This military standard is approved by the Department of Defense and is mandatory for all new engineering and design applications and for replacement parts for existing equipment. Deviations from this document

Review activities: NAVY - AS, USAF - 02

User activities:

DD FORM 1426 (Corrected)

P.A. 02

PREPARING ACTIVITY: Navy - AS, USAF - 02

PROCUREMENT SPECIFICATION NOTICE

TITLE: ELBOW, FLARED TUBE, FLANGED, SWIVEL, 45°

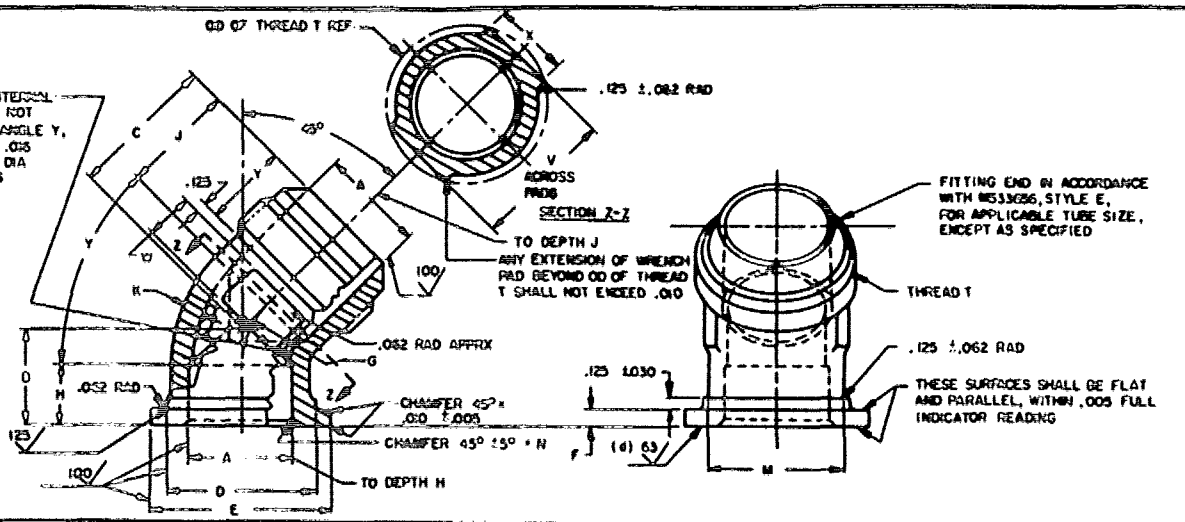
SUPERSEDING: AN740

MILITARY STANDARD

MS20761

SHEET 1 OF 1

DEPTS OF THE ARMY AND NAVY



DASH NO. STEEL	DASH NO. AL ALLOY	TUBING OD	THREAD T REF	(c) A .003 DIA	D +.047 -.000	C +.047 -.000	(c) O +.000 -.005 DIA	E +.000 -.005 DIA	F +.000 -.005	G RAD REF	H +.047 -.000	J +.047 -.000	K MIN	K MAX	M ±.015 DIA	N DIA	V ±.015	W APPROX	X APPROX	Y ±.06	WEIGHT MAX AL ALLOY	WEIGHT MAX STEEL
-12	-012	.750	1-1/16-12 UN-3A	.609	.812	1.312	.938	1.250	.196	.594	.562	1.062	.125	.164	.922	.669	.891	.438	.562	.724	.09	.25
-12-16	-012-16							1.500													.11	.31
-16	-016	1.000	1-5/16-12 UN-3A	.844	.078	1.375	1.188			.719			.141	.176	1.172	.904	1.156	.500	.625	.771	.13	.36
-20	-020	1.250	1-5/8-12 N-3A	1.070	1.000	1.500	1.500	1.844		.875	.625	1.196	.156	.221	1.484	1.138	1.438		.750	.860	.23	.64
-20-24	-020-24				1.032						.688										.26	.73
-24	-024	1.500	1-7/8-12 N-3A	1.312	1.094	1.750	1.750	2.125		1.000		1.344	.172	.234	1.734	1.372	1.718			.943	.33	.92
-32	-032	2.000	2-1/2-12 UN-3A	1.781	1.438	2.125	2.375	2.750	.188	1.312	.750	1.562	.203	.322	2.359	1.841	2.250	.750	.930	1.193	.70	1.96
(e) -40	-040	2.500	3-12 UN-3A	2.281	1.688	2.000	2.875	3.281		1.562	.812	1.344	.234	.333	2.859	2.341	2.812	.875	1.000	.969	.90	2.52
(e) -48	-048	3.000	3-1/2-12 UN-3A	2.781	1.952	2.250	3.375	3.781		1.812		1.500	.250	.344	3.359	2.841	3.344	1.000		1.047	1.20	3.36

(a) NOT TO BE USED UNLESS APPROVED BY PROCURING ACTIVITY.
(b) INTERNAL FLOW PASSAGE AROUND BEND SHALL BE SMOOTH AND FREE FROM PROJECTION.
(c) DIAMETERS A, D, AND E SHALL BE CONCENTRIC WITH EACH OTHER WITHIN .010 FULL INDICATOR READING.
(d) ANGULAR TOOL MARKS UP TO 63 RMR MAXIMUM WILL BE ALLOWED.
REDUCTION BY FORGING DRAFT ANGLE OF 7° MAXIMUM IS PERMISSIBLE.
POROSITY TEST: FORGED CASTINGS SHALL NOT LEAK WHEN SUBJECTED TO 100-PSI AIR PRESSURE AND SUBMERGED IN WATER FOR 3 MINUTES MINIMUM.
FOR TUBE SIZES THRU 1 INCH: MAXIMUM OPERATING TEMPERATURE 275° F, MAXIMUM PRESSURE 1500 PSI.
FOR TUBE SIZES EXCEEDING 1 INCH: MAXIMUM OPERATING TEMPERATURE 275° F, MAXIMUM PRESSURE 500 PSI.
MATERIAL: ALUMINUM-ALLOY FORGING, QQ-A-367 (304), CLASS 9 OR 1, OPTIONAL MATERIAL: PERMANENT MOLD ALUMINUM ALLOY CASTING, QQ-A-596 OR ALUMINUM ALLOY BAR STOCK, QQ-A-225/6 (2024)
STEEL FORGING, QQ-S-637 (1137) OR (1141)
UNLESS OTHERWISE SPECIFIED, SURFACE ROUGHNESS SHALL NOT EXCEED 100 MICROINCHES RMR. SEE USASI B 46.1
FINISH: ALUMINUM-ALLOY, CADMIUM, MIL-A-8625, TYPE 2, DYE LIGHT BLUE. STEEL, CADMIUM PLATE, QQ-P-416, TYPE 2, CLASS 3, DYE BLACK.
FITTINGS SHALL BE PERMANENTLY MARKED WITH MS PART NO OR AN UNFINISHED SURFACE.
FOR NORMAL USE ON FUEL AND OIL SYSTEMS.
BREAK ALL SHARP EDGES AND REMOVE ALL HANGING BURRS AND SLIVERS WHICH MIGHT BECOME DISLODGED UNDER USAGE.
DIMENSIONS IN INCHES. UNLESS OTHERWISE SPECIFIED, TOLERANCES: DECIMALS ±.005, ANGLES ± 1/2°.
THIS STANDARD TAKES PRECEDENCE OVER DOCUMENTS REFERENCED HEREIN. REFERENCED DOCUMENTS SHALL BE OF THE ISSUE IN EFFECT ON DATE OF INVITATIONS FOR BID.

(D) ENTIRE STANDARD REVISED

FED. SUP CLASS 4730

APPROVED 9 Aug 57

REVISED (A) NOTICE 70

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