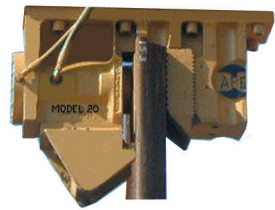
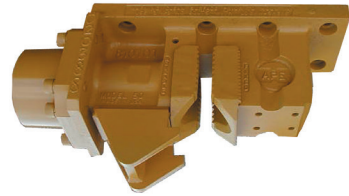


MODEL 20, 50, 150 AND 200 UNIVERSAL CLAMPS

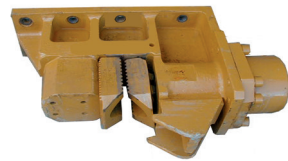
Model	Weight	Piston Dia.	Piston Stroke	Cyl. Force	Clamp Force	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P
20	790 lbs 358 kg	5 in 127 mm	2.25 in 57 mm	88 kips 391 kN	177 kips 787 kN	29.63 in 752 mm	10 in 254 mm	28.63 in 727 mm	11.75 in 298 mm	8.56 in 217 mm	4.62 in 117 mm	2.31 in 58 mm	6 in 152 mm	13.5 in 343 mm	4.62 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	452 kips 2010 kN	44 in 1117 mm	12 in 304 mm	35 in 889 mm	18.30 in 466 mm	10.25 in 260 mm	7.19 in 182 mm	1.44 in 36 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	452 kips 2010 kN	44 in 1117 mm	12 in 304 mm	35 in 889 mm	18.31 in 467 mm	10.25 in 260 mm	7 in 178 mm	1.44 in 36 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



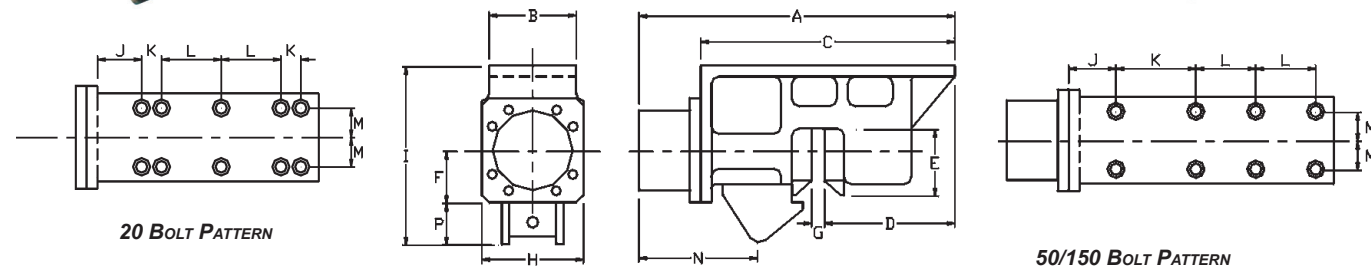
MODEL 20



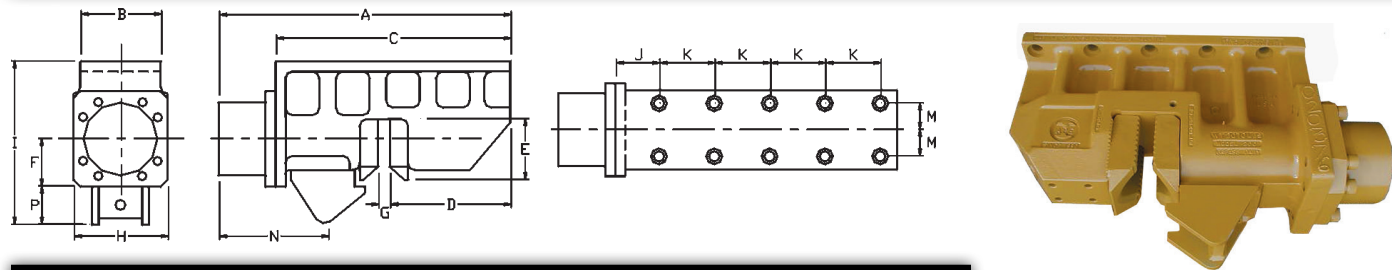
MODEL 50



MODEL 150

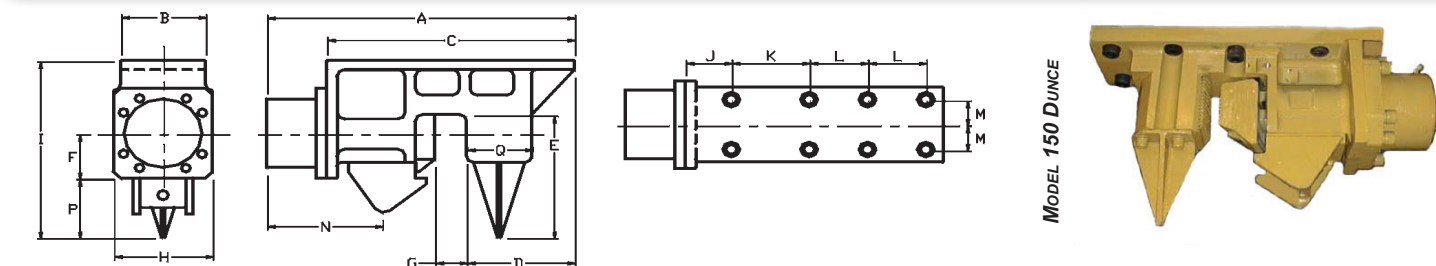


Model	Weight	Piston Dia.	Piston Stroke	Cyl. Force	Clamp Force	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P
200	2200 lbs 998 kg	8 in 203 mm	2.25 in 57 mm	226 kips 1005 kN	452 kips 2010 kN	50 in 1270 mm	11.75 in 298 mm	41 in 1041 mm	18.18 in 463 mm	9 in 228 mm	7 in 178 mm	1.69 in 44 mm	15 in 381 mm	29.88 in 759 mm	5.75 in 146 mm	8.25 in 209 mm	-	4 in 102 mm	21 in 533 mm	5 in 127 mm



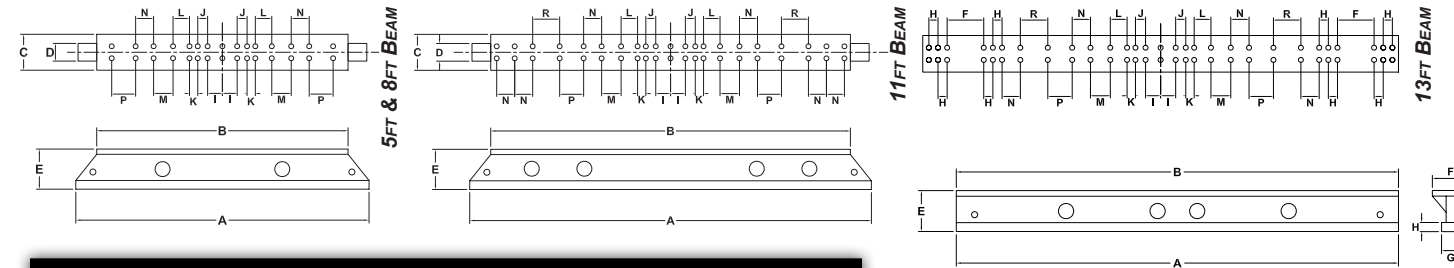
MODEL 50 AND 150 DUNCE CLAMPS

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



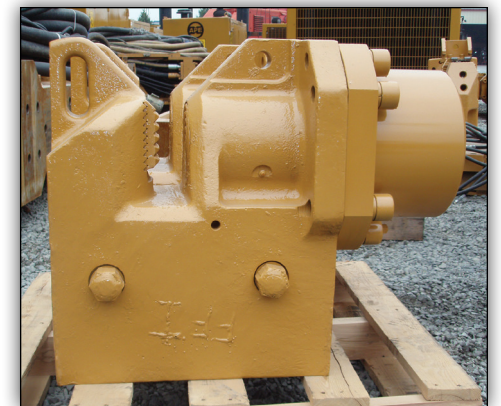
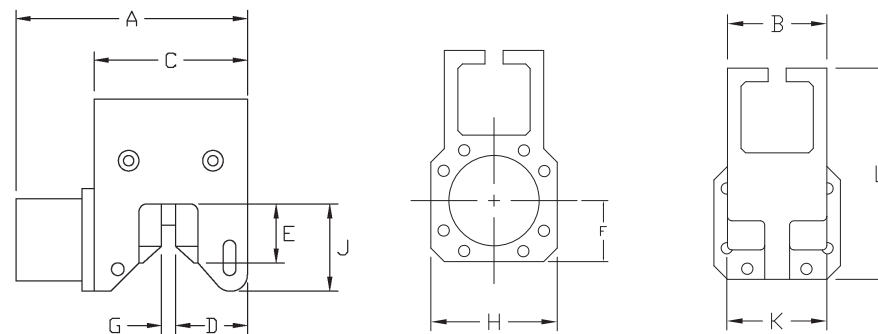
STANDARD CAISSON BEAMS

Model	Weight	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	R
5 ft	1,000 lbs 454 kg	60 in 1.52 m	84 in 2.13 m	8 in 203 mm	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	1,500 lbs 680 kg	98 in 2.48 m	84 in 2.13 m	8 in 203 mm	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	3,030 lbs 1,374 kg	132.5 in 3.35 m	120 in 3.04 m	8 in 203 mm	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	3,593 lbs 1,630 kg	156 in 3.96 m	156 in 3.96 m	8 in 203 mm	5.9 in 150 mm	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



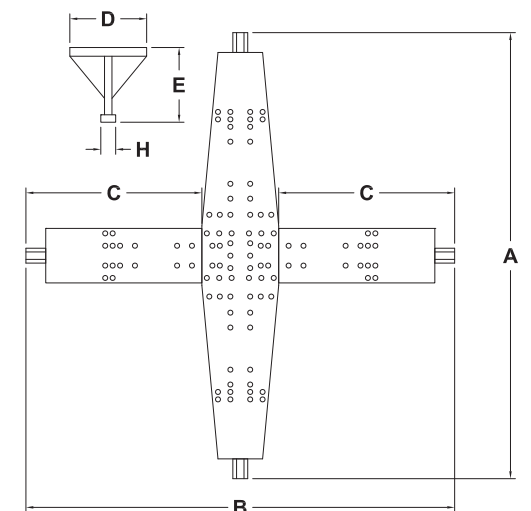
MODEL 100 AND 200 CAISSON CLAMPS

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	1,320 lbs 604 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	F	H
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	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	41 in 104 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	41 in 104 cm	6 in 152 mm

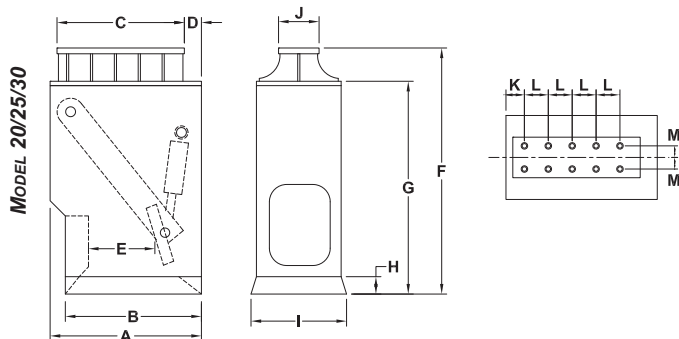


CLAMP EQUATIONS

Clamp Cylinder Force	$dm^2 * 0.7854 * p$ 2,000
Clamp Gripping Force	Clamp Cylinder Force * 2
Clamp and Gripping Force Variables	dm = Diameter p = Pressure

WOOD/CONCRETE CLAMPS

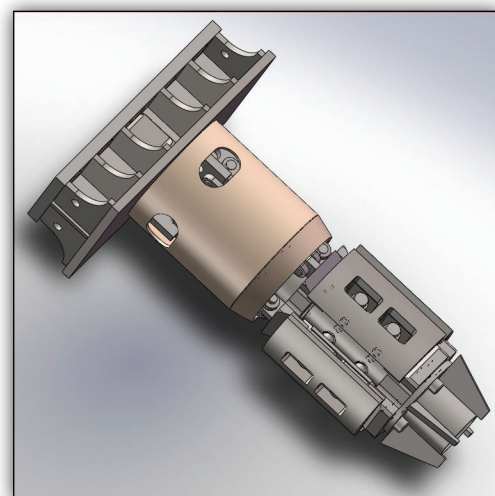
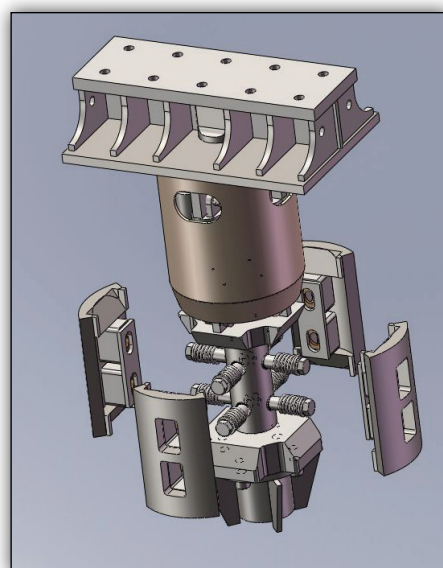
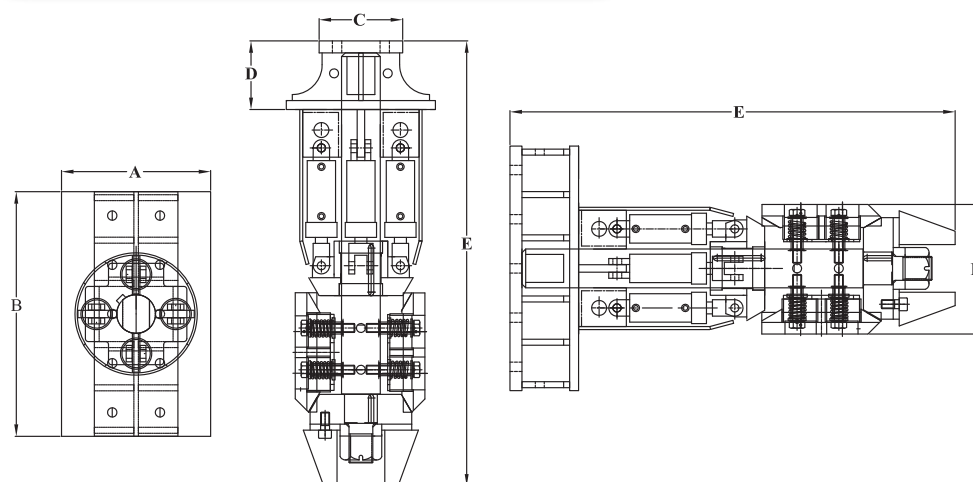
Model	Weight	Piston Dia.	Cyl. Force	Clamp Force	A	B	C	D	E	F	G	H	I	J	K	L	M
20	4,500 lbs 2,041 kg	7 in 178 mm	135 kips 600 kN	270 kips 1200 kN	44 in 117 cm	42 in 106.7 cm	44 in 117.8 cm	-	20.5 in 52 cm	72 in 182.9 cm	58 in 147.3 cm	6.0 in 15.2 cm	31.91 in 81.05 cm	14 in 35.6 cm	4 in 10.2 cm	8.25 in 21 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 132 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 152 cm	52 in 132 cm	44 in 117.8 cm	10 in 25.4 cm	30.5 in 76.2 mm	83 in 211.1 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



INTERNAL PIPE CLAMP

Weight	A	B	C	D	E	F
3,360 lbs 1524 kg	25 in 63.5 cm	41 in 104.14 cm	14 in 35.56 cm	11.5 in 29.21 cm	74.6 in 189.48 cm	21.7 in 55.12 cm

THE INTERNAL PIPE CLAMP CAN BE CUSTOM BUILT FOR ANY PILE DIAMETER.



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	12 in 30.4 cm	16 in 40.6 cm
4' extension	2,500 lb 1134 kg	37 in 94 cm	11 in 28 cm	8.25 in 21 cm	5 in 12.7 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	37 in 94 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	11 in 28 cm	8.25 in 21 cm	5 in 12.7 cm	37 in 94 cm	8 in 20.3 cm	4 in 10.1 cm	11.5 in 29.21 cm	

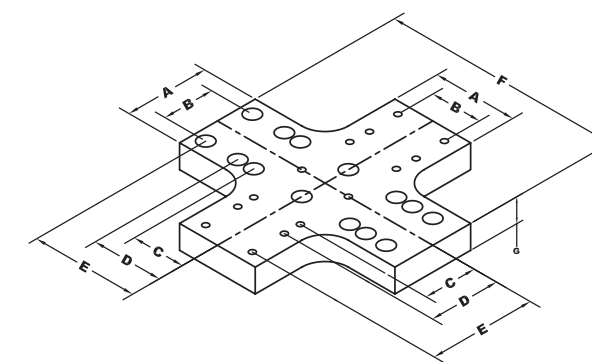
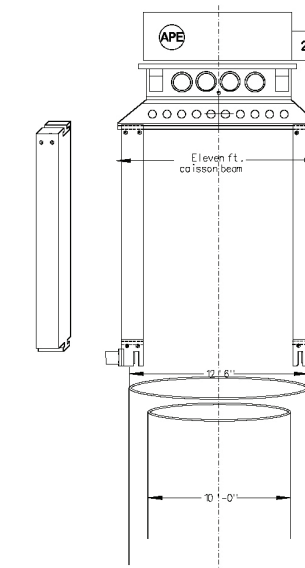
CAISSON TO SHEET ADAPTER WITH A 90 DEGREE TURN PLATE.



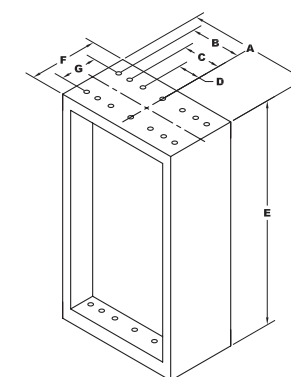
HYBRID EXTENSION CALLED THE CALIFORNIA STINGER FOR TIGHT WORKING DIMENSIONS.



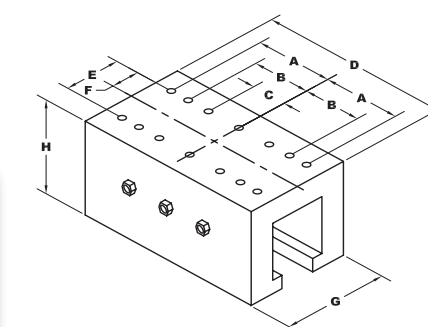
ATTACHMENT ADAPTERS USED TO ALLOW THE EXTRACTION OF A CASING WITH AN EXTENDED REBAR CAGE.



90 DEGREE TURN PLATE.



4' & 8' EXTENSION.



CAISSON BEAM TO ATTACHMENT ADAPTER.

