



VORTEX

METAL MANUFACTURING

1855 Boulevard West, Richmond, VA 23230
804-355-7839

SINGLE-WALL SPIRAL DUCT & FITTINGS

SUBMITTAL

SINGLE-WALL ROUND SPIRAL DUCT AND FITTINGS CONSTRUCTION STANDARDS POSITIVE PRESSURE

DUCT DIAMETER	2005 SMACNA 2"-10" WG	
	DUCT	FITTINGS
3" - 6"	28	26
7" - 8"	28	26
9" - 10"	28	26
11" - 12"	28	26
13" - 14"	28	26
15" - 16"	26	24
17" - 18"	26	24
19" - 24"	26	24
25" - 26"	24	22
27" - 36"	24	22
37" - 40"	24	22

Refer to the tables on this page for gauge selection of galvanized steel (ASTM A 653) and paint grip steel. All duct fitting seams are stitch welded, solid welded or Norlock construction. All gores are standing seam or solid weld construction through 40" diameter.

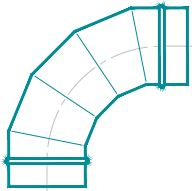
SINGLE-WALL ROUND SPIRAL DUCT AND FITTINGS CONSTRUCTION STANDARDS NEGATIVE PRESSURE

MAX. DUCT DIAMETER	2005 SMACNA 2" WG		2005 SMACNA 4" WG		2005 SMACNA 6" WG		2005 SMACNA 10" WG	
	DUCT	FITTINGS	DUCT	FITTINGS	DUCT	FITTINGS	DUCT	FITTINGS
6"	28	26	28	26	28	26	26	24
8"	28	26	28	26	28	26	26	24
10"	28	26	28	26	28	26	26	24
12"	28	26	28	26	26	24	24	22
14"	28	26	28	26	26	24	24	22
16"	28	26	26	24	24	22	24	22
18"	28	26	26	24	24	22	22	20
20"	28	26	24	22	24	22	22	20
22"	28	26	24	22	24	22	22	20
24"	26	24	24	22	22	20	20	18
30"	26	24	22	20	22	20	20	18
36"	24	22	22	20	20	18	18	16
40"	24	22	22	20	20	18	18	16

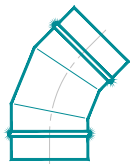
SINGLE-WALL FITTINGS



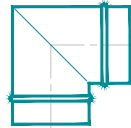
GE90



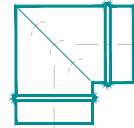
GE45



ME90



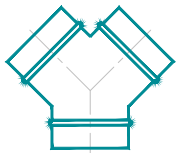
MV90



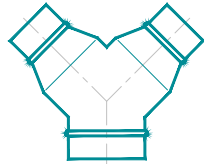
PC1



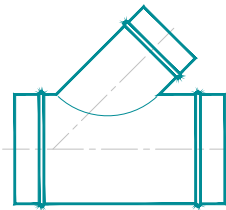
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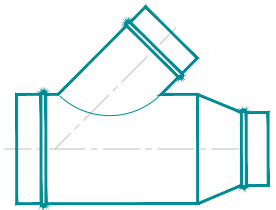
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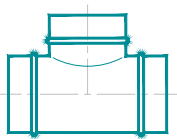
L



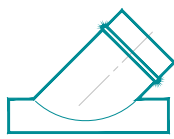
LR



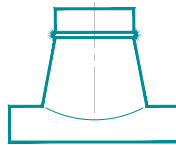
ST



LST



CST



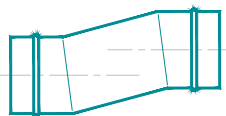
GST



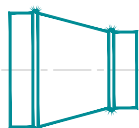
SST



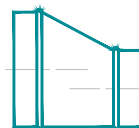
RO



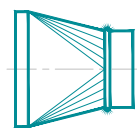
RDC



RDE



S2R

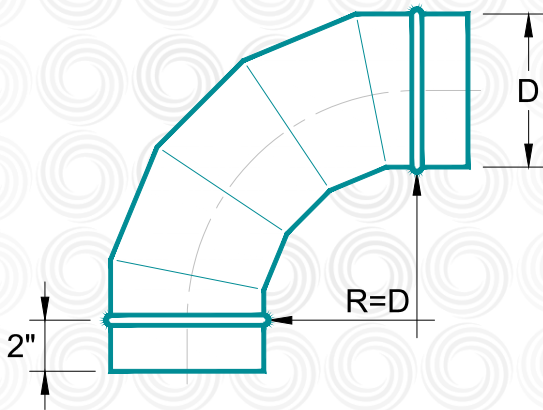


SINGLE-WALL ELBOWS



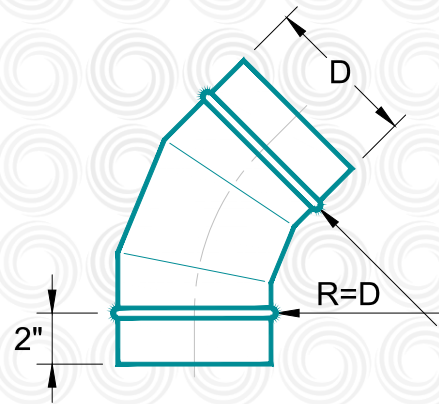
GE90

GORED ELBOW
90° 5-PC



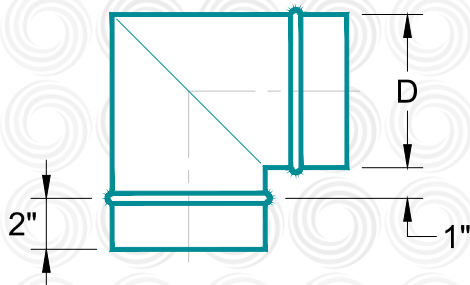
GE45

GORED ELBOW
45° 3-PC



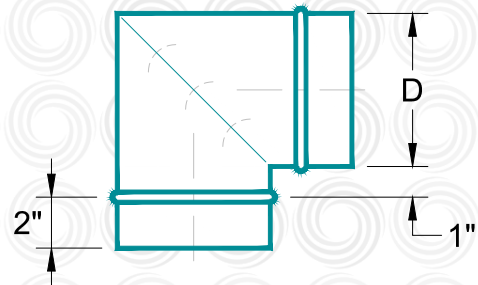
ME90

MITERED ELBOW
90° NO VANES



MV90

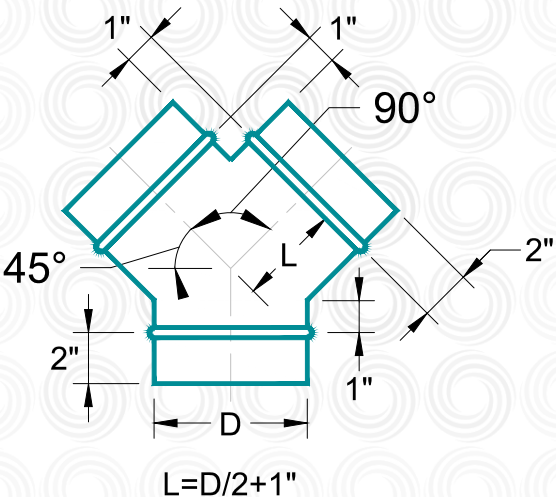
MITERED ELBOW
90° WITH VANES



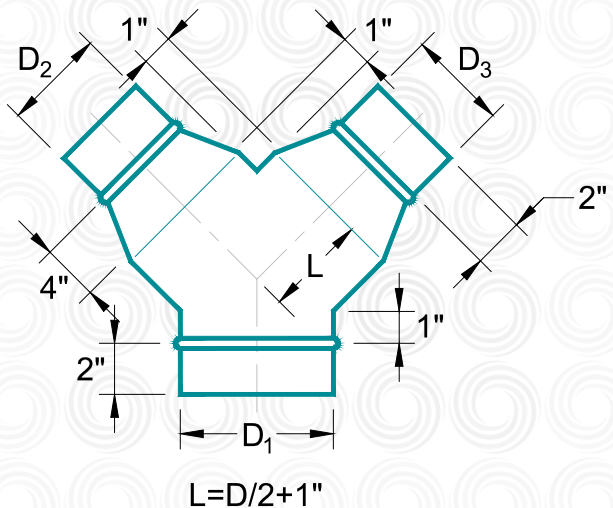
SINGLE-WALL WYES



Y Y BRANCH



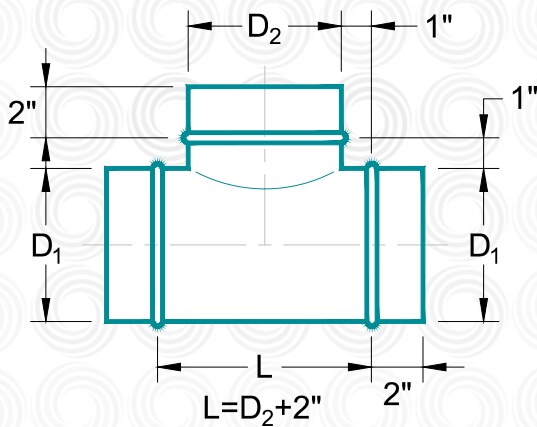
YR REDUCING Y BRANCH



SINGLE-WALL TEES

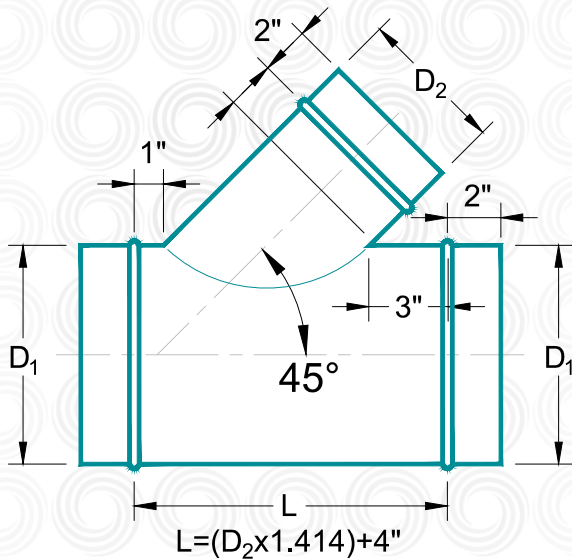
ST

STRAIGHT T



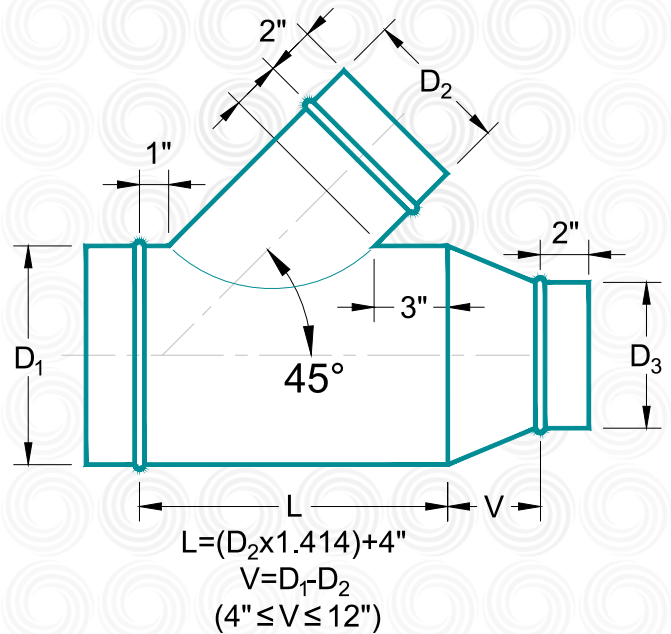
L

LATERAL



LR

REDUCING
LATERAL

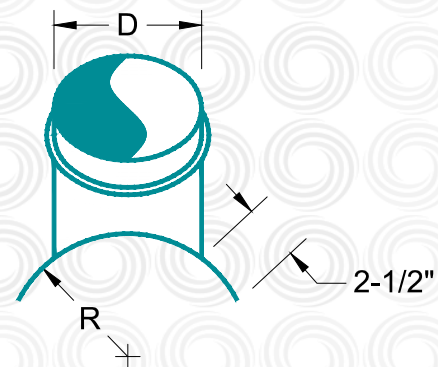
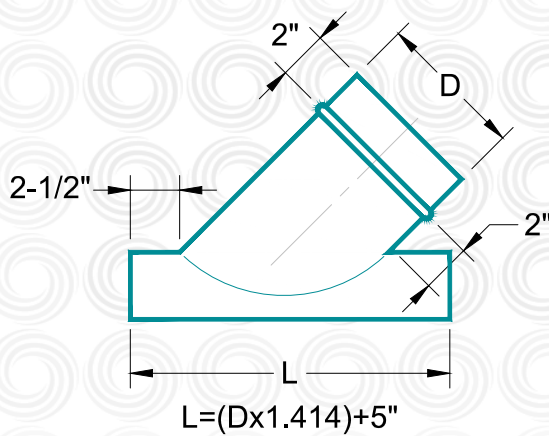


SINGLE-WALL SADDLE TAPS



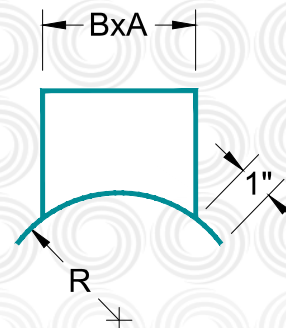
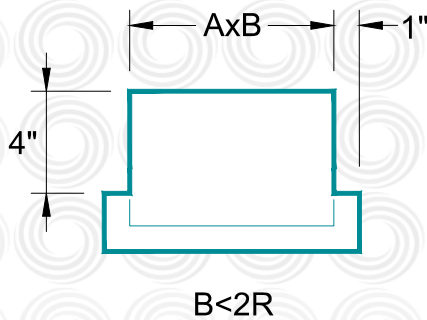
LST

LATERAL
SADDLE TAP



GST

GRILLE BOX
SADDLE TAP

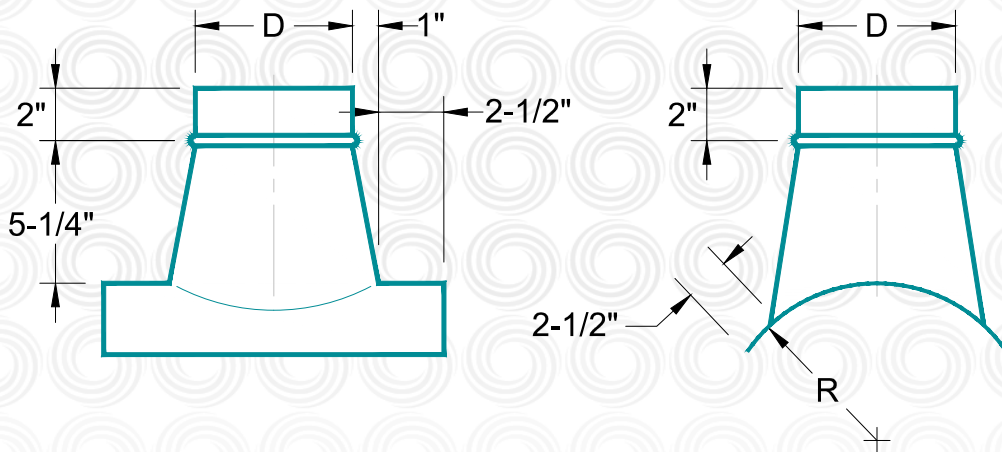


SINGLE-WALL SADDLE TAPS



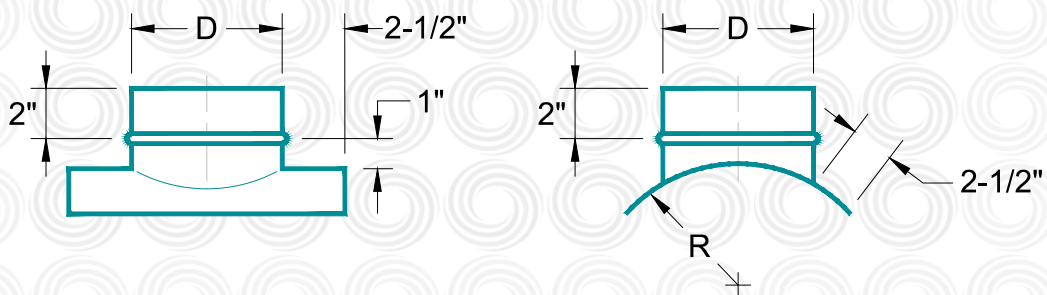
CST

**CONICAL
SADDLE TAP**



SST

**STRAIGHT
SADDLE TAP**

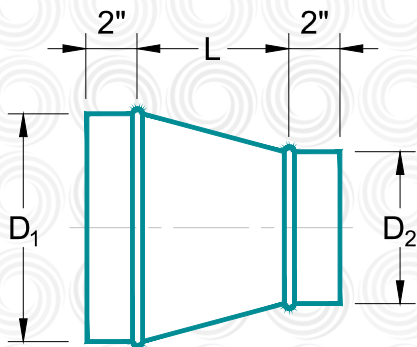


SINGLE-WALL TRANSITIONS



RDC

CONCENTRIC
REDUCER

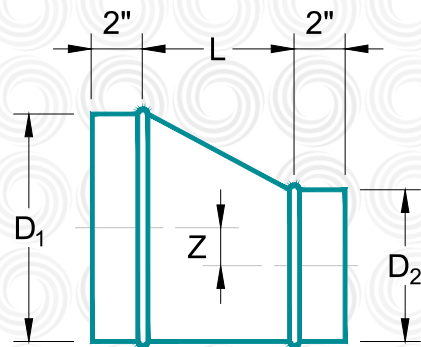


$$L = D_1 - D_2$$

$$(4" \leq L \leq 12")$$

RDE

ECCENTRIC
REDUCER



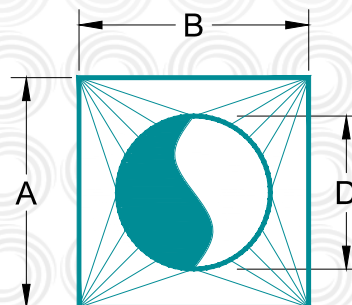
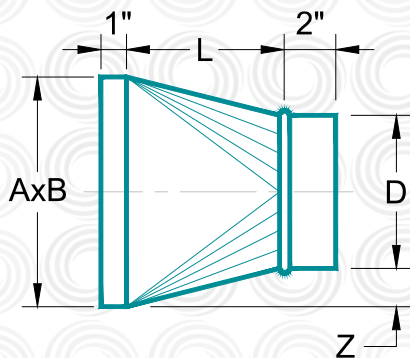
$$Z = (D_1 - D_2) / 2$$

$$L = D_1 - D_2$$

$$(4" \leq L \leq 12")$$

S2R

SQUARE
TO ROUND

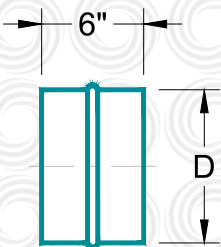


SINGLE-WALL ASSORTED



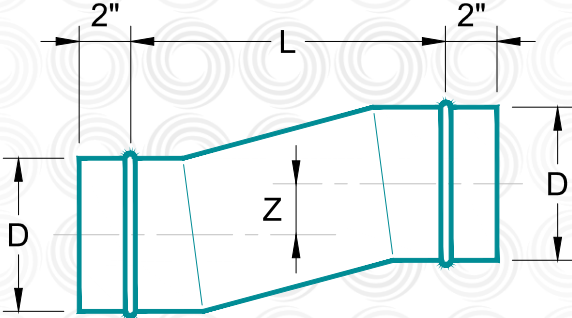
PC1

PIPE
COUPLING



RO

ROUND
OFFSEST



SINGLE-WALL LOCK SEAMS



SLS

**SPIRAL DUCT
LOCK SEAM**

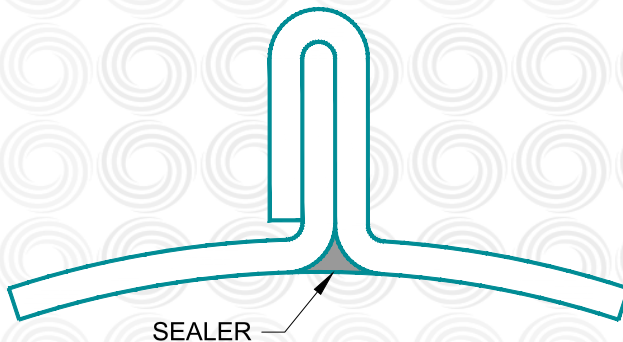


AVAILABLE
GAUGES

GALVANIZED	26 - 20
PAINT GRIP	26 - 20

GLS

**GORELOCKED
SEAM**



AVAILABLE
GAUGES

GALVANIZED	26 - 20
PAINT GRIP	26 - 20



VORTEX

METAL MANUFACTURING

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DOUBLE-WALL SPIRAL DUCT & FITTINGS

SUBMITTAL

DOUBLE-WALL CONSTRUCTION



DOUBLE-WALL ROUND SPIRAL DUCT AND FITTINGS CONSTRUCTION STANDARDS POSITIVE PRESSURE

Refer to the tables on this page for gauge selection of galvanized steel (STEM A 527) and paint grip steel. Gauges shown are minimum gauges and in some cases may be heavier.

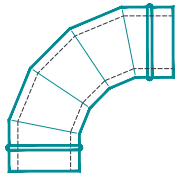
Insulation is located between the inner and outer sheets and is standard 1" thick with thermal conductivity of 0.26 btu-in/hr-ft²-°F at 75°F mean temperature. Other thicknesses of insulation are available.

DUCT DIAMETER	2005 SMACNA 2"-10" WG	
	DUCT	FITTINGS
9" - 10"	28	28
11" - 12"	28	26
13" - 14"	28	26
15" - 16"	26	24
17" - 18"	26	24
19" - 26"	26	24
27" - 36"	24	22
40" - 44"	24	22

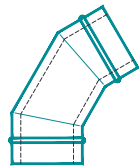
DUCT DIAMETER	2005 SMACNA +10" WG	
	DUCT	FITTINGS
9" - 10"	28	26
11" - 12"	26	24
13" - 14"	26	24
15" - 16"	24	22
17" - 18"	24	22
19" - 26"	24	22
27" - 36"	22	20
40" - 44"	22	20

DOUBLE-WALL FITTINGS

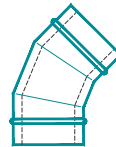
GE90



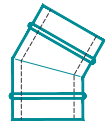
GE60



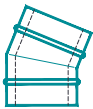
GE45



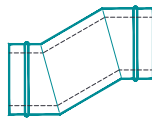
GE30



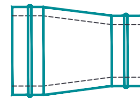
GE22



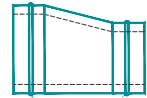
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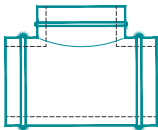
RDC



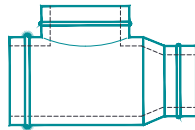
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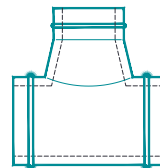
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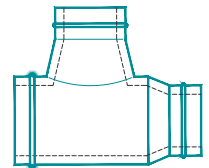
TR



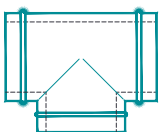
CT



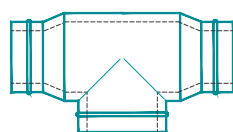
CTR



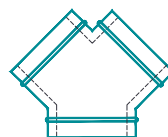
TB



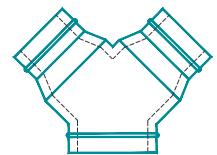
TBR



Y

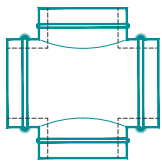


YR

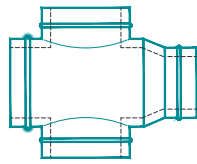


DOUBLE-WALL FITTINGS

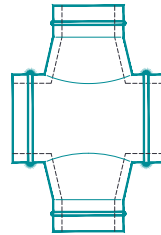
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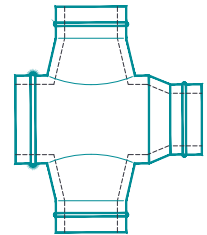
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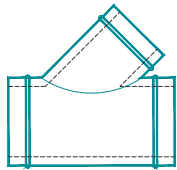
CC



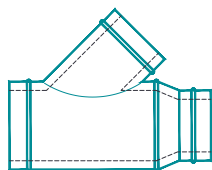
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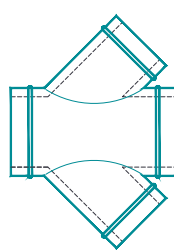
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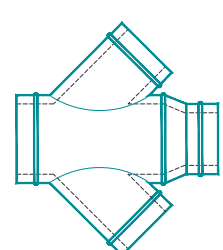
LR



LC



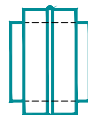
LCR



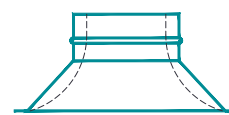
EC



PC



B

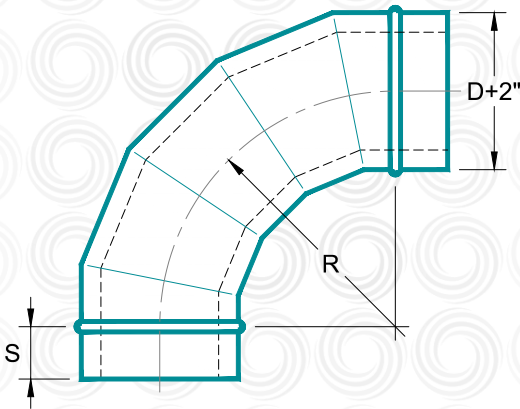


DOUBLE-WALL ELBOWS



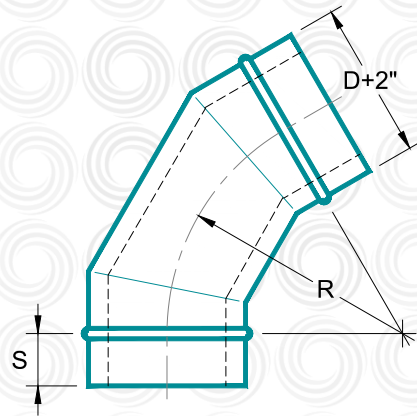
GE90

GORED ELBOW
90° 5-PC



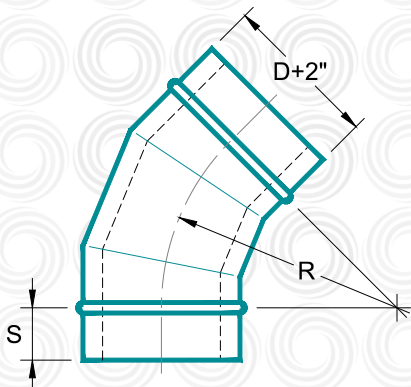
GE60

GORED ELBOW
60° 3-PC



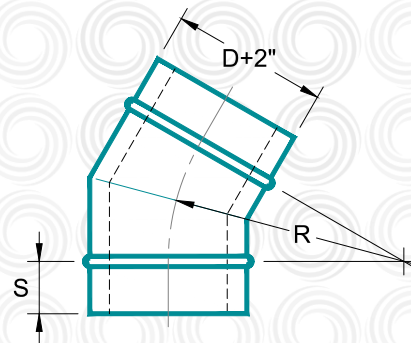
GE45

GORED ELBOW
45° 3-PC



GE30

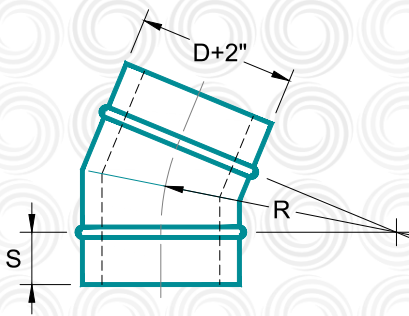
GORED ELBOW
30° 2-PC



DOUBLE-WALL CONTINUED

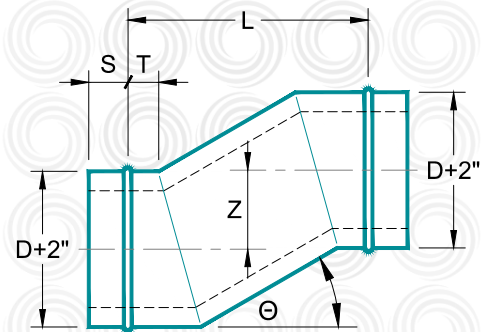
GE22

GORED ELBOW
22.5° 2-PC



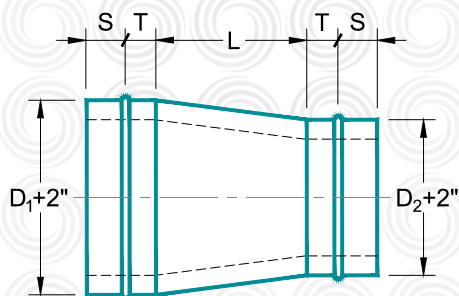
O

OFFSET



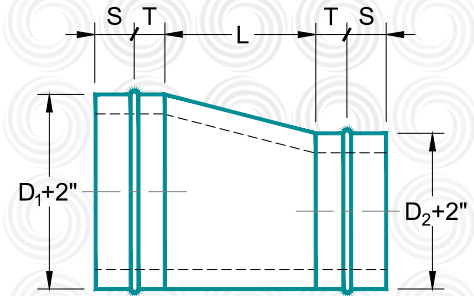
RDC

CONCENTRIC REDUCER



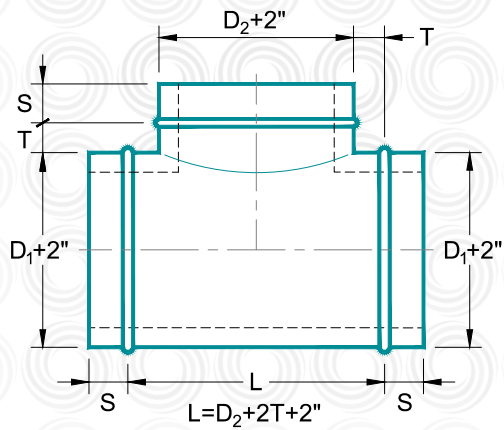
RDE

ECCENTRIC REDUCER

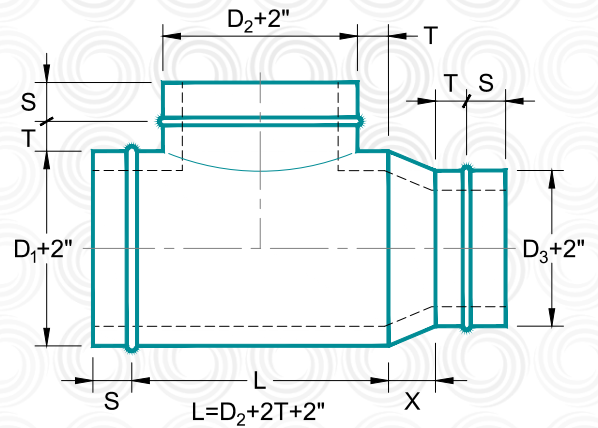


DOUBLE-WALL TEES

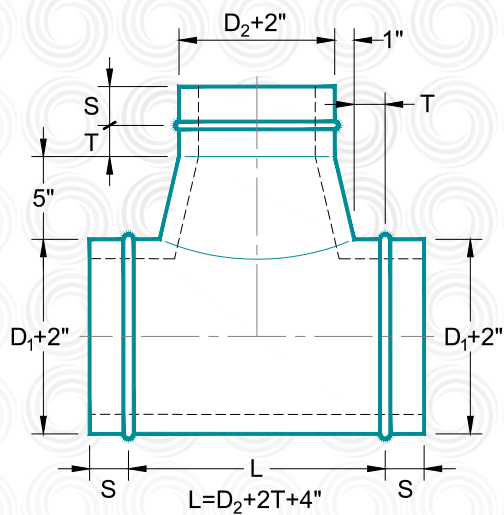
T TEE



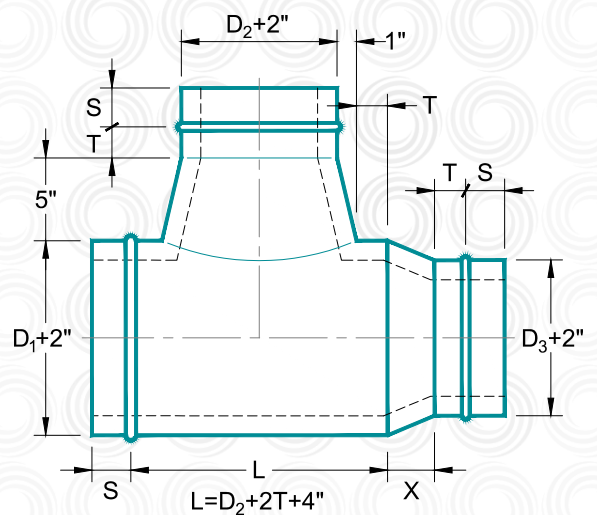
TR REDUCING TEE



CT CONICAL TEE



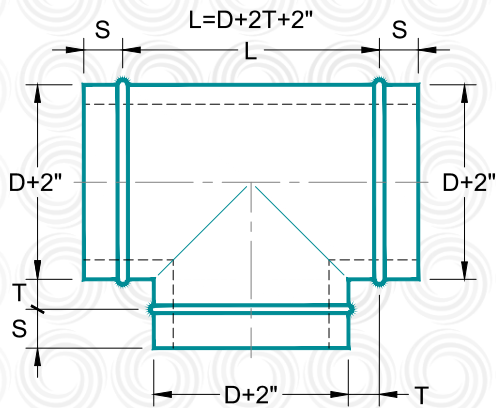
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DOUBLE-WALL TEES & WYES

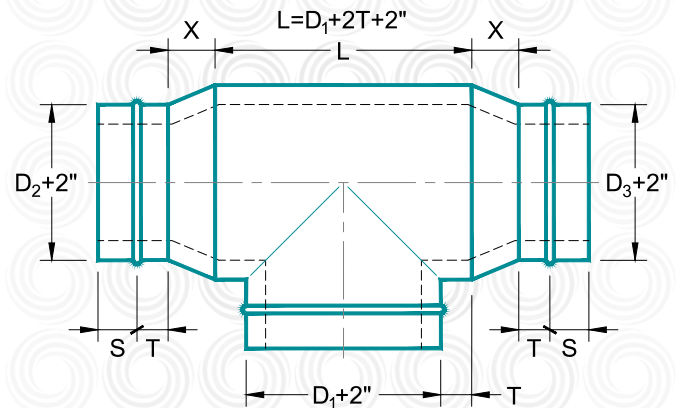
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BULL HEAD TEE



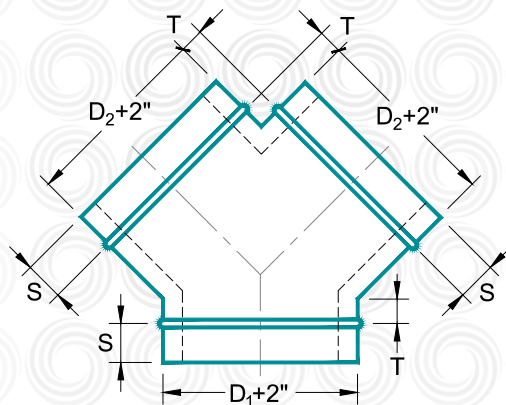
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REDUCING
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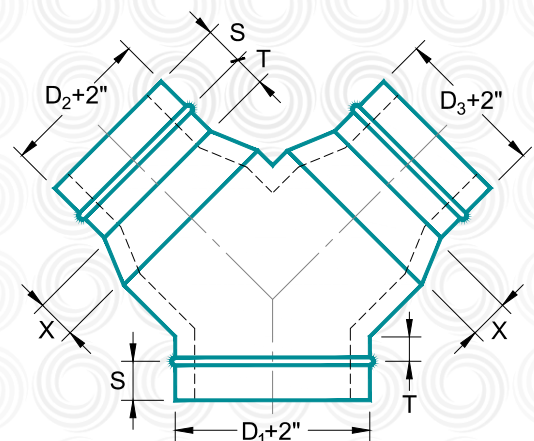
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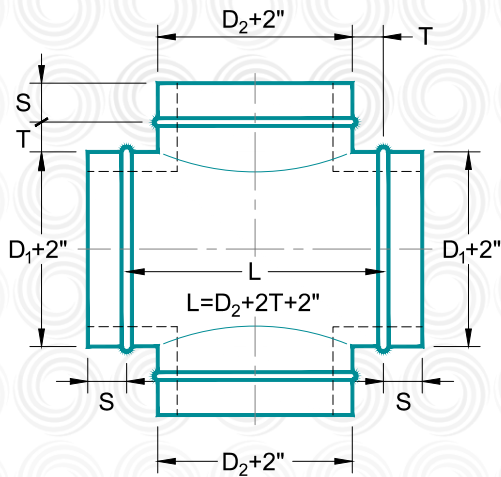
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REDUCING
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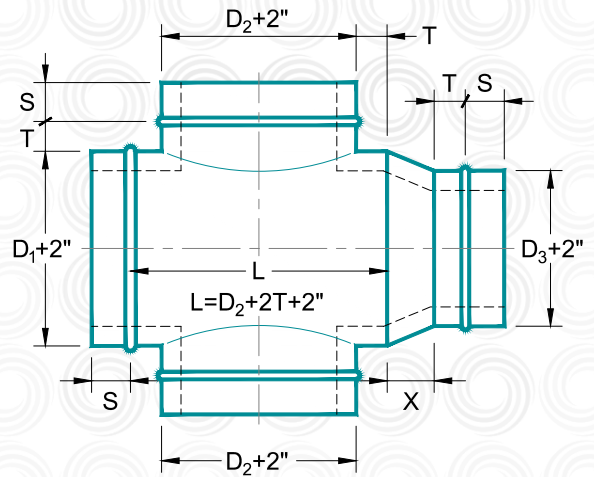


DOUBLE-WALL CROSSES

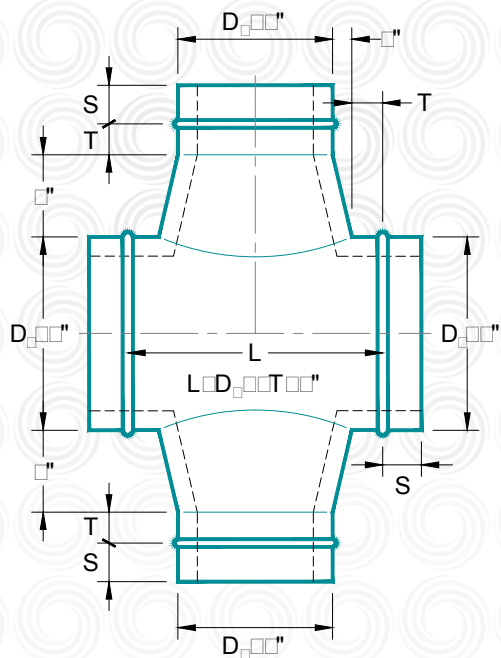
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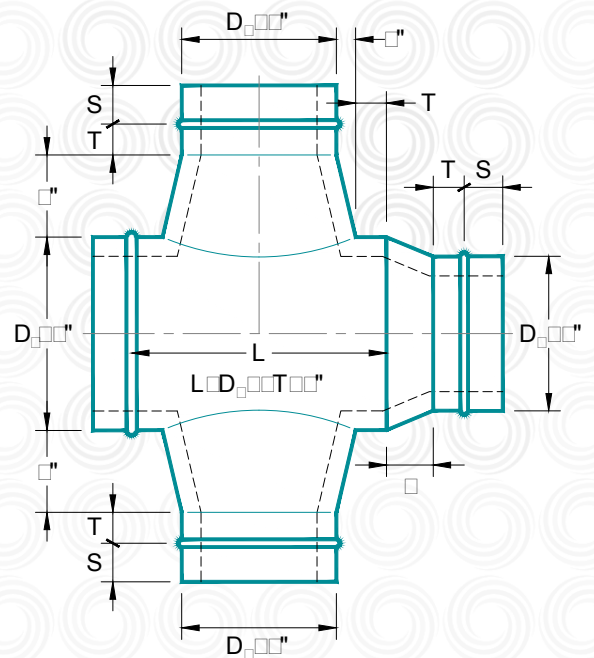
CR REDUCING CROSS



CC CONICAL CROSS

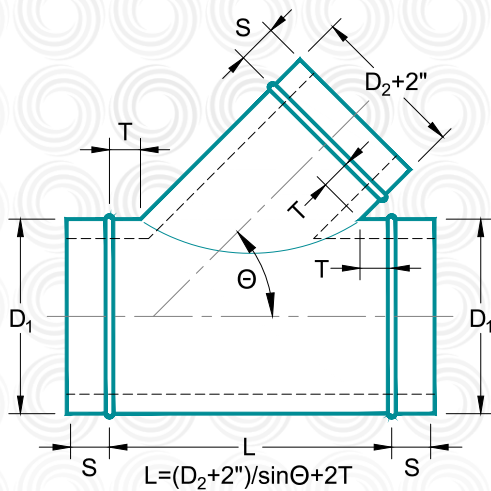


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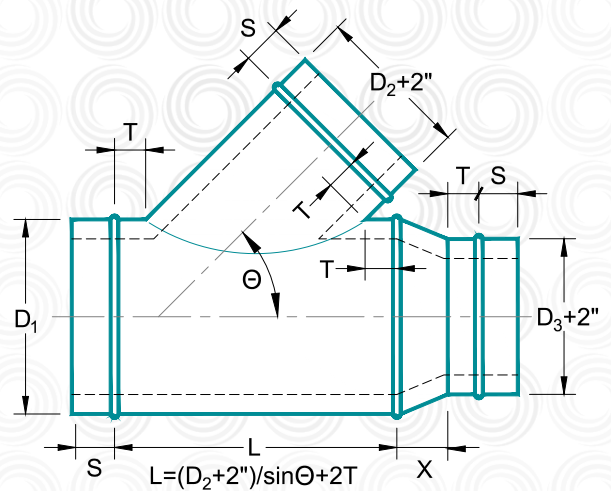


DOUBLE-WALL LATERALS

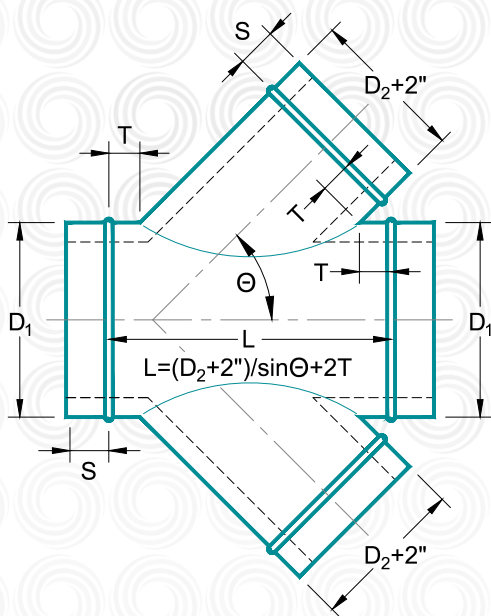
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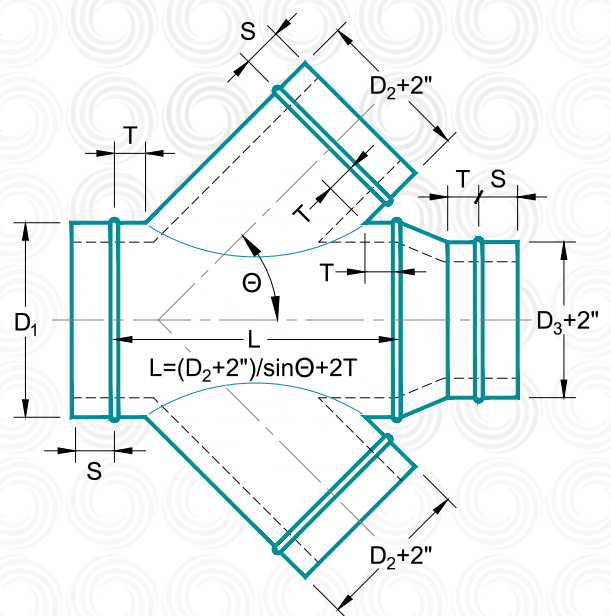
LR REDUCING LATERAL



LC LATERAL CROSS



LCR REDUCING LATERAL CROSS



DOUBLE-WALL FITTINGS

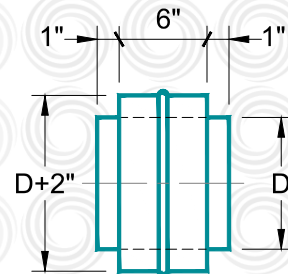
EC

END CAP



PC

PIPE COUPLING



B

BELLMOUTH

