1	199,700	208,200
135	465.2	121.8	442.6	75.5	187,000	208,000
140	463.7	126.5	441.2	74.9	175,300	207,800
145	462.2	131.3	439.9	74.2	164,400	207,600
150	460.6	136.0	438.4	73.6	154,300	207,300
155	459.0	140.8	436.9	73.0	144,800	207,100
160	457.3	145.6	435.4	72.3	136,000	206,900
165	455.5	150.3	433.8	71.7	127,700	206,700
170	453.7	155.0	432.2	71.0	119,900	204,800
175	451.8	159.8	430.4	70.4	112,600	201,500
180	449.9	164.6	428.6	69.7	105,600	198,300
185	447.8	169.3	426.8	69.1	99,100	195,000
190	445.7	174.1	424.9	68.4	92,900	190,200
195	443.6	178.9	422.9	67.8	87,100	182,400
200	441.4	183.6	420.9	67.1	81,500	174,900
205	439.1	188.4	418.8	66.4	76,200	167,900
210	436.7	193.2	416.6	65.8	71,200	161,200
215	434.3	197.9	414.4	65.1	66,400	154,800
220	431.7	202.7	412.0	64.4	61,800	148,700
230	426.5	212.2	407.2	63.1	53,300	137,500
240	420.9	221.7	402.1	61.7	45,500	127,100
250	415.0	231.3	396.6	60.3	38,300	117,700
260	408.8	240.8	390.9	58.8	31,700	109,000
270	402.2	250.4	384.8	57.4	25,500	101,000
280	395.3	260.0	378.4	55.9	19,800	93,600
290	387.9	269.5	371.6	54.4	14,500	86,700
300	380.2	279.1	364.4	52.9		80,300
320	363.3	298.3	348.7	49.7		68,600
340	344.4	317.5	331.0	46.4		58,400
360	323.1	336.7	311.1	42.8		49,300
380	298.8	356.0	288.4	39.0		41,200
400	270.8	375.3	262.1	34.9		33,800
420	237.5	394.6	231.0	30.2		27,100

# MLC650 VPC-MAX S-2

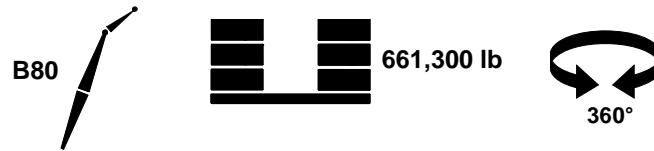
ASME B30.5



449.5 ft		35°		38.7 ft		60.0 ft	
ft	ft	ft	ft	°	lb	lb	lb
58							
59							
60							
61	479.0	49.3	455.9	84.9	209,500	209,500	209,500
62	478.9	50.2	455.8	84.8	209,500	209,500	209,500
63	478.8	51.1	455.7	84.7	209,500	209,500	209,500
64	478.7	52.2	455.6	84.6	209,500	209,500	209,500
65	478.5	53.1	455.5	84.5	209,500	209,500	209,500
66	478.4	54.0	455.4	84.3	209,400	209,400	209,400
67	478.3	54.9	455.3	84.2	209,400	209,400	209,400
70	477.9	57.8	454.9	83.8	209,400	209,400	209,400
75	477.2	62.6	454.3	83.2	209,200	209,200	209,200
80	476.4	67.4	453.7	82.6	209,200	209,200	209,200
85	475.5	72.1	453.0	82.0	209,000	209,000	209,000
90	474.7	76.9	452.2	81.4	208,800	208,800	208,800
95	473.7	81.6	451.4	80.8	208,700	208,700	208,700
100	472.7	86.3	450.6	80.2	208,500	208,500	208,500
105	471.7	91.1	449.7	79.5	208,400	208,400	208,400
110	470.5	95.9	448.7	78.9	208,200	208,200	208,200
115	469.4	100.7	447.7	78.3	208,100	208,100	208,100
120	468.2	105.4	446.6	77.7	207,900	207,900	207,900
125	466.9	110.2	445.5	77.0	207,700	207,700	207,700
130	465.5	115.0	444.3	76.4	201,900	207,500	207,500
135	464.1	119.7	443.1	75.8	189,200	207,400	207,400
140	462.7	124.5	441.8	75.1	177,300	207,200	207,200
145	461.1	129.3	440.4	74.5	166,400	207,000	207,000
150	459.6	134.0	439.1	73.9	156,200	206,800	206,800
155	457.9	138.8	437.6	73.2	146,600	206,600	206,600
160	456.2	143.6	436.1	72.6	137,700	206,200	206,200
165	454.4	148.3	434.5	72.0	129,300	202,900	202,900
170	452.6	153.1	432.8	71.3	121,500	199,700	199,700
175	450.7	157.9	431.1	70.7	114,100	196,500	196,500
180	448.7	162.7	429.4	70.0	107,100	193,500	193,500
185	446.7	167.5	427.5	69.3	100,500	190,400	190,400
190	444.6	172.2	425.6	68.7	94,300	187,500	187,500
195	442.5	177.1	423.7	68.0	88,400	183,400	183,400
200	440.2	181.8	421.7	67.4	82,800	175,900	175,900
205	437.9	186.6	419.6	66.7	77,400	168,800	168,800
210	435.5	191.4	417.4	66.0	72,400	162,100	162,100
215	433.1	196.2	415.2	65.3	67,500	155,700	155,700
220	430.6	200.9	412.9	64.7	62,900	149,600	149,600
230	425.3	210.6	408.1	63.3	54,300	138,200	138,200
240	419.7	220.2	403.0	61.9	46,400	127,900	127,900
250	413.8	229.8	397.5	60.5	39,200	118,400	118,400
260	407.6	239.4	391.8	59.1	32,500	109,600	109,600
270	401.0	248.9	385.8	57.6	26,300	101,600	101,600
280	394.0	258.6	379.3	56.1	20,500	94,100	94,100
290	386.7	268.2	372.5	54.6	15,100	87,200	87,200
300	378.9	277.8	365.4	53.1		80,700	80,700
320	361.9	297.1	349.7	49.9		69,000	69,000
340	342.9	316.4	332.0	46.6		58,700	58,700
360	321.5	335.8	312.1	43.0		49,600	49,600
380	297.1	355.2	289.3	39.2		41,400	41,400
400	268.9	374.7	262.9	35.0		34,000	34,000
420							

# MLC650 VPC-MAX S-2

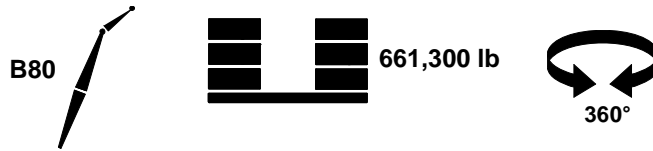
ASME B30.5



	449.5 ft		41°		38.7 ft	60.0 ft
	ft	ft	ft	ft	lb	lb
58						
59						
60						
61						
62						
63	477.4	48.9	455.9	85.0	209,100	209,100
64	477.3	49.9	455.8	84.9	209,000	209,000
65	477.2	50.8	455.7	84.7	209,000	209,000
66	477.0	51.8	455.6	84.6	209,000	209,000
67	476.9	52.7	455.5	84.5	209,000	209,000
70	476.5	55.6	455.2	84.1	209,000	209,000
75	475.8	60.4	454.6	83.5	208,900	208,900
80	475.0	65.1	454.0	82.9	208,800	208,800
85	474.2	69.9	453.3	82.3	208,700	208,700
90	473.3	74.7	452.6	81.7	208,600	208,600
95	472.3	79.5	451.8	81.0	208,500	208,500
100	471.3	84.3	451.0	80.4	208,400	208,400
105	470.3	89.0	450.1	79.8	208,300	208,300
110	469.1	93.8	449.2	79.2	208,100	208,100
115	468.0	98.6	448.2	78.6	208,000	208,000
120	466.7	103.4	447.1	77.9	207,900	207,900
125	465.5	108.1	446.0	77.3	207,700	207,700
130	464.1	112.9	444.8	76.7	204,100	207,600
135	462.7	117.8	443.6	76.0	191,200	207,400
140	461.2	122.5	442.3	75.4	179,300	207,300
145	459.7	127.3	441.0	74.8	168,300	207,100
150	458.1	132.2	439.6	74.1	158,000	207,000
155	456.5	136.9	438.2	73.5	148,400	204,500
160	454.8	141.7	436.7	72.8	139,400	201,300
165	453.0	146.5	435.1	72.2	130,900	198,200
170	451.1	151.3	433.5	71.6	123,000	195,200
175	449.2	156.1	431.8	70.9	115,500	192,200
180	447.3	160.9	430.0	70.2	108,500	189,300
185	445.2	165.7	428.2	69.6	101,900	186,400
190	443.1	170.6	426.3	68.9	95,600	183,600
195	441.0	175.3	424.4	68.3	89,600	180,900
200	438.7	180.2	422.4	67.6	84,000	176,800
205	436.4	185.0	420.3	66.9	78,600	169,700
210	434.0	189.8	418.2	66.3	73,500	162,900
215	431.6	194.6	415.9	65.6	68,600	156,500
220	429.0	199.4	413.6	64.9	63,900	150,400
230	423.8	209.0	408.8	63.5	55,200	138,900
240	418.2	218.7	403.8	62.1	47,300	128,500
250	412.2	228.3	398.4	60.7	40,000	119,000
260	406.0	238.0	392.7	59.3	33,200	110,200
270	399.3	247.6	386.6	57.8	26,900	102,100
280	392.3	257.3	380.2	56.3	21,100	94,600
290	384.9	267.0	373.4	54.8	15,700	87,600
300	377.1	276.7	366.2	53.3		81,100
320	360.1	296.1	350.5	50.1		69,400
340	341.0	315.6	332.8	46.7		59,000
360	319.4	335.2	312.8	43.1		49,800
380						
400						
420						

# MLC650 VPC-MAX S-2

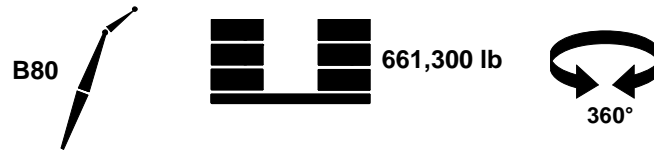
ASME B30.5



459.3 ft		28°				
ft	ft	ft	ft	°	38.7 ft lb	60.0 ft lb
59	490.2	49.7	465.7	85.0	200,000	200,000
60	490.1	50.6	465.6	84.9	199,900	199,900
61	490.0	51.6	465.5	84.8	199,900	199,900
62	489.9	52.5	465.4	84.6	199,900	199,900
63	489.7	53.5	465.3	84.5	199,900	199,900
64	489.6	54.4	465.2	84.4	199,800	199,800
65	489.5	55.4	465.1	84.3	199,800	199,800
66	489.4	56.3	465.0	84.2	199,800	199,800
67	489.2	57.3	464.9	84.0	199,800	199,800
68	489.1	58.2	464.7	83.9	199,800	199,800
70	488.8	60.1	464.5	83.7	199,700	199,700
75	488.1	64.9	463.9	83.1	199,600	199,600
80	487.4	69.6	463.3	82.5	199,400	199,400
85	486.6	74.4	462.6	81.9	199,200	199,200
90	485.7	79.1	461.8	81.3	199,100	199,100
95	484.8	83.8	461.0	80.7	198,900	198,900
100	483.8	88.6	460.1	80.1	198,700	198,700
105	482.8	93.3	459.2	79.5	198,500	198,500
110	481.7	98.1	458.3	78.9	198,300	198,300
115	480.5	102.9	457.3	78.3	198,000	198,000
120	479.4	107.6	456.2	77.6	197,800	197,800
125	478.1	112.4	455.1	77.0	197,600	197,600
130	476.8	117.1	453.9	76.4	197,400	197,400
135	475.4	121.9	452.7	75.8	184,900	197,100
140	474.0	126.6	451.4	75.2	173,200	196,900
145	472.5	131.4	450.0	74.6	162,300	196,700
150	471.0	136.1	448.7	74.0	152,100	196,500
155	469.4	140.9	447.2	73.3	142,700	196,200
160	467.7	145.7	445.7	72.7	133,800	196,000
165	466.0	150.5	444.1	72.1	125,500	195,500
170	464.2	155.2	442.5	71.4	117,700	192,200
175	462.3	160.0	440.8	70.8	110,400	189,000
180	460.4	164.8	439.0	70.2	103,400	185,800
185	458.4	169.5	437.3	69.5	96,900	182,700
190	456.4	174.2	435.4	68.9	90,700	179,700
195	454.3	179.0	433.5	68.3	84,900	176,700
200	452.1	183.8	431.5	67.6	79,300	173,300
205	449.9	188.5	429.4	67.0	74,000	166,300
210	447.6	193.3	427.3	66.3	69,000	159,600
215	445.2	198.1	425.1	65.7	64,200	153,200
220	442.8	202.9	422.8	65.0	59,600	147,100
230	437.6	212.4	418.1	63.7	51,100	135,800
240	432.2	222.0	413.1	62.3	43,200	125,500
250	426.5	231.5	407.9	60.9	36,100	116,100
260	420.4	241.1	402.3	59.6	29,400	107,400
270	414.1	250.6	396.3	58.1	23,300	99,300
280	407.3	260.2	390.1	56.7	17,600	91,900
290	400.2	269.7	383.5	55.3	12,200	85,000
300	392.7	279.3	376.5	53.8		78,600
320	376.4	298.5	361.3	50.7		67,000
340	358.2	317.7	344.3	47.5		56,800
360	337.8	336.9	325.2	44.1		47,700
380	314.7	356.2	303.7	40.5		39,500
400	288.2	375.5	278.8	36.6		32,200
420	257.4	394.8	249.9	32.2		25,500

# MLC650 VPC-MAX S-2

ASME B30.5



		459.3 ft		35°			
						38.7 ft	60.0 ft
						lb	lb
59							
60							
61							
62	488.8	50.2	465.6	84.9	199,200	199,200	
63	488.7	51.2	465.5	84.8	199,200	199,200	
64	488.6	52.1	465.4	84.7	199,100	199,100	
65	488.5	53.1	465.3	84.6	199,100	199,100	
66	488.3	54.0	465.2	84.5	199,000	199,000	
67	488.2	55.0	465.1	84.3	199,000	199,000	
68	488.1	55.9	465.0	84.2	199,000	199,000	
70	487.8	57.8	464.8	84.0	199,000	199,000	
75	487.1	62.6	464.2	83.4	198,800	198,800	
80	486.3	67.4	463.6	82.8	198,700	198,700	
85	485.5	72.2	462.9	82.2	198,500	198,500	
90	484.7	76.9	462.2	81.6	198,400	198,400	
95	483.7	81.6	461.4	81.0	198,200	198,200	
100	482.8	86.4	460.5	80.4	198,000	198,000	
105	481.7	91.2	459.6	79.7	197,800	197,800	
110	480.6	96.0	458.7	79.1	197,700	197,700	
115	479.5	100.7	457.7	78.5	197,500	197,500	
120	478.3	105.5	456.7	77.9	197,300	197,300	
125	477.0	110.3	455.6	77.3	197,100	197,100	
130	475.7	115.0	454.4	76.7	196,900	196,900	
135	474.3	119.8	453.2	76.1	187,100	196,700	
140	472.9	124.6	451.9	75.5	175,300	196,500	
145	471.4	129.4	450.6	74.8	164,300	196,300	
150	469.9	134.1	449.2	74.2	154,100	196,100	
155	468.3	138.9	447.8	73.6	144,500	195,800	
160	466.6	143.7	446.3	73.0	135,600	194,000	
165	464.9	148.5	444.8	72.3	127,200	190,800	
170	463.1	153.2	443.2	71.7	119,300	187,700	
175	461.2	158.1	441.5	71.1	111,900	184,600	
180	459.3	162.8	439.8	70.4	105,000	181,500	
185	457.3	167.6	438.0	69.8	98,400	178,600	
190	455.3	172.4	436.1	69.2	92,100	175,800	
195	453.2	177.2	434.2	68.5	86,200	173,000	
200	451.0	182.0	432.2	67.9	80,600	170,300	
205	448.8	186.8	430.2	67.2	75,300	167,200	
210	446.4	191.5	428.1	66.6	70,200	160,500	
215	444.1	196.3	425.9	65.9	65,300	154,100	
220	441.6	201.1	423.7	65.2	60,700	148,000	
230	436.5	210.7	419.0	63.9	52,100	136,600	
240	431.0	220.3	414.0	62.5	44,200	126,300	
250	425.3	229.9	408.8	61.2	37,000	116,800	
260	419.2	239.5	403.2	59.8	30,300	108,000	
270	412.8	249.2	397.3	58.4	24,100	100,000	
280	406.1	258.7	391.0	56.9	18,300	92,500	
290	398.9	268.4	384.5	55.5	12,900	85,500	
300	391.4	278.0	377.5	54.0		79,100	
320	375.0	297.3	362.3	50.9		67,400	
340	356.8	316.6	345.4	47.7		57,100	
360	336.2	336.0	326.2	44.3		48,000	
380	313.0	355.4	304.6	40.6		39,800	
400	286.4	374.9	279.7	36.7		32,400	
420							

# MLC650 VPC-MAX S-2

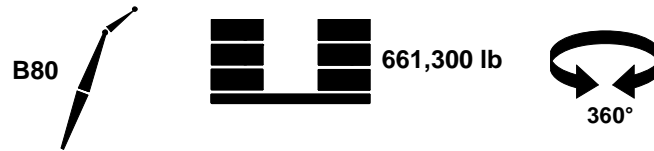
ASME B30.5



	459.3 ft		41°			
	ft	ft	ft	ft	lb	lb
59						
60						
61						
62						
63						
64	487.2	49.9	465.6	85.0	198,800	198,800
65	487.1	50.9	465.5	84.9	198,800	198,800
66	487.0	51.8	465.4	84.7	198,800	198,800
67	486.8	52.8	465.4	84.6	198,800	198,800
68	486.7	53.7	465.2	84.5	198,800	198,800
70	486.4	55.6	465.0	84.3	198,800	198,800
75	485.7	60.4	464.5	83.7	198,600	198,600
80	484.9	65.2	463.9	83.0	198,500	198,500
85	484.1	70.0	463.2	82.4	198,400	198,400
90	483.3	74.8	462.5	81.8	198,200	198,200
95	482.3	79.5	461.7	81.2	198,100	198,100
100	481.4	84.3	460.9	80.6	197,900	197,900
105	480.3	89.1	460.0	80.0	197,800	197,800
110	479.2	93.9	459.1	79.4	197,600	197,600
115	478.1	98.7	458.2	78.8	197,500	197,500
120	476.9	103.4	457.1	78.2	197,300	197,300
125	475.6	108.3	456.0	77.6	197,200	197,200
130	474.3	113.0	454.9	77.0	197,000	197,000
135	472.9	117.8	453.7	76.3	189,200	196,800
140	471.5	122.6	452.5	75.7	177,300	196,600
145	470.0	127.4	451.2	75.1	166,200	196,500
150	468.4	132.2	449.8	74.5	155,900	196,000
155	466.8	137.0	448.4	73.8	146,300	192,900
160	465.2	141.8	446.9	73.2	137,300	189,800
165	463.4	146.6	445.4	72.6	128,800	186,700
170	461.6	151.4	443.8	71.9	120,900	183,600
175	459.8	156.2	442.1	71.3	113,400	180,700
180	457.8	161.0	440.4	70.7	106,400	177,800
185	455.9	165.8	438.7	70.0	99,700	175,100
190	453.8	170.7	436.8	69.4	93,400	172,300
195	451.7	175.4	434.9	68.7	87,500	169,700
200	449.5	180.3	432.9	68.1	81,800	167,100
205	447.2	185.1	430.9	67.4	76,400	164,500
210	444.9	189.9	428.8	66.8	71,300	161,300
215	442.5	194.7	426.7	66.1	66,400	154,900
220	440.1	199.5	424.4	65.5	61,800	148,800
230	434.9	209.1	419.8	64.1	53,100	137,400
240	429.5	218.8	414.8	62.8	45,100	126,900
250	423.7	228.5	409.6	61.4	37,800	117,400
260	417.6	238.1	404.0	60.0	31,000	108,600
270	411.2	247.8	398.1	58.6	24,800	100,500
280	404.4	257.5	391.9	57.1	18,900	93,000
290	397.2	267.2	385.3	55.7	13,500	86,000
300	389.7	276.8	378.3	54.2		79,500
320	373.2	296.3	363.1	51.1		67,700
340	354.8	315.8	346.1	47.8		57,400
360	334.2	335.3	327.0	44.4		48,200
380						
400						
420						

# MLC650 VPC-MAX S-2

ASME B30.5

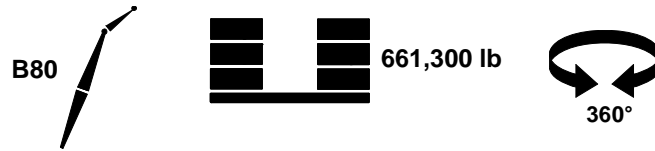


 469.2 ft		 28°				
ft	ft	ft	ft	°	lb	lb
60	500.0	50.7	475.5	85.0	189,500	189,500
61	499.9	51.7	475.4	84.9	189,400	189,400
62	499.8	52.6	475.3	84.8	189,400	189,400
63	499.7	53.5	475.2	84.6	189,400	189,400
64	499.5	54.5	475.1	84.5	189,300	189,300
65	499.4	55.5	475.0	84.4	189,300	189,300
66	499.3	56.4	474.9	84.3	189,200	189,200
67	499.2	57.3	474.8	84.2	189,200	189,200
68	499.0	58.3	474.7	84.0	189,200	189,200
69	498.9	59.2	474.6	83.9	189,100	189,100
70	498.8	60.2	474.5	83.8	189,100	189,100
75	498.1	65.0	473.9	83.2	188,900	188,900
80	497.3	69.7	473.2	82.6	188,700	188,700
85	496.5	74.4	472.6	82.1	188,500	188,500
90	495.7	79.2	471.8	81.5	188,300	188,300
95	494.8	83.9	471.0	80.9	188,100	188,100
100	493.8	88.7	470.2	80.3	187,800	187,800
105	492.8	93.5	469.3	79.7	187,700	187,700
110	491.8	98.2	468.4	79.1	187,400	187,400
115	490.6	103.0	467.4	78.5	187,200	187,200
120	489.5	107.8	466.3	77.9	187,000	187,000
125	488.2	112.5	465.2	77.3	186,700	186,700
130	487.0	117.2	464.1	76.7	186,500	186,500
135	485.6	122.1	462.9	76.1	186,200	186,200
140	484.2	126.8	461.6	75.5	174,500	186,000
145	482.8	131.6	460.3	74.9	163,600	185,800
150	481.3	136.3	458.9	74.3	153,500	185,500
155	479.7	141.1	457.5	73.7	144,000	185,300
160	478.1	145.8	456.0	73.1	135,200	185,000
165	476.4	150.6	454.5	72.4	126,900	184,800
170	474.6	155.4	452.9	71.8	119,100	181,900
175	472.8	160.1	451.3	71.2	111,700	178,800
180	471.0	164.9	449.5	70.6	104,800	175,800
185	469.0	169.6	447.8	70.0	98,300	172,800
190	467.0	174.4	446.0	69.3	92,100	169,900
195	465.0	179.2	444.1	68.7	86,200	167,100
200	462.9	184.0	442.1	68.1	80,700	164,300
205	460.7	188.7	440.1	67.5	75,400	161,700
210	458.4	193.5	438.0	66.8	70,300	159,100
220	453.7	203.1	433.7	65.5	61,000	148,200
230	448.7	212.7	429.1	64.2	52,400	136,900
240	443.4	222.2	424.2	62.9	44,600	126,600
250	437.9	231.7	419.1	61.6	37,400	117,100
260	432.0	241.3	413.6	60.2	30,800	108,400
270	425.8	250.9	407.9	58.9	24,700	100,400
280	419.2	260.5	401.8	57.5	19,000	93,000
290	412.3	270.0	395.4	56.1	13,700	86,100
300	405.0	279.6	388.6	54.6		79,700
320	389.3	298.8	373.9	51.7		68,100
340	371.7	318.0	357.5	48.6		57,800
360	352.1	337.2	339.2	45.3		48,800
380	330.0	356.5	318.5	41.9		40,700
400	305.0	375.8	295.0	38.1		33,300
420	276.1	395.1	267.8	34.0		26,700
440	241.9	414.6	235.7	29.4		20,600



# MLC650 VPC-MAX S-2

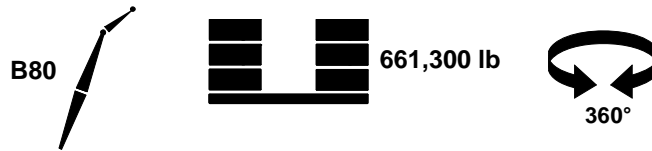
ASME B30.5



		469.2 ft		35°			
						38.7 ft	60.0 ft
ft	ft	ft	ft	°	lb	lb	lb
60							
61							
62	498.7	50.3	475.6	85.0	188,300	188,300	188,300
63	498.6	51.3	475.5	84.9	188,200	188,200	188,200
64	498.5	52.2	475.4	84.8	188,200	188,200	188,200
65	498.4	53.1	475.3	84.7	188,200	188,200	188,200
66	498.2	54.1	475.2	84.6	188,100	188,100	188,100
67	498.1	55.1	475.1	84.4	188,100	188,100	188,100
68	498.0	56.0	475.0	84.3	188,100	188,100	188,100
69	497.9	56.9	474.9	84.2	188,100	188,100	188,100
70	497.7	57.9	474.7	84.1	188,000	188,000	188,000
75	497.0	62.7	474.2	83.5	187,800	187,800	187,800
80	496.3	67.5	473.6	82.9	187,700	187,700	187,700
85	495.5	72.2	472.9	82.3	187,500	187,500	187,500
90	494.6	77.0	472.2	81.7	187,300	187,300	187,300
95	493.7	81.7	471.4	81.1	187,000	187,000	187,000
100	492.8	86.5	470.6	80.6	186,900	186,900	186,900
105	491.8	91.3	469.7	80.0	186,700	186,700	186,700
110	490.7	96.0	468.8	79.4	186,400	186,400	186,400
115	489.6	100.8	467.8	78.8	186,300	186,300	186,300
120	488.4	105.6	466.8	78.2	186,000	186,000	186,000
125	487.2	110.4	465.7	77.6	185,800	185,800	185,800
130	485.9	115.2	464.6	77.0	185,600	185,600	185,600
135	484.6	119.9	463.4	76.4	185,400	185,400	185,400
140	483.2	124.7	462.2	75.8	176,600	185,200	185,200
145	481.7	129.5	460.9	75.2	165,600	185,000	185,000
150	480.2	134.3	459.5	74.5	155,400	184,800	184,800
155	478.6	139.0	458.1	73.9	145,900	184,600	184,600
160	477.0	143.9	456.6	73.3	136,900	184,000	184,000
165	475.3	148.6	455.1	72.7	128,600	180,900	180,900
170	473.5	153.4	453.6	72.1	120,700	177,800	177,800
175	471.7	158.2	451.9	71.5	113,300	174,900	174,900
180	469.9	163.0	450.2	70.8	106,300	172,000	172,000
185	467.9	167.7	448.5	70.2	99,700	169,200	169,200
190	465.9	172.5	446.7	69.6	93,500	166,400	166,400
195	463.9	177.3	444.8	69.0	87,600	163,700	163,700
200	461.7	182.2	442.9	68.3	82,000	161,100	161,100
205	459.5	186.9	440.9	67.7	76,600	158,500	158,500
210	457.3	191.7	438.8	67.1	71,500	156,000	156,000
220	452.6	201.3	434.5	65.8	62,100	149,000	149,000
230	447.6	210.9	430.0	64.5	53,500	137,700	137,700
240	442.3	220.5	425.1	63.1	45,600	127,300	127,300
250	436.7	230.1	420.0	61.8	38,300	117,800	117,800
260	430.8	239.8	414.5	60.5	31,700	109,100	109,100
270	424.6	249.4	408.8	59.1	25,500	101,000	101,000
280	418.0	259.0	402.7	57.7	19,700	93,600	93,600
290	411.1	268.6	396.3	56.3	14,300	86,600	86,600
300	403.8	278.2	389.6	54.8		80,200	80,200
320	387.9	297.5	374.9	51.9		68,500	68,500
340	370.3	316.9	358.5	48.8		58,200	58,200
360	350.6	336.2	340.1	45.5		49,100	49,100
380	328.5	355.7	319.4	42.0		40,900	40,900
400	303.3	375.1	295.8	38.3		33,500	33,500
420							
440							

# MLC650 VPC-MAX S-2

ASME B30.5



	469.2 ft		41°			
	ft	ft	ft	ft	lb	lb
60						
61						
62						
63						
64						
65	497.0	50.9	475.5	85.0	187,500	187,500
66	496.9	51.8	475.4	84.8	187,500	187,500
67	496.7	52.8	475.3	84.7	187,500	187,500
68	496.6	53.8	475.2	84.6	187,500	187,500
69	496.5	54.7	475.1	84.5	187,400	187,400
70	496.3	55.7	475.0	84.4	187,400	187,400
75	495.7	60.4	474.5	83.8	187,200	187,200
80	494.9	65.3	473.8	83.2	187,100	187,100
85	494.1	70.1	473.2	82.6	187,000	187,000
90	493.3	74.8	472.5	82.0	186,800	186,800
95	492.3	79.6	471.8	81.4	186,600	186,600
100	491.4	84.4	471.0	80.8	186,500	186,500
105	490.4	89.1	470.1	80.2	186,300	186,300
110	489.3	94.0	469.2	79.6	186,100	186,100
115	488.2	98.8	468.2	79.0	185,900	185,900
120	487.0	103.6	467.2	78.4	185,700	185,700
125	485.8	108.3	466.2	77.8	185,600	185,600
130	484.5	113.1	465.1	77.2	185,400	185,400
135	483.1	117.9	463.9	76.6	185,300	185,300
140	481.7	122.8	462.7	76.0	178,600	185,000
145	480.3	127.5	461.4	75.4	167,600	184,900
150	478.7	132.4	460.1	74.8	157,200	184,800
155	477.2	137.2	458.7	74.2	147,600	183,100
160	475.5	141.9	457.2	73.6	138,600	180,100
165	473.8	146.7	455.7	72.9	130,200	177,200
170	472.1	151.6	454.2	72.3	122,200	174,300
175	470.3	156.4	452.6	71.7	114,800	171,400
180	468.4	161.1	450.9	71.1	107,700	168,700
185	466.4	166.0	449.2	70.5	101,100	166,000
190	464.4	170.8	447.4	69.8	94,800	163,300
195	462.4	175.6	445.5	69.2	88,800	160,700
200	460.2	180.4	443.6	68.6	83,200	158,200
205	458.0	185.3	441.6	67.9	77,800	155,800
210	455.8	190.1	439.5	67.3	72,700	153,300
220	451.0	199.7	435.3	66.0	63,100	148,800
230	446.0	209.4	430.7	64.7	54,500	138,400
240	440.7	219.0	425.9	63.4	46,500	128,000
250	435.1	228.7	420.8	62.0	39,200	118,400
260	429.2	238.3	415.3	60.7	32,400	109,700
270	422.9	248.0	409.6	59.3	26,200	101,600
280	416.3	257.7	403.6	57.9	20,400	94,100
290	409.4	267.4	397.2	56.5	14,900	87,100
300	402.0	277.1	390.4	55.0		80,600
320	386.1	296.5	375.7	52.0		68,800
340	368.4	316.0	359.3	48.9		58,500
360	348.6	335.5	340.9	45.6		49,300
380	326.3	355.1	320.1	42.1		41,100
400						
420						
440						

# MLC650 VPC-MAX S-2

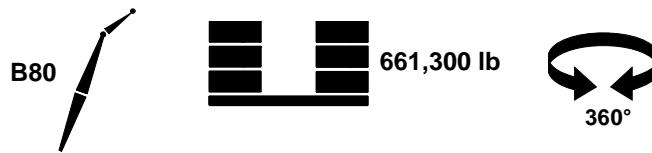
ASME B30.5



 479.0 ft		 28°				
ft	ft	ft	ft	°	lb	lb
61	509.8	51.7	485.3	85.0	180,300	180,300
62	509.7	52.6	485.2	84.9	180,300	180,300
63	509.6	53.6	485.1	84.7	180,200	180,200
64	509.4	54.5	485.0	84.6	180,200	180,200
65	509.3	55.4	484.9	84.5	180,200	180,200
66	509.2	56.4	484.8	84.4	180,100	180,100
67	509.1	57.3	484.7	84.3	180,100	180,100
68	509.0	58.3	484.6	84.2	180,000	180,000
69	508.8	59.2	484.5	84.1	180,000	180,000
70	508.7	60.2	484.3	83.9	179,900	179,900
75	508.0	65.0	483.8	83.4	179,700	179,700
80	507.3	69.7	483.1	82.8	179,500	179,500
85	506.5	74.5	482.5	82.2	179,300	179,300
90	505.7	79.2	481.7	81.6	179,100	179,100
95	504.8	84.0	481.0	81.1	178,800	178,800
100	503.9	88.8	480.1	80.5	178,600	178,600
105	502.9	93.5	479.3	79.9	178,400	178,400
110	501.8	98.3	478.3	79.3	178,100	178,100
115	500.7	103.1	477.4	78.7	177,800	177,800
120	499.6	107.8	476.3	78.1	177,600	177,600
125	498.4	112.6	475.3	77.6	177,300	177,300
130	497.1	117.4	474.1	77.0	177,100	177,100
135	495.8	122.1	472.9	76.4	176,800	176,800
140	494.5	126.9	471.7	75.8	172,400	176,600
145	493.0	131.7	470.4	75.2	161,500	176,300
150	491.6	136.4	469.1	74.6	151,400	176,100
155	490.0	141.2	467.7	74.0	141,900	175,800
160	488.4	146.0	466.3	73.4	133,000	175,600
165	486.8	150.7	464.7	72.8	124,700	174,700
170	485.1	155.5	463.2	72.2	116,900	171,600
175	483.3	160.3	461.6	71.6	109,600	168,500
180	481.5	165.0	459.9	71.0	102,600	165,600
185	479.6	169.8	458.2	70.4	96,100	162,700
190	477.6	174.6	456.4	69.8	89,900	159,900
195	475.6	179.4	454.5	69.2	84,000	157,100
200	473.6	184.1	452.7	68.5	78,500	154,400
205	471.4	188.9	450.7	67.9	73,200	151,800
210	469.2	193.7	448.7	67.3	68,200	149,300
215	467.0	198.4	446.6	66.7	63,400	146,800
220	464.6	203.2	444.4	66.0	58,800	144,400
230	459.8	212.8	439.9	64.8	50,200	135,300
240	454.6	222.4	435.2	63.5	42,400	125,000
250	449.2	231.9	430.1	62.2	35,200	115,500
260	443.4	241.5	424.8	60.9	28,600	106,800
270	437.4	251.0	419.2	59.6	22,500	98,800
280	431.0	260.6	413.3	58.2	16,800	91,400
290	424.3	270.2	407.0	56.8		84,500
300	417.3	279.8	400.5	55.4		78,000
320	402.0	299.0	386.2	52.6		66,400
340	385.0	318.2	370.4	49.6		56,200
360	366.1	337.5	352.7	46.4		47,100
380	345.0	356.7	332.9	43.1		39,000
400	321.2	376.0	310.5	39.6		31,700
420	293.9	395.3	284.9	35.7		25,100
440	262.2	414.8	255.0	31.4		18,800

# MLC650 VPC-MAX S-2

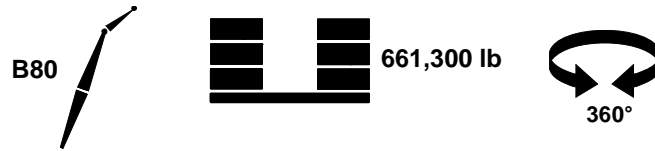
ASME B30.5



ft	ft	ft	ft	°	lb	lb
61						
62						
63	508.5	51.3	485.3	85.0	179,300	179,300
64	508.4	52.2	485.2	84.9	179,300	179,300
65	508.3	53.2	485.1	84.8	179,300	179,300
66	508.2	54.1	485.0	84.7	179,200	179,200
67	508.0	55.1	484.9	84.6	179,200	179,200
68	507.9	56.0	484.8	84.4	179,100	179,100
69	507.8	57.0	484.7	84.3	179,100	179,100
70	507.7	57.9	484.6	84.2	179,100	179,100
75	507.0	62.7	484.0	83.6	178,800	178,800
80	506.2	67.5	483.4	83.1	178,600	178,600
85	505.5	72.3	482.8	82.5	178,400	178,400
90	504.6	77.0	482.1	81.9	178,200	178,200
95	503.7	81.8	481.3	81.3	177,900	177,900
100	502.8	86.6	480.5	80.7	177,700	177,700
105	501.8	91.4	479.7	80.2	177,500	177,500
110	500.8	96.1	478.8	79.6	177,300	177,300
115	499.7	101.0	477.8	79.0	177,000	177,000
120	498.5	105.7	476.8	78.4	176,800	176,800
125	497.3	110.5	475.7	77.8	176,600	176,600
130	496.1	115.3	474.6	77.2	176,300	176,300
135	494.7	120.0	473.5	76.6	176,100	176,100
140	493.4	124.8	472.3	76.0	174,600	175,900
145	492.0	129.6	471.0	75.5	163,600	175,700
150	490.5	134.4	469.7	74.9	153,300	175,500
155	488.9	139.2	468.3	74.3	143,800	175,200
160	487.3	144.0	466.9	73.7	134,800	173,900
165	485.7	148.8	465.4	73.1	126,500	170,900
170	484.0	153.5	463.8	72.5	118,600	167,900
175	482.2	158.3	462.2	71.8	111,200	165,100
180	480.4	163.1	460.6	71.2	104,200	162,200
185	478.5	167.9	458.9	70.6	97,600	159,400
190	476.5	172.7	457.1	70.0	91,300	156,700
195	474.5	177.5	455.3	69.4	85,400	154,100
200	472.4	182.2	453.4	68.8	79,800	151,600
205	470.3	187.1	451.4	68.2	74,500	149,000
210	468.1	191.9	449.4	67.5	69,400	146,600
215	465.8	196.7	447.4	66.9	64,600	144,200
220	463.5	201.5	445.2	66.3	59,900	141,900
230	458.6	211.1	440.8	65.0	51,300	136,100
240	453.4	220.6	436.0	63.7	43,400	125,700
250	448.0	230.3	431.0	62.4	36,200	116,200
260	442.2	239.9	425.7	61.1	29,500	107,500
270	436.2	249.5	420.1	59.8	23,300	99,400
280	429.8	259.1	414.3	58.4	17,500	91,900
290	423.1	268.8	408.0	57.0	12,200	85,000
300	416.0	278.4	401.5	55.6		78,600
320	400.7	297.7	387.2	52.8		66,900
340	383.6	317.1	371.4	49.8		56,600
360	364.7	336.4	353.7	46.6		47,500
380	343.5	355.8	333.9	43.3		39,300
400	319.5	375.3	311.4	39.7		31,900
420	292.1	394.8	285.7	35.8		25,200
440						

# MLC650 VPC-MAX S-2

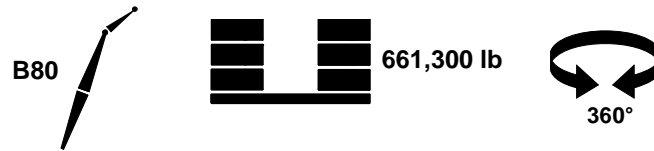
ASME B30.5



 479.0 ft		 41°				
ft	ft	ft	ft	°	lb	lb
61						
62						
63						
64						
65						
66	506.8	51.9	485.2	84.9	178,700	178,700
67	506.7	52.9	485.1	84.8	178,700	178,700
68	506.5	53.8	485.0	84.7	178,700	178,700
69	506.4	54.8	484.9	84.6	178,600	178,600
70	506.3	55.7	484.8	84.5	178,600	178,600
75	505.6	60.5	484.3	83.9	178,400	178,400
80	504.9	65.3	483.7	83.3	178,200	178,200
85	504.1	70.1	483.1	82.7	178,100	178,100
90	503.2	74.9	482.4	82.2	177,900	177,900
95	502.3	79.6	481.7	81.6	177,700	177,700
100	501.4	84.4	480.9	81.0	177,500	177,500
105	500.4	89.3	480.1	80.4	177,200	177,200
110	499.4	94.0	479.2	79.8	177,100	177,100
115	498.3	98.8	478.2	79.2	176,800	176,800
120	497.1	103.6	477.2	78.7	176,700	176,700
125	495.9	108.4	476.2	78.1	176,500	176,500
130	494.6	113.2	475.1	77.5	176,300	176,300
135	493.3	118.0	474.0	76.9	176,100	176,100
140	492.0	122.8	472.8	76.3	175,800	175,800
145	490.5	127.6	471.5	75.7	165,500	175,600
150	489.0	132.5	470.2	75.1	155,200	175,500
155	487.5	137.3	468.9	74.5	145,600	173,400
160	485.9	142.1	467.4	73.9	136,600	170,500
165	484.2	146.8	466.0	73.3	128,100	167,600
170	482.5	151.7	464.4	72.7	120,200	164,700
175	480.7	156.4	462.9	72.1	112,700	161,900
180	478.9	161.2	461.2	71.5	105,700	159,200
185	477.0	166.1	459.5	70.9	99,000	156,600
190	475.0	170.9	457.8	70.2	92,700	154,000
195	473.0	175.7	456.0	69.6	86,700	151,400
200	470.9	180.5	454.1	69.0	81,100	149,000
205	468.8	185.3	452.2	68.4	75,700	146,600
210	466.6	190.2	450.2	67.8	70,600	144,200
215	464.3	195.0	448.1	67.1	65,700	142,000
220	462.0	199.8	446.0	66.5	61,000	139,700
230	457.1	209.5	441.5	65.2	52,300	135,500
240	451.9	219.1	436.8	63.9	44,400	126,400
250	446.4	228.8	431.8	62.6	37,000	116,900
260	440.6	238.4	426.6	61.3	30,300	108,100
270	434.6	248.1	421.0	60.0	24,000	100,000
280	428.2	257.8	415.1	58.6	18,200	92,500
290	421.4	267.5	408.8	57.2	12,800	85,500
300	414.3	277.2	402.3	55.8		79,000
320	398.9	296.6	388.1	52.9		67,200
340	381.8	316.1	372.2	49.9		56,900
360	362.7	335.6	354.5	46.7		47,700
380	341.4	355.2	334.6	43.4		39,500
400						
420						
440						

# MLC650 VPC-MAX S-2

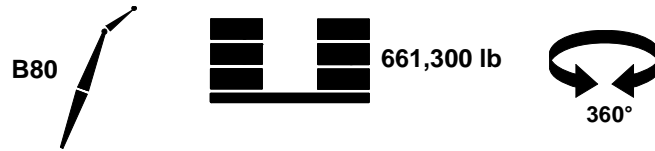
ASME B30.5



 488.8 ft		 28°				
ft	ft	ft	ft	°	38.7 ft lb	60.0 ft lb
62	519.6	52.7	495.0	85.0	172,200	172,200
63	519.5	53.6	494.9	84.8	172,100	172,100
64	519.4	54.6	494.8	84.7	172,100	172,100
65	519.2	55.5	494.7	84.6	172,000	172,000
66	519.1	56.5	494.6	84.5	172,000	172,000
67	519.0	57.4	494.5	84.4	171,900	171,900
68	518.9	58.4	494.4	84.3	171,900	171,900
69	518.7	59.3	494.3	84.2	171,800	171,800
70	518.6	60.3	494.2	84.1	171,800	171,800
71	518.5	61.2	494.1	83.9	171,700	171,700
75	518.0	65.1	493.6	83.5	171,500	171,500
80	517.2	69.8	493.0	82.9	171,300	171,300
85	516.5	74.6	492.3	82.4	171,000	171,000
90	515.7	79.3	491.6	81.8	170,700	170,700
95	514.8	84.1	490.9	81.2	170,500	170,500
100	513.9	88.9	490.1	80.7	170,200	170,200
105	512.9	93.6	489.2	80.1	169,900	169,900
110	511.9	98.4	488.3	79.5	169,700	169,700
115	510.8	103.2	487.4	78.9	169,400	169,400
120	509.7	107.9	486.4	78.4	169,200	169,200
125	508.5	112.7	485.3	77.8	168,900	168,900
130	507.3	117.4	484.2	77.2	168,700	168,700
135	506.0	122.2	483.0	76.6	168,400	168,400
140	504.7	127.0	481.8	76.1	168,100	168,100
145	503.3	131.8	480.6	75.5	160,800	167,900
150	501.8	136.5	479.2	74.9	150,600	167,600
155	500.3	141.3	477.9	74.3	141,100	167,400
160	498.8	146.1	476.5	73.7	132,300	166,700
165	497.1	150.9	475.0	73.1	124,000	165,300
170	495.5	155.7	473.5	72.6	116,200	162,300
175	493.7	160.4	471.9	72.0	108,800	159,300
180	492.0	165.2	470.3	71.4	101,900	156,500
185	490.1	170.0	468.6	70.8	95,300	153,600
190	488.2	174.7	466.8	70.2	89,100	151,000
195	486.2	179.5	465.0	69.6	83,300	148,300
200	484.2	184.3	463.1	69.0	77,700	145,600
205	482.1	189.0	461.2	68.4	72,400	143,100
210	480.0	193.8	459.3	67.8	67,400	140,700
215	477.8	198.6	457.2	67.2	62,600	138,200
220	475.5	203.4	455.1	66.5	58,000	135,900
230	470.7	213.0	450.7	65.3	49,500	131,400
240	465.7	222.6	446.1	64.0	41,600	124,400
250	460.4	232.1	441.2	62.8	34,500	114,900
260	454.8	241.7	436.0	61.5	27,800	106,300
270	448.9	251.3	430.5	60.2	21,700	98,200
280	442.7	260.8	424.8	58.9	16,000	90,800
290	436.2	270.4	418.7	57.6		83,900
300	429.4	280.0	412.3	56.2		77,500
320	414.5	299.2	398.4	53.4		65,900
340	398.1	318.4	383.1	50.5		55,700
360	379.9	337.6	366.1	47.5		46,600
380	359.6	356.9	347.0	44.3		38,500
400	336.8	376.2	325.6	40.9		31,200
420	311.0	395.6	301.3	37.3		24,600
440	281.3	415.0	273.3	33.3		18,100

# MLC650 VPC-MAX S-2

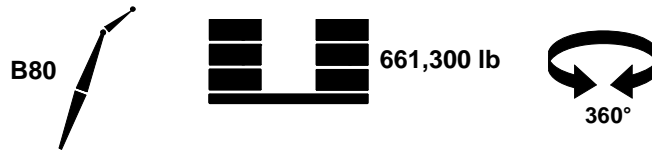
ASME B30.5



		488.8 ft		35°			
						38.7 ft	60.0 ft
						lb	lb
ft	ft	ft	ft	°			lb
62							
63							
64	518.3	52.3	495.0	85.0	171,200	171,200	
65	518.2	53.2	495.0	84.9	171,200	171,200	
66	518.1	54.2	494.9	84.8	171,200	171,200	
67	518.0	55.1	494.8	84.7	171,200	171,200	
68	517.8	56.1	494.7	84.5	171,100	171,100	
69	517.7	57.1	494.6	84.4	171,000	171,000	
70	517.6	58.0	494.5	84.3	171,000	171,000	
71	517.4	59.0	494.3	84.2	170,900	170,900	
75	516.9	62.8	493.9	83.8	170,800	170,800	
80	516.2	67.5	493.3	83.2	170,600	170,600	
85	515.4	72.3	492.7	82.6	170,200	170,200	
90	514.6	77.1	492.0	82.1	170,000	170,000	
95	513.7	81.9	491.2	81.5	169,800	169,800	
100	512.8	86.7	490.4	80.9	169,500	169,500	
105	511.9	91.5	489.6	80.3	169,300	169,300	
110	510.8	96.2	488.7	79.8	169,000	169,000	
115	509.8	101.0	487.8	79.2	168,800	168,800	
120	508.6	105.7	486.8	78.6	168,500	168,500	
125	507.4	110.6	485.8	78.1	168,300	168,300	
130	506.2	115.4	484.7	77.5	168,100	168,100	
135	504.9	120.1	483.6	76.9	167,800	167,800	
140	503.6	124.9	482.4	76.3	167,600	167,600	
145	502.2	129.7	481.1	75.7	162,800	167,300	
150	500.7	134.5	479.8	75.2	152,600	167,000	
155	499.2	139.2	478.5	74.6	143,000	166,900	
160	497.7	144.0	477.1	74.0	134,100	164,800	
165	496.1	148.8	475.6	73.4	125,700	161,900	
170	494.4	153.6	474.1	72.8	117,800	159,000	
175	492.6	158.4	472.6	72.2	110,400	156,200	
180	490.9	163.2	470.9	71.6	103,400	153,500	
185	489.0	168.1	469.2	71.0	96,800	150,800	
190	487.1	172.8	467.5	70.4	90,600	148,100	
195	485.1	177.6	465.7	69.8	84,700	145,600	
200	483.1	182.4	463.9	69.2	79,100	143,100	
205	481.0	187.2	462.0	68.6	73,700	140,700	
210	478.8	192.0	460.0	68.0	68,600	138,300	
215	476.6	196.8	458.0	67.4	63,800	135,900	
220	474.3	201.6	455.9	66.8	59,200	133,600	
230	469.6	211.2	451.5	65.5	50,600	129,300	
240	464.5	220.8	446.9	64.3	42,700	125,200	
250	459.2	230.4	442.0	63.0	35,400	115,700	
260	453.6	240.0	436.9	61.7	28,700	106,900	
270	447.7	249.7	431.4	60.4	22,500	98,900	
280	441.5	259.3	425.7	59.1	16,800	91,400	
290	435.0	268.9	419.6	57.8		84,500	
300	428.1	278.6	413.3	56.4		78,000	
320	413.2	297.9	399.5	53.6		66,300	
340	396.8	317.3	384.1	50.7		56,000	
360	378.5	336.6	367.1	47.7		46,900	
380	358.1	356.0	348.0	44.5		38,800	
400	335.2	375.5	326.5	41.1		31,400	
420	309.2	395.0	302.1	37.4		24,700	
440							

# MLC650 VPC-MAX S-2

ASME B30.5

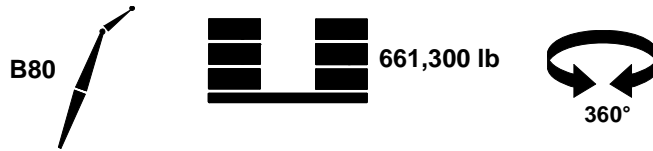


 488.8 ft		 41°				
ft	ft	ft	ft	°	lb	lb
62						
63						
64						
65						
66						
67	516.6	52.9	495.0	84.9	170,800	170,800
68	516.4	53.8	494.9	84.8	170,800	170,800
69	516.3	54.8	494.8	84.7	170,700	170,700
70	516.2	55.8	494.7	84.6	170,700	170,700
71	516.1	56.7	494.6	84.5	170,600	170,600
75	515.5	60.5	494.2	84.0	170,500	170,500
80	514.8	65.3	493.6	83.5	170,200	170,200
85	514.0	70.1	493.0	82.9	170,000	170,000
90	513.2	74.9	492.3	82.3	169,800	169,800
95	512.3	79.7	491.6	81.7	169,600	169,600
100	511.4	84.5	490.8	81.2	169,400	169,400
105	510.4	89.3	490.0	80.6	169,100	169,100
110	509.4	94.1	489.1	80.0	168,900	168,900
115	508.3	98.9	488.2	79.5	168,700	168,700
120	507.2	103.7	487.2	78.9	168,500	168,500
125	506.0	108.5	486.2	78.3	168,200	168,200
130	504.8	113.3	485.2	77.7	168,000	168,000
135	503.5	118.1	484.0	77.1	167,800	167,800
140	502.2	122.9	482.9	76.6	167,600	167,600
145	500.8	127.7	481.6	76.0	164,800	167,400
150	499.3	132.5	480.4	75.4	154,500	167,200
155	497.8	137.4	479.0	74.8	144,900	164,700
160	496.2	142.1	477.7	74.2	135,900	161,700
165	494.6	146.9	476.2	73.6	127,400	158,900
170	492.9	151.8	474.7	73.0	119,500	156,100
175	491.2	156.5	473.2	72.4	112,000	153,500
180	489.4	161.4	471.6	71.8	104,900	150,800
185	487.5	166.2	469.9	71.2	98,300	148,200
190	485.6	171.0	468.2	70.6	92,000	145,700
195	483.6	175.8	466.4	70.0	86,000	143,200
200	481.6	180.6	464.6	69.4	80,300	140,800
205	479.5	185.5	462.7	68.8	74,900	138,500
210	477.3	190.3	460.7	68.2	69,800	136,100
215	475.1	195.1	458.7	67.6	64,900	133,900
220	472.8	199.9	456.6	67.0	60,300	131,700
230	468.0	209.6	452.3	65.7	51,600	127,500
240	463.0	219.3	447.7	64.5	43,600	123,600
250	457.7	228.9	442.8	63.2	36,300	116,300
260	452.0	238.6	437.7	61.9	29,500	107,600
270	446.1	248.2	432.3	60.6	23,300	99,400
280	439.9	258.0	426.5	59.3	17,500	91,900
290	433.3	267.6	420.5	57.9	12,000	85,000
300	426.4	277.4	414.1	56.6		78,500
320	411.5	296.8	400.3	53.8		66,700
340	394.9	316.2	385.0	50.9		56,400
360	376.6	335.7	367.9	47.8		47,200
380	356.1	355.3	348.7	44.6		39,000
400	333.0	374.9	327.2	41.2		31,600
420						
440						



# MLC650 VPC-MAX S-2

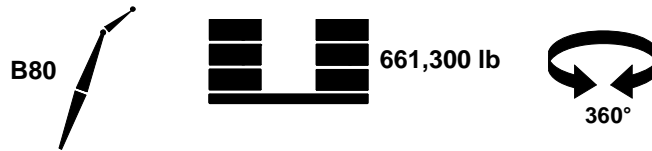
ASME B30.5



498.7 ft		28°				
ft	ft	ft	ft	°	38.7 ft lb	60.0 ft lb
65	529.1	55.6	504.7	84.7	163,700	163,700
66	529.0	56.5	504.6	84.6	163,700	163,700
67	528.9	57.5	504.5	84.5	163,600	163,600
68	528.8	58.4	504.4	84.4	163,600	163,600
69	528.7	59.4	504.3	84.3	163,500	163,500
70	528.5	60.3	504.2	84.2	163,500	163,500
71	528.4	61.3	504.0	84.1	163,500	163,500
75	527.9	65.1	503.6	83.6	163,200	163,200
80	527.2	69.9	503.0	83.1	162,900	162,900
85	526.4	74.6	502.3	82.5	162,700	162,700
90	525.6	79.4	501.6	81.9	162,400	162,400
95	524.8	84.2	500.9	81.4	162,100	162,100
100	523.9	88.9	500.1	80.8	161,800	161,800
105	522.9	93.7	499.3	80.3	161,600	161,600
110	521.9	98.5	498.4	79.7	161,300	161,300
115	520.9	103.3	497.4	79.2	161,000	161,000
120	519.8	108.0	496.4	78.6	160,700	160,700
125	518.6	112.8	495.4	78.0	160,400	160,400
130	517.4	117.6	494.3	77.5	160,100	160,100
135	516.2	122.3	493.2	76.9	159,900	159,900
140	514.9	127.1	492.0	76.3	159,000	159,000
145	513.5	131.9	490.8	75.8	158,200	158,200
150	512.1	136.7	489.5	75.2	148,500	157,400
155	510.6	141.4	488.1	74.6	139,000	156,600
160	509.1	146.2	486.8	74.1	130,100	155,800
165	507.5	151.0	485.3	73.5	121,800	155,000
170	505.9	155.7	483.8	72.9	114,000	153,400
175	504.2	160.5	482.3	72.3	106,600	150,500
180	502.4	165.3	480.7	71.7	99,700	147,800
185	500.6	170.1	479.0	71.2	93,100	145,000
190	498.7	174.9	477.3	70.6	86,900	142,400
195	496.8	179.7	475.5	70.0	81,100	139,800
200	494.8	184.5	473.7	69.4	75,500	137,200
205	492.8	189.2	471.8	68.8	70,200	134,700
210	490.7	194.0	469.9	68.2	65,200	132,300
215	488.5	198.8	467.9	67.6	60,400	130,000
220	486.3	203.6	465.8	67.0	55,800	127,700
225	484.0	208.4	463.7	66.4	51,400	125,500
230	481.7	213.1	461.6	65.8	47,200	123,300
235	479.2	217.9	459.3	65.2	43,200	121,200
240	476.8	222.8	457.0	64.6	39,400	119,100
245	474.2	227.5	454.6	64.0	35,700	117,200
250	471.6	232.3	452.2	63.3	32,200	113,300
260	466.1	241.9	447.1	62.1	25,600	104,600
270	460.4	251.4	441.8	60.8	19,400	96,600
280	454.4	261.1	436.2	59.5	13,700	89,100
290	448.0	270.7	430.3	58.2		82,200
300	441.3	280.2	424.1	56.9		75,800
320	426.9	299.5	410.6	54.2		64,200
340	411.0	318.7	395.7	51.4		54,000
360	393.4	337.9	379.2	48.5		44,900
380	373.9	357.2	360.9	45.4		36,800
400	352.1	376.5	340.3	42.2		29,500
420	327.5	395.8	317.2	38.7		22,900
440	299.5	415.2	290.8	34.9		15,800

# MLC650 VPC-MAX S-2

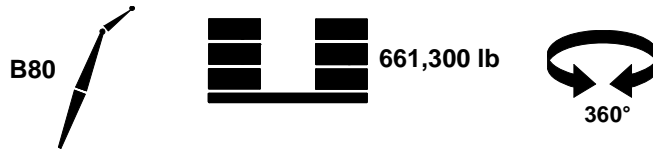
ASME B30.5



498.7 ft		35°				
ft	ft	ft	ft	°	38.7 ft lb	60.0 ft lb
65	528.1	53.3	504.9	85.0	163,100	163,100
66	528.0	54.2	504.8	84.9	163,100	163,100
67	527.9	55.2	504.7	84.8	163,000	163,000
68	527.7	56.1	504.6	84.7	163,000	163,000
69	527.6	57.1	504.5	84.5	162,900	162,900
70	527.5	58.0	504.4	84.4	162,900	162,900
71	527.4	59.1	504.3	84.3	162,800	162,800
75	526.8	62.8	503.9	83.9	162,600	162,600
80	526.1	67.6	503.3	83.3	162,300	162,300
85	525.4	72.4	502.7	82.8	162,100	162,100
90	524.6	77.2	502.0	82.2	161,800	161,800
95	523.7	81.9	501.3	81.7	161,600	161,600
100	522.8	86.7	500.5	81.1	161,300	161,300
105	521.9	91.5	499.7	80.5	161,000	161,000
110	520.9	96.3	498.8	80.0	160,700	160,700
115	519.8	101.1	497.9	79.4	160,500	160,500
120	518.7	105.9	496.9	78.8	160,200	160,200
125	517.6	110.7	495.9	78.3	160,000	160,000
130	516.4	115.4	494.8	77.7	159,600	159,600
135	515.1	120.2	493.7	77.2	159,400	159,400
140	513.8	125.0	492.5	76.6	159,100	159,100
145	512.4	129.8	491.3	76.0	158,300	158,300
150	511.0	134.6	490.0	75.4	150,500	157,500
155	509.5	139.4	488.7	74.9	140,900	156,800
160	508.0	144.2	487.3	74.3	132,000	156,000
165	506.4	148.9	485.9	73.7	123,600	153,300
170	504.8	153.7	484.5	73.1	115,700	150,500
175	503.1	158.5	482.9	72.6	108,300	147,800
180	501.3	163.4	481.3	72.0	101,300	145,000
185	499.5	168.2	479.7	71.4	94,700	142,400
190	497.6	173.0	478.0	70.8	88,400	139,900
195	495.7	177.8	476.2	70.2	82,500	137,400
200	493.7	182.6	474.4	69.6	76,900	134,900
205	491.7	187.4	472.6	69.0	71,500	132,500
210	489.6	192.2	470.6	68.4	66,500	130,200
215	487.4	197.0	468.7	67.8	61,600	127,900
220	485.2	201.8	466.6	67.2	57,000	125,700
225	482.9	206.6	464.5	66.6	52,600	123,600
230	480.5	211.4	462.4	66.0	48,400	121,500
235	478.1	216.2	460.1	65.4	44,300	119,400
240	475.6	221.0	457.9	64.8	40,500	117,500
245	473.0	225.8	455.5	64.2	36,800	115,600
250	470.4	230.6	453.1	63.6	33,200	113,700
260	464.9	240.2	448.1	62.3	26,500	105,300
270	459.2	249.9	442.7	61.0	20,300	97,200
280	453.1	259.5	437.1	59.8	14,500	89,800
290	446.8	269.2	431.2	58.5		82,800
300	440.1	278.8	425.0	57.1		76,400
320	425.6	298.1	411.6	54.4		64,700
340	409.7	317.5	396.7	51.6		54,400
360	392.0	336.8	380.2	48.7		45,300
380	372.4	356.2	361.9	45.6		37,100
400	350.5	375.7	341.3	42.3		29,800
420	325.8	395.1	318.1	38.8		23,100
440	297.6	414.7	291.6	35.0		16,000

# MLC650 VPC-MAX S-2

ASME B30.5



		498.7 ft		41°			
						38.7 ft	60.0 ft
						lb	lb
ft	ft	ft	ft	°			lb
65							
66							
67	526.5	52.9	504.9	85.0	162,800	162,800	
68	526.4	53.9	504.8	84.9	162,800	162,800	
69	526.2	54.8	504.7	84.8	162,700	162,700	
70	526.1	55.8	504.6	84.7	162,700	162,700	
71	526.0	56.7	504.5	84.6	162,600	162,600	
75	525.5	60.6	504.1	84.1	162,500	162,500	
80	524.7	65.4	503.6	83.6	162,200	162,200	
85	524.0	70.2	503.0	83.0	161,900	161,900	
90	523.2	75.0	502.3	82.5	161,700	161,700	
95	522.3	79.8	501.6	81.9	161,400	161,400	
100	521.4	84.6	500.8	81.3	161,200	161,200	
105	520.5	89.4	500.0	80.8	161,000	161,000	
110	519.5	94.2	499.2	80.2	160,700	160,700	
115	518.4	99.0	498.3	79.7	160,400	160,400	
120	517.3	103.8	497.3	79.1	160,200	160,200	
125	516.1	108.6	496.3	78.5	159,900	159,900	
130	514.9	113.4	495.3	78.0	159,700	159,700	
135	513.7	118.2	494.2	77.4	159,400	159,400	
140	512.4	123.0	493.0	76.8	159,200	159,200	
145	511.0	127.8	491.8	76.3	159,000	159,000	
150	509.6	132.6	490.6	75.7	152,500	158,700	
155	508.1	137.4	489.3	75.1	142,800	156,200	
160	506.5	142.3	487.9	74.5	133,800	153,400	
165	505.0	147.0	486.5	74.0	125,300	150,700	
170	503.3	151.8	485.1	73.4	117,400	147,900	
175	501.6	156.7	483.5	72.8	109,900	145,300	
180	499.9	161.5	482.0	72.2	102,800	142,700	
185	498.0	166.4	480.3	71.6	96,100	140,100	
190	496.2	171.1	478.7	71.0	89,800	137,700	
195	494.2	175.9	476.9	70.4	83,900	135,200	
200	492.2	180.8	475.1	69.8	78,200	132,900	
205	490.2	185.6	473.3	69.3	72,800	130,500	
210	488.1	190.4	471.4	68.7	67,700	128,300	
215	485.9	195.2	469.4	68.1	62,800	126,100	
220	483.7	200.1	467.3	67.4	58,100	123,900	
225	481.4	204.9	465.3	66.8	53,700	121,900	
230	479.0	209.7	463.1	66.2	49,400	119,800	
235	476.6	214.5	460.9	65.6	45,300	117,900	
240	474.1	219.4	458.6	65.0	41,400	115,900	
245	471.5	224.2	456.3	64.4	37,700	114,100	
250	468.8	229.1	453.9	63.8	34,100	112,300	
260	463.4	238.8	448.8	62.5	27,300	105,900	
270	457.6	248.4	443.5	61.2	21,100	97,800	
280	451.5	258.1	438.0	59.9	15,300	90,300	
290	445.1	267.8	432.1	58.6		83,300	
300	438.4	277.6	425.8	57.3		76,800	
320	423.9	297.0	412.4	54.6		65,100	
340	407.9	316.4	397.6	51.8		54,700	
360	390.1	335.9	381.0	48.8		45,600	
380	370.4	355.5	362.6	45.7		37,300	
400	348.4	375.1	342.0	42.4		29,900	
420							
440							