

REV.  
A

AS5791™

RATIONALE

ADDED LETTER CODE "B" FOR FITTING ASSEMBLIES WITH BLUE ANODIZED RINGS AND NOTE 15 AS AN OPTION FOR FUTURE REPLACEMENT OF "NO CODE" BLUE COATING OR PAINT. CORRECTED 1612 "A", "A1" AND 'J'. ADDED SIZE -20. REVISED NOTES 3 AND 7 AND ADDED NOTES 14, 15, AND 16. CORRECTED O-RING SIZE ERRORS AND ADDED AS6449 AS A NEW LUBRICANT TYPE. UPDATED FIGURE AND WEIGHTS.

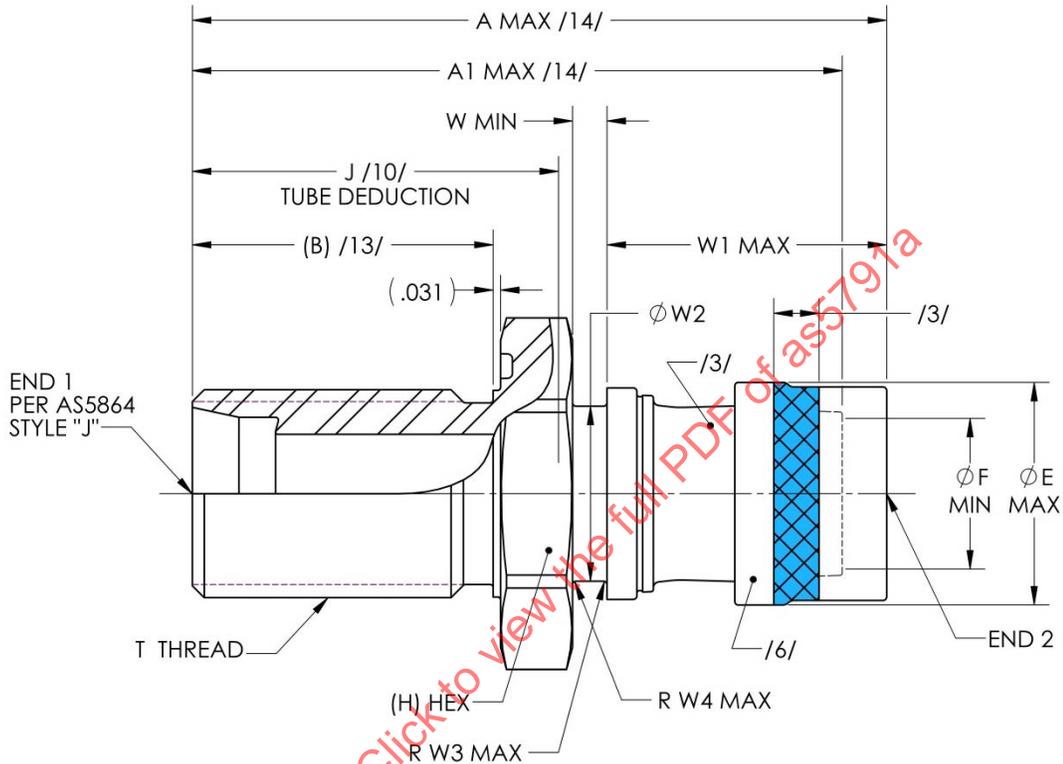
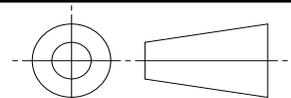


FIGURE 1 - STRAIGHT, BULKHEAD FLARELESS, AXIAL SWAGE  
(SEE TABLES 1A AND 1B FOR DIMENSIONAL INFORMATION)

SAE values your input. To provide feedback on this Technical Report, please visit <http://www.sae.org/technical/standards/AS5791A>

THIRD ANGLE PROJECTION



CUSTODIAN: G-3/G-3B

PROCUREMENT SPECIFICATION: AS5958 /4/



**AEROSPACE STANDARD**

(R) FITTING ASSEMBLY, STRAIGHT,  
BULKHEAD FLARELESS,  
AXIALLY SWAGED, HYDRAULIC, 3000 PSI

AS5791™  
SHEET 1 OF 4

REV.  
A

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.

**TABLE 1A - DIMENSIONS A THROUGH H**

BASIC NO. AS5791/13/ SIZE CODE	NOMINAL TUBE SIZE END 1	NOMINAL TUBE SIZE END 2	A MAX STANDARD LENGTH	A1 MAX STANDARD LENGTH	A MAX EXTENDED LENGTH	A1 MAX EXTENDED LENGTH	(B)		E MAX	F MIN	(H)
							STANDARD LENGTH	EXTENDED LENGTH			
0404	.2500	.2500	1.857	1.770	2.857	2.770	.938	1.938	.466	.253	.875
0604	.3750	.2500	1.923	1.836	2.923	2.836	.984	1.984	.466	.253	1.000
0406	.2500	.3750	2.094	1.978	3.094	2.978	.938	1.938	.609	.378	.875
0606	.3750	.3750	2.140	2.024	3.140	3.024	.984	1.984	.609	.378	1.000
0806	.5000	.3750	2.296	2.180	3.296	3.180	1.125	2.125	.609	.378	1.188
0608	.3750	.5000	2.363	2.217	3.363	3.217	.984	1.984	.783	.504	1.000
0808	.5000	.5000	2.504	2.358	3.504	3.358	1.125	2.125	.783	.504	1.188
1008	.6250	.5000	2.660	2.514	3.660	3.514	1.266	2.266	.783	.504	1.312
0810	.5000	.6250	2.813	2.609	3.813	3.609	1.125	2.125	.939	.629	1.188
1010	.6250	.6250	2.954	2.750	3.954	3.750	1.266	2.266	.939	.629	1.312
1210	.7500	.6250	3.083	2.879	4.083	3.879	1.375	2.375	.939	.629	1.500
1012	.6250	.7500	3.125	2.920	4.125	3.920	1.266	2.266	1.122	.754	1.312
1212	.7500	.7500	3.234	3.029	4.234	4.029	1.375	2.375	1.122	.754	1.500
1612	1.0000	.7500	3.254	3.049	4.254	4.049	1.375	2.375	1.122	.754	1.875
1216	.7500	1.0000	3.552	3.338	4.552	4.338	1.375	2.375	1.495	1.004	1.500
1616	1.0000	1.0000	3.552	3.338	4.552	4.338	1.375	2.375	1.495	1.004	1.875
2016	1.2500	1.0000	3.617	3.403	4.617	4.403	1.375	2.375	1.495	1.004	2.188
1620	1.0000	1.2500	3.919	3.695	4.919	4.695	1.375	2.375	1.758	1.255	1.875
2020	1.2500	1.2500	3.919	3.695	4.919	4.695	1.375	2.375	1.758	1.255	2.188

**TABLE 1B - DIMENSIONS J THROUGH W4**

BASIC NO. AS5791 /13/ SIZE CODE	NOMINAL TUBE SIZE END 1	NOMINAL TUBE SIZE END 2	J /10/ TUBE DEDUCT		J /10/ TUBE DEDUCT		T THREAD PER AS8879	W MIN	W1 MAX	W2 ±.0015	W3 MAX	W4 MAX
			STANDARD LENGTH	±	EXTENDED LENGTH	±						
0404	.2500	.2500	1.275	±.150	2.275	±.150	.4375-20 UNJF-3A	.123	.488	.3005	.018	.065
0604	.3750	.2500	1.341	±.150	2.341	±.150	.5625-18 UNJF-3A	.123	.488	.3005	.018	.065
0406	.2500	.3750	1.295	±.150	2.295	±.150	.4375-20 UNJF-3A	.153	.675	.4475	.033	.065
0606	.3750	.3750	1.341	±.150	2.341	±.150	.5625-18 UNJF-3A	.153	.675	.4475	.033	.065
0806	.5000	.3750	1.497	±.150	2.497	±.150	.7500-16 UNJF-3A	.153	.675	.4475	.033	.065
0608	.3750	.5000	1.364	±.175	2.364	±.175	.5625-18 UNJF-3A	.165	.871	.5945	.033	.129
0808	.5000	.5000	1.505	±.175	2.505	±.175	.7500-16 UNJF-3A	.165	.871	.5945	.033	.129
1008	.6250	.5000	1.661	±.175	2.661	±.175	.8750-14 UNJF-3A	.165	.871	.5945	.033	.129
0810	.5000	.6250	1.520	±.175	2.520	±.175	.7500-16 UNJF-3A	.140	1.190	.7365	.021	.078
1010	.6250	.6250	1.661	±.175	2.661	±.175	.8750-14 UNJF-3A	.140	1.190	.7365	.021	.078
1210	.7500	.6250	1.790	±.175	2.790	±.175	1.0625-12 UNJ-3A	.140	1.190	.7365	.021	.078
1012	.6250	.7500	1.688	±.175	2.688	±.175	.8750-14 UNJF-3A	.154	1.327	.8805	.024	.089
1212	.7500	.7500	1.797	±.175	2.797	±.175	1.0625-12 UNJ-3A	.154	1.327	.8805	.024	.089
1612	1.0000	.7500	1.817	±.175	2.817	±.175	1.3125-12 UNJ-3A	.154	1.327	.8805	.024	.089
1216	.7500	1.0000	1.824	±.200	2.824	±.200	1.0625-12 UNJ-3A	.167	1.612	1.1725	.027	.099
1616	1.0000	1.0000	1.824	±.200	2.824	±.200	1.3125-12 UNJ-3A	.167	1.612	1.1725	.027	.099
2016	1.2500	1.0000	1.889	±.200	2.889	±.200	1.6250-12 UNJ-3A	.167	1.612	1.1725	.027	.099
1620	1.0000	1.2500	1.908	±.200	2.908	±.200	1.3125-12 UNJ-3A	.185	1.886	1.4345	.030	.113
2020	1.2500	1.2500	1.908	±.200	2.908	±.200	1.6250-12 UNJ-3A	.185	1.886	1.4345	.030	.113

**TABLE 1B - O-RING SIZES AND WEIGHTS**

BASIC NO. AS5791 /13/ SIZE CODE	NOMINAL TUBE SIZE END 1	NOMINAL TUBE SIZE END 2	AS568 O-RING /12/	WEIGHT LB/EA APPROX REF STANDARD LENGTH	WEIGHT LB/EA APPROX REF EXTENDED LENGTH
0404	.2500	.2500	-15	.047	.067
0604	.3750	.2500	-17	.067	.095
0406	.2500	.3750	-15	.056	.076
0606	.3750	.3750	-17	.075	.103
0806	.5000	.3750	-20	.115	.163
0608	.3750	.5000	-17	.090	.118
0808	.5000	.5000	-20	.126	.175
1008	.6250	.5000	-22	.165	.228
0810	.5000	.6250	-20	.147	.195
1010	.6250	.6250	-22	.181	.246
1210	.7500	.6250	-25	.241	.329
1012	.6250	.7500	-22	.210	.274
1212	.7500	.7500	-25	.270	.358
1612	1.0000	.7500	-30	.364	.485
1216	.7500	1.0000	-25	.357	.450
1616	1.0000	1.0000	-30	.448	.570
2016	1.2500	1.0000	-32	.610	.791
1620	1.0000	1.2500	-30	.535	.650
2020	1.2500	1.2500	-32	.665	.847

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 /15/:

a. NO SUFFIX CODE LETTER

(1) RING - THE OUTER SURFACE SHALL HAVE A .125 INCH MINIMUM WIDTH BLUE COLORED RING OR SHALL BE COMPLETELY COLORED BLUE TO MATCH THE SWAGE TOOL COLOR CODE SPECIFIED IN THE AS5959 INSTALLATION PROCEDURE. BLUE PTFE COATING OR PAINT SHALL BE RESISTANT TO AS1241 FLUID WHEN USED. MARKING METHODS SHALL BE IN ACCORDANCE WITH AS5958.

(2) BODY - LEAD FREE SOLID FILM LUBRICANT PER AS5272, TYPE I OR II, OR PER AS6449 TYPE III OR IV, PTFE OR PETROLEUM-BASED LUBRICANT SHALL BE APPLIED TO PORTIONS OF THE ID AND OD. THE PETROLEUM-BASED LUBRICANT AND/OR AS5272 LUBRICANT SHALL NOT BE IN CONTACT WITH THE SYSTEM FLUID.

b. SUFFIX CODE LETTER B

(1) RING - THE OUTER SURFACE SHALL HAVE A .125 INCH MINIMUM WIDTH BLUE ANODIZED RING OR SHALL BE COMPLETELY ANODIZED BLUE TO MATCH THE SWAGE TOOL COLOR CODE SPECIFIED IN THE AS5959 INSTALLATION PROCEDURE. MARKING METHODS SHALL BE IN ACCORDANCE WITH AS5958.

	<b>AEROSPACE STANDARD</b>	<b>AS5791™</b> SHEET 3 OF 4	<b>REV.</b> <b>A</b>
	(R) FITTING ASSEMBLY, STRAIGHT, BULKHEAD FLARELESS, AXIALLY SWAGED, HYDRAULIC, 3000 PSI		