

REV. B

AS24654™

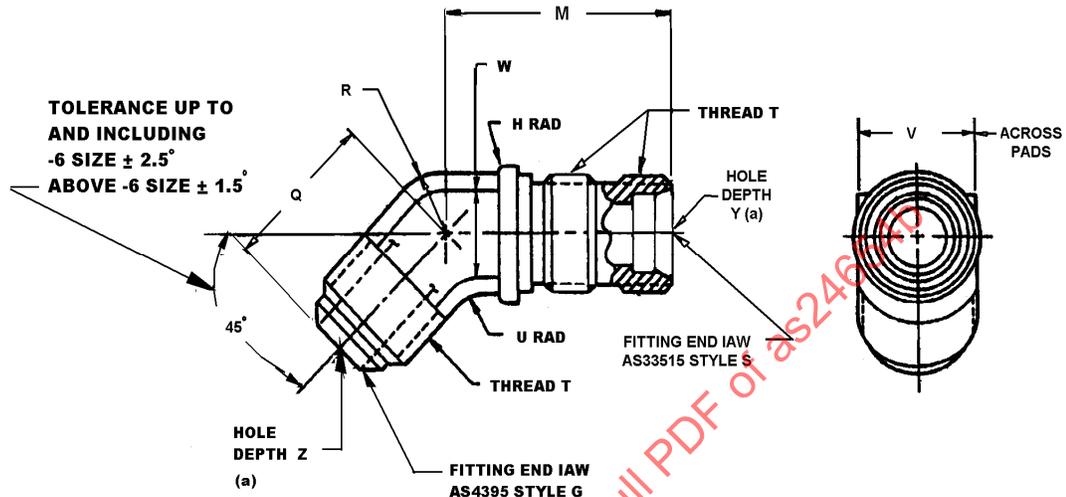
FEDERAL SUPPLY CLASS
4730

RATIONALE

ADD NOTE: "WHEN MACHINED FROM BAR OR OVERSIZE FORGING, THE CENTER BODY DIMENSIONS SHALL CONFORM TO AS1376, TABLE 1." NOTES 6, 7, 11, 12, AND 15 ADDED TO HARMONIZE THIS STANDARD WITH OTHER AS219XX STANDARDS. UPDATE PROCUREMENT SPECIFICATION NOTE TO CURRENT VERBIAGE.

NOTICE

THE INITIAL PUBLICATION OF THIS DOCUMENT WAS TAKEN DIRECTLY FROM U.S. MILITARY STANDARD MS24654. AS5242 IS THE SUGGESTED REPLACEMENT STANDARD. AS5242 ELIMINATES THE POSSIBILITIES OF PART NUMBER DISCREPANCIES ORIGINATING FROM MS24654 PART NUMBERS.



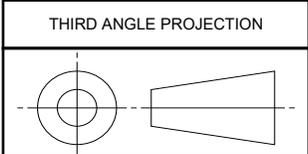
- (a) DEPTHS Y AND Z SHOULD BE MACHINED SUCH THAT THE ELBOW SECTIONAL AREA AT THE JUNCTION OF THE PASSAGES IS NOT SMALLER THAN THE ELBOW SECTIONAL AREA OF THE SMALLER HOLE. Y AND Z AT THEIR DEEPEST POINTS SHALL NOT EXCEED BEYOND THE WALL ESTABLISHED BY THE INTERSECTING HOLE.

FIGURE 1 - ELBOW, TUBE, 45°, BULKHEAD, FLARELESS TUBE TO FLARED TUBE

TABLE 1 - DIMENSIONS H-W

DASH NO.	TUBE OD	THREAD T AS8879 CLASS 3A	H RAD	M +.047 - .000	Q +.047 - .000	R RAD	U RAD	V	W APPROX
-3	.188	.3750-24UNJF	.062	1.328	.641	.188	.062	.375	.219
-4	.250	.4375-20UNJF	.062	1.453	.703	.219	.062	.438	.312
-5	.312	.5000-20UNJF	.094	1.453	.750	.250	.094	.500	.312
-6	.375	.5625-18UNJF	.094	1.562	.812	.281	.094	.562	.375
-8	.500	.7500-16UNJF	.094	1.812	.969	.375	.094	.750	.500
-10	.625	.8750-14UNJF	.094	2.047	1.094	.438	.094	.875	.625
-12	.750	1.0625-12UNJ	.094	2.250	1.266	.531	.094	1.062	.812
-16	1.000	1.3125-12UNJ	.125	2.375	1.453	.656	.125	1.312	1.000
-20	1.250	1.6250-12UNJ	.125	2.406	1.578	.812	.125	1.625	1.250
-24	1.500	1.8750-12UNJ	.125	2.422	1.766	.938	.125	1.875	1.600
-32	2.000	2.5000-12UNJ	.125	2.578	2.203	1.250	.250	2.562	2.000

For more information on this standard, visit <https://www.sae.org/standards/content/AS24654B/>



CUSTODIAN: G-3/G-3B

PROCUREMENT SPECIFICATION: AS18280 /10/



AEROSPACE STANDARD
ELBOW, TUBE,
45°, BULKHEAD,
FLARELESS TUBE UNIVERSAL TO FLARED TUBE

AS24654™
SHEET 1 OF 3

REV. B

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ISSUED 1999-07 REAFFIRMED 2004-04 REVISED 2023-01

NOTES:

NOTICE

THIS DOCUMENT REFERENCES A PART WHICH CONTAINS CADMIUM AS PLATING MATERIAL. CONSULT LOCAL OFFICIALS IF YOU HAVE QUESTIONS CONCERNING CADMIUM USE.

1. MATERIALS: REFER TO PROCUREMENT SPECIFICATION.

ALLOY STEEL
ALUMINUM ALLOY
CORROSION RESISTANT STEEL
TITANIUM ALLOY

2. FINISH: REFER TO PROCUREMENT SPECIFICATION.

3. BREAK EDGES .003 TO .015, UNLESS OTHERWISE SPECIFIED.

4. DIMENSIONS ARE IN INCHES. UNLESS OTHERWISE SPECIFIED, TOLERANCES: DECIMALS ± 0.015 , ANGLES $\pm 0^{\circ}30'$.

- /5/ PART NUMBERS:

NO CODE LETTER "L" IN PART NUMBER FOR 4130 ALLOY STEEL IS REPLACED BY CODE LETTER "F." SEE TABLE 2. /17A/
ADD "F" IN PLACE OF DASH FOR 4130 ALLOY STEEL IS REPLACEMENT FOR CODE "L".
ADD "V(SIZE)P" IN PLACE OF DASH FOR CORROSION RESISTANT STEEL (15-5PH), CADMIUM PLATED.
ADD "V" IN PLACE OF DASH FOR CORROSION RESISTANT STEEL (15-5PH), NOT CADMIUM PLATED.
ADD "D" AFTER DASH NUMBER FOR ALUMINUM ALLOY (2024) IS REPLACED BY CODE "W" ALUMINUM 7075. SEE TABLE 2. /17C/
ADD "W" AFTER DASH NUMBER FOR ALUMINUM ALLOY (7075).
ADD "J" AFTER DASH NUMBER FOR CORROSION RESISTANT STEEL (TYPE 304).
ADD "K" AFTER DASH NUMBER FOR CORROSION RESISTANT STEEL (TYPE 316).
ADD "R" AFTER DASH NUMBER FOR CORROSION RESISTANT STEEL (TYPE 321).
ADD "S" AFTER DASH NUMBER FOR CORROSION RESISTANT STEEL (TYPE 347) IS REPLACED BY CODE "R." SEE TABLE 2. /17D/
ADD "T" AFTER DASH NUMBER FOR TITANIUM ALLOY (6AL-4V).

EXAMPLES OF PART NUMBERS:

MS24654-4 ELBOW, .250 TUBING, 45° 4130 ALLOY STEEL IS REPLACED. SEE TABLE 2. /17A/
MS24654F4 ELBOW, .250 TUBING, 45° 4130 ALLOY STEEL.
MS24654V4P ELBOW, .250 TUBING, 45° CRES (15-5PH), CADMIUM PLATED.
MS24654V4 ELBOW, .250 TUBING, 45° CRES (15-5PH), NOT CADMIUM PLATED.
MS24654-4D ELBOW, .250 TUBING, 45° ALUMINUM ALLOY (2024) IS REPLACED. SEE TABLE 2. /17C/
MS24654-4W ELBOW, .250 TUBING, 45° ALUMINUM ALLOY (7075).
MS24654-4J ELBOW, .250 TUBING, 45° CRES (TYPE 304).
MS24654-4K ELBOW, .250 TUBING, 45° CRES (TYPE 316).
MS24654-4R ELBOW, .250 TUBING, 45° CRES (TYPE 321).
MS24654-4S ELBOW, .250 TUBING, 45° CRES (TYPE 347) IS REPLACED BY CODE "R." SEE TABLE 2. /17D/
MS24654-4T ELBOW, .250 TUBING, 45° TITANIUM ALLOY (6AL-4V).

6. PART MARKING: REFER TO PROCUREMENT SPECIFICATION.

7. DIMENSIONING AND TOLERANCING: ASME Y14.5M-1982.

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

9. IN THE EVENT OF A CONFLICT BETWEEN THE TEXT OF THIS STANDARD AND THE REFERENCES CITED HEREIN, THE TEXT OF THIS STANDARD SHALL TAKE PRECEDENCE.

- /10/ PROCUREMENT SPECIFICATION: AS18280, EXCEPT AS SPECIFIED ON THIS STANDARD. PRODUCT MANUFACTURED TO THIS STANDARD SHALL MEET THE REQUIREMENTS SPECIFIED HEREIN AND THE PROCUREMENT SPECIFICATION. ORIGINAL COMPONENT MANUFACTURERS (OCM) SHALL BE LISTED IN THE PRI QUALIFIED PRODUCTS LIST (QPL) PRI-QPL-AS18280 FOR THIS STANDARD. SEE www.eAuditNet.com FOR CURRENT QPL ONLINE.

11. SURFACE TEXTURE: SYMBOLS PER ASME Y14.36M. REQUIREMENTS PER ASME B46.1. UNLESS OTHERWISE SPECIFIED, MACHINED SURFACE SHALL BE 125 MICRONS Ra.

	AEROSPACE STANDARD	AS24654™ SHEET 2 OF 3	REV. B
	ELBOW, TUBE, 45°, BULKHEAD, FLARELESS TUBE UNIVERSAL TO FLARED TUBE		