



Air Distribution Corporation

Single Wall Round

Spiral Duct and Fittings Construction Standards

Air Distribution Corporation Spiral Duct and Fittings are manufactured in accordance with applicable SMACNA, ASHRAE and SPIDA standards.

Galvanized or Stainless Steel Gauge Table for 2005 SMACNA Duct Standard up to 10" W.G. Static Pressure

Gauge Schedule	
Size Dia.	Spiral Pipe
3" - 16"	26
18" - 26"	24
28" - 40"	22
42" - 50"	20
52" - 84"	18

Gauge Schedule	
Size Dia.	Fittings
3" - 12"	26
14" - 24"	24
26" - 36"	22
38" - 48"	20
50" - 84"	18

Up to 2" W.G. Fittings conform to SMACNA seal Class "C" construction
 Up to 10" W.G. Fittings conform to SMACNA seal Class "A" construction

Aluminum Gauge Table for 2005 SMACNA Duct Standard up to + 2" W.G. Static Pressure

Aluminum Thickness	
Size Dia.	Spiral Pipe
3" - 14"	.032
16" - 26"	.040
28" - 36"	.040
38" - 50"	.050
52" - 60"	.063

Aluminum Thickness	
Size Dia.	Fittings
3" - 14"	.032
16" - 26"	.040
28" - 36"	.050
38" - 50"	.063
52" - 60"	.071

Fittings conform to SMACNA seal Class "C" construction

Thickness/Weight Relationships of Standard Materials

Gauge	Galvanized Steel		Stainless Steel (304 or 316)		Aluminum 3003-H14	
	Nominal Thickness (inches)	Nominal Weight (lb/sq ft)	Nominal Thickness (inches)	Nominal Weight (lb/sq ft)	Nominal Thickness (inches)	Nominal Weight (lb/sq ft)
26	0.0217	0.906	0.0188	0.788	0.025	0.356
24	0.0276	1.156	0.0250	1.050	0.025	0.356
22	0.0336	1.406	0.0313	1.313	0.032	0.456
20	0.0396	1.656	0.0375	1.575	0.040	0.570
18	0.0516	2.156	0.0500	2.100	0.050	0.713
16	0.0635	2.656	0.0625	2.625	0.063	0.898

ASTM Material Specifications

Standard Material	ASTM Number
Galvanized Steel	A653, A924
Stainless Steel	A240
Aluminum	B209



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DIMENSIONING CODE

All dimensions are in inches, all angles are in degrees

A - Main barrel inlet diameter

B - Main barrel outlet diameter

C or D - Branch tap diameter (Note: On tee and lateral fittings with two taps, C is the branch closest to the inlet of the fitting. On cross fittings, C is the larger of the two taps.)

R - Center Line Radius

V - Body length of fitting

H - See Loloss Tee

ORDERING

Specify type of fittings and list the following dimensions:

ELBOWS - A, R

TEES - A, C, (B, D)

LATERALS - A, C, (B, D)

CROSSES - A, C, D, (B)

ACCESSORIES - As Noted

All fittings, unless noted, are sized as a male part on each end for a slip joint assembly with spiral pipe.

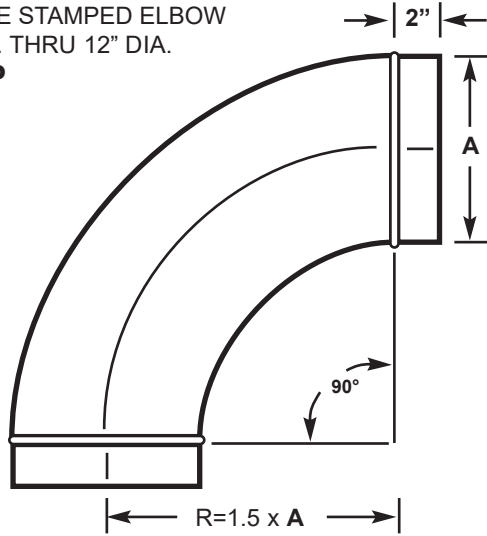
For flanged fittings see connectors detail for all dimensioning.



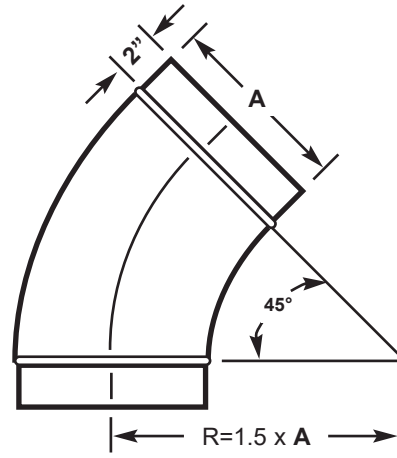
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Single Wall Round ELBOWS

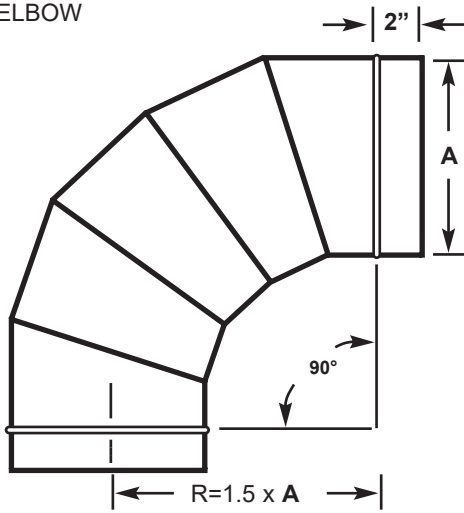
90° DIE STAMPED ELBOW
3" DIA. THRU 12" DIA.
E90P



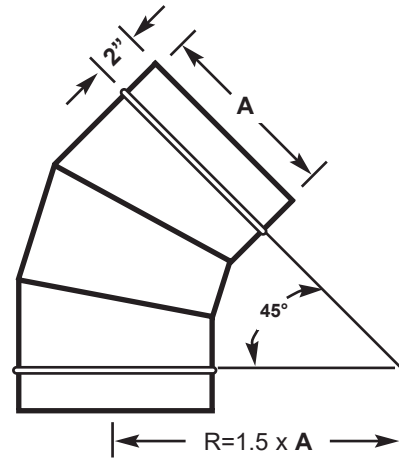
45° DIE STAMPED ELBOW
3" DIA. THRU 12" DIA.
E45P



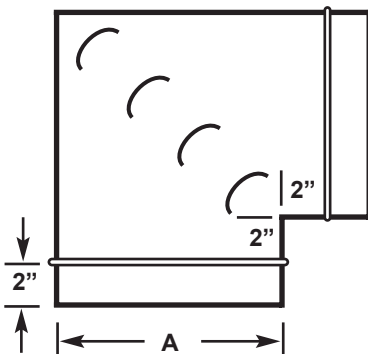
90° 5-PC ELBOW
E905



45° 3-PC ELBOW
E453

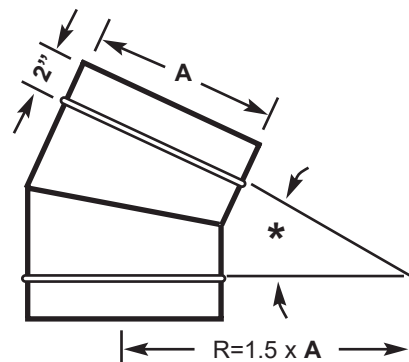


90° 2-PC MITRED ELBOW
EM90



A	No. of vanes
3-9	2
10-14	3
15-19	4
20-60	5

CUSTOM ELBOW
XELB



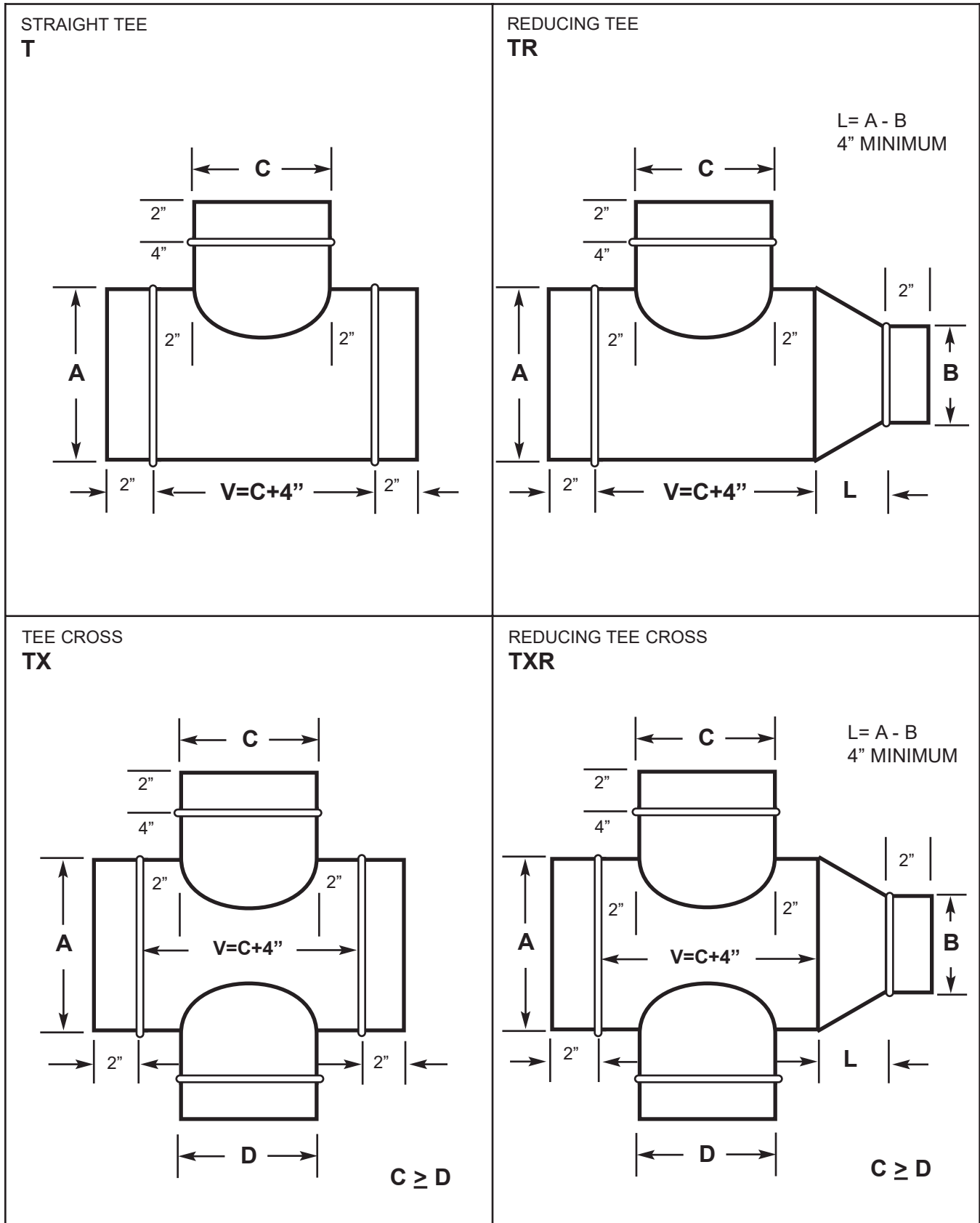
*SPECIFY (Elbow Angle & Radius of Centerline)



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STRAIGHT TEES

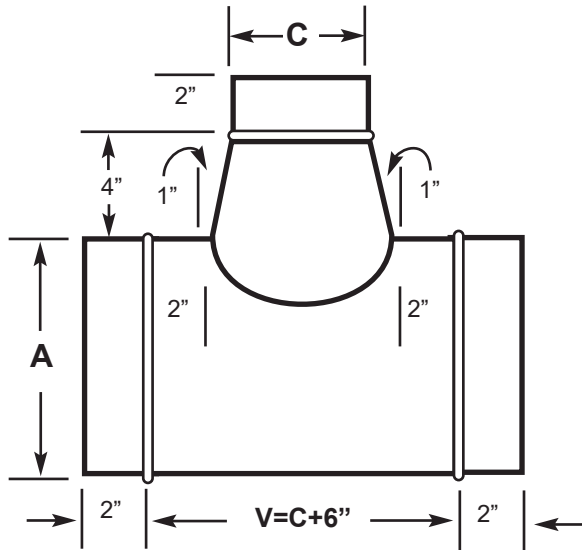




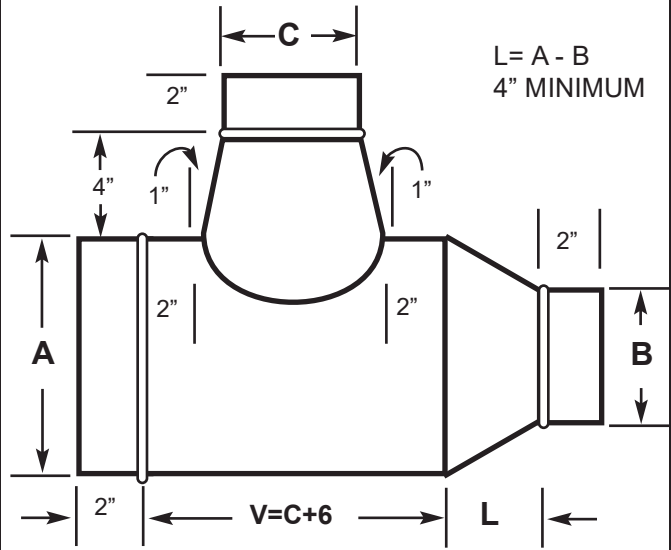
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Single Wall Round CONICAL TEES

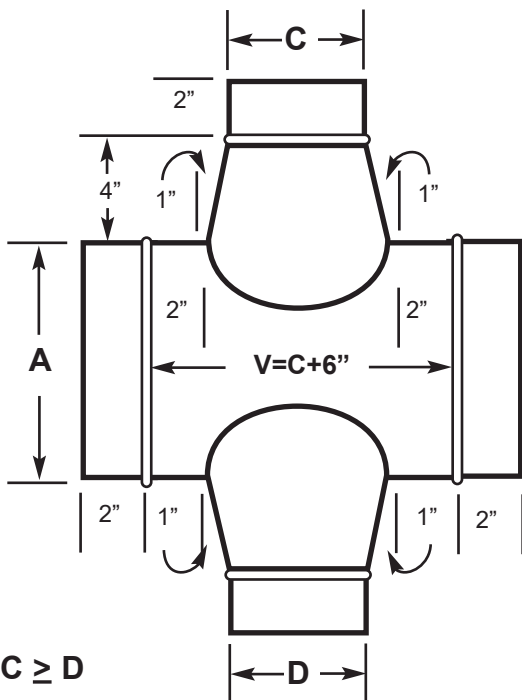
CONICAL TEE
TC



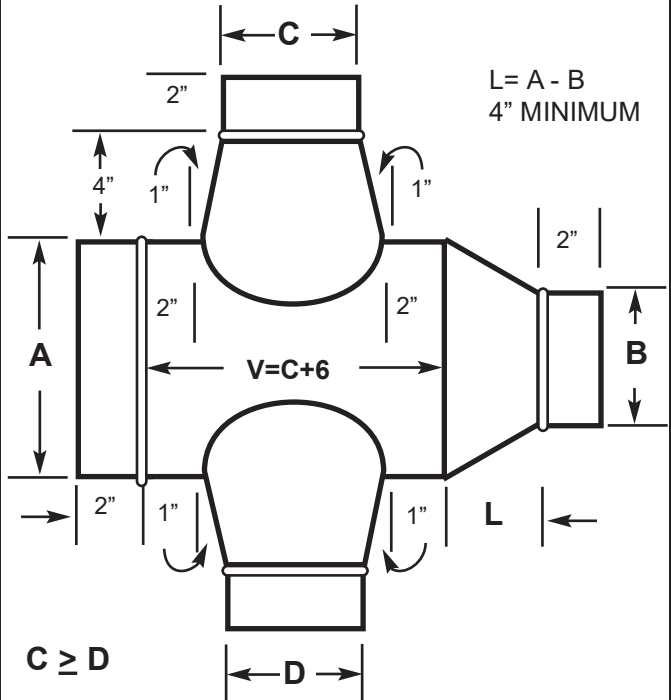
REDUCING CONICAL TEE
TCR



CONICAL TEE CROSS
TXC



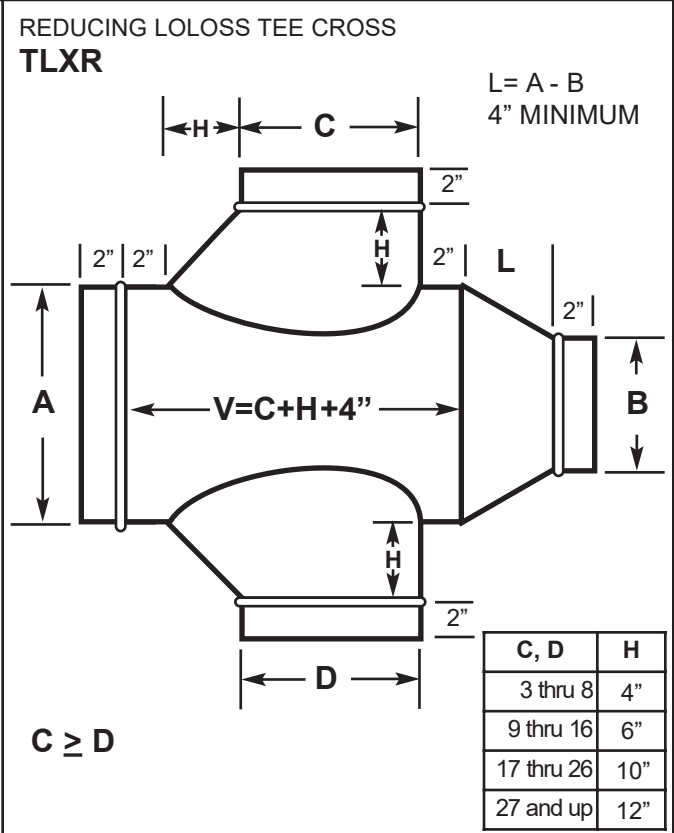
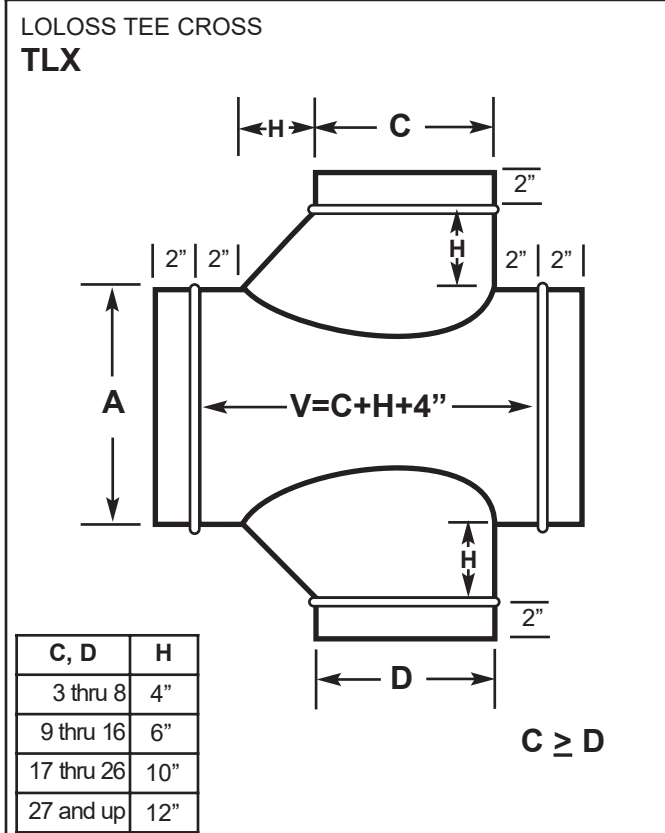
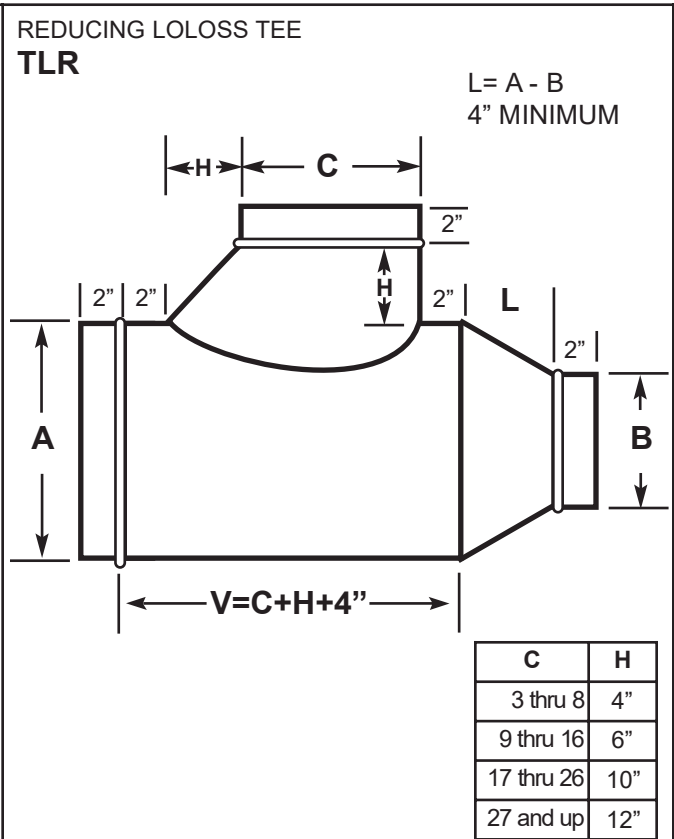
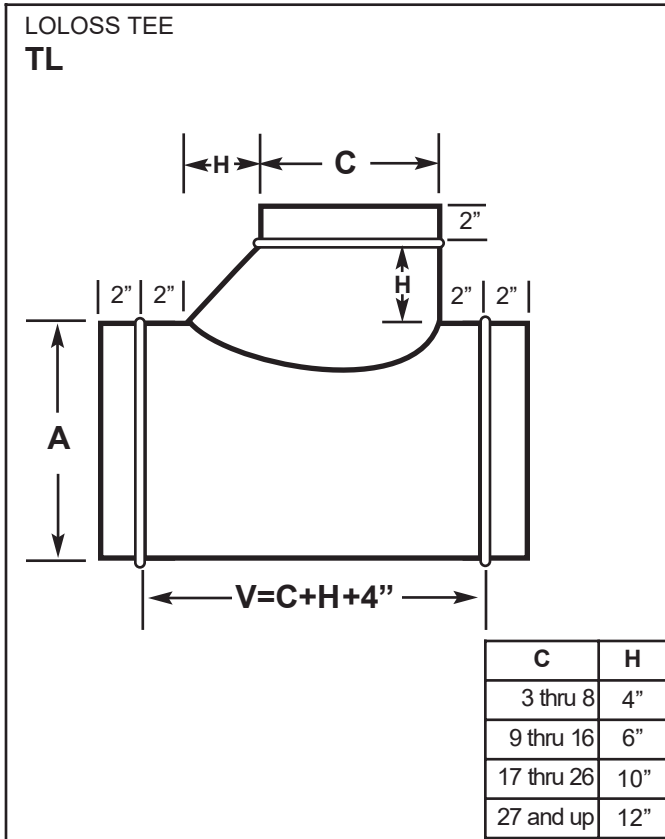
REDUCING CONICAL TEE CROSS
TXCR





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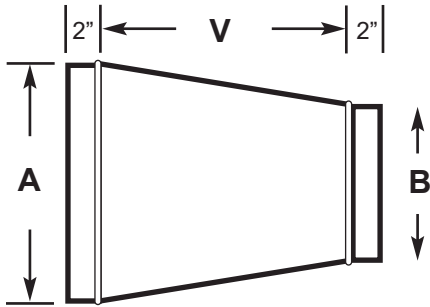
Single Wall Round MISCELLANEOUS

CONCENTRIC REDUCER

RC

$$V=A-B$$

4" MINIMUM

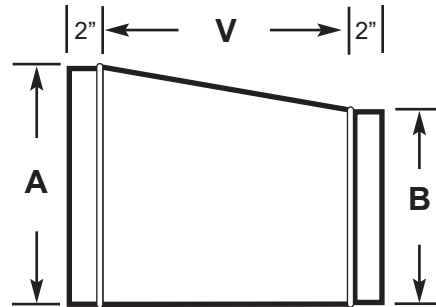


ECCENTRIC REDUCER

RE

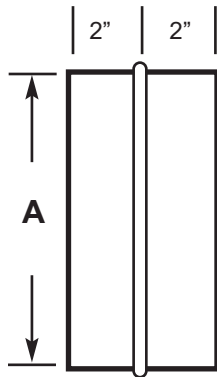
$$V=A-B$$

4" MINIMUM



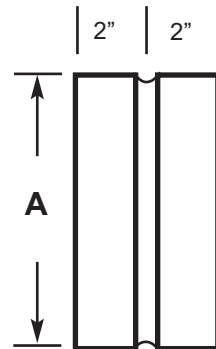
PIPE COUPLING MALE

NP



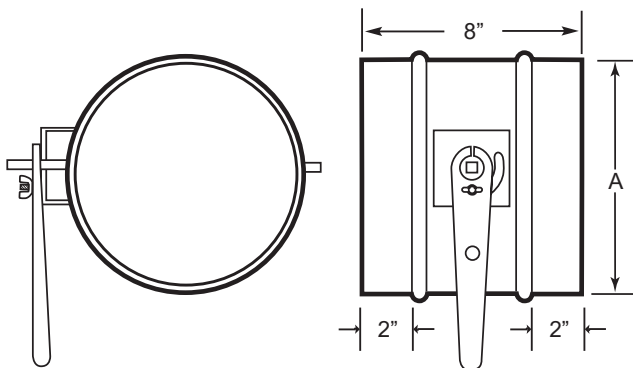
FITTING COUPLING

FCL



ROUND BALANCING DAMPER

RBD



END CAP

ES

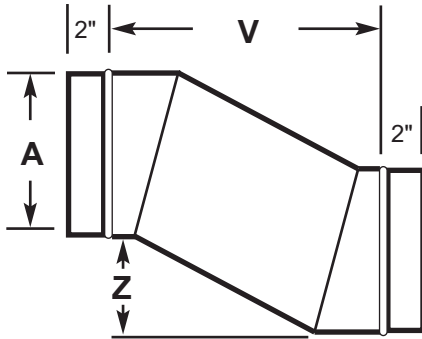




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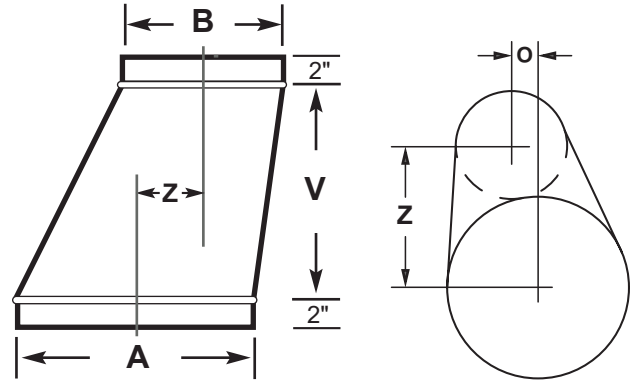
Single Wall Round MISCELLANEOUS

OFFSET
Z



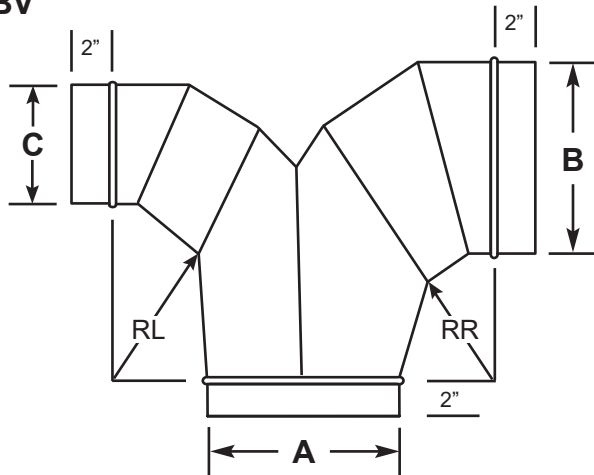
V STANDARD = 2 x A

ROUND TO ROUND
ZR

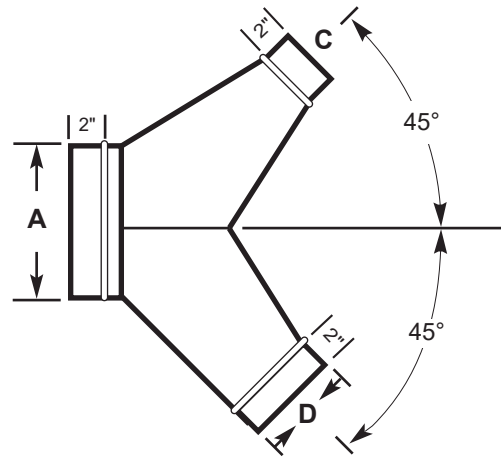


V STANDARD = 2 x A

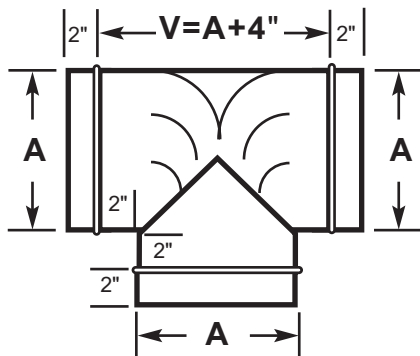
BULLHEAD VEE
BV



TAPERED Y BRANCH
Y

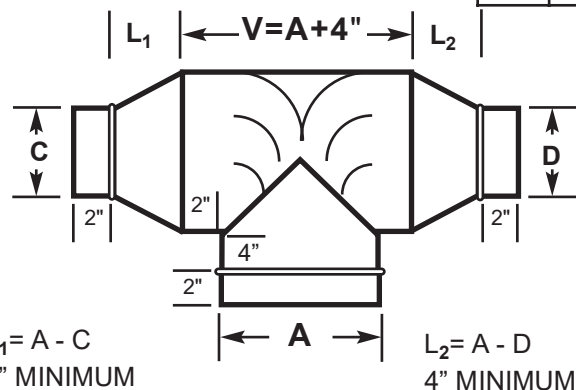


BULLHEAD TEE
BT



A	No. of vanes
3-7	1
8-10	3
10-60	5

REDUCING BULLHEAD TEE
TBVR



A	No. of vanes
3-7	1
8-10	3
10-60	5

$L_1 = A - C$
4" MINIMUM

$L_2 = A - D$
4" MINIMUM

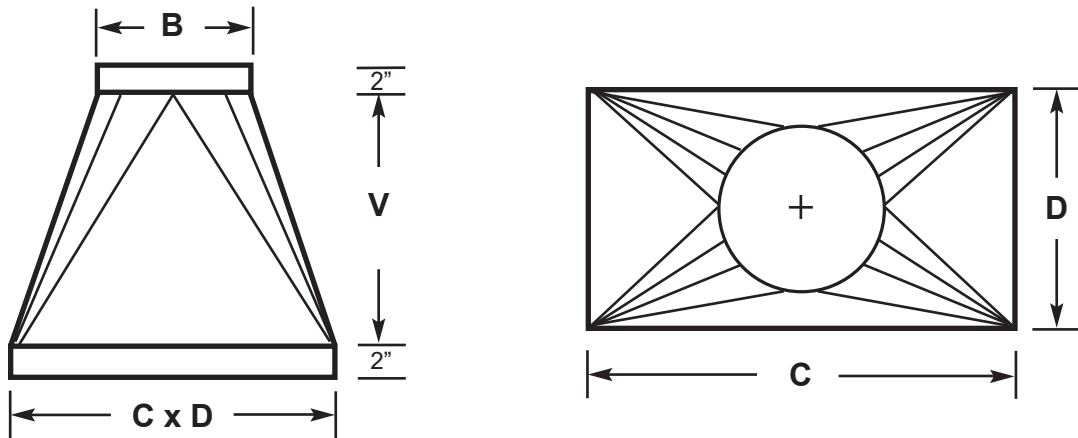


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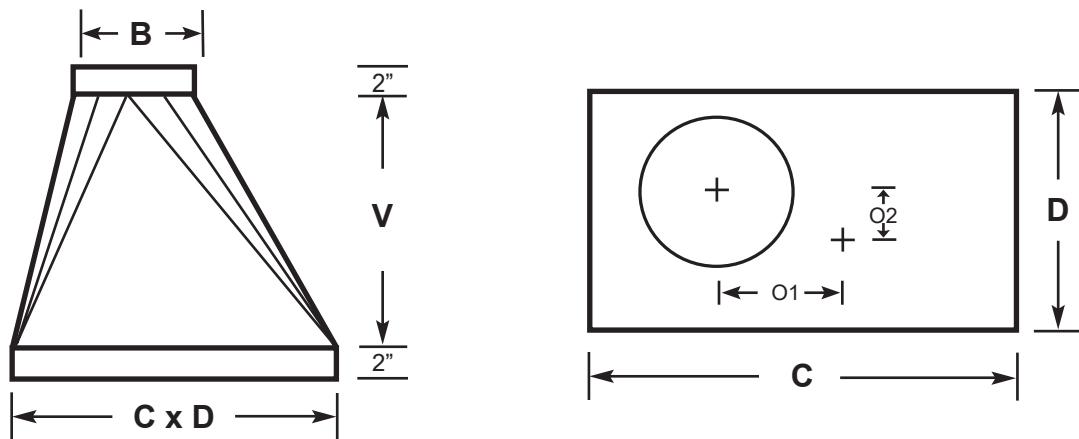
Single Wall Round

TRANSITIONS

CONCENTRIC RECTANGULAR TO ROUND RTR-C



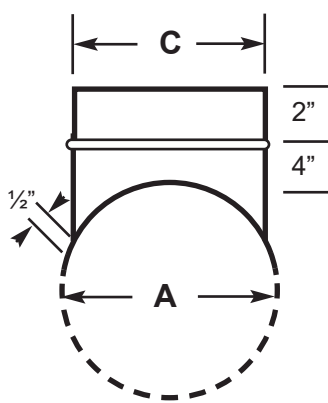
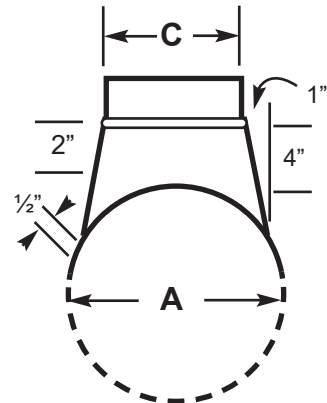
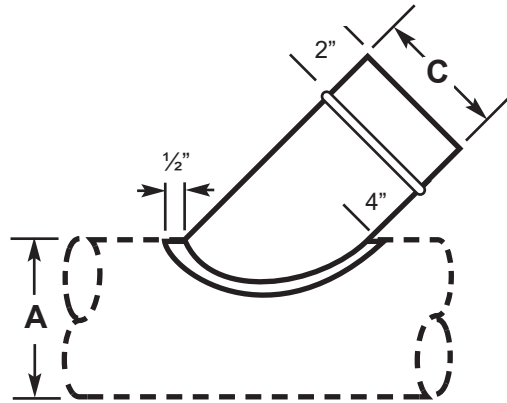
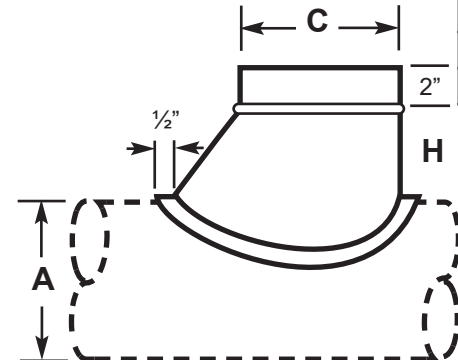
NON-CENTRIC RECTANGULAR TO ROUND RTR-NC



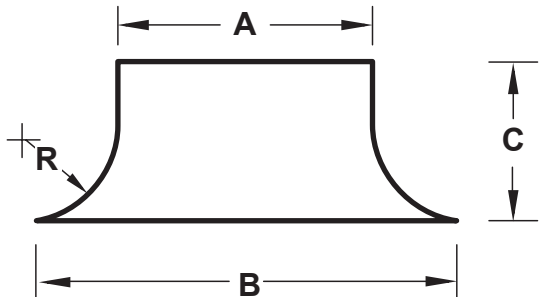
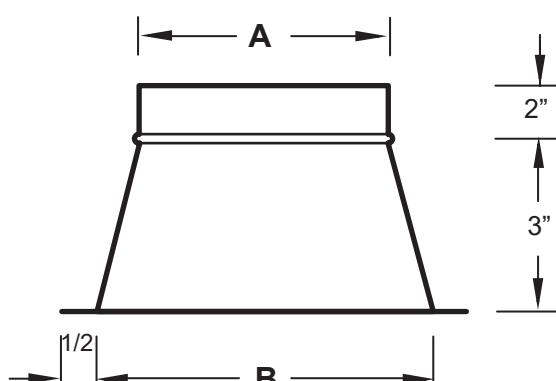


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Single Wall Round ROUND TAPS

<p>STRAIGHT TAP DST</p>  <p>A = PIPE DIAMETER</p>	<p>CONICAL TAP CST</p>  <p>A = PIPE DIAMETER</p>										
<p>LATERAL TAP 45° LST</p>  <p>A = PIPE DIAMETER</p>	<p>LOLOSS TAP HEST</p>  <table border="1" data-bbox="1299 882 1461 1071"> <thead> <tr> <th>C</th> <th>H</th> </tr> </thead> <tbody> <tr> <td>3 thru 8</td> <td>4"</td> </tr> <tr> <td>9 thru 16</td> <td>6"</td> </tr> <tr> <td>17 thru 26</td> <td>10"</td> </tr> <tr> <td>27 and up</td> <td>12"</td> </tr> </tbody> </table> <p>A = PIPE DIAMETER</p>	C	H	3 thru 8	4"	9 thru 16	6"	17 thru 26	10"	27 and up	12"
C	H										
3 thru 8	4"										
9 thru 16	6"										
17 thru 26	10"										
27 and up	12"										

START TAPS

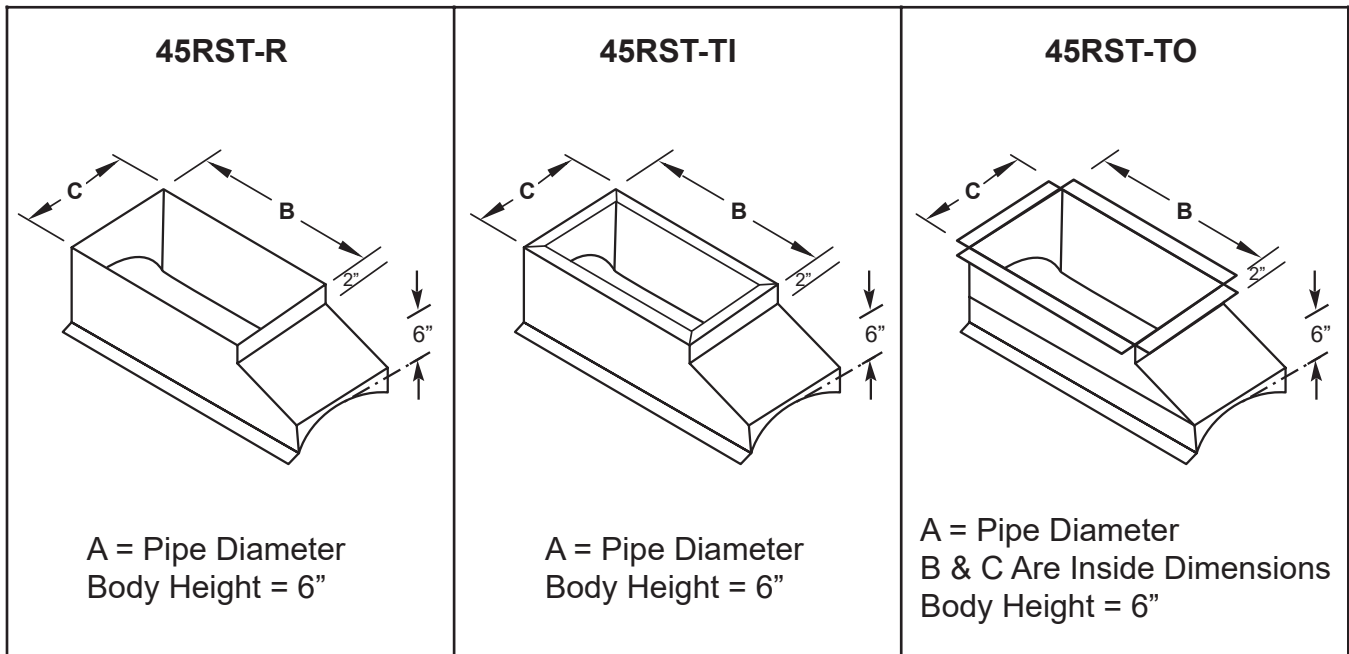
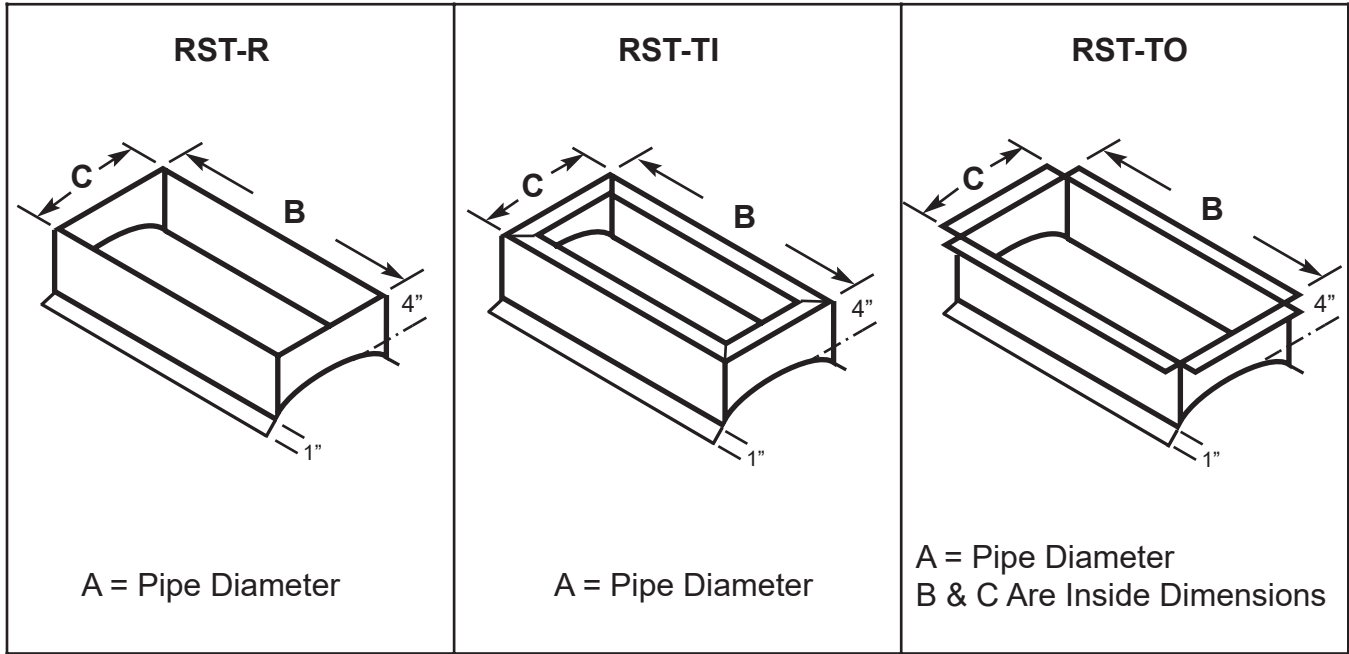
<p>BELLMOUTH START TAP BL</p> <div data-bbox="544 1575 787 1659" style="border: 1px solid black; padding: 5px; width: fit-content;"> <p>< 18" Dia, C = 6" > 18" Dia, C = 3"</p> </div>  <p>B = A + 4</p>	<p>CONICAL START TAP CT</p>  <p>B = A + 2</p>
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Single Wall Round

RECTANGULAR TAPS

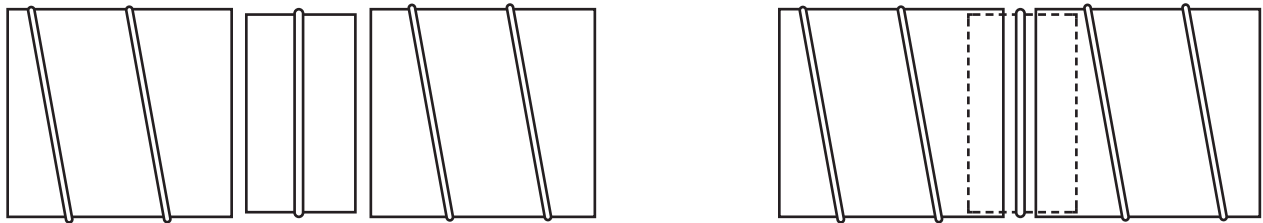




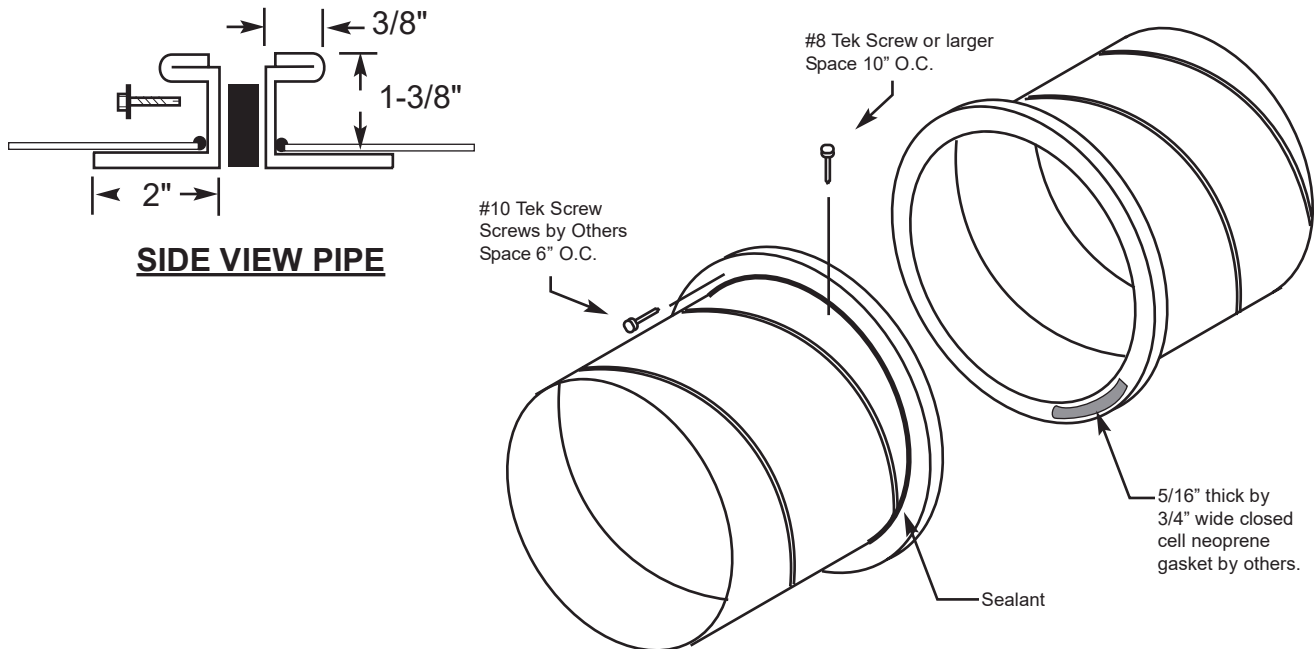
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Single Wall Round CONNECTORS

Slip Fit Connection



Accuflange® Connection



Spiral Pipe - Customer specified duct length shall be flange face to flange face dimension.



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Single Wall Round

Approximate Weight Spiral Duct

DIAMETER	WEIGHT PER FOOT					
	26 Gauge	24 Gauge	22 Gauge	20 Gauge	18 Gauge	16 Gauge
4	1.02	1.35	1.64	1.94		
5	1.28	1.69	2.06	2.42		
6	1.54	2.03	2.47	2.91	3.88	4.76
7	1.79	2.37	2.88	3.40	4.52	5.58
8	2.05	2.71	3.29	3.86	5.17	6.34
9	2.31	3.05	3.71	4.37	5.82	7.18
10	2.57	3.39	4.12	4.86	6.47	7.92
11	2.82	3.73	4.54	5.34	7.11	8.72
12	3.08	4.07	4.95	5.83	7.75	9.54
13	3.34	4.41	5.36	6.32	8.48	10.31
14	3.59	4.74	5.77	6.81	9.05	11.05
15	3.84	5.08	6.18	7.28	9.70	11.80
16	4.11	5.42	6.60	7.78	10.34	12.65
17	4.36	5.77	7.02	8.25	11.08	13.47
18	4.63	6.10	7.43	8.76	11.64	14.32
19	4.89	6.44	7.84	9.25	12.29	15.09
20	5.15	6.78	8.25	9.73	12.93	15.85
22	5.65	7.46	9.08	10.71	14.23	17.50
24	6.16	8.14	9.91	11.68	15.52	19.00
26	6.67	8.82	10.73	12.66	16.82	20.70
28	7.18	9.50	11.56	13.63	18.11	22.20
30	7.71	10.18	12.38	14.60	19.41	23.90
32	8.22	10.84	13.21	15.58	20.71	25.50
34	8.72	11.54	14.01	16.51	21.97	27.08
36	9.27	12.20	14.90	17.53	23.29	28.80
38	9.73	12.88	15.67	18.46	24.51	30.26
40	10.30	13.56	16.50	19.48	25.88	31.75
42	10.77	14.25	17.32	20.40	27.21	33.47
44	11.35	14.91	18.16	21.42	28.47	35.00
46	11.86	15.59	18.99	22.39	29.77	36.65
48	12.36	16.26	19.82	23.36	31.06	38.30
50	12.88	16.69	20.63	24.33	32.37	39.94
52	13.39	17.12	21.44	25.30	33.68	41.58
54	13.91	18.05	22.26	26.28	34.98	43.18
56	14.42	18.98	23.08	27.25	36.27	44.78
58	14.94	19.65	23.91	28.23	37.56	46.38
60	15.45	20.34	24.73	29.20	38.84	47.97

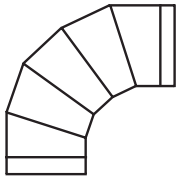
In pounds per linear foot - Based on galvanized steel



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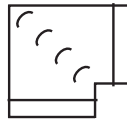
ALL FITTINGS CHART



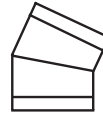
E90



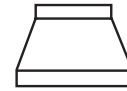
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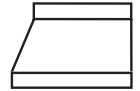
EM90



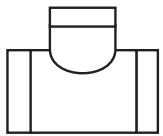
XELB



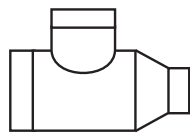
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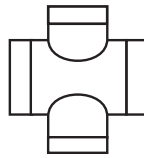
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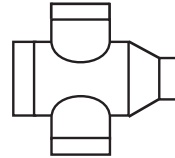
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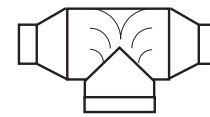
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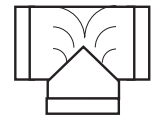
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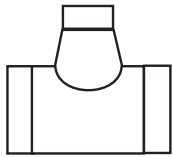
TXR



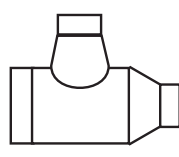
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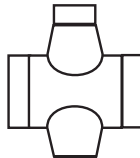
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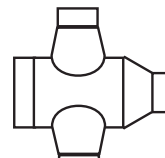
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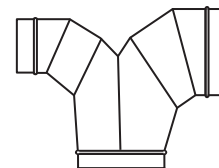
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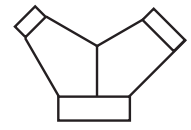
TXC



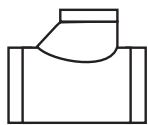
TXCR



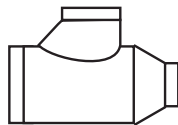
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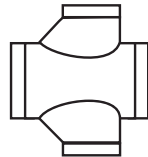
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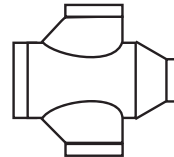
TL



TCR



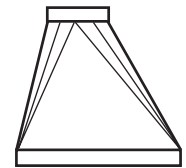
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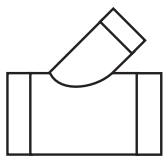
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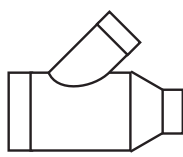
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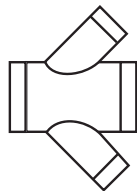
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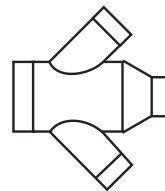
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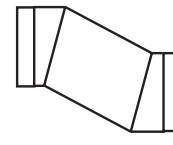
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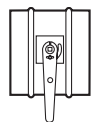
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LXR



Z



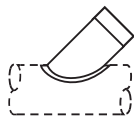
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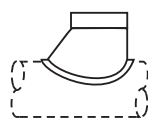
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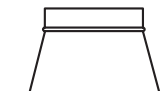
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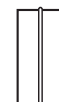
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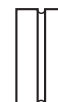
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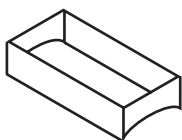
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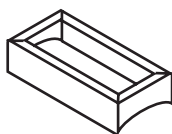
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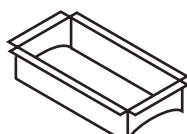
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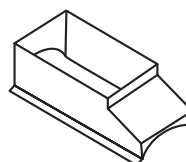
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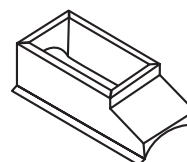
RTS-TI



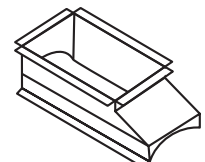
RST-TO



45RST-R



45RTS-TI



45RST-TO