

REV. A

SAE AS1505

FEDERAL SUPPLY CLASS
4720

RATIONALE

AS1505A HAS BEEN REAFFIRMED TO COMPLY WITH THE SAE FIVE-YEAR REVIEW POLICY.

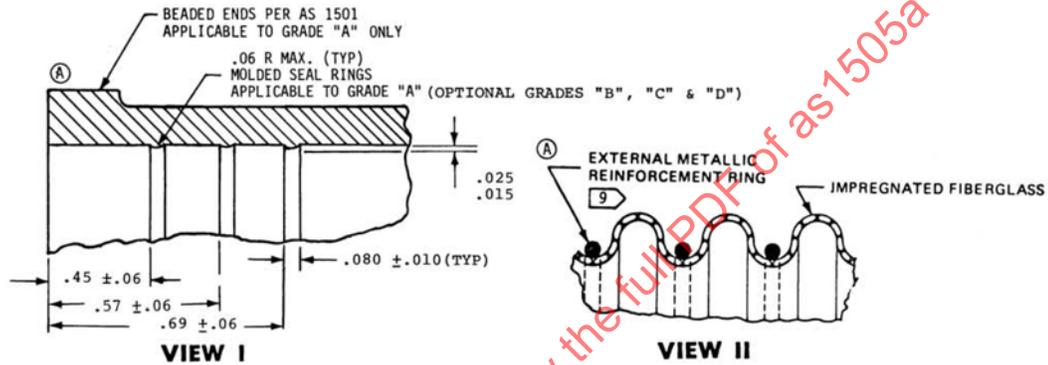
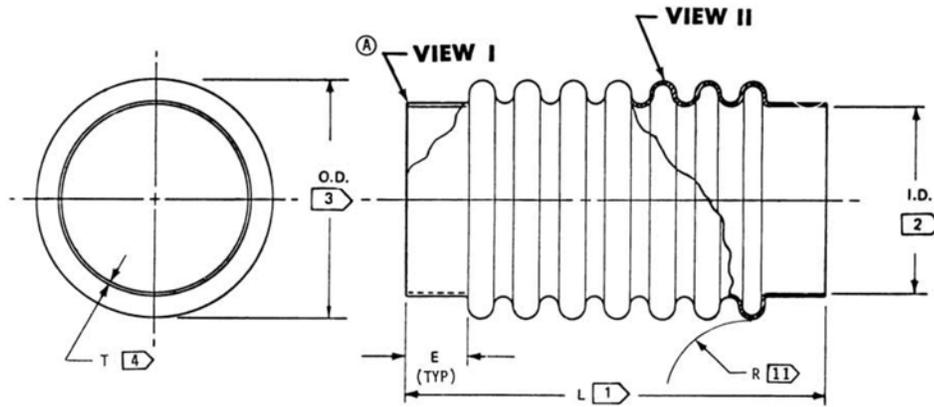


TABLE A

TABULATION OF OPERATING PRESSURE AND PART NUMBER GRADES (EXTERNAL METALLIC REINFORCEMENT RINGS)

GRADE	TYPE (OPERATING TEMPERATURE)	OPERATING PRESSURE RATING (PSI) ("0" PSI TO PRESSURE LISTED BELOW)									
		HOSE INSIDE DIAMETER (INCHES)									
		1	2	3	4	5	6	7	8	9	10
A	II	60	52	42	34	27	22	18	14	10	7
TABLE IB (NO EXTERNAL METALLIC REINFORCEMENT RINGS)											
B	II	12	8	5	3	2	1	.7	.5	.4	.3
C	I	6	4	2	1	.7	.5	.3	.2	.2	.2
D	II	6	4	2	1	.7	.5	.3	.2	.2	.2

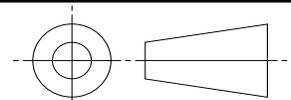
TABLE II

TABULATION OF HOSE LENGTH SPECIFICATIONS

I.D. HOSE INSIDE DIAMETER - INCH	L- HOSE LENGTH (INCHES)		E SOFT END LENGTH (INCHES) ±0.12
	MINIMUM	MAXIMUM	
0.50 TO 2.50	3.50	120	1.50
2.75 TO 10.00	3.50	72	1.50

SAE values your input. To provide feedback on this Technical Report, please visit <http://www.sae.org/technical/standards/AS1505A>

THIRD ANGLE PROJECTION



CUSTODIAN: G-3/G-3D

PROCUREMENT SPECIFICATION: AS1501

SAE Aerospace
An SAE International Group

AEROSPACE STANDARD

HOSE, AIR DUCT, FLEXIBLE,
ANNULAR CONVOLUTED, SELF EXTINGUISHING

SAE AS1505
SHEET 1 OF 3

REV. A

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ISSUED 1978-11 REVISED 1986-03 REAFFIRMED 2013-01

TABLE III

① TABULATION OF AVAILABLE HOSE LENGTH INCREMENTS AND TOLERANCES

L- HOSE LENGTH (INCHES)	AVAILABLE LENGTH INCREMENT (INCH)	L- LENGTH TOLERANCE (INCH)
3.50 TO 36.00	0.25	+0.25 OR 3% IF GREATER
36.50 TO 60.00	0.50	+3%
60.00 TO 120.00	1.00	+3%

FLAG NOTES:

- ① 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 II AND III FOR LENGTH SPECIFICATION AND TOLERANCES.
- ② DIAMETERS ARE IN 0.25 INCH INCREMENTS. MINIMUM INSIDE DIAMETER (I.D.) IS 0.50 INCH AND MAXIMUM INSIDE DIAMETER (I.D.) IS 10.00. TOLERANCE FOR THE CONVOLUTED SECTION I.D. AND FOR THE SOFT END SECTION I.D. IS -0.01 TO +0.03 INCH.
- ③ OUTSIDE DIAMETER (O.D.) OF CONVOLUTED CRESTS SHALL NOT EXCEED THE NOMINAL INSIDE DIAMETER BY MORE THAN THE FOLLOWING AMOUNTS:
- | NOMINAL I.D. (INCHES) | ALLOWED DIAMETER INCREASE (INCHES) |
|-----------------------|------------------------------------|
| 0.50 TO 2.00 | 0.70 |
| 2.01 TO 2.50 | 0.80 |
| 2.51 TO 3.50 | 0.90 |
| 3.51 AND GREATER | 1.00 |
- ④ SOFT END THICKNESS WILL VARY FOR GRADES "A" AND "B" HOSES FROM .040 TO .080 INCH AND FOR GRADES "C" AND "D" HOSES FROM .020 TO .060 INCH.
- ⑤ FOR FRACTIONAL DIAMETER DUCT OPERATING PRESSURE, USE PRESSURE LISTED FOR NEXT LARGEST HOSE DIAMETER.
- ⑥ GRADE "A" - MAXIMUM HOSE WEIGHT: 0.24 LB/FT (LENGTH)/INCH DIAMETER
MIN. INSIDE BEND RADIUS: 2.0 X HOSE I.D.
MAXIMUM HOSE LEAKAGE: 0.01 SCFM/FT (LENGTH)/INCH DIAMETER
TOTAL JOINT LEAKAGE: 0.10 SCFM/INCH DIAMETER
- ⑦ GRADE "B" - MAXIMUM HOSE WEIGHT: 0.18 LB/FT (LENGTH)/INCH DIAMETER
MIN. INSIDE BEND RADIUS: 1.0 X HOSE I.D.
MAXIMUM HOSE LEAKAGE: 0.01 SCFM/FT (LENGTH)/INCH DIAMETER
TOTAL JOINT LEAKAGE: 0.10 SCFM/INCH DIAMETER
- ⑧ GRADES "C" AND "D" - MAXIMUM HOSE WEIGHT: 0.12 LB/FT (LENGTH)/INCH DIAMETER
MIN. INSIDE BEND RADIUS: 0.75 X HOSE I.D.
MAXIMUM HOSE LEAKAGE: 0.015 SCFM/FT (LENGTH)/INCH DIAMETER
TOTAL JOINT LEAKAGE: 0.10 SCFM/INCH DIAMETER
- ⑨ ANNULAR REINFORCING WIRE RINGS MADE OF WIRE WITH SMOOTH BUTT WELDED JOINTS AND REPLATED IF MADE FROM PLATED WIRE SHALL BE ADDED TO HOSE ASSEMBLIES WITH TWO OR MORE CONVOLUTIONS AND ARE GRADE "A" AS SPECIFIED IN TABLE IA. MINIMUM LENGTH HOSE ASSEMBLIES HAVE ONLY ONE CONVOLUTION AND REQUIRE NO REINFORCING RING(S) ON GRADE "A". EACH ANNULAR RIDGE IS CONSIDERED TO BE ONE CONVOLUTION.
- ⑩ BEADED ENDS AND MOLDED SEAL RINGS APPLICABLE ONLY TO GRADE "A".
- ⑪ "R" IS THE MINIMUM BEND RADIUS THE HOSE ASSEMBLY IS REQUIRED TO BEND UNIFORMLY IN ACCORDANCE WITH AS 1501

PROCUREMENT SPECIFICATION: AS 1501, FORM 3, TYPES I AND II

MATERIAL: IN ACCORDANCE WITH AS 1501

FINISH: AS MANUFACTURED

MARKING: IN ACCORDANCE WITH AS 1501

OPERATING TEMPERATURE: TYPE I, -65 DEG.F TO +250 DEG.F
TYPE II, -65 DEG.F TO +500 DEG.F

 An SAE International Group	AEROSPACE STANDARD	SAE AS1505 SHEET 2 OF 3	REV. A
	HOSE, AIR DUCT, FLEXIBLE, ANNULAR CONVOLUTED, SELF EXTINGUISHING		