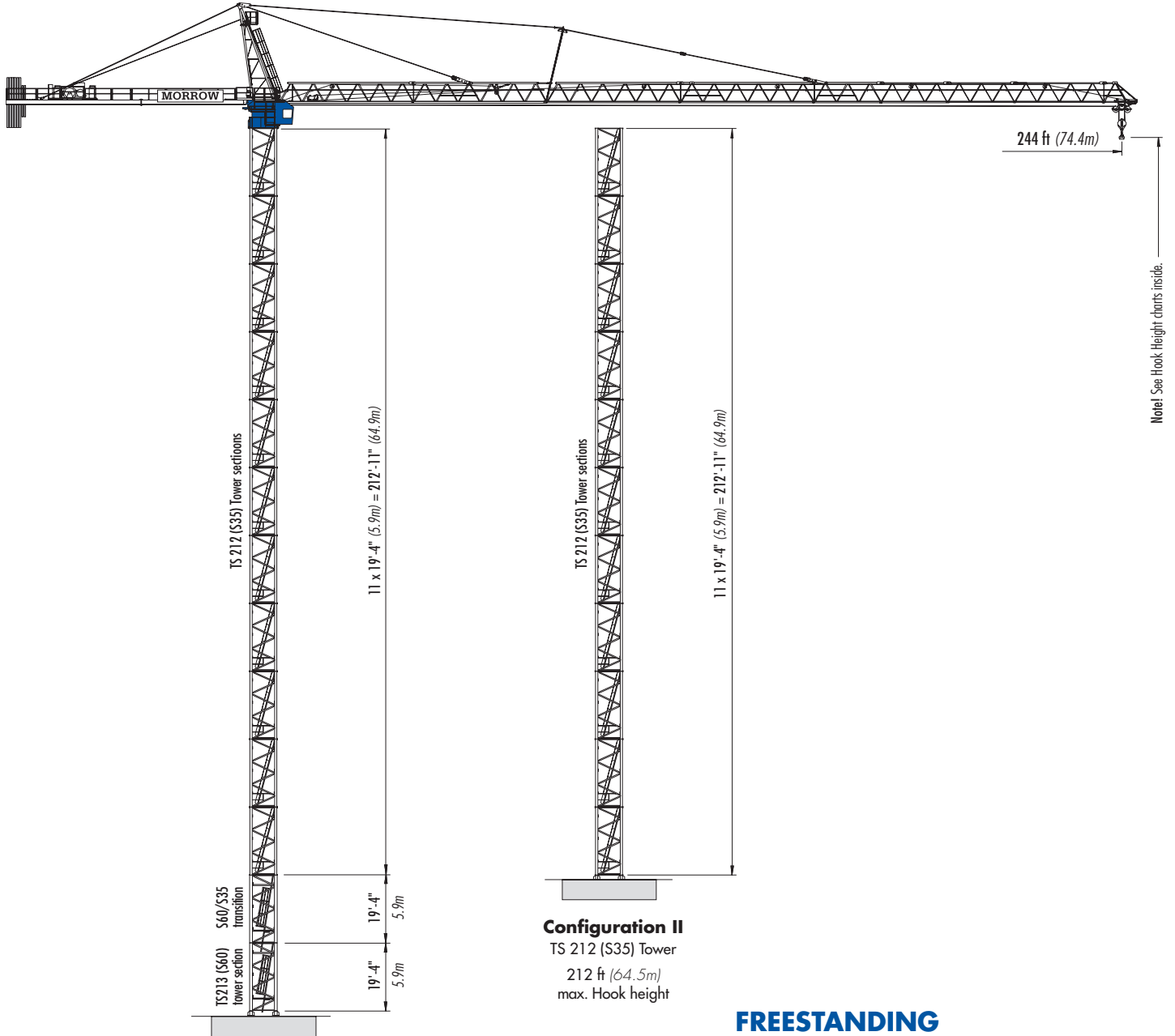


Pecco SK 400-20

TOWER CRANE



Configuration I
TS 212 (S35)
and TS 213 (S60) Tower
251 ft (76.4m)
max. Hook height

Configuration II
TS 212 (S35) Tower
212 ft (64.5m)
max. Hook height

FREESTANDING
stationary

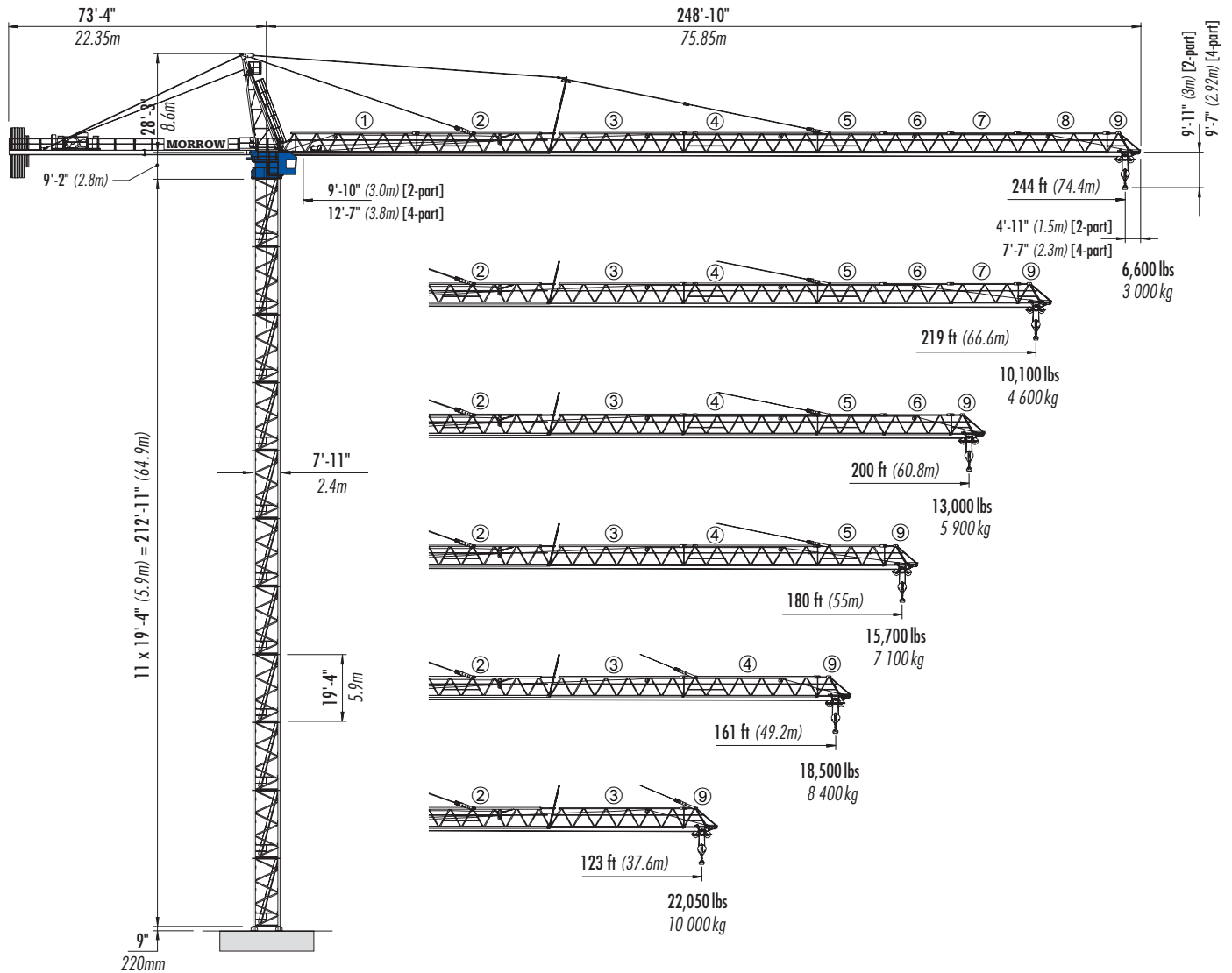
Alternate tower configurations and rail travelling information available upon request.



Morrow Equipment

Pecco SK 400-20

Jib Layout



Counterweights

105 hp Hoist Unit

244-ft Jib	219-ft Jib	200-ft Jib	180-ft Jib	161-ft Jib	123-ft Jib
•AAAAAAB•••	••BB•AAAAAAB	AAAAAAB•B•••	•••••BBAAAAAA	•••••BBAAAAAA	AAAAB••••••••
51,050 lbs	50,700 lbs	47,500 lbs	47,500 lbs	40,650 lbs	30,600 lbs
23 150 kg	22 950 kg	21 500 kg	21 500 kg	18 400 kg	13 850 kg

NOTE! Counterweight information above applies to 2-part and 4-part operation. Weight of the A Block is 6,850 lbs (3100 kg); wt. of the B Block is 3,200 lbs (1450 kg). Counterweights must be installed from rear to front, i.e. towards the tower. It is recommended that the weight of each counterweight be verified before installation. Counterweight figures displayed in the chart above are for crane with 105 hp hoist unit. If another hoist unit is installed, refer to the Pecco SK 400 Operation Manual or contact Morrow.

IMPORTANT! SK 400 counterjib equipped with 12 counterweight block slots. The "•" indicates an empty slot.

Hook Heights

Configuration I ³					
SK 400 on TS 213 (S 60) and TS 212 (S 35) tower					
		No. of Tower Sections	Tower Section Type	static concrete footing ²	
		feet	meters		
1	TS213 (S60)	18	5.6		
2	S60/S35 transition	38	11.5		
3	TS212 (S35)	57	17.4		
4	TS212 (S35)	76	23.3		
5	TS212 (S35)	96	29.2		
6	TS212 (S35)	115	35.1		
7	TS212 (S35)	135	41		
8	TS212 (S35)	154	46.9		
9	TS212 (S35)	173	52.8		
10	TS212 (S35)	193	58.7		
11	TS212 (S35)	212	64.6		
12	TS212 (S35)	231	70.5		
13 ¹	TS212 (S35)	251	76.4		

Configuration II ³					
SK 400 on TS 212 (S 35) tower					
		No. of Tower Sections	Tower Section Type	static concrete footing ²	
		feet	meters		
1	TS212 (S35)	18	5.5		
2	TS212 (S35)	37	11.4		
3	TS212 (S35)	57	17.3		
4	TS212 (S35)	76	23.2		
5	TS212 (S35)	95	29.1		
6	TS212 (S35)	115	35		
7	TS212 (S35)	134	40.9		
8	TS212 (S35)	154	46.8		
9	TS212 (S35)	173	52.7		
10	TS212 (S35)	192	58.6		
11 ¹	TS212 (S35)	212	64.5		

Alternate tower combinations are possible. Refer to Operation manual or contact Morrow for information.

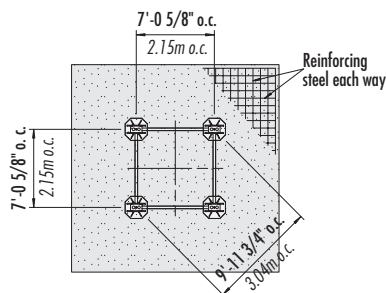
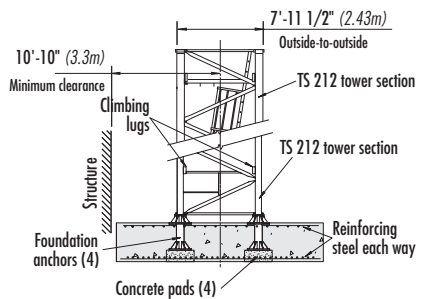
¹ Lower top climbing unit to base of tower prior to operating crane.

² Hook heights for cross base and rail-travelling crane configurations available upon request.

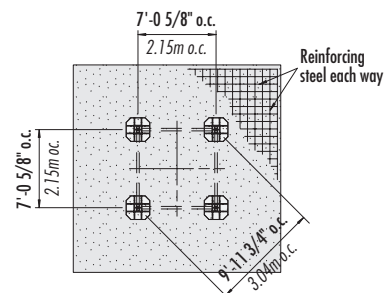
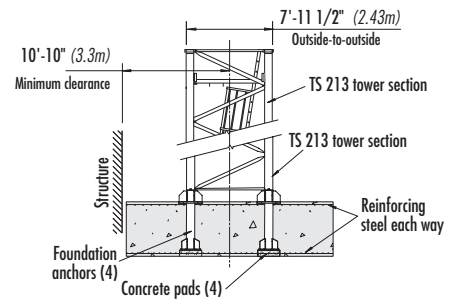
³ Manufacturer tower configurations based on FEM 1.001 standard with maximum OOS wind speed of 94 mph (151 km/h).

Consult crane Operation Manual before erecting, operating, servicing or dismantling crane.

Foundation Details *on concrete footing*



with TS 212 (S35) Tower



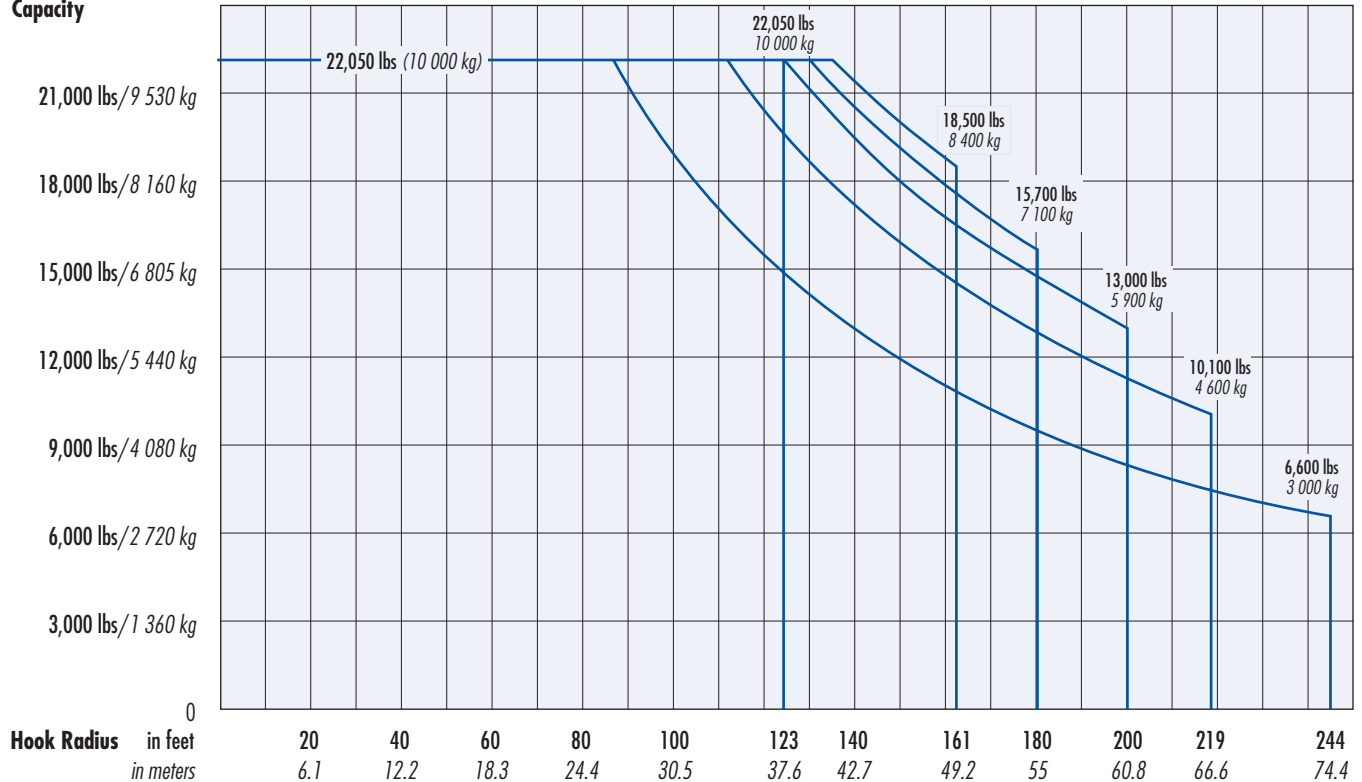
with TS 213 (S60) Tower

Pecco SK 400-20

Radius and Capacities *for 2-part operation*

Hook Radius	Maximum Capacity – Radius	ft m	112 34.1	120 36.6	123 37.6	130 39.6	140 42.7	150 45.7	161 49.2	170 51.8	180 55.0	190 57.9	200 60.8	210 64.0	219 66.6	230 70.1	240 73.2	244 74.4	
244 ft 74.4m	22,050 lbs – 88 ft 10 000 kg – 26.8m	lbs kg	16,900 7 670	15,500 7 030	15,000 6 800	14,200 6 440	13,000 5 900	12,000 5 440	11,000 4 990	10,400 4 720	9,500 4 310	9,000 4 080	8,400 3 810	7,900 3 580	7,500 3 400	7,000 3 180	6,700 3 040	6,600 3 000	
219 ft 66.6m	22,050 lbs – 112 ft 10 000 kg – 34.1m	lbs kg	22,050 10 000	20,400 9 250	19,700 8 940	18,600 8 440	17,000 7 710	15,800 7 170	14,500 6 580	13,600 6 170	12,700 5 760	12,000 5 440	11,500 5 220	10,600 4 810	10,100 4 600				
200 ft 60.8m	22,050 lbs – 124 ft 10 000 kg – 37.6m	lbs kg	22,050 10 000	22,050 10 000	22,050 10 000	21,200 9 620	19,500 8 850	18,100 8 210	16,600 7 530	15,600 7 080	14,600 6 620	13,700 6 210	13,000 5 900						
180 ft 55m	22,050 lbs – 130 ft 10 000 kg – 39.6m	lbs kg	22,050 10 000	22,050 10 000	22,050 10 000	22,050 10 000	20,800 9 430	19,200 8 710	17,700 8 030	16,700 7 580	15,700 7 100								
161 ft 49.2m	22,050 lbs – 135 ft 10 000 kg – 41.1m	lbs kg	22,050 10 000	22,050 10 000	22,050 10 000	22,050 10 000	21,700 9 840	20,100 9 120	18,500 8 400										
123 ft 37.6m	22,050 lbs – 124 ft 10 000 kg – 37.6m	lbs kg	22,050 10 000	22,050 10 000	22,050 10 000														

Capacity

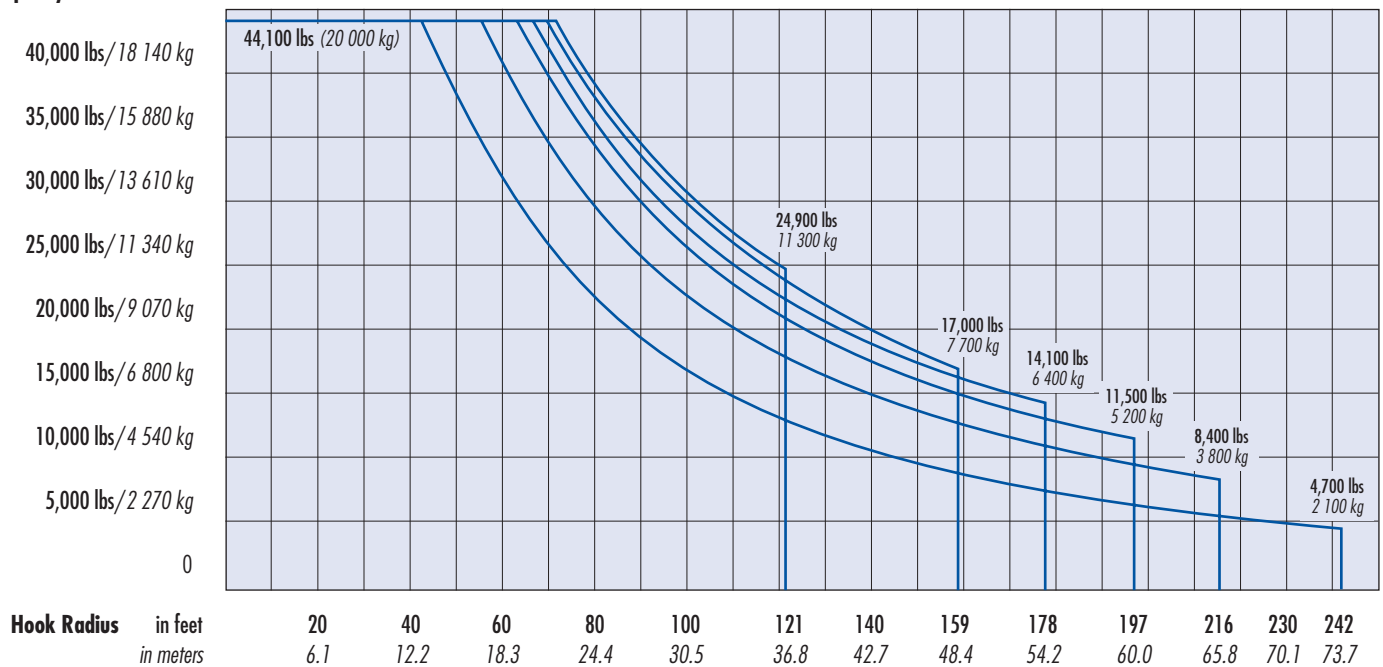


Pecco SK 400-20

Radius and Capacities for 4-part operation

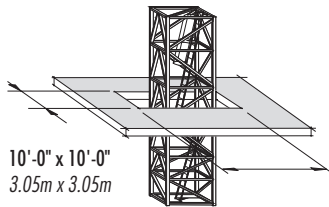
Hook Radius	Maximum Capacity – Radius	ft m	70 21.3	80 24.4	90 27.4	100 30.5	110 33.5	121 36.8	130 39.6	140 42.7	159 48.4	170 51.8	178 54.2	190 57.9	197 60.0	210 64.0	216 65.8	230 70.1	242 73.7	
242 ft 73.7m	44,100 lbs – 42 ft 20 000 kg – 12.8m	lbs kg	26,300 11 930	22,300 10 120	19,400 8 800	16,900 7 670	15,000 6 800	13,200 5 990	12,000 5 440	10,900 4 940	9,100 4 130	8,300 3 760	7,700 3 490	6,900 3 130	6,600 2 990	5,900 2 680	5,700 2 590	5,100 2 310	4,700 2 100	
216 ft 65.8m	44,100 lbs – 55 ft 20 000 kg – 16.8m	lbs kg	34,700 15 740	29,700 13 470	25,800 11 700	22,800 10 340	20,400 9 250	18,100 8 210	16,500 7 480	15,000 6 800	12,800 5 810	11,700 5 310	11,000 4 990	10,100 4 580	9,500 4 310	8,700 3 950	8,400 3 800			
197 ft 60m	44,100 lbs – 62 ft 20 000 kg – 18.9m	lbs kg	40,300 18 280	34,500 15 650	30,200 13 700	26,700 12 110	23,700 10 750	21,300 9 660	19,400 8 800	17,700 8 030	15,200 6 890	13,800 6 260	13,100 5 940	12,000 5 440	11,500 5 200					
178 ft 54.2m	44,100 lbs – 67 ft 20 000 kg – 20.4m	lbs kg	43,200 19 600	36,800 16 690	32,200 14 610	28,500 12 930	25,500 11 570	22,800 10 340	20,800 9 430	19,000 8 620	16,300 7 390	14,900 6 760	14,100 6 400							
159 ft 48.4m	44,100 lbs – 70 ft 20 000 kg – 21.3m	lbs kg	44,100 20 000	38,200 17 330	33,300 15 100	29,500 13 380	26,500 12 020	23,700 10 750	21,800 9 890	19,900 9 030	17,000 7 700									
121 ft 36.8m	44,100 lbs – 72 ft 20 000 kg – 21.9m	lbs kg	44,100 20 000	40,200 18 230	35,000 15 880	31,000 14 060	27,800 12 610	24,900 11 300												

Capacity



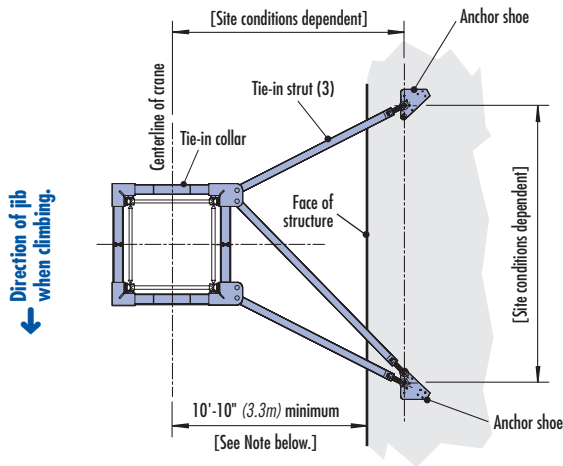
Tie-in Details

NOTE! Recommended slab opening for erection and dismantlement. For other factors including deflection, contact Morrow engineering.



SLAB OPENING

Recommended
TS 212 (S35)



TIE-IN ASSEMBLY with TS 212 (S35) Tower plan view

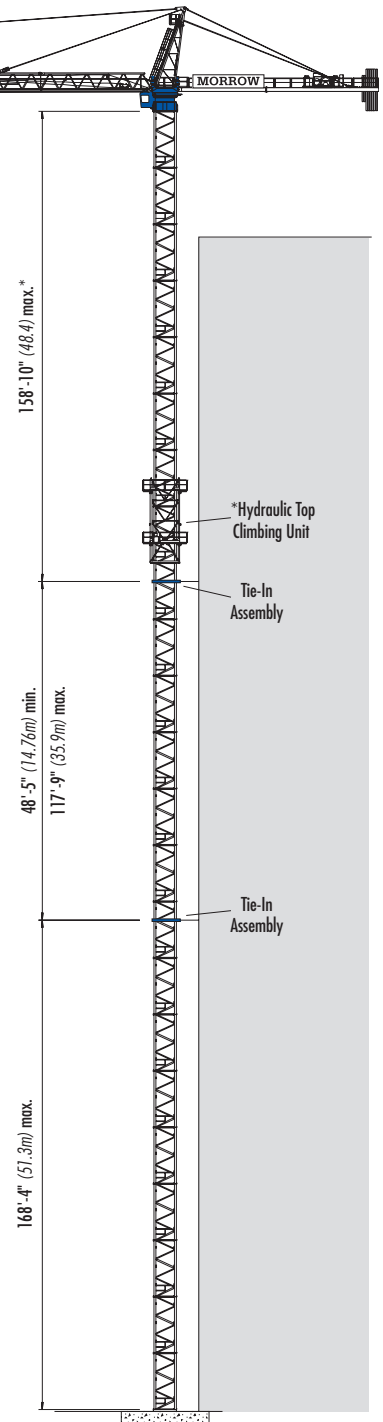
NOTE! The tie-in assembly shown is an example of a typical installation when using TS 212 (S35) tower. Please note, however, that factors determining the installation of tie-in assemblies may vary due to project specific requirements. Contact Morrow for additional information.

Consult SK 400 Operation Manual before erecting, operating, servicing or dismantling crane.

NOTE! If hook height exceeds 330 ft (100m), the number of tower sections above the uppermost tie-in location **MUST** be reduced by 1 tower section.

* Lower the top climbing unit to the uppermost tie-in prior to operating crane at maximum hook height.

Consult Morrow Equipment for specific information regarding dimensions, tie-in locations, reaction forces and slab openings.



TOP CLIMBING with TS 212 (S35) Tower tied to structure

Pecco SK 400-20

Hoist Speed and Capacity

Hoist Unit	TVL 68 NZ 225 SL	2-Part Line				
105 hp (78 kW) AC hoist unit 4-speed gearbox Remote-controlled gear shifting Eddy current brake 2P140 4P70		Gear	Capacity	Line Speed	Capacity	Line Speed
		1	22,050 lbs	@ 110 fpm	10 000 kg	@ 34 m/min
		2	15,600 lbs	@ 178 fpm	7 100 kg	@ 54 m/min
		3	9,260 lbs	@ 282 fpm	4 200 kg	@ 86 m/min
		4	5,500 lbs	@ 440 fpm	2 500 kg	@ 134 m/min
		4-Part Line				
		1	44,100 lbs	@ 55 fpm	20 000 kg	@ 17 m/min
		2	31,200 lbs	@ 89 fpm	14 200 kg	@ 27 m/min
		3	18,520 lbs	@ 141 fpm	8 400 kg	@ 43 m/min
		4	11,000 lbs	@ 220 fpm	5 000 kg	@ 67 m/min
Hoist Unit	TVL 84 NZ 250 M	2-Part Line				
165 hp (122 kW) AC hoist unit 4-speed gearbox Remote-controlled gear shifting Eddy current brake 2P230 4P115		Gear	Capacity	Line Speed	Capacity	Line Speed
		1	22,050 lbs	@ 160 fpm	10 000 kg	@ 48 m/min
		2	17,600 lbs	@ 250 fpm	8 000 kg	@ 76 m/min
		3	10,600 lbs	@ 400 fpm	4 800 kg	@ 120 m/min
		4	6,200 lbs	@ 630 fpm	2 800 kg	@ 192 m/min
		4-Part Line				
		1	44,100 lbs	@ 80 fpm	20 000 kg	@ 24 m/min
		2	35,200 lbs	@ 125 fpm	16 000 kg	@ 38 m/min
		3	21,200 lbs	@ 200 fpm	9 600 kg	@ 60 m/min
		4	12,400 lbs	@ 315 fpm	5 600 kg	@ 96 m/min

IMPORTANT! Capacities and line speeds indicated will vary depending on the amount of hoist rope installed. This crane model may be equipped with a hoist unit other than that specified in the data above. To verify, check the serial number of the crane and refer to the SK 400 Operation Manual for additional information.

Motor Information

Drive Unit	Horsepower	Kilowatts	Speed	
Trolley	12 hp	9 kW	0 – 320 fpm	0 – 96 m/min
Swing *	3 x 12 hp	3 x 9 kW	1.0 rpm	

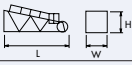
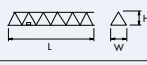
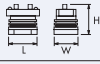
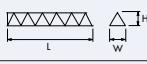
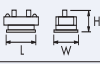


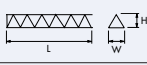


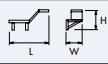

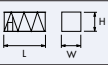



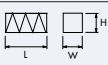

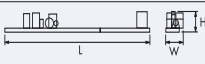



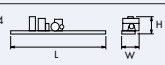









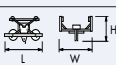
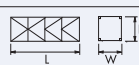

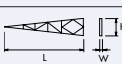
* **NOTE!** Jibs up to and including 162-ft (49.2m) hook reach require only two swing motors; jibs with 180-ft (55m) hook reach and longer require three swing motors.

Power Requirements

- 480 V phase-phase, 277 V each phase to ground with 120° phase shift between phases. Do not use an Open-Delta supply.
- 3-phase, 60 Hz power supply plus ground wire.
- Static: 250 Amperes with 105 hp hoist unit; 300 Amps with 165 hp hoist unit
- Travelling: (Contact Morrow for power requirements.)

Specifications subject to change without prior notice. For additional information, contact Morrow Equipment.

Pecco SK 400-20

Description	Dimensions L x W x H	Weight	Description	Dimensions L x W x H	Weight
Tower Top 	29'-2" x 7'-1" x 8'-2" 8.9m x 2.15m x 2.5m	7,800 lbs 3 540 kg	Jib Section ① 	38'-9" x 6'-0" x 6'-10" 11.8m x 1.84m x 2.09m	8,000 lbs 3 630 kg
Turntable (Complete) Upper & Lower Part 	11'-8" x 9'-8" x 12'-2" 3.55m x 2.94m x 3.7m	27,400 lbs 12 430 kg	Jib Section ② 	38'-9" x 6'-0" x 5'-11" 11.8m x 1.84m x 1.8m	5,000 lbs 2 270 kg
Turntable Upper Part ¹ 	11'-8" x 6'-10" x 7'-2" 3.55m x 2.08m x 2.18m	14,200 lbs 6 440 kg	Jib Section ③ 	38'-9" x 6'-0" x 5'-11" 11.8m x 1.84m x 1.8m	4,300 lbs 1 950 kg
Turntable Lower Part ² 	9'-2" x 9'-8" x 5'-0" 2.8m x 2.94m x 1.52m	13,200 lbs 5 990 kg	Jib Section ④ 	38'-9" x 6'-0" x 5'-11" 11.8m x 1.84m x 1.8m	4,100 lbs 1 860 kg
Operator's Cab 	5'-11" x 4'-3" x 7'-1" 1.8m x 1.3m x 2.16m	1,000 lbs 454 kg	Jib Section ⑤ 	20'-0" x 6'-0" x 5'-11" 6.1m x 1.84m x 1.8m	2,000 lbs 907 kg
Cab Access Platform 	12'-8" x 5'-7" x 2'-10" 3.86m x 1.7m x 0.86m	1,000 lbs 454 kg	Jib Section ⑥ 	19'-8" x 6'-0" x 5'-11" 6.0m x 1.84m x 1.8m	1,400 lbs 635 kg
Tower Section S35 	19'-5" x 7'-10" x 8'-0" 5.92m x 2.4m x 2.44m	8,900 lbs 4 040 kg	Jib Section ⑦ 	19'-8" x 6'-0" x 5'-11" 6.0m x 1.84m x 1.8m	1,300 lbs 590 kg
Transition Section S60/S35 	19'-5" x 7'-11" x 7'-11" 5.92m x 2.41m x 2.41m	9,930 lbs 4 500 kg	Jib Section ⑧ 	26'-0" x 6'-0" x 5'-11" 7.92m x 1.84m x 1.8m	1,500 lbs 680 kg
Tower Section S60 	19'-5" x 7'-11" x 7'-11" 5.92m x 2.41m x 2.41m	9,930 lbs 4 500 kg	Jib Section ⑨ 	10'-2" x 6'-4" x 7'-1" 3.09m x 1.92m x 2.15m	1,000 lbs 454 kg
Counterjib ³ (Complete) 	69'-3" x 9'-2" x 5'-6" 21.1m x 2.8m x 1.67m	23,690 lbs 10 745 kg	Jib Assembly Part 1 ⁶ for all Jib Assemblies 	①② 76'-2" x 6'-0" x 6'-10" 23.2m x 1.84m x 2.09m	19,550 lbs 8 870 kg
Counterjib Section #1 (Inner) 	30'-9" x 6'-5" x 5'-6" 9.36m x 1.95m x 1.67m	5,100 lbs 2 315 kg	Jib Assembly Part 2 ⁷ 245-ft (74.5m) 	③④⑤⑥⑦⑧⑨ 168'-5" x 6'-4" x 7'-1" 51.34m x 1.92m x 2.15m	15,660 lbs 7 105 kg
Counterjib Section #2 ⁴ (Outer) 	38'-7" x 9'-2" x 5'-4" 11.75m x 2.8m x 1.62m	18,590 lbs 8 430 kg	Jib Assembly Part 2 ⁷ 219-ft (66.6m) 	③④⑤⑥⑦⑨ 143'-1" x 6'-4" x 7'-1" 43.6m x 1.92m x 2.15m	14,100 lbs 6 395 kg
Hoist Unit with Frame ⁵ (105 hp/78 kW) 	10'-8" x 8'-7" x 4'-5" 3.25m x 2.6m x 1.35	10,220 lbs 4 635 kg	Jib Assembly Part 2 ⁷ 200-ft (60.8m) 	③④⑤⑥⑨ 124'-1" x 6'-4" x 7'-1" 37.82m x 1.92m x 2.15m	12,840 lbs 5 825 kg
Hoist Unit with Frame ⁵ (165 hp/122 kW) 	10'-8" x 8'-7" x 4'-5" 3.25m x 2.6m x 1.35m	12,320 lbs 5 590 kg	Jib Assembly Part 2 ⁷ 180-ft (55m) 	③④⑤⑨ 105'-1" x 6'-4" x 7'-1" 32.03m x 1.92m x 2.15m	11,980 lbs 5 435 kg
Counterweight Block A 	14'-8" x 7'-5" x 5'-1" 4.47m x 0.19m x 1.55m	6,850 lbs 3 085 kg	Jib Assembly Part 2 ⁷ 162-ft (49.2m) 	③④⑨ 85'-9" x 6'-4" x 7'-1" 26.1m x 1.92m x 2.15m	10,100 lbs 4 580 kg
Counterweight Block B 	9'-5" x 5'-5" x 5'-1" 2.87m x 0.14m x 1.55m	3,200 lbs 1 450 kg	Jib Assembly Part 2 ⁷ 124-ft (37.6m) 	③⑨ 47'-8" x 6'-4" x 7'-1" 14.53m x 1.92m x 2.15m	6,000 lbs 2 720 kg
2-Part Trolley (Outer) 	5'-7" x 6'-11" x 4'-3" 1.7m x 2.11m x 1.28m	950 lbs 430 kg	Top Climbing Unit with Hydraulics (S35) 	29'-3" x 11'-6" x 11'-6" 8.9m x 3.5m x 3.5m	24,750 lbs 11 230 kg
Hook Block 	2'-5" x 1'-1" x 5'-10" 0.74m x 0.33m x 1.79m	1,100 lbs 500 kg	Jib A-frame 	21'-7" x 5'-5" x 4'-8" 6.57m x 0.14m x 1.43m	800 lbs 360 kg

NOTE: Weights and dimensions are approximate. Scale components before lifting.

¹ Turntable upper part includes swing motors and slewing ring. Does not include slewing ring support and support frame.

² Turntable lower part includes slewing ring support and support frame. Does not include Upper Part, swing motors and slewing ring.

³ Includes Counterjib Sections #1 & #2, 105 hp (78 kW) hoist unit with frame, electrical panels and handrails. Does not include wire rope. If alternate 165 hp (122 kW) hoist unit is installed, the weight of Counterjib (Complete) increases by 2,100 lbs (950 kg).

⁴ Counterjib Section #2 includes 105 hp (78 kW) hoist unit with frame, electrical panels and handrails. Does not include wire rope. If alternate 165 hp (122 kW) hoist unit is installed, the weight of Counterjib Section #2 increases by 2,100 lbs (950 kg).

⁵ Does not include wire rope.

⁶ Jib Assembly Part 1 includes jib sections, pendant cables, jib A-frame, trolley drive unit, trolley wire rope, 2-part trolley (outer) and hook block. If 4-part application is used, weight increases by 2,050 lbs (930 kg) for additional trolley (inner) and hook block.

⁷ Jib Assembly Part 2 includes jib sections and pendant cables.



Morrow Equipment

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