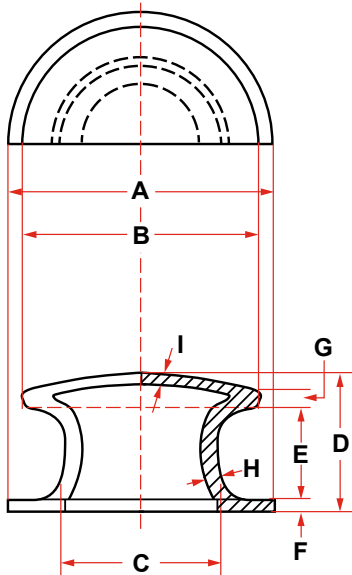
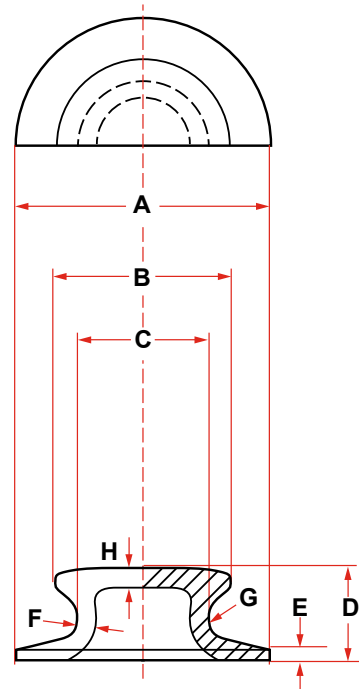


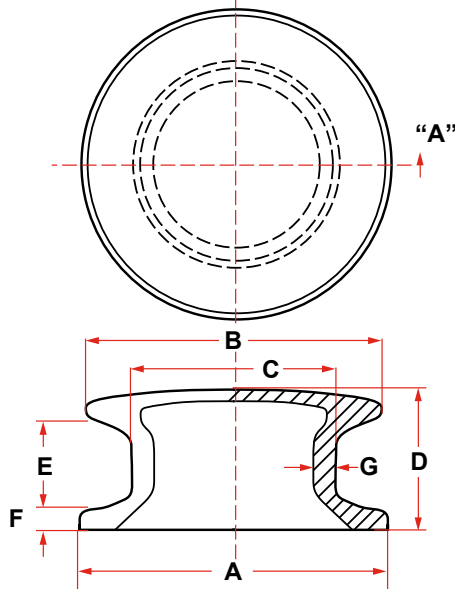
CAST STEEL BUTTON CHOCKS



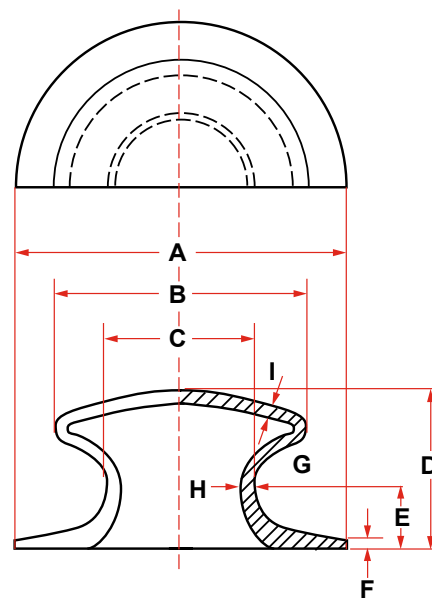
DIMENSIONS (INCHES)										WEIGHT (LBS)
SIZE	A	B	C	D	E	F	G	H	I	
10	17	15	10	8-1/2	5-3/4	5/8	1-1/8	1	1/2	138



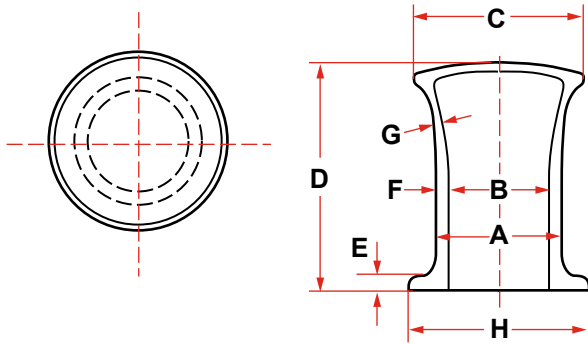
DIMENSIONS (INCHES)										WEIGHT (LBS)
SIZE	A	B	C	D	E	F	G	H		
6	12	8-1/2	6	4-1/8	1/2	3/4	1-1/2	3/4		38



DIMENSIONS (INCHES)									WEIGHT (LBS)
SIZE	A	B	C	D	E	F	G		
8	13	12-1/2	8-5/8	5-1/4	3-11/16	3/4	7/8		75

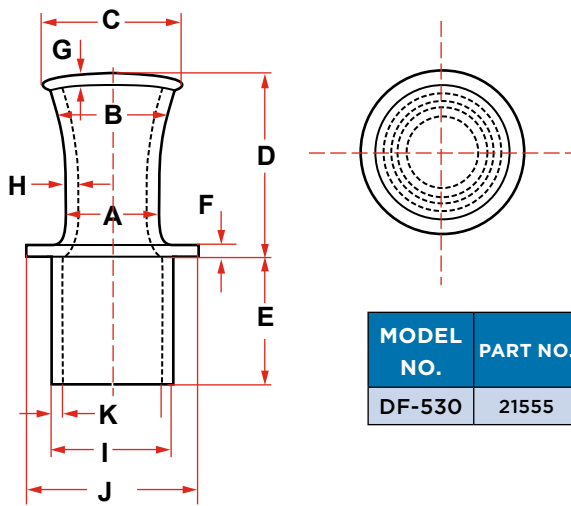


DIMENSIONS (INCHES)										WEIGHT (LBS)
SIZE	A	B	C	D	E	F	G	H	I	
9	20	15-1/2	9	9-1/2	3-1/2	5/8	2-1/2	3/4	1/2	158



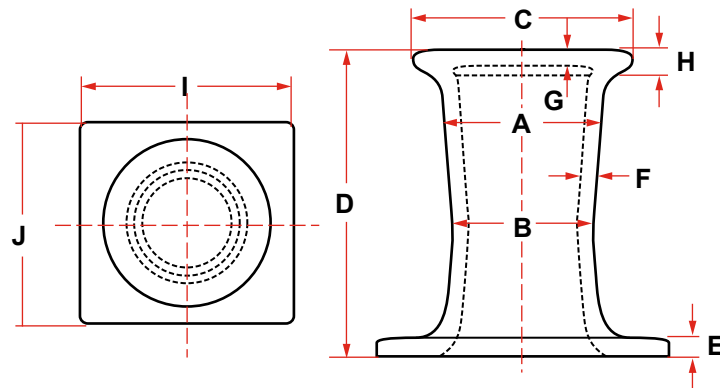
CAST STEEL SINGLE BITT

MODEL NO.	PART NO.	SIZE	DIMENSIONS (INCHES)								WEIGHT (LBS)
			A	B	C	D	E	F	G	H	
DF-SB10	20230	10	10	8	13-1/2	18	1	1	3/4	14	190



CAST STEEL SINGLE BITT THRU DECK

MODEL NO.	PART NO.	SIZE	DIMENSIONS (INCHES)											WEIGHT (LBS)
			A	B	C	D	E	F	G	H	I	J	K	
DF-530	21555	8	8	10-1/2	12	16	11	1	1	1	10-1/4	14	3/4	260

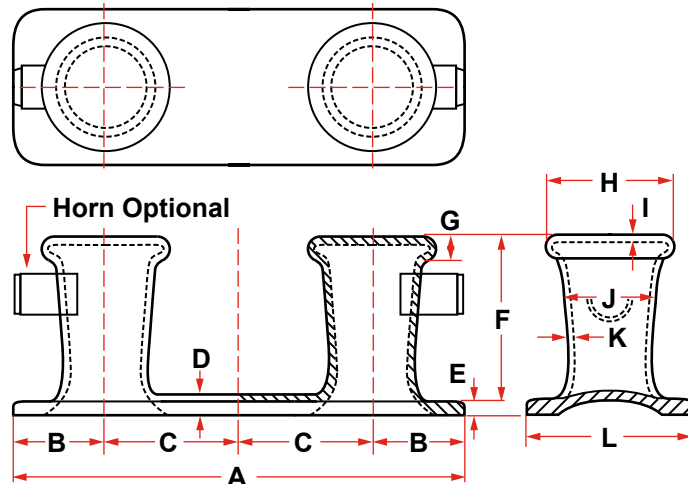


CAST STEEL SINGLE BITT

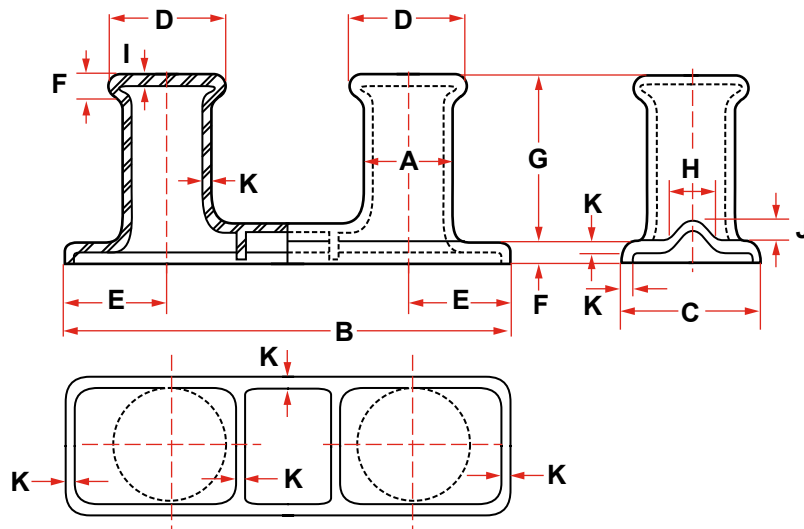
MODEL NO.	PART NO.	SIZE	DIMENSIONS (INCHES)										WEIGHT (LBS)
			A	B	C	D	E	F	G	H	I	J	
DF-588	87971	8	8	7	11	14-3/4	1-1/4	1	3/4	1-1/2	14	14	160

CAST STEEL DOUBLE BITTS

LARGER SIZES
AND TYPES
AVAILABLE
UPON REQUEST

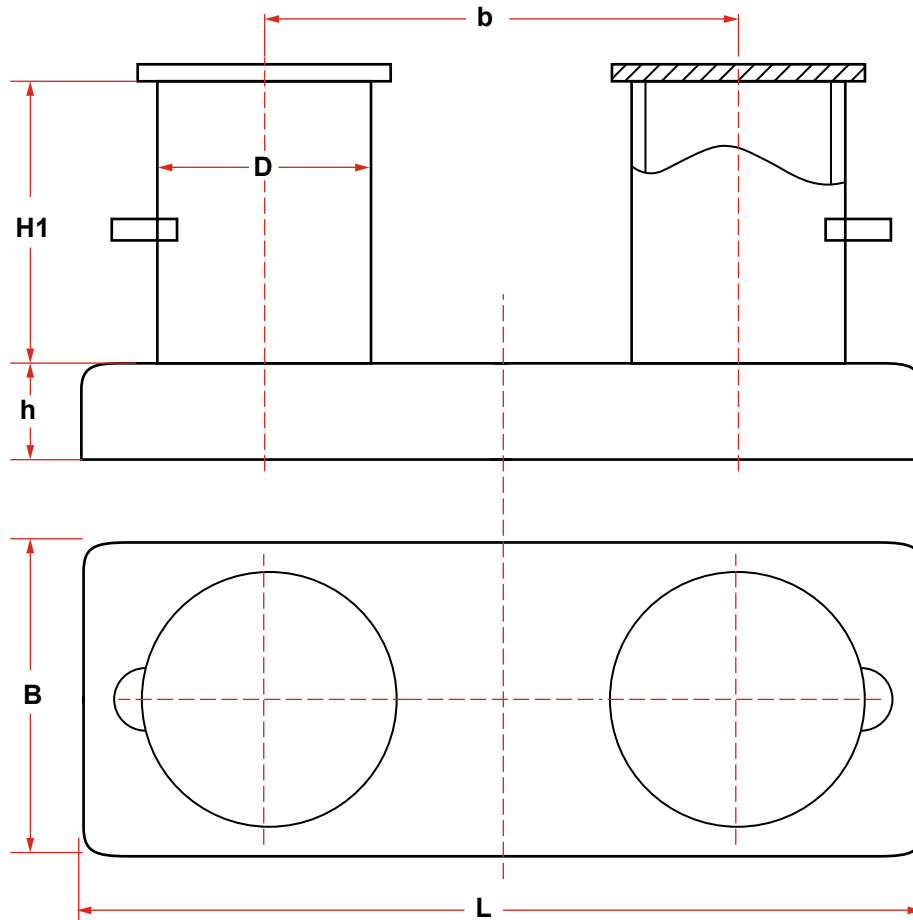


MODEL NO.	SIZE	DIMENSIONS (INCHES)												WEIGHT (LBS)
		A	B	C	D	E	F	G	H	I	J	K	L	
DF-2	8	40	8	12	2	1-1/4	16	2	11	5/8	7	5/8	14	320
DF-2A	w/ Horn													330
DF-40	10	45	9	13-1/2	2-1/4	1-1/4	18	2	13-1/2	3/4	9	1-1/4	15	545
DF-40A	w/ Horn													560



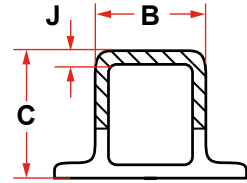
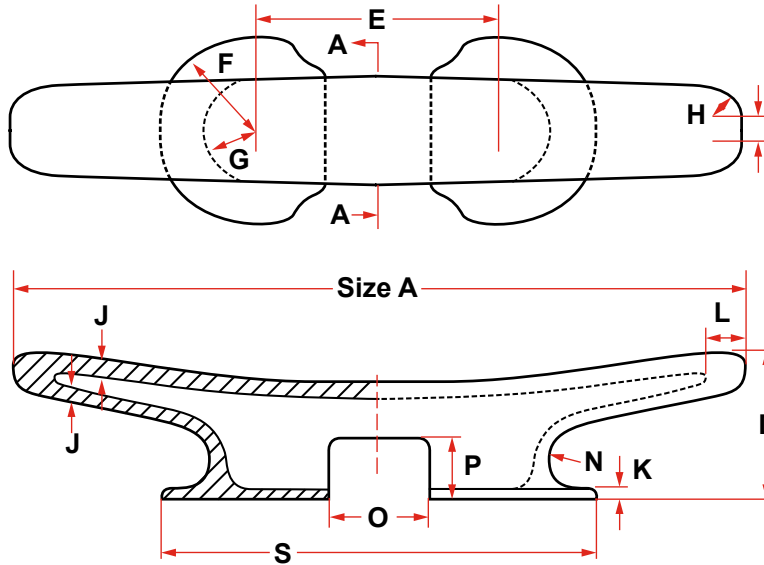
MODEL NO.	SIZE	DIMENSIONS (INCHES)											WEIGHT (LBS)
		A	B	C	D	E	F	G	H	I	J	K	
DF-491	12	12	60	18	15	13-1/2	3	22-1/2	6	1	2	1-1/4	990
DF-498	14	14	66	21	17-1/2	13	3-1/2	26-1/4	7	1	2	1-1/2	1350

DOUBLE BITTS, FABRICATED 8" TO 20" (JIS F-2001)



NOMINAL DIA.	DIMENSIONS (MM)						MAX B.L. OF ROPE (TON)	MASS (KG)
	D	H1	b	B	L	h		
100	114	150	250	165	445	50	3	19
125	139	190	315	195	540	60	4	29
160	165	250	400	225	670	70	5	45
200	216	300	500	290	860	85	8	80
250	267	380	630	360	1065	100	12	139
315	318	480	800	430	1300	125	20	261
355	355	530	890	480	1475	145	26	361
400	406	600	1000	550	1630	160	32	502
450	457	680	1130	620	1840	170	39	685
500	508	750	1250	690	2040	190	46	911
560	558	830	1380	750	2240	210	56	1208
630	609	940	1570	820	2510	225	70	1600
710	711	1050	1750	960	2840	260	82	2252
800	812	1200	2000	1100	3240	295	100	3071

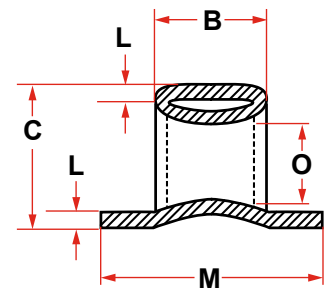
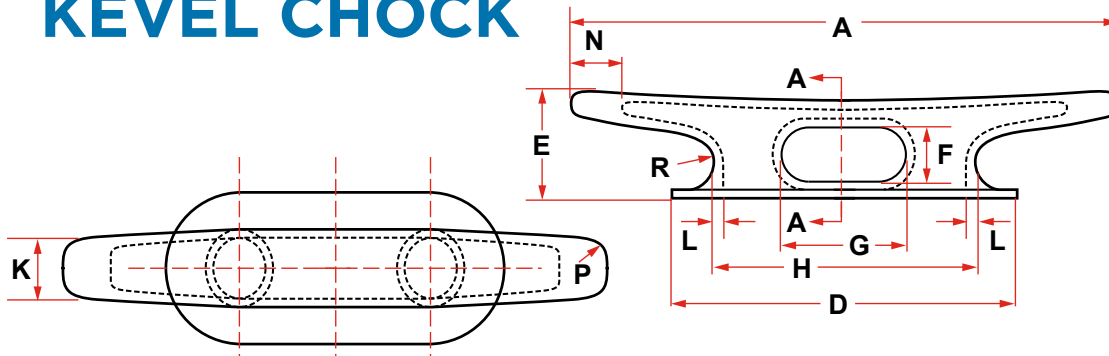
KEVEL



MATERIAL CAST STEEL

DIMENSIONS (INCHES)																
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	S
30	4	5	6-1/8	10	4	2	1-1/4	3/4	1/2	3/8	1-3/4	3/4	1	4	2-1/4	18
36	5	5-7/8	7-1/8	12	5	2-1/2	1-1/2	1	9/16	1/2	2-1/8	7/8	1-1/2	5	2-3/4	22
42	6	7	8-1/2	14	6	3	1-7/8	1-1/4	5/8	5/8	2-1/2	1	2	6	3-1/4	26
48	7	9	10	16	7	3-1/2	2	1-1/2	3/4	3/4	4	1-1/4	2-1/2	7	4	30
60	7	9	13	20	9	4-1/2	2	1-3/4	3/4	3/4	4	1-1/4	2-1/2	9	4	38

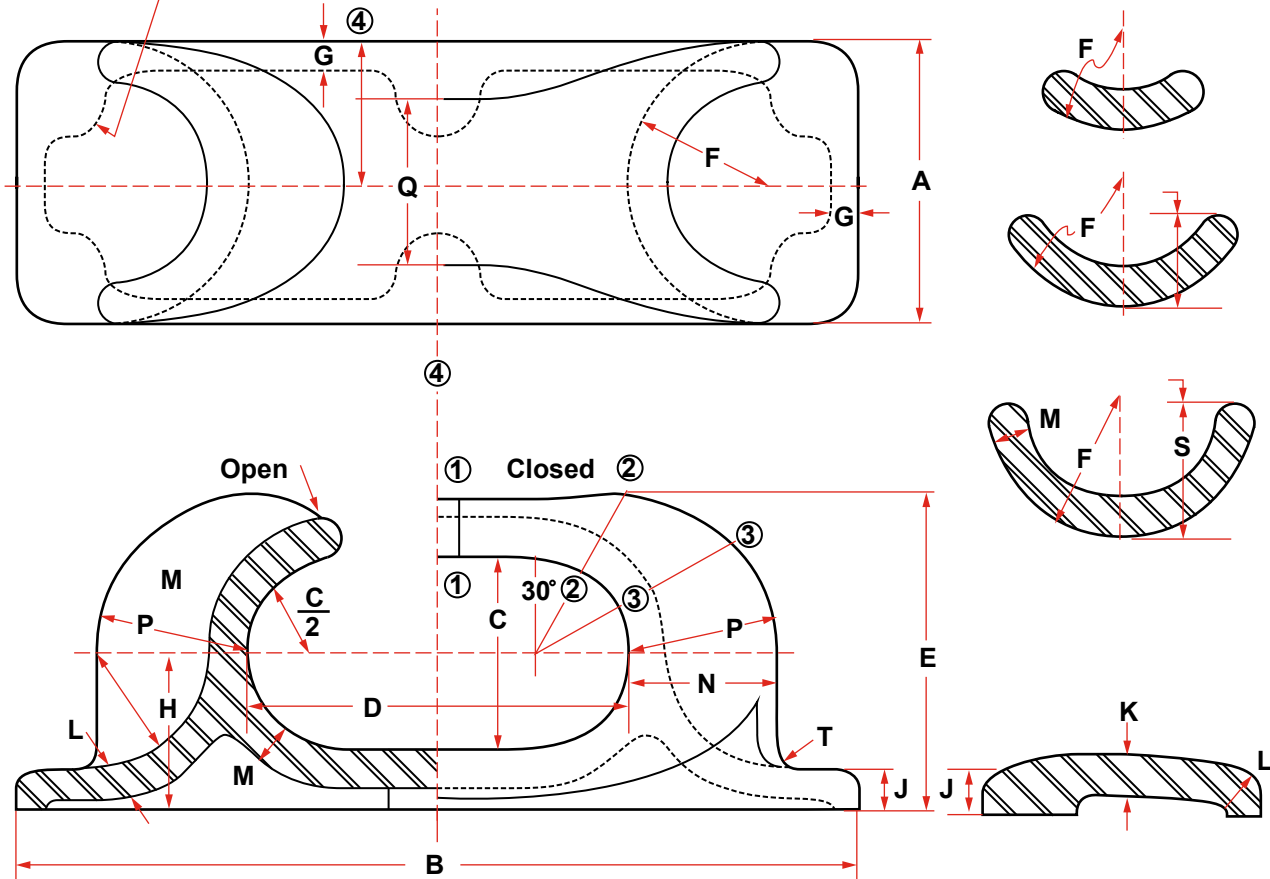
KEVEL CHOCK



DIMENSIONS (INCHES)															
A	B	C	D	E	F	G	H	K	L	M	N	O	P	R	T
24	3	4-1/2	17	6	1-1/2	5-1/2	11	1-1/2	1/2	8	2	1-1/2	1-1/8	1	3/4
30	4	5-5/8	20-1/4	7	2-3/8	6-7/8	14	3-1/4	1/2	9-1/2	2	2-3/8	1-1/4	1-3/8	7/8
36	5	6-3/4	23-1/2	8	3-1/4	8-1/4	17	4	9/16	11	2-1/2	3-1/4	1-1/2	1-3/4	1
42	6	7-7/8	26-3/4	9	4-1/8	9-5/8	20	4-3/4	5/8	12-1/2	2-3/4	4-1/8	1-7/8	2-1/8	1-1/8
48	7	9	30	10	5	11	23	5-1/2	3/4	14	4	5	2	2-1/2	1-1/4

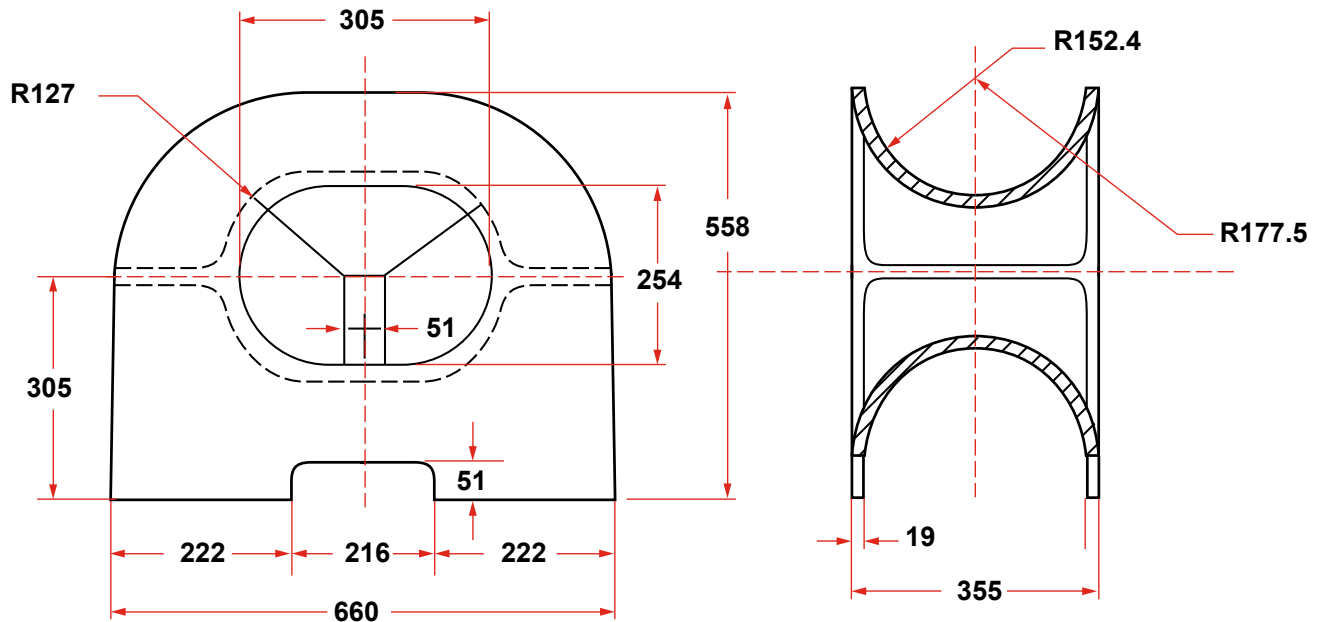
DECK MOUNT PLAIN CHOCK

Pads for Bolting to Wooden Dock Omitted Unless Specified on Order.

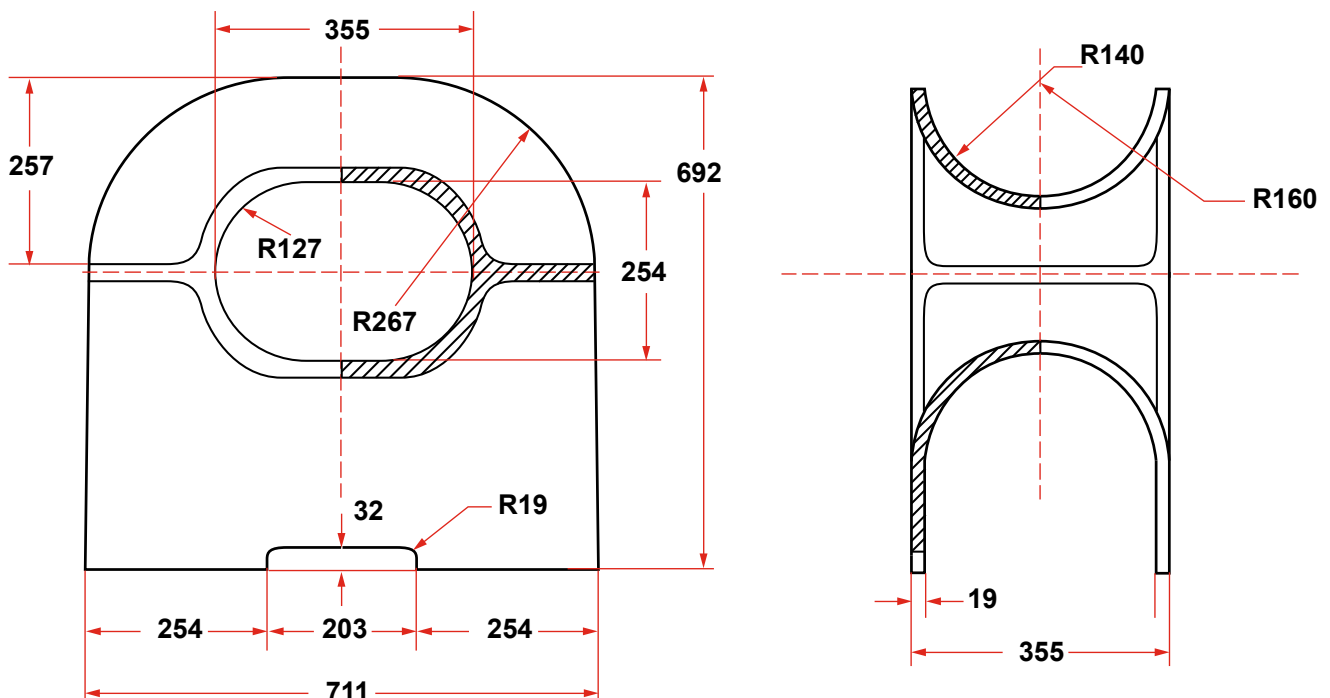


SIZE	DIMENSIONS (INCHES)																
A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T
6	19-3/4	4	8	6-3/4	3	3/4	3-3/8	1	1-3/8	3/4	1	3-1/4	3-3/8	3-1/2	1-7/8	2-7/8	3/8
7	22-3/8	4-3/8	9-1/4	7-7/8	3-1/2	3/4	3-15/16	1-3/16	1-3/8	7/8	1-1/8	3-13/16	3-15/16	4-1/8	2-3/16	3-15/16	3/8
8	25-1/4	5-3/8	10-3/4	9	4	7/8	4-1/2	1-5/16	1-13/16	1	1-1/4	4-3/8	4-1/2	4-3/4	2-9/16	3-3/4	1/2
9	27-3/4	6	12	10-1/8	4-1/2	7/8	5-1/16	1-1/2	2-1/16	1-1/8	1-3/8	4-7/8	5-1/16	5-1/4	2-7/8	4-1/4	1/2
10	30-3/8	6-5/8	13-1/4	11-1/8	5	1	5-1/2	1-9/16	2-3/16	1-1/4	1-1/2	5-7/16	5-3/8	5-7/8	3-3/16	4-3/4	5/8
11	33-1/4	7-3/8	14-3/4	12-1/4	5-1/2	1	6-1/16	1-11/16	2-3/8	1-3/8	1-5/8	6	6-3/16	6-1/2	3-1/2	5-1/4	5/8
12	36	8	16	13-3/8	6	1-1/4	6-5/8	1-7/8	2-5/8	1-1/2	1-3/4	6-1/2	6-3/4	7	3-7/8	5-3/4	3/4
14	42	9-3/8	18-3/4	15-5/8	7	1-1/4	7-3/4	2-3/16	3-1/16	1-3/4	2	7-5/8	7-7/8	8-1/4	4-1/2	6-11/16	7/8
18	54	12	24	20	9	1-1/2	9-7/8	2-3/4	3-7/8	2-1/4	2-1/2	10-1/8	10-1/8	10-1/2	5-3/4	8-5/8	1-1/8

CHOCKS - DECK MOUNTED, SIZE 10" X 12"

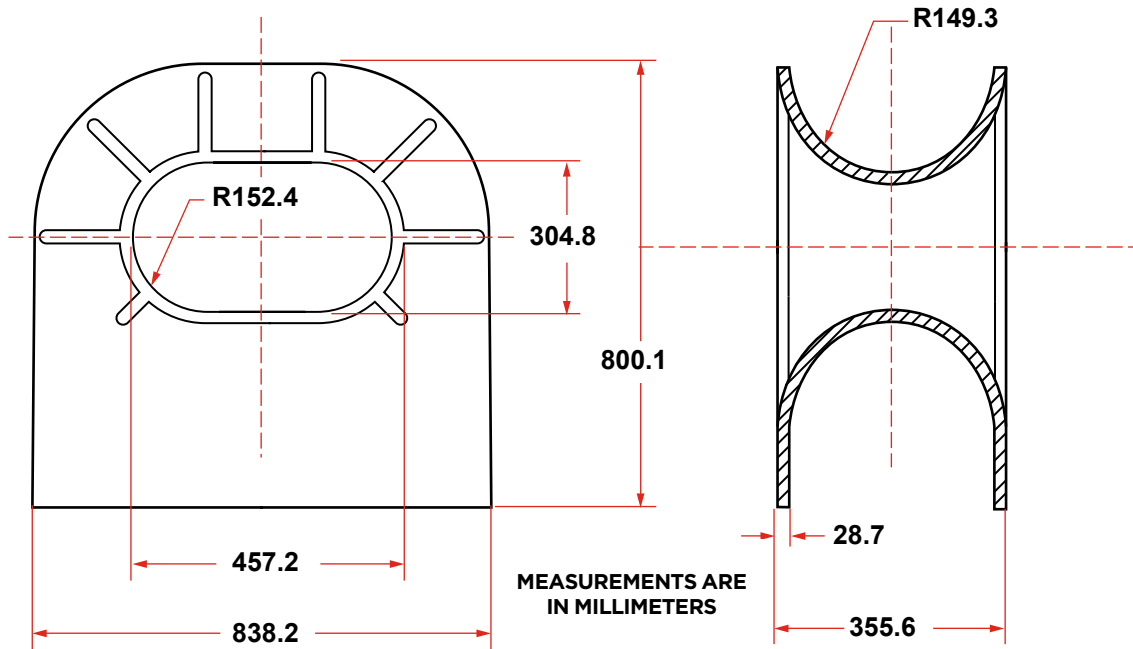


CHOCKS - DECK MOUNTED, SIZE 10" X 14"

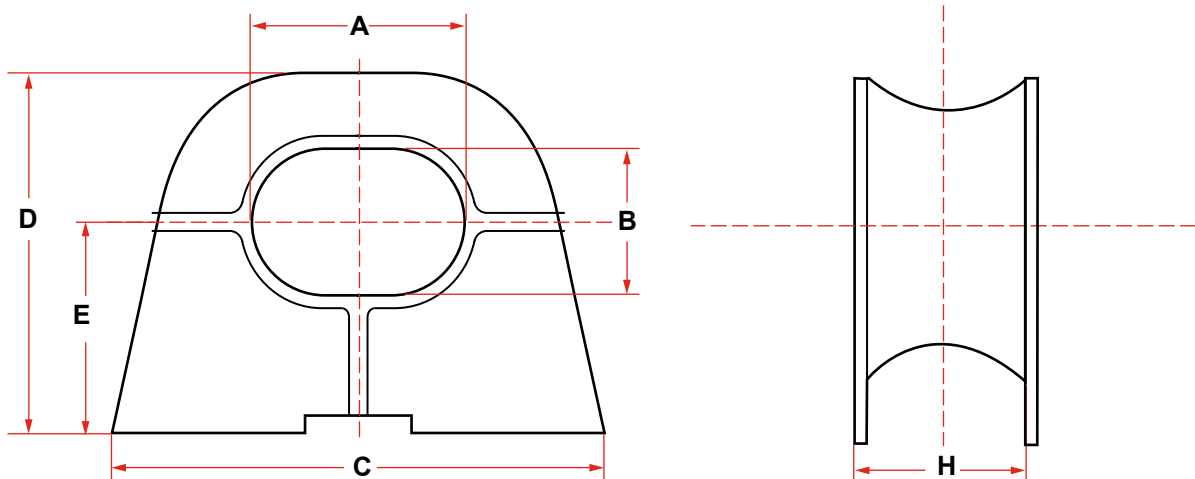


MEASUREMENTS ARE IN MILLIMETERS

CHOCKS - DECK MOUNTED, SIZE 12" X 18"



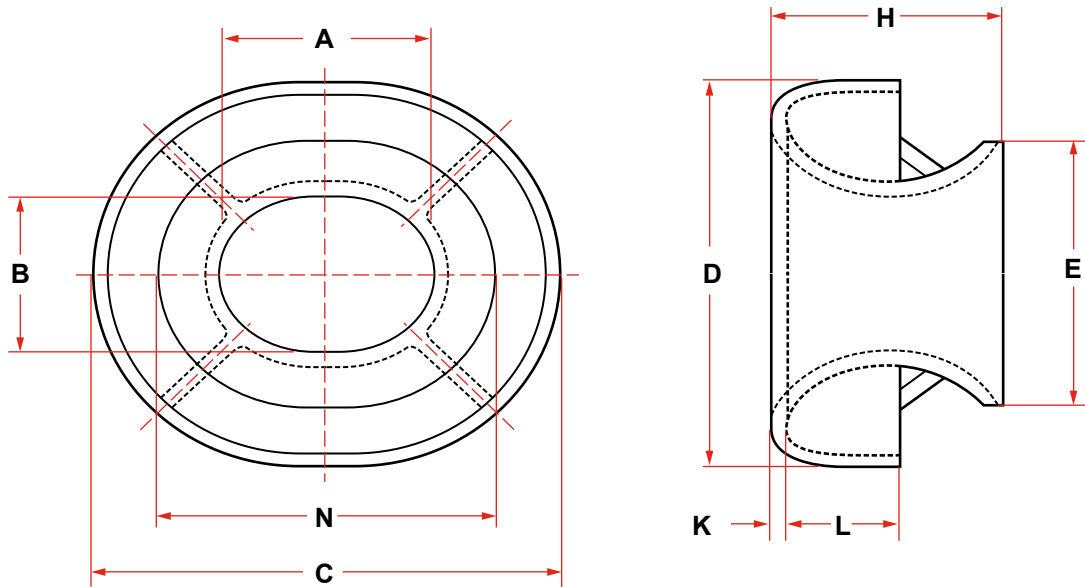
CHOCKS - DECK MOUNTED, TYPE EU SIZES 10" X 12" - 18" X 24"



DIMENSIONS (MM)							MASS (KG)
NOMINAL SIZE	A	B	C	D	E	H	
315 x 250	315	250	815	620	365	380	230
425 x 280	425	280	1075	785	450	500	378
600 x 315	600	315	1360	865	507	560	598
600 x 450	600	450	1360	1000	575	560	655
600 x 450	600	450	1560	1200	675	760	780

BULWARK MOUNTED PANAMA CHOCK

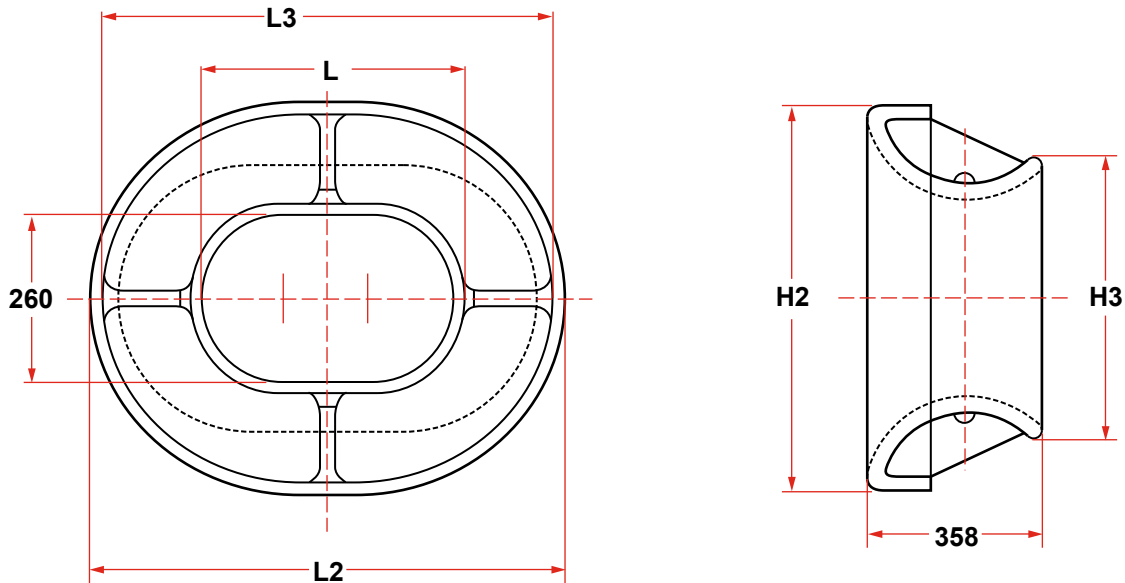
EU TYPE



DIMENSIONS (MM)									MASS (KG)
A	B	C	D	E	H	K	L	N	
315	250	695	630	432	342	22	168	497	198
425	280	925	780	516	450	26	224	661	358
600	315	1160	875	571	504	30	250	866	547
600	450	1160	1010	706	504	30	250	866	629
600	450	1360	1160	1060	504	30	250	1260	813

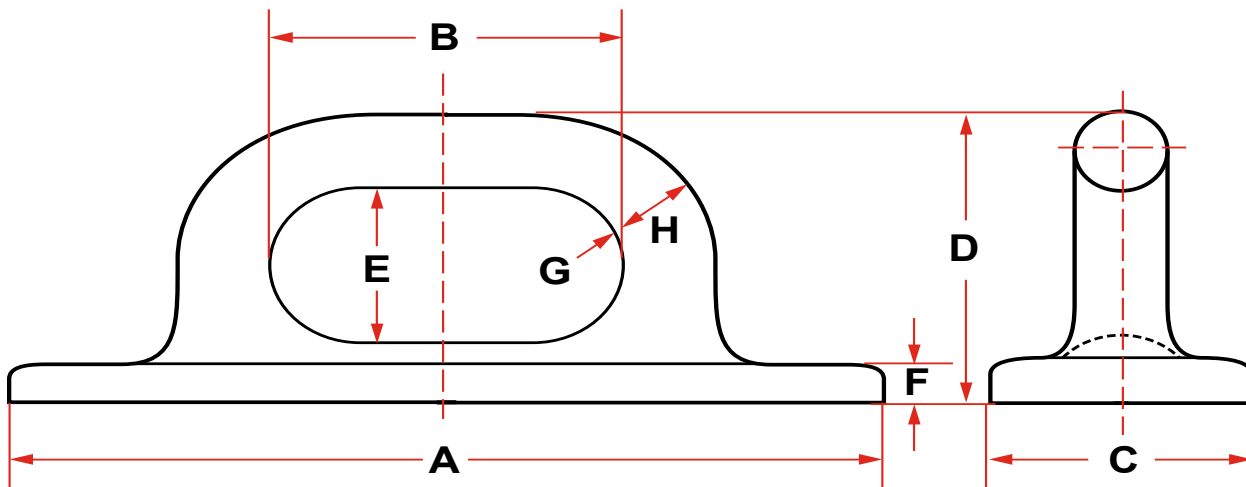
BULWARK MOUNTED PANAMA CHOCK

(JIS F-2017 TYPE BC)

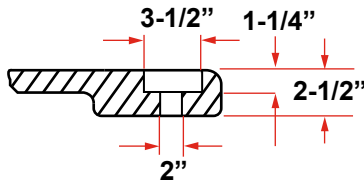
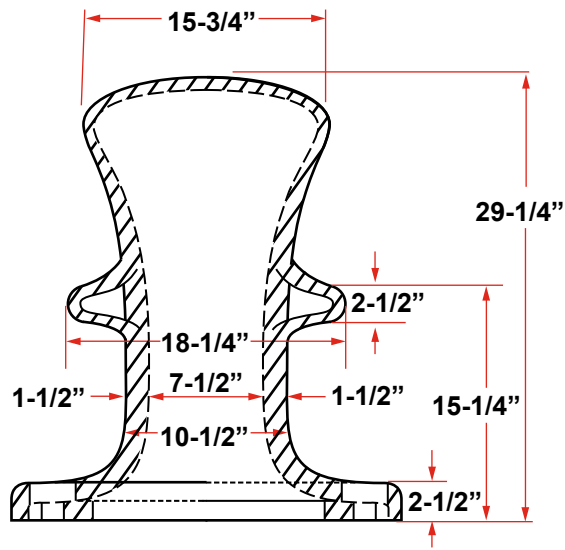


DIMENSIONS (MM)						MASS (KG)
NOMINAL SIZE	L	L2	L3	H2	H3	
310	310	734	652	684	462	276
360	360	788	701	688	464	305
400	400	832	750	692	470	344
450	450	888	802	696	474	385
500	500	940	854	700	478	422

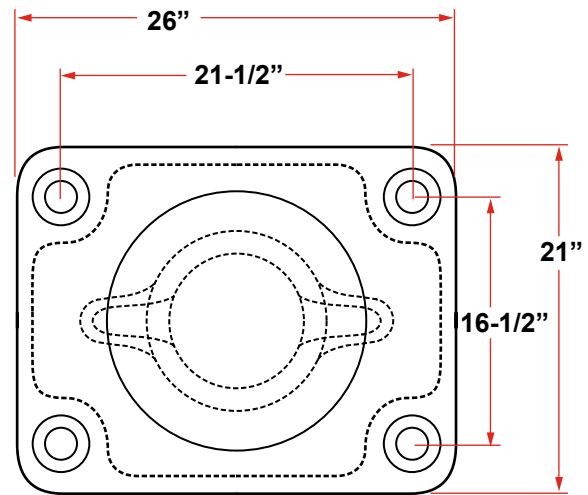
CAST STEEL D-RING



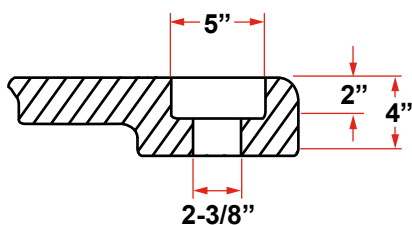
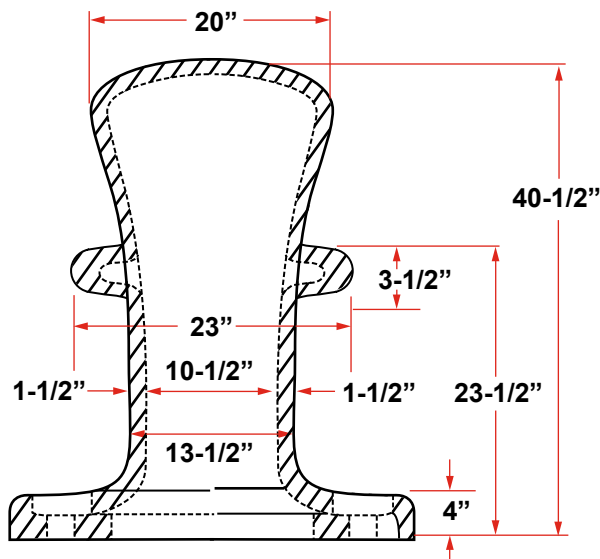
MODEL NO.	A	B	C	D	E	F	G	H	WEIGHT (LBS)
DF-196	20	8	6	7-5/8	4	1	2	2-1/8	55



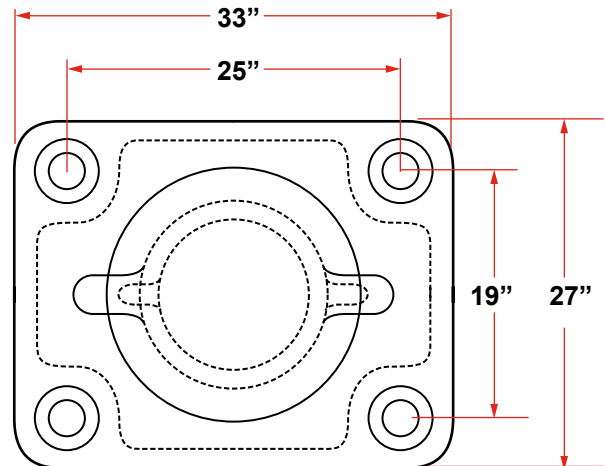
2" Ø CORE FOR
1-3/4" Ø BOLT



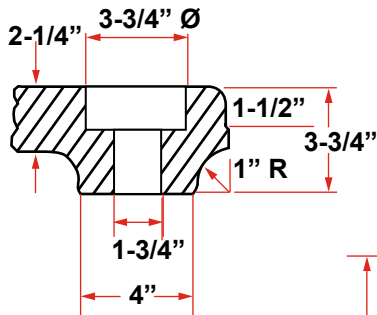
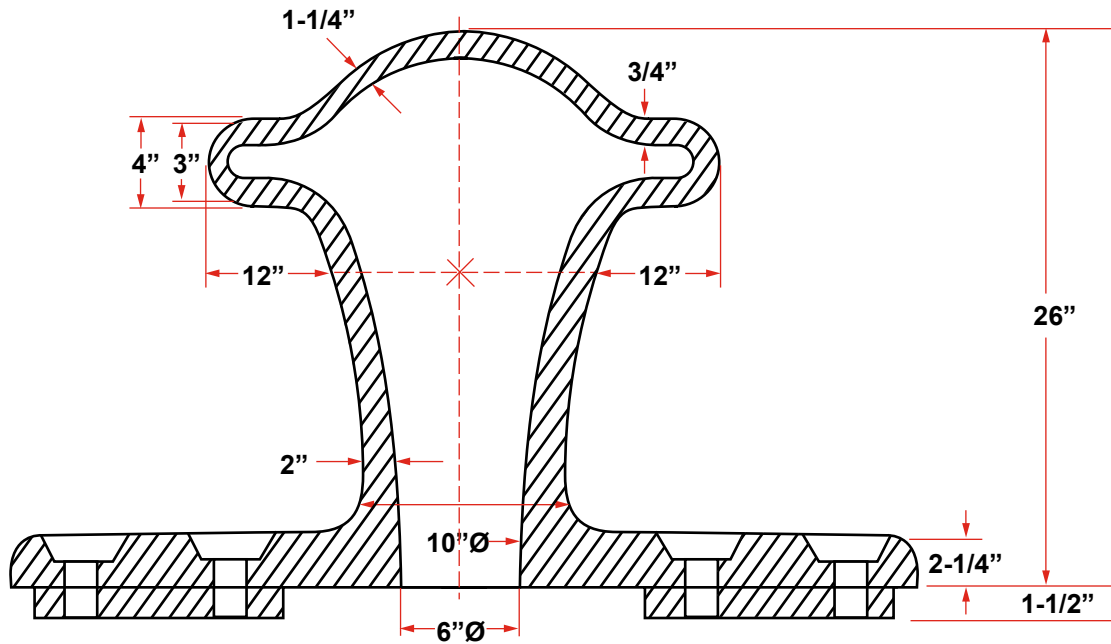
20 TON BOLLARD AMB-20



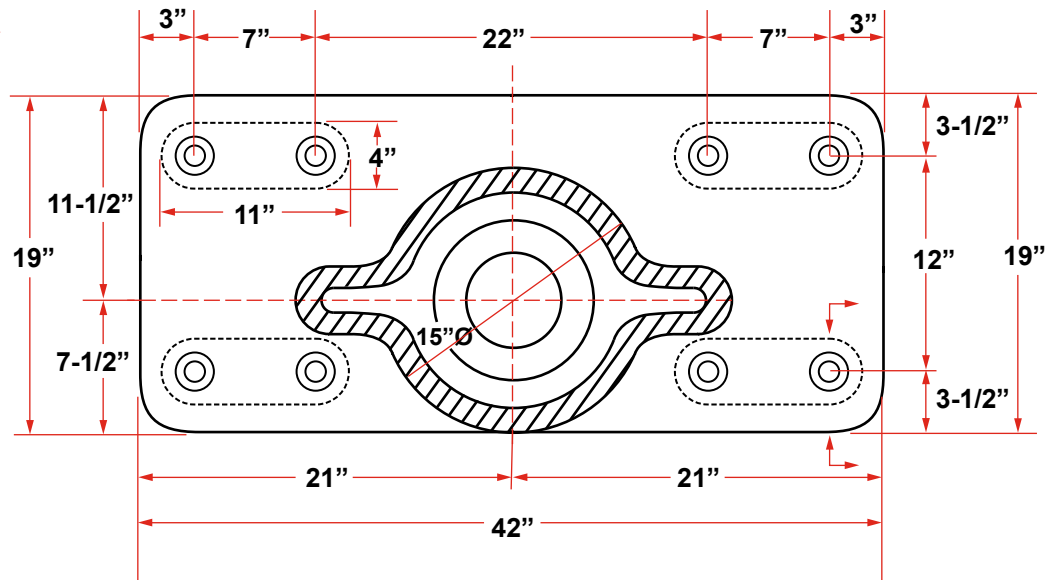
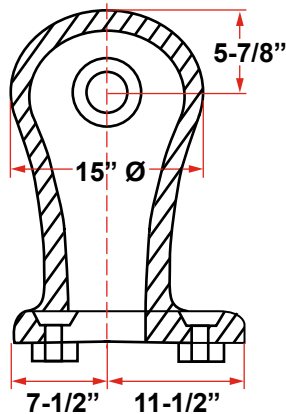
2-3/8" Ø CORE FOR
2-1/4" Ø BOLT



25 TON BOLLARD AMB-25

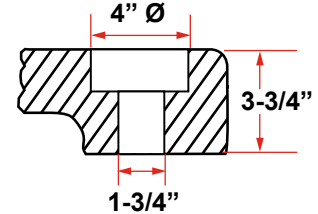
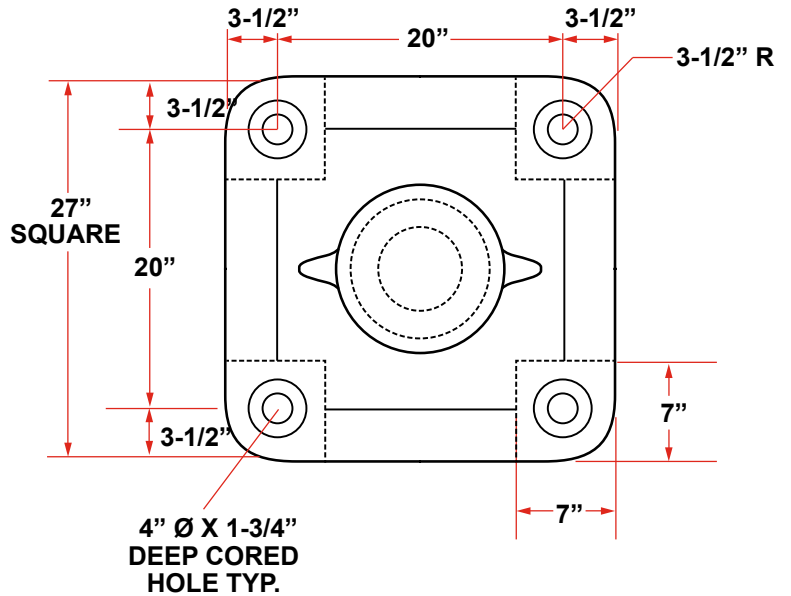
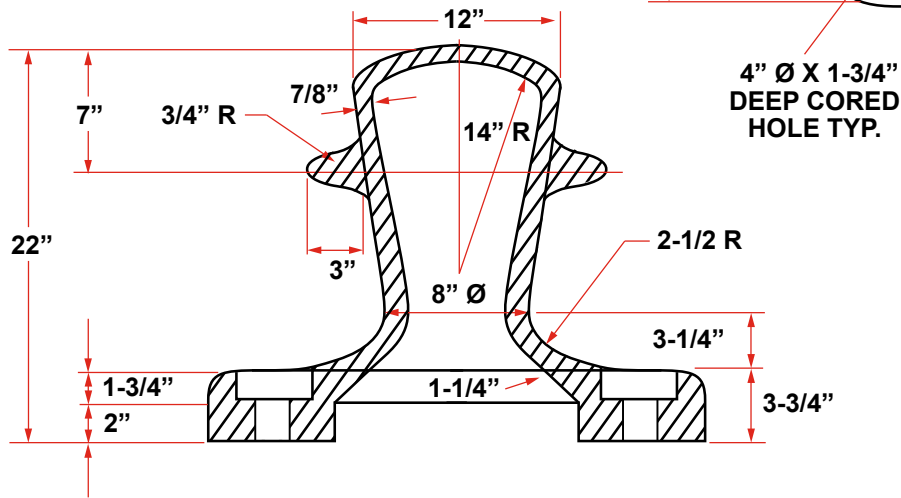


1-3/4" Ø CORE FOR
1-1/2" Ø BOLT



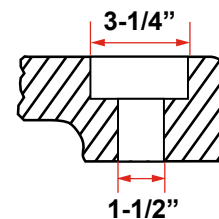
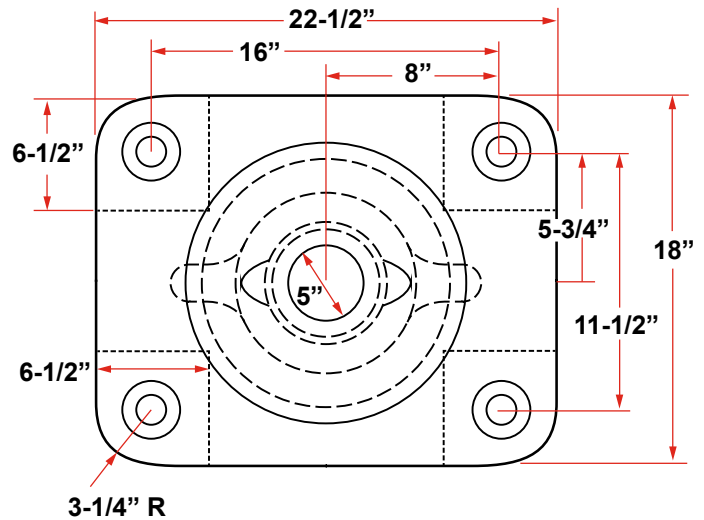
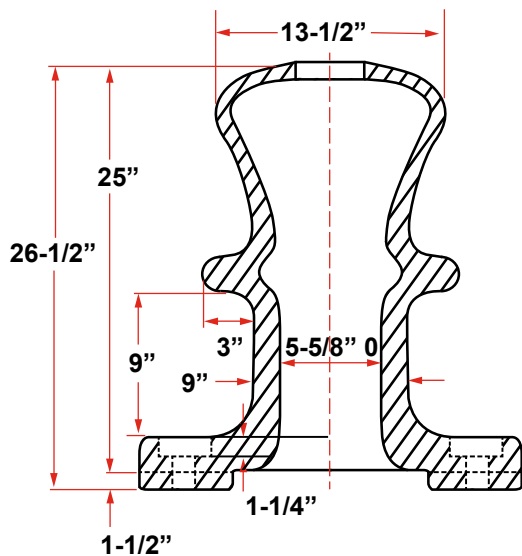
**40 TON BOLLARD
AMB-40**

40 TON BOLLARD AMB-40A

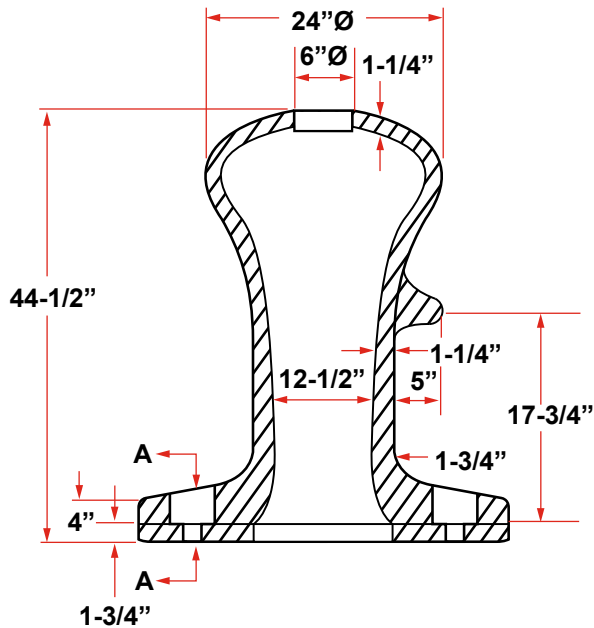


1-3/4" Ø CORE FOR
1-1/2" Ø BOLT

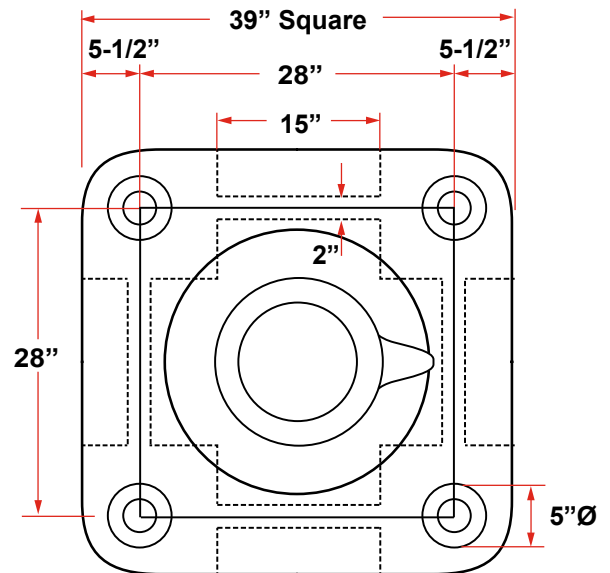
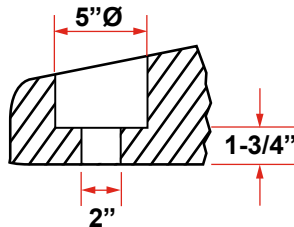
45 TON BOLLARD AMB-45



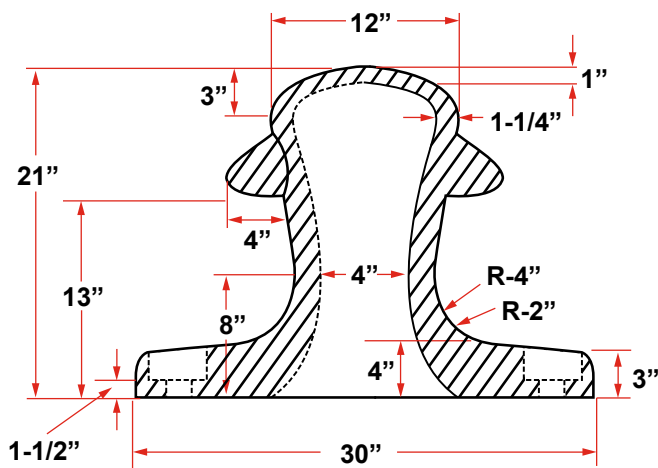
1-1/2" Ø CORE FOR
1-1/4" Ø BOLT



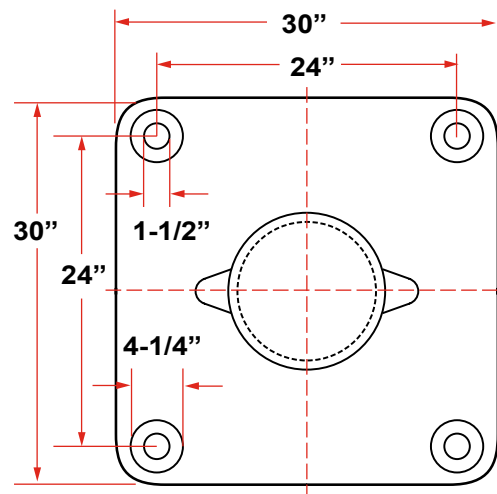
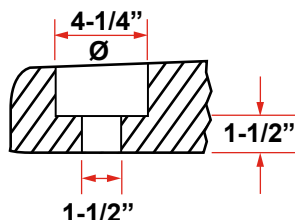
2" Ø CORE FOR
1-3/4" Ø BOLT



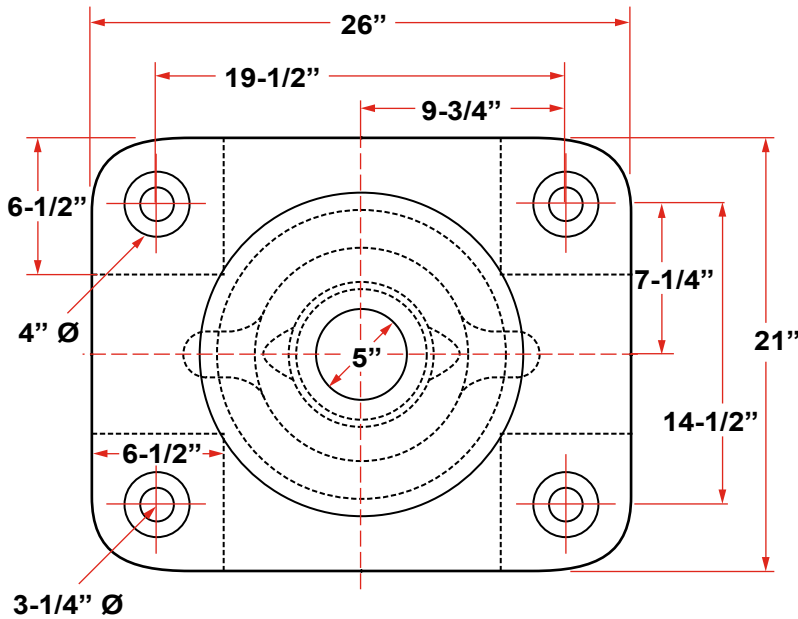
50 TON BOLLARD AMB-50



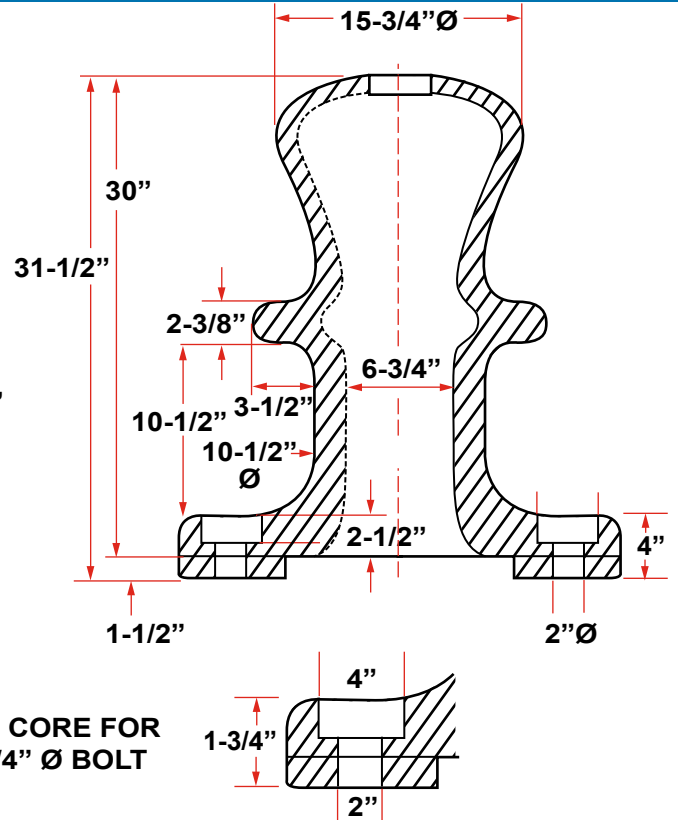
1-1/2" Ø CORE FOR
1-1/4" Ø BOLT



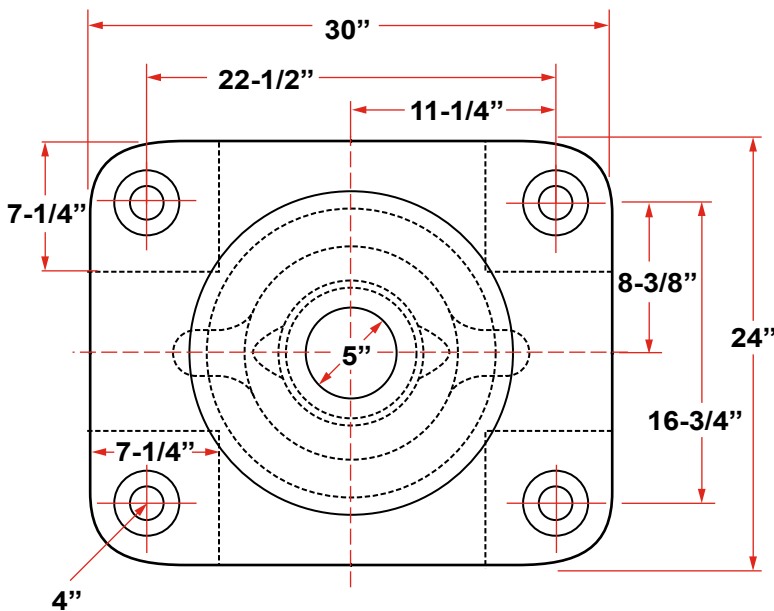
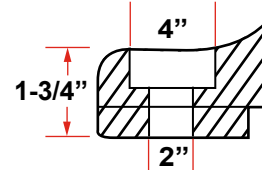
50 TON BOLLARD AMB-50A



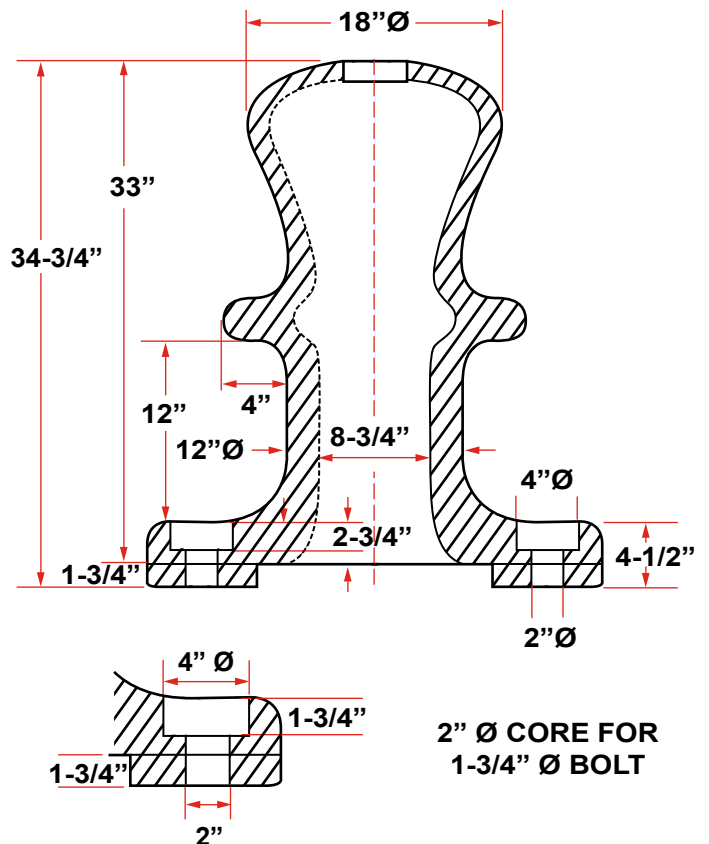
**55 TON BOLLARD
AMB-55**



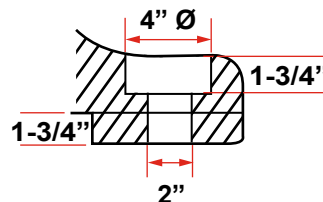
2" Ø CORE FOR
1-3/4" Ø BOLT

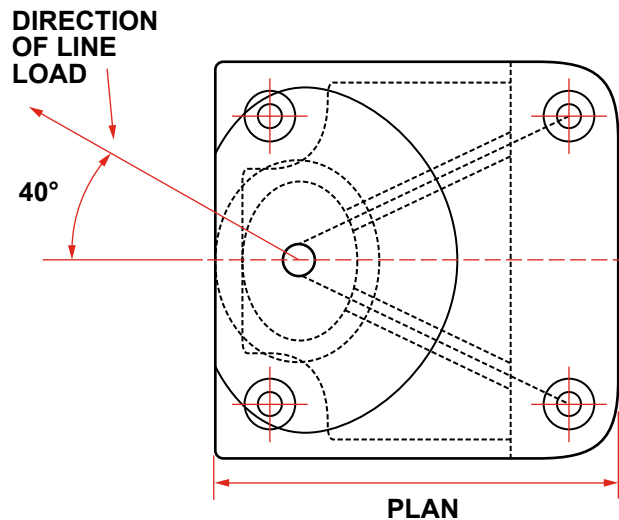
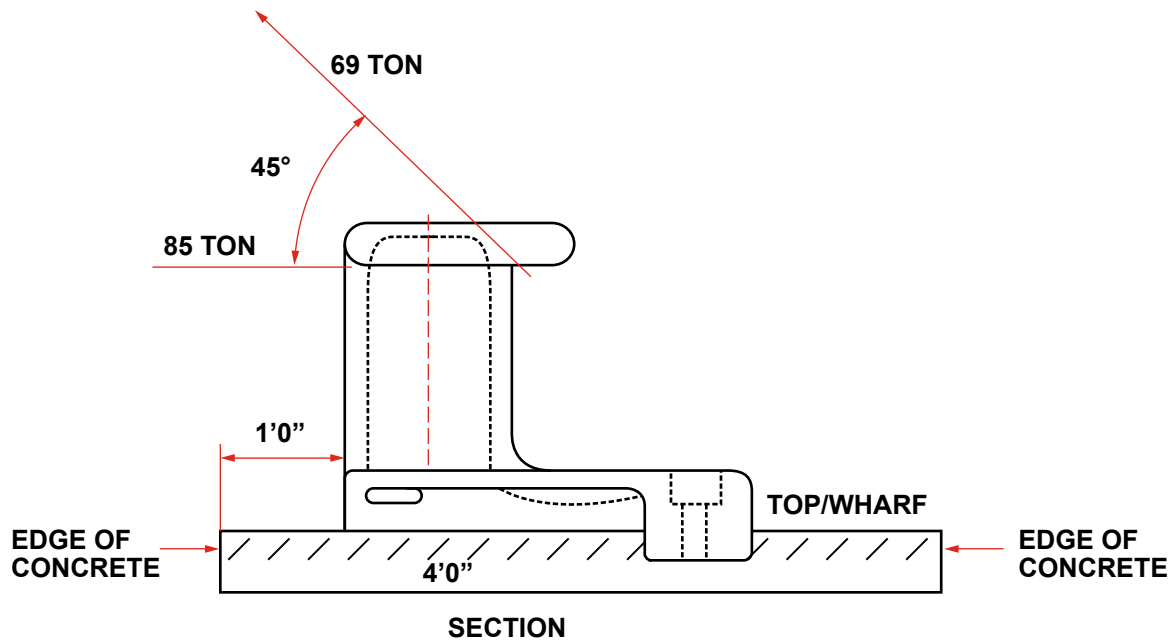


**65 TON BOLLARD
AMB-65**

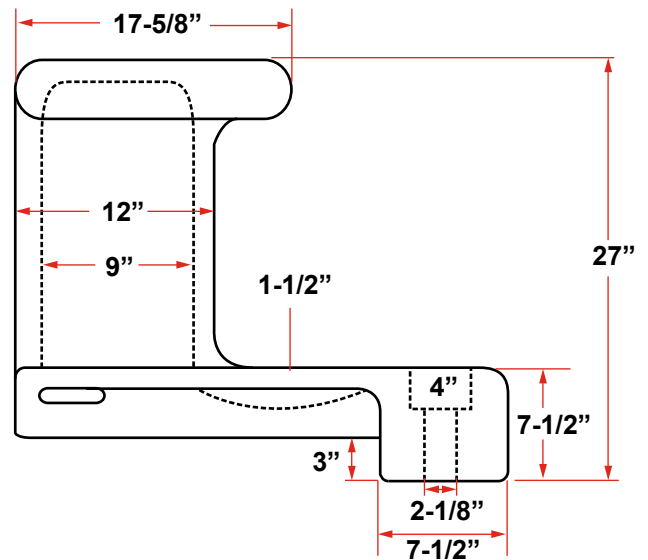
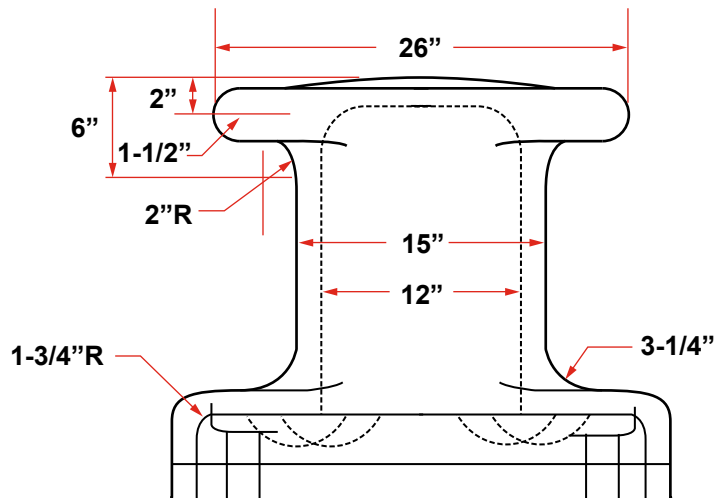
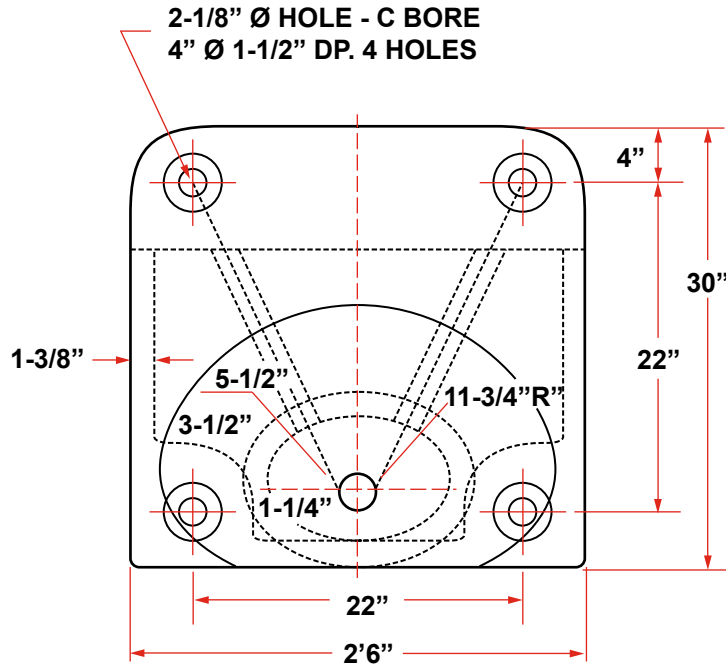


2" Ø CORE FOR
1-3/4" Ø BOLT



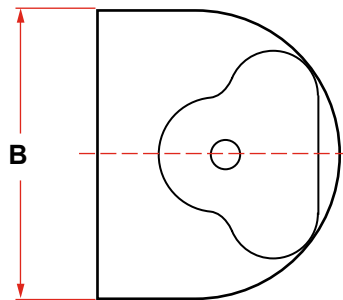
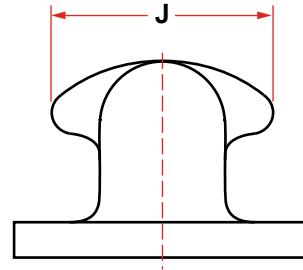
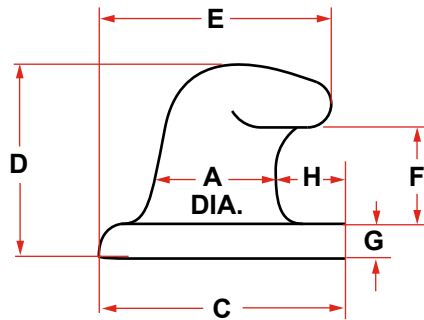


T-HEAD BOLLARD MOORING LINE LOAD



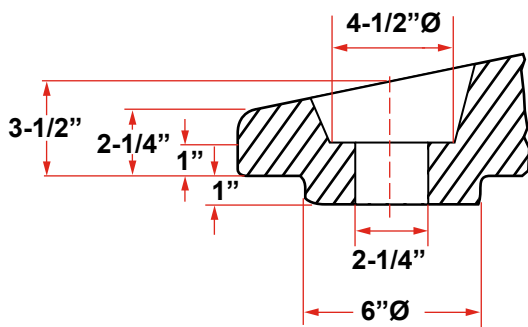
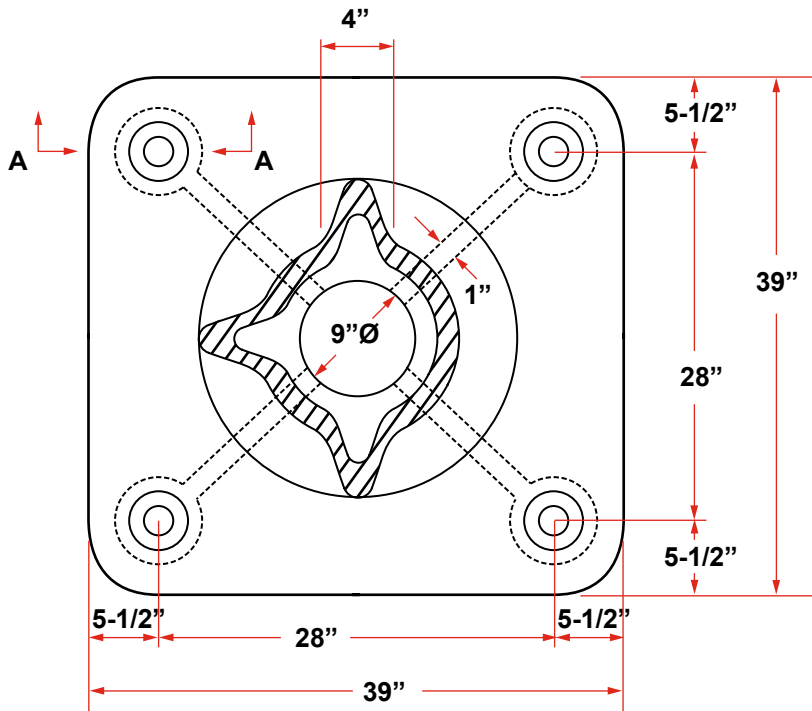
2 1/8" Ø CORE FOR
2" Ø BOLTS

70 TON BOLLARD AMB-70

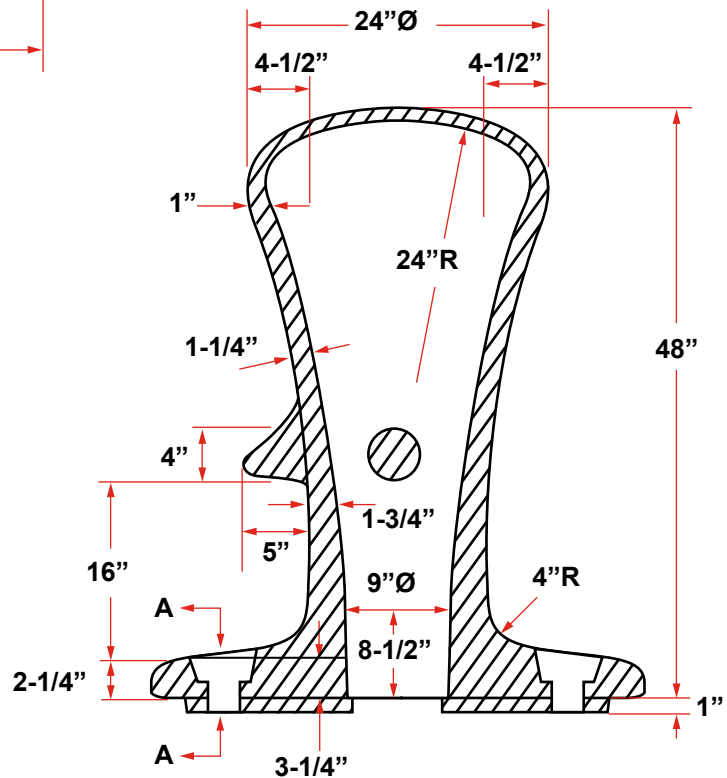


T-HEAD BOLLARD MOORING BOLLARD

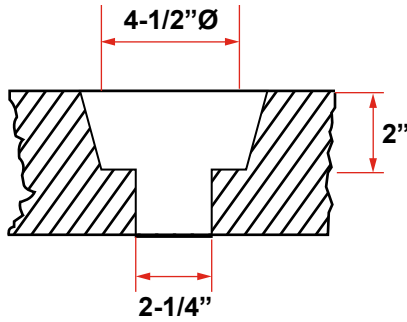
APPROXIMATE DIMENSIONS (INCHES)										
Load Tons	Type No.	A	B	C	D	E	F	G	H	J
50	X-5-A	11-3/4	31-1/2	25-1/2	19	22-1/2	9-1/2	3	8	23-1/2
75	X-9-A	13-1/2	31-1/2	28-1/4	20	24-1/4	10-1/4	3-1/2	8-3/4	25-1/2
100	X-10-A	14-3/4	39-1/4	32	23-1/2	28	12	4	10-3/4	29-1/2
150	X-15-A	17	42-1/2	35-1/2	26-1/4	32-3/4	13-3/4	4-3/8	11	31-1/2



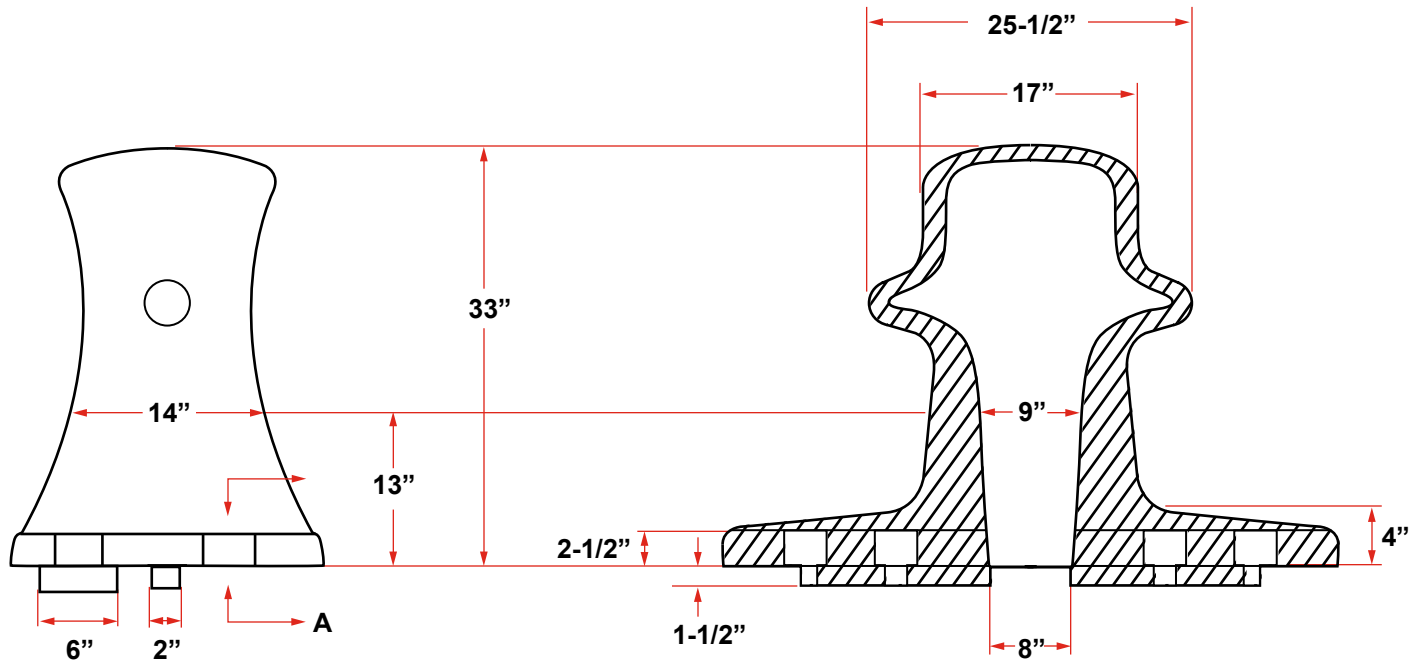
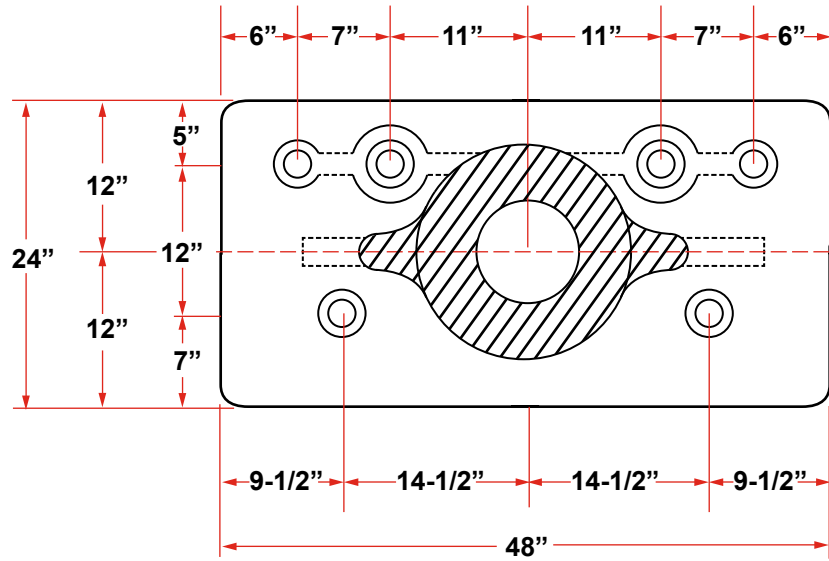
2-1/4" CORE HOLES FOR
2" Ø BOLTS



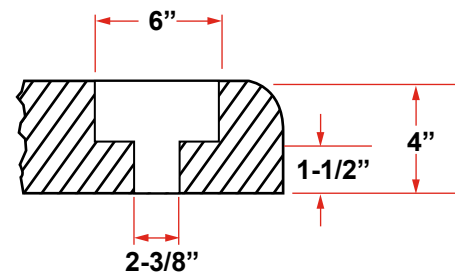
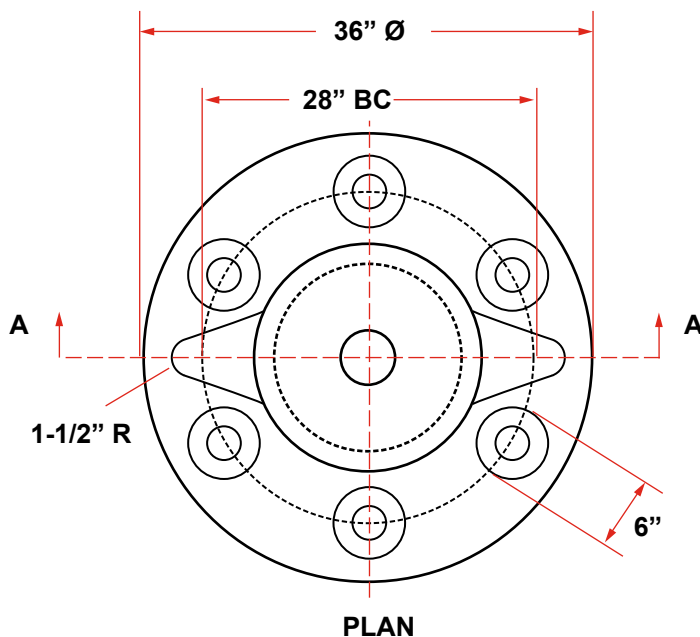
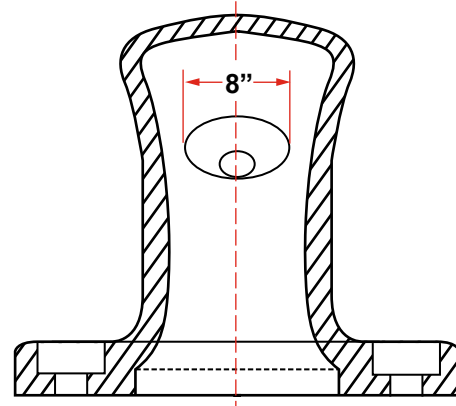
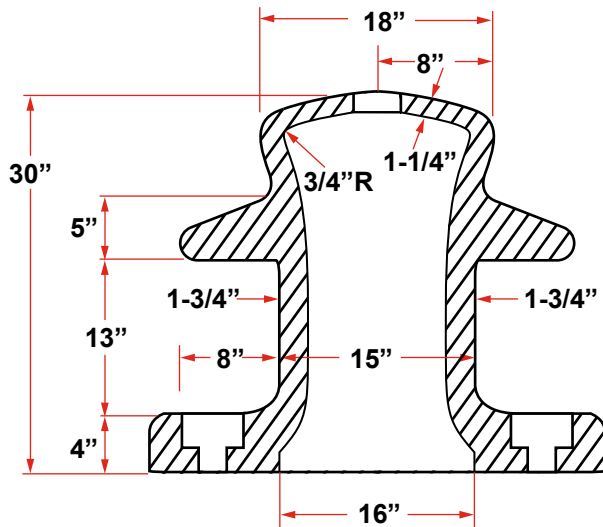
80 TON BOLLARD AMB-80



2-1/4" Ø CORE FOR
2" Ø BOLT

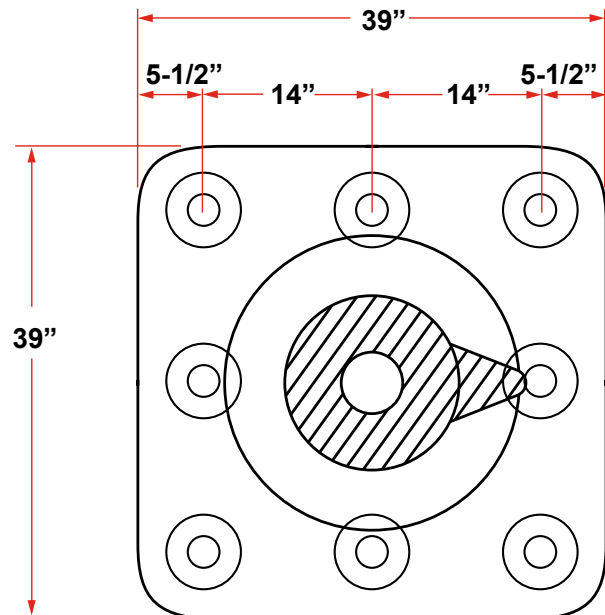
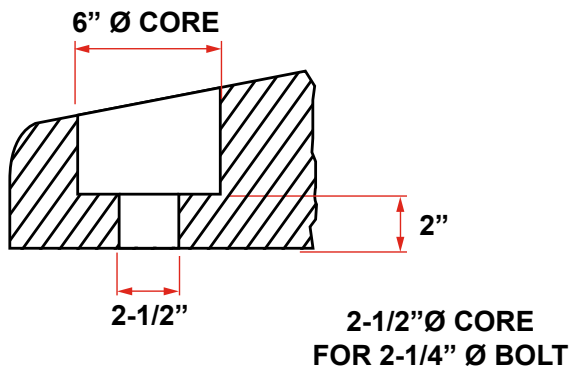
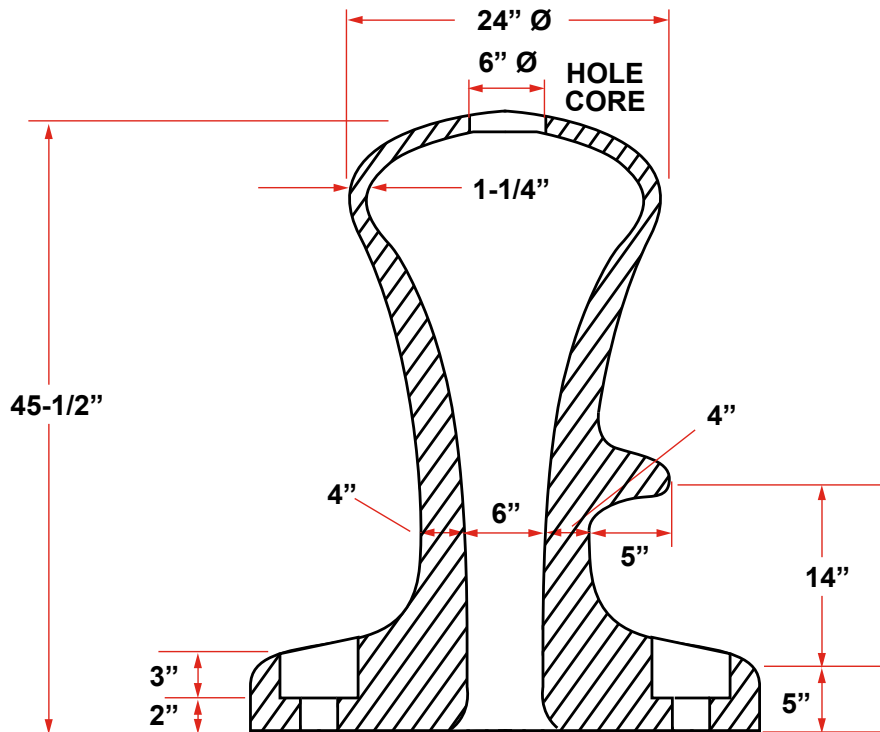


90 TON BOLLARD AMB-90

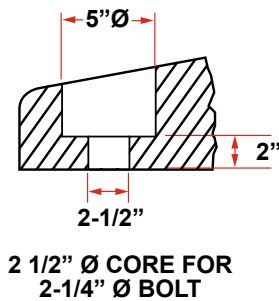
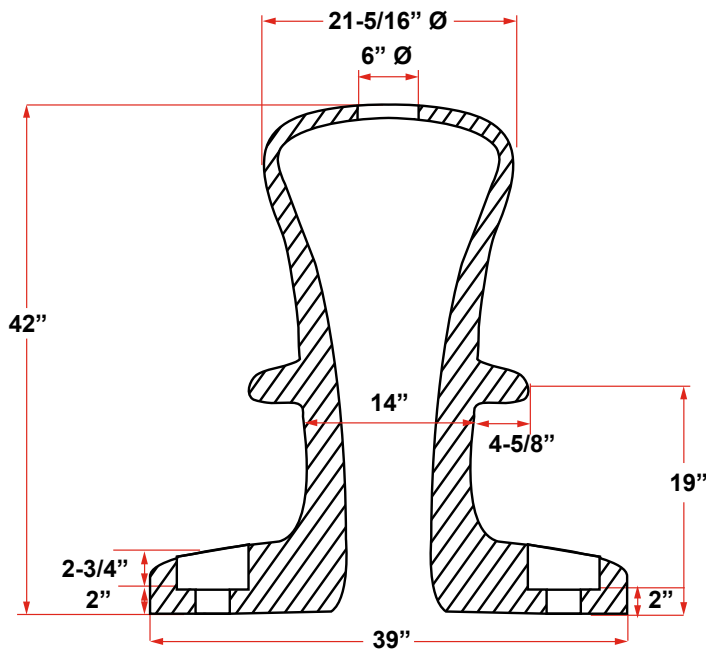
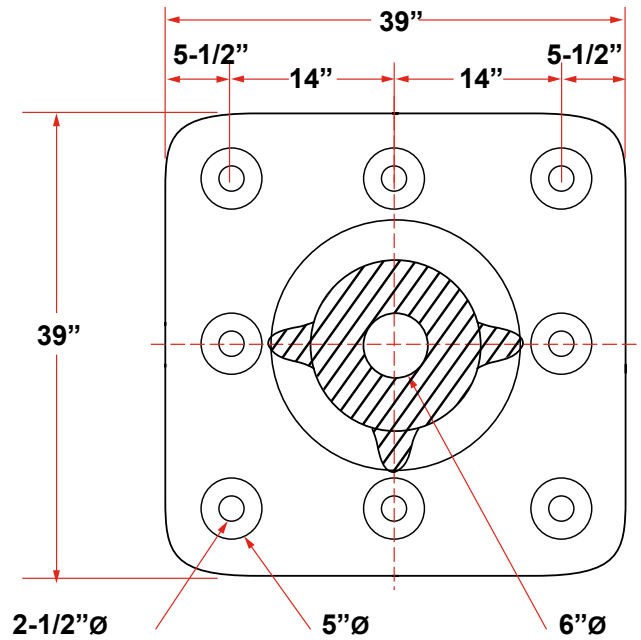


2-3/8" Ø CORE FOR
2-1/4" Ø BOLT

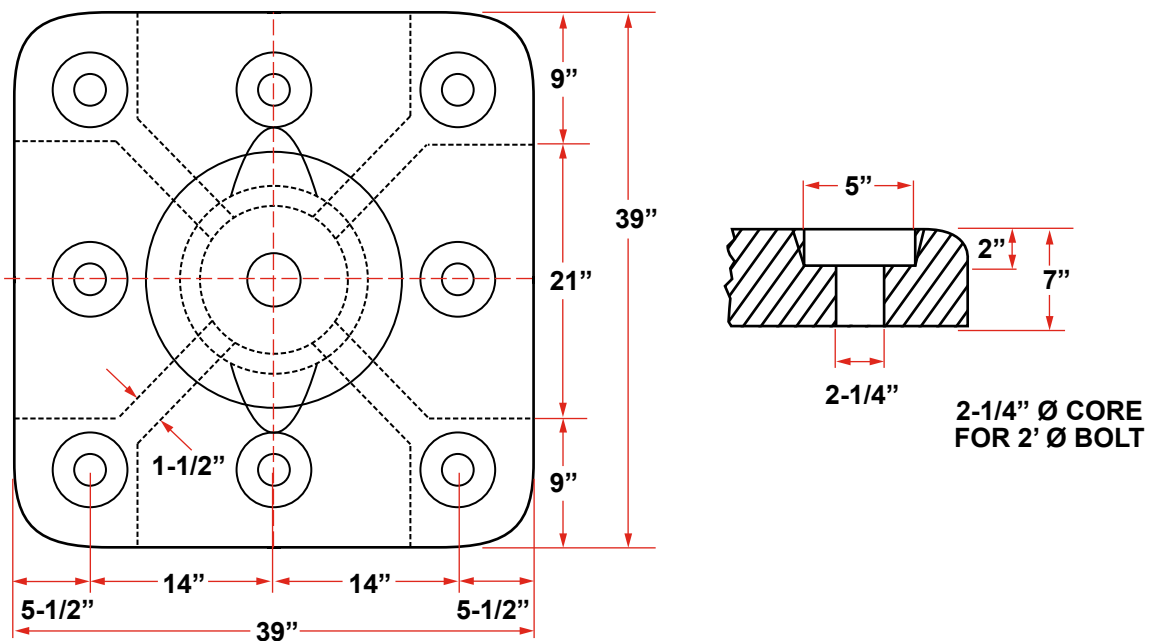
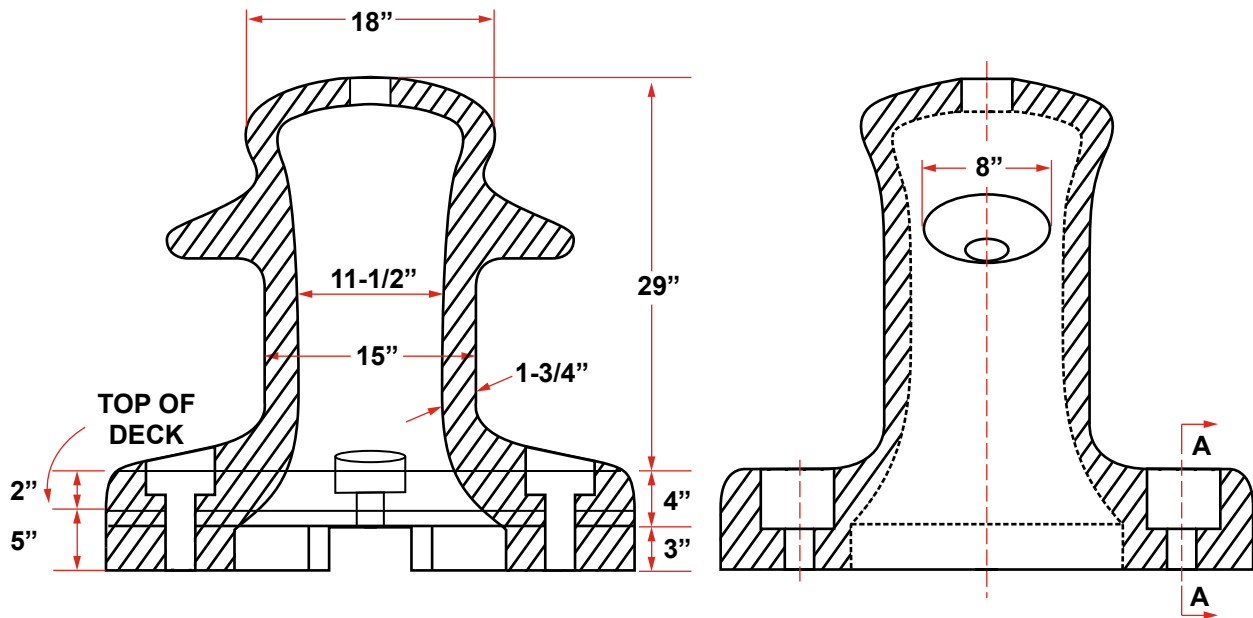
100 TON BOLLARD AMB-100



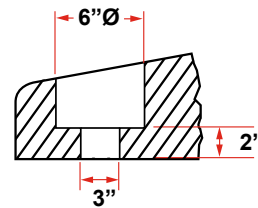
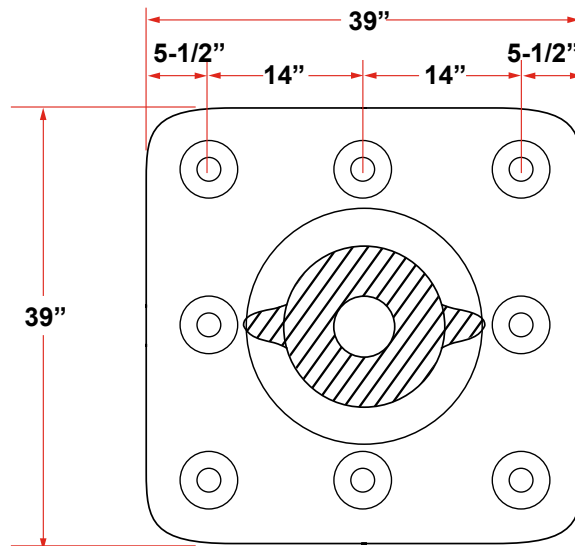
100 TON BOLLARD AMB-100A



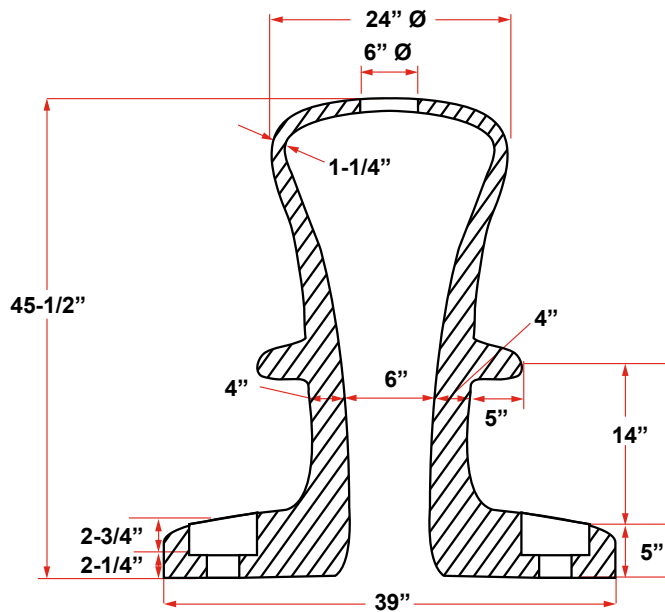
100 TON BOLLARD AMB-100B



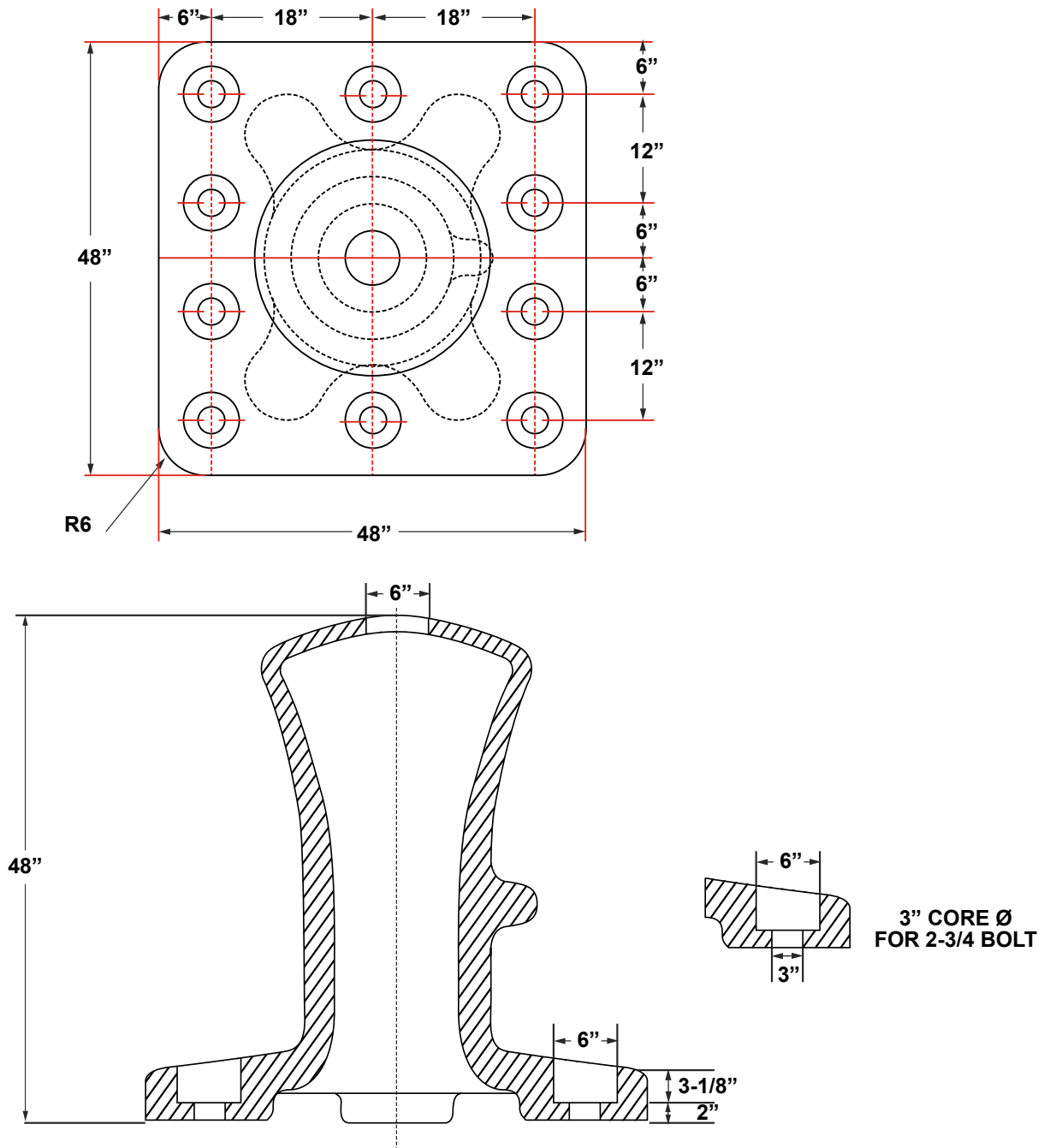
125 TON BOLLARD AMB-125



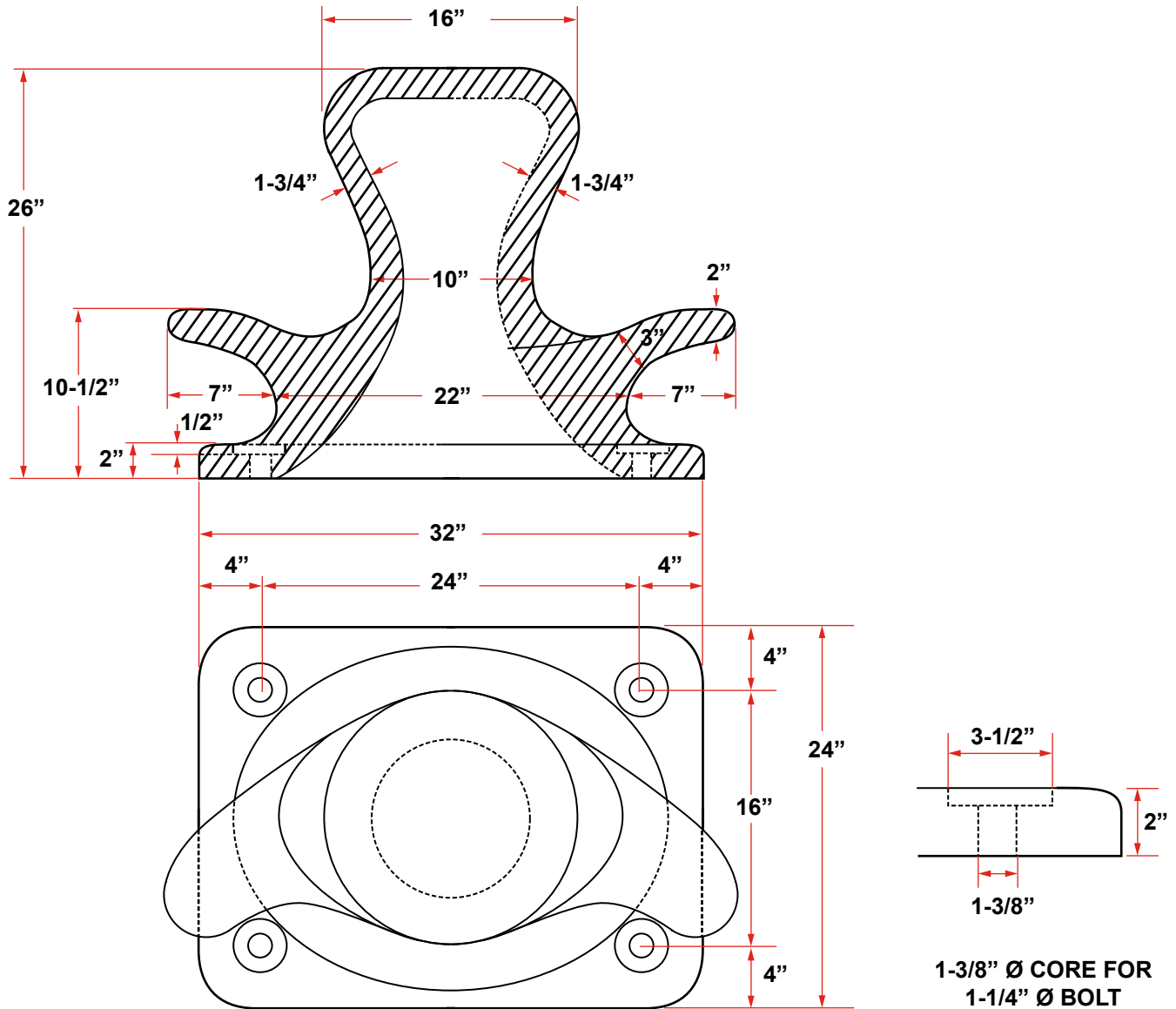
3" Ø CORE FOR
2-3/4" Ø BOLT



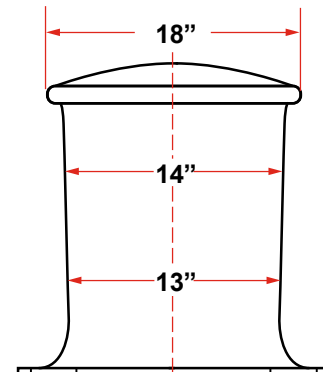
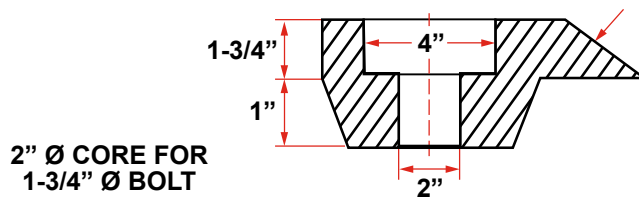
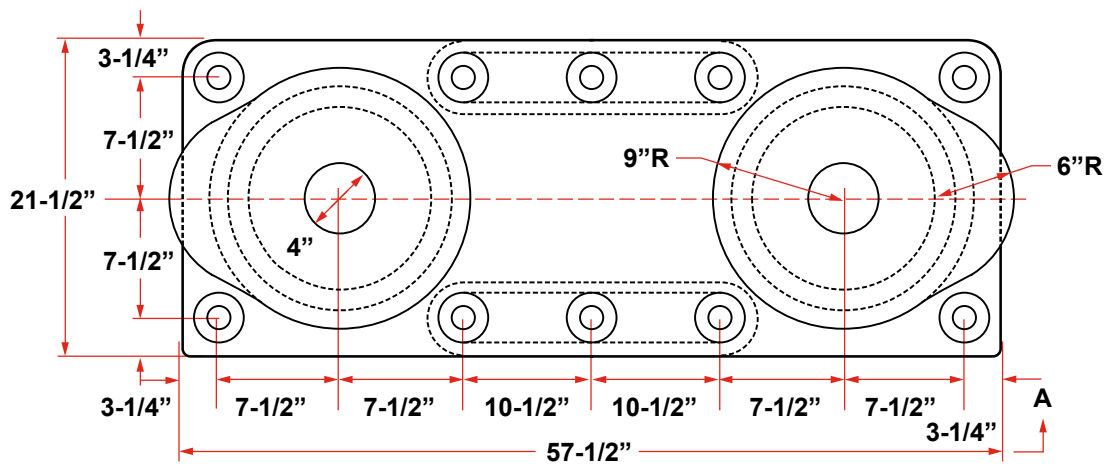
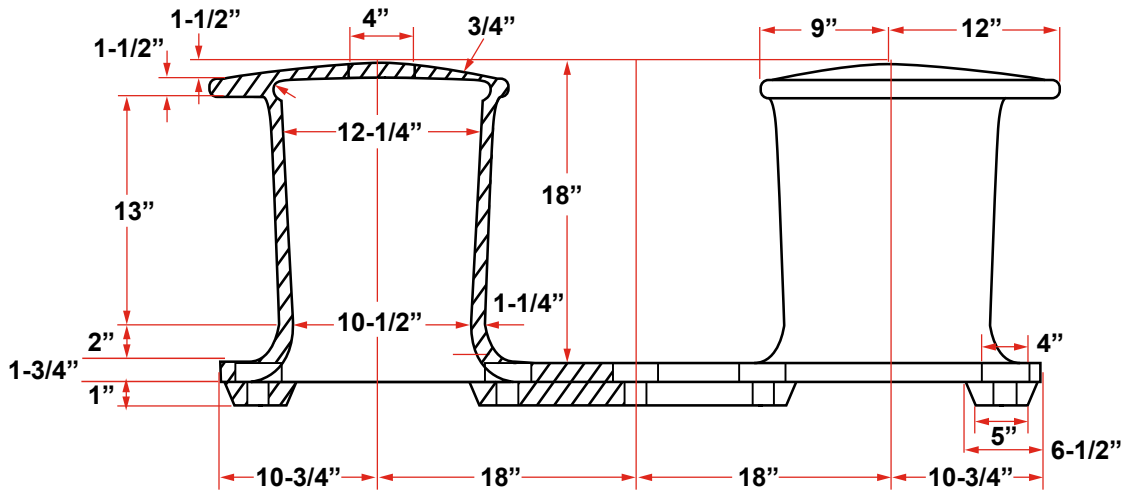
150 TON BOLLARD AMB-150



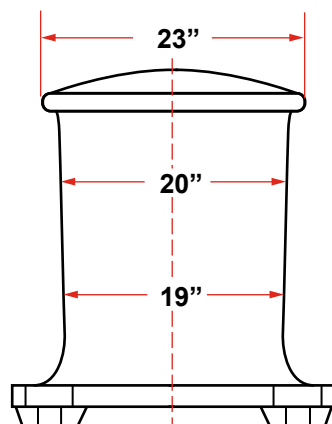
225 TON BOLLARD AMB-225

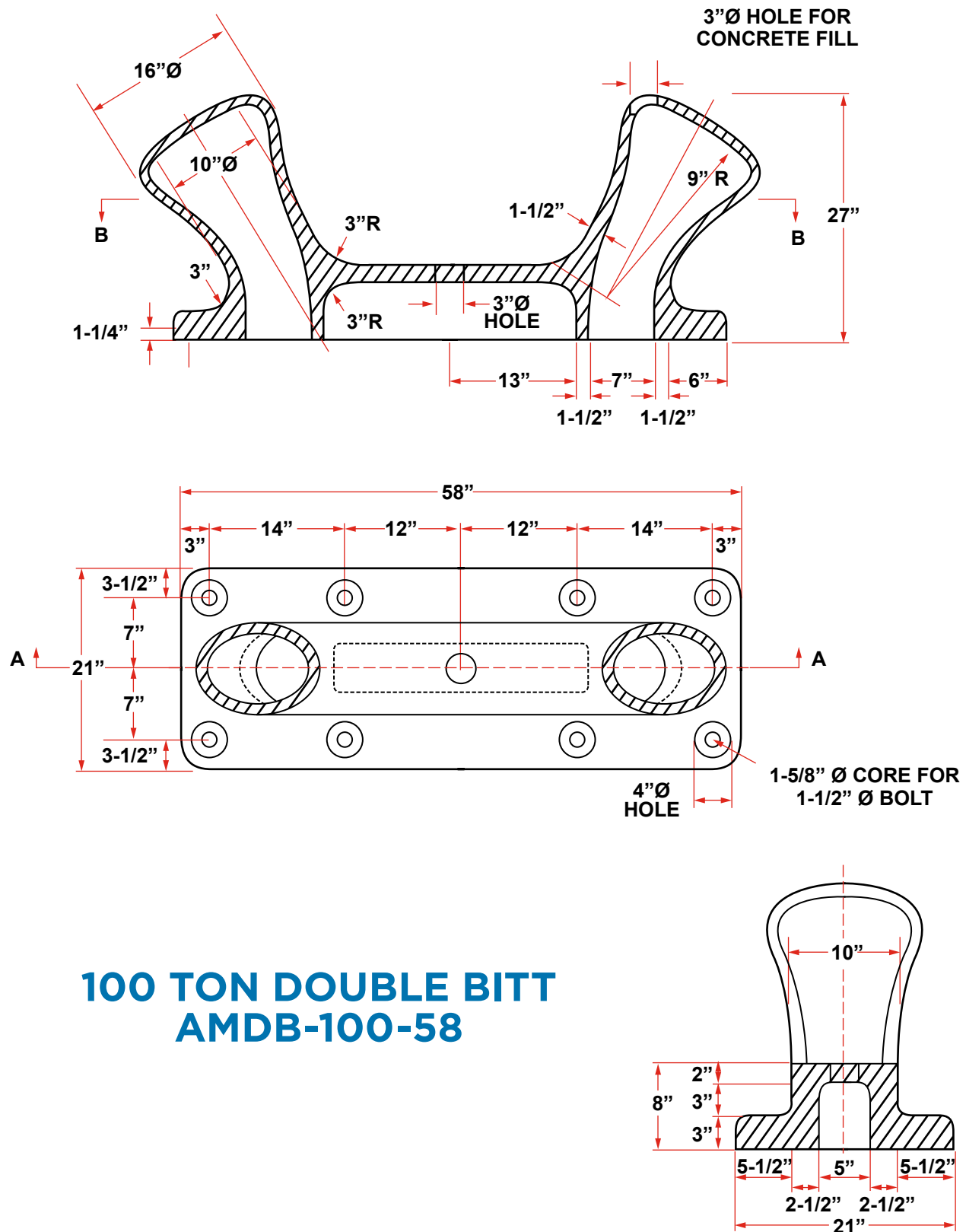


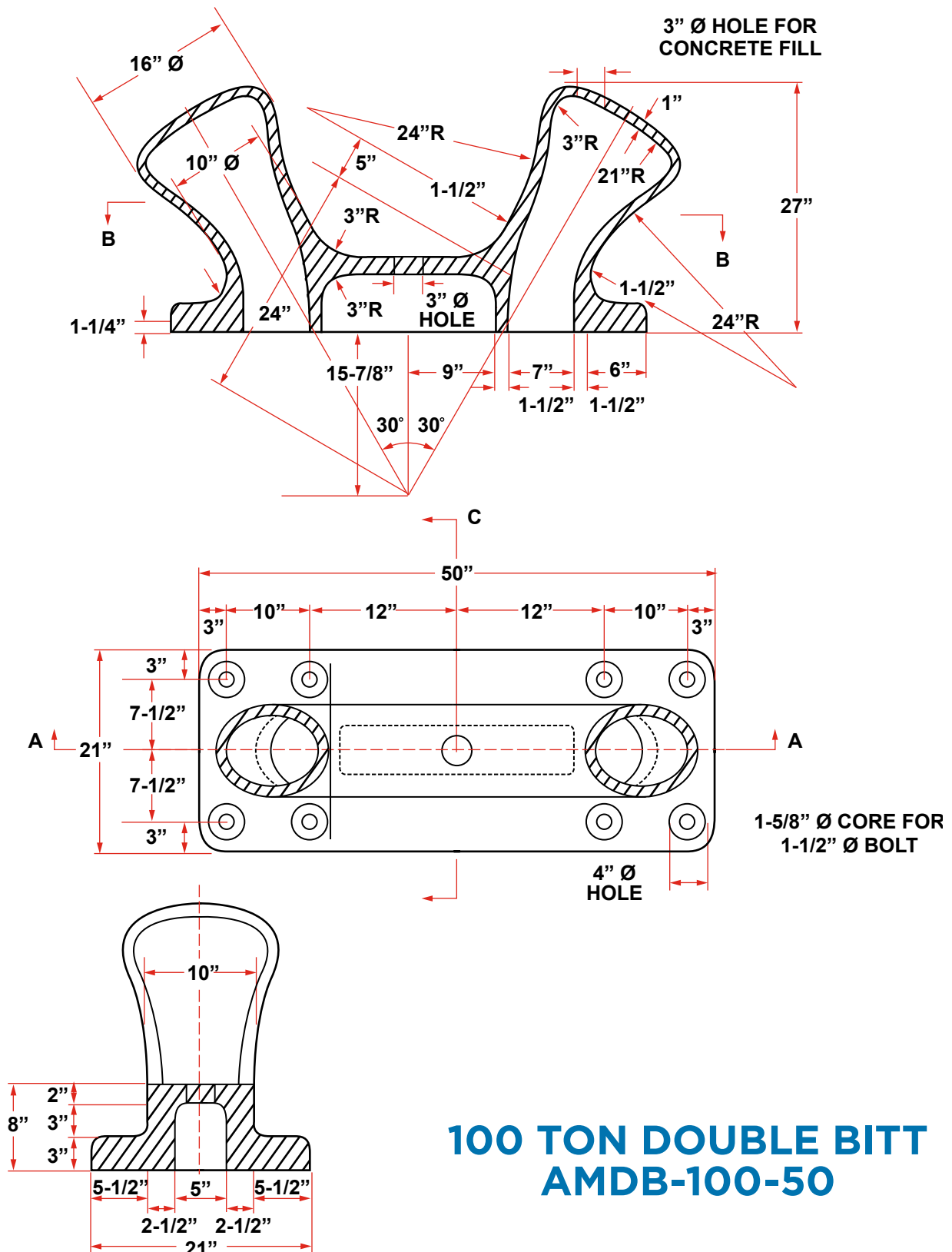
MOORING BITT MB-10.2432



30 TON DOUBLE BITT AMDB-30







**100 TON DOUBLE BITT
AMDB-100-50**