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REV.  
B

AS4571

FEDERAL SUPPLY CLASS  
4720

## RATIONALE

AS4571B HAS BEEN REAFFIRMED TO COMPLY WITH THE SAE FIVE-YEAR REVIEW POLICY.

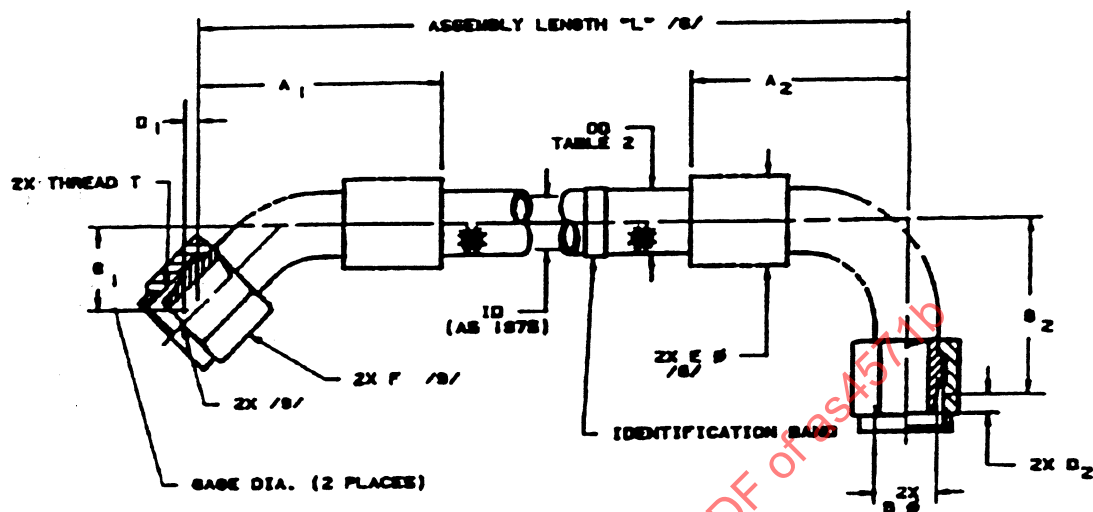


FIGURE 1 - HOSE ASSEMBLY, 45° ELBOW TO 90° ELBOW

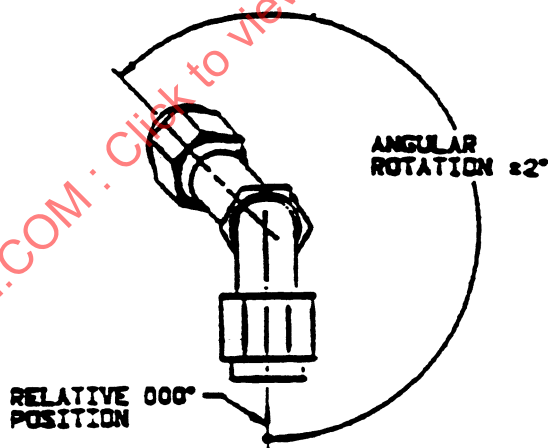
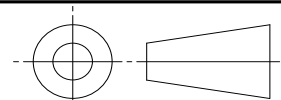


FIGURE 2 - ELBOWS ORIENTATION

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<http://www.sae.org/technical/standards/AS4571B>

THIRD ANGLE PROJECTION



CUSTODIAN: G-3/G-3D

PROCUREMENT SPECIFICATION: AS1972 /2/



## AEROSPACE STANDARD

(R) HOSE ASSEMBLY, PTFE, PARA-ARAMID REINFORCED,  
STANDARD DUTY, 3000 PSI, 275 °F, TITANIUM  
FITTINGS, FLARELESS, 45° TO 90°

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ISSUED 1992-06 REVISED 2001-01 REAFFIRMED 2015-04

TABLE 1 - ASSEMBLY DIMENSIONS

HOSE ASSEMBLY NO. & SIZE CODE	HOSE SIZE	THREAD/T PER AS8879 (REF)	HOSE ID MIN	A <sub>1</sub> MAX	A <sub>2</sub> MAX	B GAGE BASIC	D <sub>1</sub>	D <sub>2</sub>	E /8/ MAX WITHOUT SLEEVING	F HEX (REF)	G <sub>1</sub> MIN	G <sub>1</sub> MAX	G <sub>2</sub> MIN	G <sub>2</sub> MAX	SPHERICAL BALL SIZE FOR DETERMINING MINIMUM HOSE ASSEMBLY ID /7/ IN
AS4571E	.250	.4375-20UNJF-3B	.212	2.160	1.880	.2930	.11	.16	.69	.56	.350	.475	.645	.770	.115
AS4571G	.375	.5625-18UNJF-3B	.298	2.460	2.180	.4120	.12	.16	.80	.69	.375	.500	.715	.840	.204
AS4571H	.500	.7500-16UNJF-3B	.391	2.740	2.530	.5600	.13	.19	.97	.88	.435	.560	.845	.970	.289
AS4571J	.625	.8750-14UNJF-3B	.485	3.785	3.375	.6730	.14	.20	1.15	1.00	.545	.670	1.085	1.210	.349
AS4571K	.750	1.0625-12UNJ-3B	.602	4.065	3.940	.8100	.16	.23	1.38	1.25	.580	.705	1.275	1.400	.434
AS4571M	1.000	1.3125-12UNJ-3B	.852	4.645	4.485	1.0620	.21	.30	1.66	1.50	.715	.840	1.500	1.625	.646
AS4571N	1.250	1.5625-12UNJ-3B	1.100	5.585	5.225	1.3160	.03	.04	2.33	1.81	.750	.875	1.700	1.825	.816
AS4571P	1.500	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD

TABLE 2 - HOSE OR SLEEVE OUTSIDE DIAMETER

SLEEVE CODE	SLEEVE MATERIAL	TEMP LIMIT °F	TOLERANCE		HOSE SIZE		HOSE SIZE		HOSE SIZE		HOSE SIZE		HOSE SIZE		HOSE SIZE /10/ /1.500
			MAX	MIN	1/10	1/10	1/10	1/10	1/10	1/10	1/10	1/10	1/10	1/10	
-	BRAIDED HOSE ONLY PER AS1975	275			.465	.555	.710	.920	1.075	1.365	1.660	TBD	TBD	TBD	
					.405	.495	.650	.850	.995	1.285	1.580	TBD	TBD	TBD	
A	FIRESLEEVE (AS1072 SIL FG) (5 min) /11/ /12/	275	MAX	MIN	.840	.970	1.150	1.380	1.590	1.750	1.950	TBD	TBD	TBD	
					.658	.788	.968	1.198	1.318	1.568	1.768	TBD	TBD	TBD	
B	FIRESLEEVE INTEGRAL SILICONE (5 min) /8/	275	MAX	MIN	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	
C	PROTECTIVE SLEEVE SHRINK-ON (POLYOLEFIN AS1073 CODE B) /21/	275	MAX	MIN	.520	.620	.795	1.000	1.170	1.460	1.768	TBD	TBD	TBD	
					.450	.550	.725	.920	1.060	1.350	1.660	TBD	TBD	TBD	



## AEROSPACE STANDARD

(R) HOSE ASSEMBLY, PTFE, PARA-ARAMID REINFORCED,  
STANDARD DUTY, 3000 PSI, 275 °F, TITANIUM  
FITTINGS, FLARELESS, 45° TO 90°

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TABLE 3 - ASSEMBLY LENGTH TOLERANCE

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

TABLE 4 - HOSE AND FITTING WEIGHTS

HOSE OR SLEEVE CODE	HOSE OR TYPE OR PART	UNITS	HOSE SIZE	HOSE SIZE	HOSE SIZE	HOSE SIZE	HOSE SIZE	HOSE SIZE	HOSE SIZE	HOSE SIZE
			.250	.375	.500	.625	.750	1.000	1.250	1.500
-	BRAIDED HOSE ONLY PER AS1975	LB/IN (MAX)	.006	.008	.012	.020	.025	.040	.050	TBD
A	FIRESLEEVE AS1072 (5 min PER AS1055) /15/	LB/IN								
B	FIRESLEEVE INTEGRAL WITH HOSE (5 min PER AS1055) /15/	LB/IN								
C	PROTECTIVE SLEEVE SHRINK-ON (POLYOLEFIN AS1073, CODE B) /21/	LB/IN	.001	.001	.001	.002	.002	.003	TBD	TBD
NONE	FIRESLEEVE CLAMP	LB/EA (REF)	.020	.020	.021	.021	.025	.025	.032	TBD
NONE	FITTING END (45°) TITANIUM /16/	LB/EA (REF)	.066	.110	.154	.285	.500	.890	TBD	TBD /9/
NONE	FITTING END (90°) TITANIUM /16/	LB/EA (REF)	.077	.121	.176	.310	.560	.950	TBD	TBD /9/

## NOTES:

1. MATERIALS:
  - a. HOSE AND FITTINGS - PER AS1975
  - b. SLEEVES - SEE APPLICABLE STANDARDS, TABLE 2
- /2/ THIS PRODUCT SHALL BE QUALIFIED IN ACCORDANCE WITH PROCUREMENT SPECIFICATION AS1975 CLASS 3000. USERS OF THIS STANDARD SHALL PROCURE THIS PRODUCT FROM ACCREDITED MANUFACTURER(S), OR THEIR ACCREDITED DISTRIBUTOR(S), AS LISTED IN THE PERFORMANCE REVIEW INSTITUTE (PRI) QUALIFIED PRODUCTS LIST PRI-QPL-AS1975 CLASS 3000 FOR THIS STANDARD. CHANGE-OVER FROM USER-QPL TO PRI-QPL SHALL BE IN ACCORDANCE WITH AS1975 REVISION C OR HIGHER AND BE COMPLETED WITHIN SIX MONTHS FROM THE DATE OF ISSUE OF THIS STANDARD.
3. CONSTRUCTION AND PERFORMANCE PER AS1975 CLASS 3000. FITTINGS SHALL BE PERMANENTLY ATTACHED TO THE HOSE.
4. OPERATING CHARACTERISTICS PER AS1975.
5. MARKING SHALL BE PER AS1975 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.

	<b>AEROSPACE STANDARD</b>	<b>AS4571</b> SHEET 3 OF 5	<b>REV.</b> <b>B</b>
	(R) HOSE ASSEMBLY, PTFE, PARA-ARAMID REINFORCED, STANDARD DUTY, 3000 PSI, 275 °F, TITANIUM FITTINGS, FLARELESS, 45° TO 90°		

- /6/ LENGTH "L" IS A THREE DIGIT NUMBER OF WHICH THE FIRST TWO DIGITS DESCRIBE THE HOSE ASSEMBLY LENGTH IN WHOLE INCHES, AND THE FOURTH 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 "GAGE DIAMETER" TO "END TO END" MEASUREMENT, ADD "D<sub>1</sub>" TO LENGTH "L".
- /7/ A TRUE CIRCULAR CROSS SECTION IS NOT REQUIRED THROUGH THE FITTING ID. HOWEVER, THE APPLICABLE MINIMUM BALL DIAMETER LISTED IN TABLE 1 MUST BE CAPABLE OF PASSING THROUGH THE HOSE ASSEMBLY.
- /8/ DISTANCE ACROSS CORNERS OF THE HEX MAY EXCEED THIS DIMENSION.
- /9/ FITTING END IN SIZE CODES E THROUGH M MUST CONFORM TO NAS1760 TO MATE WITH AS33514 OR AS4375. FITTING END FOR SIZE CODE N AND LARGER MUST CONFORM TO AS4703 TO MATE WITH AS4658 OR AS4659. STANDARD COUPLING NUTS SHALL BE IN ACCORDANCE WITH OR EQUIVALENT TO AS5234 OR AS4370. SIZE CODE N AND LARGER NUTS SHALL CONFORM TO AS4660 OR AS4702. NUTS SHALL MEET THE TORQUE REQUIREMENTS PER AS1975.
- /10/ 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/ 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/ 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/ THE END OF THE INTEGRAL FIRESLEEVE SHALL BE COVERED WITH SILICONE EXTENDING OVER THE END FITTING COLLAR.
14. ADD "AS1055 TYPE Ib CLASS A-S/P" OR "AS150 TYPE XIII" TO IDENTIFICATION MARKING TO SHOW LEVEL OF COMPLIANCE, "FIRE RESISTANT" 275 °F (5 min), WITH AS1055 OR AS150.
- /15/ WHEN FIRESLEEVES ARE REQUIRED, WEIGHT LIMITS SHALL BE DEFINED BY THE PROCURING ACTIVITY.
- /16/ TITANIUM PARTS MAY BE REPLACED WITH STAINLESS STEEL IF MAXIMUM WEIGHT FOR FITTING IS NOT EXCEEDED AND THE STAINLESS STEEL COMPONENTS HAVE BEEN PREVIOUSLY QUALIFIED.
17. DIMENSIONING AND TOLERANCING: ASME Y14.5M-1994.
18. THE FITTING ORIENTATION DASH NUMBER IS A THREE DIGIT NUMBER DEFINING THE RELATIVE POSITION OF THE END FITTINGS IN 1° INCREMENTS (EXAMPLE 090 = 90°). FITTING ORIENTATION SHALL BE MEASURED COUNTERCLOCKWISE FROM THE NEAREST END FITTING WHICH SHALL BE IN THE RELATIVE 000° POSITION (SEE FIGURE 2). WHEN END FITTINGS ARE POINTED IN THE SAME DIRECTION, THIS DASH NUMBER SHALL BE 000.
19. SAFETY WIRE HOLES LOCATION AND DIAMETER PER AS1043 CODED AS FOLLOWS:
- U = TWO HOLES 180° APART
  - W = THREE HOLES 120° APART
20. THIS PART STANDARD TAKES PRECEDENCE IN CASES OF CONFLICT.

	<b>AEROSPACE STANDARD</b>	<b>AS4571</b> SHEET 4 OF 5	<b>REV.</b> <b>B</b>
	(R) HOSE ASSEMBLY, PTFE, PARA-ARAMID REINFORCED, STANDARD DUTY, 3000 PSI, 275 °F, TITANIUM FITTINGS, FLARELESS, 45° TO 90°		