



# SHEET METAL CONNECTORS, INC.

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## Double Wall Fittings

Sheet Metal Connectors, Inc. double wall duct has a complete line of compatible fittings. Fittings can be fabricated with standing seam, elbow lock or welded seam construction. Double wall fittings can be fabricated to desired length and many different configurations. All sizes shall be listed using inside dimensions.

All fittings can be manufactured with:

- Double Wall E-Z Flange Jr. with Barrel Clamp  
6" to 24" Diameter
- Double Wall E-Z Flange with Barrel Clamp  
26" to 96" Diameter
- Double Wall Couplings

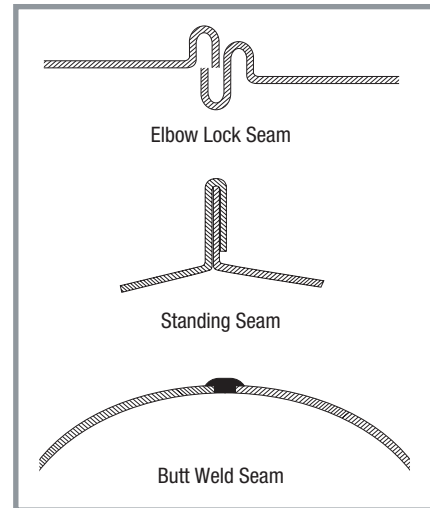
## Insulation

SMC double wall round spiral duct is a dependable, erosion resistant alternative to lined round spiral duct, providing improved protection for insulation exposed to the airstream. In double wall round spiral duct a metal inner liner insures that high airflow velocities cannot separate insulation by pulling away from the duct's outer wall and creating erosion or airflow problems.

SMC constructs each piece with an inner shell (perforated or solid) surrounded by a layer of insulation and covered by a solid outer shell. The insulation is used in both acoustical and thermal duct systems.

SMC solves air quality problems caused by bacteria and other contaminants that can embed in fibrous materials, which can be a health hazard in environments such as schools, hospitals, laboratories, and food or pharmaceutical plants. In cases where additional erosion or contamination protection is desired for such an environment, we can provide a customer specified barrier material (mylar) between the insulation and the perforated liner.

Standard insulation is 1" thick with 1 1/2 lb. per cubic foot density. See chart below for specifications. Many other thickness' and densities are available, consult factory.



SOUND ABSORPTION COEFFICIENTS (ASTM C 423, Type A Mounting) 1/3 Octave Band Center Frequency (cycles/sec.)							
Type	125	250	500	1000	2000	4000	NRC
1" - 1 1/2 # Cu. Ft.	.05	.30	.60	.87	.98	1.05	.70
2" - 1 1/2 # Cu. Ft.	.12	.66	1.04	1.08	1.04	1.07	.95
1" - 3 # Cu. Ft.	.07	.26	.54	.85	.96	.90	.65

Coefficients determined per ASTM E 795 Type A Mounting  
 Note: Pressure classifications are based on SMACNA Second Edition - 1995

THERMAL CONDUCTANCE "C" AND RESISTANCE "R" (ASTM C 177)		
Product	Mean Temperature 75°F (24°)	
	Conductance "C" <sup>(1)</sup>	Resistance "R" <sup>(2)</sup>
1" - 1 1/2 # Cu. Ft.	.24	4.2
2" - 1 1/2 # Cu. Ft.	.24	8.0
1" - 3 # Cu. Ft.	.23	4.3

<sup>1</sup> The lower the value, the better the performance. <sup>2</sup> The higher the value, the better the performance.

"C" units:  $\frac{\text{BTU}}{\text{ft}^2 \cdot \text{hr} \cdot ^\circ\text{F}}$   $\left( \frac{\text{W}}{\text{m}^2 \cdot ^\circ\text{C}} \right)$  "R" units:  $\frac{\text{ft}^2 \cdot \text{hr} \cdot ^\circ\text{F}}{\text{BTU}}$   $\left( \frac{\text{m}^2 \cdot ^\circ\text{C}}{\text{W}} \right)$

## Specification Compliance

SMC standard insulation meets the requirements of the following codes and specifications:

- NFPA 90A and NFPA 90B
- NAIMA Standard AHC-101
- ASTM C 1071 Type 1 Replaces HH-I-545B Type 1

