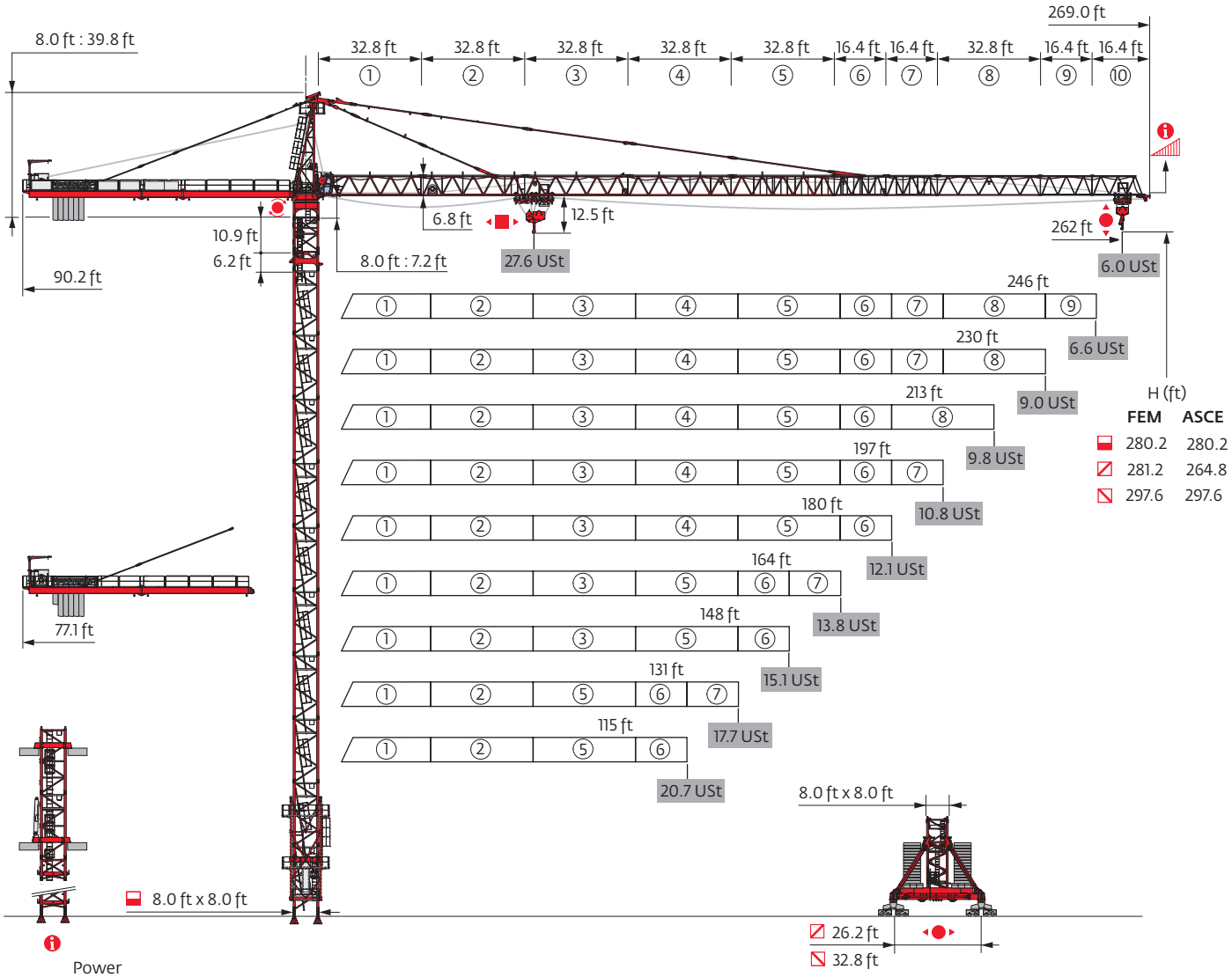
MD 610

Data Sheet

FEM 1.001-A3
ASCE 7-10

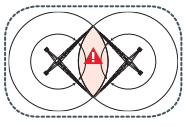
MD 610 M25



Power Control

CraneSTAR Fleet

Top Tracing II

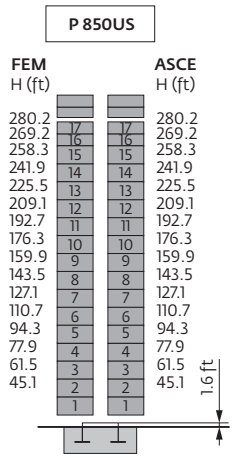


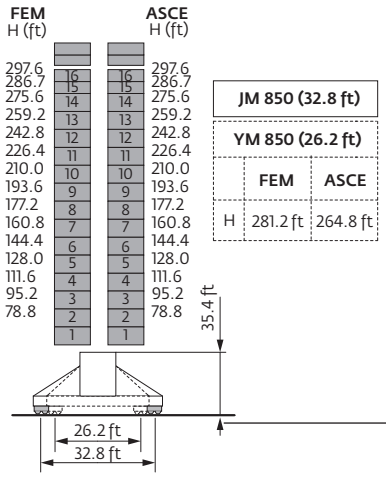
Values have been rounded

Mast

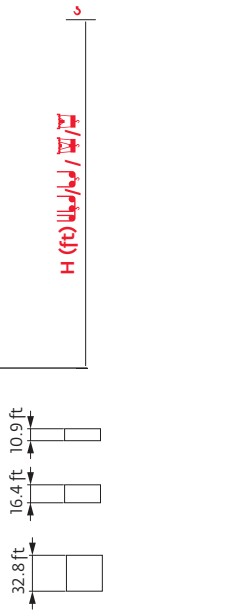
8.0 ft

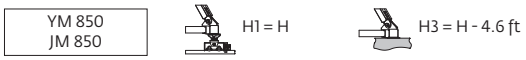
115 ft → 262 ft





JM 850 (32.8 ft)		
YM 850 (26.2 ft)		
	FEM	ASCE
H	281.2 ft	264.8 ft

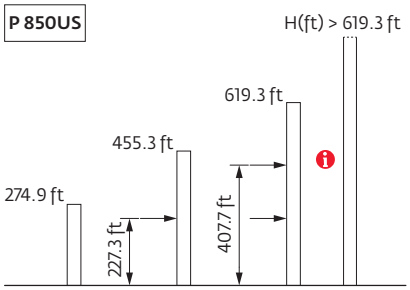




Note: When "ASCE" is noted in this data sheet it is referring to 115 mph Wind Zone, Exposure B, Design Wind Speed = 98 mph. See back cover for design wind speed calculations.

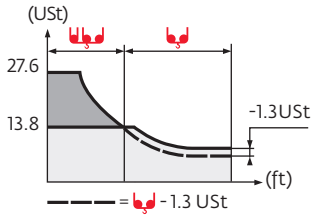
Anchorages (Consult us for ASCE 7-10 values)

P 850US

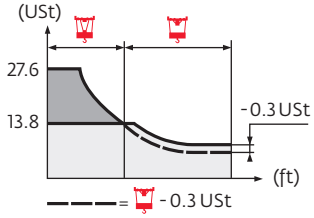


Load charts

262 ft	12	▶			69	72	82	89	98	105	115	123	133	148	164	180	197	213	230	246	262	ft
					27.6	26.1	22.5	20.5	18.1	16.8	15.0	13.8	13.8	12.1	10.7	9.6	8.6	7.8	7.1	6.5	6.0	USt
246 ft	12	▶			69	72	82	89	98	105	115	124	134	148	164	180	197	213	230	246	ft	
					27.6	26.3	22.7	20.7	18.3	16.9	15.1	13.8	13.8	12.3	10.9	9.7	8.7	7.9	7.3	6.6	USt	
230 ft	12	▶					82	89	98	105	115	131	148	160	164	180	197	213	230	ft		
							27.6	25.4	22.4	20.8	18.7	16.0	13.8	13.8	13.4	12.0	10.8	9.9	9.0	USt		
213 ft	12	▶					82	89	98	105	115	131	147	159	164	180	197	213	ft			
							27.6	25.1	22.3	20.6	18.6	15.9	13.8	13.8	13.3	11.9	10.8	9.8	USt			
197 ft	12	▶					82	89	98	105	115	131	147	159	164	180	197	ft				
							27.6	25.2	22.3	20.7	18.6	15.9	13.8	13.8	13.3	11.9	10.8	USt				
180 ft	12	▶					83	89	98	105	115	131	149	161	164	180	ft					
							27.6	25.6	22.6	20.9	18.8	16.1	13.8	13.8	13.6	12.1	USt					
164 ft	12	▶					84	89	98	105	115	131	148	152	164	ft						
							27.6	26.0	23.0	21.4	19.3	16.4	14.2	13.8	13.8	USt						
148 ft	12	▶					85	89	98	105	115	131	148	ft								
							27.6	26.3	23.4	21.7	19.5	16.6	14.4	USt								
131 ft	12	▶					87	89	98	105	115	131	ft									
							27.6	27.0	23.9	22.3	20.1	17.1	USt									
115 ft	12	▶					87	89	98	105	115	ft										
							27.6	27.1	24.0	22.3	20.1	USt										



262 ft	9	▶		70	72	82	89	98	105	115	127	129	131	148	164	180	197	213	230	246	262	ft
				27.6	26.6	22.9	20.9	18.5	17.2	15.4	13.8	13.8	13.4	11.7	10.3	9.1	8.2	7.4	6.6	6.1	5.5	USt
246 ft	9	▶		70	72	82	89	98	105	115	128	130	131	148	164	180	197	213	230	246	ft	
				27.6	26.8	23.1	21.2	18.7	17.4	15.7	13.8	13.8	13.7	11.8	10.4	9.3	8.3	7.5	6.7	6.2	USt	
230 ft	9	▶				84	89	98	105	115	131	148	153	156	164	180	197	213	230	ft		
						27.6	25.8	22.9	21.3	19.2	16.4	14.3	13.8	13.8	12.9	11.6	10.4	9.5	8.6	USt		
213 ft	9	▶				83	89	98	105	115	131	148	152	155	164	180	197	213	ft			
						27.6	25.7	22.8	21.2	19.1	16.4	14.2	13.8	13.8	12.9	11.5	10.4	9.4	USt			
197 ft	9	▶				83	89	98	105	115	131	148	152	155	164	180	197	ft				
						27.6	25.7	22.8	21.3	19.2	16.4	14.3	13.8	13.8	12.9	11.5	10.4	USt				
180 ft	9	▶				84	89	98	105	115	131	148	154	157	164	180	ft					
						27.6	26.1	23.1	21.5	19.4	16.6	14.6	13.8	13.8	13.1	11.7	USt					
164 ft	9	▶				86	89	98	105	115	131	148	157	159	164	ft						
						27.6	26.6	23.6	21.9	19.8	17	14.8	13.8	13.8	13.3	USt						
148 ft	9	▶				87	89	98	105	115	131	148	ft									
						27.6	27.1	24.0	22.4	20.2	17.3	15.1	USt									
131 ft	9	▶					89	98	105	115	131	ft										
							27.6	24.6	22.9	20.7	17.7	USt										
115 ft	9	▶					89	98	105	115	ft											
							27.6	24.7	22.9	20.7	USt											



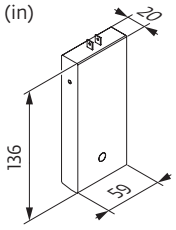
Base ballast

8.0 ft	YM 850	H (ft)	281.2	270.3	264.8	259.2	253.9	242.8	226.4	210.0	193.6	177.2	160.8	144.4	128.0	111.5	95.1	78.7
	FEM	(USt)	198.4	158.7	-	119.0	-	79.4	79.4	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1
	ASCE	(USt)																
	JM 850	H (ft)	297.6	286.7	275.6	259.2	242.8	226.4	210.0	193.6	177.2	160.8	144.4	128.0	111.5	95.1	78.7	62.3
	FEM	(USt)	145.5	119.0	79.4	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9
	ASCE	(USt)																

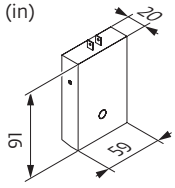
Counter-jib ballast

	(lb) (+/- 5%)		100 LVF			180 LVF GH		
			13,228 lb	8818 lb	(lb)	13,228 lb	8818 lb	(lb)
262 ft	56,582	57,618	6	0	79,366	5	0	66,139
246 ft	55,314	56,350	6	0	79,366	5	0	66,139
230 ft	53,859	54,895	6	0	79,366	5	0	66,139
213 ft	51,643	52,679	4	2	70,548	3	2	57,320
197 ft	50,905	51,941	4	2	70,548	3	2	57,320
180 ft	48,755	49,780	4	1	61,729	3	1	48,502
164 ft	45,239	46,275	5	1	74,957	4	1	61,729
148 ft	43,089	44,126	3	3	66,139	2	3	52,911
131 ft	39,121	40,157	3	2	57,320	2	2	44,092
115 ft	37,412	38,449	2	3	52,911	1	3	39,683

CBC - 13,228 lb



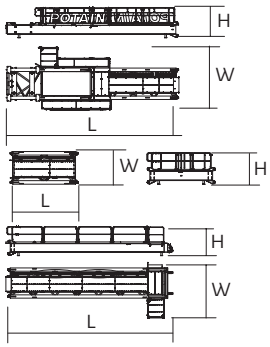
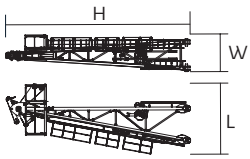
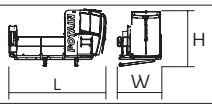
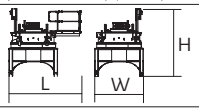
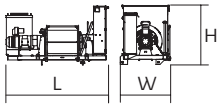
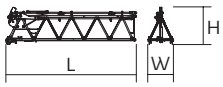
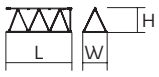
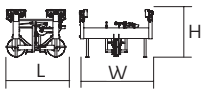
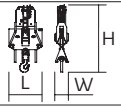
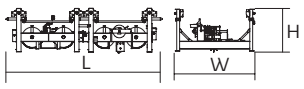
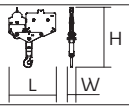
CBD - 8818 lb



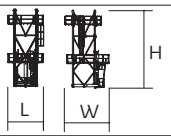
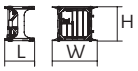
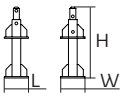
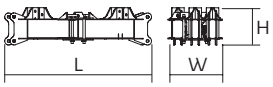
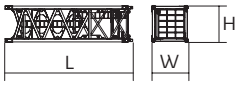
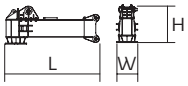
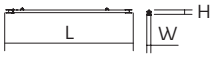
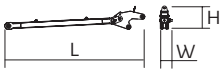
Component weights

Crane upper : 262 ft - - 100 LVF

x 14
x 10

			L (ft)	W (ft)	H (ft)	lb (+/- 5%)
Counter-jib			38.4 13.8 36.2	13.5 6.6 11.7	6.4 6.4 6.8	14,308 4365 10,858
Towerhead			11.0	6.5	32.3	19,731
Cab		UltraView	16.4	8.2	9.1	4134
Pivot		8.0 ft	12.1	9.5	12.7	25,485
Hoisting winch (+ rope)		100 LVF 180 LVF GH	10.4 14	5.2 6.3	5.7 6.2	9138 20,349
Jib section		① ②10 DVF ③ ④ ⑤ ⑧	34.0 33.9 33.5 33.6 33.6 33.5	9.7 6.2 6.2 6.2 6.2 6.2	10.2 7.7 7.9 7.6 7.6 6.6	11,354 11,409 6537 5897 6162 2987
Jib section		⑥ ⑦ ⑨ ⑩	17.5 17.2 17.0 16.9	6.2 6.2 6.2 6.2	7.2 6.7 6.5 6.5	3748 2271 1202 1102
Trolley		27.6 USt	5.9	7.4	4.7	1676
Hook block		27.6 USt	3.9	1.4	7.8	1874
Trolley		27.6 USt	13.5	7.2	3.8	2635
Hook block		27.6 USt	6.0	1.1	7.7	1995

Component weights

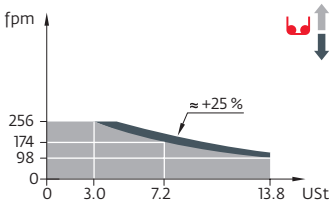
			L (ft)	W (ft)	H (ft)	lb (+/- 5%)
Climbing cage		⍁8.0 ft	15.2	19.0	33.6	28,484
K 850/ K 850 Climbing cage		⍁8.0 ft	7.3	10.7	8.2	8,069
KMT 850.10A KMT 850.10C		⍁8.0 ft	17.5 12.0	8.3 8.3	8.2 8.2	12,015 9326
Fixing angles		P 850US	2.3	2.3	5.5	2127
Central cross (transport position)		YM 850 JM 850	17.1	5.6	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	3.0 3.0	5.1 5.1	6173 7055
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	4630 5071

Mechanisms

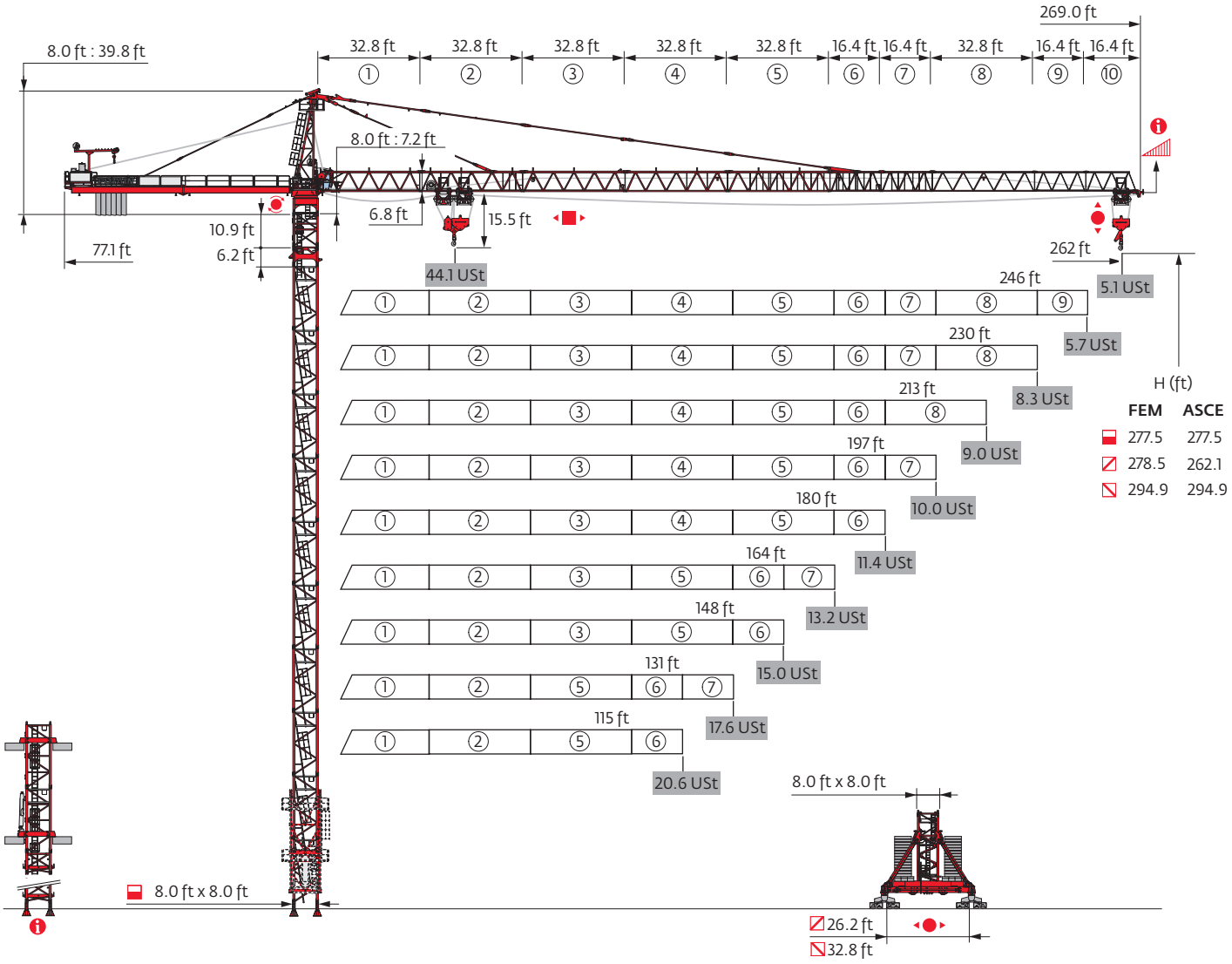
480 V - 60 Hz											hp	kW	
	100 LVF 63 Optima	fpm	98	174	240	256	49	89	121	128	100	75	2382 ft
		USt	13.8	7.2	4.9	3.0	27.6	14.3	9.7	6.0			
	180 LVF 63 GH Optima	fpm	174	302	397	538	627	92	167	233	302	315	180	132	3937 ft
		USt	13.8	7.2	4.9	3.0	1.8	27.6	14.3	9.7	6.0	5.5			
	10 DVF 10	fpm	0 → 210 (27.6 USt) 0 → 328 (13.8 USt) 0 → 361 (6.9 USt)									10	7.4	
	RVF 173 Optima+	rpm	0 → 1									3 x 10	3 x 7.5	
YM 850 JM 850														

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

100 LVF 63 Optima



MD 610 M40



Power Control

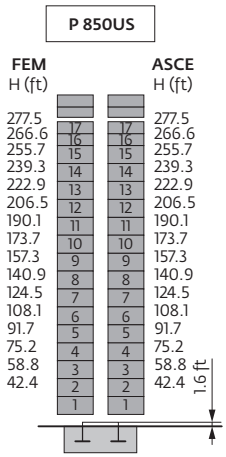
Top Tracing II

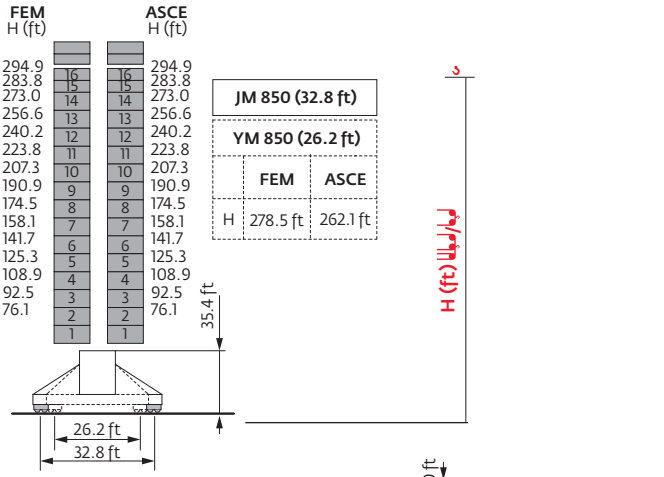
Values have been rounded

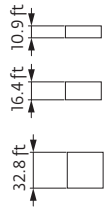
Mast

8.0 ft

115 ft → 262 ft







= Non-reinforced mast

= Reinforced mast

= K850 mast

YM 850
JM 850

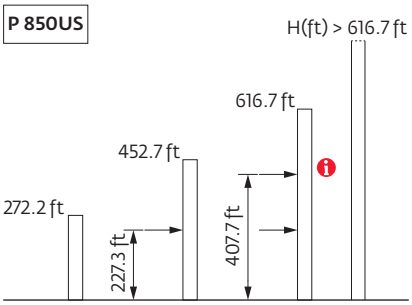
H1 = H

H3 = H - 4.6 ft

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.

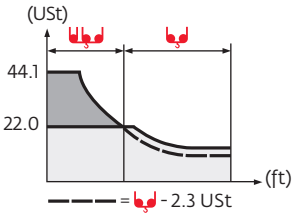
Anchorages (Consult us for ASCE 7-10 values)

P 850US



Load chart

262 ft	13	▶	43	49	56	66	72	77	84	89	98	105	115	131	148	164	180	197	213	230	246	262	ft
			44.1	37.9	32.7	26.8	23.8	22.0	22.0	20.6	18.2	16.9	15.2	12.9	11.1	9.8	8.6	7.7	6.8	6.2	5.6	5.1	USt
246 ft	13	▶	44	49	56	66	72	77	84	89	98	105	115	131	148	164	180	197	213	230	246	ft	
			44.1	38.3	33.0	27.1	24.0	22.0	22.0	20.8	18.4	17.1	15.3	13.1	11.4	9.9	8.8	7.8	7.1	6.3	5.7	USt	
230 ft	13	▶	52	56	66	72	82	89	94	102	105	115	131	148	164	180	197	213	230	ft			
			44.1	41.2	34.1	30.4	26.1	23.8	22.0	22.0	21.3	19.2	16.4	14.3	12.6	11.2	10.0	9.1	8.3	USt			
213 ft	13	▶	52	56	66	72	82	89	94	101	105	115	131	148	164	180	197	213	ft				
			44.1	40.9	33.8	30.3	26.0	23.7	22.0	22.0	21.2	19.1	16.3	14.2	12.6	11.1	10.0	9.0	USt				
197 ft	13	▶	52	56	66	72	82	89	94	101	105	115	131	148	164	180	197	ft					
			44.1	41.0	34.0	30.3	26.0	23.7	22.0	22.0	21.2	19.1	16.4	14.2	12.6	11.1	10.0	USt					
180 ft	13	▶	53	56	66	72	82	89	95	103	105	115	131	148	164	180	ft						
			44.1	41.7	34.5	30.9	26.5	24.1	22.0	22.0	21.5	19.4	16.6	14.4	12.8	11.4	USt						
164 ft	13	▶	55	56	66	72	82	89	98	106	115	131	148	164	ft								
			44.1	43.1	35.7	32.0	27.4	25.0	22.0	22.0	20.1	17.2	15.0	13.2	USt								
148 ft	13	▶	55	56	66	72	82	89	98	106	115	131	148	ft									
			44.1	43.1	35.7	31.9	27.4	25.0	22.0	22.0	20.1	17.2	15.0	USt									
131 ft	13	▶	56	66	72	82	89	98	100	108	115	131	ft										
			44.1	36.6	32.7	28.1	25.7	22.6	22.0	22.0	20.6	17.6	USt										
115 ft	13	▶	56	66	72	82	89	98	100	108	115	ft											
			44.1	36.6	32.7	28.2	25.7	22.6	22.0	22.0	20.6	USt											



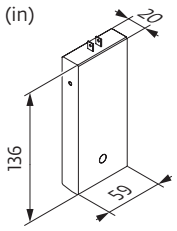
Base ballast

8.0 ft	YM 850	H (ft)	278.5	267.4	262.1	256.6	251.0	240.2	223.8	207.3	190.9	174.5	158.1	141.7	125.3	108.9	92.5	76.1
	FEM	(USt)	185.2	145.5	-	119.0	-	105.8	92.6	79.4	79.4	79.4	79.4	79.4	79.4	79.4	79.4	79.4
	ASCE	(USt)	-	-	145.5	-	ⓘ	105.8	92.6	79.4	79.4	79.4	79.4	79.4	79.4	79.4	79.4	79.4
	JM 850	H (ft)	294.9	283.8	273.0	256.6	240.2	223.8	207.3	190.9	174.5	158.1	141.7	125.3	108.9	92.5	76.1	59.7
	FEM	(USt)	132.3	ⓘ	79.4	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9
	ASCE	(USt)	132.3								ⓘ							

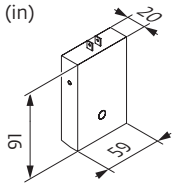
Counter-jib ballast

	(lb) (+/- 5%)			
		13,228 lb	8818 lb	(lb)
262 ft	60,484	6	0	79,366
246 ft	59,404	5	1	74,957
230 ft	57,078	6	0	79,366
213 ft	54,840	5	0	66,139
197 ft	54,101	4	1	61,729
180 ft	51,941	3	2	57,320
164 ft	48,425	2	2	44,092
148 ft	46,264	2	1	35,274
131 ft	42,296	1	2	30,865
115 ft	40,565	1	1	22,046

CBC - 13,228 lb



CBD - 8818 lb

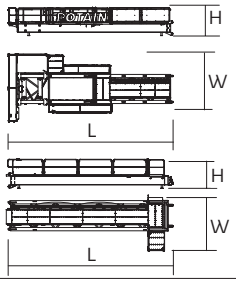
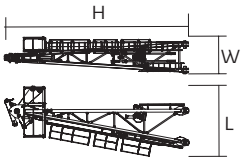
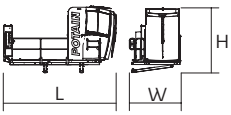
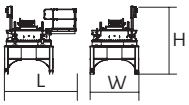
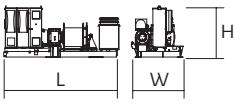
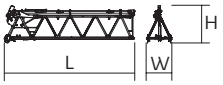
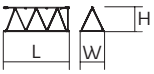
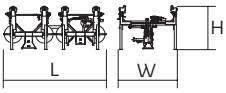
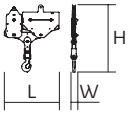


Component weights

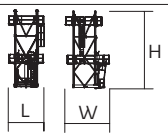
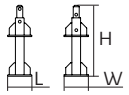
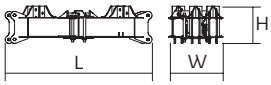
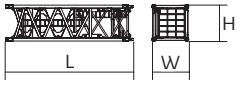
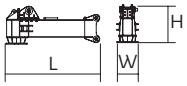
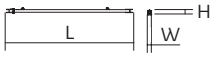
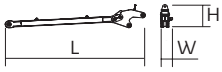
Crane upper : 262 ft - - 320 LVF

x 14

x 10

			L (ft)	W (ft)	H (ft)	lb (+/- 5%)
Counter-jib			38.4 36.2	15.4 12.3	6.4 6.8	14,551 10,858
Towerhead			11.0	6.5	32.3	19,731
Cab		UltraView	16.4	8.2	9.1	4134
Pivot		⍁8.0 ft	12.1	9.5	12.7	25,485
Hoisting winch (+ rope)		320 LVF	16.7	7.5	7.3	21,793
Intermediate winch frame			10.7	9.5	5.4	12,485
Jib section		① ②15 DVF ③ ④ ⑤ ⑧	34.0 33.9 33.5 33.6 33.6 33.5	9.7 6.2 6.2 6.2 6.2 6.2	10.2 7.7 7.9 7.6 7.6 6.6	11,354 11,409 6537 5897 6162 2987
Jib section		⑥ ⑦ ⑨ ⑩	17.5 17.2 17.0 16.9	6.2 6.2 6.2 6.2	7.2 6.7 6.5 6.5	3748 2271 1202 1102
Trolley		44.1 USt	13.0	7.2	5.5	3131
Hook block		44.1 USt	8.1	1.2	9.5	4050

Component weights

			L (ft)	W (ft)	H (ft)	lb (+/- 5%)
Climbing cage		☐ 8.0 ft	15.2	19.0	33.6	28,484
K 850/K 850 Climbing mast		☐ 8.0 ft	7.3	10.7	8.2	8,069
KMT 850.10A KMT 850.10C		☐ 8.0 ft	17.5 12.0	8.3 8.3	8.2 8.2	12,015 9326
Fixing angles		P 850US	2.3	2.3	5.5	2127
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	3.0 3.0	5.1 5.1	6173 7055
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	4630 5071

Mechanisms

480 V - 60 Hz													hp	kW	
	320 LVF 100 Optima	fpm	197	256	367	505	531	98	128	184	253	266	320	240	1745 ft
		USt	22.0	16.5	11.0	7.5	4.6	44.1	33.1	22.0	15.0	9.3			
	15 DVF 16	fpm	0 → 164 (22.0 USt) 0 → 220 (11.0 USt) 0 → 328 (2.8 USt)					0 → 108 (44.1 USt) 0 → 164 (22.0 USt) 0 → 220 (5.5 USt)					15	11	
	RVF 173 Optima+	rpm	0 → 1										3 x 10	3 x 7.5	
YM 850 JM 850															

IEC 60204-32	kVA
480 V (+6% -10%) 60 Hz	297 → 169 kVA

Notes

	Jib elevation
	Standard equipment
	Options
	Reactions in service
	Reactions out of service
	Weight without load, without ballast, with jib and max. height
	Total ballast weight
	Truck 44 ft
	Container High Cube 40 ft, and/or Flat Rack 20 ft

	Tightened anchorage frame
	Loosened anchorage frame
	Hoisting
	Trolleying
	Slewing
	Travelling
	Required power
	Power Control function: Hoisting" speeds adapted to the available power
	Consult us

Notes

Note: 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.

Constant improvement and engineering progress make it necessary that we reserve the right to make specification, equipment and price changes without notice. Illustrations shown may include optional equipment and accessories, and may not include all standard equipment.

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