SMACNA 250Pa (1"wg) Pressure File

Seal Class C: Seal all transverse joints

Rectangular Duct Construction with TDC & Tie Rods - 1524 (5-foot) Wide Coil Stock

SMACNA 2005

Max Duct Dimension	Metal Gauge	Material Thickness	Longitudinal Seam	Transverse Joint	Additional Reinforcing (between transverse joints)					
					JTR	Qty	MPT	Qty	Angle	Spacing
250	24	0.6	Snaplock	Flat Drive	N	-	N	-	N	-
350	24	0.6	Snaplock	Flat Drive	N	-	N	-	N	-
450	24	0.6	Snaplock	Flat Drive	N	-	N	-	N	-
500	24	0.6	Snaplock	Flat Drive	N	-	N	-	N	-
600	24	0.6	Snaplock	TDC	N	-	N	-	N	-
750	24	0.6	Snaplock	TDC	N	-	N	-	N	-
900	24	0.6	Snaplock	TDC	N	-	N	-	N	-
1050	24	0.6	Snaplock	TDC	N	-	N	-	N	-
1200	22	0.8	Snaplock	TDC	N	-	N	-	N	-
1350	22	0.8	Snaplock	TDC	N	-	N	-	N	-
1500	22	0.8	Snaplock	TDC	N	-	Y	1	N	-
1800	22	0.8	Snaplock	TDC	N	-	Y	1	N	-
2100	20	1.0	Lg Pittsburgh	TDC	Y	1	Y	1	N	-
2400	18	1.2	Lg Pittsburgh	TDC	Y	1	N	-	N	-
2700	18	1.2	Lg Pittsburgh	TDC	Y	1	N	-	50 x 50 x 5	762
3000	18	1.2	Lg Pittsburgh	TDC	Y	1	N	-	50 x 50 x 5	762
3001 & above	18	1.2	Lg Pittsburgh	TDC	Y	At 1500c/c	Y	At 1500c/c	75 x 50 x 5	762

Notes:

Tie rod is 1/2" EMT Conduit (ERW 19x1.6 GAL) with Condu-Lock fasteners. Not to be used for external ductwork.

Refer to Smacna Duct Construction Standards - Section 2.5 & 2.7 for commentary on construction for negative pressure mode.

Under negative pressure mode, tie rods above 1200mm in length may require larger size to avoid compression flexing. This is dependent upon duct width. Refer SMACNA Table 2.43

SMACNA 500Pa (2"wg) Pressure File

Seal Class C: Seal all transverse joints

Rectangular Duct Construction with TDC & Tie Rods - 1524 (5-foot) Wide Coil Stock

SMACNA 2005

Max Duct Dimension	Metal Gauge	Material Thickness	Longitudinal Seam	Transverse Joint	Additional Reinforcing (between transverse joints)					
					JTR	Qty	MPT	Qty	Angle	Spacing
250	24	0.6	Snaplock	Flat Drive	N	-	N	-	N	-
350	24	0.6	Snaplock	Flat Drive	N	-	N	-	N	-
400	24	0.6	Snaplock	Flat Drive	N	-	N	-	N	-
500	24	0.6	Snaplock	TDC	N	-	N	-	N	-
600	24	0.6	Snaplock	TDC	N	-	N	-	N	-
750	24	0.6	Snaplock	TDC	N	-	N	-	N	-
900	22	0.8	Snaplock	TDC	N	-	N	-	N	-
1050	22	0.8	Snaplock	TDC	N	-	Y	1	N	-
1200	22	0.8	Snaplock	TDC	N	-	Y	1	N	-
1350	22	0.8	Snaplock	TDC	N	-	Y	1	N	-
1500	22	0.8	Snaplock	TDC	Y	1	Y	1	N	-
1800	20	1.0	Lg Pittsburgh	TDC	Y	1	Y	1	N	-
2100	20	1.0	Lg Pittsburgh	TDC	Y	1	Y	2	N	-
2400	20	1.0	Lg Pittsburgh	TDC	Y	1	Y	2	N	-
2700	18	1.2	Lg Pittsburgh	TDC	Y	1	N	-	75 x 50 x 5	762
3000	18	1.2	Lg Pittsburgh	TDC	Y	2	N	-	75 x 50 x 5	762
3001 & above	18	1.2	Lg Pittsburgh	TDC	Y	At 1500c/c	Y	At 1500c/c	75 x 50 x 5	762

Notes:

Tie rod is 1/2" EMT Conduit (ERW 19x1.6 GAL) with Condu-Lock fasteners. Not to be used for external ductwork.

Refer to Smacna Duct Construction Standards - Section 2.5 & 2.7 for commentary on construction for negative pressure mode.

Under negative pressure mode, tie rods above 1200mm in length may require larger size to avoid compression flexing. This is dependent upon duct width. Refer SMACNA Table 2.43

SMACNA 750Pa (3"wg) Pressure File

Seal Class B: Seal all joints & seams

Rectangular Duct Construction with TDC & Tie Rods - 1524 (5-foot) Wide Coil Stock

SMACNA 2005

Max Duct Dimension	Metal Gauge	Material Thickness	Longitudinal Seam	Transverse Joint	Additional Reinforcing (between transverse joints)					
					JTR	Qty	MPT	Qty	Angle	Spacing
300	24	0.6	Snaplock	Flat Drive	N	-	N	-	N	-
350	24	0.6	Snaplock	TDC	N	-	N	-	N	-
400	24	0.6	Snaplock	TDC	N	-	N	-	N	-
500	24	0.6	Snaplock	TDC	N	-	N	-	N	-
600	24	0.6	Snaplock	TDC	N	-	N	-	N	-
750	22	0.8	Snaplock	TDC	N	-	N	-	N	-
900	22	0.8	Snaplock	TDC	N	-	Y	1	N	-
1050	22	0.8	Snaplock	TDC	N	-	Y	1	N	-
1200	22	0.8	Sm Pittsburgh	TDC	Y	1	Y	1	N	-
1350	22	0.8	Sm Pittsburgh	TDC	Y	1	Y	1	N	-
1500	20	1.0	Lg Pittsburgh	TDC	Y	1	Y	1	N	-
1800	20	1.0	Lg Pittsburgh	TDC	Y	1	Y	2	N	-
2100	20	1.0	Lg Pittsburgh	TDC	Y	1	Y	2	N	-
2400	18	1.2	Lg Pittsburgh	TDC	Y	1	Y	2	N	-
2700	18	1.2	Lg Pittsburgh	TDC	Y	1	N	-	75 x 50 x 5	762
3000	18	1.2	Lg Pittsburgh	TDC	Y	2	N	-	75 x 50 x 5	762
3001 & above	18	1.2	Lg Pittsburgh	TDC	Y	At 1500c/c	Y	At 1500c/c	75 x 50 x 5	762

Notes:

Tie rod is 1/2" EMT Conduit (ERW 19x1.6 GAL) with Condu-Lock fasteners. Not to be used for external ductwork.

Refer to Smacna Duct Construction Standards - Section 2.5 & 2.7 for commentary on construction for negative pressure mode.

Under negative pressure mode, tie rods above 1200mm in length may require larger size to avoid compression flexing. This is dependent upon duct width. Refer SMACNA Table 2.43

SMACNA 1000Pa (4"wg) Pressure File

Seal Class A: Seal all joints, seams & penetrations

Rectangular Duct Construction with TDC & Tie Rods - 1524 (5-foot) Wide Coil Stock

SMACNA 2005

Max Duct Dimension	Metal Gauge	Material Thickness	Longitudinal Seam	Transverse Joint	Additional Reinforcing (between transverse joints)					
					JTR	Qty	MPT	Qty	Angle	Spacing
300	24	0.6	Sm Pittsburgh	Flat Drive	N	-	N	-	N	-
350	24	0.6	Sm Pittsburgh	TDC	N	-	N	-	N	-
400	24	0.6	Sm Pittsburgh	TDC	N	-	N	-	N	-
500	24	0.6	Sm Pittsburgh	TDC	N	-	N	-	N	-
600	22	0.8	Sm Pittsburgh	TDC	N	-	N	-	N	-
750	20	0.8	Sm Pittsburgh	TDC	N	-	N	-	N	-
900	22	0.8	Sm Pittsburgh	TDC	N	-	Y	1	N	-
1050	20	1.0	Lg Pittsburgh	TDC	N	-	Y	1	N	-
1200	18	1.2	Lg Pittsburgh	TDC	N	-	Y	1	N	-
1350	18	1.2	Lg Pittsburgh	TDC	N	-	Y	1	N	-
1500	20	1.0	Lg Pittsburgh	TDC	Y	1	Y	1	N	-
1800	20	1.0	Lg Pittsburgh	TDC	Y	1	Y	2	N	-
2100	18	1.2	Lg Pittsburgh	TDC	Y	1	Y	2	N	-
2400	18	1.2	Lg Pittsburgh	TDC	Y	1	Y	2	N	-
2700	18	1.2	Lg Pittsburgh	TDC	Y	1	N	-	75 x 50 x 5	762
3000	18	1.2	Lg Pittsburgh	TDC	Y	2	N	-	75 x 50 x 5	762
3001 & above	18	1.2	Lg Pittsburgh	TDC	Y	At 1500c/c	Y	At 1500c/c	75 x 50 x 5	762

Notes:

Tie rod is 1/2" EMT Conduit (ERW 19x1.6 GAL) with Condu-Lock fasteners. Not to be used for external ductwork.

Refer to Smacna Duct Construction Standards - Section 2.5 & 2.7 for commentary on construction for negative pressure mode.

Under negative pressure mode, tie rods above 1200mm in length may require larger size to avoid compression flexing. This is dependent upon duct width. Refer SMACNA Table 2.44

SMACNA 1500Pa (6"wg) Pressure File

Seal Class A: Seal all joints, seams & penetrations

Rectangular Duct Construction with TDC & Tie Rods - 1524 (5-foot) Wide Coil Stock

SMACNA 2005

Max Duct Dimension	Metal Gauge	Material Thickness	Longitudinal Seam	Transverse Joint	Additional Reinforcing (between transverse joints)					
					JTR	Qty	MPT	Qty	Angle	Spacing
300	24	0.6	Sm Pittsburgh	TDC	N	-	N	-	N	-
400	22	0.8	Sm Pittsburgh	TDC	N	-	N	-	N	-
600	22	0.8	Sm Pittsburgh	TDC	N	-	N	-	N	-
650	22	0.8	Sm Pittsburgh	TDC	N	-	Y	1	N	-
700	22	0.8	Sm Pittsburgh	TDC	N	-	Y	1	N	-
750	22	0.8	Sm Pittsburgh	TDC	N	-	Y	1	N	-
900	20	1.0	Sm Pittsburgh	TDC	N	-	Y	1	N	-
1050	18	1.2	Lg Pittsburgh	TDC	N	-	Y	1	N	-
1200	20	1.0	Lg Pittsburgh	TDC	Y	1	Y	1	N	-
1350	20	1.0	Lg Pittsburgh	TDC	Y	1	Y	1	N	-
1500	20	1.0	Lg Pittsburgh	TDC	Y	1	Y	1	N	-
1800	18	1.2	Lg Pittsburgh	TDC	Y	1	Y	1	N	-
2100	18	1.2	Lg Pittsburgh	TDC	Y	1	Y	2	N	-
2400	18	1.2	Lg Pittsburgh	TDC	Y	1	Y	1	50 x 50 x 5	762
2700	18	1.2	Lg Pittsburgh	TDC	Y	1	Y	1	75 x 50 x 5	600
3000	18	1.2	Lg Pittsburgh	TDC	Y	2	Y	1	75 x 50 x 5	600
3001 & above	18	1.2	Lg Pittsburgh	TDC	Y	At 1500c/c	Y	At 1500c/c	75 x 50 x 5	600

Notes:

Tie rod is 1/2" EMT Conduit (ERW 19x1.6 GAL) with Condu-Lock fasteners. Not to be used for external ductwork.

Refer to Smacna Duct Construction Standards - Section 2.5 & 2.7 for commentary on construction for negative pressure mode.

Under negative pressure mode, tie rods above 1200mm in length may require larger size to avoid compression flexing. This is dependent upon duct width. Refer SMACNA Table 2.45

SMACNA 2500Pa Positive (+10"wg) Round Pressure File

Max Duct Dimension	Longitudinal Seam Gauge	Spiral Seam Gauge	Longitudinal Seam	Transverse Joint	
350	26	26	Groove	Beaded Sleeve	
450	24	26	Groove	Beaded Sleeve	
600	24	26	Groove	Beaded Sleeve	
1050	22	24	Groove	Beaded Sleeve	
1500	20	22	Groove	Beaded Sleeve	
2100	18	20	Groove	50 x 50 x 3	Note: Companion angle flange only to retain shape.
2400	18	20	Groove	50 x 50 x 5	Note: Companion angle flange only to retain shape.
2401 & above	16	16	Groove	75 x 50 x 5	Note: Companion angle flange only to retain shape.

Seal Class A: Seal all joints, seams & penetrations
For fittings, use longitudinal seam gauge.

SMACNA 500Pa Negative (-2"wg) Round Pressure File

Max Duct Dimension	Longitudinal Seam Gauge	Spiral Seam Gauge	Longitudinal Seam	Transverse Joint	Additional Reinforcing			
					Long Seam Size	Spacing	Spiral Seam Size	Spacing
300	26	28	Groove	Beaded Sleeve	-	-	-	-
400	24	26	Groove	Beaded Sleeve	-	-	-	-
550	22	24	Groove	Beaded Sleeve	-	-	-	-
600	24	22	Groove	As Noted Over	25 x 25 x 3	1524	Beaded Sleeve	3000
1050	24	26	Groove	As Noted Over	25 x 25 x 3	1524	25 x 25 x 3	3000
1200	24	26	Groove	As Noted Over	25 x 25 x 3	1524	25 x 25 x 3	3000
1350	24	24	Groove	As Noted Over	25 x 25 x 3	1524	25 x 25 x 3	3000
1500	24	24	Groove	As Noted Over	25 x 25 x 3	1524	30 x 30 x 5	3000
1800	22	24	Groove	As Noted Over	30 x 30 x 5	1524	30 x 30 x 5	3000
2100	22	22	Groove	As Noted Over	30 x 30 x 5	1524	40 x 40 x 5	3000
2400	22	20	Groove	As Noted Over	30 x 30 x 5	1524	50 x 50 x 5	3000
2401 & above	22	18	Groove	As Noted Over	50 x 50 x 5	1524	75 x 75 x 5	3000

Notes:
Longitudinal seam gauge assumes 1524mm reinforcement spacing. Spiral seam gauge assumes 3048mm reinforcement spacing.
Seal Class A: Seal all joints, seams & penetrations
For fittings, use longitudinal seam gauge.

SMACNA 500Pa (2"wg) Kitchen Duct

Seal Class A: Seal all joints, seams & penetrations

Rectangular Duct Construction with TDC - 1524 (5-foot) Wide Coil Stock

SMACNA 2005

Max Duct Dimension	Metal Gauge	Material Thickness	Longitudinal Seam	Transverse Joint	Additional Reinforcing (between transverse joints)					
					Joint Reinf.	Qty	MPT	Qty	Angle	Spacing
>200	18	1.2	Lg Pittsburgh	TDC	N	-	N	-	N	-
300	18	1.2	Lg Pittsburgh	TDC	N	-	N	-	N	-
400	18	1.2	Lg Pittsburgh	TDC	N	-	N	-	N	-
500	18	1.2	Lg Pittsburgh	TDC	N	-	N	-	N	-
600	18	1.2	Lg Pittsburgh	TDC	N	-	N	-	N	-
700	18	1.2	Lg Pittsburgh	TDC	N	-	N	-	N	-
900	18	1.2	Lg Pittsburgh	TDC	N	-	N	-	N	-
1050	18	1.2	Lg Pittsburgh	TDC	N	-	N	-	N	-
1200	18	1.2	Lg Pittsburgh	TDC	N	-	N	-	N	-
1350	18	1.2	Lg Pittsburgh	TDC	N	-	N	-	N	-
1500	18	1.2	Lg Pittsburgh	DM35	N	-	N	-	N	-
1800	18	1.2	Lg Pittsburgh	DM35	N	-	N	-	50x50x5	762
2100	16	1.6	Lg Pittsburgh	DM35	N	-	N	-	65x65x5	762
2400 & above	16	1.6	Lg Pittsburgh	Consult SMACNA for options						

Notes:
Limitation of 200mm minimum duct dimension to suit TDC flange & corners.