

RATIONALE

FEDERAL SUPPLY CLASS
4730

NEW STANDARD FOR OPERATING PRESSURES UP TO AND INCLUDING 1500 PSI

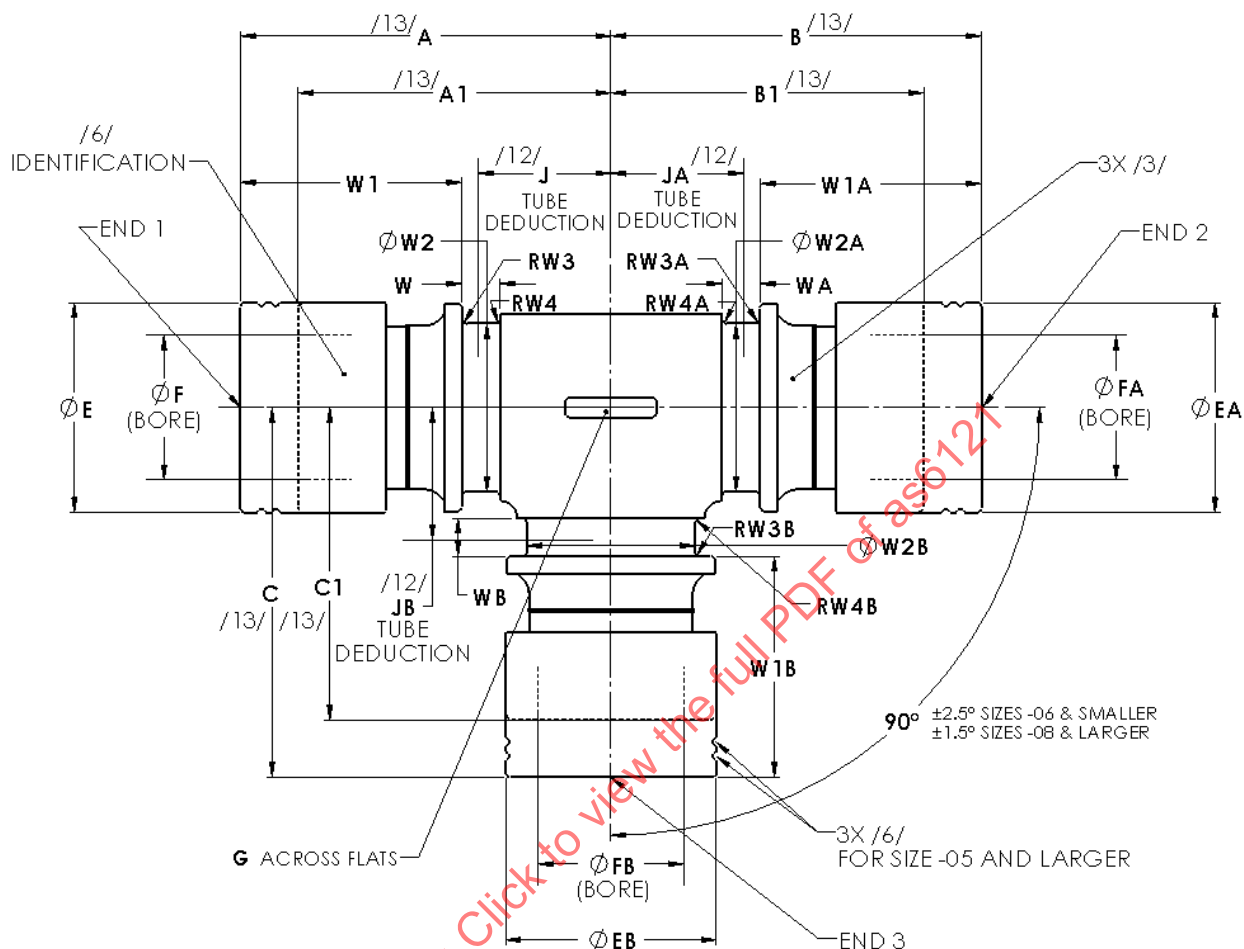
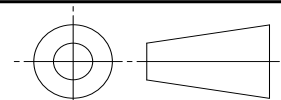


FIGURE 1 - FITTING ASSEMBLY, TEE

SAE values your input. To provide feedback on this Technical Report, please visit <http://www.sae.org/technical/standards/AS6121>

THIRD ANGLE PROJECTION



CUSTODIAN: G-3/G-3B

PROCUREMENT SPECIFICATION: /4/ AS6116

SAE Aerospace
An SAE International Group

AEROSPACE STANDARD

FITTING ASSEMBLY, TEE,
AXIALLY SWAGED,
HYDRAULIC, UP TO 1500 PSI

SAE AS6121
SHEET 1 OF 5

TABLE 1A - DIMENSIONS A THROUGH C1

BASIC NO. AS6121 /15/ SIZE CODE	NOMINAL TUBE SIZE END 1	NOMINAL TUBE SIZE END 2	NOMINAL TUBE SIZE END 3	A MAX	A1 MAX	B MAX	B1 MAX	C MAX	C1 MAX
040404	.250	.250	.250	1.078	.925	1.078	.925	1.078	.925
050505	.3125	.3125	.3125	1.333	1.185	1.333	1.185	1.333	1.185
060404	.375	.250	.250	1.427	1.200	1.143	.985	1.143	.985
060606	.375	.375	.375	1.427	1.200	1.427	1.200	1.427	1.200
080606	.500	.375	.375	1.725	1.465	1.517	1.290	1.517	1.290
080808	.500	.500	.500	1.725	1.465	1.725	1.465	1.725	1.465
100808	.625	.500	.500	1.805	1.565	1.790	1.530	1.790	1.530
101008	.625	.625	.500	1.805	1.565	1.805	1.565	1.790	1.530
101010	.625	.625	.625	1.805	1.565	1.805	1.565	1.805	1.565
121010	.750	.625	.625	2.050	1.770	1.915	1.675	1.915	1.675
121210	.750	.750	.625	2.050	1.770	2.050	1.770	1.915	1.675
121212	.750	.750	.750	2.050	1.770	2.050	1.770	2.050	1.770
121216	.750	.750	1.000	2.212	1.932	2.212	1.932	2.615	2.235
161212	1.000	.750	.750	2.615	2.235	2.212	1.932	2.212	1.932
161216	1.000	.750	1.000	2.615	2.235	2.212	1.932	2.615	2.235
161612	1.000	1.000	.750	2.615	2.235	2.615	2.235	2.212	1.932
161616	1.000	1.000	1.000	2.615	2.235	2.615	2.235	2.615	2.235
202020	1.250	1.250	1.250	3.060	2.645	3.060	2.645	3.060	2.645
242424	1.500	1.500	1.500	3.600	3.105	3.600	3.105	3.600	3.105

TABLE 1B - DIMENSIONS E THROUGH G

BASIC NO. AS6121 /15/ SIZE CODE	NOMINAL TUBE SIZE END 1	NOMINAL TUBE SIZE END 2	NOMINAL TUBE SIZE END 3	ØE MAX	ØEA MAX	ØEB MAX	ØF MIN	ØFA MIN	ØFB MIN	G ±.015
040404	.250	.250	.250	.435	.435	.435	.253	.253	.253	.438
050505	.3125	.3125	.3125	.503	.503	.503	.3155	.3155	.3155	.465
060404	.375	.250	.250	.580	.435	.435	.378	.253	.253	.563
060606	.375	.375	.375	.580	.580	.580	.378	.378	.378	.563
080606	.500	.375	.375	.755	.580	.580	.503	.378	.378	.750
080808	.500	.500	.500	.755	.755	.755	.503	.503	.503	.750
100808	.625	.500	.500	.929	.755	.755	.629	.503	.503	.875
101008	.625	.625	.500	.929	.929	.755	.629	.629	.503	.875
101010	.625	.625	.625	.929	.929	.929	.629	.629	.629	.875
121010	.750	.625	.625	1.150	.929	.929	.754	.629	.629	1.063
121210	.750	.750	.625	1.150	1.150	.929	.754	.754	.629	1.063
121212	.750	.750	.750	1.150	1.150	1.150	.754	.754	.754	1.063
121216	.750	.750	1.000	1.150	1.150	1.474	.754	.754	1.004	1.304
161212	1.000	.750	.750	1.474	1.150	1.150	1.004	.754	.754	1.304
161216	1.000	.750	1.000	1.474	1.150	1.474	1.004	.754	1.004	1.304
161612	1.000	1.000	.750	1.474	1.474	1.150	1.004	1.004	.754	1.304
161616	1.000	1.000	1.000	1.474	1.474	1.474	1.004	1.004	1.004	1.304
202020	1.250	1.250	1.250	1.768	1.768	1.768	1.255	1.255	1.255	1.618
242424	1.500	1.500	1.500	2.070	2.070	2.070	1.505	1.505	1.505	1.806

TABLE 1C - DIMENSIONS J THROUGH JB

BASIC NO. AS6121 /15/ SIZE CODE	NOMINAL TUBE SIZE END 1	NOMINAL TUBE SIZE END 2	NOMINAL TUBE SIZE END 3	J /12/ TUBE DEDUCTION		JA /12/ TUBE DEDUCTION		JB /12/ TUBE DEDUCTION	
040404	.250	.250	.250	.385	+ .150/- .180	.385	+ .150/- .180	.385	+ .150/- .180
050505	.3125	.3125	.3125	.510	+ .150/- .180	.510	+ .150/- .180	.510	+ .150/- .180
060404	.375	.250	.250	.455	+ .150/- .195	.450	+ .150/- .180	.450	+ .150/- .180
060606	.375	.375	.375	.455	+ .150/- .195	.455	+ .150/- .195	.455	+ .150/- .195
080606	.500	.375	.375	.550	+ .150/- .210	.545	+ .150/- .195	.545	+ .150/- .195
080808	.500	.500	.500	.550	+ .150/- .210	.550	+ .150/- .210	.550	+ .150/- .210
100808	.625	.500	.500	.625	+ .150/- .200	.615	+ .150/- .210	.615	+ .150/- .210
101008	.625	.625	.500	.625	+ .150/- .200	.625	+ .150/- .200	.615	+ .150/- .210
101010	.625	.625	.625	.625	+ .150/- .200	.625	+ .150/- .200	.625	+ .150/- .200
121010	.750	.625	.625	.730	+ .150/- .245	.735	+ .150/- .200	.735	+ .150/- .200
121210	.750	.750	.625	.730	+ .150/- .245	.730	+ .150/- .245	.735	+ .150/- .200
121212	.750	.750	.750	.730	+ .150/- .245	.730	+ .150/- .245	.730	+ .150/- .245
121216	.750	.750	1.000	.892	+ .150/- .245	.892	+ .150/- .245	.925	+ .150/- .330
161212	1.000	.750	.750	.925	+ .150/- .330	.892	+ .150/- .245	.892	+ .150/- .245
161216	1.000	.750	1.000	.925	+ .150/- .330	.892	+ .150/- .245	.925	+ .150/- .330
161612	1.000	1.000	.750	.925	+ .150/- .330	.925	+ .150/- .330	.892	+ .150/- .245
161616	1.000	1.000	1.000	.925	+ .150/- .330	.925	+ .150/- .330	.925	+ .150/- .330
202020	1.250	1.250	1.250	1.095	+ .150/- .375	1.095	+ .150/- .375	1.095	+ .150/- .375
242424	1.500	1.500	1.500	1.275	+ .150/- .425	1.275	+ .150/- .425	1.275	+ .150/- .425

TABLE 1D - DIMENSIONS W THROUGH W2B

BASIC NO. AS6121 /15/ SIZE CODE	NOMINAL TUBE SIZE END 1	NOMINAL TUBE SIZE END 2	NOMINAL TUBE SIZE END 3	W MIN	WA MIN	WB MIN	W1 MAX	W1A MAX	W1B MAX	ØW2 ±.002	ØW2A ±.002	ØW2B ±.002
040404	.250	.250	.250	.185	.185	.185	.604	.604	.604	.320	.320	.320
050505	.3125	.3125	.3125	.180	.180	.180	.724	.724	.724	.371	.371	.371
060404	.375	.250	.250	.195	.185	.185	.883	.604	.604	.463	.320	.320
060606	.375	.375	.375	.195	.195	.195	.883	.883	.883	.463	.463	.463
080606	.500	.375	.375	.210	.195	.195	1.076	.883	.883	.595	.463	.463
080808	.500	.500	.500	.210	.210	.210	1.076	1.076	1.076	.595	.595	.595
100808	.625	.500	.500	.225	.210	.210	1.076	1.076	1.076	.758	.595	.595
101008	.625	.625	.500	.225	.225	.210	1.076	1.076	1.076	.758	.758	.595
101010	.625	.625	.625	.225	.225	.225	1.076	1.076	1.076	.758	.758	.758
121010	.750	.625	.625	.235	.225	.225	1.201	1.076	1.076	.903	.758	.758
121210	.750	.750	.625	.235	.235	.225	1.201	1.201	1.076	.903	.903	.758
121212	.750	.750	.750	.235	.235	.235	1.201	1.201	1.201	.903	.903	.903
121216	.750	.750	1.000	.235	.235	.260	1.201	1.201	1.566	.903	.903	1.196
161212	1.000	.750	.750	.260	.235	.235	1.566	1.201	1.201	1.196	.903	.903
161216	1.000	.750	1.000	.260	.235	.260	1.566	1.201	1.566	1.196	.903	1.196
161612	1.000	1.000	.750	.260	.260	.235	1.566	1.566	1.201	1.196	1.196	.903
161616	1.000	1.000	1.000	.260	.260	.260	1.566	1.566	1.566	1.196	1.196	1.196
202020	1.250	1.250	1.250	.285	.285	.285	1.829	1.829	1.829	1.460	1.460	1.460
242424	1.500	1.500	1.500	.310	.310	.310	2.178	2.178	2.178	1.704	1.704	1.704

TABLE 1E – DIMENSIONS W3 THROUGH W4B AND WEIGHTS

BASIC NO. AS6121 /15/ SIZE CODE	NOMINAL TUBE SIZE END 1	NOMINAL TUBE SIZE END 2	NOMINAL TUBE SIZE END 3	W3 MAX	W3A MAX	W3B MAX	W4 MAX	W4A MAX	W4B MAX	WEIGHT APPROX LB/EA
040404	.250	.250	.250	.020	.020	.020	.020	.020	.020	.016
050505	.3125	.3125	.3125	.020	.020	.020	.020	.020	.020	.030
060404	.375	.250	.250	.020	.020	.020	.020	.020	.020	.037
060606	.375	.375	.375	.020	.020	.020	.020	.020	.020	.040
080606	.500	.375	.375	.020	.020	.020	.020	.020	.020	.063
080808	.500	.500	.500	.020	.020	.020	.020	.020	.020	.072
100808	.625	.500	.500	.020	.020	.020	.020	.020	.020	.105
101008	.625	.625	.500	.020	.020	.020	.020	.020	.020	.110
101010	.625	.625	.625	.020	.020	.020	.020	.020	.020	.152
121010	.750	.625	.625	.025	.020	.020	.025	.020	.020	.234
121210	.750	.750	.625	.025	.025	.020	.025	.025	.020	.256
121212	.750	.750	.750	.025	.025	.025	.025	.025	.025	.277
121216	.750	.750	1.000	.025	.025	.035	.025	.025	.035	.409
161212	1.000	.750	.750	.035	.025	.025	.035	.025	.025	.393
161216	1.000	.750	1.000	.035	.025	.035	.035	.025	.035	.437
161612	1.000	1.000	.750	.035	.035	.025	.035	.035	.025	.441
161616	1.000	1.000	1.000	.035	.035	.035	.035	.035	.035	.487
202020	1.250	1.250	1.250	.035	.035	.035	.035	.035	.035	.636
242424	1.500	1.500	1.500	.035	.035	.035	.035	.035	.035	1.100

NOTES:

/1/ MATERIALS:

CODE LETTER "D"

BODY - TYPE 6061-T6 ALUMINUM ALLOY BAR PER AMS-QQ-A-225/8.

RING - TYPE 7075-T73 ALUMINUM ALLOY BAR PER AMS-QQ-A-225/9.

2. FINISH:

BODY - CHEMICAL CONVERSION COATED PER MIL-DTL-5541 TYPE I CLASS 3.

RINGS - ANODIZE PER MIL-A-8625, TYPE II, CLASS 2, DYED GREEN, SIMILAR TO NO. 14187, 14193, OR 14223 OF FED-STD-595 AND SHALL BE DUPLEX SEALED.

/3/ COATINGS/LUBRICANTS:

BODY

- A. DRY FILM LUBRICANT PER AS5272 TYPE I SHALL BE APPLIED TO THE OD OF THE AXIALLY SWAGED FITTING END. ADDITIONAL LUBRICANT APPLIED SHALL BE SPECIFIED BY MANUFACTURER. THE LUBRICANTS SHALL NOT BE IN CONTACT WITH THE SYSTEM FLUID.
- B. POLYTETRAFLUOROETHYLENE (PTFE) COAT, LIGHT GREEN, SHALL BE APPLIED TO PORTIONS OF ID (BORE) UP TO THE FIRST GROOVE. OVERSPRAY IN GROOVE IS NOT PERMITTED.
- C. A MINIMUM OF TWO GROOVES (END SIZE -.05 AND LARGER) SHALL BE FILLED WITH ELASTOMERIC DIMETHYL SILOXANE COMPOUND. FOR SMALLER SIZE ENDS, A MINIMUM OF ONE GROOVE SHALL BE FILLED WITH THE COMPOUND.

/4/ PROCUREMENT SPECIFICATION: AS6116 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-AS6116 FOR THIS STANDARD. SEE WWW.EAUDITNET.COM FOR THE CURRENTVQPL ON-LINE.

5. DIMENSIONS AND TOLERANCES NOT DEFINED ON THIS STANDARD SHALL BE SPECIFIED AND CONTROLLED BY THE MANUFACTURER. THE MANUFACTURER IS RESPONSIBLE TO ENSURE COMPLIANCE WITH THE PROCUREMENT SPECIFICATION.

/6/ IDENTIFICATION SHALL BE IN ACCORDANCE WITH AS6116 AND SHALL BE IDENTIFIED ON EITHER RING IN THE AREA SHOWN. FOR SIZE -.05 AND LARGER, THE RING O.D. SHALL HAVE TWO GROOVES INDICATING DUAL SEALING BACK UP FEATURE.

 An SAE International Group	AEROSPACE STANDARD		SAE AS6121 SHEET 4 OF 5	
	FITTING ASSEMBLY, TEE, AXIALLY SWAGED, HYDRAULIC, UP TO 1500 PSI			