

# SPIRAL PIPE - OVAL DOUBLE WALL

Duct Direct Double Wall Oval Pipe and Fittings are manufactured in accordance with 2005 SMACNA Duct Construction Standards (1995 SMACNA Standards on request)

\*Oval Double Wall construction, in general, is comprised of an airtight outer shell with a 1" or 2" insulation layer sandwiched by a perforated liner or solid liner. Insulation is .75 pound per cubic feet density fiberglass with a K factor of .26 BTU per square foot per degree Fahrenheit per hour, and the following underwriter's ratings:

Flame Spread	10 - 25
Fuel Contributed	10 - 15
Smoke Developed	0 - 15

The outer shell and inner liner are manufactured from Galvanized steel meeting ASTM A-527-71 in gauges hereinafter specified. If perforated inner liner is specified, perforations are 3/32" diameter hole on 3/16" staggered centers with an open area of 23%. Insulation ends are supplied where single wall oval duct is connected to double wall oval duct to allow the double wall oval duct to connect to the single wall oval duct.

## OVAL DOUBLE WALL SUBMITTAL

Oval Double Wall Duct is constructed of Galvanized Steel with a 4-ply spiral lock seam of the following minimum U.S. standard gauges:

NOMINAL (O.D.) SIZE	OUTER SHELL GAUGE	INNER LINER GAUGE
Up to 24"	24	26 Triple Ribbed
25" - 48"	22	26 Triple Ribbed
49" - 70"	20	24 Triple Ribbed
71" and up	18	24 Triple Ribbed

\*All pipe cut to length unless otherwise noted

## OVAL DOUBLE WALL FITTINGS SUBMITTAL

Galvanized Steel Fittings are constructed of the following minimum U.S. standard gauges:

NOMINAL (O.D.) SIZE	OUTER SHELL GAUGE	INNER LINER GAUGE
Up to 36"	20	24
37" - 60"	18	22
61" - and up	16	20

\*Divided flow fittings are made with an airtight outer shell and a tack welded inner lining. Insulation is packed around the branch area completely, filling the captivity.

## DOUBLE WALL ELBOW SUBMITTAL

3 gores and 5 gores respectively are constructed with a centerline radius equal to 1½ times the diameter of the elbow. 2 piece die stamped construction will be used through 12" O.D.

ELBOW ANGLE	NUMBER OF GORES
Up to 30°	2
31° - 60°	3
61° - 90°	5

## 2-PIECE MITERED ELBOW VANE SCHEDULE

2 piece mitered elbows with turning vanes will be used where space is limited

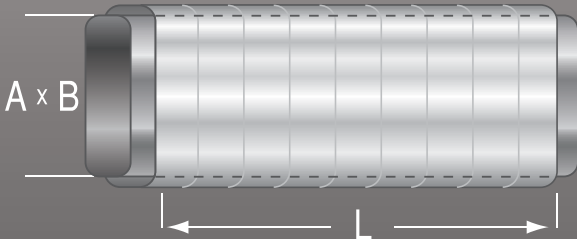
NOMINAL DIAMETER	NUMBER OF VANES
3" - 9"	3
10" - 13"	4
14" - 19"	5
20" - 57"	6
58" +	12" SPACING

## COUPLINGS

Pipe-to-pipe joints to 30" I.D. diameter are inner & outer male sleeve coupling. Pipe-to-fitting joints to 30" I.D. diameter are inner & outer slip fit; collar of fitting projecting into pipe. Above 30" I.D. inner Direct Flanges are recommended.

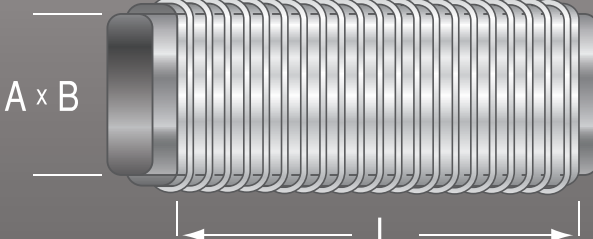
# DOUBLE WALL - OVAL SPIRAL PIPE

OVAL SPIRAL PIPE



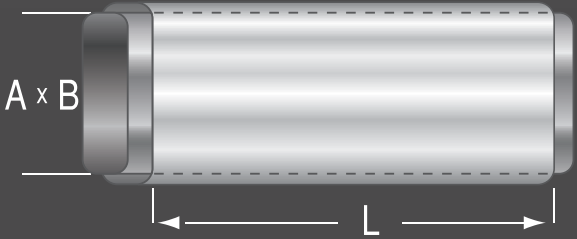
SP-OV/DW

TRIPLE RIB OVAL SPIRAL PIPE



SP RIB-OV/DW

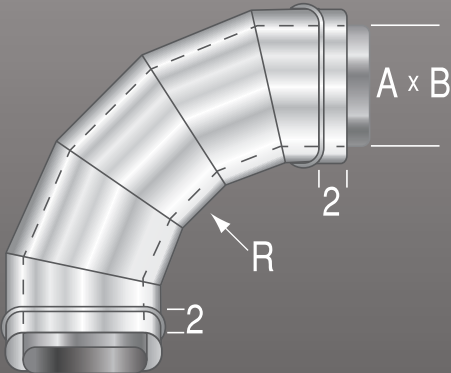
LONG SEAM OVAL PIPE



F165-OV/DW

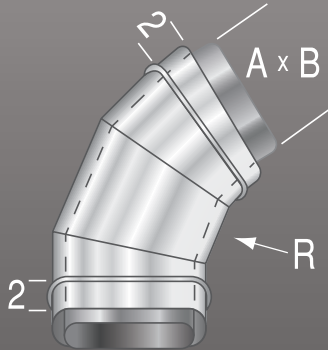
# DOUBLE WALL - OVAL ELBOWS

90° OVAL ELBOW



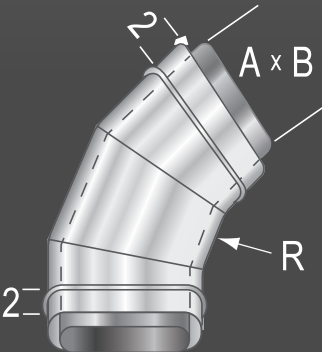
F52-90-OV/DW

45° OVAL ELBOW



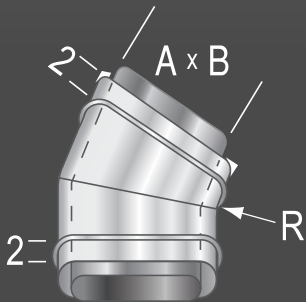
F52-45-OV/DW

60° OVAL ELBOW



F52-60-OV/DW

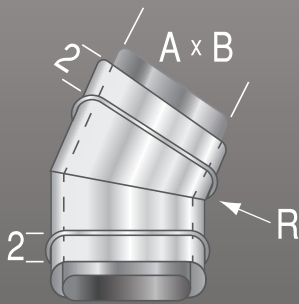
30° OVAL ELBOW



F52-30-OV/DW

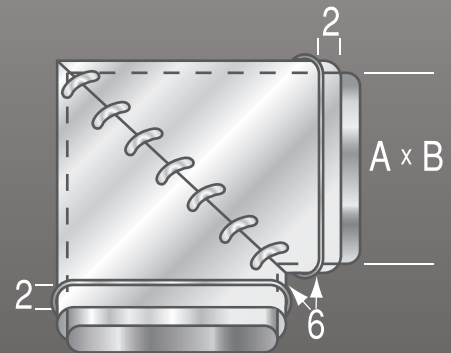
# DOUBLE WALL - OVAL ELBOWS

22.5° OVAL ELBOW



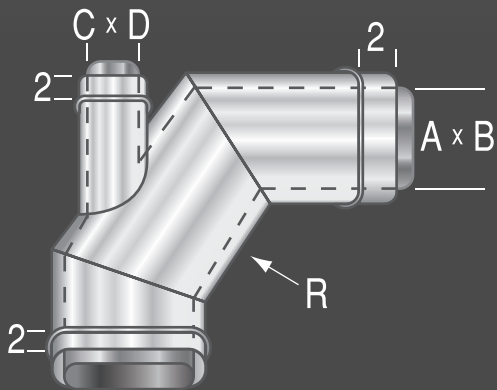
F52-22.5-OV/DW

OVAL MITERED 90° ELBOW



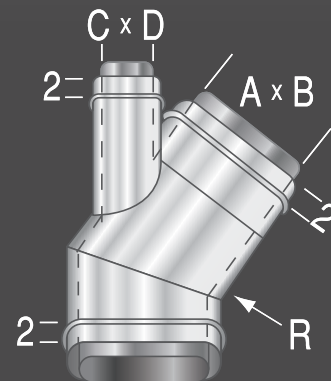
F130-OV/DW

OVAL HEEL-TAPPED 90° ELBOW



F91-OV

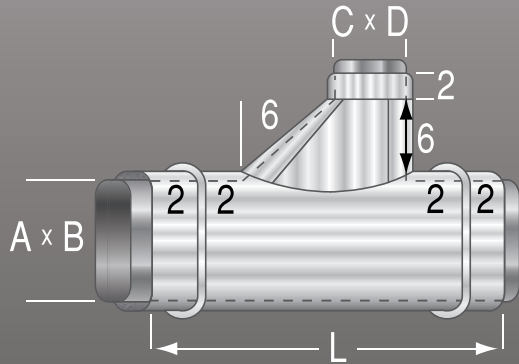
OVAL HEEL-TAPPED 45° ELBOW



F52-45TAP-OV/DW

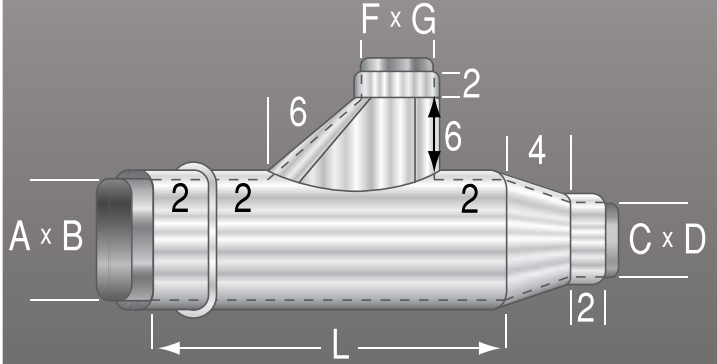
# DOUBLE WALL - OVAL BOOT TEES

OVAL BOOT TEE



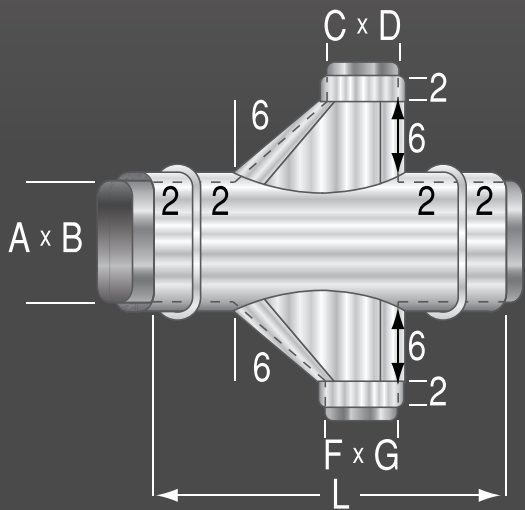
F124-OV/DW

OVAL BOOT TEE W/ REDUCER



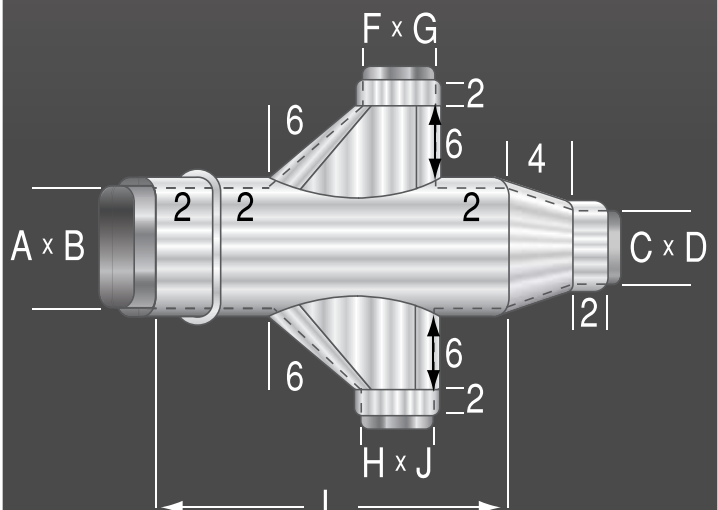
F206-OV/DW

OVAL BOOT CROSS



F121-OV/DW

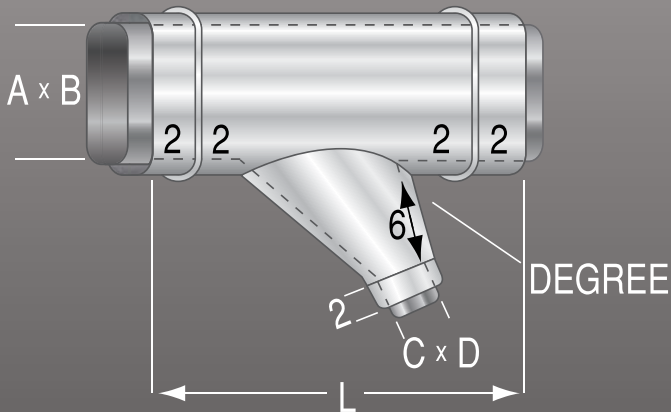
OVAL BOOT CROSS W/ REDUCER



F218-OV/DW

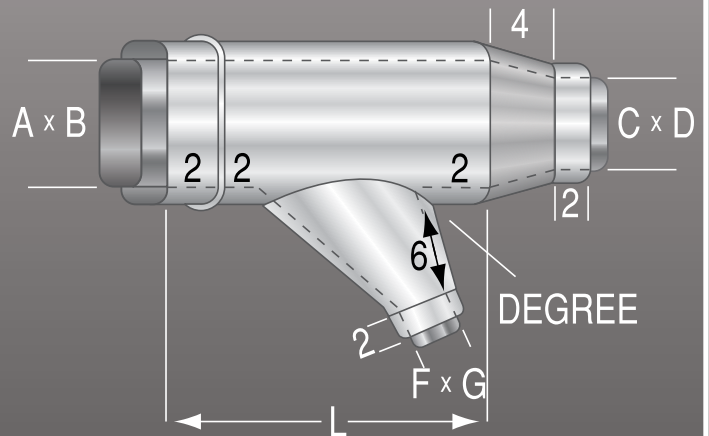
# DOUBLE WALL - OVAL CONICAL LATERALS

OVAL CONICAL LATERAL



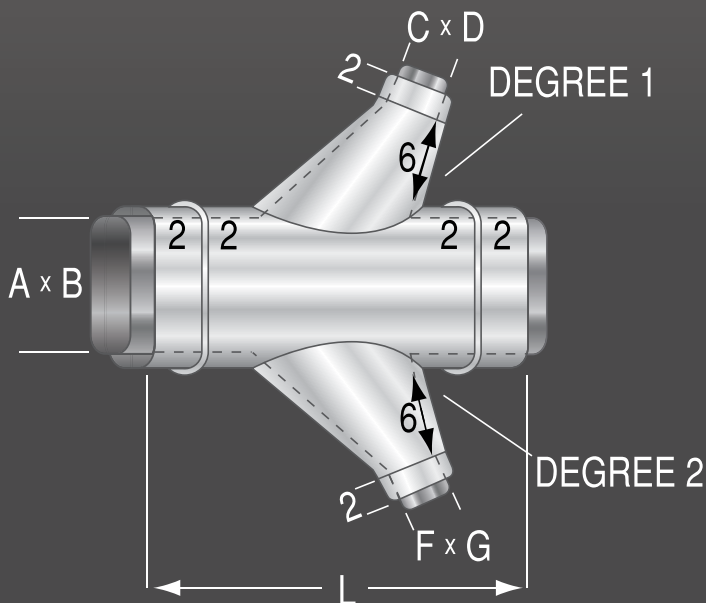
F112-OV/DW

OVAL CONICAL LATERAL W/ REDUCER



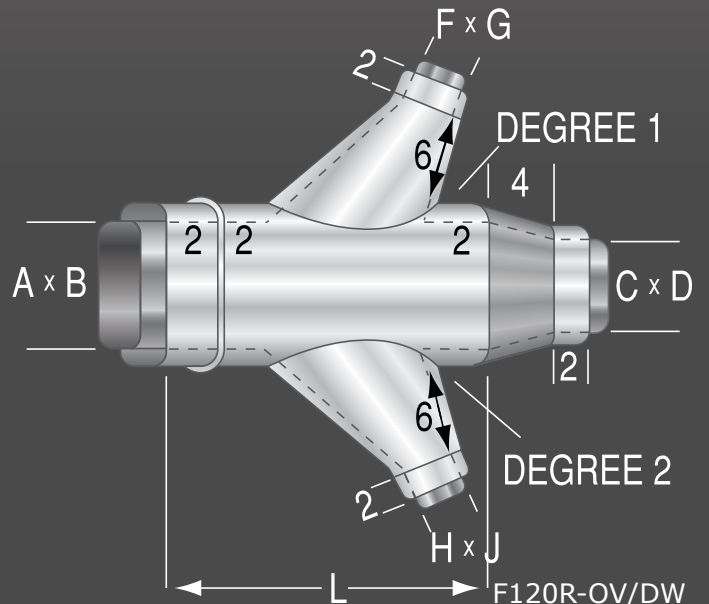
F187-OV/DW

OVAL CONICAL LATERAL TEE



F120-OV/DW

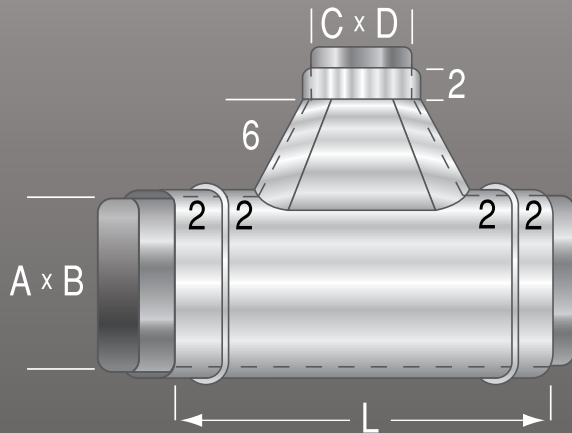
OVAL CONICAL LATERAL TEE W/ REDUCER



F120R-OV/DW

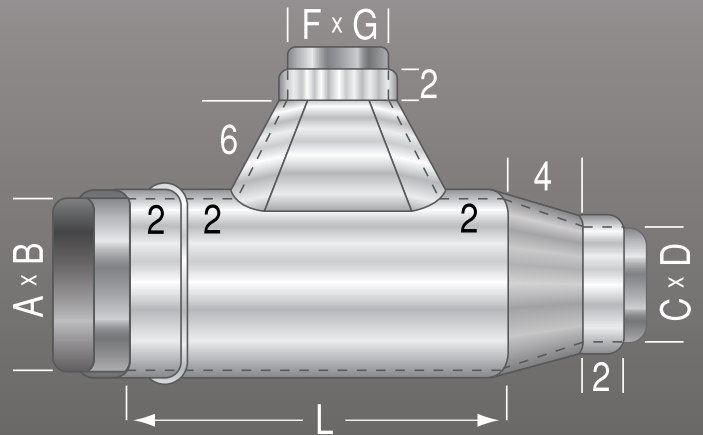
# DOUBLE WALL - OVAL CONICAL TEES

OVAL CONICAL TEE



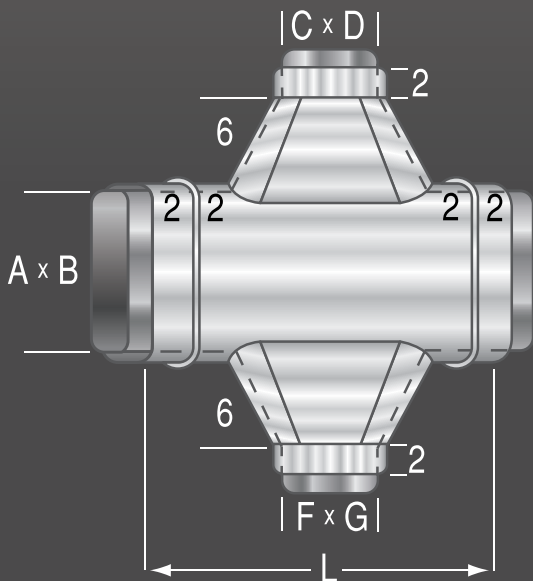
F111-OV/DW

OVAL CONICAL TEE W/ REDUCER



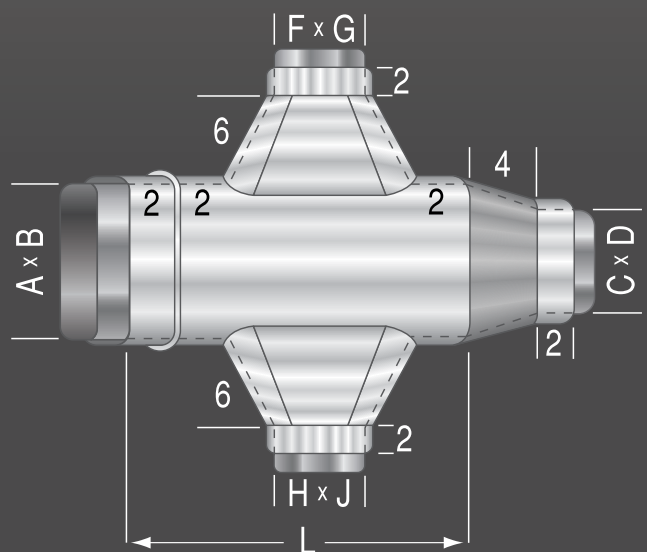
F187-OV/DW

OVAL CONICAL TEE CROSS



F119-OV/DW

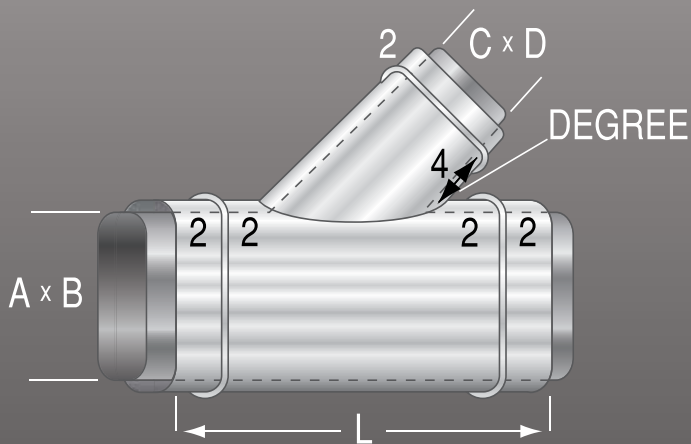
OVAL CONICAL TEE CROSS W/ REDUCER



F119R-OV/DW

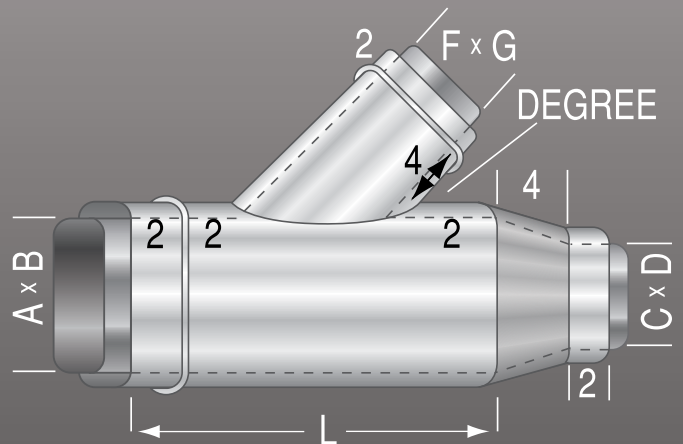
# DOUBLE WALL - OVAL STRAIGHT LATERALS

OVAL LATERAL



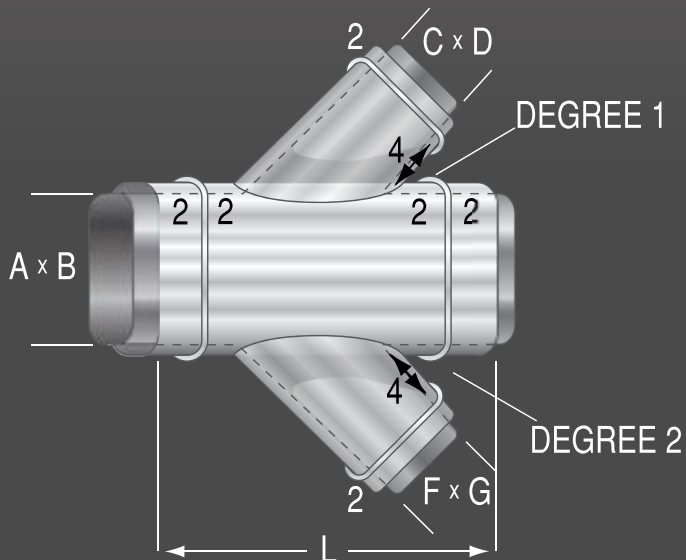
F110-OV/DW

OVAL LATERAL W/ REDUCER



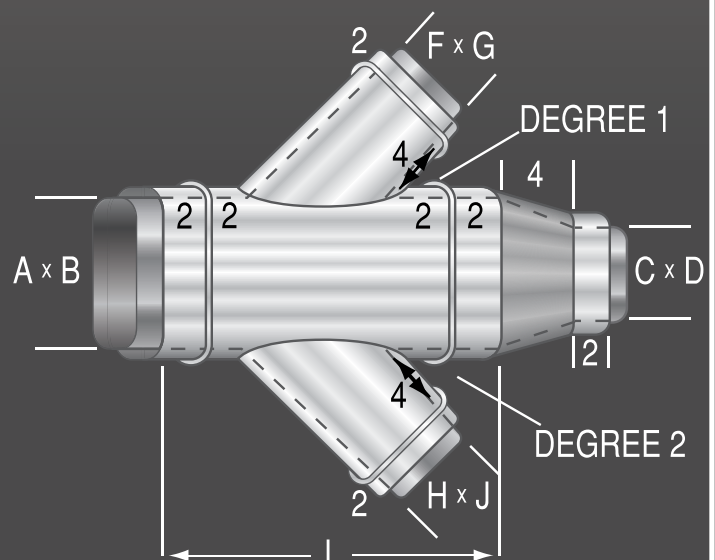
F187-OV/DW

OVAL LATERAL CROSS



F118-OV/DW

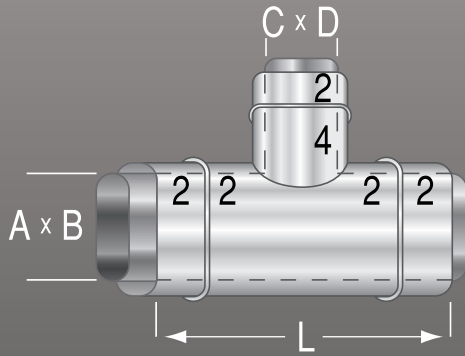
OVAL LATERAL CROSS W/ REDUCER



F118R-OV/DW

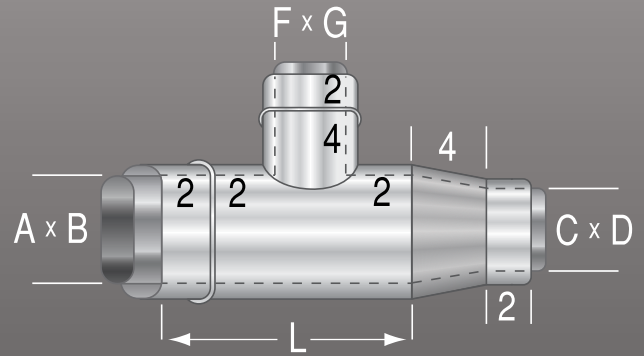
# DOUBLE WALL - OVAL STRAIGHT TEES

OVAL TEE



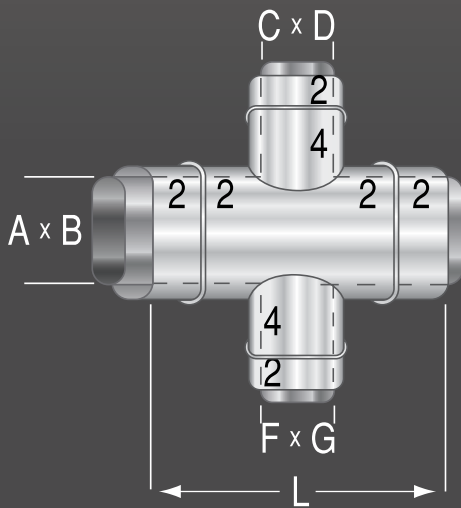
F109-OV/DW

OVAL TEE W/ REDUCER



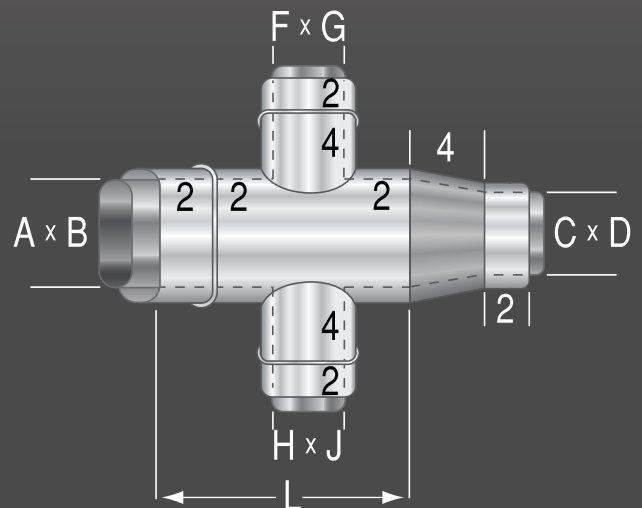
F205-OV/DW

OVAL TEE CROSS



F117-OV/DW

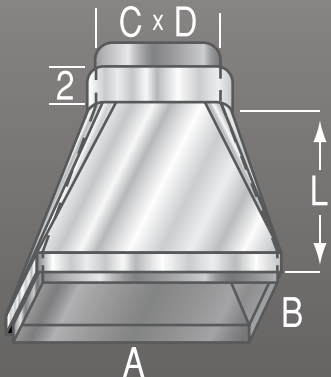
OVAL TEE CROSS W/ REDUCER



F209-OV/DW

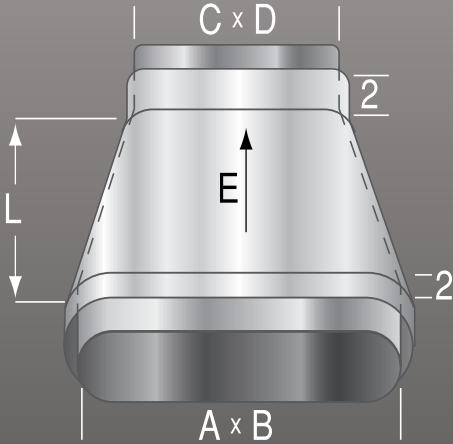
# DOUBLE WALL - OVAL FITTINGS

C/L RECTANGLE TO OVAL



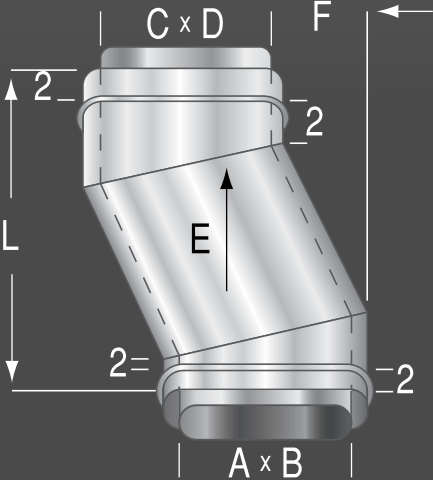
F107-OV/DW

OVAL OFFSET REDUCER



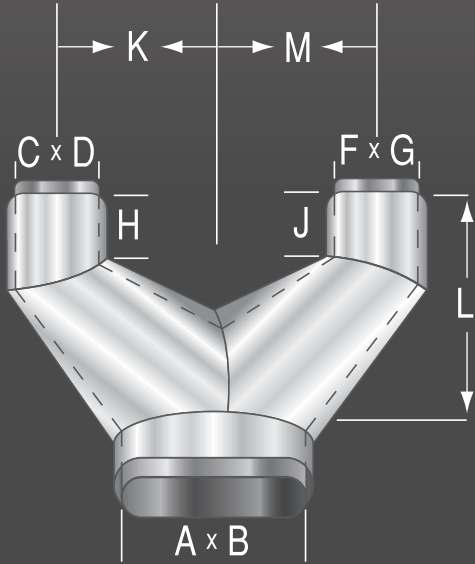
F115-OV/DW

OVAL ROUND OFFSET



F123-OV/DW

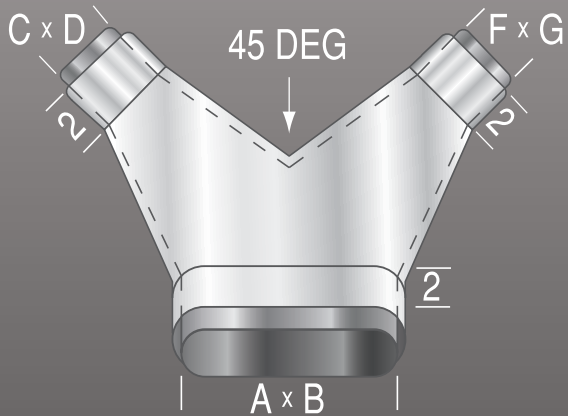
OVAL GORED WYE



F125-OV/DW

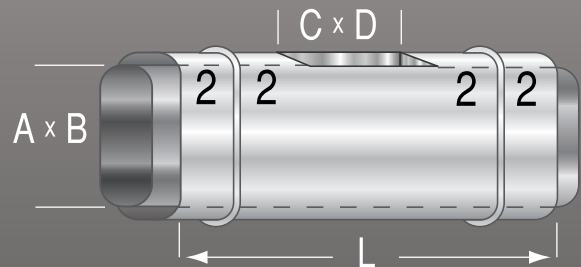
# DOUBLE WALL - OVAL FITTINGS

OVAL VARIATION WYE BRANCH



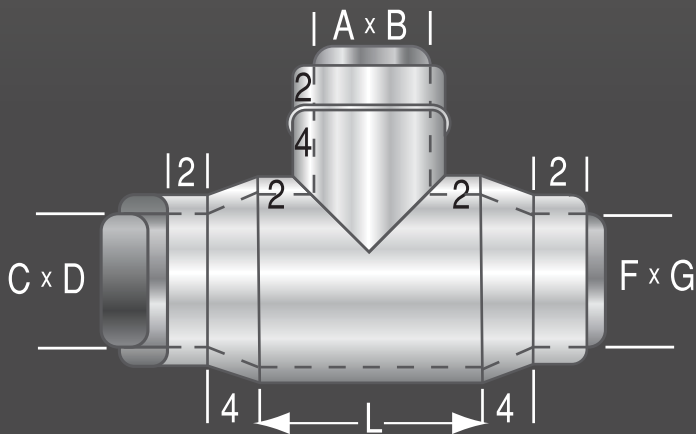
F116-OV/DW

OVAL PIPE W/ SQ. ACCESS HOLE



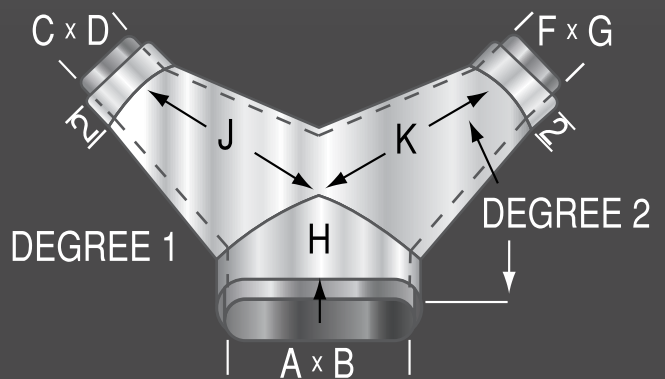
F134-OV/DW

OVAL REDUCING BULLHEAD TEE



F255-OV/DW

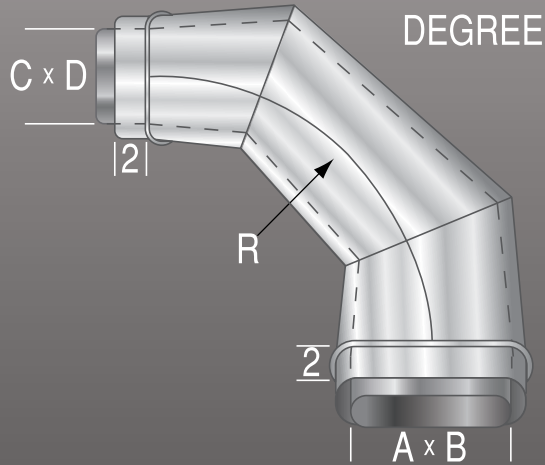
OVAL THREE PIECE WYE



F132-OV/DW

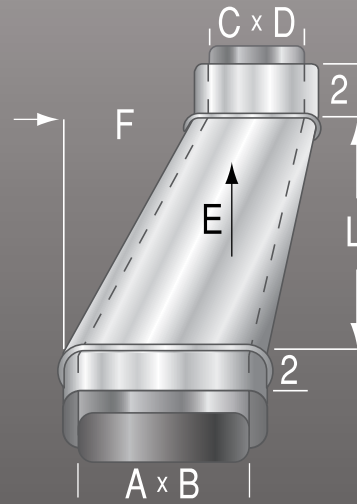
# DOUBLE WALL - OVAL FITTINGS

OVAL REDUCING ELBOW



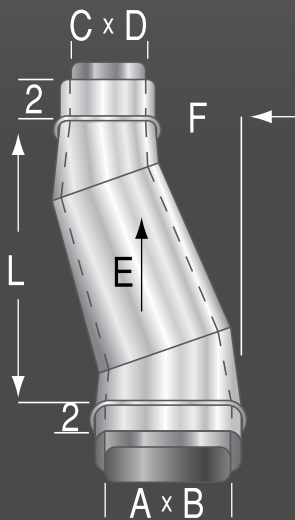
F122-OV/DW

OVAL ROUND TRANSITION



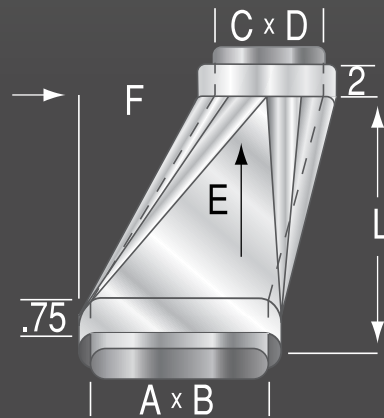
F115-OV/DW

OVAL REDUCING OFFSET



F123-OV/DW

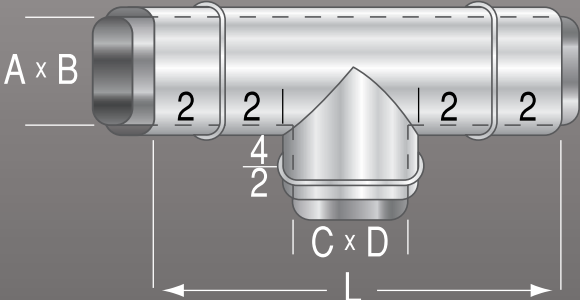
OVAL OFFSETTING SQUARE TO ROUND



F108-OV/DW

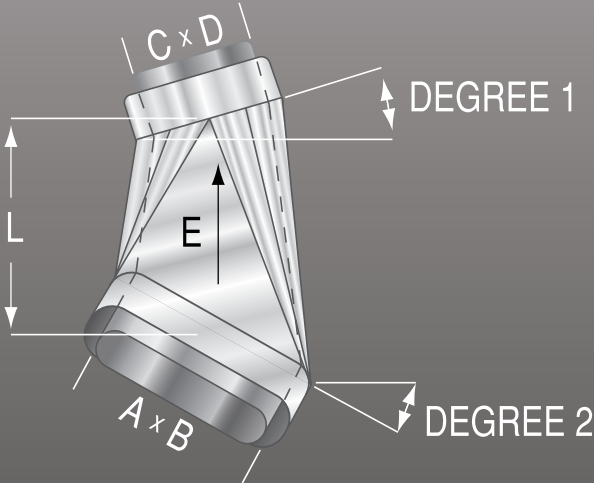
# DOUBLE WALL - OVAL FITTINGS

OVAL BULLHEAD TEE W/ VANES



F131-OV/DW

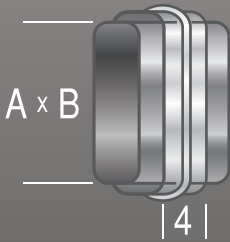
MITERED SQUARE TO OVAL



F58-OV/DW

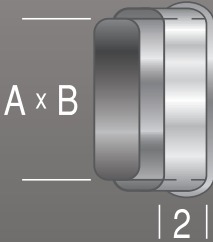
# MISCELLANEOUS

## OVAL DUCT COUPLING



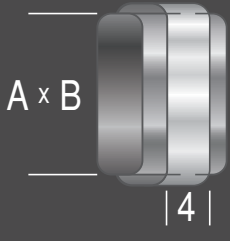
F100-IS-OV/DW

## OVAL END CAP



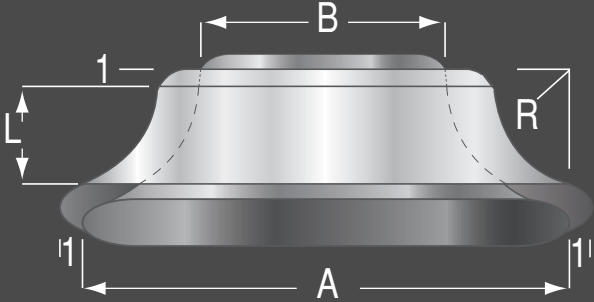
F142-OV/DW

## OVAL FITTING COUPLINGS



F100-SS-OV/DW

## OVAL BELL MOUTH (STANDARD RADIUS) (SHORT RADIUS)



BM-OV/DW