FEDERAL SUPPLY CLASS
4720

RATIONALE

AS5461B HAS BEEN REAFFIRMED TO COMPLY WITH THE SAE FIVE-YEAR REVIEW POLICY.

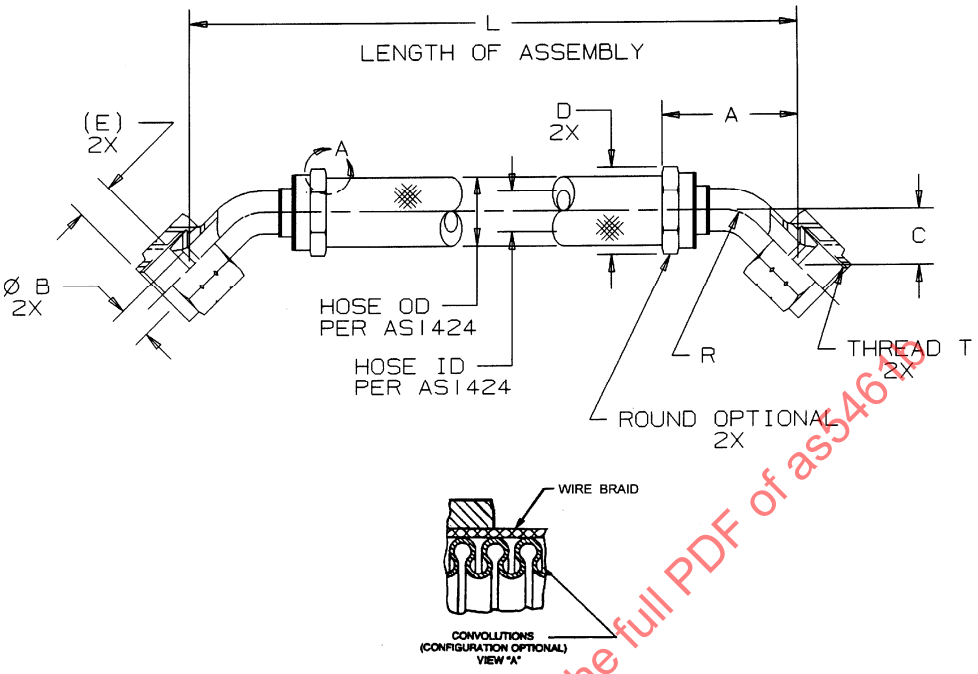


FIGURE 1 - HOSE ASSEMBLY

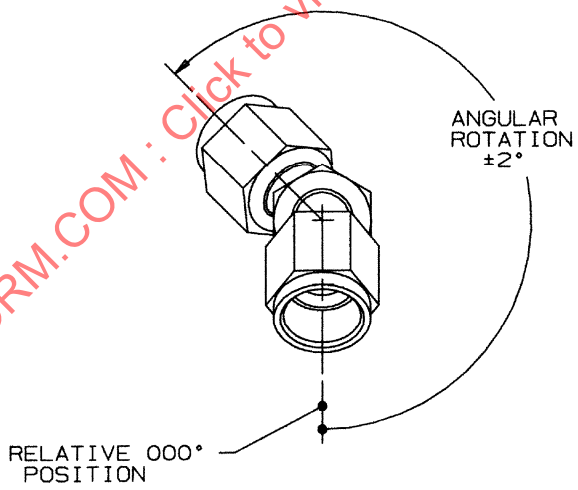
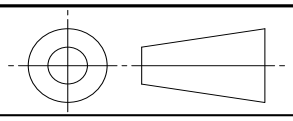


FIGURE 2 - FITTING ANGULAR ORIENTATION /11/

SAE values your input. To provide feedback on this Technical Report, please visit
http://www.sae.org/technical/standards/AS5461B

THIRD ANGLE PROJECTION



ISSUED 2001-03 REVISED 2008-03 REAFFIRMED 2015-04

CUSTODIAN: G-3/G-3D

PROCUREMENT SPECIFICATION: /2/ AS1424

AEROSPACE STANDARD

(R) HOSE ASSEMBLY, METAL – MEDIUM PRESSURE, FLARED, WELDED, 45° TO 45°

AS5461
SHEET 1 OF 4

REV. B

TO PLACE A DOCUMENT ORDER: **Tel: 877-606-7323 (inside USA and Canada)** **Tel: +1 724-776-4970 (outside USA)**
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TABLE 1 - ASSEMBLY DIMENSIONS

HOSE ASSEMBLY SIZE CODE	HOSE SIZE (REF)	A MAX	B MIN THRU /8/	C MIN	C MAX	D MAX	(E) NOM	R (REF)	THREAD T PER AS8879 (ISO 3161) (REF)
E	.250	1.34	.141	.32	.38	.900	.372	.250	.4375-20UNJF-3B
F	.312	1.41	.197	.39	.45	1.100	.375	.312	.5000-20UNJF-3B
G	.375	1.50	.250	.44	.50	1.200	.375	.375	.5625-18UNJF-3B
H	.500	1.71	.360	.54	.60	1.300	.438	.500	.7500-16UNJF-3B
J	.625	1.93	.455	.61	.67	1.500	.515	.625	.8750-14UNJF-3B
K	.750	2.25	.568	.65	.72	1.740	.562	.750	1.0625-12UNJ-3B
M	1.000	2.84	.760	.76	.82	2.300	.620	1.000	1.3125-12UNJ-3B
N	1.250	3.16	.920	.90	.96	2.850	.620	1.250	1.6250-12UNJ-3B

TABLE 2 - ASSEMBLY LENGTH TOLERANCE

HOSE ASSEMBLY LENGTH	LENGTH TOLERANCE
UNDER 10 in	±.062 in
10 TO 36 in EXCLUSIVE	±.125 in
36 TO 50 in EXCLUSIVE	±.250 in
50 in AND OVER	±1%

TABLE 3 - HOSE ASSEMBLY ROOM TEMPERATURE PHYSICAL CHARACTERISTIC (REF) /5/

HOSE SIZE CODE	OPERATING PRESSURE PSI NOM	PROOF PRESSURE PSI MIN	BURST PRESSURE PSI MIN
E	2000	3000	8000
F	1800	2700	7200
G	1600	2400	6400
H	1400	2100	5600
J	1200	1800	4800
K	1050	1575	4200
M	800	1200	3200
N	550	825	2200

TABLE 4 - SPHERICAL BALL SIZE FOR DETERMINING MINIMUM HOSE ASSEMBLY ID /8/

HOSE SIZE	ELBOW FITTING
E	.120
F	.167
G	.212
H	.306
J	.387
K	.483
M	.646
N	.782

TABLE 5 - WEIGHTS (MAX)

HOSE SIZE	HOSE LB/IN	STANDARD FITTING (LB) 45° ELBOW
E	.016	.05
F	.018	.07
G	.020	.08
H	.028	.13
J	.038	.20
K	.042	.33
M	.058	.55
N	.072	.83

NOTES:

/1/ MATERIALS:

CLASS "A": INNER TUBE - CORROSION RESISTANT STEEL TYPE 321
BRAID - CORROSION RESISTANT STEEL TYPE 321
BRAID RETAINERS - CORROSION RESISTANT STEEL TYPE 321 OR 347
FITTING COMPONENTS - NICKEL ALLOY TYPE 625 OR 718

CLASS "B": INNER TUBE - NICKEL ALLOY TYPE 625
BRAID - CORROSION RESISTANT STEEL TYPE 321
BRAID RETAINERS - CORROSION RESISTANT STEEL TYPE 321 OR 347
FITTING COMPONENTS - NICKEL ALLOY TYPE 625 OR 718

CLASS "N": INNER TUBE - NICKEL ALLOY TYPE 625
BRAID - CORROSION RESISTANT STEEL TYPE 321
BRAID RETAINERS - CORROSION RESISTANT STEEL TYPE 321 OR 347
FITTING COMPONENTS - CORROSION RESISTANT STEEL TYPE 321 OR 347

CLASS "S": INNER TUBE - CORROSION RESISTANT STEEL TYPE 321
BRAID - CORROSION RESISTANT STEEL TYPE 321
BRAID RETAINERS - CORROSION RESISTANT STEEL TYPE 321 OR 347
FITTING COMPONENTS - CORROSION RESISTANT STEEL TYPE 321 OR 347

/2/ PROCUREMENT SPECIFICATION: AS1424 EXCEPT AS SPECIFIED IN THIS STANDARD. PRODUCT SUPPLIED TO THIS SPECIFICATION SHALL BE MANUFACTURED AND ASSEMBLED BY AN ACCREDITED MANUFACTURER LISTED IN THE PERFORMANCE REVIEW INSTITUTE (PRI) QUALIFIED PRODUCTS LIST (QPL) PRI-QPL-AS1424 FOR THIS STANDARD. SEE www.eauditnet.com FOR CURRENT QPL ONLINE.

3. CONSTRUCTION AND PERFORMANCE PER AS1424. FITTINGS SHALL BE PERMANENTLY ATTACHED TO THE HOSE.

4. THESE ASSEMBLIES ARE INTENDED FOR USE IN LOW AND MEDIUM PRESSURE PNEUMATIC SYSTEMS UP TO 800 °F MAX FOR CLASS "A" AND "S" AND 800 ºF WITH EXCURSIONS TO 1200 °F FOR CLASS "B" AND "N". MAXIMUM RATED OPERATING PRESSURE IS DEPENDENT ON AMBIENT OPERATING TEMPERATURE AND CAN BE DETERMINED FROM AS1424.

/5/ SEE AS1424 FOR PRESSURES AT ELEVATED TEMPERATURE.

6. MARKING SHALL BE PER AS1424 ON A STAINLESS STEEL BAND NOT OVER 1.0 in WIDE OR ON THE END FITTINGS. THE CHARACTERS SHALL BE A MINIMUM OF .060 HIGH. THE BAND SHALL BE SO DESIGNED AS TO REMAIN TIGHT ON THE HOSE TO PREVENT RELATIVE MOTION AND CHAFING. IT SHALL BE OF SUFFICIENT STRENGTH TO PREVENT REMOVAL BY HAND.

/7/ 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, IN FRACTION OF AN INCH IN EIGHTHS. SEE TABLE 2 FOR ASSEMBLY LENGTH TOLERANCE.

/8/ A TRUE CIRCULAR CROSS SECTION IS NOT REQUIRED THROUGH THE FITTING ID. HOWEVER, THE APPLICABLE, OR LARGER, BALL DIAMETER LISTED IN TABLE 4 MUST BE CAPABLE OF PASSING THROUGH THE ASSEMBLY.

9. DIMENSIONS AND TOLERANCING: ASME Y14.5M-1994.

10. THESE HOSE ASSEMBLIES SHALL ONLY BE USED WHEN THE APPLICATION DOES NOT PRACTICALLY PERMIT THE USE OF A HOSE ASSEMBLY WITH AT LEAST ONE STRAIGHT END FITTING.

/11/ 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 POINTING IN THE SAME DIRECTION, THE DASH NUMBER SHALL BE "000".

12. THIS PART STANDARD TAKES PRECEDENCE IN CASE OF CONFLICT.