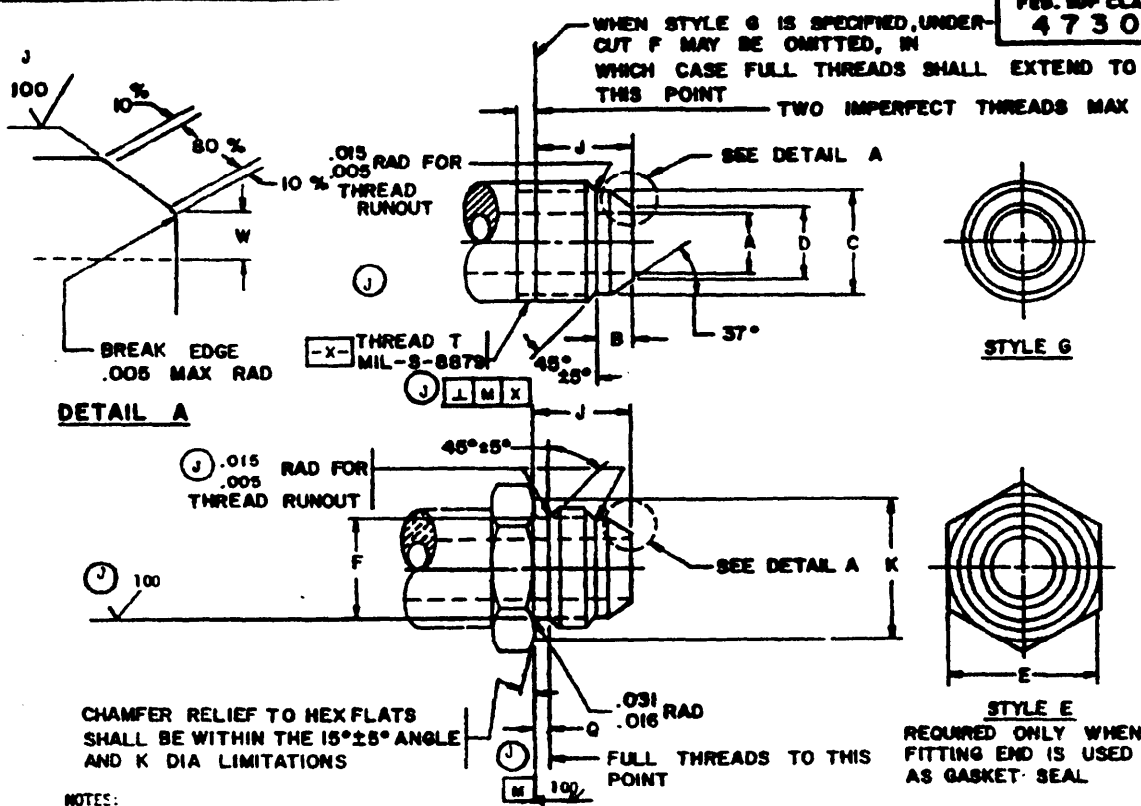


FED. SUP CLASS
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CHAMFER RELIEF TO HEX FLATS SHALL BE WITHIN THE $15^{\circ} \pm 5^{\circ}$ ANGLE AND K DIA LIMITATIONS

NOTES:

1. The conical seal surface shall be free of flaws, nicks and chatter marks when viewed with the unaided eye. The center 80% of the conical surface (see Detail A) shall also have no low spots and shall have an unbroken line of contact to show all around when rotated in contact with a $76^{\circ} 0' \pm 1'$ included angle gage lightly coated by rubbing with carbon paper or by an equivalent bluing method.
- EXAMPLE OF DESIGN IDENTIFICATION NUMBER: MS33656E8
 - E - SIZE OF FITTING END IN 16THS
 - S - STYLE E
 - O - STYLE C
 - BASIC DESIGN NUMBER
2. Break all sharp edges and remove all hanging burrs and slivers.
3. Dimensions in inches: Unless otherwise specified, Tolerances: Angles $\pm \frac{1}{2}^{\circ}$, Decimals $\pm .016$.
4. Dimensions D, C, F and T (pitch dia) shall be concentric to each other and with the 37° angle, measured and calculated as an included angle, within .005 total indicator reading. Other diameters shall be concentric within .010 TIR.
5. All machined surfaces shall be smooth to 125 microinches Ra maximum per ANSI B46.1 unless noted.

Certain provisions (screw threads, hexagon, and thread undercut) of this standard are the subject of international standardization agreement ASQC AIR STD 17/33 and STANAG 3315 and 3323. When revision or cancellation of this standard is proposed, the departmental custodians will inform their respective departmental standardization offices so that appropriate action may be taken respecting the international agreement concerned.

Referenced Government (or nongovernment) documents of the issue listed in that issue of the Department of Defense Index of Specifications and Standards (DODISS) specified in the solicitation form a part of this standard to the extent specified herein.

For design feature purposes, this standard takes precedence over acquisition documents referenced herein.

THIS IS A DESIGN STANDARD. NOT TO BE USED AS A PART NUMBER.

J DENOTES CHANGE

P.A. AIR FORCE - 82 Other Cust ARMY - AR NAVY - AS AIR FORCE - 99	TITLE FITTING END, STANDARD DIMENSIONS FOR FLARED TUBE CONNECTION AND GASKET SEAL	MILITARY STANDARD MS 33656
	PROCUREMENT SPECIFICATION NONE	SUPERSEDES: AND10056

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.
 This military standard is approved for use by all departments and agencies of the Department of Defense. Solicitation for all new applications and design applications and for repetitive use shall be made from this document.
 User activities:
 ARMY - ME - AT
 Army activities:
 DLA - CS
 ARMY - AV
 AIR FORCE - 11

APPROVED 25 APRIL 57 REVISED (F) 11 OCT 74 (O) ROUTED (N) 1 MAR 64 (J) 12 MARCH 1987

FED. SUP CLASS
4730

Review established
DLA-CB
ARMY-AV

User established:
ARMY - ME - AT

This military standard is approved for use by all departments and agencies of the Department of Defense. Selection for all new engineering and design applications and for replacement use shall be made from this document.

TABLE I DIMENSIONS

SIZE NO	TUBING OD	THREAD T MIL-S-8879	A DIA	B +.015 - .000	C +.000 - .005 DIA	D +.003 - .010 DIA	E +.003 - .004	F +.002 - .003	H MAX	J ±.015	K +.010 - .015 DIA	Q +.016 - .020	M MIN
2	1/8	5/16-24UNF-3A	.062	.177	.245	.083	.563	.250		.448	.549	.053	
3	3/16	3/8-24UNF-3A	.125		.307	.146	.625	.312		.679	.611		.005
4	1/4	7/16-20UNF-3A	.172	.193	.359	.193	.688	.364		.550	.736	.075	
5	5/16	1/2-20UNF-3A	.234		.421	.255	.750	.426	.005	.556	.799	.083	
6	3/8	9/16-18UNF-3A	.297	.198	.476	.318	.813	.481		.657	.966	.094	.012
8	1/2	3/4-16UNF-3A	.391	.253	.654	.426	1.000	.660		.758	1.111	.107	.022
10	5/8	7/8-14UNF-3A	.484	.266	.767	.539	1.125	.773		.864	1.361		
12	3/4	1-1/16-12UNJ-3A	.609	.315	.938	.664	1.375	.945		.911	1.599		.029
16	1	1-5/16-12UNJ-3A	.844	.378	1.168	.913	1.625	1.195		.956	1.849		
20	1-1/4	1-5/8-12UNJ-3A	1.078	.461	1.501	1.147	1.875	1.507	.008	1.083	2.095	.125	
24	1-1/2	1-7/8-12UNJ-3A	1.312	.481	1.750	1.381	2.125	1.756		1.208	2.468		
28	1-3/4	2-1/4-12UNJ-3A	1.547	.481	2.125	1.646	2.500	2.131		1.333	2.718		
32	2	2-1/2-12UNJ-3A	1.781	.481	2.375	1.860	2.750	2.381		1.109	3.218		.044
40	2-1/2	3-12UNJ-3A	2.281	.395	2.882	2.360	3.250	2.881		1.187	3.718		
48	3	3-1/2-12UNJ-3A	2.781		3.382	2.860	3.750	3.381					

Ⓝ DENOTES CHANGE:

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P.A. AIR FORCE- 82
Other Cost
ARMY- WC
NAVY- AS
AIR FORCE- 99
PROCUREMENT SPECIFICATION
NONE

TITLE
FITTING END, STANDARD DIMENSIONS FOR FLARED TUBE CONNECTION AND GASKET SEAL
SUPERSEDES
AND10056

MILITARY STANDARD
MS 33656
SHEET 2 OF 2

APPROVED 25 APR 57 REVISED (F) 11 OCT 74 (B) 13 OCT 81 (H) AR 84 (J) FOR CHANGES SEE PAGE 1