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REV. B

AS4628

FEDERAL SUPPLY CLASS
4720

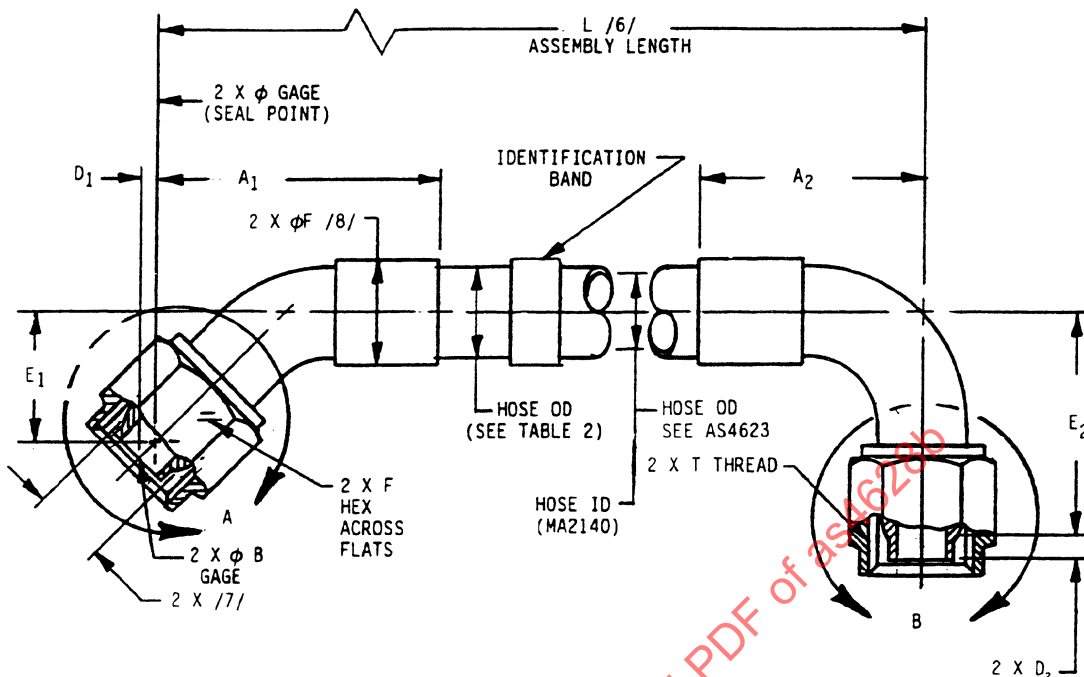


FIGURE 1 - HOSE ASSEMBLY, 45° ELBOW TO 90° ELBOW

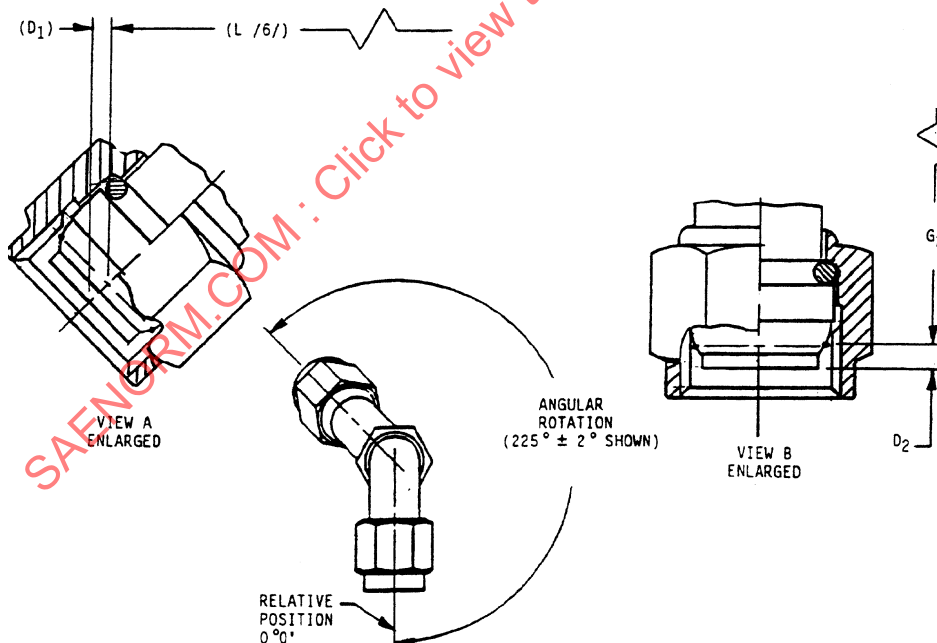
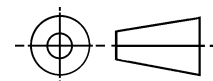


FIGURE 2 - FITTING ORIENTATION /19/

THIRD ANGLE PROJECTION



CUSTODIAN: SAE G-3/G-3D

PROCUREMENT SPECIFICATION: /2/ AS4623

SAE Aerospace
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AEROSPACE STANDARD

(R) HOSE ASSEMBLY, POLYTETRAFLUOROETHYLENE, PARA
ARAMID REINFORCED, HEAVY-DUTY, 275 °F, 3000 psi FLARELESS
TITANIUM FITTINGS, INCLUDING JUMP SIZE, 45° TO 90°

AS4628
SHEET 1 OF 5

REV. B

ISSUED 1992-06-25 REVISED 2000-10 REAFFIRMED 2004-06

TABLE 1 - HOSE AND FITTING DIMENSIONS

BASIC HOSE ASSEMBLY NO. AS4628 SIZE CODE	SIZE	THREAD T PER AS8879	A1 MAX	A2 MAX	B GAGE (C) BASIC	D1	D2	E1 MAX	E1 MIN	E2 MAX	E2 MIN	F MAX	F MIN	BALL SIZE MIN THRU /7/ IN
E	.250	.4375-20UNJF-3B	2.160	1.180	.2930	.56	.11	.16	.475	.350	.770	.645	.69	.109
G	.375	.5625-18UNJF-3B	2.460	2.180	.4120	.69	.12	.16	.500	.375	.840	.715	.80	.188
H	.500	.7500-16UNJF-3B	2.740	2.538	.5600	.88	.13	.19	.560	.435	.970	.845	.97	.313
J	.625	.8750-14UNJF-3B	3.785	3.375	.6730	1.00	.14	.20	.670	.545	1.210	1.085	1.15	.375
K	.750	1.0625-12UNJ-3B	4.810	3.940	.8100	1.25	.16	.23	.705	.580	1.400	1.275	1.38	.469
M	1.000	1.3125-12UNJ-3B	5.540	4.510	1.0620	1.50	.21	.30	.840	.715	1.625	1.500	1.66	.719
N	1.250	1.5625-12UNJ-3B	6.770	5.310	1.3160	1.81	.03	.04	.875	.750	1.825	1.700	2.32	.875

TABLE 2 - HOSE OR SLEEVE OUTSIDE DIAMETERS /10/

SLEEVE CODE	SLEEVE MATERIAL	TEMP. LIMIT °F	HOSE SIZE				HOSE SIZE				HOSE SIZE			
			.250	.375	.500	.500	.625	.750	.875	.940	1.000	1.000	1.250	1.250
-	(-) INDICATES HOSE ONLY NO SLEEVE (SEE AS4623)	275	--	--	--	--	--	--	--	--	--	--	--	--
A	FIRE SLEEVE (AS1072 SIL-FG) (5 min) /11/ /12/ /13/	275	.930/.730	1.070/.880	1.205/1.015	1.370/1.130	1.590/1.380	1.847/1.677	2.130/1.950					
B	ABRASION SLEEVE SHRINK-ON (POLYOLEFIN AS1073-CODE B) /20/	275	.596/.524	.760/.680	.905/.825	1.030/.940	1.302/1.198	1.599/1.495	1.884/1.776					

AS4628		REV. B																																																																																
TABLE 3 - HOSE ASSEMBLY LENGTH TOLERANCES <table><tr><th>HOSE ASSEMBLY LENGTH</th><th>TOLERANCE</th></tr><tr><td>UNDER 18 in</td><td>±.125 in</td></tr><tr><td>18 TO 36 in EXCLUSIVE</td><td>±.250 in</td></tr><tr><td>36 to 50 in EXCLUSIVE</td><td>±.500 in</td></tr><tr><td>50 in AND OVER</td><td>±1%</td></tr></table> TABLE 4 - MAXIMUM HOSE AND FITTING WEIGHTS <table><tr><th>HOSE OR SLEEVE CODE</th><th>HOSE PART OR SLEEVE</th><th>UNITS</th><th>HOSE SIZE .750</th><th>HOSE SIZE .375</th><th>HOSE SIZE .500</th><th>HOSE SIZE .625</th><th>HOSE SIZE .750</th><th>HOSE SIZE 1.000</th><th>HOSE SIZE 1.250</th></tr><tr><td>--</td><td>HOSE ONLY (SEE AS4623)</td><td>LB/IN</td><td>--</td><td>--</td><td>--</td><td>--</td><td>--</td><td>--</td><td>--</td></tr><tr><td>A</td><td>FIRE SLEEVE (AS1072 SIL-FG) (5 min) /14/</td><td>LB/IN</td><td>--</td><td>--</td><td>--</td><td>--</td><td>--</td><td>--</td><td>--</td></tr><tr><td>B</td><td>ABRASION SLEEVE (AS1073 - CODE B) /20/</td><td>LB/IN</td><td>.0018</td><td>.0018</td><td>.0032</td><td>.0032</td><td>.0049</td><td>.0082</td><td>.0082</td></tr><tr><td>NONE</td><td>FIRE SLEEVE CLAMP</td><td>LB/EA</td><td>.020</td><td>.020</td><td>.021</td><td>.021</td><td>.025</td><td>.025</td><td>.032</td></tr><tr><td>NONE</td><td>FITTING END (45°) /15/</td><td>LB/EA</td><td>.066</td><td>.110</td><td>.154</td><td>.275</td><td>.535</td><td>.944</td><td>TBD /9/</td></tr><tr><td>NONE</td><td>FITTING END (90°) /15/</td><td>LB/EA</td><td>.077</td><td>.121</td><td>.176</td><td>.297</td><td>.560</td><td>.947</td><td>TBD /9/</td></tr></table>			HOSE ASSEMBLY LENGTH	TOLERANCE	UNDER 18 in	±.125 in	18 TO 36 in EXCLUSIVE	±.250 in	36 to 50 in EXCLUSIVE	±.500 in	50 in AND OVER	±1%	HOSE OR SLEEVE CODE	HOSE PART OR SLEEVE	UNITS	HOSE SIZE .750	HOSE SIZE .375	HOSE SIZE .500	HOSE SIZE .625	HOSE SIZE .750	HOSE SIZE 1.000	HOSE SIZE 1.250	--	HOSE ONLY (SEE AS4623)	LB/IN	--	--	--	--	--	--	--	A	FIRE SLEEVE (AS1072 SIL-FG) (5 min) /14/	LB/IN	--	--	--	--	--	--	--	B	ABRASION SLEEVE (AS1073 - CODE B) /20/	LB/IN	.0018	.0018	.0032	.0032	.0049	.0082	.0082	NONE	FIRE SLEEVE CLAMP	LB/EA	.020	.020	.021	.021	.025	.025	.032	NONE	FITTING END (45°) /15/	LB/EA	.066	.110	.154	.275	.535	.944	TBD /9/	NONE	FITTING END (90°) /15/	LB/EA	.077	.121	.176	.297	.560	.947	TBD /9/
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SAE Aerospace An SAE International Group	AEROSPACE STANDARD (R) HOSE ASSEMBLY, POLYTETRAFLUOROETHYLENE, PARA ARAMID REINFORCED, HEAVY-DUTY, 275 °F, 3000 psi FLARELESS TITANIUM FITTINGS, INCLUDING JUMP SIZE, 45° TO 90°	AS4628 SHEET 3 OF 5	REV. B
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REV. B	NOTES: 1. MATERIALS: a. HOSE AND FITTINGS - PER AS4623. b. THE COLLARS MAY BE STAINLESS STEEL /15/. c. SLEEVES - SEE APPLICABLE STANDARDS, TABLE 2.			
AS4628	/2/ THIS HOSE ASSEMBLY STANDARD SHALL BE QUALIFIED IN ACCORDANCE WITH PROCUREMENT SPECIFICATION AS4623. USERS OF THIS STANDARD ARE ADVISED TO CONTROL SOURCE APPROVAL(S) BY STANDARD PAGE SUPPLEMENT SHEET OR SIMILAR MEANS. CHANGE-OVER FROM USER-QPL TO PRI-QPL SHALL BE PERFORMED IN ACCORDANCE WITH AS4623B, AND COMPLETED WITHIN 6 MONTHS FROM THE DATE OF ISSUE OF PRI-QPL-AS4623. USERS OF THIS STANDARD SHALL PROCURE THE PRODUCT FROM ACCREDITED MANUFACTURERS, OR THEIR ACCREDITED DISTRIBUTORS, AS LISTED IN THE PERFORMANCE REVIEW INSTITUTE (PRI) QUALIFIED PRODUCTS LIST OF PRI-QPL-AS4623 FOR THIS STANDARD. 3. CONSTRUCTION AND PERFORMANCE PER AS4623. FITTINGS SHALL BE PERMANENTLY ATTACHED TO HOSE. 4. OPERATING CHARACTERISTICS PER AS4623. /5/ MARKING: MARKING SHALL BE PER AS4623 ON A STAINLESS STEEL BAND NOT OVER 1.0 in WIDE OR ON THE COLLAR. THE CHARACTERS SHALL BE A MINIMUM OF .06 in HIGH. THE BAND SHALL BE SO DESIGNED AS TO REMAIN TIGHT ON THE HOSE TO PREVENT RELATIVE MOVEMENT AND RESULTANT CHAFING. IT SHALL BE OF SUFFICIENT STRENGTH TO PREVENT REMOVAL BY HAND. HOSE ASSEMBLY DATE AND "PT" SYMBOL SHALL BE PERMANENTLY MARKED ON THE BAND OR ON AN END FITTING OR A FIRESLEEVE CLAMP. MARKING BAND SHALL BE COVERED WITH TRANSPARENT POLYOLEFIN SHRINK SLEEVE PER AS1073 CODE A. /6/ HOSE LENGTH: LENGTH "L" IS A THREE DIGIT NUMBER OF WHICH THE FIRST TWO DIGITS DESCRIBE THE HOSE ASSEMBLY LENGTH IN WHOLE INCHES, AND THE THIRD DIGIT, THE FRACTION OF AN INCH IN EIGHTHS. LENGTH "L" IS MEASURED FROM "GAGE DIAMETER" TO "GAGE DIAMETER". FOR LENGTH TOLERANCES, SEE TABLE 3. TO CONVERT "GAGE DIAMETER" TO "END TO END" MEASUREMENT, ADD D₁ TO LENGTH "L". /7/ HOSE ASSEMBLY INSIDE DIAMETER SHALL BE VERIFIED BY PASSING THE DESIGNATED, OR LARGER, SPHERICAL BALL PER TABLE 1 THROUGH THE HOSE ASSEMBLY. /8/ DISTANCE ACROSS CORNERS OF COUPLING NUT MAY EXCEED THIS DIMENSION. /9/ FITTING ENDS SIZE -4 THRU -16 MUST COMPLY WITH NAS1760; FITTINGS FOR HOSE SIZE -20 AND LARGER TO COMPLY WITH AS4703. FITTINGS SHALL MATE WITH AS33514 OR AS4375, FOR SIZES THRU -16 AND WITH AS4658 OR AS4659 IN SIZES -20 AND LARGER. -20 AND LARGER NUTS SHALL CONFORM TO AS4660 OR AS4702. STANDARD COUPLING NUTS SHALL BE IN ACCORDANCE WITH OR EQUIVALENT TO AS1790 OR AS1792. /10/ CLAMP DIAMETERS: DIAMETERS ARE LISTED FOR CLAMP SELECTION. TUBULAR SLEEVES MAY NOT BE A PERFECT ROUND AND SHALL BE MEASURED WITH A DIAMETER TAPE RULE (OFTEN REFERRED TO AS A PI-TAPE). /11/ SLEEVE DIAMETERS: THE TABLE 2 SLEEVE DIAMETERS FOR AS1072 SLEEVES APPLY WHEN THE SLEEVE IS COMPRESSED, OR CLAMPED TO CONTACT THE HOSE, IN THIS CASE, A WRINKLE MAY OCCUR OVER APPROXIMATELY 10% OF THE SLEEVE CIRCUMFERENCE. /12/ FIRESLEEVE: THE CUT ENDS OF THE FIRESLEEVE SHALL BE COATED WITH RTV SILICONE RUBBER PRIOR TO INSTALLATION TO PREVENT WICKING OF FLUIDS. THE FIRESLEEVE ENDS SHALL BE SECURED TO THE HOSE ASSEMBLY END FITTINGS WITH CORROSION RESISTANT STEEL BANDS. AFTER INSTALLATION, CRACKS OR VOIDS IN THE FIRESLEEVE, WHICH EXPOSE THE FIBERGLASS, SHALL BE COATED WITH RTV SILICONE RUBBER. /13/ IDENTIFICATION MARKING: ADD "AS1055 TYPE IIb CLASS A-S/P" TO IDENTIFICATION MARKING TO SHOW LEVEL OF COMPLIANCE, "FIRE RESISTANT 275 °F (5 min), WITH AS1055." /14/ WHEN FIRESLEEVES ARE REQUIRED, WEIGHT LIMITS SHALL BE DEFINED BY THE PROCURING AUTHORITY. /15/ TITANIUM PARTS MAY BE REPLACED WITH STAINLESS STEEL IF MAXIMUM WEIGHT FOR FITTING IS NOT EXCEEDED. 16. DIMENSIONING AND TOLERANCING: ASME Y14.5M-1994. 17. SAFETY WIRE HOLES LOCATION AND DIAMETER PER AS1043 CODED AS FOLLOWS: a. U = TWO HOLES 180° APART b. W = THREE HOLES 120° APART			
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