



SUBMITTAL AND PRODUCT SPECIFICATIONS

SPIRAL DUCTS FOR HVAC, VENTILATION AND AIR EXTRACTION SYSTEMS



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Spiral Ducts:

Coiled ducting offers a durable, efficient and economical alternative for air conditioning installations.

The greatest advantages of the spiral graphed circular duct are:

- Air tightness.
- Installation with significantly lower costs.
- The mechanical resistance allows savings in the thickness of the sheet.
- The duct is stronger because it is reinforced during its assembly.
- It is manufactured in greater lengths, which produces savings in supports and joints.
- Pressure losses are low, reducing operating costs.
- The cost of sheets can be reduced by up to 20%.

A. Spiral Ducts:

1. All ducts and ductwork parts will be manufactured with galvanized steel in accordance to the 2005 Third Edition of the SMACNA Standard "HVAC DUCT CONSTRUCTION STANDARDS".
2. Circular smooth spiral duct.
3. G-60 or G-90 galvanized sheet will be used in accordance to the project, with specification ASTM A 653.
4. Adapting to the Maximum Dimension of the circular duct or piece of ductwork (elbows, reductions, etc.) the following caliber will be used:

Up to 10in of positive pressure without reinforcement

Diameter	Longitudinal Seam	Spiral Seam
16"-18"	Gauge 26	Gauge 26
20"-24"	Gauge 24	Gauge 26
30"-42"	Gauge 22	Gauge 24
54"-60"	Gauge 20	Gauge 22
66"	Gauge 18	Gauge 22
72"-96"	Gauge 18	Gauge 22



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2" Negative Pressure

Negative Pressure 2"	20 ft		12 ft		10 ft		6 ft		5 ft	
	CA	R	CA	R	CA	R	CA	R	CA	R
4"	26	A	26	A	26	A	26	A	26	A
6"	26	A	26	A	26	A	26	A	26	A
8"	26	A	26	A	26	A	26	A	26	A
10"	26	A	26	A	26	A	26	A	26	A
12"	26	A	26	A	26	A	26	A	26	A
14"	26	A	26	A	26	A	26	A	26	A
16"	26	A	26	A	26	A	26	A	26	A
18"	26	A	26	A	26	A	26	A	26	A
20"	26	A	26	A	26	A	26	A	26	A
22"	26	A	26	A	26	A	26	A	26	A
24"	26	A	26	A	26	A	26	A	26	A
30"	26	A	26	A	26	A	26	A	26	A
36"	24	A	26	A	26	A	26	A	26	A
42"	24	A	26	A	26	A	26	A	26	A
48"	22	B	24	A	26	A	26	A	26	A
54"	22	B	24	B	24	A	26	A	26	A
60"	22	B	24	B	24	B	26	A	26	A
66"	22	C	24	B	24	B	26	B	26	A
72"	20	C	22	B	24	B	24	B	26	B
78"	20	D	22	C	22	C	24	B	26	B
84"	20	E	22	C	22	C	24	B	24	B
90"	20	E	22	D	22	C	24	B	24	B
96"	20	E	22	E	22	D	24	C	24	B

R. Type of Reinforcement

CA. Gauge



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4" Negative Pressure

Negative Pressure 4"	20 ft		12 ft		10 ft		6 ft		5 ft	
	CA	R	CA	R	CA	R	CA	R	CA	R
4"	26	A	26	A	26	A	26	A	26	A
6"	26	A	26	A	26	A	26	A	26	A
8"	26	A	26	A	26	A	26	A	26	A
10"	26	A	26	A	26	A	26	A	26	A
12"	26	A	26	A	26	A	26	A	26	A
14"	26	A	26	A	26	A	26	A	26	A
16"	26	A	26	A	26	A	26	A	26	A
18"	26	A	26	A	26	A	26	A	26	A
20"	24	A	26	A	26	A	26	A	26	A
22"	24	A	26	A	26	A	26	A	26	A
24"	24	A	26	A	26	A	26	A	26	A
30"	22	A	24	A	26	A	26	A	26	A
36"	22	B	24	A	24	A	26	A	26	A
42"	22	B	22	B	24	A	26	A	26	A
48"	20	B	22	B	22	B	26	B	26	A
54"	20	C	22	B	22	B	26	B	24	A
60"	20	D	22	C	22	B	26	B	24	B
66"	18	E	20	C	22	C	26	B	24	B
72"	18	E	20	D	20	C	24	B	24	B
78"	18	E	20	E	20	D	24	C	22	C
84"	18	F	20	E	20	E	24	C	22	C
90"	18	G	18	E	20	E	24	D	22	C
96"	16	G	22	F	20	E	24	E	22	D

R. Type of Reinforcement

CA. Gauge

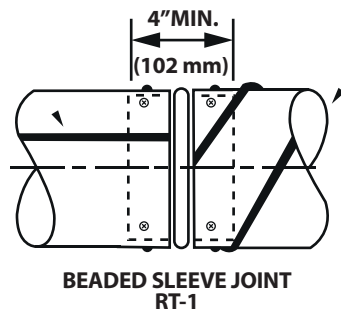


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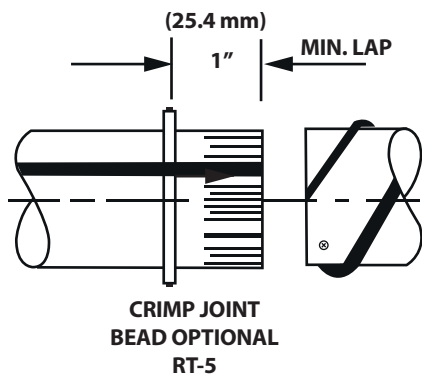
B. Reinforcement:

Rings can be attached to the duct using screws, rivets or spot welds.

Joints and Seams



- Longitudinal or spiral seam.
- The sleeve must have at least the same caliber of the duct.



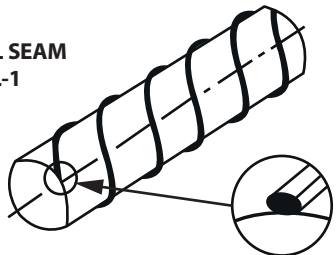
- Longitudinal or spiral seam.
- Screws must be used at even intervals.
- A minimum of 3 screws must be used at intervals less than 14 in.



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C. Seams:

**SPIRAL SEAM
RL-1**



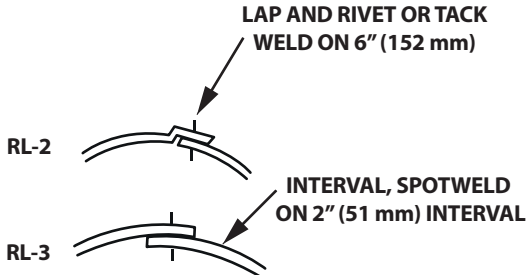
- Up to ± 10 in. pressure.

RL-2

LAP AND RIVET OR TACK WELD ON 6" (152 mm)

RL-3

INTERVAL, SPOTWELD ON 2" (51 mm) INTERVAL



- Up to ± 4 in of pressure.
- Acceptable for 10 in. pressure if weld stitches are placed every 3 in.

RL-4

BUTT WELD (OR LAP & SEAM WELDED)



- Up to ± 10 in. pressure.

D. Elbows and Fittings:

Speed	R/D Radius	Number of Fittings		
		90°	60°	45°
Above 1000 fpm (5 mps)	0.6	3	2	2
Between 1000 and 1500 fpm (5 a 7.5 mps)	1	4	3	2
Above 1500 fpm (7.5 mps)	1.5	5	4	3



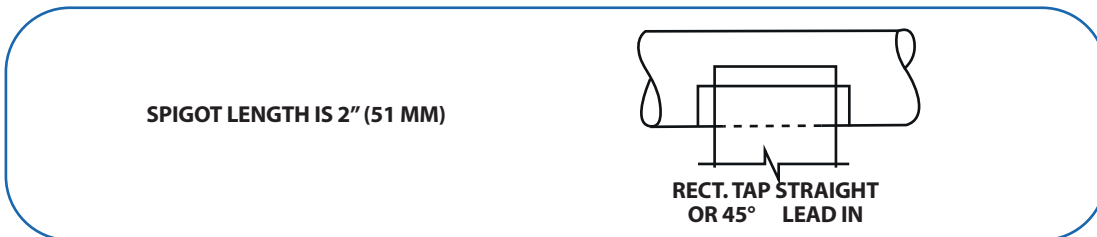
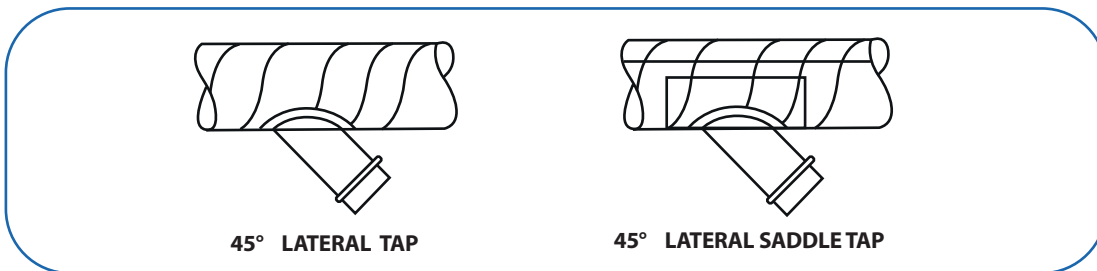
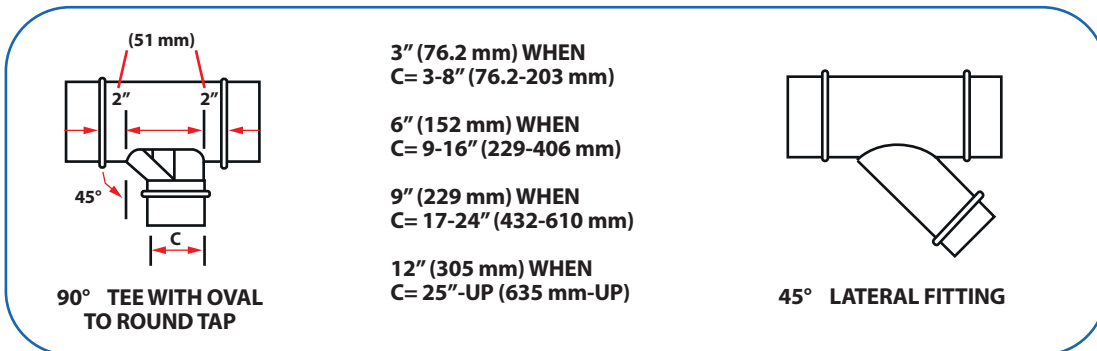
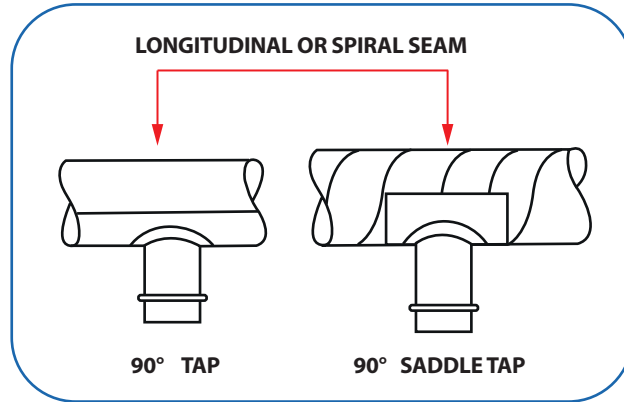
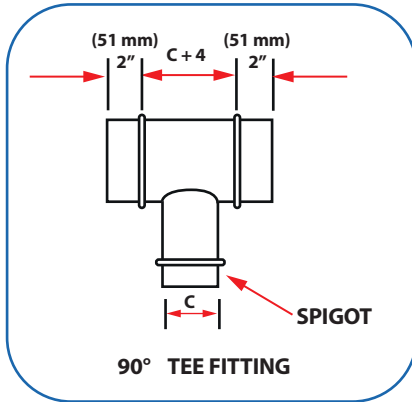
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E. Fittings:



Welding 4" from center.
Screws 4" from center.