



Oval Duct & Fittings

ALUMINUM, GALVANIZED, GALVANNEAL, PVC AND STAINLESS STEEL

**9865 WAYNE AVENUE • CINCINNATI, OHIO 45215
PHONE (513) 733-5955 FAX (513) 733-8050**

Single Wall Oval Duct & Fittings Specifications

2 - 10" Inch Positive Static Pressure

Major Dimension duct Width	Single Wall Oval Pipe Chart		Single Wall Oval Fittings Chart
	Spiral Seam Duct Gauge	Longitudinal Seam Duct Gauge	Gauge Of Fittings
to 24"	24	20	20
25" to 36"	22	20	20
37" to 48"	22	18	18
49" to 60"	20	18	18
61" to 70"	20	16	16
71" and up	18	16	16

Static Pressure: System _____ Supply _____ Return _____

General : Provide static pressure, quantity, type, size and connection for fittings and ductwork.

Construction : Single wall oval duct and fittings to be fabricated in accordance with 2005 SMACNA "HVAC Duct Construction Standards, Metal and Flexible". Ductwork and Fittings shall be the gauge for the pressure classification listed above and conform to the requirement in the referenced standards for metal thickness, conduits or tie rod applications and joint types. External reinforcement is to be field installed and coordinated with duct hanger.

Metal : Galvanized Steel of ASTM Standard A527 and 2005 SMACNA Standards.

Fittings : Radius type elbows with 1½ x centerline radius elbows are fabricated of multiple sections with maximum 22 1/2 degree change of directions per section with segmented standing seam or segmented seam spot welded construction. Concentric reducers 30 degree diverging, 90 degree straight and 45 degree type fittings for branch connections will be spot welded or mechanically attached to spiral and sealed per SMACNA class A specifications. All 90 and 45 degree type fittings are field installed unless specified otherwise.

Oval pipe : Spiral lockseam construction. Fabricated in 10'-0" lengths unless specified otherwise

Connections : Single wall fittings are small end slip connections, pipe to pipe is a coupler. Fasten screws at 15" intervals along the circumference (three screws minimum on 14" diameter or less). Flange joints are available by request, when flange joints are used AccuFlange connections will be supplied on pipe and fittings.

Sealant : Non- hardening, non- migrating mastic or liquid elastic sealant specifically for sealing fittings or longitudinal seams in ductwork. (Seal class A or B, N/A for seal class C and 2" W.G.)

Double Wall Oval Pipe & Fittings Specifications

2 - 10" Inch Positive Static Pressure

<i>Double Wall Oval Pipe Chart</i>				
Major Dimension	Outer Shell	Solid Inner Liner	Perf Inner Liner	Solid & Perforated Inner Liner Construction
to 24"	24	26	24	Standard
25" to 36"	22	24	24	Standard
37" to 48"	22	22	22	Standard
49" to 60"	20	20	20	Standard
61" to 70"	20	20	20	Standard
71" and up	18	20	20	Standard

<i>Double Wall Oval Fitting Chart</i>			
Major Dimension	Outer Shell	Solid Inner Liner	Perf Inner Liner
to 24"	20	24	24
25" to 34"	20	24	24
36" to 48"	18	22	22
49" to 60"	18	22	22
61" to 70"	16	20	20
71" and up	16	20	20

Static Pressure: System _____ Supply _____ Return _____

General : Provide static pressure, quantity, type, size and connection for fittings and ductwork. All double wall sizes are inside dimension.

Construction : Double wall Oval pipe and fittings to be fabricated in accordance with 2005 SMACNA "HVAC Duct Construction Standards, Metal and Flexible". Ductwork and Fittings shall be the gauge for the pressure classification listed above and conform to the requirement in the referenced standards for metal thickness, conduits or tie rod applications and joint types. External reinforcement is to be field installed and coordinated with duct hanger.

Metal : Galvanized Steel of ASTM Standard A527 and 2005 SMACNA Standards.

Fittings : Radius type elbows with 1½ x centerline radius elbows are fabricated of multiple sections with maximum 22 1/2 degree change of directions per section with segmented standing seam or segmented seam spot welded construction. Concentric reducers 30 degree diverging, 90 degree straight and 45 degree type fittings for branch connections will be spot welded or mechanically attached to spiral and sealed per SMACNA class A specifications. All 90 and 45 degree type fittings are field installed unless specified otherwise.

Oval pipe : Spiral lockseam construction: Fabricated in 10 foot lengths unless specified otherwise.

Connections : Double wall fittings are small end slip connections, pipe to pipe is a coupler. Fasten screws at 15" intervals along the circumference (three screws minimum on 14" diameter or less). Flange joints are available by request, when flange joints are used AccuFlange connections will be supplied on pipe and fittings. (see diagram on page 13)

Sealant : Non- hardening, non- migrating mastic or liquid elastic sealant specifically for sealing fittings or longitudinal seams in ductwork. (Seal class A or B, N/A for seal class C and 2" W.G.)

Inner Liner : Oval pipe: Perforated 3/32" holes on 3/16" stager centers with 22% open area. Fittings Solid galvanized inner unless specified otherwise. Inner liner shall be the gauge for the pressure classification listed above.

Insulation : RA-26 1" thick per specification on page 46 of this catalog. Unless specified otherwise.

Minor	X	Major	Basic Round	Straight	Overall Major	Stretch Out
6	X	17	13	11.00	17.00	40.84
6	X	19	14	12.57	18.57	43.98
6	X	20	15	14.14	20.14	47.12
6	X	22	16	15.71	21.71	50.27
6	X	23	17	17.28	23.28	53.41
6	X	25	18	18.85	24.85	56.55
6	X	26	19	20.42	26.42	59.69
6	X	28	20	21.99	27.99	62.83
6	X	31	22	25.13	31.13	69.12
6	X	34	24	28.27	34.27	75.40
6	X	37	26	31.42	37.42	81.68
6	X	41	28	34.56	40.56	87.96
6	X	44	30	37.70	43.70	94.25
6	X	47	32	40.84	46.84	100.53
6	X	50	34	43.98	49.98	106.81
6	X	53	36	47.12	53.12	113.10
6	X	56	38	50.27	56.27	119.38
6	X	59	40	53.41	59.41	125.66
6	X	63	42	56.55	62.55	131.95
6	X	66	44	59.69	65.69	138.23
6	X	69	46	62.83	68.83	144.51
6	X	72	48	65.97	71.97	150.80
6	X	75	50	69.12	75.12	157.08
6	X	78	52	72.26	78.26	163.36
6	X	81	54	75.40	81.40	169.65
6	X	85	56	78.54	84.54	175.93
8	X	17	14	9.42	17.42	43.98
8	X	19	15	11.00	19.00	47.12
8	X	21	16	12.57	20.57	50.27
8	X	22	17	14.14	22.14	53.41
8	X	24	18	15.71	23.71	56.55
8	X	25	19	17.28	25.28	59.69
8	X	27	20	18.85	26.85	62.83
8	X	30	22	21.99	29.99	69.12
8	X	33	24	25.13	33.13	75.40
8	X	36	26	28.27	36.27	81.68
8	X	39	28	31.42	39.42	87.96
8	X	43	30	34.56	42.56	94.25
8	X	46	32	37.70	45.70	100.53
8	X	49	34	40.84	48.84	106.81
8	X	52	36	43.98	51.98	113.10
8	X	55	38	47.12	55.12	119.38
8	X	58	40	50.27	58.27	125.66
8	X	61	42	53.41	61.41	131.95
8	X	65	44	56.55	64.55	138.23
8	X	68	46	59.69	67.69	144.51
8	X	71	48	62.83	70.83	150.80
8	X	74	50	65.97	73.97	157.08
8	X	77	52	69.12	77.12	163.36
8	X	80	54	72.26	80.26	169.65
8	X	83	56	75.40	83.40	175.93

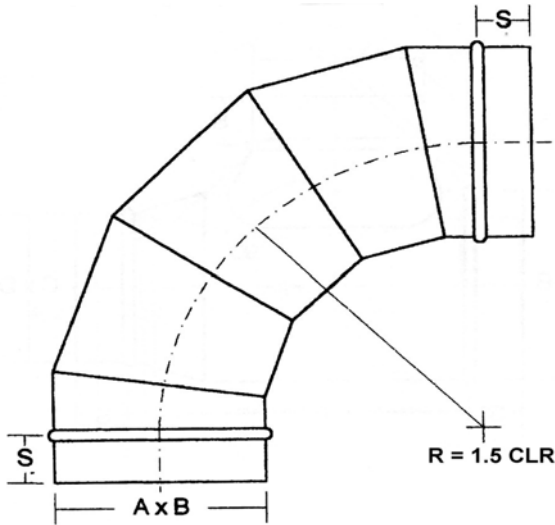
Minor	X	Major	Basic Round	Straight	Overall Major	Stretch Out
10	X	18	15	7.85	17.85	47.12
10	X	19	16	9.42	19.42	50.27
10	X	21	17	11.00	21.00	53.41
10	X	23	18	12.57	22.57	56.55
10	X	24	19	14.14	24.14	59.69
10	X	26	20	15.71	25.71	62.83
10	X	29	22	18.85	28.85	69.12
10	X	32	24	21.99	31.99	75.40
10	X	35	26	25.13	35.13	81.68
10	X	38	28	28.27	38.27	87.96
10	X	41	30	31.42	41.42	94.25
10	X	45	32	34.56	44.56	100.53
10	X	48	34	37.70	47.70	106.81
10	X	51	36	40.84	50.84	113.10
10	X	54	38	43.98	53.98	119.38
10	X	57	40	47.12	57.12	125.66
10	X	60	42	50.27	60.27	131.95
10	X	63	44	53.41	63.41	138.23
10	X	67	46	56.55	66.55	144.51
10	X	70	48	59.69	69.69	150.80
10	X	73	50	62.83	72.83	157.08
10	X	76	52	65.97	75.97	163.36
10	X	79	54	69.12	79.12	169.65
10	X	82	56	72.26	82.26	175.93
12	X	18	16	6.28	18.28	50.27
12	X	20	17	7.85	19.85	53.41
12	X	21	18	9.42	21.42	56.55
12	X	23	19	11.00	23.00	59.69
12	X	25	20	12.57	24.57	62.83
12	X	28	22	15.71	27.71	69.12
12	X	31	24	18.85	30.85	75.40
12	X	34	26	21.99	33.99	81.68
12	X	37	28	25.13	37.13	87.96
12	X	40	30	28.27	40.27	94.25
12	X	43	32	31.42	43.42	100.53
12	X	47	34	34.56	46.56	106.81
12	X	50	36	37.70	49.70	113.10
12	X	53	38	40.84	52.84	119.38
12	X	56	40	43.98	55.98	125.66
12	X	59	42	47.12	59.12	131.95
12	X	62	44	50.27	62.27	138.23
12	X	65	46	53.41	65.41	144.51
12	X	69	48	56.55	68.55	150.80
12	X	72	50	59.69	71.69	157.08
12	X	75	52	62.83	74.83	163.36
12	X	78	54	65.97	77.97	169.65
12	X	81	56	69.12	81.12	175.93
12	X	84	58	72.26	84.26	182.21
14	X	20	18	6.28	20.28	56.55
14	X	22	19	7.85	21.85	59.69
14	X	23	20	9.42	23.42	62.83

Minor	X	Major	Basic Round	Straight	Overall Major	Stretch Out
14	X	27	22	12.57	26.57	69.12
14	X	30	24	15.71	29.71	75.40
14	X	33	26	18.85	32.85	81.68
14	X	36	28	21.99	35.99	87.96
14	X	39	30	25.13	39.13	94.25
14	X	42	32	28.27	42.27	100.53
14	X	45	34	31.42	45.42	106.81
14	X	49	36	34.56	48.56	113.10
14	X	52	38	37.70	51.70	119.38
14	X	55	40	40.84	54.84	125.66
14	X	58	42	43.98	57.98	131.95
14	X	61	44	47.12	61.12	138.23
14	X	64	46	50.27	64.27	144.51
14	X	67	48	53.41	67.41	150.80
14	X	71	50	56.55	70.55	157.08
14	X	74	52	59.69	73.69	163.36
14	X	77	54	62.83	76.83	169.65
14	X	80	56	65.97	79.97	175.93
14	X	83	58	69.12	83.12	182.21
14	X	86	60	72.26	86.26	188.50
16	X	21	19	4.71	20.71	59.69
16	X	22	20	6.28	22.28	62.83
16	X	25	22	9.42	25.42	69.12
16	X	29	24	12.57	28.57	75.40
16	X	32	26	15.71	31.71	81.68
16	X	35	28	18.85	34.85	87.96
16	X	38	30	21.99	37.99	94.25
16	X	41	32	25.13	41.13	100.53
16	X	44	34	28.27	44.27	106.81
16	X	47	36	31.42	47.42	113.10
16	X	51	38	34.56	50.56	119.38
16	X	54	40	37.70	53.70	125.66
16	X	57	42	40.84	56.84	131.95
16	X	60	44	43.98	59.98	138.23
16	X	63	46	47.12	63.12	144.51
16	X	66	48	50.27	66.27	150.80
16	X	69	50	53.41	69.41	157.08
16	X	73	52	56.55	72.55	163.36
16	X	76	54	59.69	75.69	169.65
16	X	79	56	62.83	78.83	175.93
16	X	82	58	65.97	81.97	182.21
16	X	85	60	69.12	85.12	188.50
18	X	24	22	6.28	24.28	69.12
18	X	27	24	9.42	27.42	75.40
18	X	31	26	12.57	30.57	81.68
18	X	34	28	15.71	33.71	87.96
18	X	37	30	18.85	36.85	94.25
18	X	40	32	21.99	39.99	100.53
18	X	43	34	25.13	43.13	106.81
18	X	46	36	28.27	46.27	113.10
18	X	49	38	31.42	49.42	119.38

Minor	X	Major	Basic Round	Straight	Overall Major	Stretch Out
18	X	53	40	34.56	52.56	125.66
18	X	56	42	37.70	55.70	131.95
18	X	59	44	40.84	58.84	138.23
18	X	62	46	43.98	61.98	144.51
18	X	65	48	47.12	65.12	150.80
18	X	68	50	50.27	68.27	157.08
18	X	71	52	53.41	71.41	163.36
18	X	75	54	56.55	74.55	169.65
18	X	78	56	59.69	77.69	175.93
18	X	81	58	62.83	80.83	182.21
18	X	84	60	65.97	83.97	188.50
20	X	26	24	6.28	26.28	75.40
20	X	29	26	9.42	29.42	81.68
20	X	33	28	12.57	32.57	87.96
20	X	36	30	15.71	35.71	94.25
20	X	39	32	18.85	38.85	100.53
20	X	42	34	21.99	41.99	106.81
20	X	45	36	25.13	45.13	113.10
20	X	48	38	28.27	48.27	119.38
20	X	51	40	31.42	51.42	125.66
20	X	55	42	34.56	54.56	131.95
20	X	58	44	37.70	57.70	138.23
20	X	61	46	40.84	60.84	144.51
20	X	64	48	43.98	63.98	150.80
20	X	67	50	47.12	67.12	157.08
20	X	70	52	50.27	70.27	163.36
20	X	73	54	53.41	73.41	169.65
20	X	77	56	56.55	76.55	175.93
20	X	80	58	59.69	79.69	182.21
20	X	83	60	62.83	82.83	188.50
22	X	28	26	6.28	28.28	81.68
22	X	31	28	9.42	31.42	87.96
22	X	35	30	12.57	34.57	94.25
22	X	38	32	15.71	37.71	100.53
22	X	41	34	18.85	40.85	106.81
22	X	44	36	21.99	43.99	113.10
22	X	47	38	25.13	47.13	119.38
22	X	50	40	28.27	50.27	125.66
22	X	53	42	31.42	53.42	131.95
22	X	57	44	34.56	56.56	138.23
22	X	60	46	37.70	59.70	144.51
22	X	63	48	40.84	62.84	150.80
22	X	66	50	43.98	65.98	157.08
22	X	69	52	47.12	69.12	163.36
22	X	72	54	50.27	72.27	169.65
22	X	75	56	53.41	75.41	175.93
22	X	79	58	56.55	78.55	182.21
22	X	82	60	59.69	81.69	188.50
24	X	30	28	6.28	30.28	87.96
24	X	33	30	9.42	33.42	94.25
24	X	37	32	12.57	36.57	100.53

Minor	X	Major	Basic Round	Straight	Overall Major	Stretch Out
24	X	40	34	15.71	39.71	106.81
24	X	43	36	18.85	42.85	113.10
24	X	46	38	21.99	45.99	119.38
24	X	49	40	25.13	49.13	125.66
24	X	52	42	28.27	52.27	131.95
24	X	55	44	31.42	55.42	138.23
24	X	59	46	34.56	58.56	144.51
24	X	62	48	37.70	61.70	150.80
24	X	65	50	40.84	64.84	157.08
24	X	68	52	43.98	67.98	163.36
24	X	71	54	47.12	71.12	169.65
24	X	74	56	50.27	74.27	175.93
24	X	77	58	53.41	77.41	182.21
24	X	81	60	56.55	80.55	188.50

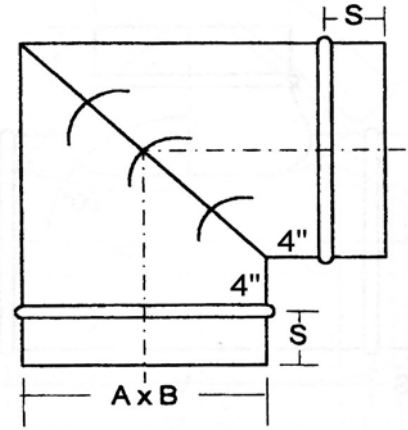
OVAL FITTINGS



ANGLE

SPECIFY

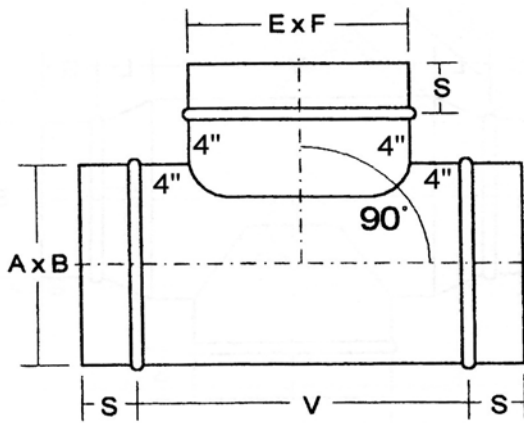
- Diameter A X B
- Angle
- Material Type
- Gauge or Static Pressure
- S = 2" Small End Connection



MITERED 90

SPECIFY

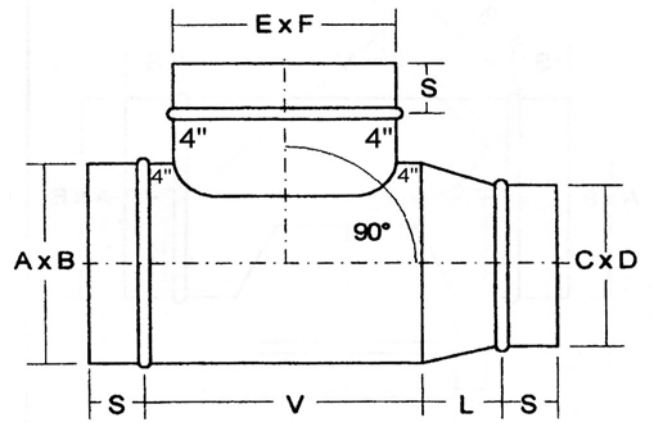
- Diameter A X B
- With or Without Vanes
- Material Type
- Gauge or Static Pressure
- S = 2" Small End Connection



STRAIGHT TEE

SPECIFY

- Diameter A X B / Diameter E X F
- Material Type
- Gauge or Static Pressure
- S = 2" Small End Connection
- V = E + 8"

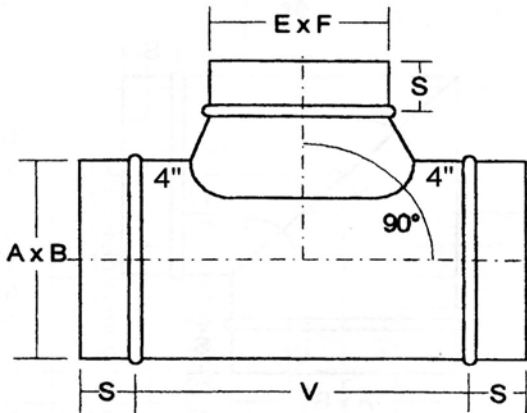


REDUCING TEE

SPECIFY

- Diameter A X B / Diameter C X D / Diameter E X F
- Material Type
- Gauge or Static Pressure
- S = 2" Small End Connection
- V = E + 8"

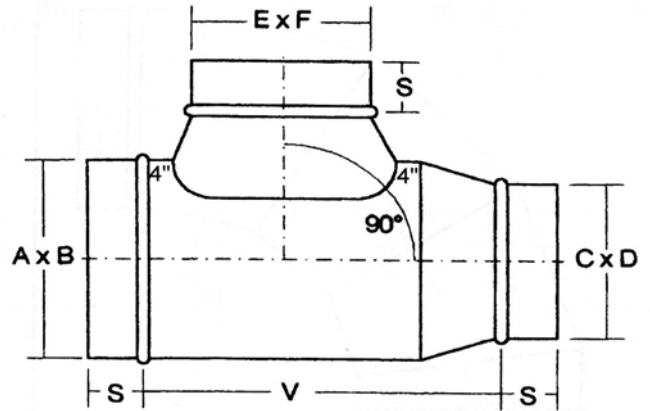
OVAL FITTINGS



CONICAL TEE

SPECIFY

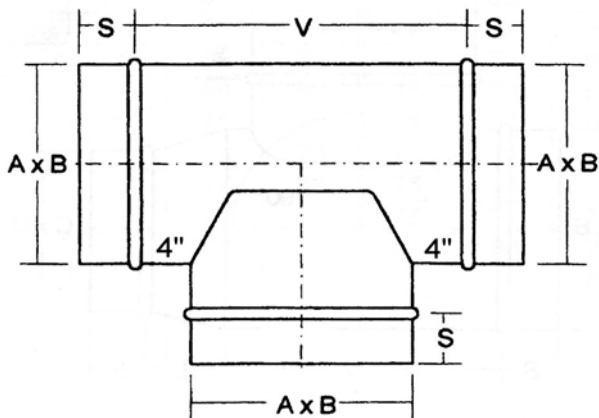
- Diameter A X B / Diameter E X F
- Material Type
- Gauge or Static Pressure
- S = 2" Small End Connection
- V = E + 12



REDUCING CONICAL TEE

SPECIFY

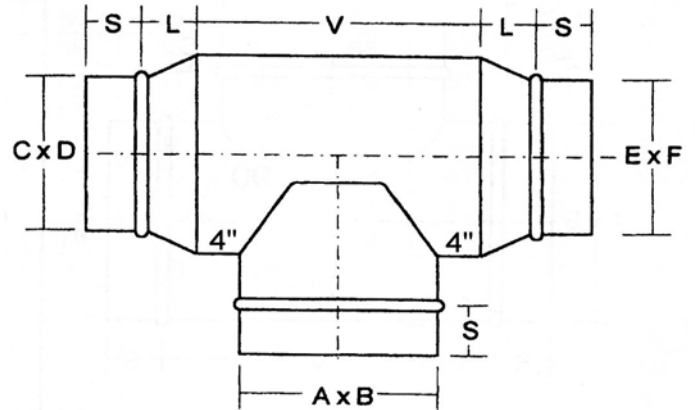
- Diameter A X B / Diameter C X D / Diameter E X F
- Material Type
- Gauge or Static Pressure
- S = 2" Small End Connection
- V = (E+12) + (A-C) 2



BULL HEAD TEE

SPECIFY

- Diameter A X B
- Material Type
- Gauge or Static Pressure
- S = 2" Small End Connection
- V = A + 8"

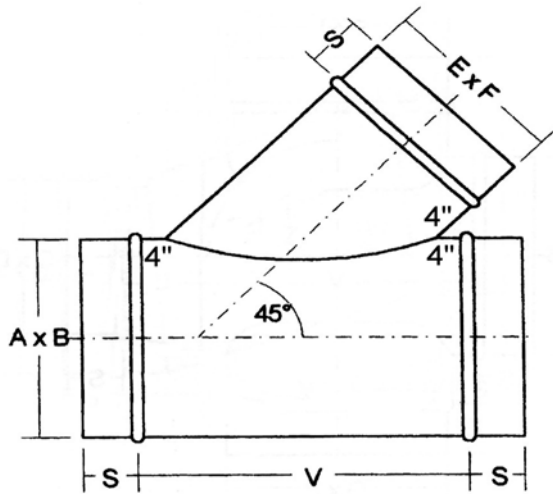


REDUCING BULL HEAD TEE

SPECIFY

- Diameter A X B / Diameter C X D / Diameter E X F
- Material Type
- Gauge or Static Pressure
- S = 2" Small End Connection
- V = A + 8"

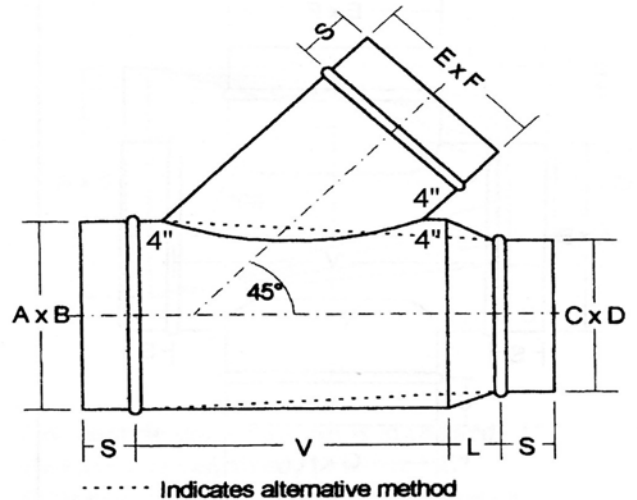
OVAL FITTINGS



LATERAL

SPECIFY

- Diameter A X B / Diameter E X F
- Material Type
- Gauge or Static Pressure
- S = 2" Small End Connection
- $V = (E \times 1.41) + 8"$

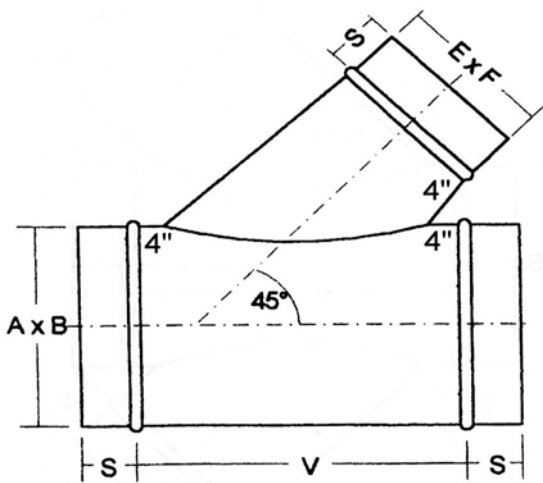


REDUCING LATERAL

SPECIFY

- Diameter A X B / Diameter C X D / Diameter E X F
- Material Type
- Gauge or Static Pressure
- S = 2" Small End Connection
- $V = (E \times 1.41) + 8"$
- $L = (A - C) / 2$

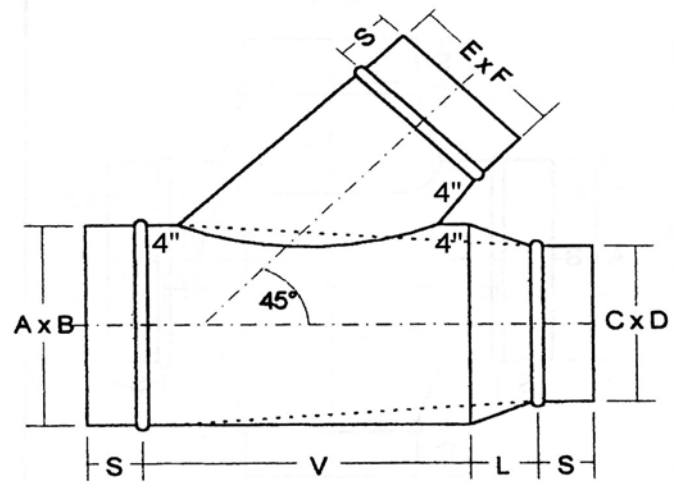
..... Indicates alternative method



CONICAL LATERAL

SPECIFY

- Diameter A X B / Diameter E X F
- Material Type
- Gauge or Static Pressure
- S = 2" Small End Connection
- $V = (E \times 1.41) + 8"$



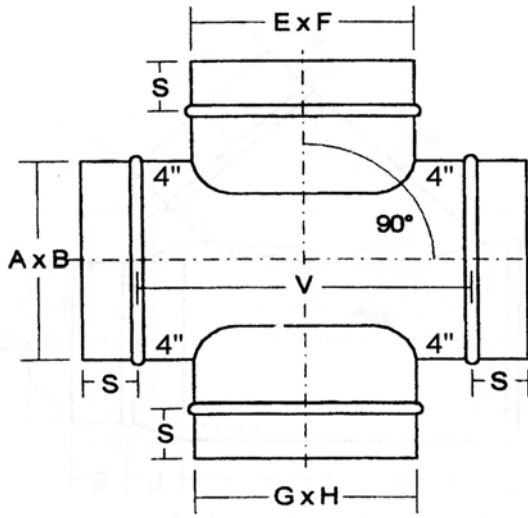
REDUCING CONICAL LATERAL

SPECIFY

- Diameter A X B / Diameter C X D / Diameter E X F
- Material Type
- Gauge or Static Pressure
- S = 2" Small End Connection
- $V = (E \times 1.41) + 8"$

..... Indicates alternative method

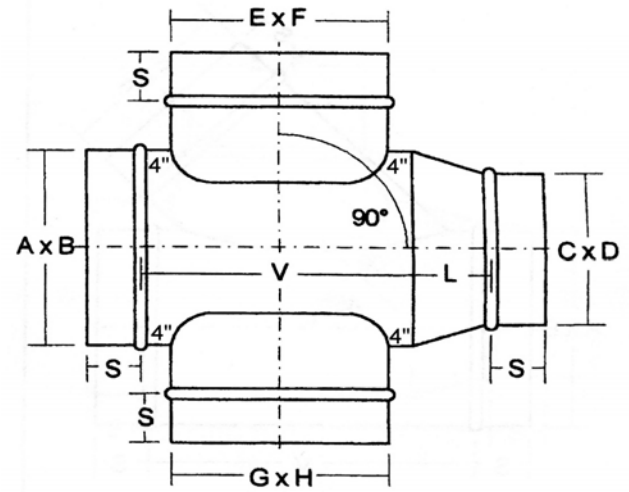
OVAL FITTINGS



CROSS

SPECIFY

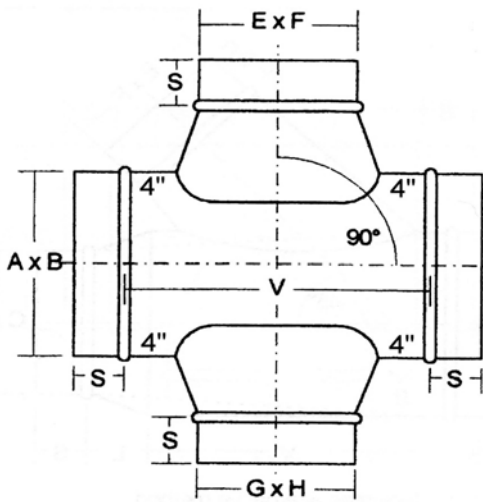
- Diameter A X B / Diameter E X F / Diameter G X H
- Material Type
- Gauge or Static Pressure
- S = 2" Small End Connection
- V = E + 8"



REDUCING CROSS

SPECIFY

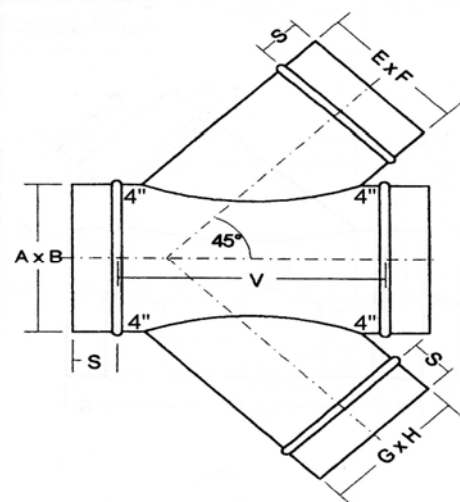
- Dia. A X B / Dia. C X D / Dia. E X F / Dia. G X H
- Material Type
- Gauge or Static Pressure
- S = 2" Small End Connection
- V = E + 8"
- L = (A-C) 2



CONICAL CROSS

SPECIFY

- Diameter A X B / Diameter E X F / Diameter G X H
- Material Type
- Gauge or Static Pressure
- S = 2" Small End Connection
- V = E + 8"

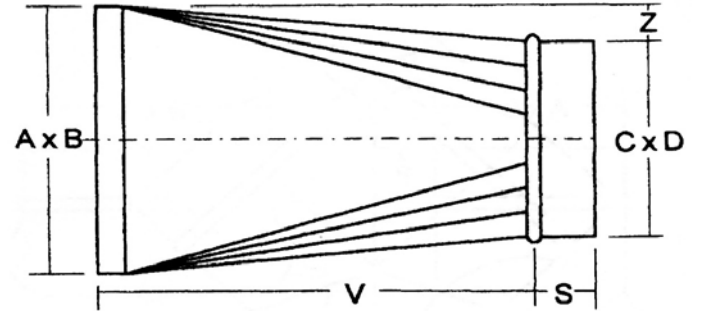
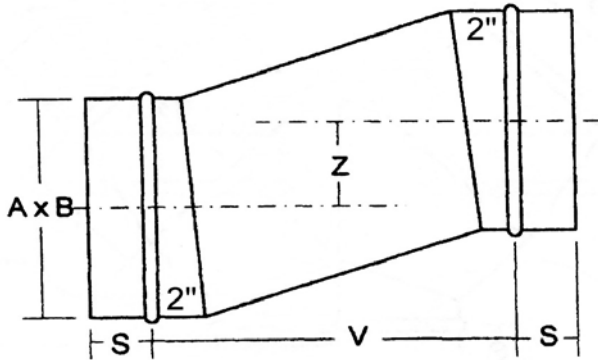


LATERAL CROSS

SPECIFY

- Diameter A X B / Diameter E X F / Diameter G X H
- Material Type
- Gauge or Static Pressure
- S = 2" Small End Connection
- V = E + 8"

OVAL FITTINGS



(Concentric Construction is Standard)

OFFSET

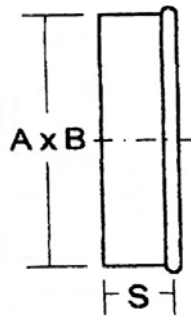
SPECIFY

- Diameter A X B
- Material Type
- Gauge or Static Pressure
- S = 2" Small End Connection
- V = Z x 2
- Z = Specify Dimension

OVAL TO RECTANGULAR or ROUND

SPECIFY

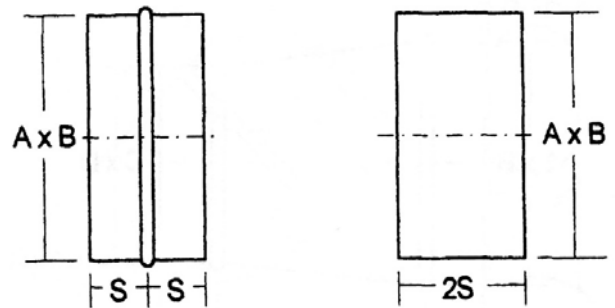
- Diameter A X B / Diameter C X D
- Material Type
- Gauge or Static Pressure
- S = 2" Small End Connection
- V = Specify Length
- Z = Specify Dimension
- Rectangular Connection Type (if applicable)



END CAP

SPECIFY

- Diameter A X B
- Material Type
- Gauge or Static Pressure
- S = 2" Small End Connection

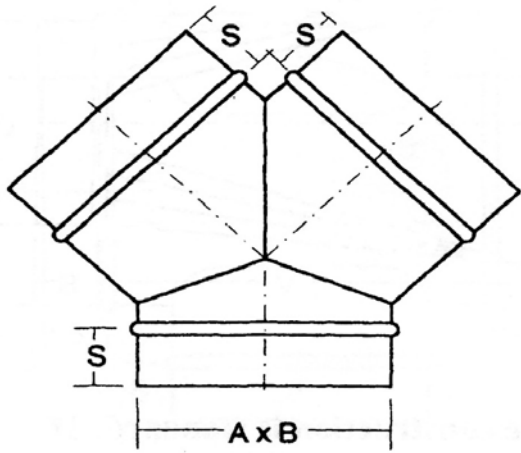


COUPLING

SPECIFY

- Diameter A X B
- Material Type
- Gauge or Static Pressure
- S = 2" Small End Connection
- 2S = 4"

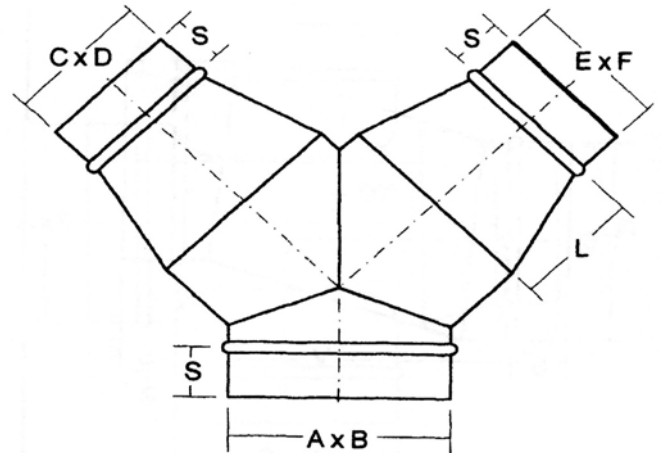
OVAL FITTINGS



WYE BRANCH

SPECIFY

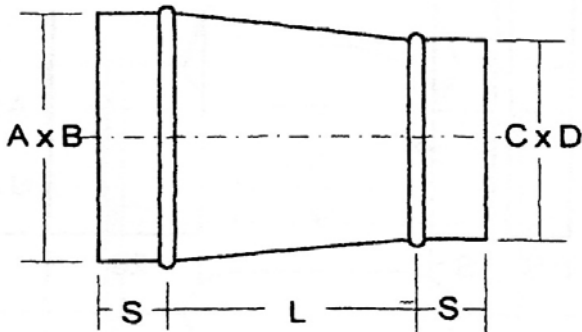
- Diameter A X B
- Material Type
- Gauge or Static Pressure
- S = 2" Small End Connection



REDUCING WYE BRANCH

SPECIFY

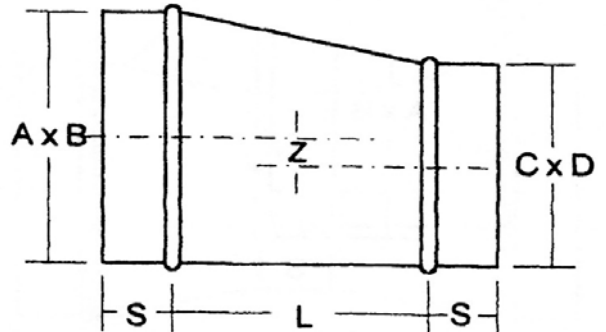
- Diameter A X B / Diameter C X D / E X F
- Material Type
- Gauge or Static Pressure
- S = 2" Small End Connection
- L = (C-E) 2



CONCENTRIC REDUCER

SPECIFY

- Diameter A X B / C X D
- Material Type
- Gauge or Static Pressure
- S = 2" Small End Connection
- L = (A-C) 2

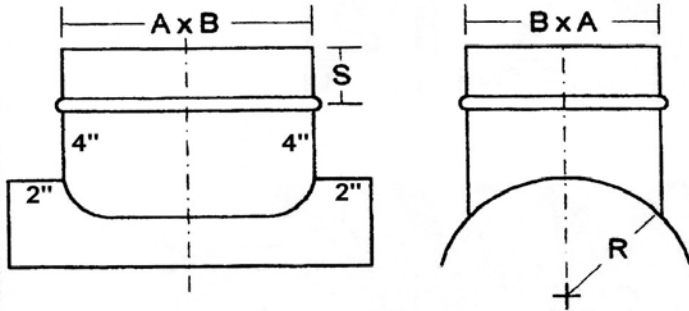


ECCENTRIC REDUCER

SPECIFY

- Diameter A X B / C X D
- Material Type
- Gauge or Static Pressure
- S = 2" Small End Connection
- L = (A-C) 2

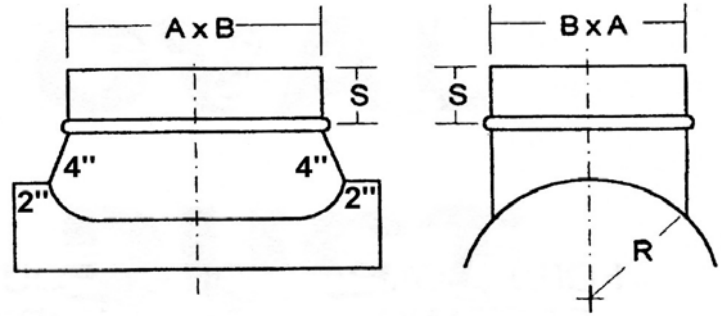
OVAL FITTINGS



SADDLE TAP

SPECIFY

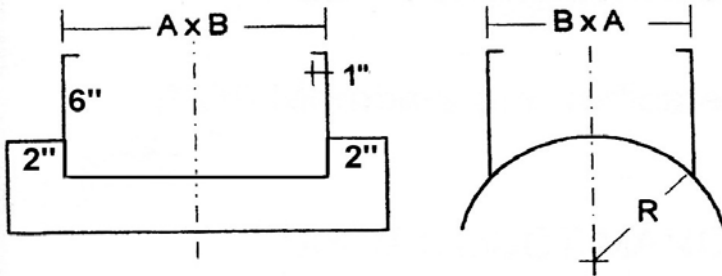
- Diameter A X B
- Material Type
- Gauge or Static Pressure
- S = 2" Small End Connection



CONICAL SADDLE TAP

SPECIFY

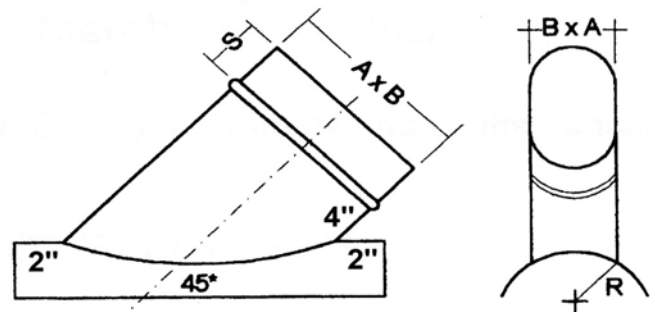
- Diameter A X B
- Material Type
- Gauge or Static Pressure
- S = 2" Small End Connection
- R = 1.5 x CLR



GRILLE BOX TAP

SPECIFY

- Diameter A X B
- Material Type
- Gauge or Static Pressure
- R = 1.5 x CLR



LATERAL SADDLE TAP

SPECIFY

- Diameter A X B
- Material Type
- Gauge or Static Pressure
- S = 2" Small End Connection
- R = 1.5 x CLR