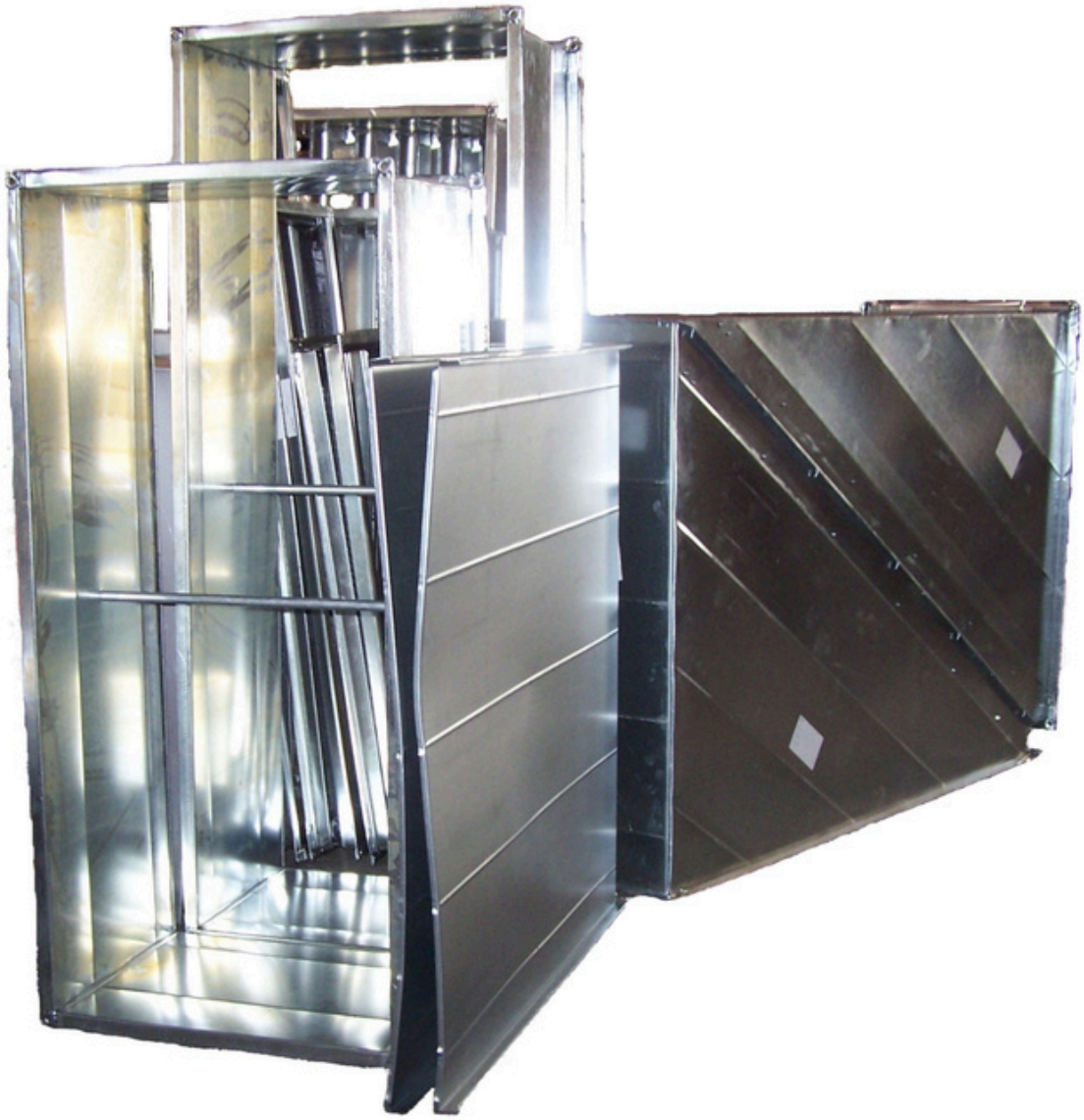
MIDWEST
METAL FABRICATORS

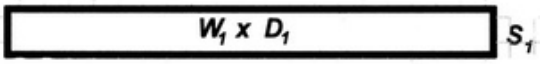


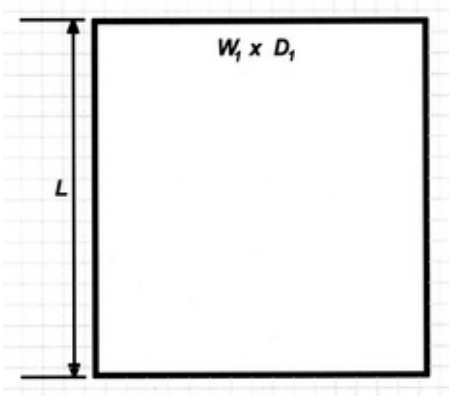
Midwest Metal Fabricators LLC • 712 Maple Street • Wapakoneta, OH 45895

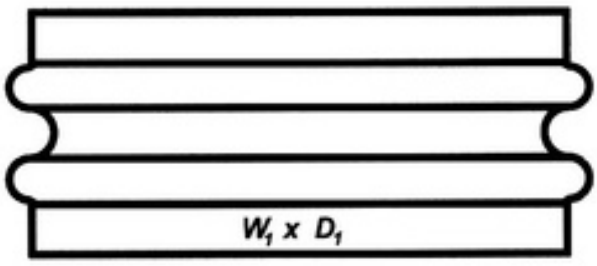
Phone **(419) 739-7077** Fax (419) 739-7079 www.midwestmetalfab.com

RECTANGULAR

ENDCAP - DUCT – FLEX CONNECTOR







Information Required:

- **W**idth 1 x **D**epth 1
- **L**ength
- **S**traight End 1 (min 3” for TDF)

RECTANGULAR

Rectangular Duct and Fittings

Midwest Metal Fabricators' rectangular duct and fittings are factory fabricated to furnish you with a high-quality line of products in a broad range of standard sizes. To minimize field-assembly costs, rectangular duct is supplied in lengths up to 5 feet. Longitudinal seams are typically made with Pittsburgh locks or button-punch snap locks (see below). In addition to economical TDF™ transverse duct connectors, slip & drive slip joints, four-bolt connectors, and applied second source duct connectors are available. Single wall rectangular ductwork can be shipped completely assembled or knocked down. Midwest Metal Fabricators' standard rectangular products are fabricated to meet SMACNA's 2005 Rev. 3 duct construction standards using 24 to 16 gauge hot-dipped galvanized steel. Plus, we can custom fabricate rectangular ductwork for commercial and industrial applications according to your specifications in 3003-H14 aluminum, paint-grip steel, 304 stainless, and PCD coated steel. Midwest Metal Fabricators' stocks a wide variety of materials and thicknesses to insure timely shipments of orders.

MATERIAL AND GAUGE AVAILABILITY		**ALUMINUM (3003 H14) DUCT THICKNESS ADJUSTMENTS:**	
		Steel Gauge	Aluminum Thickness
Galvanized Steel	24 to 10 gauge	24	.025”
Paint Grip Steel	24 to 16 gauge	24	.032”
Material sold as paint grip is not “Ready to Paint”– It will require cleaning.			
304 Stainless	24 to 10 gauge	22	.040”
316 Stainless	24 to 10 gauge	20	.050”
MMF PVS is not recommended for use in high visibility applications.			
MMF PVS	24 to 18 gauge	18	.065”
Aluminum	.025” to .125”	16	.080”
Carbon Steel	18 to 10 gauge		

SEAMS

L1 PITTSBURGH OCK	L2 BUTTON PUNCH SNAP LOCK	L4 STANDING SEAM	L5 SINGLE CORNER SEAM	CORNER WELD

Seams are factory sealed upon request, otherwise per SMACNA standard

PLEASE NOTE:

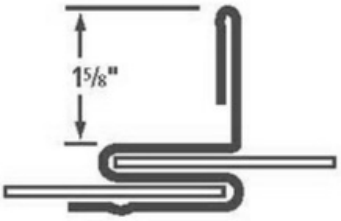
All products furnished by Midwest Metal Fabricators are of the highest quality materials and workmanship. Midwest Metal Fabricators does not, however, have any control over the design or installation of any system. It is up to the user to determine the suitability of these products for any application. Selection of material manufacturer for duct construction subject to change by Midwest Metal Fabricators without notice.

RECTANGULAR

CONNECTIONS

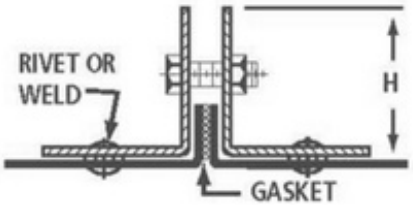
T1 DRIVE SLIP

T6 HEMMED "S" SLIP



T10 STANDING SEAM

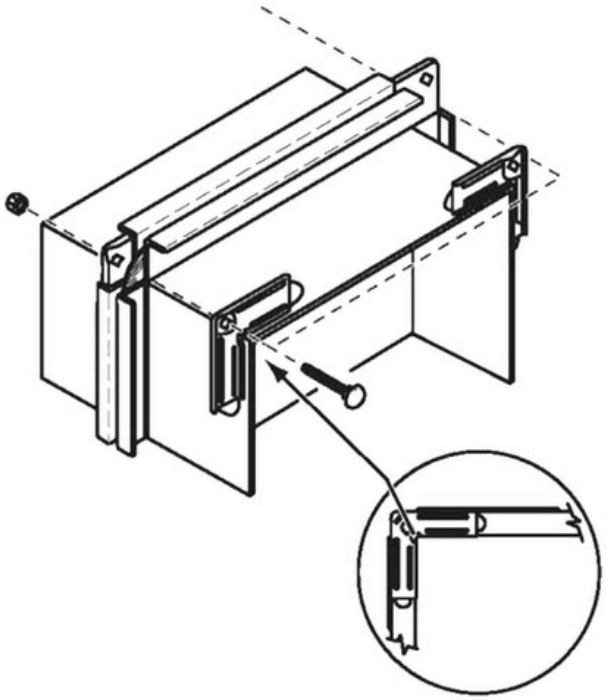
T21 WELD FLANGE

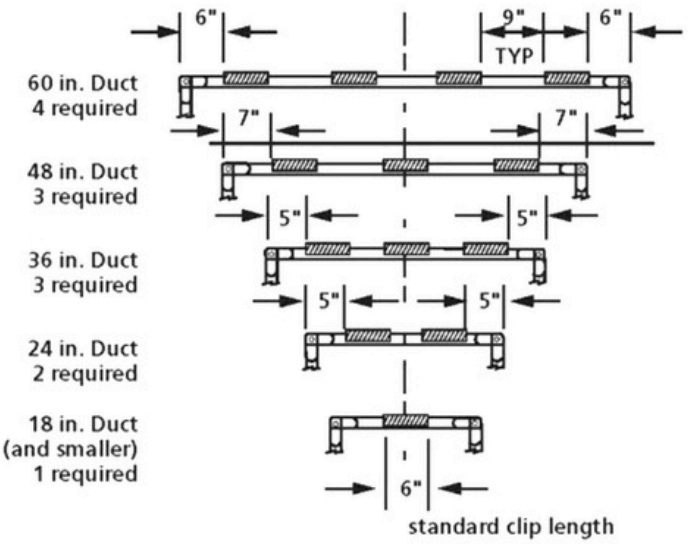


T22 COMPANION ANGLES

T25b FLANGED

TDF CONNECTIONS





TDF Connection

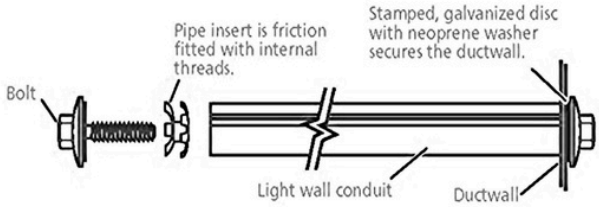
Clip Spacing

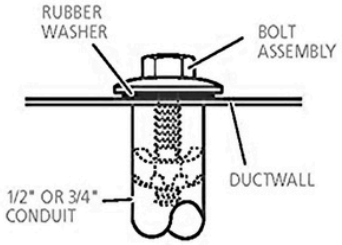
RECTANGULAR

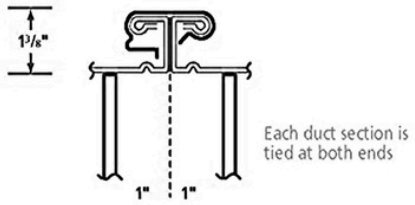
REINFORCEMENTS

Midwest Metal Fabricators LLC uses two types of duct reinforcement, internal tie rods and external angle reinforcements, located at duct joints and mid-panel on duct and fittings per SMACNA standards. We use tie rods when warranted unless otherwise requested.

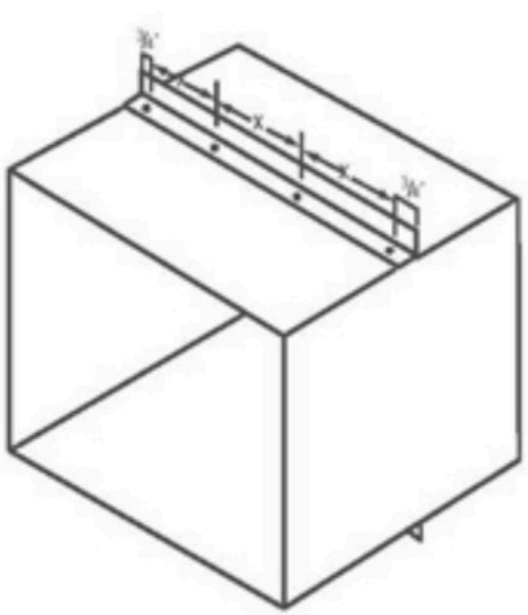
TIE RODS

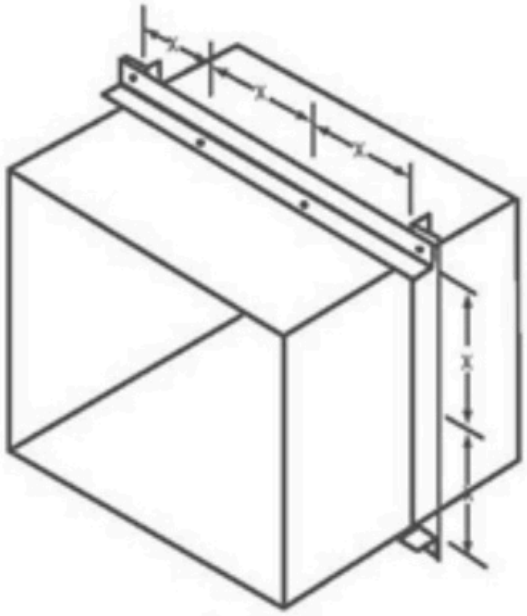






ANGLE REINFORCEMENTS



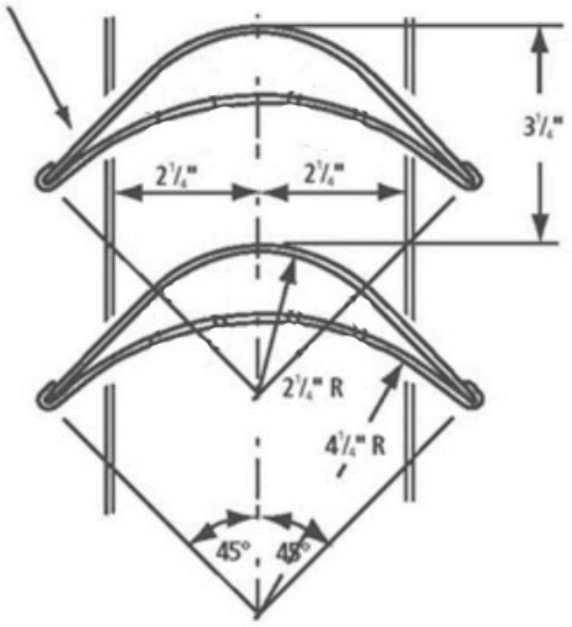


Reinforcements must be fastened (tack weld, spot weld, rivet, screw, or bolt) at 8" intervals maximum. When ends are tied, the 3/4" interval may be omitted. When reinforcements occur at the same location on adjacent sides at 4" W.G. (1000 Pa) static and greater, tie the ends.

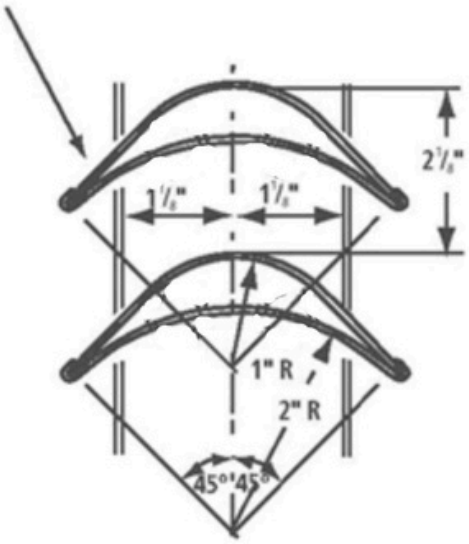
RECTANGULAR

DUAL VANES

24 ga MIN.

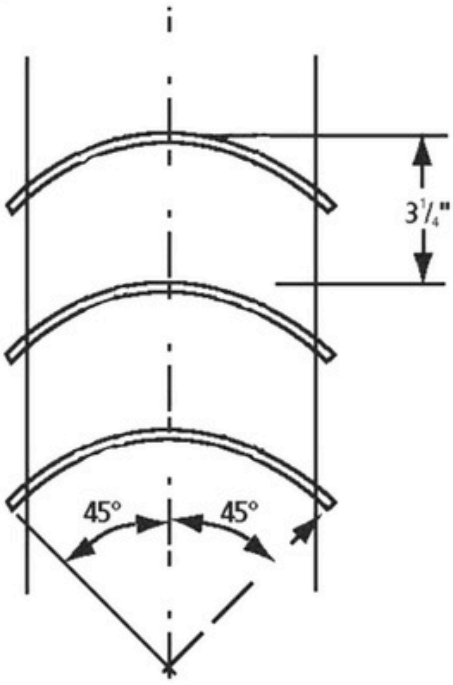


26 ga MIN.

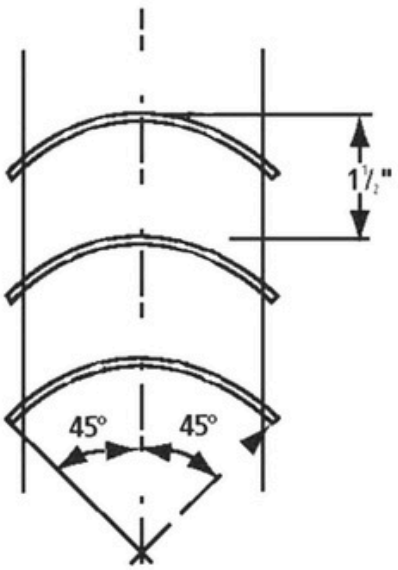


SINGLE VANES

22 ga MIN.



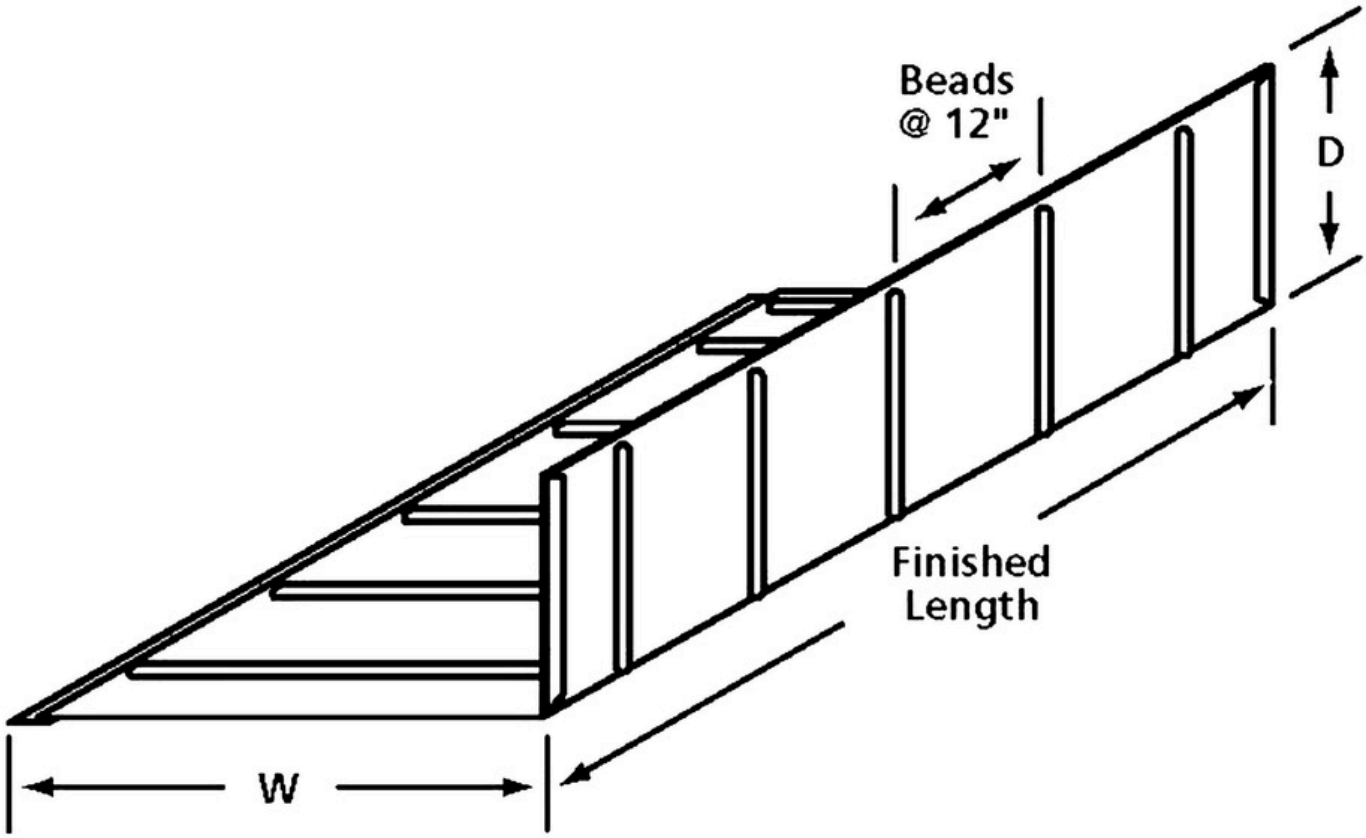
24 ga MIN.



Vanes are available for 90 degree ductwork turns to assist air flow. They are determined by SMACNA standard unless requested by the customer. Double vanes are standard with 2” vanes used up to 36” and 4” vanes at 36” and above.

RECTAN GULAR

STRAIGHT DUCT



56" finished length with TDF ends

59" finished length with slip and drive ends

60" length with raw ends

Midwest Metal Fabricators LLC. produces rectangular ductwork to SMACNA 2005 Rev 3 standards based on information provided by the customer. We use SMACNA tables to determine requirements for metal gauge, end connections, reinforcements, and other features on all our orders. We take pride in ensuring the customer receives the proper materials for the job.

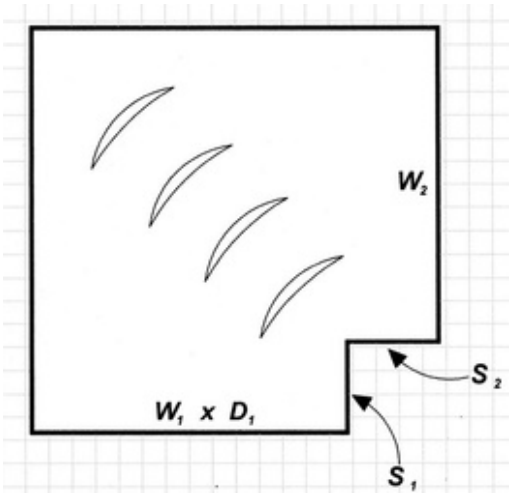
Straight duct can be shipped assembled or knocked down for tighter packaging. Standard duct is manufactured as one piece wrapper, 2 piece L –shape, or 4 separate sides. Beading is standard, unless designated by the customer.

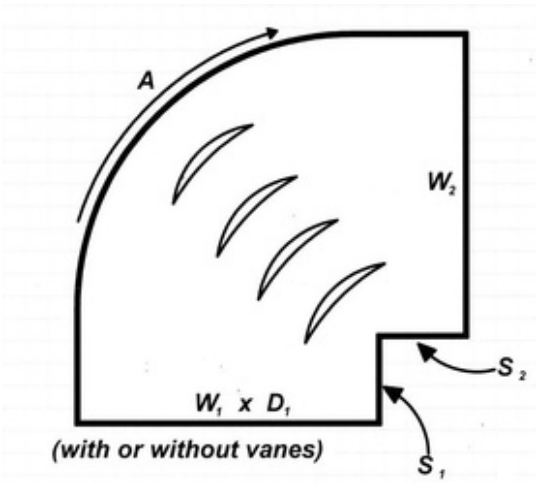
Please see our Double Wall Rectangular Duct Brochure for information on our liner products.

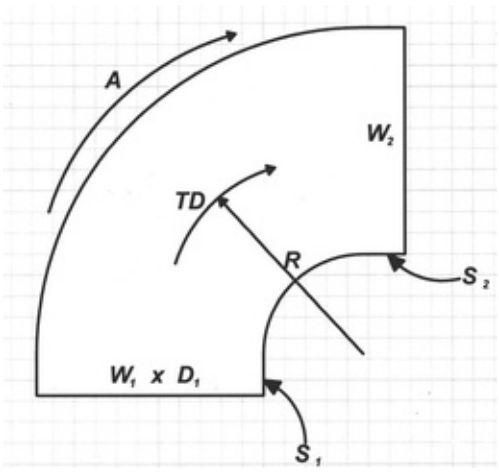
RECTANGULAR

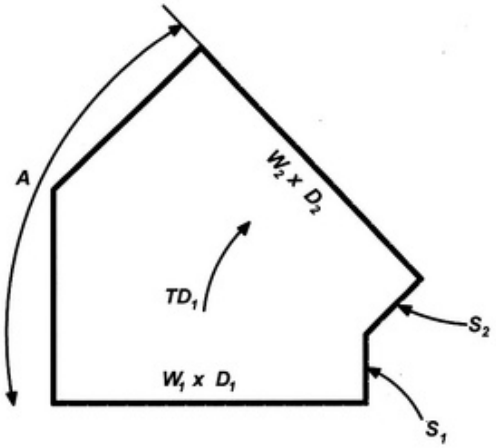
RECTAN GULAR

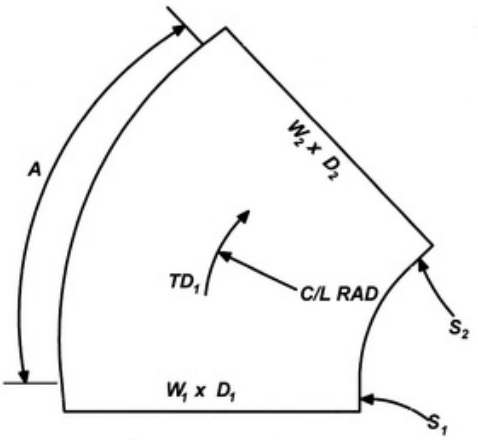
ELBOWS









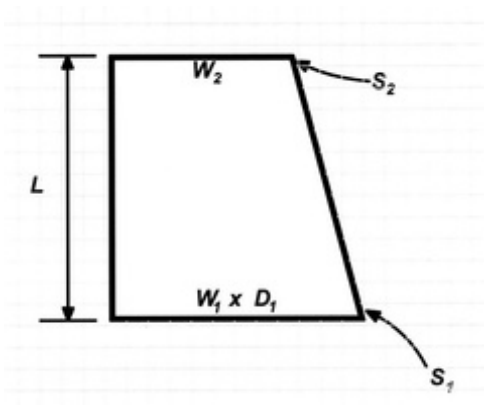


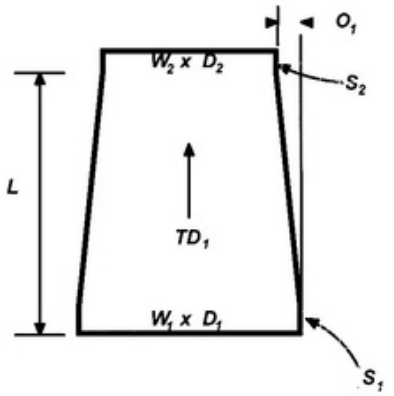
Information Required:

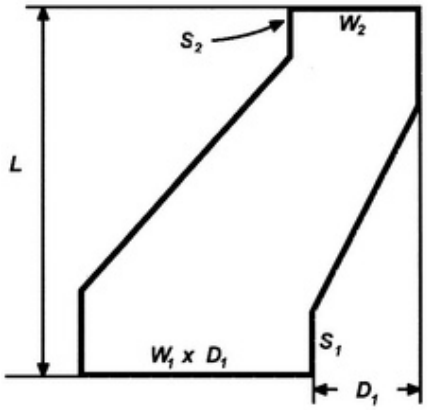
- **W**idth 1 x **D**epth 1
- **W**idth 2 x **D**epth 2
- **C**enter**L**ine **R**adius
- **A**ngle
- **S**traight 1 (min 3” for TDF)
- **S**traight 2 (min 3” for TDF)
- **TD –** Drop Cheek
- **V**anes – with/without
- Water Gauge or Static Pressure

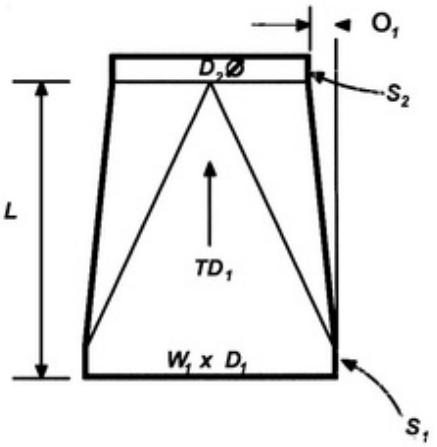
RECTAN GULAR

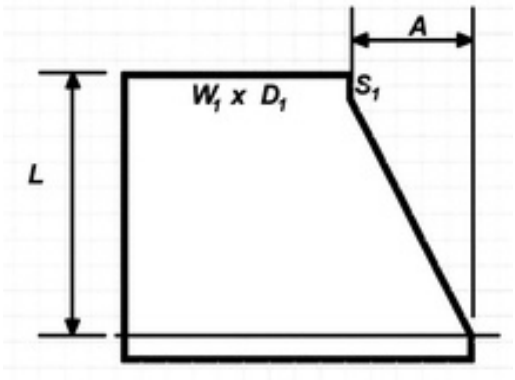
TRANSITIONS - OFFSET - TAKEOFF









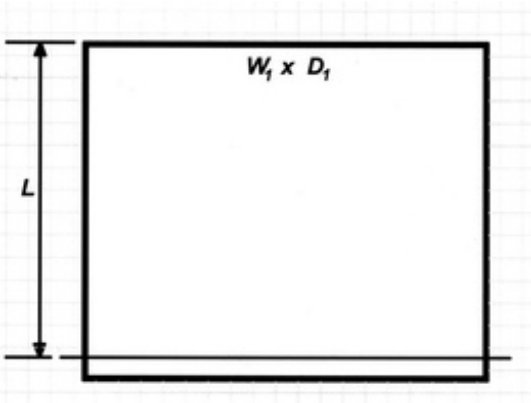


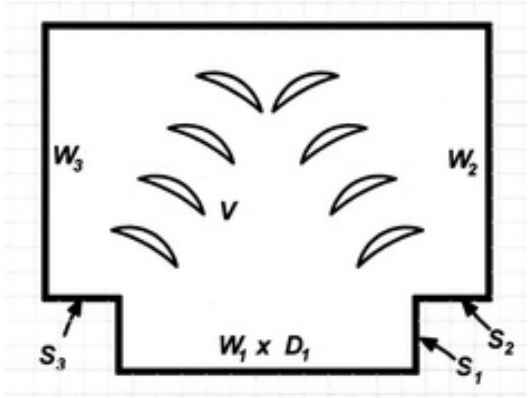
Information Required:

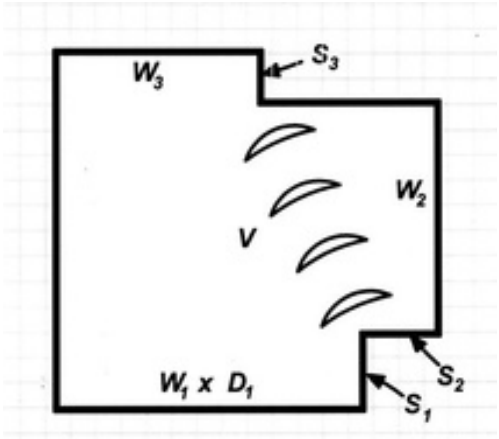
- **W**idth 1 x **D**epth 1
- **W**idth 2 x **D**epth 2
- **L**ength
- **A**ngle
- **S**traight 1 (min 3” for TDF)
- **S**traight 2 (min 3” for TDF)
- **TD –** Elevation Change
- **O**ffset
- **D**iameter

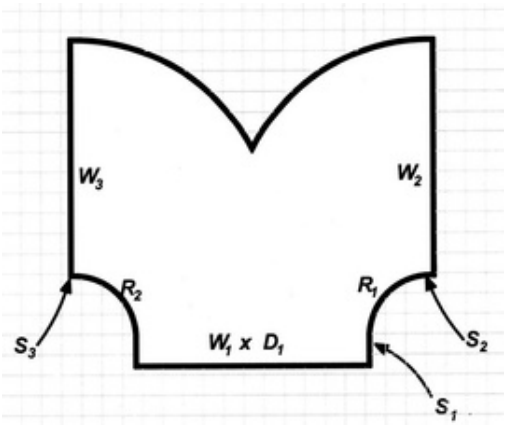
RECTAN GULAR

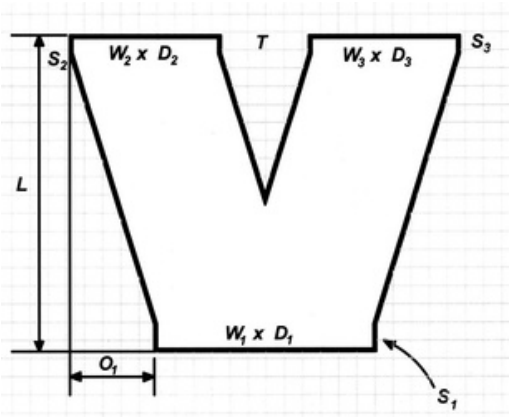
TAKEOFF – TEES - WYE









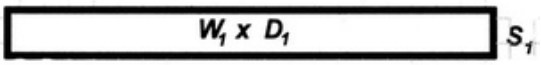


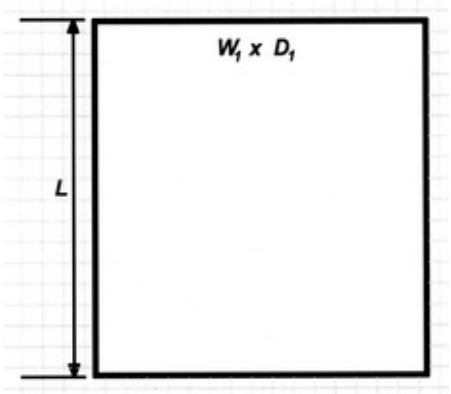
Information Required:

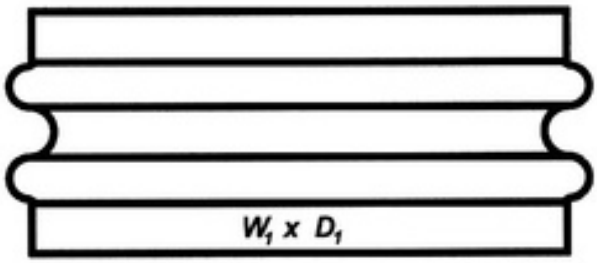
- **W**idth 1 x **D**epth 1
- **W**idth 2 x **D**epth 2
- **W**idth 3 x **D**epth 3
- **L**ength
- **R**adius 1
- **R**adius 2
- **S**traight 1 (min 3” for TDF)
- **S**traight 2 (min 3” for TDF)
- **S**traight 3 (min 3” for TDF)
- **TD –** Elevation Change
- **O**ffset
- **V**anes

RECTANGULAR

ENDCAP - DUCT – FLEX CONNECTOR







Information Required:

- **W**idth 1 x **D**epth 1
- **L**ength
- **S**traight End 1 (min 3” for TDF)