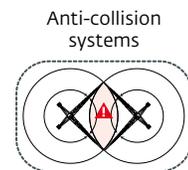
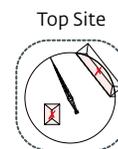
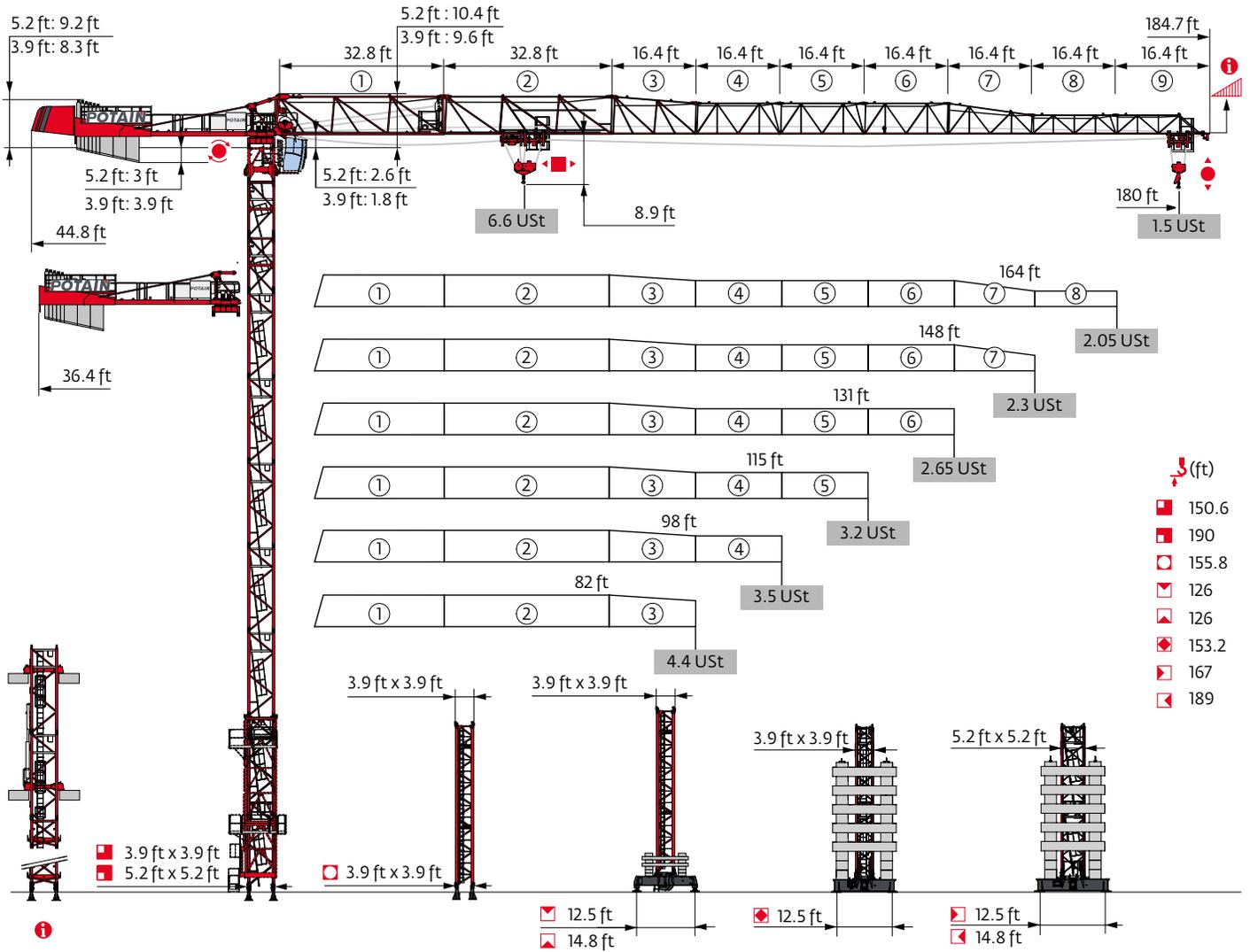


MDT 109



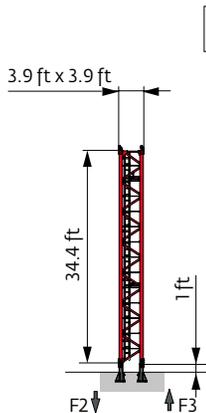
Mast - Reactions

3.9 ft City - P 12D							
Height (ft)	82	98	115	131	148	164	180
Height (ft)	131.2	131.2	131.2	131.2	121.4	121.4	121.4
Height/P+ (ft)	131.2	131.2	131.2	131.2	121.4	121.4	121.4
24.6 ft	0	0	0	0	1	1	1
34.4 ft	4	4	4	4	3	3	3
F2 (Ust)	● 106	105	103	105	101	102	103
	■ 171	171	172	175	147	147	147
F3 (Ust)	● 84	82	79	81	76	76	77
	■ 152	151	151	153	125	125	124

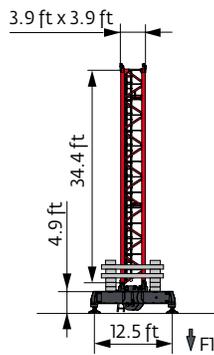
3.9 ft City - P 12ER							
Height (ft)	82	98	115	131	148	164	180
Height (ft)	146	155.8	155.8	155.8	155.8	146	146
Height/P+ (ft)	146	155.8	155.8	155.8	155.8	146	146
24.6 ft	2	1	1	1	1	2	2
34.4 ft	3	4	4	4	4	3	3
F2 (Ust)	● 121	130	127	131	136	126	128
	■ 217	256	250	260	260	222	221
F3 (Ust)	● 97	104	100	103	107	98	99
	■ 196	233	227	236	235	197	196

3.9 ft City - ZC 2030							
Height (ft)	82	98	115	131	148	164	180
Height (ft)	116.1	116.1	116.1	116.1	126	126	126
Height/P+ (ft)	116.1	116.1	116.1	116.1	126	126	126
24.6 ft	2	2	2	2	1	1	1
34.4 ft	2	2	2	2	3	3	3
F1 (Ust)	● 53	54	53	54	62	62	63
	■ 63	63	63	65	80	80	79

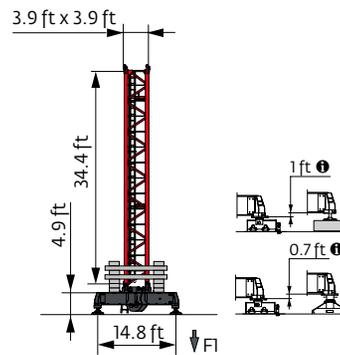
3.9 ft City - ZD 2030							
Height (ft)	82	98	115	131	148	164	180
Height (ft)	126	126	126	116.1	116.1	116.1	126
Height/P+ (ft)	126	126	126	116.1	116.1	116.1	126
24.6 ft	1	1	1	2	2	2	1
34.4 ft	3	3	3	2	2	2	3
F1 (Ust)	● 51	52	51	46	47	47	53
	■ 65	65	65	54	54	54	66



P 12D
P 12ER



ZC 2030



ZD 2030

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.

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

Other mast compositions - Please consult us

3.9 ft City - P 24A

WIND (ft)	82	98	115	131	148	164	180
\bar{z} (ft)	150.6	150.6	150.6	150.6	150.6	150.6	150.6
\bar{z}/P_z (ft)	150.6	150.6	150.6	150.6	150.6	150.6	150.6
8.9 ft	1	1	1	1	1	1	1
16.4 ft	9	9	9	9	7	7	7
32.8 ft	0	0	0	0	1	1	1
F2 (USt)	● 119	● 117	● 115	● 118	● 122	● 124	● 126
	■ 192	■ 192	■ 193	■ 196	■ 197	■ 197	■ 197
F3 (USt)	● 93	● 91	● 88	● 90	● 94	● 95	● 96
	■ 170	■ 169	■ 169	■ 172	■ 171	■ 171	■ 171

3.9 ft City - ZC 240

WIND (ft)	82	98	115	131	148	164	180
\bar{z} (ft)	153.2	153.2	153.2	153.2	153.2	136.8	136.8
\bar{z}/P_z (ft)	153.2	153.2	153.2	153.2	153.2	136.8	136.8
8.9 ft	1	1	1	1	1	1	1
16.4 ft	9	9	9	9	7	8	8
32.8 ft	0	0	0	0	1	0	0
F1 (USt)	● 73	● 73	● 72	● 73	● 75	● 66	● 66
	■ 98	■ 98	■ 98	■ 99	■ 99	■ 79	■ 78

5.2 ft City - P 42A

WIND (ft)	82	98	115	131	148	164	180
\bar{z} (ft)	190	190	190	190	190	190	190
\bar{z}/P_z (ft)	190	190	190	190	190	190	190
16.4 ft	10	10	10	10	10	10	10
32.8 ft	1	1	1	1	1	1	1
F2 (USt)	● 114	● 113	● 111	● 114	● 118	● 120	● 122
	■ 223	■ 223	■ 224	■ 226	■ 227	■ 228	■ 228
F3 (USt)	● 86	● 84	● 82	● 83	● 87	● 88	● 89
	■ 198	■ 198	■ 197	■ 199	■ 199	■ 199	■ 198

5.2 ft City - ZC 440

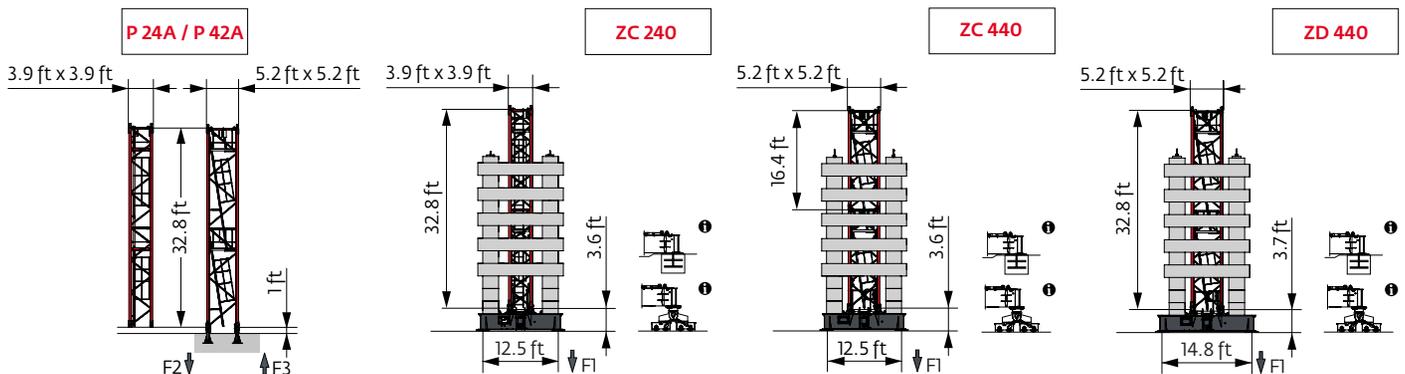
WIND (ft)	82	98	115	131	148	164	180
\bar{z} (ft)	161.8	167	167	167	167	167	167
\bar{z}/P_z (ft)	161.8	167	167	167	167	167	167
10.9 ft	0	2	2	2	2	2	2
16.4 ft	10	9	9	9	9	9	9
F1 (USt)	● 80	● 83	● 83	● 84	● 86	● 87	● 86
	■ 109	■ 120	■ 120	■ 121	■ 121	■ 121	■ 121

5.2 ft City - ZD 440

WIND (ft)	82	98	115	131	148	164	180
\bar{z} (ft)	183.4	183.4	183.4	183.4	183.4	183.4	189
\bar{z}/P_z (ft)	183.4	183.4	183.4	183.4	183.4	183.4	189
10.9 ft	2	2	2	2	2	2	1
16.4 ft	8	8	8	8	8	8	9
32.8 ft	1	1	1	1	1	1	1
F1 (USt)	● 82	● 82	● 82	● 83	● 83	● 84	● 87
	■ 121	■ 121	■ 121	■ 122	■ 122	■ 122	■ 128

5.2 ft - P 42A

WIND (ft)	82	98	115	131	148	164	180
\bar{z} (ft)	185.4	185.4	180.1	180.1	180.1	180.1	180.1
\bar{z}/P_z (ft)	185.4	185.4	180.1	180.1	180.1	180.1	180.1
6.6 ft	1	1	1	1	1	1	1
10.9 ft	2	2	0	0	0	0	0
16.4 ft	8	8	9	9	9	9	9
32.8 ft	1	1	1	1	1	1	1
F2 (USt)	● 118	● 117	● 111	● 113	● 118	● 119	● 121
	■ 237	■ 237	■ 222	■ 224	■ 225	■ 226	■ 226
F3 (USt)	● 86	● 84	● 78	● 80	● 83	● 84	● 85
	■ 209	■ 208	■ 192	■ 194	■ 194	■ 194	■ 193



Anchorage



Base ballast

(Ust) / 3.9 ft City - ZC 2030 -

Δ (ft)	82	98	115	131	148	164	180
126				82.7	82.7	82.7	
116.1	66.1	66.1	66.1	66.1	66.1	71.7	71.7
81.7	49.6	49.6	49.6	49.6	49.6	49.6	49.6
47.3	49.6	49.6	49.6	49.6	49.6	49.6	49.6

(Ust) / 3.9 ft City - ZD 2030 -

Δ (ft)	82	98	115	131	148	164	180
126	66.1	66.1	66.1				60.6
116.1	49.6	49.6	49.6	49.6	49.6	49.6	49.6
81.7	49.6	49.6	49.6	49.6	49.6	49.6	49.6
47.3	49.6	49.6	49.6	49.6	49.6	49.6	49.6

(Ust) / 3.9 ft City - ZC 240 -

Δ (ft)	82	98	115	131	148	164	180
153.2	110.2	110.2	110.2	110.2	110.2		
136.8	88.2	77.2	77.2	77.2	88.2	88.2	88.2
120.4	66.1	66.1	66.1	66.1	66.1	66.1	77.2
104	55.1	55.1	55.1	55.1	55.1	55.1	55.1
87.6	44.1	44.1	44.1	33.1	44.1	44.1	44.1
71.2	44.1	33.1	33.1	33.1	33.1	33.1	44.1
54.8	44.1	33.1	33.1	33.1	33.1	33.1	44.1

(Ust) / 5.2 ft City - ZC 440 -

Δ (ft)	82	98	115	131	148	164	180
167		137.8	137.8	137.8	137.8	137.8	132.3
161.8	132.3	132.3	121.3	121.3	121.3	121.3	121.3
145.3	99.2	99.2	88.2	88.2	88.2	99.2	99.2
128.9	77.2	66.1	66.1	66.1	77.2	77.2	77.2
112.5	55.1	55.1	55.1	55.1	55.1	66.1	66.1
96.1	44.1	44.1	44.1	44.1	44.1	44.1	44.1
79.7	33.1	33.1	33.1	33.1	33.1	33.1	44.1
63.3	33.1	33.1	33.1	33.1	33.1	33.1	44.1
46.9	33.1	33.1	33.1	33.1	33.1	33.1	44.1

(Ust) / 5.2 ft City - ZD 440 -

Δ (ft)	82	98	115	131	148	164	180
189							137.8
183.4	137.8	137.8	137.8	137.8	132.3	132.3	132.3
167	110.2	110.2	110.2	110.2	110.2	110.2	99.2
150.6	88.2	77.2	77.2	77.2	77.2	77.2	77.2
134.2	55.1	55.1	55.1	55.1	66.1	66.1	66.1
117.8	44.1	44.1	44.1	44.1	44.1	44.1	44.1
101.4	33.1	33.1	33.1	33.1	33.1	33.1	33.1
85	22.1	22.1	22.1	22.1	22.1	22.1	33.1
68.6	22.1	22.1	22.1	22.1	22.1	22.1	33.1
52.2	22.1	22.1	22.1	22.1	22.1	22.1	33.1

Load curves



(ft)			49	56	66	72	82	89	98	105	115	121	131	138	148	154	164	171	180	ft	
	6.6 USt	3.3 USt																			
180	9.2 → 53.8	97.5 - 108.3	6.6	6.3	5.3	4.7	4.1	3.7	3.3	3.3	3.1	2.9	2.65	2.5	2.2	2.05	1.8	1.6	1.4	USt	
	9.2 → 53.8	97.4 - 108.3	6.6	6.3	5.3	4.7	4.1	3.7	3.3	3.3	3.1	2.9	2.65	2.5	2.3	2.1	1.85	1.7	1.5	USt P+	
164	9.2 → 53.5	96.9 - 108.3	6.6	6.3	5.3	4.7	4	3.7	3.3	3.3	3.1	2.9	2.65	2.5	2.3	2.2	2.05	USt			
	9.2 → 53.5	96.9 - 108.3	6.6	6.3	5.3	4.7	4	3.7	3.3	3.3	3.1	2.9	2.65	2.5	2.3	2.2	2.05	USt P+			
148	9.2 → 53.8	97.2 - 108.3	6.6	6.3	5.3	4.7	4.1	3.7	3.3	3.3	3.1	2.9	2.65	2.5	2.3	USt					
	9.2 → 53.8	97.2 - 108.3	6.6	6.3	5.3	4.7	4.1	3.7	3.3	3.3	3.1	2.9	2.65	2.5	2.3	USt P+					
131	9.2 → 54.5	97 - 108.3	6.6	6.4	5.3	4.7	4	3.7	3.3	3.3	3.1	2.9	2.65	USt							
	9.2 → 54.5	97 - 108.3	6.6	6.4	5.3	4.7	4	3.7	3.3	3.3	3.1	2.9	2.65	USt P+							
115	9.2 → 55.1	99.5 - 110.2	6.6	6.4	5.4	4.8	4.2	3.8	3.3	3.3	3.2	USt									
	9.2 → 55.1	99.5 - 110.2	6.6	6.4	5.4	4.8	4.2	3.8	3.3	3.3	3.2	USt P+									
98	9.2 → 56.8		6.6	6.6	5.6	4.9	4.2	3.8	3.3	USt											
	9.2 → 56.8		6.6	6.6	5.6	4.9	4.2	3.8	3.3	USt P+											
82	9.2 → 56.8		6.6	6.6	5.6	4.9	4.2	USt													
	9.2 → 56.8		6.6	6.6	5.6	4.9	4.2	USt P+													

$W_{\text{roof}} = W_{\text{roof}} - 0.43 \text{ USt max.}$



(ft)			49	56	66	72	82	89	98	105	115	121	131	138	148	154	164	171	180	ft	
	6.6 USt	3.3 USt																			
180	7.2 → 55.1	102.7 - 105	6.6	6.5	5.5	4.9	4.3	3.9	3.5	3.3	2.95	2.75	2.5	2.35	2.1	1.9	1.65	1.45	1.3	USt	
	7.2 → 55.1	102.6 - 105	6.6	6.5	5.5	4.9	4.3	3.9	3.5	3.3	2.95	2.75	2.5	2.35	2.15	1.95	1.75	1.55	1.35	USt P+	
164	7.2 → 55.1	102.1 - 103.8	6.6	6.5	5.5	4.9	4.3	3.9	3.4	3.3	2.95	2.75	2.5	2.35	2.15	2.05	1.9	USt			
	7.2 → 55.1	102.1 - 103.8	6.6	6.5	5.5	4.9	4.3	3.9	3.4	3.3	2.95	2.75	2.5	2.35	2.15	2.05	1.9	USt P+			
148	7.2 → 55.1	102.4 - 104	6.6	6.5	5.5	4.9	4.3	3.9	3.5	3.3	2.95	2.75	2.5	2.35	2.15	USt					
	7.2 → 55.1	102.4 - 104	6.6	6.5	5.5	4.9	4.3	3.9	3.5	3.3	2.95	2.75	2.5	2.35	2.15	USt P+					
131	7.2 → 55.8	102.1 - 103.8	6.6	6.6	5.5	4.9	4.3	3.9	3.5	3.3	2.95	2.75	2.5	USt							
	7.2 → 55.8	102.1 - 103.8	6.6	6.6	5.5	4.9	4.3	3.9	3.5	3.3	2.95	2.75	2.5	USt P+							
115	7.2 → 56.8	104.7 - 106.5	6.6	6.6	5.6	5.1	4.4	4	3.6	3.3	3	USt									
	7.2 → 56.8	104.7 - 106.5	6.6	6.6	5.6	5	4.4	4	3.6	3.3	3	USt P+									
98	7.2 → 58.4		6.6	6.6	5.8	5.1	4.4	4	3.5	USt											
	7.2 → 58.4		6.6	6.6	5.8	5.1	4.4	4	3.5	USt P+											
82	7.2 → 58.4		6.6	6.6	5.8	5.1	4.4	USt													
	7.2 → 58.4		6.6	6.6	5.8	5.1	4.4	USt P+													

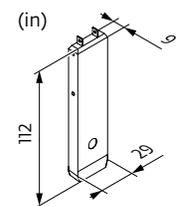
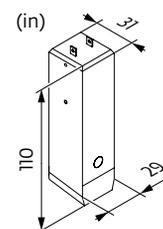
$W_{\text{roof}} = W_{\text{roof}} - 0.09 \text{ USt max.}$

Jib weight & counter-jib ballast

(ft)	(lb) - 33 LVF (+/- 5%)					(lb)
				7,937 lb	2,425 lb	
180 ft	17,327	17,063	17,709	3	6	38,360
164 ft	16,895	16,631	17,277	3	5	35,935
148 ft	16,377	16,113	16,759	3	4	33,510
131 ft	15,720	15,456	16,102	3	3	31,085
115 ft	14,960	14,695	15,341	3	2	28,660
98 ft	14,398	14,133	14,779	3	1	26,235
82 ft	13,767	13,502	14,148	3	0	23,810

CAU - 7,937 lb

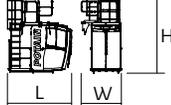
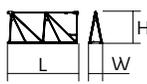
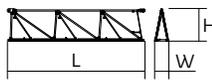
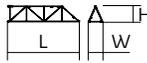
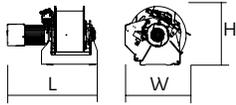
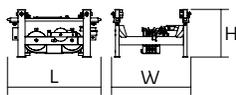
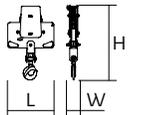
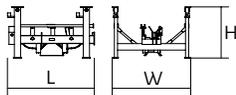
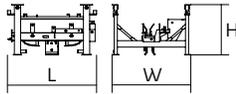
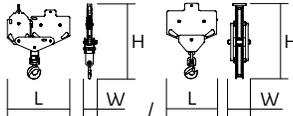
CAV - 2,425 lb

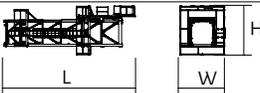
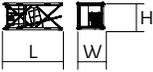
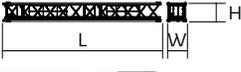
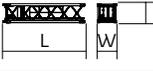
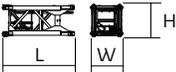
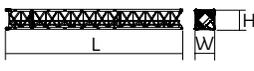
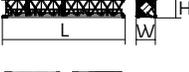
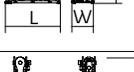
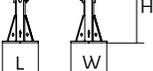
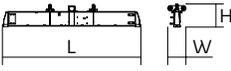
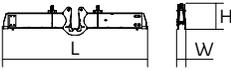
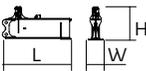
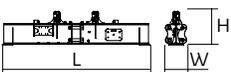


Dimensions and weight

Slewing crane part:  180 ft -  -  -  33 LVF



Slewing crane part		L (ft)	W (ft)	H (ft)	lb (+/- 5%)	
Counter-jib		 3.9 ft	39.2	6.8	8.1	12,302
		 5.2 ft	39.2	7.1	8.9	12,633
Towerhead + cab		Ultra View	10.4	6.5	11.9	2,194
Jib section		① 33 LVF 6 DVF	34.8	8.8	8.6	7,693
Jib section		④	17	3.4	6.3	886
		⑤	17	3.4	6.3	756
		⑥	17	3.4	6.2	756
		⑧	16.9	3.4	3.9	503
Jib section		②	33.5	3.4	7.7	3,025
Jib section		③	17	3.4	7.6	992
		⑦	16.9	3.4	6.2	646
Jib section		⑨	16.7	3.4	3.8	417
Hoisting winch (+ rope)		33 LVF	4.5	3	2.9	2,127
Trolley		 6.6 USt	5.2	4.4	2.9	617
Pulley block		 6.6 USt	3	0.9	4.3	628
Trolley		 6.6 USt	4.6	4.1	3.1	617
Trolley		 6.6 USt	4.7	4.1	3.1	617
		 3.3 USt	5	4.3	3.1	518
Pulley block		 6.6 USt	4.1	0.9	5	551
		 3.3 USt	2.6	0.7	4.2	287

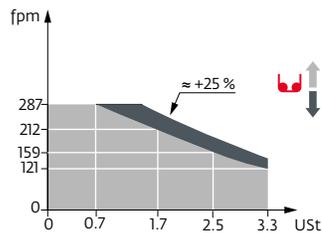
Crane tower		L (ft)	W (ft)	H (ft)	lb (+/- 5%)	
Telescopic cage T 41		5.2 ft	35.6	12.3	13.5	15,653
K40/K40-2		5.2 ft	7.3	6.9	6.8	2,932
K 447E KM 447E KRM 449E		33.5 33.5 33.5	5.3 5.3 5.3	5.3 5.3 5.3	7,474 7,088 9,370	
K 447A KMT 447A K 449A KMT 449A		5.2 ft	17.1 17.1 17.1	5.5 5.5 5.5	5.3 5.3 5.3	4,079 3,847 4,916 4,696
KMT 447C		11.6	5.5	5.3	2,976	
K20/K40		3.9/5.2 ft	5.6	5.4	5.4	4,189
KM 247E KRM 249E		3.9 ft	33.5 33.5	4 4	4 4	7,165 9,204
KM 247A KM 249A		17.1 17.1	4 4	4 4	3,748 4,630	
K40/L20-2		5.2/3.9 ft	9.7	6.8	6.9	4,630
K20/S20		3.9 ft	9.6	4.2	4.2	2,535
S 28ES-2 SR 26E-2 SR 28ER-2		3.9 ft	35.3 35.3 35.3	4.2 4.2 4.2	4.2 4.2 4.2	7,604 6,735 9,050
SR 25F-2		25.4	4.2	4.2	4.2	4,447
SR 26X-2		10.7	4.1	4.1	2,169	
Fixing angles		P 12D P 12ER P 24A / P 42A	1.6 2.6 1.8	1.6 2.6 1.8	3.7 4.3 3.8	357 926 529
Cross girder		ZC 2030 ZD 2030	18.5 21.7	2.7 2.7	3.8 3.8	3,307 3,726
Cross girder		ZC 2030 ZD 2030	18.5 21.7	1.5 1.5	4.8 4.8	3,825 4,255
1/2 Cross girder		ZC 240 ZC 440 ZD 440	9.2 9.2 10.8	1.9 1.9 1.9	4.3 4.3 4.4	2,447 2,447 2,778
Cross girder		ZC 240 ZC 440 ZD 440	19 19 22.2	2.7 2.8 2.8	4.3 4.3 4.3	5,997 5,997 6,702

Mechanisms

480 V - 60 Hz											hp	kW	
	33 LVF 15 Optima	fpm USt	121 3.3	159 2.5	212 1.7	287 0.7	61 6.6	80 5	105 3.3	144 1.4	33	22	1,001 ft
	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	

	IEC 60204-32	kVA	
	480 V (+6% -10%) 60 Hz	41 → 28 kVA	

33 LVF 15 Optima



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.

