

Review activities: Navy - 11
USAF - AR, HI
Army - CS
Navy - OS
Army - OL, CR, PB, AT
USA - CS

This military standard is approved by the Department of Defense and is mandatory on all activities. Selection for all new engineering and design applications and for repetitive use shall be made from this document.

PREL. SUPP. CLASS 4730

ACROSS WRENCH PAD

FITTING ENDS IN ACCORDANCE WITH MS33511, STYLE G 2 ENDS

DRILL DEPTH Y

THREAD T

90°

TOLERANCE UP TO AND INCLUDING
-6 SIZE $\pm 2-1/2^\circ$, ABOVE
-6 SIZE $\pm 1-1/2^\circ$

DRILL DEPTH Y

DASH NO.	TUBE OF	THREAD T MIL-8879	(a) Q +3/64 -0	R 1/2	R RAD	V	W APPROX	X APPROX	Y +3/64 -0	WT LB MAX		
										STEEL	AL ALLOY	TI ALLOY
-2	1/8	.3125-24 UNF-3A	3/4	5/32	2/16	5/16	5/16	3/16	25/32	.040	.014	.023
-3	3/16	.3750-24 UNF-3A	13/16	3/16		3/8			27/32	.056	.020	.032
-4	1/4	.4375-24 UNF-3A	7/8	7/32		7/16	3/8	59/64	.062	.022	.035	
-5	5/16	.5000-24 UNF-3A	15/16	1/4		1/2	1/2	63/64	.086	.031	.049	
-6	3/8	.5625-24 UNF-3A	1-1/32	9/32	3/32	9/16	1/2	5/16	1-1/16	.104	.037	.060
-8	1/2	.6250-24 UNF-3A	1-1/2	3/8		5/4			5/8	7/16	1-5/16	.192
-1	5/8	.6875-24 UNF-3A	1-13/16	7/16		7/8	3/4	7/16	1-21/32	.249	.087	.148
-10	3/4	.7500-24 UNF-3A	1-5/8	1-1/8		1-1/16	7/8	1/2	1-5/8	.442	.135	.242
-11	1	.8125-24 UNF-3A	1-23/32	21/32	1/2	1-5/16	1-1/2	5/8	1-27/32	.538	.200	.308
-12	1-1/4	.8750-24 UNF-3A	1-7/8	13/16		1-5/8			1-1/4	3/4	2	.792
-21	1-1/2	.9375-24 UNF-3A	2	1-1/8		1-7/8	1-1/2	7/8	2-5/16	1.262	.403	.719
-30	2	1.0000-24 UNF-3A	2-1/4	1-1/4		2-1/8	2	1-3/16	2-21/16	3.468	1.125	1.766

(a) IF THE TUBE IS OF THE MANUFACTURE OF A FOREIGN COUNTRY WITH A 1/4 IN. WALL OR THICKER, THE TUBE SHALL BE IDENTIFIED WITH THE INDENTATION THAT LIES DOWN TO 1/4 IN. WALL 1/4 IN. DEEP, THAT THE IDENTIFICATION IS MADE.

(b) PARTS WITH THREADS IN ACCORDANCE WITH MIL-8879 OF THE SAME THREAD SIZE, PITCH AND TOLERANCE CLASS ARE ACCEPTABLE FOR PROCUREMENT UNTIL 1 JAN 56. ALL PARTS WITH MIL-8879 THREADS WILL NOT BE PURCHASED THEREAFTER. EXISTING STOCKS ARE TO BE USED UNTIL EXHAUSTED.

1. MATERIAL: CARBON STEEL - FORGINGS
ALUMINUM ALLOY - FORGINGS
CORROSION RESISTANT STEEL - FORGINGS
TITANIUM ALLOY - FORGINGS

2. FINISH: SEE PROCUREMENT SPECIFICATION

3. BREAK ALL SHARP EDGES AND REMOVE ALL BURRS AND SLIVERS.

4. DIMENSIONS IN INCHES. UNLESS OTHERWISE SPECIFIED, TOLERANCES: FRACTIONS $\pm 1/64$.

SEE PROCUREMENT SPECIFICATION.
NOTE: PARTS MADE FROM 1137 OR 1141 FORGINGS QUALIFIED TO MIL-P-18280C SHALL NOT BE SUPPLIED AFTER 30 JUNE 1984.

(F) DENOTES CHANGES

P.A. Navy - AS Other Cost USAF - 99 Army - AV	INTERNATIONAL INTEREST SEE NOTE 7	TITLE ELBOW, FLARELESS TUBE, 90°	MILITARY STANDARD MS21904
PROCUREMENT SPECIFICATION MIL-P-18280	SUPERSEDES:	SHEET 1 OF 2	

DD FORM 672-1 (Coordinated)
ASD use only

PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

PROJECT NO. 4730-0663

APPROVED 4 Oct 51
REVISED 28 Jun 51
2 May 56
13 Nov 58
27 June 69
26 JUNE 1981
22 JUNE 84

FED. SUP CLASS
4730

5. PART NUMBERS:

NO CODE LETTER IN PART NUMBER FOR CARBON STEEL.

ADD D IN PLACE OF DASH FOR ALUMINUM ALLOY (2024).

ADD W IN PLACE OF DASH FOR ALUMINUM ALLOY (7075).

~~ADD C AFTER DASH NUMBER FOR CORROSION RESISTANT STEEL, TYPE 302, 303, 304, 316, OR 321.~~

ADD J IN PLACE OF DASH FOR CORROSION RESISTANT STEEL, TYPE 304.

ADD K IN PLACE OF DASH FOR CORROSION RESISTANT STEEL, TYPE 316.

ADD S AFTER DASH NUMBER FOR CORROSION RESISTANT STEEL, TYPE 304 AND 316. PARTS ARE NOT TO BE MANUFACTURED

FROM TYPE 304L STEEL AFTER 27 JUNE 1969.

ADD T AFTER DASH NUMBER FOR TITANIUM ALLOY (6AL-4V).

EXAMPLES OF PART NUMBERS:

MS21904-L - ELBOW, 1/4 TUBING, CARBON STEEL.

MS21904DL - ELBOW, 1/4 TUBING, ALUMINUM ALLOY (2024).

MS21904WL - ELBOW, 1/4 TUBING, ALUMINUM ALLOY (7075).

MS21904JL - ELBOW, 1/4 TUBING, CORROSION RESISTANT STEEL, TYPE 304.

MS21904KL - ELBOW, 1/4 TUBING, CORROSION RESISTANT STEEL, TYPE 316.

MS21904SL - ELBOW, 1/4 TUBING, CORROSION RESISTANT STEEL, TYPE 316.

MS21904TL - ELBOW, 1/4 TUBING, TITANIUM ALLOY (6AL-4V).

6. ~~PARTS CODED C ARE INACTIVE FOR DESIGN AFTER 27 JUNE 1969. PARTS CODED C MAY BE USED UNTIL STOCKS ARE~~~~EXHAUSTED. PARTS CODED J OR W MAY BE USED IN LIEU OF PARTS CODED C.~~

ITEMS CODED "C" ON PREVIOUS ISSUES OF THIS STANDARD ARE NO LONGER TO BE FURNISHED. UNLESS OTHERWISE SPECIFIED, PARTS CODED J, K, OR S (AT SUPPLIER'S OPTION) SHALL BE FURNISHED IN LIEU OF "C" CODED PARTS.

7. CERTAIN PROVISIONS (SCREWS THREADS) OF THIS STANDARD ARE THE SUBJECT OF INTERNATIONAL STANDARDIZATION AGREEMENT ASQC AIR STD 17/15. WHEN REVISION, OR CANCELLATION OF THIS STANDARD IS PROPOSED WHICH WILL AFFECT OR VIOLATE THE INTERNATIONAL AGREEMENT CONCERNED, THE PREPARING ACTIVITY WILL TAKE APPROPRIATE RECONCILIATION ACTION THROUGH INTERNATIONAL STANDARDIZATION CHANNELS, INCLUDING DEPARTMENTAL STANDARDIZATION OFFICES, IF REQUIRED.

8. TITANIUM NOT RECOMMENDED FOR USE IN OXYGEN SYSTEMS.

9. FOR DESIGN FEATURE PURPOSES, THIS STANDARD TAKES PRECEDENCE OVER PROCUREMENT DOCUMENTS REFERENCED HEREIN.

10. REFERENCED DOCUMENTS SHALL BE OF THE ISSUE IN EFFECT ON DATE OF INVITATIONS FOR BID.

Review activities: Navy - OS, 11, AF, MI, USAF - 99, Army - AV, U.S.A. - CS

User activities: Navy - OS, 11, AF, MI, USAF - 99, Army - AV, U.S.A. - CS

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APPROVED L Oct 51 REVISED P FOR CHANGES SEE SHEET 1

P.A. Navy - AS Other - AS USAF - 99 Army - AV	INTERNATIONAL INTEREST SEE NOTE 7	TITLE ELBOW, FLARELESS TUBE, 90°	MILITARY STANDARD	
			MS21904	
PROCUREMENT SPECIFICATION MIL-F-18280		SUPERSEDES:	SHEET 2 OF 2	

DD FORM 672-1 (Coordinated)

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