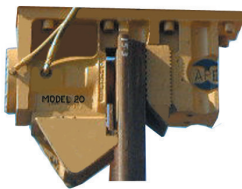
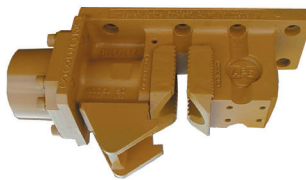


MODEL 20, 50, 150, 200 AND 400 UNIVERSAL CLAMPS

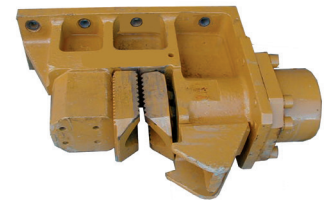
Model	Weight	Piston Dia.	Piston Stroke	Cyl. Force	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	R
20	790 lbs 358 kg	5 in 127 mm	2.25 in 57 mm	88 kips 391 kN	29.63 in 752 mm	10 in 254 mm	28.63 in 727 mm	11.75 in 298 mm	8.56 in 217 mm	4.62 in 117 mm	2.12 in 54 mm	6 in 152 mm	13.5 in 343 mm	4.62 in 117 mm	2.75 in 70 mm	8.25 in 209 mm	4 in 101 mm	7 in 178 mm	5 in 127 mm	
50	1350 lbs 612 kg	8 in 203 mm	2.25 in 57 mm	226 kips 1005 kN	44 in 1117 mm	12 in 304 mm	35 in 889 mm	12.25 in 311 mm	10.25 in 260 mm	7.19 in 182 mm	1.44 in 38 mm	14 in 356 mm	22.38 in 568 mm	5 in 127 mm	11 in 279 mm	8.25 in 209 mm	4 in 101 mm	15.17 in 385 mm	5 in 127 mm	
150	1540 lbs 698 kg	8 in 203 mm	2.25 in 57 mm	226 kips 1005 kN	44 in 1117 mm	12 in 304 mm	35 in 889 mm	12.88 in 327 mm	10.25 in 260 mm	7 in 178 mm	1.44 in 41 mm	14 in 356 mm	27.75 in 705 mm	5 in 127 mm	11 in 279 mm	8.25 in 209 mm	4 in 101 mm	15 in 383 mm	5 in 127 mm	
200	2200 lbs 998 kg	8 in 203 mm	2.25 in 57 mm	226 kips 1005 kN	50 in 270 mm	11.75 in 298 mm	41 in 1041 mm	18.25 in 463 mm	9 in 228 mm	7 in 178 mm	1.69 in 44 mm	15 in 381 mm	29.88 in 759 mm	5.75 in 146 mm	8.25 in 210 mm		4 in 102 mm	21 in 533 mm	5 in 127 mm	
300	2850 lbs 1295 kg	10 in 254 mm	3 in 76 mm	392 kips 1744 kN	57 in 1450 mm	45.25 in 1200 mm	12 in 305 mm	15 in 381 mm	35.25 in 819 mm	22.63 in 575 mm	2.5 in 64 mm	10.88 in 276 mm		9 in 229 mm	7.38 in 187 mm	5.88 in 149 mm	8.25 in 210 mm	4.28 in 109 mm	4 in 102 mm	24.13 in 613 mm
400	7200 lbs 3266 kg	15 in 381 mm	2.85 in 72.4 mm	800 kips 3,559 kN	72.4 in 1,839 mm	15.75 in 400 mm	60 in 1,524 mm	30.8 in 782.3 mm	15.8 in 401.3 mm	11 in 279.4 mm	2.86 in 72.6 mm	22 in 558.8 mm	46 in 1,168 mm	5.75 in 146 mm	Consult Factory		4 in 101.6 mm	9.2 in 233.7 mm	6.44 in 163.6 mm	



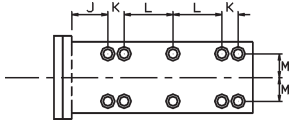
MODEL 20



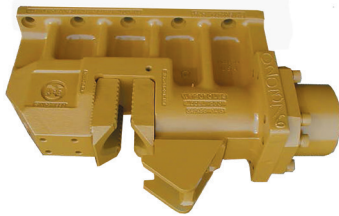
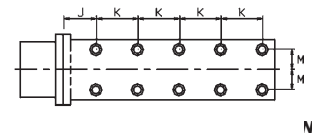
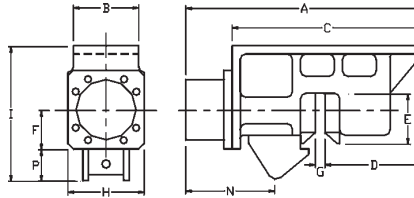
MODEL 50



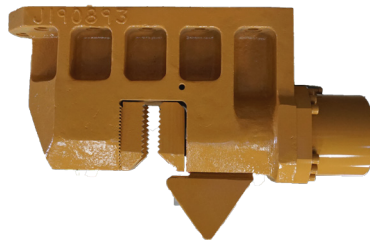
MODEL 150



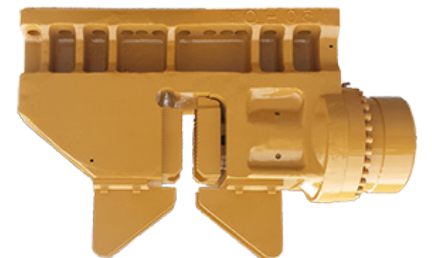
20 BOLT PATTERN



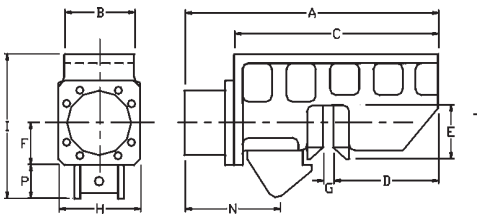
MODEL 200



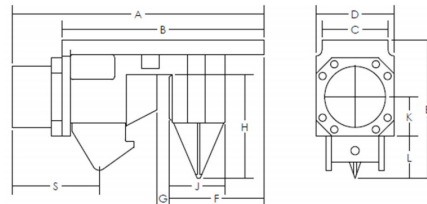
MODEL 300



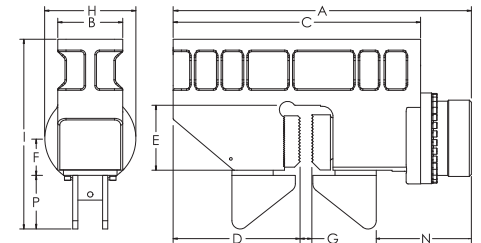
MODEL 400



200 BOLT PATTERN



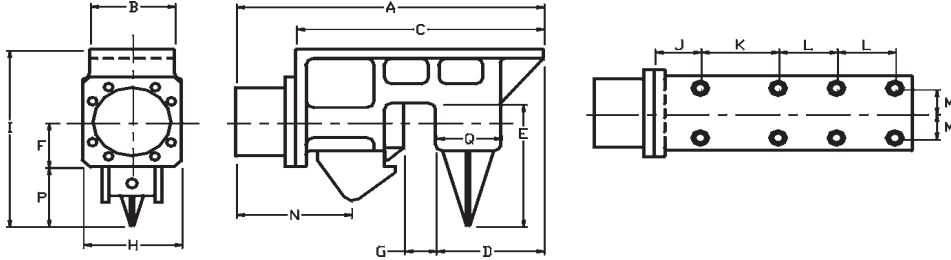
300 BOLT PATTERN



400 BOLT PATTERN

MODEL 50 AND 150 DUNCE CLAMPS

Model	Weight	Piston Dia.	Piston Stroke	Cyl. Force	Clamp Force	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	Q
50	1,350 lbs 612 kg	8 in 20.3 cm	2.25 in 5.7 cm	226 kips 1,005 kN	452 kips 2,010 kN	44 in 111.7 cm	12 in 30.4 cm	35 in 88.9 cm	12.25 in 31.1 cm	10.25 in 26.0 cm	7 in 17.8 cm	1.75 in 44.5 cm	14 in 35.6 cm	22.75 in 57.7 cm	5 in 12.7 cm	11 in 27.9 cm	8.25 in 20.9 cm	4 in 10.1 cm	15 in 38.3 cm	5 in 12.7 cm	11.5 in 29.2 cm
150	1,540 lbs 698 kg	8 in 20.3 cm	2.25 in 5.7 cm	226 kips 1,005 kN	452 kips 2,010 kN	44 in 111.7 cm	12 in 30.4 cm	35 in 88.9 cm	12.88 in 32.7 cm	10.25 in 26.0 cm	7 in 17.8 cm	1.75 in 44.5 cm	14 in 35.6 cm	27.75 in 70.5 cm	5 in 12.7 cm	11 in 27.9 cm	8.25 in 20.9 cm	4 in 10.1 cm	15 in 38.3 cm	5 in 12.7 cm	11.5 in 29.2 cm

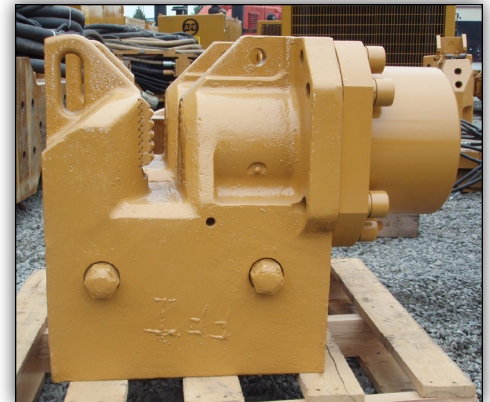
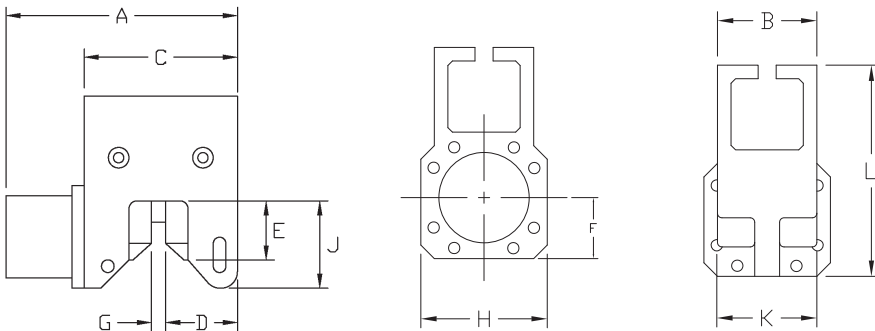


MODEL 150 DUNCE



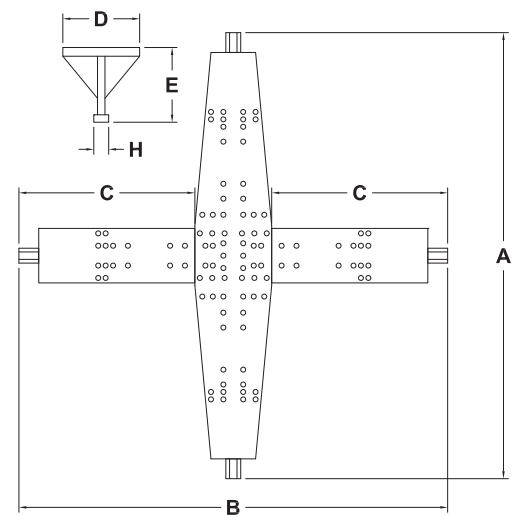
MODEL 100 AND 200 CAISSON CLAMPS

Model	Weight	Piston Dia.	Piston Stroke	Cyl. Force	Clamp Force	A	B	C	D	E	F	G	H	J	K	L
100	1,100 lbs 498 kg	8 in 203 mm	2.25 in 57 mm	226 kips 1,005 kN	452 kips 2,010 kN	25.63 in 651 mm	11 in 279 mm	18.63 in 473 mm	6 in 152 mm	6.63 in 168 mm	6.25 in 159 mm	1.5 in 38 mm	14 in 355 mm	10.63 in 270 mm	11 in 279 mm	23.38 in 594 mm
200	1,340 lbs 608 kg	8 in 203 mm	2.25 in 57 mm	226 kips 1,005 kN	452 kips 2,010 kN	28.56 in 725 mm	11 in 279 mm	22.56 in 573 mm	10.81 in 274 mm	6.63 in 168 mm	7.25 in 184 mm	1.5 in 38 mm	14 in 355 mm	11 in 270 mm	11 in 279 mm	23.25 in 590 mm



QUAD BEAM

Model	Weight	A	B	C	D	E	H
10 ft	7000 lbs 3175 kg	120 in 304.8 cm	118 in 300 cm	49 in 124.5 cm	22 in 55.9 cm	24 in 61 cm	6 in 152 mm
11 ft	9,500 lbs 4,309 kg	134 in 340 cm	136 in 345 cm	53 in 134.6 cm	31 in 78.7 cm	21 in 53.3 cm	6 in 152 mm
12 ft	8650 lbs 3920 kg	144 in 365.8 cm	144 in 365.8 cm	57.81 in 146.8 cm	28.38 in 72.1 cm	24 in 61 cm	6 in 152 mm
13 ft	13570 lbs 6155 kg	156 in 386 cm	156 in 386 cm	62.5 in 158.8 cm	31 in 78.7 cm	30 in 76.2 cm	6 in 152 mm
15 ft	13,000 lbs 5896 kg	180 in 457.2 cm	184 in 467.3 cm	75 in 190.5 mm	31 in 78.7 cm	30 in 76.2 cm	6 in 152 mm
17 ft	15,000 lbs 6803 kg	206 in 523.2 cm	208 in 528.3 cm	89 in 226 cm	31 in 78.7 cm	40 in 101.6 cm	6 in 152 mm



CLAMP EQUATIONS

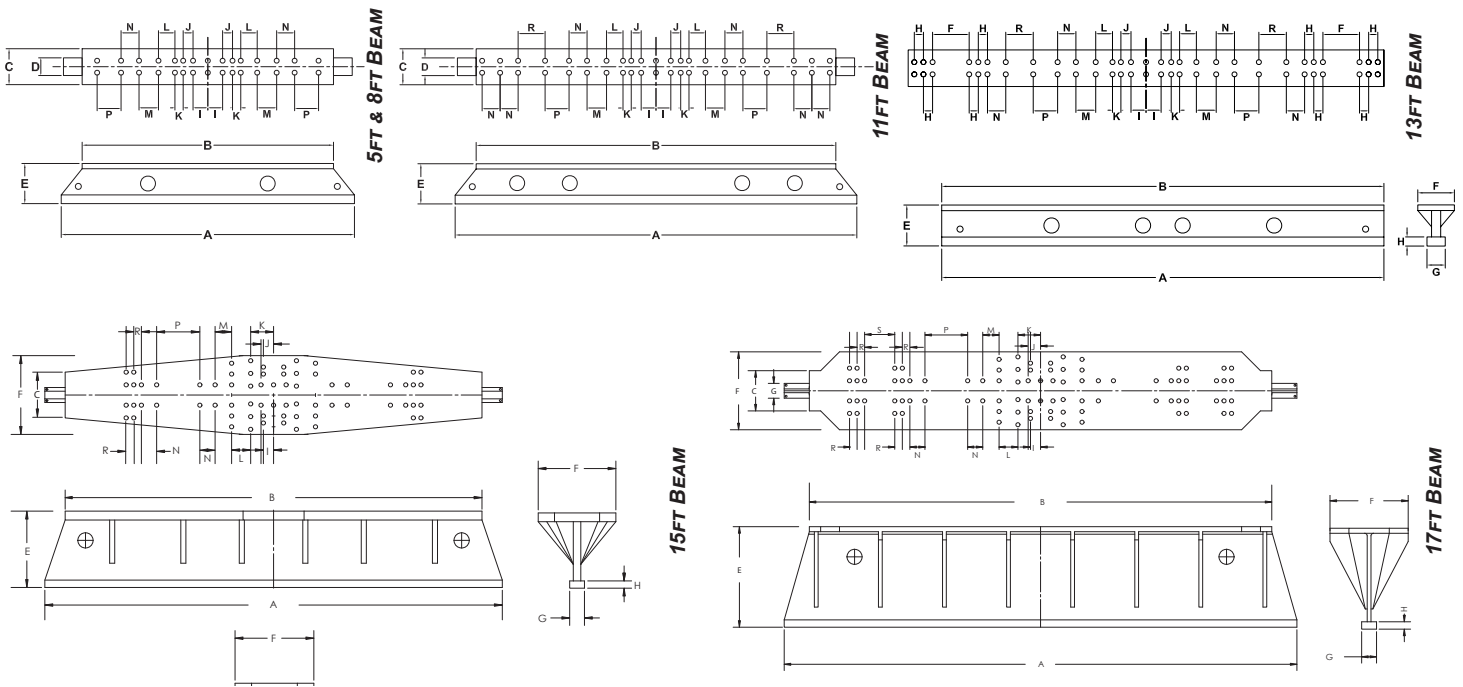
Clamp Cylinder Force $(dm^2 * 0.7854 * p) / 2,000$

Clamp Gripping Force $\text{Clamp Cylinder Force} * 2$

Clamp and Gripping Force Variables $dm = \text{Diameter}, p = \text{Pressure}$

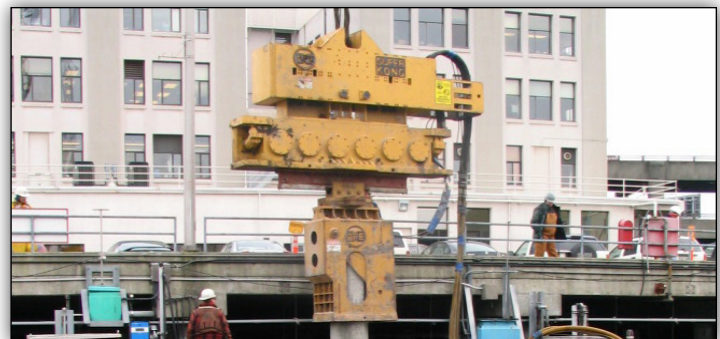
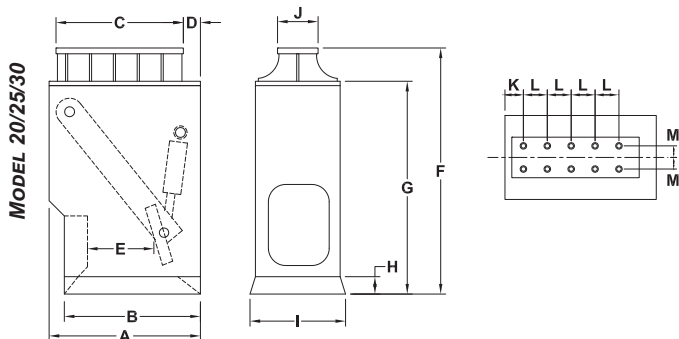
STANDARD CAISSON BEAMS

Model	Max Dia. Caisson	Weight	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	R	S
5 ft	33.15 in 0.84 m	1,000 lbs 454 kg	60 in 1.52 m	84 in 2.13 m		5.9 in 150 mm	13.75 in 349 mm	12 in 305 mm	5.9 in 150 mm	3 in 76 mm	4.94 in 125 mm	3.31 in 84 mm	2.75 in 70 mm	5.5 in 140 mm	6.5 in 165 mm	6 in 152 mm	8 in 203 mm	-	
8 ft	69.15 in 1.75 m	1,500 lbs 680 kg	98 in 2.48 m	84 in 2.13 m		5.9 in 150 mm	13.75 in 349 mm	12 in 305 mm	5.9 in 150 mm	3 in 76 mm	4.94 in 125 mm	3.31 in 84 mm	2.75 in 70 mm	5.5 in 140 mm	6.5 in 165 mm	6 in 152 mm	8 in 203 mm	-	
11 ft	106.00 in 2.69 m	3,030 lbs 1,374 kg	132.5 in 3.35 m	120 in 3.04 m		5.9 in 150 mm	13.41 in 340 mm	12 in 305 mm	5.9 in 150 mm	3 in 76 mm	4.94 in 125 mm	3.31 in 84 mm	2.75 in 70 mm	5.5 in 140 mm	6.5 in 165 mm	6 in 152 mm	8 in 203 mm	9 in 229 mm	
13 ft	129.5 in 3.29 m	3,593 lbs 1,630 kg	156 in 3.96 m	156 in 3.96 m			18 in 457 mm	13.5 in 343 mm	5.9 in 150 mm	3 in 76 mm	5 in 127 mm	3.31 in 84 mm	2.75 in 70 mm	5.5 in 140 mm	6.5 in 165 mm	6 in 152 mm	8 in 203 mm	9 in 229 mm	
15 ft	153.5 in 3.9 m	8889 lb 4032 kg	180 in 4.57 m	164 in 4.165 m	18 in 45.72 cm		30.04 in 76.30 cm	31 in 78.74 cm	5.9 in 150 mm	2.91 in 73.9 mm	4.00 in 101.6 mm	4.94 in 125.73 mm	9 in 228.6 mm	7.5 in 190.5 mm	6.5 in 165.1 mm	6 in 152.4 mm	17 in 431.8 mm	3 in 76.2 mm	
17 ft	177.5 in 4.51 m	8368.7 lb 3800.5 kg	204 in 5.18 m	184 in 4.674 m	16 in 40.64 cm		40 in 101.6 cm	31 in 78.74 cm	5.9 in 150 mm	2.91 in 73.9 mm	4.00 in 101.6 mm	4.94 in 125.73 mm	9 in 228.6 mm	7.5 in 190.5 mm	6.5 in 165.1 mm	6 in 152.4 mm	17 in 431.8 mm		12 in 304.8 mm



WOOD/CONCRETE CLAMPS

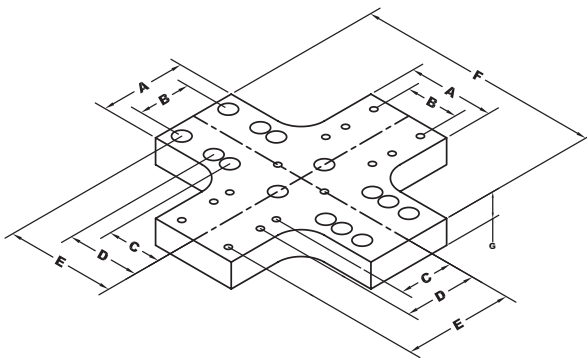
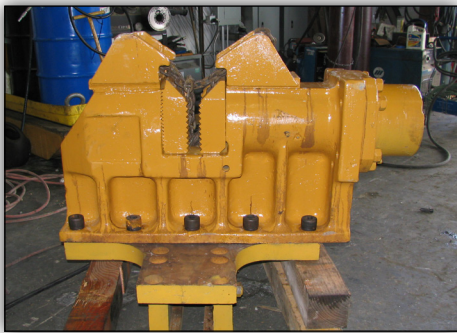
Model	Weight	Piston Dia.	Cyl. Force	Clamp Force	A	B	C	D	E	F	G	H	I	J	K	L	M
20	4,500 lbs 2,041 kg	7 in 178 mm	135 kips 600 kN	270 kips 1200 kN	44 in 117 cm	42 in 106.7 cm	44 in 117.8 cm	-	20.5 in 52 cm	72 in 182.9 cm	58 in 147.3 cm	6.0 in 15.2 cm	31.91 in 81.05 cm	14 in 35.6 cm	4 in 10.2 cm	8.25 in 21 cm	4 in 10.2 cm
25	6,200 lbs 2,811 kg	7 in 178 mm	135 kips 600 kN	270 kips 1200 kN	52.25 in 13.2 cm	47 in 119.4 cm	44 in 117.8 cm	6 in 12.7 cm	25.5 in 64.8 cm	77 in 195.6 cm	68 in 172.7 cm	6.0 in 15.2 cm	34.94 in 88.75 cm	14 in 35.6 cm	10 in 25.4 cm	8.25 in 21 cm	4 in 10.2 cm
30	7,000 lbs 3,175 kg	7 in 178 mm	135 kips 600 kN	270 kips 1200 kN	60 in 15.2 cm	52 in 132 cm	44 in 117.8 cm	10 in 25.4 cm	30.5 in 76.2 mm	83 in 211 cm	68 in 172.7 cm	6.0 in 15.2 cm	44.38 in 112.73 cm	14 in 35.6 cm	14 in 35.6 cm	8.25 in 21 cm	4 in 10.2 cm



ATTACHMENT ACCESSORIES

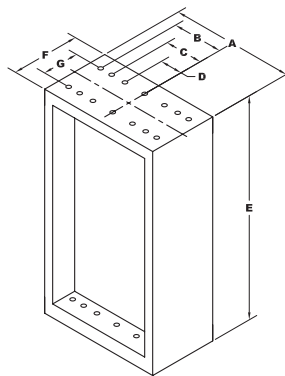
DRIVER/EXTRACTOR ACCESSORIES									
Specification	Weight	A	B	C	D	E	F	G	H
90 Degree Turn Plate	600 lb 272 kg	12 in 30.48 cm	8 in 20.3 cm	8.25 in 21 cm	11 in 28 cm	16.5 in 42 cm	37 in 94 cm	3.5 in 8.9 cm	
4' extension	2,500 lb 1134 kg	37 in 94 cm	11 in 28 cm	8.25 in 21 cm	4.94 in 12.55 cm	48 in 122 cm	12 in 30.5 cm	8 in 20.3 cm	
8' extension	4,000 lb 1,814 kg	37 in 94 cm	11 in 28 cm	8.25 in 21 cm	4.94 in 12.55 cm	96 in 243.8 cm	12 in 30.5 cm	8 in 20.3 cm	
Caisson Beam to Attachment Adapter	1,200 lb 680 kg	4.94 in 12.5 cm	8.00 in 20 cm	8.25 in 21 cm	11 in 28 cm	16.5 in 42 cm	37 in 94 cm	11.5 in 29.21 cm	14 in 35.56

CAISSON TO SHEET ADAPTER WITH A 90 DEGREE TURN PLATE.



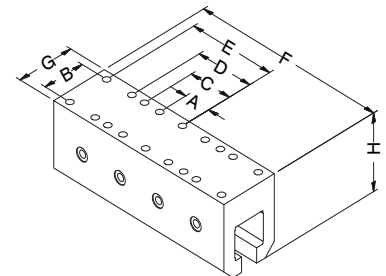
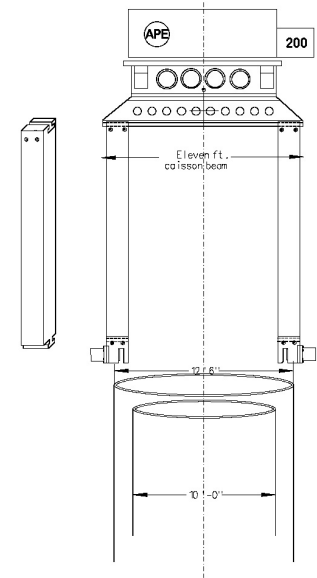
90 DEGREE TURN PLATE.

HYBRID EXTENSION CALLED THE CALIFORNIA STINGER FOR TIGHT WORKING DIMENSIONS.



4' & 8' EXTENSION.

ATTACHMENT ADAPTERS USED TO ALLOW THE EXTRACTION OF A CASING WITH AN EXTENDED REBAR CAGE.



CAISSON BEAM TO ATTACHMENT ADAPTER.

