

# RATIONALE

REVISE THE FINISH FOR ALUMINUM WIRE BY REPLACING THE DUPLEX SEAL WITH A "NO DUPLEX SEAL" NOTE REQUIREMENT. UPDATE OUTDATED SPECIFICATION CALLOUT TO CURRENT SPECIFICATION. QPL NOTE /4/ REVISED TO REFLECT CURRENT VERBIAGE. REVISION INDICATOR NOTE 17 ADDED. DISPOSITION OF INVENTORIED PARTS MANUFACTURED TO PREVIOUS REVISION NOTE 18 ADDED.

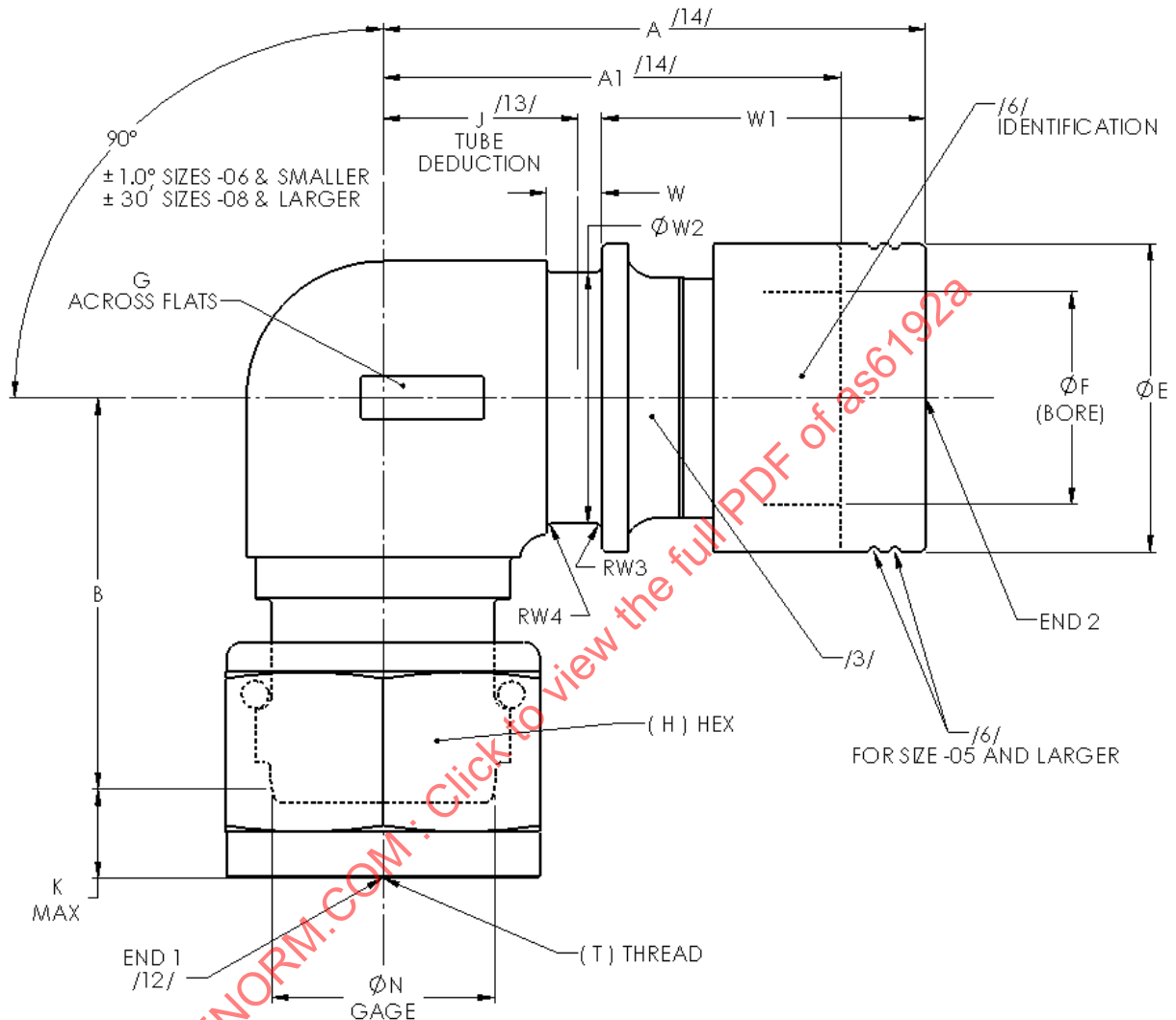
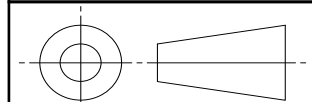


FIGURE 1 - ASSEMBLY, ELBOW, 90°, AXIALLY SWAGED TO FEMALE FLARELESS

For more information on this standard, visit  
<https://www.sae.org/standards/content/AS6192A/>

THIRD ANGLE PROJECTION



CUSTODIAN: G-3/G-3B

PROCUREMENT SPECIFICATION: AS6116 /4/



## AEROSPACE STANDARD

FITTING ASSEMBLY, ELBOW, 90°,  
AXIALLY SWAGED, FEMALE FLARELESS,  
HYDRAULIC, UP TO 1500 PSI

AS6192™  
SHEET 1 OF 4

REV.  
A

**TABLE 1A - DIMENSIONS A THROUGH J**

BASIC NO. AS6192 /16/ SIZE CODE	NOMINAL TUBE SIZE END 1	NOMINAL TUBE SIZE END 2	A MAX	A1 MAX	B ±.015	ØE MAX	ØF MIN	G ±.015	(H)	J /13/ TUBE DEDUCTION
0404	.250	.250	1.112	.959	.874	.435	.253	.438	.562	.419 +.150/-.180
0406	.250	.375	1.464	1.237	.946	.580	.378	.563	.562	.492 +.150/-.195
0505	.3125	.3125	1.258	1.110	.949	.503	.3155	.465	.625	.435 +.150/-.180
0606	.375	.375	1.464	1.237	1.047	.580	.378	.563	.688	.492 +.150/-.195
0808	.500	.500	1.765	1.505	1.230	.755	.503	.750	.875	.590 +.150/-.210
1010	.625	.625	1.843	1.603	1.434	.929	.629	.875	1.000	.663 +.150/-.200
1212	.750	.750	2.103	1.823	1.598	1.150	.754	1.063	1.250	.783 +.150/-.245
1612	1.000	.750	2.228	1.948	1.864	1.150	.754	1.304	1.500	.908 +.150/-.245
1616	1.000	1.000	2.618	2.238	1.864	1.474	1.004	1.304	1.500	.928 +.150/-.330
2020	1.250	1.250	3.069	2.654	2.093	1.768	1.255	1.618	1.812	1.104 +.150/-.375

**TABLE 1B - DIMENSIONS K THROUGH W4 AND WEIGHTS**

BASIC NO. AS6192 /16/ SIZE CODE	NOMINAL TUBE SIZE END 1	NOMINAL TUBE SIZE END 2	K MAX	ØN GAGE	( T ) THREAD PER AS8879	W MIN	W1 MAX	ØW2 ±.002	W3 MAX	W4 MAX	WEIGHT APPROX LB/EA
0404	.250	.250	.248	.2930	.4375-20 UNJF-3B	.185	.604	.320	.020	.020	.025
0406	.250	.375	.248	.2930	.4375-20 UNJF-3B	.195	.883	.463	.020	.020	.035
0505	.3125	.3125	.331	.3500	.5000-20 UNJF-3B	.180	.724	.371	.020	.020	.030
0606	.375	.375	.302	.4120	.5625-18 UNJF-3B	.195	.883	.463	.020	.020	.040
0808	.500	.500	.316	.5600	.7500-16 UNJF-3B	.210	1.076	.595	.020	.020	.080
1010	.625	.625	.424	.6730	.8750-14 UNJF-3B	.225	1.076	.758	.020	.020	.120
1212	.750	.750	.388	.8100	1.0625-12 UNJ-3B	.235	1.201	.903	.025	.025	.200
1612	1.000	.750	.454	1.0620	1.3125-12 UNJ-3B	.235	1.201	.903	.025	.025	.295
1616	1.000	1.000	.454	1.0620	1.3125-12 UNJ-3B	.260	1.566	1.196	.035	.035	.325
2020	1.250	1.250	.465	1.3160	1.6250-12 UNJ-3B	.285	1.829	1.460	.035	.035	.555

**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.

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

WIRE: TYPE 302 OR 305, CONDITION A CORROSION RESISTANT STEEL WIRE PER ASTM A580 (SIZES -.04 AND .05).  
TYPE 2024-T4 OR 2024-T351 ALUMINUM ALLOY WIRE PER AMS-QQ-A-225/6 (SIZES -.06 AND LARGER).

**2. FINISH:**

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

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

NUT: ANODIZE PER MIL-PRF-8625 TYPE II, CLASS 2, DYED BROWN SIMILAR TO NO. 10080, OF AMS-STD-595 AND SHALL BE DUPLEX SEALED.

WIRE: TYPE 302 OR 305: PASSIVATE PER AMS2700.  
TYPE 2024-T4 OR 2024-T351: ANODIZE PER MIL-PRF-8625 TYPE II, CLASS 2 (YELLOW) WITH NO DUPLEX SEAL.

	<b>AEROSPACE STANDARD</b>	<b>AS6192™</b> SHEET 2 OF 4	<b>REV.</b> <b>A</b>
	FITTING ASSEMBLY, ELBOW, 90°, AXIALLY SWAGED, FEMALE FLARELESS, HYDRAULIC, UP TO 1500 PSI		

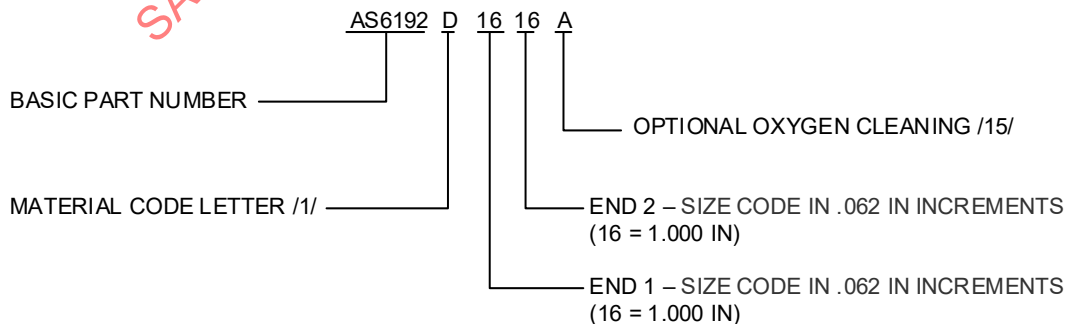
/3/ COATINGS / LUBRICANTS:


BODY:

- a. DRY FILM LUBRICANT PER AS5272 TYPE I MAY 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.

WIRE: SOLID FILM LUBRICANT PER AS5272, TYPE I.

- /4/ PROCUREMENT SPECIFICATION: AS6116 EXCEPT AS SPECIFIED ON THIS STANDARD. PRODUCT MANUFACTURED TO THIS STANDARD SHALL MEET THE REQUIREMENTS SPECIFIED HEREIN AND THE PROCUREMENT SPECIFICATION. ORIGINAL COMPONENT MANUFACTURERS (OCM) AND VALUE ADDED DISTRIBUTORS (VAD) SHALL BE LISTED IN THE PRI QUALIFIED PRODUCTS LIST (QPL) PRI-QPL-AS6116 FOR THIS STANDARD. SEE [www.eAuditNet.com](http://www.eAuditNet.com) FOR CURRENT QPL ONLINE.
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 THE RING IN THE AREA SHOWN. FOR SIZE -.05 AND LARGER, THE RING OD SHALL HAVE TWO GROOVES INDICATING DUAL SEALING BACK UP FEATURE.
7. FITTINGS SHALL BE INSTALLED IN ACCORDANCE WITH AS6124.
8. SURFACE TEXTURE: SYMBOLS PER ASME Y14.36M; REQUIREMENTS PER ASME B46.1. UNLESS OTHERWISE SPECIFIED, THE MAXIMUM MACHINED SURFACES SHALL BE 125 MICROINCHES Ra.
9. BREAK ALL EDGES .003 TO .010 INCHES, UNLESS OTHERWISE SPECIFIED.
10. DIMENSIONING AND TOLERANCING: ASME Y14.5M-1994.
11. DIMENSIONS ARE IN INCHES. UNLESS OTHERWISE SPECIFIED; TOLERANCES: LINEAR DIMENSIONS  $\pm .015$ , ANGULAR DIMENSIONS  $\pm 0^{\circ}30'$ .
- /12/ FITTINGS SHALL MATE WITH AS5863-(SIZE) OR AS5864-(SIZE). STANDARD COUPLING NUT SHALL BE DIMENSIONALLY AND FUNCTIONALLY EQUIVALENT TO AS4370DXXXX.
- /13/ DIMENSION "J" IS THE ALLOWABLE TUBE END POSITIONING FOR SYSTEM LAYOUT DESIGN.
- /14/ DIMENSION "A" IS THE FITTING'S ASSEMBLY LENGTH PRIOR TO SWAGING. DIMENSION "A1" IS THE "AFTER SWAGE" ASSEMBLY LENGTH MEASURED FROM THE SWAGED RING.
- /15/ PARTS FOR OXYGEN SYSTEMS SHALL BE IDENTIFIED IN THE PART NUMBER AS SUFFIX CODE "A" AND SHALL BE FURNISHED CLEANED, PACKAGED, AND LABELED IN ACCORDANCE WITH ARP1176 CATEGORY 1A.
- /16/ EXAMPLE OF PART NUMBER:



	<b>AEROSPACE STANDARD</b>	<b>AS6192™</b> SHEET 3 OF 4	<b>REV.</b> <b>A</b>
	FITTING ASSEMBLY, ELBOW, 90°, AXIALLY SWAGED, FEMALE FLARELESS, HYDRAULIC, UP TO 1500 PSI		