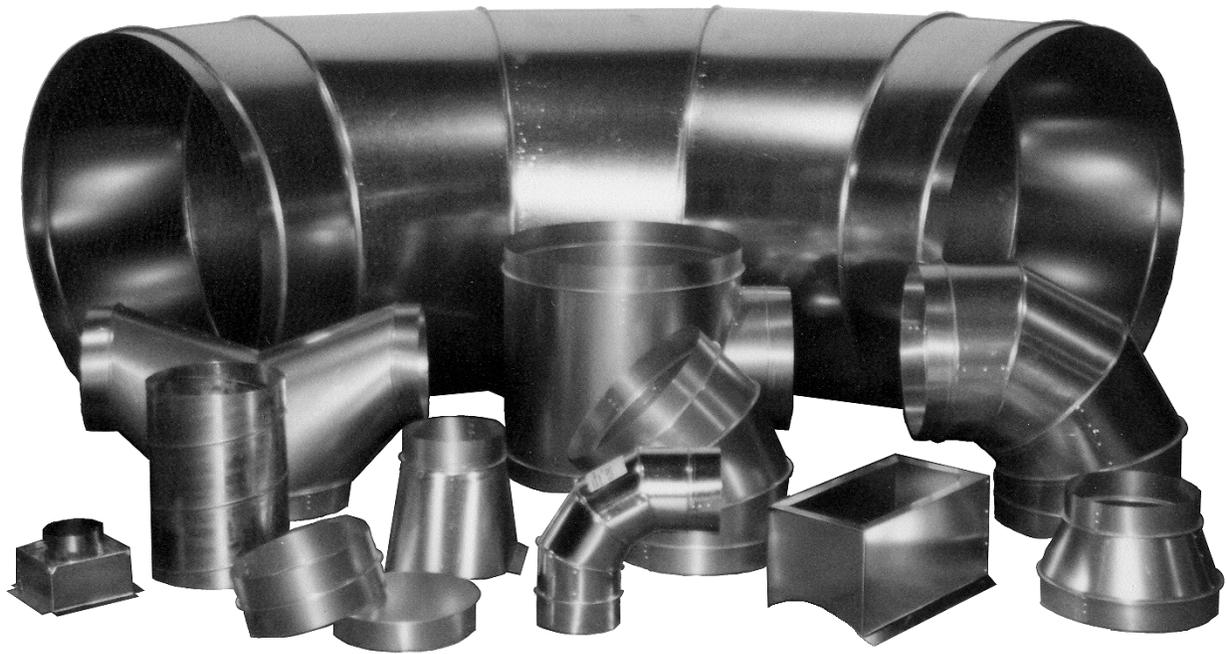


+



Midwest Metal Fabricators LLC • 712 Maple Street • Wapakoneta, OH 45895
Phone (419) 739-7077 Fax (419) 739-7079 www.midwestmetalfab.com



ROUND

If you are looking for cost-competitive round duct and fittings shipped to your schedule, Midwest Metal Fabricators, LLC is your supplier of choice. We offer a large selection of round ductwork fabricated to SMACNA 2005 Rev 3 standards using minimum G60 lock forming quality galvanized steel, type 304 or 316 stainless steel, alloy 3003 H14 aluminum, galvanized paint grip steel, and poly-vinyl coated steel. We also offer fabricating services per your request for other materials. The chart below indicates our stocked materials, however, we do handle other materials for fast turnaround times. Call or fax us with your requirements.

MATERIAL AND GAUGE AVAILABILITY

- Galvanized Steel 26 to 10 gauge
 - Paint Grip Steel 24 to 18 gauge
- Material sold as paint grip is not "Ready to Paint"– It will require cleaning.
- 304 Stainless 26 to 10 gauge
 - 316 Stainless 26 to 10 gauge
 - MMF PVC 26 to 18 gauge
- MMF PVC is not recommended for use in high visibility applications.
- Aluminum 0.025" to .125"
 - Carbon Steel 18 to 10 gauge

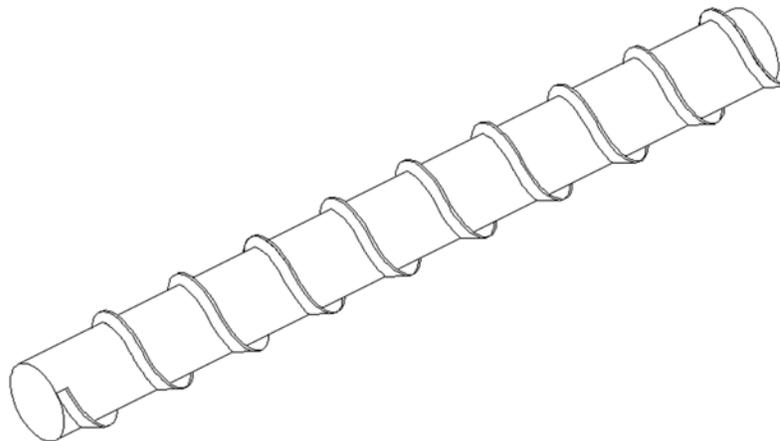
ALUMINUM (3003 H14) DUCT THICKNESS ADJUSTMENTS:

Steel Gauge	Aluminum Thickness
26	.025"
24	.032"
22	.040"
20	.050"
18	.065"
16	.080"

Included in this brochure are our standard round duct and fittings. If you can't find your requirements please contact the factory so that we may better serve you. We are confident that you will be pleased with the results.

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.





ROUND

Spiral Pipe

All standard spiral pipe is fabricated in standard 10 foot lengths from minimum G60 hot-dipped galvanized steel in gauges that meet or exceed SMACNA 2005 Rev 3 standards for spiral duct. The following chart illustrates approximate weights for spiral pipe. Areas in grey represent minimum gauges for fabrication.

Diameter	26 Ga (lbs / ft)	24 Ga (lbs / ft)	22 Ga (lbs / ft)	20 Ga (lbs/ft)
6"	1.6	2.0	2.5	
8"	2.1	2.8	3.3	
10"	2.6	3.4	4.2	
12"	3.2	4.1	5.0	
14"	3.7	4.8	5.8	
16"	4.3	5.5	6.6	
18"	4.9	6.1	7.5	
20"	5.2	6.8	8.3	
22"		7.5	9.1	
24"		8.2	9.9	
26"		8.9	10.8	
28"		9.5	11.6	14.0
30"		10.2	12.4	15.0
32"		10.9	13.3	16.1
34"		11.6	14.1	17.1
36"		12.3	14.9	18.2
38				19.2
40"				20.3
42"				21.3
44"				22.4
46"				23.4
48"				24.5
50"				25.5

CONSTRUCTION

GALVANIZED
 STAINLESS STEEL
 ALUMINUM
 PAINT GRIP
 POLY VINYL COATED
 PERFORATED

Available
 Gauges
 26-18
 26-18
 032 - .050
 26-18
 26-18
 22

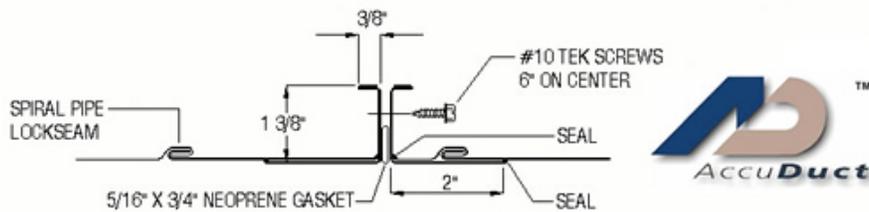
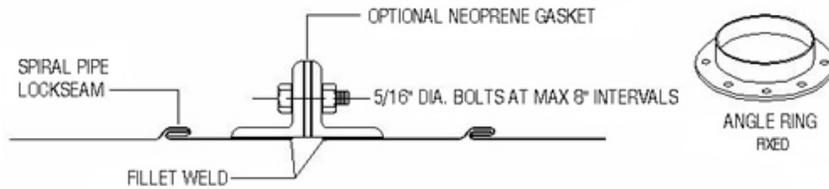
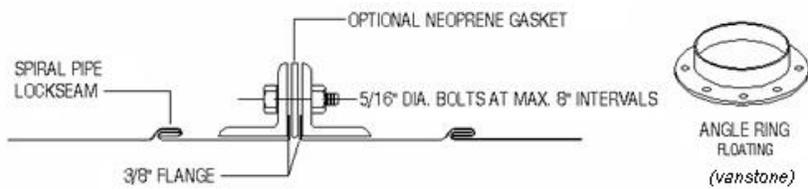
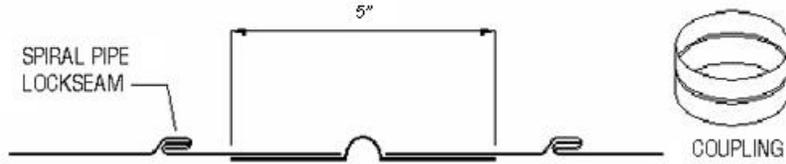


SPIRAL PIPE LOCK



ROUND

Spiral Pipe / Seams and Connections





ROUND

Spiral Pipe

SMACNA Gauge Requirements for Round Duct Spiral Seam Unreinforced Positive Pressure*

Max Diameter	To + 10 W. G.	Max Diameter	Midwest Metal
4"	28 Gauge	4"	26 Gauge
6"	28 Gauge	6"	26 Gauge
8"	28 Gauge	8"	26 Gauge
10"	28 Gauge	10"	26 Gauge
12"	28 Gauge	12"	26 Gauge
14"	28 Gauge	14"	26 Gauge
16" – 26"	26 Gauge	16" – 26"	24 Gauge
28" – 42"	24 Gauge	28" – 36"	22 Gauge
44" – 60"	22 Gauge	38" – 48"	20 Gauge
		50" – 60"	18 Gauge

* Source: SMACNA HVAC Duct Construction Standards Metal and Flexible – Third Edition 2005

SMACNA Gauge Requirements for Aluminum Round Duct Spiral Seam Unreinforced 10' Lengths \pm 2" Water Gauge* Longitudinal Seam Unreinforced 5' Lengths \pm 2" Water Gauge

Max Diameter	+ 2" W.G.	- 2" W.G.	+ 2" W.G.	- 2" W.G.
	Spiral Seam	Long Seam	Spiral Seam	Long Seam
4" thru 8"	0.025	0.032	0.025	0.040
10" thru 14"	0.025	0.032	0.032	0.040
16" thru 26"	0.032	0.040	0.040	0.050
28" thru 36"	0.040	0.050	0.050	0.063
38" thru 50"	0.050	0.063	0.063	0.071
52" thru 60"	0.063	0.071	0.071	0.090

* Source: SMACNA HVAC Duct Construction Standards Metal and Flexible – Third Edition 2005

All spiral pipe 14" and larger will be smooth unless corrugations are requested.

Pricing and ordering services are available from the factory. Midwest Metal Fabricators takeoff forms are available on request and provide an organized format to facilitate clear and complete order generation. The following information is required for any inquiry or order:

Pipe- Type of metal, gauge, diameter, quantity of pieces by length, insulation requirements, and any required piece markings (location, job, fitting number).



ROUND

Fittings

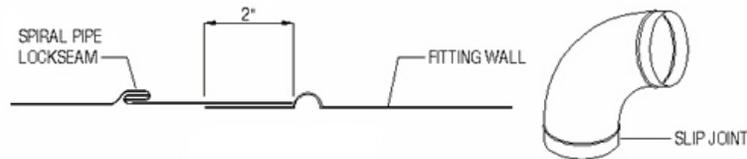
Midwest Metal Fabricators LLC Spiral Pipe and Fittings									
Round Duct Positive Pressure to 10 In. WG							Aluminum		
Dia	Std Length	Shell Ga.	Long Seam Pipe	Std Length	Fittings Ga.	Underslab Ga,	Spiral + 2" WG		Fittings Ga
							Dia	Ga	
3	10 ft.	26	24	5 ft.	24	26	3	0.025	0.025
4	10 ft.	26	24	5 ft.	24	26	4	0.025	0.025
5	10 ft.	26	24	5 ft.	24	26	5	0.025	0.025
6	10 ft.	26	24	5 ft.	24	26	6	0.025	0.025
7	10 ft.	26	24	5 f.	24	26	7	0.025	0.025
8	10 ft.	26	24	5 ft.	24	26	8	0.025	0.025
9	10 ft.	26	24	5 ft.	24	24	9	0.025	0.025
10	10 ft.	26	24	5 ft.	24	24	10	0.025	0.025
11	10 ft.	26	24	5 ft.	24	24	11	0.025	0.025
12	10 ft.	26	24	5 ft.	24	24	12	0.025	0.025
13	10 ft.	26	24	5 ft.	24	24	13	0.025	0.025
14	10 ft.	26	24	5 ft.	24	24	14	0.025	0.025
16	10 ft.	24	24	5 ft.	24	24	16	0.032	0.032
18	10 ft.	24	24	5 ft.	24	22	18	0.032	0.032
20	10 ft.	24	22	5 ft.	22	22	20	0.032	0.032
22	10 ft.	24	22	5 ft.	22	22	22	0.032	0.032
24	10 ft.	24	22	5 ft.	22	22	24	0.032	0.032
26	10 ft.	24	22	5 ft.	22	20	26	0.032	0.032
28	10 ft.	22	22	5 ft.	22	20	28	0.040	0.032
30	10 ft.	22	20	5 ft.	20	20	30	0.040	0.040
32	10 ft.	22	20	5 ft.	20	20	32	0.040	0.040
34	10 ft.	22	20	5 ft.	20		34	0.040	0.040
36	10 ft.	22	20	5 ft.	20		36	0.040	0.040
38	10 ft.	20	20	5 ft.	20				
40	10 ft.	20	20	5 ft.	20				
42	10 ft.	20	20	5 ft.	20				
44	10 ft.	20	20	5 ft.	20				
46	10 ft.	20	20	5 ft.	20				
48	10 ft.	20	20	5 ft.	20				
50	10 ft.	20	20	5 ft.	20				
52	10 ft.	18	18	5 ft.	18				
54	10 ft.	18	18	5 ft.	18				
56	10 ft.	18	18	5 ft.	18				
58	10 ft.	18	18	5 ft.	18				
60	10 ft.	18	18	5 ft.	18				



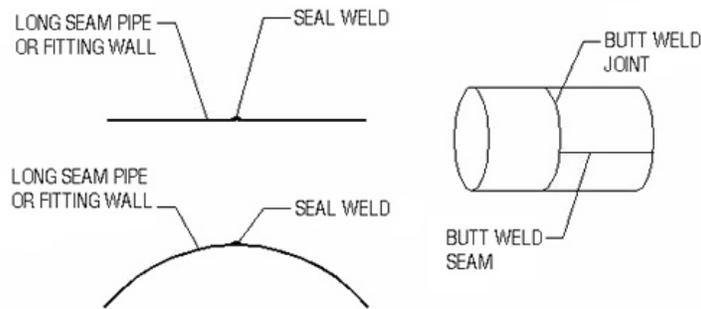
ROUND

Fittings / Long Seam Pipe

All fittings are made standard as male size (1/8" smaller) for slip fit into standard spiral ducts except for female coupling, which is made female size equivalent to standard spiral ducts. Fittings come standard unsealed, with sealing available on request. Fittings are fabricated from hot-dipped galvanized steel that meets or exceeds SMACNA standards. Elbows, unless otherwise specified, are fabricated with centerline radius equal to 1-1/2 times the duct diameter. 90° and 45° elbows 12" diameter and smaller are of die-stamped construction. 90° elbows 14" diameter and larger are of 5-piece segmented construction. 45° elbows 14" diameter and larger are of 3-piece segmented construction. Elbow fittings are fabricated in maximum 22 ½ degree segments with standing seam (gorelock) construction for maximum rigidity and durability. Fittings are fabricated standard, but not limited to, the chart on the previous page.



Long seam pipe can be provided as snaplock seam; lap seam with button punch, spot weld, stitch weld, or riveted; or butt welded seam. Connections can be slip fit, Angle ring Vanstone, Angle ring welded, or Accuflange flange connectors.





ROUND INSULATION

Standard insulation is 1" thick, 1.5 pound per cubic foot density, with a thermal conductivity (ASTM C 518) @ 75° F mean temperature of 0.26 (BTU-in./hr.ft.2°F), Surface burning characteristics (ASTM E 84, UL 723) are 25 flame spread, 50 smoke developed.

Sound absorption coefficients (ASTM C 423, Type A)

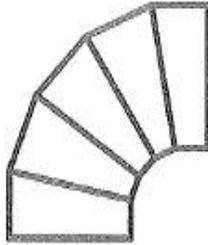
Frequency, Hz						
125	250	500	1000	2000	4000	NRC
0.17	0.24	0.62	0.79	0.88	0.96	0.65

Our stock also includes ½" thick, 1 1/2" standard faced, and 2" @ 1.5 lb insulation. Other sizes and weights can be supplied to customer specification.

ROUND

FITTINGS

1 GORED ELBOW



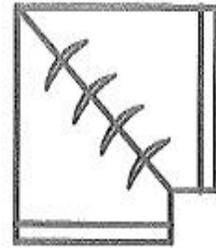
2 STAMPED OR ADJ 45°



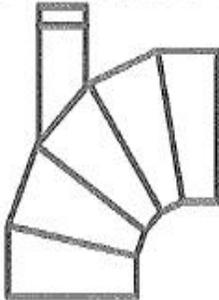
3 STAMPED OR ADJ 90°



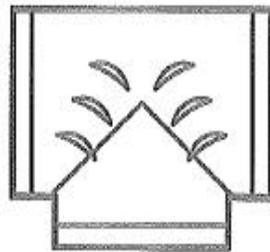
4 MITERED 90° ELBOW



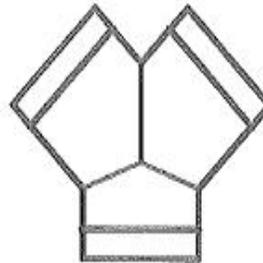
5 90° ELBOW / WTAP



6 BULLHEAD TEE



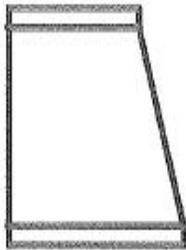
7 WYE (PANTS)



8 CONCENTRIC REDUCER



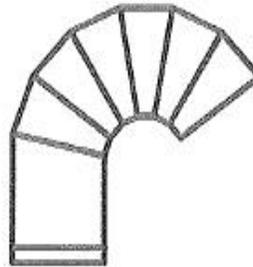
9 ECCENTRIC REDUCER



10 OFFSET



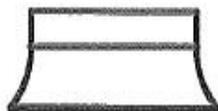
11 GOOSENECK



12 END CAP



13 BELLMOUTH



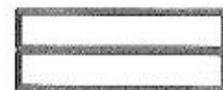
14 DAMPER



15 FLEX



16 FEMALE COUPLING



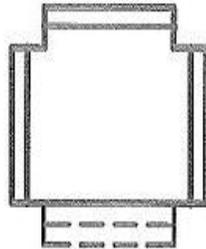
ROUND

FITTINGS

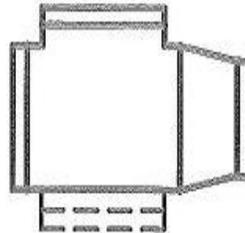
17 MALE
DUPLING



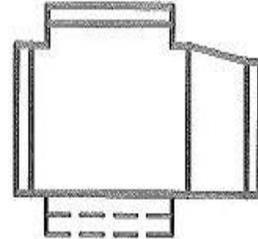
18 STRAIGHT TEE OR
CROSS



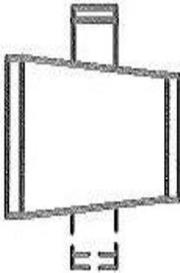
19 REDUCING TEE OR
CROSS



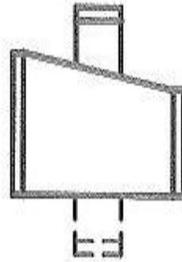
20 REDUCING TEE OR
CROSS - SCCENTRIC



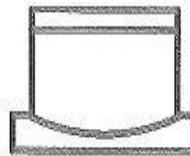
21 REDUCING BODY
TEE OR CROSS



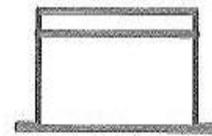
22 REDUCING BODY
TEE/CROSS ECC



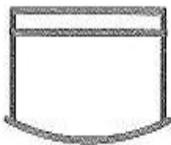
23 SADDLE TAP
ON ROUND



24 SADDLE TAP
ON FLAT



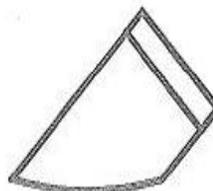
25 TAP CODE S



26 TAP CODE L



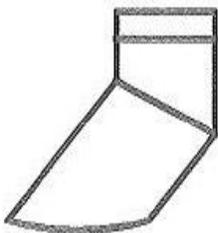
27 TAP CODE O



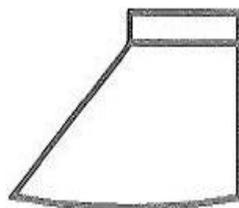
28 TAP CODE C



29 TAP CODE M



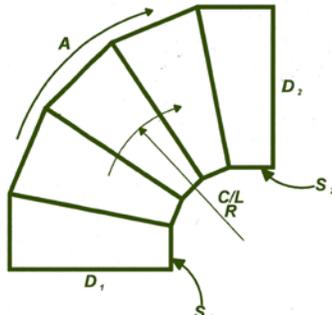
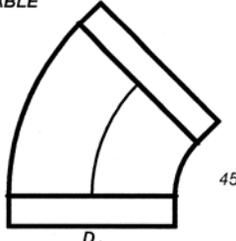
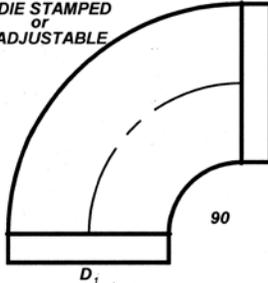
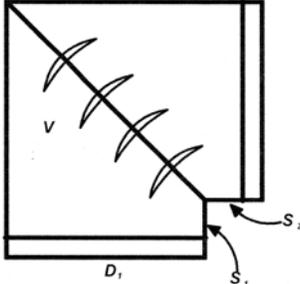
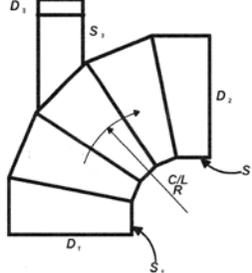
30 TAP CODE B



31 REGISTER TAP
TAP CODE R

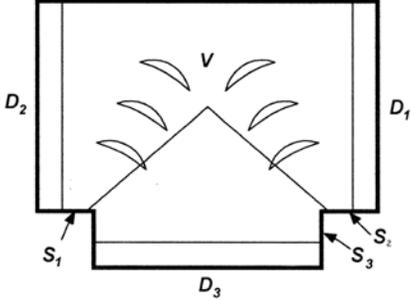
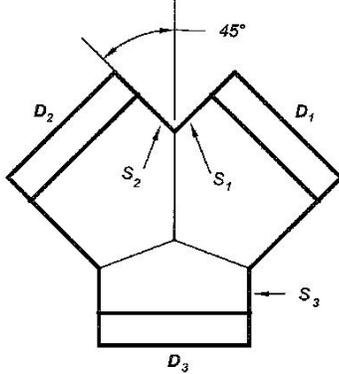
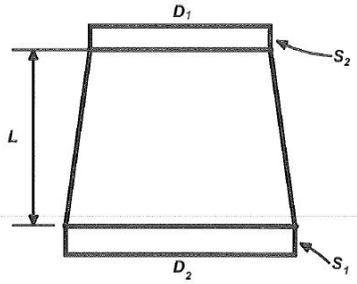
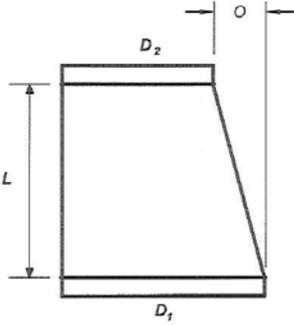
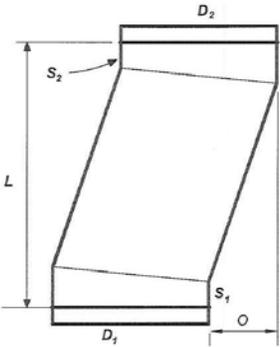


ROUND ELBOWS

 	 <p>DIE STAMPED or ADJUSTABLE</p> 
 <p>DIE STAMPED or ADJUSTABLE</p> 	 
 	<p>Information Required:</p> <ul style="list-style-type: none"> • Diameter 1 • Diameter 2 • Diameter 3 • Straight 1 • Straight 2 • Centerline Radius • Vanes • Die Stamped or Adjustable • Material Type, Gauge or Static Pressure

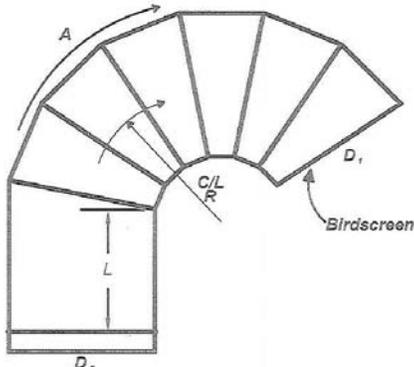
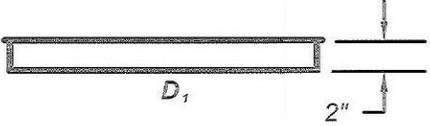
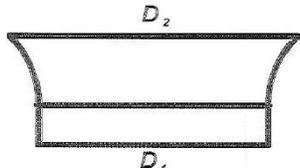
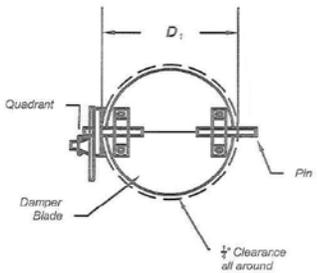
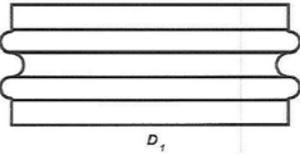
ROUND

BULLHEAD TEE / WYE / REDUCERS / OFFSET

 <p>Bull Head</p> 	 
 	 
 	<p>Information Required:</p> <ul style="list-style-type: none"> • Diameter 1 • Diameter 2 • Diameter 3 • Straight 1 • Straight 2 • Straight 3 • Vanes • Length • Offset • Material Gauge, Water Gauge

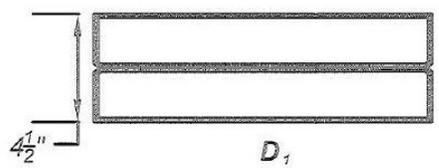
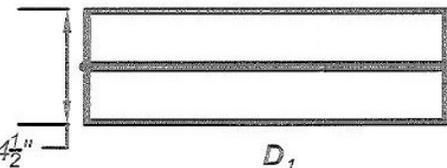
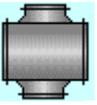
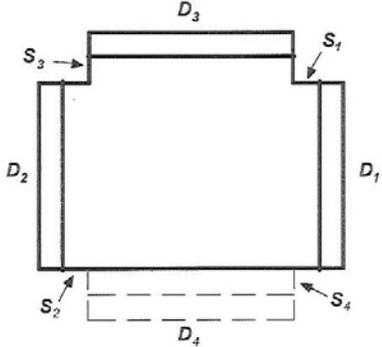
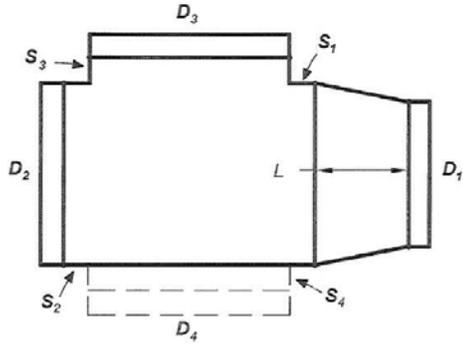
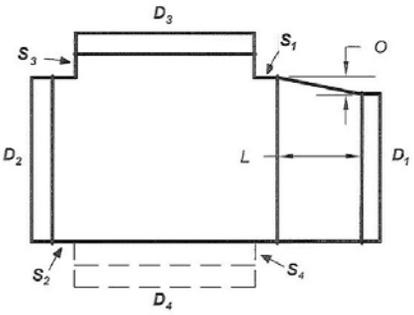
ROUND

GOOSENECK / ENDCAP / BELLMOUTH / DAMPER / FLEX

 <p>Goose Neck</p> 	 
 	 <p>Volume Damper</p> 
 	<p>Information Required:</p> <ul style="list-style-type: none"> • Diameter 1 • Diameter 2 • Angle • Length • Centerline Radius • Damper Requirements • Flex Requirements • Material Requirements

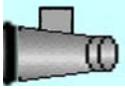
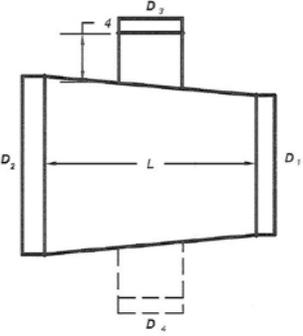
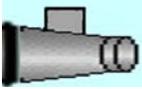
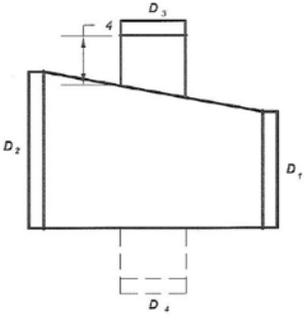
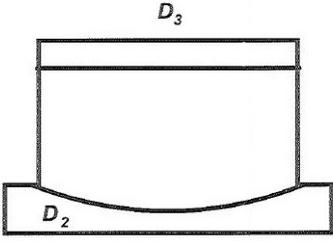
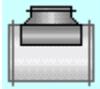
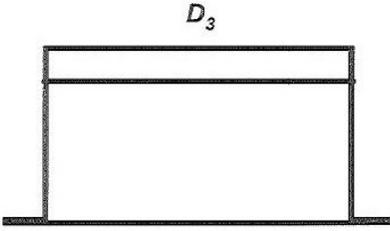
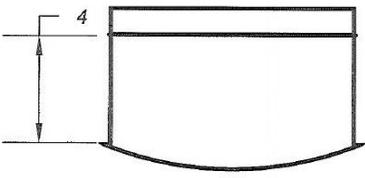
ROUND

COUPLINGS / TEES / CROSSES

<div style="background-color: #e0f2f1; padding: 5px; margin-bottom: 10px;">  <p>Coupler 1</p> </div> 	<div style="background-color: #e0f2f1; padding: 5px; margin-bottom: 10px;">  <p>Coupler 2</p> </div> 
 	 
 	<p>Information Required:</p> <ul style="list-style-type: none"> • Diameter 1 • Diameter 2 • Diameter 3 • (Diameter 4) • Straight 1 • Straight 2 • Straight 3 • (Straight 4) • Length • Offset • Material Spec or Water Gauge

ROUND

TEES / CROSSES / TAPS

 	 
 	 
 	<p>Information Required:</p> <ul style="list-style-type: none"> • Diameter 1 • Diameter 2 • Diameter 3 • Straight 1 • Straight 2 • Centerline Radius • Vanes • Die Stamped or Adjustable

ROUND TAPS

