

REV. B

AS4629

FEDERAL SUPPLY CLASS

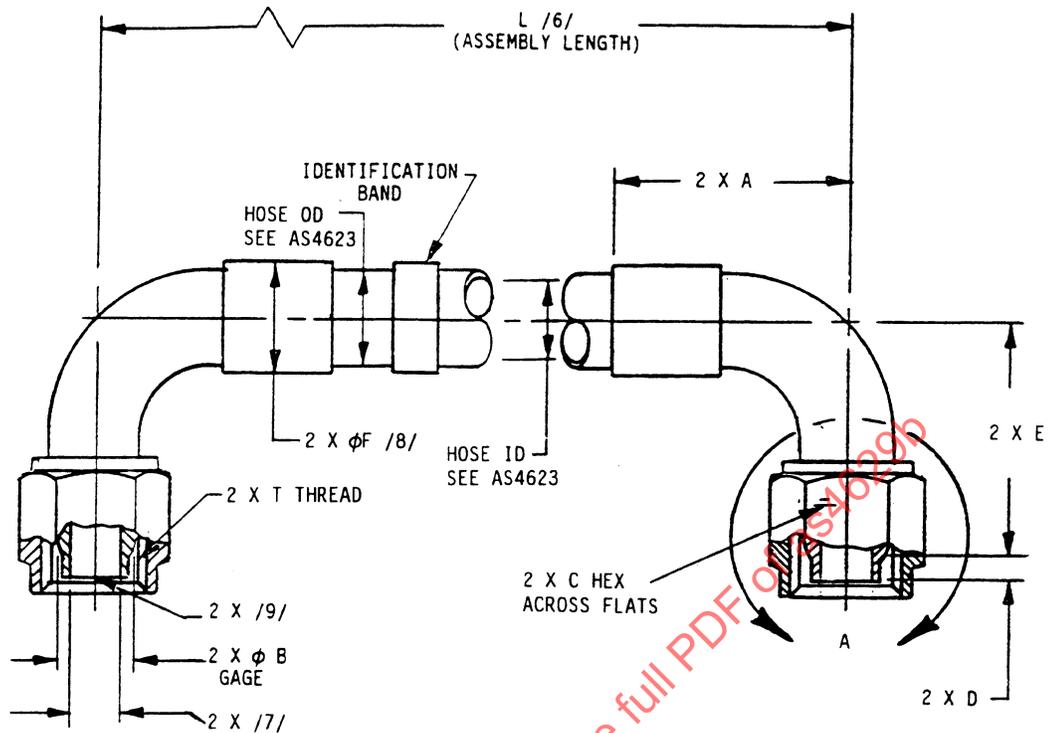


FIGURE 1 - HOSE ASSEMBLY, 90° ELBOW TO 90° ELBOW

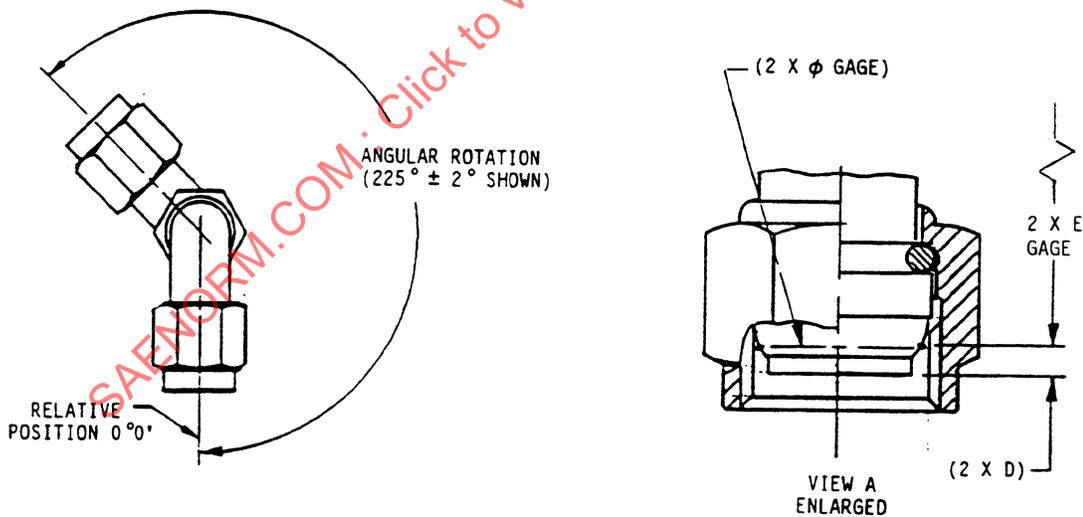
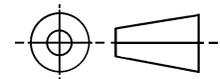


FIGURE 2 - FITTING ORIENTATION /19/

THIRD ANGLE PROJECTION



CUSTODIAN: SAE G-3/G-3D

PROCUREMENT SPECIFICATION: /2/ MA4623

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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, 90° TO 90°

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SHEET 1 OF 5

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ISSUED 1991-12-30 REVISED 2000-10 REAFFIRMED 2004-06

TABLE 1 - HOSE AND FITTING DIMENSIONS

BASIC HOSE ASSEMBLY NO. AS4629 SIZE CODE	SIZE	THREAD T PER AS8879	A		B GAGE		C		D		E		F		BALL SIZE MIN THRU /7/ IN
			MAX	MIN	BASIC	HEX	MAX	MIN	MAX	MIN	MAX	MIN	MAX		
E	.250	.4375-20UNJF-3B	1.180	.645	.2930	.56	.11	.770	.69	.109					
G	.375	.5625-18UNJF-3B	2.180	.715	.4120	.69	.12	.840	.80	.188					
H	.500	.7500-16UNJF-3B	2.538	.845	.5600	.88	.13	.970	.97	.313					
J	.625	.8750-14UNJF-3B	3.375	1.085	.6730	1.00	.14	1.210	1.15	.375					
K	.750	1.0625-12UNJ-3B	3.940	1.400	.8100	1.25	.16	1.400	1.38	.469					
M	1.000	1.3125-12UNJ-3B	4.510	1.550	1.0620	1.50	.21	1.625	1.66	.719					
N	1.250	1.5625-12UNJ-3B	5.310	1.700	1.3160	1.81	.04	1.825	2.32	.906					

TABLE 2 - HOSE OR SLEEVE OUTSIDE DIAMETERS /10/

SLEEVE CODE	SLEEVE MATERIAL	TEMP. LIMIT °F	HOSE OR SLEEVE OUTSIDE DIAMETERS /10/													
			HOSE SIZE .250	HOSE SIZE .375	HOSE SIZE .500	HOSE SIZE .625	HOSE SIZE .750	HOSE SIZE 1.000	HOSE SIZE 1.250	HOSE SIZE .250	HOSE SIZE .375	HOSE SIZE .500	HOSE SIZE .625	HOSE SIZE .750	HOSE SIZE 1.000	HOSE SIZE 1.250
A	(-) INDICATES HOSE ONLY NO SLEEVE (SEE AS4623) FIRESLEEVE (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	.620/.540	.770/.690	.917/.833	1.042/.948	1.314/1.206	1.623/1.511	1.896/1.784							

TABLE 3 - HOSE ASSEMBLY LENGTH TOLERANCES

HOSE ASSEMBLY LENGTH	TOLERANCE
UNDER 18 in	±.125 in
18 THRU 36 in	±.250 in
OVER 36 THRU 50 in	±.500 in
OVER 50 in	±1%

TABLE 4 - MAXIMUM HOSE AND FITTING WEIGHTS

HOSE OR SLEEVE CODE	HOSE PART OR SLEEVE	UNITS	HOSE SIZE						
			.250	.375	.500	.625	.750	1.000	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	.0018	.0018	.0018	.0018	.0018
NONE	FIRE SLEEVE CLAMP	LB/EA	.020	.020	.021	.021	.025	.025	.032
NONE	FITTING END (90°) /15/	LB/EA	.077	.121	.176	.297	.560	.947	TBD /9/

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NOTES:

1. MATERIALS:
 - a. HOSE AND FITTINGS - PER AS4623.
 - b. THE COLLARS MAY BE STAINLESS STEEL /15/.
- /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 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. "END TO END" LENGTH MEASUREMENTS ARE THE SAME AS THE "GAGE DIAMETER" TO "GAGE DIAMETER" BECAUSE BOTH ENDS ARE 90° ELBOWS.
- /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.