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REV.  
F

AS21909™

FEDERAL SUPPLY CLASS  
4730

## RATIONALE

ADD NOTE: "WHEN MACHINED FROM BAR OR OVERSIZE FORGING, THE CENTER BODY DIMENSIONS SHALL CONFORM TO AS1376, TABLE 1." "INACTIVE" REMOVED FROM MATERIAL CODE "S" AND REPLACED BY EXPLANATORY NOTE /17D/. UPDATE PROCUREMENT SPECIFICATION NOTE TO CURRENT VERBIAGE.

## NOTICE

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

PROCUREMENT OF MS21909 PART NUMBERS TO THIS "AS" STANDARD MAY RESULT IN LOSS OF CONFIGURATION CONTROL WHERE DIFFERENCES IN THE CANCELLED MIL-F-18280 AND THE SUPERSEDING AS18280 PROCUREMENT SPECIFICATIONS EXIST.

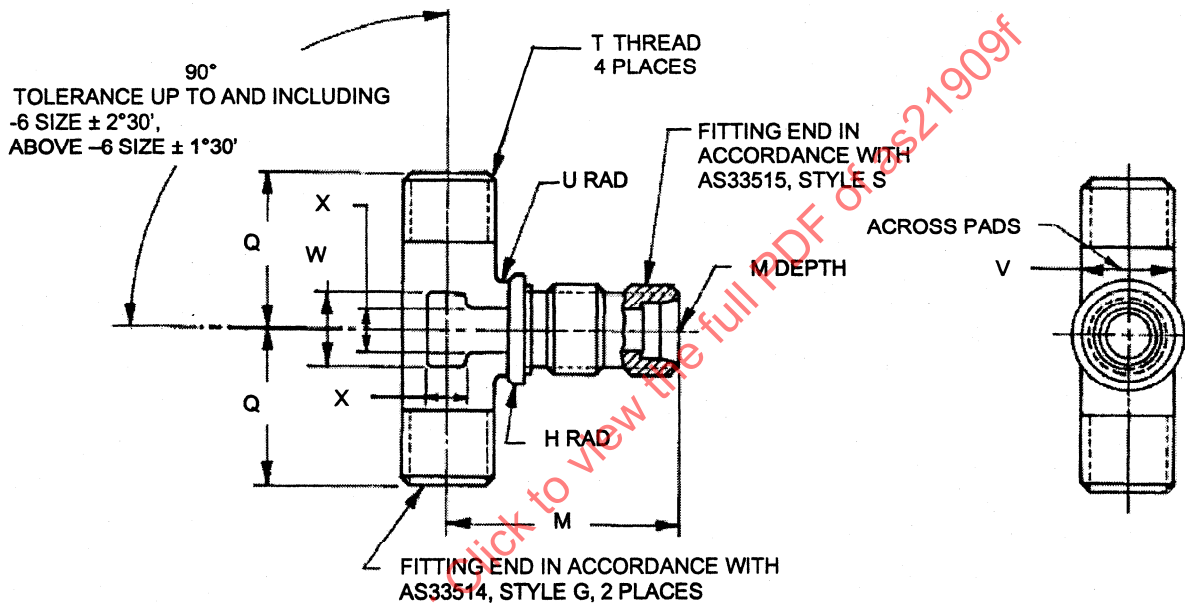
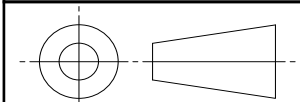


FIGURE 1 - TEE, BULKHEAD AND UNIVERSAL, FLARELESS TUBE

For more information on this standard, visit  
<https://www.sae.org/standards/content/AS21909F/>

THIRD ANGLE PROJECTION



CUSTODIAN: G-3/G-3B

PROCUREMENT SPECIFICATION: AS18280 /10/



## AEROSPACE STANDARD

TEE,  
BULKHEAD AND UNIVERSAL,  
FLARELESS TUBE

AS21909™  
SHEET 1 OF 4

REV.  
F

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ISSUED 1998-03 REAFFIRMED 2007-07 REVISED 2023-02

TABLE 1A - DIMENSIONS H-U

DASH NO. /5/	NOMINAL		H RAD	M +.047 -.000	Q +.047 -.000	U RAD
	TUBE SIZE REF	(T) THREAD AS8879				
-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:

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  $\pm 0.016$ , ANGLES  $\pm 0^\circ 30'$ .

	<b>AEROSPACE STANDARD</b>		<b>AS21909™</b> SHEET 2 OF 4	<b>REV.</b> <b>F</b>
	TEE, BULKHEAD AND UNIVERSAL, FLARELESS TUBE			


/5/ PART NUMBERS:

MATERIAL CODE DASH "-" IN PART NUMBER FOR 4130 ALLOY STEEL.  
 ADD MATERIAL CODE "V(SIZE)P" IN PLACE OF DASH FOR CORROSION RESISTANT STEEL (15-5PH), CADMIUM PLATED.  
 ADD MATERIAL CODE "V" IN PLACE OF DASH FOR CORROSION RESISTANT STEEL (15-5PH), NOT CADMIUM PLATED.  
 ADD MATERIAL CODE "D" IN PLACE OF DASH FOR ALUMINUM ALLOY (2014).  
 ADD MATERIAL CODE "W" IN PLACE OF DASH FOR ALUMINUM ALLOY (7075).  
 ADD MATERIAL CODE "J" IN PLACE OF DASH FOR CORROSION RESISTANT STEEL (TYPE 304).  
 ADD MATERIAL CODE "K" IN PLACE OF DASH FOR CORROSION RESISTANT STEEL (TYPE 316).  
 ADD MATERIAL CODE "R" AFTER DASH NUMBER FOR CORROSION RESISTANT STEEL (TYPE 321).  
 ADD MATERIAL CODE "S" AFTER DASH NUMBER FOR CORROSION RESISTANT STEEL (TYPE 347). /17D/  
 ADD MATERIAL CODE "T" AFTER DASH NUMBER FOR TITANIUM ALLOY (6AL-4V).

EXAMPLES OF PART NUMBERS:

MS21909-4 TEE, .250 TUBING, 4130 ALLOY STEEL.  
 MS21909V4P TEE, .250 TUBING, CORROSION RESISTANT STEEL (15-5PH), CADMIUM PLATED. SEE TABLE 2. /17A/  
 MS21909V4 TEE, .250 TUBING, CORROSION RESISTANT STEEL (15-5PH), NOT CADMIUM PLATED.  
 MS21909D4 TEE, .250 TUBING, ALUMINUM ALLOY (2014). SEE TABLE 2. /17C/  
 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). REPLACED, SEE TABLE 2. /17D/  
 MS21909-4T TEE, .250 TUBING, TITANIUM ALLOY (6AL-4V).

6. PART MARKING: REFER TO PROCUREMENT SPECIFICATION.
7. DIMENSIONING AND TOLERANCING: ANSI 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](http://www.eAuditNet.com) FOR CURRENT QPL ONLINE.
11. SURFACE TEXTURE: SYMBOLS PER ASME Y14.36M. REQUIREMENTS PER ASME B46.1. UNLESS OTHERWISE SPECIFIED, MACHINED SURFACES SHALL BE 125 MICROINCHES Ra.
12. REVISION INDICATOR: A CHANGE BAR (I) 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 AS4296.
14. FLUID PASSAGE, HOLE CONTOUR: AS4266 (OPTIONAL).
15. INVENTORIED PARTS CONFORMING TO THE PREVIOUS LETTER CHANGE MAY BE USED TO DEPLETION.
16. WHEN MACHINED FROM BAR OR OVERSIZE FORGING, THE CENTER BODY DIMENSIONS SHALL CONFORM TO AS1376, TABLE 1.

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