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REV.
C

AS5970

FEDERAL SUPPLY CLASS
4730

RATIONALE

REVISED NOTE 13 FOR DEFINITION CORRECTION OF DIMENSIONS "A1" AND "B1" (FITTING BODY LENGTH). ADDED LETTER CODE "B" FOR FITTING ASSEMBLIES WITH BLUE ANODIZED RINGS AND NOTE 15 AS AN OPTION FOR FUTURE REPLACEMENT OF CURRENT BLUE COLOR CODING. REVISED NOTES 7 AND 8 AND AS6449 AS A NEW LUBRICANT TYPE. REFORMATTED TABLES, CORRECTED ERROR OF CONFIGURATION 1612 TUBE DEDUCTION AND UPDATED WEIGHTS OF CONFIGURATIONS 1612 AND 1616.

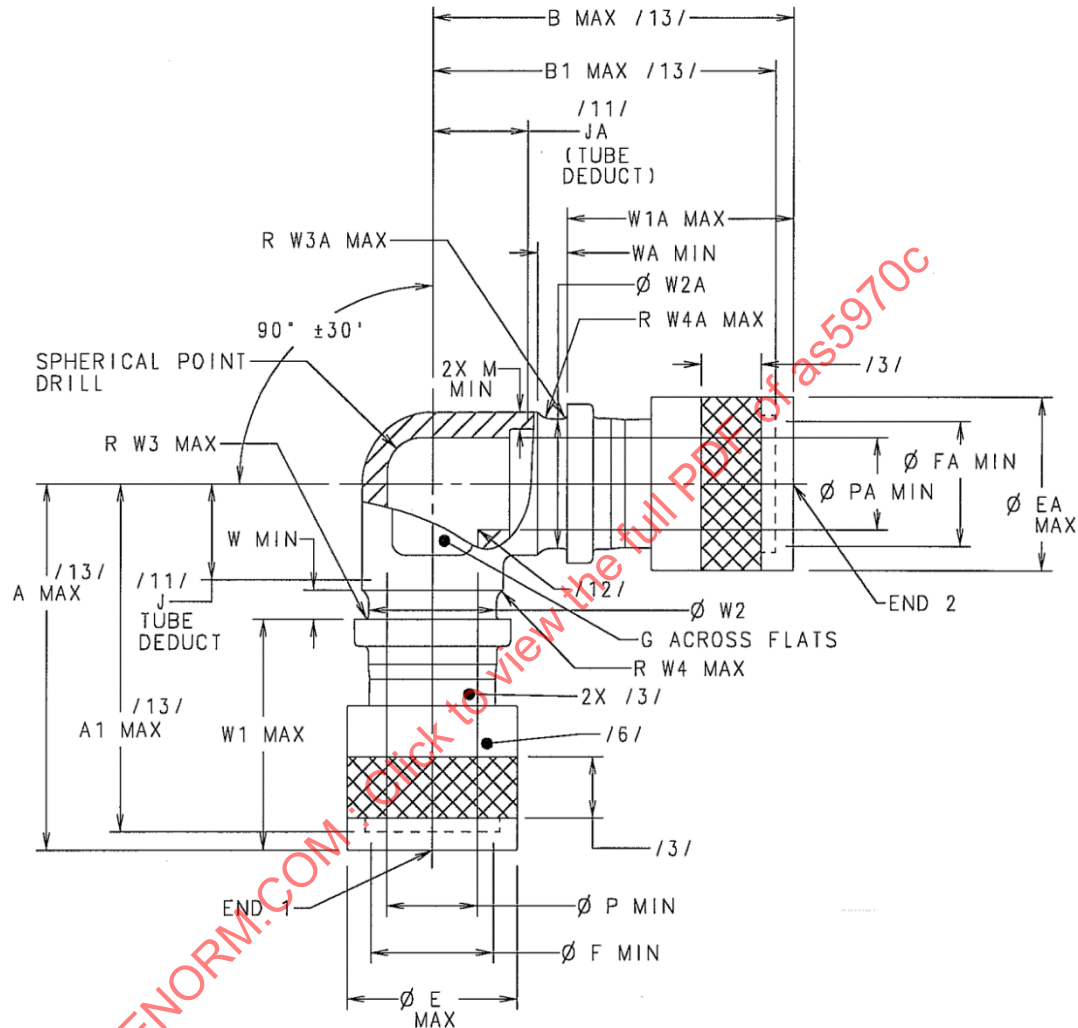
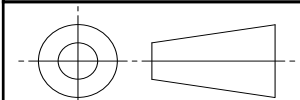


FIGURE 1 - ELBOW, 90°, AXIAL SWAGE

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

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THIRD ANGLE PROJECTION



CUSTODIAN: G-3/G-3B

PROCUREMENT SPECIFICATION: AS5958 /4/



AEROSPACE STANDARD

(R) FITTING ASSEMBLY, ELBOW,
90°, AXIALLY SWAGED,
HYDRAULIC, 5080 PSI

AS5970
SHEET 1 OF 4

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ISSUED 2006-01 REVISED 2014-10

TABLE 1A - DIMENSIONS A THROUGH G

BASIC NO. AS5970 /14/ SIZE CODE	NOMINAL TUBE SIZE END 1	NOMINAL TUBE SIZE END 2	A MAX	A1 MAX	B MAX	B1 MAX	E MAX	EA MAX	F MIN	FA MIN	G
0404	.2500	.2500	.935	.848	.935	.848	.466	.466	.253	.253	.380/.348
0604	.3750	.2500	1.215	1.099	.998	.911	.609	.466	.378	.253	.509/.477
0606	.3750	.3750	1.215	1.099	1.215	1.099	.609	.609	.378	.378	.509/.477
0806	.5000	.3750	1.516	1.370	1.308	1.192	.783	.609	.504	.378	.647/.615
0808	.5000	.5000	1.516	1.370	1.516	1.370	.783	.783	.504	.504	.647/.615
1008	.6250	.5000	1.873	1.669	1.579	1.433	.939	.783	.629	.504	.783/.751
1010	.6250	.6250	1.873	1.669	1.873	1.669	.939	.939	.629	.629	.783/.751
1210	.7500	.6250	2.149	1.944	1.998	1.794	1.122	.939	.754	.629	.925/.893
1212	.7500	.7500	2.149	1.944	2.149	1.944	1.122	1.122	.754	.754	.925/.893
1612	1.0000	.7500	2.606	2.392	2.308	2.103	1.495	1.122	1.004	.754	1.213/1.181
1616	1.0000	1.0000	2.606	2.392	2.606	2.392	1.495	1.495	1.004	1.004	1.213/1.181
2016	1.2500	1.0000	3.020	2.796	2.728	2.514	1.758	1.495	1.255	1.004	1.641/1.609
2020	1.2500	1.2500	3.020	2.796	3.020	2.796	1.758	1.758	1.255	1.255	1.641/1.609

TABLE 1B - DIMENSIONS J THROUGH WA

BASIC NO. AS5970 /14/ SIZE CODE	NOMINAL TUBE SIZE END 1	NOMINAL TUBE SIZE END 2	J /11/ TUBE DEDUCT	JA /11/ TUBE DEDUCT	M MIN	P MIN	PA MIN	W MIN	WA MIN
0404	.2500	.2500	.353 ± .150	.353 ± .150	.043	.198	.198	.123	.123
0604	.3750	.2500	.416 ± .150	.416 ± .150	.045	.302	.198	.153	.123
0606	.3750	.3750	.416 ± .150	.416 ± .150	.045	.302	.302	.153	.153
0806	.5000	.3750	.517 ± .175	.509 ± .150	.052	.401	.302	.165	.153
0808	.5000	.5000	.517 ± .175	.517 ± .175	.052	.401	.401	.165	.165
1008	.6250	.5000	.580 ± .175	.580 ± .175	.057	.507	.401	.140	.165
1010	.6250	.6250	.580 ± .175	.580 ± .175	.057	.507	.507	.140	.140
1210	.7500	.6250	.712 ± .175	.705 ± .175	.065	.604	.507	.154	.140
1212	.7500	.7500	.712 ± .175	.712 ± .175	.065	.604	.604	.154	.154
1612	1.0000	.7500	.878 ± .200	.871 ± .175	.084	.802	.604	.167	.154
1616	1.0000	1.0000	.878 ± .200	.878 ± .200	.084	.802	.802	.167	.167
2016	1.2500	1.0000	1.009 ± .200	1.000 ± .200	.174	1.011	.802	.185	.167
2020	1.2500	1.2500	1.009 ± .200	1.009 ± .200	.174	1.011	1.011	.185	.185

TABLE 1C - DIMENSION W1 THROUGH W4A AND WEIGHTS

BASIC NO. AS5970 /14/ SIZE CODE	NOMINAL TUBE SIZE END 1	NOMINAL TUBE SIZE END 2	W1 MAX	W1A MAX	W2 ±.0015	W2A ±.0015	W3 MAX	W3A MAX	W4 MAX	W4A MAX	WEIGHT LB/EA APPROX. REF.
0404	.2500	.2500	.488	.488	.3005	.3005	.018	.018	.065	.065	.019
0604	.3750	.2500	.675	.488	.4475	.3005	.033	.018	.065	.065	.037
0606	.3750	.3750	.675	.675	.4475	.4475	.033	.033	.065	.065	.044
0806	.5000	.3750	.871	.675	.5945	.4475	.033	.033	.129	.065	.079
0808	.5000	.5000	.871	.871	.5945	.5945	.033	.033	.129	.129	.091
1008	.6250	.5000	1.190	.871	.7365	.5945	.021	.033	.078	.129	.132
1010	.6250	.6250	1.190	1.190	.7365	.7365	.021	.021	.078	.078	.146
1210	.7500	.6250	1.327	1.190	.8805	.7365	.024	.021	.089	.078	.216
1212	.7500	.7500	1.327	1.327	.8805	.8805	.024	.024	.089	.089	.240
1612	1.0000	.7500	1.612	1.327	1.1725	.8805	.027	.024	.099	.089	.430
1616	1.0000	1.0000	1.612	1.612	1.1725	1.1725	.027	.027	.099	.099	.490
2016	1.2500	1.0000	1.886	1.612	1.4345	1.1725	.030	.027	.113	.099	.812
2020	1.2500	1.2500	1.886	1.886	1.4345	1.4345	.030	.030	.113	.113	.837



AEROSPACE STANDARD

(R) FITTING ASSEMBLY, ELBOW,
90°, AXIALLY SWAGED,
HYDRAULIC, 5080 PSIAS5970
SHEET 2 OF 4REV.
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NOTES:

/1/ MATERIALS:

CODE LETTER "T"

RINGS - 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.

/3/ COATINGS/LUBRICANTS /15/:

a. NO SUFFIX CODE LETTER

- (1) RINGS - THE OUTER SURFACE SHALL HAVE A .125 INCH MINIMUM WIDTH BLUE COLORED RING OR COMPLETELY COLORED BLUE TO INDICATE 5080 PSI MAXIMUM OPERATING PRESSURE. 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 SHALL NOT BE IN CONTACT WITH THE SYSTEM FLUID.

b. SUFFIX CODE LETTER "A"

- (1) RINGS - 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 SHALL BE APPLIED TO PORTIONS OF THE ID AND OD. THE PETROLEUM-BASED LUBRICANT SHALL NOT BE IN CONTACT WITH THE SYSTEM FLUID.

c. SUFFIX CODE LETTER "B"

- (1) RINGS - PARTIALLY (.125 INCH MINIMUM WIDTH) OR COMPLETELY ANODIZED BLUE 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 SHALL BE APPLIED TO PORTIONS OF THE ID AND OD. THE PETROLEUM-BASED LUBRICANT SHALL NOT BE IN CONTACT WITH THE SYSTEM FLUID.

/4/ PROCUREMENT SPECIFICATION: AS5958 EXCEPT AS SPECIFIED ON THIS STANDARD. PRODUCT SUPPLIED TO THIS SPECIFICATION SHALL BE MANUFACTURED BY AN ACCREDITED MANUFACTURER AS LISTED IN THE PERFORMANCE REVIEW INSTITUTE (PRI) QUALIFIED PRODUCTS LIST (QPL) PRI-QPL-AS5958 FOR THIS STANDARD. SEE www.eAuditNet.com FOR 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 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, AND FORGED SURFACES SHALL BE 250 MICROINCHES Ra.

	AEROSPACE STANDARD	AS5970 SHEET 3 OF 4	REV. C
	(R) FITTING ASSEMBLY, ELBOW, 90°, AXIALLY SWAGED, HYDRAULIC, 5080 PSI		