FEDERAL SUPPLY CLASS
4730

RATIONALE

REVISED NOTE 12 FOR DEFINITION CORRECTION OF DIMENSION A1 (FITTING BODY LENGTH). ADDED LETTER CODE "B" FOR FITTING ASSEMBLIES WITH BLUE ANODIZED RINGS AND NOTE 14 AS AN OPTION FOR FUTURE REPLACEMENT OF "NO CODE" BLUE COATING OR PAINT. CORRECTED 1210 "A1" AND "J" AND "K" FOR 1008, 1010, 1012, 1612, 1616, AND 1620. REVISED NOTES 1, 3, 7, 11, AND 13. ADDED NOTES 15, 16, AND AS6449 AS A NEW LUBRICANT TYPE. UPDATED FIGURE AND WEIGHTS.

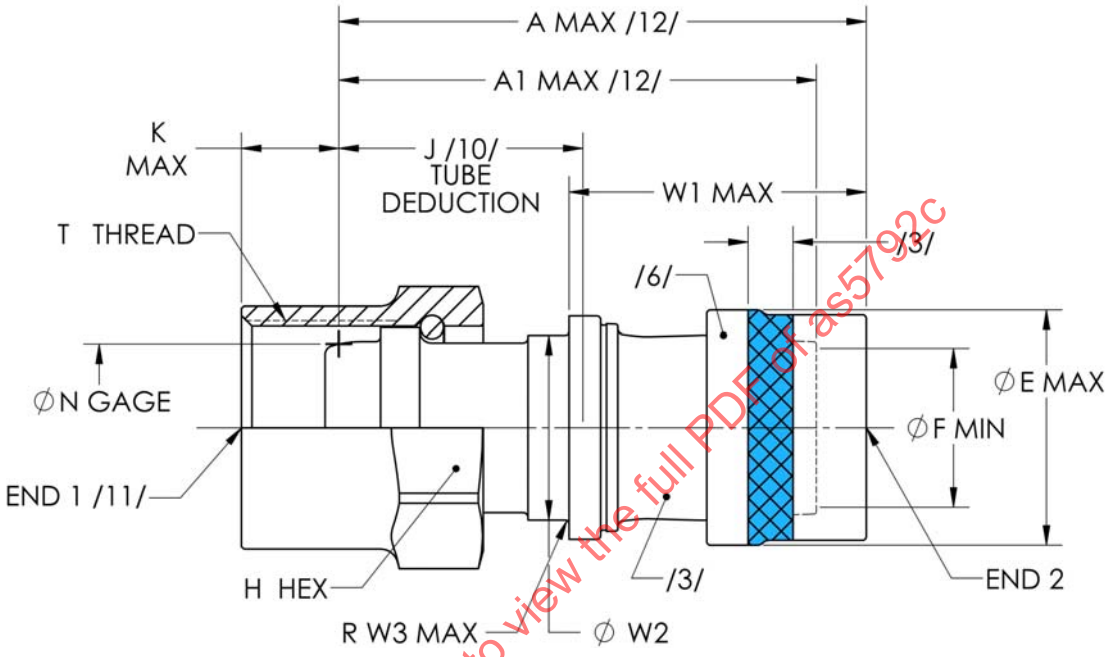
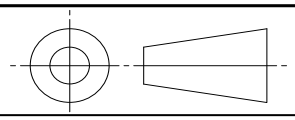


FIGURE 1 - STRAIGHT, FEMALE FLARELESS, AXIAL SWAGE

(SEE TABLES 1A AND 1B FOR DIMENSIONAL INFORMATION)

ISSUED 2006-06 REVISED 2015-08

THIRD ANGLE PROJECTION



CUSTODIAN: G-3/G-3B

PROCUREMENT SPECIFICATION: AS5958 /4/

AEROSPACE STANDARD

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

TABLE 1A - DIMENSIONS A THROUGH K

BASIC NO. AS5792 /13/ SIZE CODE	NOMINAL TUBE SIZE END 1	NOMINAL TUBE SIZE END 2	A MAX	A1 MAX	E MAX	F MIN	(H)	J /10/ TUBE DEDUCT		K MAX
0404	.2500	.2500	1.131	1.044	.466	.253	.563	.669	±.030	.325
0604	.3750	.2500	1.316	1.229	.466	.253	.688	.734	±.150	.337
0406	.2500	.3750	1.325	1.209	.609	.378	.563	.646	±.030	.325
0606	.3750	.3750	1.373	1.257	.609	.378	.688	.694	±.030	.337
0806	.5000	.3750	1.711	1.595	.609	.378	.875	.912	±.150	.380
0608	.3750	.5000	1.624	1.478	.783	.504	.688	.770	±.030	.337
0808	.5000	.5000	1.664	1.518	.783	.504	.875	.810	±.030	.380
1008	.6250	.5000	2.044	1.898	.783	.504	1.000	1.045	±.175	.418
0810	.5000	.6250	2.129	1.925	.939	.629	.875	.981	±.030	.380
1010	.6250	.6250	2.127	1.923	.939	.629	1.000	.979	±.030	.418
1210	.7500	.6250	2.305	2.101	.939	.629	1.250	1.012	±.175	.433
1012	.6250	.7500	2.330	2.125	1.122	.754	1.000	1.038	±.030	.418
1212	.7500	.7500	2.295	2.090	1.122	.754	1.250	1.003	±.030	.433
1612	1.0000	.7500	2.567	2.362	1.122	.754	1.500	1.130	±.175	.447
1216	.7500	1.0000	2.662	2.448	1.495	1.004	1.250	1.104	±.030	.433
1616	1.0000	1.0000	2.692	2.478	1.495	1.004	1.500	1.134	±.030	.447
2016	1.2500	1.0000	2.904	2.690	1.495	1.004	2.000	1.176	±.200	.460
1620	1.0000	1.2500	3.156	2.932	1.758	1.255	1.500	1.315	±.030	.447
2020	1.2500	1.2500	3.006	2.782	1.758	1.255	2.000	1.165	±.030	.460

TABLE 1B - DIMENSIONS N THROUGH W3 AND WEIGHTS

BASIC NO. AS5792 /13/ SIZE CODE	NOMINAL TUBE SIZE END 1	NOMINAL TUBE SIZE END 2	N GAGE	T THREAD PER AS8879	W1 MAX	W2 ±.0015	W3 MAX	WEIGHT LB/EA APPROX REF
0404	.2500	.2500	.2930	.4375-20 UNJF-3B	.488	.3005	.018	.024
0604	.3750	.2500	.4160	.5625-18 UNJF-3B	.488	.3005	.018	.038
0406	.2500	.3750	.2930	.4375-20 UNJF-3B	.675	.4475	.033	.035
0606	.3750	.3750	.4160	.5625-18 UNJF-3B	.675	.4475	.033	.043
0806	.5000	.3750	.5600	.7500-16 UNJF-3B	.675	.4475	.033	.065
0608	.3750	.5000	.4160	.5625-18 UNJF-3B	.871	.5945	.033	.060
0808	.5000	.5000	.5600	.7500-16 UNJF-3B	.871	.5945	.033	.076
1008	.6250	.5000	.6860	.8750-14 UNJF-3B	.871	.5945	.033	.107
0810	.5000	.6250	.5600	.7500-16 UNJF-3B	1.190	.7365	.021	.106
1010	.6250	.6250	.6860	.8750-14 UNJF-3B	1.190	.7365	.021	.116
1210	.7500	.6250	.8100	1.0625-12 UNJ-3B	1.190	.7365	.021	.165
1012	.6250	.7500	.6860	.8750-14 UNJF-3B	1.327	.8805	.024	.163
1212	.7500	.7500	.8100	1.0625-12 UNJ-3B	1.327	.8805	.024	.185
1612	1.0000	.7500	1.0620	1.3125-12 UNJ-3B	1.327	.8805	.024	.247
1216	.7500	1.0000	.8100	1.0625-12 UNJ-3B	1.612	1.1725	.027	.297
1616	1.0000	1.0000	1.0620	1.3125-12 UNJ-3B	1.612	1.1725	.027	.328
2016	1.2500	1.0000	1.3160	1.6250-12 UNJ-3B	1.612	1.1725	.027	.507
1620	1.0000	1.2500	1.0620	1.3125-12 UNJ-3B	1.886	1.4345	.030	.440
2020	1.2500	1.2500	1.3160	1.6250-12 UNJ-3B	1.886	1.4345	.030	.555

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.

NUT - AMS4965 TITANIUM ALLOY, 6.0Al - 4.0V SOLUTION HEAT TREATED AND AGED OR AMS4928 TITANIUM ALLOY, 6.0Al - 4.0V ANNEALED.

WIRE - AMS5637 STEEL, CORROSION RESISTANT, BARS AND WIRE, 18Cr - 9.0Ni (SAE 30302) SOLUTION HEAT TREATED, COLD DRAWN AND STRESS RELIEVED, 125 KSI TENSILE STRENGTH.

- AS5685 STEEL, CORROSION RESISTANT, SAFETY WIRE 18Cr - 11.5Ni (UNS S30500), SOLUTION HEAT TREATED, COLD FINISHED.

- ASTM A580 STEEL, CORROSION RESISTANT WIRE, TYPE 302 OR 305 CONDITION A, COLD FINISHED.

2. FINISH:

TITANIUM - NONE

CRES - PASSIVATION PER AMS2700, TYPE 6 OR 7

/3/ COATINGS/LUBRICANTS /14/:

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 MAY 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.

(3) NUT - LUBRICATE ID THREADS AND WIRE GROOVE LOAD BEARING SHOULDER OR MATING WIRE GROOVE LOAD BEARING SHOULDER WITH LEAD FREE SOLID FILM LUBRICANT PER AS5272 TYPE I OR II, OR PER AS6449 TYPE III OR IV.

(4) WIRE - LUBRICATE THE WIRE WITH LEAD FREE SOLID FILM LUBRICANT PER AS5272 TYPE I OR II OR PER AS6449 TYPE III OR IV.

b. SUFFIX CODE LETTER “A”

(1) RING - NO BLUE PTFE COATING OR PAINT. THE WORD “BLUE” SHALL BE MARKED ON THE RING TO INDICATE 5080 PSI MAXIMUM OPERATING PRESSURE. 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 MAY 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.

(3) NUT - LUBRICATE ID THREADS AND WIRE GROOVE LOAD BEARING SHOULDER OR MATING WIRE GROOVE LOAD BEARING SHOULDER WITH LEAD FREE SOLID FILM LUBRICANT PER AS5272, TYPE I OR II, OR AS6449 TYPE III OR IV.

(4) WIRE - LUBRICATE THE WIRE WITH LEAD FREE SOLID FILM LUBRICANT PER AS5272 TYPE I OR II OR PER AS6449 TYPE III OR IV.

c. 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.

(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 MAY 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.

(3) NUT - LUBRICATE ID THREADS AND WIRE GROOVE LOAD BEARING SHOULDER OR MATING WIRE GROOVE LOAD BEARING SHOULDER WITH LEAD FREE SOLID FILM LUBRICANT PER AS5272, TYPE I OR II, OR AS6449 TYPE III OR IV.

(4) WIRE - LUBRICATE THE WIRE WITH LEAD FREE SOLID FILM LUBRICANT PER AS5272 TYPE I OR II OR PER AS6449 TYPE III OR IV.

/4/ PROCUREMENT SPECIFICATION: AS5958 EXCEPT AS SPECIFIED ON THIS STANDARD. PRODUCT SUPPLIED TO THIS SPECIFICATION SHALL BE MANUFACTURED BY AN ACCREDITED MANUFACTURER OR ASSEMBLED BY AN ACCREDITED DISTRIBUTOR LISTED IN THE PERFORMANCE REVIEW INSTITUTE (PRI) QUALIFIED PRODUCTS LISTING (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 THE RING IN THE AREA SHOWN.

7. FITTINGS SHALL BE INSTALLED IN ACCORDANCE WITH AS5959. THE AFTER SWAGE ACCEPTABILITY LIMIT DIMENSION "Z" FOR EACH PORT SIZE IS DEFINED IN AS5959.

8. SURFACE TEXTURE: SYMBOLS PER ASME Y14.36M. REQUIREMENTS PER ASME B46.1. UNLESS OTHERWISE SPECIFIED, MACHINED SURFACES SHALL BE 125 MICROINCHES Ra.

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

a. DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED.

b. DIMENSIONAL TOLERANCES SHALL BE ±.005 INCHES UNLESS OTHERWISE SPECIFIED.

c. ANGULAR TOLERANCES SHALL BE ±.50° UNLESS OTHERWISE SPECIFIED.

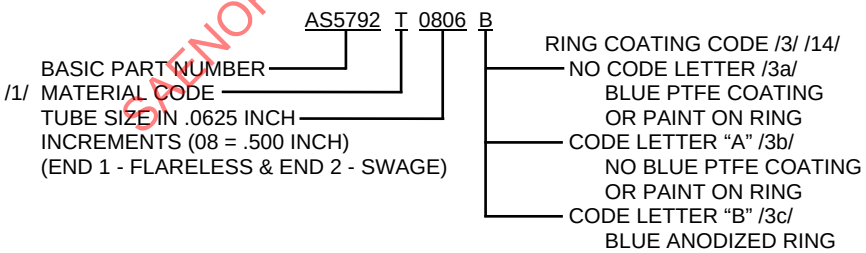
d. BREAK ALL EDGES .003 TO .010 INCH UNLESS OTHERWISE SPECIFIED.

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

/11/ FITTINGS SHALL MATE WITH AS5863-(SIZE) OR EQUIVALENT. STANDARD COUPLING NUTS SHALL BE DIMENSIONALLY AND FUNCTIONALLY EQUIVALENT TO AS4370TXX.

/12/ DIMENSION “A” IS THE FITTING ASSEMBLY LENGTH AND “A1” IS THE FITTING BODY LENGTH BEFORE SWAGE.

/13/ EXAMPLE OF PART NUMBER:



/14/ UNPAINTED RINGS CODE “A" WERE NEEDED TO PREVENT COATING/PAINT DEBRIS OF RINGS NO CODE IN CONTAMINATION SENSITIVE SYSTEMS. NO CODE LETTER AND CODE LETTER “A” PARTS ARE NOT RECOMMENDED FOR PROCUREMENT AFTER 2015/09/30 AND SHOULD BE REPLACED BY ANODIZED PARTS WITH CODE LETTER “B”. BLUE ANODIZED RING CODE “B” PARTS MAY BE ORDERED IN LIEU OF NO CODE AND CODE “A” PARTS.