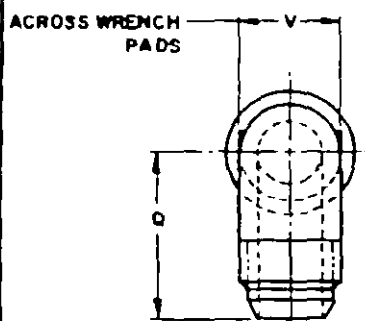
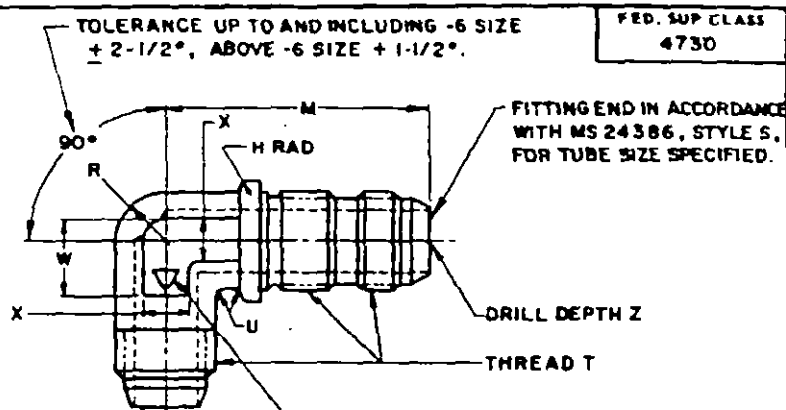


FED. SUP CLASS  
4730

DRILL DEPTH Y

FITTING END IN ACCORDANCE  
WITH MS 24386, STYLE S,  
FOR TUBE SIZE SPECIFIED.

DRILL DEPTH Z

THREAD T

EXCEPT AS NOTED,  
FITTING END IN ACCORDANCE  
WITH MS 24385, STYLE G.MARK EACH WRENCH PAD WITH AN  
EQUILATERAL TRIANGLE TO DENOTE  
PRECISION TYPE. MARKING SHALL BE  
DEPRESSED .025  $\pm$  .010.

| DASH NO. | TUBING OD | THREAD T (REF)  | H RAD | M<br>+3/64<br>-0 | Q<br>+3/64<br>-0 | R RAD | U RAD | V      |
|----------|-----------|-----------------|-------|------------------|------------------|-------|-------|--------|
| 2        | 1/8       | 5/16-24UNJF-3A  | 1/32  | 1-13/32          | 53/64            | 5/32  | 1/16  | 5/16   |
| 3        | 3/16      | 3/8-24UNJF-3A   |       | 1-7/16           | 57/64            | 3/16  |       | 3/8    |
| 4        | 1/4       | 7/16-20UNJF-3A  |       | 1-37/64          | 61/64            | 7/32  |       | 7/16   |
| 5        | 5/16      | 1/2-20UNJF-3A   | 1/16  | 1-39/64          | 1-1/64           | 1/4   | 3/32  | 1/2    |
| 6        | 3/8       | 9/16-18UNJF-3A  |       | 1-51/64          | 1-5/64           | 9/32  |       | 9/16   |
| 8        | 1/2       | 3/4-16UNJF-3A   |       | 2-3/32           | 1-11/32          | 3/8   |       | 3/4    |
| 10       | 5/8       | 7/8-14UNJF-3A   | 3/32  | 2-3/8            | 1-35/64          | 7/16  | 1/8   | 7/8    |
| 12       | 3/4       | 1-1/16-12UNJ-3A |       | 2-21/32          | 1-49/64          | 17/32 |       | 1-1/16 |
| 16       | 1         | 1-5/16-12UNJ-3A |       | 2-25/32          | 1-59/64          | 21/32 |       | 1-5/16 |
| 20       | 1-1/4     | 1-5/8-12UNJ-3A  |       | 3-7/64           | 2-5/32           | 13/16 | 3/16  | 1-5/8  |
| 24       | 1-1/2     | 1-7/8-12UNJ-3A  |       | 3-13/32          | 2-21/64          | 15/16 |       | 1-7/8  |
| 28       | 1-3/4     | 2-1/4-12UNJ-3A  |       | 3-25/32          | 2-19/32          | 1-1/8 |       | 2-1/4  |
| 32       | 2         | 2-1/2-12UNJ-3A  |       | 4-3/32           | 2-7/8            | 1-1/4 |       | 2-9/16 |

| DASH<br>NO. | U<br>+1/32 | X<br>+1/32 | Y<br>+3/64<br>-0 | Z<br>+3/64<br>-0 |
|-------------|------------|------------|------------------|------------------|
| 2           | 5/16       | 3/16       | 55/64            | 1- 7/16          |
| 3           |            | 1/4        | 59/64            | 1-15/32          |
| 4           |            |            | 63/64            | 1-39/64          |
| 5           | 1/2        |            | 1- 3/64          | 1-41/64          |
| 6           |            | 1- 7/64    | 1-33/64          |                  |
| 8           |            | 1- 3/8     | 2- 1/8           |                  |
| 10          | 3/4        | 7/16       | 1-41/64          | 2-15/32          |
| 12          | 7/8        | 1/2        | 1-55/64          | 2- 3/4           |
| 16          | 1-1/16     | 5/8        | 2- 1/64          | 2- 7/8           |
| 20          | 1-1/4      | 3/4        | 2- 9/32          | 3-15/64          |
| 24          | 1-7/16     | 7/8        | 2-31/64          | 3-39/64          |
| 28          | 1-3/4      | 1-1/16     | 2-25/32          | 4- 1/16          |
| 32          | 1-15/16    | 1-3/16     | 2-15/16          | 4-29/64          |

|   |  |   |
|---|--|---|
| P.A. AIR FORCE 82<br>Other Case<br>AIR FORCE 99 | TITLE<br><b>ELBOW, TUBE, BULKHEAD, 90°,<br/>PRECISION TYPE</b> | <b>MILITARY STANDARD</b><br><b>MS 24394</b> |
| PROCUREMENT SPECIFICATION<br>MIL-F-8509         | SUPERSEDES:<br><del>AN 855</del>                               | SHEET 1 OF 2                                |

DD FORM 672-1 Limited  
Coordination

PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE.

Project No: 4730-0680

Review activities: ARMY-ME, AV  
NAVY-A5  
DSC-C8

User activities:

This Military Standard is approved for use by HQ AFLC CASO/LOOS, Federal Center, Bedford, MA 01016, Department of the Air Force, and is available for use by all Departments and agencies of the Department of Defense.

APPROVED 13 APR 57 REVISED A 6 MAR 58 B 5 SEP 62 C 10 FEB 67 D 16 JUN 78 E 22 MAR 79 F 16 APR 82 G 16 NOV 84

FED. SUP CLASS  
4730

MATERIAL: STEEL; ALUMINUM ALLOY; CORROSION RESISTANT STEEL (CRES); TITANIUM ALLOY; BARS, SHAPES, OR FORGINGS (SEE PROCUREMENT SPECIFICATION).

FINISH: SEE PROCUREMENT SPECIFICATION.

NO CODE LETTER IN PART NUMBER FOR STEEL.

ADD W IN PLACE OF DASH FOR 7075-T73 ALUMINUM ALLOY.

ADD D IN PLACE OF DASH FOR ALUMINUM ALLOY (EXCEPT 7075-T73).

ADD J IN PLACE OF DASH FOR CRES, TYPE 304.

ADD K IN PLACE OF DASH FOR CRES, TYPE 316.

ADD S IN PLACE OF DASH FOR CRES, TYPE 3A7.

ADD T IN PLACE OF DASH FOR TITANIUM ALLOY.

EXAMPLE OF PART NUMBERS:

- (B) MS24394-B - ELBOW, 1/2 TUBING, STEEL.  
MS24394D - ELBOW, 1/2 TUBING, ALUMINUM ALLOY (EXCEPT 7075-T73).  
MS24394JB - ELBOW, 1/2 TUBING, CRES, TYPE 304.  
MS24394KB - ELBOW, 1/2 TUBING, CRES, TYPE 316.  
MS24394SB - ELBOW, 1/2 TUBING, CRES, TYPE 3A7.  
MS24394TB - ELBOW, 1/2 TUBING, TITANIUM ALLOY.  
MS24394WB - ELBOW, 1/2 TUBING, 7075-T73 ALUMINUM ALLOY.

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

DIMENSIONS IN INCHES. UNLESS OTHERWISE SPECIFIED, TOLERANCES: FRACTIONS  $\pm 1/64$ , DECIMALS  $\pm .003$ .

ANGLES  $\pm 1/2^\circ$ .

IN ADDITION TO THE SAMPLING REQUIREMENTS OF THE PROCUREMENT SPECIFICATION, THE SURFACE OF THE CONE

ENDS ON 100% OF THE ELBOWS OF A LOT SHALL BE INSPECTED.

TITANIUM IS NOT RECOMMENDED IN OXYGEN SYSTEMS.

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

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

Review activities:

ARMY-ME, AV  
NAVY-AS  
DNC-GS

Review activities:

This Military Standard is approved for use by HQ AFCL CASO/LODS, Federal Center, Battle Creek, MI 49016, Department of the Air Force and is available for use by all Departments and agencies of the Department of Defense.

APPROVED 13 MAR 97 REVISED (6) FOR CHANGES SEE SHEETS 2

|  |   |                              |
|--|---|------------------------------|
| P.A. AIR FORCE 82<br>Other: AIR FORCE - 99 | TITLE<br>ELBOW, TUBE, BULKHEAD, 90°<br>PRECISION TYPE | MILITARY STANDARD<br>MS24394 |
| PROCUREMENT SPECIFICATION<br>MIL-F-5509    | SUPERSEDES:<br>-NONE-                                 | SHEET 2 OF 2                 |