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REV.
G

AS21916™

FEDERAL SUPPLY CLASS
4730

RATIONALE

GRAPHICS REDRAWN. VIEW FLIPPED SO THE LARGER SIZE IS SHOWN ON THE LEFT. PORTS IDENTIFIED AS #1 AND #2. SAFETY WIRE HOLE OPTION ADDED. UPDATE SPECIFICATION CALLOUTS. PROCUREMENT SPECIFICATION NOTE UPDATED TO CURRENT VERBIAGE. NEW NOTES /16/ AND /17/ ADDED.

NOTICE

THE INITIAL SAE PUBLICATION OF THIS DOCUMENT WAS TAKEN DIRECTLY FROM U.S. MILITARY STANDARD MS21916. THIS SAE STANDARD MAY RETAIN THE SAME PART NUMBERS ESTABLISHED BY THE ORIGINAL MILITARY DOCUMENT.

ANY REQUIREMENTS ASSOCIATED WITH QUALIFIED PRODUCTS LISTS (QPL'S) MAY CONTINUE TO BE MANDATORY FOR DoD CONTRACTS. REQUIREMENTS RELATING TO QPL'S HAVE NOT BEEN ADOPTED BY SAE FOR THIS STANDARD AND ARE NOT PART OF THIS SAE DOCUMENT.

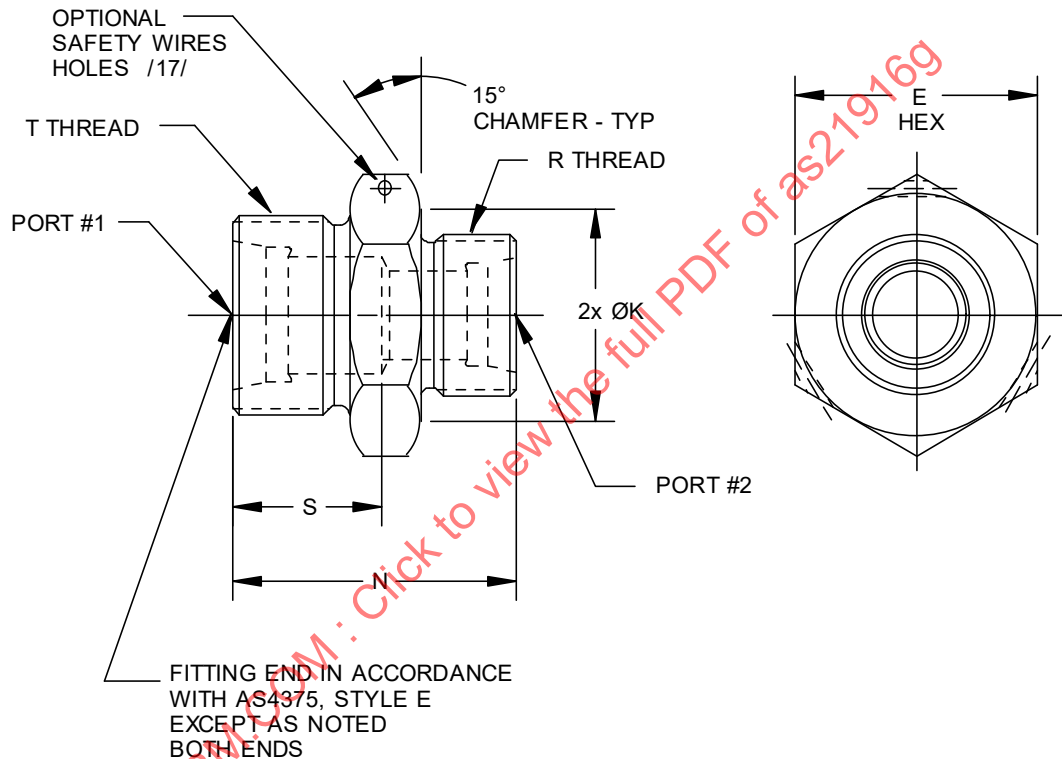
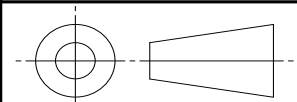


FIGURE 1 - REDUCER, EXTERNAL THREAD, FLARELESS TUBE

For more information on this standard, visit
<https://www.sae.org/standards/content/AS21916G/>

THIRD ANGLE PROJECTION



CUSTODIAN: G-3/G-3B

PROCUREMENT SPECIFICATION: AS18280 /10/



AEROSPACE STANDARD

REDUCER, EXTERNAL THREAD, FLARELESS TUBE

AS21916™
SHEET 1 OF 5

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ISSUED 1998-03 REAFFIRMED 2007-07 REVISED 2024-03

TABLE 1A - DIMENSION E

DASH NO. /5/	LARGE END (PORT #1)		SMALL END (PORT #2)		
	NOMINAL TUBE SIZE REF	(T) THREAD AS8879	NOMINAL TUBE SIZE REF	(R) THREAD AS8879	E MIN MAX
-3-2	.188	.3750-24 UNJF-3A	.125	.3125-24 UNJF-3A	.615- .628
-4-2	.250	.4375-20 UNJF-3A	.125	.3125-24 UNJF-3A	.678- .691
-4-3	.250	.4375-20 UNJF-3A	.188	.3750-24 UNJF-3A	.678- .691
-5-4	.313	.5000-20 UNJF-3A	.250	.4375-20 UNJF-3A	.740- .753
-6-2	.375	.5625-18 UNJF-3A	.125	.3125-24 UNJF-3A	.803- .816
-6-3	.375	.5625-18 UNJF-3A	.188	.3750-24 UNJF-3A	.803- .816
-6-4	.375	.5625-18 UNJF-3A	.250	.4375-20 UNJF-3A	.803- .816
-6-5	.375	.5625-18 UNJF-3A	.313	.5000-20 UNJF-3A	.803- .816
-8-2	.500	.7500-16 UNJF-3A	.125	.3125-24 UNJF-3A	.990-1.003
-8-3	.500	.7500-16 UNJF-3A	.188	.3750-24 UNJF-3A	.990-1.003
-8-4	.500	.7500-16 UNJF-3A	.250	.4375-20 UNJF-3A	.990-1.003
-8-5	.500	.7500-16 UNJF-3A	.313	.5000-20 UNJF-3A	.990-1.003
-8-6	.500	.7500-16 UNJF-3A	.375	.5625-18 UNJF-3A	.990-1.003
-10-4	.625	.8750-14 UNJF-3A	.250	.4375-20 UNJF-3A	1.113-1.128
-10-6	.625	.8750-14 UNJF-3A	.375	.5625-18 UNJF-3A	1.113-1.128
-10-8	.625	.8750-14 UNJF-3A	.500	.7500-16 UNJF-3A	1.113-1.128
-12-4	.750	1.0625-12 UNJ-3A	.250	.4375-20 UNJF-3A	1.363-1.380
-12-5	.750	1.0625-12 UNJ-3A	.313	.5000-20 UNJF-3A	1.363-1.380
-12-6	.750	1.0625-12 UNJ-3A	.375	.5625-18 UNJF-3A	1.363-1.380
-12-8	.750	1.0625-12 UNJ-3A	.500	.7500-16 UNJF-3A	1.363-1.380
-12-10	.750	1.0625-12 UNJ-3A	.625	.8750-14 UNJF-3A	1.363-1.380
-16-4	1.000	1.3125-12 UNJ-3A	.250	.4375-20 UNJF-3A	1.613-1.630
-16-10	1.000	1.3125-12 UNJ-3A	.625	.8750-14 UNJF-3A	1.613-1.630
-16-12	1.000	1.3125-12 UNJ-3A	.750	1.0625-12 UNJ-3A	1.613-1.630
-20-4	1.250	1.6250-12 UNJ-3A	.250	.4375-20 UNJF-3A	1.863-1.880
-20-12	1.250	1.6250-12 UNJ-3A	.750	1.0625-12 UNJ-3A	1.863-1.880
-20-16	1.250	1.6250-12 UNJ-3A	1.000	1.3125-12 UNJ-3A	1.863-1.880
-24-16	1.500	1.8750-12 UNJ-3A	1.000	1.3125-12 UNJ-3A	2.109-2.135
-24-20	1.500	1.8750-12 UNJ-3A	1.250	1.6250-12 UNJ-3A	2.109-2.135

TABLE 1B - DIMENSIONS K-S AND WEIGHTS

DASH NO. /5/	K ±.010 DIA	N	S ±.031	WEIGHT, LB/EA, APPROX, REF		
				STEEL	AL ALLOY	TI ALLOY
-3-2	.611	1.047	.547	.036	.014	.020
-4-2	.674	1.094	.594	.042	.016	.024
-4-3	.674	1.141	.594	.046	.017	.026
-5-4	.736	1.156	.563	.065	.019	.037
-6-2	.799	1.156	.625	.066	.021	.038
-6-3	.799	1.203	.625	.067	.023	.038
-6-4	.799	1.219	.625	.068	.024	.039
-6-5	.799	1.219	.625	.070	.025	.040
-8-2	.985	1.250	.719	.101	.037	.058
-8-3	.985	1.297	.719	.108	.038	.062
-8-4	.985	1.344	.719	.115	.039	.066
-8-5	.985	1.344	.719	.118	.040	.068
-8-6	.985	1.344	.719	.120	.042	.069
-10-4	1.111	1.438	.781	.155	.053	.089
-10-6	1.111	1.625	.781	.204	.072	.117
-10-8	1.111	1.531	.781	.222	.081	.128
-12-4	1.361	1.531	.875	.230	.084	.132
-12-5	1.361	1.531	.875	.235	.086	.135
-12-6	1.361	1.531	.875	.240	.088	.138
-12-8	1.361	1.625	.844	.250	.090	.144
-12-10	1.361	1.688	.875	.260	.098	.150
-16-4	1.599	1.531	.688	.327	.120	.188
-16-10	1.599	1.688	.875	.335	.115	.193
-16-12	1.599	1.750	.875	.342	.122	.197
-20-4	1.849	1.531	.719	.439	.162	.253
-20-12	1.849	1.813	.906	.485	.172	.219
-20-16	1.849	1.750	.875	.450	.165	.259
-24-16	2.095	1.750	.875	.525	.193	.302
-24-20	2.095	1.750	.875	.570	.209	.328

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.

	AEROSPACE STANDARD	AS21916™ SHEET 3 OF 5	REV. G
	REDUCER, EXTERNAL THREAD, FLARELESS TUBE		

3. BREAK EDGES .003 TO .015, UNLESS OTHERWISE SPECIFIED.
4. DIMENSIONS ARE IN INCHES. UNLESS OTHERWISE SPECIFIED, TOLERANCES: LINEAR DIMENSIONS ± 0.016 , ANGULAR DIMENSIONS $\pm 0^{\circ}30'$.

/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 (2024).

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) /18D/.

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

EXAMPLES OF PART NUMBERS: /16/, /17/

MS21916-8-4	REDUCER, .500 TUBING TO .250 TUBING, 4130 ALLOY STEEL.
MS21916V8-4P	REDUCER, .500 TUBING TO .250 TUBING, CORROSION-RESISTANT STEEL (15-5PH), CADMIUM PLATED. SEE TABLE 2 /18A/.
MS21916V8-4	REDUCER, .500 TUBING TO .250 TUBING, CORROSION-RESISTANT STEEL (15-5PH), NOT CADMIUM PLATED.
MS21916D8-4	REDUCER, .500 TUBING TO .250 TUBING, ALUMINUM ALLOY (2024). SEE TABLE 2 /18C/.
MS21916W8-4	REDUCER, .500 TUBING TO .250 TUBING, ALUMINUM ALLOY (7075).
MS21916J8-4	REDUCER, .500 TUBING TO .250 TUBING, CORROSION-RESISTANT STEEL (TYPE 304).
MS21916K8-4	REDUCER, .500 TUBING TO .250 TUBING, CORROSION-RESISTANT STEEL (TYPE 316).
MS21916-8-4R	REDUCER, .500 TUBING TO .250 TUBING, CORROSION-RESISTANT STEEL (TYPE 321).
MS21916-8-4S	REDUCER, .500 TUBING TO .250 TUBING, CORROSION-RESISTANT STEEL (TYPE 347) (REPLACED). SEE TABLE 2 /18D/.
MS21916-8-4T	REDUCER, .500 TUBING TO .250 TUBING, TITANIUM ALLOY (6AL-4V).

6. PART MARKING: REFER TO PROCUREMENT SPECIFICATION.
7. DIMENSIONING AND TOLERANCING: ASME Y14.5M-1994.
8. REFERENCED DOCUMENTS ARE THE ISSUES 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 IN 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 SURFACES TO 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/ SPECIFY END SIZES IN THIS ORDER: LARGEST PORT FIRST, AS PORT #1.
- /17/ SUFFIX "L" AT THE END OF THE PART NUMBER INDICATES SAFETY WIRE HOLES, LOCATION AND DIAMETER PER AS1043 STYLE "B."

	AEROSPACE STANDARD		AS21916™ SHEET 4 OF 5	REV. G
	REDUCER, EXTERNAL THREAD, FLARELESS TUBE			