

RATIONALE

THIS DOCUMENT IS A NEW DETAIL SHEET TO BETTER DEFINE CONVOLUTED TUBING WITH ANNULAR CONSTRUCTION PRODUCED FROM PVDF MATERIAL

NOTICE

FOR GOVERNMENT PROCUREMENT THE REQUIREMENTS FOR PROCURING THE PRODUCT DESCRIBED HEREIN SHALL CONSIST OF THIS SPECIFICATION SHEET AND THE LATEST ISSUE OF SAE AS81914.

SAE AS81914/8

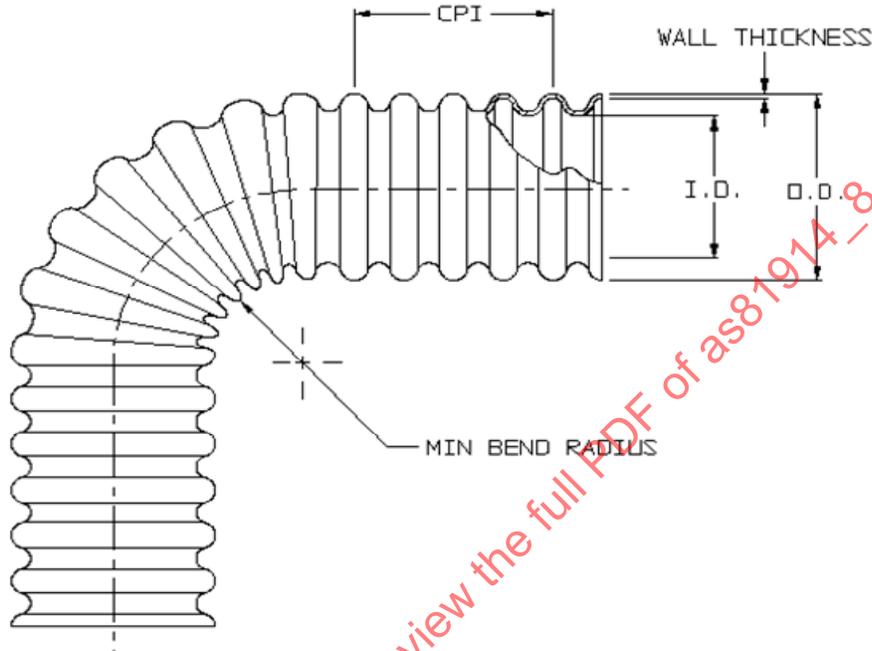
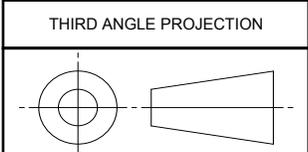


FIGURE 1 – DIMENSIONS AND CONFIGURATION

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CUSTODIAN: AE-8/AE-8C1

PROCUREMENT SPECIFICATION: AS81914

SAE Aerospace
An SAE International Group

AEROSPACE STANDARD
TUBING, PLASTIC, FLEXIBLE, CONVOLUTED, ANNULAR
POLYVINYLIDENE FLUORIDE (PVDF), THERMALLY
STABILIZED, STANDARD CONVOLUTIONS

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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)	.172 (4.37)	.330 (8.38)	.020 (0.51)	8	1.4 (0.64)	.625 (15.88)
02	.280 (7.11)	.240 (6.10)	.420 (10.67)	.020 (0.51)	8	1.7 (1.32)	.750 (19.05)
04	.370 (9.40)	.330 (8.38)	.520 (13.21)	.020 (0.51)	8	2.0 (1.91)	1.000 (25.40)
05	.440 (11.18)	.400 (10.16)	.600 (15.24)	.022 (0.56)	7	2.6 (1.18)	1.188 (30.18)
06	.500 (12.70)	.450 (11.43)	.660 (16.76)	.022 (0.56)	7	2.9 (2.36)	1.375 (34.93)
07	.620 (15.75)	.570 (14.48)	.780 (19.81)	.022 (0.56)	7	4.0 (3.13)	1.688 (42.88)
08	.750 (19.05)	.690 (17.53)	.945 (24.00)	.022 (0.56)	7	5.2 (4.72)	1.875 (47.63)
09	.870 (22.10)	.810 (20.57)	1.080 (27.43)	.022 (0.56)	7	6.1 (5.13)	2.000 (50.80)
10	1.000 (25.40)	.930 (23.62)	1.200 (30.48)	.022 (0.56)	7	7.1 (5.72)	2.375 (60.33)
12	1.250 (31.75)	1.180 (29.97)	1.440 (36.58)	.025 (0.64)	7	9.1 (7.03)	2.875 (73.03)

NOTES:

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

REQUIREMENTS:

- DIMENSIONS AND CONFIGURATION: SEE FIGURE 1 AND TABLE 1.
- CONVOLUTION TYPE: ANNULAR.
- 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)

- CONTINUOUS OPERATING TEMPERATURE: -54 °C (-65 °F) TO +166 °C (+330 °F).
- COLOR: UNLESS OTHERWISE SPECIFIED, THE SUPPLIED COLOR SHALL BE BLACK.

 An SAE International Group	AEROSPACE STANDARD	SAE AS81914/8 SHEET 2 OF 3
	TUBING, PLASTIC, FLEXIBLE, CONVOLUTED, ANNULAR POLYVINYLIDENE FLUORIDE (PVDF), THERMALLY STABILIZED, STANDARD CONVOLUTIONS	