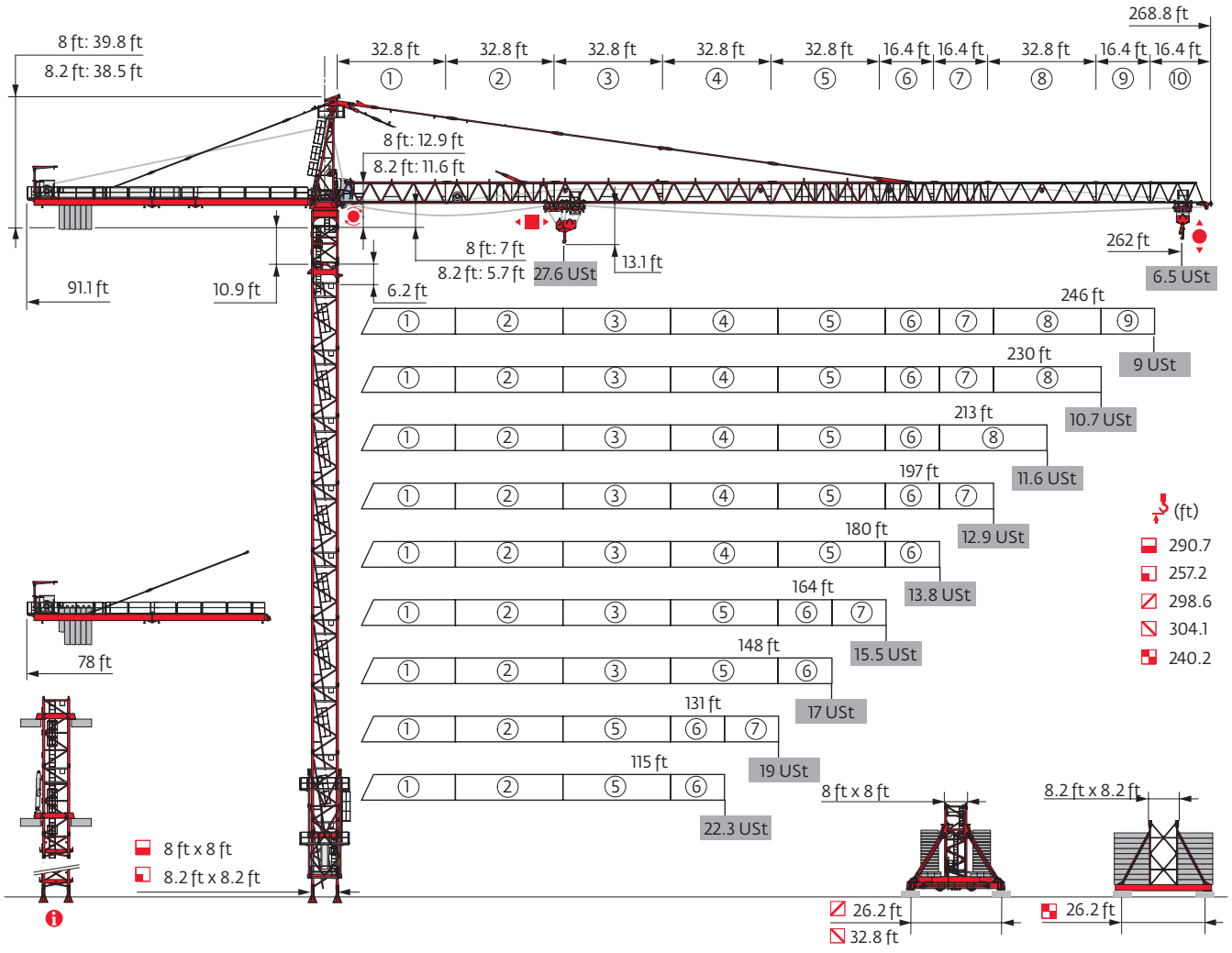
POTAIN®
by Manitowoc

MD 679 M25



Potain Plus | Power Control | Top Site | Top Tracing 3 | CabLIFT | TCL

ASCE 7-10

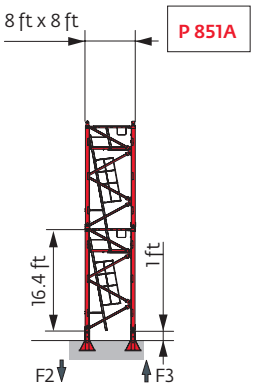
Values have been rounded.

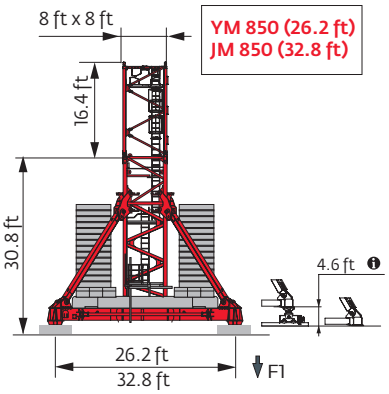
Mast - Reactions

8 ft - P 851A											
(ft)		115	131	148	164	180	197	213	230	246	262
(ft)		290.7	290.7	290.7	290.7	290.7	290.7	290.7	285.1	279.5	279.5
/P+ (ft)		285.1	285.1	285.1	279.5	279.5	279.5	279.5	274.3	268.7	263.1
	10.9 ft	1	1	1	1	1	1	1	1	1	1
	6.2 ft	1	1	1	1	1	1	1	1	1	1
	10.9 ft	0	0	0	0	0	0	0	1	2	2
	16.4 ft	17	17	17	17	17	17	17	16	15	15
F2 (USt)	●	356	359	355	352	358	356	359	362	369	368
	■	576	581	579	573	589	586	592	572	570	586
F3 (USt)	●	245	245	240	247	240	235	238	239	246	245
	■	479	482	477	468	485	479	485	463	461	477

8 ft - YM 850 -											
(ft)		115	131	148	164	180	197	213	230	246	262
(ft)		293	293	293	298.6	293	293	293	293	287.7	287.7
/P+ (ft)		293	293	293	293	287.7	287.7	282.2	282.2	276.6	271.3
	10.9 ft	1	1	1	1	1	1	1	1	1	1
	6.2 ft	1	1	1	1	1	1	1	1	1	1
	10.9 ft	2	2	2	1	2	2	2	2	0	0
	16.4 ft	14	14	14	15	14	14	14	14	15	15
F1 (USt)	●	210	212	210	212	212	209	210	213	211	214
	■	285	287	285	290	290	287	290	289	282	291

8 ft - JM 850 -											
(ft)		115	131	148	164	180	197	213	230	246	262
(ft)		304.1	298.6	304.1	304.1	304.1	304.1	304.1	293	287.7	293
/P+ (ft)		293	293	293	293	287.7	287.7	282.2	282.2	276.6	271.3
	10.9 ft	1	1	1	1	1	1	1	1	1	1
	6.2 ft	1	1	1	1	1	1	1	1	1	1
	10.9 ft	0	1	0	0	0	0	0	2	0	2
	16.4 ft	16	15	16	16	16	16	16	14	15	14
F1 (USt)	●	175	175	176	173	178	175	179	169	170	179
	■	242	236	242	239	246	244	246	230	225	244





Motorized accesses of CabLIFT and TCL types: Adapted mast compositions, base ballast and reactions.

8.2 ft - P 80A

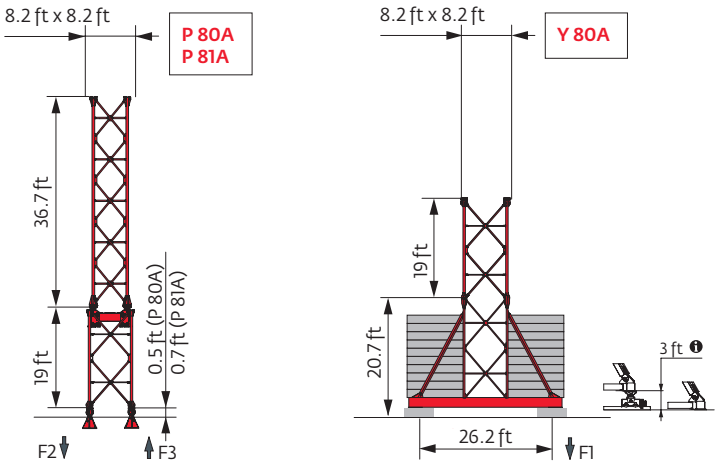
(ft)		115	131	148	164	180	197	213	230	246	262
(ft)		238.5	238.5	238.5	238.5	238.5	238.5	238.5	219.5	219.5	219.5
/P+ (ft)		238.5	219.5	219.5	219.5	219.5	-	-	-	200.5	200.5
36.7 ft		1	1	1	1	1	1	1	1	1	1
19 ft		11	11	11	11	11	11	11	10	10	10
F2 (USt)	●	251	248	246	245	248	245	248	245	248	247
	■	214	219	216	211	226	222	228	189	202	217
F3 (USt)	●	163	158	153	164	153	147	150	147	150	148
	■	140	142	137	129	145	139	144	104	118	132

8.2 ft - P 81A

(ft)		115	131	148	164	180	197	213	230	246	262
(ft)		257.2	257.2	257.2	257.2	257.2	257.2	257.2	257.2	238.5	238.5
/P+ (ft)		257.2	257.2	257.2	257.2	257.2	-	-	-	238.5	238.5
36.7 ft		1	1	1	1	1	1	1	1	1	1
19 ft		12	12	12	12	12	12	12	12	11	11
F2 (USt)	●	264	266	267	268	271	257	260	269	269	272
	■	256	261	259	254	269	264	270	270	243	258
F3 (USt)	●	171	171	170	168	171	156	158	163	166	168
	■	177	180	176	168	183	176	182	178	154	168

8.2 ft - Y 80A -

(ft)		115	131	148	164	180	197	213	230	246	262
(ft)		240.2	240.2	240.2	240.2	240.2	240.2	240.2	221.1	221.1	240.2
/P+ (ft)		240.2	240.2	240.2	240.2	240.2	-	-	-	221.1	221.1
36.7 ft		1	1	1	1	1	1	1	1	1	1
19 ft		10	10	10	10	10	10	10	9	9	10
F1 (USt)	●	139	140	142	143	140	137	138	137	141	147
	■	115	117	117	117	118	117	119	108	113	132



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.

Anchorages

Base ballast

(USt) / 8 ft - YM 850 -

(ft)	115	131	148	164	180	197	213	230	246	262
298.6				224.9						
293	224.9	224.9	211.6	211.6	224.9	211.6	211.6	211.6		
287.7	211.6	211.6	198.4	185.2	198.4	185.2	198.4	185.2	198.4	211.6
271.3	158.7	158.7	158.7	145.5	158.7	145.5	145.5	145.5	158.7	172
254.9	119.1	119.1	105.8	105.8	119.1	105.8	105.8	105.8	119.1	119.1
238.5	92.6	92.6	92.6	92.6	92.6	92.6	79.4	92.6	92.6	92.6
222.1	79.4	79.4	66.1	66.1	66.1	66.1	66.1	66.1	79.4	79.4
205.7	66.1	66.1	66.1	52.9	66.1	52.9	52.9	52.9	66.1	52.9
189.3	66.1	66.1	66.1	52.9	66.1	52.9	52.9	52.9	52.9	52.9
172.9	66.1	66.1	66.1	52.9	66.1	52.9	52.9	52.9	52.9	52.9
156.5	66.1	66.1	66.1	52.9	66.1	52.9	52.9	52.9	52.9	52.9
140.1	66.1	66.1	66.1	52.9	66.1	52.9	52.9	52.9	52.9	52.9
123.7	66.1	66.1	66.1	52.9	66.1	52.9	52.9	52.9	52.9	52.9
107.3	66.1	66.1	66.1	52.9	66.1	52.9	52.9	52.9	52.9	52.9
90.9	66.1	66.1	66.1	52.9	66.1	52.9	52.9	52.9	52.9	52.9

(USt) / 8 ft - JM 850 -

(ft)	115	131	148	164	180	197	213	230	246	262
304.1	145.5		145.5	132.3	145.5	132.3	145.5			
298.6	145.5	145.5	132.3	119.1	132.3	119.1	132.3			
293	132.3	132.3	119.1	105.8	119.1	119.1	119.1	105.8		132.3
287.7	119.1	119.1	105.8	92.6	105.8	105.8	105.8	92.6	105.8	119.1
271.3	79.4	79.4	79.4	66.1	79.4	66.1	66.1	66.1	66.1	79.4
254.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9
238.5	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9
222.1	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9
205.7	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9
189.3	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9
172.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9
156.5	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9
140.1	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9
123.7	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9
107.3	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9
90.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9

(USt) / 8.2 ft - Y 80A -

(ft)	115	131	148	164	180	197	213	230	246	262
240.2	105.8	105.8	105.8	105.8	92.6	92.6	92.6			105.8
221.1	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	105.8
202.1	92.6	79.4	79.4	92.6	79.4	92.6	92.6	92.6	92.6	92.6
183.1	79.4	79.4	79.4	79.4	79.4	79.4	92.6	92.6	92.6	92.6
164	79.4	79.4	79.4	79.4	79.4	79.4	79.4	92.6	92.6	92.6
145.3	79.4	79.4	79.4	79.4	79.4	79.4	79.4	79.4	79.4	92.6
126.3	79.4	79.4	79.4	79.4	79.4	79.4	79.4	79.4	79.4	79.4
107.3	79.4	79.4	79.4	79.4	79.4	79.4	79.4	79.4	79.4	79.4
88.3	79.4	79.4	79.4	79.4	79.4	66.1	66.1	79.4	79.4	79.4

Load curves

(ft)			72	82	89	98	115	121	131	148	154	164	180	187	197	213	220	230	236	246	253	262	ft
	27.6 USt	13.8 USt																					
262	13 → 80	127 - 139	27.6	26.6	23.8	20.3	16.1	14.8	13.8	13.1	12.6	11.9	10.9	10.5	10	9.3	8.9	8.2	7.8	7.2	6.8	6.2	USt
	13 → 85	133 - 144	27.6	27.6	26.2	22.1	16.8	15.5	14	13.7	13.3	12.8	11.9	11.5	11	10.1	9.7	9	8.5	7.9	7.4	6.5	USt P+
246	13 → 87	140 - 154	27.6	27.6	26.9	23	18.1	16.6	14.9	13.8	13.8	12.9	11.6	11.2	10.6	9.7	9.4	8.9	8.6	8.2	USt		
	13 → 90	146 - 164	27.6	27.6	27.6	23.9	18.4	17	15.4	13.8	13.8	13.8	12.8	12.3	11.6	10.6	10.3	9.8	9.4	9	USt P+		
230	13 → 91	151 - 165	27.6	27.6	27.6	24.8	19.5	17.8	16.1	14.1	13.8	13.8	12.6	12.2	11.5	10.6	10.3	9.8	USt				
	13 → 94	165 - 181	27.6	27.6	27.6	25.9	20.1	18.5	16.8	15	14.5	13.9	13.8	13.3	12.6	11.6	11.2	10.7	USt P+				
213	13 → 88	159 - 174	27.6	27.6	27	24.2	20.3	19	17.4	15.1	14.3	13.8	13.2	12.7	11.9	10.9	USt						
	13 → 92	168 - 183	27.6	27.6	27.6	25.6	21.5	20.2	18.4	16.1	15.3	14.2	13.8	13.4	12.7	11.6	USt P+						
197	13 → 89	161 - 175	27.6	27.6	27.6	24.5	20.5	19.2	17.6	15.3	14.5	13.8	13.3	12.8	12.1	USt							
	13 → 94	171 - 185	27.6	27.6	27.6	26.1	21.9	20.6	18.8	16.4	15.6	14.5	13.8	13.7	12.9	USt P+							
180	13 → 88	160 - 174	27.6	27.6	27	24.4	20.4	19.1	17.5	15.2	14.4	13.8	13.2	USt									
	13 → 92	167 - 180	27.6	27.6	27.6	25.5	21.4	20.1	18.4	16	15.2	14.1	13.8	USt P+									
164	13 → 92		27.6	27.6	27.6	25.4	21.3	20	18.2	15.9	15	14	USt										
	13 → 96		27.6	27.6	27.6	26.8	22.6	21.2	19.4	16.9	16.1	14.9	USt P+										
148	13 → 90		27.6	27.6	27.6	25	21	19.7	18	15.6	USt												
	13 → 94		27.6	27.6	27.6	26	21.9	20.5	18.8	16.4	USt P+												
131	13 → 90		27.6	27.6	27.6	25	21	19.7	17.9	USt													
	13 → 92		27.6	27.6	27.6	25.6	21.5	20.2	18.4	USt P+													
115	13 → 91		27.6	27.6	27.6	25.2	21.1	USt															
	13 → 93		27.6	27.6	27.6	25.8	21.7	USt P+															

= - 1.7 USt max.

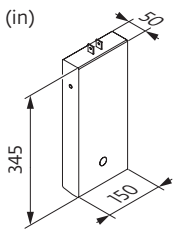
(ft)			72	82	89	98	115	121	131	148	154	164	180	187	197	213	220	230	236	246	253	262	ft
	27.6 USt	13.8 USt																					
262	9 → 81	130 - 134	27.6	27.2	24.3	20.9	16.7	15.3	13.8	12.5	12	11.3	10.3	9.9	9.4	8.6	8.2	7.6	7.2	6.6	6.1	5.5	USt
	9 → 87	138 - 137	27.6	27.6	26.8	22.6	17.4	16.1	14.6	13.1	12.7	12.1	11.3	10.9	10.3	9.5	9.1	8.4	7.9	7.2	6.8	5.8	USt P+
246	9 → 89	145 - 149	27.6	27.6	27.5	23.5	18.7	17.1	15.4	13.8	13.3	12.4	11.1	10.7	10.1	9.2	8.8	8.4	8.1	7.7	USt		
	9 → 92	154 - 154	27.6	27.6	27.6	24.5	19	17.6	16	14.2	13.8	13.3	12.2	11.7	11.1	10.1	9.7	9.2	8.9	8.5	USt P+		
230	9 → 93	157 - 161	27.6	27.6	27.6	25.4	20	18.4	16.7	14.7	14	13.5	12.2	11.7	11.1	10.2	9.8	9.4	USt				
	9 → 96	171 - 177	27.6	27.6	27.6	26.4	20.6	19.1	17.4	15.6	15	14.4	13.4	12.9	12.2	11.2	10.8	10.3	USt P+				
213	9 → 89	165 - 169	27.6	27.6	27.6	24.8	20.9	19.6	17.9	15.7	14.9	13.8	12.8	12.2	11.5	10.5	USt						
	9 → 94	174 - 178	27.6	27.6	27.6	26.2	22.1	20.7	19	16.7	15.9	14.8	13.6	13	12.3	11.2	USt P+						
197	9 → 90	166 - 171	27.6	27.6	27.6	25.1	21.1	19.8	18.1	15.8	15.1	14	12.9	12.4	11.7	USt							
	9 → 95	177 - 181	27.6	27.6	27.6	26.6	22.5	21.1	19.4	17	16.1	15	13.8	13.2	12.5	USt P+							
180	9 → 90	165 - 170	27.6	27.6	27.6	24.9	21	19.7	18	15.7	15	13.9	12.8	USt									
	9 → 94	173 - 177	27.6	27.6	27.6	26	22	20.7	18.9	16.6	15.8	14.7	13.5	USt P+									
164	9 → 93		27.6	27.6	27.6	26	21.9	20.5	18.8	16.4	15.6	14.5	USt										
	9 → 98		27.6	27.6	27.6	27.4	23.1	21.8	20	17.5	16.6	15.5	USt P+										
148	9 → 92		27.6	27.6	27.6	25.6	21.5	20.2	18.5	16.2	USt												
	9 → 95		27.6	27.6	27.6	26.6	22.5	21.1	19.4	17	USt P+												
131	9 → 92		27.6	27.6	27.6	25.6	21.5	20.2	18.5	USt													
	9 → 94		27.6	27.6	27.6	26.2	22.1	20.7	19	USt P+													
115	9 → 93		27.6	27.6	27.6	25.8	21.7	USt															
	9 → 95		27.6	27.6	27.6	26.4	22.3	USt P+															

= - 0.49 USt max.

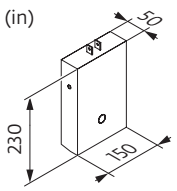
Jib weight & counter-jib ballast

	(lb) (+/- 5%)		100 LVF			180 LVF GH		
			13,228 lb	8,818 lb	(lb)	13,228 lb	8,818 lb	(lb)
262 ft	56,516	57,596	6	0	79,366	5	0	66,139
246 ft	55,413	56,493	6	0	79,366	5	0	66,139
230 ft	54,201	55,281	6	0	79,366	5	0	66,139
213 ft	51,809	52,889	4	2	70,548	3	2	57,320
197 ft	51,136	52,216	4	2	70,548	3	2	57,320
180 ft	48,744	49,824	4	1	61,729	3	1	48,502
164 ft	45,040	46,121	5	1	74,957	4	1	61,729
148 ft	42,659	43,740	3	3	66,139	2	3	52,911
131 ft	38,592	39,672	3	2	57,320	2	2	44,092
115 ft	36,211	37,291	2	3	52,911	1	3	39,683

CBC - 13,228 lb



CBD - 8,818 lb

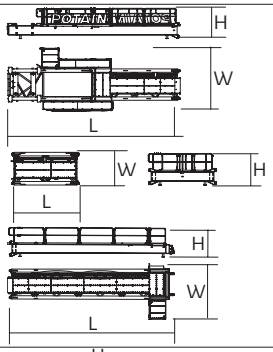
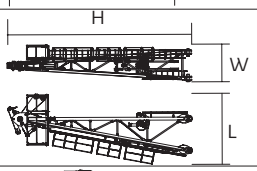
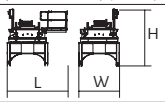
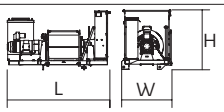
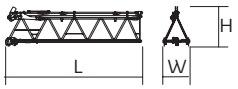
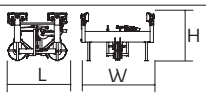
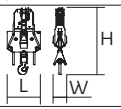
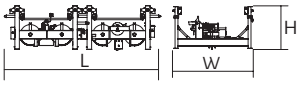
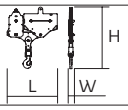


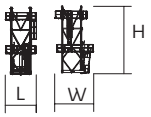
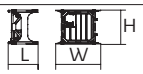
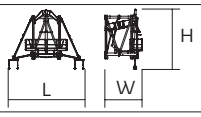
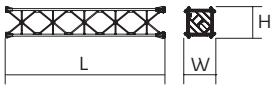
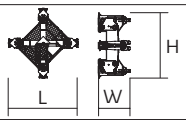
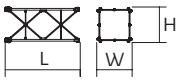
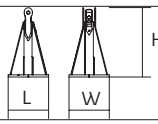
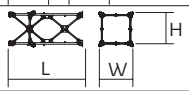
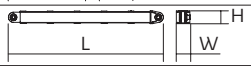
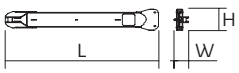
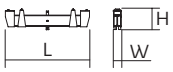
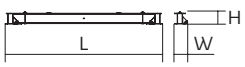
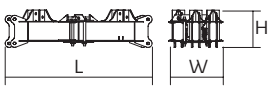
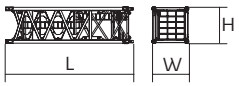
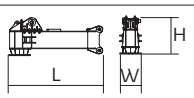
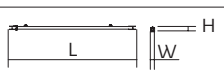
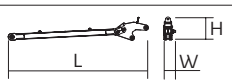
Dimensions and weight

Slewing crane part: 262 ft - - 100 LVF

x 14

x 10

Slewing crane part			L (ft)	W (ft)	H (ft)	lb (+/- 5%)
Counter-jib			38.4	13.5	6.4	14,308
			13.8	6.6	6.4	4,365
			36.2	11.7	6.8	10,858
Cathead			11.6	6.5	32.3	18,221
Cab		Ultra View	16.4	8.2	9.1	4,134
Towerhead		8 ft 8.2 ft	12.1 12.9	9.5 10	12.7 11.5	25,485 25,353
Hoisting winch (+ rope)		100 LVF 180 LVF GH	10.4 14	5.2 6.3	5.7 6.2	9,138 20,349
Jib section		① ② 10 DVF ③ ④ ⑤ ⑧	34 33.9 33.6 33.6 33.6 33.5	6.2 6.2 6.2 6.2 6.2 6.2	8.3 7.7 7.9 7.6 7.6 6.6	11,188 10,439 6,625 6,096 6,250 3,064
Jib section		⑥ ⑦ ⑨ ⑩	17.5 17.2 17 16.7	6.2 6.2 6.2 6.2	7.4 6.7 6.5 6.5	3,792 2,381 1,213 1,102
Trolley		27.6 USt	5.9	7.4	4.7	1,676
Pulley block		27.6 USt	3.9	1.4	7.8	1,874
Trolley		27.6 USt	13.5	7.2	3.8	2,635
Pulley block		27.6 USt	6	1.1	7.7	1,995

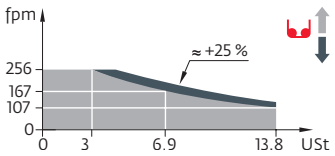
Crane tower			L (ft)	W (ft)	H (ft)	lb (+/- 5%)
Telescopic cage		☑8 ft	15.2	19	33.6	29,200
K 850/K 850 Telescoping mast		☑8 ft	7.3	10.7	8.2	8,069
Telescopic cage		☑8.2 ft	24.3	12	19.1	13,669
Slider		☑8.2 ft	36.4	6.9	6.9	15,653
Slider base		☑8.2 ft	7.7	5.2	7.7	13,140
KM 850.10B KMT 850.10A KMT 850.10C		☑8 ft	33.9 17.5 12	8.1 8.3 8.3	8.3 8.2 8.2	22,201 12,015 9,326
R 86 R 87 R 87B R 88B		☑8.2 ft	21 21 21 21	9.5 9.5 9.5 9.7	9.5 9.5 9.5 9.7	8,422 9,392 9,976 12,787
Fixing angles		P 851A P 80A P 81A ⓘ	3 2.6 -	3 2.6 -	4.9 4 -	1,841 4,343 -
Basic mast unit		Y 80A	19.7	9.8	9.8	16,314
Struts		Y 80A	18	1.4	1.2	1,764
1/2 Side member		Y 80A	18.4	3.8	2	2,205
Side member		Y 80A	38.9	3.8	2	4,630
Ballast support		Y 80A	15.3	1	2.2	595
Chassis beam		Y 80A	28.2	2.3	3.8	4,409
Central cross (transport position)		YM 850 JM 850	17.1	5.6	4.9	14,771
Basic mast unit		YM 850 JM 850	28.7	8.2	8.2	32,187
Chassis girder		YM 850 JM 850	12.5 17.1	3 3	5.1 5.1	6,173 7,055
Chassis ties		YM 850 JM 850	23.6	0.8	1.1	551
Struts		YM 850 JM 850	24.6 26.9	2.5 2.5	4.3 4.3	4,630 5,071

Mechanisms

480 V - 60 Hz											hp	kW	
	100 LVF 63 Optima	fpm	107	133	167	256	54	67	85	128	100	75	2,382 ft
		USt	13.8	10.4	6.9	3	27.6	20.7	13.8	6.9			
	180 LVF 63 GH Optima	fpm	177	218	289	448	630	89	110	148	236	315	180	132	3,937 ft
		USt	13.8	10.4	6.9	3.4	1	27.6	20.7	13.8	6.9	3.4			
	10 DVF 10 Optima	fpm	0 → 217 (27.6 USt)				0 → 262 (22 USt)	0 → 328 (13.8 USt)			0 → 361 (6.9 USt)		10	7.4	
	RVF 173 Optima+	rpm	0 → 0.8										3 x 10	3 x 7.5	

IEC 60204-32	kVA	
480 V (+6% -10%) 60 Hz	100 LVF : 117 → 77 kVA 180 LVF GH : 181 → 109 kVA	

100 LVF 63 Optima



These mast combinations meet the EN 14439 and ASME B30.3-2012 specifications for "out of service" wind conditions, provided the illustrated wind speed matches required design wind 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-A. 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 50-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.

- 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