

AS4624

FEDERAL SUPPLY CLASS
4720

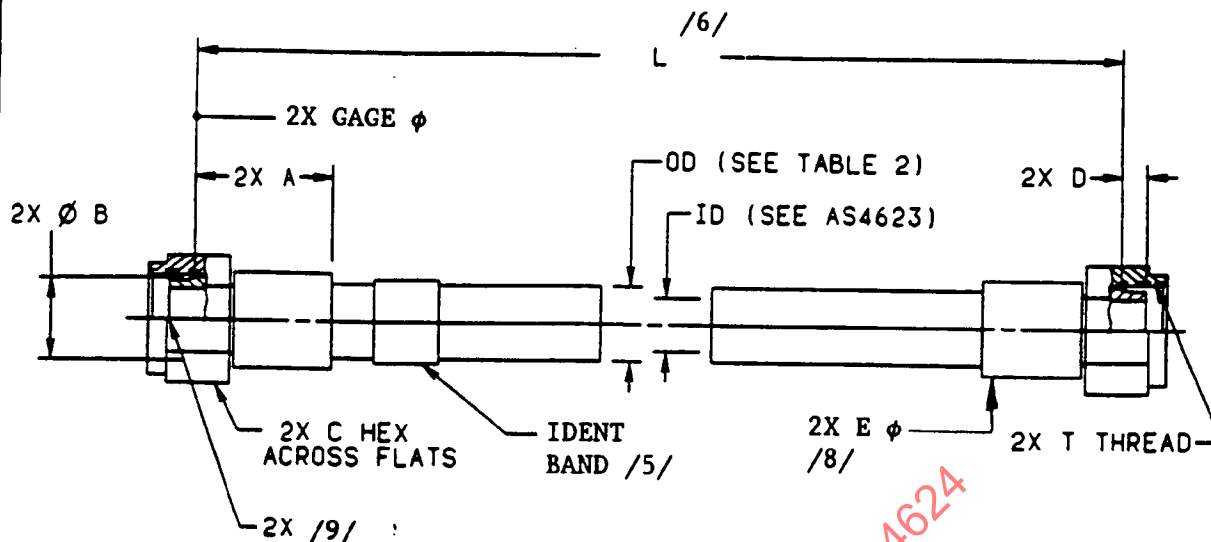


FIGURE 1 - HOSE ASSEMBLY, STRAIGHT TO STRAIGHT

TABLE 1 - HOSE AND FITTING DIMENSIONS

HOSE ASSEMBLY NO. AND SIZE CODE	SIZE	FITTING TYPE	THREAD T PER MIL-S-8879	A MAX	B GAGE φ BASIC	C HEX	D	E φ MAX	BALL SIZE MIN THRU φ /7/ MS19059 DASH NO.	BALL SIZE MIN THRU φ /7/ φ IN
AS4624E	.250	--	--	--	--	--	--	--	--	--
AS4624E	.250	S	.4375-20UNJF-3B	1.630	.2930	.56	.16	.69	4807	.109
AS4624E	.250	E	.5625-18UNJF-3B	1.695	.4120	.69	.16	.69	4807	.109
AS4624G	.375	R	.4375-20UNJF-3B	1.740	.2930	.56	.16	.80	4807	.109
AS4624G	.375	S	.5625-18UNJF-3B	1.835	.4120	.69	.16	.80	4812	.188
AS4624G	.375	E	.7500-16UNJF-3B	1.930	.5600	.88	.19	.80	4812	.188
AS4624H	.500	R	.5625-18UNJF-3B	2.145	.4120	.69	.16	.97	4812	.188
AS4624H	.500	S	.7500-16UNJF-3B	2.165	.5600	.88	.19	.97	4816	.313
AS4624H	.500	E	.8750-14UNJF-3B	2.675	.6730	1.00	.20	.97	4816	.313
AS4624J	.625	R	.7500-16UNJF-3B	2.860	.5600	.88	.19	1.15	4816	.313
AS4624J	.625	S	.8750-14UNJF-3B	2.905	.6730	1.00	.20	1.15	4818	.375
AS4624J	.625	E	1.0625-12UNJ-3B	2.920	.8100	1.25	.23	1.15	4818	.375
AS4624K	.750	R	.8750-14UNJF-3B	3.240	.6730	1.00	.20	1.38	4818	.375
AS4624K	.750	S	1.0625-12UNJ-3B	3.205	.8100	1.25	.23	1.38	4821	.469
AS4624K	.750	E	1.3125-12UNJ-3B	3.320	1.0620	1.50	.30	1.38	4821	.469
AS4624M	1.000	R	1.0625-12UNJ-3B	3.690	.8100	1.25	.23	1.66	4821	.469
AS4624M	1.000	S	1.3125-12UNJ-3B	3.740	1.0620	1.50	.30	1.66	4829	.719
AS4624M	1.000	E	1.5625-12UNJ-3B	3.570	1.3160	1.81	.04	1.66	4829	.719
AS4624N	1.250	--	--	--	--	--	--	--	--	--
AS4624N	1.250	S	1.5625-12UNJ-3B	4.330	1.3160	1.81	.04	2.32	4834	.875
AS4624N	1.250	--	--	--	--	--	--	--	--	--

CUSTODIAN: SAE G-3/G-3D

PROCUREMENT SPECIFICATION: /2/ AS4623

SAE The Engineering Society
For Advancing Mobility
Land Sea Air and Space
INTERNATIONAL
400 Commonwealth Drive, Warrendale, PA 15096-0001

AEROSPACE STANDARD
HOSE ASSEMBLY, POLYTETRAFLUOROETHYLENE,
ARAMID REINFORCED, HEAVY-DUTY, 275 °F, 3000 psi,
FLARELESS, TITANIUM FITTINGS, STRAIGHT TO STRAIGHT

AS4624

SHEET 1 OF 5

TABLE 2 - HOSE OR SLEEVE OUTSIDE DIAMETERS

SLEEVE CODE	SLEEVE MATERIAL	HOSE SIZE /10/	HOSE SIZE /10/	HOSE SIZE /10/	HOSE SIZE /10/	HOSE SIZE /10/	HOSE SIZE /10/	HOSE SIZE /10/	HOSE SIZE /10/
-	(-) INDICATES HOSE ONLY NO SLEEVE (SEE AS4624)	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	1.599/1.4951	.884/1.776

TABLE 3 - HOSE ASSEMBLY LENGTH TOLERANCES

HOSE ASSEMBLY LENGTH	AVAILABLE INCREMENTS	TOLERANCE
UNDER 18 in	(NOT LESS THAN) .125 in	±.125 in
18 THRU 36 in	(NOT LESS THAN) .250 in	±.250 in
OVER 36 THRU 50 in	(NOT LESS THAN) .500 in	±.500 in
OVER 50 in	(NOT LESS THAN) 1.000 in	±1X

TABLE 4 - MAXIMUM HOSE AND FITTING WEIGHTS

HOSE OR SLEEVE CODE	HOSE OR PART SLEEVE	UNITS	REFERENCE WEIGHT			REFERENCE WEIGHT			REFERENCE WEIGHT			REFERENCE WEIGHT			REFERENCE WEIGHT		
			LB/IN	HOSE SIZE	LB/IN	HOSE SIZE	LB/IN	HOSE SIZE	LB/IN	HOSE SIZE	LB/IN	HOSE SIZE	LB/IN	HOSE SIZE	LB/IN	HOSE SIZE	LB/IN
-	HOSE ONLY (SEE AS4623)	LB/IN	--	.250	.375	.500	.625	.750	.0018	.021	.025	.031	.032	.037	.0032	.0032	.0049
A	FIRE SLEEVE AS1072 (5 MIN PER AS1055)	LB/IN	.017	.018	.022	.028	.031	.032	.032	.032	.032	.032	.032	.032	.032	.032	.032
B	PROTECTIVE SLEEVE SHRINK-ON (POLYOLEFIN AS1073, CODE 8) /20/	LB/IN	.0006	.0012	.0018	.0018	.0018	.0018	.0018	.0018	.0018	.0018	.0018	.0018	.0018	.0018	.0018
NONE	FIRE SLEEVE CLAMP	LB/EA	.020	.020	.021	.021	.021	.021	.021	.021	.021	.021	.021	.021	.021	.021	.021
NONE	FITTING END (STRAIGHT) /14/ /16/	R LB/EA	--	.077	.118	.186	.427	.823	.025	.025	.025	.025	.025	.025	.025	.025	.025
		S LB/EA	.054	.081	.135	.200	.476	.853	.025	.025	.025	.025	.025	.025	.025	.025	.025
		E LB/EA	.074	.115	.193	.267	.591	1.000	.025	.025	.025	.025	.025	.025	.025	.025	.025

NOTES:

1. MATERIALS:
 - a. HOSE AND FITTINGS - PER AS4623
 - b. THE COLLARS MAY BE STAINLESS STEEL /16/
 - c. SLEEVES - SEE APPLICABLE STANDARDS, TABLE 2
- /2/ THIS HOSE ASSEMBLY 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.
3. CONSTRUCTION AND PERFORMANCE PER AS4623. FITTINGS SHALL BE PERMANENTLY ATTACHED TO THE 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 ELECTROETCHED 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/ LENGTH "L" IS A FOUR DIGIT NUMBER OF WHICH THE FIRST THREE 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 INCREMENTS AND TOLERANCES SEE TABLE 3. TO CONVERT "GAGE DIAMETER" TO "GAGE DIAMETER" TO "END TO END" MEASUREMENT, ADD TWO TIMES "D" TO LENGTH "L".
- /7/ A TRUE CIRCULAR CROSS SECTION IS NOT REQUIRED THROUGH THE FITTING I.D. HOWEVER, THE APPLICABLE BALL DIAMETER LISTED IN TABLE 1 MUST BE CAPABLE OF PASSING THROUGH THE HOSE ASSEMBLY.
- /8/ DISTANCE ACROSS CORNERS OF THE COUPLING NUT MAY EXCEED THIS DIMENSION.
- /9/ FITTING ENDS SIZE -4 THRU -16 MUST COMPLY TO NAS1760; FITTINGS FOR HOSE SIZE -20 AND LARGER TO COMPLY WITH AS4703. FITTINGS SHALL MATE WITH MS33514 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/ 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/ ADD "AS1055 TYPE IIb CLASS A-S/P" TO IDENTIFICATION MARKING TO SHOW LEVEL OF COMPLIANCE, "FIRE RESISTANT 275°F (5 min), WITH AS1072."
- /14/ JUMP SIZE CODE EXPLANATION:
 - a. R-STEP DOWN 1 STANDARD LETTER SIZE PER TABLE 1 (REDUCED)
 - b. S-HOSE SIZE
 - c. E-STEP UP 1 STANDARD LETTER SIZE PER TABLE 1 (EXPANDED)
 NOTE: WHEN FITTING SIZE CHANGES EXIST, SPECIFY SMALLER FITTING PRIOR TO THE LARGER FITTING IN THE PART NUMBER.
- /15/ WHEN FIRESLEEVES ARE REQUIRED, WEIGHT LIMITS SHALL BE DEFINED BY THE PROCURING AUTHORITY.
- /16/ TITANIUM PARTS MAY BE REPLACED WITH STAINLESS STEEL IF MAXIMUM WEIGHT FOR FITTING IS NOT EXCEEDED.
17. DIMENSIONING AND TOLERANCING: ANSI Y14.5M.
- /18/ LOCKWIRE HOLES LOCATION AND DIAMETER PER AS1043 CODED AS FOLLOWS:
 - a. U = TWO HOLES 180° APART
 - b. W = THREE HOLES 120° APART
19. THIS PART STANDARD TAKES PRECEDENCE IN CASES OF CONFLICT.