

ZONE	REV	REVISIONS	DATE
		DESCRIPTION	

SCOPE

1. PURPOSE

FITTINGS SHOWN ON THIS DRAWING ARE INTENDED FOR USE WITH CLASS 200 OR 70 COPPER-NICKEL TUBE IN A JOINT WITH MIL-T-1620 UP TO PRESSURES AND TEMPERATURES IN SERVICE LISTED IN TABLE 1.

FITTING DIMENSIONS ARE DIMENSIONS OF MIL-F-183 EXCEPT AS MODIFIED HEREIN.

FITTINGS ARE RATED FOR MAXIMUM WORKING PRESSURE.

1.3.1 THE MAXIMUM ALLOWABLE WORKING PRESSURES AND TEMPERATURES SHALL BE AS SPECIFIED IN THE SERVICE TABLE ON SHEET #2.

1.4 SPECIAL FITTINGS NOT SHOWN ON THIS DRAWING MAY BE ORDERED IN ACCORDANCE WITH THE GUIDANCE OF THIS DRAWING. MANUFACTURERS SHALL SUBMIT DRAWINGS OF SPECIAL FITTINGS TO NAVSEA FOR APPROVAL PRIOR TO ORDERING.

1.5 THIS DRAWING INCLUDES AND SUPERSEDES ANY MANUFACTURERS DRAWINGS PREVIOUSLY APPROVED FOR PROCUREMENT IN ANY NAVSEA CORRESPONDENCE. THE CONTENTS OF THIS DRAWING DO NOT IN ANY MANNER CHANGE THE TERMS OF ANY UNDERSTANDING, SOLICITATION, OR CONTRACT EXISTING WITH THE GOVERNMENT. ANY CHANGE THEREIN WILL NOT BE EFFECTIVE OR BINDING UPON THE GOVERNMENT UNLESS FORMALIZED BY AN APPROPRIATE CONTRACTUAL DOCUMENT EXECUTED BY THE COGNIZANT CONTRACTUAL ADMINISTRATIVE CONTRACTING OFFICER.

2. REQUIREMENTS

- 2.1 FITTINGS SHALL BE MADE FROM TUBING, FORGING, BAR STOCK OR PLATE BY EXTRUDING, CASTING, FORMING, FORGING, MACHINING, FUSION WELDING, OR BY A COMBINATION OF THESE OPERATIONS.
- 2.1.1 FITTINGS MACHINED FROM FORGED BARS ARE ACCEPTABLE. FITTINGS MACHINED DIRECTLY FROM ROLLED BARS SHALL BE RESTRICTED TO COUPLINGS AND CONCENTRIC REDUCERS AND SHALL HAVE AT LEAST 1/3 OF THE DIAMETER OF THE BAR AS ROLLED REMOVED FROM THE CENTER OF THE BAR IN THE MACHINING PROCESS.
- 2.2 FITTINGS MADE FROM THIS DRAWING SHALL BE IN ACCORDANCE WITH MIL-T-16420 (TUBE), MIL-C-15726 (PLATE AND BAR), MIL-C-24679 (FORGINGS), OR ASTM B360 (CASTINGS INCLUDING SUPPLEMENTARY REQUIREMENTS). EACH FITTING SUPPLIED UNDER THIS DRAWING MAY BE SUPPLIED AS EITHER ALLOY C70600 (90-10 CUNI) OR C71500 (70-30 CUNI) AS AGREED TO BETWEEN THE SUPPLIER AND PRODUCING ACTIVITY, PROVIDED THE FITTINGS CONFORM TO ANY OF THE ABOVE SPECIFICATIONS.
- 2.2.1 ALL FITTINGS, EXCEPT FOR CASTINGS, SHALL BE SUPPLIED IN AN ANNEALED CONDITION.
- 2.3 ALL MATERIAL USED IN THE FITTING, SHALL BE NEW AND MAY BE FABRICATED USING MATERIALS PRODUCED FROM RECOVERED MATERIALS TO THE MAXIMUM EXTENT PRACTICABLE WITHOUT JEOPARDIZING THE INTENDED USE. THE TERM "RECOVERED MATERIALS" MEANS MATERIALS WHICH HAVE BEEN RECOVERED OR RECOVERED FROM SOLID WASTE AND REPROCESSED TO BECOME A SOURCE OF NEW MATERIALS, AS OPPOSED TO VIRGIN RAW MATERIALS. NONE OF THE ABOVE SHALL BE INTERPRETED TO MEAN THAT THE USE OF REBUILT PRODUCTS IS ALLOWED UNLESS OTHERWISE SPECIFIED.
- 2.4 ALL DIMENSIONS ARE IN INCHES.
- 2.5 DIMENSIONAL TOLERANCES AND CONTROL SYMBOLS, ARE IN ACCORDANCE WITH ANSI Y14.5 (SEE DIMENSIONS AND TOLERANCES TABLE ON SHEET 2), UNLESS OTHERWISE SPECIFIED HEREON.
- 2.6 UNLESS OTHERWISE INDICATED, ALL MACHINED SURFACES MARKED WITH $\sqrt{\text{ }}$ SHALL BE 125 Ra OR SMOOTHER IN ACCORDANCE WITH ANSI B46.1.
- 2.7 AFTER MACHINING, ALL FITTINGS SHALL BE THOROUGHLY CLEANED INSIDE AND OUTSIDE TO REMOVE MACHINING CHIPS AND FOREIGN PARTICLES.
- 2.8 ALL SHARP CORNERS AND EDGES SHALL BE ROUNDED OR BROKEN.
- 2.9 CAST FITTINGS SHALL BE SUPPLIED SOUND, SMOOTHLY CORED, TRUE TO FORM, UNIFORM IN TEXTURE, AND FREE FROM CASTING DEFECTS. FINS THAT ARE NOT WELL ROUNDED, AND ALL BURRS, SHALL BE REMOVED.
- 2.10 LUGS, RIBS OR FLATS MAY BE CAST, FORMED OR FORGED ON FITTINGS FOR HOLDING DURING MANUFACTURING. (SEE DIMENSIONAL TABLE NOTE 1)
- 2.11 ALL WELDS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF MIL-STD-278, CLASS P-1 PIPING EXCEPT RADIOGRAPHIC INSPECTION IS NOT REQUIRED. FITTINGS SHALL CONTAIN NO MORE THAN TWO LONGITUDINAL WELDS. MITER JOINTS AND TEES FABRICATED BY WELDING INTERSECTING PIPES ARE NOT PERMITTED UNLESS OTHERWISE AUTHORIZED BY NAVSEA. ALSO, PERMANENT BACKING RINGS ARE NOT PERMITTED.
- 2.12 CONCENTRICITY OF BORES. THE SOCKET AND FITTING BORES SHALL BE CONCENTRIC WITHIN A TOLERANCE OF 0.09 IN. (0.8 MM) FOR ALL SIZES. OPPOSITE SOCKET BORES SHALL BE CONCENTRIC WITHIN A TOLERANCE OF 0.06 IN. (1.6 MM) FOR ALL SIZES. COINCIDENCE OF AXES. THE MAXIMUM ALLOWABLE VARIATION IN THE ALIGNMENT OF THE FITTING BORE AND SOCKET BORE AXES SHALL BE 0.06 IN. IN 1 FT. (0.5 PERCENT).
- 2.13 BLOCK PATTERN FITTINGS ARE NOT PERMITTED EXCEPT AS AUTHORIZED BY THE PURCHASING ACTIVITY.
- 2.14 WATERWAY BORE MAY BE PRODUCED AS CAST, AS FORMED, OR BY MACHINING PROVIDED IT MEETS THE OTHER REQUIREMENTS SHOWN HEREON.
- 2.15 CAST OR FORGED REDUCING FITTINGS ARE PERMITTED. REDUCING FITTINGS SHALL NOT EXCEED THE OVERALL (ENVELOPE) DIMENSIONS OF THE ASSOCIATED "LARGER SIZE" FITTING. THE CENTER TO BOTTOM-OF-SOCKET FOR THE REDUCED SIZE SHALL BE USED FOR THE REDUCED END. THE WALL THICKNESS AT THE SOCKET FACE FOR THE REDUCED END SHALL BE WITHIN THE THICKNESS AND TOLERANCE SPECIFIED FOR THE "REDUCED SIZE". ANY WALL THICKNESS TRANSITIONS SHALL BE GRADUAL/ RADIUS, AND NOWHERE SHALL THE WALL THICKNESS DIMENSION BE LESS THAN THAT REQUIRED AT THE SMALLER END.

3. IDENTIFICATION

- 3.1 EACH FITTING SHALL BE MARKED PER MIL-STD-792, AND PER MIL-STD-798 (SECTION 10 AS NOTED) WITH THE FOLLOWING:
- 3.1.1 MANUFACTURERS NAME OR TRADE MARK
- 3.1.2 NPS SIZE
- 3.1.3 RATING: 1/4" TO 6" NPS "400 WOG"
- 3.1.4 MATERIAL: CUNI 70/30 (UNS C71500) OR 90/10 (UNS C70600)
- 3.1.5 HEAT (LOT) CODE.
- 3.2 MARKINGS ON THE FITTING SHALL BE APPLIED SO AS NOT TO REDUCE THE WALL THICKNESS BELOW THE MINIMUM, AND SO AS NOT TO AFFECT THE STRENGTH OF THE FITTING.

4. QUALITY ASSURANCE PROVISIONS

- 4.1 INSPECTION RECORDS OF EXAMINATIONS AND TESTS SHALL BE KEPT COMPLETE AND AVAILABLE TO THE CUSTOMER.
- 4.2 EACH CAST FITTING SHALL BE TESTED UNDERWATER OR WITH SOAPSUDS AT 100 PSI AIR FOR 10 SECONDS. NO LEAKAGE IS ALLOWED.
- 4.3 FITTINGS OF THE SAME MATERIAL, TYPE AND SIZE PRESENTED AT ONE TIME SHALL BE CONSIDERED A LOT FOR PURPOSES OF SAMPLING AND INSPECTION.
- 4.4 SAMPLE FITTINGS SHALL BE SELECTED AT RANDOM FROM EACH LOT IN ACCORDANCE WITH THE SAMPLING PLAN ON THIS SHEET.
- 4.4.1 EACH SAMPLE FITTING SHALL BE SUBJECTED TO VISUAL AND DIMENSIONAL INSPECTION.
- 4.4.2 EACH CAST SAMPLE FITTING SHALL BE SUBJECTED TO A HYDROSTATIC PRESSURE 1.5 TIMES THE WORKING PRESSURE FOR 1 MINUTE. UNDER THE HYDROSTATIC PRESSURE, THE CAST FITTING SHALL NOT LEAK WATER, OR SWEAT AT ANY PART OF THE SURFACE.
- 4.5 FOR CAST FITTINGS, ONE SAMPLE SHALL BE RADIOGRAPHED IN ACCORDANCE WITH MIL-STD-278 AND PRESSURE TESTED TO A MINIMUM OF 1600 PSI WITHOUT LEAKAGE OR VISIBLE DISTORTION OF THE FITTING. THIS IS CONSIDERED A FIRST ARTICLE TEST AND CERTIFICATION TO THE SUCCESSFUL COMPLETION OF SAME SHALL BE SUFFICIENT FOR ANY PROCUREMENT PROVIDED MANUFACTURER CERTIFIES THAT THE CASTING PROCESS HAS NOT BEEN MODIFIED SINCE THE DATE OF FIRST ARTICLE CERTIFICATION.
- 4.6 THE MANUFACTURER SHALL DEMONSTRATE PROCESS CAPABILITY OF 1.3 MINIMUM IN ACCORDANCE WITH ANSI Z1.1, Z1.2 AND ANSI/ASQC A1-1987. A PROCESS CONTROL CHART SHALL BE PROVIDED IF REQUESTED (SEE 5.7).
- 4.7 UNLESS OTHERWISE SPECIFIED HEREIN, THE SUPPLIER IS RESPONSIBLE FOR THE PERFORMANCE OF ALL INSPECTION REQUIREMENTS PRIOR TO SUBMISSION FOR GOVERNMENT ACCEPTANCE, EXCEPT AS OTHERWISE SPECIFIED. THE SUPPLIER MAY UTILIZE HIS OWN FACILITIES OR COMMERCIAL LABORATORY ACCEPTABLE TO THE GOVERNMENT. INSPECTION RECORDS OF THE EXAMINATIONS AND TESTS SHALL BE KEPT COMPLETE AND AVAILABLE TO THE GOVERNMENT AS SPECIFIED IN THE CONTRACT OR ORDER. THE MANUFACTURERS INSPECTION SHALL BE SUBJECT TO SURVEILLANCE BY THE GOVERNMENT INSPECTOR AND IF NOT PERFORMED SATISFACTORILY THE INSPECTOR MAY REQUIRE REINSPECTION.
- 4.8 THE CONTRACTOR SHALL PROVIDE AND MAINTAIN AN INSPECTION SYSTEM ACCEPTABLE TO THE CUSTOMER FOR SUPPLIES AND SERVICES COVERED BY THIS STANDARD.
- 4.9 THE SUPPLIER SHALL HAVE A QUALITY ASSURANCE SYSTEM IN ACCORDANCE WITH MIL-STD-798 SECTION 8.
- 4.9.1 MATERIAL CONTROL SHALL BE IN ACCORDANCE WITH MIL-STD-798 SECTION 9.
- 4.10 ALL COMMERCIAL STANDARDS SPECIFIED HEREON SHALL INVOLVE THE SUPPLEMENTAL SECTION.

5. ORDERING DATA

- 5.1 TYPE(S) OF FITTING (TEE, 45 DEG. ELL, ETC.).
- 5.2 SIZE(S) (NPS).
- 5.3 QUANTITY.
- 5.4 MATERIAL: 90/10 (UNS C70600) OR 70/30 (UNS C71500).
- 5.5 INSPECTION RECORD REQUIREMENTS.
- 5.6 SPECIAL MARKING (IF ANY).
- 5.7 PROCESS CONTROL CHART IF REQUIRED.
- 5.8 WHICH FITTINGS, IF ANY, REQUIRE RT IN ACCORDANCE WITH MIL-STD-278.

6. PACKAGING

- 6.1 PACKAGING REQUIREMENTS APPLY ONLY FOR DIRECT GOVERNMENT ACQUISITION. THEY DO NOT APPLY WHEN MATERIAL AND PARTS ARE ACQUIRED BY THE CONTRACTOR FOR INCORPORATION INTO THE EQUIPMENT AND LOSE THEIR SEPARATE IDENTITY WHEN THE EQUIPMENT IS SHIPPED.
- 6.2 FITTINGS SHALL BE PRESERVED PACKAGED LEVEL A OR C AND PACKED LEVEL A, B OR C AS SPECIFIED IN THE PROCUREMENT DOCUMENT, IN ACCORDANCE WITH MIL-V-3.
- 6.2.1 LEVEL A PRESERVATION-PACKAGING AND LEVELS A AND B PACKING: USE OF ALL TYPES OF LOOSE-FILL MATERIALS FOR PACKAGING AND PACKING APPLICATIONS IS PROHIBITED FOR MATERIALS DESTINED FOR SHIPBOARD INSTALLATION OR STOWAGE.
- 6.2.2 LEVEL C PRESERVATION-PACKAGING AND PACKING: WHEN LOOSE-FILL TYPE MATERIALS ARE USED FOR PACKAGING AND PACKING APPLICATIONS SUCH AS CUSHIONING, FILLER AND DUNNAGE, ALL CONTAINERS (UNIT, INTERMEDIATE AND SHIPPING) SHALL BE MARKED OR LABELLED WITH THE FOLLOWING INFORMATION:
- CAUTION
- CONTENTS CUSHIONED ETC., WITH LOOSE-FILL MATERIAL SHALL NOT BE TAKEN ON BOARD SHIP. REMOVE AND DISCARD LOOSE-FILL MATERIAL. IF REQUIRED, RECUSHION WITH CELLULOSE MATERIAL, BOUND FIBERBOARD OR TRANSPARENT FLEXIBLE CELLULOSAR MATERIAL.
- 6.2.3 CUSHIONING, FILLER, DUNNAGE AND WRAPPING MATERIALS SELECTED, WHENEVER AVAILABLE, SHALL EXHIBIT IMPROVED PERFORMANCE FOR RESISTANCE TO FIRE.
- 6.3 IN ADDITION TO ANY SPECIAL MARKING REQUIRED, INTERIOR PACKAGES AND EXTERIOR SHIPPING CONTAINERS SHALL BE MARKED IN ACCORDANCE WITH MIL-V-3.

CATEGORIES	DEFECTS
CRITICAL:	NONE DEFINED
MAJOR:	
101	TYPE AND SIZE NOT AS SPECIFIED.
102	MATERIAL NOT AS SPECIFIED.
103	CAST FITTINGS NOT SOUND, SMOOTHLY CORED, TRUE TO FORM, UNIFORM IN TEXTURE, NOT FREE FROM COLD SHOTS.
104	FITTING SURFACE (INTERNAL AND EXTERNAL) NOT THOROUGHLY CLEANED; FINS, MACHINING CHIPS, BURRS AND ROUGHNESS NOT REMOVED OR BLENDED.
105	FITTING WELDED WHERE STRENGTH, SERVICABILITY, OR MACHINING WILL BE AFFECTED, UNAUTHORIZED REPAIRS, PLUGGED, WELDED OR IMPREGNATED.
106	SOCKET NOT SMOOTH.
107	SOCKET DIMENSIONS NOT AS SPECIFIED.
108	BOTTOM OF SOCKET NOT CONCENTRIC AND COINCIDENT TO BORE AS SPECIFIED.
109	FITTING DIMENSIONS NOT WITHIN TOLERANCES SPECIFIED.
110	BANDS DAMAGED OR NOT AS SPECIFIED.

SAMPLING PLAN FOR INSPECTION AND TEST

LOT SIZE	VISUAL AND DIMENSIONAL INSPECTION	HYDROSTATIC TEST
2 TO 8	ALL	ALL
9 TO 90	13	8
91 TO 150	13	12
151 TO 280	20	19
281 TO 500	29	21
501 TO 1200	34	27
1201 TO 3200	42	35

2	1	SH	REVISION
		REV	STATUS
			OF SHEETS

STANDARD DRAWING

APPROVED FOR PUBLIC RELEASE DISTRIBUTION IS UNLIMITED		UNLESS OTHERWISE NOTED, DIMENSIONS ARE IN INCHES		SIGNATURE K.A.P. 4-20-83		DATE 4-20-83	
TOLERANCES ARE IN ACCORDANCE WITH COMMERCIAL PRACTICE UNLESS OTHERWISE INDICATED ON DRAWING		CHECKED HD ENR		L.R.		+21-83	
PROJECT NO. 2843		PROJ ENR 1/28/83		NAVAL APPROVAL			
CONTRACT NO.		DIV DIR 2843		CAGE CODE		ESRWS DRAWING NO.	
PREP ACTIVITY S.G. FLAGS & CO. 72423		SUBCAP DIR 1/28/83		F 53711 803 6397430		REV	
SCALE: NONE		MASS (WEIGHT)		SHEET 1 OF 2			

DEPARTMENT OF THE NAVY WASHINGTON D.C. 20361-5101

NAVAL SEA SYSTEMS COMMAND

FITTINGS, SOCKET WELDED

COPPER NICKEL

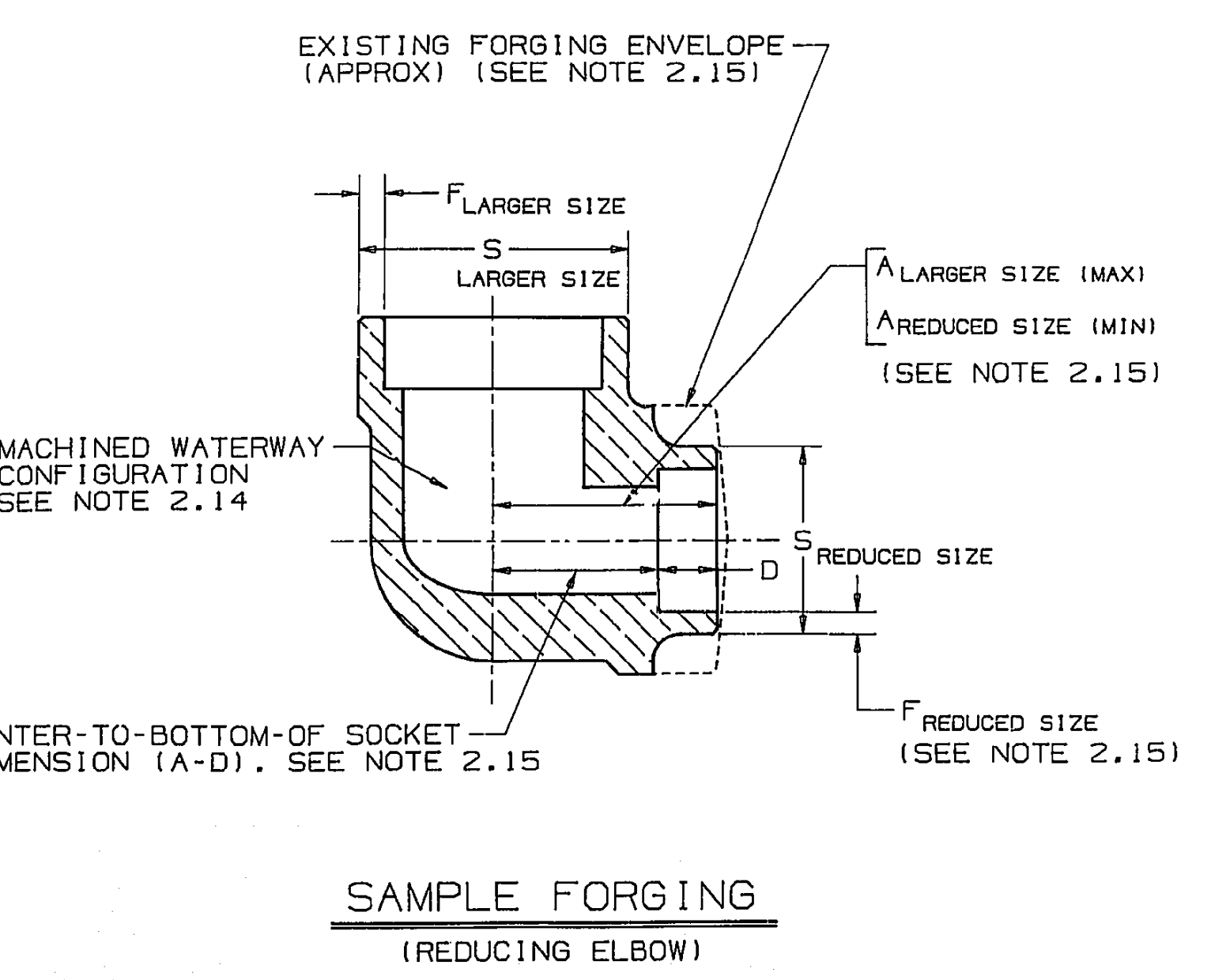
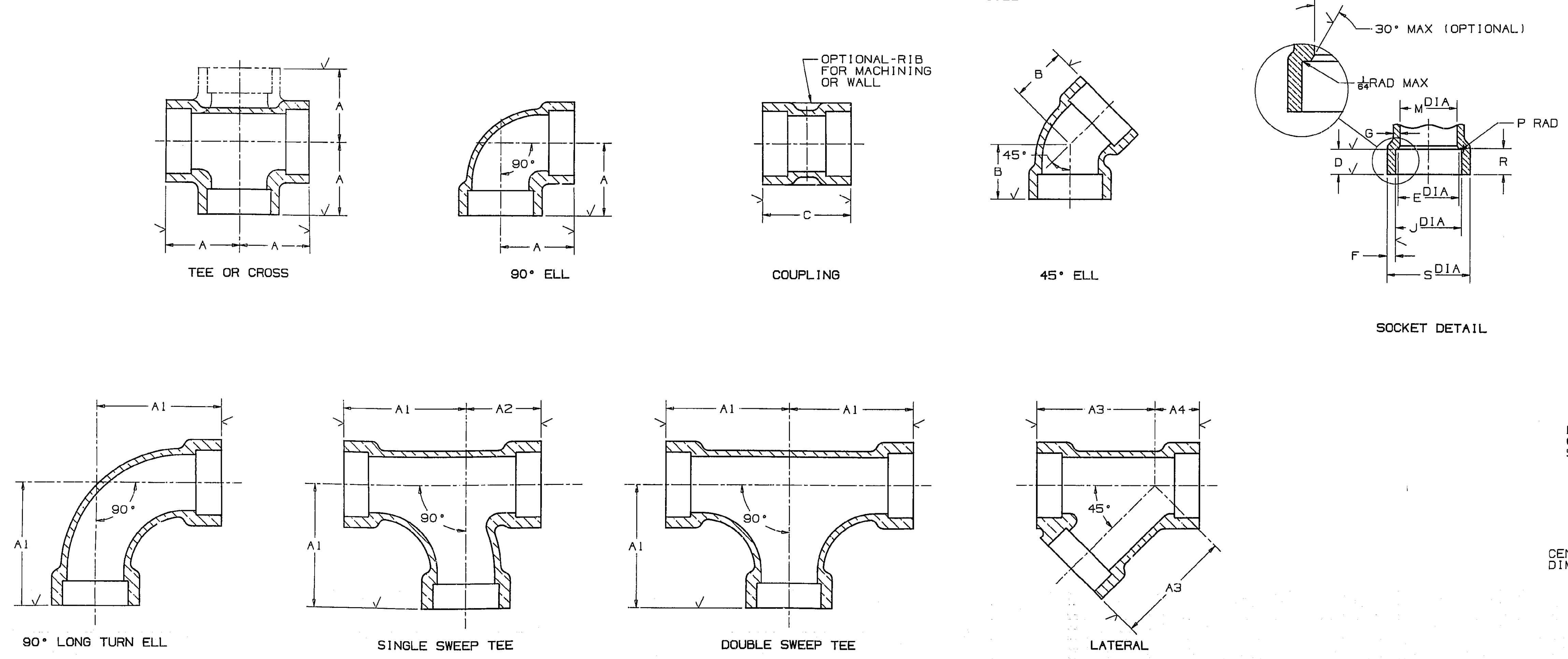
400 PSIG MAX

ZONE	REV	DESCRIPTION	DATE	APPROVED

DIMENSIONS AND TOLERANCES

SIZE NPS	A CENTER TO END	A1 CENTER TO END	A2 CENTER TO END OF SINGLE SWEEP TEE	A3 CENTER TO END OF LATERAL	A4 CENTER TO END OF LATERAL	TOL. A1, A2, A3 & A4	B CENTER TO END OF 45° ELLS	TOL. A & B	C END TO END OF COUPLING	D DEPTH OF SOCKET	E CHAMFER DIA OPTIONAL	F METAL THICKNESS OVER SOCKET DIAMETER		G BODY METAL THICKNESS		J DIAMETER OF SOCKET	M INSIDE DIAMETER	P RAD.	R WIDTH OF BAND	S BAND DIAMETER REFERENCE	SIZE NPS
						±		±				MIN	MAX	MIN	AVG						
1/4	.710	1.250	.750	1.375	.430	.040	.560	.040	.970 ±.080	17/64	.443	.130	.200	.070	.102	.545 ±.030 ±.000	.398 ±.015	5/8	3/8	.945	1/4
3/8	.820	1.500	.880	1.430	.500	.050	.630	.050	1.050 ±.100	5/16	.577	.130	.208	.080	.112	.680	.532 ±.015	3/2	21/64	1.096	3/8
1/2	1.010	1.750	1.000	1.590	.610	.060	.780	.060	1.290 ±.120	3/8	.747	.130	.215	.080	.112	.845	.697 ±.020	3/2	23/64	1.275	1/2
3/4	1.180	2.000	1.190	1.700	.720	.060	.890	.060	1.430 ±.120	1/2	.962	.130	.224	.080	.122	1.055	.907 ±.025	7/8	27/64	1.503	3/4
1	1.430	2.310	1.310	1.930	.850	.070	1.060	.070	1.680 ±.140	7/16	1.226	.130	.230	.100	.140	1.320	1.171 ±.025	7/8	15/32	1.780	1
1 1/4	1.690	2.750	1.680	2.230	1.020	.070	1.220	.070	1.860 ±.140	1/2	1.562	.144	.232	.110	.150	1.665	1.502 ±.030	1	17/32	2.129	1 1/4
1 1/2	1.840	3.130	1.880	2.440	1.100	.080	1.300	.080	1.920 ±.160	5/8	1.802	.144	.241	.120	.160	1.905	1.742 ±.030	1	31/32	2.387	1 1/2
2	2.120	3.750	2.130	2.760	1.240	.080	1.450	.080	2.200 ±.160	3/4	2.246	.166	.264	.140	.203	2.380 ±.046 ±.000	2.186 ±.030	3/2	11/8	2.908	2
2 1/2	2.700	4.500	2.560	3.430	1.520	.100	1.950	.100	2.880 ±.200	7/8	2.746	.166	.264	.150	.213	2.880 ±.051 ±.000	2.686 ±.030	5/2	13/8	3.408	2 1/2
3	3.080	5.440	2.880	3.950	1.710	.100	2.170	.100	3.180 ±.200	23/64	3.351	.190	.268	.170	.240	3.505 ±.055 ±.000	3.286 ±.035	3/8	25/8	4.041	3
3 1/2	3.420	6.190	3.250	4.250	1.850	.100	2.390	.100	3.430 ±.200	3/4	3.851	.190	.268	.180	.250	4.005 ±.055 ±.000	3.786 ±.035	7/8	27/8	4.541	3 1/2
4	3.790	6.940	3.560	4.970	2.010	.120	2.610	.120	3.690 ±.240	23/32	4.322	.218	.296	.200	.270	4.505 ±.080 ±.000	4.252 ±.040	7/8	15/8	5.097	4
5	4.500	8.130	4.310	5.430	2.340	.120	3.050	.120	4.220 ±.240	1	5.348	.280	.350	.280	.350	5.568	5.278 ±.040	15/8	1 1/2	6.268	5
6	5.130	9.000	5.000	6.010	2.660	.120	3.460	.120	4.750 ±.240	1 1/64	6.391	.320	.390	.320	.390	6.630	6.321 ±.040	11/2	1 5/8	7.410	6
8	6.560			7.750	3.310		4.280	.150	5.750 ±.300	1 5/8	8.356	.380	.450	.380	.450	8.630	8.286 ±.040	13/2	1 3/4	9.530	8
10	8.080						5.160	.180	6.500 ±.360	1 1/2	10.395	.455	.525	.455	.525	10.755	10.325 ±.040	1 1/2	1 7/8	11.805	10
12	9.500						5.970	.180	7.000 ±.360	1 5/8	12.392	.540	.615	.540	.615	12.755	12.322 ±.040	8/8	1 11/8	13.985	12

NOTE#1: EXCEPT FOR COUPLINGS WHICH MAY HAVE A BODY DIAMETER UP TO "S" DIMENSION FOR THAT SIZE



NOMINAL PIPE SIZE (INCHES)	STEAM SERVICE		AIR, OIL, WATER SERVICE	
	MAXIMUM WORKING PRESSURE (LB/IN ²)	MAXIMUM TEMPERATURE (°F)	MAXIMUM WORKING PRESSURE (LB/IN ²)	MAXIMUM TEMPERATURE (°F)
1/4 THROUGH 6	200	425	400	150
ABOVE 6	150	425	250	150

DEPARTMENT OF THE NAVY NAVAL SEA SYSTEM COMMAND WASHINGTON, D.C. 20380-5101	SIZE	CASE CODE	ESWBS	DRAWING NO.	REV
DRAWN S.B. FLAG & CO./ONE	F	53711	803	6397430	
ISSUED	SCALE: NONE (MASS (WEIGHT))			SHEET 2 OF 2	