FläktGroup

SEMCO

DURABLE AND EFFICIENT

EASY TO INSTALL

CUSTOM AIR

SPIRAL DUCT AND FITTINGS

PRODUCT CATALOG

- Round
- Oval
- Single Wall
- Dual Wall
- Connectors & Accessories

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INTRODUCTION

SEMCO has manufactured quality round and oval spiral duct and fittings since 1963. In addition to offering the economies of standardization and mass production, SEMCO will work with you on those projects that require a high degree of customization, hence the name "CustomAir™ Duct Systems".

This catalog shows dimensions, construction standards and accessories for SEMCO spiral duct and fittings. Products and dimensions listed here are SEMCO's standard. Nonstandard sizes, gauges, materials, dimensions, reinforcing, configuration, joint types, etc. are also available. Please contact your nearest SEMCO representative or SEMCO's home office for additional information and application help. All data is subject to change without notice.

Benefits

Round Duct is the most efficient and economical means of conveying air. When you cannot use round duct because ceiling space is limited or interference from other obstructions, use flat oval duct, which is nearly as efficient.

Round and oval duct have lower initial installed costs than rectangular duct. Their shape results in lower pressure drops, thereby requiring less fan horsepower to move the air and, consequently, smaller equipment. The shape also has less surface area and requires less insulation when externally wrapped. Spiral round and oval duct is available in longer lengths than rectangular duct, thereby eliminating costly field joints. Spiral lock-seams add rigidity; therefore spiral duct can be fabricated using lighter gauges than longitudinal seam duct.

Operating costs are also lower. The smaller surface areas of round and oval allow less heat loss or gain and are therefore more energy efficient. Also, seams and joints are more tightly sealed resulting in less leakage and wasted energy.

The acoustic performance of round and oval duct is superior because their curved surfaces allow less breakout noise.

These ducts not only perform better, they also look better. Many architects and designers are using the aesthetically pleasing shapes of round and oval as unique and integral elements in their designs.

Finally, round and oval duct can help promote healthier indoor environments. Less surface area, no corners and better airflow reduce the chance of dirt and grime accumulating inside the duct and becoming a breeding ground for bacterial growth.

Materials

SEMCO spiral duct and fittings are fabricated from galvanized steel meeting ASTM A653 and A924. Other available materials are listed below. Please note that not all gauges and construction methods may be available for these materials:

- Stainless Steel - Type 304 and 316, with a 2b finish as standard and with "L" grade and a number 4 finish optional.
- Aluminum - 3003 H14 alloy.
- PVC - Coated steel with a 4mil coating on both sides (4x4). PVC (polyvinyl chloride) coated duct is used for applications where additional corrosion protection is desired.
- Black Steel - Hot rolled.

AVRON46® Antimicrobial Duct Products

AVRON46 utilizes an EPA registered fungicide, which is approved for use in HVAC air duct systems. The factory-applied coating is the most cost-effective solution for inhibiting mold growth in HVAC duct systems. For more information see page 1-1 or visit www.avron46.com.

Construction

Construction and gauges for SEMCO's duct products meet or exceed the latest SMACNA standards for the system pressures listed.

Spiral lock seam construction is available for all listed sizes. Sizes not listed can be furnished as rolled with a welded longitudinal seam in 5'-0" maximum lengths

when made of galvanized steel and 4'-0" maximum lengths when made of most other available materials.

Seams for galvanized steel fittings are normally tack-welded and sealed. Fully welded seams are an option for galvanized steel fittings and standard for stainless steel and aluminum fittings. Since PVC coated steel duct is coated prior to fabrication, fitting seams are not welded and are mechanically fastened instead. PVC coated duct is normally shipped without sealant, but sealing with PCD #8 duct sealer on the outside of fitting seams is an option.

Dual Wall Duct

SEMCO dual wall duct and fittings are made with 1" of fiberglass insulation sandwiched between the outer shell and a solid or perforated inner metal liner. Dual wall duct is also available in 2", 3", and 4" thickness. This insulation has thermal conductivity of 0.26 BTU in./ hr. ft.² °F at 75°. Surface burning characteristics are: Flame Spread 25 and Smoke Developed 50.

Dual wall duct sizes are listed using the inside diameter. All dimensions and gauges in the catalog are based on 1" thick insulation and must be adjusted for greater thickness.

Independent tests of SEMCO's standard dual wall product with a perforated liner at a velocity of 10,000 feet per minute resulted in no fiber entrainment in the air stream. Mylar, Tedlar, vinyl and fiberglass cloth wraps on perforated liners as well as insulation with a black matte facing are also available for additional separation of the fiberglass insulation from the air stream.

Joint Connections

Slip connections are standard and most commonly used. SEMCO also offers the patented Velocity® Gasketed Joint System as a self-sealing slip connection option for round sizes 5" through 24" (see page 1-2).

Angle rings, AccuFlange™, and Spiralmate™ connectors are also available. Many contractors prefer using flange type connectors for larger sizes of duct because they save time in the field.

Reinforcing

Girth rings and other duct reinforcing are available. Some sizes of round duct and fittings under negative pressure require reinforcing as shown on the gauge tables (see page 2-2). Depending on size and static pressure some flat oval duct and fittings must be reinforced according to the oval reinforcing charts (see page 6-10).

Leakage

Leakage for all SMACNA 2015 product will not exceed SMACNA Leakage Class 3 when field joints are adequately sealed.

Dimensions

Tolerances for all dimensions are ± ¼".

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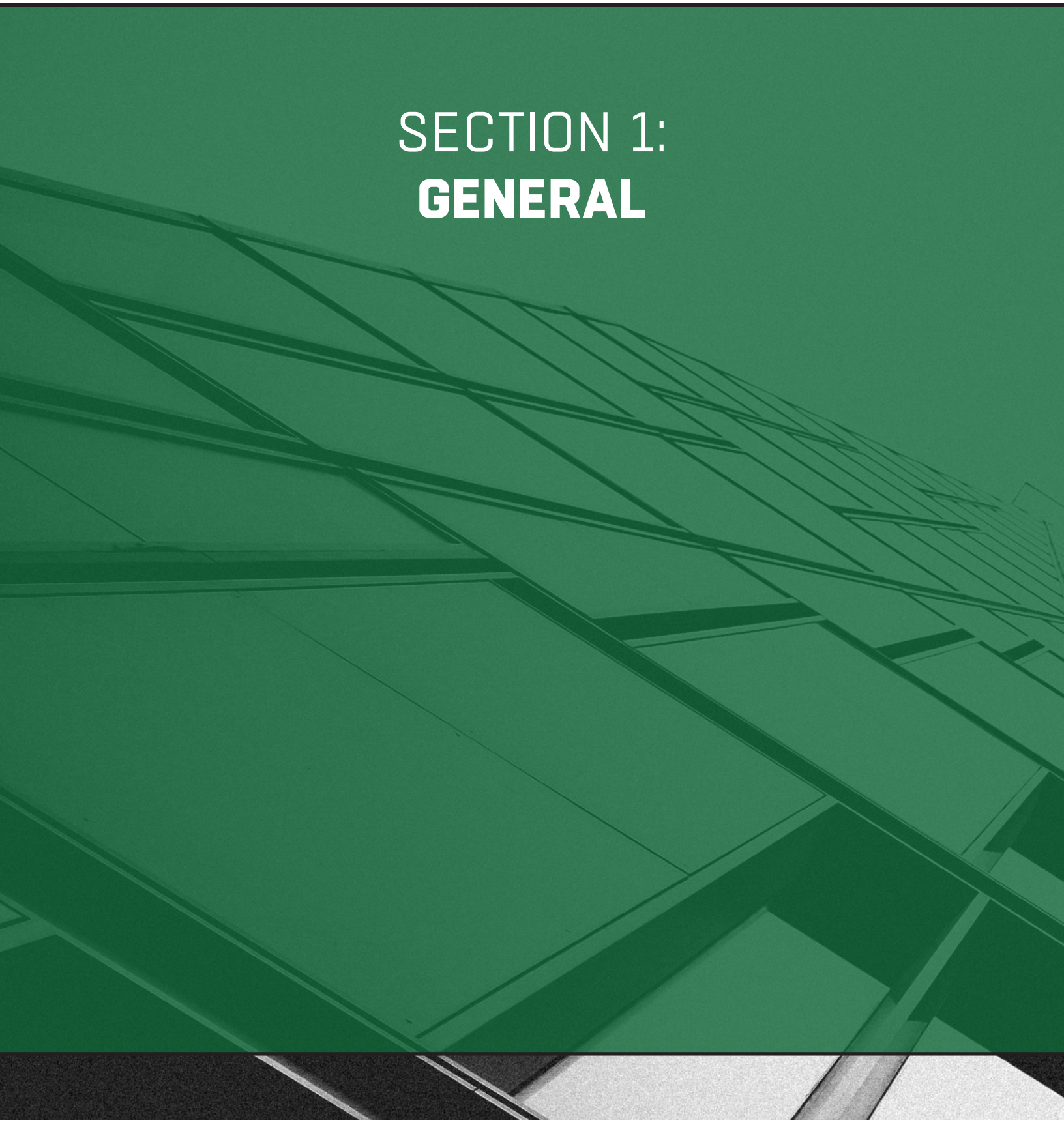
CUSTOM AIR

SECTION 1:
GENERAL



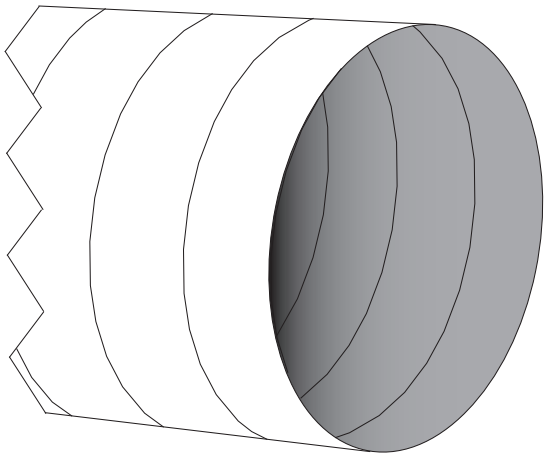
ANTIMICROBIAL SPIRAL DUCT AND FITTINGS

ANTIMICROBIAL COATING AVRON46

The Economic Way to Prevent Mold From Becoming A Problem In Your HVAC System!

Over the last several years, concerns about mold and mildew growth in HVAC systems have increased significantly.

With an active ingredient approved for use by the EPA*, AVRON46 provides superior protection for only a fraction of the cost.



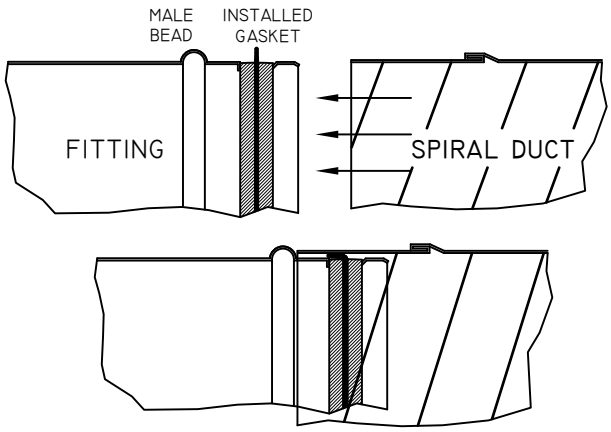
The Gray Coating of AVRON46 can be Factory Applied to the Interior of SEMCO Duct and Fittings to Prevent Mold.

SEMCO Duct & Acoustical Products are available pre-coated with the industry's most affordable solution to effective prevention of mold growth in HVAC systems.

- Available for Round and Oval, Single Wall and Dual Wall products
- Typical application of AVRON46 is to the interior surface.
- Post manufacturing application of AVRON46 assures maximum interior coverage.
- AVRON46 utilizes an EPA* registered active ingredient approved for use in air duct systems.
- AVRON46 does not release any VOC's into the air stream.
- Exterior application of AVRON46 is available upon request.
- Gray pigment provides a natural HVAC duct look.

* - EPA Reg. No. 464-673 EPA EST. No. 37429-GA-2

VELOCITY®
GASKETED JOINT SYSTEM



SINGLE WALL ▯	SP GAUGE	FITTING GAUGE	SPIRAL DUCT STD. LENGTH
4" - 14"	26	24	10'-0"
15" - 24"	24	22	10'-0"

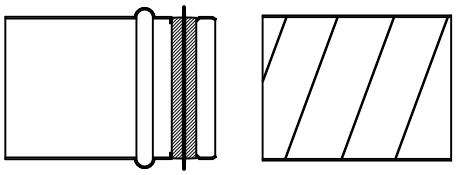
1" DUAL WALL ▯	SP GAUGE	FITTING GAUGE	SPIRAL DUCT STD. LENGTH
3" - 12" I.D.	26	24	10'-0"
13" - 22" I.D.	24	22	10'-0"

GASKET FITTING TO DUCT
MALE TO FEMALE

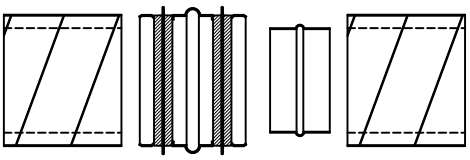
VELOCITY DUCT GASKET CONNECTION

GASKET FITTING TO DUCT
FEMALE TO FEMALE

VELOCITY DUCT GASKET CONNECTION



SINGLE WALL CONNECTION

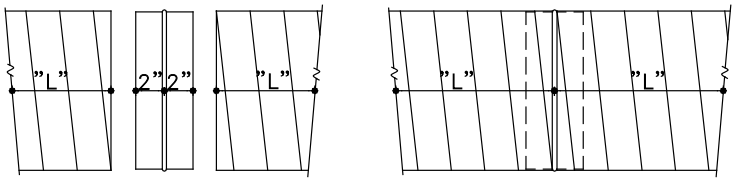
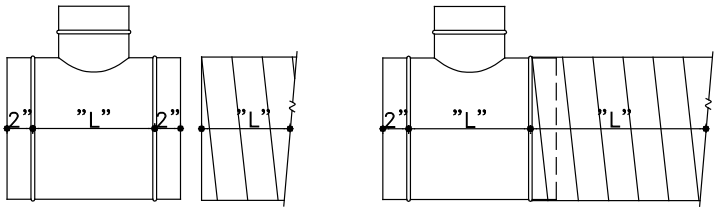
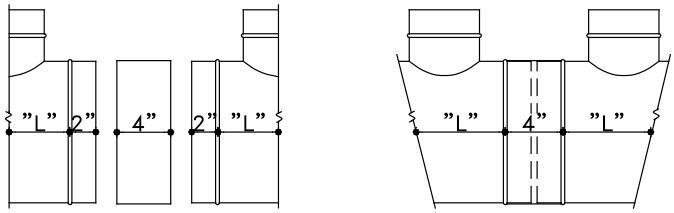
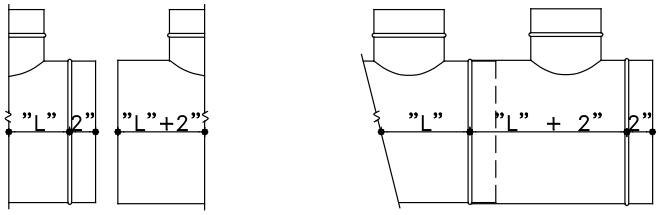


1" DUAL WALL CONNECTION

VELOCITY GASKET JOINTS ARE AVAILABLE ON STANDARD SINGLE WALL AND 1" DUAL WALL DUCT GALVANIZED STEEL IN DIAMETERS 4" THROUGH 24" OD

THE VELOCITY GASKET HAS BEEN INDEPENDENTLY TESTED AND APPROVED IN ACCORDANCE WITH ASTM E84-00A / NFPA 255 / NFPA 90A.

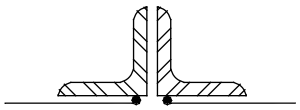
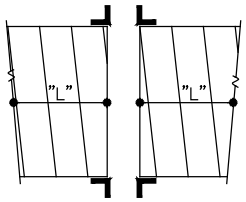
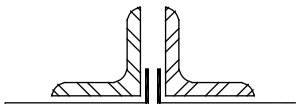
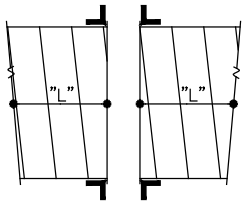
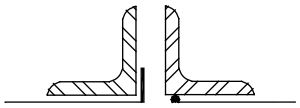
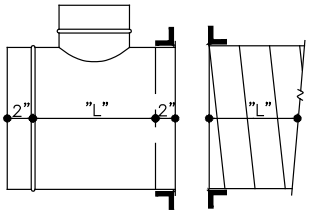
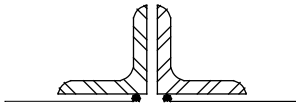
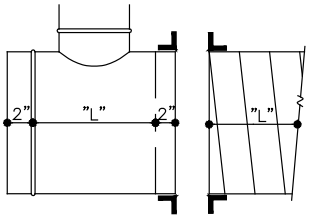
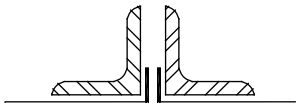
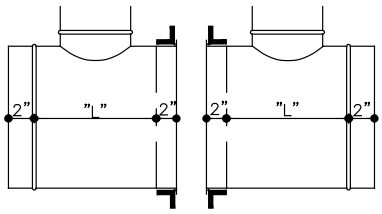
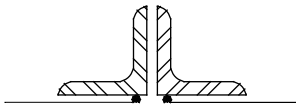
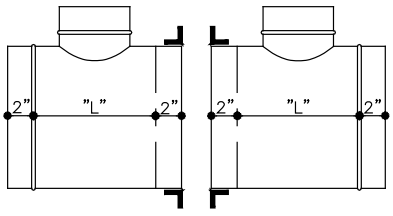
SLIP CONNECTIONS
SINGLE WALL ROUND AND OVAL

Duct to Duct Male Coupling 	
Fitting to Duct Male to Female 	
Fitting to Fitting Female Coupling 	
Fitting to Fitting Male to Female 	

A Solid Welded companion angle joint, ASW, consists of an angle ring solid welded to the sheet metal duct on the interior of the ring. Use of an ASW on both sides of a joint requires special alignment of bolt holes during fabrication.

A Vanstone companion angle joint, AVS, consists of a loose angle ring behind a turned up flange on the end of the sheet metal duct. The angle ring is tacked to the duct for shipment and is broken loose in the field for alignment of bolt holes.

ANGLE RING CONNECTIONS
SINGLE WALL ROUND AND OVAL

Duct to Duct	 **ASW** Solid Weld — Standard for Round, Standard for Oval **ASW** Solid Weld — Standard for Round, Standard for Oval	
	 **AVS** Vanstone — Optional for Round **AVS** Vanstone — Optional for Round	
Fitting to Duct	 **AVS** Vanstone — Standard for Round **ASW** Solid Weld — Standard for Round, Standard for Oval	
	 **ASW** Solid Weld — Optional for Round, Standard for Oval **ASW** Solid Weld — Standard for Round, Standard for Oval	
Fitting to Fitting	 **AVS** Vanstone — Standard for Round **AVS** Vanstone — Standard for Round	
	 **ASW** Solid Weld — Optional for Round, Standard for Oval **ASW** Solid Weld — Optional for Round, Standard for Oval	

Note: Bolts, nuts, and gaskets for all angle ring connections are to be furnished by others. Dimensions shown are face of flange to face of flange and do not include growth allowance for gasket. When both angle ring connections are solid weld, bolt hole orientation dimensions are required for proper alignment, refer to the chart on 1-5 for more information on angle sizes.

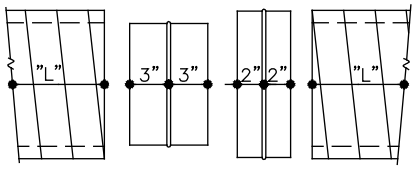
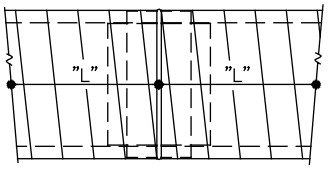
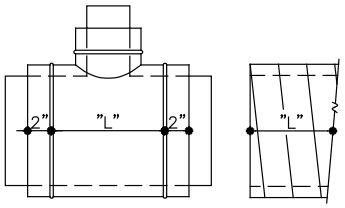
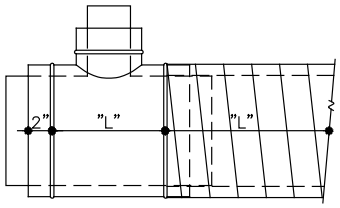
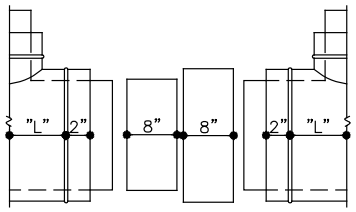
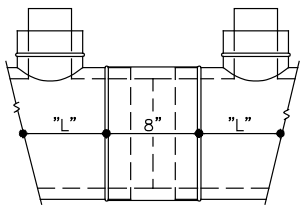
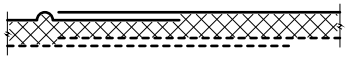
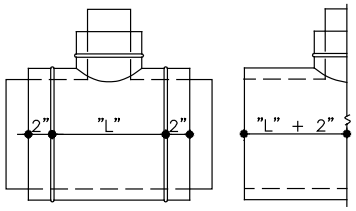
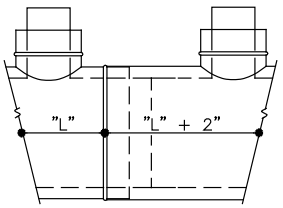
STANDARD ANGLE RINGS

Order Size	Angle Size	Inside Diameter	Bolt Hole Quantity	Bolt Hole Size	Bolt Hole Cirlce	Weight (lbs)
3	7/8 x 1 x 10 gauge	3.062	6	9/32	4.312	0.70
4	15/16 x 1 x 10 gauge	4.062	6	9/32	5.312	0.85
5	1 x 1 x 10 gauge	5.062	6	9/32	6.312	1.20
6	1-1/4 x 1-1/4 x 1/8	6.125	6	3/8	7.312	1.75
7	1-1/4 x 1-1/4 x 1/8	7.125	6	3/8	8.5	2.00
8	1-1/4 x 1-1/4 x 1/8	8.125	6	3/8	9.562	2.25
9	1-1/4 x 1-1/4 x 1/8	9.125	6	3/8	10.625	2.50
10	1-1/4 x 1-1/4 x 1/8	10.125	6	3/8	11.812	2.75
11	1-1/4 x 1-1/4 x 1/8	11.125	6	3/8	12.75	3.00
12	1-1/2 x 1-1/2 x 1/8	12.187	6	7/16	14	4.00
13	1-1/2 x 1-1/2 x 1/8	13.187	8	7/16	15	4.25
14	1-1/2 x 1-1/2 x 1/8	14.187	8	7/16	16	4.75
15	1-1/2 x 1-1/2 x 1/8	15.187	8	7/16	17	5.00
16	1-1/2 x 1-1/2 x 3/16	16.187	8	7/16	18	8.00
17	1-1/2 x 1-1/2 x 3/16	17.187	8	7/16	19	8.25
18	1-1/2 x 1-1/2 x 3/16	18.187	8	7/16	20	8.50
19	1-1/2 x 1-1/2 x 3/16	19.187	8	7/16	20.75	8.75
20	1-1/2 x 1-1/2 x 3/16	20.187	12	7/16	21.75	9.50
21	1-1/2 x 1-1/2 x 3/16	21.187	12	7/16	22.75	10.25
22	1-1/2 x 1-1/2 x 3/16	22.187	12	7/16	23.75	10.75
24	1-1/2 x 1-1/2 x 3/16	24.187	12	7/16	25.875	11.50
26	2 x 2 x 3/16	26.187	16	7/16	28.375	16.50
28	2 x 2 x 3/16	28.187	16	7/16	30.375	18.00
30	2 x 2 x 3/16	30.187	16	7/16	32.375	19.50
32	2 x 2 x 3/16	32.187	16	7/16	34.375	20.00
34	2 x 2 x 3/16	34.187	16	7/16	36.375	22.50
36	2 x 2 x 3/16	36.187	16	7/16	38.375	23.00
38	2 x 2 x 3/16	38.187	24	7/16	40.375	24.50
40	2 x 2 x 3/16	40.187	24	7/16	42.375	25.75
42	2 x 2 x 3/16	42.187	24	7/16	44.375	26.50
44	2 x 2 x 3/16	44.187	24	7/16	46.375	28.00
46	2 x 2 x 3/16	46.187	24	7/16	48.375	29.00
48	2 x 2 x 3/16	48.187	24	7/16	50.375	30.75
50	2 x 2 x 3/16	50.187	24	7/16	52.375	32.00
52	2 x 2 x 3/16	52.187	24	7/16	54.375	33.75
54	2 x 2 x 3/16	54.187	24	7/16	56.375	35.00
56	2 x 2 x 3/16	56.187	24	7/16	58.375	36.25
58	2 x 2 x 3/16	58.187	24	7/16	60.375	37.50
60	2 x 2 x 3/16	60.187	24	7/16	62.375	38.75
62	2 x 2 x 3/16	62.187	24	7/16	64.375	40.00
64	2 x 2 x 3/16	64.187	24	7/16	66.375	41.50
66	2 x 2 x 3/16	66.187	24	7/16	68.375	42.75
68	2 x 2 x 3/16	68.187	24	7/16	70.375	44.00
70	2 x 2 x 3/16	70.187	24	7/16	72.375	45.25
72	2 x 2 x 3/16	72.187	24	7/16	74.375	46.50

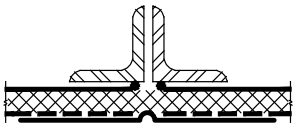
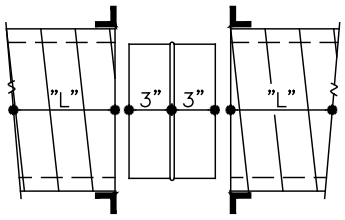
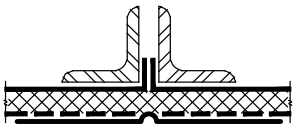
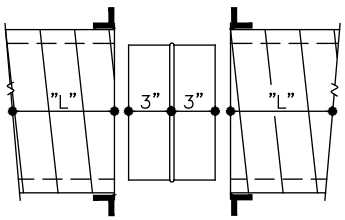
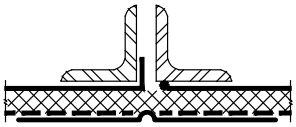
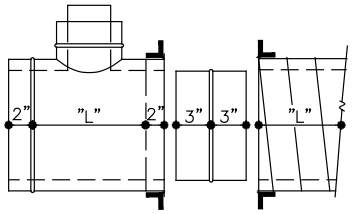
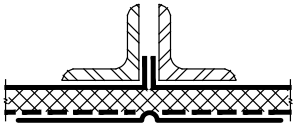
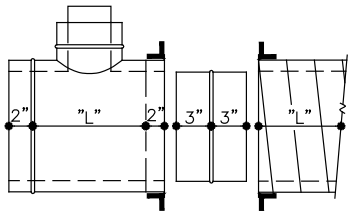
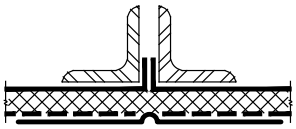
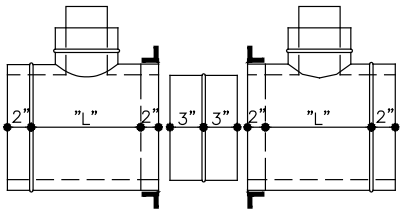
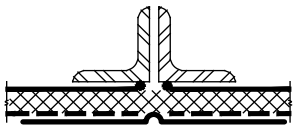
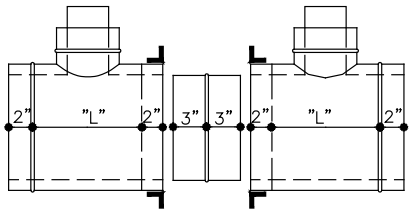
* The angle sizes shown in the chart are the minimum sizes used. Actual sizes used may be larger. I.D., hole size, and bolt hole circle dimensions may vary.

** Most bolt holes ore oval (7/16" x 5/8").

SLIP CONNECTIONS
DUAL WALL ROUND AND OVAL

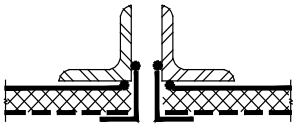
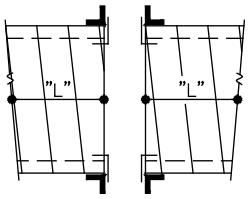
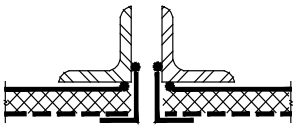
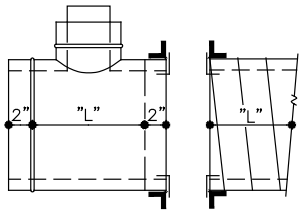
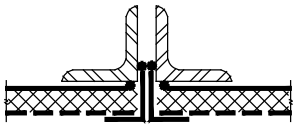
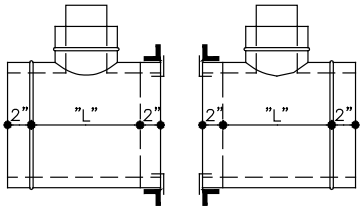
Duct to Duct Male Coupling 		
Fitting to Duct Male to Female 		
Fitting to Fitting Female Coupling 		
Fitting to Fitting Male to Female 		

ANGLE RING CONNECTIONS
DUAL WALL ROUND

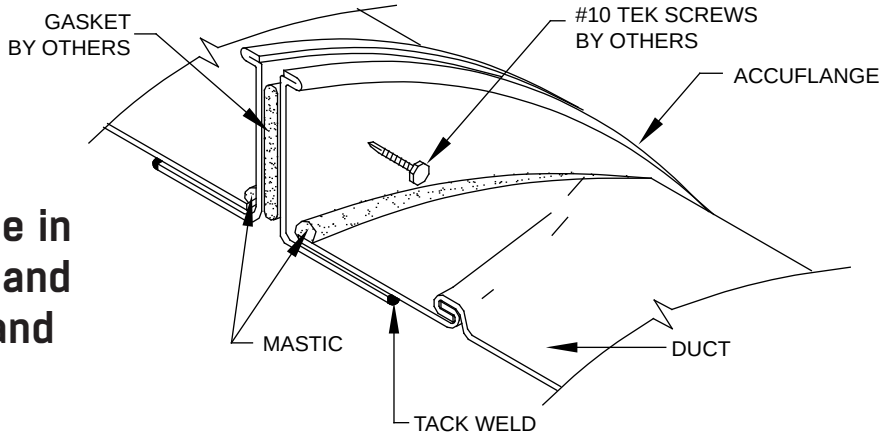
Duct to Duct with Liner Coupling	 **ASW** Solid Weld Standard for Round **ASW** Solid Weld Standard for Round	
	 **AVS** Vanstone Optional for Round **AVS** Vanstone Optional for Round	
Fitting to Duct with Liner Coupling	 **AVS** Vanstone Standard for Round **ASW** Solid Weld Standard for Round	
	 **AVS** Vanstone Standard for Round **AVS** Vanstone Optional for Round	
Fitting to Fitting with Liner Coupling	 **AVS** Vanstone Standard for Round **AVS** Vanstone Standard for Round	
	 **ASW** Solid Weld Optional for Round **ASW** Solid Weld Optional for Round	

Note: Bolts, nuts, and gaskets for all angle ring connections are to be furnished by others. Dimensions shown are face of flange to face of flange and do not include growth allowance for gasket. When both angle ring connections are solid weld, bolt hole orientation dimensions are required for proper alignment, refer to the chart on 1-5 for more information on angle sizes.

ANGLE RING CONNECTIONS
DUAL WALL OVAL

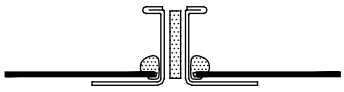
Duct to Duct with Flat Span Liner Support	 **ASW** Solid Weld Standard for Oval **ASW** Solid Weld Standard for Oval	
Fitting to Duct with Flat Span Liner Support	 **ASW** Solid Weld Standard for Oval **ASW** Solid Weld Standard for Oval	
Fitting to Fitting with Flat Span Liner Support	 **ASW** Solid Weld Standard for Oval **ASW** Solid Weld Standard for Oval	

ACCUFLANGE™ END CONNECTIONS

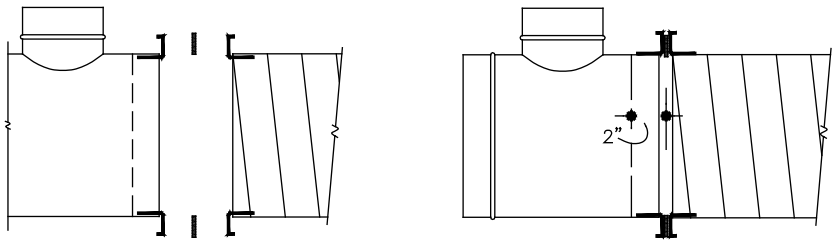


AccuFlange is Available in Galvanized, Stainless, and Aluminum on Round and Oval Spiral Duct

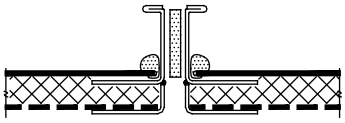
Single Wall Connection



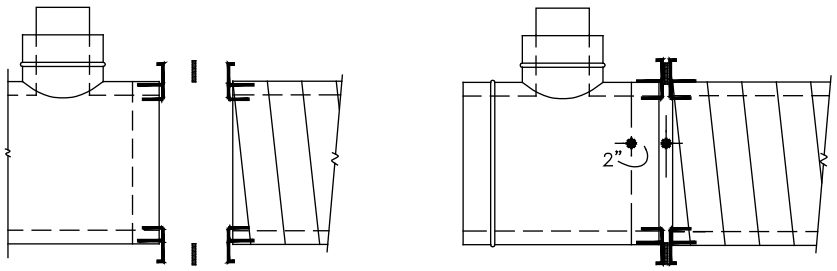
ACF ACF
AccuFlange Connection



Dual Wall Connection
with Sealed Off Insulation

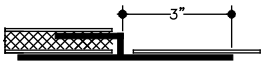
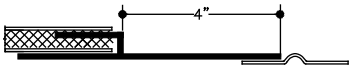
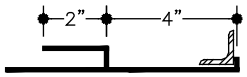
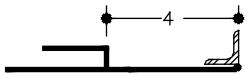
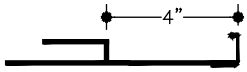
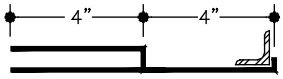
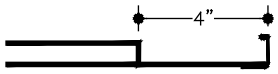


ACF ACF
AccuFlange Connection

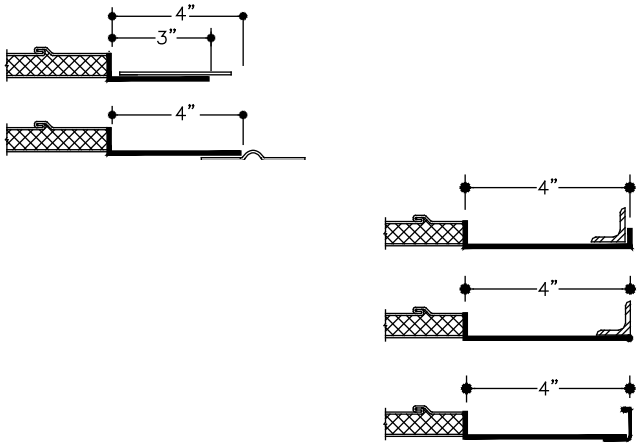
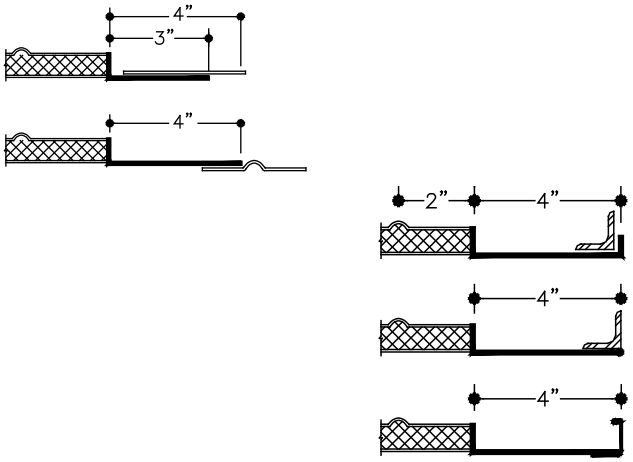


Note: AccuFlange requires a minimum of 5"ø for round duct and 5"ø (minor) for oval duct. Screws and gaskets for AccuFlange connections are to be furnished by others. AccuFlange is a registered trademark of Spinfinity.

DUAL TO SINGLE WALL ADAPTORS

Dual Wall End	Single Wall End	Product Code	
Male	Male	DSA-MM	
	Female	DSA-MF	
	Vanstone Angle Ring	DSA-MV	
	Solid Weld Angle Ring	DSA-MS	
	Accu-Flange	DSA-MC	
Female	Male	DSA-FM	
	Female	DSA-FF	
	Vanstone Angle Ring	DSA-FV	
	Solid Weld Angle Ring	DSA-FS	
	Accu-Flange	DSA-FC	

DUAL TO SINGLE WALL ADAPTORS

Dual Wall End	Single Wall End	Product Code	
Installed on Duct	Male	DSA-M	
	Female	DSA-F	
	Vanstone Angle Ring	DSA-V	
	Solid Weld Angle Ring	DSA-S	
	Accu-Flange	DSA-C	
Installed on Fitting	Male	DSA-M	
	Female	DSA-F	
	Vanstone Angle Ring	DSA-V	
	Solid Weld Angle Ring	DSA-S	
	Accu-Flange	DSA-C	

RECTANGLE TO ROUND CONVERSION CHART

	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	26	28	30	32
4	4.4	4.9	5.3	5.7	6.1	6.4	6.7	7.0	7.3	7.6	7.8	8.0	8.3	8.5	8.7	8.9	9.1	9.3	9.5	9.6	9.8	10.1	10.4	10.7	11.0
5	4.9	5.5	6.0	6.4	6.9	7.3	7.6	8.0	8.3	8.6	8.9	9.1	9.4	9.6	9.9	10.1	10.3	10.6	10.8	11.0	11.2	11.5	11.9	12.2	12.6
6	5.3	6.0	6.6	7.1	7.6	8.0	8.4	8.8	9.1	9.5	9.8	10.1	10.4	10.7	11.0	11.2	11.5	11.7	12.0	12.2	12.4	12.8	13.2	13.6	14.0
7	5.7	6.4	7.1	7.7	8.2	8.7	9.1	9.5	9.9	10.3	10.7	11.0	11.3	11.6	11.9	12.2	12.5	12.8	13.0	13.3	13.6	14.0	14.5	14.9	15.3
8	6.1	6.9	7.6	8.2	8.7	9.3	9.8	10.2	10.7	11.1	11.5	11.8	12.2	12.5	12.9	13.2	13.5	13.8	14.1	14.3	14.6	15.1	15.6	16.1	16.5
9	6.4	7.3	8.0	8.7	9.3	9.8	10.4	10.9	11.3	11.8	12.2	12.6	13.0	13.4	13.7	14.1	14.4	14.7	15.0	15.3	15.6	16.2	16.7	17.2	17.7
10	6.7	7.6	8.4	9.1	9.8	10.4	10.9	11.5	12.0	12.4	12.9	13.3	13.7	14.1	14.5	14.9	15.2	15.6	15.9	16.2	16.5	17.1	17.7	18.3	18.8
11	7.0	8.0	8.8	9.5	10.2	10.9	11.5	12.0	12.6	13.1	13.5	14.0	14.4	14.9	15.3	15.7	16.0	16.4	16.8	17.1	17.4	18.1	18.7	19.3	19.8
12	7.3	8.3	9.1	9.9	10.7	11.3	12.0	12.6	13.1	13.7	14.2	14.6	15.1	15.6	16.0	16.4	16.8	17.2	17.6	17.9	18.3	19.0	19.6	20.2	20.8
13	7.6	8.6	9.5	10.3	11.1	11.8	12.4	13.1	13.7	14.2	14.7	15.3	15.7	16.2	16.7	17.1	17.5	17.9	18.3	18.7	19.1	19.8	20.5	21.1	21.8
14	7.8	8.9	9.8	10.7	11.5	12.2	12.9	13.5	14.2	14.7	15.3	15.8	16.4	16.8	17.3	17.8	18.2	18.6	19.1	19.5	19.9	20.6	21.3	22.0	22.7
15	8.0	9.1	10.1	11.0	11.8	12.6	13.3	14.0	14.6	15.3	15.8	16.4	16.9	17.4	17.9	18.4	18.9	19.3	19.8	20.2	20.6	21.4	22.1	22.9	23.5
16	8.3	9.4	10.4	11.3	12.2	13.0	13.7	14.4	15.1	15.7	16.4	16.9	17.5	18.0	18.5	19.0	19.5	20.0	20.4	20.9	21.3	22.1	22.9	23.7	24.4
17	8.5	9.6	10.7	11.6	12.5	13.4	14.1	14.9	15.6	16.2	16.8	17.4	18.0	18.6	19.1	19.6	20.1	20.6	21.1	21.6	22.0	22.9	23.7	24.4	25.2
18	8.7	9.9	11.0	11.9	12.9	13.7	14.5	15.3	16.0	16.7	17.3	17.9	18.5	19.1	19.7	20.2	20.7	21.2	21.7	22.2	22.7	23.6	24.4	25.2	26.0
19	8.9	10.1	11.2	12.2	13.2	14.1	14.9	15.7	16.4	17.1	17.8	18.4	19.0	19.6	20.2	20.8	21.3	21.8	22.3	22.8	23.3	24.2	25.1	25.9	26.7
20	9.1	10.3	11.5	12.5	13.5	14.4	15.2	16.0	16.8	17.5	18.2	18.9	19.5	20.1	20.7	21.3	21.9	22.4	22.9	23.4	23.9	24.9	25.8	26.6	27.5
21	9.3	10.6	11.7	12.8	13.8	14.7	15.6	16.4	17.2	17.9	18.6	19.3	20.0	20.6	21.2	21.8	22.4	23.0	23.5	24.0	24.5	25.5	26.4	27.3	28.2
22	9.5	10.8	12.0	13.0	14.1	15.0	15.9	16.8	17.6	18.3	19.1	19.8	20.4	21.1	21.7	22.3	22.9	23.5	24.1	24.6	25.1	26.1	27.1	28.0	28.9
23	9.6	11.0	12.2	13.3	14.3	15.3	16.2	17.1	17.9	18.7	19.5	20.2	20.9	21.6	22.2	22.8	23.4	24.0	24.6	25.1	25.7	26.7	27.7	28.7	29.6
24	9.8	11.2	12.4	13.6	14.6	15.6	16.5	17.4	18.3	19.1	19.9	20.6	21.3	22.0	22.7	23.3	23.9	24.5	25.1	25.7	26.2	27.3	28.3	29.3	30.2
26	10.1	11.5	12.8	14.0	15.1	16.2	17.1	18.1	19.0	19.8	20.6	21.4	22.1	22.9	23.6	24.2	24.9	25.5	26.1	26.7	27.3	28.4	29.5	30.5	31.5
28	10.4	11.9	13.2	14.5	15.6	16.7	17.7	18.7	19.6	20.5	21.3	22.1	22.9	23.7	24.4	25.1	25.8	26.4	27.1	27.7	28.3	29.5	30.6	31.7	32.7
30	10.7	12.2	13.6	14.9	16.1	17.2	18.3	19.3	20.2	21.1	22.0	22.9	23.7	24.4	25.2	25.9	26.6	27.3	28.0	28.7	29.3	30.5	31.7	32.8	33.9
32	11.0	12.6	14.0	15.3	16.5	17.7	18.8	19.8	20.8	21.8	22.7	23.5	24.4	25.2	26.0	26.7	27.5	28.2	28.9	29.6	30.2	31.5	32.7	33.9	35.0
34	11.3	12.9	14.4	15.7	17.0	18.2	19.3	20.4	21.4	22.4	23.3	24.2	25.1	25.9	26.7	27.5	28.3	29.0	29.7	30.4	31.1	32.4	33.7	34.9	36.1
36	11.5	13.2	14.7	16.1	17.4	18.6	19.8	20.9	21.9	22.9	23.9	24.8	25.7	26.6	27.4	28.2	29.0	29.8	30.5	31.3	32.0	33.3	34.6	35.9	37.1
38	11.8	13.5	15.0	16.5	17.8	19.0	20.2	21.4	22.4	23.5	24.5	25.4	26.4	27.2	28.1	28.9	29.8	30.5	31.3	32.1	32.8	34.2	35.6	36.8	38.1
40	12.0	13.8	15.3	16.8	18.2	19.5	20.7	21.8	22.9	24.0	25.0	26.0	27.0	27.9	28.8	29.6	30.5	31.3	32.1	32.8	33.6	35.1	36.4	37.8	39.1
42	12.3	14.0	15.7	17.1	18.5	19.9	21.1	22.3	23.4	24.5	25.6	26.6	27.6	28.5	29.4	30.3	31.2	32.0	32.8	33.6	34.4	35.9	37.3	38.7	40.0
44	12.5	14.3	15.9	17.5	18.9	20.3	21.5	22.7	23.9	25.0	26.1	27.1	28.1	29.1	30.0	30.9	31.8	32.7	33.5	34.3	35.1	36.7	38.1	39.5	40.9
46	12.7	14.6	16.2	17.8	19.3	20.6	21.9	23.2	24.4	25.5	26.6	27.7	28.7	29.7	30.6	31.6	32.5	33.3	34.2	35.0	35.9	37.4	38.9	40.4	41.8
48	12.9	14.8	16.5	18.1	19.6	21.0	22.3	23.6	24.8	26.0	27.1	28.2	29.2	30.2	31.2	32.2	33.1	34.0	34.9	35.7	36.6	38.2	39.7	41.2	42.6
50	13.2	15.1	16.8	18.4	19.9	21.4	22.7	24.0	25.2	26.4	27.6	28.7	29.8	30.8	31.8	32.8	33.7	34.6	35.5	36.4	37.3	38.9	40.5	42.0	43.5
52	13.4	15.3	17.1	18.7	20.2	21.7	23.1	24.4	25.7	26.9	28.0	29.2	30.3	31.3	32.3	33.3	34.3	35.2	36.2	37.0	37.9	39.6	41.2	42.8	44.3
54	13.6	15.5	17.3	19.0	20.6	22.0	23.5	24.8	26.1	27.3	28.5	29.7	30.8	31.8	32.9	33.9	34.9	35.8	36.8	37.7	38.6	40.3	41.9	43.5	45.1
56	13.8	15.7	17.6	19.3	20.9	22.4	23.8	25.2	26.5	27.7	28.9	30.1	31.2	32.3	33.4	34.4	35.4	36.4	37.4	38.3	39.2	41.0	42.7	44.3	45.8
58	13.9	16.0	17.8	19.5	21.2	22.7	24.2	25.5	26.9	28.2	29.4	30.6	31.7	32.8	33.9	35.0	36.0	37.0	38.0	38.9	39.8	41.6	43.3	45.0	46.6
60	14.1	16.2	18.1	19.8	21.5	23.0	24.5	25.9	27.3	28.6	29.8	31.0	32.2	33.3	34.4	35.5	36.5	37.5	38.5	39.5	40.4	42.3	44.0	45.7	47.3
62	14.3	16.4	18.3	20.1	21.7	23.3	24.8	26.3	27.6	29.0	30.2	31.5	32.6	33.8	34.9	36.0	37.1	38.1	39.1	40.1	41.0	42.9	44.7	46.4	48.0
64	14.5	16.6	18.5	20.3	22.0	23.6	25.1	26.6	28.0	29.3	30.6	31.9	33.1	34.3	35.4	36.5	37.6	38.6	39.6	40.6	41.6	43.5	45.3	47.1	48.7
66	14.7	16.8	18.8	20.6	22.3	23.9	25.5	26.9	28.4	29.7	31.0	32.3	33.5	34.7	35.9	37.0	38.1	39.1	40.2	41.2	42.2	44.1	46.0	47.7	49.4
68	14.8	17.0	19.0	20.8	22.6	24.2	25.8	27.3	28.7	30.1	31.4	32.7	33.9	35.2	36.3	37.5	38.6	39.7	40.7	41.7	42.8	44.7	46.6	48.4	50.1
70	15.0	17.2	19.2	21.1	22.8	24.5	26.1	27.6	29.1	30.5	31.8	33.1	34.4	35.6	36.8	37.9	39.1	40.2	41.2	42.3	43.3	45.3	47.2	49.0	50.8
72	15.2	17.4	19.4	21.3	23.1	24.8	26.4	27.9	29.4	30.8	32.2	33.5	34.8	36.0	37.2	38.4	39.5	40.6	41.7	42.8	43.8	45.8	47.8	49.6	51.4
74	15.3	17.6	19.6	21.5	23.3	25.1	26.7	28.2	29.7	31.2	32.5	33.9	35.2	36.4	37.7	38.8	40.0	41.1	42.2	43.3	44.4	46.4	48.4	50.3	52.1
76	15.5	17.8	19.8	21.8	23.6	25.3	27.0	28.5	30.0	31.5	32.9	34.3	35.6	36.8	38.1	39.3	40.5	41.6	42.7	43.8	44.9	47.0	48.9	50.9	52.7
78	15.6	17.9	20.0	22.0	23.8	25.6	27.3	28.8	30.4	31.8	33.3	34.6	36.0	37.2	38.5	39.7	40.9	42.1	43.2	44.3	45.4	47.5	49.5	51.4	53.3
80	15.8	18.1	20.2	22.2	24.1	25.8	27.5	29.1	30.7	32.2	33.6	35.0	36.3	37.6	38.9	40.2	41.4	42.5	43.7	44.8	45.9	48.0	50.1	52.0	53.9

RECTANGLE TO ROUND CONVERSION CHART

1

	34	36	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80
4	11.3	11.5	11.8	12.0	12.3	12.5	12.7	12.9	13.2	13.4	13.6	13.8	13.9	14.1	14.3	14.5	14.7	14.8	15.0	15.2	15.3	15.5	15.6	15.8
5	12.9	13.2	13.5	13.8	14.0	14.3	14.6	14.8	15.1	15.3	15.5	15.7	16.0	16.2	16.4	16.6	16.8	17.0	17.2	17.4	17.6	17.8	17.9	18.1
6	14.4	14.7	15.0	15.3	15.7	15.9	16.2	16.5	16.8	17.1	17.3	17.6	17.8	18.1	18.3	18.5	18.8	19.0	19.2	19.4	19.6	19.8	20.0	20.2
7	15.7	16.1	16.5	16.8	17.1	17.5	17.8	18.1	18.4	18.7	19.0	19.3	19.5	19.8	20.1	20.3	20.6	20.8	21.1	21.3	21.5	21.8	22.0	22.2
8	17.0	17.4	17.8	18.2	18.5	18.9	19.3	19.6	19.9	20.2	20.6	20.9	21.2	21.5	21.7	22.0	22.3	22.6	22.8	23.1	23.3	23.6	23.8	24.1
9	18.2	18.6	19.0	19.5	19.9	20.3	20.6	21.0	21.4	21.7	22.0	22.4	22.7	23.0	23.3	23.6	23.9	24.2	24.5	24.8	25.1	25.3	25.6	25.8
10	19.3	19.8	20.2	20.7	21.1	21.5	21.9	22.3	22.7	23.1	23.5	23.8	24.2	24.5	24.8	25.1	25.5	25.8	26.1	26.4	26.7	27.0	27.3	27.5
11	20.4	20.9	21.4	21.8	22.3	22.7	23.2	23.6	24.0	24.4	24.8	25.2	25.5	25.9	26.3	26.6	26.9	27.3	27.6	27.9	28.2	28.5	28.8	29.1
12	21.4	21.9	22.4	22.9	23.4	23.9	24.4	24.8	25.2	25.7	26.1	26.5	26.9	27.3	27.6	28.0	28.4	28.7	29.1	29.4	29.7	30.0	30.4	30.7
13	22.4	22.9	23.5	24.0	24.5	25.0	25.5	26.0	26.4	26.9	27.3	27.7	28.2	28.6	29.0	29.3	29.7	30.1	30.5	30.8	31.2	31.5	31.8	32.2
14	23.3	23.9	24.5	25.0	25.6	26.1	26.6	27.1	27.6	28.0	28.5	28.9	29.4	29.8	30.2	30.6	31.0	31.4	31.8	32.2	32.5	32.9	33.3	33.6
15	24.2	24.8	25.4	26.0	26.6	27.1	27.7	28.2	28.7	29.2	29.7	30.1	30.6	31.0	31.5	31.9	32.3	32.7	33.1	33.5	33.9	34.3	34.6	35.0
16	25.1	25.7	26.4	27.0	27.6	28.1	28.7	29.2	29.8	30.3	30.8	31.2	31.7	32.2	32.6	33.1	33.5	33.9	34.4	34.8	35.2	35.6	36.0	36.3
17	25.9	26.6	27.2	27.9	28.5	29.1	29.7	30.2	30.8	31.3	31.8	32.3	32.8	33.3	33.8	34.3	34.7	35.2	35.6	36.0	36.4	36.8	37.2	37.6
18	26.7	27.4	28.1	28.8	29.4	30.0	30.6	31.2	31.8	32.3	32.9	33.4	33.9	34.4	34.9	35.4	35.9	36.3	36.8	37.2	37.7	38.1	38.5	38.9
19	27.5	28.2	28.9	29.6	30.3	30.9	31.6	32.2	32.8	33.3	33.9	34.4	35.0	35.5	36.0	36.5	37.0	37.5	37.9	38.4	38.8	39.3	39.7	40.2
20	28.3	29.0	29.8	30.5	31.2	31.8	32.5	33.1	33.7	34.3	34.9	35.4	36.0	36.5	37.1	37.6	38.1	38.6	39.1	39.5	40.0	40.5	40.9	41.4
21	29.0	29.8	30.5	31.3	32.0	32.7	33.3	34.0	34.6	35.2	35.8	36.4	37.0	37.5	38.1	38.6	39.1	39.7	40.2	40.6	41.1	41.6	42.1	42.5
22	29.7	30.5	31.3	32.1	32.8	33.5	34.2	34.9	35.5	36.2	36.8	37.4	38.0	38.5	39.1	39.6	40.2	40.7	41.2	41.7	42.2	42.7	43.2	43.7
23	30.4	31.3	32.1	32.8	33.6	34.3	35.0	35.7	36.4	37.0	37.7	38.3	38.9	39.5	40.1	40.6	41.2	41.7	42.3	42.8	43.3	43.8	44.3	44.8
24	31.1	32.0	32.8	33.6	34.4	35.1	35.9	36.6	37.3	37.9	38.6	39.2	39.8	40.4	41.0	41.6	42.2	42.8	43.3	43.8	44.4	44.9	45.4	45.9
26	32.4	33.3	34.2	35.1	35.9	36.7	37.4	38.2	38.9	39.6	40.3	41.0	41.6	42.3	42.9	43.5	44.1	44.7	45.3	45.8	46.4	47.0	47.5	48.0
28	33.7	34.6	35.6	36.4	37.3	38.1	38.9	39.7	40.5	41.2	41.9	42.7	43.3	44.0	44.7	45.3	46.0	46.6	47.2	47.8	48.4	48.9	49.5	50.1
30	34.9	35.9	36.8	37.8	38.7	39.5	40.4	41.2	42.0	42.8	43.5	44.3	45.0	45.7	46.4	47.1	47.7	48.4	49.0	49.6	50.3	50.9	51.4	52.0
32	36.1	37.1	38.1	39.1	40.0	40.9	41.8	42.6	43.5	44.3	45.1	45.8	46.6	47.3	48.0	48.7	49.4	50.1	50.8	51.4	52.1	52.7	53.3	53.9
34	37.2	38.2	39.3	40.3	41.3	42.2	43.1	44.0	44.9	45.7	46.5	47.3	48.1	48.9	49.6	50.4	51.1	51.8	52.5	53.2	53.8	54.5	55.1	55.8
36	38.2	39.4	40.4	41.5	42.5	43.5	44.4	45.3	46.2	47.1	48.0	48.8	49.6	50.4	51.2	51.9	52.7	53.4	54.1	54.8	55.5	56.2	56.9	57.5
38	39.3	40.4	41.5	42.6	43.7	44.7	45.7	46.6	47.5	48.4	49.3	50.2	51.0	51.9	52.7	53.5	54.2	55.0	55.7	56.5	57.2	57.9	58.6	59.3
40	40.3	41.5	42.6	43.7	44.8	45.8	46.9	47.9	48.8	49.8	50.7	51.6	52.4	53.3	54.1	54.9	55.7	56.5	57.3	58.0	58.8	59.5	60.2	60.9
42	41.3	42.5	43.7	44.8	45.9	47.0	48.0	49.1	50.0	51.0	52.0	52.9	53.8	54.7	55.5	56.4	57.2	58.0	58.8	59.6	60.3	61.1	61.8	62.6
44	42.2	43.5	44.7	45.8	47.0	48.1	49.2	50.2	51.2	52.2	53.2	54.2	55.1	56.0	56.9	57.8	58.6	59.4	60.3	61.1	61.9	62.6	63.4	64.1
46	43.1	44.4	45.7	46.9	48.0	49.2	50.3	51.4	52.4	53.4	54.4	55.4	56.4	57.3	58.2	59.1	60.0	60.9	61.7	62.5	63.3	64.1	64.9	65.7
48	44.0	45.3	46.6	47.9	49.1	50.2	51.4	52.5	53.6	54.6	55.6	56.6	57.6	58.6	59.5	60.4	61.3	62.2	63.1	63.9	64.8	65.6	66.4	67.2
50	44.9	46.2	47.5	48.8	50.0	51.2	52.4	53.6	54.7	55.7	56.8	57.8	58.8	59.8	60.8	61.7	62.6	63.6	64.4	65.3	66.2	67.0	67.9	68.7
52	45.7	47.1	48.4	49.8	51.0	52.2	53.4	54.6	55.7	56.8	57.9	59.0	60.0	61.0	62.0	63.0	63.9	64.9	65.8	66.7	67.6	68.4	69.3	70.1
54	46.5	48.0	49.3	50.7	52.0	53.2	54.4	55.6	56.8	57.9	59.0	60.1	61.2	62.2	63.2	64.2	65.2	66.1	67.1	68.0	68.9	69.8	70.6	71.5
56	47.3	48.8	50.2	51.6	52.9	54.2	55.4	56.6	57.8	59.0	60.1	61.2	62.3	63.4	64.4	65.4	66.4	67.4	68.3	69.3	70.2	71.1	72.0	72.9
58	48.1	49.6	51.0	52.4	53.8	55.1	56.4	57.6	58.8	60.0	61.2	62.3	63.4	64.5	65.5	66.6	67.6	68.6	69.6	70.5	71.5	72.4	73.3	74.2
60	48.9	50.4	51.9	53.3	54.7	56.0	57.3	58.6	59.8	61.0	62.2	63.4	64.5	65.6	66.7	67.7	68.8	69.8	70.8	71.8	72.7	73.7	74.6	75.5
62	49.6	51.2	52.7	54.1	55.5	56.9	58.2	59.5	60.8	62.0	63.2	64.4	65.5	66.7	67.8	68.9	69.9	71.0	72.0	73.0	74.0	74.9	75.9	76.8
64	50.4	51.9	53.5	54.9	56.4	57.8	59.1	60.4	61.7	63.0	64.2	65.4	66.6	67.7	68.9	70.0	71.0	72.1	73.2	74.2	75.2	76.2	77.1	78.1
66	51.1	52.7	54.2	55.7	57.2	58.6	60.0	61.3	62.6	63.9	65.2	66.4	67.6	68.8	69.9	71.0	72.1	73.2	74.3	75.3	76.4	77.4	78.4	79.3
68	51.8	53.4	55.0	56.5	58.0	59.4	60.9	62.2	63.6	64.9	66.1	67.4	68.6	69.8	71.0	72.1	73.2	74.3	75.4	76.5	77.5	78.6	79.6	80.6
70	52.5	54.1	55.7	57.3	58.8	60.3	61.7	63.1	64.4	65.8	67.1	68.3	69.6	70.8	72.0	73.2	74.3	75.4	76.5	77.6	78.7	79.7	80.7	81.8
72	53.2	54.8	56.5	58.0	59.6	61.1	62.5	63.9	65.3	66.7	68.0	69.3	70.5	71.8	73.0	74.2	75.3	76.5	77.6	78.7	79.8	80.9	81.9	82.9
74	53.8	55.5	57.2	58.8	60.3	61.9	63.3	64.8	66.2	67.6	68.9	70.2	71.5	72.7	74.0	75.2	76.4	77.5	78.7	79.8	80.9	82.0	83.0	84.1
76	54.5	56.2	57.9	59.5	61.1	62.6	64.1	65.6	67.0	68.4	69.8	71.1	72.4	73.7	74.9	76.2	77.4	78.6	79.7	80.9	82.0	83.1	84.2	85.2
78	55.1	56.9	58.6	60.2	61.8	63.4	64.9	66.4	67.9	69.3	70.6	72.0	73.3	74.6	75.9	77.1	78.4	79.6	80.7	81.9	83.0	84.2	85.3	86.4
80	55.8	57.5	59.3	60.9	62.6	64.1	65.7	67.2	68.7	70.1	71.5	72.9	74.2	75.5	76.8	78.1	79.3	80.6	81.8	82.9	84.1	85.2	86.4	87.5

COMPUTER UTILITIES

Rectangle to Round and Oval Conversion Calculator

MicroLink™ Rectangular to Round and Oval Conversion Calculator is designed to aid in the conversion of rectangular HVAC layouts to round and oval duct and fittings. Enter the rectangular size shown on the drawings and it will calculate the equivalent round diameter and list our recommended round diameter and oval major/minor. The History button will give you a printable listing of all sizes calculated during the current session. When you start up your next session, you will be prompted to clear the history for the last session.

The calculator is available for download from our website at www.semcoinc.com. Go to the Duct section from home page and look on the left hand column for Utilities to find the link to download the "Rectangle to Round Calculator". For assistance or to request a copy on CD, contact your local sales representative or SEMCO LLC directly.

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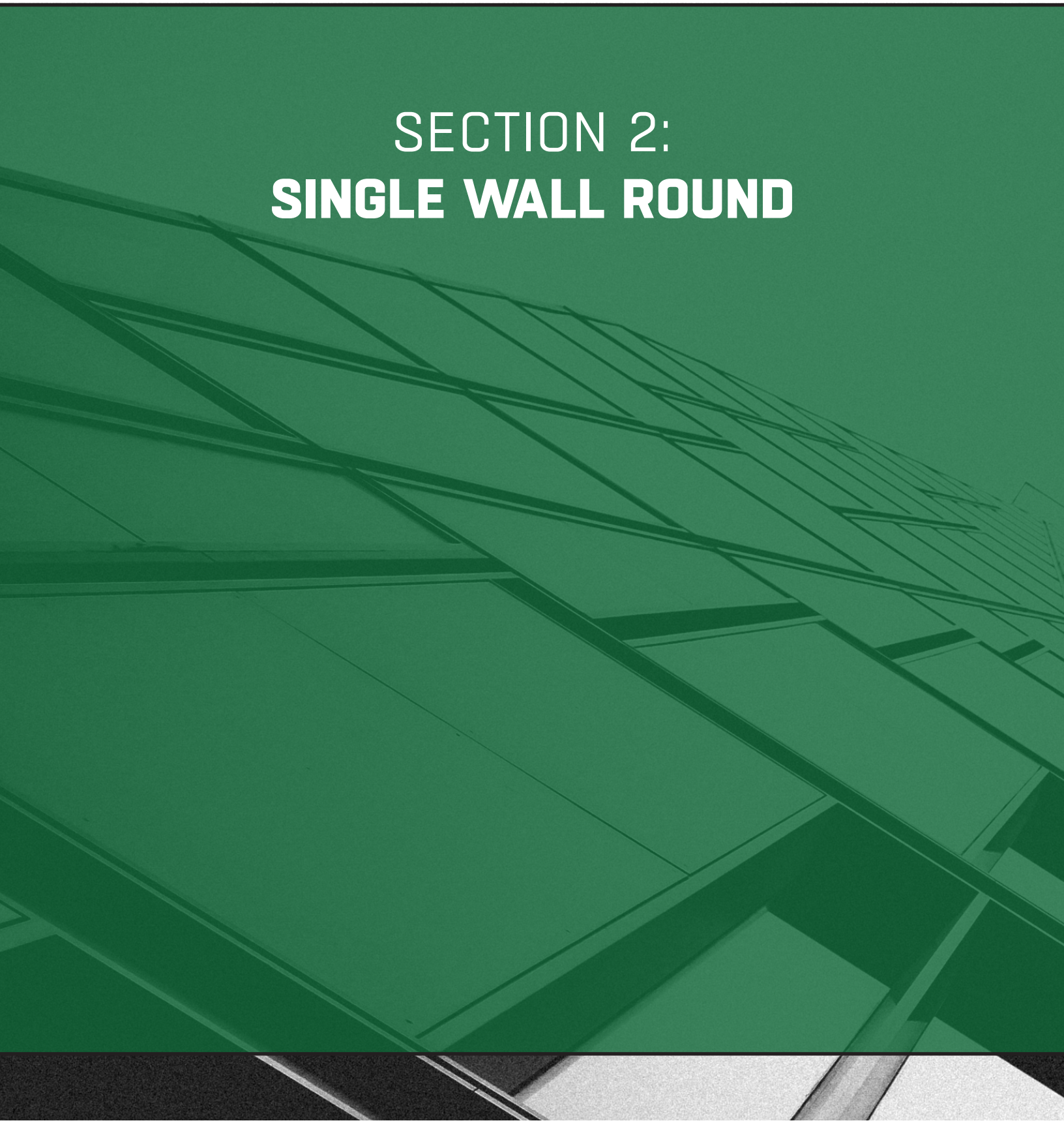
SECTION 2:
SINGLE WALL ROUND



GAUGE & CONSTRUCTION CHART

Construction Standard 0 to 10"wg. Positive Pressure				
Nominal Diameter	Galv. Spiral Duct Ga.	Galv. Fitting Ga.	Spiral Duct Wt. (lb/ft)	Spiral Duct Std. Lgth. (ft)
3	26	26	0.73	10
4	26	26	1.02	10
5	26	26	1.31	10
6	26	26	1.59	10
7	26	26	1.87	10
8	26	26	2.15	10
9	26	26	2.42	10
10	26	26	2.7	10
11	26	26	2.98	10
12	26	26	3.25	10
13	26	26	3.53	10
14	26	26	3.8	10
15	26	24	4.07	10
16	26	24	4.35	10
17	26	24	4.62	10
18	26	24	4.9	10
19	26	24	5.17	10
20	26	24	5.44	10
21	26	24	5.72	10
22	26	24	5.99	10
24	26	24	6.54	10
26	24	22	9.04	10
28	24	22	9.74	10
30	24	22	10.43	10
32	24	22	11.13	10
34	24	22	11.83	10
36	24	22	12.53	10
38	24	22	13.22	10
40	24	22	13.92	10
42	24	20	14.62	10
44	22	20	18.63	10
46	22	20	19.47	10
48	22	20	20.32	10
50	22	20	21.17	10
52	22	20	22.02	10
54	22	20	22.86	10
56	22	20	23.72	10
58	22	20	24.56	10
60	22	20	25.41	10
62	22	18	26.25	10
64	22	18	27.1	10
66	22	18	27.95	8
68	20	18	33.92	8
70	20	18	34.91	8
72	20	18	35.91	8
74	20	18	36.92	8
76	20	18	37.91	8
78	20	18	38.91	8

The above gauges and weights are for galvanized steel. Some gauges are not available for special materials. Rolled longitudinal seam duct gauges are the same as shown for fittings. Leakage will not exceed SMACNA Leakage Class 3 when field joints are adequately sealed. Spiral duct sizes larger than 78" diameter may be available, contact SEMCO for application assistance.

GAUGE & CONSTRUCTION CHART: NEGATIVE PRESSURE

S2005N2 Construction Standard 2"wg. Negative Pressure			S2005N4 Construction Standard 4"wg. Negative Pressure			S2005N6 Construction Standard 6"wg. Negative Pressure			S2005N10 Construction Standard 10"wg. Negative Pressure		
Nominal Diameter	Galv. Spiral Duct Ga.	Galv. Fitting Ga.	Nominal Diameter	Galv. Spiral Duct Ga.	Galv. Fitting Ga.	Nominal Diameter	Galv. Spiral Duct Ga.	Galv. Fitting Ga.	Nominal Diameter	Galv. Spiral Duct Ga.	Galv. Fitting Ga.
3	26	26	3	26	26	3	26	26	3	26	26
4	26	26	4	26	26	4	26	26	4	26	26
5	26	26	5	26	26	5	26	26	5	26	26
6	26	26	6	26	26	6	26	26	6	26	26
7	26	26	7	26	26	7	26	26	7	26	24
8	26	26	8	26	26	8	26	26	8	26	24
9	26	26	9	26	26	9	26	24	9	26	24
10	26	26	10	26	26	10	26	24	10	26	24
11	26	26	11	26	24	11	24	24	11	24	22
12	26	26	12	26	24	12	24	24	12	24	22
13	26	24	13	24	22	13	24	22	13	22	20
14	26	24	14	24	22	14	24	22	14	22	20
15	26	24	15	24	22	15	22	20	15	22	18
16	26	24	16	24	22	16	22	20	16	22	18
17	24	22	17	22	20	17	22	20	17	20	18
18	24	22	18	22	20	18	22	20	18	20	18
19	24	22	19	22	20	19	20	18	19	18	18
20	24	22	20	22	20	20	20	18	20	18	18
21	22	22	21	20	18	21	20	18	21	18	16
22	22	22	22	20	18	22	20	18	22	18	16
24	22	20	24	20	18	24	18	18	24	18	16
26	20	18	26	18	16	26	18	16	26	16	18*
28	20	18	28	18	16	28	18	16	28	16	18*
30	20	18	30	18	16	30	18	16	30	16	18*
32	18	16	32	16	20*	32	16	18*	32	18*	16*
34	18	16	34	16	20*	34	16	18*	34	18*	16*
36	18	16	36	16	20*	36	16	18*	36	18*	16*
38	18	16	38	16	18*	38	20*	18*	38	18*	16*
40	18	16	40	16	18*	40	20*	18*	40	18*	16*
42	18	16	42	16	18*	42	20*	18*	42	18*	16*
44	16	20*	44	20*	18*	44	18*	16*	44	18*	16**
46	16	20*	46	20*	18*	46	18*	16*	46	18*	16**
48	16	20*	48	20*	18*	48	18*	16*	48	18*	16**
50	16	20*	50	20*	18*	50	18*	16*	50	18*	16**
52	16	20*	52	20*	18*	52	18*	16*	52	18*	16**
54	16	20*	54	20*	18*	54	18*	16*	54	18*	16**
56	22*	20*	56	20*	18*	56	18*	16*	56	16*	16**
58	22*	20*	58	20*	18*	58	18*	16*	58	16*	16**
60	22*	20*	60	20*	18*	60	18*	16*	60	16*	16**
62	22*	18*	62	18*	16*	62	18*	16*	62	16*	16***
64	22*	18*	64	18*	16*	64	18*	16*	64	16*	16***
66	22*	18*	66	18*	16*	66	18*	16**	66	16*	16***
68	20*	18*	68	18*	16*	68	18*	16**	68	16*	16***
70	20*	18*	70	18*	16*	70	18*	16**	70	16*	16***
72	20*	18*	72	18*	16*	72	18*	16**	72	16*	16***
74	20*	18*	74	18*	16*	74	16*	16**	74	16*	16***
76	20*	18*	76	18*	16*	76	16*	16**	76	16*	16***
78	20*	18*	78	18*	16*	78	16*	16**	78	16*	16***

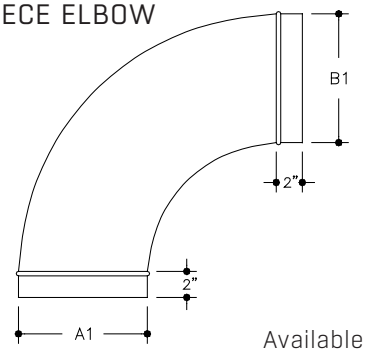
The above gauges and weights are for galvanized steel. Some gauges are not available for special materials. Rolled longitudinal seam duct gauges are the same as shown for fittings. Leakage will not exceed SMACNA Leakage Class 3 when field joints are adequately sealed. Spiral duct sizes larger than 72" diameter may be available, contact SEMCO for application assistance.

* Reinforce with 2x2x3/16 angle 12 ft. on center.
** Reinforce with 2x2x3/16 angle 6 ft. on center.
*** Reinforce with 2x2x3/16 angle 4 ft. on center.

ELBOWS

E901

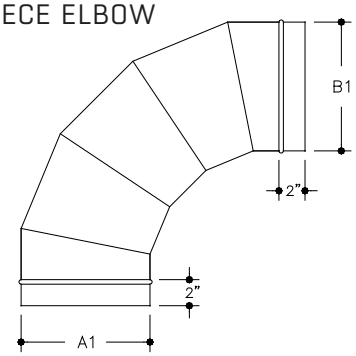
90° 1-PIECE ELBOW



Available in 3"ø thru 12"ø.

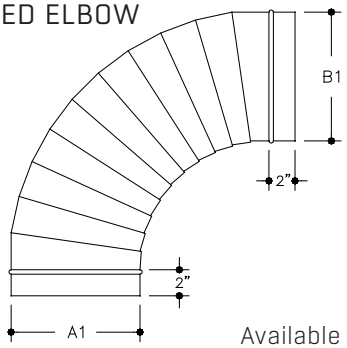
E905

90° 5-PIECE ELBOW



E90P

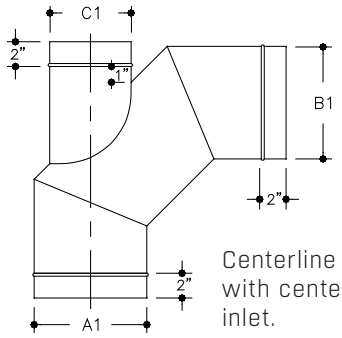
90° PLEATED ELBOW



Available in 3"ø thru 8"ø.

E90HT3

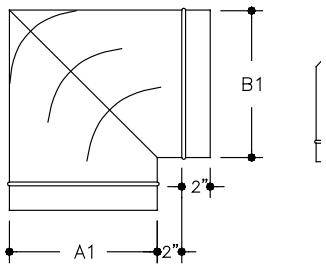
90° 3-PIECE ELBOW w/HEEL TAP



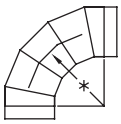
Centerline of tap is aligned with centerline of elbow inlet.

E902V

SQUARE THROAT ELBOW w/VANES



NOTES



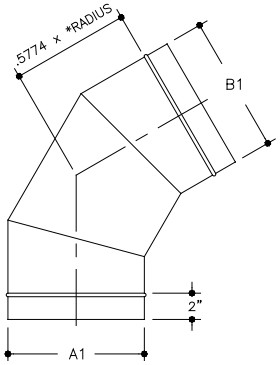
Standard Radius = 1.5 ℄
* Radius = 1.5(A1)

Standard Gored Elbows			
Duct Velocity (fpm)	45°	60°	90°
	Number of Gores		
0 - 1000	2	2	3
1001 - 1500	2	3	4
> 1500	3	3	5
Industrial	4	4	7

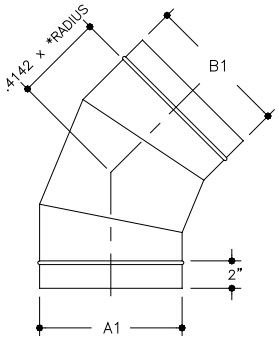
- Some large diameter elbows will be shipped as two or more smaller degree elbows due to truck space limitations.
- Contact SEMCO if you have special requirements for radius, gore quantity and/or degree of elbow.

ELBOWS

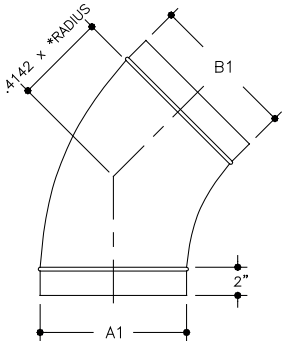
E603
60° 3-PIECE ELBOW



E453
45° 3-PIECE ELBOW

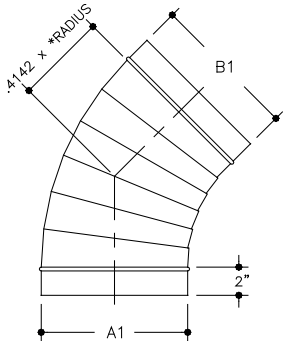


E451
45° 1-PIECE ELBOW



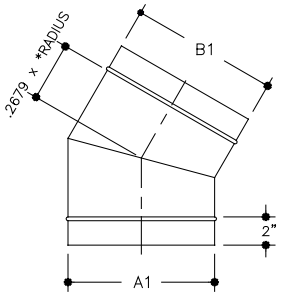
Available in 3"ø thru 12"ø.

E45P
45° PLEATED ELBOW

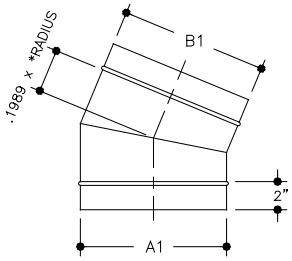


Available in 3"ø thru 8"ø.

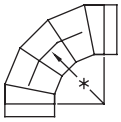
E302
30° 2-PIECE ELBOW



E222
22 1/2° 2-PIECE ELBOW



NOTES



Standard Radius = 1.5 ℄
* Radius = 1.5(A1)

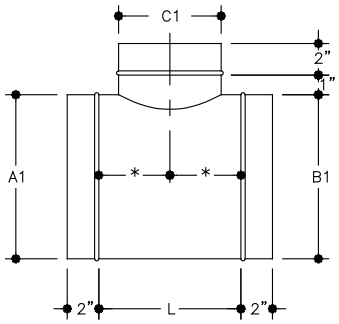
Standard Gored Elbows			
Duct Velocity (fpm)	45°	60°	90°
	Number of Gores		
0 - 1000	2	2	3
1001 - 1500	2	3	4
> 1500	3	3	5
Industrial	4	4	7

Leg formula is based on:

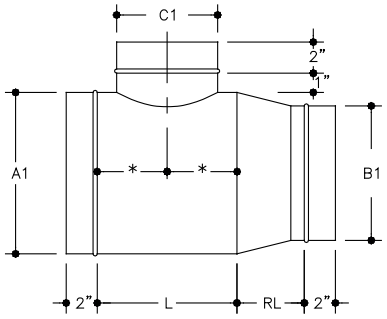
- TAN (0.5 x elbow degree) x centerline radius
- Some large diameter elbows will be shipped as two or more smaller degree elbows due to truck space limitations.
- Contact SEMCO when you have special requirements for radius, gore quantity and/or degree of elbow.

TEE FITTINGS

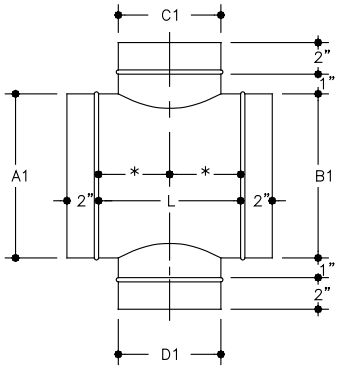
T
TEE



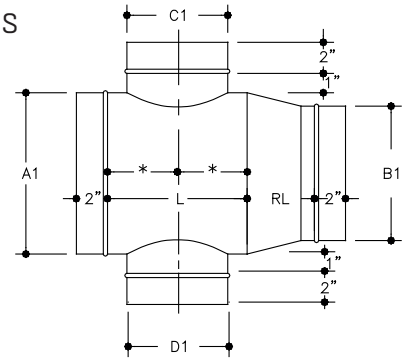
TR
REDUCING TEE



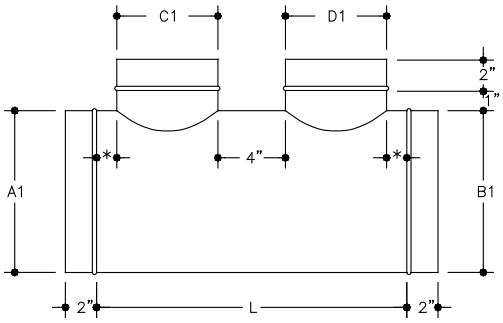
C
CROSS



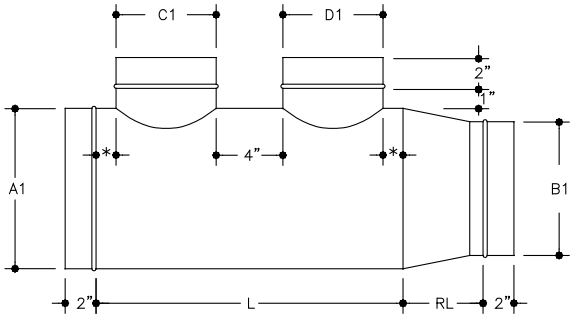
CR
REDUCING CROSS



TD
DOUBLE TEE



TDR
REDUCING DOUBLE TEE



NOTES

- C1 or D1 can be no larger than A1

For RL: See page 2-11

- Body lengths are based on the taps being centered on the body. Any change in tap location or offset from center will most likely result in a longer "L" dimension.

* = Equal

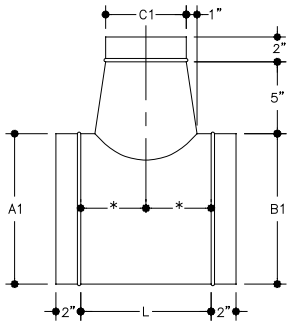
For Crosses:
When C1 and D1 are different sizes, the centerline of the larger tap is also the centerline of the smaller tap.

For Tees and Crosses: L = (Largest of C1 or D1) + 3"

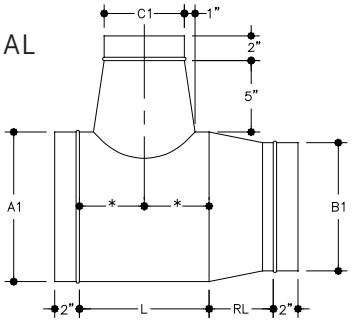
For Double Tees: L = C1 + D1 + 7"

CONICAL TEE FITTINGS

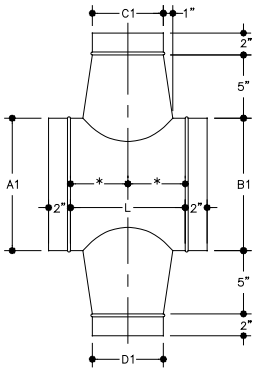
CT
CONICAL TEE



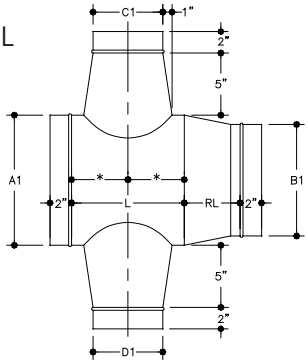
CTR
REDUCING CONICAL TEE



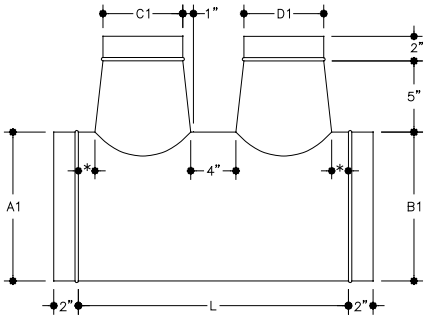
CC
CONICAL CROSS



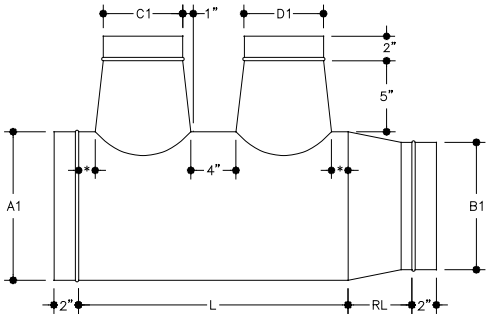
CCR
REDUCING CONICAL CROSS



CTD
DOUBLE CONICAL TEE



CTDR
REDUCING DOUBLE CONICAL TEE



NOTES

- C1 or D1 can be no larger than A1 - 2”

For RL: See page 2-11

- Body lengths are based on the taps being centered on the body. Any change in tap location or offset from center will most likely result in a longer “L” dimension.

* = Equal

- Conical tap entrance at body is 2” larger than C1 or D1 respectively.

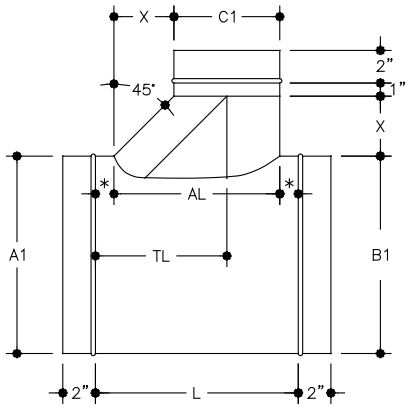
For Conical Crosses:
When C1 and D1 are different sizes, the centerline of the larger tap is also the centerline of the smaller tap.

For Conical Tees and Crosses:
L = (Largest of C1 or D1) + 5”

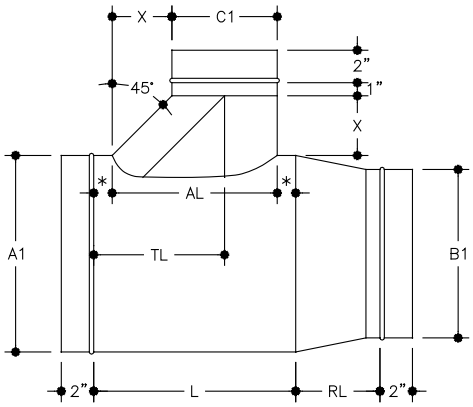
For Double Conical Tees:
L = C1 + D1 + 11”

COMBINATION TEE FITTINGS

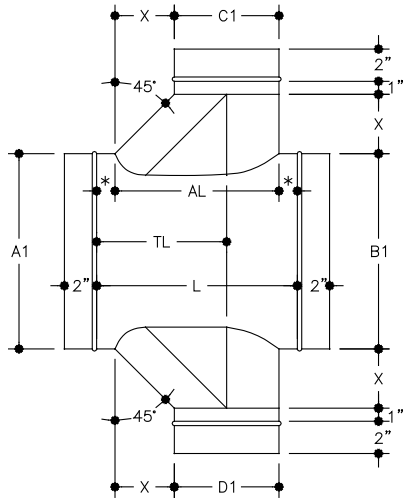
CMT COMBINATION TEE



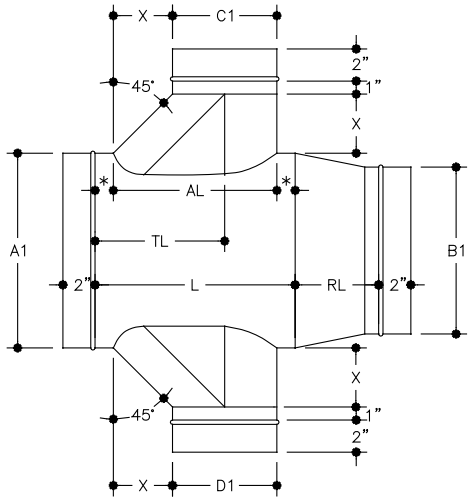
CMTR REDUCING COMBINATION TEE



CMTC COMBINATION CROSS



CMTCR REDUCING COMBINATION CROSS



NOTES

- C1 or D1 can be no larger than A1

For RL: See page 2-11

AL = C1 or D1 + appropriate X
L = largest AL value + 3"
TL = 1.5" + X + (0.5 x C1 or D1)

* = Equal

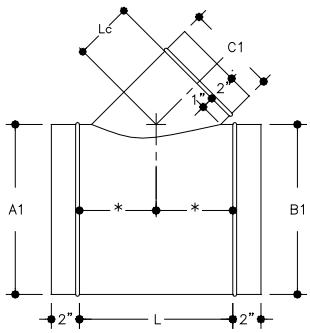
C1 or D1	X
3" thru 8"	3"
9" thru 16"	6"
17" thru 24"	9"
25" and up	12"

For Combination Crosses:
When C1 and D1 are different sizes, the centerline of the larger tap is also the centerline of the smaller tap.

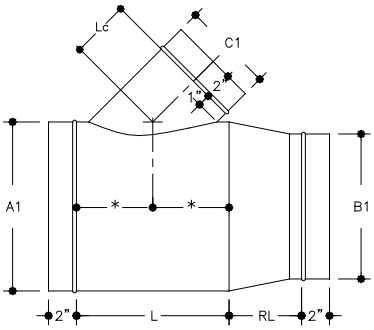
- Body lengths are based on the taps being centered on the body. Any change in tap location or offset from center will most likely result in a longer "L" dimension.

LATERAL FITTINGS

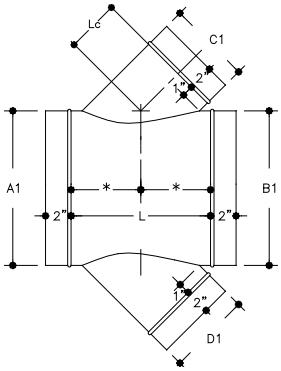
L
45° LATERAL



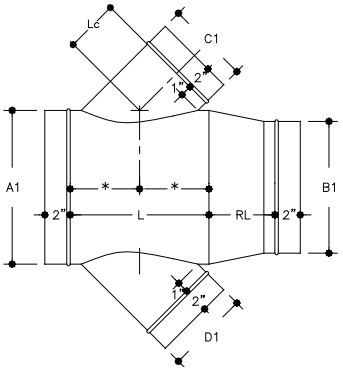
LR
45° REDUCING LATERAL



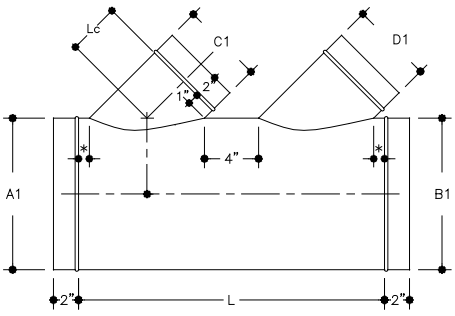
LC
45° LATERAL CROSS



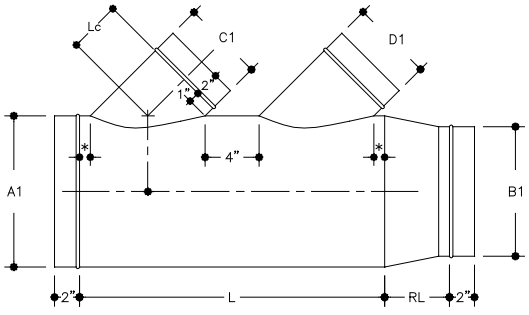
LCR
45° REDUCING LATERAL CROSS



LD
45° DOUBLE LATERAL



LDR
45° REDUCING DOUBLE LATERAL



NOTES

- C1 or D1 can be no larger than A1

For RL: See page 2-11

- Body lengths are based on the taps being centered on the body. Any change in tap location or offset from center will most likely result in a longer "L" dimension.

* = Equal

For 45° Lateral Arms:
Lc = (0.5 X C1) + 1"

- For other degree arms, contact SEMCO

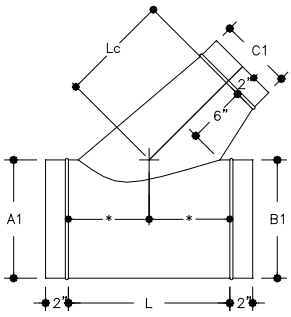
For Lateral Crosses:
When C1 and D1 are different sizes, the centerline of the larger tap is also the centerline of the smaller tap.

For Laterals and Lateral Crosses:
L = [(Largest of C1 or D1) x 1.4142] + 3"

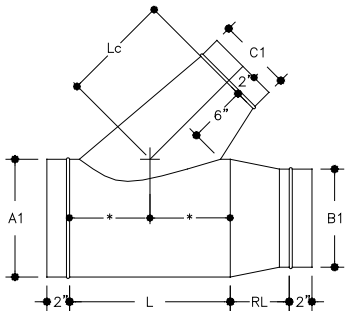
For Double Laterals:
L = [(C1 + D1) x 1.4142] + 7"

CONICAL LATERAL FITTINGS

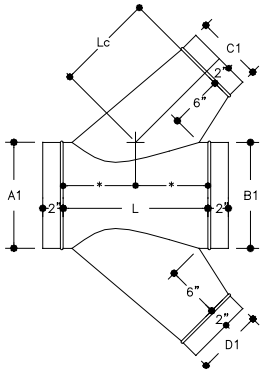
CL
CONICAL LATERAL



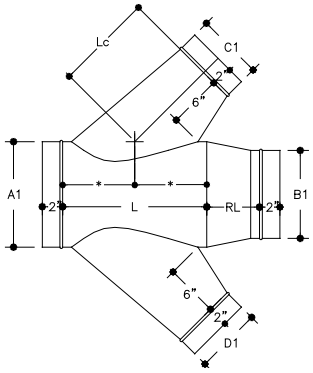
CLR
REDUCING CONICAL LATERAL



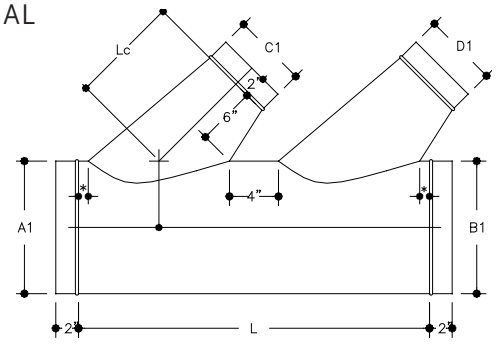
CLC
CONICAL LATERAL CROSS



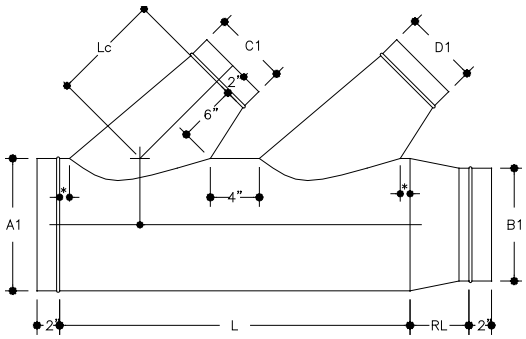
CLCR
REDUCING CONICAL LATERAL CROSS



CLD
DOUBLE CONICAL LATERAL



CLDR
REDUCING DOUBLE CONICAL LATERAL



NOTES

- C1 or D1 can be no larger than A1 - 2"

For RL: See page 2-11

- Body lengths are based on the taps being centered on the body. Any change in tap location or offset from center will most likely result in a longer "L" dimension.

* = Equal

For 45° Conical Lateral Arms:
Lc = [0.5 (C1+ 2")] + 6"

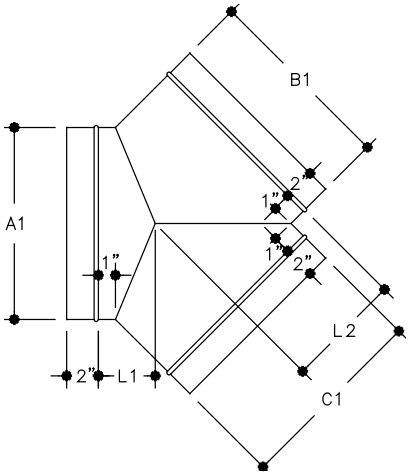
For Double Conical Laterals:
L = [(C1 + D1 + 4") x 1.4142] + 7"

For Conical Laterals and Conical Lateral Crosses:
L = [(Largest of C1 or D1 + 2") x 1.4142] + 3"

For Conical Lateral Crosses:
When C1 and D1 are different sizes, the centerline of the larger tap is also the centerline of the smaller tap.

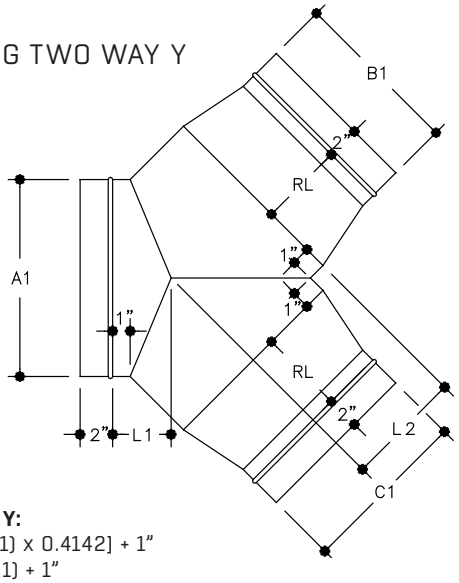
WYE FITTINGS AND BULLHEAD TEES

WYE
TWO WAY Y



For Two Way Y:
L1 = [(0.5 x A1) x 0.4142] + 1"
L2 = (0.5 x A1) + 1"

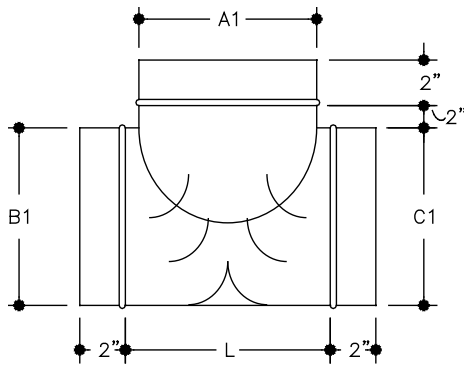
WYE
REDUCING TWO WAY Y



For Two Way Y:
L1 = [(0.5 x A1) x 0.4142] + 1"
L2 = (0.5 x A1) + 1"

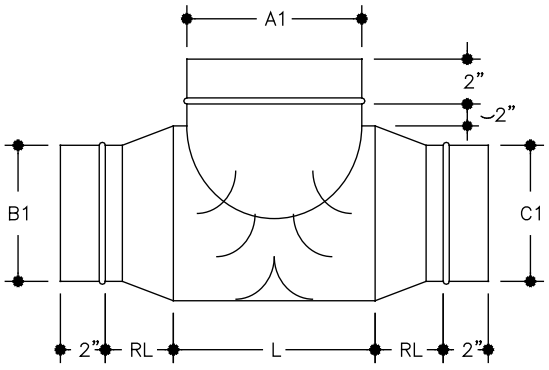
For RL: See page 2-11

BHT
BULLHEAD TEE



L = A1 + 12"

BHT
REDUCING BULLHEAD TEE

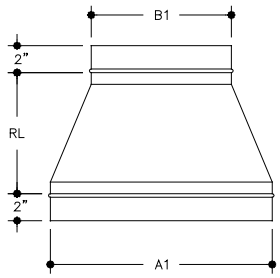


L = A1 + 12"

For RL: See page 2-11

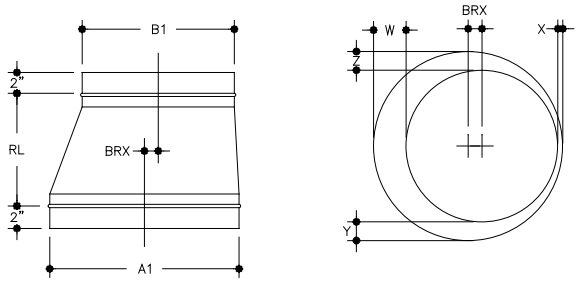
REDUCERS

RC
CONCENTRIC REDUCER



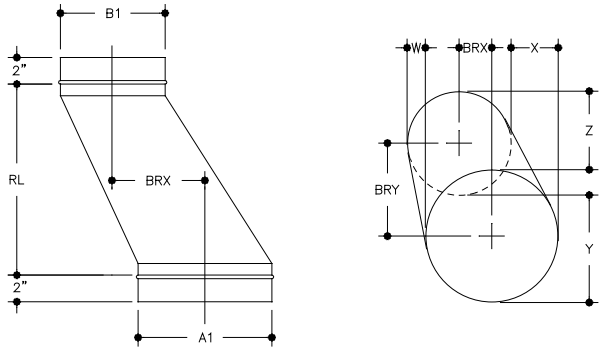
RL = (A1 - B1) + 3"
(5" minimum, 12" maximum length)

RE
NON-CONCENTRIC REDUCER (configuration 1)



RL = [(Greater of W, X, Y or Z) x 2] + 3
The maximum RL length is 23" except when W, X, Y or Z is greater than 0.5 x A1
see configuration 2 for maximum length.

RE
NON-CONCENTRIC REDUCER (configuration 2)



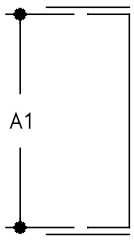
RL = [(Greater of W, X, Y or Z) x 2] + 3
When W, X, Y or Z is greater than 0.5 x A1 the maximum RL length is 48".

NOTES

- Some concentric reducers will not have a bead on the male "B" end.
- Spun concentric reducers also available. Dimensions may vary, consult SEMCO when considering spun concentric reducers.

MISCELLANEOUS

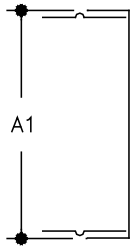
PLUG
PLUG



Fits into female duct.

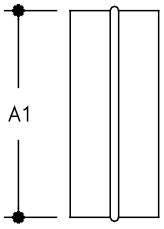
Plugs installed by factory may consist of a plate only.

CAP
CAP



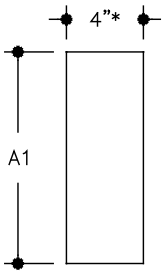
Fits over male fitting.

CPL-M
MALE COUPLING



Fits into female duct

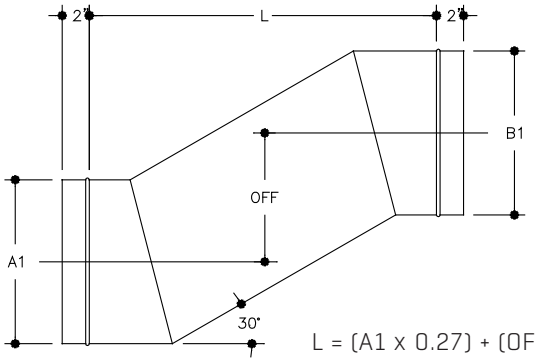
CPL-F
FEMALE COUPLING



Fits over male fitting.

Available in longer lengths (up to 11") if necessary to eliminate joint.

OFF
30° OFFSET



L = (A1 x 0.27) + (OFF x 1.732)

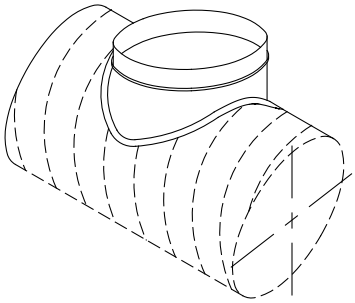
NOTES

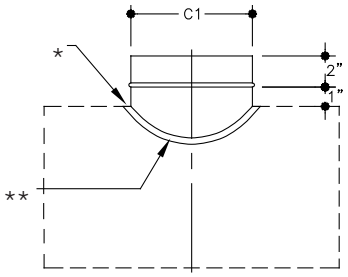
- The 30° offset is standard. Other lengths and angles are available, but care should be taken not to choke the fitting. Instead of an offset consider using two elbows with a length of straight duct in between. Contact SEMCO for application help.

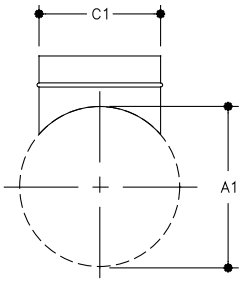
SADDLE TAPS

ST-1T

90° STRAIGHT SADDLE TAP



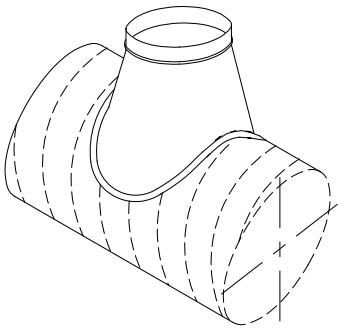


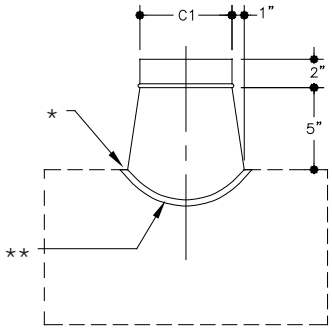


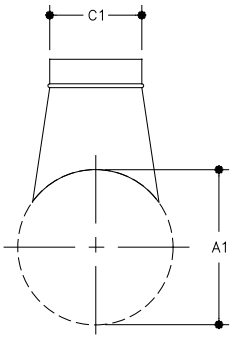
C1 can be no larger than A1.

ST-1CT

90° CONICAL SADDLE TAP



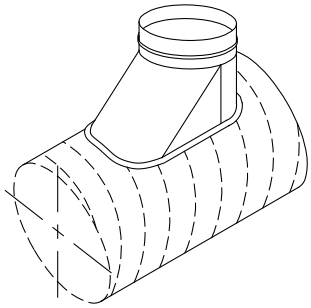


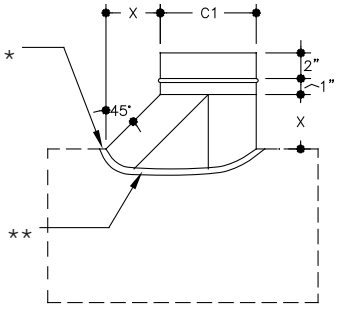


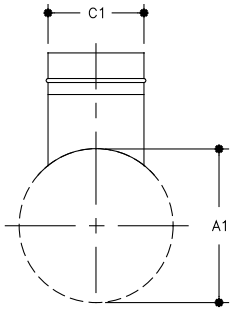
C1 can be no larger than A1 - 2".

ST-1CMT

COMBINATION SADDLE TAP







C1 can be no larger than A1.

NOTES

* 1/2" turned out flange contoured to fit the specific duct size.

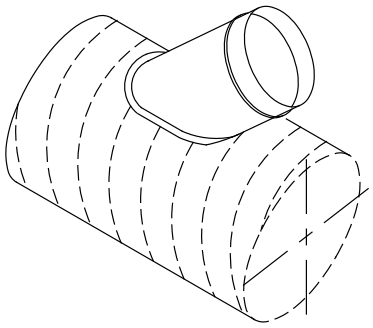
** Tap should be sealed to duct and installed with sheet metal screws on 3" centers.

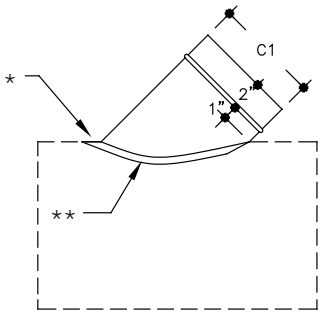
C1	X
3" thru 8"	3"
9" thru 16"	6"
17" thru 24"	9"
25" and up	12"

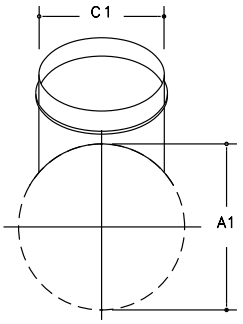
SADDLE TAPS

ST-1L

45° LATERAL SADDLE TAP



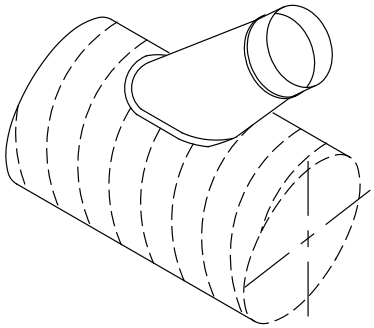


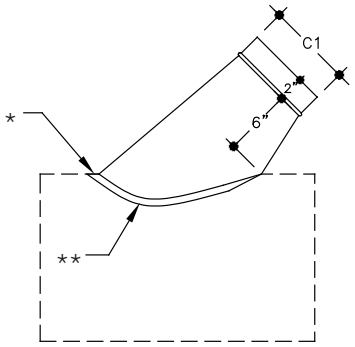


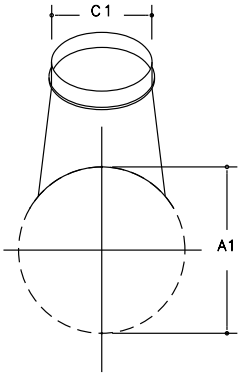
C1 can be no larger than A1.

ST-1CL

45° CONICAL LATERAL SADDLE TAP







C1 can be no larger than A1 - 2".

NOTES

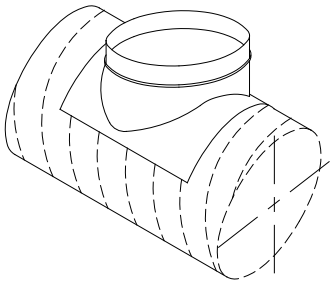
* 1/2" turned out flange contoured to fit the specific duct size. Flange does not extend through entire throat.

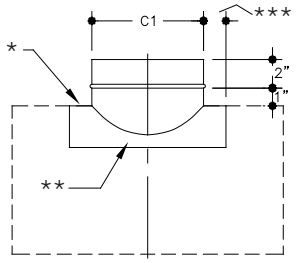
** Tap should be sealed to duct and installed with sheet metal screws on 3" centers.

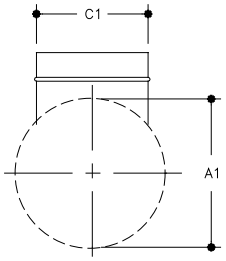
SADDLE TAPS

ST-2T

90° STRAIGHT
SADDLE TAP



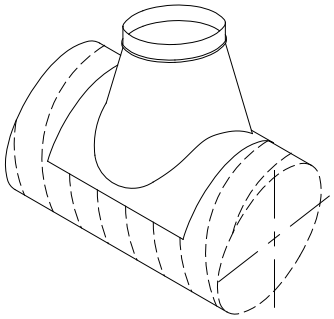


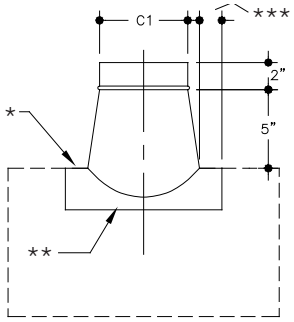


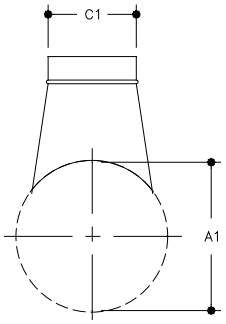
C1 can be no larger than A1.

ST-2CT

90° CONICAL
SADDLE TAP



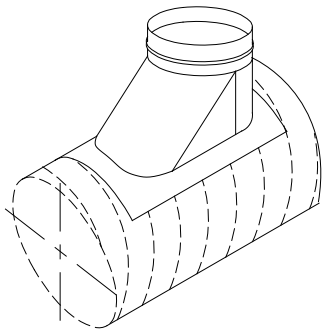


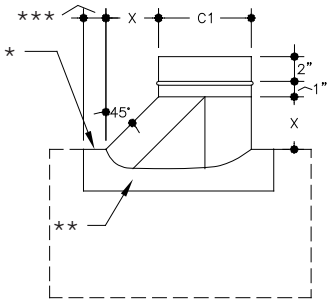


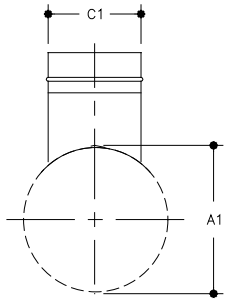
C1 can be no larger than A1 - 2".

ST-2CMT

COMBINATION
SADDLE TAP







C1 can be no larger than A1.

NOTES

* Rectangular body segment contoured to fit the specific duct size.

** Tap should be sealed to duct and installed with sheet metal screws on 3" centers.

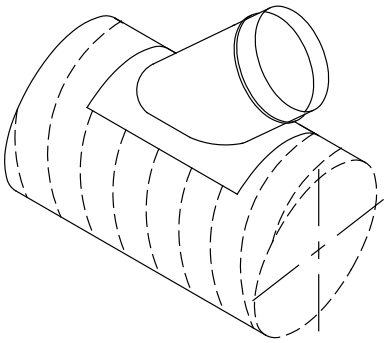
*** 2" typical all sides.

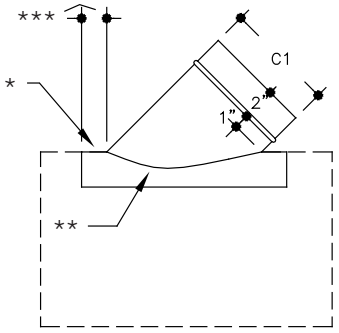
C1	X
3" thru 8"	3"
9" thru 16"	6"
17" thru 24"	9"
25" and up	12"

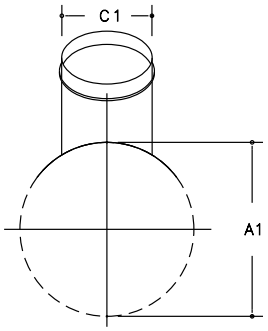
SADDLE TAPS

ST-2L

45° LATERAL SADDLE TAP



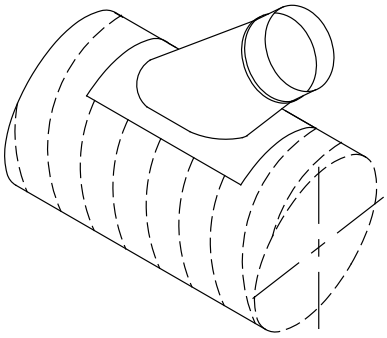


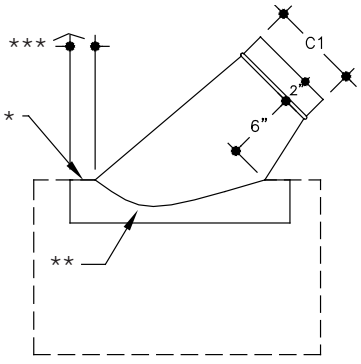


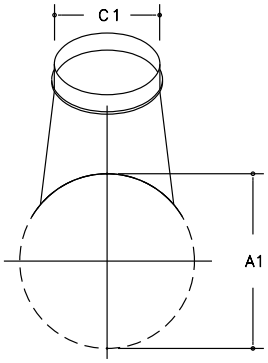
C1 can be no larger than A1.

ST-2CL

45° CONICAL LATERAL SADDLE TAP







C1 can be no larger than A1 - 2".

NOTES

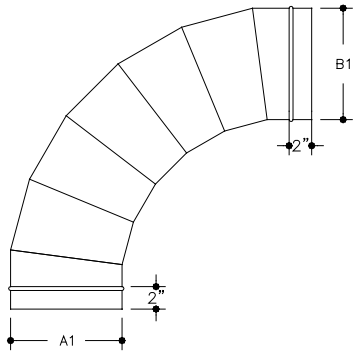
* Rectangular body segment contoured to fit the specific duct size.

** Tap should be sealed to duct and installed with sheet metal screws on 3" centers.

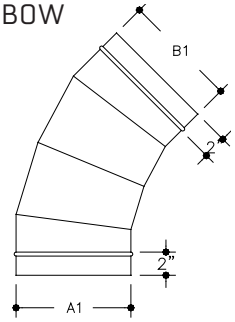
*** 2" typical all sides.

INDUSTRIAL FITTINGS

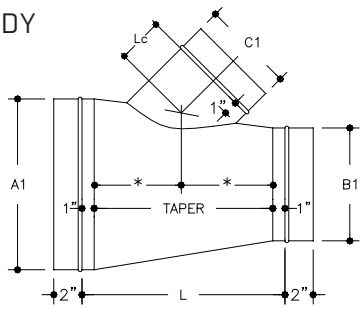
E907
90° 7-PIECE ELBOW



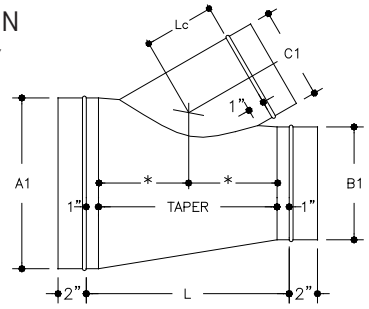
E454
45° 4-PIECE ELBOW



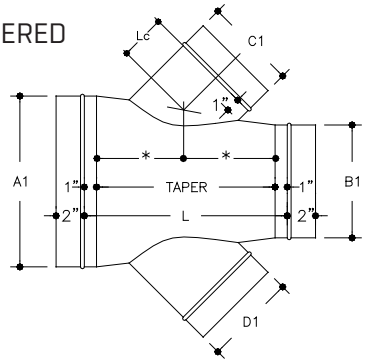
TBL
45° LATERAL ON TAPERED BODY



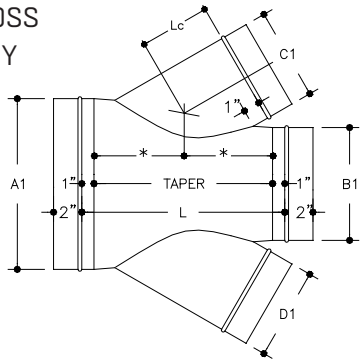
TBL
30° LATERAL ON TAPERED BODY



TBLC
45° LATERAL CROSS ON TAPERED BODY

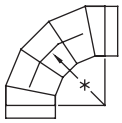


TBLC
30° LATERAL CROSS ON TAPERED BODY



NOTES

For Elbows:



Standard Radius = 1.5 ℄
* Radius = 1.5(A1)

Contact SEMCO if you have special requirements for radius, gore quantity and/or degree of elbow.

* = Equal

- When C1 and D1 are different sizes, the centerline of the larger tap is also the centerline of the smaller tap.

For Laterals on Tapered Body:
Calculated "L" dimension for laterals on tapered bodies will be rounded up to the next 1/2".

For Laterals on Tapered Body:
C1 must be equal to or less than B1. If C1 is greater than B1, then length "L" must be determined by SEMCO.

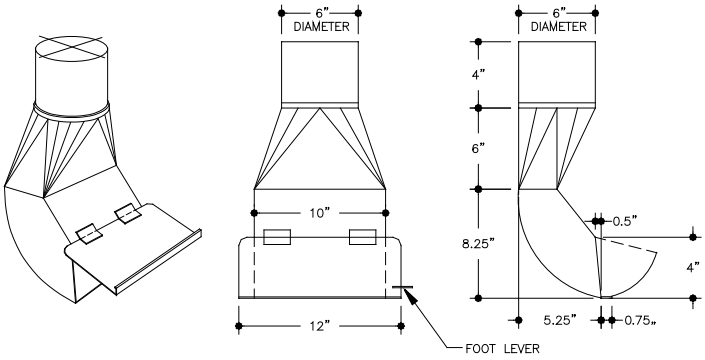
45° Lateral on Tapered Body:
L= (C1 x 1.4142) + 5"

30° Lateral on Tapered Body:
L = (C1 x 2) + 5"

For 45° and 30° Laterals on Tapered Body:
Lc = Consult SEMCO

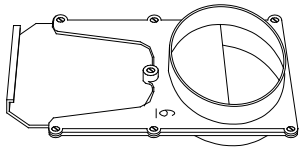
INDUSTRIAL FITTINGS

FLOOR SWEEP

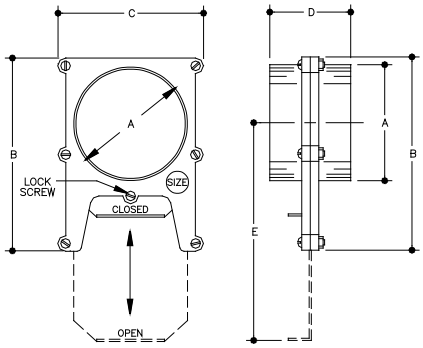


Available to fit 6"ø duct.

BLAST GATE



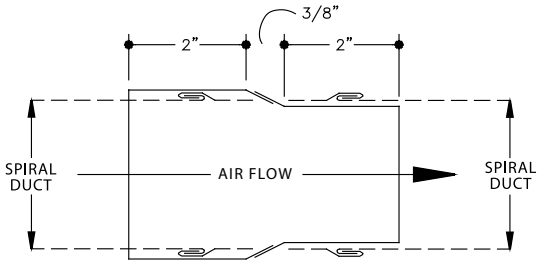
Full gate style available to fit duct sizes 3"ø through 20"ø



BLAST GATE CHART					
SIZE	A	B	C	D	E
3"	2.875"	5.250"	4.000"	2.750"	4.750"
4"	3.875"	6.750"	5.000"	2.250"	6.750"
5"	4.875"	8.625"	6.000"	2.250"	9.250"
6"	5.875"	10.250"	7.250"	3.000"	10.000"
7"	6.813"	11.250"	8.000"	2.500"	11.750"
8"	7.875"	12.625"	9.625"	3.500"	14.000"
9"	8.813"	16.000"	10.750"	4.000"	15.750"
10"	9.875"	17.875"	11.750"	4.250"	17.000"
12"	11.875"	20.500"	13.750"	5.000"	21.250"
14"	13.875"	24.750"	15.750"	4.750"	25.500"
16"	15.875"	28.500"	18.000"	4.750"	29.000"
18"	17.875"	32.750"	20.375"	7.000"	31.000"
20"	19.875"	34.250"	22.250"	7.125"	35.000"

IOC

INSIDE-OUTSIDE INDUSTRIAL COUPLING



Fits over and into spiral duct.

NOTES

Blast Gates shown in chart above are die cast aluminum frames. For information about larger sizes and/or special materials contact SEMCO.

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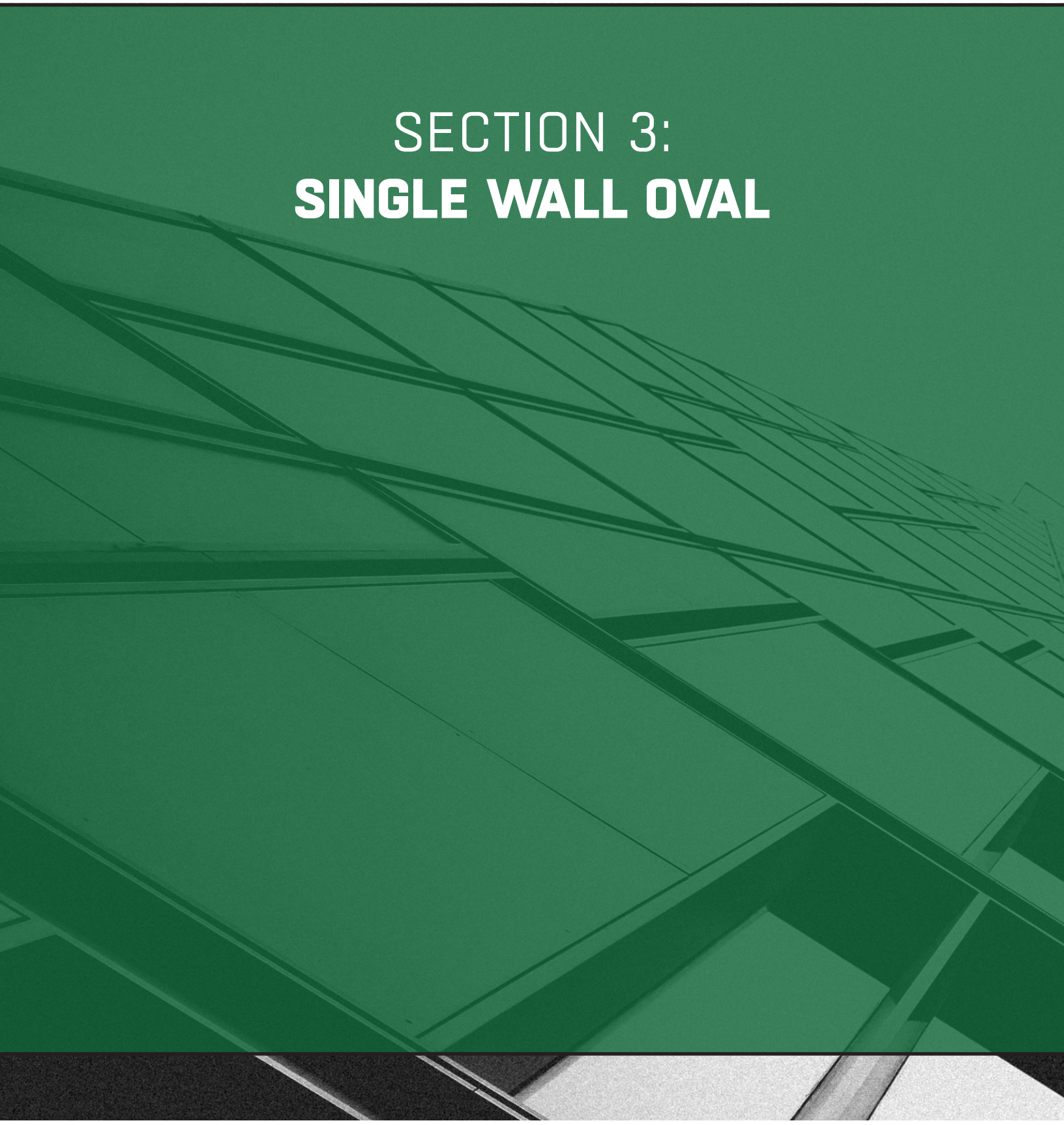
CUSTOM AIR

SECTION 3:
SINGLE WALL OVAL



GAUGE & CONSTRUCTION CHART

Nominal Oval Size	SH95P Maximum 10" w.g. Positive Static: Galv. Spiral Duct Ga.	Galv. Fitting Ga.	Spiral Duct Wt. (lb/ft)	Spiral Duct Std. Lgth. (ft)	Equiv. Round
4 x 10	24	20	2.7	6	6.60
12	24	20	3.1	6	7.19
13	24	20	3.4	6	7.46
15	24	20	3.8	6	7.96
16	24	20	4.2	6	8.19
18	24	20	4.5	6	8.63
20	24	20	4.9	6	9.03
5 x 11	24	20	3.1	6	7.75
13	24	20	3.4	6	8.41
14	24	20	3.8	6	8.71
16	24	20	4.2	6	9.26
18	24	20	4.5	6	9.77
19	24	20	4.9	6	10.01
21	24	20	5.2	6	10.46
6 x 10	24	20	3.1	6	8.07
12	24	20	3.4	6	8.87
14	24	20	3.8	6	9.58
16	24	20	4.2	6	10.21
17	24	20	4.5	6	10.51
19	24	20	4.9	6	11.06
20	24	20	5.2	12	11.33
22	24	20	5.6	12	11.82
23	24	20	5.9	12	12.06
25	22	20	7.6	12	12.51
26	22	20	8.0	12	12.73
28	22	20	8.5	12	13.15
29	22	20	8.9	12	13.35
31	22	20	9.3	12	13.73
34	22	20	10.2	12	14.28
37	22	18	11.0	12	14.80
41	22	18	11.8	12	15.45
44	22	18	12.7	12	15.90
47	22	18	13.5	12	16.34
50	20	18	17.0	12	16.76
53	20	18	17.9	12	17.16
56	20	18	18.9	12	17.55
59	20	18	19.9	12	17.92
63	20	16	20.9	12	18.40
66	20	16	21.9	12	18.75
69	20	16	22.9	12	19.08
72	18	16	31.2	12	19.41
75	18	16	32.5	12	19.73
79	18	16	33.8	12	20.14
82	18	16	35.1	12	20.43
85	18	16	36.4	12	20.73
88	18	16	37.7	12	21.01
91	18	16	39.0	12	21.29
7 x 10	24	20	3.1	6	8.66
12	24	20	3.4	6	9.56
13	24	20	3.8	6	9.97
15	24	20	4.2	6	10.72
17	24	20	4.5	6	11.39
18	24	20	4.9	6	11.71
20	24	20	5.2	6	12.30
8 x 11	24	20	3.4	6	9.69
12	24	20	3.8	6	10.17
14	24	20	4.2	6	11.04
16	24	20	4.5	6	11.86

Nominal Oval Size	SH95P Maximum 10" w.g. Positive Static: Galv. Spiral Duct Ga.	Galv. Fitting Ga.	Spiral Duct Wt. (lb/ft)	Spiral Duct Std. Lgth. (ft)	Equiv. Round
8 x 17	24	20	4.9	6	12.20
19	24	20	5.2	12	12.88
21	24	20	5.6	12	13.52
22	24	20	5.9	12	13.82
24	24	20	6.3	12	14.39
25	22	20	8.0	12	14.66
27	22	20	8.5	12	15.19
28	22	20	8.9	12	15.44
30	22	20	9.3	12	15.92
33	22	20	10.2	12	16.61
36	22	20	11.0	12	17.25
39	22	18	11.8	12	17.86
43	22	18	12.7	12	18.62
46	22	18	13.5	12	19.16
49	20	18	17.0	12	19.68
52	20	18	17.9	12	20.17
55	20	18	18.9	12	20.65
58	20	18	19.9	12	21.11
61	20	16	20.9	12	21.55
65	20	16	21.9	12	22.12
68	20	16	22.9	12	22.53
71	18	16	31.2	12	22.93
74	18	16	32.5	12	23.31
77	18	16	33.8	12	23.69
81	18	16	35.1	12	24.18
84	18	16	36.4	12	24.53
87	18	16	37.7	12	24.88
90	18	16	39.0	12	25.22
10 x 16	24	20	4.9	12	13.16
18	24	20	5.2	12	14.01
19	24	20	5.6	12	14.41
21	24	20	5.9	12	15.15
23	24	20	6.3	12	15.85
24	24	20	6.6	12	16.18
26	22	20	8.5	12	16.82
27	22	20	8.9	12	17.12
29	22	20	9.3	12	17.71
32	22	20	10.2	12	18.53
35	22	20	11.0	12	19.30
38	22	18	11.8	12	20.02
41	22	18	12.7	12	20.71
45	22	18	13.5	12	21.57
48	22	18	14.4	12	22.18
51	20	18	17.9	12	22.76
54	20	18	18.9	12	23.32
57	20	18	19.9	12	23.86
60	20	18	20.9	12	24.39
63	20	16	21.9	12	24.89
67	20	16	22.9	12	25.54
70	20	16	23.9	12	26.00
73	18	16	32.5	12	26.46
76	18	16	33.8	12	26.90
79	18	16	35.1	12	27.33
83	18	16	36.4	12	27.89
86	18	16	37.7	12	28.29
89	18	16	39.0	12	28.69
92	18	16	40.3	12	29.08
12 x 17	24	20	5.2	12	14.78

The above gauges and weights are for galvanized steel. Some gauges are not available for special materials. Rolled longitudinal seam duct gauges are the same as shown for fittings. Leakage for SH95P and SM95P product will not exceed SMACNA Leakage Class 3 when field joints are adequately sealed. Leakage for SL95P product will not exceed SMACNA Leakage Class 6 when field joints are adequately sealed. Contact SEMCO for application help.

These gauges apply to all SEMCO construction standards and will accommodate positive and negative static pressure to 10" w.g. with appropriate reinforcement (see 6-10)

GAUGE & CONSTRUCTION CHART

Nominal Oval Size	SH95P Maximum 10" w.g. Positive Static				
	Galv. Spiral Duct Ga.	Galv. Fitting Ga.	Spiral Duct Wt. (lb/ft)	Spiral Duct Std. Lgth. (ft)	Equiv. Round
12 x 18	24	20	5.6	12	15.25
20	24	20	5.9	12	16.15
21	24	20	6.3	12	16.57
23	24	20	6.6	12	17.37
25	22	20	8.5	12	18.11
26	22	20	8.9	12	18.47
28	22	20	9.3	12	19.16
31	22	20	10.2	12	20.12
34	22	20	11.0	12	21.02
37	22	18	11.8	12	21.86
40	22	18	12.7	12	22.65
43	22	18	13.5	12	23.40
47	22	18	14.4	12	24.35
50	20	18	17.9	12	25.03
53	20	18	18.9	12	25.67
56	20	18	19.9	12	26.29
59	20	18	20.9	12	26.89
62	20	16	21.9	12	27.47
65	20	16	22.9	12	28.03
69	20	16	23.9	12	28.74
72	18	16	32.5	12	29.26
75	18	16	33.8	12	29.77
78	18	16	35.1	12	30.26
81	18	16	36.4	12	30.74
85	18	16	37.7	12	31.36
88	18	16	39.0	12	31.81
91	18	16	40.3	12	32.25
14 x 17	24	20	5.6	12	15.78
19	24	20	5.9	12	16.83
20	24	20	6.3	12	17.32
22	24	20	6.6	12	18.25
23	24	20	7.0	12	18.69
25	22	20	8.9	12	19.53
27	22	20	9.3	12	20.32
30	22	20	10.2	12	21.43
33	22	20	11.0	12	22.46
36	22	20	11.8	12	23.42
39	22	18	12.7	12	24.33
42	22	18	13.5	12	25.18
45	22	18	14.4	12	25.99
49	20	18	17.9	12	27.02
52	20	18	18.9	12	27.75
55	20	18	19.9	12	28.45
58	20	18	20.9	12	29.12
61	20	16	21.9	12	29.77
64	20	16	22.9	12	30.40
67	20	16	23.9	12	31.01
71	18	16	32.5	12	31.79
74	18	16	33.8	12	32.36
77	18	16	35.1	12	32.91
80	18	16	36.4	12	33.45
83	18	16	37.7	12	33.97
87	18	16	39.0	12	34.65
90	18	16	40.3	12	35.14
16 x 18	24	20	5.9	12	17.23
19	24	20	6.3	12	17.80
20	24	20	6.6	12	18.35
22	24	20	7.0	12	19.38

Nominal Oval Size	SH95P Maximum 10" w.g. Positive Static				
	Galv. Spiral Duct Ga.	Galv. Fitting Ga.	Spiral Duct Wt. (lb/ft)	Spiral Duct Std. Lgth. (ft)	Equiv. Round
16 x 24	24	20	7.3	12	20.34
25	22	20	9.3	12	20.80
29	22	20	10.2	12	22.50
32	22	20	11.0	12	23.66
35	22	20	11.8	12	24.74
38	22	18	12.7	12	25.76
41	22	18	13.5	12	26.72
44	22	18	14.4	12	27.63
47	22	18	15.2	12	28.50
51	20	18	18.9	12	29.59
54	20	18	19.9	12	30.37
57	20	18	20.9	12	31.12
60	20	18	21.9	12	31.85
63	20	16	22.9	12	32.55
66	20	16	23.9	12	33.22
69	20	16	24.9	12	33.87
73	18	16	33.8	12	34.72
76	18	16	35.1	12	35.33
79	18	16	36.4	12	35.92
82	18	16	37.7	12	36.50
85	18	16	39.0	12	37.06
89	18	16	40.3	12	37.79
18 x 20	24	20	6.6	12	19.24
21	24	20	7.0	12	19.82
22	24	20	7.3	12	20.37
24	24	20	7.6	12	21.42
27	22	20	10.2	12	22.88
31	22	20	11.0	12	24.64
34	22	20	11.8	12	25.85
37	22	18	12.7	12	26.99
40	22	18	13.5	12	28.05
43	22	18	14.4	12	29.06
46	22	18	15.2	12	30.02
49	20	18	18.9	12	30.94
53	20	18	19.9	12	32.10
56	20	18	20.9	12	32.92
59	20	18	21.9	12	33.72
62	20	16	22.9	12	34.49
65	20	16	23.9	12	35.23
68	20	16	24.9	12	35.95
72	18	16	33.8	12	36.87
75	18	16	35.1	12	37.54
78	18	16	36.4	12	38.19
81	18	16	37.7	12	38.82
84	18	16	39.0	12	39.44
87	18	16	40.3	12	40.04
20 x 26	22	20	10.2	12	23.46
29	22	20	11.0	12	24.95
33	22	20	11.8	12	26.77
36	22	20	12.7	12	28.02
39	22	18	13.5	12	29.20
42	22	18	14.4	12	30.31
45	22	18	15.2	12	31.36
48	22	18	16.1	12	32.37
51	20	18	19.9	12	33.32
55	20	18	20.9	12	34.54
58	20	18	21.9	12	35.41
61	20	16	22.9	12	36.25

The above gauges and weights are for galvanized steel. Some gauges are not available for special materials. Rolled longitudinal seam duct gauges are the same as shown for fittings. Leakage for SH95P and SM95P product will not exceed SMACNA Leakage Class 3 when field joints are adequately sealed. Leakage for SL95P product will not exceed SMACNA Leakage Class 6 when field joints are adequately sealed. Contact SEMCO for application help.

These gauges apply to all SEMCO construction standards and will accommodate positive and negative static pressure to 10" w.g. with appropriate reinforcement (see 6-10)

GAUGE & CONSTRUCTION CHART

Nominal Oval Size	SH95P Maximum 10" w.g. Positive Static				
	Galv. Spiral Duct Ga.	Galv. Fitting Ga.	Spiral Duct Wt. (lb/ft)	Spiral Duct Std. Lgth. (ft)	Equiv. Round
20 x 64	20	16	23.9	12	37.06
67	20	16	24.9	12	37.84
71	18	16	33.8	12	38.84
74	18	16	35.1	12	39.57
77	18	16	36.4	12	40.28
80	18	16	37.7	12	40.97
83	18	16	39.0	12	41.64
86	18	16	40.3	12	42.29
22 x 25	22	20	10.2	12	23.84
28	22	20	11.0	8	25.49
31	22	20	11.8	8	27.01
35	22	20	12.7	8	28.87
38	22	18	13.5	8	30.16
41	22	18	14.4	8	31.38
44	22	18	15.2	8	32.53
47	22	18	16.1	8	33.63
50	20	18	19.9	8	34.67
53	20	18	20.9	8	35.67
57	20	18	21.9	8	36.94
60	20	18	22.9	8	37.85
63	20	16	23.9	8	38.72
66	20	16	24.9	8	39.57
69	20	16	25.9	8	40.39
73	18	16	35.1	8	41.44
76	18	16	36.4	8	42.21
79	18	16	37.7	12	42.95
82	18	16	39.0	12	43.67
85	18	16	40.3	12	44.38
24 x 27	22	20	11.0	12	25.85
30	22	20	11.8	8	27.52
33	22	20	12.7	8	29.07
37	22	18	13.5	8	30.97
40	22	18	14.4	8	32.29
43	22	18	15.2	8	33.54
46	22	18	16.1	8	34.73
49	20	18	19.9	8	35.86
52	20	18	20.9	8	36.94
55	20	18	21.9	8	37.98
59	20	18	22.9	8	39.29
62	20	16	23.9	8	40.24
65	20	16	24.9	8	41.15
68	20	16	25.9	8	42.03
71	18	16	35.1	8	42.89
75	18	16	36.4	8	43.99
78	18	16	37.7	12	44.78
81	18	16	39.0	12	45.56
84	18	16	40.3	12	46.32
26 x 32	22	20	12.7	8	29.55
35	22	20	13.5	8	31.11
38	22	18	14.4	8	32.58
42	22	18	15.2	8	34.40
45	22	18	16.1	8	35.69
48	22	18	19.9	8	36.91
51	20	18	20.9	8	38.07
54	20	18	21.9	8	39.18
57	20	18	22.9	8	40.25
60	20	18	23.9	8	41.28
64	20	16	24.9	8	42.59

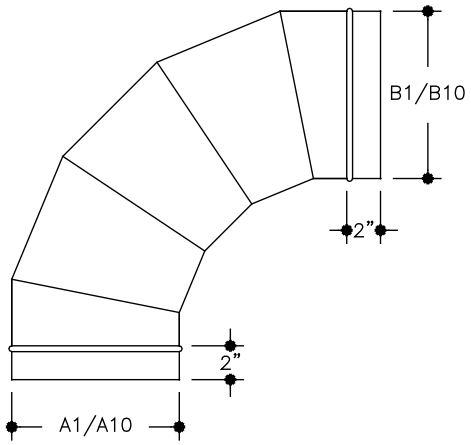
Nominal Oval Size	SH95P Maximum 10" w.g. Positive Static				
	Galv. Spiral Duct Ga.	Galv. Fitting Ga.	Spiral Duct Wt. (lb/ft)	Spiral Duct Std. Lgth. (ft)	Equiv. Round
26 x 67	18	16	33.8	12	43.54
70	18	16	35.1	12	44.46
73	18	16	36.4	12	45.34
77	18	16	37.7	12	46.48
80	18	16	39.0	12	47.31
83	18	16	40.3	12	48.12
28 x 31	22	20	12.7	12	29.87
35	22	20	13.5	12	32.11
37	22	18	14.4	8	33.15
40	22	18	15.2	8	34.64
44	22	18	16.1	8	36.50
47	22	18	16.9	8	37.82
50	20	18	20.9	8	39.07
53	20	18	21.9	8	40.26
56	20	18	22.9	8	41.40
59	20	18	23.9	8	42.50
62	20	16	24.9	8	43.56
66	20	16	25.9	8	44.92
69	18	16	35.1	12	45.90
72	18	16	36.4	12	46.84
75	18	16	37.7	12	47.76
79	18	16	39.0	12	48.94
82	18	16	40.3	12	49.80
30 x 33	22	20	13.5	12	31.87
37	22	18	14.4	12	34.13
39	22	18	15.2	8	35.19
42	22	18	16.1	8	36.70
46	22	18	16.9	8	38.59
49	20	18	20.9	8	39.93
52	20	18	21.9	8	41.21
55	20	18	22.9	8	42.43
58	20	18	23.9	8	43.60
61	20	16	24.9	8	44.73
64	20	16	25.9	8	45.82
68	20	16	26.9	8	47.22
71	18	16	36.4	12	48.22
74	18	16	37.7	12	49.20
77	18	16	39.0	12	50.14
81	18	16	40.3	12	51.36
32 x 39	22	18	15.2	12	36.15
41	22	18	16.1	8	37.22
44	22	18	16.9	8	38.76
48	22	18	17.8	8	40.68
51	20	18	21.9	8	42.04
54	20	18	22.9	8	43.34
57	20	18	23.9	8	44.59
60	20	18	24.9	8	45.79
63	20	16	25.9	8	46.94
66	20	16	26.9	8	48.06
70	20	16	27.9	8	49.49
73	18	16	37.7	12	50.52
76	18	16	39.0	12	51.52
79	18	16	40.3	12	52.50

The above gauges and weights are for galvanized steel. Some gauges are not available for special materials. Rolled longitudinal seam duct gauges are the same as shown for fittings. Leakage for SH95P and SM95P product will not exceed SMACNA Leakage Class 3 when field joints are adequately sealed. Leakage for SL95P product will not exceed SMACNA Leakage Class 6 when field joints are adequately sealed. Contact SEMCO for application help.

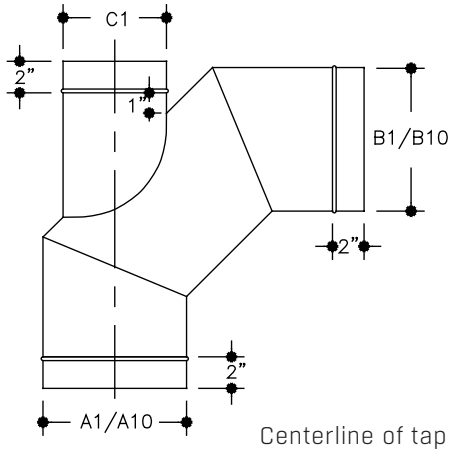
These gauges apply to all SEMCO construction standards and will accommodate positive and negative static pressure to 10" w.g. with appropriate reinforcement (see 6-10)

ELBOWS

E90HB5
E90EB5
90° 5-PIECE ELBOW

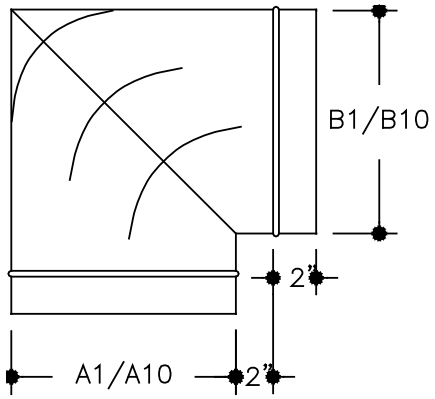


E90HBHT3
E90EBHT3
90° 3-PIECE ELBOW W/ HEEL TAP



Centerline of tap is aligned with centerline of elbow inlet.

E90HB2V
E90EB2V
SQUARE THROAT ELBOW W/ VANES

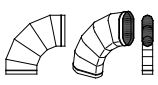


NOTES

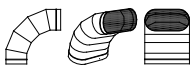
Standard Gored Elbows			
Duct Velocity (fpm)	45°	60°	90°
	Number of Gores		
0 - 1000	2	2	3
1001 - 1500	2	3	4
> 1500	3	3	5
Industrial	4	4	7

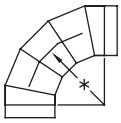
- Oval Duct Elbows are available in "Hard Bend" and "Easy Bend" as defined by the following diagrams and abbreviations.

Hard Bend (HB)



Easy Bend (EB)



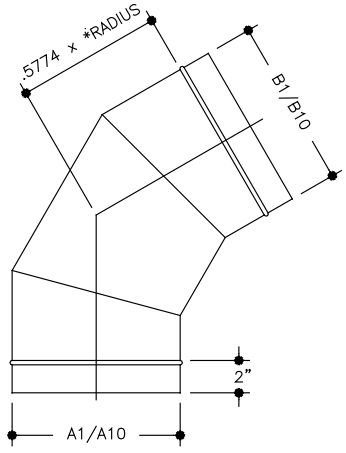


Standard Radius = 1.5 ℄
* Radius = 1.5(A1)

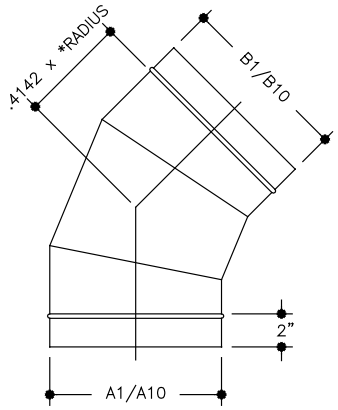
- Some large diameter elbows will be shipped as two or more smaller degree elbows due to truck space limitations.
- Contact SEMCO if you have special requirements for radius, gore quantity and/or degree of elbow.

ELBOWS

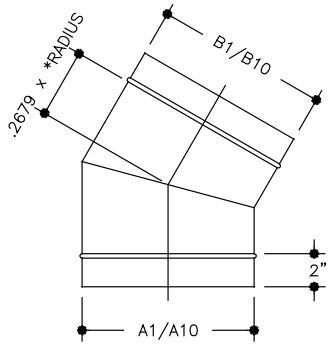
E60HB3
E60EB3
60° 3-PIECE ELBOW



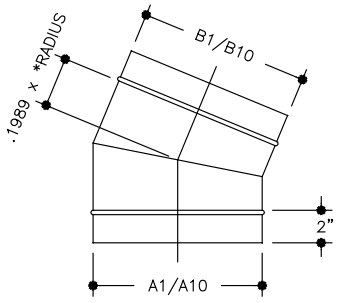
E45HB3
E45EB3
45° 3-PIECE ELBOW



E30HB2
E30EB2
30° 2-PIECE ELBOW



E22HB2
E22EB2
22 1/2° 2-PIECE ELBOW

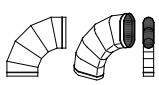


NOTES

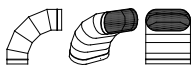
Standard Gored Elbows			
Duct Velocity (fpm)	45°	60°	90°
	Number of Gores		
0 - 1000	2	2	3
1001 - 1500	2	3	4
> 1500	3	3	5
Industrial	4	4	7

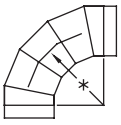
- Oval Duct Elbows are available in "Hard Bend" and "Easy Bend" as defined by the following diagrams and abbreviations.

Hard Bend (HB)



Easy Bend (EB)





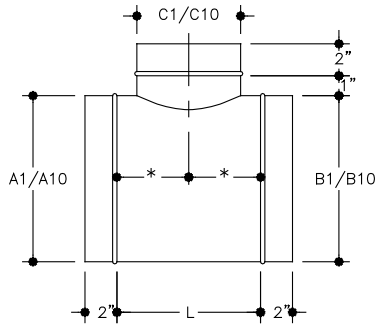
Standard Radius = 1.5 ℄
* Radius = 1.5(A1)

Leg formula is based on:

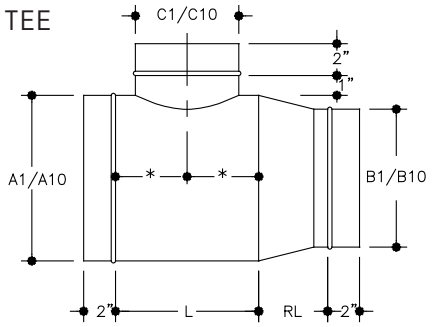
- Tan (0.5 x elbow degree) x centerline radius
- Some large diameter elbows will be shipped as two or more smaller degree elbows due to truck space limitations.
- Contact SEMCO if you have special requirements for radius, gore quantity and/or degree of elbow.

TEE FITTINGS

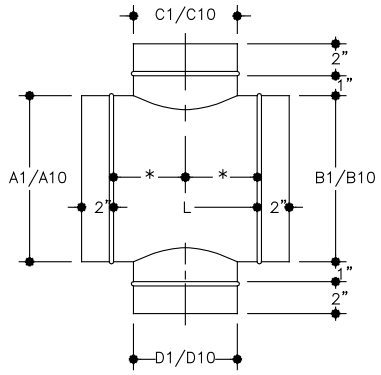
T
TEE



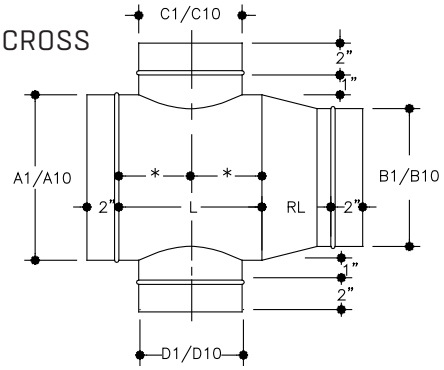
TR
REDUCING TEE



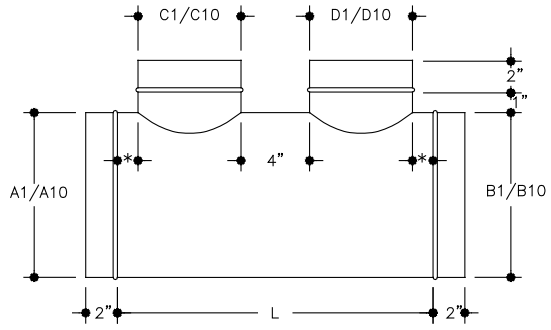
C
CROSS



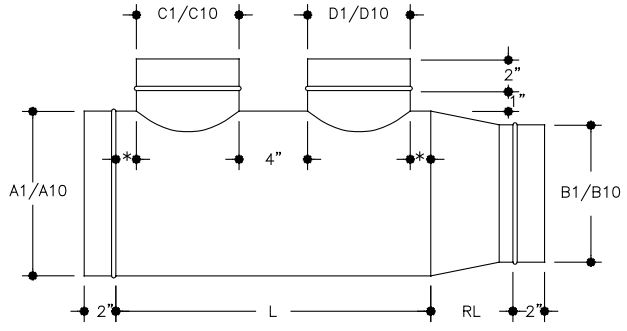
CR
REDUCING CROSS



TD
DOUBLE TEE



TDR
REDUCING DOUBLE TEE



NOTES

- C10 or D10 can be no larger than A10 - 2"

For RL: See page 3-12

- Body lengths are based on the taps being centered on the body. Any change in tap location or offset from center will most likely result in a longer "L" dimension.

* = Equal

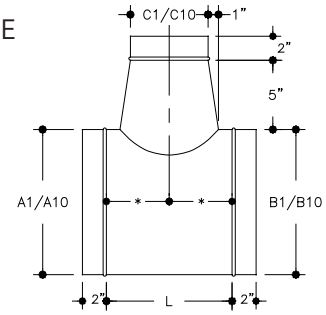
For Crosses:
When C1 and D1 are different sizes, the centerline of the larger tap is also the centerline of the smaller tap.

For Tees and Crosses:
L = (Largest of C1 or D1) + 3"

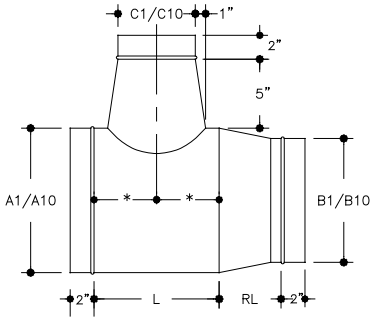
For Double Tees:
L = C1 + D1 + 7"

CONICAL TEE FITTINGS

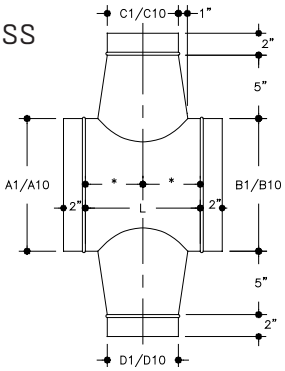
CT
CONICAL TEE



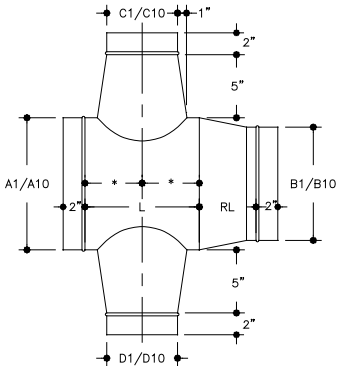
CTR
REDUCING CONICAL TEE



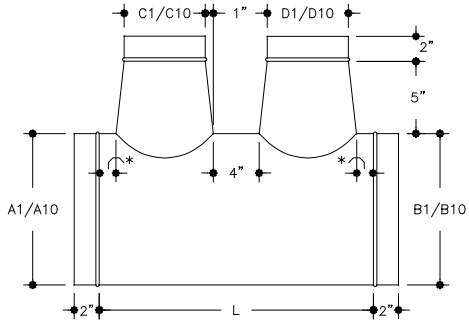
CC
CONICAL CROSS



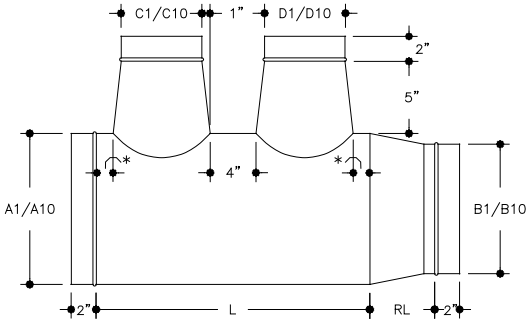
CCR
REDUCING CONICAL CROSS



CTD
DOUBLE CONICAL TEE



CTDR
REDUCING DOUBLE CONICAL TEE



NOTES

- C10 or D10 can be no larger than A10 - 2"

For RL: See page 3-12

- Body lengths are based on the taps being centered on the body. Any change in tap location or offset from center will most likely result in a longer "L" dimension.

* = Equal

- Conical Tap entrance at body is 2" larger than C1/C10 or D1/D10 respectively.

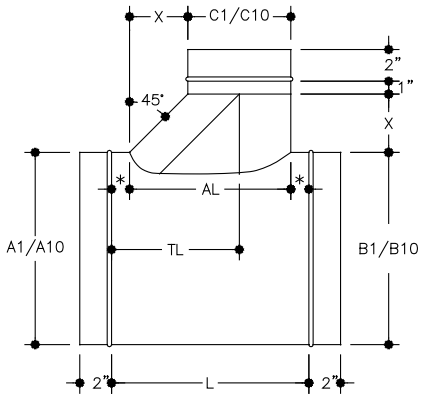
For Conical Crosses:
When C1 and D1 are different sizes, the centerline of the larger tap is also the centerline of the smaller tap.

For Conical Tees and Crosses:
L = (Largest of C1 or D1) + 5"

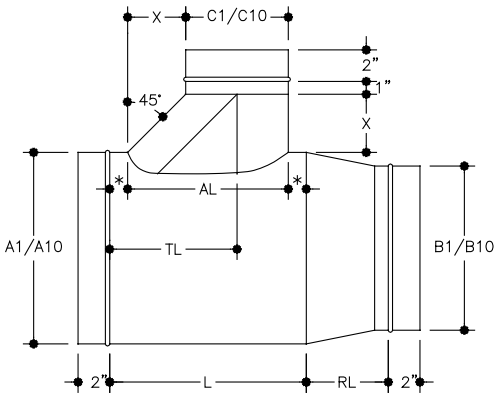
For Double Conical Tees: L = C1 + D1 + 11"

COMBINATION TEE FITTINGS

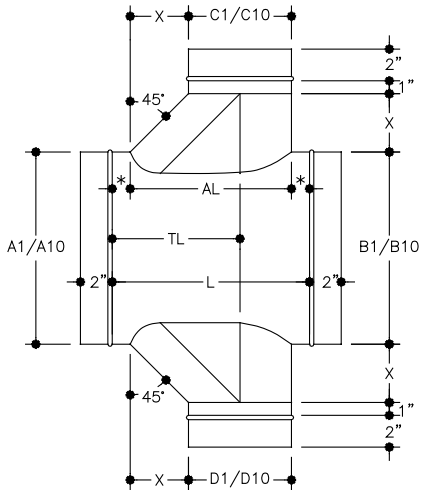
CMT
COMBINATION TEE



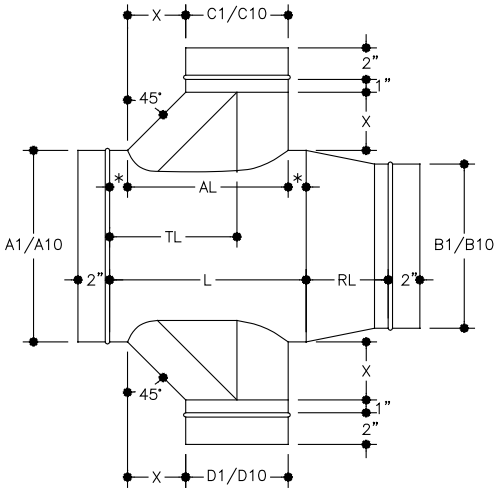
CMTR
REDUCING COMBINATION TEE



CMTC
COMBINATION CROSS



CMTCR
REDUCING COMBINATION CROSS



NOTES

- C10 or D10 can be no larger than A10

For RL: See page 3-12

AL = C1 or D1 + appropriate X
L = Largest AL value + 3"
TL = 1.5" + X + (0.5 x C1 or D1)

* = Equal

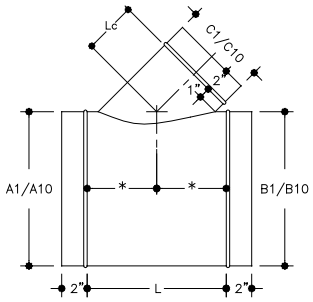
C1 or D1	X
3" thru 8"	3"
9" thru 16"	6"
17" thru 24"	9"
25" and up	12"

For Combination Crosses:
When C1 and D1 are different sizes, the centerline of the larger tap is also the centerline of the smaller tap.

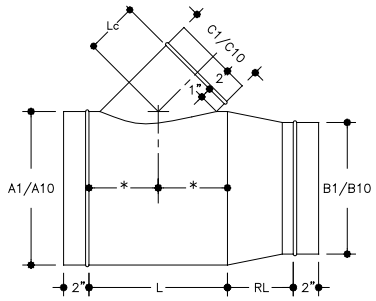
- Body lengths are based on the taps being centered on the body. Any change in tap location or offset from center will most likely result in a longer "L" dimension.

LATERAL FITTINGS

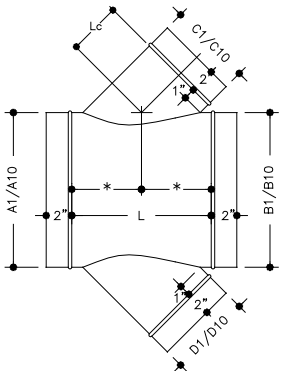
L
45° LATERAL



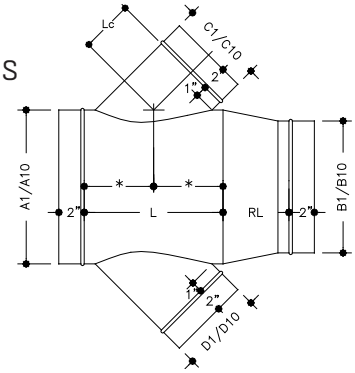
LR
45° REDUCING LATERAL



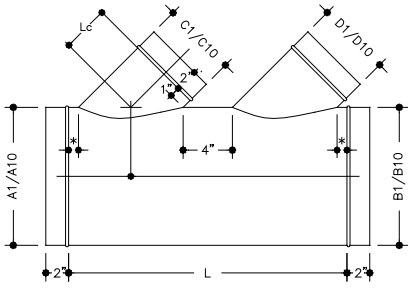
LC
45° LATERAL CROSS



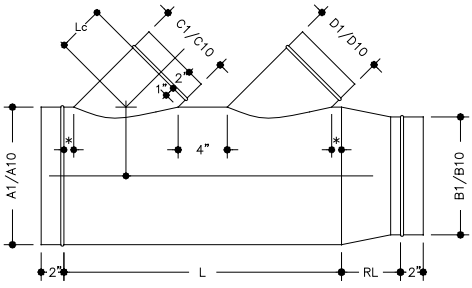
LCR
45° REDUCING LATERAL CROSS



LD
45° DOUBLE LATERAL



LDR
45° REDUCING DOUBLE LATERAL



NOTES

- C10 or D10 can be no larger than A10

For RL: See page 3-12

- Body lengths are based on the taps being centered on the body. Any change in tap location or offset from center will most likely result in a longer "L" dimension.

* = Equal

For 45° Lateral Arms: Lc = (0.5 X C1) + 1"

- For other degree arms, contact SEMCO

For Double Laterals:
L = [(C1 + D1) x 1.4142] + 7"

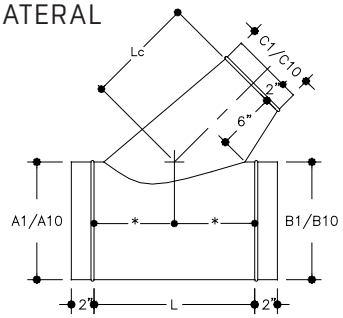
For Laterals and Lateral Crosses:
L = [(Largest of C1 or D1) x 1.4142] + 3"

For Lateral Crosses:
When C1 and D1 are different sizes, the centerline of the larger tap is also the centerline of the smaller tap.

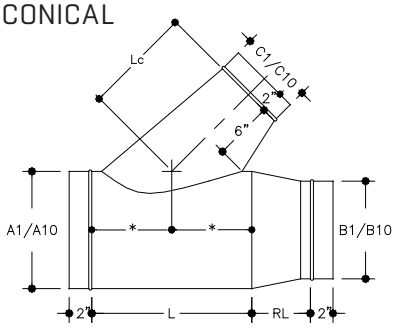
- Calculated "L" dimensions for the lateral fittings will be rounded up to the next 1/2".

CONICAL LATERAL FITTINGS

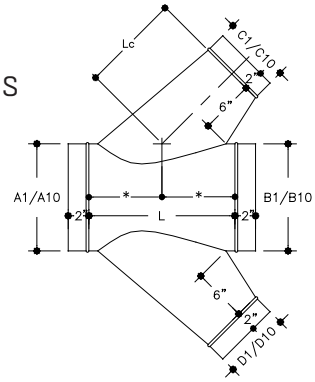
CL
CONICAL LATERAL



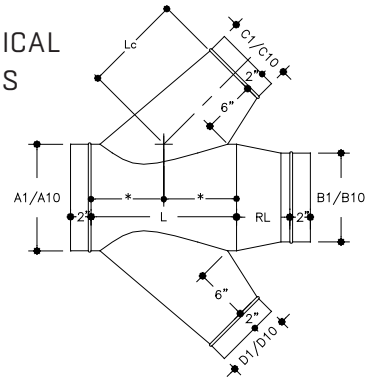
CLR
REDUCING CONICAL LATERAL



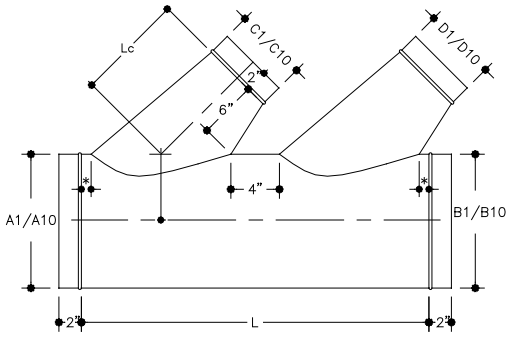
CLC
CONICAL LATERAL CROSS



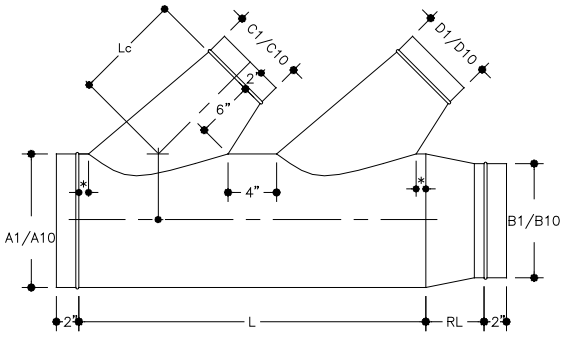
CLCR
REDUCING CONICAL LATERAL CROSS



CLD
DOUBLE CONICAL LATERAL



CLDR
REDUCING DOUBLE CONICAL LATERAL



NOTES

- C10 or D10 can be no larger than A10 - 2"

For RL: See page 3-12

- Body lengths are based on the taps being centered on the body. Any change in tap location or offset from center will most likely result in a longer "L" dimension.

* = Equal

For 45° Conical Lateral Arms:
Lc = [0.5 (C1+ 2")] + 6"

For Double Conical Laterals:
L = [(C1 + D1 + 4") x 1.4142] + 7"

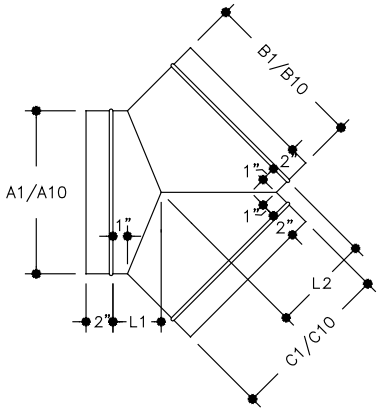
For Conical Laterals and Conical Lateral Crosses:
L = [(Largest of C1 or D1 + 2") x 1.4142] + 3"

For Conical Lateral Crosses:
When C1 and D1 are different sizes, the centerline of the larger tap is also the centerline of the smaller tap.

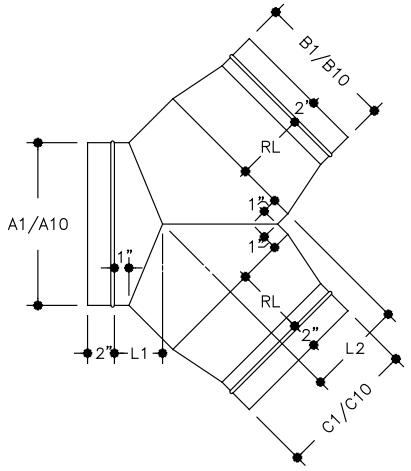
- Calculated "L" dimensions for the lateral fittings will be rounded up to the next 1/2".

WYE FITTINGS AND BULLHEAD TEES

WYE
TWO WAY Y

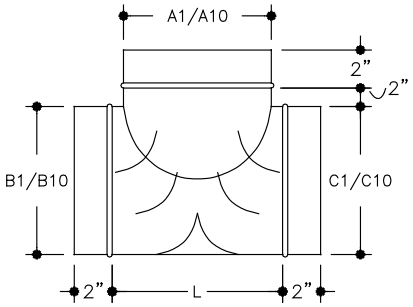


WYE
REDUCING TWO WAY Y



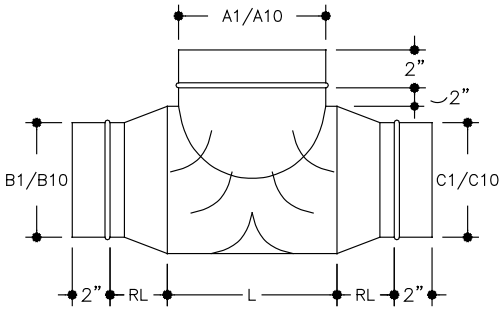
BHTHB
HARD BEND BULLHEAD TEE

BHTEB
EASY BEND BULLHEAD TEE



BHTHB
HARD BEND REDUCING BULLHEAD TEE

BHTEB
EASY BEND REDUCING BULLHEAD TEE



NOTES

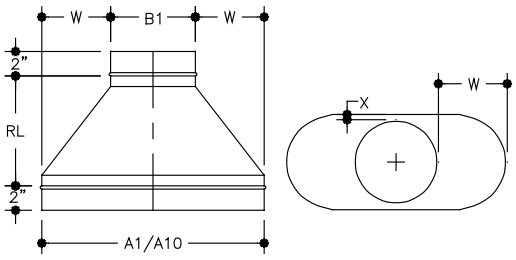
For Two Way Y and Reducing Two Way Y:
L1 = [(0.5 x A1) x 0.4142] + 1"
L2 = (0.5 x A1) + 1"

For RL: See page 3-12

Bullhead Chart	
A1	L
3" thru 4"	12"
5" thru 10"	18"
11" thru 16"	24"
17" thru 18"	30"
19" thru 24"	36"
25" thru 36"	48"
37" thru 48"	60"
49" thru 74"	A1 + 18"
75" thru 90"	A1 + 26"

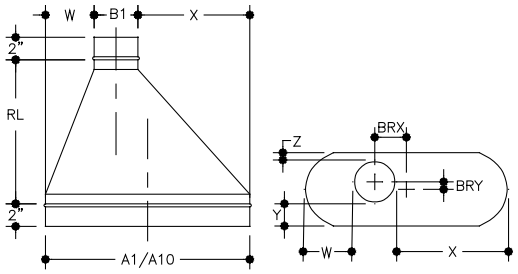
REDUCERS

RC
CONCENTRIC REDUCER



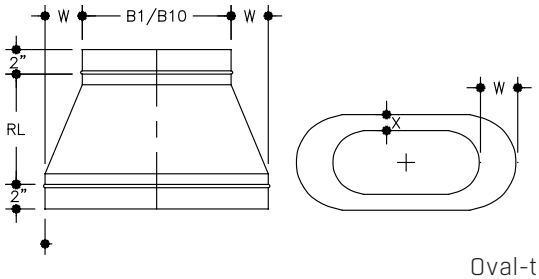
Oval-to-Round

RE
NON-CONCENTRIC REDUCER



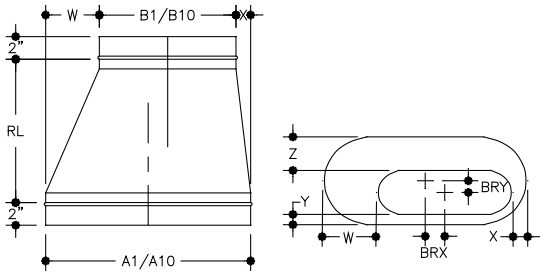
Oval-to-Round

RC
CONCENTRIC
REDUCER



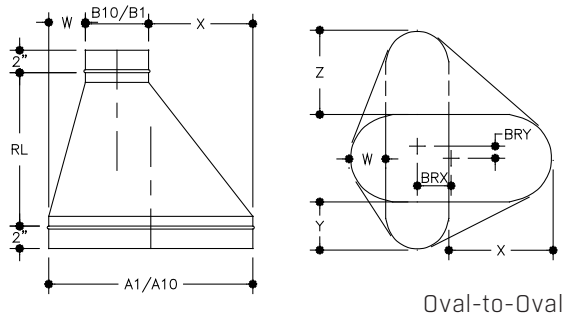
Oval-to-Oval

RE
NON-CONCENTRIC REDUCER



Oval-to-Oval

RE
NON-CONCENTRIC REDUCER



Oval-to-Oval Twist

NOTES

Largest of W or X	RL
0.5" to 2"	5"
2.5" to 4"	11"
4.5" to 6"	17"
6.5" and Up	23"

Chart applies to concentric reducers only.

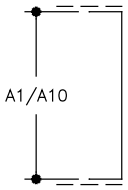
RL formula for Non-Concentric Reducers:
RL = [(Greater of W, X, Y or Z) x 2] + 3"

- 48" Maximum Length

For Non-Concentric Reducers:
Dimensions required when ordering are major and minor plus amount of offset. Use next larger size when W, X, Y or Z contain fractional dimensions. RL on non-concentric reducers are determined on side which has the largest offset (greater of W, X, Y or Z).

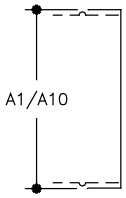
MISCELLANEOUS

PLUG
PLUG



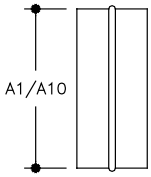
Fits into female duct.
Plugs installed by factory may consist of a plate only.

CAP
CAP



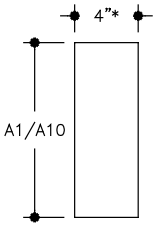
Fits over male fitting.

CPL-M
MALE COUPLING



Fits into female duct.

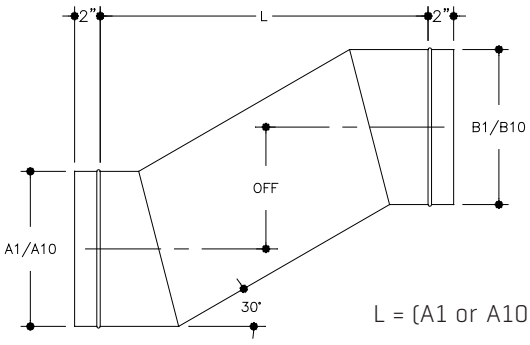
CPL-F
FEMALE COUPLING



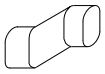
Fits over male fitting.
Available in longer lengths (up to 11") if necessary to eliminate joint.

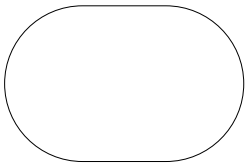
OFFHB
30° HARD BEND OFFSET

OFFEB
30° EASY BEND OFFSET



HARD BEND





EASY BEND

L = (A1 or A10 x 0.27) + (OFF x 1.732)

NOTES

- The 30° offset is standard. Other lengths and angles are available, but care should be taken not to choke the fitting. Instead of an offset consider using two elbows with a length of straight duct in between. Contact SEMCO for application help.
- Calculated "L" dimension for offset fittings will be rounded up to the next 1/4".

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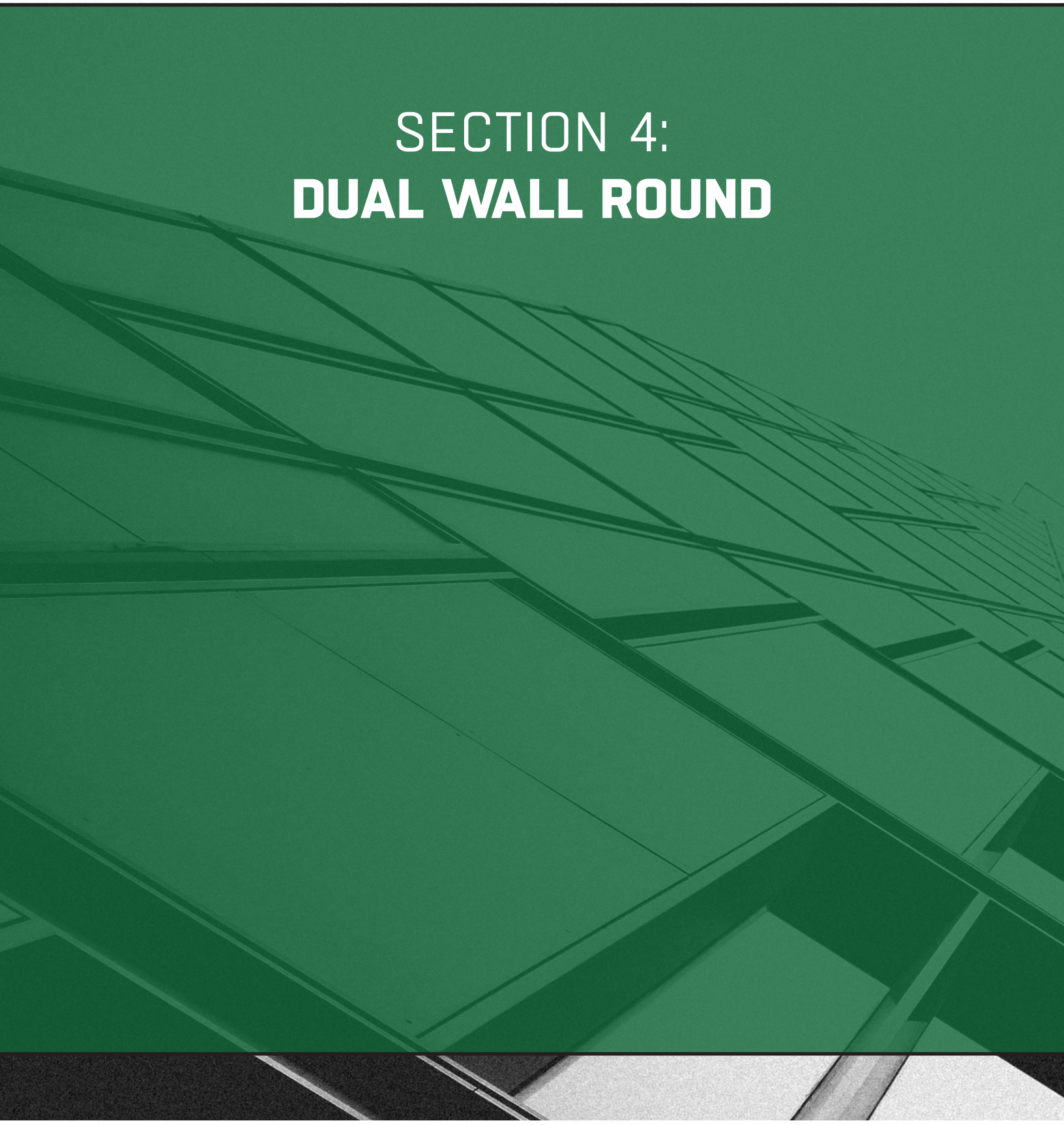
CUSTOM AIR

SECTION 4:
DUAL WALL ROUND



GAUGE & CONSTRUCTION CHART

S2005P
Construction Standard
0 to 10"wg. Positive Pressure

Nominal Diameter	Galv. Spiral Duct Ga.	Galv. Fitting Ga.	Spiral Duct Wt. (lb/ft)	Spiral Duct Std. Lgth. (ft)
3	26/26	26/24	1.31	10
4	26/26	26/24	1.59	10
5	26/26	26/24	1.87	10
6	26/26	26/24	2.15	10
7	26/26	26/24	2.42	10
8	26/26	26/24	2.7	10
9	26/26	26/24	2.98	10
10	26/26	26/24	3.25	10
11	26/26	26/24	3.53	10
12	26/26	26/24	3.8	10
13	26/26	24/24	4.07	10
14	26/26	24/24	4.35	10
15	26/26	24/24	4.62	10
16	26/26	24/24	4.9	10
17	26/26	24/24	5.17	10
18	26/26	24/24	5.44	10
19	26/26	24/24	5.72	10
20	26/26	24/24	5.99	10
21	26/26	24/24	6.54	10
22	26/26	24/24	5.99	10
24	24/26	22/24	9.04	10
26	24/26	22/24	9.74	10
28	24/26	22/24	10.43	10
30	24/26	22/24	11.13	10
32	24/26	22/24	11.83	10
34	24/26	22/24	12.53	10
36	24/26	22/24	13.22	10
38	24/26	22/24	13.92	10
40	24/26	20/24	14.62	10
42	22/24	20/22	18.63	10
44	22/24	20/22	19.47	10
46	22/24	20/22	20.32	10
48	22/24	20/22	21.17	10

Nominal Diameter	Galv. Spiral Duct Ga.	Galv. Fitting Ga.	Spiral Duct Wt. (lb/ft)	Spiral Duct Std. Lgth. (ft)
50	22/24	20/22	22.02	10
52	22/24	20/22	22.86	10
54	22/24	20/22	23.72	10
56	22/24	20/22	24.56	10
58	22/24	20/22	25.41	10
60	22/22	18/22	26.25	10
62	22/22	18/22	27.1	10
64	22/22	18/22	27.95	8
66	20/22	18/22	33.92	8
68	20/22	18/22	34.91	8
70	20/22	18/22	35.91	8
72	20/22	18/22	36.92	8
74	20/22	18/22	37.91	8
76	20/22	18/22	38.91	8

The above gauges and weights are based on 1" dual wall galvanized steel with perforated liners. Some gauges are not available for special metals, contact SEMCO for application help. Rolled longitudinal seam duct gauges are the same as shown for fittings. Leakage for SH95P and SM95P product will not exceed SMACNA Leakage Class 3 when field joints are adequately sealed.

GAUGE & CONSTRUCTION CHART

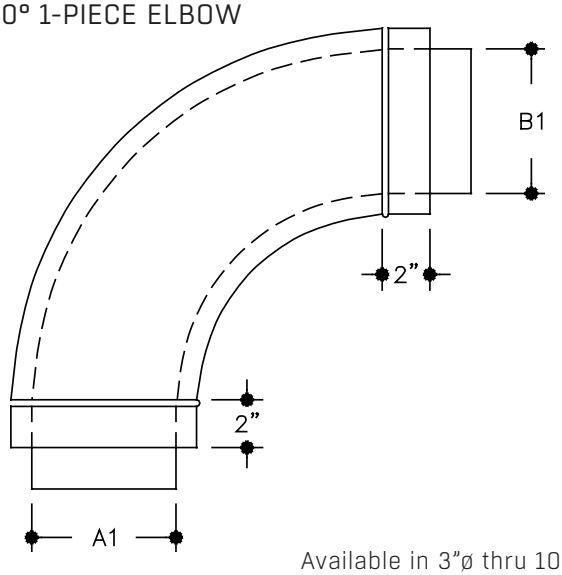
S2005N2 Construction Standard 2"wg. Negative Pressure			S2005N4 Construction Standard 4"wg. Negative Pressure			S2005N6 Construction Standard 6"wg. Negative Pressure			S2005N10 Construction Standard 10"wg. Negative Pressure		
Nominal Diameter	Galv. Spiral Duct Ga.	Galv. Fitting Ga.	Nominal Diameter	Galv. Spiral Duct Ga.	Galv. Fitting Ga.	Nominal Diameter	Galv. Spiral Duct Ga.	Galv. Fitting Ga.	Nominal Diameter	Galv. Spiral Duct Ga.	Galv. Fitting Ga.
3	26/26	26/24	3	26/26	26/24	3	26/26	26/24	3	26/26	26/24
4	26/26	26/24	4	26/26	26/24	4	26/26	26/24	4	26/26	26/24
5	26/26	26/24	5	26/26	26/24	5	26/26	26/24	5	26/26	24/24
6	26/26	26/24	6	26/26	26/24	6	26/26	26/24	6	26/26	24/24
7	26/26	26/24	7	26/26	26/24	7	26/26	24/24	7	26/26	24/24
8	26/26	26/24	8	26/26	26/24	8	26/26	24/24	8	26/26	24/24
9	26/26	26/24	9	26/26	24/24	9	24/26	24/24	9	24/26	22/24
10	26/26	26/24	10	26/26	24/24	10	24/26	24/24	10	24/26	22/24
11	26/26	24/24	11	24/26	22/24	11	24/26	22/24	11	22/26	20/24
12	26/26	24/24	12	24/26	22/24	12	24/26	22/24	12	22/26	20/24
13	26/26	24/24	13	24/26	22/24	13	22/26	20/24	13	22/26	18/24
14	26/26	24/24	14	24/26	22/24	14	22/26	20/24	14	22/26	18/22
15	24/26	22/24	15	22/26	20/24	15	22/26	20/24	15	20/26	18/22
16	24/26	22/24	16	22/26	20/24	16	22/26	20/24	16	20/26	18/22
17	24/26	22/24	17	22/26	20/24	17	20/26	18/24	17	18/26	18/22
18	24/26	22/24	18	22/26	20/24	18	20/26	18/24	18	18/26	18/22
19	22/26	22/24	19	20/26	18/24	19	20/26	18/24	19	18/26	16/22
20	22/26	22/24	20	20/26	18/24	20	20/26	18/24	20	18/26	16/22
21	22/26	20/24	21	20/26	18/24	21	18/26	18/24	21	18/26	16/22
22	22/26	22/24	22	20/26	18/24	22	20/26	18/24	22	18/26	16/22
24	20/26	18/24	24	18/26	16/24	24	18/26	16/22	24	16/24	18/22*
26	20/26	18/24	26	18/26	16/24	26	18/26	16/22	26	16/24	18/22*
28	20/26	18/24	28	18/26	16/24	28	18/26	16/22	28	16/24	18/22*
30	18/26	16/24	30	16/24	20/24*	30	16/24	18/22*	30	18/24*	16/22*
32	18/26	16/24	32	16/24	20/24*	32	16/24	18/22*	32	18/24*	16/22*
34	18/26	16/24	34	16/24	20/24*	34	16/24	18/22*	34	18/24*	16/22*
36	18/24	16/22	36	16/24	18/22*	36	20/24*	18/22*	36	18/24*	16/22*
38	18/24	16/22	38	16/24	18/22*	38	20/24*	18/22*	38	18/24*	16/22*
40	18/24	16/22	40	16/24	18/22*	40	20/24*	18/22*	40	18/24*	16/22*
42	16/24	20/22*	42	20/24*	18/22*	42	18/24*	16/22*	42	18/24*	16/22**
44	16/24	20/22*	44	20/24*	18/22*	44	18/24*	16/22*	44	18/24*	16/22**
46	16/24	20/22*	46	20/24*	18/22*	46	18/24*	16/22*	46	18/24*	16/22**
48	16/24	20/22*	48	20/24*	18/22*	48	18/24*	16/22*	48	18/24*	16/22**
50	16/24	20/22*	50	20/24*	18/22*	50	18/24*	16/22*	50	18/24*	16/22**
52	16/24	20/22*	52	20/24*	18/22*	52	18/24*	16/22*	52	18/24*	16/22**
54	22/24*	20/22*	54	20/24*	18/22*	54	18/24*	16/22*	54	16/24*	16/22**
56	22/24*	20/22*	56	20/24*	18/22*	56	18/24*	16/22*	56	16/24*	16/22**
58	22/22*	20/22*	58	20/22*	18/22*	58	18/22*	16/22*	58	16/22*	16/22**
60	22/22*	18/22*	60	18/22*	16/22*	60	18/22*	16/22*	60	16/22*	16/22***
62	22/22*	18/22*	62	18/22*	16/22*	62	18/22*	16/22*	62	16/22*	16/22***
64	22/22*	18/22*	64	18/22*	16/22*	64	18/22*	16/22**	64	16/22*	16/22***
66	20/22*	18/22*	66	18/22*	16/22*	66	18/22*	16/22**	66	16/22*	16/22***
68	20/22*	18/22*	68	18/22*	16/22*	68	18/22*	16/22**	68	16/22*	16/22***
70	20/22*	18/22*	70	18/22*	16/22*	70	18/22*	16/22**	70	16/22*	16/22***
72	20/22*	18/22*	72	18/22*	16/22*	72	16/22*	16/22**	72	16/22*	16/22***
74	20/22*	18/22*	74	18/22*	16/22*	74	16/22*	16/22**	74	16/22*	16/22***
76	20/22*	18/22*	76	18/22*	16/22*	76	16/22*	16/22**	76	16/22*	16/22***

The above gauges and weights are based on 1" dual wall galvanized steel with perforated liners. Some gauges are not available for special metals, contact SEMCO for application help. Rolled longitudinal seam duct gauges are the same as shown for fittings. Leakage for product will not exceed SMACNA Leakage Class 3 when field joints are adequately sealed. * Reinforce with 2x2x3/16 angle 12 ft. on center.
** Reinforce with 2x2x3/16 angle 6 ft. on center. *** Reinforce with 2x2x3/16 angle 4 ft. on center.

ELBOWS

E901

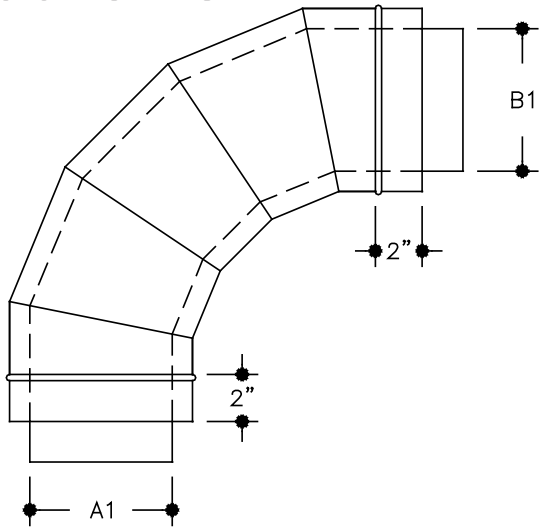
90° 1-PIECE ELBOW



Available in 3”ø thru 10”ø.

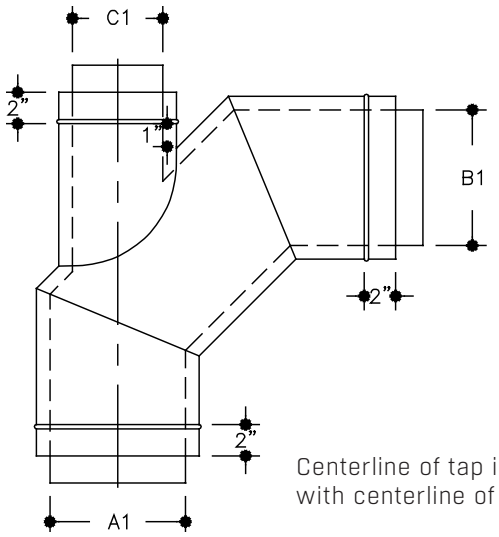
E905

90° 5-PIECE ELBOW



E90HT3

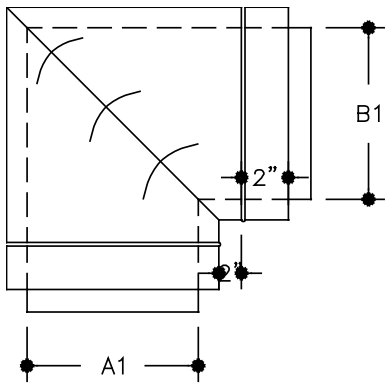
90° 3-PIECE ELBOW w/ HEEL TAP



Centerline of tap is aligned with centerline of elbow inlet.

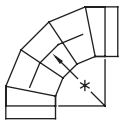
E902V

SQUARE THROAT ELBOW w/VANES



Fittings with turning vanes will have **solid** liners.

NOTES



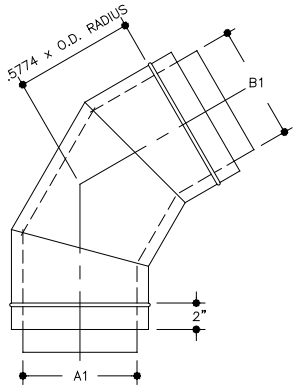
Standard O.D. Radius = 1.5℄
* Radius = 1.5 [A1+(2 x insulation)]

Standard Gored Elbows			
Duct Velocity (fpm)	45°	60°	90°
	Number of Gores		
0 - 1000	2	2	3
1001 - 1500	2	3	4
> 1500	3	3	5
Industrial	4	4	7

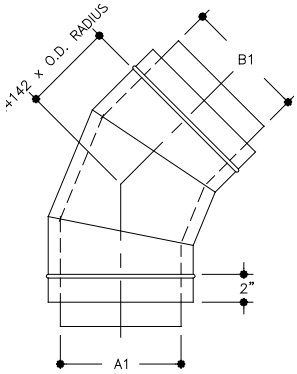
- Some large diameter elbows will be shipped as two or more smaller degree elbows due to truck space limitations.
- Contact SEMCO if you have special requirements for radius, gore quantity and/or degree of elbow.

ELBOWS

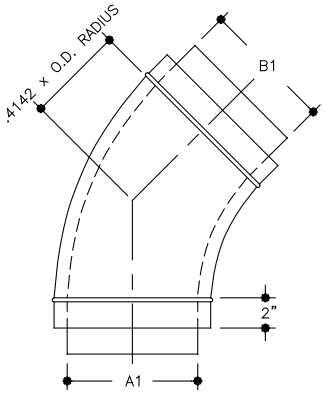
E603
60° 3-PIECE ELBOW



E453
45° 3-PIECE ELBOW

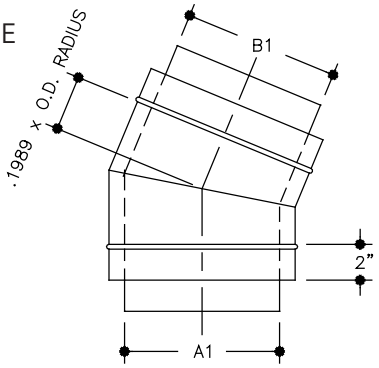


E451
45° 1-PIECE ELBOW

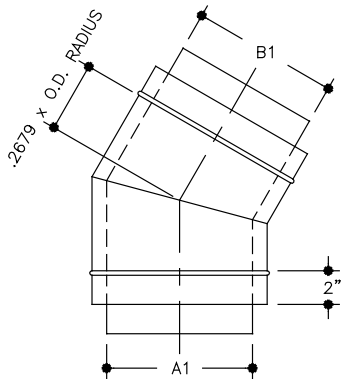


Available in 3"ø thru 10"ø.

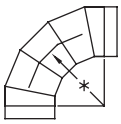
E222
22 1/2° 2-PIECE ELBOW



E302
30° 2-PIECE ELBOW



NOTES



Standard O.D. Radius = 1.5℄
* Radius = 1.5 [A1+(2 x insulation)]

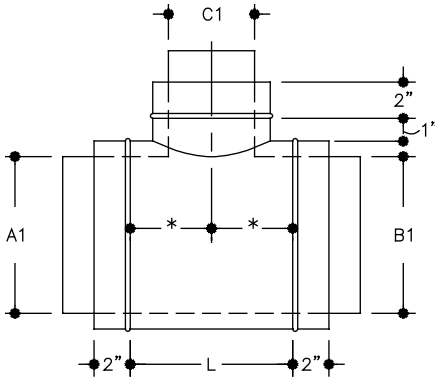
Standard Gored Elbows			
Duct Velocity (fpm)	45°	60°	90°
	Number of Gores		
0 - 1000	2	2	3
1001 - 1500	2	3	4
> 1500	3	3	5
Industrial	4	4	7

Leg formula is based on:

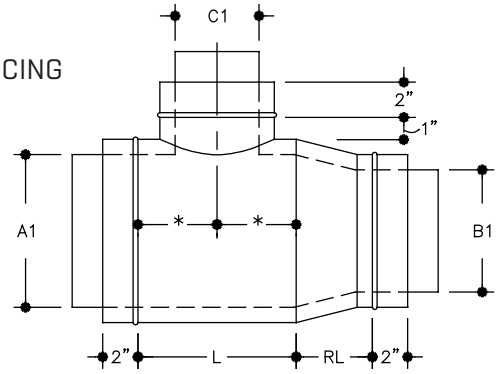
- TAN (0.5 x elbow degree) x centerline radius
- Some large diameter elbows will be shipped as two or more smaller degree elbows due to truck space limitations.
- Contact SEMCO if you have special requirements for radius, gore quantity and/or degree of elbow.

TEE FITTINGS

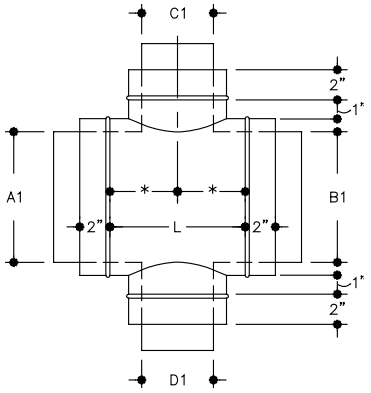
T
TEE



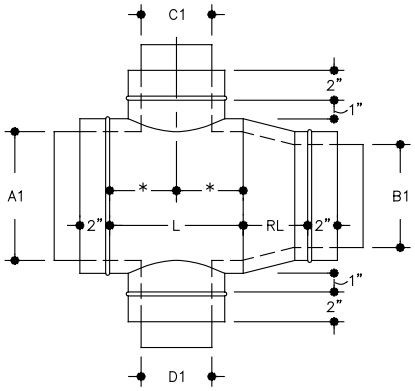
TR
REDUCING TEE



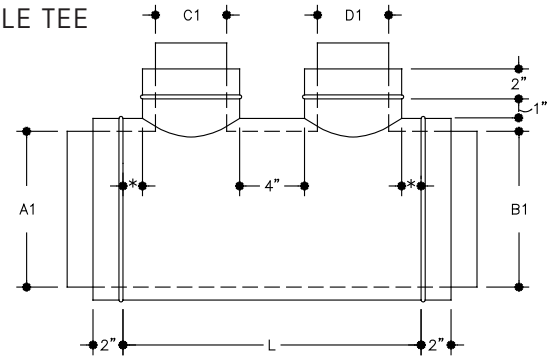
C
CROSS



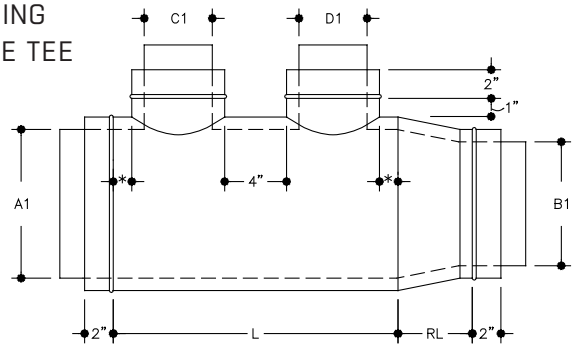
CR
REDUCING CROSS



TD
DOUBLE TEE



TDR
REDUCING DOUBLE TEE



NOTES

- C1 or D1 can be no larger than A1

For RL: See page 4-11

- Body lengths are based on the taps being centered on the body. Any change in tap location or offset from center will most likely result in a longer "L" dimension.

* = Equal

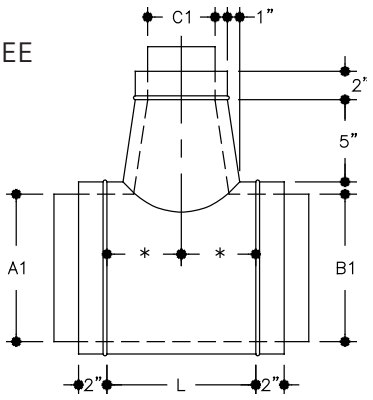
For Crosses:
When C1 and D1 are different sizes, the centerline of the larger tap is also the centerline of the smaller tap.

For Tees and Crosses:
L = (Largest of C1 or D1) + 3" + (2 x insulation)

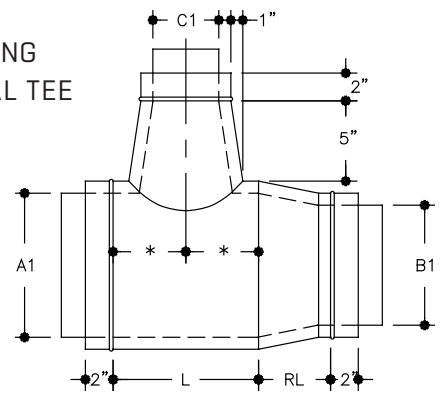
For Double Tees:
L = C1 + D1 + 7" + (4 x insulation)

CONICAL TEE FITTINGS

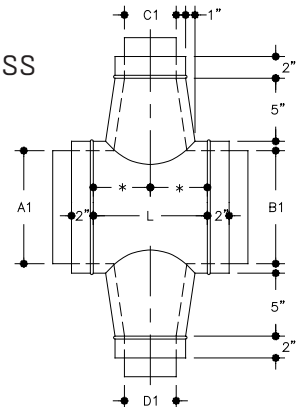
CT
CONICAL TEE



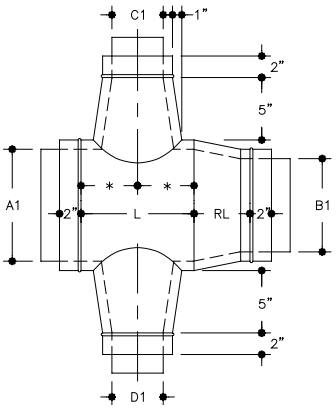
CTR
REDUCING
CONICAL TEE



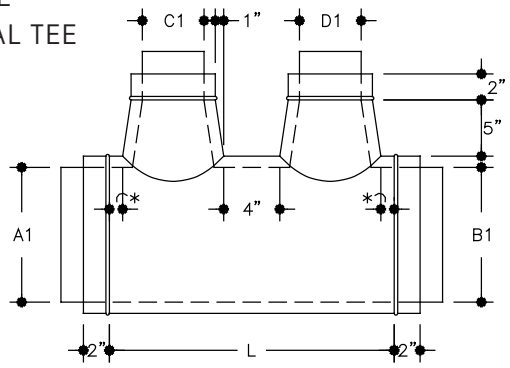
CC
CONICAL CROSS



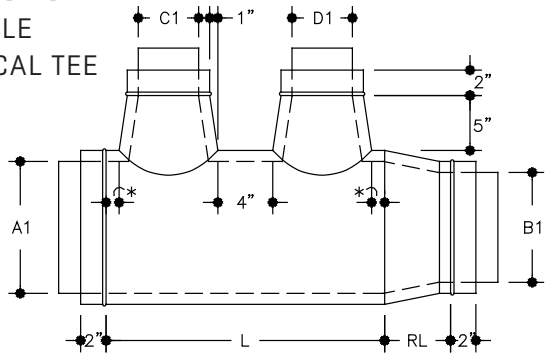
CCR
REDUCING
CONICAL
CROSS



CTD
DOUBLE
CONICAL TEE



CTDR
REDUCING
DOUBLE
CONICAL TEE



NOTES

- C1 or D1 can be no larger than A1 - 2”

For RL: See page 4-11

- Body lengths are based on the taps being centered on the body. Any change in tap location or offset from center will most likely result in a longer “L” dimension.

* = Equal

- Conical tap entrance at body is 2” larger than C1 or D1 respectively.

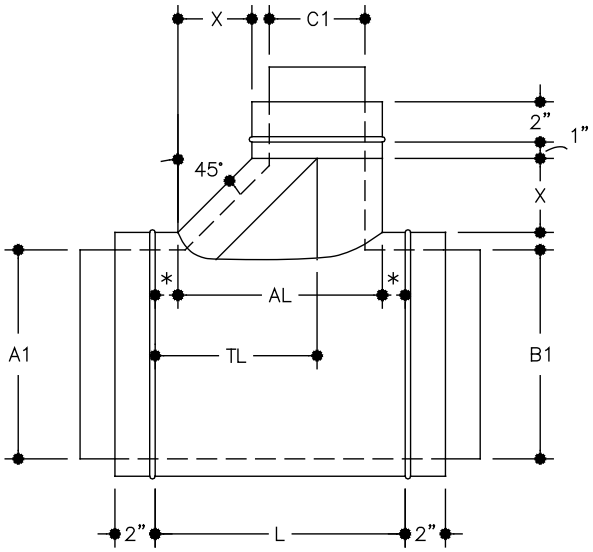
For Conical Crosses:
When C1 and D1 are different sizes, the centerline of the larger tap is also the centerline of the smaller tap.

For Conical Tees and Crosses:
L = (Largest of C1 or D1) + 5” + (2 x insulation)

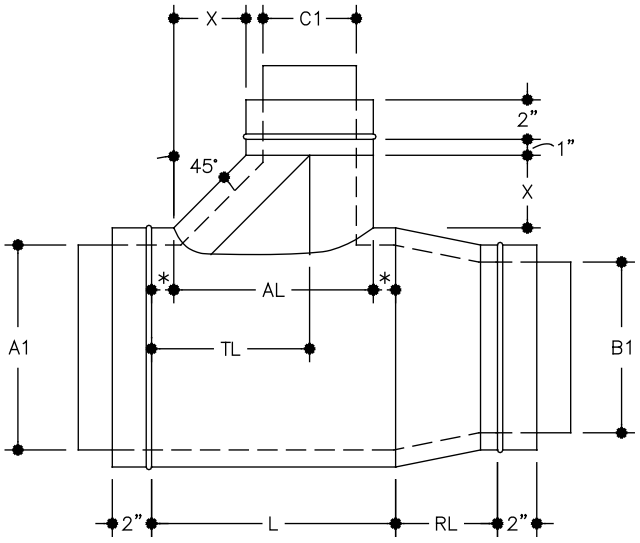
For Double Conical Tees:
L = C1 + D1 + 11” + (4 x insulation)

COMBINATION TEE FITTINGS

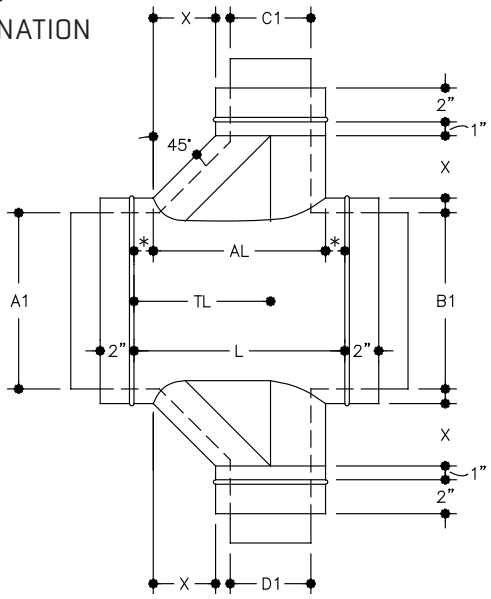
CMT
COMBINATION TEE



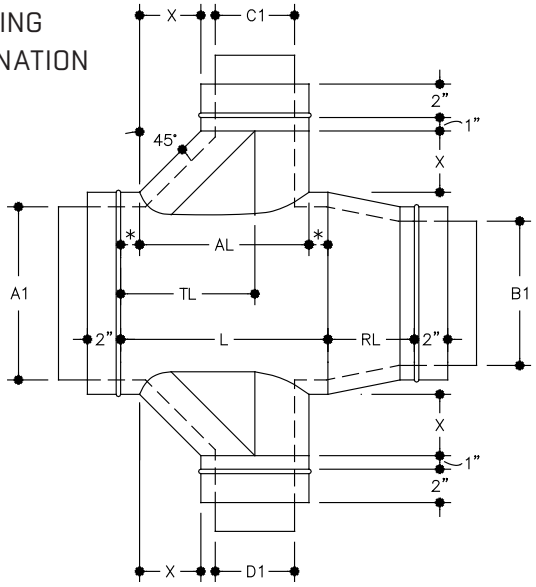
CMTR
REDUCING COMBINATION TEE



CMTC
COMBINATION CROSS



CMTCR
REDUCING COMBINATION CROSS



NOTES

- C1 or D1 can be no larger than A1

For RL: See page 4-11

AL = C1 or D1 + (2 x insulation) + appropriate X
L = largest AL value + 3"
TL = 1.5" + X + (0.5 x C1 or D1) + insulation

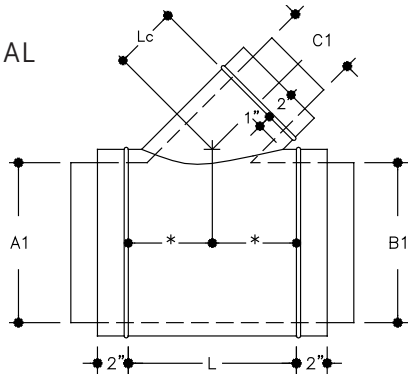
C1 or D1 + (2 x insulation)	X
3" thru 8"	3"
9" thru 16"	6"
17" thru 24"	9"
25" and up	12"

For Combination Crosses:
When C1 and D1 are different sizes, the centerline of the larger tap is also the centerline of the smaller tap.

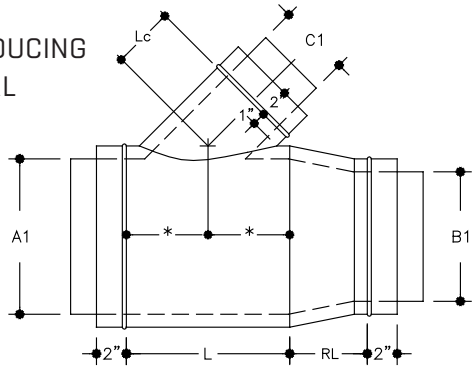
- Body lengths are based on the taps being centered on the body. Any change in tap location or offset from center will most likely result in a longer "L" dimension.

LATERAL FITTINGS

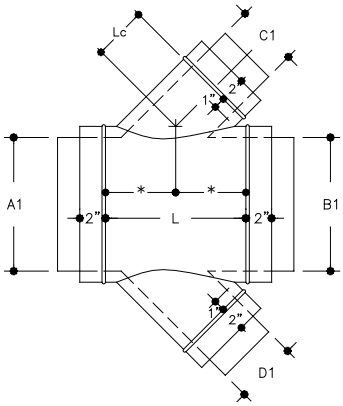
L
45° LATERAL



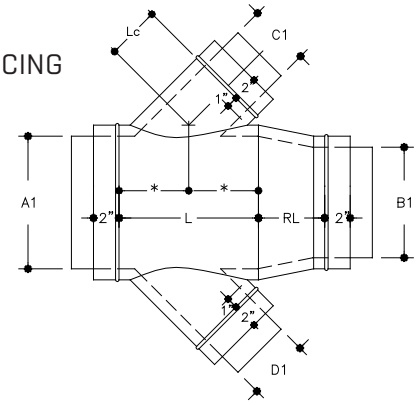
LR
45° REDUCING LATERAL



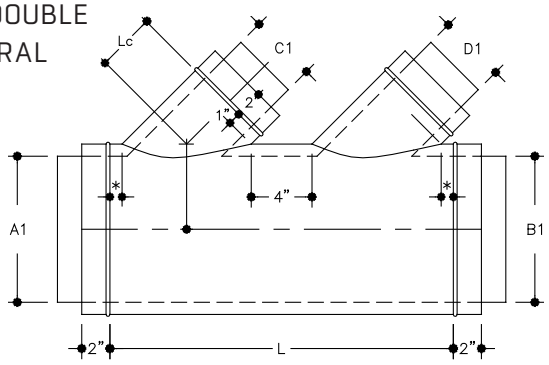
LC
45° LATERAL CROSS



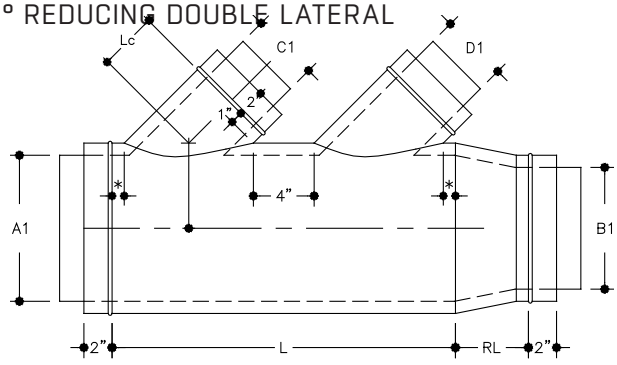
LCR
45° REDUCING LATERAL CROSS



LD
45° DOUBLE LATERAL



LDR
45° REDUCING DOUBLE LATERAL



NOTES

- C1 or D1 can be no larger than A1

For RL: See page 4-11

- Body lengths are based on the taps being centered on the body. Any change in tap location or offset from center will most likely result in a longer "L" dimension.

* = Equal

For 45° Lateral Arms:
Lc = [(0.5 x C1) + insulation] + 1"

- For other degree arms, contact SEMCO

For Lateral Crosses:
When C1 and D1 are different sizes, the centerline of the larger tap is also the centerline of the smaller tap.

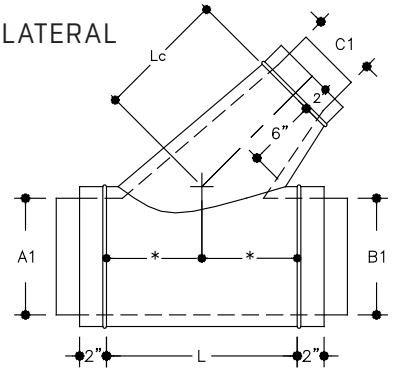
For Laterals and Lateral Crosses:
L = {[Largest of C1 or D1 + (2 x insulation)] x 1.4142} + 3"

For Double Laterals:
L = {[C1 + D1 + (4 x insulation)] x 1.4142} + 7"

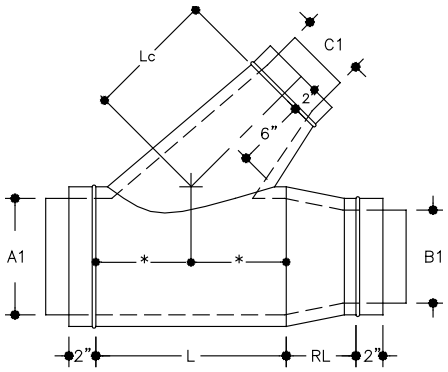
- Calculated "L" dimensions for the lateral fittings will be rounded up to the next 1/2".

CONICAL LATERAL FITTINGS

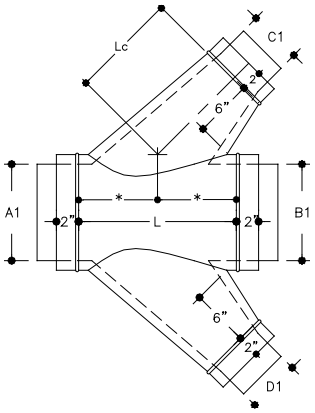
CL
CONICAL LATERAL



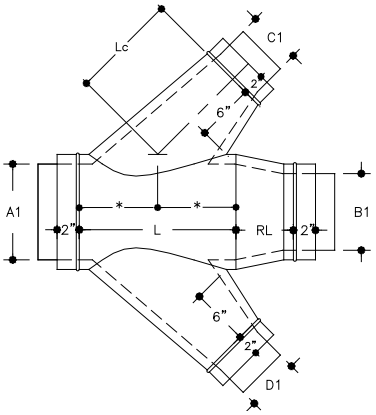
CLR
REDUCING CONICAL LATERAL



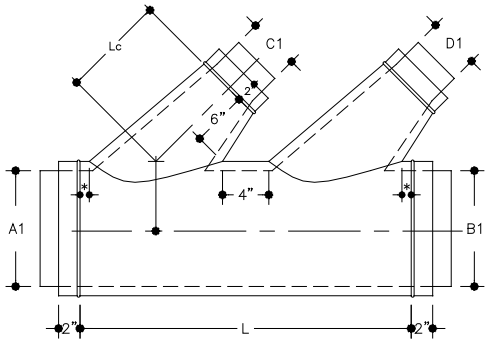
CLC
CONICAL LATERAL CROSS



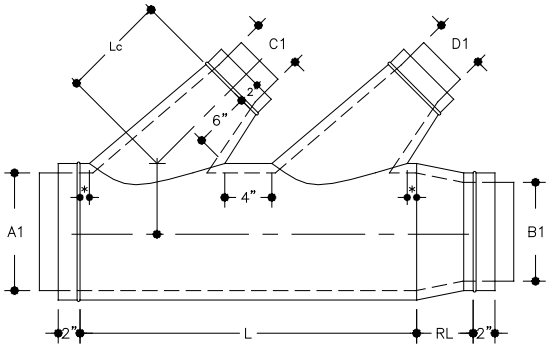
CLCR
REDUCING CONICAL LATERAL CROSS



CLD
DOUBLE CONICAL LATERAL



CLDR
REDUCING DOUBLE CONICAL LATERAL



NOTES

- C1 or D1 can be no larger than A1

For RL: See page 4-11

- Body lengths are based on the taps being centered on the body. Any change in tap location or offset from center will most likely result in a longer "L" dimension.

* = Equal

For 45° Conical Lateral Arms:
Lc = {[0.5 X (C1+2)] + insulation} + 6"

- For other degree arms, contact SEMCO

For Conical Lateral Crosses:
When C1 and D1 are different sizes, the centerline of the larger tap is also the centerline of the smaller tap.

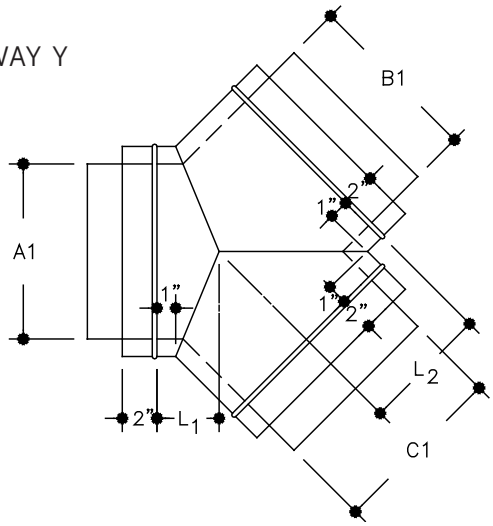
For Conical Laterals and Conical Lateral Crosses:
L = {[Largest of C1 or D1 + 2" + (2 x insulation)] x 1.4142} + 3"

For Double Conical Laterals:
L = {[C1 + D1 + 4" + (4 x insulation)] x 1.4142} + 7"

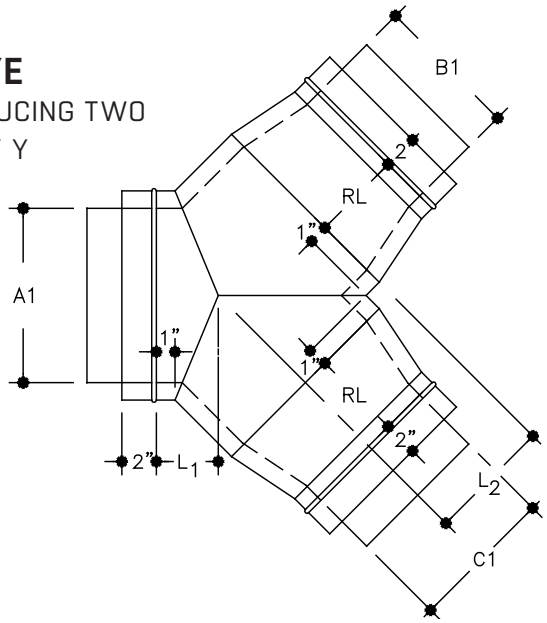
- Calculated "L" dimensions for the lateral fittings will be rounded up to the next 1/2".

WYE FITTINGS AND BULLHEAD TEES

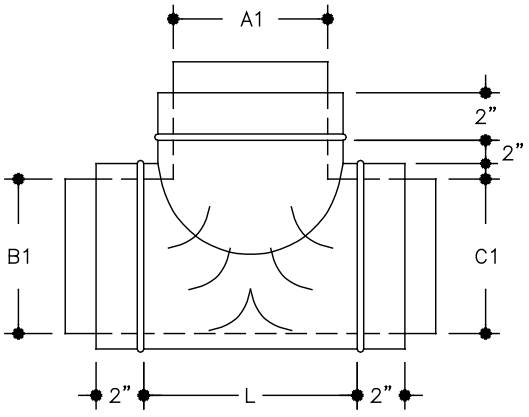
WYE
TWO WAY Y



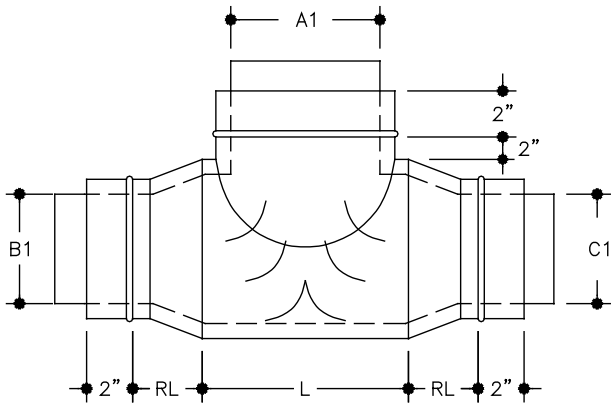
WYE
REDUCING TWO WAY Y



BHT
BULLHEAD TEE



BHT
REDUCING BULLHEAD TEE



NOTES

For Two Way Y and Reducing Two Way Y:
L1 = [0.5 (A1 + 2) x 0.4142] + 1"
L2 = 0.5 (A1 + 2 x insulation) + 1"

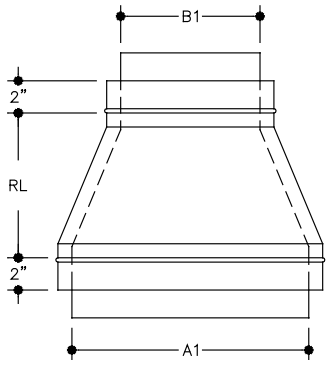
For RL: See page 4-11

- Fittings with turning vanes will have solid liners.

Bullhead Chart	
A1 + (2 x insulation)	L
3" thru 4"	12"
5" thru 10"	18"
11" thru 16"	24"
17" thru 18"	30"
19" thru 24"	36"
25" thru 36"	48"
37" thru 48"	60"
49" thru 74"	A1 + 18"
75" thru 90"	A1 + 26"

REDUCERS

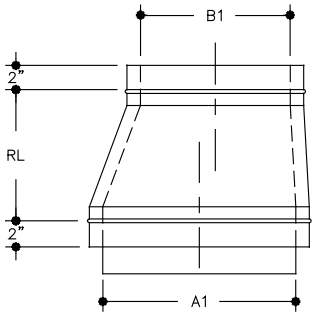
RC
CONCENTRIC
REDUCER

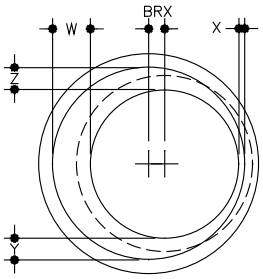


RL = (A1 - B1) + 3”

(5” minimum, 12” maximum length)

RE
NON-CONCENTRIC
REDUCER
(configuration 1)

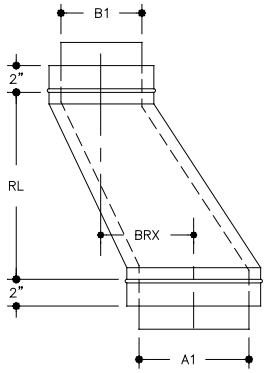


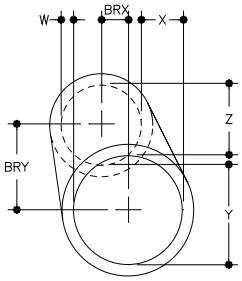


RL = [(Greater of W, X, Y or Z) x 2] + 3”

The maximum RL length is 23” except when W, X, Y or Z is greater than 0.5 x A1 see configuration 2 for maximum length.

RE
NON-CONCENTRIC
REDUCER
(configuration 2)





RL = [(Greater of W, X, Y or Z) x 2] + 3”

When W, X, Y or Z is greater than 0.5 x A1 the maximum RL length is 48”.

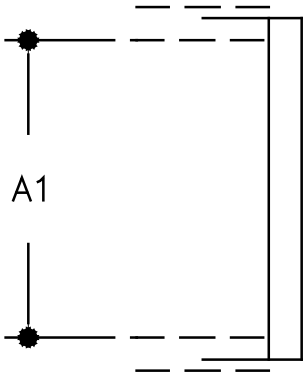
NOTES

- Some concentric reducers will not have a bead on the male “B” end.

MISCELLANEOUS

PLUG

PLUG

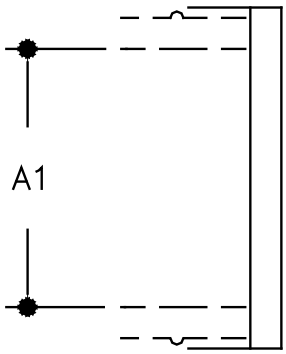


Fits into female duct.

Plugs installed by factory may consist of a plate only.

CAP

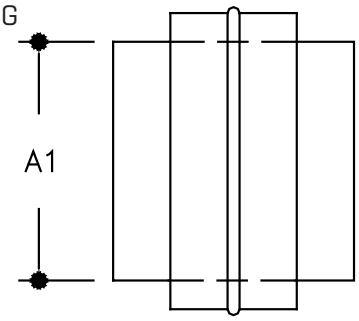
CAP



Fits over male fitting.

CPL-M

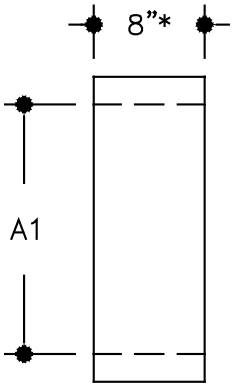
MALE COUPLING



Fits into female duct.

CPL-F

FEMALE COUPLING

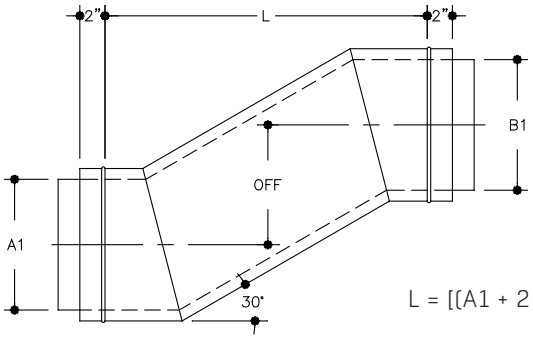


Fits over male fitting

Available in longer lengths (up to 11") if necessary to eliminate joint.

OFF

30° OFFSET



L = [(A1 + 2 x insulation) x 0.27] + [OFF x 1.732]

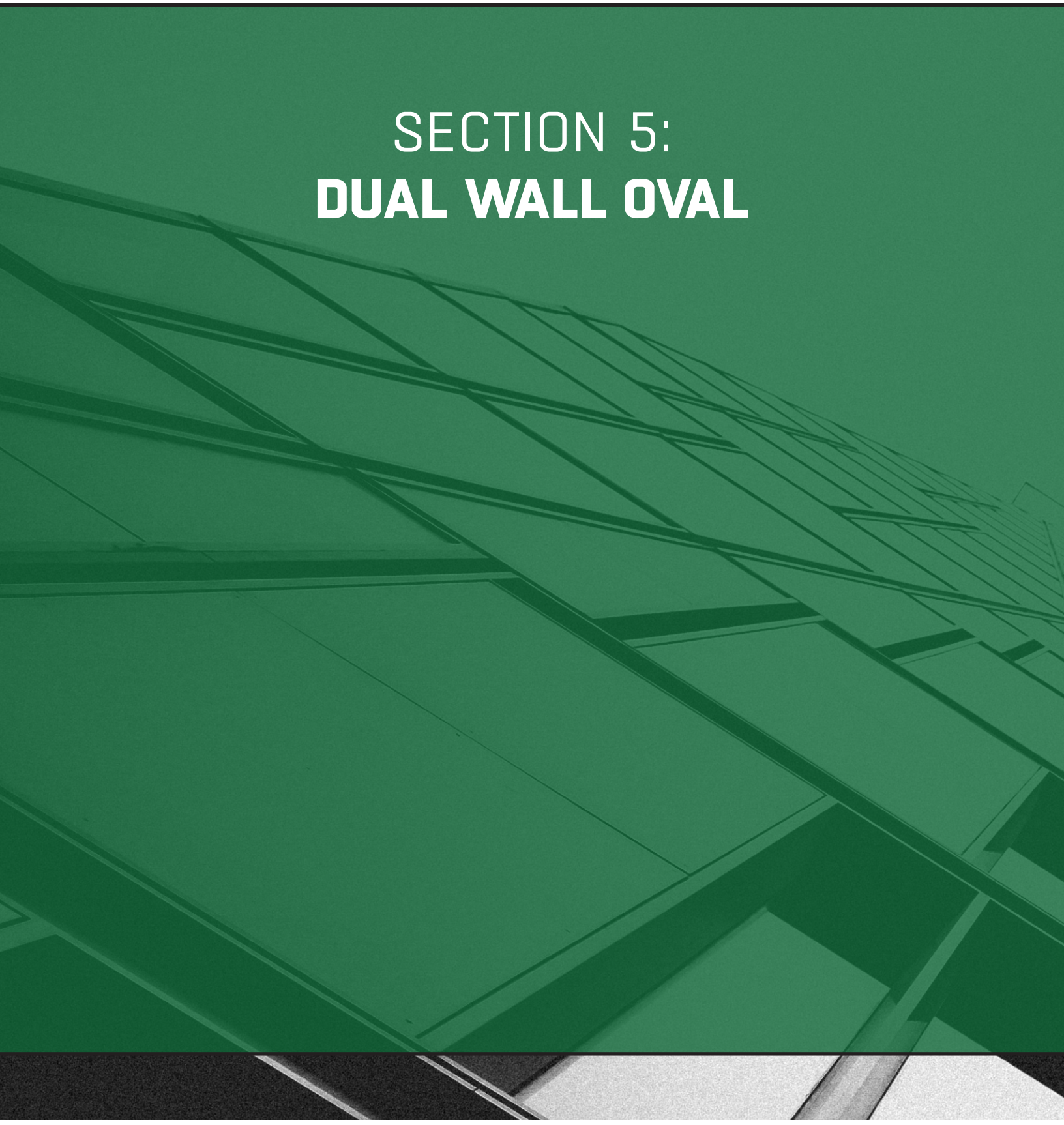
NOTES

- The 30° offset is standard. Other lengths and angles are available, but care should be taken not to choke the fitting. Instead of an offset consider using two elbows with a length of straight duct in between. Contact SEMCO for application help.
- Calculated "L" dimension for offset fittings will be rounded up to the next 1/4".

FläktGroup
SEMCO

CUSTOM AIR

SECTION 5:
DUAL WALL OVAL



GAUGE & CONSTRUCTION CHART

Nominal Oval Size	SH95P Maximum 10" w.g. Positive Static				
	Galv. Spiral Duct Ga.	Galv. Fitting Ga.	Spiral Duct Wt. (lb/ft)	Spiral Duct Std. Lgth. (ft)	Equiv. Round
4 x 10	24/26	20/24	5.37	6	6.60
12	24/26	20/24	5.95	6	7.19
15	24/26	20/24	7.19	6	7.96
18	24/26	20/24	8.42	6	8.63
20	24/26	20/24	9.00	6	9.03
5 x 11	24/26	20/24	5.95	6	7.75
13	24/26	20/24	6.61	6	8.41
16	24/26	20/24	7.76	6	9.26
18	24/26	20/24	8.42	6	9.77
6 x 10	24/26	20/24	5.95	6	8.07
12	24/26	20/24	6.61	6	8.87
14	24/26	20/24	7.27	6	9.58
17	24/26	20/24	8.42	6	10.51
19	24/26	20/24	9.00	6	11.06
20	24/26	20/24	9.57	12	11.33
22	24/26	20/24	10.15	12	11.82
23	22/26	20/24	12.15	12	12.06
25	22/26	20/24	12.88	12	12.51
26	22/26	20/24	13.53	12	12.73
28	22/26	20/24	14.18	12	13.15
31	22/26	20/24	15.56	12	13.73
34	22/26	20/24	16.86	12	14.28
37	22/24	18/22	19.26	12	14.80
41	22/24	18/22	20.68	12	15.45
44	22/24	18/22	22.10	12	15.90
47	20/24	18/22	26.07	12	16.34
50	20/24	18/22	27.64	12	16.76
53	20/24	18/22	29.22	12	17.16
56	20/24	18/22	30.79	12	17.55
59	20/22	16/22	34.82	12	17.92
63	20/22	16/22	37.43	12	18.40
66	20/22	16/22	39.21	12	18.75
69	18/22	16/22	48.13	12	19.08
72	18/22	16/22	50.21	12	19.41
75	18/22	16/22	52.25	10	19.73
79	18/22	16/22	54.28	10	20.14
82	18/22	16/22	56.27	10	20.43
85	18/22	16/22	58.35	10	20.73
88	18/22	16/22	60.35	10	21.01
8 x 14	24/26	20/24	7.76	6	11.04
16	24/26	20/24	8.42	6	11.83
17	24/26	20/24	9.00	6	12.20
19	24/26	20/24	9.57	12	12.88
21	24/26	20/24	10.15	12	13.52
22	24/26	20/24	10.72	12	13.82
24	22/26	20/24	12.88	12	14.39
25	22/26	20/24	13.53	12	14.66
27	22/26	20/24	14.18	12	15.19

Nominal Oval Size	SH95P Maximum 10" w.g. Positive Static				
	Galv. Spiral Duct Ga.	Galv. Fitting Ga.	Spiral Duct Wt. (lb/ft)	Spiral Duct Std. Lgth. (ft)	Equiv. Round
8 x 30	22/26	20/24	15.56	12	15.92
33	22/26	20/24	16.86	12	16.61
36	22/26	18/22	18.24	12	17.25
39	22/24	18/22	20.68	12	17.86
43	22/24	18/22	22.10	12	18.62
46	22/24	18/22	23.52	12	19.16
49	20/24	18/22	27.64	12	19.68
52	20/24	18/22	29.22	12	20.17
55	20/24	18/22	30.79	12	20.65
58	20/24	18/22	32.36	12	21.11
61	20/22	16/22	37.43	12	21.55
65	20/22	16/22	39.21	12	22.12
68	20/22	16/22	40.90	12	22.53
71	18/22	16/22	50.21	12	22.93
74	18/22	16/22	52.20	12	23.31
77	18/22	16/22	54.28	10	23.69
81	18/22	16/22	56.27	10	24.18
84	18/22	16/22	58.35	10	24.53
87	18/22	16/22	60.35	10	24.88
90	18/22	16/22	62.43	10	25.22
10 x 16	24/26	20/24	9.00	12	13.16
18	24/26	20/24	9.57	12	14.01
19	24/26	20/24	10.15	12	14.41
21	24/26	20/24	10.72	12	15.15
23	22/26	20/24	12.88	12	15.85
24	22/26	20/24	13.53	12	16.18
26	22/26	20/24	14.18	12	16.82
29	22/26	20/24	15.56	12	17.71
32	22/26	20/24	16.86	12	18.53
35	22/26	18/24	18.24	12	19.30
38	22/24	18/22	20.68	12	20.02
41	22/24	18/22	22.10	12	20.71
45	22/24	18/22	23.52	12	21.57
48	20/24	18/22	27.64	12	22.18
51	20/24	18/22	29.22	12	22.76
54	20/24	18/22	30.79	12	23.32
57	20/24	18/22	32.36	12	23.86
60	20/22	16/22	36.52	12	24.39
63	20/22	16/22	38.21	12	24.89
67	20/22	16/22	40.90	12	25.54
70	18/22	16/22	50.21	12	26.00
73	18/22	16/22	52.20	12	26.46
76	18/22	16/22	54.24	10	26.90
79	18/22	16/22	56.27	10	27.33
83	18/22	16/22	58.35	10	27.89
86	18/22	16/22	60.35	10	28.29
89	18/22	16/22	62.43	10	28.69
12 x 17	24/26	20/24	9.57	12	14.78

The above gauges and weights are based on 1" dual wall galvanized steel with perforated liners. Some gauges are not available for special metals, contact SEMCO for application help. Rolled longitudinal seam duct gauges are the same as shown for fittings. Leakage for SH95P and SM95P product will not exceed SMACNA Leakage Class 3 when field joints are adequately sealed. Leakage for SL95P product will not exceed SMACNA Leakage Class 6 when field joints are adequately sealed.

These gauges apply to all SEMCO construction standards and will accommodate positive and negative static pressure to 10" w.g. with appropriate reinforcement (see 6-10)

GAUGE & CONSTRUCTION CHART

Nominal Oval Size	SH95P Maximum 10" w.g. Positive Static				
	Galv. Spiral Duct Ga.	Galv. Fitting Ga.	Spiral Duct Wt. (lb/ft)	Spiral Duct Std. Lgth. (ft)	Equiv. Round
12 x 18	24/26	20/24	10.15	12	15.25
20	24/26	20/24	10.72	12	16.15
21	24/26	20/24	12.88	12	16.57
23	22/26	20/24	13.53	12	17.37
25	22/26	20/24	14.18	12	18.11
28	22/26	20/24	15.56	12	19.16
31	22/26	20/24	16.86	12	20.12
34	22/26	20/24	18.24	12	21.02
37	22/24	18/22	20.67	12	21.86
40	22/24	18/22	22.10	12	22.65
43	22/24	18/22	23.52	12	23.40
47	20/24	18/22	27.64	12	24.35
50	20/24	18/22	29.22	12	25.03
53	20/24	18/22	30.79	12	25.67
56	20/24	18/22	32.36	12	26.29
59	20/22	16/22	36.52	12	26.89
62	20/22	16/22	39.21	12	27.47
65	20/22	16/22	40.90	12	28.03
69	18/22	16/22	50.21	12	28.74
72	18/22	16/22	52.20	12	29.26
75	18/22	16/22	54.24	12	29.77
78	18/22	16/22	56.27	10	30.26
81	18/22	16/22	58.35	10	30.74
85	18/22	16/22	60.35	10	31.36
88	18/22	16/22	62.43	10	31.81
14 x 17	24/26	20/24	10.15	12	15.78
20	24/26	20/24	11.38	12	17.32
22	22/26	20/24	11.95	12	18.25
23	22/26	20/24	14.18	12	18.69
27	22/26	20/24	15.56	12	20.32
30	22/26	20/24	16.86	12	21.43
33	22/26	20/24	18.24	12	22.46
36	22/26	18/22	19.53	12	23.42
39	22/24	18/22	22.10	12	24.33
42	22/24	18/22	23.52	12	25.18
45	22/24	18/22	24.94	12	25.99
49	20/24	18/22	29.21	12	27.02
52	20/24	18/22	30.79	12	27.75
55	20/24	18/22	32.36	12	28.45
58	20/24	18/22	33.93	12	29.12
61	20/22	16/22	39.21	12	29.77
64	20/22	16/22	40.90	12	30.40
67	20/22	16/22	42.68	12	31.01
71	18/22	16/22	50.20	12	31.79
74	18/22	16/22	54.28	12	32.36
77	18/22	16/22	56.32	10	32.91
80	18/22	16/22	58.35	10	33.45
83	18/22	16/22	60.35	10	33.97

Nominal Oval Size	SH95P Maximum 10" w.g. Positive Static				
	Galv. Spiral Duct Ga.	Galv. Fitting Ga.	Spiral Duct Wt. (lb/ft)	Spiral Duct Std. Lgth. (ft)	Equiv. Round
14 x 87	18/22	16/22	62.43	10	34.65
16 x 18	24/26	20/24	10.72	12	17.23
19	24/26	20/24	11.38	12	17.80
20	24/26	20/24	11.95	12	18.35
22	24/26	20/24	12.52	12	19.38
25	22/26	20/24	15.56	12	20.80
29	22/26	20/24	16.86	12	22.50
32	22/26	20/24	18.24	12	23.66
35	22/24	18/24	19.53	12	24.74
38	22/24	18/22	22.10	12	25.76
41	22/24	18/22	23.52	12	26.72
44	22/24	18/22	24.94	12	27.63
47	20/24	18/22	29.21	12	28.50
51	20/24	18/22	30.79	12	29.59
54	20/24	18/22	32.36	12	30.37
57	20/24	18/22	33.93	12	31.12
60	20/22	16/22	38.21	12	31.85
63	20/22	16/22	40.90	12	32.55
66	20/22	16/22	42.68	12	33.22
73	18/22	16/22	54.28	12	34.72
76	18/22	16/22	56.32	10	35.33
79	18/22	16/22	58.35	10	35.92
82	18/22	16/22	60.35	10	36.50
85	18/22	16/22	62.43	10	37.06
18 x 24	22/26	20/24	15.56	12	21.42
27	22/26	20/24	16.86	12	22.88
31	22/26	20/24	18.24	12	24.64
34	22/26	20/24	19.53	12	25.85
37	22/24	18/22	22.10	12	26.99
40	22/24	18/22	23.52	12	28.05
43	22/24	18/22	24.94	12	29.06
46	22/24	18/22	26.36	12	30.02
49	20/24	18/22	30.79	12	30.94
53	20/24	18/22	32.36	12	32.10
56	20/24	18/22	33.93	12	32.92
59	20/22	16/22	38.21	12	33.72
62	20/22	16/22	40.90	12	34.49
65	20/22	16/22	42.68	12	35.23
72	18/22	16/22	54.28	12	36.87
75	18/22	16/22	56.32	10	37.54
78	18/22	16/22	58.35	10	38.19
81	18/22	16/22	60.35	10	38.82
84	18/22	16/22	62.43	10	39.44
20 x 26	22/26	20/24	16.84	8	23.46
29	22/26	20/24	18.24	8	24.95
33	22/26	20/24	19.53	8	26.77
36	22/26	18/22	22.10	8	28.02
39	22/24	18/22	23.52	8	29.20

The above gauges and weights are based on 1" dual wall galvanized steel with perforated liners. Some gauges are not available for special metals, contact SEMCO for application help. Rolled longitudinal seam duct gauges are the same as shown for fittings. Leakage for SH95P and SM95P product will not exceed SMACNA Leakage Class 3 when field joints are adequately sealed. Leakage for SL95P product will not exceed SMACNA Leakage Class 6 when field joints are adequately sealed.

These gauges apply to all SEMCO construction standards and will accommodate positive and negative static pressure to 10" w.g. with appropriate reinforcement (see 6-10)

GAUGE & CONSTRUCTION CHART

Nominal Oval Size	SH95P Maximum 10" w.g. Positive Static				
	Galv. Spiral Duct Ga.	Galv. Fitting Ga.	Spiral Duct Wt. (lb/ft)	Spiral Duct Std. Lgth. (ft)	Equiv. Round
20 x 42	22/24	18/22	24.91	8	30.31
45	22/24	18/22	26.36	8	31.36
48	22/24	18/22	30.79	8	32.37
51	22/24	18/22	32.36	8	33.32
55	22/24	18/22	33.93	8	34.54
58	22/24	18/22	35.50	8	35.41
61	22/22	16/22	40.90	8	36.25
64	20/22	16/22	42.68	8	37.06
67	20/22	16/22	44.37	8	37.84
71	18/22	16/22	54.28	8	38.84
74	18/22	16/22	56.32	8	39.57
77	18/22	16/22	58.35	10	40.28
80	18/22	16/22	60.35	10	40.97
83	18/22	16/22	62.43	10	41.64
22 x 25	22/26	20/24	14.90	12	23.84
28	22/26	20/24	18.24	8	25.49
31	22/26	20/24	19.53	8	27.01
35	22/26	18/24	20.91	8	28.87
38	22/24	18/22	23.52	8	30.16
41	22/24	18/22	24.91	8	31.38
44	22/24	18/22	26.36	8	32.53
47	20/24	18/22	30.79	8	33.63
50	20/24	18/22	32.36	8	34.67
53	20/24	18/22	33.93	8	35.67
57	20/24	18/22	35.50	8	36.94
60	20/22	16/22	37.06	8	37.85
63	20/22	16/22	42.68	8	38.72
66	20/22	16/22	44.37	8	39.57
69	18/22	16/22	54.28	8	40.39
73	18/22	16/22	56.27	8	41.44
76	18/22	16/22	58.31	10	42.21
79	18/22	16/22	60.35	10	42.95
82	18/22	16/22	62.43	10	43.67
24 x 33	22/26	20/24	20.9	8	29.07
40	22/24	18/22	24.9	8	32.29
43	22/24	18/22	26.4	8	33.54
46	22/24	18/22	27.8	8	34.73
49	20/24	18/22	32.4	8	35.86
52	20/24	18/22	33.9	8	36.94
55	20/24	18/22	35.5	8	37.98
62	20/22	16/22	42.7	8	40.24
65	20/22	16/22	47.1	12	41.15
68	18/22	16/22	54.24	12	42.03
71	18/22	16/22	56.32	12	42.89
75	18/22	16/22	58.31	10	43.99
78	18/22	16/22	60.35	10	44.78
81	18/22	16/22	62.43	10	45.56

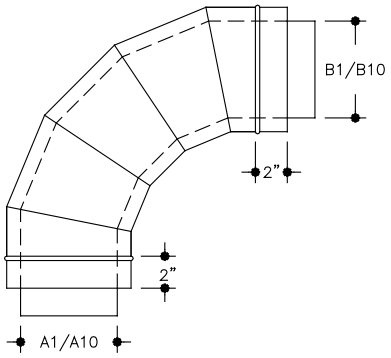
Nominal Oval Size	SH95P Maximum 10" w.g. Positive Static				
	Galv. Spiral Duct Ga.	Galv. Fitting Ga.	Spiral Duct Wt. (lb/ft)	Spiral Duct Std. Lgth. (ft)	Equiv. Round
26 x 35	22/26	18/24	22.22	8	31.11
38	22/24	18/22	24.94	8	32.58
42	22/24	18/22	26.35	8	34.40
45	22/24	18/22	27.77	8	35.69
48	20/24	18/22	32.36	8	36.91
51	20/24	18/22	33.93	8	38.07
54	20/24	18/22	35.50	8	39.18
57	20/24	18/22	37.06	8	40.25
60	20/22	16/22	41.60	8	41.28
64	20/22	16/22	44.37	8	42.59
67	18/22	16/22	54.28	12	43.54
70	18/22	16/22	56.27	12	44.46
73	18/22	16/22	58.35	10	45.34
77	18/22	16/22	60.35	10	46.48
80	18/22	16/22	62.43	10	47.31
28 x 31	22/26	20/24	20.91	12	29.87
35	22/26	20/24	22.21	12	32.11
37	22/24	18/22	24.94	8	33.15
40	22/24	18/22	26.35	8	34.64
44	22/24	18/22	27.77	8	36.50
47	20/24	18/22	32.36	8	37.82
50	20/24	18/22	33.93	8	39.07
53	20/24	18/22	35.50	8	40.26
56	20/24	18/22	37.06	8	41.40
59	20/22	16/22	41.60	8	42.50
62	20/22	16/22	44.37	8	43.56
66	20/22	16/22	46.15	8	44.92
69	18/22	16/22	56.27	12	45.90
72	18/22	16/22	58.35	10	46.84
75	18/22	16/22	60.35	10	47.76
79	18/22	16/22	62.43	10	48.94
30 x 37	22/24	18/22	24.94	12	34.13
39	22/24	18/22	26.36	8	35.19
42	22/24	18/22	27.77	8	36.70
46	22/24	18/22	29.20	8	38.59
49	20/24	18/22	33.93	8	39.93
52	20/24	18/22	35.50	8	41.21
55	20/24	18/22	37.06	8	42.43
58	20/24	18/22	38.63	8	43.60
61	20/22	16/22	44.37	8	44.73
64	20/22	16/22	46.15	8	45.82
68	20/22	16/22	47.84	8	47.22
71	18/22	16/22	58.35	10	48.22
74	18/22	16/22	60.35	10	49.20
77	18/22	16/22	62.43	10	50.14

The above gauges and weights are based on 1" dual wall galvanized steel with perforated liners. Some gauges are not available for special metals, contact SEMCO for application help. Rolled longitudinal seam duct gauges are the same as shown for fittings. Leakage for SH95P and SM95P product will not exceed SMACNA Leakage Class 3 when field joints are adequately sealed. Leakage for SL95P product will not exceed SMACNA Leakage Class 6 when field joints are adequately sealed.

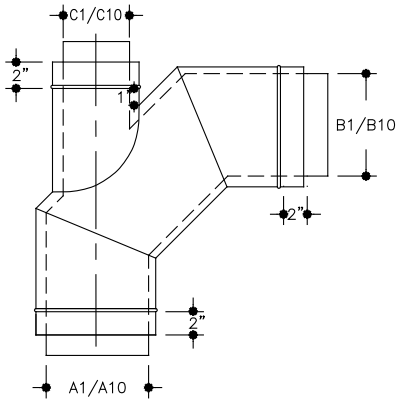
These gauges apply to all SEMCO construction standards and will accommodate positive and negative static pressure to 10" w.g. with appropriate reinforcement (see 6-10)

ELBOWS

E90HB5
E90EB5
90° 5-PIECE ELBOW

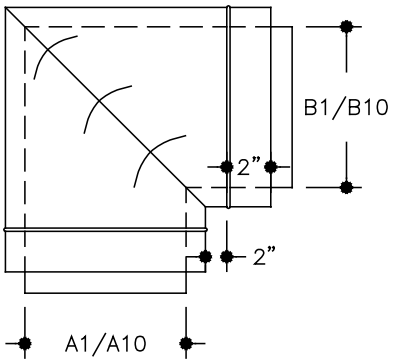


E90HBHT3
E90EBHT3
90° 3-PIECE ELBOW W/ HEEL TAP



Centerline of tap is aligned with centerline of elbow inlet.

E90HB2V
E90EB2V
SQUARE THROAT ELBOW W/ VANES



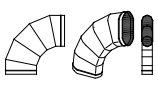
Fittings with turning vanes will have **solid** liners.

NOTES

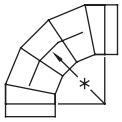
Standard Gored Elbows			
Duct Velocity (fpm)	45°	60°	90°
	Number of Gores		
0 - 1000	2	2	3
1001 - 1500	2	3	4
> 1500	3	3	5
Industrial	4	4	7

- Oval Duct Elbows are available in "Hard Bend" and "Easy Bend" as defined by the following diagrams and abbreviations.

Hard Bend (HB)



Easy Bend (EB)

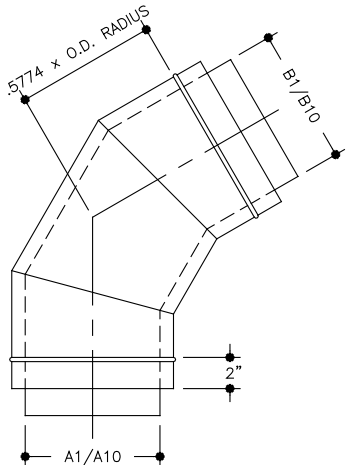


Standard O.D. Radius = 1.5 ℄
* Radius = 1.5 [A1 + (2 x insulation)]

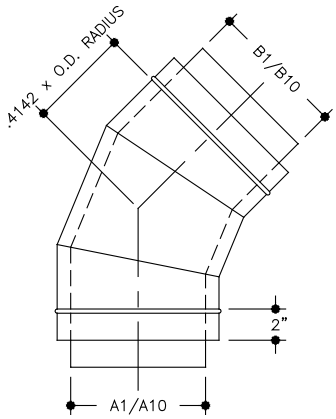
- Some large diameter elbows will be shipped as two or more smaller degree elbows due to truck space limitations.
- Contact SEMCO if you have special requirements for radius, gore quantity and/or degree of elbow.

ELBOWS

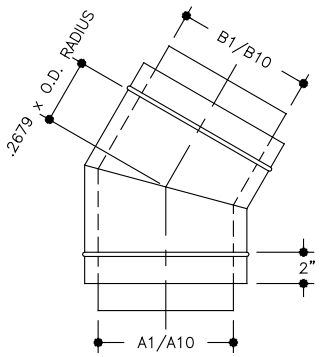
E60HB3
E60EB3
60° 3-PIECE ELBOW



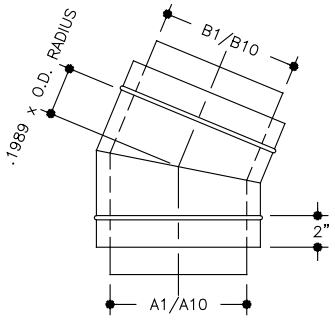
E45HB3
E45EB3
45° 3-PIECE ELBOW



E30HB2
E30EB2
30° 2-PIECE ELBOW



E22HB2
E22EB2
22 1/2° 2-PIECE ELBOW

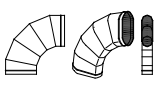


NOTES

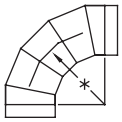
Standard Gored Elbows			
Duct Velocity (fpm)	45°	60°	90°
	Number of Gores		
0 - 1000	2	2	3
1001 - 1500	2	3	4
> 1500	3	3	5
Industrial	4	4	7

- Oval Duct Elbows are available in "Hard Bend" and "Easy Bend" as defined by the following diagrams and abbreviations.

Hard Bend (HB)



Easy Bend (EB)



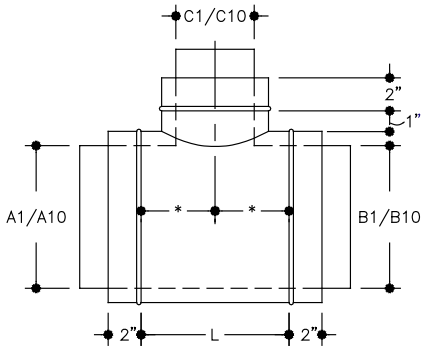
Standard O.D. Radius = 1.5 ℄
* Radius = 1.5 [A1 + (2 x insulation)]

Leg formula is based on:

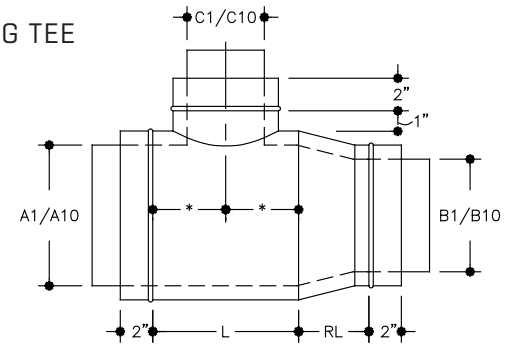
- Tan (0.5 x elbow degree) x centerline radius
- Some large diameter elbows will be shipped as two or more smaller degree elbows due to truck space limitations.
- Contact SEMCO if you have special requirements for radius, gore quantity and/or degree of elbow.

TEE FITTINGS

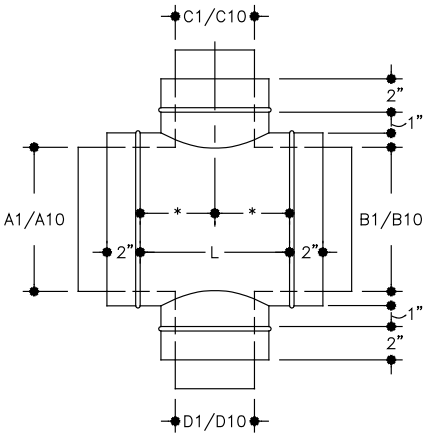
T
TEE



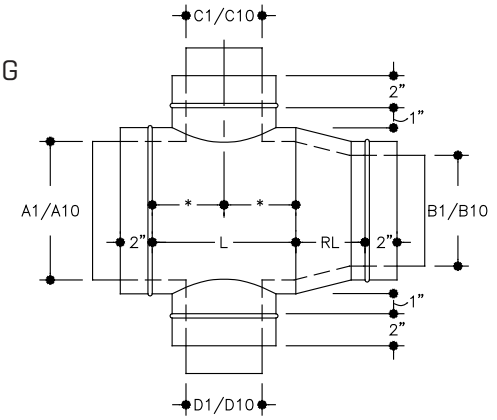
TR
REDUCING TEE



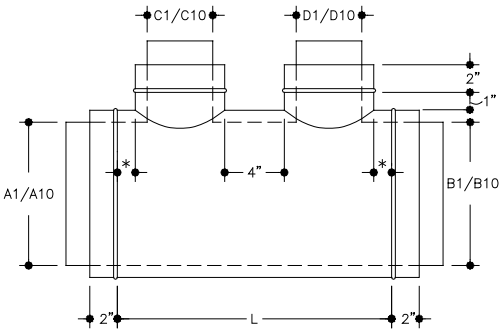
C
CROSS



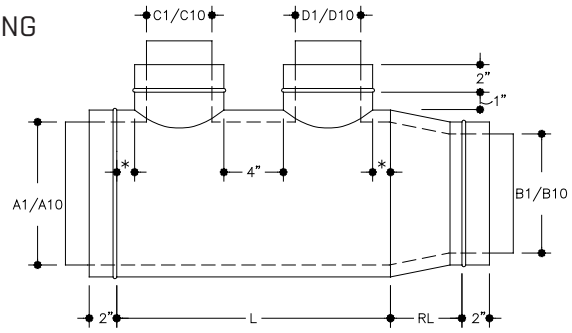
CR
REDUCING CROSS



TD
DOUBLE TEE



TDR
DOUBLE REDUCING TEE



NOTES

- C10 or D10 can be no larger than A10

For RL: See page 5-12

- Body lengths are based on the taps being centered on the body. Any change in tap location or offset from center will most likely result in a longer "L" dimension.

* = Equal

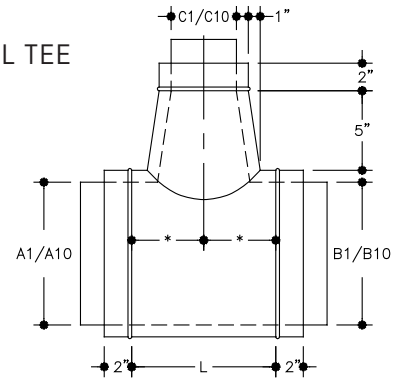
For Crosses:
When C1 and D1 are different sizes, the centerline of the larger tap is also the centerline of the smaller tap.

For Tees and Crosses:
L = (Largest of C1 or D1) + 3" + (2 x insulation)

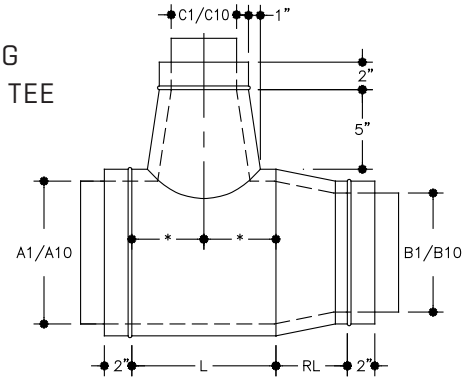
For Double Tees:
L = C1 + D1 + 7" + (4 x insulation)

CONICAL TEE FITTINGS

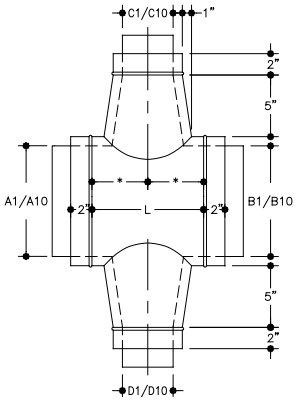
CT
CONICAL TEE



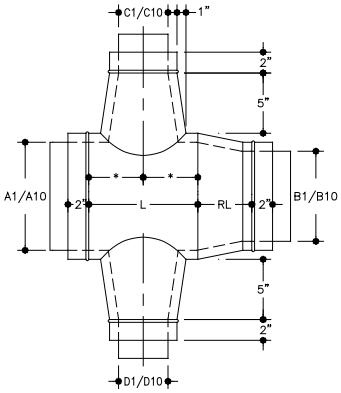
CTR
REDUCING
CONICAL TEE



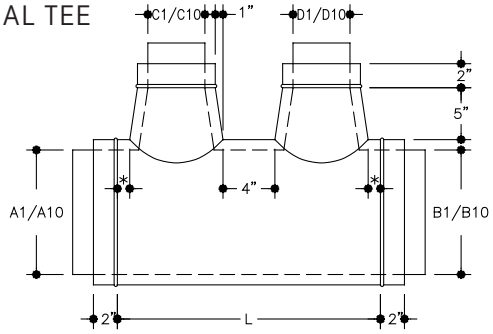
CC
CONICAL
CROSS



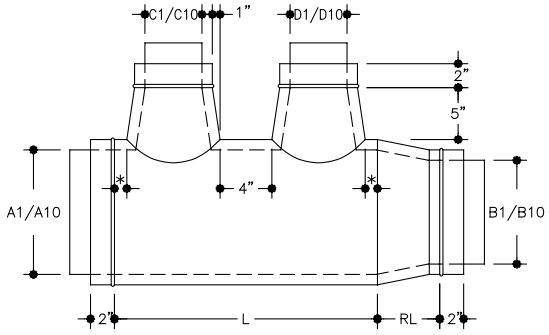
CCR
REDUCING
CONICAL
CROSS



CTD
DOUBLE
CONICAL TEE



CTDR
REDUCING DOUBLE CONICAL TEE



NOTES

- C10 or D10 can be no larger than A10

For RL: See page 5-12

- Body lengths are based on the taps being centered on the body. Any change in tap location or offset from center will most likely result in a longer "L" dimension.

* = Equal

- Conical tap entrance (O.D.) at body is 4" larger than C1/C10 or D1/D10 respectively.

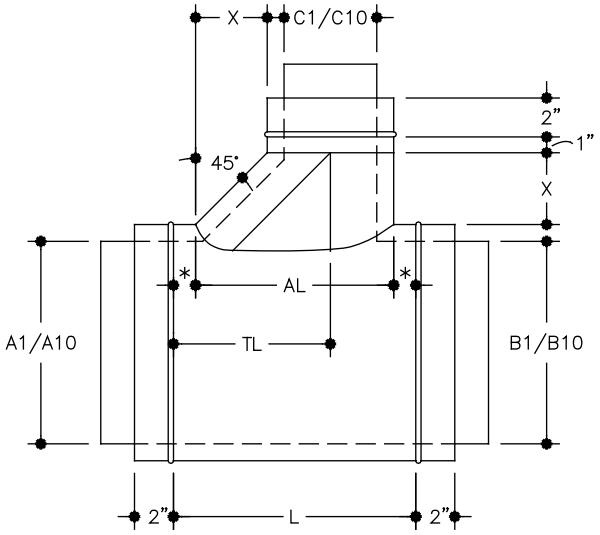
For Conical Crosses:
When C1 and D1 are different sizes, the centerline of the larger tap is also the centerline of the smaller tap.

For Conical Tees and Crosses:
L = (Largest of C1 or D1) + 5" + (2 x insulation)

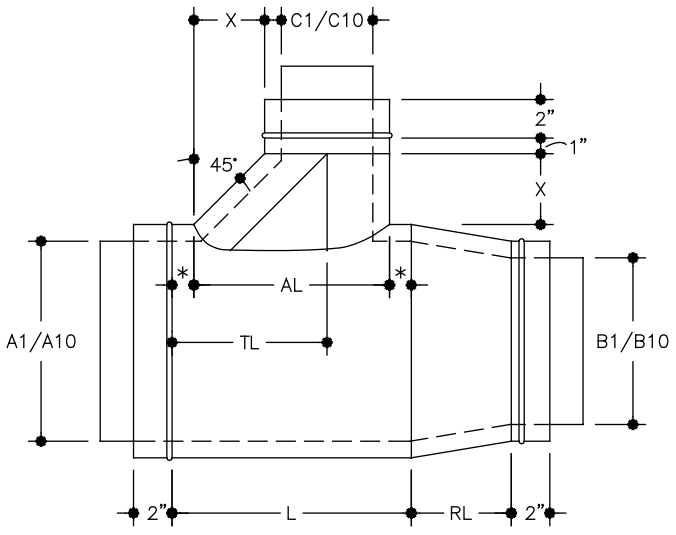
For Double Conical Tees:
L = C1 + D1 + 7" + (4 x insulation)

COMBINATION TEE FITTINGS

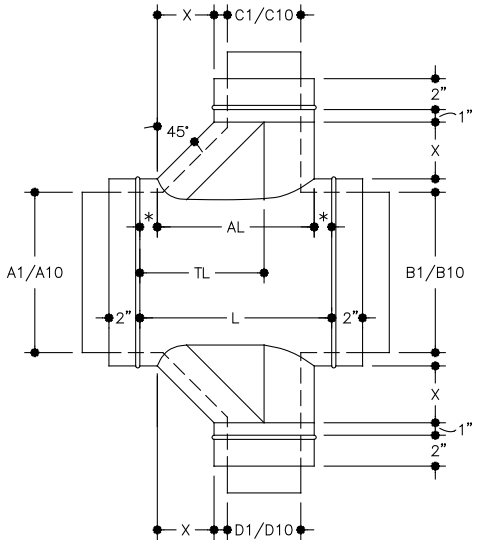
CMT
COMBINATION TEE



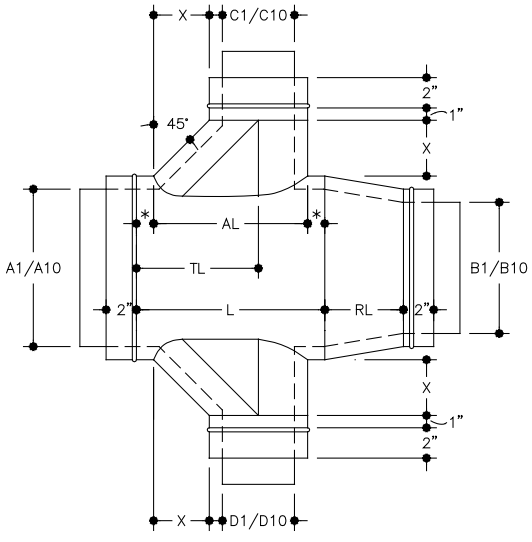
CMTR
REDUCING COMBINATION TEE



CMTC
COMBINATION CROSS



CMTCR
REDUCING COMBINATION CROSS



NOTES

- C10 or D10 can be no larger than A10

For RL: See page 5-12

AL = C1 or D1 + (2 x insulation) + appropriate X
L = largest AL value + 3"
TL = 1.5" + X + (0.5 x C1 or D1) + insulation

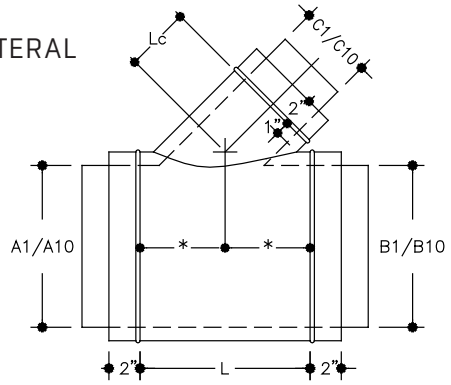
C1 or D1	X
3" thru 8"	3"
9" thru 16"	6"
17" thru 24"	9"
25" and up	12"

For Combination Crosses:
When C1 and D1 are different sizes, the centerline of the larger tap is also the centerline of the smaller tap.

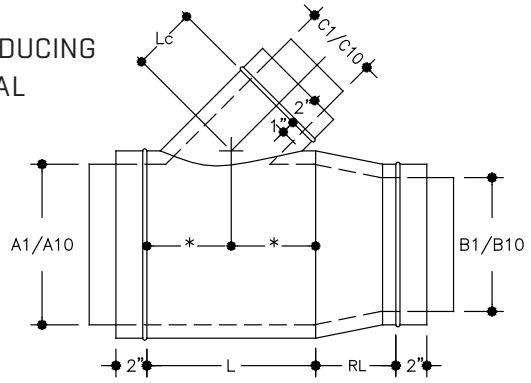
- Body lengths are based on the taps being centered on the body. Any change in tap location or offset from center will most likely result in a longer "L" dimension.

LATERAL FITTINGS

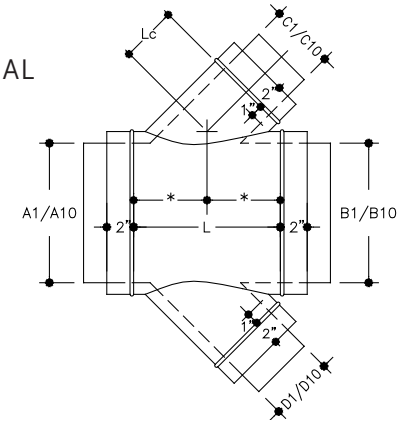
L
45° LATERAL



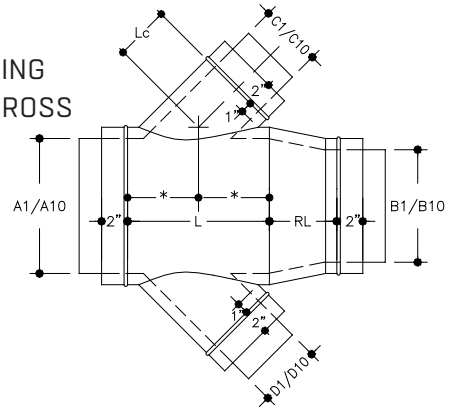
LR
45° REDUCING LATERAL



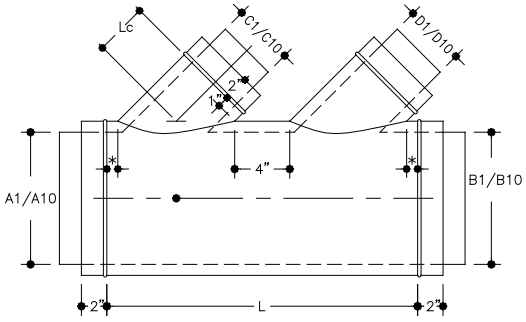
LC
45° LATERAL CROSS



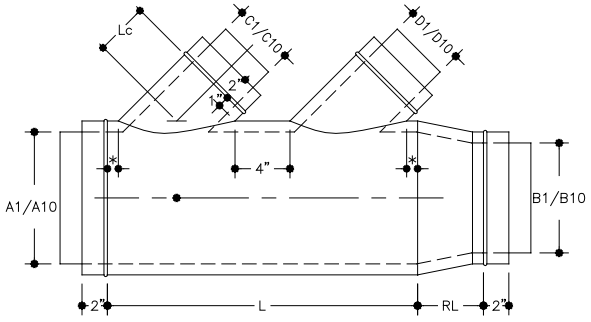
LCR
45° REDUCING LATERAL CROSS



LD
45° DOUBLE LATERAL



LDR
45° REDUCING DOUBLE LATERAL



NOTES

- C10 or D10 can be no larger than A10

For RL: See page 5-12

- Body lengths are based on the taps being centered on the body. Any change in tap location or offset from center will most likely result in a longer "L" dimension.

* = Equal

For 45° Lateral Arms:
Lc = {[0.5 X (C1+2)] + insulation} + 1"

- For other degree arms, contact SEMCO

For Lateral Crosses:
When C1 and D1 are different sizes, the centerline of the larger tap is also the centerline of the smaller tap.

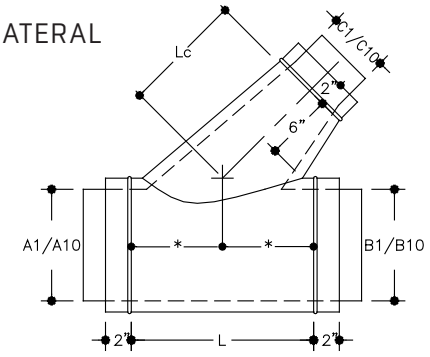
For Laterals and Lateral Crosses:
L = {[Largest of C1 or D1 + (2 x insulation)] x 1.4142} + 3"

For Double Laterals:
L = {[C1 + D1 + (4 x insulation)] x 1.4142} + 7"

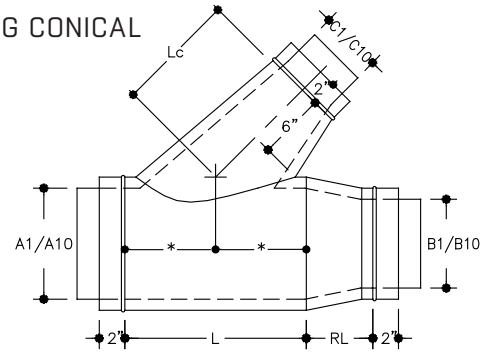
- Calculated "L" dimensions for the lateral fittings will be rounded up to the next 1/2".

CONICAL LATERAL FITTINGS

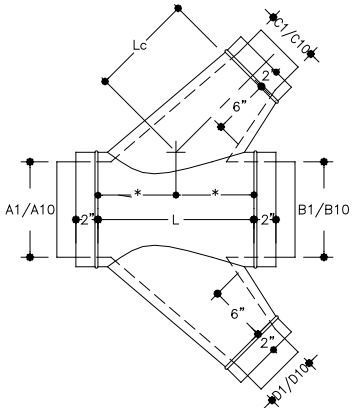
CL
CONICAL LATERAL



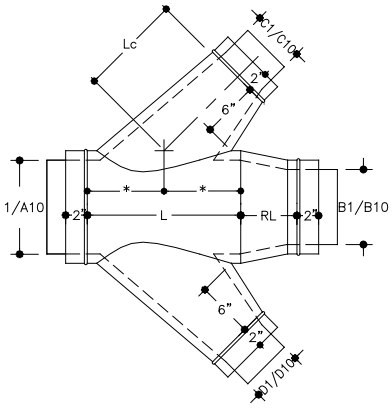
CLR
REDUCING CONICAL LATERAL



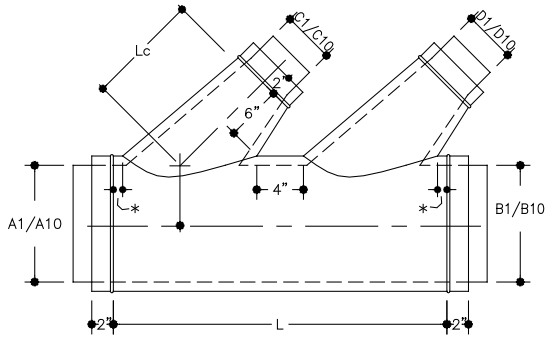
CLC
CONICAL LATERAL CROSS



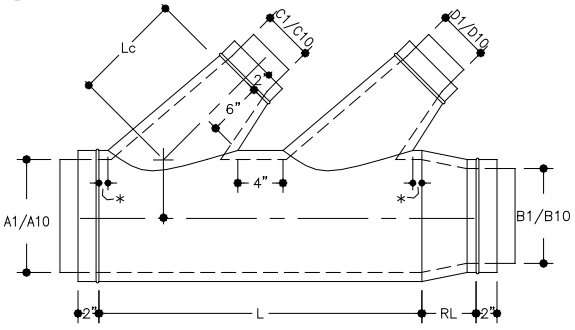
CLCR
REDUCING CONICAL LATERAL CROSS



CLD
DOUBLE CONICAL LATERAL



CLDR
REDUCING DOUBLE CONICAL LATERAL



NOTES

- C10 or D10 can be no larger than A10 - 2"

For RL: See page 5-12

- Body lengths are based on the taps being centered on the body. Any change in tap location or offset from center will most likely result in a longer "L" dimension.

* = Equal

For Conical Laterals:
Lc = {[(0.5 x (C1 + 2)] + insulation} + 6"

For Conical Lateral Crosses:
When C1 and D1 are different sizes, the centerline of the larger tap is also the centerline of the smaller tap.

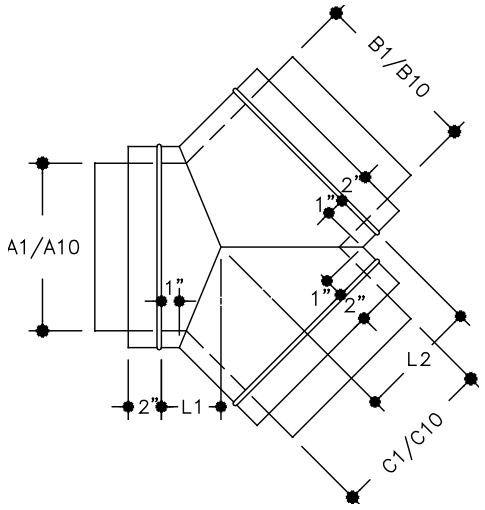
For Conical Laterals and Conical Lateral Crosses:
L = {[Largest of C1 or D1 + 2" + (2 x insulation)] x 1.4142} + 3"

For Double Conical Laterals:
L = {[C1 + D1 + 4" x (4 x insulation)] x 1.4142} + 7"

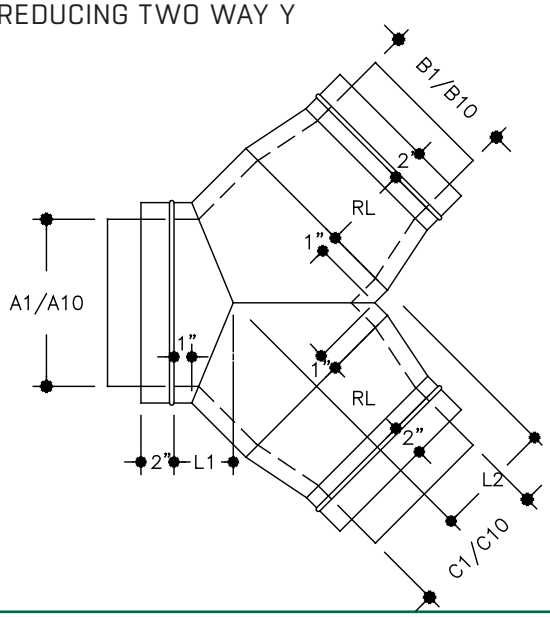
- Calculated "L" dimensions for the lateral fittings will be rounded up to the next 1/2".

WYE FITTINGS AND BULLHEAD TEES

WYE
TWO WAY Y

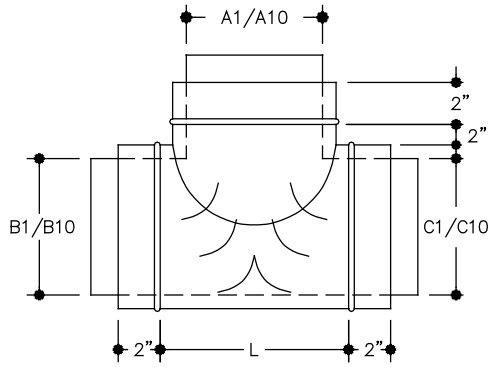


WYE
REDUCING TWO WAY Y



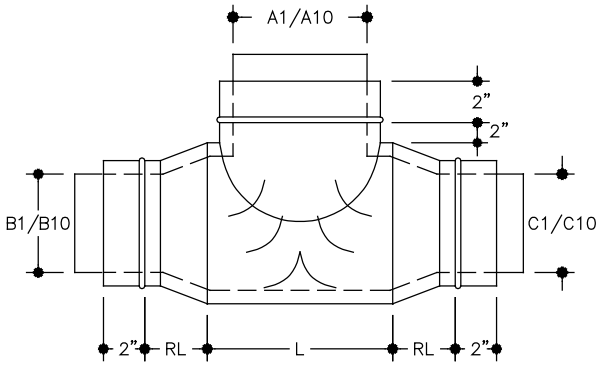
BHTHB
HARD BEND BULLHEAD TEE

BHTEB
EASY BEND BULLHEAD TEE



BHTHB
HARD BEND REDUCING BULLHEAD TEE

BHTEB
EASY BEND REDUCING BULLHEAD TEE



NOTES

For Two Way Y and Reducing Two Way Y:
L1 = {[0.5 (A1 + 2 x insulation)] x 0.4142} + 1"
L2 = 0.5 (A1 + 2 x insulation) + 1"

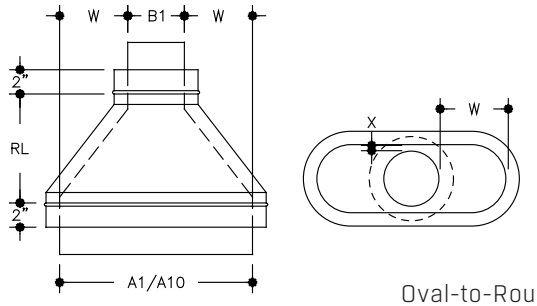
For RL: See page 5-12

- Fittings with turning vanes will have solid liners.

Bullhead Chart	
A1 + (2 x insulation)	L
3" thru 4"	12"
5" thru 10"	18"
11" thru 16"	24"
17" thru 18"	30"
19" thru 24"	36"
25" thru 36"	48"
37" thru 48"	60"
49" thru 74"	A1 + 18"
75" thru 90"	A1 + 26"

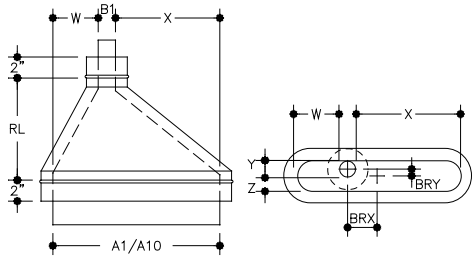
REDUCERS

RC
CONCENTRIC REDUCER



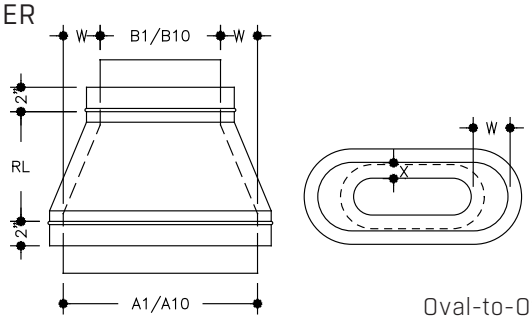
Oval-to-Round

RE
NON-CONCENTRIC REDUCER



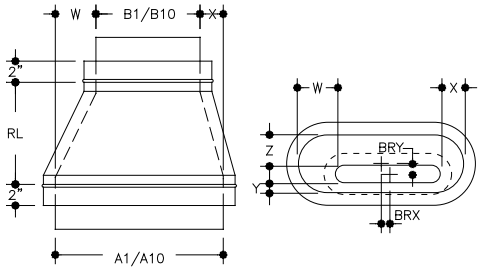
Oval-to-Round

RC
CONCENTRIC REDUCER



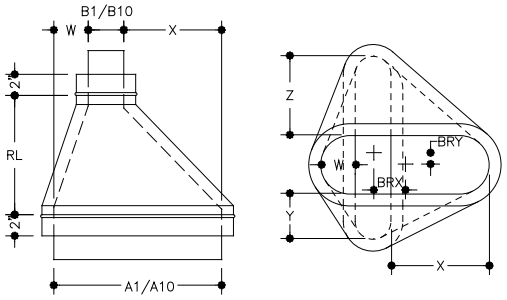
Oval-to-Oval

RE
NON-CONCENTRIC REDUCER



Oval-to-Oval

RE
NON-CONCENTRIC REDUCER



Oval-to-Oval Twist

NOTES

Largest of W or X	RL
0.5" to 2"	5"
2.5" to 4"	11"
4.5" to 6"	17"
6.5" and Up	23"

Chart applies to concentric reducers only.

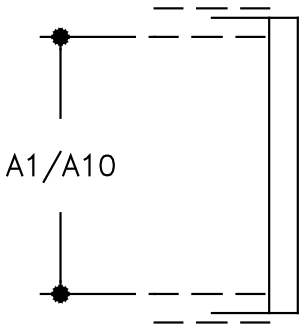
RL formula for Non-Concentric Reducers:
RL = [(Greater of W, X, Y or Z) x 2] + 3"

- 48" Maximum Length

For Non-Concentric Reducers:
Dimensions required when ordering are major and minor plus amount of offset. Use next larger size when W, X, Y or Z contain fractional dimensions. RL on non-concentric reducers are determined on side which has the largest offset (greater of W, X, Y or Z).

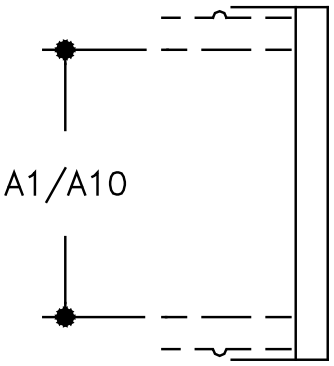
MISCELLANEOUS

PLUG
PLUG



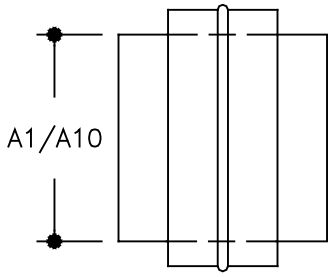
Fits into female duct.
Plugs installed by factory may consist of a plate only.

CAP
CAP



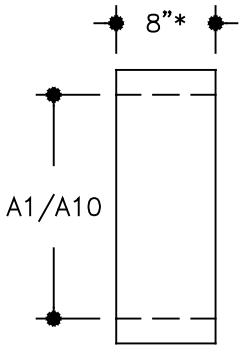
Fits over male fitting.

CPL-M
MALE COUPLING



Fits into female duct.

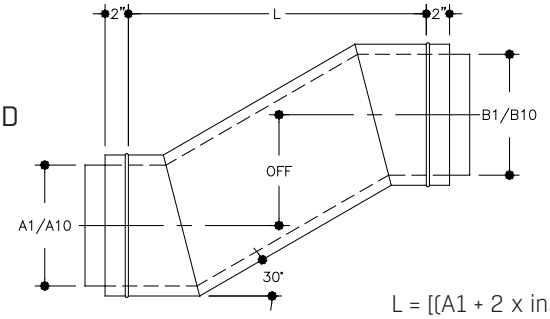
CPL-F
FEMALE COUPLING



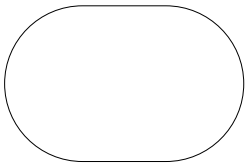
Fits over male fitting.
Available in longer lengths (up to 11") if necessary to eliminate joint.

OFFHB
30° HARD BEND
OFFSET

OFFEB
30° EASY BEND
OFFSET



HARD BEND



EASY BEND

L = [(A1 + 2 x insulation) x 0.27] + [OFF x 1.732]

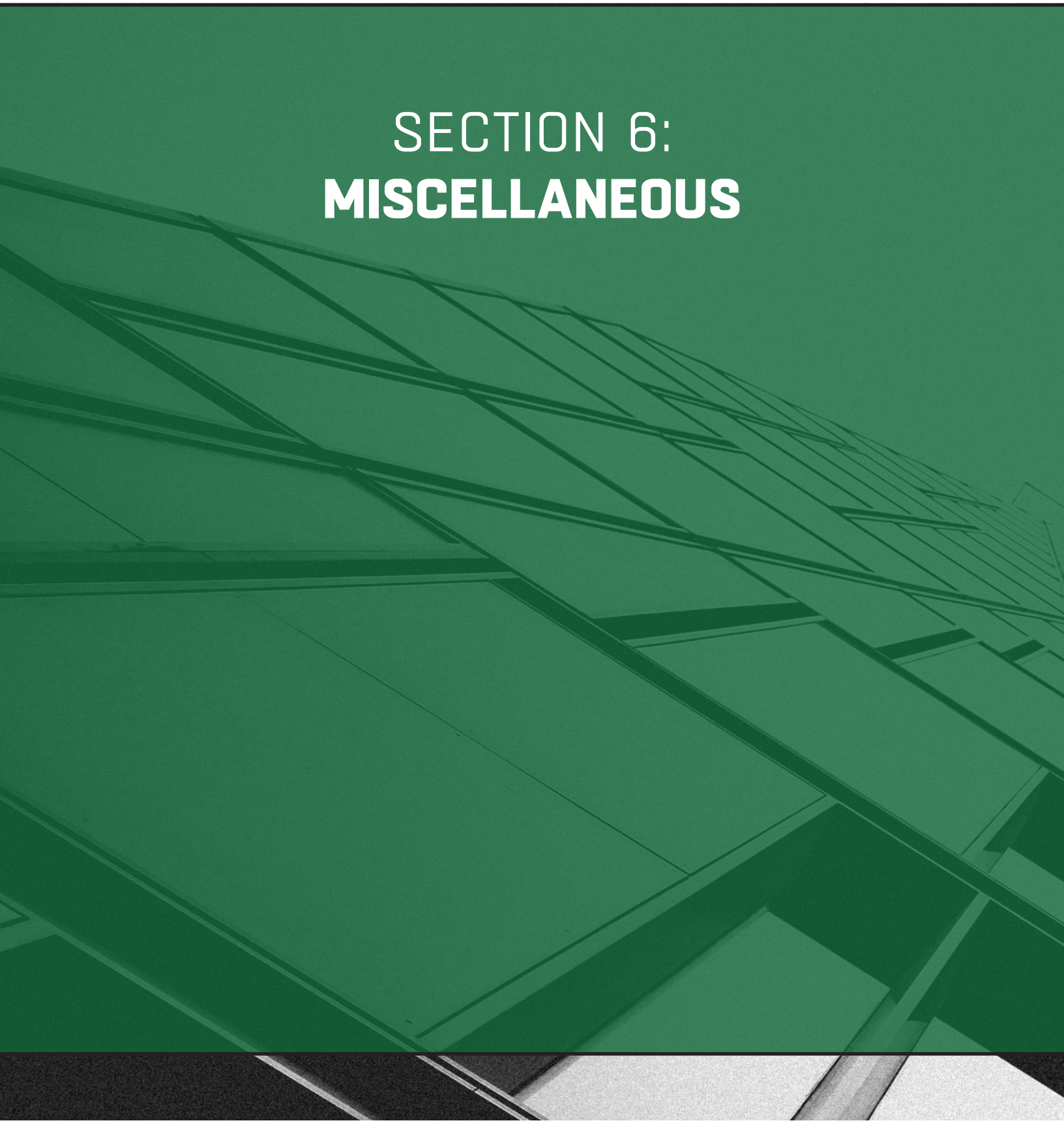
NOTES

- The 30° offset is standard. Other lengths and angles are available, but care should be taken not to choke the fitting. Instead of an offset consider using two elbows with a length of straight duct in between. Contact SEMCO for application help.
- Calculated "L" dimension for offset fittings will be rounded up to the next 1/4".

FläktGroup
SEMCO

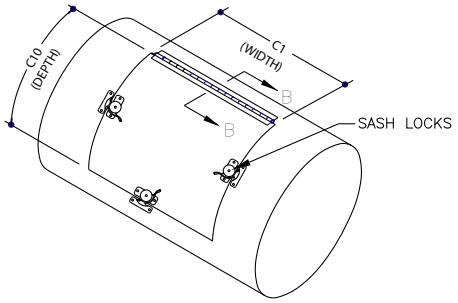
CUSTOM AIR

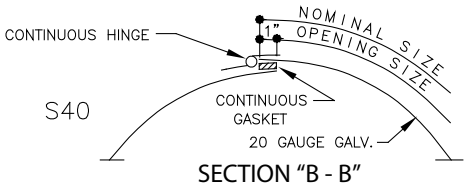
SECTION 6:
MISCELLANEOUS



SINGLE WALL ACCESS DOORS

TYPE S40





For positive & negative pressure.
Not available on spiral duct.

6

NOTES

To determine door size on oval duct:

Door mounted on major:
Use equivalent round size as duct diameter

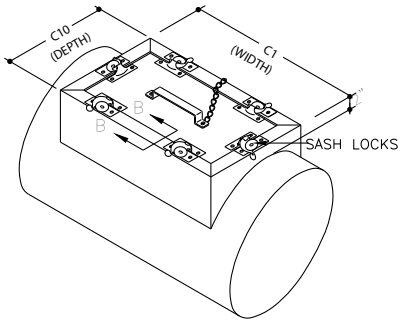
Door mounted on minor:
Use minor size as duct diameter

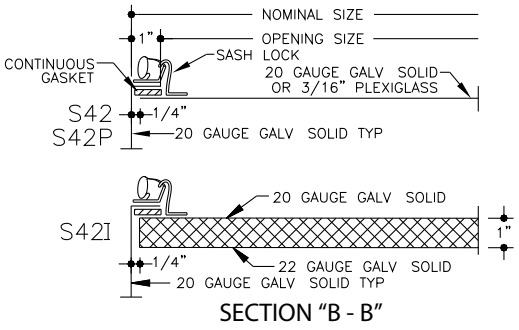
CHART APPLIES TO TYPE S40

DUCT DIA.	NOMINAL WIDTH X DEPTH	OPENING SIZE
3" THRU 4"	12" X 6"	10" X 4"
5" THRU 6"	12" X 8"	10" X 6"
7" THRU 24"	18" X 12"	16" X 10"
26" THRU 36"	18" X 18"	16" X 16"
OVER 36"	24" X 18"	22" X 16"

SINGLE WALL ACCESS DOORS

TYPE S42, S42P OR S42I





For positive pressure only.

NOTES

To determine door size on oval duct:

Door mounted on major:
Use equivalent round size as duct diameter

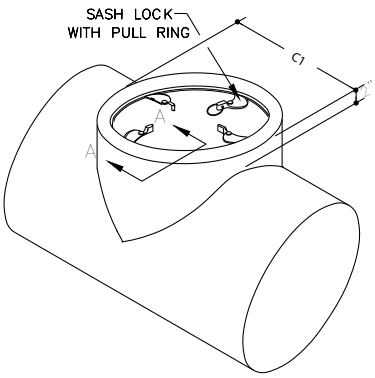
Door mounted on minor:
Use minor size as duct diameter

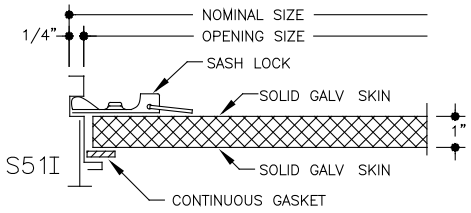
CHART APPLIES TO TYPES S3, S42 & S47

DUCT DIA.	NOMINAL WIDTH X DEPTH	OPENING SIZE
8" THRU 11"	12" X DIA.	10" X DIA.-2"
12" THRU 24"	18" X 12"	16" X 10"
26" THRU 36"	18" X 18"	16" X 16"
OVER 36"	24" X 18"	22" X 16"

SINGLE WALL ACCESS DOORS

TYPE S51I





SECTION "A - A"

For positive and negative pressure.
Available in galvanized only.

NOTES

To determine door size on oval duct:

Door mounted on major:
Use equivalent round size as duct diameter

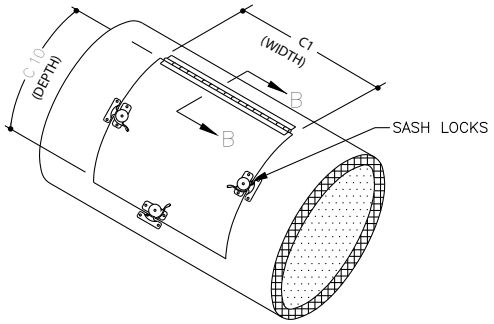
Door mounted on minor:
Use minor size as duct diameter

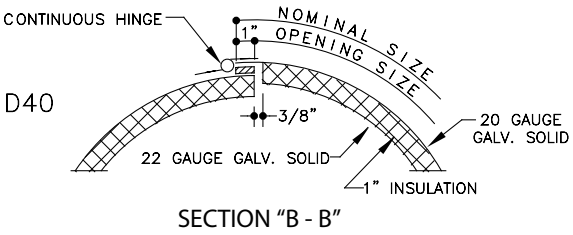
CHART APPLIES TO TYPES S51I, S51P OR S512P

DUCT DIA.	C1	OPENING SIZE
8" THRU 9"	8"	7.5"
10" THRU 11"	10"	9.5"
12" THRU 20"	12"	11.5"
21" AND UP	18"	17.5"

DUAL WALL ACCESS DOORS

TYPE D40





SECTION "B - B"

For positive and negative pressure.

Not available on spiral duct.

NOTES

To determine door size on oval duct:

Door mounted on major:
Use equivalent round size as duct diameter

Door mounted on minor:
Use minor size as duct diameter

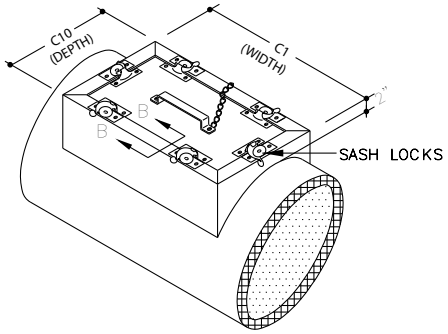
CHART APPLIES TO TYPE D40

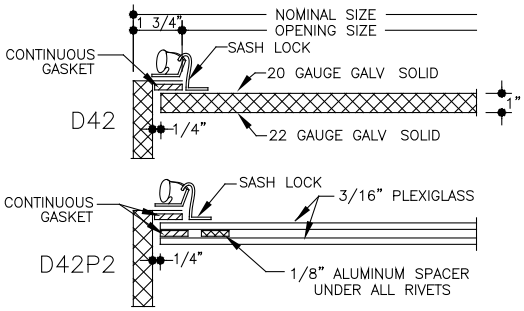
DUCT I.D.	NOMINAL WIDTH X DEPTH	OPENING SIZE
3" THRU 4"	12" X 6"	10" X 4"
5" THRU 6"	12" X 8"	10" X 6"
7" THRU 24"	18" X 12"	16" X 10"
26" THRU 36"	18" X 18"	16" X 16"
OVER 36"	24" X 18"	22" X 16"

Opening size based on 1" dual wall thickness

DUAL WALL ACCESS DOORS

TYPE D42 OR D42P2





SECTION "B - B"

For positive pressure only.

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NOTES

To determine door size on oval duct:

Door mounted on major:
Use equivalent round size as duct diameter

Door mounted on minor:
Use minor size as duct diameter

CHART APPLIES TO TYPES D3, D3P2, D42, D42P2

DUCT I.D.	NOMINAL WIDTH X DEPTH	OPENING SIZE
8" THRU 9"	12" X O.D.	8.5" X O.D.-3.5"
10" THRU 24"	18" X 12"	14.5" X 8.5"
26" THRU 36"	18" X 18"	14.5" X 14.5"
OVER 36"	24" X 18"	20.5" X 14.5"

Opening size based on 1" dual wall thickness

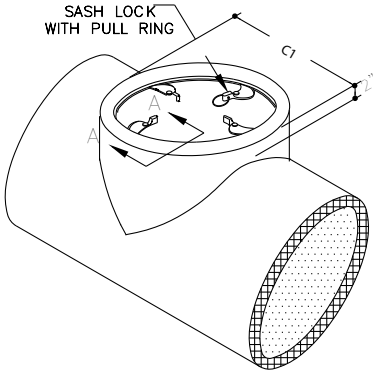
CHART APPLIES TO TYPES D47, D47P2

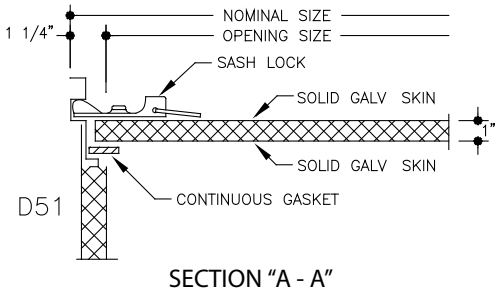
DUCT I.D.	NOMINAL WIDTH X DEPTH	OPENING SIZE
8" THRU 9"	12" X O.D.	8.5" X O.D.-2"
10" THRU 24"	18" X 12"	16" X 10"
26" THRU 36"	18" X 18"	16" X 16"
OVER 36"	24" X 18"	22" X 16"

Opening size based on 1" dual wall thickness

DUAL WALL ACCESS DOORS

TYPE D51





SECTION "A - A"

For positive and negative pressure.
Available in galvanized only.

NOTES

To determine door size on oval duct:

Door mounted on major:
Use equivalent round size as duct diameter

Door mounted on minor:
Use minor size as duct diameter

CHART APPLIES TO TYPE D51

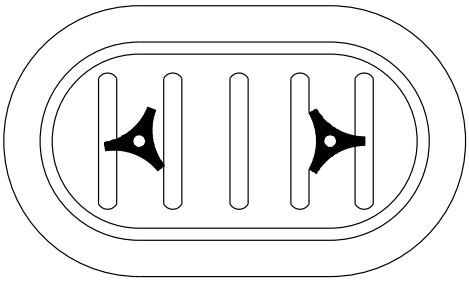
DUCT DIA.	C1	OPEN-ING SIZE
8" THRU 9"	8"	5.5"
10" THRU 11"	10"	7.5"
12" THRU 20"	12"	9.5"
21" AND UP	18"	15.5"

Opening size based on 1" dual wall thickness

DUCTMATE™ ACCESS DOORS

DRU
UNINSULATED MODEL

DRI
INSULATED MODEL

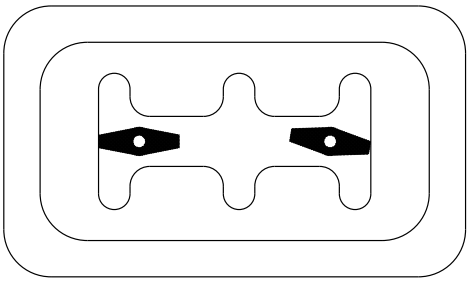


DOOR SIZE	DUCT SIZES
8" X 4" 12" X 8" 16" X 12" 24" X 18"	5" X 9" 10" X 14" 15" X 28" 29" X 62"

Round sandwich type access door for curved surfaces.

DU
UNINSULATED MODEL

DI
INSULATED MODEL



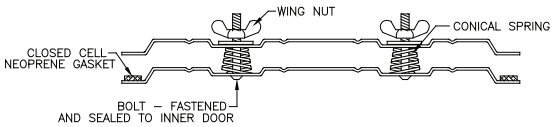
DOOR SIZE
10" x 6"
12" x 8"
18" x 14"
24" x 18"

Rectangular sandwich type access door for flat surfaces.

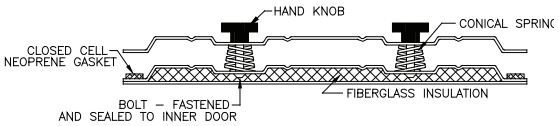
NOTES

- All Ductmate products are protected by patents. Ductmate access doors are products of the Ductmate Industries, Inc. - Monongahela, PA
- Ductmate access doors are supplied loose.

Section of uninsulated access door



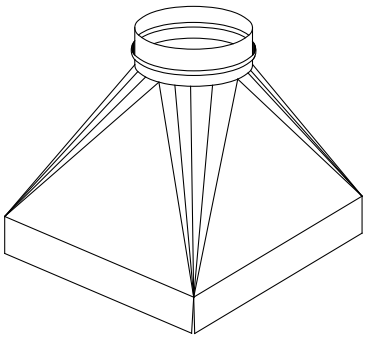
Section of insulated access door



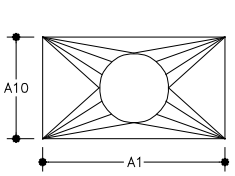
TRANSITIONS

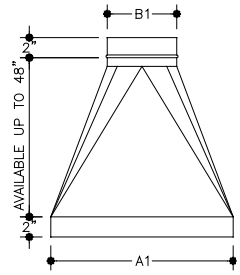
RTR

RECTANGULAR-TO-ROUND TRANSITION

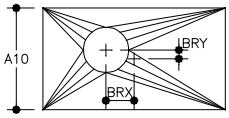


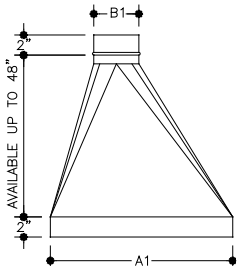
Concentric Transition





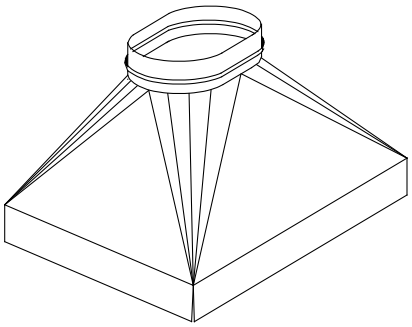
Non-Concentric Transition



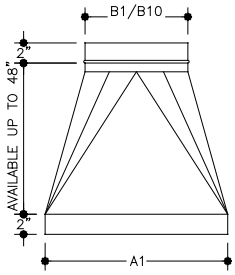


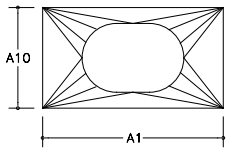
RTR

RECTANGULAR-TO-OVAL TRANSITION

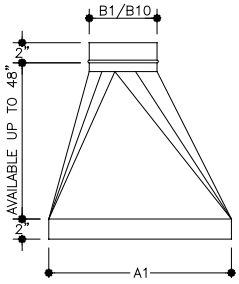


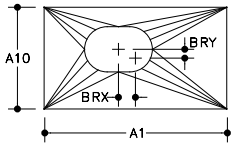
Concentric Transition





Non-Concentric Transition



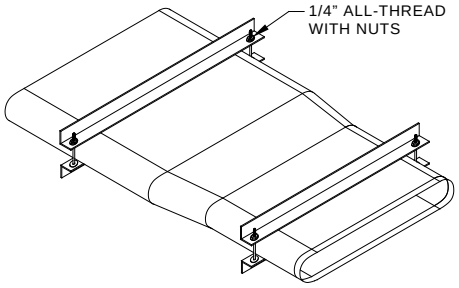


NOTES

- Dimensions apply to both rectangular and square duct.

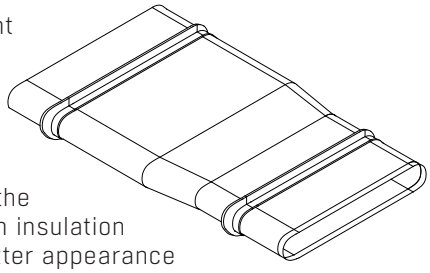
DUCT REINFORCEMENT

TRAPEZE REINFORCEMENT



Trapeze reinforcement is used for positive pressure applications and is shipped loose for field assembly.

"C" BRACE REINFORCEMENT

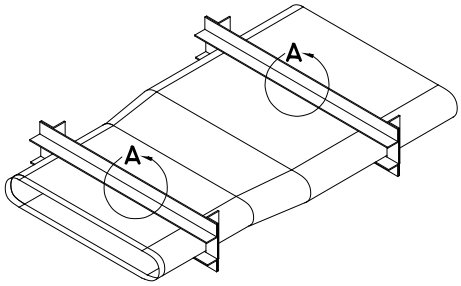


"C" Brace reinforcement can be used for both positive and negative pressure applications. "C" Braces are used to either make wrapping the outside of the duct with insulation easier, or provide a better appearance when the duct is exposed.

"C" Braces are tack welded to the duct for positive pressure applications and stitch welded (see note 'A') to the duct for negative pressure applications.

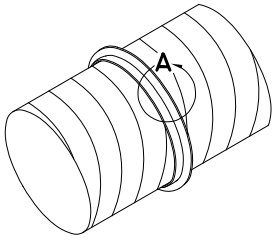
For exposed duct, the angle size of the "C" Brace will be the same as a round angle ring the size of the minor dimension of the oval duct. For concealed duct, the angle ring size of the curved portion of the "C" Brace will be the same as described above and the flat span will be sized per the chart on pages 6-10 through 6-16.

NEGATIVE PRESSURE FRAMES

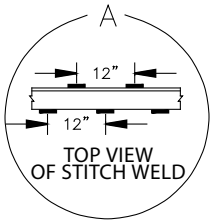


Negative pressure frames are used for negative pressure applications and are stitch welded to the duct on both sides.

GIRTH RINGS



Girth rings are required on certain sizes of round duct in negative pressure applications. Refer to the gauge charts for sizes and spacing. Girth rings will be stitch welded.



NOTES

- Certain sizes of oval duct must be externally reinforced to maintain wall deflections within acceptable limits. The spacing and size of reinforcing members, as well as the duct sizes on which they are required, are dependent upon the air pressure in the duct and are shown on pages 6-10 through 6-16.

OVAL REINFORCEMENT CHART

For positive pressure use the reinforcing shown in the unshaded areas only. For negative pressure use the reinforcing shown in both the shaded and unshaded areas. For pressures not shown, use next higher pressure. Consult SEMCO when duct is made of gauges different from those shown.

Spiral Duct								
Nominal Oval Size	Galv. Gauge	Static Pressure (in w.g.)						
		0.5	1	2	3	4	6	10
4 x 10	24	nr	nr	nr	nr	nr	nr	5a
12	24	nr	nr	nr	nr	nr	nr	5a
13	24	nr	nr	nr	nr	6a	5a	4a
15	24	nr	nr	nr	8a	6a	5a	4a
16	24	nr	nr	nr	8a	6a	5a	4a
18	24	nr	nr	8a	6a	5a	4a	3a
20	24	nr	10a	8a	6a	5a	4a	3a
5 x 11	24	nr	nr	nr	nr	nr	nr	5a
13	24	nr	nr	nr	nr	nr	nr	5a
14	24	nr	nr	nr	nr	6a	5a	4a
16	24	nr	nr	nr	8a	6a	5a	4a
18	24	nr	nr	8a	6a	5a	4a	3a
19	24	nr	nr	8a	6a	5a	4a	3a
21	24	nr	10a	8a	6a	5a	4a	3a
6 x 10	24	nr	nr	nr	nr	nr	nr	5a
12	24	nr	nr	nr	nr	nr	nr	5a
14	24	nr	nr	nr	nr	nr	nr	5a
16	24	nr	nr	nr	nr	6a	5a	4a
17	24	nr	nr	nr	8a	6a	5a	4a
19	24	nr	nr	8a	6a	5a	4a	3a
20	24	nr	nr	8a	6a	5a	4a	3a
22	24	nr	10a	8a	6a	5a	4a	3a
23	24	nr	10a	8a	6a	5a	4a	3a
25	22	nr	10a	8a	6a	6a	5a	3a
26	22	nr	10a	8a	6a	6a	5a	3a
28	22	nr	10a	8a	6a	5a	5a	3a
29	22	nr	10a	8a	6a	5a	5a	3a
31	22	10a	10a	8a	6a	5a	4a	3a
34	22	10a	10a	6a	5a	5a	4a	3b
37	22	10a	8a	5a	4a	4a	3b	2.5b
41	22	10a	8a	5a	4a	4a	3b	2.5b
44	22	8a	6a	4a	4a	3a	2.5b	2b
47	22	8a	6a	4a	4a	3a	2.5b	2b
50	20	10a	6a	5b	4b	3b	2.5b	2b
53	20	10a	6a	5b	4b	3b	2.5b	2b
56	20	8a	6a	4b	3b	3b	2.5b	2b
59	20	8a	6a	4b	3b	3b	2.5b	2b
63	20	8a	6a	3b	3b	3b	2.5b	2b
66	20	8a	6a	3b	3b	3b	2.5b	2b
69	20	6a	4b	3b	3b	2.5b	2b	x
72	18	8b	6b	4b	3b	3b	2.5b	2c
75	18	8b	6b	4b	3b	3b	2.5b	2c
79	18	6b	5b	4b	3b	2.5b	2c	x
82	18	6b	5b	4b	3b	2.5b	2c	x
85	18	6b	5b	4b	3b	2.5b	2c	x
88	18	6b	5b	4b	3b	2.5b	2c	x
91	18	6b	4b	4b	2.5b	2b	2c	x
7 x 10	24	nr	nr	nr	nr	nr	nr	5a
12	24	nr	nr	nr	nr	nr	nr	5a

Fittings & Longitudinal Seam Duct								
Nominal Oval Size	Galv. Gauge	Static Pressure (in w.g.)						
		0.5	1	2	3	4	6	10
4 x 10	20	nr	nr	nr	nr	nr	nr	nr
12	20	nr	nr	nr	nr	nr	nr	nr
13	20	nr	nr	nr	nr	nr	nr	6a
15	20	nr	nr	nr	nr	nr	10a	6a
16	20	nr	nr	nr	nr	nr	10a	6a
18	20	nr	nr	nr	nr	10a	10a	5a
20	20	nr	nr	nr	8a	8a	6a	5a
5 x 11	20	nr	nr	nr	nr	nr	nr	nr
13	20	nr	nr	nr	nr	nr	nr	nr
14	20	nr	nr	nr	nr	nr	nr	6a
16	20	nr	nr	nr	nr	nr	10a	6a
18	20	nr	nr	nr	nr	10a	10a	5a
19	20	nr	nr	nr	nr	10a	10a	5a
21	20	nr	nr	nr	8a	8a	6a	5a
6 x 10	20	nr	nr	nr	nr	nr	nr	nr
12	20	nr	nr	nr	nr	nr	nr	nr
14	20	nr	nr	nr	nr	nr	nr	nr
16	20	nr	nr	nr	nr	nr	nr	6a
17	20	nr	nr	nr	nr	nr	10a	6a
19	20	nr	nr	nr	nr	10a	10a	5a
20	20	nr	nr	nr	nr	10a	10a	5a
22	20	nr	nr	nr	8a	8a	6a	5a
23	20	nr	nr	nr	8a	8a	6a	5a
25	20	nr	nr	10a	8a	8a	6a	4a
26	20	nr	nr	10a	8a	8a	6a	4a
28	20	nr	10a	10a	8a	6a	6a	4a
29	20	nr	10a	10a	6a	6a	6a	4b
31	20	nr	10a	10a	6a	6a	5a	4b
34	20	10a	10a	8a	6a	6a	5b	3b
37	18	10a	10a	8a	6b	6b	5b	4b
41	18	10a	10a	8a	6b	6b	5b	4b
44	18	10a	10a	6a	6b	5b	4b	3b
47	18	10a	10a	6a	6b	5b	4b	3b
50	18	10a	8a	6b	5b	5b	4b	3b
53	18	10a	8a	6b	5b	5b	4b	3b
56	18	10a	8b	5b	5b	4b	3b	3c
59	18	10a	8b	5b	5b	4b	3b	3c
63	16	10a	8b	6b	5b	5b	3b	3c
66	16	10a	8b	6b	5b	5b	3b	3c
69	16	10b	6b	5b	4b	3b	2.5b	2.5c
72	16	10b	6b	5b	4b	3b	2.5b	2.5c
75	16	10b	6b	5b	4b	3b	2.5b	2.5c
79	16	8b	6b	4b	3b	3c	2.5c	2c
82	16	8b	6b	4b	3b	3c	2.5c	2c
85	16	8b	6b	4b	3b	3c	2.5c	2c
88	16	8b	6b	4b	3b	3c	2.5c	2c
691	16	8b	5b	4b	2.5b	2.5c	2c	x
7 x 10	20	nr	nr	nr	nr	nr	nr	nr
12	20	nr	nr	nr	nr	nr	nr	nr

NOTES

Example: 8a
8 = distance in feet between angle.
a = letter indicates size of angle.

a = 1 1/2" x 1 1/2" x 1/8"
b = 2" x 2" x 3/16"
c = 2 1/2" x 2 1/2" x 1/4"

nr = no reinforcement required.
x = Contact SEMCO for pressures not shown.

OVAL REINFORCEMENT CHART

For positive pressure use the reinforcing shown in the unshaded areas only. For negative pressure use the reinforcing shown in both the shaded and unshaded areas. For pressures not shown, use next higher pressure. Consult SEMCO when duct is made of gauges different from those shown.

Spiral Duct								
Nominal Oval Size	Galv. Gauge	Static Pressure (in w.g.)						
		0.5	1	2	3	4	6	10
7 x 13	24	nr	nr	nr	nr	nr	nr	5a
15	24	nr	nr	nr	nr	nr	nr	5a
17	24	nr	nr	nr	nr	6a	5a	4a
18	24	nr	nr	nr	8a	6a	5a	4a
20	24	nr	nr	8a	6a	5a	4a	3a
8 x 11	24	nr	nr	nr	nr	nr	nr	5a
12	24	nr	nr	nr	nr	nr	nr	5a
14	24	nr	nr	nr	nr	nr	nr	5a
16	24	nr	nr	nr	nr	nr	nr	5a
17	24	nr	nr	nr	nr	6a	5a	4a
19	24	nr	nr	nr	8a	6a	5a	4a
21	24	nr	nr	8a	6a	5a	4a	3a
22	24	nr	nr	8a	6a	5a	4a	3a
24	24	nr	10a	8a	6a	5a	4a	3a
25	22	nr	nr	10a	8a	6a	5a	3a
27	22	nr	10a	8a	6a	6a	5a	3a
28	22	nr	10a	8a	6a	6a	5a	3a
30	22	nr	10a	8a	6a	5a	5a	3a
33	22	10a	10a	8a	6a	5a	4a	3a
36	22	10a	10a	6a	5a	5a	4a	3b
39	22	10a	8a	5a	4a	4a	3b	2.5b
43	22	10a	8a	5a	4a	4a	3b	2.5b
46	22	8a	6a	4a	4a	3a	2.5b	2b
49	20	10a	8a	5a	5b	4b	3b	2.5b
52	20	10a	6a	5b	4b	3b	2.5b	2b
55	20	10a	6a	5b	4b	3b	2.5b	2b
58	20	8a	6a	4b	3b	3b	2.5b	2b
61	20	8a	6a	4b	3b	3b	2.5b	2b
65	20	8a	6a	3b	3b	3b	2.5b	2b
68	20	8a	6a	3b	3b	3b	2.5b	2b
71	18	8b	6b	4b	3b	3b	2.5b	2c
74	18	8b	6b	4b	3b	3b	2.5b	2c
77	18	8b	6b	4b	3b	3b	2.5b	2c
81	18	6b	5b	4b	3b	2.5b	2c	x
84	18	6b	5b	4b	3b	2.5b	2c	x
87	18	6b	5b	4b	3b	2.5b	2c	x
90	18	6b	5b	4b	3b	2.5b	2c	x
10 x 16	24	nr	nr	nr	nr	nr	nr	5a
18	24	nr	nr	nr	nr	nr	nr	5a
19	24	nr	nr	nr	nr	6a	5a	4a
21	24	nr	nr	nr	8a	6a	5a	4a
23	24	nr	nr	8a	6a	5a	4a	3a
24	24	nr	nr	8a	6a	5a	4a	3a
26	22	nr	nr	10a	8a	6a	5a	4a
27	22	nr	nr	10a	8a	6a	5a	3a
29	22	nr	10a	8a	6a	6a	5a	3a
32	22	nr	10a	8a	6a	5a	5a	3a
35	22	10a	10a	8a	6a	5a	4a	3a
38	22	10a	10a	6a	5a	5a	4a	3b

Fittings & Longitudinal Seam Duct								
Nominal Oval Size	Galv. Gauge	Static Pressure (in w.g.)						
		0.5	1	2	3	4	6	10
7 x 13	20	nr	nr	nr	nr	nr	nr	nr
15	20	nr	nr	nr	nr	nr	nr	nr
17	20	nr	nr	nr	nr	nr	nr	6a
18	20	nr	nr	nr	nr	nr	10a	6a
20	20	nr	nr	nr	nr	10a	10a	5a
8 x 11	20	nr	nr	nr	nr	nr	nr	nr
12	20	nr	nr	nr	nr	nr	nr	nr
14	20	nr	nr	nr	nr	nr	nr	nr
16	20	nr	nr	nr	nr	nr	nr	nr
17	20	nr	nr	nr	nr	nr	nr	6a
19	20	nr	nr	nr	nr	nr	10a	6a
21	20	nr	nr	nr	nr	10a	10a	5a
22	20	nr	nr	nr	nr	10a	10a	5a
24	20	nr	nr	nr	8a	8a	6a	5a
25	20	nr	nr	nr	8a	8a	6a	5a
27	20	nr	nr	10a	8a	8a	6a	4a
28	20	nr	nr	10a	8a	8a	6a	4a
30	20	nr	10a	10a	8a	6a	6a	4a
33	20	nr	10a	10a	6a	6a	5a	4b
36	20	10a	10a	8a	6a	6a	5b	3b
39	18	10a	10a	8a	6b	6b	5b	4b
43	18	10a	10a	8a	6b	6b	5b	4b
46	18	10a	10a	6a	6b	5b	4b	3b
49	18	10a	10a	6a	6b	5b	4b	3b
52	18	10a	8a	6b	5b	5b	4b	3b
55	18	10a	8a	6b	5b	5b	4b	3b
58	18	10a	8b	5b	5b	4b	3b	3c
61	16	10a	10b	6b	5b	5b	4b	3c
65	16	10a	8b	6b	5b	5b	3b	3c
68	16	10a	8b	6b	5b	5b	3b	3c
71	16	10b	6b	5b	4b	3b	2.5b	2.5c
74	16	10b	6b	5b	4b	3b	2.5b	2.5c
77	16	10b	6b	5b	4b	3b	2.5b	2.5c
81	16	8b	6b	4b	3b	3c	2.5c	2c
84	16	8b	6b	4b	3b	3c	2.5c	2c
87	16	8b	6b	4b	3b	3c	2.5c	2c
90	16	8b	6b	4b	3b	3c	2.5c	2c
10 x 16	20	nr	nr	nr	nr	nr	nr	nr
18	20	nr	nr	nr	nr	nr	nr	nr
19	20	nr	nr	nr	nr	nr	nr	6a
21	20	nr	nr	nr	nr	nr	10a	6a
23	20	nr	nr	nr	nr	10a	10a	5a
24	20	nr	nr	nr	nr	10a	10a	5a
26	20	nr	nr	nr	8a	8a	6a	5a
27	20	nr	nr	nr	8a	8a	6a	5a
29	20	nr	nr	10a	8a	8a	6a	4a
32	20	nr	10a	10a	8a	6a	6a	4a
35	20	nr	10a	10a	6a	6a	5a	4b
38	18	nr	10a	10a	8a	8a	6b	5b

NOTES

Example: 8a
8 = distance in feet between angle.
a = letter indicates size of angle.

a = 1 1/2" x 1 1/2" x 1/8"
b = 2" x 2" x 3/16"
c = 2 1/2" x 2 1/2" x 1/4"

nr = no reinforcement required.
x = Contact SEMCO for pressures not shown.

OVAL REINFORCEMENT CHART

For positive pressure use the reinforcing shown in the unshaded areas only. For negative pressure use the reinforcing shown in both the shaded and unshaded areas. For pressures not shown, use next higher pressure. Consult SEMCO when duct is made of gauges different from those shown.

Spiral Duct								
Nominal Oval Size	Galv. Gauge	Static Pressure (in w.g.)						
		0.5	1	2	3	4	6	10
10 x 41	22	10a	8a	5a	4a	4a	3b	2.5b
45	22	10a	8a	5a	4a	4a	3b	2.5b
48	22	8a	6a	4a	4a	3a	2.5b	2b
51	20	10a	8a	5a	5b	4b	3b	2.5b
54	20	10a	6a	5b	4b	3b	2.5b	2b
57	20	10a	6a	5b	4b	3b	2.5b	2b
60	20	8a	6a	4b	3b	3b	2.5b	2b
63	20	8a	6a	4b	3b	3b	2.5b	2b
67	20	8a	6a	3b	3b	3b	2.5b	2b
70	20	8a	6a	3b	3b	3b	2.5b	2b
73	18	8b	6b	4b	3b	3b	2.5b	2c
76	18	8b	6b	4b	3b	3b	2.5b	2c
79	18	8b	6b	4b	3b	3b	2.5b	2c
83	18	6b	5b	4b	3b	2.5b	2c	x
86	18	6b	5b	4b	3b	2.5b	2c	x
89	18	6b	5b	4b	3b	2.5b	2c	x
92	18	6b	5b	4b	3b	2.5b	2c	x
12 x 15	24	nr	nr	nr	nr	nr	nr	5a
17	24	nr	nr	nr	nr	nr	nr	5a
18	24	nr	nr	nr	nr	nr	nr	5a
20	24	nr	nr	nr	nr	nr	nr	5a
21	24	nr	nr	nr	nr	6a	5a	4a
23	24	nr	nr	nr	8a	6a	5a	4a
25	22	nr	nr	nr	8a	8a	5a	4a
26	22	nr	nr	nr	8a	8a	5a	4a
28	22	nr	nr	10a	8a	6a	5a	4a
31	22	nr	10a	8a	6a	6a	5a	3a
34	22	nr	10a	8a	6a	5a	5a	3a
37	22	10a	10a	8a	6a	5a	4a	3a
40	22	10a	10a	6a	5a	5a	4a	3b
43	22	10a	8a	5a	4a	4a	3b	2.5b
47	22	10a	8a	5a	4a	4a	3b	2.5b
50	20	10a	8a	5a	5b	4b	3b	2.5b
53	20	10a	8a	5a	5b	4b	3b	2.5b
56	20	10a	6a	5a	4b	3b	2.5b	2b
59	20	10a	6a	5b	4b	3b	2.5b	2b
62	20	8a	6a	4b	3b	3b	2.5b	2b
65	20	8a	6a	4b	3b	3b	2.5b	2b
69	20	8a	6a	3b	3b	3b	2.5b	2b
72	18	10a	8b	5b	4b	3b	3b	2b
75	18	8b	6b	4b	3b	3b	2.5b	2c
78	18	8b	6b	4b	3b	3b	2.5b	2c
81	18	8b	6b	4b	3b	3b	2.5b	2c
85	18	6b	5b	4b	3b	2.5b	2c	x
88	18	6b	5b	4b	3b	2.5b	2c	x
91	18	6b	5b	4b	3b	2.5b	2c	x
14 x 17	24	nr	nr	nr	nr	nr	nr	5a
19	24	nr	nr	nr	nr	nr	nr	5a
20	24	nr	nr	nr	nr	nr	nr	5a

Fittings & Longitudinal Seam Duct								
Nominal Oval Size	Galv. Gauge	Static Pressure (in w.g.)						
		0.5	1	2	3	4	6	10
10 x 41	18	10a	10a	8a	6b	6b	5b	4b
45	18	10a	10a	8a	6b	6b	5b	4b
48	18	10a	10a	6a	6b	5b	4b	3b
51	18	10a	10a	6a	6b	5b	4b	3b
54	18	10a	8a	6b	5b	5b	4b	3b
57	18	10a	8a	6b	5b	5b	4b	3b
60	18	10a	8b	5b	5b	4b	3b	3c
63	16	10a	10b	6b	5b	5b	4b	3c
67	16	10a	8b	6b	5b	5b	3b	3c
70	16	10a	8b	6b	5b	5b	3b	3c
73	16	10b	6b	5b	4b	3b	2.5b	2.5c
76	16	10b	6b	5b	4b	3b	2.5b	2.5c
79	16	10b	6b	5b	4b	3b	2.5b	2.5c
83	16	8b	6b	4b	3b	3c	2.5c	2c
86	16	8b	6b	4b	3b	3c	2.5c	2c
89	16	8b	6b	4b	3b	3c	2.5c	2c
92	16	8b	6b	4b	3b	3c	2.5c	2c
12 x 15	20	nr	nr	nr	nr	nr	nr	nr
17	20	nr	nr	nr	nr	nr	nr	nr
18	20	nr	nr	nr	nr	nr	nr	nr
20	20	nr	nr	nr	nr	nr	nr	nr
21	20	nr	nr	nr	nr	nr	nr	6a
23	20	nr	nr	nr	nr	nr	10a	6a
25	20	nr	nr	nr	nr	10a	10a	5a
26	20	nr	nr	nr	nr	10a	10a	5a
28	20	nr	nr	nr	8a	8a	4a	5a
31	20	nr	nr	10a	8a	8a	6a	4a
34	20	nr	10a	10a	8a	6a	6a	4a
37	18	nr	nr	10a	10a	10a	6a	5b
40	18	nr	10a	10a	8a	8a	6b	5b
43	18	10a	10a	8a	6b	6b	5b	4b
47	18	10a	10a	8a	6b	6b	5b	4b
50	18	10a	10a	6a	6b	5b	4b	3b
53	18	10a	10a	6a	6b	5b	4b	3b
56	18	10a	8a	6b	5b	5b	4b	3b
59	18	10a	8a	6b	5b	5b	4b	3b
62	16	10a	10b	6b	5b	5b	4b	3c
65	16	10a	10b	6b	5b	5b	4b	3c
69	16	10a	8b	6b	5b	5b	3b	3c
72	16	10a	8b	6b	5b	5b	3b	3c
75	16	10b	6b	5b	4b	3b	2.5b	2.5c
78	16	10b	6b	5b	4b	3b	2.5b	2.5c
81	16	10b	6b	5b	4b	3b	2.5b	2.5c
85	16	8b	6b	4b	3b	3c	2.5c	2c
88	16	8b	6b	4b	3b	3c	2.5c	2c
91	16	8b	6b	4b	3b	3c	2.5c	2c
14 x 17	20	nr	nr	nr	nr	nr	nr	nr
19	20	nr	nr	nr	nr	nr	nr	nr
20	20	nr	nr	nr	nr	nr	nr	nr

NOTES

Example: 8a
8 = distance in feet between angle.
a = letter indicates size of angle.

a = 1 1/2" x 1 1/2" x 1/8"
b = 2" x 2" x 3/16"
c = 2 1/2" x 2 1/2" x 1/4"

nr = no reinforcement required.
x = Contact SEMCO for pressures not shown.

OVAL REINFORCEMENT CHART

For positive pressure use the reinforcing shown in the unshaded areas only. For negative pressure use the reinforcing shown in both the shaded and unshaded areas. For pressures not shown, use next higher pressure. Consult SEMCO when duct is made of gauges different from those shown.

Spiral Duct								
Nominal Oval Size	Galv. Gauge	Static Pressure (in w.g.)						
		0.5	1	2	3	4	6	10
14 x 22	24	nr	nr	nr	nr	nr	nr	5a
23	24	nr	nr	nr	nr	6a	5a	4a
25	22	nr	nr	nr	nr	10a	6a	5a
27	22	nr	nr	nr	8a	8a	5a	4a
30	22	nr	nr	10a	8a	6a	5a	4a
33	22	nr	10a	8a	6a	6a	5a	3a
36	22	nr	10a	8a	6a	5a	5a	3a
39	22	10a	10a	8a	6a	5a	4a	3a
42	22	10a	10a	6a	5a	5a	4a	3b
45	22	10a	8a	5a	4a	4a	3b	2.5b
49	20	10a	10a	6a	5a	5b	4b	3b
52	20	10a	8a	5a	5b	4b	3b	2.5b
55	20	10a	8a	5a	5b	4b	3b	2.5b
58	20	10a	6a	5b	4b	3b	2.5b	2b
61	20	10a	6a	5b	4b	3b	2.5b	2b
64	20	8a	6a	4b	3b	3b	2.5b	2b
67	20	8a	6a	4b	3b	3b	2.5b	2b
71	18	10a	8b	5b	4b	3b	3b	2b
74	18	10a	8b	5b	4b	3b	3b	2b
77	18	8b	6b	4b	3b	3b	2.5	2c
80	18	8b	6b	4b	3b	3b	2.5	2c
83	18	8b	6b	4b	3b	3b	2.5	2c
87	18	6b	5b	4b	3b	2.5b	2c	x
90	18	6b	5b	4b	3b	2.5b	2c	x
16 x 18	24	nr	nr	nr	nr	nr	nr	5a
19	24	nr	nr	nr	nr	nr	nr	5a
20	24	nr	nr	nr	nr	nr	nr	5a
22	24	nr	nr	nr	nr	nr	nr	5a
24	24	nr	nr	nr	nr	nr	nr	5a
25	22	nr	nr	nr	nr	nr	6a	5a
29	22	nr	nr	nr	8a	8a	5a	4a
32	22	nr	nr	10a	8a	6a	5a	4a
35	22	nr	10a	8a	6a	6a	5a	3a
38	22	nr	10a	8a	6a	5a	5a	3a
41	22	10a	10a	8a	6a	5a	4a	3a
44	22	10a	10a	6a	5a	5a	4a	3b
47	22	10a	8a	5a	4a	4a	3b	2.5b
51	20	10a	10a	6a	5a	5b	4b	3b
54	20	10a	8a	5a	5b	4b	3b	2.5b
57	20	10a	8a	5a	5b	4b	3b	2.5b
60	20	10a	6a	5b	4b	3b	2.5b	2b
63	20	10a	6a	5b	4b	3b	2.5b	2b
66	20	8a	6a	4b	3b	3b	2.5b	2b
69	20	8a	6a	4b	3b	3b	2.5b	2b
73	18	10a	8b	5b	4b	3b	3b	2b
76	18	10a	8b	5b	4b	3b	3b	2b
79	18	8b	6b	4b	3b	3b	2.5b	2c
82	18	8b	6b	4b	3b	3b	2.5b	2c
85	18	8b	6b	4b	3b	3b	2.5b	2c
89	18	6b	5b	4b	3b	2.5b	2c	x

Fittings & Longitudinal Seam Duct								
Nominal Oval Size	Galv. Gauge	Static Pressure (in w.g.)						
		0.5	1	2	3	4	6	10
14 x 22	20	nr	nr	nr	nr	nr	nr	nr
23	20	nr	nr	nr	nr	nr	nr	6a
25	20	nr	nr	nr	nr	nr	10a	6a
27	20	nr	nr	nr	nr	10a	10a	5a
30	20	nr	nr	nr	8a	8a	6a	5a
33	20	nr	nr	10a	8a	8a	6a	4a
36	20	nr	10a	10a	8a	6a	6a	4a
39	18	nr	nr	10a	10a	10a	6a	5b
42	18	nr	10a	10a	8a	8a	6b	5b
45	18	10a	10a	8a	6b	6b	5b	4b
49	18	10a	10a	8a	6b	6b	5b	4b
52	18	10a	10a	6a	6b	5b	4b	3b
55	18	10a	10a	6a	6b	5b	4b	3b
58	18	10a	8a	6b	5b	5b	4b	3b
61	16	10a	10a	8b	6b	5b	4b	3b
64	16	10a	10b	6b	5b	5b	4b	3c
67	16	10a	10b	6b	5b	5b	4b	3c
71	16	10a	8b	6b	5b	5b	3b	3c
74	16	10a	8b	6b	5b	5b	3b	3c
77	16	10b	6b	5b	4b	3b	2.5b	2.5c
80	16	10b	6b	5b	4b	3b	2.5b	2.5c
83	16	10b	6b	5b	4b	3b	2.5b	2.5c
87	16	8b	6b	4b	3b	3c	2.5c	2c
90	16	8b	6b	4b	3b	3c	2.5c	2c
16 x 18	20	nr	nr	nr	nr	nr	nr	nr
19	20	nr	nr	nr	nr	nr	nr	nr
20	20	nr	nr	nr	nr	nr	nr	nr
22	20	nr	nr	nr	nr	nr	nr	nr
24	20	nr	nr	nr	nr	nr	nr	nr
25	20	nr	nr	nr	nr	nr	nr	6a
29	20	nr	nr	nr	nr	10a	10a	5a
32	20	nr	nr	nr	8a	8a	6a	5a
35	20	nr	nr	10a	8a	8a	6a	4a
38	18	nr	nr	10a	10a	10a	8a	6b
41	18	nr	nr	10a	10a	10a	6a	5b
44	18	nr	10a	10a	8a	8a	6b	5b
47	18	10a	10a	8a	6b	6b	5b	4b
51	18	10a	10a	8a	6b	6b	5b	4b
54	18	10a	10a	6a	6b	5b	4b	3b
57	18	10a	10a	6a	6b	5b	4b	3b
60	18	10a	8a	6b	5b	5b	4b	3b
63	16	10a	10a	8b	6b	5b	4b	3b
66	16	10a	10b	6b	5b	5b	4b	3c
69	16	10a	10b	6b	5b	5b	4b	3c
73	16	10a	8b	6b	5b	5b	3b	3c
76	16	10a	8b	6b	5b	5b	3b	3c
79	16	10b	6b	5b	4b	3b	2.5b	2.5c
82	16	10b	6b	5b	4b	3b	2.5b	2.5c
85	16	10b	6b	5b	4b	3b	2.5b	2.5c
89	16	8b	6b	4b	3b	3c	2.5c	2c

NOTES

Example: 8a
8 = distance in feet between angle.
a = letter indicates size of angle.

a = 1 1/2" x 1 1/2" x 1/8"
b = 2" x 2" x 3/16"
c = 2 1/2" x 2 1/2" x 1/4"

nr = no reinforcement required.
x = Contact SEMCO for pressures not shown.

OVAL REINFORCEMENT CHART

For positive pressure use the reinforcing shown in the unshaded areas only. For negative pressure use the reinforcing shown in both the shaded and unshaded areas. For pressures not shown, use next higher pressure. Consult SEMCO when duct is made of gauges different from those shown.

Spiral Duct								
Nominal Oval Size	Galv. Gauge	Static Pressure (in w.g.)						
		0.5	1	2	3	4	6	10
18 x 20	24	nr	nr	nr	nr	nr	nr	5a
21	24	nr	nr	nr	nr	nr	nr	5a
22	24	nr	nr	nr	nr	nr	nr	5a
24	24	nr	nr	nr	nr	nr	nr	5a
27	22	nr	nr	nr	nr	nr	6a	5a
31	22	nr	nr	nr	8a	8a	5a	4a
34	22	nr	nr	10a	8a	6a	5a	4a
37	22	nr	10a	8a	6a	6a	5a	3a
40	22	nr	10a	8a	6a	5a	5a	3a
43	22	10a	10a	8a	6a	5a	4a	3a
46	22	10a	10a	6a	5a	5a	4a	3b
49	20	10a	10a	6a	5a	5b	4b	3b
53	20	10a	10a	6a	5a	5b	4b	3b
56	20	10a	8a	5a	5b	4b	3b	2.5b
59	20	10a	8a	5a	5b	4b	3b	2.5b
62	20	10a	6a	5b	4b	3b	2.5b	2b
65	20	10a	6a	5b	4b	3b	2.5b	2b
68	20	8a	6a	4b	3b	3b	2.5b	2b
72	18	10a	8b	5b	5b	4b	3b	2.5b
75	18	10a	8b	5b	4b	3b	3b	2b
78	18	10a	8b	5b	4b	3b	3b	2b
81	18	8b	6b	4b	3b	3b	2.5b	2c
84	18	8b	6b	4b	3b	3b	2.5b	2c
87	18	8b	6b	4b	3b	3b	2.5b	2c
20 x 26	22	nr	nr	nr	nr	nr	nr	nr
29	22	nr	nr	nr	nr	nr	6a	5a
33	22	nr	nr	nr	8a	8a	5a	4a
36	22	nr	nr	10a	8a	6a	5a	4a
39	22	nr	10a	8a	6a	6a	5a	3a
42	22	nr	10a	8a	6a	5a	5a	3a
45	22	10a	10a	8a	6a	5a	4a	3a
48	22	10a	10a	6a	5a	5a	4a	3b
51	20	10a	10a	6a	5a	5b	4b	3b
55	20	10a	10a	6a	5a	5b	4b	3b
58	20	10a	8a	5a	5b	4b	3b	2.5b
61	20	10a	8a	5a	5b	4b	3b	2.5b
64	20	10a	6a	5b	4b	3b	2.5b	2b
67	20	10a	6a	5b	4b	3b	2.5b	2b
71	18	10a	8b	5b	5b	4b	3b	2.5b
74	18	10a	8b	5b	5b	4b	3b	2.5b
77	18	10a	8b	5b	4b	3b	3b	2b
80	18	10a	8b	5b	4b	3b	3b	2b
83	18	8b	6b	4b	3b	3b	2.5b	2c
86	18	8b	6b	4b	3b	3b	2.5b	2c
22 x 25	22	nr	nr	nr	nr	nr	nr	nr
28	22	nr	nr	nr	nr	nr	nr	nr
31	22	nr	nr	nr	nr	nr	6a	5a
35	22	nr	nr	nr	8a	8a	5a	4a
38	22	nr	nr	10a	8a	6a	5a	4a

Fittings & Longitudinal Seam Duct								
Nominal Oval Size	Galv. Gauge	Static Pressure (in w.g.)						
		0.5	1	2	3	4	6	10
18 x 20	20	nr	nr	nr	nr	nr	nr	nr
21	20	nr	nr	nr	nr	nr	nr	nr
22	20	nr	nr	nr	nr	nr	nr	nr
24	20	nr	nr	nr	nr	nr	nr	nr
27	20	nr	nr	nr	nr	nr	nr	6a
31	20	nr	nr	nr	nr	10a	10a	5a
34	20	nr	nr	nr	8a	8a	6a	5a
37	18	nr	nr	nr	10a	10a	8a	6a
40	18	nr	nr	10a	10a	10a	8a	6b
43	18	nr	nr	10a	10a	10a	6a	5b
46	18	nr	10a	10a	8a	8a	6b	5b
49	18	10a	10a	8a	6b	6b	5b	4b
53	18	10a	10a	8a	6b	6b	5b	4b
56	18	10a	10a	6a	6b	5b	4b	3b
59	18	10a	10a	6a	6b	5b	4b	3b
62	16	10a	10a	8b	6b	5b	4b	3b
65	16	10a	10a	8b	6b	5b	4b	3b
68	16	10a	10b	6b	5b	5b	4b	3c
72	16	10a	10b	6b	5b	5b	4b	3c
75	16	10a	8b	6b	5b	5b	3b	3c
78	16	10a	8b	6b	5b	5b	3b	3c
81	16	10b	6b	5b	4b	3b	2.5b	2.5c
84	16	10b	6b	5b	4b	3b	2.5b	2.5c
87	16	10b	6b	5b	4b	3b	2.5b	2.5c
20 x 26	20	nr	nr	nr	nr	nr	nr	nr
29	20	nr	nr	nr	nr	nr	nr	6a
33	20	nr	nr	nr	nr	10a	10a	5a
36	20	nr	nr	nr	8a	8a	6a	5a
39	18	nr	nr	nr	10a	10a	8a	6a
42	18	nr	nr	10a	10a	10a	8a	6b
45	18	nr	nr	10a	10a	10a	6a	5b
48	18	nr	10a	10a	8a	8a	6b	5b
51	18	10a	10a	8a	6b	6b	5b	4b
55	18	10a	10a	8a	6b	6b	5b	4b
58	18	10a	10a	6a	6b	5b	4b	3b
61	16	10a	10a	8b	6b	6b	5b	4b
64	16	10a	10a	8b	6b	5b	4b	3b
67	16	10a	10a	8b	6b	5b	4b	3b
71	16	10a	10b	6b	5b	5b	4b	3c
74	16	10a	10b	6b	5b	5b	4b	3c
77	16	10a	8b	6b	5b	5b	3b	3c
80	16	10a	8b	6b	5b	5b	3b	3c
83	16	10b	6b	5b	4b	3b	2.5b	2.5c
86	16	10b	6b	5b	4b	3b	2.5b	2.5c
22 x 25	20	nr	nr	nr	nr	nr	nr	nr
28	20	nr	nr	nr	nr	nr	nr	nr
31	20	nr	nr	nr	nr	nr	nr	6a
35	20	nr	nr	nr	nr	10a	10a	5a
38	18	nr	nr	nr	nr	nr	10a	6a

NOTES

Example: 8a
8 = distance in feet between angle.
a = letter indicates size of angle.

a = 1 1/2" x 1 1/2" x 1/8"
b = 2" x 2" x 3/16"
c = 2 1/2" x 2 1/2" x 1/4"

nr = no reinforcement required.
x = Contact SEMCO for pressures not shown.

OVAL REINFORCEMENT CHART

For positive pressure use the reinforcing shown in the unshaded areas only. For negative pressure use the reinforcing shown in both the shaded and unshaded areas. For pressures not shown, use next higher pressure. Consult SEMCO when duct is made of gauges different from those shown.

Spiral Duct								
Nominal Oval Size	Galv. Gauge	Static Pressure (in w.g.)						
		0.5	1	2	3	4	6	10
22 x 41	22	nr	10a	8a	6a	6a	5a	3a
44	22	nr	10a	8a	6a	5a	5a	3a
47	22	10a	10a	8a	6a	5a	4a	3a
50	20	10a	10a	8a	6a	6a	5b	3b
53	20	10a	10a	6a	5a	5b	4b	3b
57	20	10a	10a	6a	5a	5b	4b	3b
60	20	10a	8a	5a	5b	4b	3b	2.5b
63	20	10a	8a	5a	5b	4b	3b	2.5b
66	20	10a	6a	5b	4b	3b	2.5b	2b
69	20	10a	6a	5b	4b	3b	2.5b	2b
73	18	10a	8b	5b	5b	4b	3b	2.5b
76	18	10a	8b	5b	5b	4b	3b	2.5b
79	18	10a	8b	5b	4b	3b	3b	2b
82	18	10a	8b	5b	4b	3b	3b	2b
85	18	8b	6b	4b	3b	3b	2.5b	2c
24 x 27	22	nr	nr	nr	nr	nr	nr	nr
30	22	nr	nr	nr	nr	nr	nr	nr
33	22	nr	nr	nr	nr	nr	6a	5a
37	22	nr	nr	nr	8a	8a	5a	4a
40	22	nr	nr	10a	8a	6a	5a	4a
43	22	nr	10a	8a	6a	6a	5a	3a
46	22	nr	10a	8a	6a	5a	5a	3a
49	20	nr	10a	10a	6a	6a	5a	4b
52	20	10a	10a	8a	6a	6a	5b	3b
55	20	10a	10a	6a	5a	5b	4b	3b
59	20	10a	10a	6a	5a	5b	4b	3b
62	20	10a	8a	5a	5b	4b	3b	2.5b
65	20	10a	8a	5a	5b	4b	3b	2.5b
68	20	10a	6a	5b	4b	3b	2.5b	2b
71	18	10a	8a	6b	5b	5b	4b	3b
75	18	10a	8b	5b	5b	4b	3b	2.5b
78	18	10a	8b	5b	5b	4b	3b	2.5b
81	18	10a	8b	5b	4b	3b	3b	2b
84	18	10a	8b	5b	4b	3b	3b	2b
26 x 32	22	nr	nr	nr	nr	nr	nr	nr
35	22	nr	nr	nr	nr	nr	6a	5a
38	22	nr	nr	nr	nr	10a	6a	5a
42	22	nr	nr	10a	8a	6a	5a	4a
45	22	nr	10a	8a	6a	6a	5a	3a
48	22	nr	10a	8a	6a	5a	5a	3a
51	20	nr	10a	10a	6a	6a	5a	4b
54	20	10a	10a	8a	6a	6a	5b	3b
57	20	10a	10a	6a	5a	5b	4b	3b
60	20	10a	10a	6a	5a	5b	4b	3b
64	20	10a	8a	5a	5b	4b	3b	2.5b
67	20	10a	8a	5a	5b	4b	3b	2.5b
70	20	10a	6a	5b	4b	3b	2.5b	2b
73	18	10a	8a	6b	5b	5b	4b	3b
77	18	10a	8b	5b	5b	4b	3b	2.5b
80	18	10a	8b	5b	5b	4b	3b	2.5b
83	18	10a	8b	5b	4b	3b	3b	2b

Fittings & Longitudinal Seam Duct								
Nominal Oval Size	Galv. Gauge	Static Pressure (in w.g.)						
		0.5	1	2	3	4	6	10
22 x 41	18	nr	nr	nr	10a	10a	8a	6a
44	18	nr	nr	10a	10a	10a	8a	6b
47	18	nr	nr	10a	10a	10a	6a	5b
50	18	nr	10a	10a	8a	8a	6b	5b
53	18	10a	10a	8a	6b	6b	5b	4b
57	18	10a	10a	8a	6b	6b	5b	4b
60	18	10a	10a	6a	6b	5b	4b	3b
63	16	10a	10a	8b	6b	6b	5b	4b
66	16	10a	10a	8b	6b	5b	4b	3b
69	16	10a	10a	8b	6b	5b	4b	3b
73	16	10a	10b	6b	5b	5b	4b	3c
76	16	10a	10b	6b	5b	5b	4b	3c
79	16	10a	8b	6b	5b	5b	3b	3c
82	16	10a	8b	6b	5b	5b	3b	3c
85	16	10b	6b	5b	4b	3b	2.5b	2.5c
24 x 27	20	nr	nr	nr	nr	nr	nr	nr
30	20	nr	nr	nr	nr	nr	nr	nr
33	20	nr	nr	nr	nr	nr	nr	6a
37	18	nr	nr	nr	nr	nr	nr	8a
40	18	nr	nr	nr	nr	nr	10a	6a
43	18	nr	nr	nr	10a	10a	8a	6a
46	18	nr	nr	10a	10a	10a	8a	6b
49	18	nr	nr	10a	10a	10a	6a	5b
52	18	nr	10a	10a	8a	8a	6b	5b
55	18	10a	10a	8a	6b	6b	5b	4b
59	18	10a	10a	8a	6b	6b	5b	4b
62	16	10a	10a	8b	6b	6b	5b	4b
65	16	10a	10a	8b	6b	6b	5b	4b
68	16	10a	10a	8b	6b	5b	4b	3b
71	16	10a	10a	8b	6b	5b	4b	3b
75	16	10a	10b	6b	5b	5b	4b	3c
78	16	10a	10b	6b	5b	5b	4b	3c
81	16	10a	8b	6b	5b	5b	3b	3c
84	16	10a	8b	6b	5b	5b	3b	3c
26 x 32	20	nr	nr	nr	nr	nr	nr	nr
35	20	nr	nr	nr	nr	nr	nr	6a
38	18	nr	nr	nr	nr	nr	nr	8a
42	18	nr	nr	nr	nr	nr	10a	6a
45	18	nr	nr	nr	10a	10a	8a	6a
48	18	nr	nr	10a	10a	10a	8a	6b
51	18	nr	nr	10a	10a	10a	6a	5b
54	18	nr	10a	10a	8a	8a	6b	5b
57	18	10a	10a	8a	6b	6b	5b	4b
60	18	10a	10a	8a	6b	6b	5b	4b
64	16	10a	10a	8b	6b	6b	5b	4b
67	16	10a	10a	8b	6b	6b	5b	4b
70	16	10a	10a	8b	6b	5b	4b	3b
73	16	10a	10a	8b	6b	5b	4b	3b
77	16	10a	10b	6b	5b	5b	4b	3c
80	16	10a	10b	6b	5b	5b	4b	3c
83	16	10a	8b	6b	5b	5b	3b	3c

NOTES

Example: 8a
8 = distance in feet between angle.
a = letter indicates size of angle.

a = 1 1/2" x 1 1/2" x 1/8"
b = 2" x 2" x 3/16"
c = 2 1/2" x 2 1/2" x 1/4"

nr = no reinforcement required.
x = Contact SEMCO for pressures not shown.

OVAL REINFORCEMENT CHART

For positive pressure use the reinforcing shown in the unshaded areas only. For negative pressure use the reinforcing shown in both the shaded and unshaded areas. For pressures not shown, use next higher pressure. Consult SEMCO when duct is made of gauges different from those shown.

Spiral Duct								
Nominal Oval Size	Galv. Gauge	Static Pressure (in w.g.)						
		0.5	1	2	3	4	6	10
28 x 31	22	nr	nr	nr	nr	nr	nr	nr
35	22	nr	nr	nr	nr	nr	nr	nr
37	22	nr	nr	nr	nr	nr	6a	5a
40	22	nr	nr	nr	nr	10a	6a	5a
44	22	nr	nr	10a	8a	6a	5a	4a
47	22	nr	10a	8a	6a	6a	5a	3a
50	20	nr	10a	10a	8a	6a	6a	4a
53	20	nr	10a	10a	6a	6a	5a	4b
56	20	10a	10a	8a	6a	6a	5b	3b
59	20	10a	10a	6a	5a	5b	4b	3b
62	20	10a	10a	6a	5a	5b	4b	3b
66	20	10a	8a	5a	5b	4b	3b	2.5b
69	20	10a	8a	5a	5b	4b	3b	2.5b
72	18	10a	8a	6b	5b	5b	4b	3b
75	18	10a	8a	6b	5b	5b	4b	3b
79	18	10a	8b	5b	5b	4b	3b	2.5b
82	18	10a	8b	5b	5b	4b	3b	2.5b
30 x 33	22	nr	nr	nr	nr	nr	nr	nr
37	22	nr	nr	nr	nr	nr	nr	nr
39	22	nr	nr	nr	nr	nr	6a	5a
42	22	nr	nr	nr	nr	10a	6a	5a
46	22	nr	nr	10a	8a	6a	5a	4a
49	20	nr	nr	10a	8a	8a	6a	4a
52	20	nr	10a	10a	8a	6a	6a	4a
55	20	nr	10a	10a	6a	6a	5a	4b
58	20	10a	10a	8a	6a	6a	5b	3b
61	20	10a	10a	6a	5a	5b	4b	3b
64	20	10a	10a	6a	5a	5b	4b	3b
68	20	10a	8a	5a	5b	4b	3b	2.5b
71	18	10a	10a	6a	6b	5b	4b	3b
74	18	10a	8a	6b	5b	5b	4b	3b
77	18	10a	8a	6b	5b	5b	4b	3b
81	18	10a	8b	5b	5b	4b	3b	2.5b
32 x 39	22	nr	nr	nr	nr	nr	nr	nr
41	22	nr	nr	nr	nr	nr	6a	5a
44	22	nr	nr	nr	nr	10a	6a	5a
48	22	nr	nr	10a	8a	6a	5a	4a
51	20	nr	nr	10a	8a	8a	6a	4a
54	20	nr	10a	10a	8a	6a	6a	4a
57	20	nr	10a	10a	6a	6a	5a	4b
60	20	10a	10a	8a	6a	6a	5b	3b
63	20	10a	10a	6a	5a	5b	4b	3b
66	20	10a	10a	6a	5a	5b	4b	3b
70	20	10a	8a	5a	5b	4b	3b	2.5b
73	18	10a	10a	6a	6b	5b	4b	3b
76	18	10a	8a	6b	5b	5b	4b	3b
79	18	10a	8a	6b	5b	5b	4b	3b

Fittings & Longitudinal Seam Duct								
Nominal Oval Size	Galv. Gauge	Static Pressure (in w.g.)						
		0.5	1	2	3	4	6	10
28 x 31	20	nr	nr	nr	nr	nr	nr	nr
35	20	nr	nr	nr	nr	nr	nr	nr
37	18	nr	nr	nr	nr	nr	nr	nr
40	18	nr	nr	nr	nr	nr	nr	8a
44	18	nr	nr	nr	nr	nr	10a	6a
47	18	nr	nr	nr	10a	10a	8a	6a
50	18	nr	nr	10a	10a	10a	8a	6b
53	18	nr	nr	10a	10a	10a	6a	5b
56	18	nr	10a	10a	8a	8a	6b	5b
59	18	10a	10a	8a	6b	6b	5b	4b
62	16	nr	10a	10a	8b	6b	6b	5b
66	16	10a	10a	8b	6b	6b	5b	4b
69	16	10a	10a	8b	6b	6b	5b	4b
72	16	10a	10a	8b	6b	6b	4b	3b
75	16	10a	10a	8b	6b	6b	4b	3b
79	16	10a	10b	6b	5b	6b	4b	3c
82	16	10a	10b	6b	5b	6b	4b	3c
30 x 33	20	nr	nr	nr	nr	nr	nr	nr
37	18	nr	nr	nr	nr	nr	nr	nr
39	18	nr	nr	nr	nr	nr	nr	nr
42	18	nr	nr	nr	nr	nr	nr	8a
46	18	nr	nr	nr	nr	nr	10a	6a
49	18	nr	nr	nr	10a	10a	8a	6a
52	18	nr	nr	10a	10a	10a	8a	6b
55	18	nr	nr	10a	10a	10a	6a	5b
58	18	nr	10a	10a	8a	8a	6b	5b
61	16	nr	10a	10a	8b	6b	6b	5b
64	16	nr	10a	10a	8b	6b	6b	5b
68	16	10a	10a	8b	6b	6b	5b	4b
71	16	10a	10a	8b	6b	6b	5b	4b
74	16	10a	10a	8b	6b	5b	4b	3b
77	16	10a	10a	8b	6b	5b	4b	3b
81	16	10a	10b	6b	5b	5b	4b	3c
32 x 39	18	nr	nr	nr	nr	nr	nr	nr
41	18	nr	nr	nr	nr	nr	nr	nr
44	18	nr	nr	nr	nr	nr	nr	8a
48	18	nr	nr	nr	nr	nr	10a	6a
51	18	nr	nr	nr	10a	10a	8a	6a
54	18	nr	nr	10a	10a	10a	8a	6b
57	18	nr	nr	10a	10a	10a	6a	5b
60	18	nr	10a	10a	8a	8a	6b	5b
63	16	nr	10a	10a	8b	6b	6b	5b
66	16	nr	10a	10a	8b	6b	6b	5b
70	16	10a	10a	8b	6b	6b	5b	4b
73	16	10a	10a	8b	6b	6b	5b	4b
76	16	10a	10a	8b	6b	5b	4b	3b
79	16	10a	10a	8b	6b	5b	4b	3b

NOTES

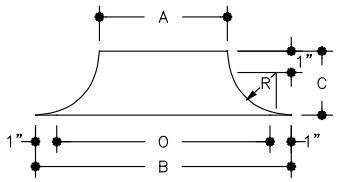
Example: 8a
8 = distance in feet between angle.
a = letter indicates size of angle.

a = 1 1/2" x 1 1/2" x 1/8"
b = 2" x 2" x 3/16"
c = 2 1/2" x 2 1/2" x 1/4"

nr = no reinforcement required.
x = Contact SEMCO for pressures not shown.

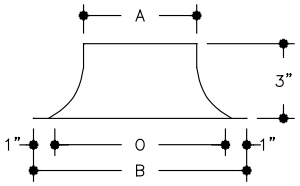
BELLMOUTHS

FULL RADIUS



Size	A (inches)	B (inches)	C (inches)	R (inches)	Weight (lbs)
3	2.875	6.2	2.5	0.6	1.0
4	3.875	9.0	2.5	1.5	1.3
5	4.875	10.0	2.5	1.5	1.5
6	5.875	12.0	3.0	2.0	1.7
7	6.875	13.0	3.0	2.0	1.9
8	7.875	14.0	3.0	2.0	2.0
9	8.875	15.0	3.0	2.0	2.2
10	9.875	16.0	3.0	2.0	2.4
11	10.875	19.0	4.0	3.0	3.6
12	11.875	20.0	4.0	3.0	3.6
13	12.875	21.0	4.0	3.0	4.0
14	13.875	22.0	4.0	3.0	4.4
15	14.875	23.0	4.0	3.0	4.5
16	15.875	26.0	5.0	4.0	6.5
17	16.875	27.0	5.0	4.0	6.8
18	17.875	28.0	5.0	4.0	7.1
19	18.875	29.0	5.0	4.0	7.2
20	19.875	30.0	5.0	4.0	7.3
21	20.875	31.0	5.0	4.0	7.5
22	21.875	34.0	6.0	5.0	9.7
23	22.875	35.0	6.0	5.0	9.9
24	23.875	36.0	6.0	5.0	10.4
26	25.875	40.0	7.0	6.0	13.2
28	27.875	42.0	7.0	6.0	13.7
30	29.875	44.0	7.0	6.0	14.8
32	31.875	48.0	8.0	7.0	15.3
34	33.875	50.0	8.0	7.0	16.0
36	35.875	52.0	8.0	7.0	20.3
38	37.875	54.0	8.0	7.0	24.7
40	39.875	58.0	9.0	8.0	27.3
42	41.875	60.0	9.0	8.0	27.5
44	43.875	62.0	9.0	8.0	27.8
46	45.875	64.0	9.0	8.0	28.8
48	47.875	66.0	9.0	8.0	30.2

SHORT RADIUS



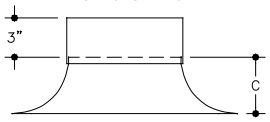
48"ø and under = 1" radius
50"ø and over = 2 1/2" radius

Size	"B"	Weight (lbs)
6	10.0	1.4
7	11.0	1.5
8	12.0	1.7
9	13.0	1.8
10	14.0	2.0
11	15.0	2.1
12	16.0	2.3
13	17.0	2.5
14	18.0	2.6
15	19.0	2.8
16	20.0	2.9
17	21.0	3.1
18	22.0	3.3
19	23.0	3.4
20	24.0	3.5
21	25.0	3.7
22	26.0	3.9
23	27.0	4.0
24	28.0	4.2
26	30.0	4.4
28	32.0	4.7
30	34.0	5.0
32	36.0	5.4
34	38.0	5.8
36	40.0	6.2
38	42.0	6.6
40	44.0	6.9
42	46.0	7.2
44	48.0	7.5
46	50.0	7.9
48	52.0	8.3
50	54.0	8.7
52	56.0	9.1
54	58.0	9.6
56	60.0	10.1
58	62.0	10.6
60	64.0	11.3

- O = B - 2"
- A is male size to slip into spiral duct.
- Bellmouth dimensions are nominal.
- Determine actual dimensions when bellmouths are received.
- For bellmouths over 60" consult SEMCO.

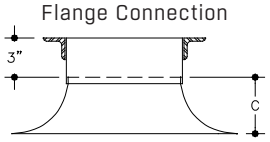
CONNECTIONS

Female End



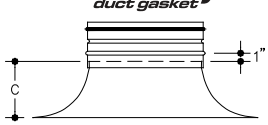
- Full Radius: C + 3" = installed height
- Short Radius: 3" + 3" = installed height

Flange Connection



- Accuflange
- Angle ring (solid weld or Vanstone)
- Spiralmate
- Wonder Flange

Velocity duct gasket



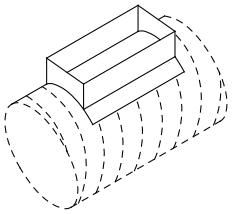
(Available 5" - 36")

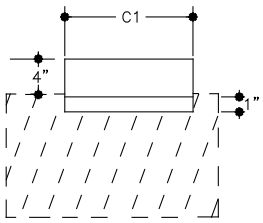
- Full Radius: C + 1" = installed height
- Short Radius: 3" + 1" = installed height

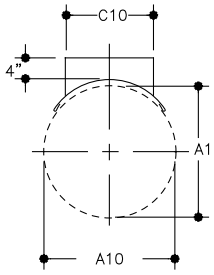
LOOSE RECTANGULAR TAPS

RTT100

90° STRAIGHT TAP



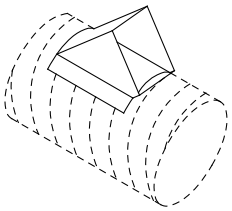


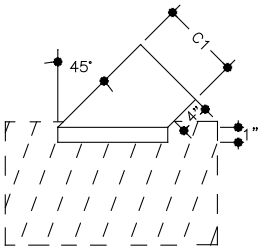


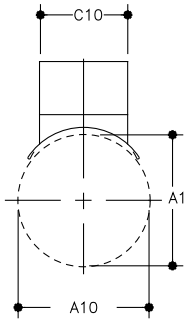
S.W. ON S.W.

RTL100

45° LATERAL TAP



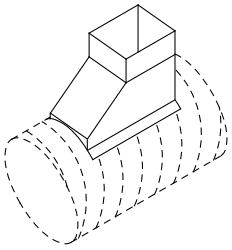


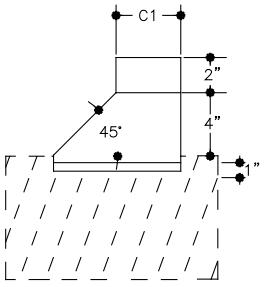


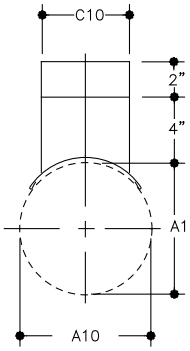
S.W. ON S.W.

RTC100

COMBINATION TAP





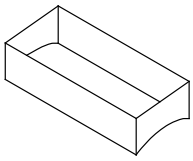


S.W. ON S.W.

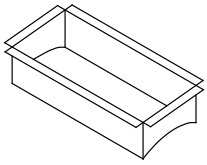
NOTES

- Loose taps can be field installed on fittings or spiral duct.
- C10 can be no larger than A10.
- Rectangular tap is contoured to fit the specific duct size. Tap should be sealed to duct and sheet metal screwed to body @ 3" centers.

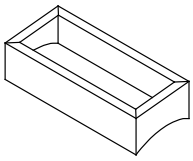
RECTANGULAR TAP END TREATMENTS



Raw end



Flange out 1"



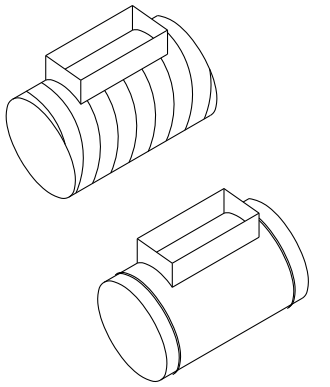
Flange in 1"

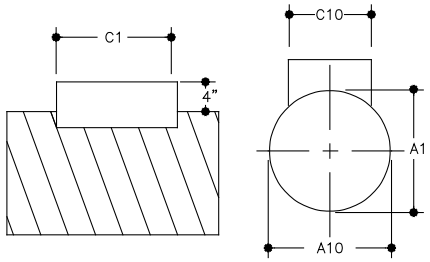
INSTALLED RECTANGULAR TAPS

RTT
90° STRAIGHT TAP

RTT111 S.W. ON S.W. SPIRAL DUCT
RTT121 S.W. ON D.W. SPIRAL DUCT
RTT221 D.W. ON D.W. SPIRAL DUCT

RTT112 S.W. ON S.W. BODY
RTT122 S.W. ON D.W. BODY
RTT222 D.W. ON D.W. BODY

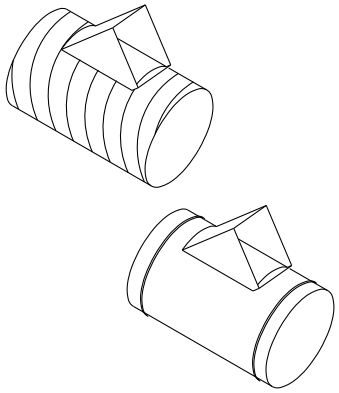


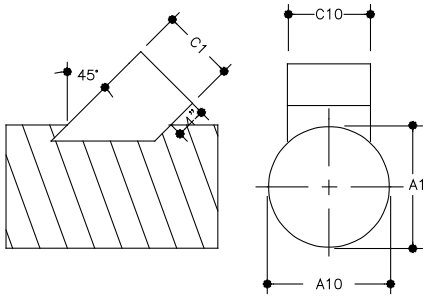


RTL
45° LATERAL TAP

RTL111 S.W. ON S.W. SPIRAL DUCT
RTL121 S.W. ON D.W. SPIRAL DUCT
RTL221 D.W. ON D.W. SPIRAL DUCT

RTL112 S.W. ON S.W. BODY
RTL122 S.W. ON D.W. BODY
RTL222 D.W. ON D.W. BODY

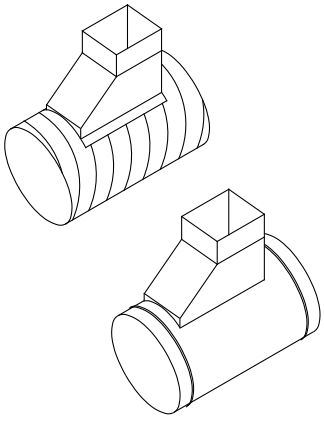


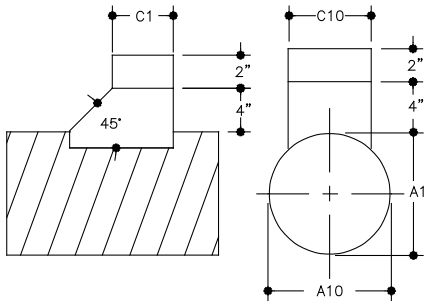


RTC
COMBINATION TAP

RTC111 S.W. ON S.W. SPIRAL DUCT
RTC121 S.W. ON D.W. SPIRAL DUCT
RTC221 D.W. ON D.W. SPIRAL DUCT

RTC112 S.W. ON S.W. BODY
RTC122 S.W. ON D.W. BODY
RTC222 D.W. ON D.W. BODY

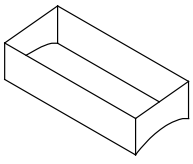


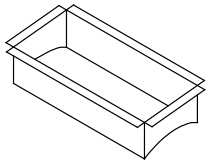


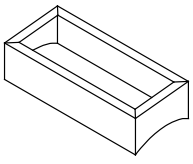
NOTES

- C10 can be no larger than A10.

RECTANGULAR TAP END TREATMENTS


Raw end


Flange out 1"


Flange in 1"

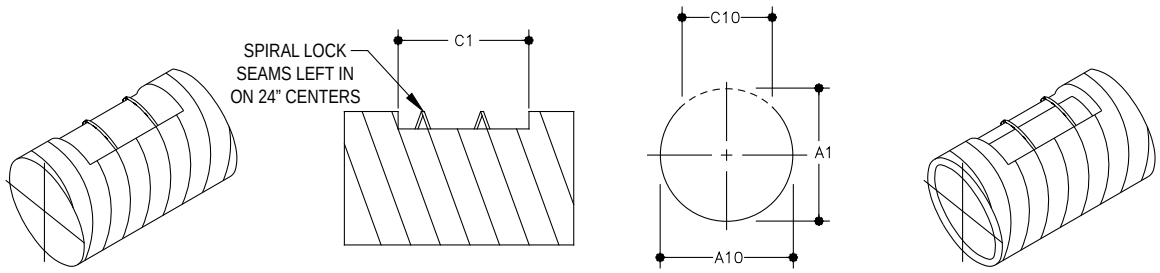
LINEAR DIFFUSER SLOTS

LS001

SINGLE WALL LINEAR SLOT OPENING WITH LOCK SEAMS

LS002

DUAL WALL LINEAR SLOT OPENING WITH LOCK SEAMS



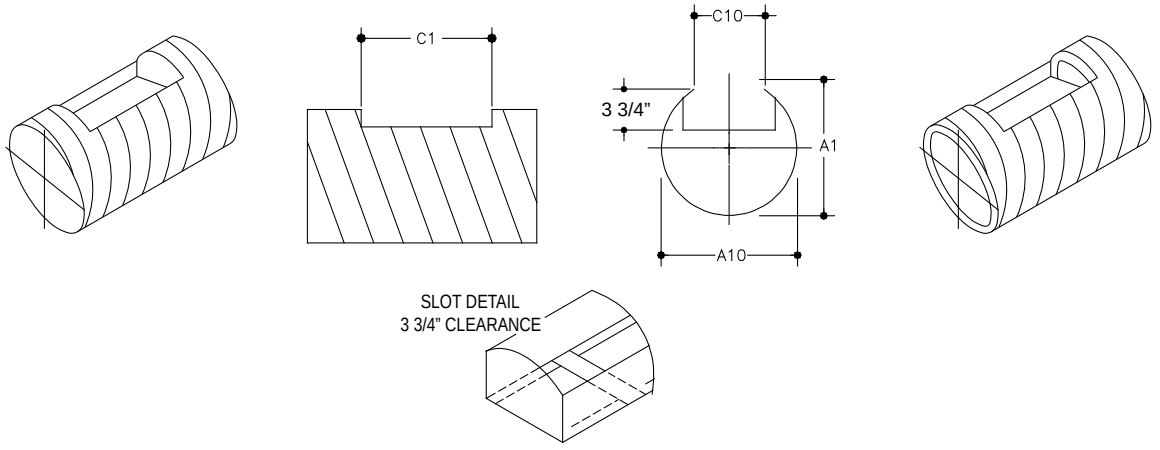
Lock seams on O.D. only.

LS101

SINGLE WALL LINEAR SLOT OPENING WITH ANGLE REINFORCEMENT

LS102

DUAL WALL LINEAR SLOT OPENING WITH ANGLE REINFORCEMENT



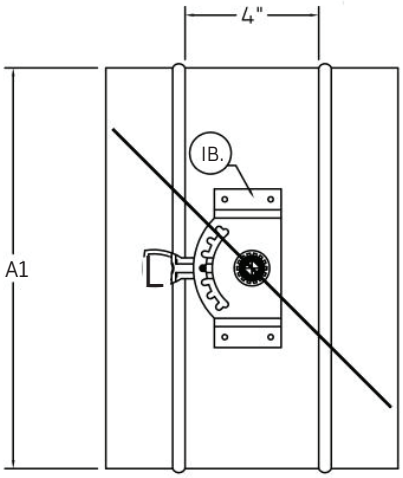
NOTES

- 72" is the maximum recommended opening length.

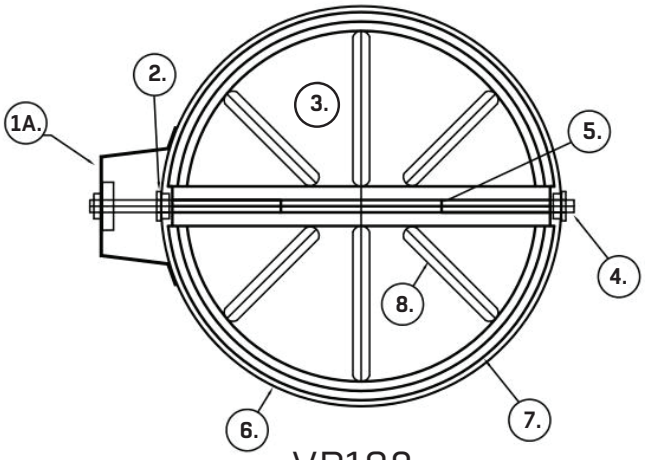
VOLUME DAMPERS

VD108 OR VD208

ROUND DAMPERS 3" - 30" AND OVAL DAMPERS WITH A MAJOR AXIS OF 30" OR LESS



VD108



VD108

VDI08 SINGLE WALL DUCT CONTRUCTION SHOWN.
MODEL VD208 IS DUAL WALL DUCT CONSTRUCTION.

NOMINAL DIAMETER	BLADE GAUGE	MAXIMUM VELOCITY	BODY GAUGE
3" - 4"	18	2,000	*
5" - 12"	18	2,000	*
13"- 16"	16	2,000	*
17" - 20"	16	2,000	*
22"- 30"	14	2,000	*

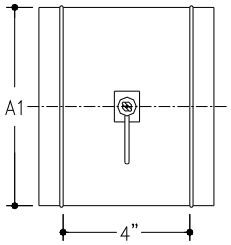
* For body gauge, reference fitting gauge in construction standard.

ASSEMBLY CONSTRUCTION NOTES

A1. - DIAMETER
1A. - 3" - 17" - USE ROSSI EVERLOCK POSITIVE LOCK HANDLE W/ STANDOFF.**
18" AND UP - USE WINDGATE 2" STANDOFF REGULATOR.**
1B. - STANDOFF BASE SPOT WELDED TO BODY.
2. - 3/8" NYLON END BEARINGS - HOLES PUNCHED WITH NO. 17 ROPER WHITNEY BENCH PUNCH WITH 3/8" ROUND DIE.
3. - 6", 8", 10", 12", 14", AND 16" = STAMPED BLADES BY ROSSI.
3", 4", 5", 7", 9", 11" 15", 17", 18" AND UP = SEMCO PLASMA BURNT BLADES.
4. - 3/8" SQUARE CONTINUOUS ROD.
5. - BLADE TACK WELDED TO ROD ONE LOCATION FOR STAMPED BLADES.
U-CHANNEL CLIPS AFFIXED TO PLASMA BURNT BLADES.
6. - BODY TO BE STITCH WELDED - NO SEALANT - GASKETED ENDS OPTIONAL.
7. - BLADE DIAMETER = (NOMINAL DIAMETER - 1/2")
8. - AVAILABLE AS ABOVE OR INSTALLED IN SPIRAL AND FITTINGS.

** - HARDWARE FOR OVAL DAMPERS WILL BE DETERMINED BY MAJOR AXIS.

SIDE VIEW:



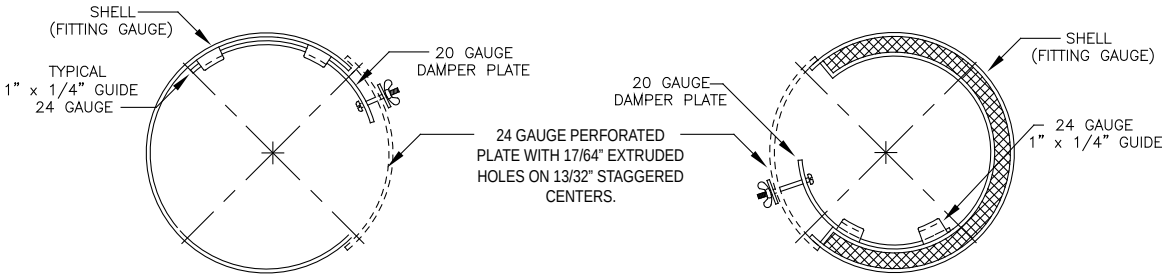
NOTES

- All dampers are furnished installed.
- When a volume damper is installed in a tap, length must be extended 6".

DIFFUSE-A-PLATE DUCT DIFFUSER

DAP90WD

90° W/ DAMPER SINGLE SIDE DIFFUSER

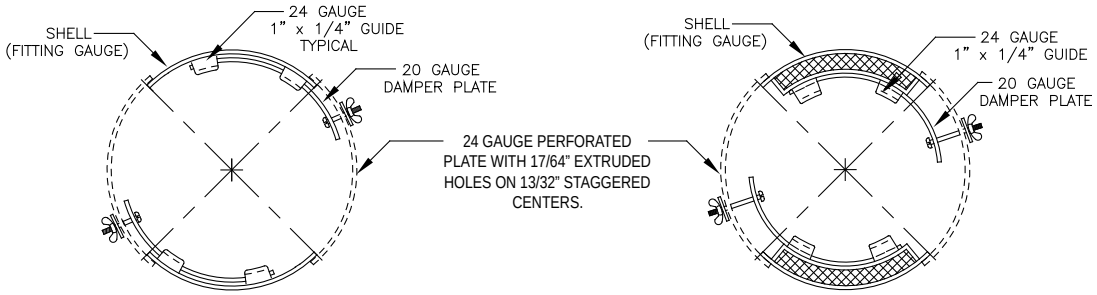


Single Wall
Section "B-B"

Dual Wall
Section "B-B"

DAP90/2WD

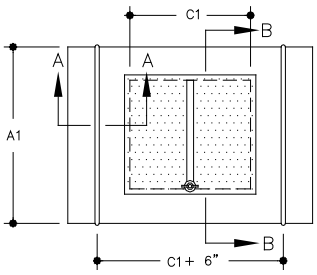
90° W/ DAMPER DUAL SIDE DIFFUSER



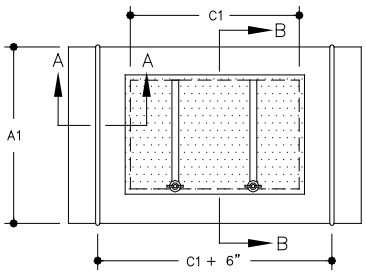
Single Wall
Section "B-B"

Dual Wall
Section "B-B"

For C1 of 6" - 24"

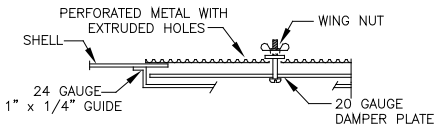


For C1 of 25" - 54"

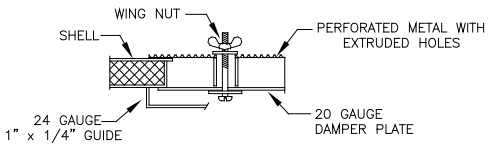


Section "A-A"

Single Wall



Dual Wall



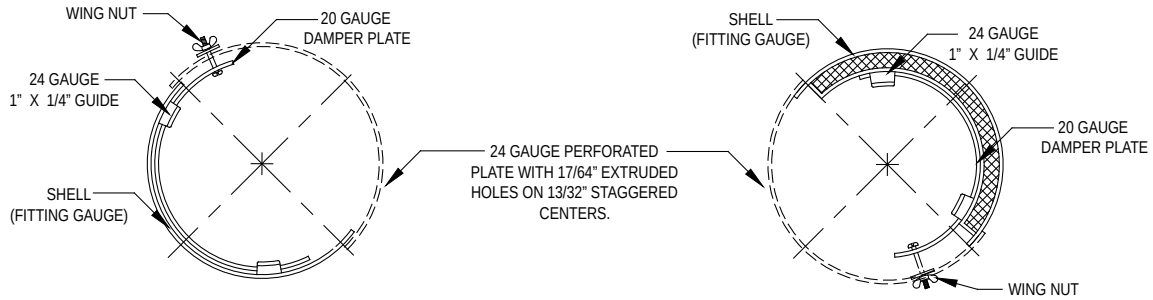
NOTES

- Perforations not extruded in special metals.

DIFFUS-A-PLATE DUCT DIFFUSER

DAP180WD

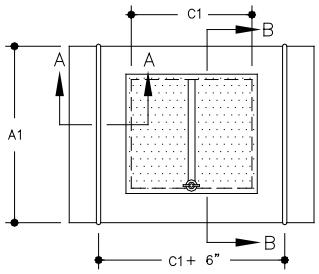
180° W/ DAMPER



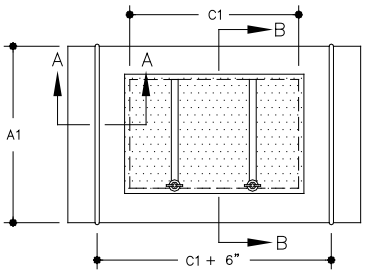
Single Wall
Section "B-B"

Dual Wall
Section "B-B"

For C1 of 6" - 24"

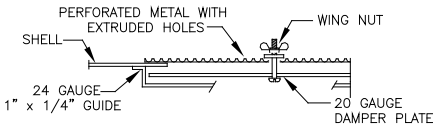


For C1 of 25" - 54"

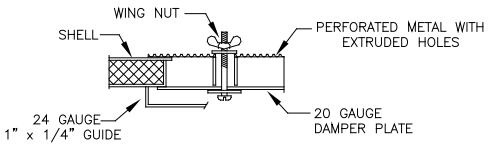


Section "A-A"

Single Wall



Dual Wall



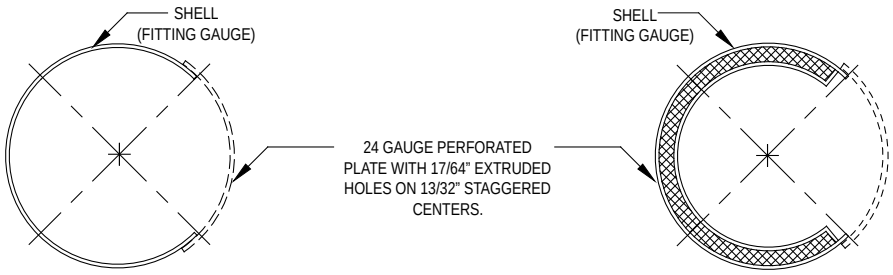
NOTES

- Guide quantity is determined by size of damper opening.
- Larger size dampers will require split blades. Contact SEMCO for more information.
- Perforations not extruded in special metals.

DIFFUS-A-PLATE DUCT DIFFUSER

DAP90

90° W/OUT DAMPER SINGLE SIDE DIFFUSER

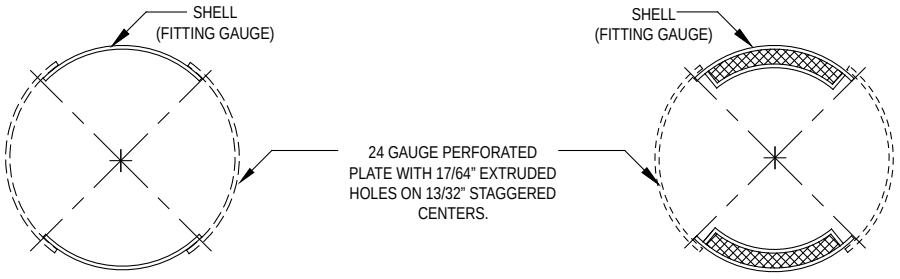


Single Wall
Section "B-B"

Dual Wall
Section "B-B"

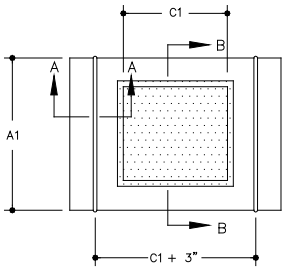
DAP90/2

90° W/OUT DAMPER DUAL SIDE DIFFUSER



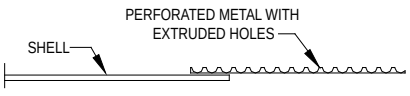
Single Wall
Section "B-B"

Dual Wall
Section "B-B"

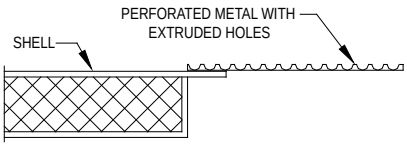


Section "A-A"

Single Wall



Dual Wall



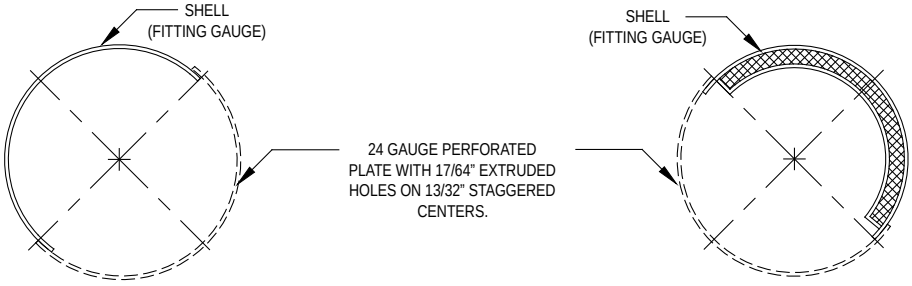
NOTES

- Perforations not extruded in special metals.

DIFFUS-A-PLATE DUCT DIFFUSER

DAP180

180° W/ OUT DAMPER



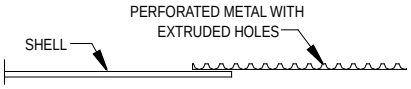
Single Wall
Section "B-B"

Dual Wall
Section "B-B"

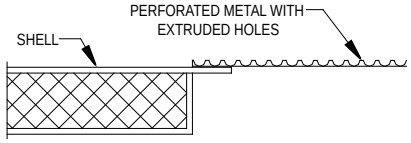
Diffus-a-Plate Performance Data	
Internal Duct Static Pressure (in w.g.)	CFM per Sq. Ft. of Perforated Opening
0.02	195
0.04	275
0.06	335
0.08	385
0.20	600
0.40	922
0.60	1025
0.80	1175
1.00	1325
1.20	1450
1.40	1550
1.60	1660
1.80	1750
2.00	1850
2.20	1950
2.40	2025
2.60	2100
2.80	2180
3.00	2250

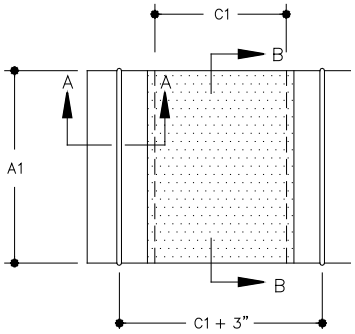
Section "A-A"

Single Wall



Dual Wall





DAP90 Perforate Opening = $\frac{(A1 \times 0.7854) \times C1}{144}$

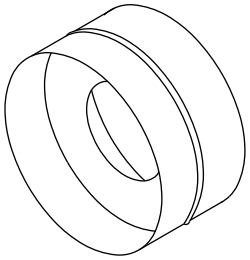
DAP180 Perforate Opening = $\frac{(A1 \times 1.5708) \times C1}{144}$

NOTES

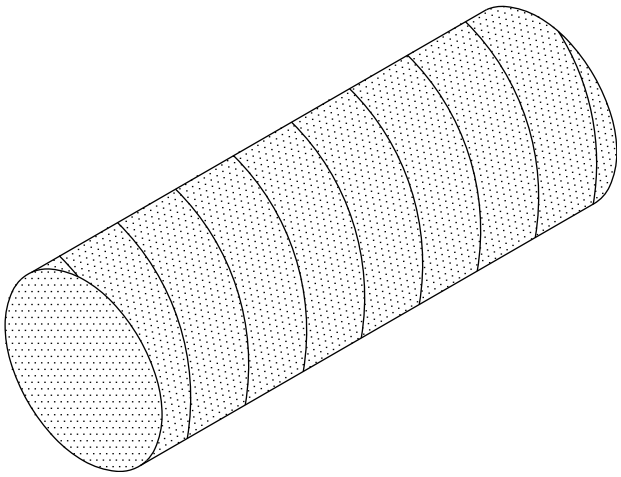
- Perforations not extruded in special metals.

PERFORATED SPIRAL DUCT

OP
ORIFICE PLATE



PSP
PERFORATED SPIRAL DUCT



An effective method of introducing air into a space at very low velocities is to use lengths of perforated spiral duct. SEMCO's standard perforated spiral with 3/32" holes on 3/16" staggered centers and 23% free area will discharge air in a 360° radius around the duct.

In long runs of duct, orifice plates and reducers are used to insure that air is discharged more evenly along the length of the duct. Orifice plates are mounted in male couplings, which are used to connect sections of perforated duct together.

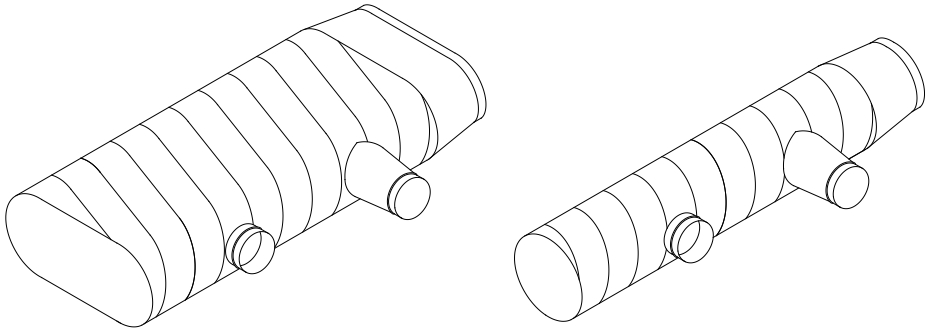
Many interdependent factors are involved in the correct design of this type of system, such as:

- air volume
- duct diameters
- changes in duct size
- length of duct run
- orifice sizing and location
- reducer location

We suggest that you contact SEMCO for application and/or design assistance.

MANIFOLDING

DEFINITION



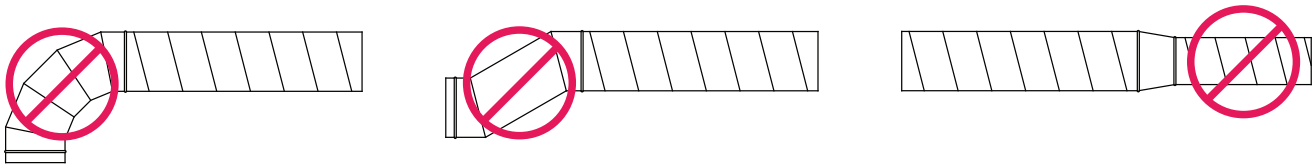
SEMCO will cut round or oval spiral duct to required lengths and attach taps. Reducer can be attached to the downstream end of the spiral duct. SEMCO recommends that the total length of manifolded pieces should be generally limited to 8' - 6" to prevent damage and avoid additional freight charges. Contact SEMCO for more information.

BENEFITS

Manifolding can save the installing contractor money!

1) Reduces the number of field joints.
2) Fewer pieces to be unloaded at job site.
3) Fewer pieces requiring job site distribution, thus minimizing the possibility of delivery to wrong areas, resulting in costly delays.
4) Utilization of more efficient installation methods (mechanical lifting devices, fewer hangers, etc.)
5) Reduction of crew size and more efficient utilization of crew time.
6) Elimination of potential leaks at field joints.

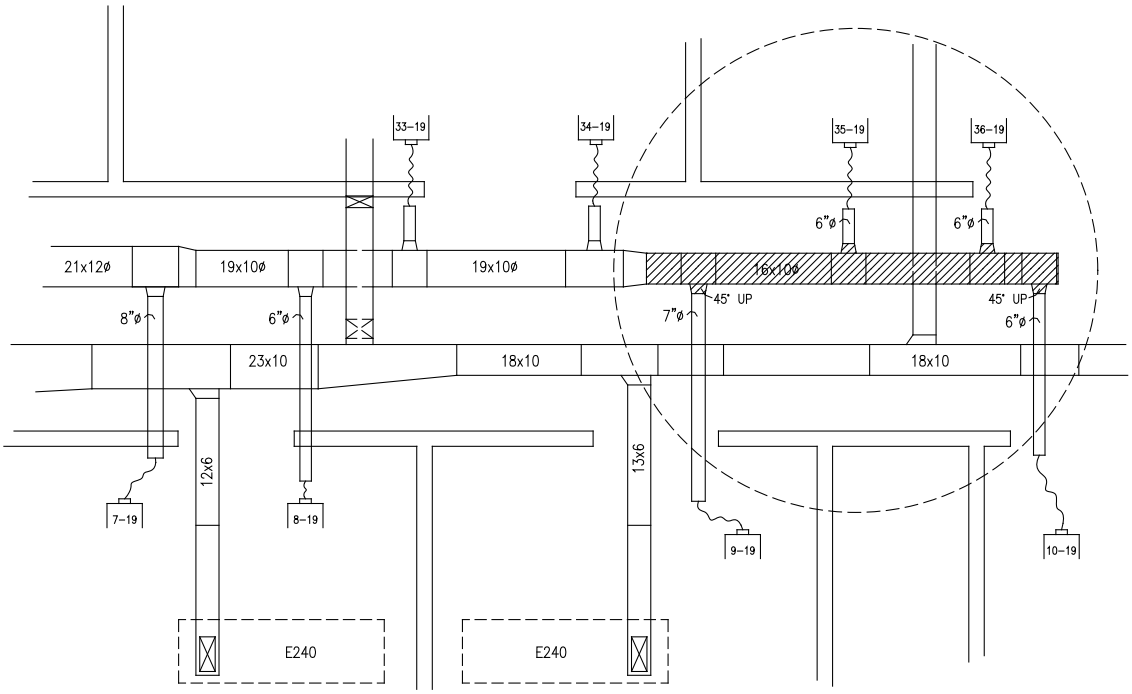
LIMITATIONS



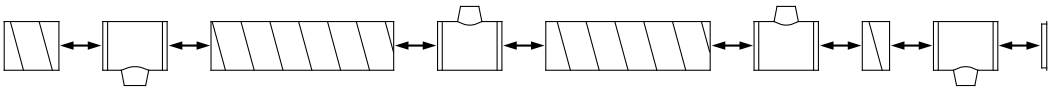
There are some limitations to manifolding, SEMCO will not attach elbows, offsets, or straight duct to the small ends of the reducer. These limitations are to eliminate potential damage to assemblies during shipment.

MANIFOLDING

TYPICAL FLOOR AREA

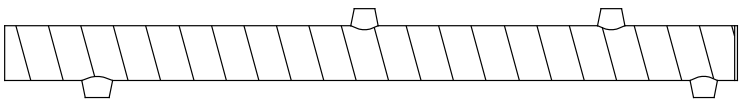


DUCT & FITTINGS



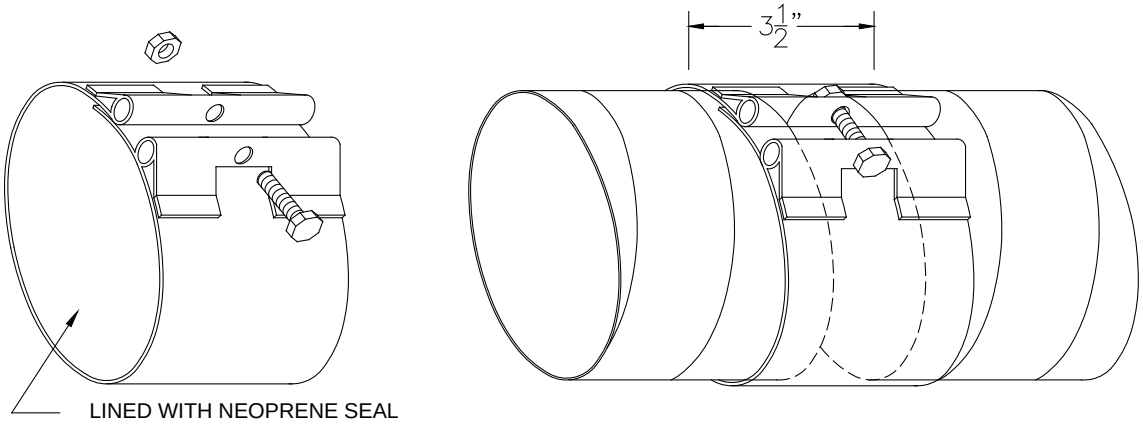
Field Joints required by standard duct and fitting design, which can be eliminated by SEMCO manifolding. (8 joints)

MANIFOLDED



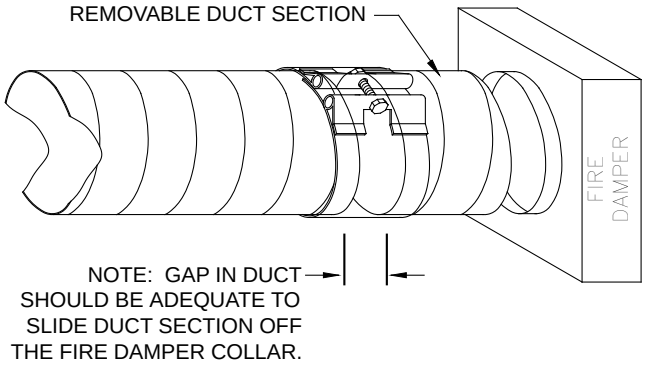
DUCTMATE™ QUICK-SLEEVES

DUCTMATE QUICK SLEEVE



QUICK-SLEEVE ROUND DUCT CONNECTOR

Available in Sizes 3"ø thru 16"ø
Materials available: Galvanized, stainless steel 304 & 316 and aluminized.



Quick-Sleeve Round Duct Connectors are ideal for any application where duct needs to be assembled and reassembled. Only one bolt has to be tightened to make the connection.

One of many possible applications is to use a Quick-Sleeve connection and a short removable duct section at fire dampers where conventional access doors are unavailable or impractical due to the small size of duct (under 8"ø).

NOTES

- All Ductmate products are protected by patents.
- Quick-Sleeve is a product of Ductmate Industries, Inc. - Monongahela, PA

FläktGroup
SEMCO

EXCELLENCE IN SOLUTIONS

FläktGroup SEMCO delivers smart and energy efficient Indoor Air and Critical Air solutions to support every application area. We offer our customers innovative technologies, high quality and outstanding performance supported by more than fifty years of accumulated industry experience. The widest product range in the market, and strong market presence in 65 countries worldwide, guarantee that we are always by your side, ready to deliver Excellence in Solutions.

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www.semcohvac.com