FEDERAL SUPPLY CLASS
9330

RATIONALE

THIS DOCUMENT COMPLETELY REVISED, INCLUDING RE-FORMATTING TO AN AEROSPACE STANDARD (AS) UNDER THE JURISDICTION OF SAE AE8-C1 FROM AN AEROSPACE MATERIAL SPECIFICATION UNDER THE JURISDICTION OF SAE AMS 'P' COMMITTEE, TO PROPERLY CLASSIFY AND SUPERSEDE AMS-T-81914/1 MATERIAL SPECIFICATION INCLUDING THE INCORPORATION OF COMMENTS RECEIVED FROM GOVERNMENT AND INDUSTRY, UP-DATE SPECIFICATION REFERENCES, ALIGN WITH SAE GUIDELINES AS NEEDED, INCORPORATE MATERIAL UPDATES, CLARIFY PART NUMBERING, ADD METRICS AND REVIEW FOR KNOWN TECHNICAL PROBLEMS.

NOTICE

THE REQUIREMENTS FOR ACQUIRING THE TUBING DESCRIBED HEREIN SHALL CONSIST OF THIS DOCUMENT AND THE LATEST ISSUE IN EFFECT OF SAE AS81914.

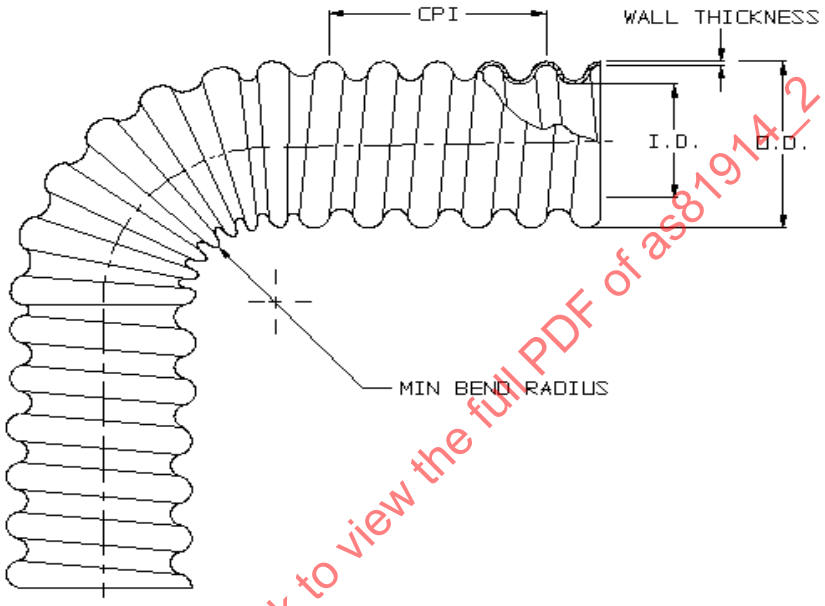
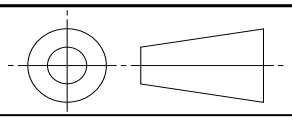


FIGURE 1 – DIMENSIONS AND CONFIGURATION

THIRD ANGLE PROJECTION



ISSUED 2011-01

CUSTODIAN: AE-8/AE-8C1

PROCUREMENT SPECIFICATION: AS81914

SAE Aerospace
An SAE International Group

AEROSPACE STANDARD

TUBING, PLASTIC, EXTRA FLEXIBLE, CONVOLUTED HELICAL, POLYTETRAFLUOROETHYLENE (PTFE) CLOSE CONVOLUTIONS

TABLE 1 – FIGURE 1 DIMENSIONS

Dash Number	MAX Inside Dia. (I.D.)	MIN Inside Dia. (I.D.)	MAX Outer Dia. (O.D.)	MAX Wall Thickness	Convolutions Per Inch (CPI) ± 1	Approx. Weight Lbs (kg) Per 100 Feet (30.5m) Ref.	MIN Bend Radius
01	.188 (4.78)	.181 (4.60)	.320 (8.13)	.023 (0.58)	10	2.2 (1.00)	.313 (7.95)
02	.281 (7.14)	.273 (6.93)	.414 (10.52)	.026 (0.66)	9	3.8 (1.72)	.438 (11.13)
03	.312 (7.92)	.306 (7.77)	.450 (11.43)	.027 (0.69)	9	4.8 (2.18)	.438 (11.13)
04	.375 (9.53)	.364 (9.25)	.530 (13.46)	.029 (0.74)	9	5.6 (2.54)	.500 (12.70)
05	.437 (11.10)	.427 (10.84)	.590 (14.99)	.029 (0.74)	9	6.5 (2.95)	.500 (12.70)
06	.500 (12.70)	.485 (12.32)	.660 (16.76)	.029 (0.74)	9	6.9 (3.13)	.750 (19.05)
07	.625 (15.88)	.608 (15.44)	.780 (19.81)	.035 (0.89)	9	9.2 (4.17)	.750 (19.05)
08	.750 (19.05)	.730 (18.54)	.975 (24.77)	.035 (0.89)	8	13.8 (6.26)	.938 (23.82)
09	.875 (22.23)	.860 (21.84)	1.100 (27.94)	.035 (0.89)	8	15.0 (6.80)	.938 (23.82)
10	1.000 (25.40)	.975 (24.77)	1.260 (32.00)	.035 (0.89)	7	16.8 (7.62)	1.125 (26.80)
11	1.125 (28.58)	1.105 (28.07)	1.390 (35.31)	.035 (0.89)	6	17.5 (7.94)	1.125 (26.80)
12	1.250 (31.75)	1.210 (30.73)	1.539 (39.09)	.035 (0.89)	6	19.6 (8.89)	1.250 (31.75)
13	1.500 (38.10)	1.450 (36.83)	1.810 (46.97)	.038 (0.97)	6	26.0 (7.03)	2.000 (50.80)

NOTES:

1. DIMENSIONS ARE IN INCHES.
2. UNLESS OTHERWISE SPECIFIED TOLERANCES SHALL BE: .XX = ±.010 (0.25 MM), .XXX = ±.005 (0.13 MM).
3. METRIC EQUIVALENTS ARE GIVEN FOR GENERAL INFORMATION ONLY AND ARE BASED ON 25.4 MM = 1 INCH.
4. METRIC DIMENSIONS IN PARENTHESES ARE SHOWN IN MILLIMETERS.

REQUIREMENTS:

1. DIMENSIONS AND CONFIGURATION; SEE FIGURE 1 AND TABLE 1.
2. CONVOLUTION TYPE: HELICAL.
3. LENGTHS SHALL BE SPECIFIED IN FEET BY THE PROCURING ACTIVITY AND DOES NOT FORM A PART OF THE IDENTIFYING PART NUMBER. MINIMUM ORDER LENGTH SHALL BE 3 FEET (0.914 M) AND THE TUBING ORDER LENGTH TOLERANCES SHALL BE AS SPECIFIED IN TABLE 2. TUBING SHALL BE PROCURED AS COILS.

TABLE 2 - ORDER LENGTH TOLERANCE

Order Length Range	
Length in feet (meters)	Tolerance in inches (mm)
3 – 12 (0.914 m – 3.66 m)	+ 2.0 / - 0.0 (+ 50.8 mm / - 0.0 mm)
13 – 50 (3.96 m – 15.24 m)	+ 4.0 / - 0.0 (+ 101.6 mm / - 0.0 mm)
51 and up (15.55 m and up)	+ 6.0 / - 0.0 (+ 152.4 mm / - 0.0 mm)

4. CONTINUOUS OPERATING TEMPERATURE: -67 °C (-88 °F) TO +260 °C (500 °F).