

RATIONALE

AS5810 HAS BEEN REAFFIRMED TO COMPLY WITH THE SAE FIVE-YEAR REVIEW POLICY.

AS5810

SAE Technical Standards Board Rules provide that: "This report is published by SAE to advance the state of technical and engineering sciences. The use of this report is entirely voluntary, and its applicability and suitability for any particular use, including any patent infringement arising therefrom, is the sole responsibility of the user." SAE reviews each technical report at least every five years at which time it may be revised, reaffirmed, stabilized, or cancelled. SAE invites your written comments and suggestions.

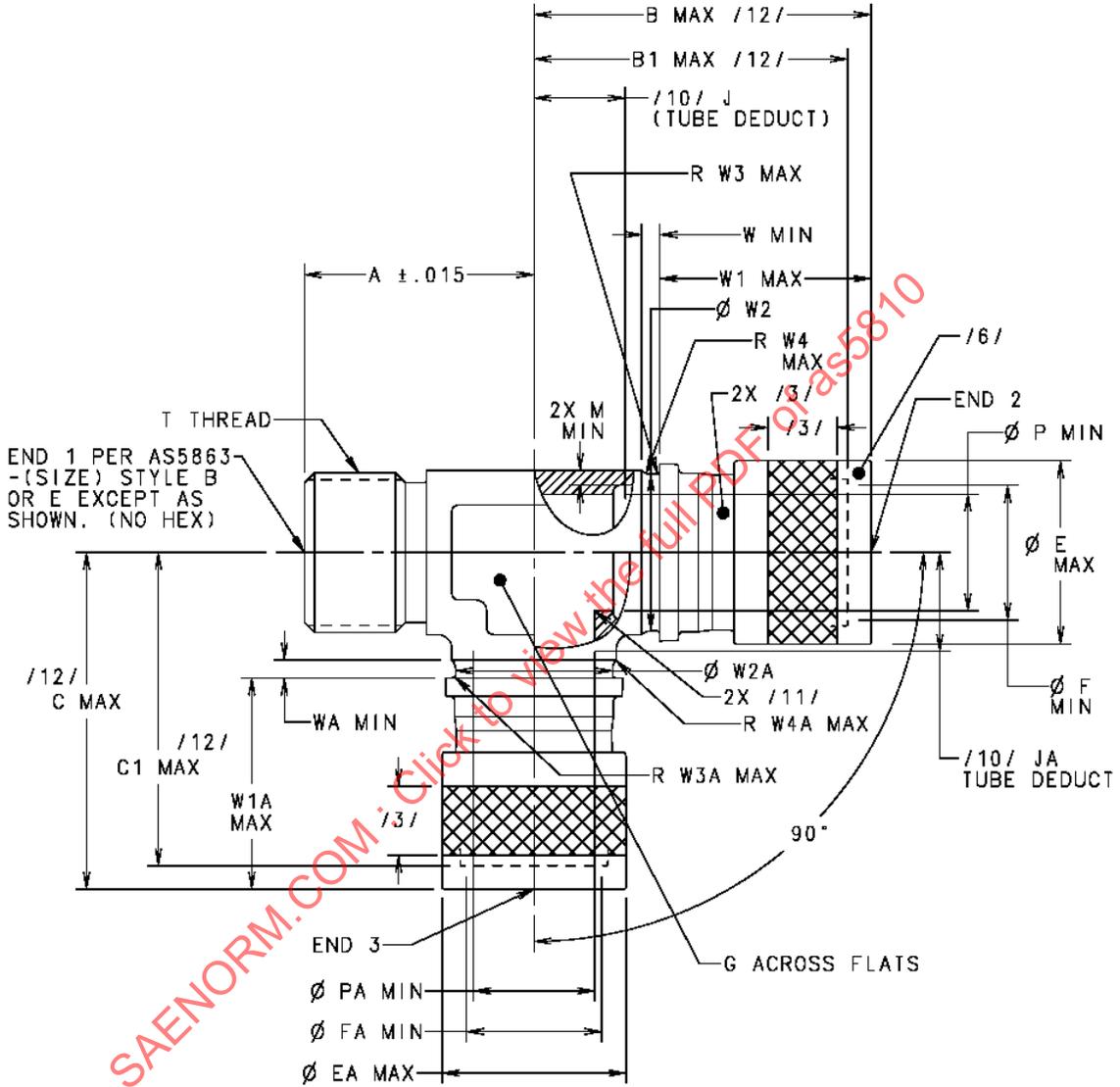
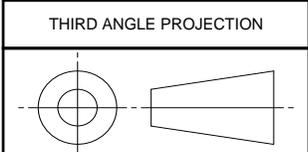


FIGURE 1 - TEE, AXIALLY SWAGED, MALE FLARELESS ON RUN

SAE values your input. To provide feedback on this Technical Report, please visit <http://www.sae.org/technical/standards/AS5810>



CUSTODIAN: G-3/G-3B

PROCUREMENT SPECIFICATION: AS5958 /4/



AEROSPACE STANDARD

FITTING ASSEMBLY, TEE, MALE FLARELESS ON THE RUN, AXIALLY SWAGED ON THE RUN AND THE BRANCH, HYDRAULIC, 3000 PSI

AS5810
SHEET 1 OF 4

TABLE 1A - DIMENSIONS A THROUGH EA

BASIC NO. AS5810 /13/ SIZE CODE	NOMINAL TUBE SIZE END 1	NOMINAL TUBE SIZE END 2	NOMINAL TUBE SIZE END 3	A ±.015	B MAX.	B1 MAX.	C MAX.	C1 MAX.	E MAX.	EA MAX.
040404	.2500	.2500	.2500	.767	.935	.848	.935	.848	.466	.466
060606	.3750	.3750	.3750	.846	1.215	1.099	1.215	1.099	.609	.609
080808	.5000	.5000	.5000	1.032	1.516	1.370	1.516	1.370	.783	.783
101010	.6250	.6250	.6250	1.158	1.873	1.669	1.873	1.669	.939	.939
121212	.7500	.7500	.7500	1.346	2.149	1.944	2.149	1.944	1.122	1.122
161616	1.0000	1.0000	1.0000	1.505	2.606	2.392	2.606	2.392	1.495	1.495
202020	1.2500	1.2500	1.2500	1.627	3.020	2.796	3.020	2.796	1.758	1.758

TABLE 1B - DIMENSIONS F THROUGH JA

BASIC NO. AS5810 /13/ SIZE CODE	NOMINAL TUBE SIZE END 1	NOMINAL TUBE SIZE END 2	NOMINAL TUBE SIZE END 3	F MIN.	FA MIN.	G	J /10/ TUBE DEDUCT.	JA /10/ TUBE DEDUCT.
040404	.2500	.2500	.2500	.253	.253	.380- .348	.353 ±.150	.353 ±.150
060606	.3750	.3750	.3750	.378	.378	.509- .477	.416 ±.150	.416 ±.150
080808	.5000	.5000	.5000	.504	.504	.647- .615	.517 ±.175	.517 ±.175
101010	.6250	.6250	.6250	.629	.629	.783- .751	.580 ±.175	.580 ±.175
121212	.7500	.7500	.7500	.754	.754	.925- .893	.712 ±.175	.712 ±.175
161616	1.0000	1.0000	1.0000	1.004	1.004	1.213-1.181	.878 ±.200	.878 ±.200
202020	1.2500	1.2500	1.2500	1.255	1.255	1.641-1.609	1.009 ±.200	1.009 ±.200

TABLE 1C - DIMENSIONS M THROUGH W1A

BASIC NO. AS5810 /13/ SIZE CODE	NOMINAL TUBE SIZE END 1	NOMINAL TUBE SIZE END 2	NOMINAL TUBE SIZE END 3	M MIN.	P MIN.	PA MIN.	T THREAD PER AS8879	W MIN.	WA MIN.	W1 MAX.	W1A MAX.
040404	.2500	.2500	.2500	.043	.198	.198	.4375-20 UNJF-3A	.123	.123	.488	.488
060606	.3750	.3750	.3750	.045	.302	.302	.5625-18 UNJF-3A	.153	.153	.675	.675
080808	.5000	.5000	.5000	.052	.401	.401	.7500-16 UNJF-3A	.165	.165	.871	.871
101010	.6250	.6250	.6250	.057	.507	.507	.8750-14 UNJF-3A	.140	.140	1.190	1.190
121212	.7500	.7500	.7500	.065	.604	.604	1.0625-12 UNJ-3A	.154	.154	1.327	1.327
161616	1.0000	1.0000	1.0000	.084	.802	.802	1.3125-12 UNJ-3A	.167	.167	1.612	1.612
202020	1.2500	1.2500	1.2500	.174	1.011	1.011	1.6250-12UNJ-3A	.185	.185	1.886	1.886

TABLE 1D - DIMENSIONS W2 THROUGH W4A AND WEIGHT

BASIC NO. AS5810 /13/ SIZE CODE	NOMINAL TUBE SIZE END 1	NOMINAL TUBE SIZE END 2	NOMINAL TUBE SIZE END 3	W2 ±.0015	W2A ±.0015	W3 MAX.	W3A MAX.	W4 MAX.	W4A MAX.	WEIGHT LB/EA APPROX. REF.
040404	.2500	.2500	.2500	.3005	.3005	.018	.018	.065	.065	.026
060606	.3750	.3750	.3750	.4475	.4475	.033	.033	.065	.033	.052
080808	.5000	.5000	.5000	.5945	.5945	.033	.033	.129	.129	.106
101010	.6250	.6250	.6250	.7365	.7365	.021	.021	.078	.021	.177
121212	.7500	.7500	.7500	.8805	.8805	.024	.024	.089	.089	.234
161616	1.0000	1.0000	1.0000	1.1725	1.1725	.027	.027	.099	.099	.574
202020	1.2500	1.2500	1.2500	1.4345	1.4345	.030	.030	.113	.113	.992

NOTES:

/1/ MATERIALS:

CODE LETTER "T"

RING - AMS4965 TITANIUM ALLOY, 6.0AL 4.0V SOLUTION HEAT TREATED AND AGED OR AMS4928 TITANIUM ALLOY 6.0AL 4.0V ANNEALED WITH HIGH STRENGTH CARBON FIBER/EPOXY RESIN COMPOSITE REINFORCEMENT.

BODY - AMS4928 TITANIUM ALLOY, 6.0AL 4.0V ANNEALED

2. FINISH:

TITANIUM - NONE REQUIRED

/3/ COATINGS/LUBRICANTS:

RING - THE OUTER SURFACE SHALL HAVE A .125 in MINIMUM WIDTH BLUE COLORED RING OR COMPLETELY COLORED BLUE TO MATCH THE ASSEMBLY TOOLING COLOR CODE SPECIFIED IN AS5959 ASSEMBLY PROCEDURE. AN AS1241 FLUID RESISTANT PTFE COATING OR PAINT SHALL BE USED. THE SWAGE RING IS COLOR CODED BLUE TO INDICATE THE AXIALLY SWAGE END IS QUALIFIED TO 5080 PSI AND IS INSTALLED WITH THE SAME TOOLING AS THE 5080 PSI RATED FITTING.

BODY - SOLID FILM LUBRICANT PER AS5272, TYPE I OR II, OR PTFE BASED LUBRICANT MAY BE APPLIED TO PORTIONS OF THE ID AND OD. THE AS5272 OR PTFE BASED LUBRICANT SHALL NOT BE IN CONTACT WITH THE SYSTEM FLUID.

/4/ PRODUCT SPECIFICATION: AS5958 EXCEPT AS SPECIFIED ON THIS STANDARD. PRODUCT SUPPLIED TO THIS SPECIFICATION SHALL BE MANUFACTURED AND ASSEMBLED BY AN ACCREDITED MANUFACTURER OR ASSEMBLED BY AN ACCREDITED ASSEMBLING DISTRIBUTOR LISTED IN THE PERFORMANCE REVIEW INSTITUTE (PRI) QUALIFIED PRODUCTS LIST (QPL) PRI-QPL-AS5958 FOR THIS STANDARD. See www.eauditnet.com FOR THE CURRENT QPL 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 AS5958 AND SHALL BE IDENTIFIED ON EITHER RING.

7. FITTINGS SHALL BE INSTALLED IN ACCORDANCE WITH AS5959.

8. SURFACE TEXTURE SHALL BE IN ACCORDANCE WITH AMERICAN SOCIETY OF MECHANICAL ENGINEERS, ASME B46.1 AND THE SYMBOLS IN ACCORDANCE WITH ASME Y14.36M. UNLESS OTHERWISE SPECIFIED, THE MAXIMUM MACHINED SURFACES SHALL BE 125 μ in Ra AND THE FORGED SURFACES SHALL BE 250 μ in Ra.

9. DIMENSIONS AND TOLERANCES PER AMERICAN SOCIETY OF MECHANICAL ENGINEERS, ASME Y14.5M -1994.

a. DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED

b. DIMENSIONAL TOLERANCES SHALL BE \pm .005 in UNLESS OTHERWISE SPECIFIED

c. ANGULAR TOLERANCES SHALL BE \pm 0.50 degrees UNLESS OTHERWISE SPECIFIED

d. BREAK ALL EDGES .003 TO .010 in UNLESS OTHERWISE SPECIFIED

/10/ THIS DIMENSION IS THE ALLOWABLE TUBE END POSITIONING FOR SYSTEM LAYOUT DESIGN.

/11/ .030 MIN RADIUS UNLESS QUALIFICATION OF SPECIAL PROCESS WITH SMALLER RADIUS.

	AEROSPACE STANDARD	AS5810 SHEET 3 OF 4	
	FITTING ASSEMBLY, TEE, MALE FLARELESS ON THE RUN, AXIALLY SWAGED ON THE RUN AND THE BRANCH, HYDRAULIC, 3000 PSI		