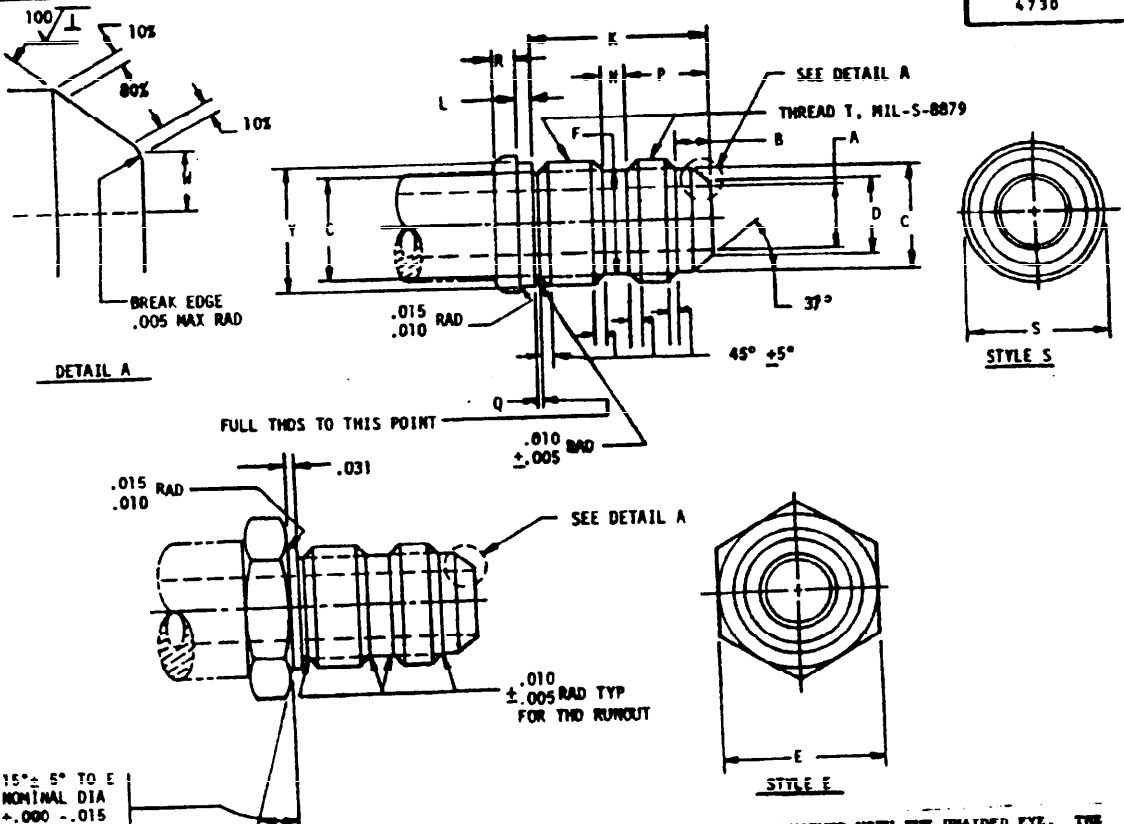


USER ACTIVITIES ARMY - ME

REVIEWER ACTIVITIES DLA-CS ARMY-MI

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(G) THE CONICAL SEAL SURFACE SHALL BE FREE OF FLAWS, NICKS AND CHATTER MARKS WHEN VIEWED WITH THE UNAIDED EYE. THE CENTER BOX 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 74° 0' ± 1' INCLUDED ANGLE GAGE LIGHTLY COATED BY RUBBING WITH CARBON PAPER OR BY AN EQUIVALENT BLUING METHOD.

L AS LISTED PROVIDES FOR A WASHER TO FORM BACKING FACE AGAINST BULKHEAD PLUS 1/32 LAND FOR POSITIONING IN BULKHEAD. WHEN DESIGN OF FITTING INCLUDES A HEX OR FACE EQUAL TO OR GREATER THAN E, NO WASHER IS REQUIRED AND THIS DIMENSION WILL BE .031 AS IN STYLE E.

F SHALL BE 100AA MAX, FREE FROM BURRS, HAVING NO LONGITUDINAL OR SPIRAL TOOL MARKS. ANNULAR TOOL MARKS PERMISSIBLE TO 32AA MAX. TOLERANCE ON F MAY BE ±.002 - .003 PROVIDED NO THREAD MARKS ARE PRESENT.

SQUARENESS BETWEEN THREAD T (PITCH DIA) AND FACE OF HEX (STYLE E) OR BACKING FACE (STYLE S) SHALL BE WITHIN H.

EXAMPLE OF DESIGN IDENTIFICATION NUMBER: MS33657E8
 (G) SIZE OF FITTING END IN 16THS.
 E = STYLE E
 S = STYLE S
 BASIC DESIGN NUMBER

- BREAK ALL SHARP EDGES AND REMOVE ALL HANGING BURRS AND SLIVERS.
- DIMENSIONS IN INCHES, UNLESS OTHERWISE SPECIFIED, TOLERANCES: ANGLES ± 1/2° DECIMALS ± .016.
- 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.
- FOR DESIGN FEATURE PURPOSES, THIS STANDARD TAKES PRECEDENCE OVER PROCUREMENT DOCUMENTS.
- SURFACE ROUGHNESS IN ACCORDANCE WITH ANSI B46.1.
- REFERENCED DOCUMENTS SHALL BE OF THE ISSUE IN EFFECT ON DATE OF INVITATIONS FOR BID.
- FITTINGS WITH MIL-S-7742 THREADS OF THE SAME SIZE, PITCH AND TOLERANCE CLASS MAY BE USED UNTIL STOCKS ARE EXHAUSTED, BUT ARE NOT TO BE SUPPLIED AFTER 1 JAN 1976.

FOR CHANGE SEE SHEET I. THIS IS A DESIGN STANDARD. NOT TO BE USED AS A PART NUMBER.

P. A. AIR FORCE - 82 Other Cost ARMY - AR NAVY - AS AIR FORCE - 99		INTERNATIONAL INTEREST	TITLE FITTING END, STANDARD DIMENSIONS FOR BULKHEAD FLARED TUBE CONNECTION.	MILITARY STANDARD MS 33657	
PROCUREMENT SPECIFICATION NONE		SUPERSEDES: AND10057	SHEET 1 OF 2		

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APPROVED 15 MAY 57 REVISED E 11 OCT 74 F 15 MAY 75 G 10 680 85

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4730

User activities: ARMY-ME

Review activities: DLA-CS
ARMY-MI

TABLE I DIMENSIONS

SIZE NO	TUBING OD	THREAD T MIL-S-8879	A DIA	B + .015 - .000	C + .000 - .005 DIA	D + .003 - .003 DIA	E	F + .003 - .003 DIA	H MAX	K	L	N + .010 - .000	P + .005 - .000	Q + .015 - .000	R	S DIA	H MIN	Y	
																		MAX	MIN
2	1/8	5/16-24 UNJF-3A	.062	.177	.245	.083	.563	.250		.922		.125	.385	.063	.109	.438		.3125	.3053
3	3/16	3/8-24 UNJF-3A	.125		.307	.146	.625	.312				.131				.500	.005	.3750	.3678
4	1/4	7/16-20 UNJF-3A	.172	.193	.359	.193	.688	.364		1.016	.094	.140	.443	.075	.125	.562		.4375	.4294
5	5/16	1/2-20 UNJF-3A	.234		.421	.255	.750	.426				.156	.476	.083	.141	.625		.5000	.4919
6	3/8	9/16-18 UNJF-3A	.297	.198	.476	.318	.813	.481	.005	1.094		.187	.565	.094	.156	.688		.5625	.5538
8	1/2	3/4-16 UNJF-3A	.391	.253	.654	.426	1.000	.660		1.250		.219	.623	.107	.875		.012	.7500	.7416
10	5/8	7/8-14 UNJF-3A	.484	.266	.767	.539	1.125	.773		1.391					1.000		.022	.8750	.8647
12	3/4	1-1/16-12 UNJ-3A	.609		.938	.664	1.375	.945							1.188			1.0625	1.0511
16	1	1-5/16-12 UNJ-3A	.844	.315	1.188	.913	1.625	1.195		1.562			.732		1.438		.029	1.3125	1.3011
20	1-1/4	1-5/8-12 UNJ-3A	1.078	.367	1.501	1.147	1.875	1.507					.784		1.750			1.6250	1.6136
24	1-1/2	1-7/8-12 UNJ-3A	1.312	.378	1.750	1.381	2.125	1.756	.008	1.609	.125	.234	.795	.125	2.000			1.8750	1.8636
28	1-3/4	2-1/4-12 UNJ-3A	1.547	.451	2.125	1.646	2.500	2.131		1.781			.868		2.375			2.2500	2.2386
32	2	2-1/2-12 UNJ-3A	1.781	.461	2.375	1.880	2.750	2.301		1.906			.878		2.625		.044	2.5000	2.4886
40	2-1/2	3-12 UNJ-3A	2.281	.395	2.882	2.380	3.250	2.881		1.719			.895		3.125			3.0000	2.9886
48	3	3-1/2-12 UNJ-3A	2.781		3.382	2.880	3.750	3.331		1.812			.978		3.625			3.5000	3.4886

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P.A. AIR FORCE- 82

Other Code

ARMY-AR
NAVY-AS
AIR FORCE-99

PROCUREMENT SPECIFICATION
NONE

TITLE
FITTING END, STANDARD DIMENSIONS FOR BULKHEAD FLARED
TUBE CONNECTION

SUPERSEDES:
AND10057

MILITARY STANDARD

MS33657

SHEET 2 OF 2

(G) FOR CHANGE SEE SHEET I.

APPROVED 15 MAY 57 REVISED