

DURABLE AND EFFICIENT

EASY TO INSTALL

CUSTOM AIR SPIRAL DUCT AND FITTINGS

PRODUCT CATALOG



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

INDEX

| | Section - Page Number | | | |
|---|-----------------------|------------------|-----------------|----------------|
| | Single Wall Round | Single Wall Oval | Dual Wall Round | Dual Wall Oval |
| Introduction | i-2, i-3 | | | |
| AVRON46® Antimicrobial Coating | 1-1 | | | |
| Velocity® Gasketed Joint System | 1-2 | | | |
| Slip Connections | 1-3 | | 1-6 | |
| Angle Ring Connections | 1-4 | | 1-7 | 1-8 |
| Standard Angle Ring Sizes | 1-5 | | | |
| AccuFlange™ End Connections | 1-9 | | | |
| Dual to Single Wall Adaptors | 1-10, 1-11 | | | |
| Rectangular to Round Conversion Chart | 1-12, 1-13 | | | |
| Rectangular to Round & Oval Conversion Calculator | 1-14 | | | |
| Gauge and Construction Charts | 2-1, 2-2 | 3-1 to 3-3 | 4-1, 4-2 | 5-1 to 5-3 |
| Elbows | 2-3, 2-4 | 3-4, 3-5 | 4-3, 4-4 | 5-4, 5-5 |
| Tee Fittings | 2-5 | 3-6 | 4-5 | 5-6 |
| Conical Tee Fittings | 2-6 | 3-7 | 4-6 | 5-7 |
| Combination Tee Fittings | 2-7 | 3-8 | 4-7 | 5-8 |
| Lateral Fittings | 2-8 | 3-9 | 4-8 | 5-9 |
| Conical Lateral Fittings | 2-9 | 3-10 | 4-9 | 5-10 |
| Wye Fittings and Bullhead Tees | 2-10 | 3-11 | 4-10 | 5-11 |
| Reducers | 2-11 | 3-12 | 4-11 | 5-12 |
| Miscellaneous | 2-12 | 3-13 | 4-12 | 5-13 |
| Saddle Taps | 2-13 to 2-16 | - | - | - |
| Industrial Fittings | 2-17, 2-18 | - | - | - |
| Access Doors | 6-1 to 6-3 | | 6-4 to 6-6 | |
| Ductmate® Access Doors | 6-7 | | | |
| RTR Transitions | 6-8 | | | |
| Duct Reinforcement | 6-9 | | | |
| Oval Reinforcement Charts | 6-10 to 6-16 | | | |
| Bellmouths | 6-17 | | | |
| Loose Rectangular Taps | 6-18 | | | |
| Installed Rectangular Taps | 6-19 | | | |
| Linear Diffuser Slots | 6-20 | | | |
| Volume Dampers | 6-21 | | | |
| Diffus-a-Plate Duct Diffusers | 6-22 to 6-25 | | | |
| Perforated Spiral Duct & Orifice Plates | 6-26 | | | |
| Manifolding | 6-27, 6-28 | | | |
| Ductmate® Quick-Sleeve | 6-29 | | | |

© FläktGroup SEMCO LLC 2006-2023. All rights reserved.

The information in this catalog is furnished for informational use only, is subject to change without notice, and should not be construed as a commitment by FläktGroup SEMCO Duct & Acoustical Products. FläktGroup SEMCO Duct & Acoustical Products assumes no responsibility for any errors that may appear in this catalog.

No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic, mechanical, recording, or otherwise, without the prior written permission of FläktGroup SEMCO LLC.

AVRON46, Velocity, and CustomAir are registered trademarks of FläktGroup SEMCO LLC. All other trademarks are the property of their respective owners.

INTRODUCTION

FläktGroup® SEMCO® has manufactured quality round and oval spiral duct and fittings since 1963. In addition to offering the economies of standardization and mass production, FläktGroup 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 FläktGroup SEMCO spiral duct and fittings. Products and dimensions listed here are FläktGroup SEMCO’s standard. Nonstandard sizes, gauges, materials, dimensions, reinforcing, configuration, joint types, etc. are also available. Please contact your nearest FläktGroup SEMCO representative or FläktGroup 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

FläktGroup 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 FläktGroup 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

FläktGroup 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 FläktGroup 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. FläktGroup 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 $\pm \frac{1}{4}$ ”.

**SECTION 1:
GENERAL**

ANTIMICROBIAL SPIRAL DUCT AND FITTINGS

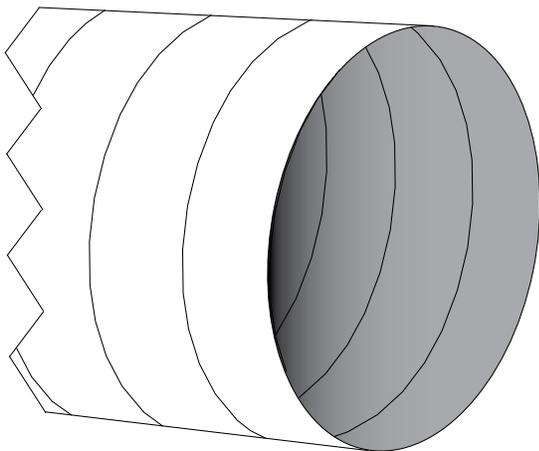
1



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.

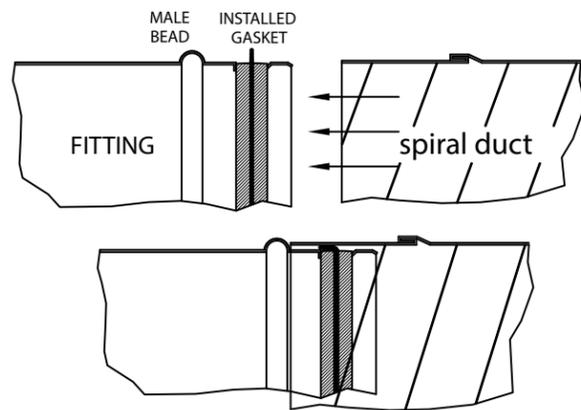


The gray coating of AVRON46® can be factory applied to the interior of FläktGroup® FläktGroup SEMCO® duct and fittings to prevent mold.

FläktGroup® SEMCO® duct & acoustical products are available pre-coated with the industry's most affordable solution to effective prevention of mold growth in HVAC systems.

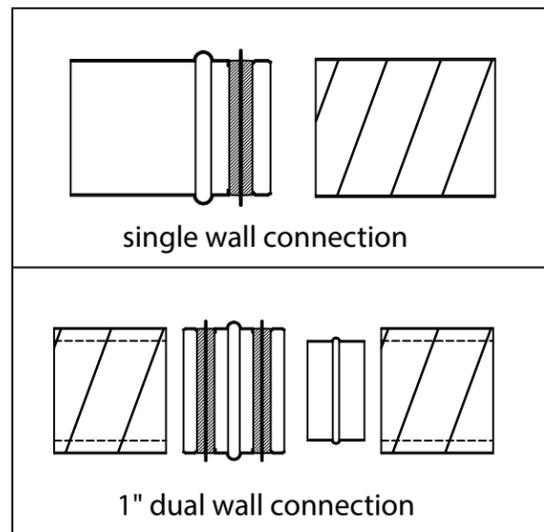
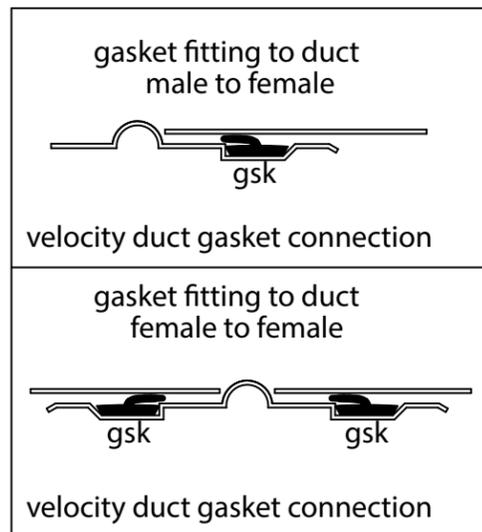
- Available for Round and Oval, Single Wall and Dual Wall products
- Typical application of AVRON46® is to the interior surface.
- Post manufacturing application of AVRON46 assures maximum interior coverage.
- AVRON46 utilizes an EPA* registered active ingredient approved for use in air duct systems.
- 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.

VELOCITY® GASKETED JOINT SYSTEM



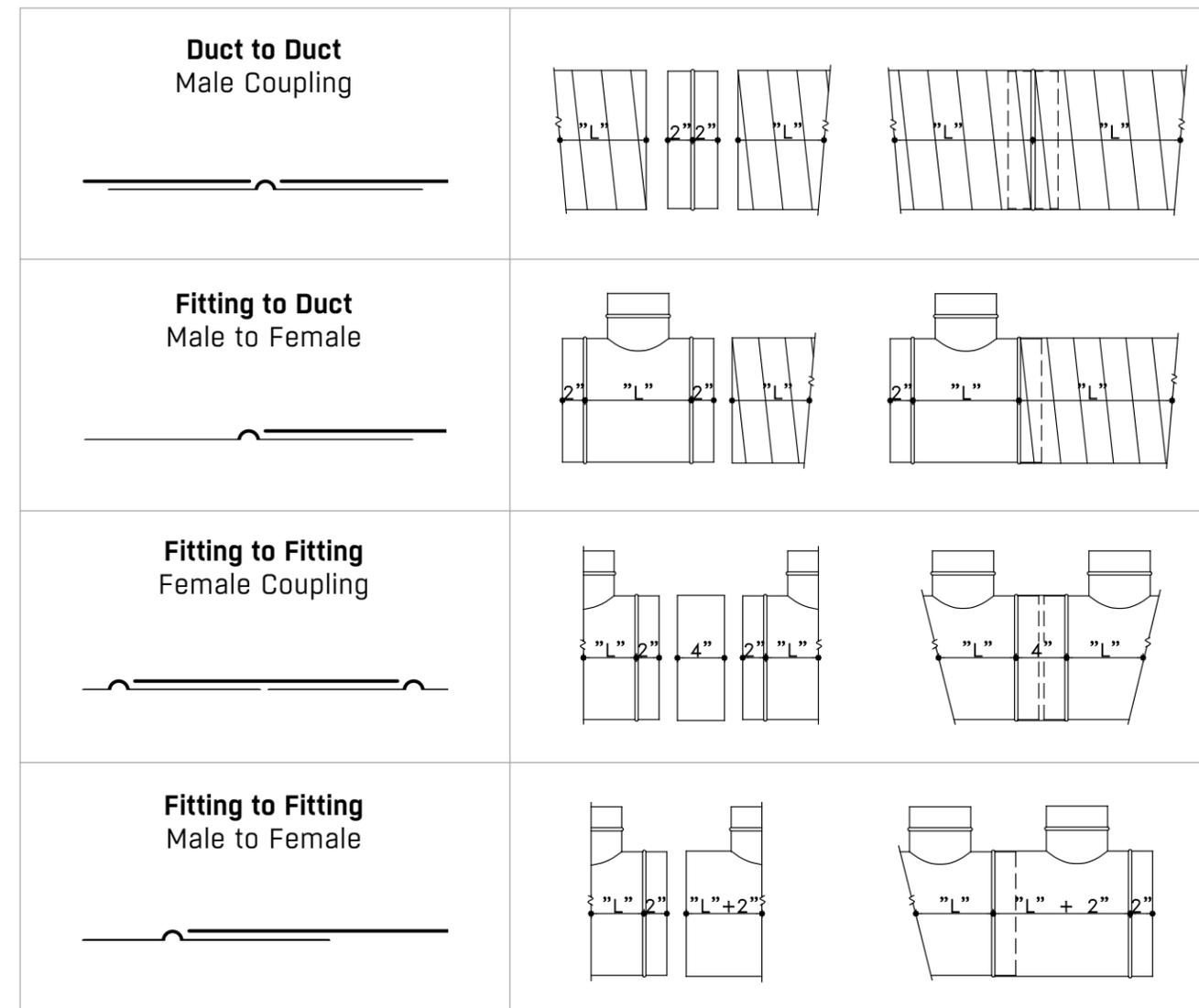
| SINGLE WALL Ø | SP GAUGE | FITTING GAUGE | SPIRAL DUCT STD. LENGTH |
|---------------|----------|---------------|-------------------------|
| 4" - 14" | 26 | 24 | 10'-0" |
| 15" - 24" | 24 | 24 | 10'-0" |

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



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.

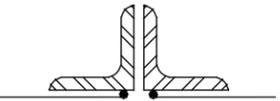
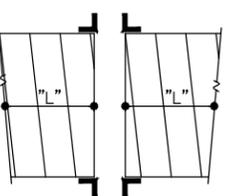
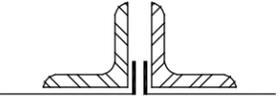
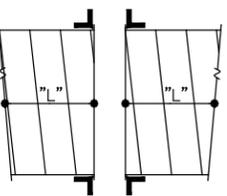
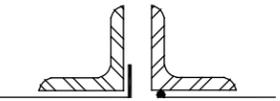
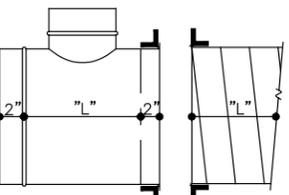
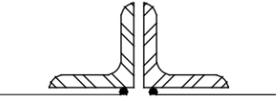
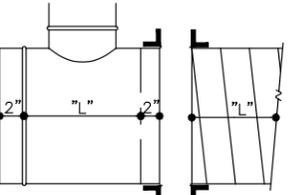
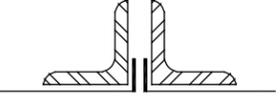
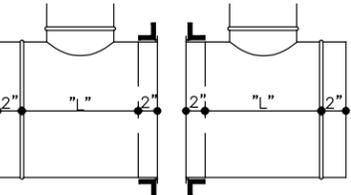
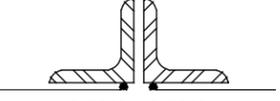
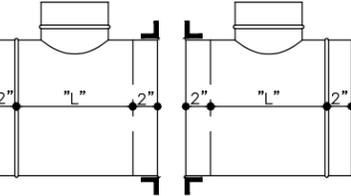
SLIP CONNECTIONS SINGLE WALL ROUND AND OVAL



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 |  <p>ASW ASW Solid Weld Solid Weld Standard for Round Standard for Round Standard for Oval Standard for Oval</p> |  |
| |  <p>AVS AVS Vanstone Vanstone Optional for Round Optional for Round</p> |  |
| Fitting to Duct |  <p>AVS ASW Vanstone Solid Weld Standard for Round Standard for Round Standard for Oval Standard for Oval</p> |  |
| |  <p>ASW ASW Solid Weld Solid Weld Optional for Round Standard for Round Standard for Oval Standard for Oval</p> |  |
| Fitting to Fitting |  <p>AVS AVS Vanstone Vanstone Standard for Round Standard for Round</p> |  |
| |  <p>ASW ASW Solid Weld Solid Weld Optional for Round Optional for Round Standard for Oval Standard for Oval</p> |  |

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.

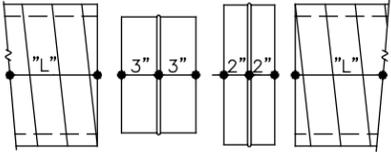
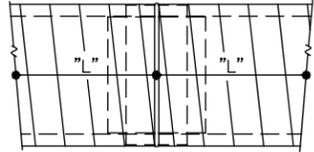
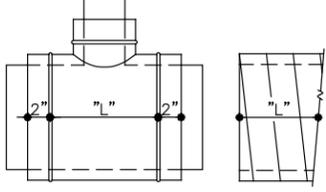
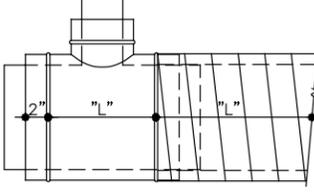
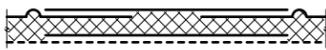
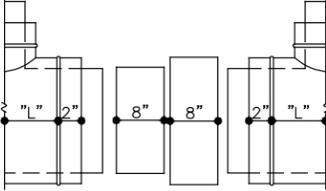
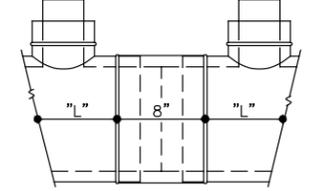
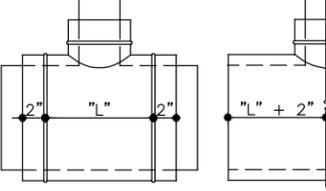
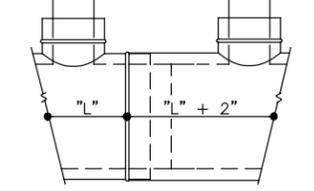
STANDARD ANGLE RINGS

| Order Size | Angle Size | Inside Diameter | Bolt Hole Quantity | Bolt Hole Size | Bolt Hole Circle | 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 |

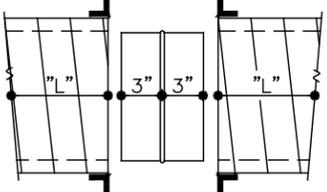
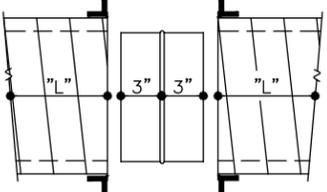
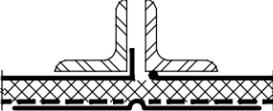
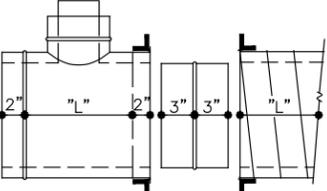
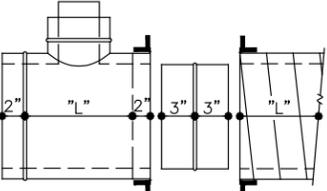
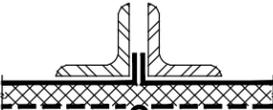
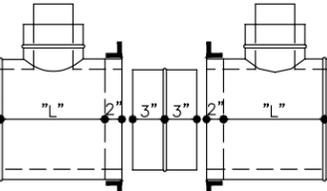
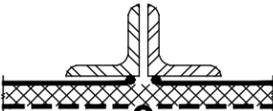
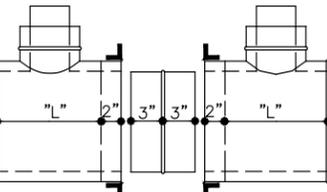
* The angle sizes shown in the chart are the minimum sizes used. Actual sizes used may be larger. I.D., hole size, and bolt hole circle dimensions may vary.

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

SLIP CONNECTIONS DUAL WALL ROUND AND OVAL

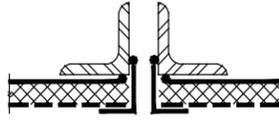
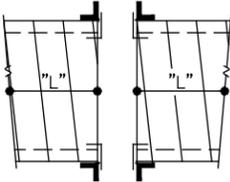
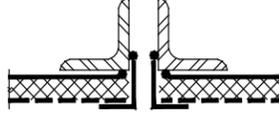
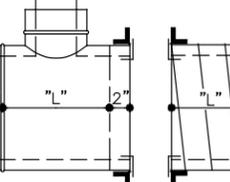
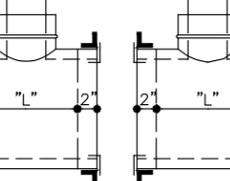
| | | |
|---|--|---|
| <p>Duct to Duct Male Coupling</p>  |  |  |
| <p>Fitting to Duct Male to Female</p>  |  |  |
| <p>Fitting to Fitting Female Coupling</p>  |  |  |
| <p>Fitting to Fitting Male to Female</p>  |  |  |

ANGLE RING CONNECTIONS DUAL WALL ROUND

| | | |
|--|---|--|
| <p>Duct to Duct with Liner Coupling</p> |  <p>ASW ASW Solid Weld Solid Weld Standard for Round Standard for Round</p> |  |
| |  <p>AVS AVS Vanstone Vanstone Optional for Round Optional for Round</p> |  |
| <p>Fitting to Duct with Liner Coupling</p> |  <p>AVS ASW Vanstone Solid Weld Standard for Round Standard for Round</p> |  |
| |  <p>AVS AVS Vanstone Vanstone Standard for Round Optional for Round</p> |  |
| <p>Fitting to Fitting with Liner Coupling</p> |  <p>AVS AVS Vanstone Vanstone Standard for Round Standard for Round</p> |  |
| |  <p>ASW ASW Solid Weld Solid Weld Optional for Round Optional for Round</p> |  |

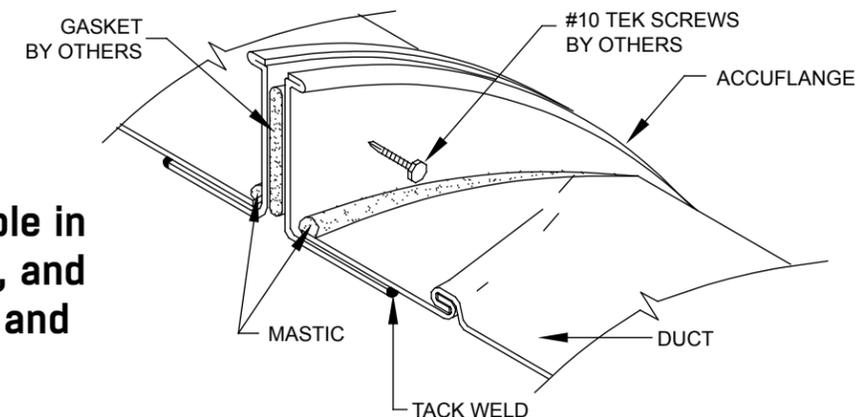
Note: Bolts, nuts, and gaskets for all angle ring connections are to be furnished by others. Dimensions shown are face of flange to face of flange and do not include growth allowance for gasket. When both angle ring connections are solid weld, bolt hole orientation dimensions are required for proper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

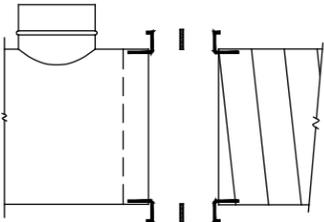
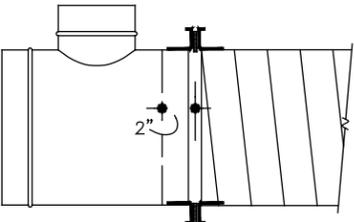
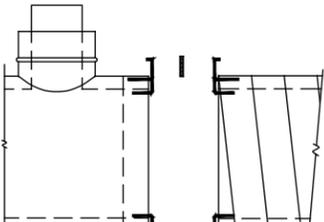
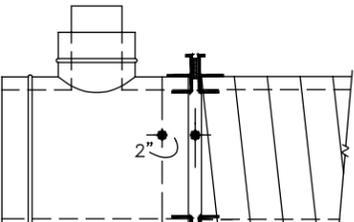
ANGLE RING CONNECTIONS DUAL WALL OVAL

| | | |
|---|---|---|
| <p>Duct to Duct with Flat Span Liner Support</p> |  <p>ASW ASW Solid Weld Solid Weld Standard for Oval Standard for Oval</p> |  |
| <p>Fitting to Duct with Flat Span Liner Support</p> |  <p>ASW ASW Solid Weld Solid Weld Standard for Oval Standard for Oval</p> |  |
| <p>Fitting to Fitting with Flat Span Liner Support</p> |  <p>ASW ASW Solid Weld Solid Weld Standard for Oval Standard for Oval</p> |  |

ACCUFLANGE™ END CONNECTIONS

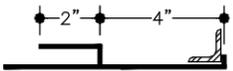
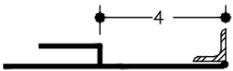
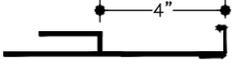
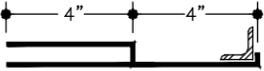
AccuFlange is Available in Galvanized, Stainless, and Aluminum on Round and Oval Spiral Duct



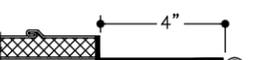
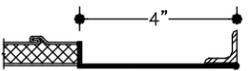
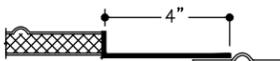
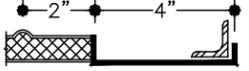
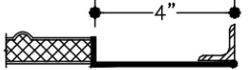
| | | |
|---|---|---|
| <p>Single Wall Connection</p>  <p>ACF ACF AccuFlange Connection</p> |  |  |
| <p>Dual Wall Connection with Sealed Off Insulation</p>  <p>ACF ACF AccuFlange Connection</p> |  |  |

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

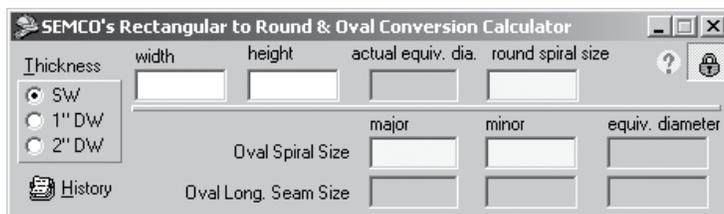
| | 34 | 36 | 38 | 40 | 42 | 44 | 46 | 48 | 50 | 52 | 54 | 56 | 58 | 60 | 62 | 64 | 66 | 68 | 70 | 72 | 74 | 76 | 78 | 80 |
|---|------|------|------|------|------|------|------|------|------|------|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 4 | 11.3 | 11.5 | 11.8 | 12.0 | 12.3 | 12.5 | 12.7 | 12.9 | 13.2 | 13.4 | 13. | | | | | | | | | | | | | |

COMPUTER UTILITIES

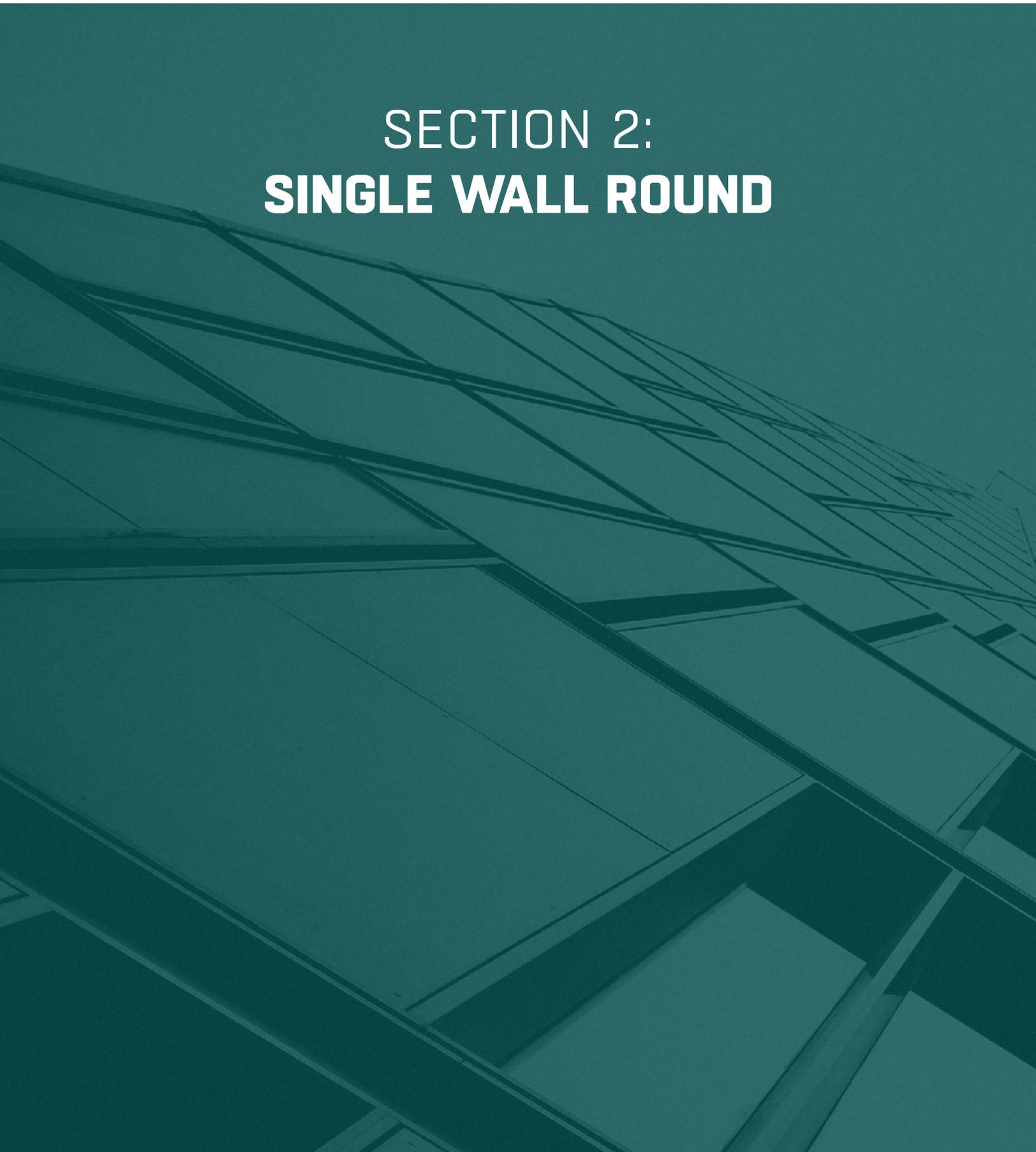
Rectangle to Round and Oval Conversion Calculator

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.semcohvac.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 FläktGroup® SEMCO® directly.



**SECTION 2:
SINGLE WALL ROUND**



GAUGE & CONSTRUCTION CHART

2

| 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 FläktGroup® SEMCO® for application assistance.

GAUGE & CONSTRUCTION CHART: NEGATIVE PRESSURE

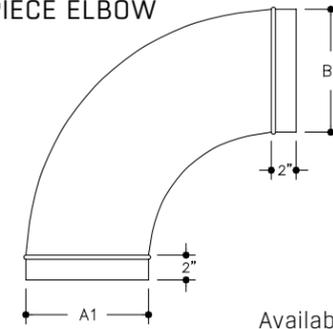
| S2005N2 Construction Standard 2"wg. Negative Pressure | | | S2005N4 Construction Standard 4"wg. Negative Pressure | | | S2005N6 Construction Standard 6"wg. Negative Pressure | | | S2005N10 Construction Standard 10"wg. Negative Pressure | | |
|---|-----------------------|-------------------|---|-----------------------|-------------------|---|-----------------------|-------------------|---|-----------------------|-------------------|
| 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 FläktGroup 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.

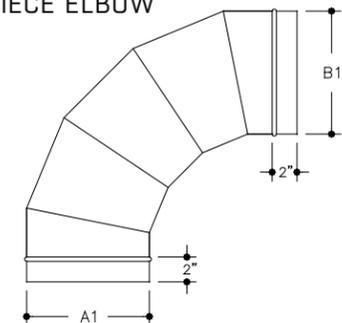
ELBOWS

E901
90° 1-PIECE ELBOW

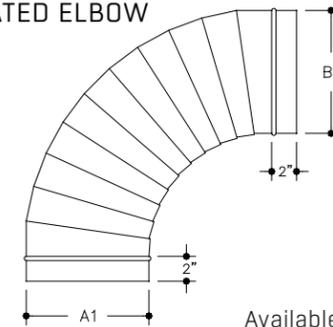


Available in 3"Ø thru 12"Ø.

E905
90° 5-PIECE ELBOW

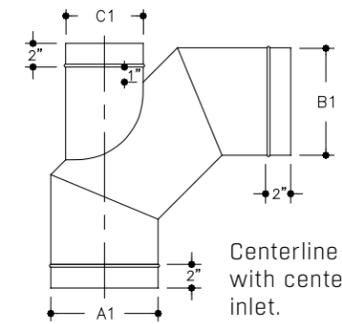


E90P
90° PLEATED ELBOW



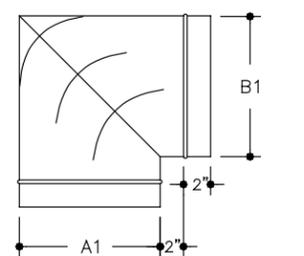
Available in 3"Ø thru 8"Ø.

E90HT3
90° 3-PIECE ELBOW w/HEEL TAP

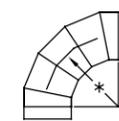


Centerline of tap is aligned with centerline of elbow inlet.

E902V
SQUARE THROAT ELBOW w/VANES



NOTES



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

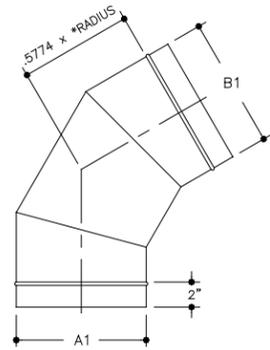
| Standard Gored Elbows | | | |
|-----------------------|-----------------|-----|-----|
| Duct Velocity (fpm) | Number of Gores | | |
| | 45° | 60° | 90° |
| 0 - 1000 | 2 | 2 | 3 |
| 1001 - 1500 | 2 | 3 | 4 |
| > 1500 | 3 | 3 | 5 |
| Industrial | 4 | 4 | 7 |

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

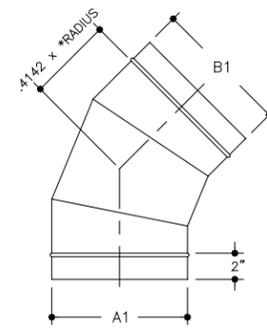
2. SINGLE WALL ROUND

ELBOWS

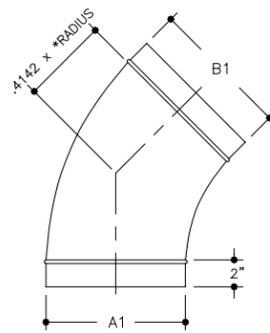
E603
60° 3-PIECE ELBOW



E453
45° 3-PIECE ELBOW

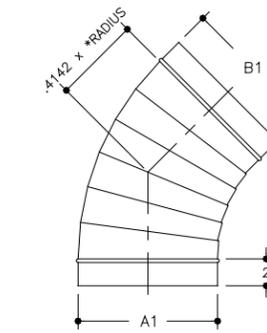


E451
45° 1-PIECE ELBOW



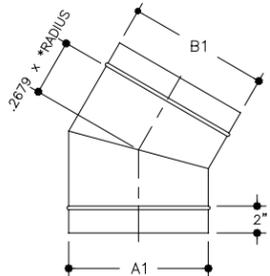
Available in 3"ø thru 12"ø.

E45P
45° PLEATED ELBOW

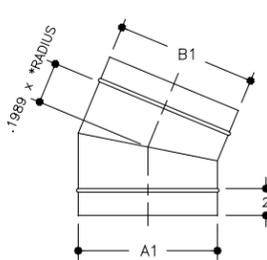


Available in 3"ø thru 8"ø.

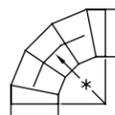
E302
30° 2-PIECE ELBOW



E222
22 1/2° 2-PIECE ELBOW



NOTES



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

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

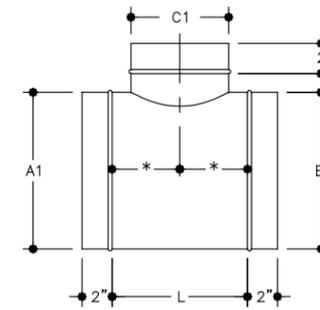
Leg formula is based on:

- 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 FläktGroup® SEMCO® when you have special requirements for radius, gore quantity and/or degree of elbow.

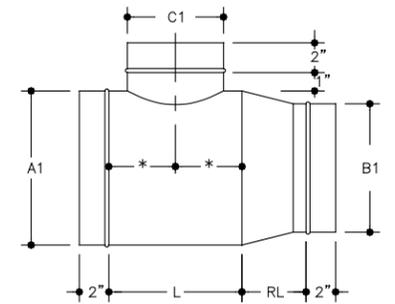
2. SINGLE WALL ROUND

TEE FITTINGS

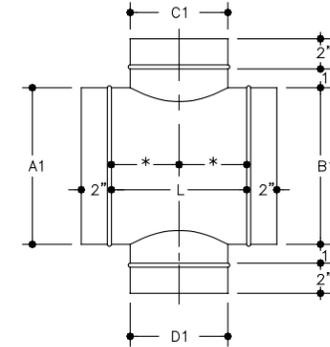
T
TEE



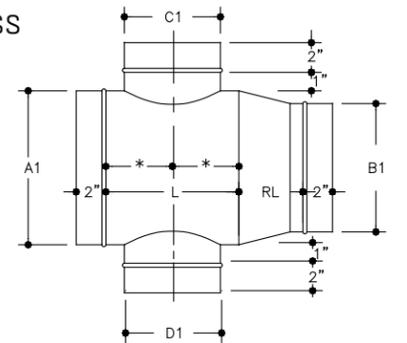
TR
REDUCING TEE



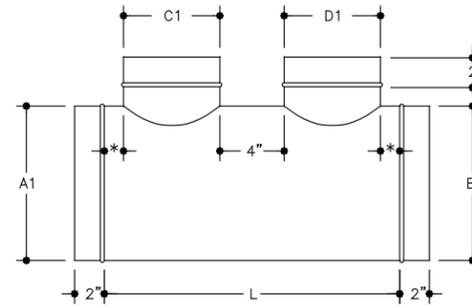
C
CROSS



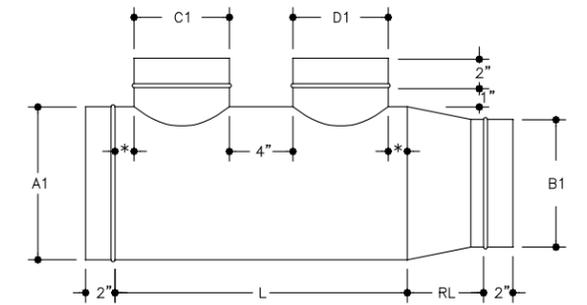
CR
REDUCING CROSS



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:

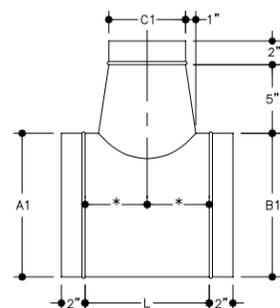
When C1 and D1 are different sizes, the centerline of the larger tap is also the centerline of the smaller tap.

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

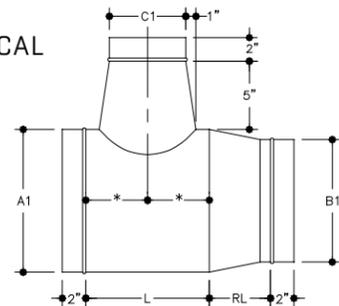
For Double Tees: L = C1 + D1 + 7"

CONICAL TEE FITTINGS

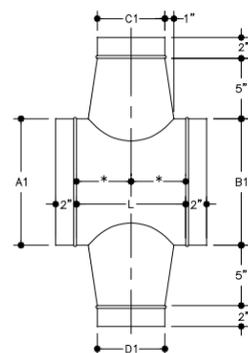
CT
CONICAL TEE



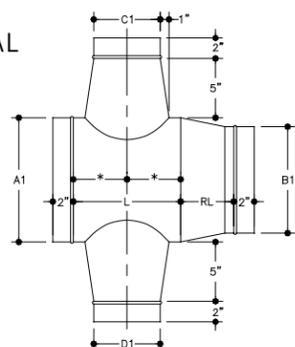
CTR
REDUCING CONICAL
TEE



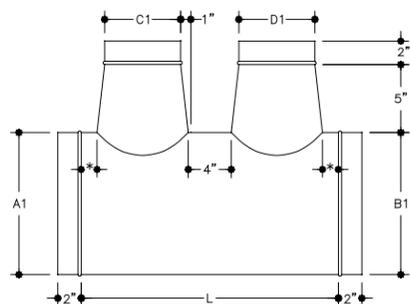
CC
CONICAL CROSS



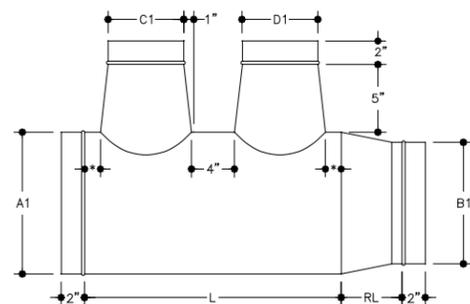
CCR
REDUCING CONICAL
CROSS



CTD
DOUBLE CONICAL TEE



CTDR
REDUCING DOUBLE CONICAL TEE



NOTES

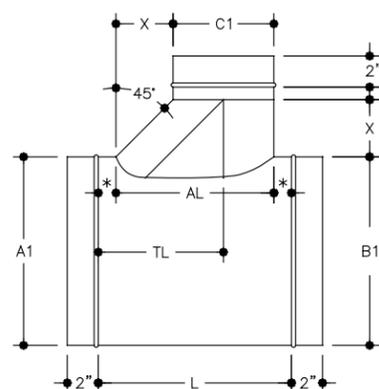
- C1 or D1 can be no larger than $A1 - 2"$
- Conical tap entrance at body is 2" larger than C1 or D1 respectively.
- For RL: See page 2-11
- Body lengths are based on the taps being centered on the body. Any change in tap location or offset from center will most likely result in a longer "L" dimension.

* = Equal

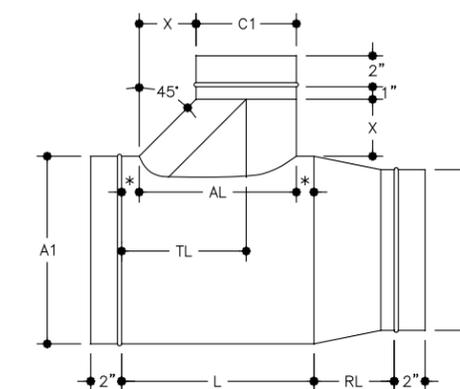
- For Conical Crosses:**
When C1 and D1 are different sizes, the centerline of the larger tap is also the centerline of the smaller tap.
- For Conical Tees and Crosses:**
 $L = (\text{Largest of } C1 \text{ or } D1) + 5"$
- For Double Conical Tees:**
 $L = C1 + D1 + 11"$

COMBINATION TEE FITTINGS

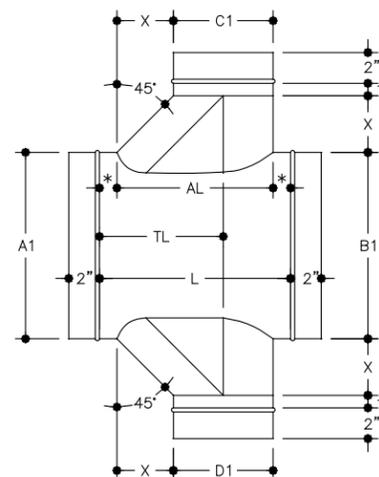
CMT
COMBINATION TEE



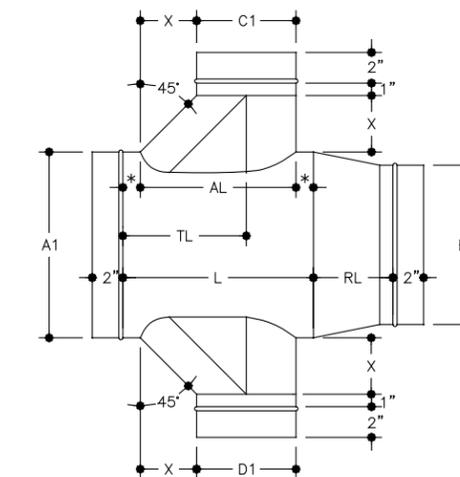
CMTR
REDUCING COMBINATION TEE



CMTC
COMBINATION CROSS



CMTCR
REDUCING COMBINATION CROSS



NOTES

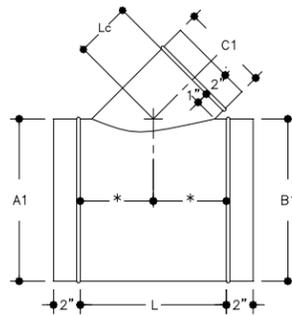
- C1 or D1 can be no larger than A1
- For RL: See page 2-11
- $AL = C1 \text{ or } D1 + \text{appropriate } X$
- $L = \text{largest } AL \text{ value} + 3"$
- $TL = 1.5" + X + (0.5 \times C1 \text{ or } D1)$
- * = Equal

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

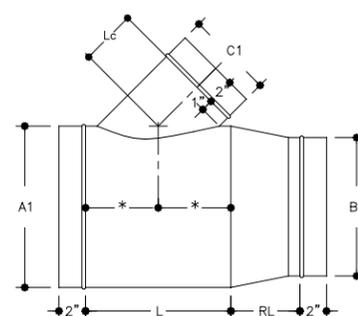
- For Combination Crosses:**
When C1 and D1 are different sizes, the centerline of the larger tap is also the centerline of the smaller tap.
- Body lengths are based on the taps being centered on the body. Any change in tap location or offset from center will most likely result in a longer "L" dimension.

LATERAL FITTINGS

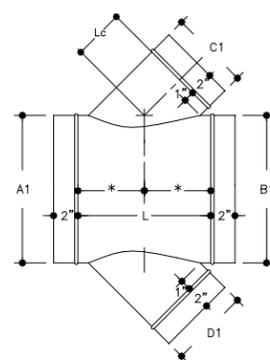
L
45° LATERAL



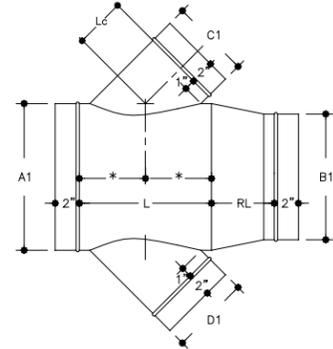
LR
45° REDUCING LATERAL



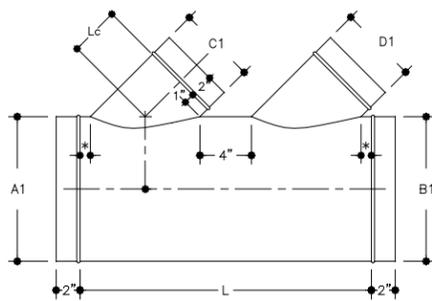
LC
45° LATERAL CROSS



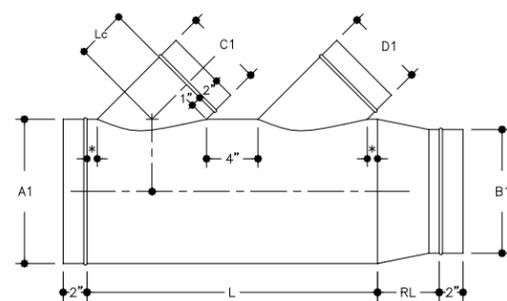
LCR
45° REDUCING LATERAL CROSS



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:
 $L_c = [0.5 \times C1] + 1"$

• For other degree arms, contact FläktGroup FläktGroup SEMCO

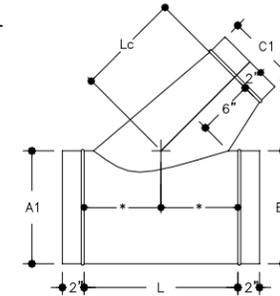
For Lateral Crosses:
When C1 and D1 are different sizes, the centerline of the larger tap is also the centerline of the smaller tap.

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

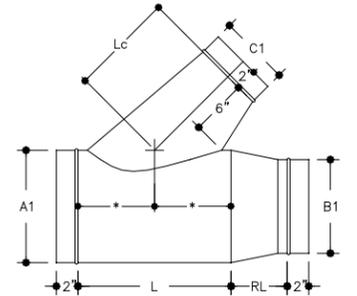
For Double Laterals:
 $L = [(C1 + D1) \times 1.4142] + 7"$

CONICAL LATERAL FITTINGS

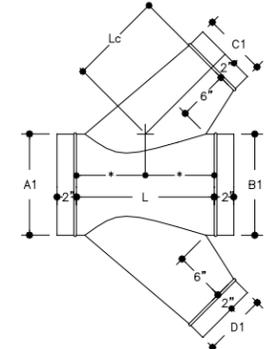
CL
CONICAL LATERAL



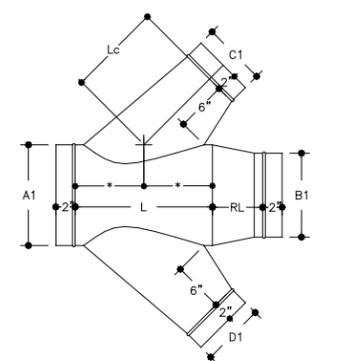
CLR
REDUCING CONICAL LATERAL



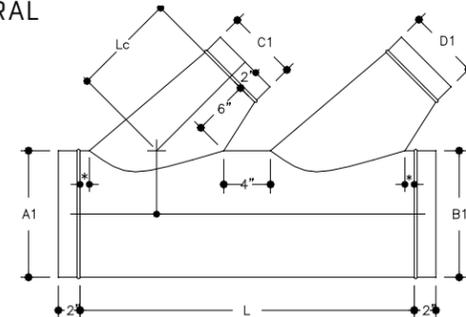
CLC
CONICAL LATERAL CROSS



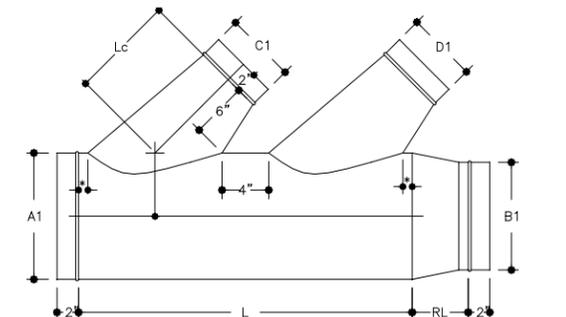
CLCR
REDUCING CONICAL LATERAL CROSS



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:
 $L_c = [0.5 (C1 + 2")] + 6"$

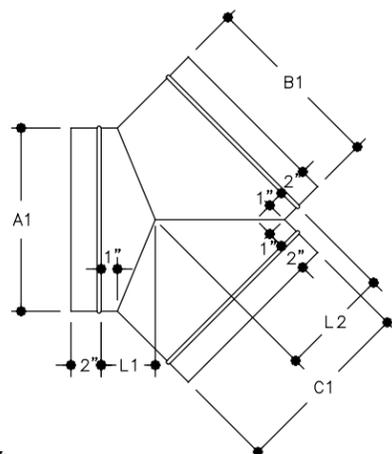
For Double Conical Laterals:
 $L = [(C1 + D1 + 4") \times 1.4142] + 7"$

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

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.

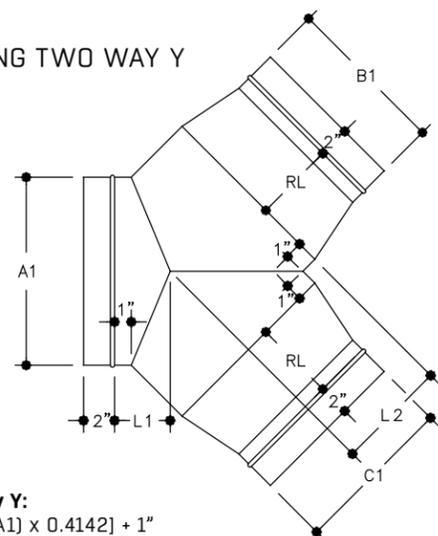
WYE FITTINGS AND BULLHEAD TEES

WYE
TWO WAY Y



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

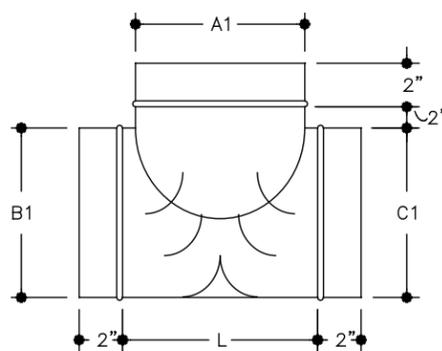
WYE
REDUCING TWO WAY Y



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

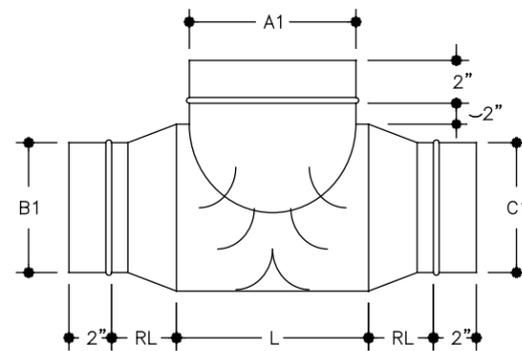
For RL: See page 2-11

BHT
BULLHEAD TEE



$L = A1 + 12"$

BHT
REDUCING BULLHEAD TEE

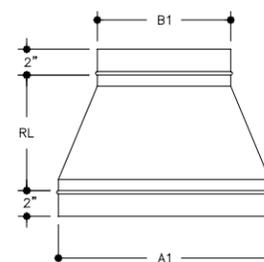


$L = A1 + 12"$

For RL: See page 2-11

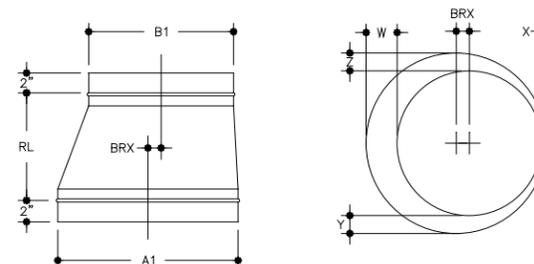
REDUCERS

RC
CONCENTRIC REDUCER



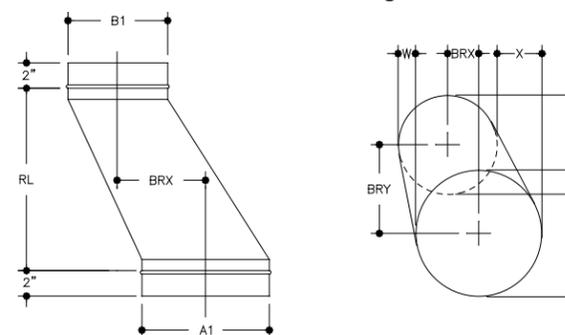
$RL = (A1 - B1) + 3"$
 (5" minimum, 12" maximum length)

RE
NON-CONCENTRIC REDUCER (configuration 1)



$RL = [(\text{Greater of } W, X, Y \text{ or } Z) \times 2] + 3$
 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)



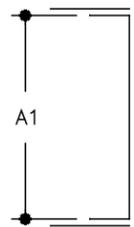
$RL = [(\text{Greater of } W, X, Y \text{ or } Z) \times 2] + 3$
 When W, X, Y or Z is greater than 0.5 x A1 the maximum RL length is 48".

NOTES

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

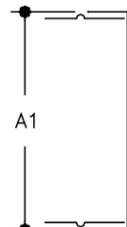
MISCELLANEOUS

PLUG
PLUG



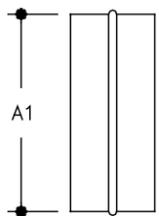
Fits into female duct.
Plugs installed by factory
may consist of a plate only.

CAP
CAP



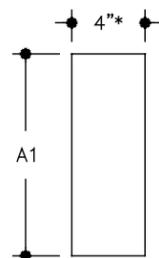
Fits over male fitting.

CPL-M
MALE COUPLING



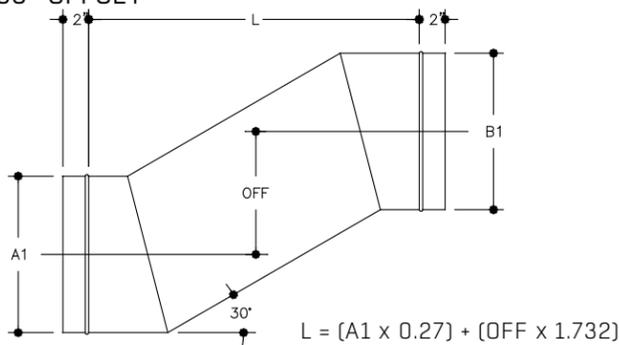
Fits into female duct

CPL-F
FEMALE COUPLING



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

OFF
30° OFFSET

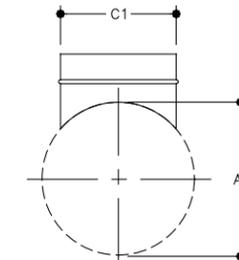
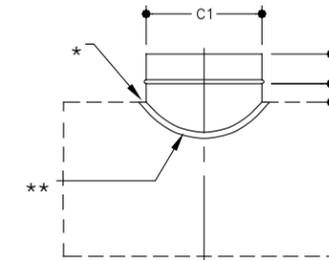
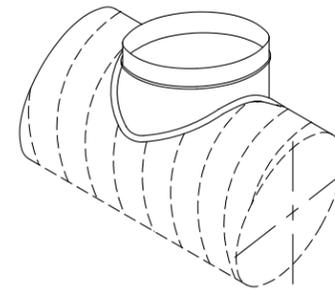


NOTES

- 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 FläktGroup SEMCO for application help.

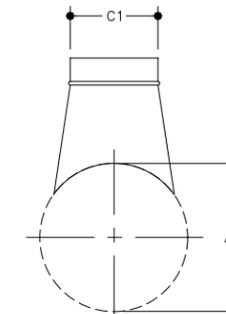
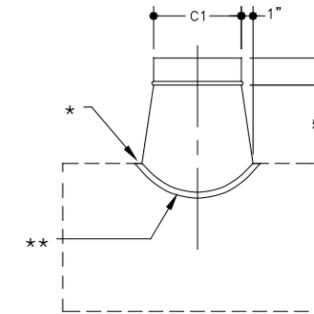
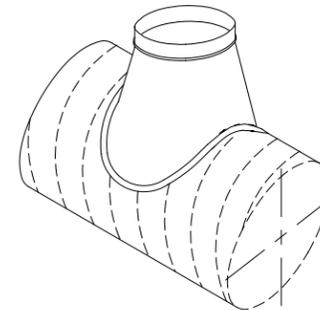
SADDLE TAPS

ST-1T
90° STRAIGHT SADDLE TAP



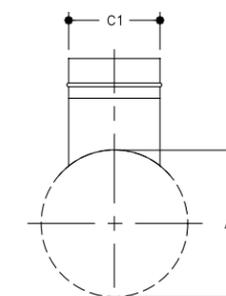
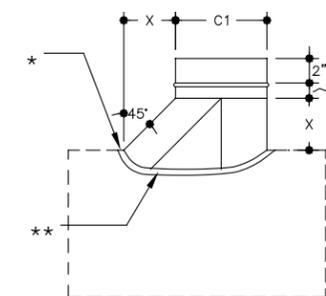
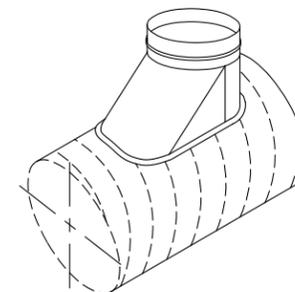
C1 can be no larger than A1.

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.

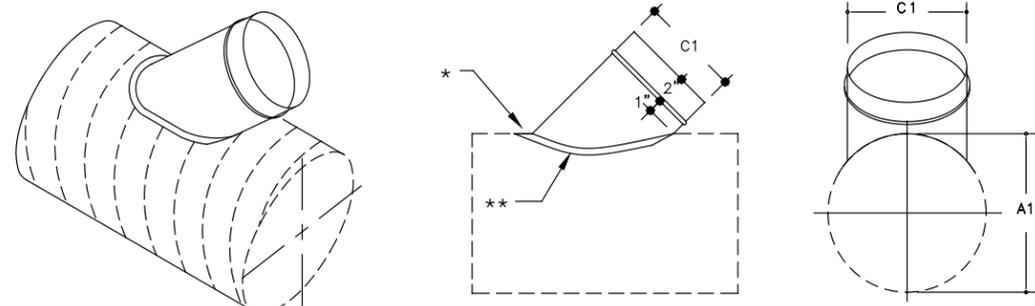
NOTES

- * 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" |

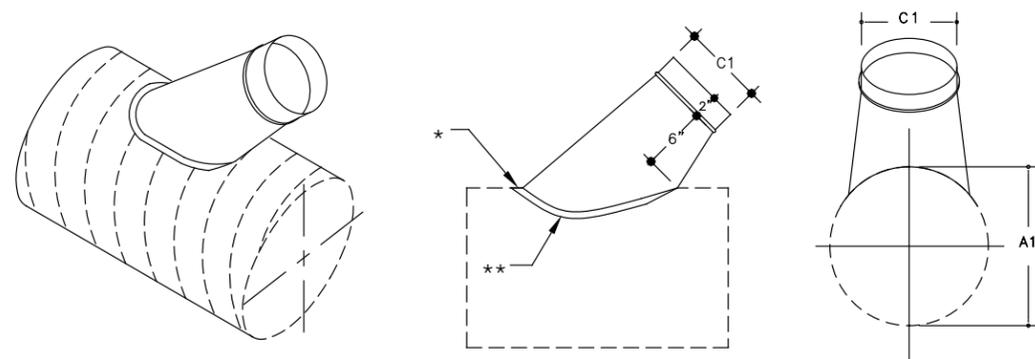
SADDLE TAPS

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".

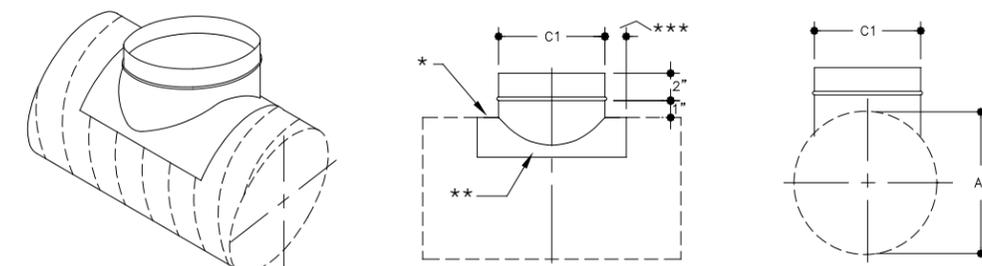
NOTES

* 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.

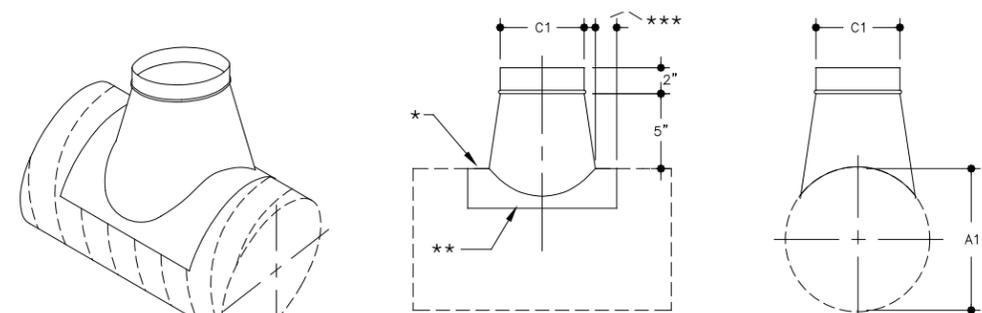
SADDLE TAPS

ST-2T
90° STRAIGHT SADDLE TAP



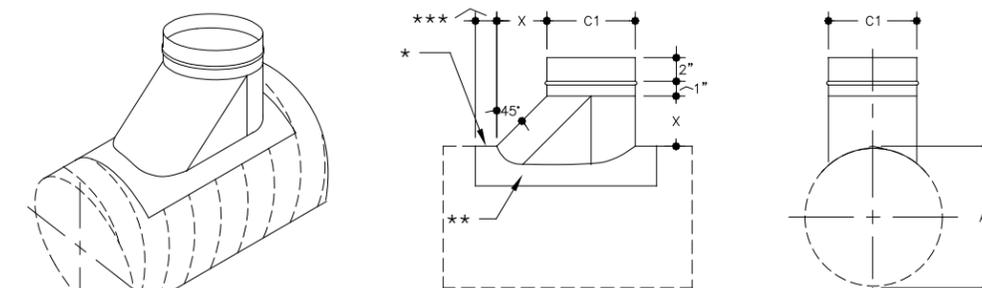
C1 can be no larger than A1.

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.

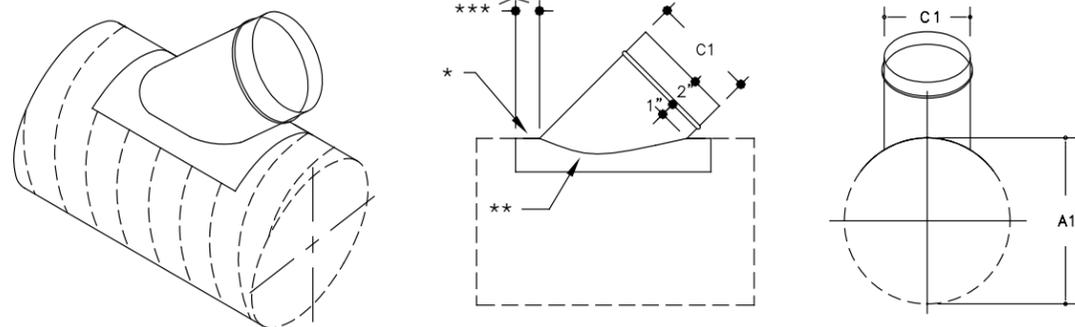
*** 2" typical all sides.

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

SADDLE TAPS

ST-2L

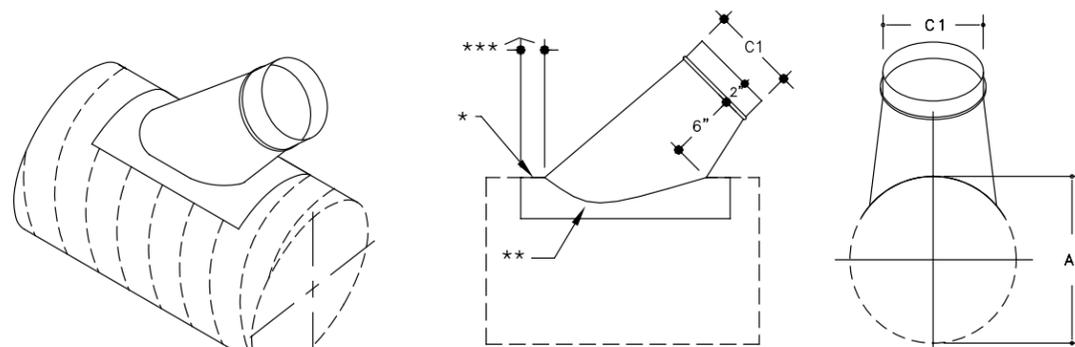
45° LATERAL SADDLE TAP



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.

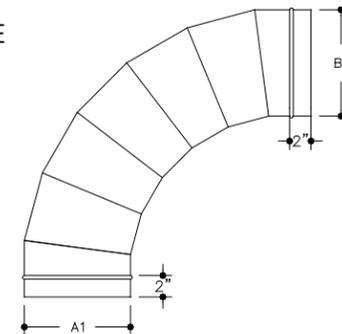
** Tap should be sealed to duct and installed with sheet metal screws on 3" centers.

*** 2" typical all sides.

INDUSTRIAL FITTINGS

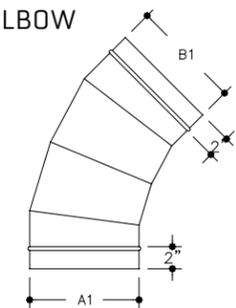
E907

90° 7-PIECE ELBOW



E454

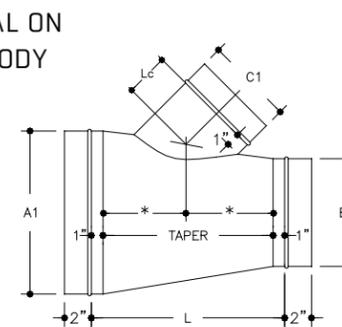
45° 4-PIECE ELBOW



2

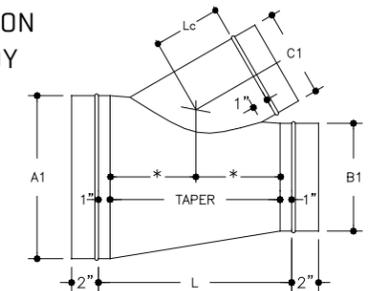
TBL

45° LATERAL ON TAPERED BODY



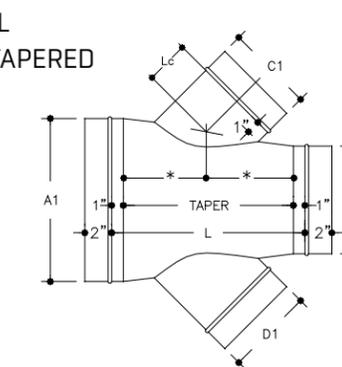
TBL

30° LATERAL ON TAPERED BODY



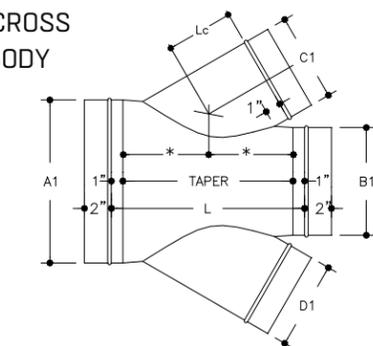
TBLC

45° LATERAL CROSS ON TAPERED BODY



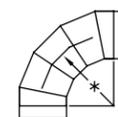
TBLC

30° LATERAL CROSS ON TAPERED BODY



NOTES

For Elbows:



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

Contact FläktGroup 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 FläktGroup SEMCO.

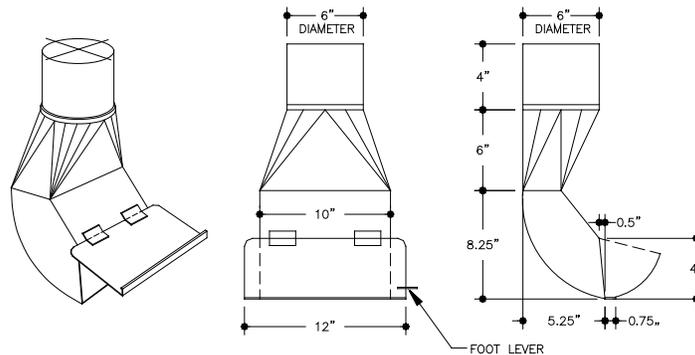
45° Lateral on Tapered Body:
L = (C1 x 1.4142) + 5"

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

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

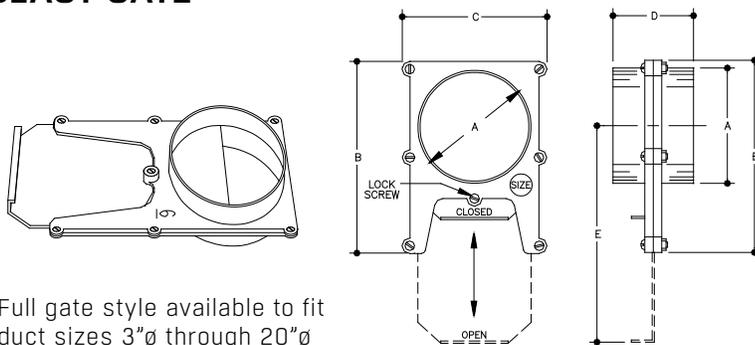
INDUSTRIAL FITTINGS

FLOOR SWEEP



Available to fit 6"ø duct.

BLAST GATE

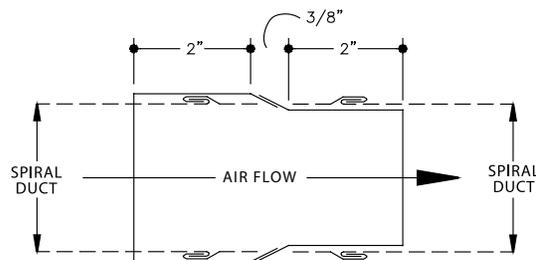


Full gate style available to fit duct sizes 3"ø through 20"ø

| 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 FläktGroup® SEMCO®.

**SECTION 3:
SINGLE WALL OVAL**



GAUGE & CONSTRUCTION CHART

3

| SH95P Maximum 10" w.g. Positive Static | | | | | |
|--|-----------------------|-------------------|-------------------------|-----------------------------|--------------|
| Nominal Oval Size | 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 |

| SH95P Maximum 10" w.g. Positive Static | | | | | |
|--|-----------------------|-------------------|-------------------------|-----------------------------|--------------|
| Nominal Oval Size | 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 FläktGroup® SEMCO® for application help.

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

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 |
| 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 FläktGroup SEMCO for application help.

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

3. SINGLE WALL OVAL

GAUGE & CONSTRUCTION CHART

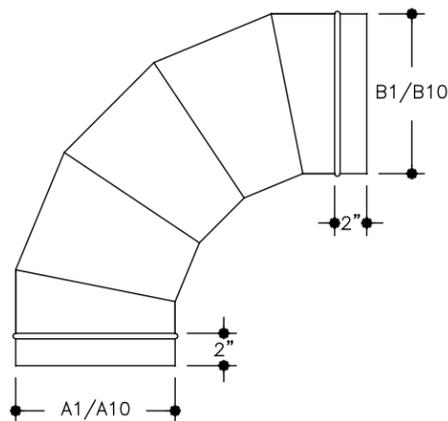
| Nominal Oval Size | SH95P Maximum 10" w.g. Positive Static | | | | |
|-------------------|--|-------------------|-------------------------|-----------------------------|--------------|
| | Galv. Spiral Duct Ga. | Galv. Fitting Ga. | Spiral Duct Wt. (lb/ft) | Spiral Duct Std. Lgth. (ft) | Equiv. Round |
| 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 |

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 FläktGroup SEMCO for application help.

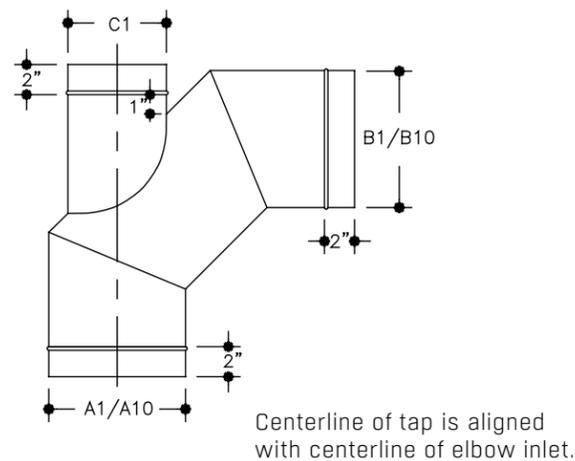
These gauges apply to all FläktGroup SEMCO construction standards and will accommodate positive and negative static pressure to 10" w.g. with appropriate reinforcement (see 6-10)

ELBOWS

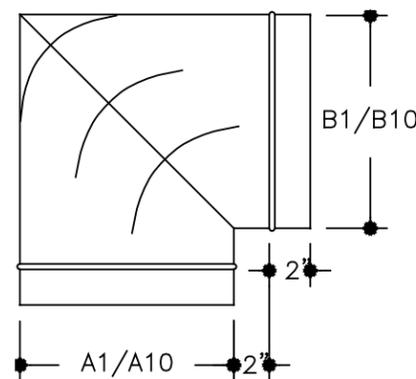
E90HB5
E90EB5
90° 5-PIECE ELBOW



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



E90HB2V
E90EB2V
SQUARE THROAT ELBOW W/ VANES

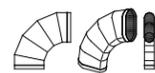


NOTES

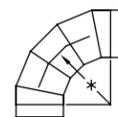
| Standard Gored Elbows | | | |
|-----------------------|-----------------|-----|-----|
| Duct Velocity (fpm) | 45° | 60° | 90° |
| | Number of Gores | | |
| 0 - 1000 | 2 | 2 | 3 |
| 1001 - 1500 | 2 | 3 | 4 |
| > 1500 | 3 | 3 | 5 |
| Industrial | 4 | 4 | 7 |

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)

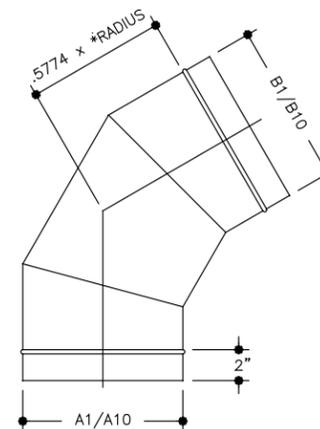


Standard Radius = 1.5C
* Radius = 1.5(A1)

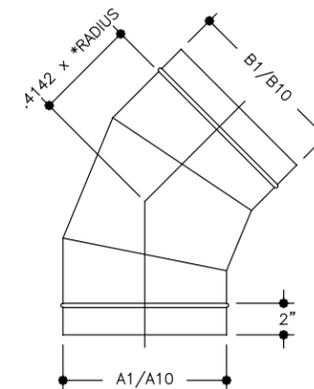
- Some large diameter elbows will be shipped as two or more smaller degree elbows due to truck space limitations.
- Contact FläktGroup SEMCO if you have special requirements for radius, gore quantity and/or degree of elbow.

ELBOWS

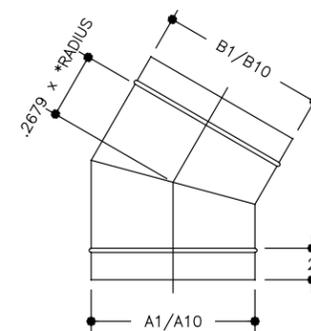
E60HB3
E60EB3
60° 3-PIECE ELBOW



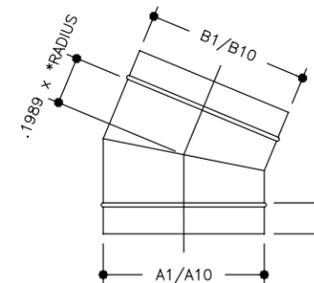
E45HB3
E45EB3
45° 3-PIECE ELBOW



E30HB2
E30EB2
30° 2-PIECE ELBOW



E22HB2
E22EB2
22 1/2° 2-PIECE ELBOW

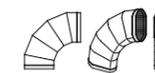


NOTES

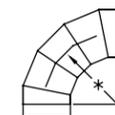
| Standard Gored Elbows | | | |
|-----------------------|-----------------|-----|-----|
| Duct Velocity (fpm) | 45° | 60° | 90° |
| | Number of Gores | | |
| 0 - 1000 | 2 | 2 | 3 |
| 1001 - 1500 | 2 | 3 | 4 |
| > 1500 | 3 | 3 | 5 |
| Industrial | 4 | 4 | 7 |

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)



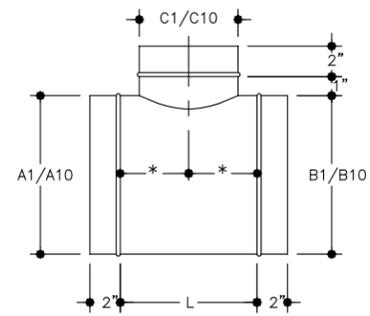
Standard Radius = 1.5C
* Radius = 1.5(A1)

Leg formula is based on:

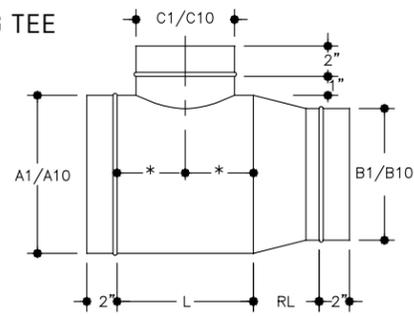
- Tan (0.5 x elbow degree) x centerline radius
- Some large diameter elbows will be shipped as two or more smaller degree elbows due to truck space limitations.
- Contact FläktGroup SEMCO if you have special requirements for radius, gore quantity and/or degree of elbow.

TEE FITTINGS

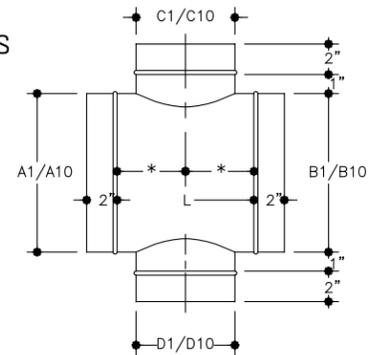
T
TEE



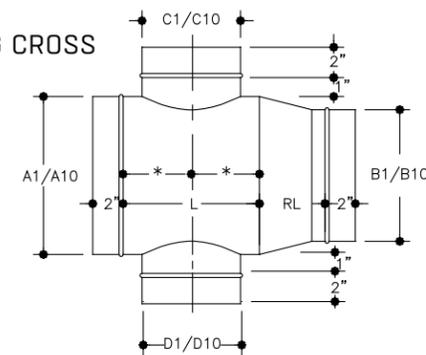
TR
REDUCING TEE



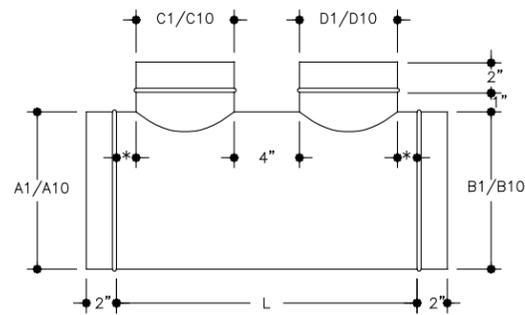
C
CROSS



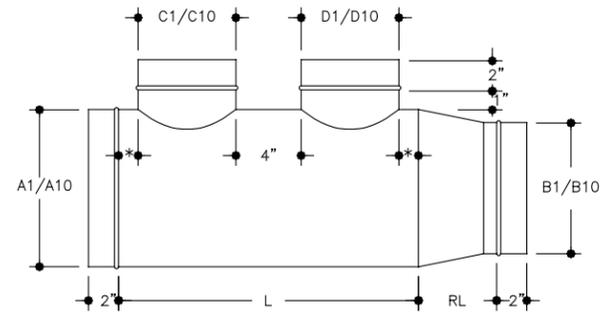
CR
REDUCING CROSS



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:

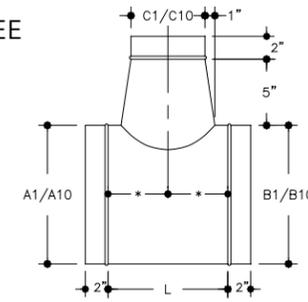
$L = (\text{Largest of } C1 \text{ or } D1) + 3"$

For Double Tees:

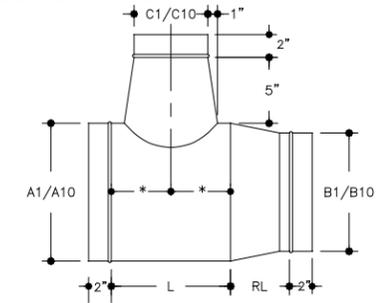
$L = C1 + D1 + 7"$

CONICAL TEE FITTINGS

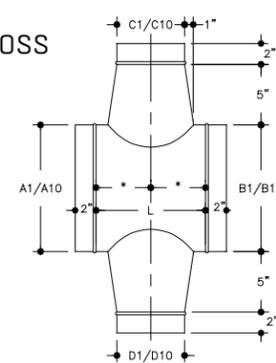
CT
CONICAL TEE



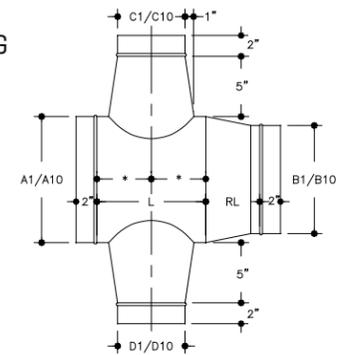
CTR
REDUCING CONICAL TEE



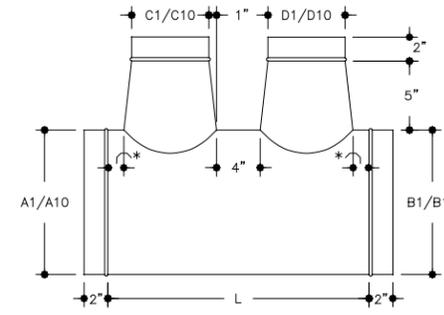
CC
CONICAL CROSS



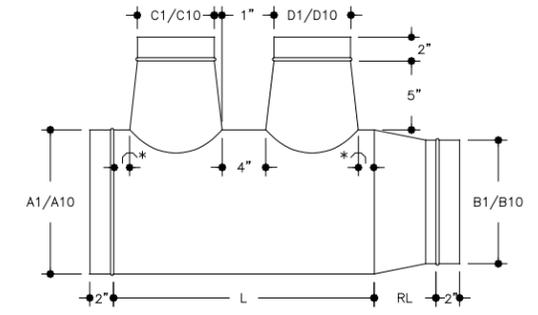
CCR
REDUCING CONICAL CROSS



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:

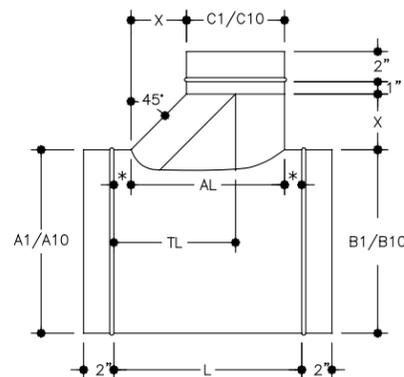
$L = (\text{Largest of } C1 \text{ or } D1) + 5"$

For Double Conical Tees:

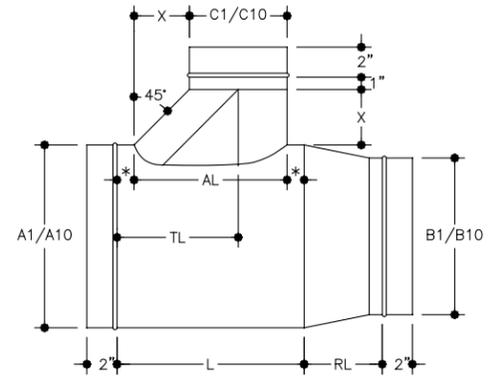
$L = C1 + D1 + 11"$

COMBINATION TEE FITTINGS

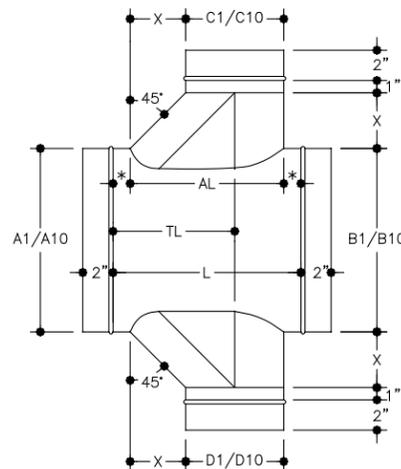
CMT
COMBINATION TEE



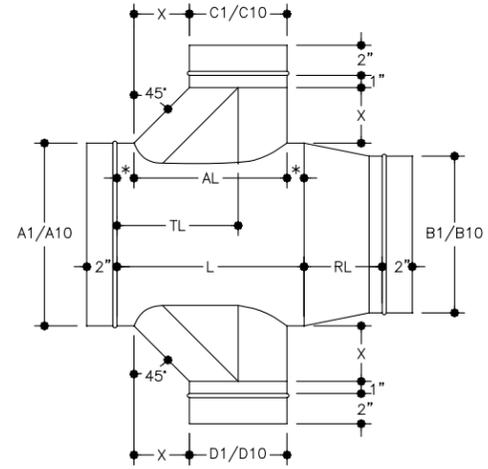
CMTR
REDUCING COMBINATION TEE



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" |

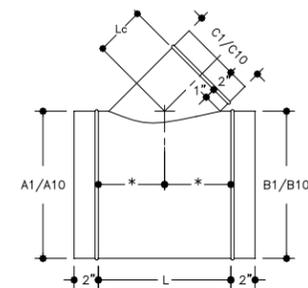
For Combination Crosses:

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

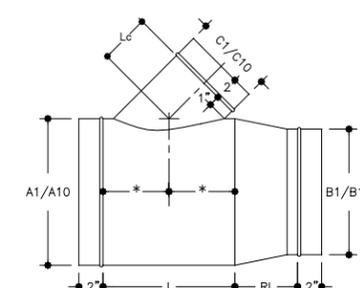
- Body lengths are based on the taps being centered on the body. Any change in tap location or offset from center will most likely result in a longer "L" dimension.

LATERAL FITTINGS

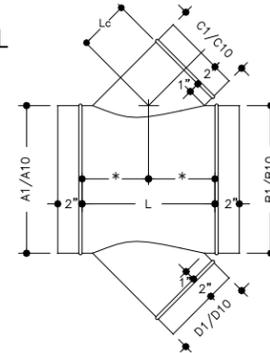
L
45° LATERAL



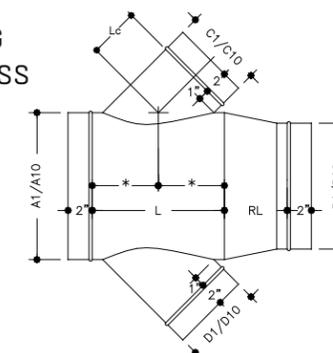
LR
45° REDUCING LATERAL



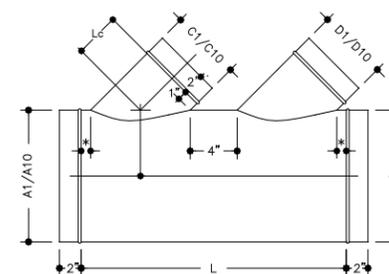
LC
45° LATERAL CROSS



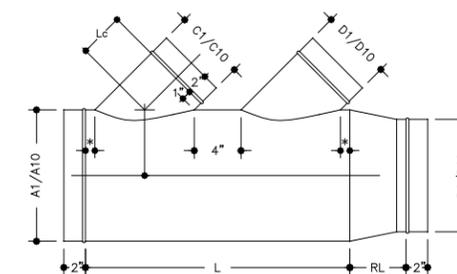
LCR
45° REDUCING LATERAL CROSS



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: $L_c = (0.5 \times C1) + 1"$

- For other degree arms, contact FläktGroup FläktGroup SEMCO

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

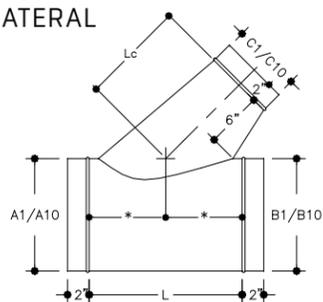
For Laterals and Lateral Crosses:
 $L = [(Largest\ of\ C1\ or\ D1) \times 1.4142] + 3"$

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

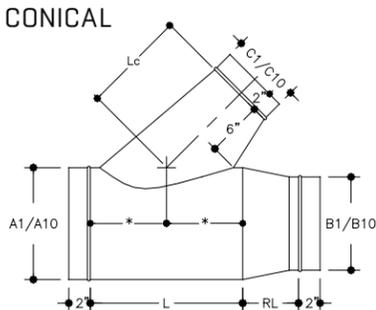
- Calculated "L" dimensions for the lateral fittings will be rounded up to the next 1/2".

CONICAL LATERAL FITTINGS

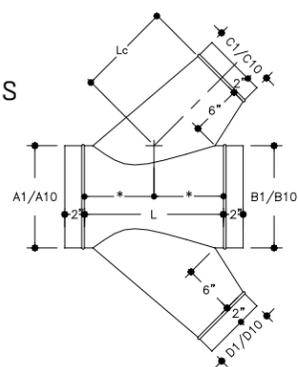
CL
CONICAL LATERAL



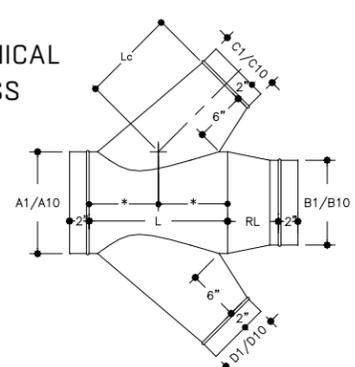
CLR
REDUCING CONICAL LATERAL



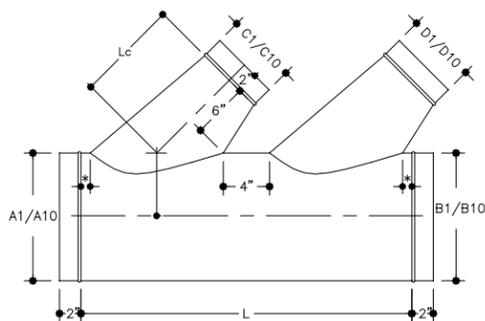
CLC
CONICAL LATERAL CROSS



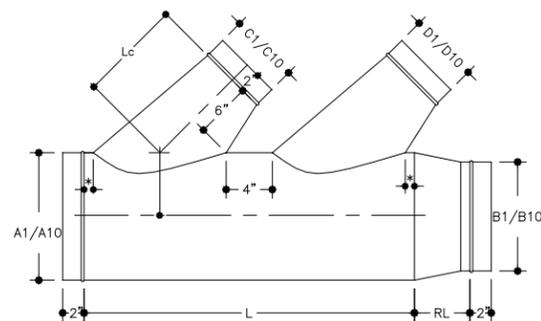
CLCR
REDUCING CONICAL LATERAL CROSS



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:
 $L_c = [0.5 (C1 + 2'')] + 6''$

For Double Conical Laterals:
 $L = [(C1 + D1 + 4'') \times 1.4142] + 7''$

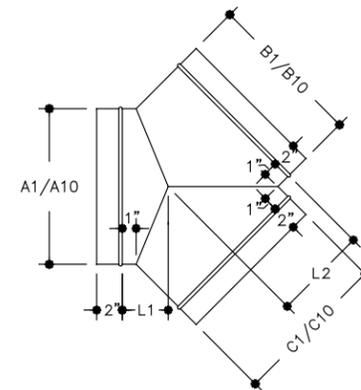
For Conical Laterals and Conical Lateral Crosses:
 $L = [(Largest\ of\ C1\ or\ D1 + 2'') \times 1.4142] + 3''$

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.

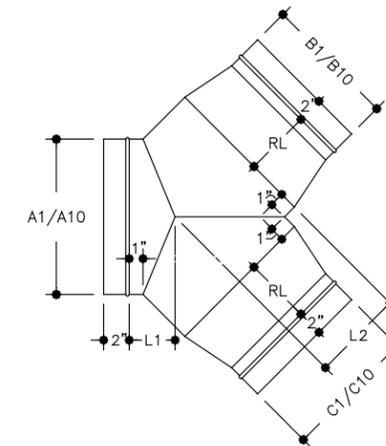
• Calculated "L" dimensions for the lateral fittings will be rounded up to the next 1/2".

WYE FITTINGS AND BULLHEAD TEES

WYE
TWO WAY Y

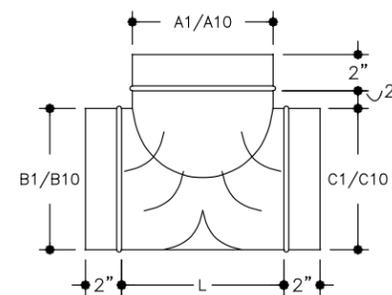


WYE
REDUCING TWO WAY Y



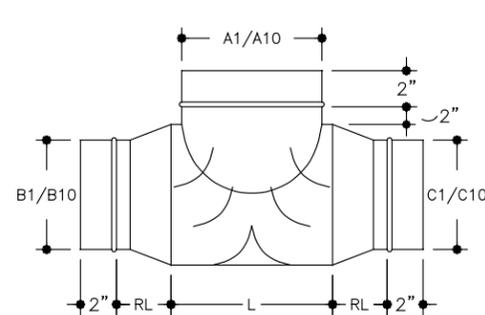
BHTHB
HARD BEND BULLHEAD TEE

BHTEB
EASY BEND BULLHEAD TEE



BHTHB
HARD BEND REDUCING BULLHEAD TEE

BHTEB
EASY BEND REDUCING BULLHEAD TEE



NOTES

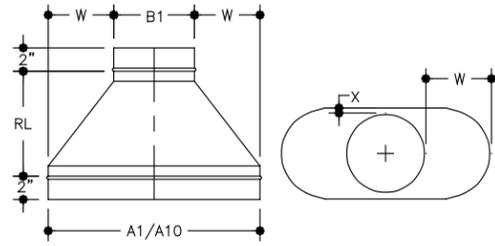
For Two Way Y and Reducing Two Way Y:
 $L1 = [(0.5 \times A1) \times 0.4142] + 1''$
 $L2 = (0.5 \times A1) + 1''$

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" |

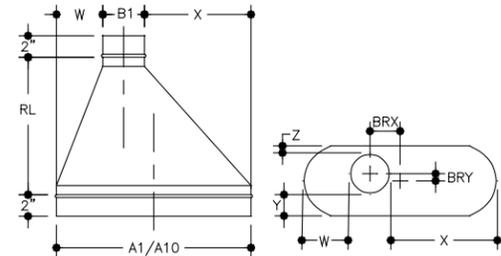
REDUCERS

RC
CONCENTRIC REDUCER



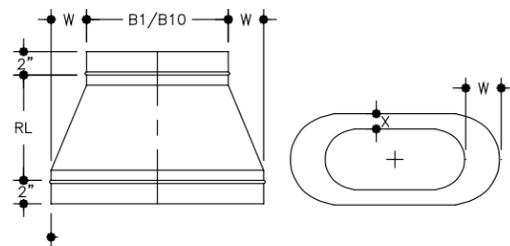
Oval-to-Round

RE
NON-CONCENTRIC REDUCER



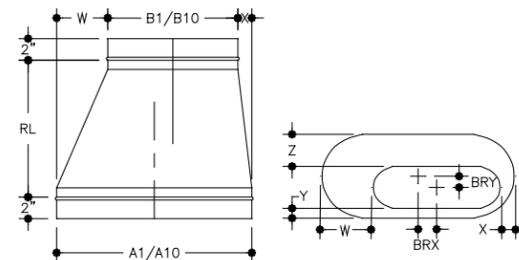
Oval-to-Round

RC
CONCENTRIC REDUCER



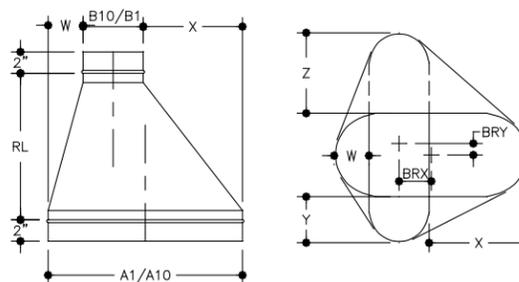
Oval-to-Oval

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:
 $RL = [(Greater\ of\ W,\ X,\ Y\ or\ Z) \times 2] + 3"$
 • 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



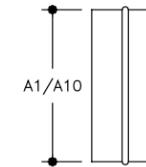
Fits into female duct.
 Plugs installed by factory may consist of a plate only.

CAP
CAP



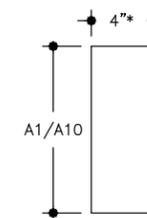
Fits over male fitting.

CPL-M
MALE COUPLING



Fits into female duct.

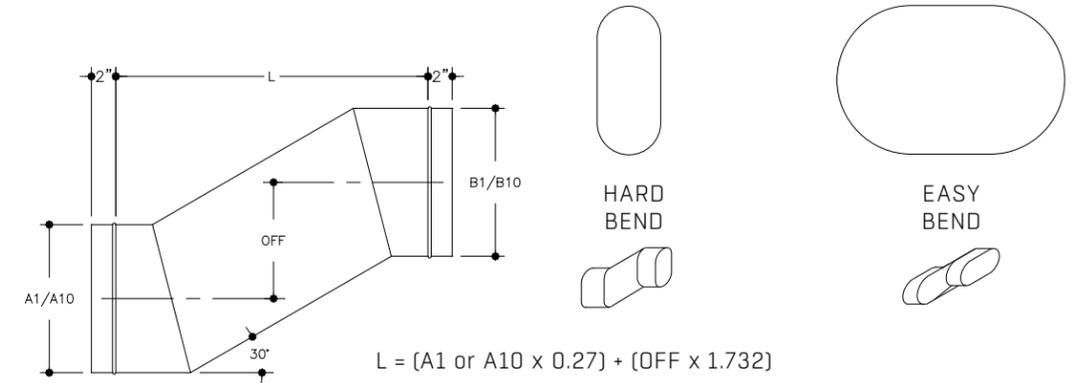
CPL-F
FEMALE COUPLING



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



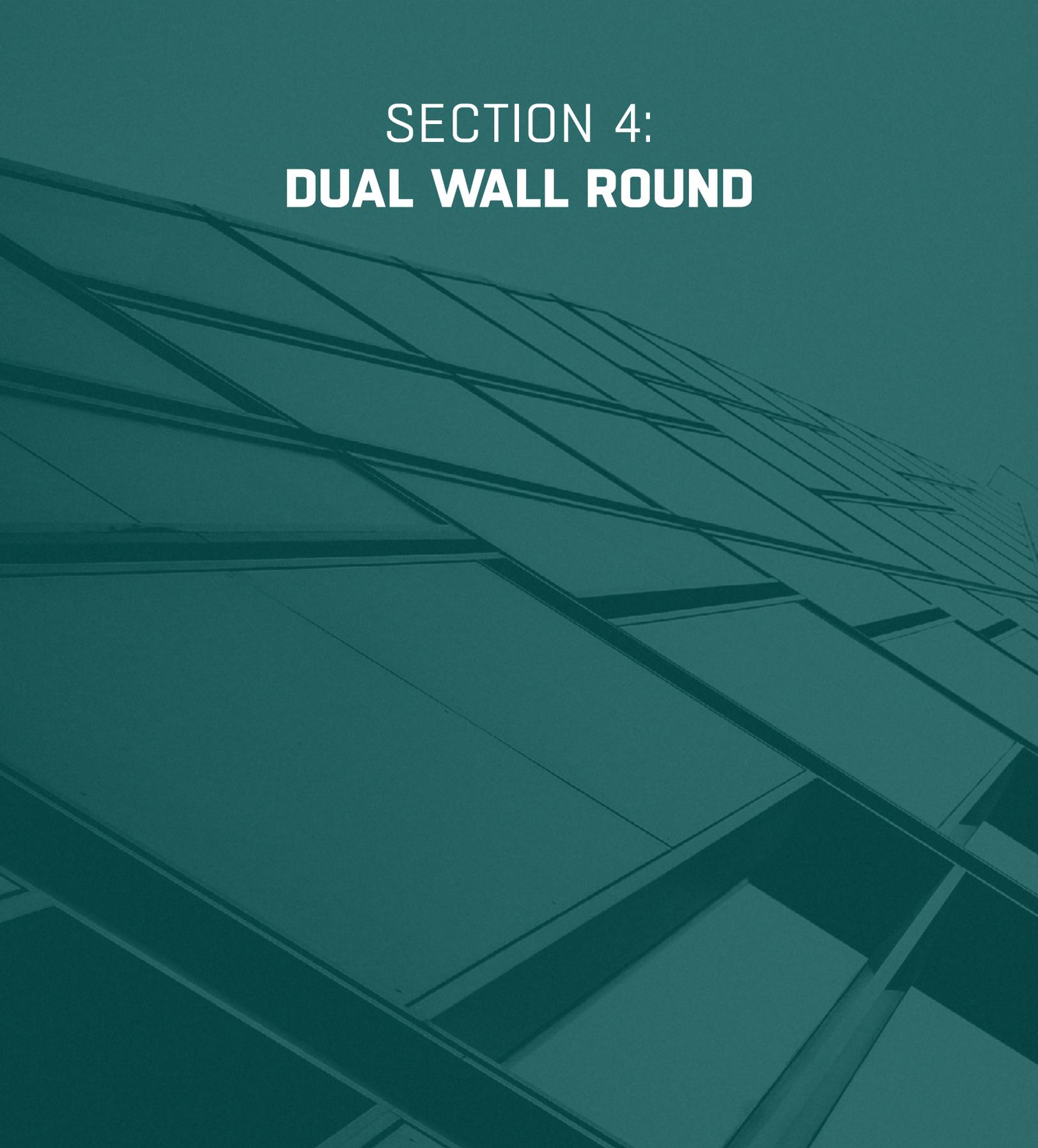
$L = (A1\ or\ A10 \times 0.27) + (OFF \times 1.732)$

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 FläktGroup SEMCO for application help.

• Calculated "L" dimension for offset fittings will be rounded up to the next 1/4".

**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 |

4

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 FläktGroup 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.

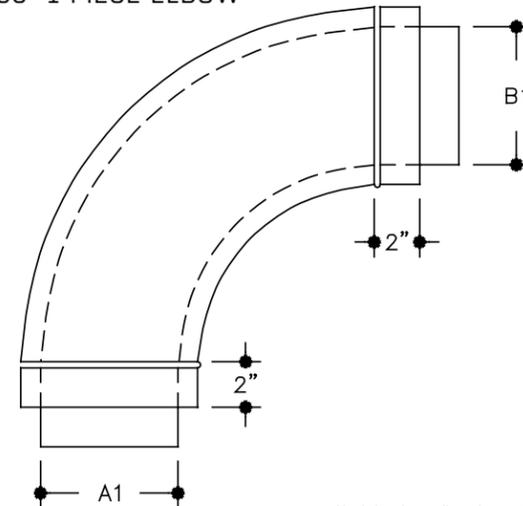
GAUGE & CONSTRUCTION CHART

| 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 FläktGroup 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.

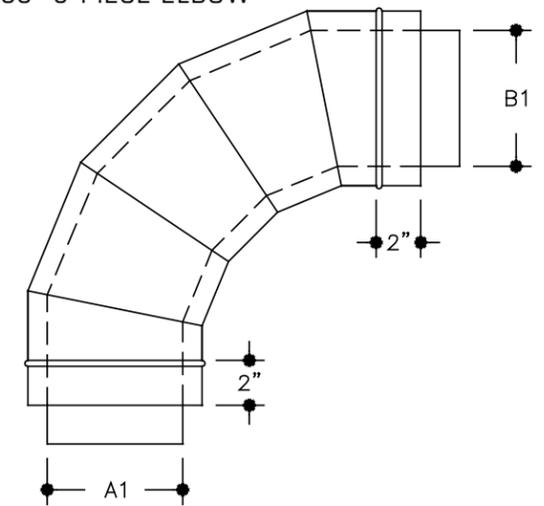
ELBOWS

E901
90° 1-PIECE ELBOW

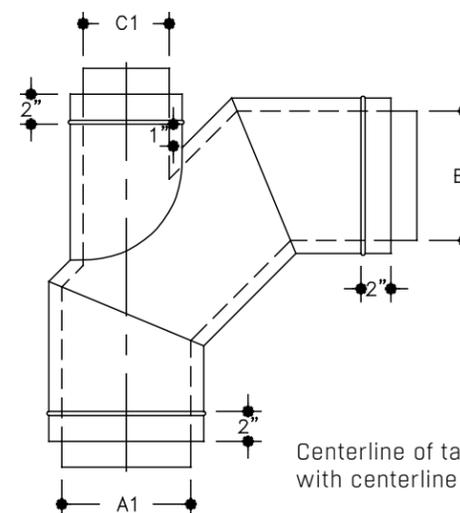


Available in 3"ø thru 10"ø.

E905
90° 5-PIECE ELBOW

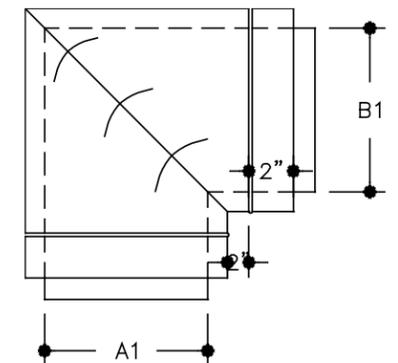


E90HT3
90° 3-PIECE ELBOW w/ HEEL TAP



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



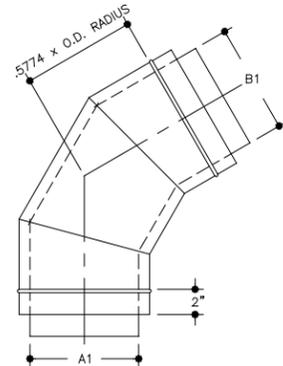
Standard O.D. Radius = 1.5r
* Radius = 1.5 [A1+(2 x insulation)]

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

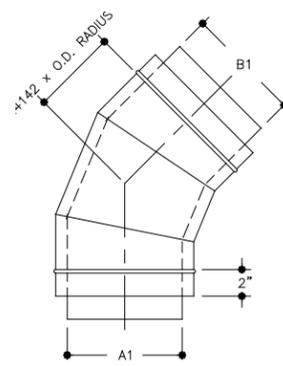
- Some large diameter elbows will be shipped as two or more smaller degree elbows due to truck space limitations.
- Contact FläktGroup SEMCO if you have special requirements for radius, gore quantity and/or degree of elbow.

ELBOWS

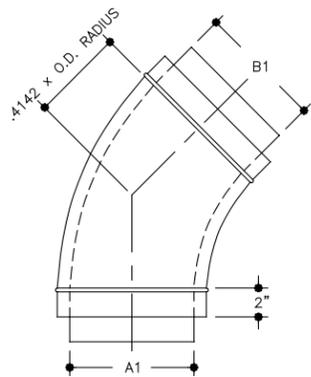
E603
60° 3-PIECE
ELBOW



E453
45° 3-PIECE
ELBOW

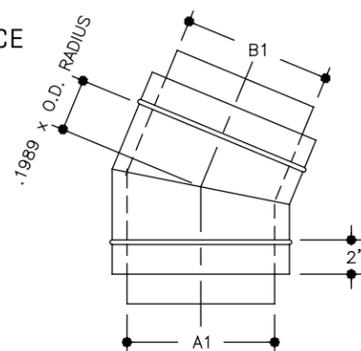


E451
45° 1-PIECE
ELBOW

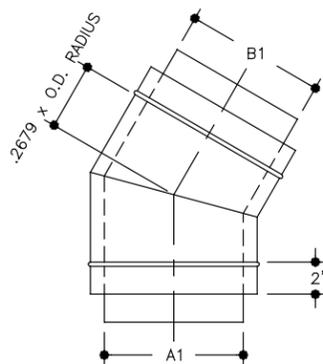


Available in 3"Ø thru 10"Ø.

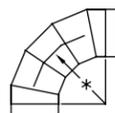
E222
22 1/2° 2-PIECE
ELBOW



E302
30° 2-PIECE
ELBOW



NOTES



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

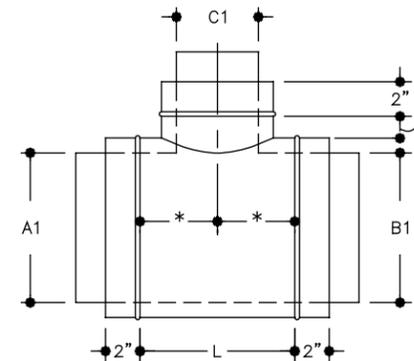
| Duct Velocity (fpm) | Standard Gored Elbows | | |
|---------------------|-----------------------|-----|-----|
| | 45° | 60° | 90° |
| 0 - 1000 | 2 | 2 | 3 |
| 1001 - 1500 | 2 | 3 | 4 |
| > 1500 | 3 | 3 | 5 |
| Industrial | 4 | 4 | 7 |

Leg formula is based on:

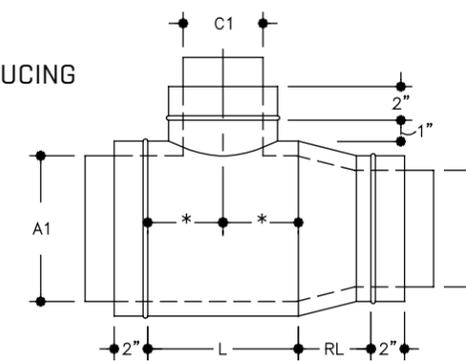
- TAN (0.5 x elbow degree) x centerline radius
- Some large diameter elbows will be shipped as two or more smaller degree elbows due to truck space limitations.
- Contact FläktGroup SEMCO if you have special requirements for radius, gore quantity and/or degree of elbow.

TEE FITTINGS

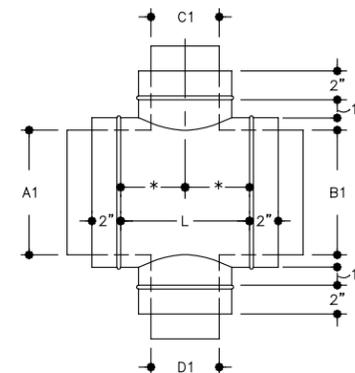
T
TEE



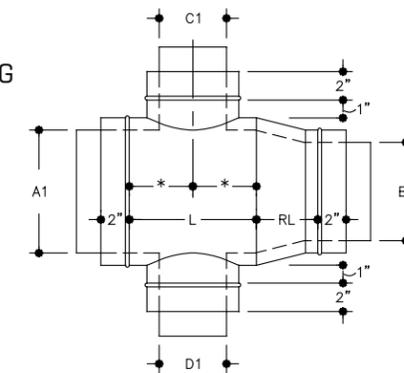
TR
REDUCING
TEE



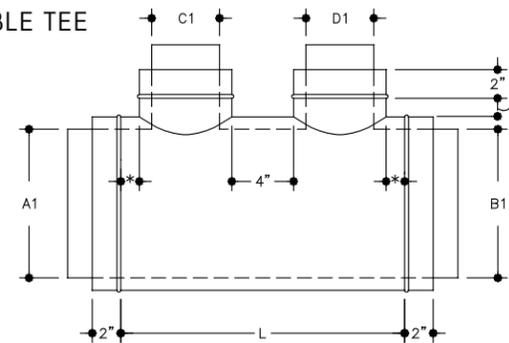
C
CROSS



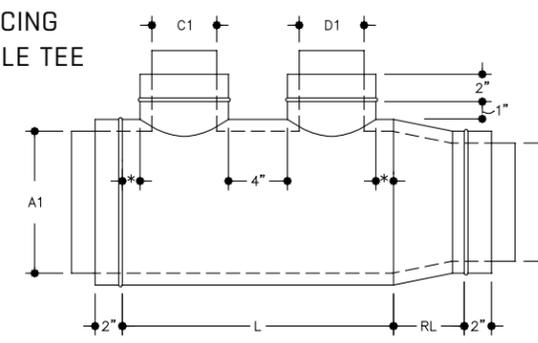
CR
REDUCING
CROSS



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:

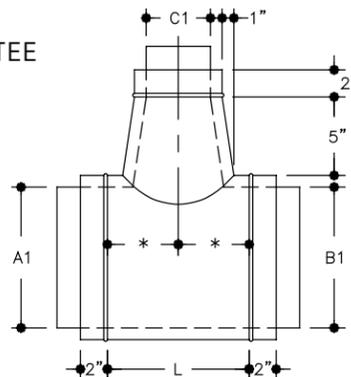
L = (Largest of C1 or D1) + 3" + (2 x insulation)

For Double Tees:

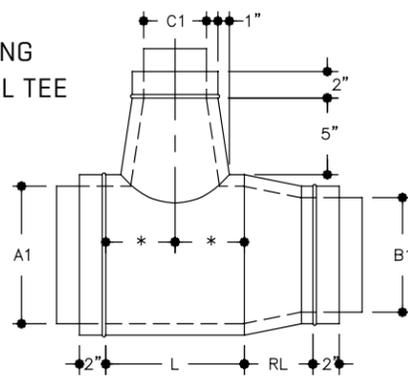
L = C1 + D1 + 7" + (4 x insulation)

CONICAL TEE FITTINGS

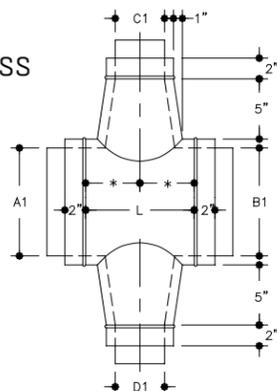
CT
CONICAL TEE



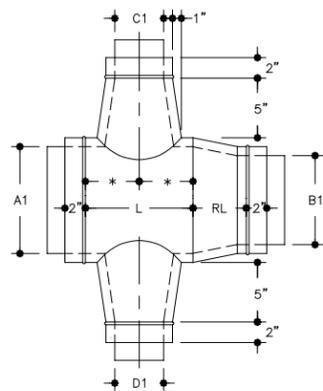
CTR
REDUCING
CONICAL TEE



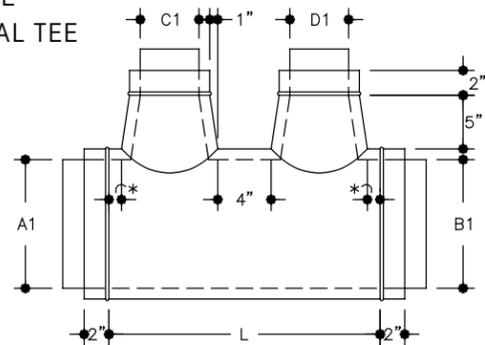
CC
CONICAL CROSS



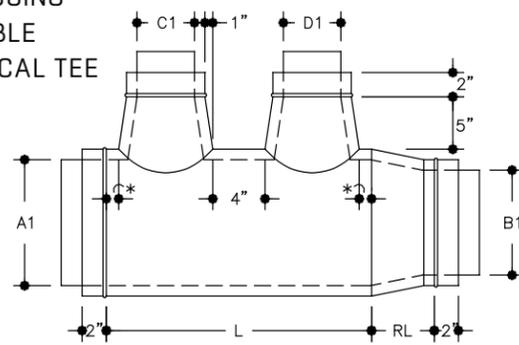
CCR
REDUCING
CONICAL
CROSS



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:

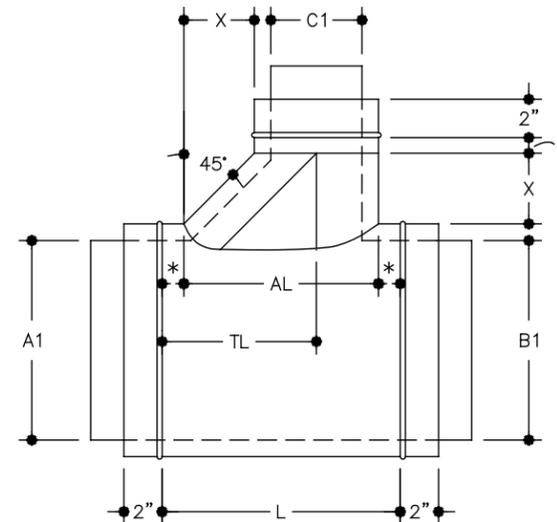
$L = (\text{Largest of } C1 \text{ or } D1) + 5" + (2 \times \text{insulation})$

For Double Conical Tees:

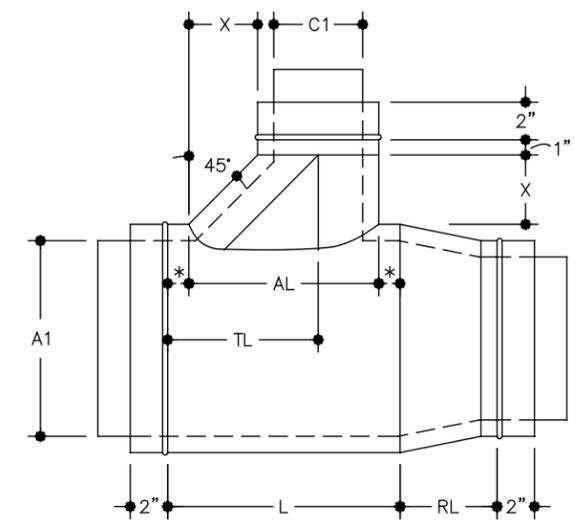
$L = C1 + D1 + 11" + (4 \times \text{insulation})$

COMBINATION TEE FITTINGS

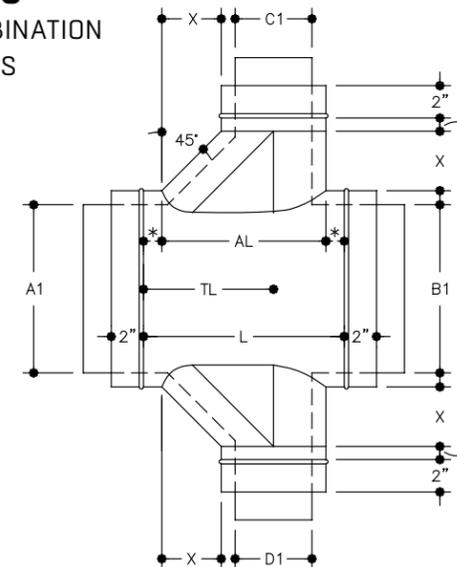
CMT
COMBINATION TEE



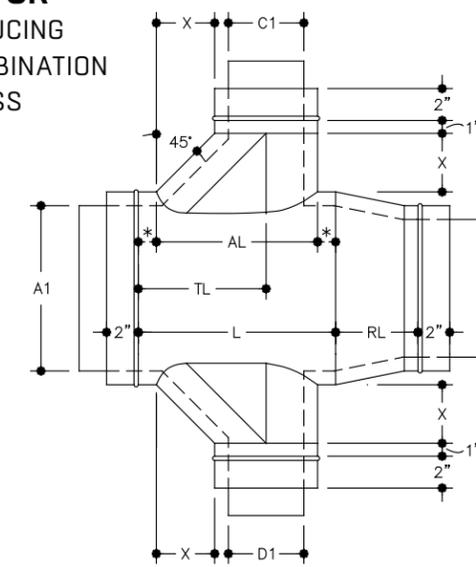
CMTR
REDUCING
COMBINATION TEE



CMTC
COMBINATION
CROSS



CMTCR
REDUCING
COMBINATION
CROSS



NOTES

• C1 or D1 can be no larger than A1

For RL: See page 4-11

$AL = C1 \text{ or } D1 + (2 \times \text{insulation}) + \text{appropriate } X$

$L = \text{largest } AL \text{ value} + 3"$

$TL = 1.5" + X + (0.5 \times C1 \text{ or } D1) + \text{insulation}$

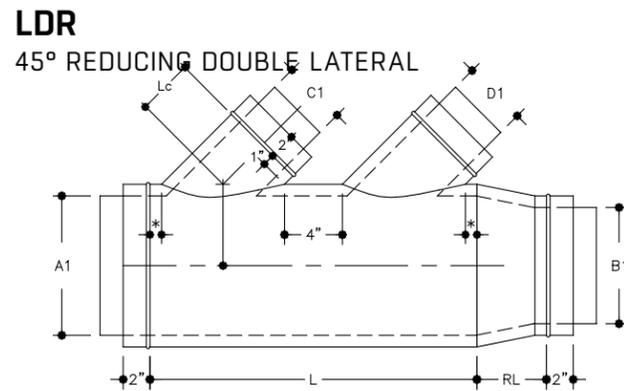
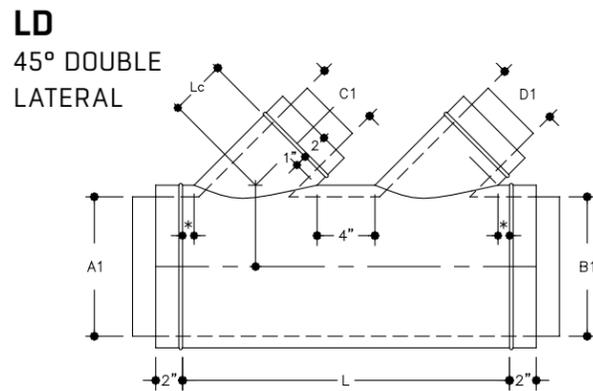
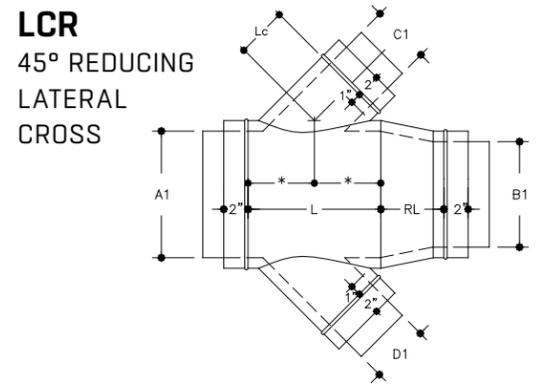
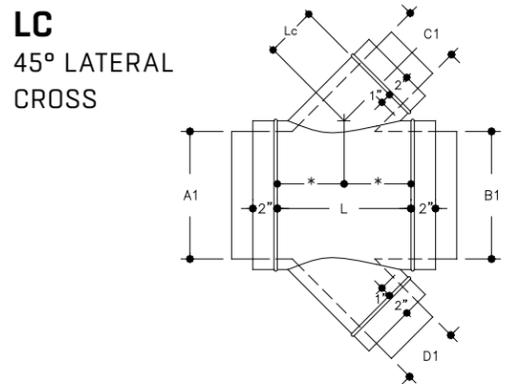
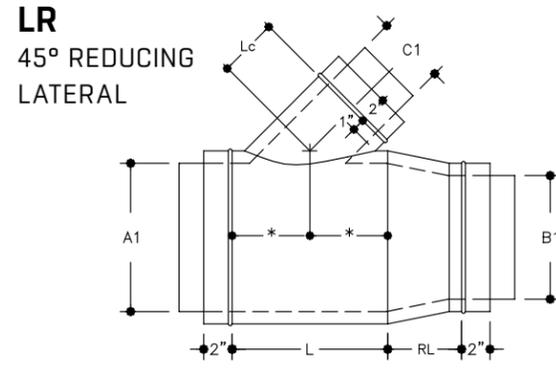
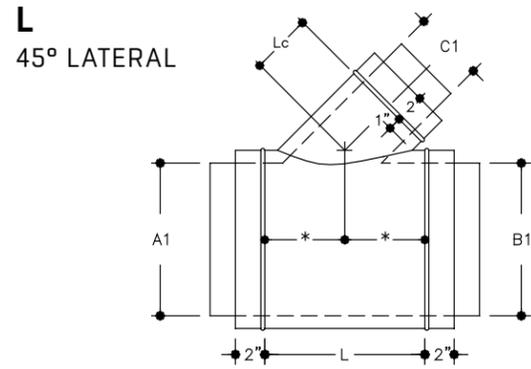
| C1 or D1 + (2 x insulation) | X |
|--------------------------------|-----|
| 3" thru 8" | 3" |
| 9" thru 16" | 6" |
| 17" thru 24" | 9" |
| 25" and up | 12" |

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



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:

$$L_c = \{[0.5 \times C1] + \text{insulation}\} + 1''$$

- For other degree arms, contact FläktGroup 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:

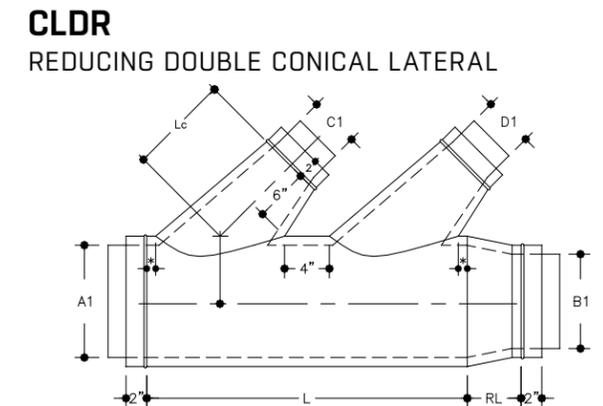
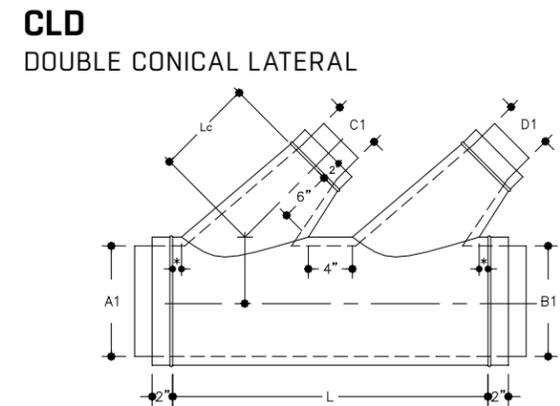
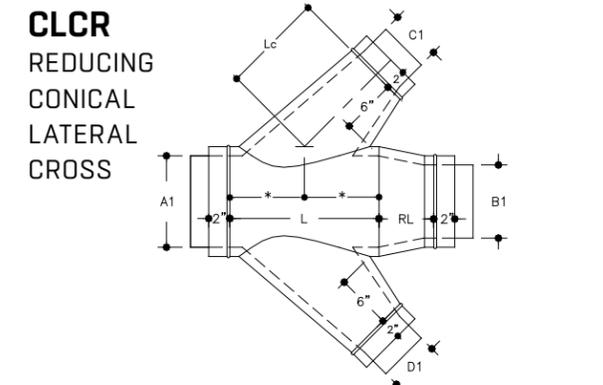
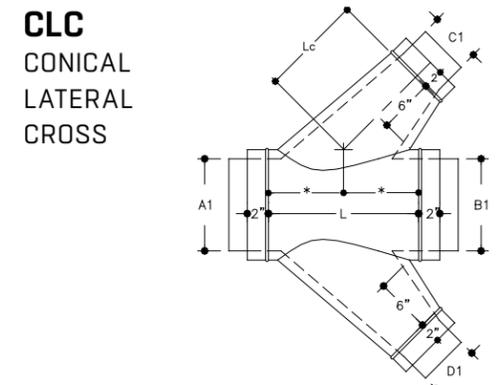
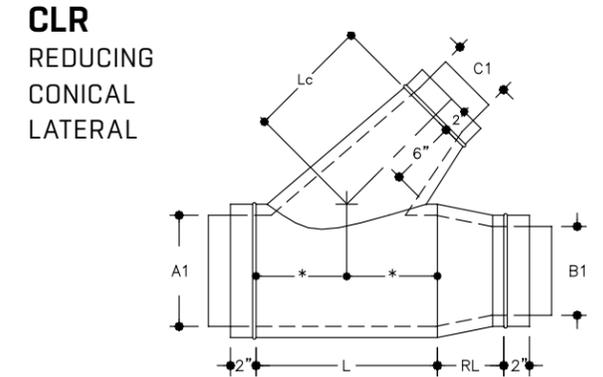
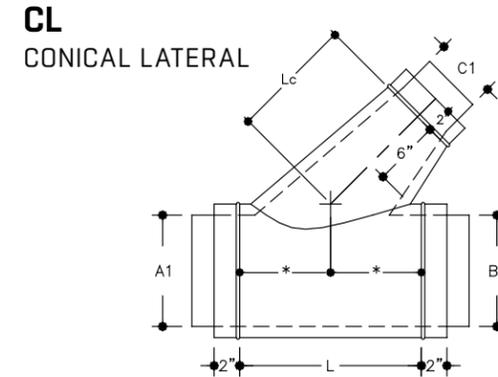
$$L = \{[\text{Largest of } C1 \text{ or } D1 + (2 \times \text{insulation})]\} \times 1.4142 + 3''$$

For Double Laterals:

$$L = \{[C1 + D1 + (4 \times \text{insulation})]\} \times 1.4142 + 7''$$

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

CONICAL LATERAL FITTINGS



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:

$$L_c = \{[0.5 \times (C1+2)] + \text{insulation}\} + 6''$$

- For other degree arms, contact FläktGroup 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:

$$L = \{[\text{Largest of } C1 \text{ or } D1 + 2'' + (2 \times \text{insulation})]\} \times 1.4142 + 3''$$

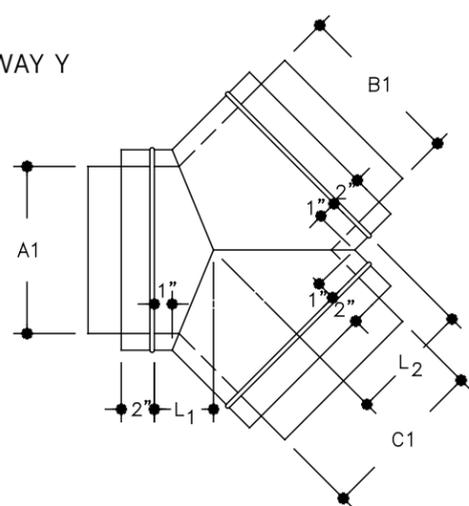
For Double Conical Laterals:

$$L = \{[C1 + D1 + 4'' + (4 \times \text{insulation})]\} \times 1.4142 + 7''$$

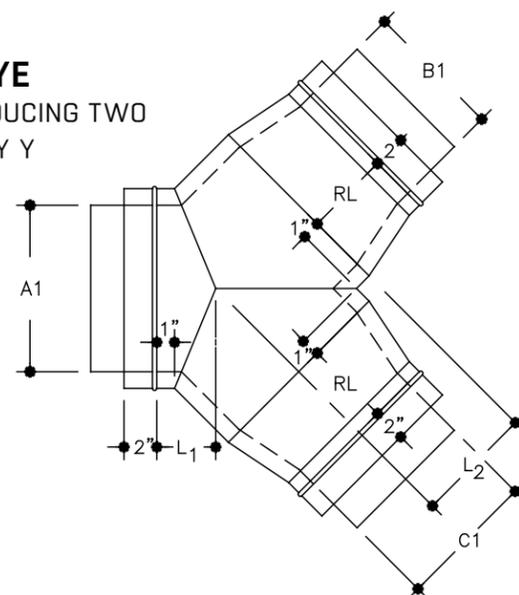
- Calculated "L" dimensions for the lateral fittings will be rounded up to the next 1/2".

WYE FITTINGS AND BULLHEAD TEES

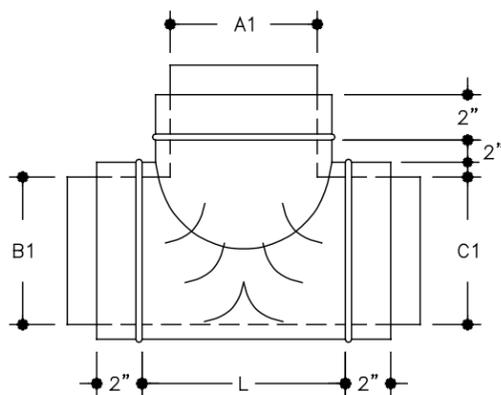
WYE
TWO WAY Y



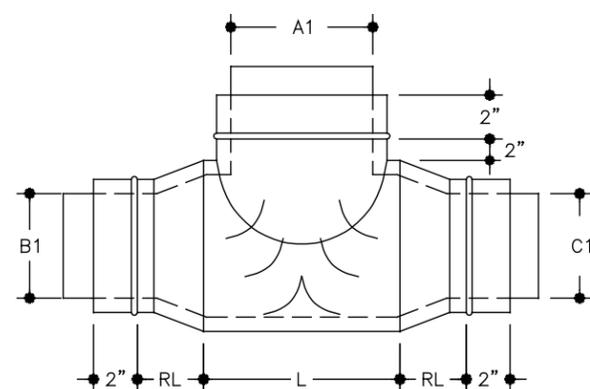
WYE
REDUCING TWO
WAY Y



BHT
BULLHEAD TEE



BHT
REDUCING BULLHEAD TEE



NOTES

For Two Way Y and Reducing Two Way Y:

$L1 = [0.5 (A1 + 2) \times 0.4142] + 1"$
 $L2 = 0.5 (A1 + 2 \times \text{insulation}) + 1"$

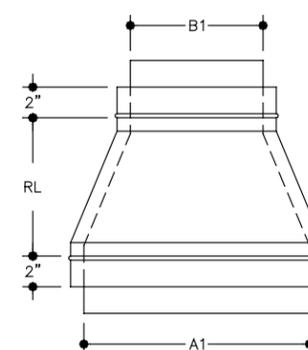
For RL: See page 4-11

- 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" |

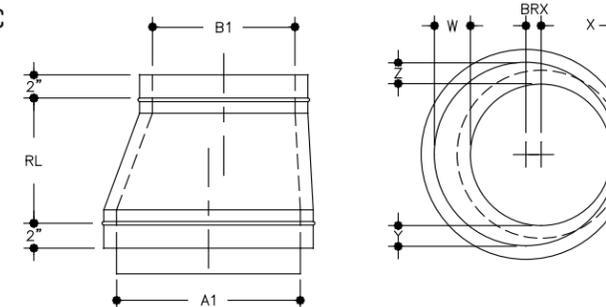
REDUCERS

RC
CONCENTRIC
REDUCER



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

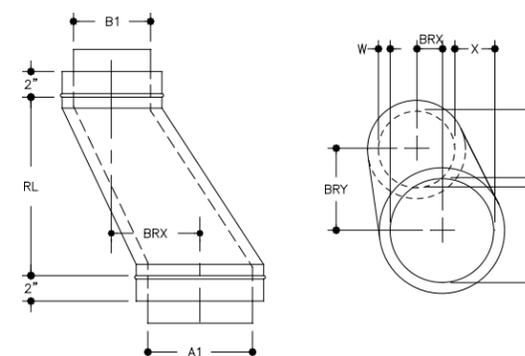
RE
NON-CONCENTRIC
REDUCER
(configuration 1)



$RL = [(\text{Greater of } W, X, Y \text{ or } Z) \times 2] + 3"$

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)



$RL = [(\text{Greater of } W, X, Y \text{ or } Z) \times 2] + 3"$

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

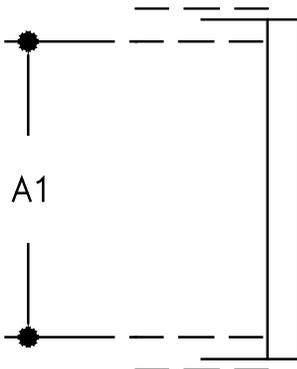
NOTES

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

MISCELLANEOUS

PLUG

PLUG

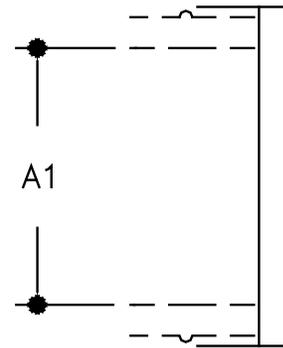


Fits into female duct.

Plugs installed by factory may consist of a plate only.

CAP

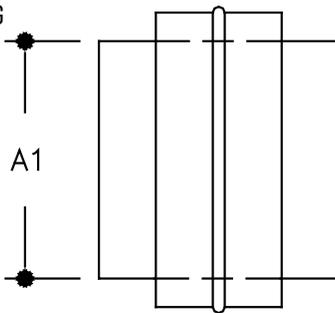
CAP



Fits over male fitting.

CPL-M

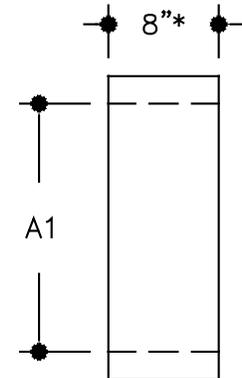
MALE COUPLING



Fits into female duct.

CPL-F

FEMALE COUPLING

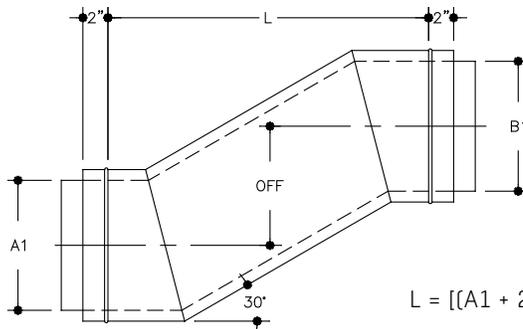


Fits over male fitting

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

OFF

30° OFFSET

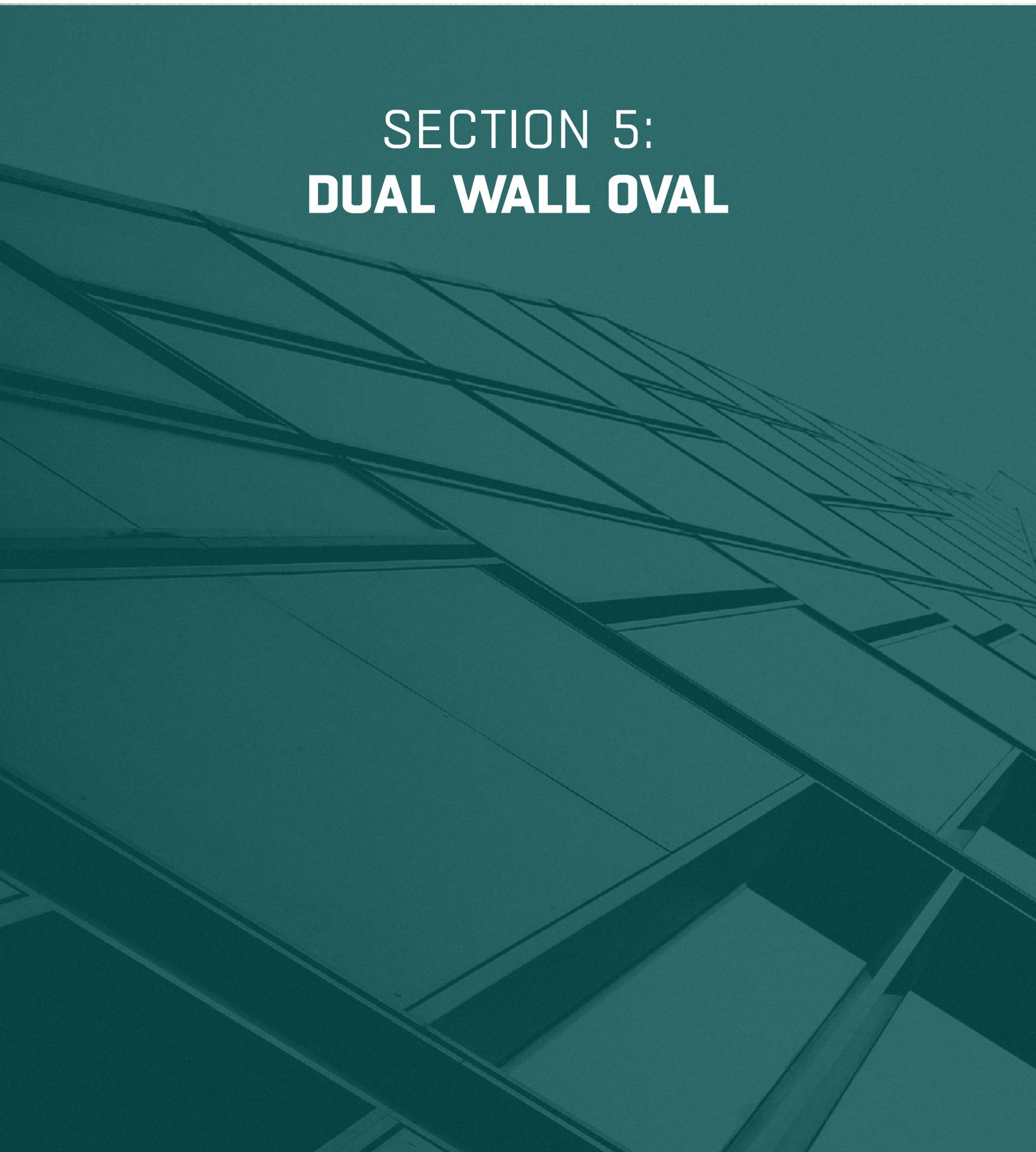


$$L = [(A1 + 2 \times \text{insulation}) \times 0.27] + [\text{OFF} \times 1.732]$$

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 FläktGroup SEMCO for application help.
- Calculated "L" dimension for offset fittings will be rounded up to the next 1/4".

**SECTION 5:
DUAL WALL OVAL**



GAUGE & CONSTRUCTION CHART

| SH95P Maximum 10" w.g. Positive Static | | | | | |
|--|-----------------------|-------------------|-------------------------|-----------------------------|--------------|
| Nominal Oval Size | 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 |

| SH95P Maximum 10" w.g. Positive Static | | | | | |
|--|-----------------------|-------------------|-------------------------|-----------------------------|--------------|
| Nominal Oval Size | 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 |

5

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

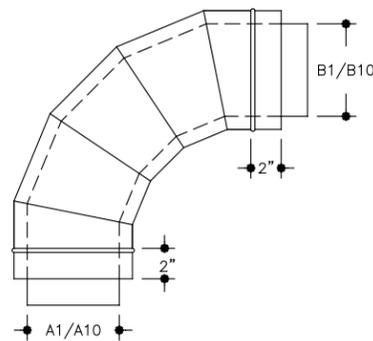
GAUGE & CONSTRUCTION CHART

| 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 |

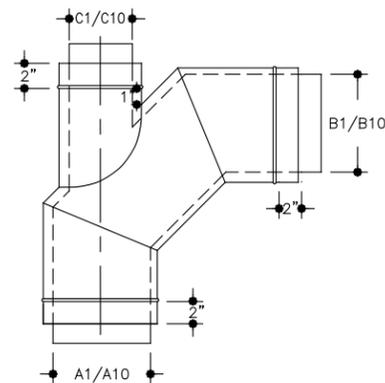
| Nominal Oval Size | SH95P Maximum 10" w.g. Positive Static | | | | |
|-------------------|--|-------------------|-------------------------|-----------------------------|--------------|
| | Galv. Spiral Duct Ga. | Galv. Fitting Ga. | Spiral Duct Wt. (lb/ft) | Spiral Duct Std. Lgth. (ft) | Equiv. Round |
| 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 | | | |

ELBOWS

E90HB5
E90EB5
90° 5-PIECE ELBOW

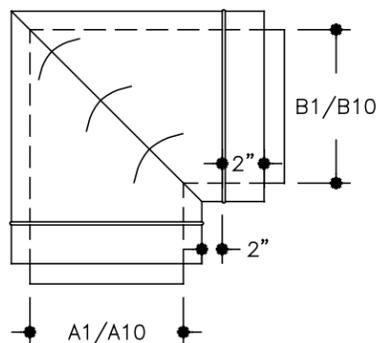


E90HBHT3
E90EBHT3
90° 3-PIECE ELBOW W/ HEEL TAP



Centerline of tap is aligned with centerline of elbow inlet.

E90HB2V
E90EB2V
SQUARE THROAT ELBOW W/ VANES



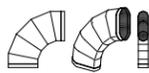
Fittings with turning vanes will have **solid** liners.

NOTES

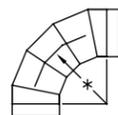
| Standard Gored Elbows | | | |
|-----------------------|-----|-----|-----|
| Duct Velocity (fpm) | 45° | 60° | 90° |
| 0 - 1000 | 2 | 2 | 3 |
| 1001 - 1500 | 2 | 3 | 4 |
| > 1500 | 3 | 3 | 5 |
| Industrial | 4 | 4 | 7 |

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)

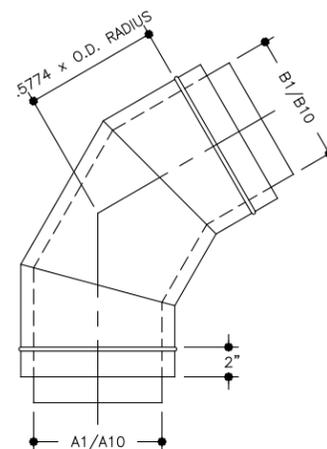


Standard O.D. Radius = $1.5 \text{ } \phi$
* Radius = $1.5 [A1 + (2 \times \text{insulation})]$

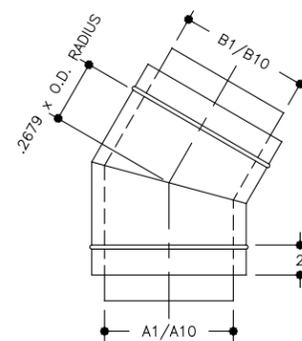
- Some large diameter elbows will be shipped as two or more smaller degree elbows due to truck space limitations.
- Contact FläktGroup SEMCO if you have special requirements for radius, gore quantity and/or degree of elbow.

ELBOWS

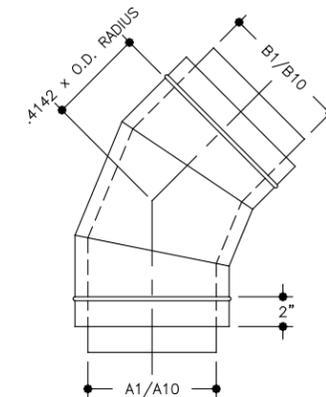
E60HB3
E60EB3
60° 3-PIECE ELBOW



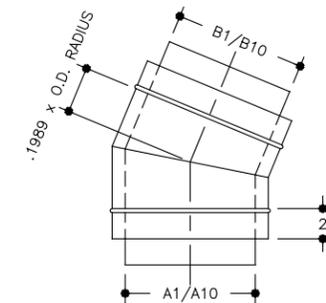
E30HB2
E30EB2
30° 2-PIECE ELBOW



E45HB3
E45EB3
45° 3-PIECE ELBOW



E22HB2
E22EB2
22 1/2° 2-PIECE ELBOW

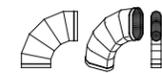


NOTES

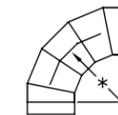
| Standard Gored Elbows | | | |
|-----------------------|-----|-----|-----|
| Duct Velocity (fpm) | 45° | 60° | 90° |
| 0 - 1000 | 2 | 2 | 3 |
| 1001 - 1500 | 2 | 3 | 4 |
| > 1500 | 3 | 3 | 5 |
| Industrial | 4 | 4 | 7 |

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)



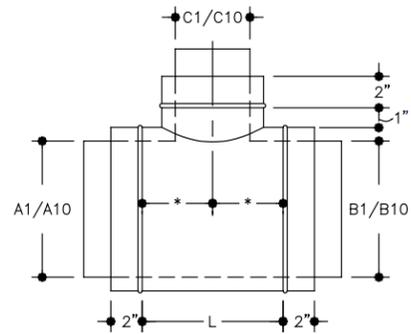
Standard O.D. Radius = $1.5 \text{ } \phi$
* Radius = $1.5 [A1 + (2 \times \text{insulation})]$

Leg formula is based on:

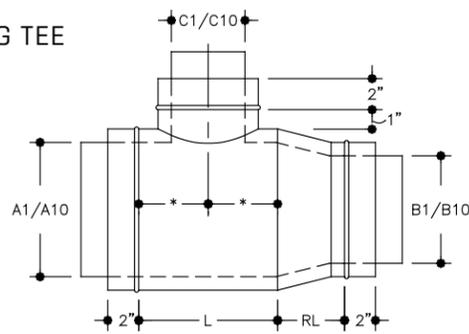
- Tan (0.5 x elbow degree) x centerline radius
- Some large diameter elbows will be shipped as two or more smaller degree elbows due to truck space limitations.
- Contact FläktGroup SEMCO if you have special requirements for radius, gore quantity and/or degree of elbow.

TEE FITTINGS

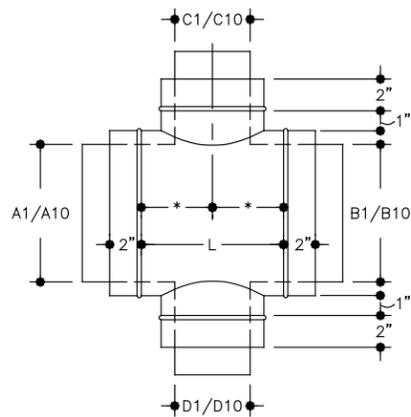
T
TEE



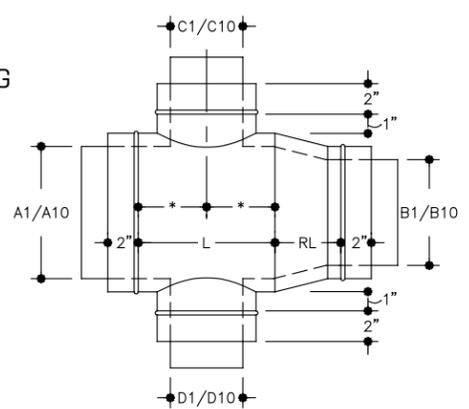
TR
REDUCING TEE



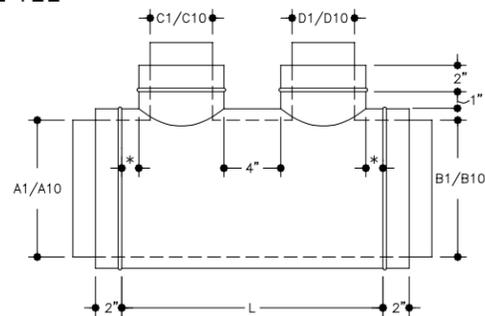
C
CROSS



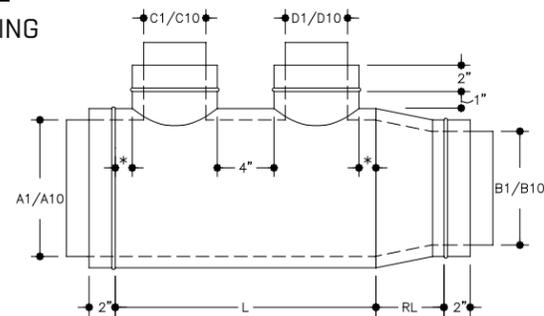
CR
REDUCING CROSS



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:

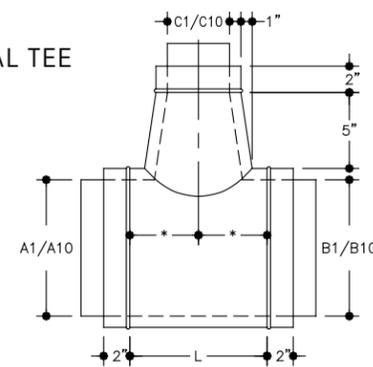
$L = (\text{Largest of C1 or D1}) + 3" + (2 \times \text{insulation})$

For Double Tees:

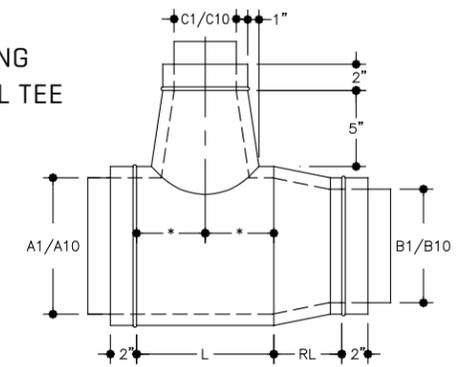
$L = C1 + D1 + 7" + (4 \times \text{insulation})$

CONICAL TEE FITTINGS

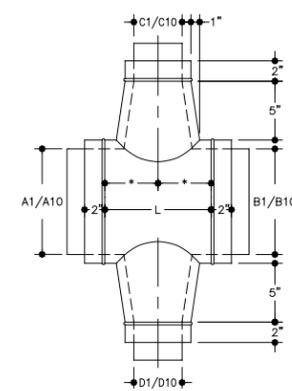
CT
CONICAL TEE



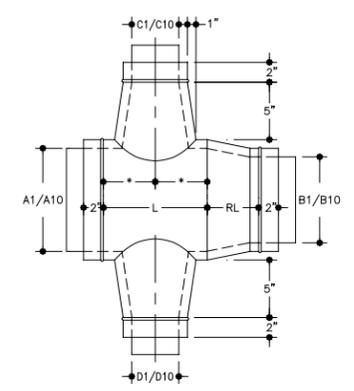
CTR
REDUCING CONICAL TEE



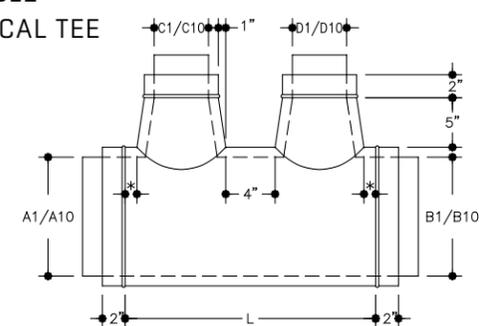
CC
CONICAL CROSS



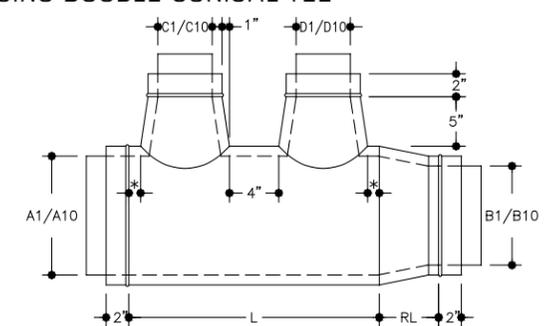
CCR
REDUCING CONICAL CROSS



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:

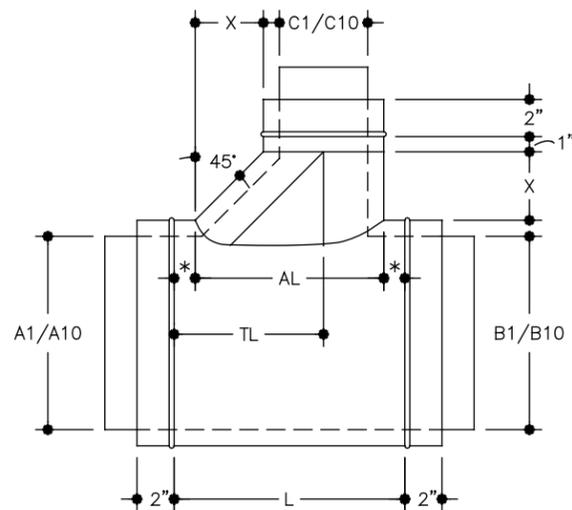
$L = (\text{Largest of C1 or D1}) + 5" + (2 \times \text{insulation})$

For Double Conical Tees:

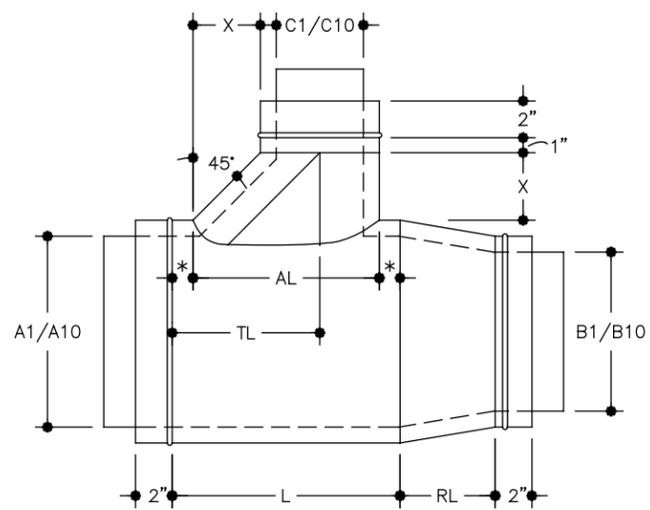
$L = C1 + D1 + 7" + (4 \times \text{insulation})$

COMBINATION TEE FITTINGS

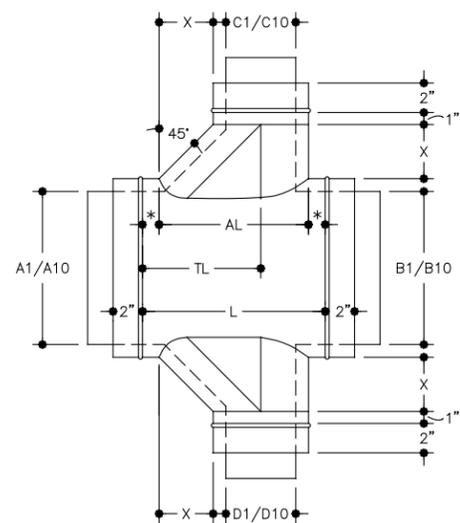
CMT
COMBINATION TEE



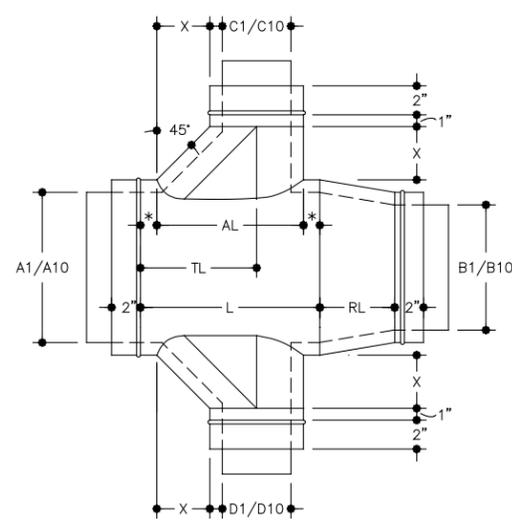
CMTR
REDUCING COMBINATION TEE



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" |

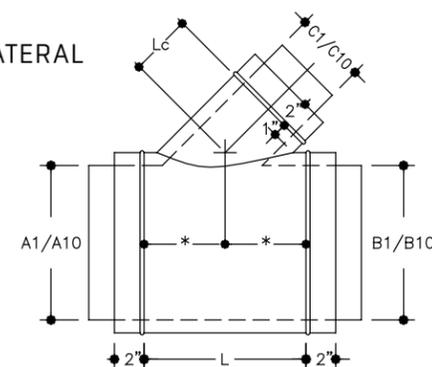
For Combination Crosses:

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

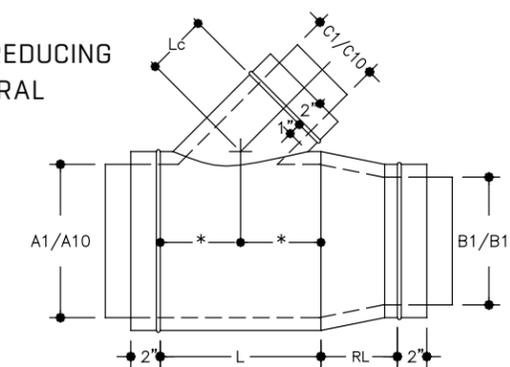
- Body lengths are based on the taps being centered on the body. Any change in tap location or offset from center will most likely result in a longer "L" dimension.

LATERAL FITTINGS

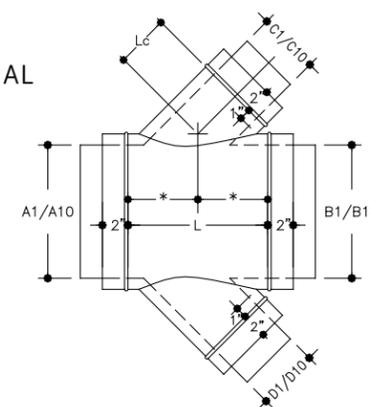
L
45° LATERAL



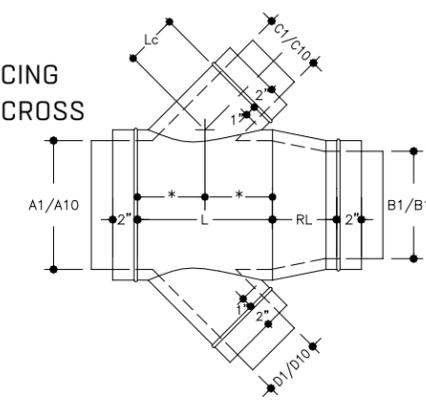
LR
45° REDUCING LATERAL



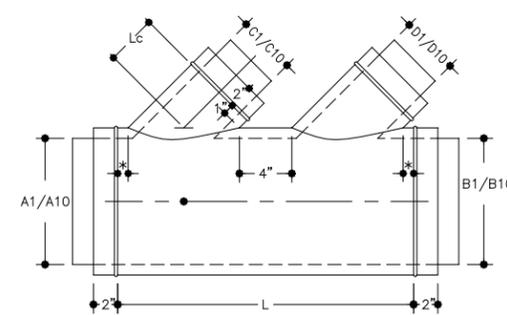
LC
45° LATERAL CROSS



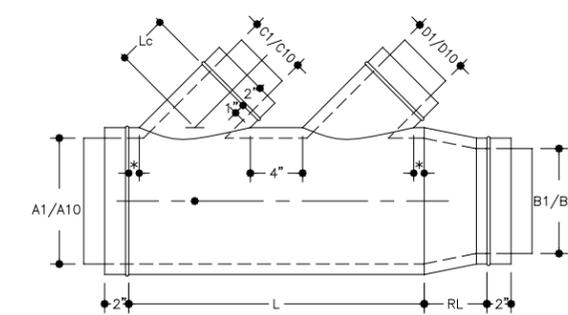
LCR
45° REDUCING LATERAL CROSS



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:

$$Lc = \{[0.5 \times (C1+2)] + \text{insulation}\} + 1"$$

- For other degree arms, contact FlaktGroup 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:

$$L = \{[\text{Largest of C1 or D1} + (2 \times \text{insulation})] \times 1.4142\} + 3"$$

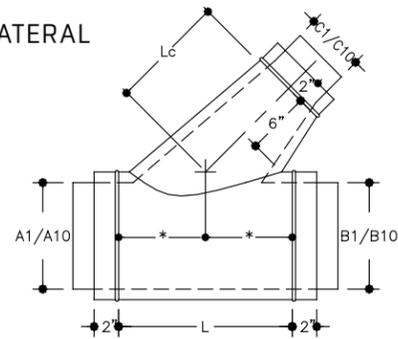
For Double Laterals:

$$L = \{(C1 + D1 + (4 \times \text{insulation})) \times 1.4142\} + 7"$$

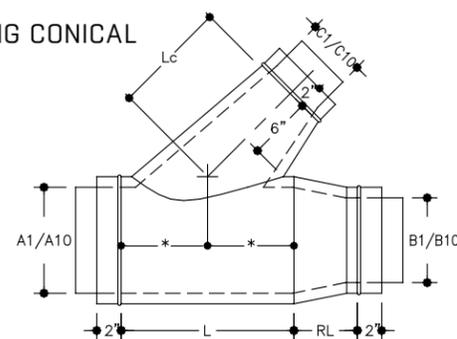
- Calculated "L" dimensions for the lateral fittings will be rounded up to the next 1/2".

CONICAL LATERAL FITTINGS

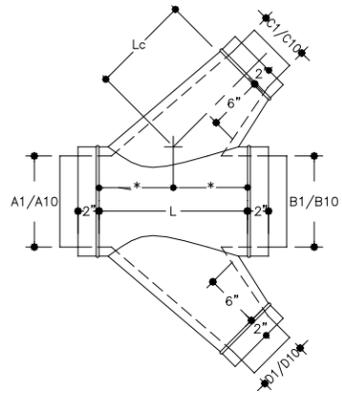
CL
CONICAL LATERAL



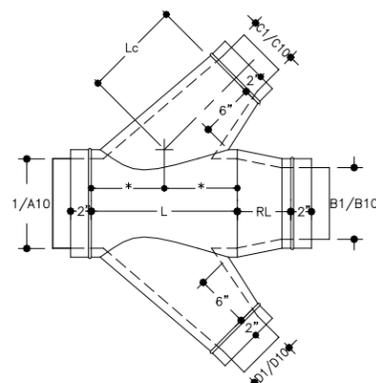
CLR
REDUCING CONICAL LATERAL



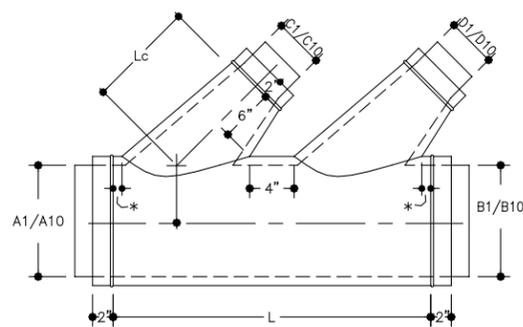
CLC
CONICAL LATERAL CROSS



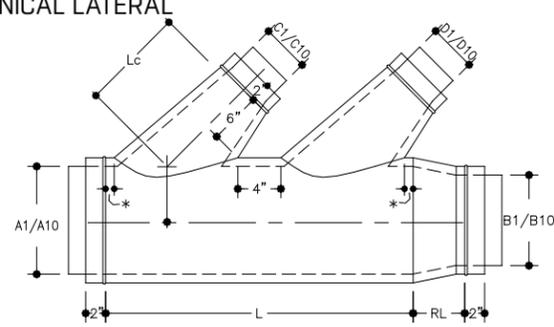
CLCR
REDUCING CONICAL LATERAL CROSS



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:
 $L_c = \{[(0.5 \times (C1 + 2))] + \text{insulation}\} + 6"$

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.

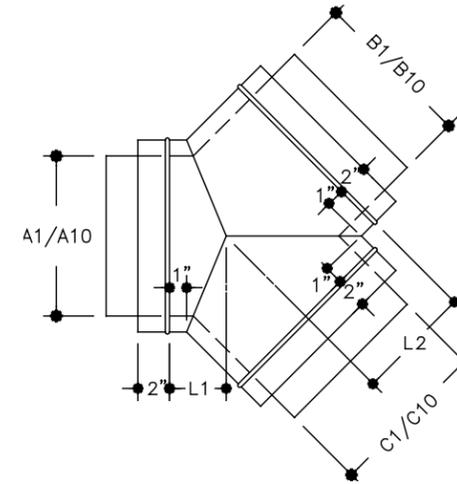
For Conical Laterals and Conical Lateral Crosses:
 $L = \{[\text{Largest of C1 or D1} + 2" + (2 \times \text{insulation})] \times 1.4142\} + 3"$

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

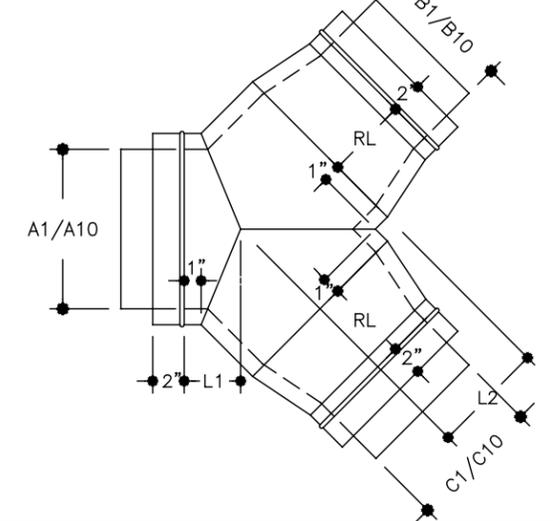
• Calculated "L" dimensions for the lateral fittings will be rounded up to the next 1/2".

WYE FITTINGS AND BULLHEAD TEES

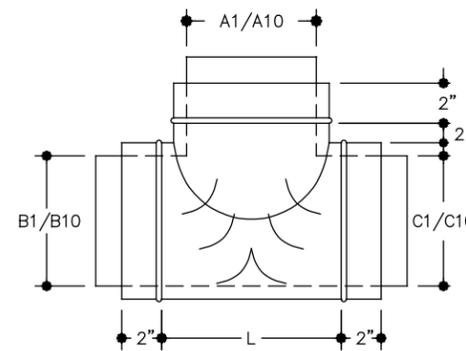
WYE
TWO WAY Y



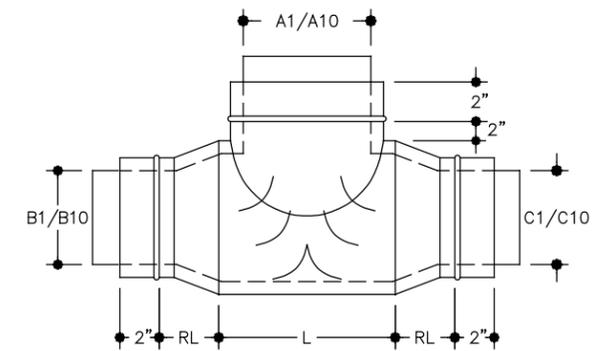
WYE
REDUCING TWO WAY Y



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:
 $L1 = \{[0.5 (A1 + 2 \times \text{insulation})] \times 0.4142\} + 1"$
 $L2 = 0.5 (A1 + 2 \times \text{insulation}) + 1"$

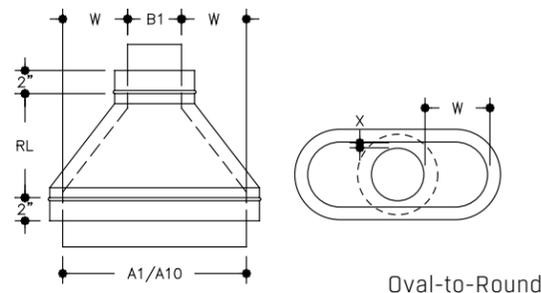
For RL: See page 5-12

• Fittings with turning vanes will have solid liners.

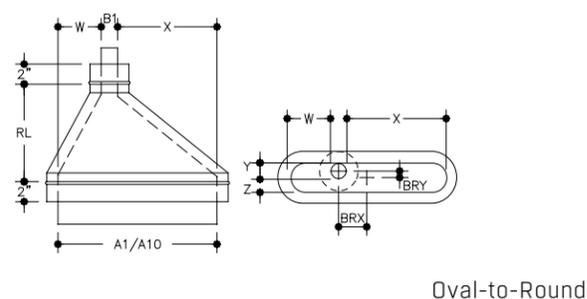
| Bullhead Chart | |
|-----------------------|----------|
| A1 + [2 x insulation] | L |
| 3" thru 4" | 12" |
| 5" thru 10" | 18" |
| 11" thru 16" | 24" |
| 17" thru 18" | 30" |
| 19" thru 24" | 36" |
| 25" thru 36" | 48" |
| 37" thru 48" | 60" |
| 49" thru 74" | A1 + 18" |
| 75" thru 90" | A1 + 26" |

REDUCERS

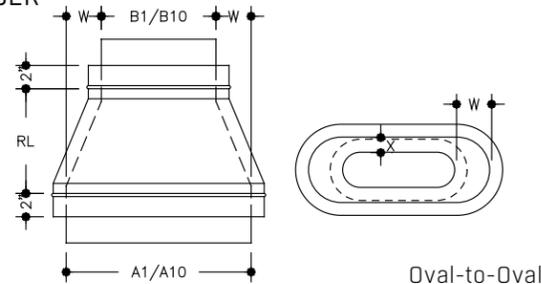
RC
CONCENTRIC REDUCER



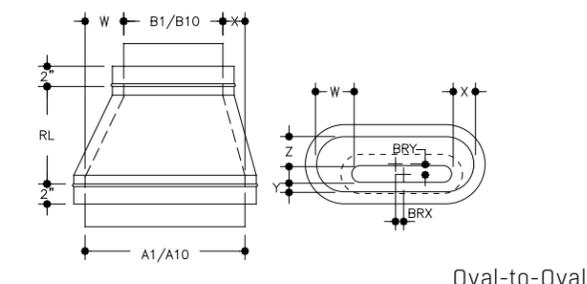
RE
NON-CONCENTRIC REDUCER



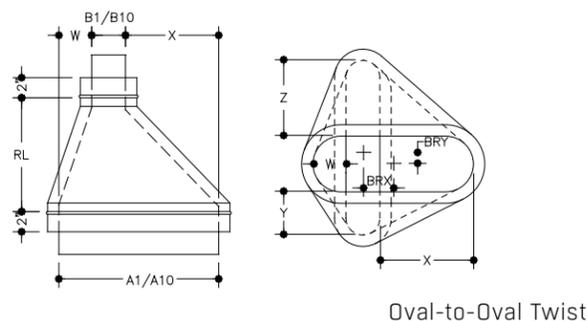
RC
CONCENTRIC REDUCER



RE
NON-CONCENTRIC REDUCER



RE
NON-CONCENTRIC REDUCER



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.

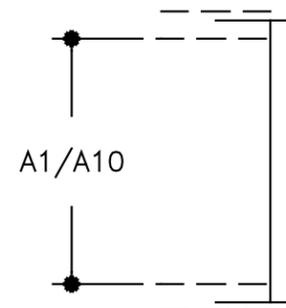
RL formula for Non-Concentric Reducers:
RL = [(Greater of W, X, Y or Z) x 2] + 3"

- 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).

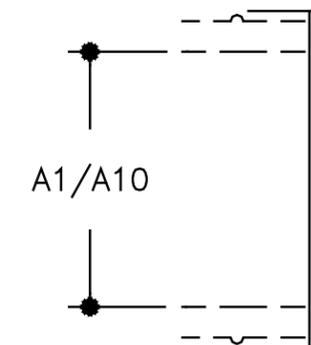
MISCELLANEOUS

PLUG
PLUG



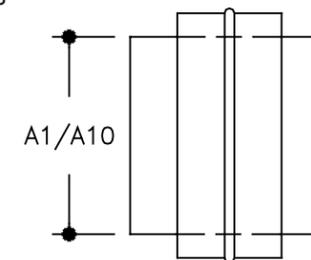
Fits into female duct.
Plugs installed by factory may consist of a plate only.

CAP
CAP



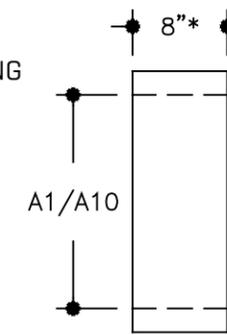
Fits over male fitting.

CPL-M
MALE COUPLING



Fits into female duct.

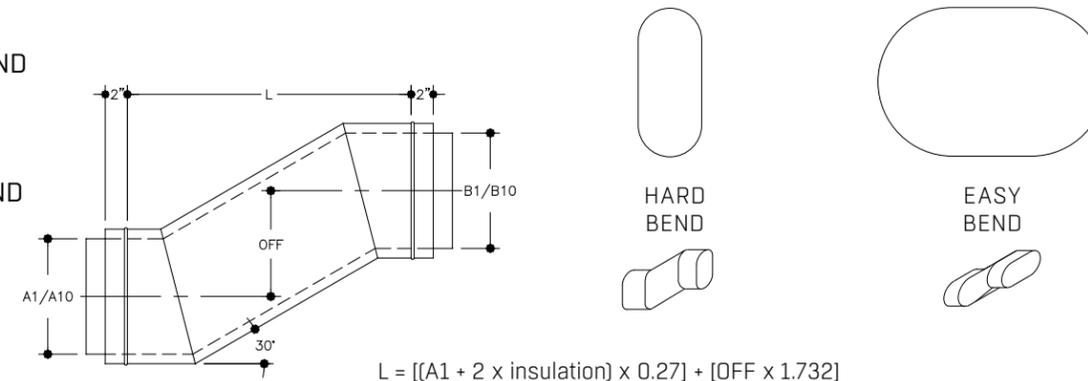
CPL-F
FEMALE COUPLING



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



$$L = [(A1 + 2 \times \text{insulation}) \times 0.27] + [\text{OFF} \times 1.732]$$

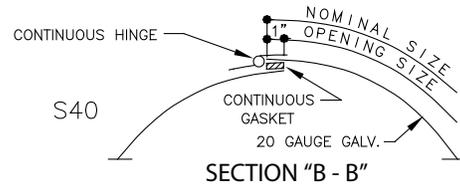
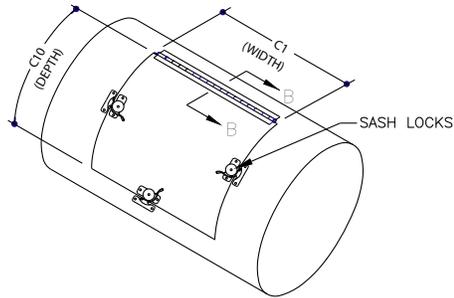
NOTES

- 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 FläktGroup SEMCO for application help.
- Calculated "L" dimension for offset fittings will be rounded up to the next 1/4".

SECTION 6: MISCELLANEOUS

SINGLE WALL ACCESS DOORS

TYPE S40



For positive & 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

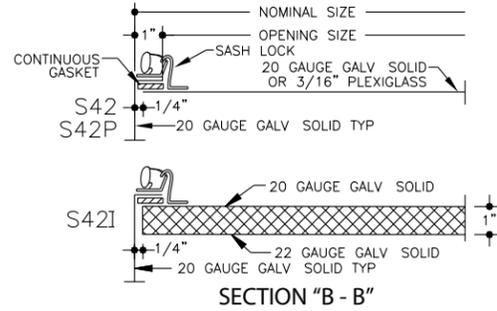
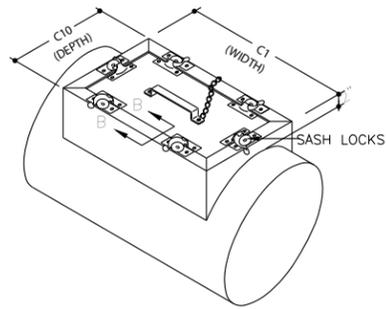
Door mounted on minor:
Use minor size as duct diameter

CHART APPLIES TO TYPE 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

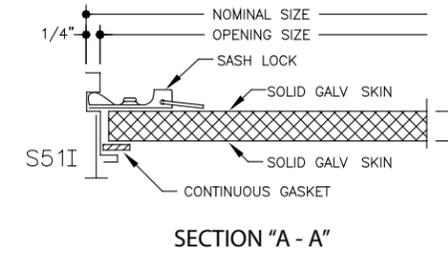
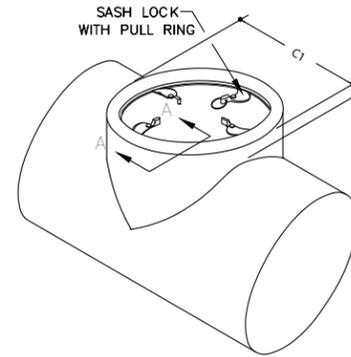
TYPE S42, S42P OR S42I



For positive pressure only.

SINGLE WALL ACCESS DOORS

TYPE S51I



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 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" |

NOTES

To determine door size on oval duct:

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

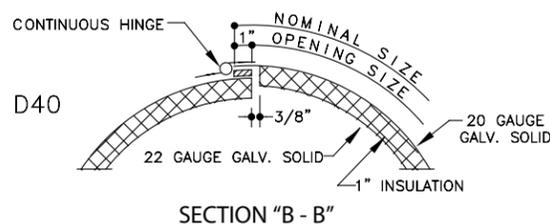
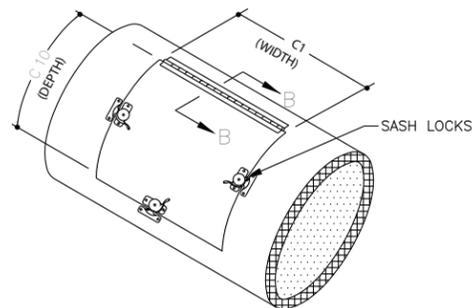
Door mounted on minor:
Use minor size as duct diameter

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

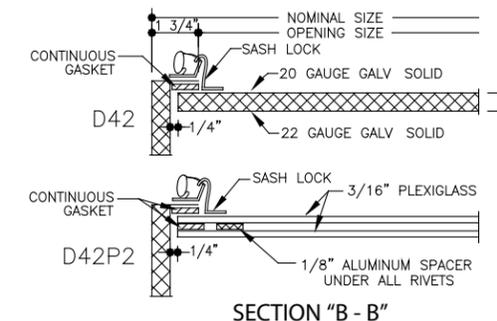
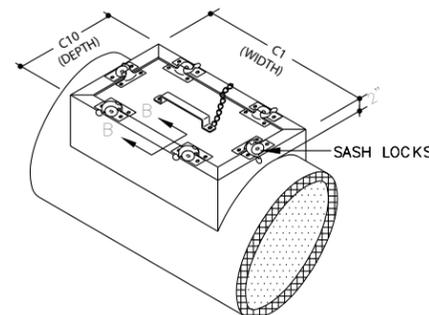
TYPE D40



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

DUAL WALL ACCESS DOORS

TYPE D42 OR D42P2



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 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

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

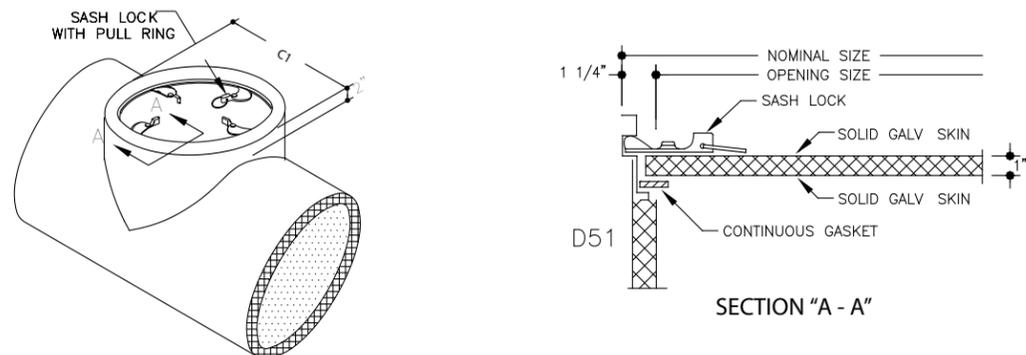
CHART APPLIES TO TYPES D47, D47P2

| 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



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

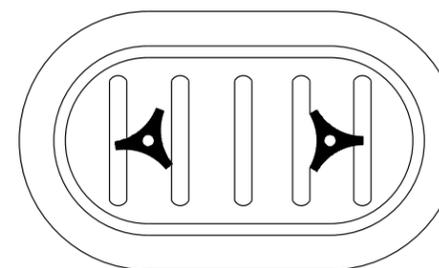
DUCTMATE™ ACCESS DOORS

DRU

UNINSULATED MODEL

DRI

INSULATED MODEL



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

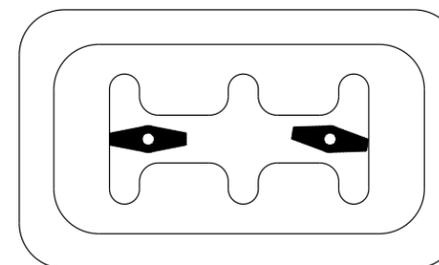
Round sandwich type access door for curved surfaces.

DU

UNINSULATED MODEL

DI

INSULATED MODEL



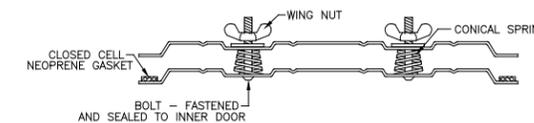
| DOOR SIZE |
|-----------|
| 10" x 6" |
| 12" x 8" |
| 18" x 14" |
| 24" x 18" |

Rectangular sandwich type access door for flat surfaces.

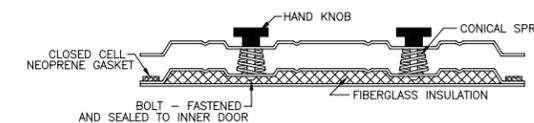
NOTES

- 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

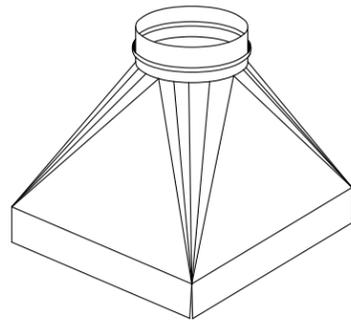


Section of insulated access door

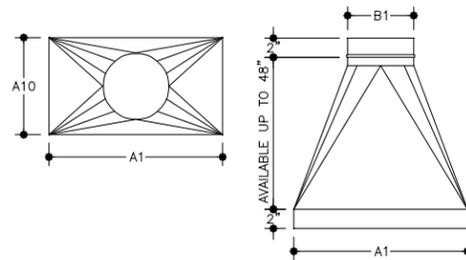


TRANSITIONS

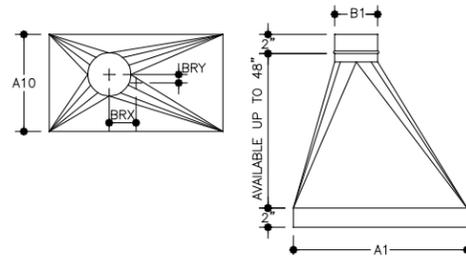
RTR
RECTANGULAR-TO-ROUND TRANSITION



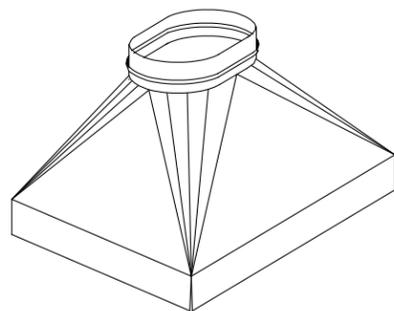
Concentric Transition



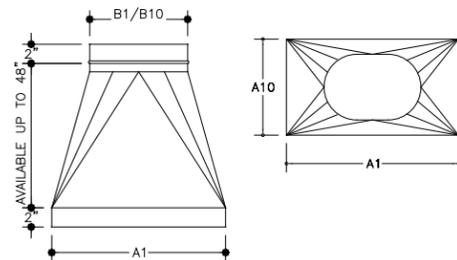
Non-Concentric Transition



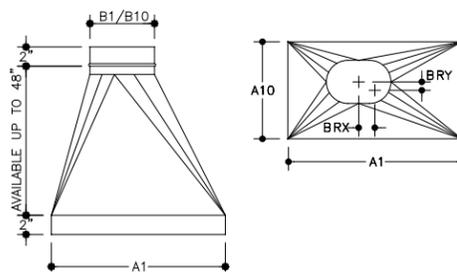
RTR
RECTANGULAR-TO-OVAL TRANSITION



Concentric Transition



Non-Concentric Transition

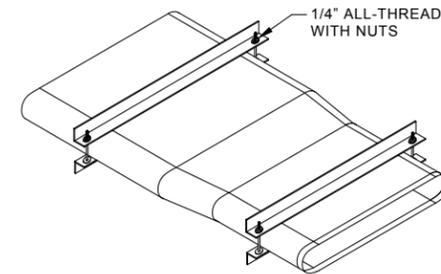


NOTES

- Dimensions apply to both rectangular and square duct.

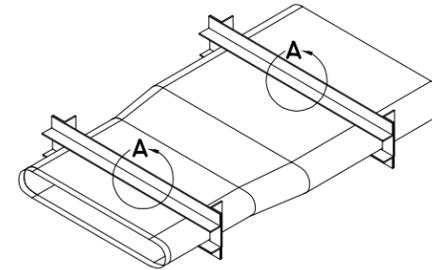
DUCT REINFORCEMENT

TRAPEZE REINFORCEMENT



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

NEGATIVE PRESSURE FRAMES



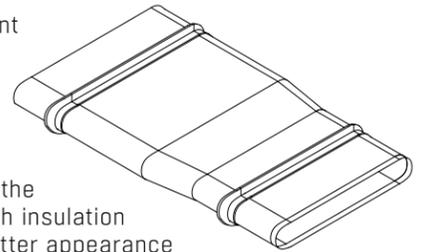
Negative pressure frames are used for negative pressure applications and are stitch welded to the duct on both sides.

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.

“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.

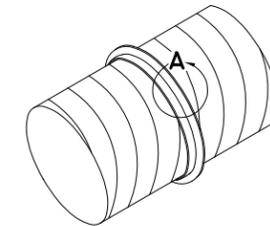


“C” Braces are tack welded to the duct for positive pressure applications and stitch welded (see note ‘A’) to the duct for negative pressure applications.

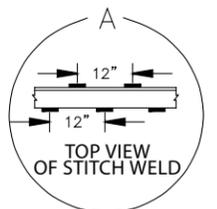
For exposed duct, the angle size of the “C” Brace will be the same as a round angle ring the size of the minor dimension of the oval duct. For concealed duct, the angle ring size of the curved portion of the “C” Brace will be the same as described above and the flat span will be sized per the chart on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

6

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.



TOP VIEW OF STITCH WELD

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 FläktGroup SEMCO when duct is made of gauges different from those shown.

| Spiral Duct | | | | | | | | | Fittings & Longitudinal Seam Duct | | | | | | | | |
|-------------------|-------------|---------------------------|-----|----|------|------|------|------|-----------------------------------|-------------|---------------------------|-----|----|------|------|------|------|
| Nominal Oval Size | Galv. Gauge | Static Pressure (in w.g.) | | | | | | | Nominal Oval Size | Galv. Gauge | Static Pressure (in w.g.) | | | | | | |
| | | 0.5 | 1 | 2 | 3 | 4 | 6 | 10 | | | 0.5 | 1 | 2 | 3 | 4 | 6 | 10 |
| 4 x 10 | 24 | nr | nr | nr | nr | nr | nr | 5a | 4 x 10 | 20 | nr | nr | nr | nr | nr | nr | nr |
| 12 | 24 | nr | nr | nr | nr | nr | nr | 5a | 12 | 20 | nr | nr | nr | nr | nr | nr | nr |
| 13 | 24 | nr | nr | nr | nr | nr | nr | 5a | 13 | 20 | nr | nr | nr | nr | nr | nr | 6a |
| 15 | 24 | nr | nr | nr | nr | 8a | 6a | 4a | 15 | 20 | nr | nr | nr | nr | nr | 10a | 6a |
| 16 | 24 | nr | nr | nr | nr | 8a | 6a | 4a | 16 | 20 | nr | nr | nr | nr | nr | 10a | 6a |
| 18 | 24 | nr | nr | nr | nr | 8a | 6a | 3a | 18 | 20 | nr | nr | nr | nr | 10a | 10a | 5a |
| 20 | 24 | nr | 10a | 8a | 6a | 5a | 4a | 3a | 20 | 20 | nr | nr | nr | 8a | 8a | 6a | 5a |
| 5 x 11 | 24 | nr | nr | nr | nr | nr | nr | 5a | 5 x 11 | 20 | nr | nr | nr | nr | nr | nr | nr |
| 13 | 24 | nr | nr | nr | nr | nr | nr | 5a | 13 | 20 | nr | nr | nr | nr | nr | nr | nr |
| 14 | 24 | nr | nr | nr | nr | nr | nr | 4a | 14 | 20 | nr | nr | nr | nr | nr | nr | 6a |
| 16 | 24 | nr | nr | nr | nr | 8a | 6a | 4a | 16 | 20 | nr | nr | nr | nr | nr | 10a | 6a |
| 18 | 24 | nr | nr | nr | nr | 8a | 6a | 3a | 18 | 20 | nr | nr | nr | nr | 10a | 10a | 5a |
| 19 | 24 | nr | nr | nr | nr | 8a | 6a | 3a | 19 | 20 | nr | nr | nr | nr | 10a | 10a | 5a |
| 21 | 24 | nr | 10a | 8a | 6a | 5a | 4a | 3a | 21 | 20 | nr | nr | nr | 8a | 8a | 6a | 5a |
| 6 x 10 | 24 | nr | nr | nr | nr | nr | nr | 5a | 6 x 10 | 20 | nr | nr | nr | nr | nr | nr | nr |
| 12 | 24 | nr | nr | nr | nr | nr | nr | 5a | 12 | 20 | nr | nr | nr | nr | nr | nr | nr |
| 14 | 24 | nr | nr | nr | nr | nr | nr | 5a | 14 | 20 | nr | nr | nr | nr | nr | nr | nr |
| 16 | 24 | nr | nr | nr | nr | nr | nr | 4a | 16 | 20 | nr | nr | nr | nr | nr | nr | 6a |
| 17 | 24 | nr | nr | nr | nr | nr | nr | 4a | 17 | 20 | nr | nr | nr | nr | nr | nr | 6a |
| 19 | 24 | nr | nr | nr | nr | nr | nr | 3a | 19 | 20 | nr | nr | nr | nr | nr | nr | 6a |
| 20 | 24 | nr | nr | nr | nr | nr | nr | 3a | 20 | 20 | nr | nr | nr | nr | nr | nr | 6a |
| 22 | 24 | nr | 10a | 8a | 6a | 5a | 4a | 3a | 22 | 20 | nr | nr | nr | nr | nr | nr | 6a |
| 23 | 24 | nr | 10a | 8a | 6a | 5a | 4a | 3a | 23 | 20 | nr | nr | nr | nr | nr | nr | 6a |
| 25 | 22 | nr | 10a | 8a | 6a | 6a | 5a | 3a | 25 | 20 | nr | nr | nr | nr | nr | nr | 6a |
| 26 | 22 | nr | 10a | 8a | 6a | 6a | 5a | 3a | 26 | 20 | nr | nr | nr | nr | nr | nr | 6a |
| 28 | 22 | nr | 10a | 8a | 6a | 5a | 5a | 3a | 28 | 20 | nr | nr | nr | nr | nr | nr | 6a |
| 29 | 22 | nr | 10a | 8a | 6a | 5a | 5a | 3a | 29 | 20 | nr | nr | nr | nr | nr | nr | 6a |
| 31 | 22 | 10a | 10a | 8a | 6a | 5a | 4a | 3a | 31 | 20 | nr | nr | nr | nr | nr | nr | 6a |
| 34 | 22 | 10a | 10a | 6a | 5a | 5a | 4a | 3b | 34 | 20 | 10a | 10a | 8a | 6a | 6a | 5b | 3b |
| 37 | 22 | 10a | 8a | 5a | 4a | 4a | 3b | 2.5b | 37 | 18 | 10a | 10a | 8a | 6b | 6b | 5b | 4b |
| 41 | 22 | 10a | 8a | 5a | 4a | 4a | 3b | 2.5b | 41 | 18 | 10a | 10a | 8a | 6b | 6b | 5b | 4b |
| 44 | 22 | 8a | 6a | 4a | 4a | 3a | 2.5b | 2b | 44 | 18 | 10a | 10a | 6a | 6b | 5b | 4b | 3b |
| 47 | 22 | 8a | 6a | 4a | 4a | 3a | 2.5b | 2b | 47 | 18 | 10a | 10a | 6a | 6b | 5b | 4b | 3b |
| 50 | 20 | 10a | 6a | 5b | 4b | 3b | 2.5b | 2b | 50 | 18 | 10a | 8a | 6b | 5b | 5b | 4b | 3b |
| 53 | 20 | 10a | 6a | 5b | 4b | 3b | 2.5b | 2b | 53 | 18 | 10a | 8a | 6b | 5b | 5b | 4b | 3b |
| 56 | 20 | 8a | 6a | 4b | 3b | 3b | 2.5b | 2b | 56 | 18 | 10a | 8b | 5b | 5b | 4b | 3b | 3c |
| 59 | 20 | 8a | 6a | 4b | 3b | 3b | 2.5b | 2b | 59 | 18 | 10a | 8b | 5b | 5b | 4b | 3b | 3c |
| 63 | 20 | 8a | 6a | 3b | 3b | 3b | 2.5b | 2b | 63 | 16 | 10a | 8b | 6b | 5b | 5b | 3b | 3c |
| 66 | 20 | 8a | 6a | 3b | 3b | 3b | 2.5b | 2b | 66 | 16 | 10a | 8b | 6b | 5b | 5b | 3b | 3c |
| 69 | 20 | 6a | 4b | 3b | 3b | 2.5b | 2b | x | 69 | 16 | 10b | 6b | 5b | 4b | 3b | 2.5b | 2.5c |
| 72 | 18 | 8b | 6b | 4b | 3b | 3b | 2.5b | 2c | 72 | 16 | 10b | 6b | 5b | 4b | 3b | 2.5b | 2.5c |
| 75 | 18 | 8b | 6b | 4b | 3b | 3b | 2.5b | 2c | 75 | 16 | 10b | 6b | 5b | 4b | 3b | 2.5b | 2.5c |
| 79 | 18 | 6b | 5b | 4b | 3b | 2.5b | 2c | x | 79 | 16 | 8b | 6b | 4b | 3b | 3c | 2.5c | 2c |
| 82 | 18 | 6b | 5b | 4b | 3b | 2.5b | 2c | x | 82 | 16 | 8b | 6b | 4b | 3b | 3c | 2.5c | 2c |
| 85 | 18 | 6b | 5b | 4b | 3b | 2.5b | 2c | x | 85 | 16 | 8b | 6b | 4b | 3b | 3c | 2.5c | 2c |
| 88 | 18 | 6b | 5b | 4b | 3b | 2.5b | 2c | x | 88 | 16 | 8b | 6b | 4b | 3b | 3c | 2.5c | 2c |
| 91 | 18 | 6b | 4b | 4b | 2.5b | 2b | 2c | x | 91 | 16 | 8b | 5b | 4b | 2.5b | 2.5c | 2c | x |
| 7 x 10 | 24 | nr | nr | nr | nr | nr | nr | 5a | 7 x 10 | 20 | nr | nr | nr | nr | nr | nr | nr |
| 12 | 24 | nr | nr | nr | nr | nr | nr | 5a | 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 FläktGroup 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 FläktGroup SEMCO when duct is made of gauges different from those shown.

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

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 FläktGroup SEMCO when duct is made of gauges different from those shown.

| Spiral Duct | | | | | | | | | Fittings & Longitudinal Seam Duct | | | | | | | | |
|-------------------|-------------|---------------------------|-----|-----|----|------|------|------|-----------------------------------|-------------|---------------------------|-----|-----|-----|-----|------|------|
| Nominal Oval Size | Galv. Gauge | Static Pressure (in w.g.) | | | | | | | Nominal Oval Size | Galv. Gauge | Static Pressure (in w.g.) | | | | | | |
| | | 0.5 | 1 | 2 | 3 | 4 | 6 | 10 | | | 0.5 | 1 | 2 | 3 | 4 | 6 | 10 |
| 10 x 41 | 22 | 10a | 8a | 5a | 4a | 4a | 3b | 2.5b | 10 x 41 | 18 | 10a | 10a | 8a | 6b | 6b | 5b | 4b |
| 45 | 22 | 10a | 8a | 5a | 4a | 4a | 3b | 2.5b | 45 | 18 | 10a | 10a | 8a | 6b | 6b | 5b | 4b |
| 48 | 22 | 8a | 6a | 4a | 4a | 3a | 2.5b | 2b | 48 | 18 | 10a | 10a | 6a | 6b | 5b | 4b | 3b |
| 51 | 20 | 10a | 8a | 5a | 5b | 4b | 3b | 2.5b | 51 | 18 | 10a | 10a | 6a | 6b | 5b | 4b | 3b |
| 54 | 20 | 10a | 6a | 5b | 4b | 3b | 2.5b | 2b | 54 | 18 | 10a | 8a | 6b | 5b | 5b | 4b | 3b |
| 57 | 20 | 10a | 6a | 5b | 4b | 3b | 2.5b | 2b | 57 | 18 | 10a | 8a | 6b | 5b | 5b | 4b | 3b |
| 60 | 20 | 8a | 6a | 4b | 3b | 3b | 2.5b | 2b | 60 | 18 | 10a | 8b | 5b | 5b | 4b | 3b | 3c |
| 63 | 20 | 8a | 6a | 4b | 3b | 3b | 2.5b | 2b | 63 | 16 | 10a | 10b | 6b | 5b | 5b | 4b | 3c |
| 67 | 20 | 8a | 6a | 3b | 3b | 3b | 2.5b | 2b | 67 | 16 | 10a | 8b | 6b | 5b | 5b | 3b | 3c |
| 70 | 20 | 8a | 6a | 3b | 3b | 3b | 2.5b | 2b | 70 | 16 | 10a | 8b | 6b | 5b | 5b | 3b | 3c |
| 73 | 18 | 8b | 6b | 4b | 3b | 3b | 2.5b | 2c | 73 | 16 | 10b | 6b | 5b | 4b | 3b | 2.5b | 2.5c |
| 76 | 18 | 8b | 6b | 4b | 3b | 3b | 2.5b | 2c | 76 | 16 | 10b | 6b | 5b | 4b | 3b | 2.5b | 2.5c |
| 79 | 18 | 8b | 6b | 4b | 3b | 3b | 2.5b | 2c | 79 | 16 | 10b | 6b | 5b | 4b | 3b | 2.5b | 2.5c |
| 83 | 18 | 6b | 5b | 4b | 3b | 2.5b | 2c | x | 83 | 16 | 8b | 6b | 4b | 3b | 3c | 2.5c | 2c |
| 86 | 18 | 6b | 5b | 4b | 3b | 2.5b | 2c | x | 86 | 16 | 8b | 6b | 4b | 3b | 3c | 2.5c | 2c |
| 89 | 18 | 6b | 5b | 4b | 3b | 2.5b | 2c | x | 89 | 16 | 8b | 6b | 4b | 3b | 3c | 2.5c | 2c |
| 92 | 18 | 6b | 5b | 4b | 3b | 2.5b | 2c | x | 92 | 16 | 8b | 6b | 4b | 3b | 3c | 2.5c | 2c |
| 12 x 15 | 24 | nr | nr | nr | nr | nr | nr | 5a | 12 x 15 | 20 | nr | nr | nr | nr | nr | nr | nr |
| 17 | 24 | nr | nr | nr | nr | nr | nr | 5a | 17 | 20 | nr | nr | nr | nr | nr | nr | nr |
| 18 | 24 | nr | nr | nr | nr | nr | nr | 5a | 18 | 20 | nr | nr | nr | nr | nr | nr | nr |
| 20 | 24 | nr | nr | nr | nr | nr | nr | 5a | 20 | 20 | nr | nr | nr | nr | nr | nr | nr |
| 21 | 24 | nr | nr | nr | nr | 6a | 5a | 4a | 21 | 20 | nr | nr | nr | nr | nr | nr | 6a |
| 23 | 24 | nr | nr | nr | 8a | 6a | 5a | 4a | 23 | 20 | nr | nr | nr | nr | nr | 10a | 6a |
| 25 | 22 | nr | nr | nr | 8a | 8a | 5a | 4a | 25 | 20 | nr | nr | nr | nr | 10a | 10a | 5a |
| 26 | 22 | nr | nr | nr | 8a | 8a | 5a | 4a | 26 | 20 | nr | nr | nr | nr | 10a | 10a | 5a |
| 28 | 22 | nr | nr | 10a | 8a | 6a | 5a | 4a | 28 | 20 | nr | nr | nr | 8a | 8a | 4a | 5a |
| 31 | 22 | nr | 10a | 8a | 6a | 6a | 5a | 3a | 31 | 20 | nr | nr | 10a | 8a | 8a | 6a | 4a |
| 34 | 22 | nr | 10a | 8a | 6a | 5a | 5a | 3a | 34 | 20 | nr | 10a | 10a | 8a | 6a | 6a | 4a |
| 37 | 22 | 10a | 10a | 8a | 6a | 5a | 4a | 3a | 37 | 18 | nr | nr | 10a | 10a | 10a | 6a | 5b |
| 40 | 22 | 10a | 10a | 6a | 5a | 5a | 4a | 3b | 40 | 18 | nr | 10a | 10a | 8a | 8a | 6b | 5b |
| 43 | 22 | 10a | 8a | 5a | 4a | 4a | 3b | 2.5b | 43 | 18 | 10a | 10a | 8a | 6b | 6b | 5b | 4b |
| 47 | 22 | 10a | 8a | 5a | 4a | 4a | 3b | 2.5b | 47 | 18 | 10a | 10a | 8a | 6b | 6b | 5b | 4b |
| 50 | 20 | 10a | 8a | 5a | 5b | 4b | 3b | 2.5b | 50 | 18 | 10a | 10a | 6a | 6b | 5b | 4b | 3b |
| 53 | 20 | 10a | 8a | 5a | 5b | 4b | 3b | 2.5b | 53 | 18 | 10a | 10a | 6a | 6b | 5b | 4b | 3b |
| 56 | 20 | 10a | 6a | 5a | 4b | 3b | 2.5b | 2b | 56 | 18 | 10a | 8a | 6b | 5b | 5b | 4b | 3b |
| 59 | 20 | 10a | 6a | 5b | 4b | 3b | 2.5b | 2b | 59 | 18 | 10a | 8a | 6b | 5b | 5b | 4b | 3b |
| 62 | 20 | 8a | 6a | 4b | 3b | 3b | 2.5b | 2b | 62 | 16 | 10a | 10b | 6b | 5b | 5b | 4b | 3c |
| 65 | 20 | 8a | 6a | 4b | 3b | 3b | 2.5b | 2b | 65 | 16 | 10a | 10b | 6b | 5b | 5b | 4b | 3c |
| 69 | 20 | 8a | 6a | 3b | 3b | 3b | 2.5b | 2b | 69 | 16 | 10a | 8b | 6b | 5b | 5b | 3b | 3c |
| 72 | 18 | 10a | 8b | 5b | 4b | 3b | 3b | 2b | 72 | 16 | 10a | 8b | 6b | 5b | 5b | 3b | 3c |
| 75 | 18 | 8b | 6b | 4b | 3b | 3b | 2.5b | 2c | 75 | 16 | 10b | 6b | 5b | 4b | 3b | 2.5b | 2.5c |
| 78 | 18 | 8b | 6b | 4b | 3b | 3b | 2.5b | 2c | 78 | 16 | 10b | 6b | 5b | 4b | 3b | 2.5b | 2.5c |
| 81 | 18 | 8b | 6b | 4b | 3b | 3b | 2.5b | 2c | 81 | 16 | 10b | 6b | 5b | 4b | 3b | 2.5b | 2.5c |
| 85 | 18 | 6b | 5b | 4b | 3b | 2.5b | 2c | x | 85 | 16 | 8b | 6b | 4b | 3b | 3c | 2.5c | 2c |
| 88 | 18 | 6b | 5b | 4b | 3b | 2.5b | 2c | x | 88 | 16 | 8b | 6b | 4b | 3b | 3c | 2.5c | 2c |
| 91 | 18 | 6b | 5b | 4b | 3b | 2.5b | 2c | x | 91 | 16 | 8b | 6b | 4b | 3b | 3c | 2.5c | 2c |
| 14 x 17 | 24 | nr | nr | nr | nr | nr | nr | 5a | 14 x 17 | 20 | nr | nr | nr | nr | nr | nr | nr |
| 19 | 24 | nr | nr | nr | nr | nr | nr | 5a | 19 | 20 | nr | nr | nr | nr | nr | nr | nr |
| 20 | 24 | nr | nr | nr | nr | nr | nr | 5a | 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 FläktGroup 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 FläktGroup SEMCO when duct is made of gauges different from those shown.

| Spiral Duct | | | | | | | | | Fittings & Longitudinal Seam Duct | | | | | | | | |
|-------------------|-------------|---------------------------|-----|-----|----|------|------|------|-----------------------------------|-------------|---------------------------|-----|-----|-------|-----|------|------|
| Nominal Oval Size | Galv. Gauge | Static Pressure (in w.g.) | | | | | | | Nominal Oval Size | Galv. Gauge | Static Pressure (in w.g.) | | | | | | |
| | | 0.5 | 1 | 2 | 3 | 4 | 6 | 10 | | | 0.5 | 1 | 2 | 3 | 4 | 6 | 10 |
| 14 x 22 | 24 | nr | nr | nr | nr | nr | nr | 5a | 14 x 22 | 20 | nr | nr | nr | nr | nr | nr | nr |
| 23 | 24 | nr | nr | nr | nr | 6a | 5a | 4a | 23 | 20 | nr | nr | nr | nr | nr | nr | 6a |
| 25 | 22 | nr | nr | nr | nr | 10a | 6a | 5a | 25 | 20 | nr | nr | nr | nr | nr | 10a | 6a |
| 27 | 22 | nr | nr | nr | 8a | 8a | 5a | 4a | 27 | 20 | nr | nr | nr | nr | 10a | 10a | 5a |
| 30 | 22 | nr | nr | 10a | 8a | 6a | 5a | 4a | 30 | 20 | nr | nr | nr | 8a | 8a | 6a | 5a |
| 33 | 22 | nr | 10a | 8a | 6a | 6a | 5a | 3a | 33 | 20 | nr | nr | 10a | 8a | 8a | 6a | 4a |
| 36 | 22 | nr | 10a | 8a | 6a | 5a | 5a | 3a | 36 | 20 | nr | 10a | 10a | 8a | 6a | 6a | 4a |
| 39 | 22 | 10a | 10a | 8a | 6a | 5a | 4a | 3a | 39 | 18 | nr | nr | 10a | 10a | 10a | 6a | 5b |
| 42 | 22 | 10a | 10a | 6a | 5a | 5a | 4a | 3b | 42 | 18 | nr | 10a | 10a | 8a | 8a | 6b | 5b |
| 45 | 22 | 10a | 8a | 5a | 4a | 4a | 3b | 2.5b | 45 | 18 | 10a | 10a | 8a | 6b | 6b | 5b | 4b |
| 49 | 20 | 10a | 10a | 6a | 5a | 5b | 4b | 3b | 49 | 18 | 10a | 10a | 8a | 6b | 6b | 5b | 4b |
| 52 | 20 | 10a | 8a | 5a | 5b | 4b | 3b | 2.5b | 52 | 18 | 10a | 10a | 6a | 6b | 5b | 4b | 3b |
| 55 | 20 | 10a | 8a | 5a | 5b | 4b | 3b | 2.5b | 55 | 18 | 10a | 10a | 6a | 6b | 5b | 4b | 3b |
| 58 | 20 | 10a | 6a | 5b | 4b | 3b | 2.5b | 2b | 58 | 18 | 10a | 8a | 6b | 5b | 5b | 4b | 3b |
| 61 | 20 | 10a | 6a | 5b | 4b | 3b | 2.5b | 2b | 61 | 16 | 10a | 10a | 8b | 6b | 5b | 4b | 3b |
| 64 | 20 | 8a | 6a | 4b | 3b | 3b | 2.5b | 2b | 64 | 16 | 10a | 10b | 6b | 5b | 5b | 4b | 3c |
| 67 | 20 | 8a | 6a | 4b | 3b | 3b | 2.5b | 2b | 67 | 16 | 10a | 10b | 6b | 5b | 5b | 4b | 3c |
| 71 | 18 | 10a | 8b | 5b | 4b | 3b | 3b | 2b | 71 | 16 | 10a | 8b | 6b | 5b | 5b | 3b | 3c |
| 74 | 18 | 10a | 8b | 5b | 4b | 3b | 3b | 2b | 74 | 16 | 10a | 8b | 6b | 5b | 5b | 3b | 3c |
| 77 | 18 | 8b | 6b | 4b | 3b | 3b | 2.5 | 2c | 77 | 16 | 10b | 6b | 5b | 4b | 3b | 2.5b | 2.5c |
| 80 | 18 | 8b | 6b | 4b | 3b | 3b | 2.5 | 2c | 80 | 16 | 10b | 6b | 5b | 4b | 3b | 2.5b | 2.5c |
| 83 | 18 | 8b | 6b | 4b | 3b | 3b | 2.5 | 2c | 83 | 16 | 10b | 6b | 5b | 4b | 3b | 2.5b | 2.5c |
| 87 | 18 | 6b | 5b | 4b | 3b | 2.5b | 2c | x | 87 | 16 | 8b | 6b | 4b | 3b | 3c | 2.5c | 2c |
| 90 | 18 | 6b | 5b | 4b | 3b | 2.5b | 2c | x | 90 | 16 | 8b | 6b | 4b | 3b | 3c | 2.5c | 2c |
| 16 x 18 | 24 | nr | nr | nr | nr | nr | nr | 5a | 16 x 18 | 20 | nr | nr | nr | nr | nr | nr | nr |
| 19 | 24 | nr | nr | nr | nr | nr | nr | 5a | 19 | 20 | nr | nr | nr | nr | nr | nr | nr |
| 20 | 24 | nr | nr | nr | nr | nr | nr | 5a | 20 | 20 | nr | nr | nr | nr | nr | nr | nr |
| 22 | 24 | nr | nr | nr | nr | nr | nr | 5a | 22 | 20 | nr | nr | nr | nr | nr | nr | nr |
| 24 | 24 | nr | nr | nr | nr | nr | nr | 5a | 24 | 20 | nr | nr | nr | nr | nr | nr | nr |
| 25 | 22 | nr | nr | nr | nr | nr | 6a | 5a | 25 | 20 | nr | nr | nr | nr | nr | nr | 6a |
| 29 | 22 | nr | nr | nr | 8a | 8a | 5a | 4a | 29 | 20 | nr | nr | nr | nr | 10a | 10a | 5a |
| 32 | 22 | nr | nr | 10a | 8a | 6a | 5a | 4a | 32 | 20 | nr | nr | nr | 8a | 8a | 6a | 5a |
| 35 | 22 | nr | 10a | 8a | 6a | 6a | 5a | 3a | 35 | 20 | nr | nr | 10a | 8a | 8a | 6a | 4a |
| 38 | 22 | nr | 10a | 8a | 6a | 5a | 5a | 3a | 38 | 18 | nr | nr | 10a | 10a | 10a | 8a | 6b |
| 41 | 22 | 10a | 10a | 8a | 6a | 5a | 4a | 3a | 41 | 18 | nr | nr | 10a | 10a</ | | | |

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 FläktGroup SEMCO when duct is made of gauges different from those shown.

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

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

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 FläktGroup SEMCO when duct is made of gauges different from those shown.

| Spiral Duct | | | | | | | | | Fittings & Longitudinal Seam Duct | | | | | | | | | |
|-------------------|-------------|---------------------------|-----|-----|----|----|----|------|-----------------------------------|-------------|---------------------------|-----|-----|-----|-----|-----|----|----|
| Nominal Oval Size | Galv. Gauge | Static Pressure (in w.g.) | | | | | | | Nominal Oval Size | Galv. Gauge | Static Pressure (in w.g.) | | | | | | | |
| | | 0.5 | 1 | 2 | 3 | 4 | 6 | 10 | | | 0.5 | 1 | 2 | 3 | 4 | 6 | 10 | |
| 28 x 31 | 22 | nr | nr | nr | nr | nr | nr | nr | 28 x 31 | 20 | nr | nr | nr | nr | nr | nr | nr | nr |
| 35 | 22 | nr | nr | nr | nr | nr | nr | nr | 35 | 20 | nr | nr | nr | nr | nr | nr | nr | nr |
| 37 | 22 | nr | nr | nr | nr | nr | nr | nr | 37 | 18 | nr | nr | nr | nr | nr | nr | nr | nr |
| 40 | 22 | nr | nr | nr | nr | nr | nr | nr | 40 | 18 | nr | nr | nr | nr | nr | nr | nr | nr |
| 44 | 22 | nr | nr | 10a | 8a | 6a | 5a | 4a | 44 | 18 | nr | nr | nr | nr | nr | 10a | 6a | nr |
| 47 | 22 | nr | 10a | 8a | 6a | 6a | 5a | 3a | 47 | 18 | nr | nr | nr | 10a | 10a | 8a | 6a | nr |
| 50 | 20 | nr | 10a | 10a | 8a | 6a | 6a | 4a | 50 | 18 | nr | nr | 10a | 10a | 10a | 8a | 6b | nr |
| 53 | 20 | nr | 10a | 10a | 6a | 6a | 5a | 4b | 53 | 18 | nr | nr | 10a | 10a | 10a | 6a | 5b | nr |
| 56 | 20 | 10a | 10a | 8a | 6a | 6a | 5b | 3b | 56 | 18 | nr | 10a | 10a | 8a | 8a | 6b | 5b | nr |
| 59 | 20 | 10a | 10a | 6a | 5a | 5b | 4b | 3b | 59 | 18 | 10a | 10a | 8a | 6b | 6b | 5b | 4b | nr |
| 62 | 20 | 10a | 10a | 6a | 5a | 5b | 4b | 3b | 62 | 16 | nr | 10a | 10a | 8b | 6b | 6b | 5b | nr |
| 66 | 20 | 10a | 8a | 5a | 5b | 4b | 3b | 2.5b | 66 | 16 | 10a | 10a | 8b | 6b | 6b | 5b | 4b | nr |
| 69 | 20 | 10a | 8a | 5a | 5b | 4b | 3b | 2.5b | 69 | 16 | 10a | 10a | 8b | 6b | 6b | 5b | 4b | nr |
| 72 | 18 | 10a | 8a | 6b | 5b | 5b | 4b | 3b | 72 | 16 | 10a | 10a | 8b | 6b | 6b | 4b | 3b | nr |
| 75 | 18 | 10a | 8a | 6b | 5b | 5b | 4b | 3b | 75 | 16 | 10a | 10a | 8b | 6b | 6b | 4b | 3b | nr |
| 79 | 18 | 10a | 8b | 5b | 5b | 4b | 3b | 2.5b | 79 | 16 | 10a | 10b | 6b | 5b | 6b | 4b | 3c | nr |
| 82 | 18 | 10a | 8b | 5b | 5b | 4b | 3b | 2.5b | 82 | 16 | 10a | 10b | 6b | 5b | 6b | 4b | 3c | nr |
| 30 x 33 | 22 | nr | nr | nr | nr | nr | nr | nr | 30 x 33 | 20 | nr | nr | nr | nr | nr | nr | nr | nr |
| 37 | 22 | nr | nr | nr | nr | nr | nr | nr | 37 | 18 | nr | nr | nr | nr | nr | nr | nr | nr |
| 39 | 22 | nr | nr | nr | nr | nr | nr | nr | 39 | 18 | nr | nr | nr | nr | nr | nr | nr | nr |
| 42 | 22 | nr | nr | nr | nr | nr | nr | nr | 42 | 18 | nr | nr | nr | nr | nr | nr | nr | nr |
| 46 | 22 | nr | nr | 10a | 8a | 6a | 5a | 4a | 46 | 18 | nr | nr | nr | nr | nr | 10a | 6a | nr |
| 49 | 20 | nr | nr | 10a | 8a | 8a | 6a | 4a | 49 | 18 | nr | nr | nr | 10a | 10a | 8a | 6a | nr |
| 52 | 20 | nr | 10a | 10a | 8a | 6a | 6a | 4a | 52 | 18 | nr | nr | 10a | 10a | 10a | 8a | 6b | nr |
| 55 | 20 | nr | 10a | 10a | 6a | 6a | 5a | 4b | 55 | 18 | nr | nr | 10a | 10a | 10a | 6a | 5b | nr |
| 58 | 20 | 10a | 10a | 8a | 6a | 6a | 5b | 3b | 58 | 18 | nr | 10a | 10a | 8a | 8a | 6b | 5b | nr |
| 61 | 20 | 10a | 10a | 6a | 5a | 5b | 4b | 3b | 61 | 16 | nr | 10a | 10a | 8b | 6b | 6b | 5b | nr |
| 64 | 20 | 10a | 10a | 6a | 5a | 5b | 4b | 3b | 64 | 16 | nr | 10a | 10a | 8b | 6b | 6b | 5b | nr |
| 68 | 20 | 10a | 8a | 5a | 5b | 4b | 3b | 2.5b | 68 | 16 | 10a | 10a | 8b | 6b | 6b | 5b | 4b | nr |
| 71 | 18 | 10a | 10a | 6a | 6b | 5b | 4b | 3b | 71 | 16 | 10a | 10a | 8b | 6b | 6b | 5b | 4b | nr |
| 74 | 18 | 10a | 8a | 6b | 5b | 5b | 4b | 3b | 74 | 16 | 10a | 10a | 8b | 6b | 5b | 4b | 3b | nr |
| 77 | 18 | 10a | 8a | 6b | 5b | 5b | 4b | 3b | 77 | 16 | 10a | 10a | 8b | 6b | 5b | 4b | 3b | nr |
| 81 | 18 | 10a | 8b | 5b | 5b | 4b | 3b | 2.5b | 81 | 16 | 10a | 10b | 6b | 5b | 5b | 4b | 3c | nr |
| 32 x 39 | 22 | nr | nr | nr | nr | nr | nr | nr | 32 x 39 | 18 | nr | nr | nr | nr | nr | nr | nr | nr |
| 41 | 22 | nr | nr | nr | nr | nr | nr | nr | 41 | 18 | nr | nr | nr | nr | nr | nr | nr | nr |
| 44 | 22 | nr | nr | nr | nr | nr | nr | nr | 44 | 18 | nr | nr | nr | nr | nr | nr | nr | nr |
| 48 | 22 | nr | nr | 10a | 8a | 6a | 5a | 4a | 48 | 18 | nr | nr | nr | nr | nr | nr | nr | nr |
| 51 | 20 | nr | nr | 10a | 8a | 8a | 6a | 4a | 51 | 18 | nr | nr | nr | 10a | 10a | 8a | 6a | nr |
| 54 | 20 | nr | 10a | 10a | 8a | 6a | 6a | 4a | 54 | 18 | nr | nr | 10a | 10a | 10a | 8a | 6b | nr |
| 57 | 20 | nr | 10a | 10a | 6a | 6a | 5a | 4b | 57 | 18 | nr | nr | 10a | 10a | 10a | 6a | 5b | nr |
| 60 | 20 | 10a | 10a | 8a | 6a | 6a | 5b | 3b | 60 | 18 | nr | 10a | 10a | 8a | 8a | 6b | 5b | nr |
| 63 | 20 | 10a | 10a | 6a | 5a | 5b | 4b | 3b | 63 | 16 | nr | 10a | 10a | 8b | 6b | 6b | 5b | nr |
| 66 | 20 | 10a | 10a | 6a | 5a | 5b | 4b | 3b | 66 | 16 | nr | 10a | 10a | 8b | 6b | 6b | 5b | nr |
| 70 | 20 | 10a | 8a | 5a | 5b | 4b | 3b | 2.5b | 70 | 16 | 10a | 10a | 8b | 6b | 6b | 5b | 4b | nr |
| 73 | 18 | 10a | 10a | 6a | 6b | 5b | 4b | 3b | 73 | 16 | 10a | 10a | 8b | 6b | 6b | 5b | 4b | nr |
| 76 | 18 | 10a | 8a | 6b | 5b | 5b | 4b | 3b | 76 | 16 | 10a | 10a | 8b | 6b | 5b | 4b | 3b | nr |
| 79 | 18 | 10a | 8a | 6b | 5b | 5b | 4b | 3b | 79 | 16 | 10a | 10a | 8b | 6b | 5b | 4b | 3b | nr |

NOTES

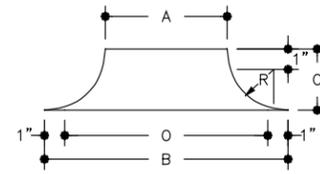
Example: 8a
8 = distance in feet between angle.
a = letter indicates size of angle.

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 FläktGroup® SEMCO® for pressures not shown.

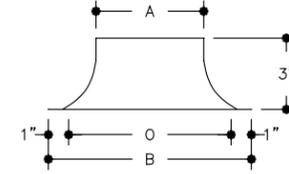
BELLMOUTHS

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 |

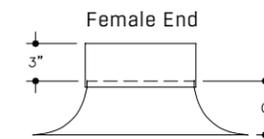
SHORT RADIUS



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

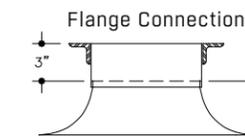
| Size | "B" | Weight (lbs) |
|------|------|--------------|
| 6 | 10.0 | 1.4 |
| 7 | 11.0 | 1.5 |
| 8 | 12.0 | 1.7 |
| 9 | 13.0 | 1.8 |
| 10 | 14.0 | 2.0 |
| 11 | 15.0 | 2.1 |
| 12 | 16.0 | 2.3 |
| 13 | 17.0 | 2.5 |
| 14 | 18.0 | 2.6 |
| 15 | 19.0 | 2.8 |
| 16 | 20.0 | 2.9 |
| 17 | 21.0 | 3.1 |
| 18 | 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 FläktGroup® SEMCO®.

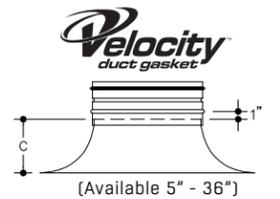


- Full Radius: C + 3" = installed height
- Short Radius: 3" + 3" = installed height

CONNECTIONS



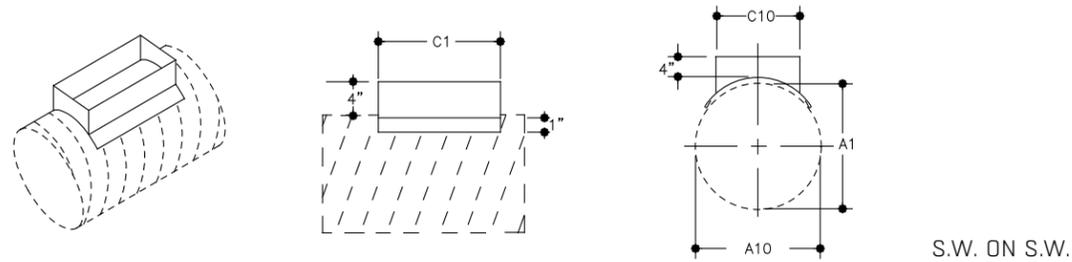
- Accuflange
- Angle ring (solid weld or Vanstone)
- Spiralmate
- Wonder Flange



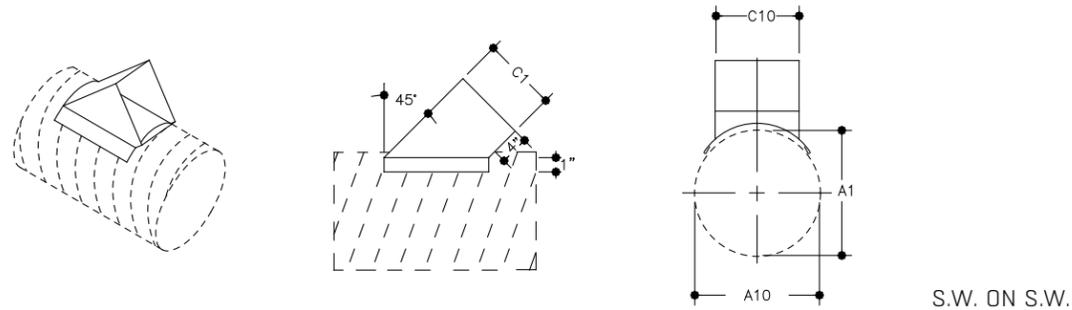
- Full Radius: C + 1" = installed height
- Short Radius: 3" + 1" = installed height

LOOSE RECTANGULAR TAPS

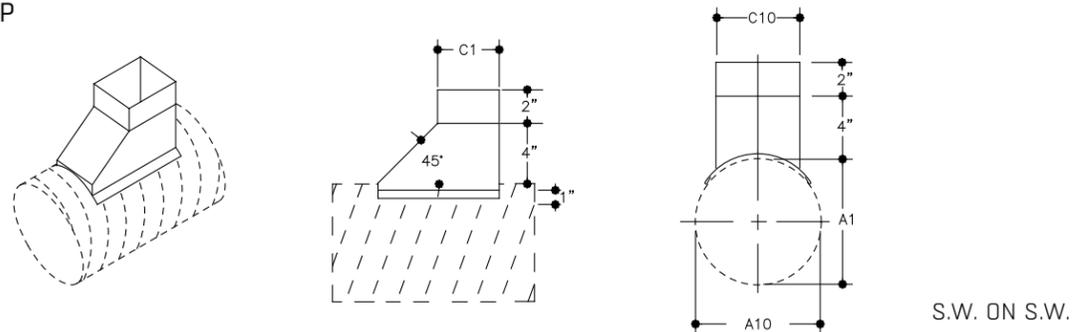
RTT100
90° STRAIGHT TAP



RTL100
45° LATERAL TAP



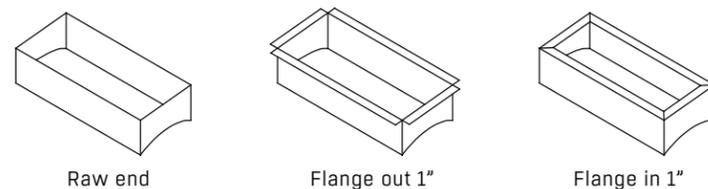
RTC100
COMBINATION TAP



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

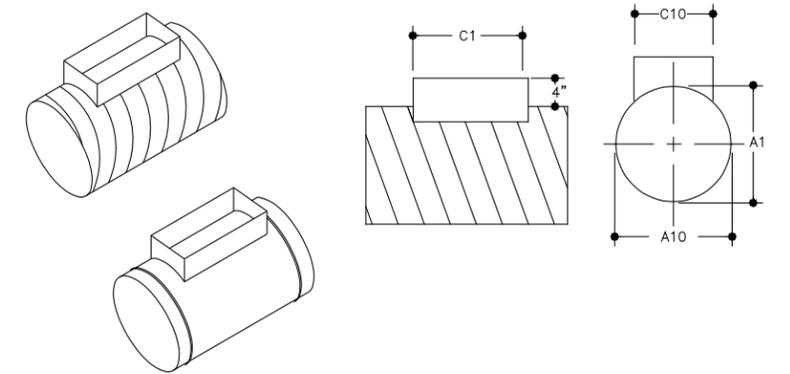


INSTALLED RECTANGULAR TAPS

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

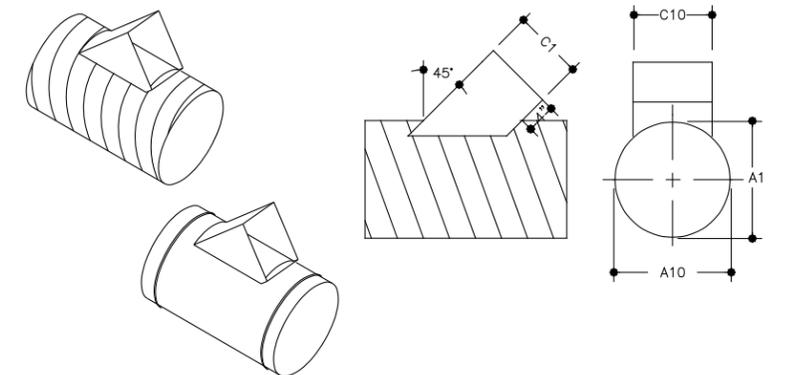
RTT112 S.W. ON S.W. BODY
RTT122 S.W. ON D.W. BODY
RTT222 D.W. ON D.W. BODY



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

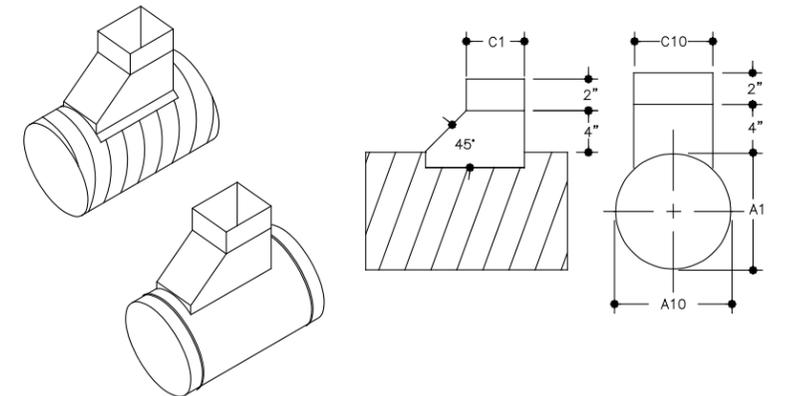
RTL112 S.W. ON S.W. BODY
RTL122 S.W. ON D.W. BODY
RTL222 D.W. ON D.W. BODY



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

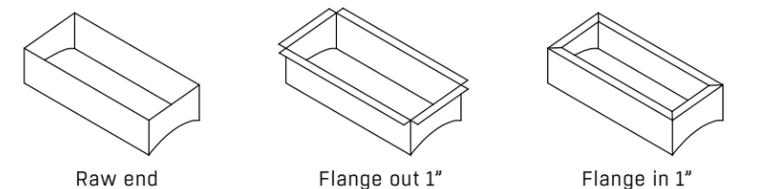
RTC112 S.W. ON S.W. BODY
RTC122 S.W. ON D.W. BODY
RTC222 D.W. ON D.W. BODY



NOTES

- C10 can be no larger than A10.

RECTANGULAR TAP END TREATMENTS



LINEAR DIFFUSER SLOTS

LS001

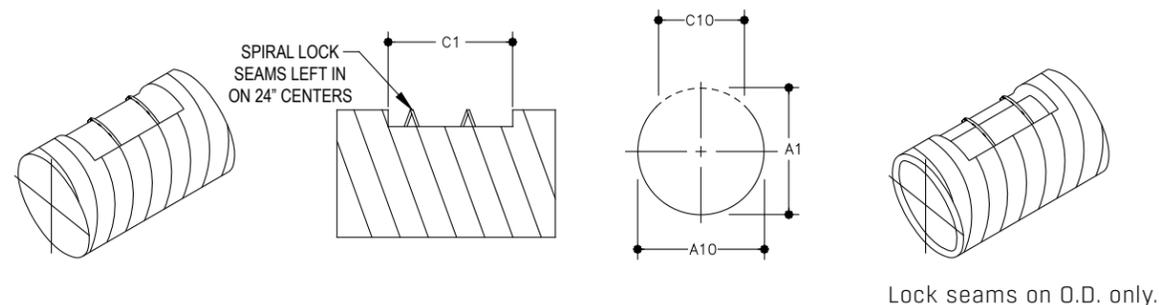
SINGLE WALL LINEAR SLOT OPENING WITH LOCK SEAMS

LS002

DUAL WALL LINEAR SLOT OPENING WITH LOCK SEAMS AND SOLID BLANKOFF TO COMPLETELY SEAL OFF INSULATION

LS003

DUAL WALL LINEAR SLOT OPENING WITH LOCK SEAMS; METAL LINER TACKED TO THE SHELL; SOME INSULATION MAY BE EXPOSED.



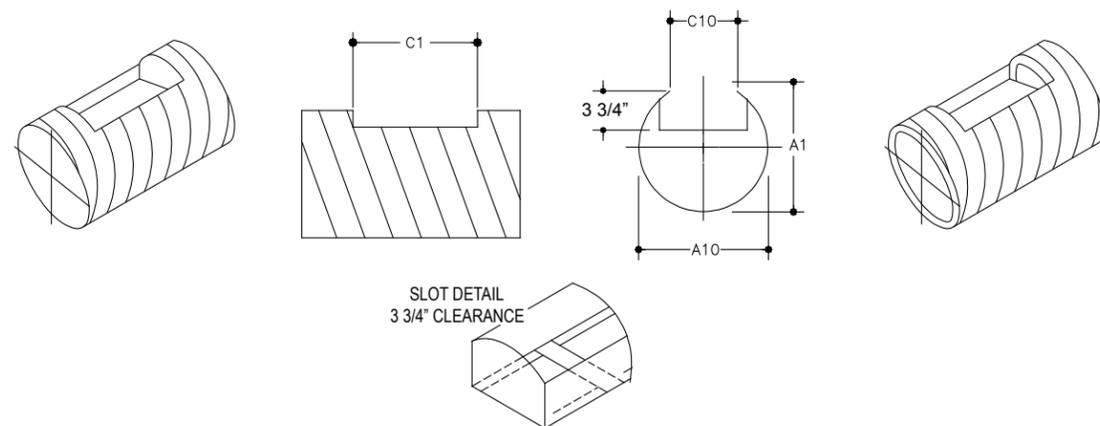
Lock seams on O.D. only.

LS101

SINGLE WALL LINEAR SLOT OPENING WITH ANGLE REINFORCEMENT

LS102

DUAL WALL LINEAR SLOT OPENING WITH ANGLE REINFORCEMENT



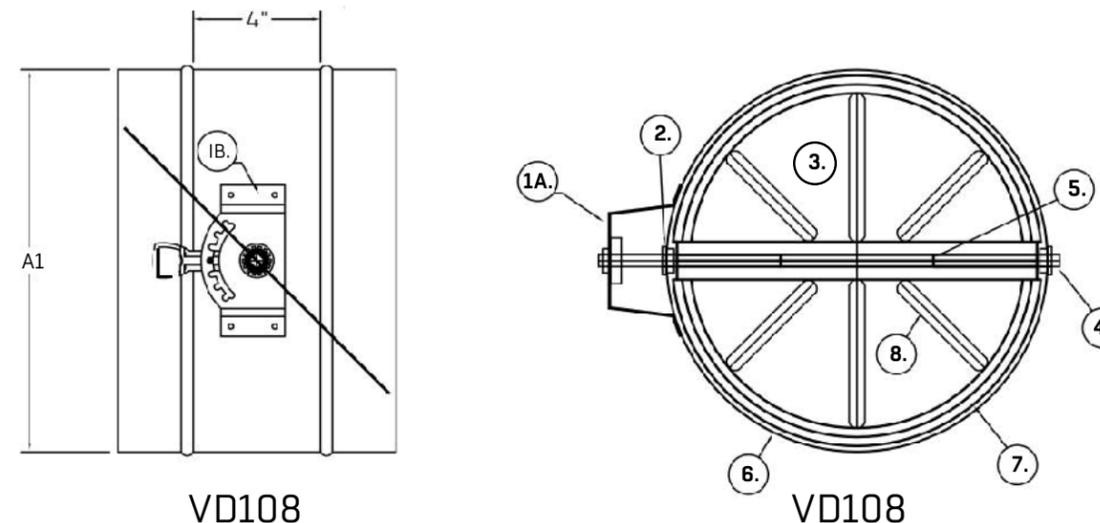
NOTES

- 72" is the maximum recommended opening length.

VOLUME DAMPERS

VD108 OR VD208

ROUND DAMPERS 3" – 30" OR 3" – 24" AND OVAL DAMPERS WITH A MAJOR AXIS OF 30" OR LESS



VD108 SINGLE WALL DUCT CONSTRUCTION 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 | * |

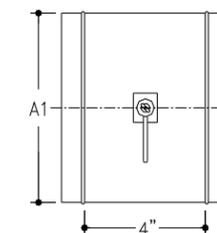
* For body gauge, reference fitting gauge in construction standard.

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:



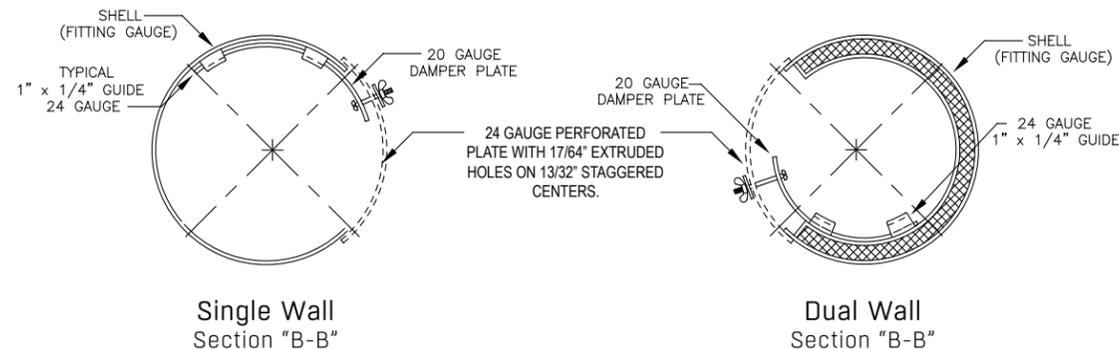
NOTES

- 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

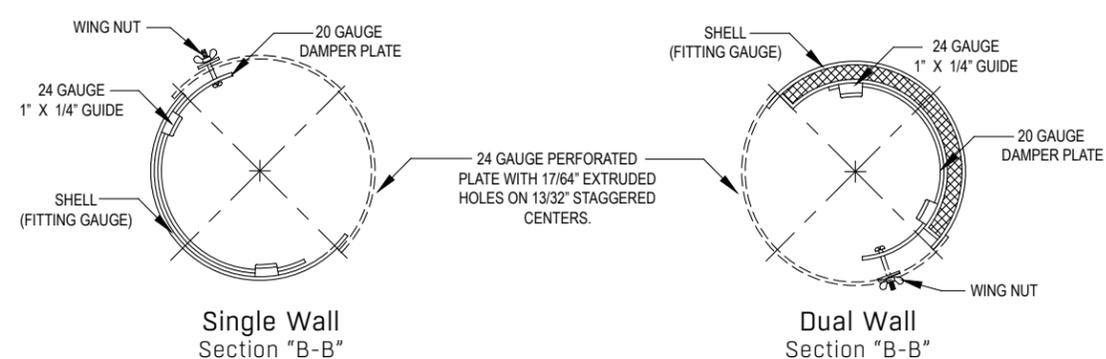
90° W/ DAMPER SINGLE SIDE DIFFUSER



DIFFUS-A-PLATE DUCT DIFFUSER

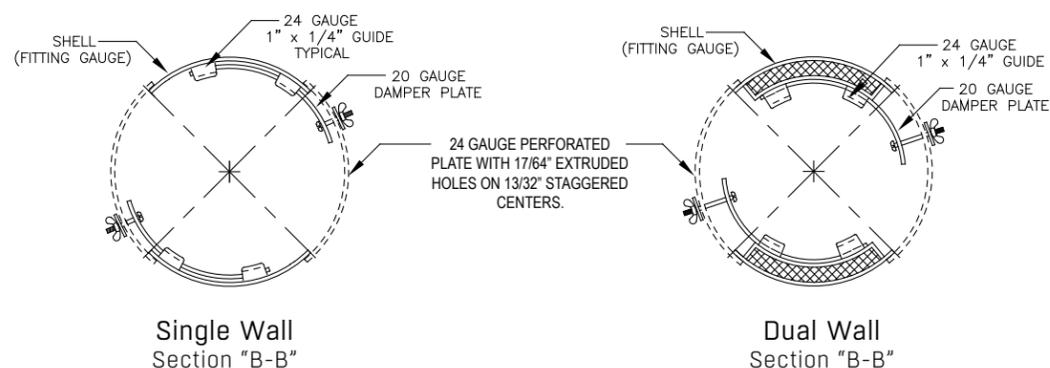
DAP180WD

180° W/ DAMPER



DAP90/2WD

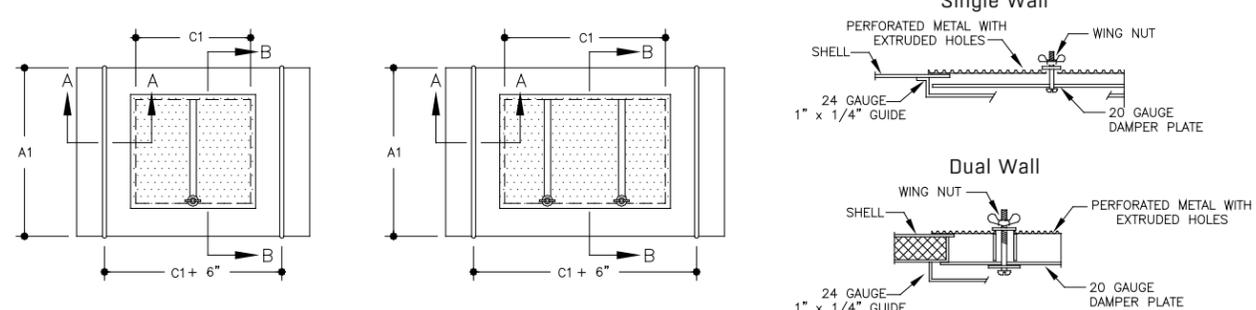
90° W/ DAMPER DUAL SIDE DIFFUSER



For C1 of 6" - 24"

For C1 of 25" - 54"

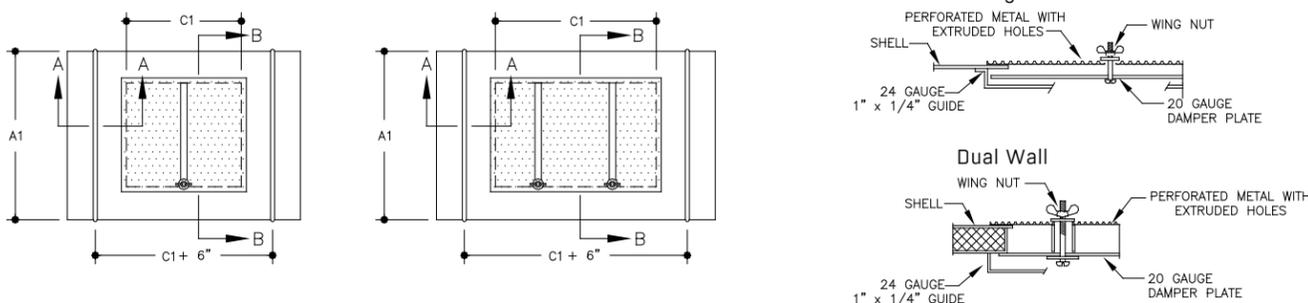
Section "A-A"



For C1 of 6" - 24"

For C1 of 25" - 54"

Section "A-A"



NOTES

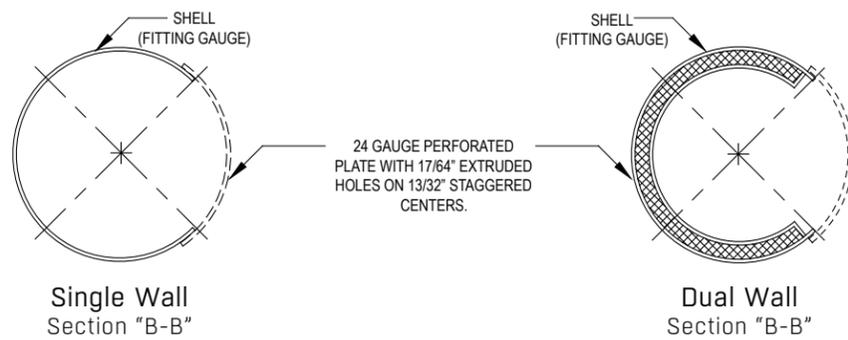
- Perforations not extruded in special metals.

NOTES

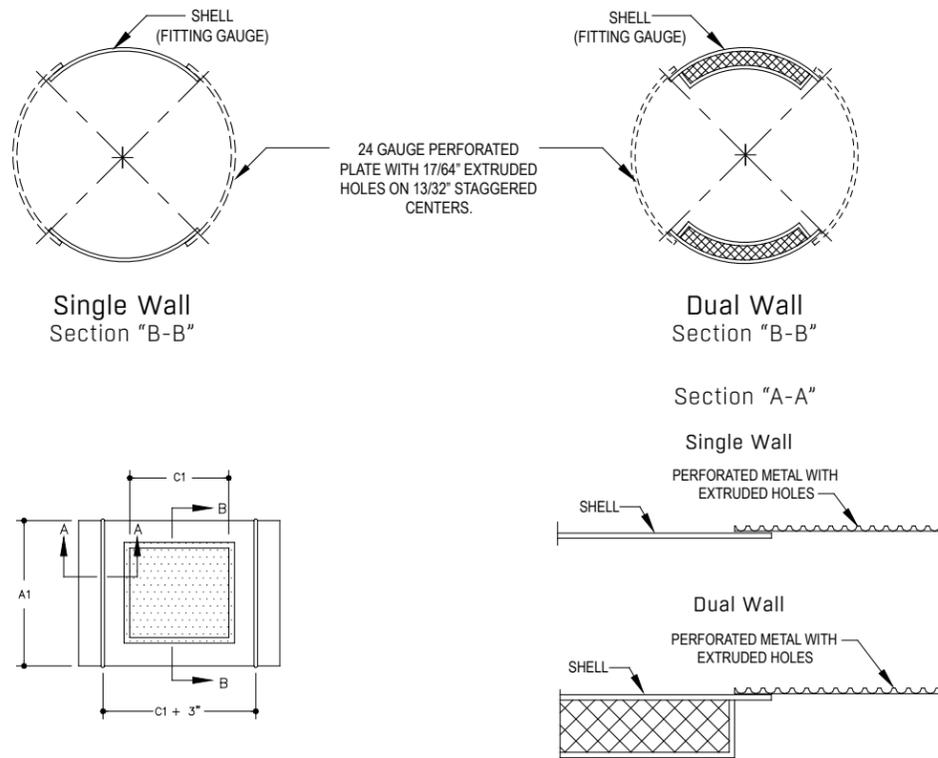
- Guide quantity is determined by size of damper opening.
- Larger size dampers will require split blades. Contact FläktGroup® SEMCO® for more information.
- Perforations not extruded in special metals.

DIFFUS-A-PLATE DUCT DIFFUSER

DAP90 90° W/OUT DAMPER SINGLE SIDE DIFFUSER



DAP90/2 90° W/OUT DAMPER DUAL SIDE DIFFUSER

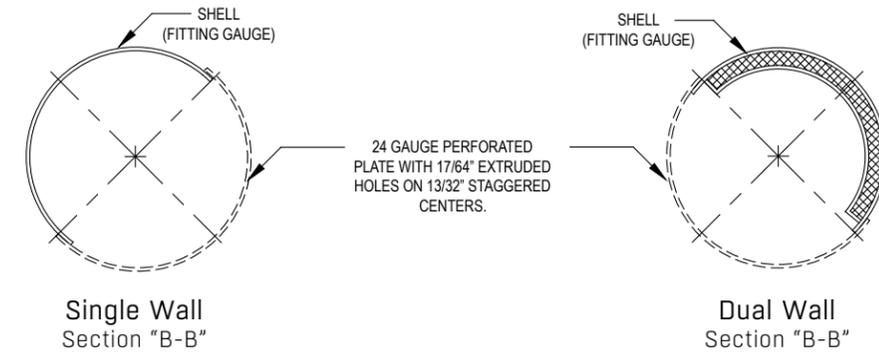


NOTES

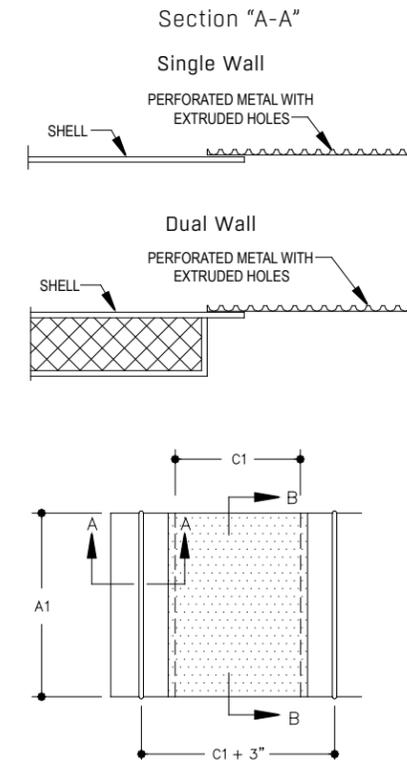
- Perforations not extruded in special metals.

DIFFUS-A-PLATE DUCT DIFFUSER

DAP180 180° W/ OUT DAMPER



| 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 |



$$\text{DAP90 Perforate Opening} = \frac{[A1 \times 0.7854] \times C1}{144}$$

$$\text{DAP180 Perforate Opening} = \frac{[A1 \times 1.5708] \times C1}{144}$$

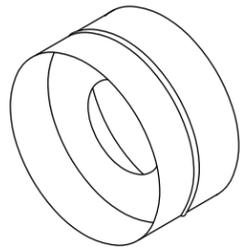
NOTES

- Perforations not extruded in special metals.

PERFORATED SPIRAL DUCT

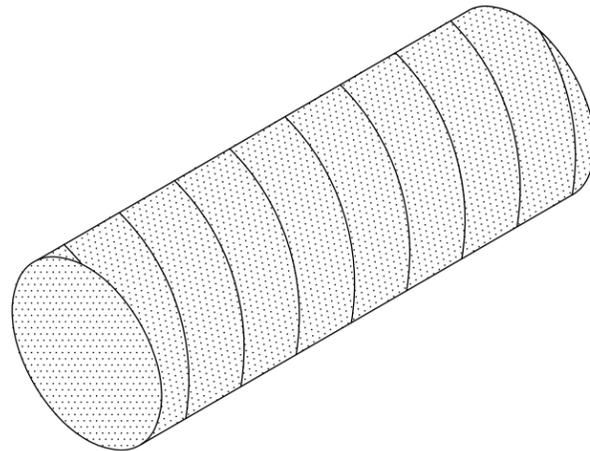
OP

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. FläktGroup® 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.

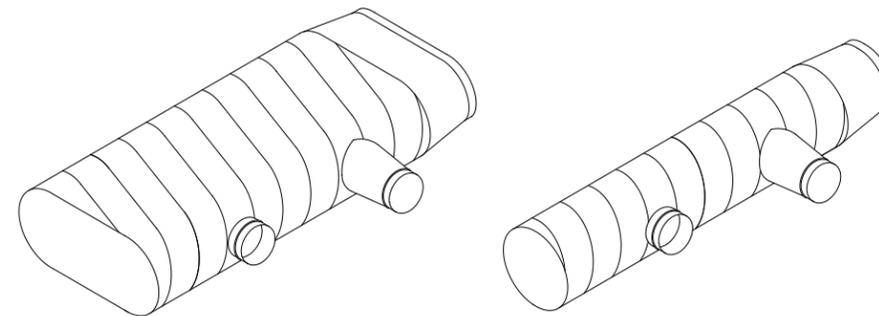
Many interdependent factors are involved in the correct design of this type of system, such as:

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

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

MANIFOLDING

DEFINITION



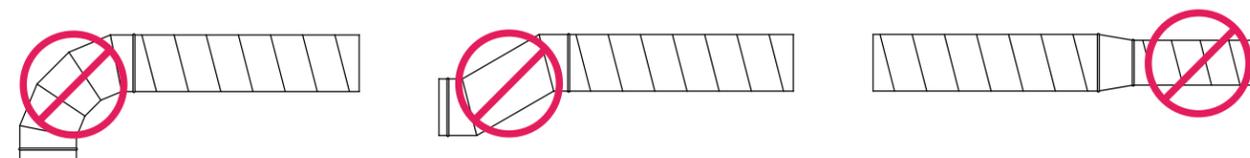
FläktGroup SEMCO will cut round or oval spiral duct to required lengths and attach taps. Reducer can be attached to the downstream end of the spiral duct. FläktGroup® SEMCO® recommends that the total length of manifolded pieces should be generally limited to 8' - 6" to prevent damage and avoid additional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

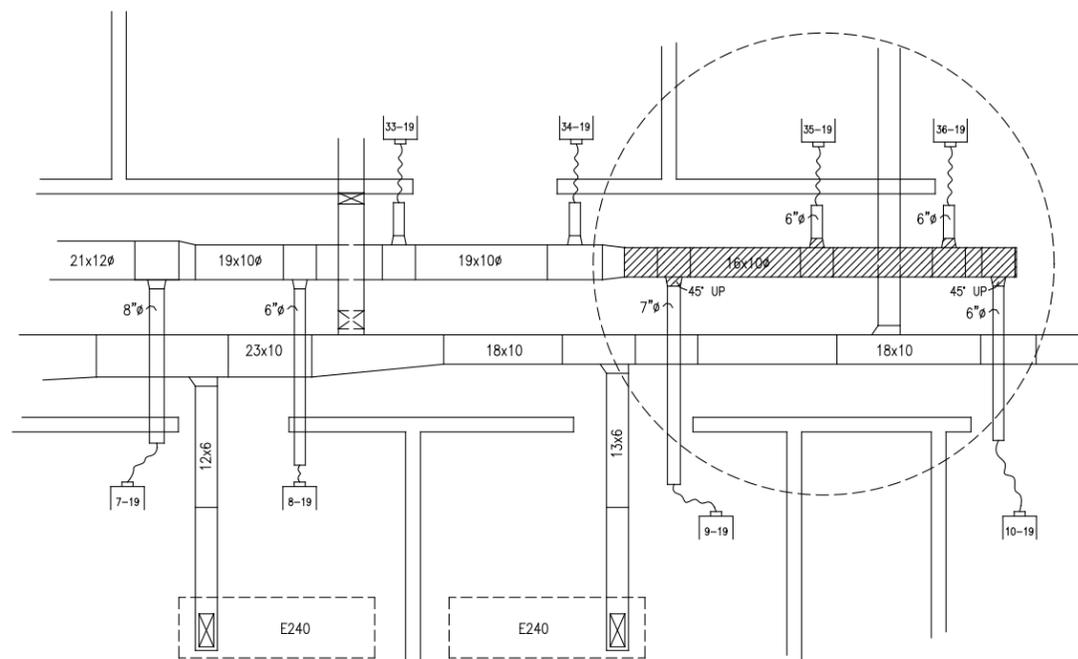
LIMITATIONS



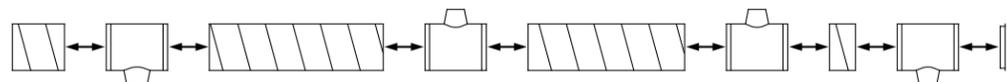
There are some limitations to manifolding, FläktGroup® SEMCO® will not attach elbows, offsets, or straight duct to the small ends of the reducer. These limitations are to eliminate potential damage to assemblies during shipment.

MANIFOLDING

TYPICAL FLOOR AREA

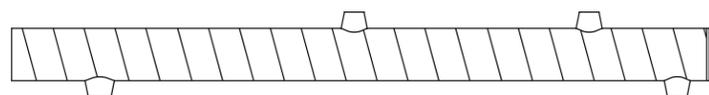


DUCT & FITTINGS



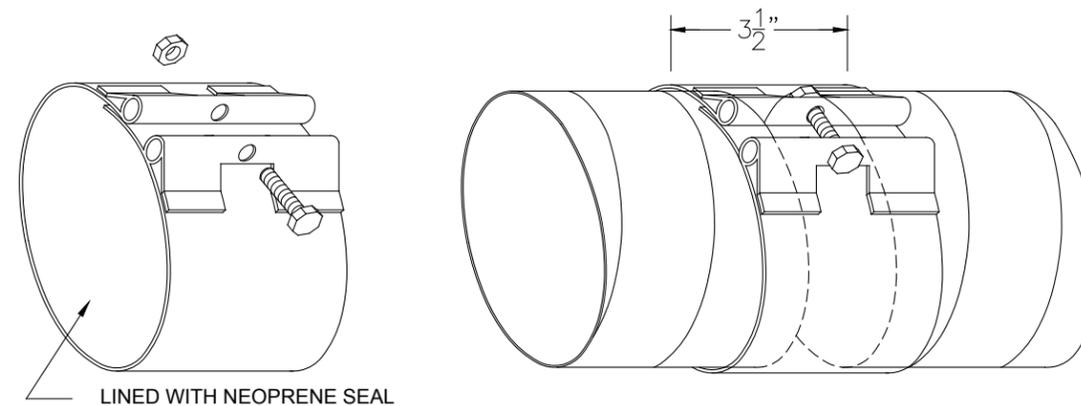
Field Joints required by standard duct and fitting design, which can be eliminated by FläktGroup® SEMCO® manifolding. (8 joints)

MANIFOLDED



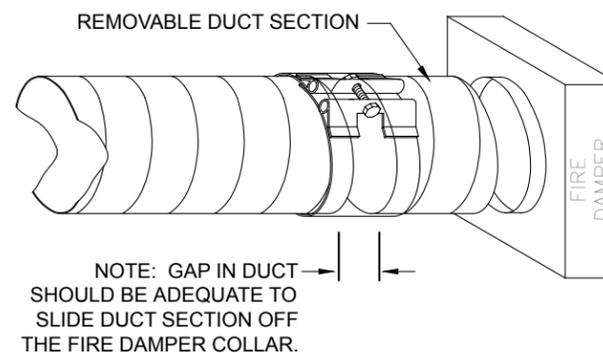
DUCTMATE™ QUICK-SLEEVES

DUCTMATE QUICK SLEEVE



QUICK-SLEEVE ROUND DUCT CONNECTOR

Available in Sizes 3"φ thru 16"φ
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"φ).

NOTES

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

EXCELLENCE IN SOLUTIONS

WWW.SEMCOHVAC.COM

DUCT CATALOG / 20233105

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.

FläktGroup SEMCO
Corporate Headquarters
1800 East Pointe Drive
Columbia, Missouri 65201 USA
573.443.1481
sales.semco@flaktgroup.com

To learn more about FläktGroup SEMCO offerings and to contact your nearest representative please visit
www.semcohvac.com