

REV.
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SAE AS21909

FEDERAL SUPPLY CLASS
4730

RATIONALE

STANDARD UPDATED TO CORRECT SAE TEMPLATE TO ADD A REVISION BLOCK, ADD NEW DESIGN INACTIVATION, AND GENERAL SAE UPDATING.

NOTICE

THE INITIAL SAE PUBLICATION OF THIS DOCUMENT WAS TAKEN DIRECTLY FROM U.S. MILITARY STANDARD MS21909. THIS SAE STANDARD RETAINS THE SAME PART NUMBERS ESTABLISHED BY THE ORIGINAL MILITARY DOCUMENT.

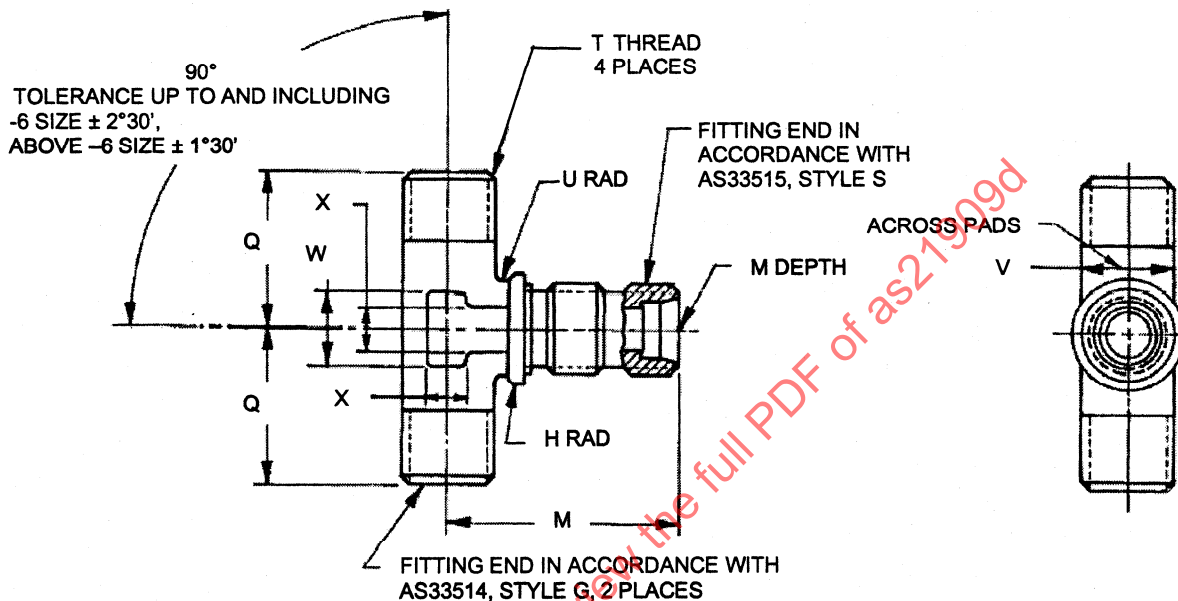
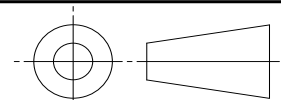


FIGURE 1 - TEE, BULKHEAD AND UNIVERSAL, FLARELESS TUBE

INACTIVE FOR NEW DESIGN /15/

SAE values your input. To provide feedback on this Technical Report, please visit <http://www.sae.org/technical/standards/AS21909D>

THIRD ANGLE PROJECTION



CUSTODIAN: SAE G-3/G-3B

PROCUREMENT SPECIFICATION: /10/ AS18280

SAE Aerospace
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AEROSPACE STANDARD

TEE, BULKHEAD AND UNIVERSAL, FLARELESS TUBE

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TABLE 1A - DIMENSIONS H-U

DASH NO /5/	NOMINAL TUBE SIZE REF	(T) THREAD AS8879	H RAD	M +.047 -.000	Q +.047 -.000	U RAD
2	.125	.3125-24 UNJF-3A	.062	1.312	.781	.062
3	.188	.3750-24 UNJF-3A	.062	1.390	.906	.062
4	.250	.4375-20 UNJF-3A	.062	1.500	.937	.062
5	.313	.5000-20 UNJF-3A	.094	1.531	1.031	.062
6	.375	.5625-18 UNJF-3A	.094	1.687	1.062	.094
8	.500	.7500-16 UNJF-3A	.094	1.969	1.312	.094
10	.625	.8750-14 UNJF-3A	.094	2.250	1.500	.125
12	.750	1.0625-12 UNJ-3A	.094	2.469	1.625	.125
16	1.000	1.3125-12 UNJ-3A	.125	2.594	1.719	.125
20	1.250	1.6250-12 UNJ-3A	.125	2.875	2.000	.187
24	1.500	1.8750-12 UNJ-3A	.125	3.156	2.187	.187
32	2.000	2.5000-12 UNJ-3A	.125	3.750	2.375	.187

TABLE 1B - DIMENSIONS V-X

DASH NO /5/	V	W APPROX	X APPROX	WEIGHT, LB/EA, APPROX, REF		
				STEEL	AL ALLOY	TI ALLOY
2	.312	.312	.187	.062	.022	.035
3	.375	.312	.250	.078	.028	.045
4	.437	.375	.250	.094	.033	.054
5	.500	.500	.312	.141	.048	.081
6	.562	.500	.312	.165	.058	.089
8	.750	.625	.437	.304	.108	.175
10	.875	.750	.437	.450	.166	.259
12	1.062	.825	.500	.700	.255	.403
16	1.312	1.062	.625	.965	.342	.556
20	1.625	1.250	.750	1.720	.620	.992
24	1.875	1.437	.875	2.220	.815	1.280
32	2.562	1.937	1.188			

NOTES:

NOTICE

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

1. MATERIAL:

SEE PROCUREMENT SPECIFICATION.
 ALLOY STEEL
 ALUMINUM ALLOY
 CORROSION RESISTANT STEEL
 TITANIUM ALLOY

2. FINISH: SEE PROCUREMENT SPECIFICATION.

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

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4. DIMENSIONS ARE IN INCHES. UNLESS OTHERWISE SPECIFIED, TOLERANCES: DECIMALS ± 0.016 , ANGLES $\pm 0^{\circ}30'$.

/5/ PART NUMBERS:

DASH “-” IN PART NUMBER FOR 4130 ALLOY STEEL IS CANCELLED AND REPLACED, SEE TABLE 2 /A/
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” IN PLACE OF DASH FOR ALUMINUM ALLOY (2014): CANCELLED AND REPLACED, SEE TABLE 2 /C/
ADD “W” IN PLACE OF DASH FOR ALUMINUM ALLOY (7075)
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 “R” AFTER DASH NUMBER FOR CORROSION RESISTANT STEEL (TYPE 321)
ADD “S” AFTER DASH NUMBER FOR CORROSION RESISTANT STEEL (TYPE 347): CANCELLED, SEE TABLE 2 /D/
ADD “T” AFTER DASH NUMBER FOR TITANIUM ALLOY (6AL-4V)

EXAMPLES OF PART NUMBERS:

MS21909-4	TEE, .250 TUBING, 4130 ALLOY STEEL IS CANCELLED AND REPLACED, SEE TABLE 2 /A/
MS21909V4P	TEE, .250 TUBING, CORROSION RESISTANT STEEL (15-5PH), CADMIUM PLATED
MS21909V4	TEE, .250 TUBING, CORROSION RESISTANT STEEL (15-5PH), NOT CADMIUM PLATED
MS21909D4	TEE, .250 TUBING, ALUMINUM ALLOY (2014) IS CANCELLED AND REPLACED, SEE TABLE 2 /C/
MS21909W4	TEE, .250 TUBING, ALUMINUM ALLOY (7075)
MS21909J4	TEE, .250 TUBING, CORROSION RESISTANT STEEL (TYPE 304)
MS21909K4	TEE, .250 TUBING, CORROSION RESISTANT STEEL (TYPE 316)
MS21909-4R	TEE, .250 TUBING, CORROSION RESISTANT STEEL (TYPE 321)
MS21909-4S	TEE, .250 TUBING, CORROSION RESISTANT STEEL (TYPE 347) IS CANCELLED, SEE TABLE 2 /D/
MS21909-4T	TEE, .250 TUBING, TITANIUM ALLOY (6AL-4V)

6. PART MARKING: SEE PROCUREMENT SPECIFICATION.

7. DIMENSIONING AND TOLERANCING: ASME Y14.5M-1994.

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 SUPPLIED TO THIS SPECIFICATION SHALL BE MANUFACTURED BY AN ACCREDITED MANUFACTURER LISTED IN THE PERFORMANCE REVIEW INSTITUTE (PRI) QUALIFIED PRODUCTS LIST (QPL) PRI-QPL-AS18280 FOR THIS STANDARD. SEE www.eauditnet.com FOR CURRENT QPL ON-LINE.

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

12. A CHANGE BAR () LOCATED IN THE LEFT MARGIN IS FOR THE CONVENIENCE OF THE USER IN LOCATING AREAS WHERE TECHNICAL REVISIONS, NOT EDITORIAL CHANGES, HAVE BEEN MADE TO THE PREVIOUS ISSUE OF THIS DOCUMENT. AN (R) SYMBOL TO THE LEFT OF THE DOCUMENT TITLE INDICATES A COMPLETE REVISION OF THE DOCUMENT, INCLUDING TECHNICAL REVISIONS. CHANGE BARS AND (R) ARE NOT USED IN ORIGINAL PUBLICATIONS, NOR IN DOCUMENTS THAT CONTAIN EDITORIAL CHANGES ONLY.

13. INTERPRETATION OF DRAWING PER ARP4296.

14. FLUID PASSAGE, HOLE CONTOUR: ARP4266 (OPTIONAL).

/15/ ALL PART NUMBERS MS21909 IN ACCORDANCE WITH AS21909 ARE INACTIVE FOR NEW DESIGN EFFECTIVE AUGUST 2009. FOR NEW DESIGN SEE AS1009.

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