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REV.
B

AS1503™

FEDERAL SUPPLY CLASS
4720

RATIONALE

GRAPHICS REDRAWN FOR BETTER CLARITY. NOTES REWRITTEN TO ALIGN WITH STANDARD PRACTICES. LINEAR TOLERANCE ADDED TO NOTE 5. LENGTH ALLOWANCES REVISED TO "UNLIMITED." NOTES REWRITTEN TO ALIGN WITH STANDARD PRACTICES REMOVED. "T" THICKNESS NOTE REMOVED; "T" THICKNESS DIMENSIONS HAVE NOW BEEN ADDED TO TABLE 1. NOTE /11/ ADDED INSTRUCTING USERS TO CONTACT MANUFACTURER FOR LENGTH MANUFACTURING CAPABILITIES. MAXIMUM HOSE LEAKAGE VALUES ADDED TO NOTE /13/; TYPO FOR MAXIMUM HOSE LEAKAGE VALUE CORRECTED IN NOTE /14/. CANCELLED END FITTING DESIGN UPDATED TO CURRENT REPLACEMENT.

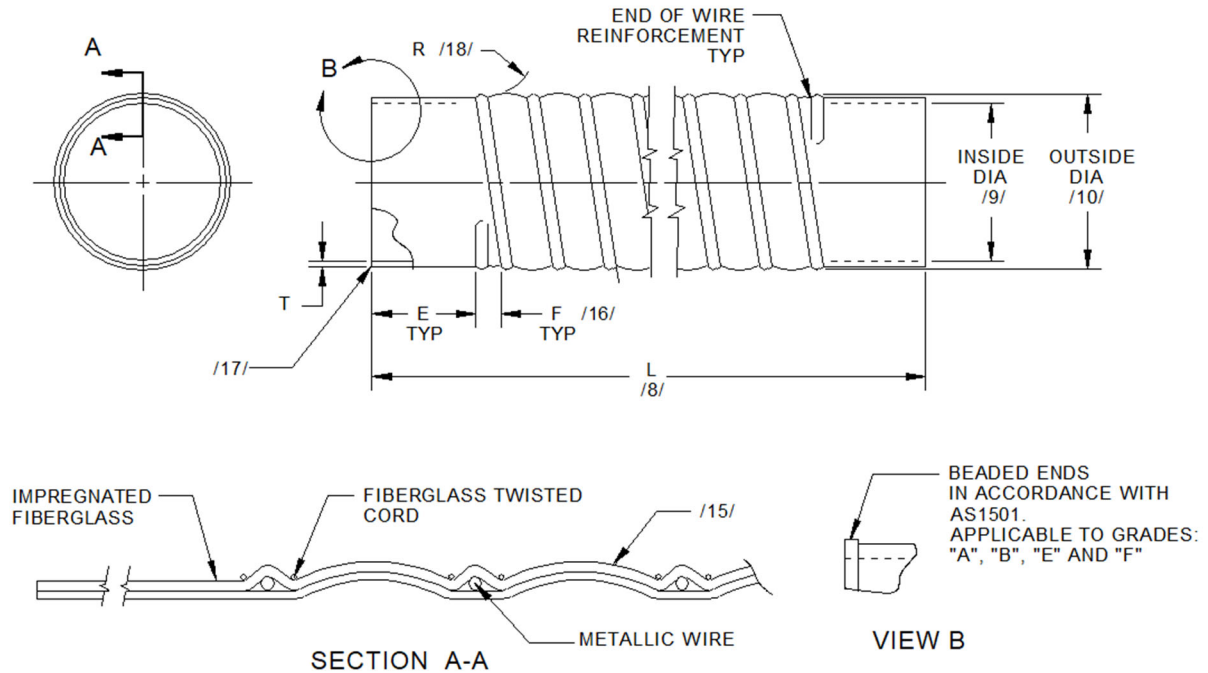
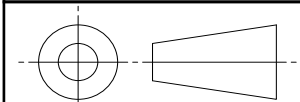


FIGURE 1

For more information on this standard, visit
<https://www.sae.org/standards/content/AS1503B/>

THIRD ANGLE PROJECTION



CUSTODIAN: G-3/G-3D

PROCUREMENT SPECIFICATION: AS1501



AEROSPACE STANDARD

(R) HOSE, AIR DUCT, FLEXIBLE, HELICAL,
METALLIC WIRE, SUPPORTED (COVERED),
SELF-EXTINGUISHING

AS1503™
SHEET 1 OF 3

REV.
B

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TABLE 1 - TABULATION OF OPERATING PRESSURE AND PART NUMBER GRADES /11/

GRADE	TYPE (OPERATING TEMPERATURE) /4/	T SOFT END THICKNESS	HOSE INSIDE DIAMETER (INCHES)											
			1	2	3	4	5	6	7	8	9	10	11	12
			OPERATING PRESSURE RATING (PSI) (5 PSI NEGATIVE TO POSITIVE PRESSURE LISTED BELOW) /11/											
A /12/	I	.040-.080	44	30	22	16	12	10	8	6	5	4	3	3
B /12/	II													
C /13/	I	.020-.060	22	15	11	8	6	5	4	3	2	2	2	2
D /13/	II													
E /14/	I	.040-.080	75	50	40	30	25	20						
F /14/	II													

TABLE 2 - TABULATION OF HOSE LENGTH SPECIFICATIONS

ID HOSE INSIDE DIAMETER	L HOSE LENGTH (INCHES)			E SOFT END LENGTH ±.12	F WIRE TERMINATION LENGTH MAX
	GRADES A, B, E & F MINIMUM	GRADES C AND D MINIMUM	ALL GRADES MAXIMUM		
.75 TO 1.75	5.25	4.50	UNLIMITED /7/	1.50	.50
2.00 TO 12.00	6.00	5.00	UNLIMITED /7/	1.50	.75

TABLE 3 - TABULATION OF AVAILABLE HOSE LENGTH, INCREMENTS, AND TOLERANCES

L HOSE LENGTH	AVAILABLE LENGTH INCREMENT	L HOSE LENGTH TOLERANCE
5.00 TO 36.00	.25	±.12 OR 1% IF GREATER
36.50 TO 60.00	.50	±1%
61.00 TO UNLIMITED	1.00	±1%

NOTES:

1. MATERIAL: IN ACCORDANCE WITH AS1501.
2. FINISH: AS MANUFACTURED.
3. MARKING: IN ACCORDANCE WITH AS1501.
4. OPERATING TEMPERATURE: TYPE I, -65 TO +250 °F
TYPE II, -65 TO +500 °F
5. DIMENSIONS ARE IN INCHES. UNLESS OTHERWISE SPECIFIED, TOLERANCES: LINEAR DIMENSIONS ±.015.
6. PROCUREMENT SPECIFICATION: AS1501, FORM 1, TYPES I AND II, EXCEPT AS SPECIFIED IN THIS STANDARD. PRODUCT MANUFACTURED TO THIS STANDARD SHALL MEET THE REQUIREMENTS SPECIFIED HEREIN AND THE PROCUREMENT SPECIFICATION AS A COMPLETE ASSEMBLY. USERS OF THIS STANDARD ARE ADVISED TO CONTROL SOURCE APPROVAL BY STANDARD PAGE SUPPLEMENT OR SIMILAR MEANS.
- /7/ USERS ARE ADVISED TO CONTACT MANUFACTURER FOR LENGTH MANUFACTURING CAPABILITIES. IF SPLICING IS USED TO ACHIEVE DESIRED LENGTHS, PERFORMANCE ASSERTION TO BE VALIDATED BY THE PROCURING AGENCY.
- /8/ 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 FOURTHS. SEE TABLES 2 AND 3 FOR LENGTH SPECIFICATIONS AND TOLERANCES.
- /9/ DIAMETERS ARE IN .25 INCH INCREMENTS. MINIMUM INSIDE DIAMETER (ID) IS .75 INCH. MAXIMUM INSIDE DIAMETER (ID) IS 12.00 INCHES FOR GRADES "A," "B," "C," AND "D" AND 6.00 INCHES FOR GRADES "E" AND "F." TOLERANCE FOR THE CONVOLUTED SECTION ID AND FOR THE SOFT END SECTION ID IS -.01 TO +.03 INCH.
- /10/ MAXIMUM OUTSIDE DIAMETER (OD) OF HOSE ASSEMBLY IS INSIDE DIAMETER (ID) PLUS .50 INCH.

	AEROSPACE STANDARD	AS1503™ SHEET 2 OF 3 	REV. B
	(R) HOSE, AIR DUCT, FLEXIBLE, HELICAL, METALLIC WIRE, SUPPORTED (COVERED), SELF-EXTINGUISHING		

