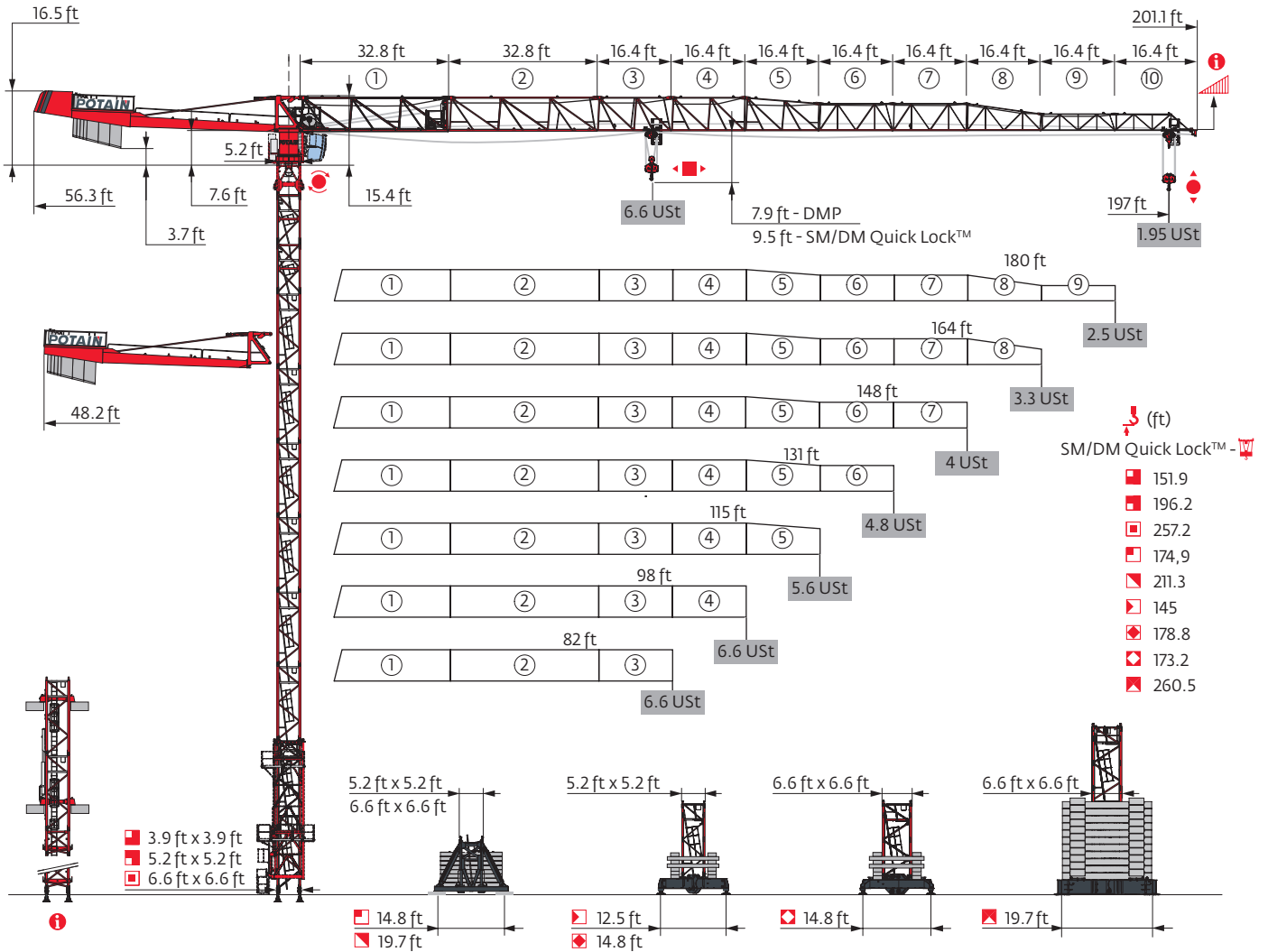


MDT 159



Potain Plus Power Control Top Site Top Tracing 3

Mast - Reactions

3.9 ft City - P 24A

Height (ft)	82	98	115	131	148	164	180	197
Height (ft)	151.9	135.5	135.5	135.5	135.5	135.5	135.5	135.5
Height/P _r (ft)	151.9	102.7	102.7	102.7	102.7	102.7	119.1	102.7
10.9 ft	1	1	1	1	1	1	1	1
16.4 ft	7	6	6	6	6	6	6	6
32.8 ft	1	1	1	1	1	1	1	1
F2 (Ust)	● 140 ■ 187	137 137	136 137	137 139	138 140	134 151	138 159	142 168
F3 (Ust)	● 114 ■ 161	111 111	110 110	109 111	109 111	102 123	106 130	109 139

5.2 ft City - P 42A

Height (ft)	82	98	115	131	148	164	180	197
Height (ft)	196.2	185	185	179.8	179.8	179.8	174.2	174.2
Height/P _r (ft)	196.2	185	185	179.8	179.8	179.8	174.2	174.2
10.9 ft	0	2	2	0	0	0	1	1
16.4 ft	10	8	8	9	9	9	8	8
32.8 ft	1	1	1	1	1	1	1	1
F2 (Ust)	● 133 ■ 226	134 199	132 200	129 185	131 186	133 195	133 191	135 198
F3 (Ust)	● 106 ■ 200	106 171	103 171	97 156	98 157	99 165	100 161	102 168

5.2 ft City - ZC 4230

Height (ft)	82	98	115	131	148	164	180	197
Height (ft)	145	133.9	139.4	133.9	133.9	133.9	133.9	133.9
Height/P _r (ft)	145	133.9	139.4	133.9	133.9	133.9	133.9	133.9
10.9 ft	1	0	2	0	0	0	0	0
16.4 ft	8	8	7	8	8	8	8	8
F1 (Ust)	● 73 ■ 81	74 68	76 73	75 69	76 70	76 73	77 75	78 78

5.2 ft City - ZD 4230

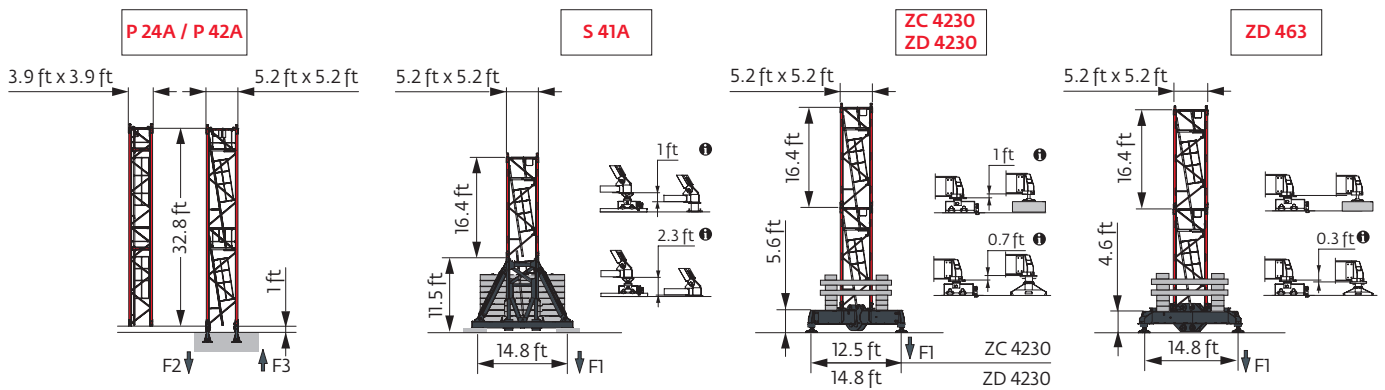
Height (ft)	82	98	115	131	148	164	180	197
Height (ft)	161.4	155.8	155.8	150.3	150.3	150.3	150.3	150.3
Height/P _r (ft)	161.4	155.8	155.8	150.3	150.3	150.3	150.3	150.3
10.9 ft	1	2	2	0	0	0	0	0
16.4 ft	9	8	8	9	9	9	9	9
F1 (Ust)	● 69 ■ 86	70 75	71 75	70 71	71 71	71 74	72 77	73 81

5.2 ft - S 41A

Height (ft)	82	98	115	131	148	164	180	197
Height (ft)	174.9	174.9	174.9	169.3	169.3	169.3	163.7	163.7
Height/P _r (ft)	174.9	174.9	174.9	169.3	169.3	169.3	163.7	163.7
6.6 ft	1	1	1	1	1	1	1	1
10.9 ft	1	1	1	2	2	2	0	0
16.4 ft	9	9	9	8	8	8	9	9
F1 (Ust)	● 83 ■ 111	82 105	83 106	81 100	82 100	82 106	82 101	82 105

5.2 ft - ZD 463

Height (ft)	82	98	115	131	148	164	180	197
Height (ft)	178.8	173.2	173.2	168	162.4	162.4	162.4	162.4
Height/P _r (ft)	178.8	173.2	173.2	168	162.4	162.4	162.4	162.4
6.6 ft	1	1	1	1	1	1	1	1
10.9 ft	2	0	0	1	2	2	2	2
16.4 ft	9	10	10	9	8	8	8	8
F1 (Ust)	● 87 ■ 120	81 103	81 103	79 98	79 93	80 98	82 102	83 106



6.6 ft - P 63A

Height (ft)	82	98	115	131	148	164	180	197
F_1 (ft)	257.2	257.2	257.2	257.2	257.2	252	252	252
F_1/P_+ (ft)	257.2	257.2	257.2	257.2	257.2	252	252	252
6.6 ft	1	1	1	1	1	1	1	1
10.9 ft	2	2	2	2	2	0	0	0
16.4 ft	12	12	12	12	12	13	13	13
32.8 ft	1	1	1	1	1	1	1	1
F2 (USt)	● 170	175	173	176	178	175	180	181
	■ 398	393	394	395	396	385	390	395
F3 (USt)	● 131	134	132	130	132	129	133	135
	■ 359	352	352	353	353	342	347	352

6.6 ft - V 60A

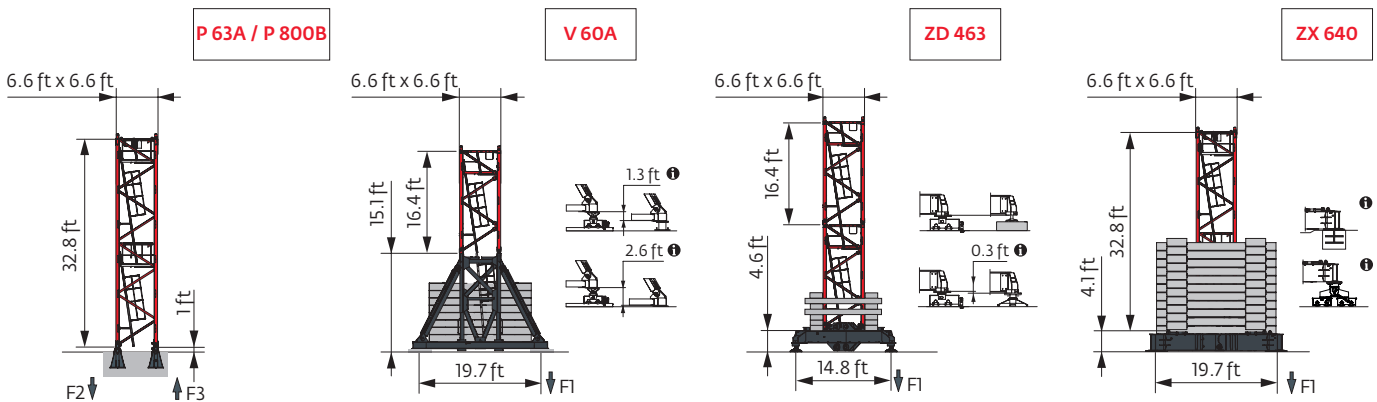
Height (ft)	82	98	115	131	148	164	180	197
F_1 (ft)	205.7	211.3	211.3	211.3	211.3	211.3	205.7	205.7
F_1/P_+ (ft)	205.7	211.3	211.3	211.3	211.3	211.3	205.7	205.7
6.6 ft	1	1	1	1	1	1	1	1
10.9 ft	2	1	1	1	1	1	2	2
16.4 ft	10	11	11	11	11	11	10	10
F1 (USt)	● 91	94	95	96	97	97	97	98
	■ 138	140	140	141	141	145	141	145

6.6 ft - ZD 463

Height (ft)	82	98	115	131	148	164	180	197
F_1 (ft)	168	173.2	173.2	173.2	173.2	173.2	168	168
F_1/P_+ (ft)	168	173.2	173.2	173.2	173.2	173.2	168	168
6.6 ft	1	1	1	1	1	1	1	1
10.9 ft	1	0	0	0	0	0	1	1
16.4 ft	9	10	10	10	10	10	9	9
F1 (USt)	● 88	92	91	92	93	97	94	97
	■ 124	126	126	127	127	133	128	134

6.6 ft - ZX 640

Height (ft)	82	98	115	131	148	164	180	197
F_1 (ft)	254.9	260.5	260.5	260.5	260.5	254.9	254.9	249.7
F_1/P_+ (ft)	254.9	260.5	260.5	260.5	260.5	254.9	254.9	249.7
6.6 ft	1	1	1	1	1	1	1	1
10.9 ft	0	2	2	2	2	0	0	1
16.4 ft	13	12	12	12	12	13	13	12
32.8 ft	1	1	1	1	1	1	1	1
F1 (USt)	● 130	134	134	136	137	132	137	133
	■ 208	215	215	215	216	210	213	208



Note: When "ASCE" is noted in this data sheet it is referring to 115 mph Wind Zone, Exposure B, Design Wind Speed = 98 mph. See back cover for design wind speed calculations.

i Motorized accesses: adapted mast compositions, base ballast and reactions.

Other mast compositions - Please consult us

Anchorage

i

Base ballast

USt) / 5.2 ft City - ZC 4230 -

Δ (ft)	82	98	115	131	148	164	180	197
145	99.2							
139.4	93.7	99.2						
133.9	88.2	99.2	93.7	99.2	99.2	99.2	99.2	99.2
117.5	71.7	82.7	88.2	82.7	82.7	82.7	82.7	82.7
101.1	66.1	77.2	77.2	77.2	77.2	71.7	66.1	66.1
84.7 ↓	60.6	77.2	77.2	71.7	71.7	66.1	60.6	60.6
51.8	60.6	77.2	77.2	71.7	71.7	66.1	60.6	60.6

USt) / 5.2 ft - S 41A -

Δ (ft)	82	98	115	131	148	164	180	197
174.9	125.7	112.4	112.4					
169.3	112.4	105.8	105.8	105.8	105.8	105.8		
163.7	99.2	99.2	99.2	99.2	99.2	99.2	105.8	105.8
147.3	79.4	86	86	86	86	86	92.6	92.6
130.9	66.1	72.8	72.8	72.8	72.8	72.8	72.8	72.8
114.5	52.9	59.5	59.5	59.5	59.5	59.5	59.5	59.5
98.1	46.3	52.9	52.9	52.9	52.9	46.3	46.3	46.3
81.7 ↓	39.7	52.9	52.9	52.9	46.3	46.3	39.7	39.7
48.9	39.7	52.9	52.9	52.9	46.3	46.3	39.7	39.7

USt) / 6.6 ft - V 60A -

Δ (ft)	82	98	115	131	148	164	180	197
211.3	145.5 145.5 145.5 145.5 145.5							
205.7	145.5	132.3	132.3	132.3	132.3	145.5	145.5	145.5
189.3	119.1	105.8	105.8	105.8	105.8	105.8	119.1	119.1
172.9	92.6	79.4	79.4	79.4	79.4	79.4	92.6	92.6
156.5	66.1	52.9	52.9	52.9	52.9	52.9	66.1	66.1
140.1	39.7	39.7	39.7	39.7	39.7	39.7	52.9	39.7
123.7	26.5	39.7	39.7	39.7	39.7	39.7	39.7	39.7
107.3	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5
90.9 ↓	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5
58.1	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5

USt) / 6.6 ft - ZD 463 -

Δ (ft)	82	98	115	131	148	164	180	197
173.2	132.3 126.8 126.8 126.8 137.8							
168	132.3	115.7	115.7	115.7	115.7	121.3	126.8	137.8
151.6	93.7	88.2	82.7	88.2	88.2	88.2	93.7	99.2
135.2	66.1	71.7	71.7	71.7	71.7	71.7	71.7	71.7
118.8	49.6	55.1	55.1	55.1	55.1	55.1	60.6	55.1
102.4	38.6	49.6	44.1	44.1	44.1	44.1	44.1	44.1
86 ↓	33.1	49.6	44.1	44.1	44.1	38.6	33.1	33.1
53.2	33.1	49.6	44.1	44.1	44.1	38.6	33.1	33.1

USt) / 5.2 ft City - ZD 4230 -

Δ (ft)	82	98	115	131	148	164	180	197
161.4	88.2							
155.8	82.7	88.2	88.2					
150.3	77.2	82.7	82.7	88.2	88.2	88.2	88.2	88.2
133.9	66.1	71.7	71.7	71.7	71.7	77.2	77.2	77.2
117.5	55.1	60.6	60.6	60.6	60.6	60.6	60.6	60.6
101.1	44.1	55.1	55.1	55.1	55.1	49.6	49.6	44.1
84.7	44.1	55.1	55.1	55.1	55.1	49.6	44.1	44.1
68.2	44.1	55.1	55.1	55.1	55.1	49.6	44.1	38.6
51.8	44.1	55.1	55.1	55.1	55.1	49.6	44.1	38.6

USt) / 5.2 ft - ZD 463 -

Δ (ft)	82	98	115	131	148	164	180	197
178.8	132.3							
173.2	115.7	104.7	104.7					
168	110.2	99.2	99.2	99.2				
162.4	99.2	93.7	93.7	93.7	99.2	99.2	104.7	104.7
146	77.2	82.7	77.2	82.7	82.7	82.7	88.2	82.7
129.6	60.6	66.1	66.1	66.1	66.1	66.1	71.7	71.7
113.2	49.6	55.1	55.1	55.1	55.1	55.1	55.1	55.1
96.8	38.6	49.6	49.6	49.6	49.6	44.1	44.1	38.6
80.4	38.6	49.6	49.6	49.6	44.1	38.6	33.1	38.6
64	38.6	49.6	49.6	49.6	44.1	38.6	33.1	33.1
47.6	38.6	49.6	49.6	49.6	44.1	38.6	33.1	33.1

USt) / 6.6 ft - ZX 640 -

Δ (ft)	82	98	115	131	148	164	180	197
260.5	242.5 242.5 242.5 242.5							
254.9	242.5	231.5	231.5	231.5	231.5	231.5	242.5	
249.7	231.5	220.5	220.5	220.5	220.5	220.5	231.5	231.5
233.3	187.4	176.4	176.4	176.4	176.4	187.4	187.4	198.4
216.9	154.3	143.3	143.3	143.3	143.3	154.3	154.3	154.3
200.5	132.3	121.3	121.3	121.3	110.2	121.3	121.3	132.3
184.1	99.2	88.2	88.2	88.2	88.2	88.2	99.2	99.2
167.7	77.2	66.1	66.1	66.1	66.1	66.1	66.1	77.2
151.3	44.1	55.1	55.1	55.1	55.1	55.1	55.1	55.1
134.8	33.1	44.1	44.1	44.1	44.1	33.1	44.1	44.1
118.4	22.1	33.1	33.1	33.1	33.1	22.1	33.1	33.1
102	22.1	22.1	22.1	22.1	22.1	22.1	22.1	11
85.6 ↓	11	22.1	22.1	22.1	11	11	11	11
52.8	11	22.1	22.1	22.1	11	11	11	11

Load curves



SM/DM Quick Lock™ (ft)		72	82	89	98	105	115	121	131	138	148	154	164	171	180	187	197	ft
	6.6 USt	3.3 USt																
197	7.2 → 74.3	6.6	5.8	5.3	4.6	4.2	3.7	3.4	3.2	2.95	2.7	2.5	2.3	2.2	2	1.9	1.75	USt
	7.2 → 79.3	6.6	6.3	5.7	5	4.6	4	3.7	3.4	3.2	2.95	2.75	2.55	2.4	2.2	2.1	1.95	USt P+
180	7.2 → 77.7	6.6	6.2	5.6	4.9	4.5	4.1	3.8	3.4	3.3	3	2.85	2.6	2.5	2.3	USt		
	7.2 → 83.7	6.6	6.6	6.2	5.4	5	4.4	4.1	3.7	3.5	3.3	3.1	2.85	2.7	2.5	USt P+		
164	7.2 → 83.2	6.6	6.6	6.1	5.4	5	4.5	4.2	3.8	3.6	3.3	3.2	2.95	USt				
	7.2 → 89.9	6.6	6.6	6.6	5.9	5.5	4.9	4.6	4.2	3.9	3.6	3.4	3.3	USt P+				
148	7.2 → 90.4	6.6	6.6	6.6	6	5.5	5	4.6	4.2	4	3.6	USt						
	7.2 → 97.6	6.6	6.6	6.6	6.5	6.1	5.4	5.1	4.6	4.3	4	USt P+						
131	7.2 → 92.4	6.6	6.6	6.6	6.1	5.7	5.1	4.8	4.4	USt								
	7.2 → 97.6	6.6	6.6	6.6	6.6	6.1	5.5	5.2	4.7	USt P+								
115	7.2 → 93	6.6	6.6	6.6	6.2	5.7	5.1	USt										
	7.2 → 98.4	6.6	6.6	6.6	6.6	6.1	5.5	USt P+										
98	7.2 → 93	6.6	6.6	6.6	6.1	USt												
	7.2 → 97.3	6.6	6.6	6.6	6.5	USt P+												
82	7.2 → 82	6.6	6.6	USt														
	7.2 → 82	6.6	6.6	USt P+														

$W = W - 0.11 \text{ USt max.}$

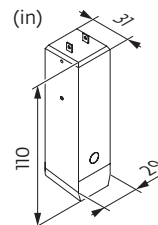


DMP (ft)		72	82	89	98	105	115	121	131	138	148	154	164	171	180	187	197	ft
	6.6 USt	3.3 USt																
197	7.2 → 74.5	6.6	5.8	5.3	4.6	4.2	3.7	3.4	3.1	2.85	2.6	2.45	2.2	2.1	1.9	1.8	1.65	USt
	7.2 → 79.6	6.6	6.4	5.7	5	4.6	4	3.7	3.4	3.1	2.85	2.65	2.4	2.3	2.1	2	1.8	USt P+
180	7.2 → 77.4	6.6	6.2	5.6	4.9	4.5	4	3.8	3.4	3.2	2.9	2.75	2.5	2.4	2.2	USt		
	7.2 → 83.6	6.6	6.6	6.2	5.4	5	4.4	4.1	3.7	3.5	3.2	3	2.75	2.6	2.4	USt P+		
164	7.2 → 83.6	6.6	6.6	6.2	5.4	5	4.5	4.2	3.8	3.6	3.3	3.1	2.85	USt				
	7.2 → 90.1	6.6	6.6	6.6	5.9	5.5	4.9	4.6	4.2	3.9	3.6	3.4	3.2	USt P+				
148	7.2 → 90.4	6.6	6.6	6.6	6	5.5	5	4.6	4.2	4	3.6	USt						
	7.2 → 97.5	6.6	6.6	6.6	6.5	6.1	5.4	5.1	4.6	4.3	4	USt P+						
131	7.2 → 92.4	6.6	6.6	6.6	6.1	5.7	5.1	4.8	4.4	USt								
	7.2 → 98.6	6.6	6.6	6.6	6.6	6.2	5.6	5.2	4.8	USt P+								
115	7.2 → 93	6.6	6.6	6.6	6.2	5.7	5.1	USt										
	7.2 → 98.5	6.6	6.6	6.6	6.6	6.2	5.6	USt P+										
98	7.2 → 93	6.6	6.6	6.6	6.1	USt												
	7.2 → 98.4	6.6	6.6	6.6	6.6	USt P+												
82	7.2 → 82	6.6	6.6	USt														
	7.2 → 82	6.6	6.6	USt P+														

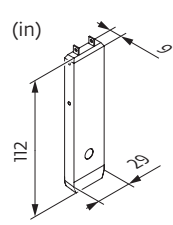
Jib weight & counter-jib ballast

ft	L (lb) - 33 LVF (+/- 5%)	W		C (lb)
		7,937 lb	2,425 lb	
197 ft	19,621	3	4	33,510
180 ft	19,180	3	4	33,510
164 ft	18,519	3	4	33,510
148 ft	17,857	3	4	33,510
131 ft	17,196	3	3	31,085
115 ft	16,094	3	2	28,660
98 ft	15,212	3	1	26,235
82 ft	14,330	2	2	20,723

CAU - 7,937 lb



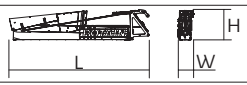
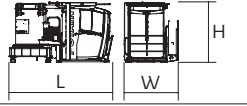

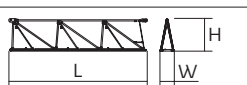
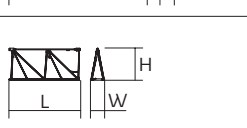
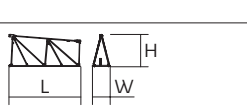
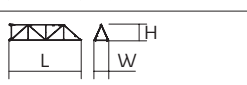
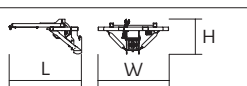
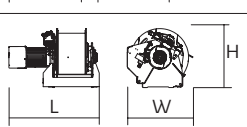
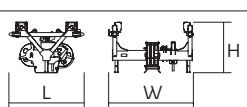
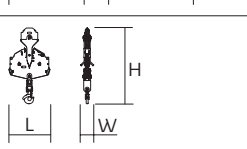
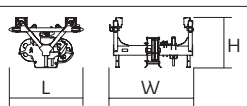
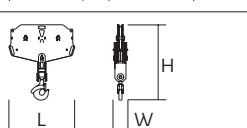
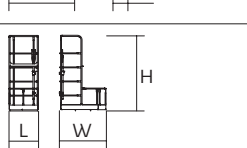
CAV - 2,425 lb

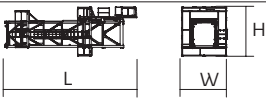
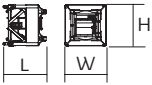
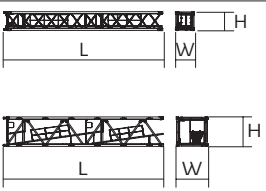
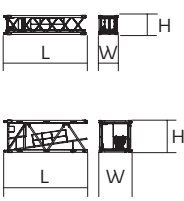

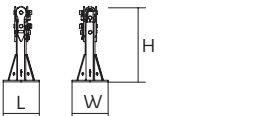

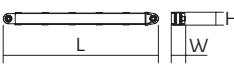
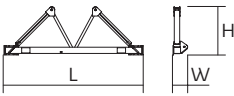
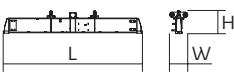
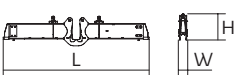
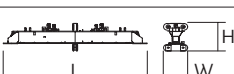
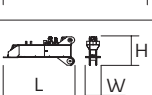
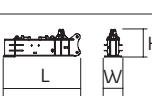



Dimensions and weight

Slewing crane part:  197 ft -  SM/DM Quick Lock™ -  33 LVF



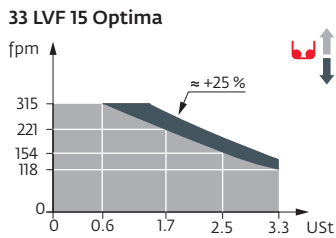
Slewing crane part		L (ft)	W (ft)	H (ft)	lb (+/- 5%)
Counter-jib		38.9	4.4	8.2	11,023
Towerhead + cab	 Ultra View	14.2	7.4	8.1	13,338
Jib section	 ① 33 LVF 6 DVF	36	9.5	8.5	8,377
Jib section	 ②	33.6	3.4	7.8	3,217
Jib section	 ③ ④ ⑥ ⑦ ⑨	17.1 17 17 17 16.9	3.4 3.4 3.4 3.4 3.4	7.7 7.6 6.3 6.2 3.9	1,336 1,283 886 756 503
Jib section	 ⑤ ⑧	17 16.9	3.4 3.4	7.6 6.2	990 646
Jib section	 ⑩	16.7	3.4	3.8	417
Jib section		4.1	4	2	225
Hoisting winch (+ rope)	 33 LVF	4.5	3	2.9	2,150
Trolley	 SM/DM Quick Lock™ 6.6 USt	3.8	4.3	2.5	399
Pulley block	 SM/DM Quick Lock™ 6.6 USt	2.9	0.9	5.4	401
Trolley	 DMP 6.6 USt	3.8	4.3	2.5	399
Trolley	 DMP 6.6 USt	2.9	0.6	3.4	291
Trolley inspection platform		2.2	3.5	5.7	99

Crane tower			L (ft)	W (ft)	H (ft)	lb (+/- 5%)
Telescopic cage T41 Telescopic cage T61		□ 5.2 ft □ 6.6 ft	35.6 35.5	12.3 13.6	13.5 14.7	15,653 21,385
K20/K40 K40/K40-2 K60/K40-2		□ 3.9 ft/5.2 ft □ 5.2 ft □ 6.6/5.2 ft	5.6 7.3 7.3	5.4 6.9 8.2	5.4 6.8 8.1	4,189 2,932 5,820
KM 247E KM 249E K 447E KM 447E KM 449E K 649B KM 649E KRM 6410B		□ 3.9 ft □ 3.9 ft □ 5.2 ft □ 5.2 ft □ 5.2 ft □ 6.6 ft □ 6.6 ft □ 6.6 ft	33.5 33.5 33.5 33.5 33.5 33.6 33.8 33.6	4 4 5.3 5.3 5.3 6.8 6.7 6.9	4 4 5.3 5.3 5.3 6.7 6.7 6.8	7,165 8,818 7,474 7,088 8,830 11,663 10,692 15,653
KM 247A KM 249A K 447A KMT 447A K 449A KMT 449A KR 649A KRMT 649A K 649A KMT 649A		□ 3.9 ft □ 3.9 ft □ 5.2 ft □ 5.2 ft □ 5.2 ft □ 5.2 ft □ 6.6 ft □ 6.6 ft □ 6.6 ft □ 6.6 ft	17.1 17.1 17.1 17.1 17.1 17.1 17.2 17.2 17.2 17.2	4 4 5.5 5.5 5.5 5.5 6.9 6.9 6.8 6.8	4 4 5.3 5.3 5.3 5.3 6.8 6.8 6.7 6.7	3,748 4,630 4,079 3,847 4,916 4,696 7,165 6,724 6,184 5,666
K 447C KMT 447C K 649C KMT 649C KRMT 649C		□ 5.2 ft □ 5.2 ft □ 6.6 ft □ 6.6 ft □ 6.6 ft	11.3 11.6 11.7 11.7 11.7	5.5 5.5 6.8 6.8 6.9	5.3 5.3 6.7 6.7 6.8	2,998 2,976 4,376 4,542 5,401
Fixing angles		P 24A / P 42A P 63A / P 800B	1.8 2.5	1.8 2.5	3.8 4.2	529 1,025
Basic mast unit		S 41A V 60A	11.9 16.4	6.4 7.9	6.8 7.9	7,132 10,494
Struts		S 41A V 60A	10.4 14.8	0.9 1	0.8 1	816 1,036
Half-bearer		S 41A V 60A	16.7 22	2 2.3	5.8 7.6	2,315 4,057
Cross girder		ZC 4230 ZD 4230	18.5 21.8	2.7 2.7	3.4 3.4	3,505 4,035
Cross girder		ZC 4230 ZD 4230	18.5 21.8	1.5 1.5	4.4 4.4	4,178 4,707
Cross girder		ZD 463	25.1	3.8	4.5	7,904
1/2 Cross girder		ZD 463	11.2	2.3	4.4	3,649
1/2 Cross girder		ZX 640	14.3	3.3	5.1	7,319
Cross girder		ZX 640	30	3.9	5.1	15,168

Mechanisms

480 V - 60 Hz											hp	kW	
	33 LVF 15 Optima	fpm	118	154	221	315	59	79	116	157	33	22	1,001 ft
		USt	3.3	2.5	1.7	0.6	6.6	5	3.3	1.4			
	6 DVF 4 Optima	fpm	0 → 262 (6.6 USt) 0 → 328 (2.2 USt)								5.5	4	
	RVF 152 Optima+	rpm	0 → 0.8								2 x 5.5	2 x 4	

480 V (+6% -10%) 60 Hz	41 → 28 kVA	



These mast combinations meet the EN 14439 and ASME B30.3-2016 specifications for "out of service" wind conditions, provided the illustrated wind speed matches required design wind speed for the location of the tower crane. The "out of service" design wind speed was determined in accordance with ASCE 7-10, Figure 26.5-1A. The wind velocity, used for this configuration was 98 mph (158 kph), which represents a nominal design 3-second wind gust at 33 ft (10 m) above ground for Exposure B category. A factor of 0.85 was applied to the 700-year ultimate design wind speed of 115 mph (185 kph), per ASCE 37-02, with the assumption that this crane is considered a temporary structure used during a construction period of 2 years or less.

- Jib elevation
- Standard equipment
- Options
- Potain Plus function: Plus load curves
- Hook heights with Plus load curves
- Reactions in service
- Reactions out of service
- Total ballast weight
- Jib weight
- Lorry 44 ft
- Container High Cube 40 ft. and/or Flat Rack 20 ft.
- Hoisting
- Trolleying
- Slewing
- Travelling
- Required power
- Power Control Function: winch speeds adapted to the available power
- Consult us

This commercial document is not legally binding. For any technical information, please refer to the corresponding instructions.

