

REV.  
B

AS4227

FEDERAL SUPPLY CLASS  
4730

RATIONALE

1. CHANGE PROCUREMENT SPECIFICATION FROM AS4510 TO AS85421 OR AS85720.
2. REVISE NOTE /5/ TO AGREE WITH THE PROCUREMENT SPECIFICATION CHANGED.
3. ADD NOTES 15 AND 16 TO SUPPORT GOVERNMENT PROCUREMENTS.
4. ADD TABLES 2A AND 2B WELDED FITTING END WITH PIN FOR 5000 PSI AND 4000 PSI AND BELOW TO BE USED WITH 5000 PSI AND 4000 PSI BEAM SEAL FITTINGS LISTED IN QPL-AS85720 AND QPL-AS85421.

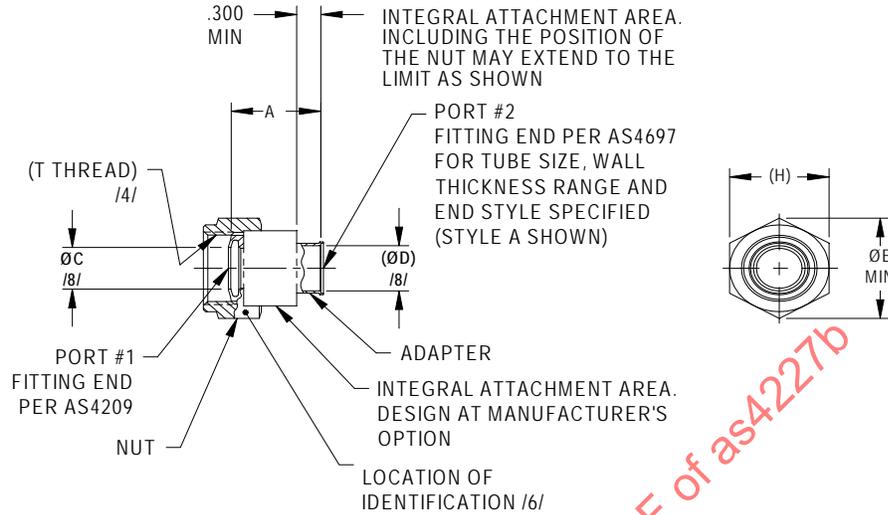


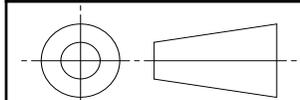
FIGURE 1 - FITTING ASSEMBLY, ADAPTER

TABLE 1A - DIMENSIONS

BASIC NO. AS4227 /14/ SIZE AND TUBE	RANGE OF NOMINAL TUBE WALL FOR PORT #2 /7/ /14/	(NOMINAL TUBE SIZE)	T THREAD PER AS8879 CLASS 3B	PORT #2 STYLE /8/	A
03-018	.016-.018	.188	.3750-28 UNJS	A	.635
03-022	.019-.022	.188	.3750-28 UNJS	A	.635
04-022	.019-.022	.250	.4375-24 UNJS	B	.747
05-022	.019-.022	.312	.5000-24 UNJS	B	.675
05-028	.023-.028	.312	.5000-24 UNJS	B	.675
06-022	.019-.022	.375	.5625-20 UNJS	B	.781
06-028	.023-.028	.375	.5625-20 UNJS	B	.781
06-032	.029-.032	.375	.5625-20 UNJS	B	.781
08-022	.019-.022	.500	.7188-20 UNJS	B	.788
08-043	.033-.043	.500	.7188-20 UNJS	A	.788
10-028	.023-.028	.625	.8438-18 UNJS	B	.857
10-043	.033-.043	.625	.8438-18 UNJS	B	.857
10-055	.044-.055	.625	.8438-18 UNJS	A	.857
12-028	.023-.028	.750	1.0000-16 UNJ	B	.898
12-055	.044-.055	.750	1.0000-16 UNJ	B	.899
12-065	.056-.065	.750	1.0000-16 UNJ	A	.899

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THIRD ANGLE PROJECTION



CUSTODIAN: G-3/G-3B

PROCUREMENT SPECIFICATION: /5/ AS85421 OR AS85720



**AEROSPACE STANDARD**

(R) FITTING ASSEMBLY, ADAPTER,  
INTERNAL THREAD,  
BEAM SEAL TO INTEGRAL WELD RING

**AS4227**  
SHEET 1 OF 5

**REV.  
B**

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ISSUED 1996-05 REAFFIRMED 2007-10 REVISED 2014-09

TABLE 1A - DIMENSIONS (CONTINUED)

BASIC NO. AS4227 /14/ SIZE AND TUBE WALL CODES	RANGE OF NOMINAL TUBE WALL FOR PORT #2 /7/ /14/	(NOMINAL TUBE SIZE)	T THREAD PER AS8879 CLASS 3B	PORT #2 STYLE /8/	A
14-032	.029-.032	.875	1.1250-16 UNJ	B	.944
14-065	.056-.065	.875	1.1250-16 UNJ	A	.944
16-043	.033-.043	1.000	1.2500-14 UNJ	B	.997
16-078	.066-.078	1.000	1.2500-14 UNJS	A	.997
16-078	.079-.089	1.000	1.2500-14 UNJS	A	.997
20-055	.044-.055	1.250	1.5781-14 UNJS	B	1.043
20-089	.079-.089	1.250	1.5781-14 UNJS	A	1.043
24-055	.044-.055	1.500	1.8438-14 UNJS	B	1.450

TABLE 1B - DIMENSIONS AND WEIGHTS

BASIC NO. AS4227 /14/ SIZE AND TUBE WALL CODES	C /8/	D /8/	E	H	RECOMMENDED MAXIMUM PRESSURE PSI /7/	APPROX MASS CRES LB/100	APPROX MASS TI LB/100
03-018	---	.146	.568	.500	5000	2.18	1.24
03-022	---	.138	.568	.500	5000	2.18	1.24
04-022	.184- .194	.200	.638	.562	5000	2.99	1.71
05-022	.232- .242	.262	.709	.625	4000	3.71	2.12
05-028	.232- .242	.250	.709	.625	5000	3.71	2.20
06-022	.297- .307	.325	.780	.688	3000	4.73	2.70
06-028	.297- .307	.313	.780	.688	4000	4.73	2.70
06-032	.297- .307	.305	.780	.688	5000	4.73	2.70
08-022	.398- .408	.450	.993	.875	2000	7.87	4.50
08-043	---	.408	.993	.875	5000	7.87	4.50
10-028	.512- .523	.563	1.120	1.000	2000	11.10	6.33
10-043	.512- .523	.533	1.120	1.000	4000	11.10	6.33
10-055	---	.509	1.120	1.000	5000	11.10	6.33
12-028	.649- .660	.688	1.260	1.125	2000	13.40	7.66
12-055	---	.634	1.260	1.125	4000	13.40	7.66
12-065	---	.614	1.280	1.125	5000	13.40	7.66
14-032	.769- .780	.805	1.540	1.375	2000	22.30	12.70
14-065	---	.739	1.540	1.375	4000	22.30	12.70
16-043	.862- .874	.908	1.650	1.500	2000	29.60	16.90
16-078	----	.838	1.650	1.500	4000	29.60	16.90
16-089	----	.816	1.500	1.500	5000	29.60	16.90
20-055	1.115-1.128	1.134	2.063	1.875	2000	45.80	26.20
20-089	---	1.066	2.063	1.875	4000	45.80	26.20
24-055	1.324-1.337	1.384	2.338	2.125	2000	67.30	38.50

NOTES:

/1/ MATERIAL:

- a. CODE LETTER P – TYPE 17-4PH CORROSION RESISTANT STEEL PER AMS5643.
- b. CODE LETTER T – TYPE 6Al-4V TITANIUM ALLOY BAR PER AMS4965.
- c. CODE LETTER V – TYPE 15-5PH, CONDITION H1075 STA, CORROSION RESISTANT STEEL PER AMS5659.
- d. CODE LETTER Y – TYPE 718 CORROSION AND HEAT RESISTANT NICKEL ALLOY PER AMS5663.

2. HEAT TREATMENT:

- a. MATERIAL CODE LETTER P – CONDITION H1075 PER AMS2759/3.
- b. MATERIAL CODE LETTER T, Y – NONE.
- c. MATERIAL CODE LETTER V – AGE TO CONDITION H1075 PER AMS-H-6875 OR AMS2759/3.

3. FINISH:

- a. MATERIAL CODE LETTER P – PASSIVATE PER AMS2700 TYPE 2 OR 8.
- b. MATERIAL CODE LETTER T, Y – NONE.
- c. MATERIAL CODE LETTER V – PASSIVATE PER AMS2700 TYPE 2 OR 8.

/4/ DRY FILM LUBRICANT

- a. MATERIAL CODE LETTERS: P, V, T, (400 °F MAX) USE LUBRICANT AS5272 TYPE I OR TYPE III.
- b. MATERIAL CODE LETTER Y, (1300 °F MAX) USE LUBRICANT AS1701 CLASS IV.

APPLY DRY FILM LUBRICANT TO THE THREADS OF THE NUT AND TO THE SEALING SURFACE. MINOR OVER SPRAY ON THE OUTSIDE OF THE NUT IS PERMITTED. OVER SPRAY IN THE BORE IS NOT PERMITTED.

/5/ PROCUREMENT SPECIFICATION: AS85421 FOR SYSTEM PRESSURE 4000 PSI AND BELOW OR AS85720 FOR SYSTEM PRESSURE ABOVE 4000 PSI. THESE PARTS SHALL BE QUALIFIED TO THE APPLICABLE REQUIREMENT OF PROCUREMENT SPECIFICATION AS A COMPLETE ASSEMBLY. THE WELDED FITTING END AND WELDED FITTING PARTS SHALL MEET THE PERFORMANCE REQUIREMENTS OF AS4510. PRODUCT SUPPLIED TO THIS SPECIFICATION SHALL BE MANUFACTURED BY THE ACCREDITED MANUFACTURER LISTED IN THE PERFORMANCE REVIEW INSTITUTE (PRI) QUALIFIED PRODUCT LIST (QPL) PRI-QPL-AS85421 OR PRI-QPL-AS85720 AS APPLICABLE FOR THIS STANDARD. SEE <http://www.eAuditNet.com> FOR CURRENT QPL ONLINE.

/6/ IDENTIFICATION AT LOCATION SHOWN: MARK PER AS478 CLASS C OR D, OR METHOD 7A3, 15A3, OR 15B, MANUFACTURER'S IDENTIFICATION, CAGE CODE NUMBER OR TRADEMARK, BASIC PART NUMBER, MATERIAL CODE LETTER AND TUBE WALL CODE.

/7/ THIS PART IS DESIGNED FOR USE IN SYSTEMS WITH MAXIMUM OPERATING PRESSURES SHOWN IN TABLE 1B WITH RECOMMENDATION THAT THE MINIMUM WALL THICKNESS OF THE TUBING WELDED TO THE AS4697 FITTING END OF PORT #2 BE THE VALUE SHOWN FOR THE APPROPRIATE OPERATING PRESSURE IN ARP4698. THINNER WALL THICKNESSES MAY BE USED.

/8/ IF PORT #2 IS STYLE A, ØD WILL EXTEND THROUGHOUT THE PART AND ØC WILL NOT APPLY.

9. INTERPRETATION OF DRAWING PER AS4296.

10. SURFACE TEXTURE: SYMBOLS PER ASME Y14.36M. REQUIREMENTS PER ASME B46.1. UNLESS OTHERWISE SPECIFIED, MACHINED SURFACES SHALL BE 125 MICROINCHES Ra. SURFACES OF HEX FLATS ON NUT MAY BE 250 MICROINCHES Ra.

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

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

13. DIMENSIONS IN INCHES. UNLESS OTHERWISE SPECIFIED, TOLERANCES: LINEAR DIMENSIONS ±.010, ANGULAR DIMENSIONS ±0°30'.

	<b>AEROSPACE STANDARD</b>	<b>AS4227</b> SHEET 3 OF 5	<b>REV.</b> <b>B</b>
	(R) FITTING ASSEMBLY, ADAPTER, INTERNAL THREAD, BEAM SEAL TO INTEGRAL WELD RING		

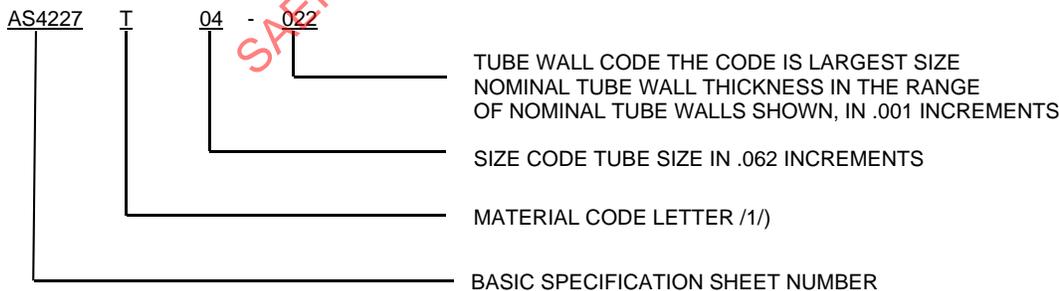
TABLE 2A - FITTINGS, WELDED END, MEET THE PERFORMANCE REQUIREMENTS OF AS4510 AND AS4510/2, 5000 PSI SYSTEM

DASH NUMBER	TUBE WALL CODE	FITTING PART NUMBER			RECOMMENDED PRESSURE (PSI) MAX
		TITANIUM	15-5 CRES	17-4 CRES	
-03	.018	AS4229T03-018	AS4229V03-018	AS4229P03-018	5000
-03	.022	AS4229T03-022	AS4229V03-022	AS4229P03-022	5000
-04	.022	AS4229T04-022	AS4229V04-022	AS4229P04-022	5000
-05	.028	AS4229T05-028	AS4229V05-028	AS4229P05-028	5000
-06	.032	AS4229T06-032	AS4229V06-032	AS4229P06-032	5000
-08	.043	AS4229T08-043	AS4229V08-043	AS4229P08-043	5000
-10	.055	AS4229T10-055	AS4229V10-055	AS4229P10-055	5000
-12	.065	AS4229T12-065	AS4229V12-065	AS4229P12-065	5000
-16	.089	AS4229T16-089	AS4229V16-089	AS4229P16-089	5000

TABLE 2B - FITTINGS, WELDED END, MEET THE PERFORMANCE REQUIREMENTS OF AS4510 AND AS4510/2, 4000 PSI SYSTEM AND BELOW

DASH NUMBER	TUBE WALL CODE	FITTING PART NUMBER			RECOMMENDED PRESSURE (PSI) MAX
		TITANIUM	15-5 CRES	17-4 CRES	
-05	.022	AS4229T05-022	AS4229V05-022	AS4229P05-022	4000
-06	.022	AS4229T06-022	AS4229V06-022	AS4229P06-022	3000
-06	.028	AS4229T06-028	AS4229V06-028	AS4229P06-028	4000
-08	.022	AS4229T08-022	AS4229V08-022	AS4229P08-022	2000
-10	.028	AS4229T10-028	AS4229V10-028	AS4229P10-028	2000
-10	.043	AS4229T10-043	AS4229V10-043	AS4229P10-043	4000
-12	.028	AS4229T12-028	AS4229V12-028	AS4229P12-028	2000
-12	.055	AS4229T12-055	AS4229V12-055	AS4229P12-055	4000
-14	.032	AS4229T14-032	AS4229V14-032	AS4229P14-032	2000
-14	.065	AS4229T14-065	AS4229V14-065	AS4229P14-065	4000
-16	.043	AS4229T16-043	AS4229V16-043	AS4229P16-043	2000
-16	.078	AS4229T16-078	AS4229V16-078	AS4229P16-078	4000
-20	.055	AS4229T20-055	AS4229V20-055	AS4229P20-055	2000
-20	.089	AS4229T20-089	AS4229V20-089	AS4229P20-089	4000
-24	.055	AS4229T24-055	AS4229V24-055	AS4229P24-055	2000

14. EXAMPLE OF PART NUMBER:



PART NUMBER AS4227T04-022 REPRESENTS 1/4 INCH TITANIUM FITTING ADAPTER, BEAM SEAL TO INTEGRAL WELD RING, .022 INCH NOMINAL TUBE WALL WITH STYLE B PORT #2, 5000 PSI MAXIMUM RECOMMENDED PRESSURE.

	<b>AEROSPACE STANDARD</b>	<b>AS4227</b> SHEET 4 OF 5	<b>REV.</b> <b>B</b>
	(R) FITTING ASSEMBLY, ADAPTER, INTERNAL THREAD, BEAM SEAL TO INTEGRAL WELD RING		