

REV.  
B

AS138

FEDERAL SUPPLY CLASS

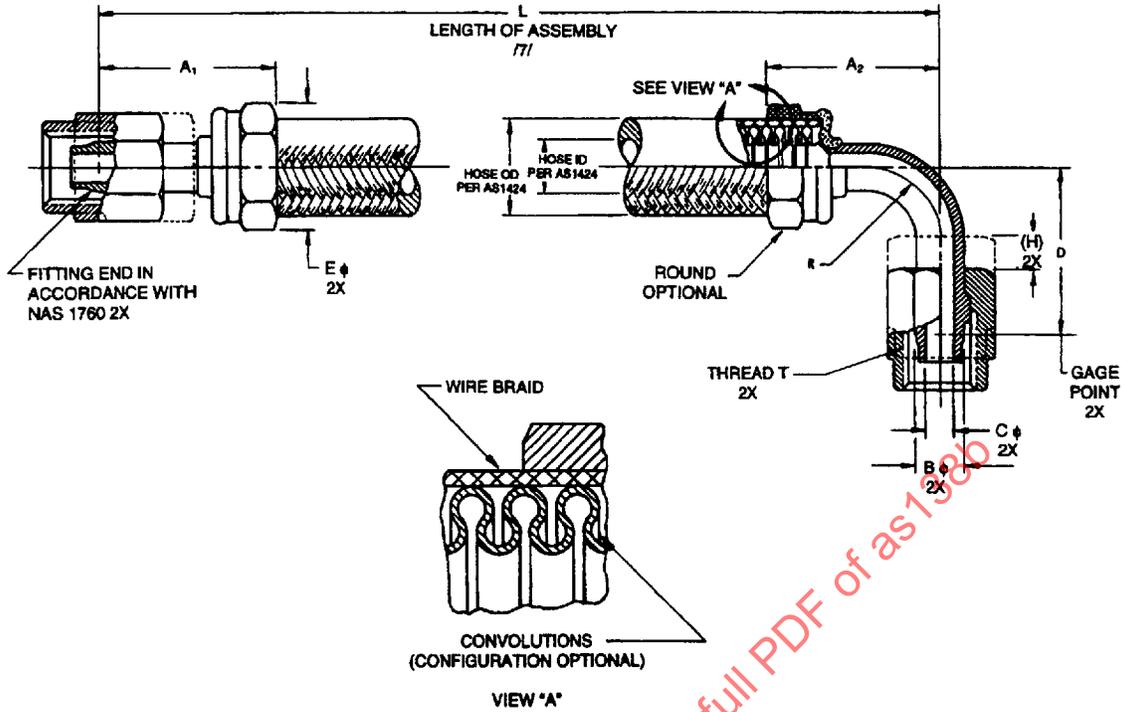


FIGURE 1 - HOSE ASSEMBLY

TABLE 1 - ASSEMBLY DIMENSIONS

HOSE ASSEMBLY SIZE CODE	HOSE SIZE (REF)	A <sub>1</sub> MAX	A <sub>2</sub> MAX	B GAGE BASIC	C MIN THRU /B/	D MIN	D MAX	E MAX	(H) NOM	R (REF)	THREAD T PER MIL-S-8879 (REF)
04	.250	1.25	1.18	.2930	.141	.83	1.08	.900	.40	.250	.4375-20UNJF-3B
05	.312	1.38	1.24	.3500	.197	.84	1.09	1.100	.40	.312	.5000-20UNJF-3B
06	.375	1.38	1.31	.4120	.250	.98	1.23	1.200	.40	.375	.5625-18UNJF-3B
08	.500	1.56	1.50	.5600	.360	1.23	1.54	1.300	.47	.500	.7500-16UNJF-3B
10	.625	1.75	1.75	.6730	.455	1.56	1.87	1.500	.53	.625	.8750-14UNJF-3B
12	.750	1.94	2.06	.8100	.568	1.67	2.05	1.740	.53	.750	1.0625-12UNJ-3B
16	1.000	2.12	2.50	1.0620	.760	1.84	2.22	2.300	.53	1.000	1.3125-12UNJ-3B
20	1.250	2.38	2.97	1.3160	.920	2.09	2.59	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%

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CUSTODIAN: SAE G-3/G-3D

PROCUREMENT SPECIFICATION: /2/ AS1424

**SAE** The Engineering Society  
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**INTERNATIONAL**  
400 Commonwealth Drive, Warrendale, PA 15096-0001

**AEROSPACE STANDARD**

HOSE ASSEMBLY, METAL - MEDIUM PRESSURE,  
FLARELESS, WELDED, STRAIGHT TO 90°

**AS138**  
SHEET 1 OF 3

**REV. B**

ISSUED 1977-02 REVISED 1996-05

REV.  
B

AS138

TABLE 3 - HOSE ASSEMBLY PHYSICAL CHARACTERISTIC

HOSE SIZE CODE	70 °F /5/	70 °F /5/	70 °F /5/
	OPERATING PRESSURE PSI MAX	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 (NOM)

HOSE SIZE	HOSE LB/IN	STANDARD FITTING (LB)	
		STRAIGHT	90° ELBOW
-04	.016	.05	.05
-05	.018	.07	.08
-06	.020	.08	.09
-08	.028	.13	.15
-10	.038	.20	.24
-12	.042	.39	.44
-16	.058	.52	.68
-20	.072	.79	1.02

## NOTES:

- 1/1 MATERIALS:  
a. CLASS "N": INNERTUBE - NICKEL ALLOY TYPE 625  
ALL OTHER COMPONENTS - 321 CORROSION RESISTANT STEEL  
b. CLASS "S": ALL COMPONENTS - 321 CORROSION RESISTANT STEEL
- 1/2 THIS HOSE ASSEMBLY STANDARD SHALL BE QUALIFIED IN ACCORDANCE WITH PROCUREMENT SPECIFICATION AS1424. USERS OF THIS STANDARD ARE ADVISED TO CONTROL SOURCE APPROVAL(S) BY STANDARD PAGE SUPPLEMENT SHEET OR SIMILAR MEANS.
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 850 °F WITH SHORT EXCURSIONS TO 1200 °F. MAXIMUM RATED OPERATING PRESSURE IS DEPENDENT ON AMBIENT OPERATING TEMPERATURE AND CAN BE DETERMINED FROM AS1424.