FEDERAL SUPPLY CLASS

RATIONALE

AS137G HAS BEEN REAFFIRMED TO COMPLY WITH THE SAE FIVE-YEAR REVIEW POLICY.

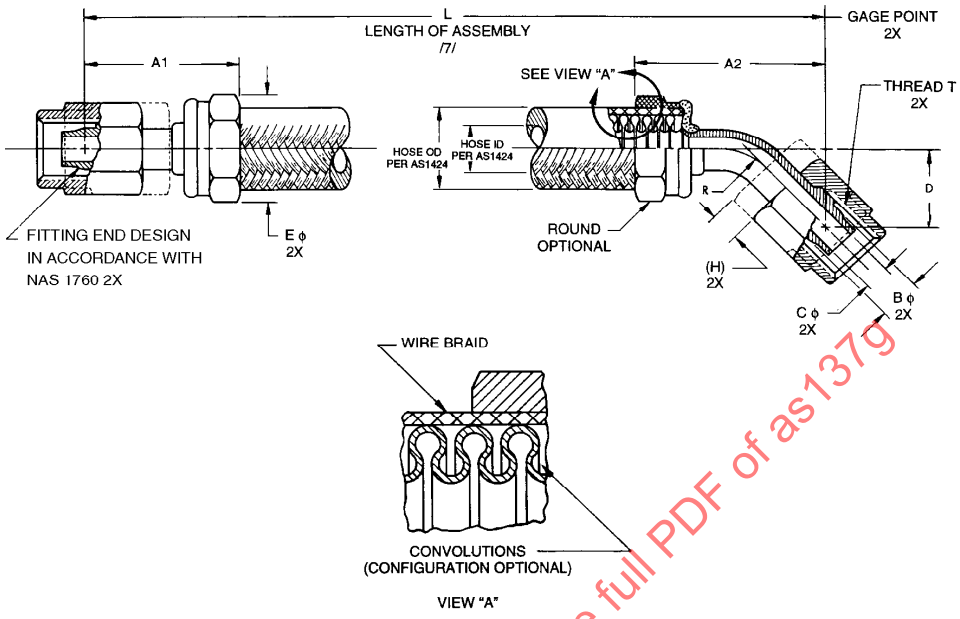
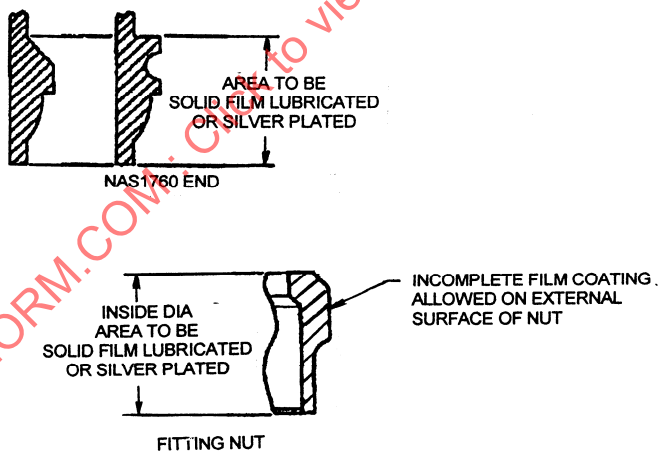


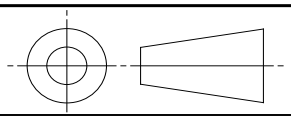
FIGURE 1 - HOSE ASSEMBLY



FIGUER 2 - LUBRICANT APPLICATION AREA /14/ /15/

SAE values your input. To provide feedback on this Technical Report, please visit
http://www.sae.org/technical/standards/AS137G

THIRD ANGLE PROJECTION



ISSUED 1977-02 REVISED 2008-03 REAFFIRMED 2014-10

CUSTODIAN: G-3/G-3D

PROCUREMENT SPECIFICATION: /2/ AS1424

AEROSPACE STANDARD

(R) HOSE ASSEMBLY, METAL - MEDIUM PRESSURE, FLARELESS, WELDED, STRAIGHT TO 45°

TO PLACE A DOCUMENT ORDER: **Tel: 877-606-7323 (inside USA and Canada)** **Tel: +1 724-776-4970 (outside USA)**
Fax: 724-776-0790 **Email: CustomerService@sae.org** **SAE WEB ADDRESS: http://www.sae.org**

TABLE 1 - ASSEMBLY DIMENSIONS

HOSE ASSEMBLY SIZE CODE	HOSE SIZE (REF)	A1 MAX	A2 MAX	B GAGE BASIC	C MIN THRU /8/	D MIN	D MAX	E MAX	(H) NOM	R (REF)	THREAD T PER AS8879 (ISO 3161) (REF)
04	.250	1.25	1.62	.2930	.141	.49	.61	.900	.40	.250	.4375-20UNJF-3B
05	.312	1.38	1.75	.3500	.197	.51	.63	1.100	.40	.312	.5000-20UNJF-3B
06	.375	1.38	1.88	.4120	.250	.54	.73	1.200	.40	.375	.5625-18UNJF-3B
08	.500	1.56	2.12	.5600	.360	.67	.92	1.300	.47	.500	.7500-16UNJF-3B
10	.625	1.75	2.38	.6730	.455	.83	1.08	1.500	.53	.625	.8750-14UNJF-3B
12	.750	1.94	2.69	.8100	.568	.86	1.11	1.740	.53	.750	1.0625-12UNJ-3B
16	1.000	2.12	3.19	1.0620	.760	.90	1.15	2.300	.53	1.000	1.3125-12UNJ-3B
20	1.250	2.38	3.69	1.3160	.920	.94	1.32	2.850	.54	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
04	2000	3000	8000
05	1800	2700	7200
06	1600	2400	6400
08	1400	2100	5600
10	1200	1800	4800
12	1050	1575	4200
16	800	1200	3200
20	550	825	2200

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

HOSE SIZE	STRAIGHT FITTING	ELBOW FITTING
04	.127	.120
05	.177	.167
06	.225	.212
08	.324	.306
10	.410	.387
12	.511	.483
16	.684	.646
20	.828	.782

TABLE 5 - WEIGHTS (MAX)

HOSE SIZE	HOSE LB/IN	STANDARD FITTING (LB) STRAIGHT	STANDARD FITTING (LB) 45° ELBOW
-04	.016	.05	.05
-05	.018	.07	.08
-06	.020	.08	.09
-08	.028	.13	.14
-10	.038	.20	.22
-12	.042	.39	.42
-16	.058	.52	.61
-20	.072	.79	.97

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) PRIQPL-AS1424 FOR THIS STANDARD. SEE www.eauditnet.com FOR CURRENT QPL ONLINE.

3. 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.

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

/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. LENGTH “L” IS MEASURED FROM “GAGE POINT” TO “GAGE POINT”. 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.