Linx Industries™
A DMI COMPANY

Single Wall Round Catalog

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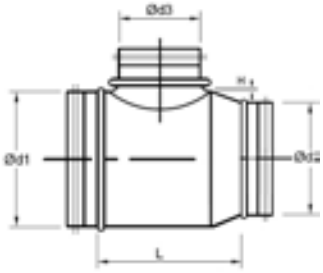
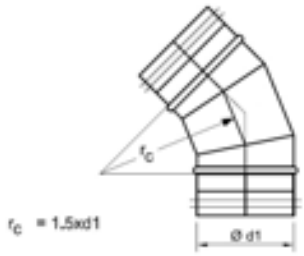
Nomenclature Definitions





Nominal inside diameter (duct size)..... ØD

Nominal outside diameter (fitting size)..... Ød1, Ød2, Ød3, Ød4

Material thickness (gauge)..... t

Installed height..... H

Center line radius..... r_c

Installed length..... L

Fitting slip dimension..... e

All measurements in inches (in or ") unless otherwise noted

All angles in degrees (º)

Smart Part Anatomy

Nomenclature / Abbreviations

PRODUCT	Designation And Description	PRODUCT	Designation And Description
DUCT	SC = Corrugated Single Wall Round Spiral Duct SN - Noncorrugated Single Wall Round Spiral Duct	**ELBOWS**	E = 1.5 Radius Elbow Stamped Or With 3 - 5 Gores ER = 1.0 Radius Elbow Stamped Or With 3 - 4 Gores
REDUCERS	RC = Reducer Concentric Male RCF = Reducer Concentric Female RE = Reducer Ecentric Male REF = Reducer Ecentric Female	**END CAPS**	ED = End Duct EF = End Fitting
COUPLINGS	CD = Coupling Duct CF = Coupling Fitting	**TAKE-OFFS**	PT = Straight Take Off PR = Radius Take Off
TEES	TBH = Bull Head Tee TRBH = Reducing Bull Head Tee TB = Tee With Boot Tap TRB = Reducing Tee With Boot Tap TC = Tee With Conical Tap TRC = Reducing Tee With Conical Tap TS = Straight Tee TRS = Reducing Straight Tee	**CROSSING TEES**	XB = Boot Style Crossing Tee XRB = Reducing Boot Style Crossing Tee XC = Conical Crossing Tee XRC = Reducing Conical Crossing Tee XS = Crossing Tee XRS = Reducing Crossing Tee XV = Lateral Crossing Tee XRV = Reducing Lateral Crossing Tee
LATERAL TEES	TV = Tee With Lateral Tap TRV = Reducing Tee With Lateral Tap	**Y-BRANCH**	Y = Y Branch
TAPS	PB = Boot Tap PBF = Boot Tap Flat PS = Press Tap PV = Lateral Tap PVF = Lateral Tap Flat PC = Conical Tap PCF = Conical Tap Flat	**DAMPERS**	DS = Damper DT = Damper DSIL = Combination Damper with Take-Off DSILR = Combination Damper with Take-Off DSPS = Combination Damper with Saddle Tap

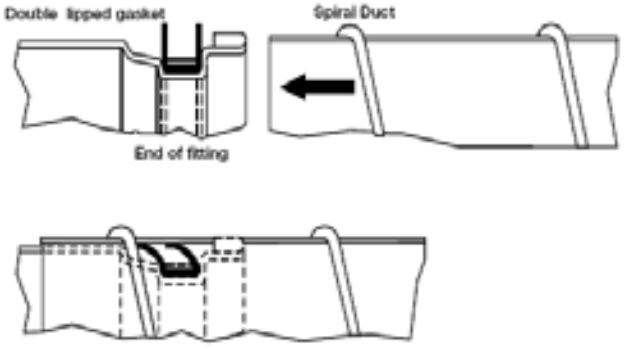
REQUIRED FOR ORDERING

OPTIONAL FOR ORDERING
SMACNA STANDARDS PROVIDED IF NOT GIVEN

CONNECTION	DIAMETER (INCH)	PART DESIGNATION	MATERIAL	GAUGE
U = Safe	Diameter	See Chart Above	G9 = G90 Galvanized S4 = S304 Stainless S6 = S316 Stainless GN = Galvanneal / Paint Grip AL = Aluminum	Gauge
Eg = U	*Eg = 16*	*Eg = CD*	*Eg = G9*	*Eg = 24*

= Linx Safe 16” Diameter Coupling Duct In Galvanized 24 Gauge

Linx Safe Connection



Benefits of the Linx Safe Duct System

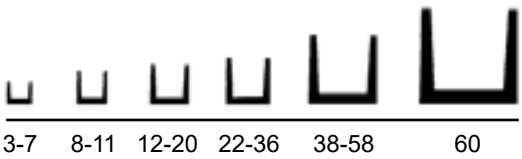
- A complete line of self-sealing spiral duct and fittings
- Factory installed gasket - no loose parts
- Fast and easy installation
- Environmentally friendly, no harmful sealers required
- Installation not contingent on weather
- Performance rated from -20ºF to +212ºF
- Double lipped gasket minimizes the risk of leakage in the event of damage
- Meets SMACNA's Leakage Class 3
- Gasket U.L. classified rating (Flame Spread - 0 / Smoke Developed - 0) in accordance with ASTM standard E84 and ANSI / UL 723
- Rolled over edges for easier installation, reduces risk of injury and adds strength
- Adjustability - fittings can be rotated 360º during installation and still maintain the seal's integrity

The Linx Safe self-sealing duct system is based on a U-profile, EPDM rubber gasket. This gasket is located in a groove at the end of the fitting and is securely attached by a stainless steel band. This design ensures that the rubber gasket is always held in the correct position.

When the fitting is inserted into the spiral duct, the gasket folds back forming a seal against the inside of the spiral duct eliminating the need for any duct sealer.

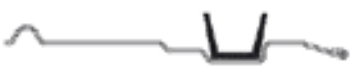
In order to achieve optimum sealing for all diameters, various gasket sizes are used as shown in the table below.

The standard Linx Safe gasket is made from a material resistant to ozone, UV rays, and temperature fluctuations. A silicone gasket for special applications is also available. The standard Linx Safe gasket is rated for temperatures from -20°F to +212ºF (silicone gasket rated for temperatures from -94ºF to +302ºF).



Dia (in)	3-7	8-11	12-20	22-36	38-58	60

Gasket Connection for diameters less than 26"



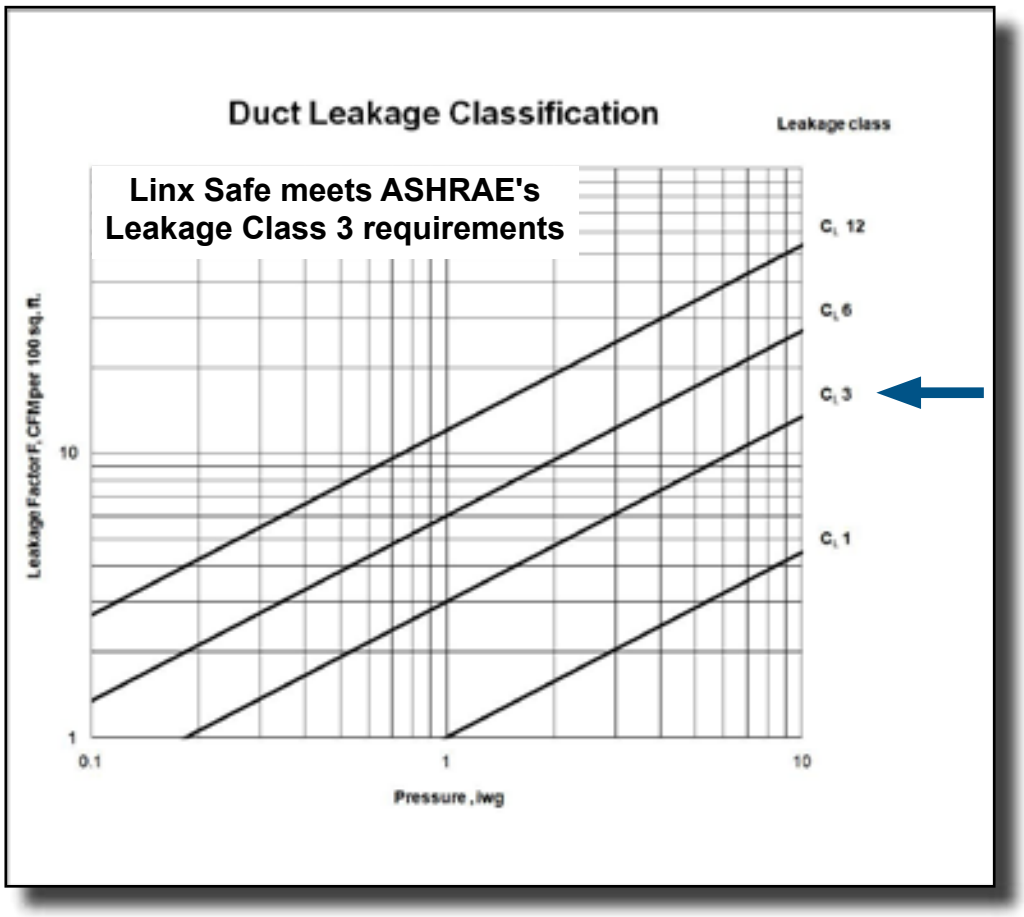
"THE LEADING EDGE" for larger diameter fittings (26" and greater)

Duct System Leakage Classification

The graph below represents a selected series of leakage classes as defined by the formula $C_L=F/P^{0.65}$. The formula defines leakage class as the relationship between leakage rate, duct surface area, and pressure.

Since the calculation of leakage class is based on several relevant factors, leakage class is a comprehensive method of assigning allowable leakage rates. This enables the designer to address all major system factors by simply assigning a leakage class.

Linx Safe meets ASHRAE's Leakage Class 3 requirements without the use of any duct sealants.



F = Leakage rate per unit of duct surface (cfm/100 sq. ft.)
C_L = Leakage Class
P = Static pressure (iwg)

Linx Safe Assembly Instructions

Preparations For Assembly

- Check that all ductwork to be used in the system is Linx Safe and is undamaged. All Linx Safe fittings must be used with calibrated spiral duct certified by Linx Industries.
- Do not use any ductwork that has been damaged in such a way that it may jeopardize the air tightness or structural strength of the system.
- Store all ductwork in a well organized and weather proof storage area to minimize the risk of damage.
- Cut all spiral duct at right angles and carefully remove any burrs from the cut edges. Installation is easier and the risk of damaging the gasket is reduced if there are no burrs.

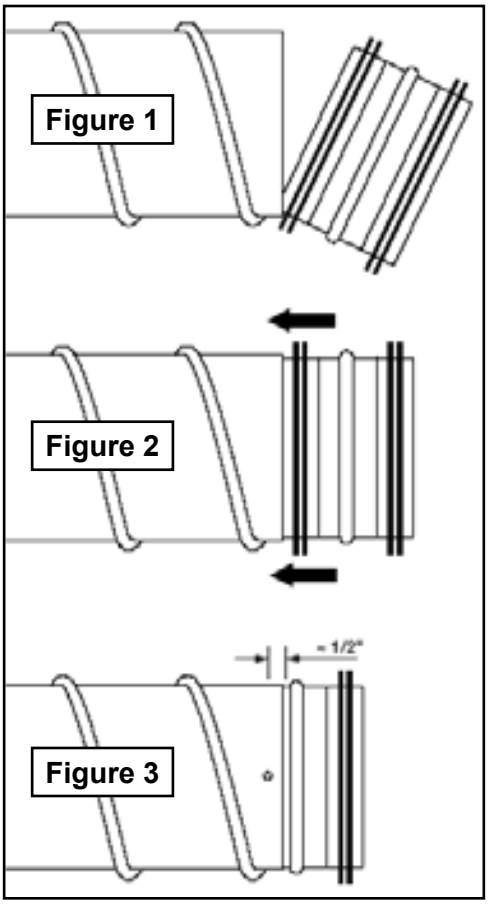
Assembly

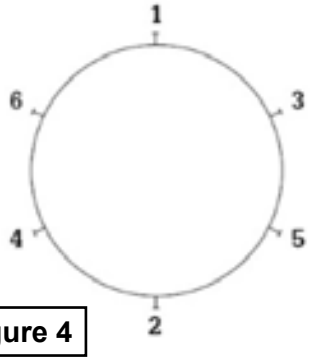
1. Start by inserting the turned-over edge of the fitting into the spiral duct (figure 1).
2. Check that the first lip of the gasket is in contact with the edge of the spiral duct all the way around and sticks straight out so that the lip is not twisted in one direction or the other.
3. Push the end of the fitting into the spiral duct. Turning the fitting slightly aids insertion. Removal, if necessary, is also aided by turning (figure 2)
4. Secure the fitting in the spiral duct using self-tapping screws or airtight pop rivets. Quantities and sizes to be used are shown in the table below. Do not use more fasteners than specified.
5. Fasteners should be positioned 1/2 inch from the bead stop to prevent damage to the gasket (figure 3).

Spiral Pipe Dia. (in)	Screw Dia. (in)	Quantity
3-5	1/8	2
6-10	1/8	3
12-24	1/8	4
26-50	1/8	6
52-60	1/8	8

6. Placement of the fastening screws should be opposite from one another evenly spaced around the circumference, much like the procedure for tightening lug nuts on a tire. Start where the distance between the spiral duct and the fitting is largest (figure 4).

Carefully seal any holes left by measurements, removed screws, pop rivets, etc.





Rectangular to Round Conversion

b\a	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
3	3.8	4.6	5.2	5.7	6.2	6.6	7.0	7.3	7.7	8.0	8.3	8.5	8.8	9.0	9.3	9.5	9.7	9.9	10.1
4	4.4	5.3	6.1	6.7	7.3	7.8	8.3	8.7	9.1	9.5	9.8	10.1	10.4	10.7	11.0	11.3	11.5	11.8	12.0
5	4.9	6.0	6.9	7.6	8.3	8.9	9.4	9.9	10.3	10.8	11.2	11.5	11.9	12.2	12.6	12.9	13.2	13.5	13.8
6	5.3	6.6	7.6	8.4	9.1	9.8	10.4	11.0	11.5	12.0	12.4	12.8	13.2	13.6	14.0	14.4	14.7	15.0	15.3
7	5.7	7.1	8.2	9.1	9.9	10.7	11.3	11.9	12.5	13.0	13.5	14.0	14.5	14.9	15.3	15.7	16.1	16.5	16.8
8	6.1	7.6	8.7	9.8	10.7	11.5	12.2	12.9	13.5	14.1	14.6	15.1	15.6	16.1	16.5	17.0	17.4	17.8	18.2
9	6.4	8.0	9.3	10.4	11.3	12.2	13.0	13.7	14.4	15.0	15.6	16.2	16.7	17.2	17.7	18.2	18.6	19.0	19.5
10	6.7	8.4	9.8	10.9	12.0	12.9	13.7	14.5	15.2	15.9	16.5	17.1	17.7	18.3	18.8	19.3	19.8	20.2	20.7
11	7.0	8.8	10.2	11.5	12.6	13.5	14.4	15.3	16.0	16.8	17.4	18.1	18.7	19.3	19.8	20.4	20.9	21.4	21.8
12	7.3	9.1	10.7	12.0	13.1	14.2	15.1	16.0	16.8	17.6	18.3	19.0	19.6	20.2	20.8	21.4	21.9	22.4	22.9
13	7.6	9.5	11.1	12.4	13.7	14.7	15.7	16.7	17.5	18.3	19.1	19.8	20.5	21.1	21.8	22.4	22.9	23.5	24.0
14	7.8	9.8	11.5	12.9	14.2	15.3	16.4	17.3	18.2	19.1	19.9	20.6	21.3	22.0	22.7	23.3	23.9	24.5	25.0
15	8.0	10.1	11.8	13.3	14.6	15.8	16.9	17.9	18.9	19.8	20.6	21.4	22.1	22.9	23.5	24.2	24.8	25.4	26.0
16	8.3	10.4	12.2	13.7	15.1	16.4	17.5	18.5	19.5	20.4	21.3	22.1	22.9	23.7	24.4	25.1	25.7	26.4	27.0
17	8.5	10.7	12.5	14.1	15.6	16.8	18.0	19.1	20.1	21.1	22.0	22.9	23.7	24.4	25.2	25.9	26.6	27.2	27.9
18	8.7	11.0	12.9	14.5	16.0	17.3	18.5	19.7	20.7	21.7	22.7	23.5	24.4	25.2	26.0	26.7	27.4	28.1	28.8
19	8.9	11.2	13.2	14.9	16.4	17.8	19.0	20.2	21.3	22.3	23.3	24.2	25.1	25.9	26.7	27.5	28.2	28.9	29.6
20	9.1	11.5	13.5	15.2	16.8	18.2	19.5	20.7	21.9	22.9	23.9	24.9	25.8	26.6	27.5	28.3	29.0	29.8	30.5
22	9.5	12.0	14.1	15.9	17.6	19.1	20.4	21.7	22.9	24.0	25.1	26.1	27.1	28.0	28.9	29.7	30.5	31.3	32.1
24	9.8	12.4	14.6	16.5	18.3	19.9	21.3	22.7	23.9	25.1	26.2	27.3	28.3	29.3	30.2	31.1	32.0	32.8	33.6
26	10.1	12.8	15.1	17.1	19.0	20.6	22.1	23.5	24.9	26.1	27.3	28.4	29.5	30.5	31.5	32.4	33.3	34.2	35.1
28	10.4	13.2	15.6	17.7	19.6	21.3	22.9	24.4	25.8	27.1	28.3	29.5	30.6	31.7	32.7	33.7	34.6	35.6	36.4
30	10.7	13.6	16.1	18.3	20.2	22.0	23.7	25.2	26.6	28.0	29.3	30.5	31.7	32.8	33.9	34.9	35.9	36.8	37.8
32	11.0	14.0	16.5	18.8	20.8	22.7	24.4	26.0	27.5	28.9	30.2	31.5	32.7	33.9	35.0	36.1	37.1	38.1	39.0
34	11.3	14.4	17.0	19.3	21.4	23.3	25.1	26.7	28.3	29.7	31.1	32.4	33.7	34.9	36.1	37.2	38.2	39.3	40.3
36	11.5	14.7	17.4	19.8	21.9	23.9	25.7	27.4	29.0	30.5	32.0	33.3	34.6	35.9	37.1	38.2	39.4	40.4	41.5
38	11.8	15.0	17.8	20.2	22.4	24.5	26.4	28.1	29.8	31.3	32.8	34.2	35.6	36.8	38.1	39.3	40.4	41.5	42.6
40	12.0	15.3	18.2	20.7	22.9	25.0	27.0	28.8	30.5	32.1	33.6	35.1	36.4	37.8	39.0	40.3	41.5	42.6	43.7
42	12.3	15.6	18.5	21.1	23.4	25.6	27.6	29.4	31.2	32.8	34.4	35.9	37.3	38.7	40.0	41.3	42.5	43.7	44.8
44	12.5	15.9	18.9	21.5	23.9	26.1	28.1	30.0	31.8	33.5	35.1	36.7	38.1	39.5	40.9	42.2	43.5	44.7	45.8
46	12.7	16.2	19.3	21.9	24.4	26.6	28.7	30.6	32.5	34.2	35.9	37.4	38.9	40.4	41.8	43.1	44.4	45.7	46.9

$D_e = 1.30\,[(ab)^{0.625}/(a+b)^{0.250}]$

a = length of one side of rectangular duct (inch)
b = length of adjacent side of rectangular duct (inch)
D_e = round equivalent of rectangular duct for equal friction and capacity (inch)

Source: 2017 ASHRAE Fundamentals, p. 21.8

Example
Convert rectangular duct 22" x 12" to equivalent round

a = 22, b = 12; from above table
D_e = 17.6, use 18" diameter

Specifications

MATERIAL (*) not available in pressed construction

- Galvanized steel conforming to ASTM standards A653 and A924
- Stainless steel type 304L conforming to ASTM standard A240*
- Stainless steel type 316L conforming to ASTM standard A240*
- Aluminum 3003-H14 conforming to ASTM standard 8209*

SURFACE FINISH

- Galvanized steel (galvanized in accordance with latest SMACNA HVAC Duct Construction Standards).
- Stainless steel type 304L - 2B Mill Finish (#4 finish available upon request)
- Stainless steel type 316L - 2B Mill Finish (#4 finish available upon request)
- ProCoat™ (outside only) or ProCoat™ Plus (inside and outside) on duct and/or fittings
  - Standard color = white (additional color options available)
  - Average coating thickness of 4 mils (0.004 inch)
  - ProCoat™ to meet or exceed 500 hour Salt Spray Test per ASTM B117
  - ProCoat™ Plus to meet or exceed 3,000 hour Salt Spray Test per ASTM B117
- Antimicrobial - Linx AM™ is EPA registered for HVAC applications as a water based mircobiostatic formula designed for control growth of microorganisms.

THICKNESS

Material thickness constructed from galvanized steel in accordance with the latest SMACNA's HVAC Duct Construction Standards for +10" water gauge pressure. **Consult factory for negative pressure systems.**

CONSTRUCTION

A. Duct is of spiral lock seam construction with a mechanically formed seam locking indentation evenly spaced along the spiral seam. All spiral duct 8" diameter and larger shall incorporate multiple corrugations between spiral seams.

B. Fittings shall be manufactured using one or more of the following construction methods:
   - Overlapped edges stitch welded along the entire length of the fitting
   - Standing seam gore locked and internally sealed
   - Button punched and internally sealed
   - Elbows 3" through 12" diameter will be die stamped and continuously stitch welded.

CONNECTIONS

Fitting ends shall be sized to slip-fit into spiral duct of the same nominal size. Fitting to fitting connections shall be made by use of duct size "CF" couplings. Duct to duct connections require fitting size "CD" couplings.

JOINT SEALING

Fitting ends are equipped with factory installed, double-lipped, U-profile gaskets. When installed in spiral duct per manufacturer's installation instructions, the gasket creates a seal against the interior of the spiral duct. The system tightness shall be factory warranted to meet SMACNA's Leakage Class 3 performance.

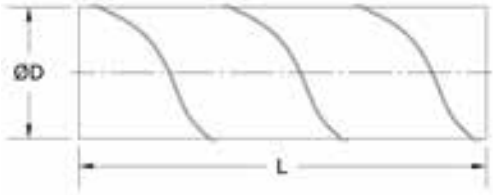
If no gasket is used, all joints must be sealed by the installer during the installation process. The type of sealant used as well as the method and level of application should be as directed by the specification and in accordance with the sealant manufacturer's published installation instructions.

GASKET

The gasket shall be EPDM rubber. The gasket is located in a groove at the end of the fitting and securely fastened by means of a stainless steel band. In order to achieve optimum sealing for all diameters, different size gaskets shall be used. The gasket shall be classified by Underwriters Laboratories for flame spread and smoke developed 0 / 0 in accordance with ASTM E84-91a. A silicone gasket meeting the same performance may be offered by duct manufacturer for special applications.

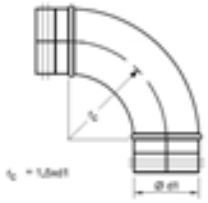
Tolerance, Gauge, & e-dimensions

Tolerances for Spiral Duct



Ø D (inch)	Ø D Tolerance (inch) min.-max.	t* (gauge)	t** (gauge)
3	2.950 - 2.969	28	28
4	3.950 - 3.969	28	28
5	4.950 - 4.969	28	28
6	5.950 - 5.969	28	28
7	6.950 - 6.972	28	28
8	7.950 - 7.972	28	28
9	8.950 - 8.972	28	28
10	9.950 - 9.976	28	28
11	10.950 - 10.976	28	28
12	11.950 - 11.976	28	28
14	13.950 - 13.976	28	28
16	15.936 - 15.969	26	26
18	17.936 - 17.969	26	26
20	19.936 - 19.972	26	26
22	21.936 - 21.972	26	26
24	23.936 - 23.976	26	26
26	25.936 - 25.976	24	24
28	27.934 - 27.976	24	24
30	29.924 - 29.969	24	24
32	31.924 - 31.976	24	24
34	33.924 - 33.976	24	24
36	35.924 - 35.988	24	24
38	37.912 - 37.976	24	24
40	39.912 - 39.976	24	24
42	41.912 - 41.976	24	24
44	43.912 - 43.988	22	22
46	45.912 - 45.998	22	22
48	47.912 - 47.988	22	22
50	49.912 - 49.988	22	22
52	51.913 - 51.992	22	22
54	53.913 - 53.992	22	22
56	55.909 - 55.992	22	22
58	57.909 - 57.992	22	22
60	59.909 - 59.992	22	22

Tolerances for Fittings



Ødx (inch)	Ødx Tolerance (inch) min.- max.	t* (gauge)	Die Stamped t** (gauge)	Fabricated t** (gauge)	e (inch)
3	2.902 - 2.917	28	24	------	1.625
4	3.902 - 3.917	28	24	------	1.625
5	4.902 - 4.917	28	24	------	1.625
6	5.898 - 5.917	28	24	------	1.625
7	6.894 - 6.913	28	24	------	1.625
8	7.890 - 7.913	28	24	------	1.625
9	8.886 - 8.909	28	24	------	1.625
10	9.882 - 9.909	28	24	------	2.375
11	10.882 - 10.909	28	24	------	2.375
12	11.882 - 11.909	28	24	------	2.375
14	13.878 - 13.909	28	------	24	2.375
16	15.862 - 15.898	26	------	24	3.125
18	17.862 - 17.898	26	------	24	3.125
20	19.858 - 19.898	24	------	24	3.125
22	21.858 - 21.898	24	------	24	3.125
24	23.854 - 23.898	24	------	24	3.125
26	25.854 - 25.898	22	------	22	3.125
28	27.846 - 27.894	22	------	22	4.000
30	29.839 - 29.886	22	------	22	4.000
32	31.835 - 31.886	22	------	22	4.000
34	33.835 - 33.886	22	------	22	4.000
36	35.831 - 35.886	22	------	22	4.000
38	37.819 - 37.874	22	------	20	4.000
40	39.819 - 39.874	22	------	20	4.750
42	41.819 - 41.874	22	------	20	4.750
44	43.815 - 43.874	20	------	20	4.750
46	45.815 - 45.874	20	------	20	4.750
48	47.815 - 47.874	20	------	20	4.750
50	49.815 - 49.874	20	------	20	4.750
52	51.811 - 51.874	20	------	20	4.750
54	53.811 - 53.874	20	------	20	4.750
56	55.799 - 57.862	20	------	20	4.750
58	57.799 - 57.862	20	------	20	4.750
60	59.795 - 59.862	22	------	20	4.750

* In accordance with the latest SMACNA HVAC Duct Construction Standards for +10" wg
** Linx Industries Manufacturing Standard
"------" = Not currently available

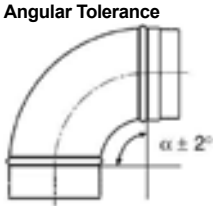
Length Tolerances

Length - L, H, e, D, d (inch)	Tolerances (inch)
1 - 10	± ⅜
12 - 16	± ⅝
18 - 28	± ¾
30 - 50	± 1
52 - 60	± 1 ¼

Weight Tolerance
±10%

Thickness Tolerance
±10%

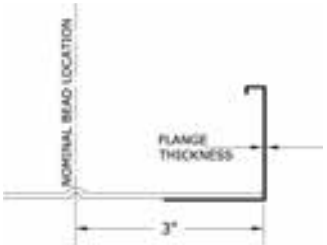
Angular Tolerance



Fitting Dimension For Flange Connections

Our products are designed with a male/female slip connections. For Linx Safe Connections, refer to the e-dimension listed in the chart above.

Factory-applied Flange	
Collar Length	Make-up Length
3"	3" + flange thickness



Surface/Finish

Stainless steel fittings provided with a 2B mill finish.

Coated products have a minimum surface hardness of 2H when tested per ASTM D33-63-92A with an average thickness of 4 mils. ProCoat™ (OD only) or ProCoat™ Plus (ID & OD) coated duct.

Spiral Duct

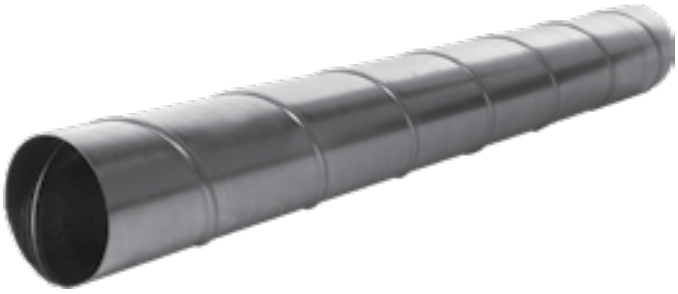
SC / SN

Old Designation | SR / SRNC

Description

corrugated spiral lock seam duct

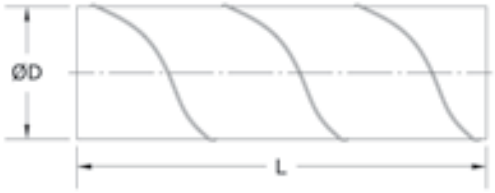
- SMACNA RL-1 spiral seam
- evenly spaced integral seam locking feature
- multiple corrugations on all duct 8" - 60” all other diameters available upon request
- standard lengths: 120” built in accordance with the latest SMACNA HVAC Duct Construction Standard for +10 iwg
- available lengths:
  G90 and GN - 12” - 240”
  S4 and S6 - 12” - 240”
  AL - 12” - 120”



Description

non corrugated spiral lock seam duct

- SMACNA RL-1 spiral seam
- evenly spaced integral seam locking feature
- available in diameters 3”- 60”
  all other diameters available upon request
- standard lengths: 120" built in accordance with the latest SMACNA HVAC Duct Construction Standard for +10 iwg
- available lengths:
  G90 and GN - 12” - 240”
  S4 and S6 - 12” - 240”
  AL - 12” - 120”



Ød	Ød	Length	Material
8” - 60” 3" - 60"	SC = Spiral Pipe Corrugated SN = Spiral Pipe Non-corrugated	12” - 240” AL Only - 12” - 120”	G9 = G90 Galvanized S4 = S304 Stainless S6 = S316 Stainless GN = Galvanneal / Paint Grip AL = Aluminum
16	**SC**	**120**	**G9**

Smart Part Number: **16SC120G9**

Elbows

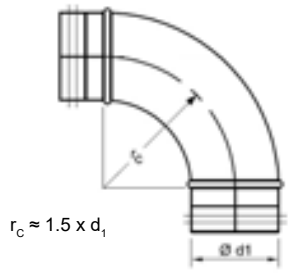
E 90

Old Designations | BSU / BSFU

Description

1.5” radius 90° elbow

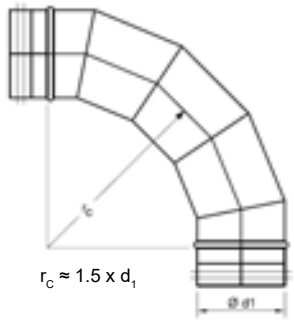
- die stamped
- continuous stitch welded
- rolled edges
- **galvanized steel only**
- available in diameters 3" - 12"
  note: 11" diameter is fabricated



Description

1.5” radius 90° elbow

- 5-piece gored
- internally sealed
- available in diameters 14" - 48"
  note: E 90 elbows 50” diameter and larger supplied as two E 45 elbows and a CF coupling



Order Example

Connection	Ød1	Designation	Angle
U = Safe	3” - 12” = Stamped 14” - 48” = Gored	E = Elbow	90
U	**16**	**E**	**90**

Smart Part Number: **U16E90**

Elbows

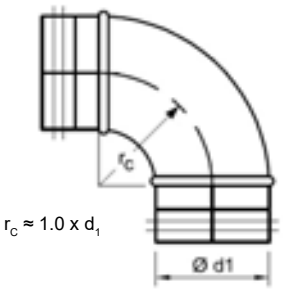
ER 90

Old Designations | BU / BFU

Description

1.0” radius 90° elbow

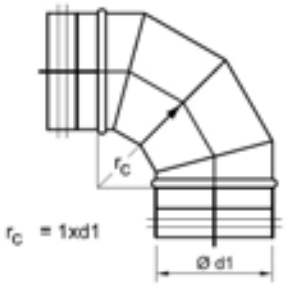
- die stamped
- continuous stitch welded
- rolled edges
- **galvanized steel only**
- available in diameters 3" - 12"
  note: 11" diameter is fabricated



Description

1.0” radius 90° elbow

- 4-piece gored
- internally sealed
- available in diameters 14" - 48"
  note: ER 90 elbows 50” diameter and larger supplied as two ER 45 elbows and a CF coupling



Order Example

Connection	Ød1	Designation	Angle
U = Safe	3” - 12” = Stamped 14” - 48” = Gored	ER = Elbow	90
U	**16**	**ER**	**90**

Smart Part Number: **U16ER90**

Elbows

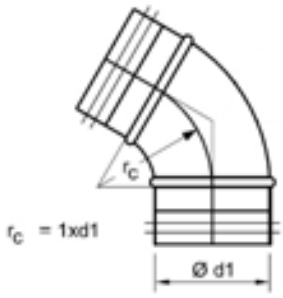
ER 60

Old Designations | BU / BFU

Description

1.0” radius 60° elbow

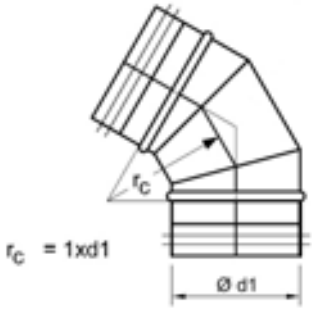
- die stamped
- continuous stitch welded
- rolled edges
- **galvanized steel only**
- available in diameters 3" - 12"
  note: 11" diameter is fabricated



Description

1.0” radius 60° elbow

- 3-piece gored
- internally sealed
- available in diameters 14" - 48"



Order Example

Connection	Ød1	Designation	Angle
U = Safe	3” - 12” = Stamped 14” - 48” = Gored	ER = Elbow	60
U	**16**	**ER**	**60**

Smart Part Number: **U16ER60**

Elbows

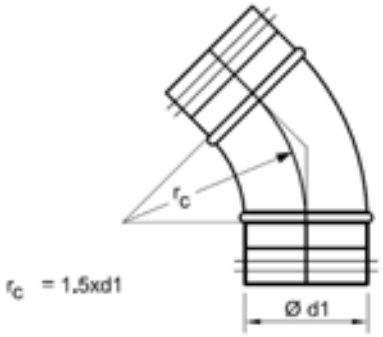
E 45

Old Designations | BSU / BSFU

Description

1.5” radius 45° elbow

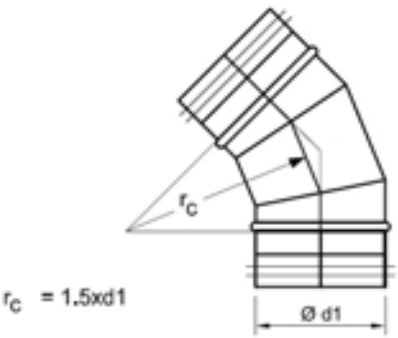
- die stamped
- continuous stitch welded
- rolled edges
- **galvanized steel only**
- available in diameters 3" - 12"
  note: 11" diameter is fabricated



Description

1.5” radius 45° elbow

- 3-piece gored
- internally sealed
- available in diameters 14" - 48"



Order Example

Connection	Ød1	Designation	Angle
U = Safe	3” - 12” = Stamped 14” - 48” = Gored	E = Elbow	45
U	**16**	**E**	**45**

Smart Part Number: **U16E45**

Elbows

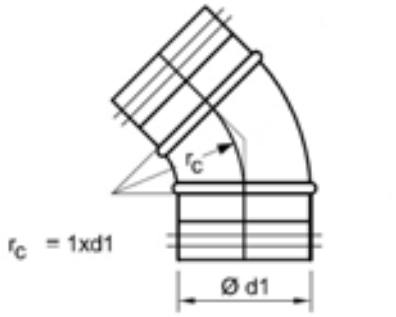
ER 45

Old Designations | BU / BFU

Description

1.0” radius 45° elbow

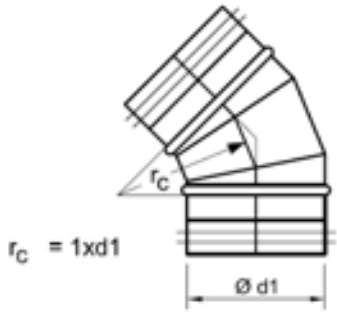
- die stamped
- continuous stitch welded
- rolled edges
- **galvanized steel only**
- available in diameters 3" - 12"
  note: 11" diameter is fabricated



Description

1.0” radius 45° elbow

- 3-piece gored
- internally sealed
- available in diameters 14" - 48"



Order Example

Connection	Ød1	Designation	Angle
U = Safe	3” - 12” = Stamped 14” - 48” = Gored	ER = Elbow	45
U	**16**	**ER**	**45**

Smart Part Number: **U16ER45**

Elbows

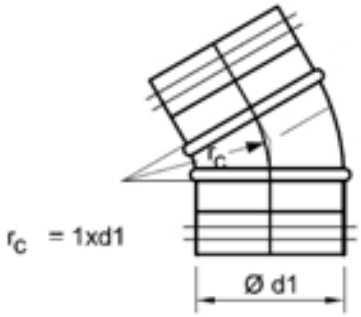
ER 30

Old Designations | BU / BFU

Description

1.0” radius 30° elbow

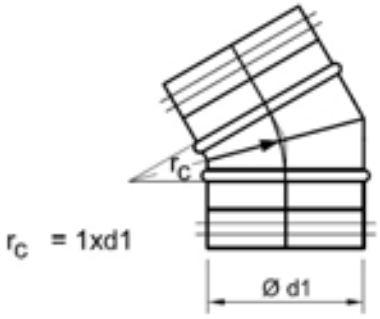
- die stamped
- continuous stitch welded
- rolled edges
- **galvanized steel only**
- available in diameters 3" - 12"
  note: 11" diameter is fabricated



Description

1.0” radius 30° elbow

- 2-piece gored
- internally sealed
- available in diameters 14" - 48"



Order Example

Connection	Ød1	Designation	Angle
U = Safe	3” - 12” = Stamped 14” - 48” = Gored	ER = Elbow	30
U	**16**	**ER**	**30**

Smart Part Number: **U16ER30**

Elbows

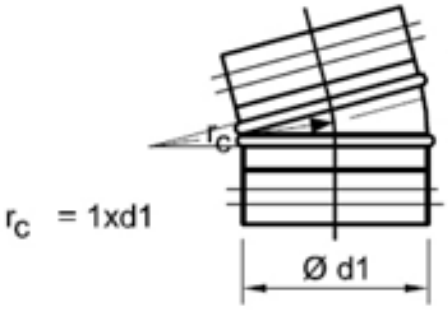
ER 15

Old Designations | BU / BFU

Description

1.0” radius 15° elbow

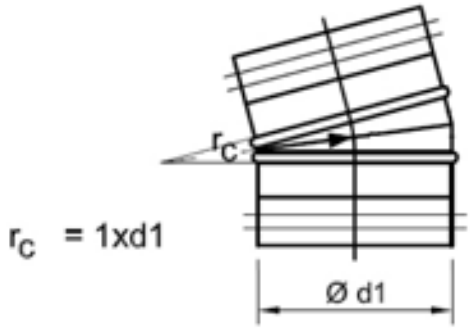
- die stamped
- continuous stitch welded
- rolled edges
- **galvanized steel only**
- available in diameters 3" - 12"
  note: 11" diameter is fabricated



Description

1.0” radius 15° elbow

- 2-piece gored
- internally sealed
- available in diameters 14" - 48"



Order Example

Connection	Ød1	Designation	Angle
U = Safe	3” -12” = Stamped 14” - 48” = Gored	ER = Elbow	15
U	16	ER	15

Smart Part Number: **U16ER15**

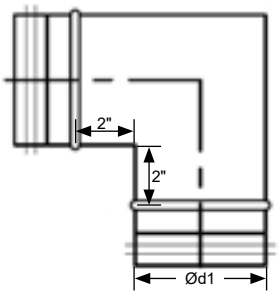
Elbows

EM / EMV

Old Designations | BMU / BMVU

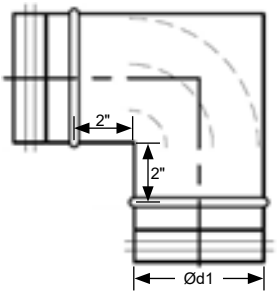
Description
mitered elbow

- rolled edge
- 2" standard throat length
- available in diameters 4"- 60"



Description
mitered elbow with vanes

- rolled edge
- 2" standard throat length
- turning vanes evenly spaced
- available in diameters 4"- 60"
  number of vanes vary by diameter
  - Ø 4"-10" = 2 vanes
  - Ø 12"-14" = 3 vanes
  - Ø 16"-20" = 4 vanes
  - Ø 22"-60" = 5 vanes



Order Example

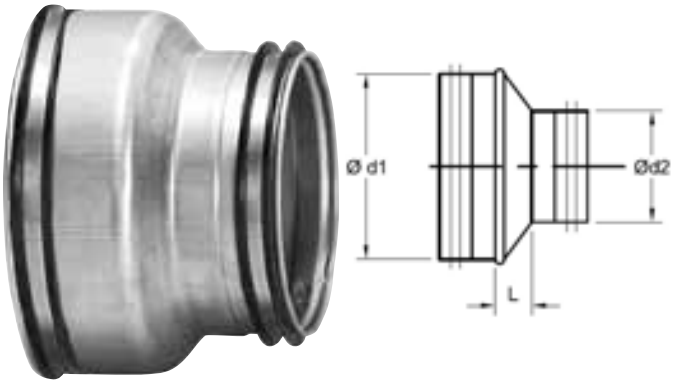
Connection	Dia (Inch)	Designation
U = Safe	4" - 60"	EM = Mitered Elbow EMV = Mitered with vanes
U	16	EM

Smart Part Number: **U16EM**

Reducers

RC / RCF

Old Designation | RCU/RCFU



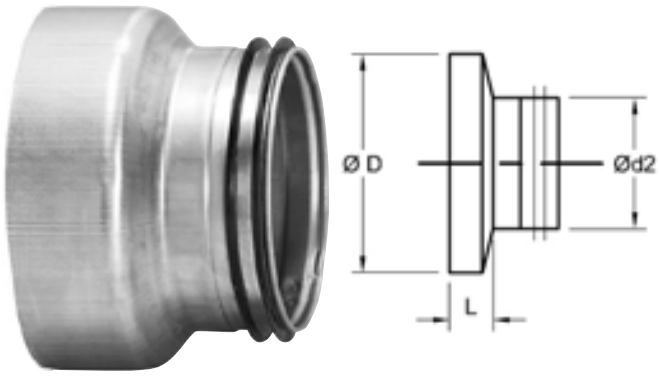
Description

concentric reducer

- galvanized construction only

Dimension **(die stamped)**

Ød1	Ød2	L
inch	inch	inch
4	3	¾
5	3	1
5	4	⅞
6	3	1¾
6	4	1¼
6	5	¾
7	4	2
7	5	1½
7	6	1
8	4	2¼
8	5	1⅝
8	6	1¼
8	7	¾
9	7	2⅛
9	8	1⅛
10	6	2¼
10	7	1⅝
10	8	1⅛
10	9	⅝
12	8	2⅛
12	10	1⅜
14	10	2
14	12	1⅜



Description

concentric reducer

- ØD = duct size slips over fitting end
- galvanized construction only

Dimension **(die stamped)**

Ød1	Ød2	L
inch	inch	inch
4	3	2⅜
5	3	2⅝
5	4	2⅜
6	3	3⅜
6	4	2⅞
6	5	2⅜
7	4	3½
7	5	3
7	6	2½
8	4	3¾
8	5	3¼
8	6	2⅞
8	7	2⅜
9	7	3¾
9	8	2¾
10	6	4⅜
10	7	3¼
10	8	2¾
10	9	2¼
12	10	2¾
14	10	4¾
14	12	3⅜

Order Example

Connection	Ød1 / ØD	Designation	Ød2
U = Safe	Diameter	RC = Concentric Reducer Male RCF = Concentric Reducer Female	3" - 12"
U	**14**	**RC**	**12**

Smart Part Number: **U14RC12**

Reducers

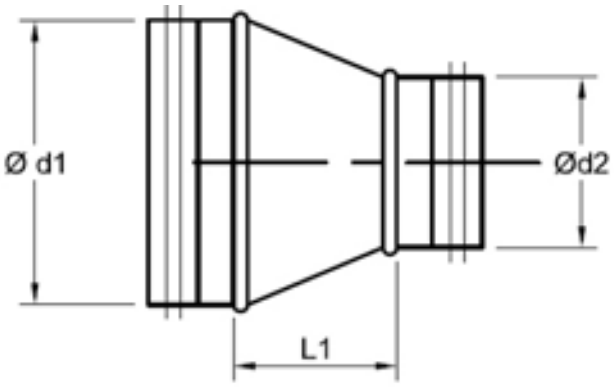
RC / RCF

Old Designations | RCLU / RCLFU

Description

fabricated concentric reducer

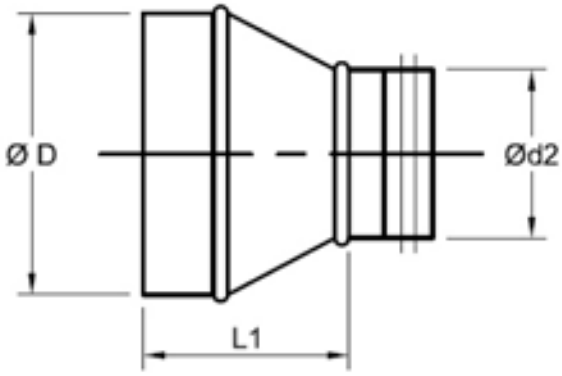
- L1 = (Ød1 - Ød2)*
  (*) minimum 4"



Description

fabricated concentric reducer

- ØD end slips onto fitting end
- L1 = (ØD - Ød2)* + e dimension (page 11)
  (*) minimum 4"



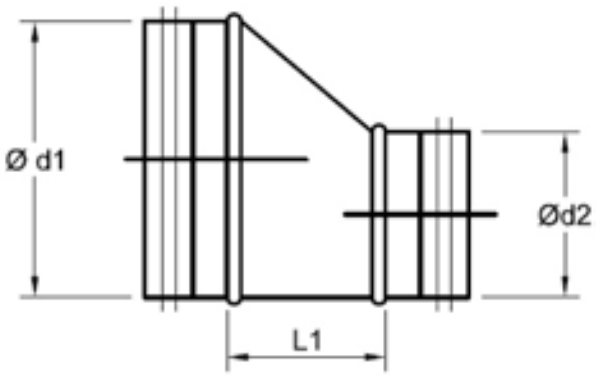
Order Example

Connection	Ød1 / ØD	Designation	Ød2
U = Safe	Diameter	RC = Concentric Reducer RCF = Concentric Reducer Female	Diameter
U	**16**	**RC**	**14**

Smart Part Number: **U16RC14**

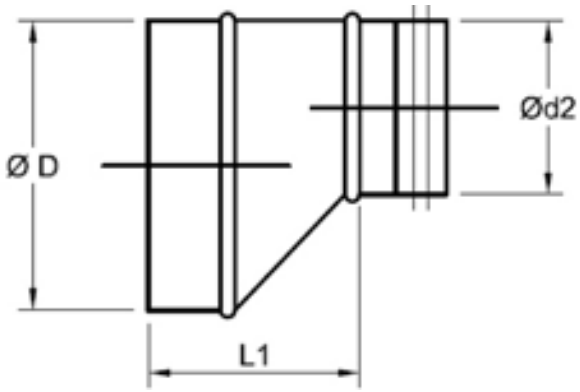
Description
fabricated eccentric reducer

- L1 = (Ød1 - Ød2)*
  (*) minimum 4"



Description
fabricated eccentric reducer

- ØD end slips onto fitting end
- L1 = (ØD - Ød2)* + e dimension (page 11)
  (*) minimum 4"



Order Example

Connection	Ød / ØD	Designation	Ød2
U = Safe	Diameter	RE = Ecentric Reducer REF = Ecentric Reducer Female	Diameter
U	**16**	**RC**	**14**

Smart Part Number: **U16RC14**

PB / PBF

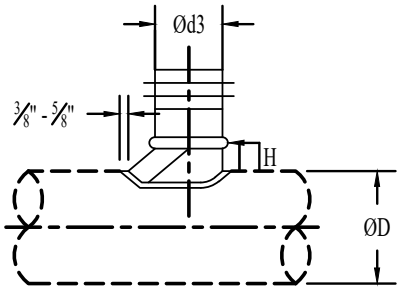
Old Designations | TBSU / TBSRU

Description

45° combination boot-style saddle tap

Dimensions

If Ød3 ≤ 8”, H = 4”
If Ød3 = 9”-14”, H = 7”
If Ød3 = 15”-26”, H = 10”
If Ød3 = 27”-46”, H = 13”
If Ød3 = 47”-60”, H = 16”



Order Example

Connection	Ød3	Designation	ØD
U = Safe	Fitting Diameter	PB = Combination boot-style saddle tap	Duct Diameter
U	16	PB	00

Smart Part Number: **U16PB00**

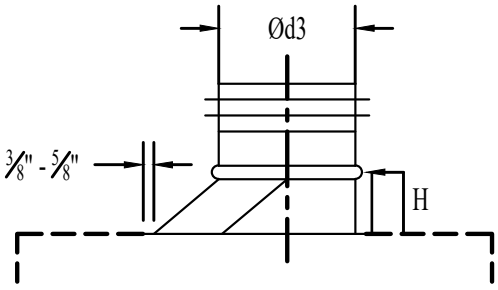
Description

45° boot-style tap

- installed on flat side of duct or plenum

Dimensions

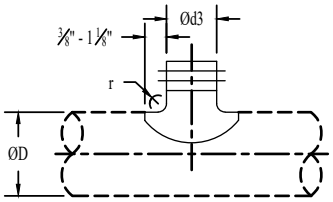
If Ød3 ≤ 8” H = 4”
If Ød3 = 9”-14”, H = 7”
If Ød3 = 15”-26”, H = 10”
If Ød3 = 27”-46”, H = 13”
If Ød3 = 47”-60”, H = 16”



Order Example

Connection	Ød3	Designation
U = Safe	Fitting Diameter	PBF = Boot-style tap
U	14	PBF

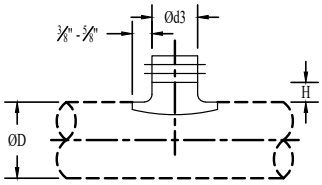
Smart Part Number: **U14PBF**



Description

pressed saddle tap

- radius entry
- limited to galvanized steel only
- available in Ød3 or tap diameters 3”-16”, exceptions listed below



Description

fabricated saddle tap

- sizes listed below
- X = 1”

	Pressed Saddle Taps - Ød3 (inch)										
ØD (inch)	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**12**	**14**	**16**
4	X	X									
5	X	X	X								
6	X	X	X	X							
7	X	X	X	X	X						
8		X	X	X	X	X					
9		X	X	X		X	X				
10		X	X	X		X	X	X			
12		X	X	X		X	X	X	X		
14		X	X	X		X	X	X	X		
16		X	X	X		X	X	X	X		X
18		X	X	X		X	X	X	X		X
20		X	X	X		X	X	X	X		X
22			X	X		X	X	X	X		X
24			X	X		X	X	X			X

Order Example

Connection	Ød3	Designation	ØD
U = Safe	Diameter	PS = Saddle tap	Diameter
U	**3**	**PS**	**7**

Smart Part Number: **U3PS7**

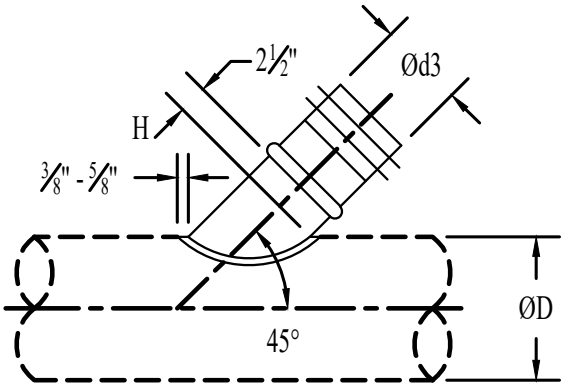
PV45 / PC

Old Designations | PSVU / PSCU

Description

fabricated 45º lateral tap for round

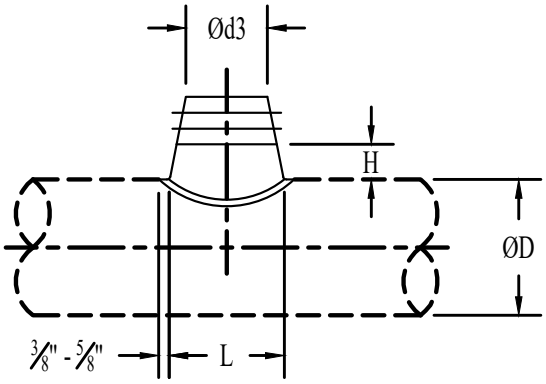
- H = 2.5"
- special order: 15º, 30º, 60º
  i.e. for a 15º U12PV**15**20



Description

conical saddle tap

- H = 6"
- L = Ød3 + 2"



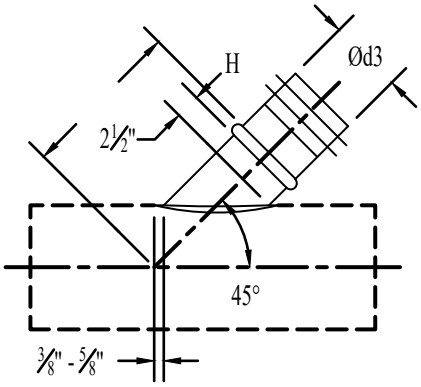
Order Example

Connection	Ød3	Designation	ØD
U = Safe	Fitting Diameter	PV45 = 45° Lateral Tap Round PC = Conical Saddle Tap	Duct Diameter
U	**22**	**PV45**	**32**

Smart Part Number: **U22PV32**

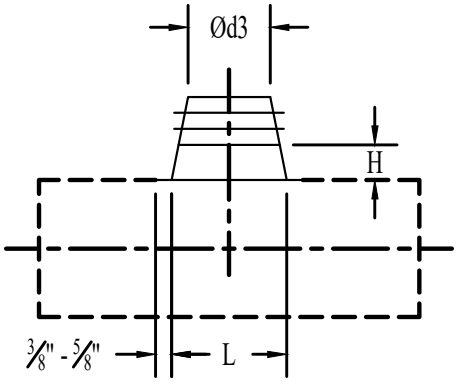
Description
fabricated 45º lateral tap for flat surface

- H = 2.5"
- special order: 15º, 30º, 60º
  i.e. for a 15º U12PVF**15**20



Description
conical tap for flat surface

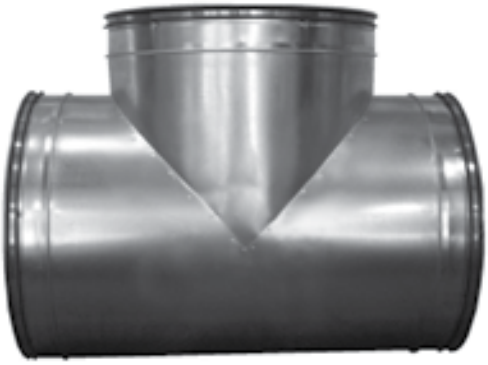
- H = 6"
  L = Ød3 + 2”
- flat lip = ⅜"- ⅝" depending on diameter



Order Example

Connection	Ød3	Designation
U = Safe	Diameter	PV45 = 45° Lateral Tap Flat PC = Conical Saddle Tap Flat
U	**12**	**PV45**

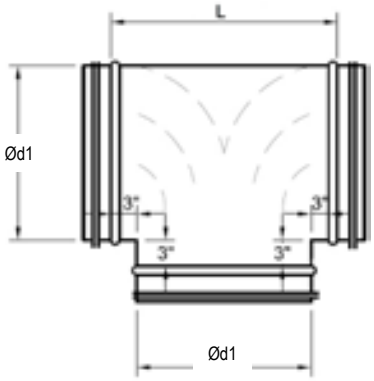
Smart Part Number: **U12PV45**



Description
bullhead tee

- L = Ød1 + 6"

TBHV (with turning vanes) shown below.



Order Example

Connection	Ød1	Designation	Ød1
U = Safe	Diameter	TBH = Bullhead Tee TBHV = Bullhead Tee With Vanes	Diameter
U	14	TBH	14

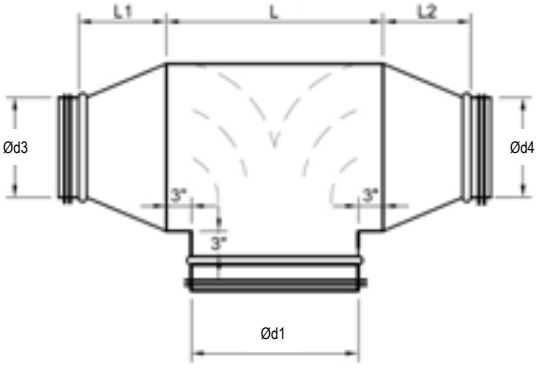
Smart Part Number: **U14TBH14**

Description
bullhead reducing tee

- L = Ød1 + 6"
- L1 = (Ød1 - Ød3)*
- L2 = (Ød1 - Ød2)*

(*) minimum 4"

TRBHV (with turning vanes) shown below.



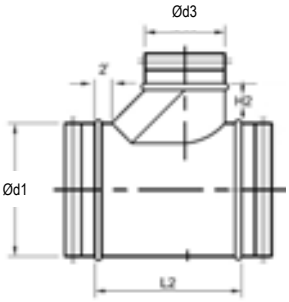
Order Example

Connection	Ød1	Designation	Ød3	Ød4
U = Safe	Diameter	TRBH = Bullhead Tee With Reducer TRBHV = Bullhead Tee With Reducer With Vanes	Diameter	Diameter
U	14	TRBH	12	12

Smart Part Number: **U14TRBH1212**

Description
45° boot-style tee

- assembled with PB tap
- Ød3 ≤ Ød1 diameter
- L2 = Ød3 + H2 + 4"
- If Ød3 ≤ 8", H2 = 4",
  If Ød3 = 9-14", H2 = 7",
  If Ød3 = 15-26", H2 = 10",
  If Ød3 = 27-46", H2 = 13", and
  If Ød3 = 47-60", H2 = 16"



Order Example

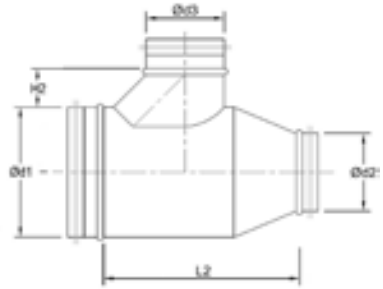
Connection	Ød1	Designation	Ød3
U = Safe	Diameter	TB = 45° Boot-Style Tee	Diameter
U	22	TB	12

Smart Part Number: **U22TB12**

Description
45° boot-style tee with reducer

- assembled with PB tap
- Ød3 ≤ Ød1 diameter
- L2 = (Ød3 + H2 + 4") + (Ød1 - Ød2)*
- If Ød3 ≤ 8", H2 = 4",
  If Ød3 = 9-14", H2 = 7",
  If Ød3 = 15-26", H2 = 10",
  If Ød3 = 27-46", H2 = 13", and
  If Ød3 = 47-60", H2 = 16"

(*) minimum of 4"



Order Example

Connection	Ød1	Designation	Ød2	Ød3
U = Safe	Diameter	TRB = 45° Boot-Style Tee With Reducer	Diameter	Diameter
U	22	TRB	16	12

Smart Part Number: **U22TRB1612**

Crossing Tees

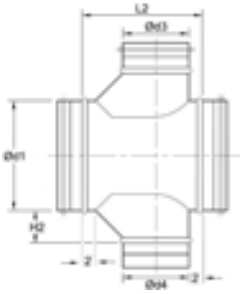
XB / XRB

Old Designations | XBU / XBRU

Description

45° boot-style crossing tee

- assembled with PB taps
- Ød3 and Ød4 ≤ Ød1 diameter
  Ød3 ≥ Ød4
- L = Ød3 + H2 + 4"
- If Ød3 ≤ 8", H2 = 4",
  If Ød3 = 9-14", H2 = 7",
  If Ød3 = 15-26", H2 = 10",
  If Ød3 = 27-46", H2 = 13", and
  If Ød3 = 47-60", H2 = 16"



Order Example

Connection	Ød1	Designation	Ød3	Ød4
U = Safe	Diameter	XB = 45° Boot-Style Crossing Tee	Diameter	Diameter
U	14	XB	12	12

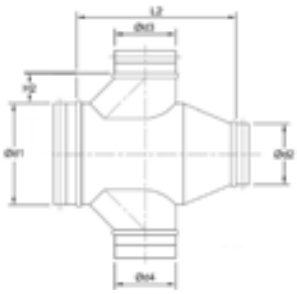
Smart Part Number: **U14XB1212**

Description

45° boot-style crossing tee with reducer

- assembled with PB taps
- Ød3 and Ød4 ≤ Ød1 diameter
  Ød3 ≥ Ød4
- L = (Ød3 + H2 + 4") + (Ød1 - Ød2)*
- If Ød3 ≤ 8" H2 = 4",
  If Ød3 = 9-14", H2 = 7",
  If Ød3 = 15-26", H2 = 10",
  If Ød3 = 27-46", H2 = 13", and
  If Ød3 = 47-60", H2 = 16"

(*) minimum of 4"



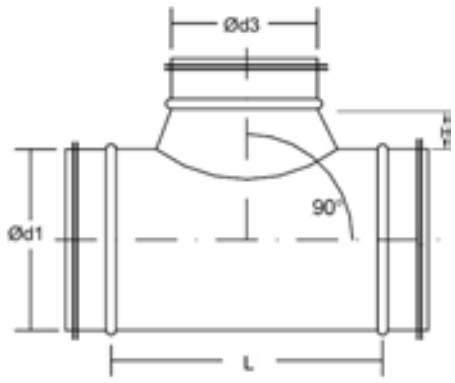
Order Example

Connection	Ød1	Designation	Ød2	Ød3	Ød4
U = Safe	Diameter	XRB = 45° Boot-Style Crossing Tee With Reducer	Diameter	Diameter	Diameter
U	14	XRB	12	12	12

Smart Part Number: **U14XRB121212**

Description
conical tee

- L = Ød3 + 8"
- H = 6"
- Ød1 must be 2" or larger than Ød3



Order Example

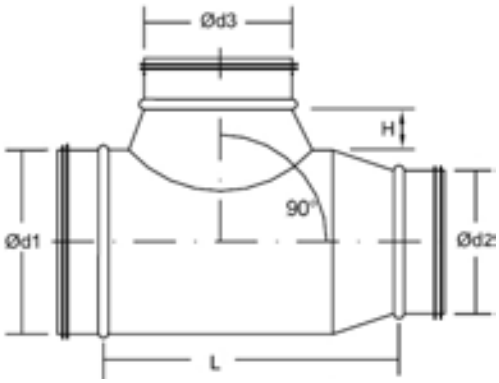
Connection	Ød1	Designation	Ød3
U = Safe	Diameter	TC = Conical Reducing Tee	Diameter
U	14	TC	12

Smart Part Number: **U14TC12**

Description
conical reducing tee

- L = (Ød3 + 8") + (Ød1 - Ød2)*
- H = 6"
- Ød1 must be 2" or larger than Ød3

(*) minimum of 4"



Order Example

Connection	Ød1	Designation	Ød2	Ød3
U = Safe	Diameter	TRC = Conical Reducing Tee With Reducer	Diameter	Diameter
U	14	TRC	12	12

Smart Part Number: **U14TRC1212**

Crossing Tees

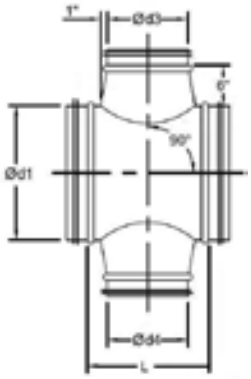
XC / XRC

Old Designations | XCCU / XCCRU

Description

conical crossing tee

- L = Ød3 + 8"
- H = 6"
- Ød1 must be 2" or larger than Ød3
- Ød3 ≥ Ød4



Order Example

Connection	Ød1	Designation	Ød3	Ød4
U = Safe	Diameter	XC = Conical Crossing Tee	Diameter	Diameter
U	14	XC	12	12

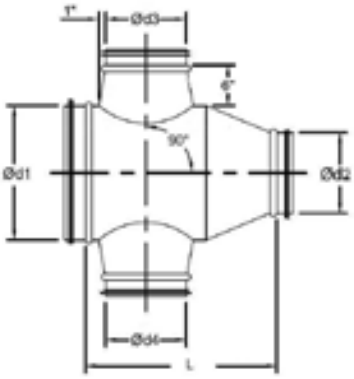
Smart Part Number: **U14XC1212**

Description

conical reducing crossing tee

- L = (Ød3 + 8") + (Ød1 - Ød2)*
- H = 6"
- Ød1 must be 2" or larger than Ød3
- Ød3 ≥ Ød4

(*) minimum of 4"



Order Example

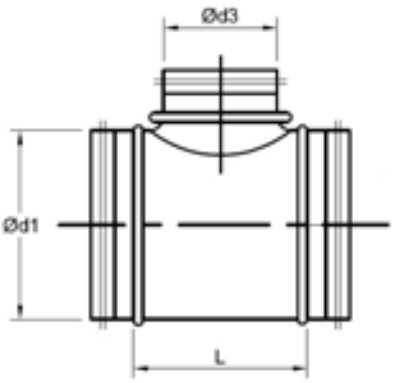
Connection	Ød1	Designation	Ød2	Ød3	Ød4
U = Safe	Diameter	XRC = Conical Crossing Tee With Reducer	Diameter	Diameter	Diameter
U	14	XRC	12	12	12

Smart Part Number: **U14XRC121212**

Description

assembled tee with die-stamped or fabricated PS

- L = Ød3 + 6"



Order Example

Connection	Ød1	Designation	Ød3
U = Safe	Diameter	TS = Assembled Tee	Diameter
U	14	TS	12

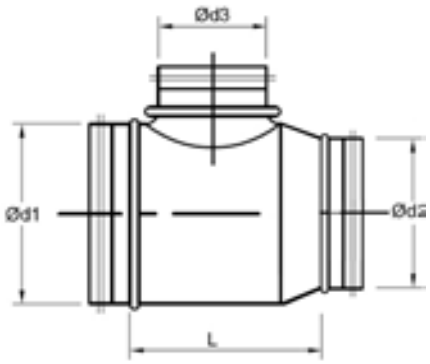
Smart Part Number: **U14TS12**

Description

assembled reducing tee with die-stamped or fabricated PS

- L = (Ød3 + 6") + (Ød1 - Ød2)*

(*) minimum of 4"



Order Example

Connection	Ød1	Designation	Ød2	Ød3
U = Safe	Diameter	TRS = Assembled Tee With Reducer	Diameter	Diameter
U	14	TRS	12	12

Smart Part Number: **U14TRS1212**

Crossing Tees

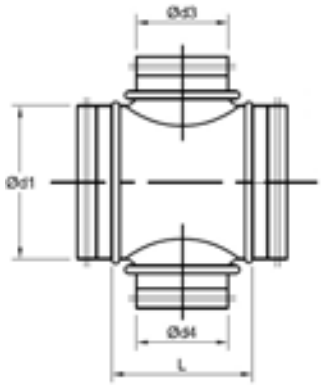
XS / XRS

Old Designations | XCPU / XCPRU

Description

assembled crossing tee with die-stamped or fabricated PS

- Ød3 ≥ Ød4
- L = Ød3 + 6"



Order Example

Connection	Ød1	Designation	Ød3	Ød4
U = Safe	Diameter	XS = Assembled Crossing Tee	Diameter	Diameter
U	14	XS	12	12

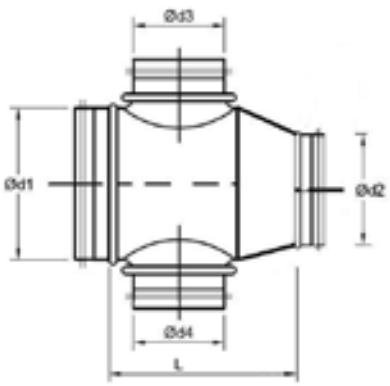
Smart Part Number: **U14XS1212**

Description

assembled reducing crossing tee with die-stamped or fabricated PS

- Ød3 ≥ Ød4
- L = (Ød3 + 6") + (Ød1 - Ød2)*

(*) minimum of 4"



Order Example

Connection	Ød1	Designation	Ød2	Ød3	Ød4
U = Safe	Diameter	XRS = Assembled Tee With Reducer	Diameter	Diameter	Diameter
U	14	XRS	12	12	12

Smart Part Number: **U14XRS121212**

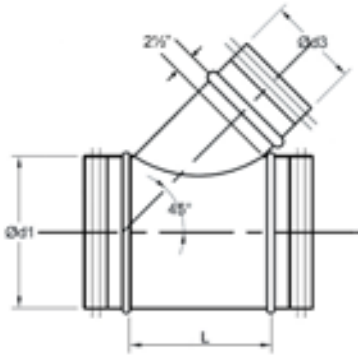
TV45 / TRV 45

Old Designations | TVU / TVRU

Description

45° lateral tee

- L = Ød3[1/sin(45)] + 4"
- H = 2.5" (constant)(throat height)
- special order: 15°- 30°- 60°
  i.e. U - Ød1 - TV15 - Ød3



Order Example

Connection	Ød1	Designation	Ød3
U = Safe	Diameter	TV = 45° Lateral Tee	Diameter
U	14	TV	08

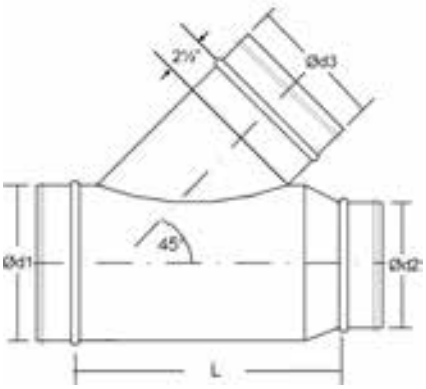
Smart Part Number: **U14TV08**

Description

45° lateral reducing tee

- L = Ød3 [1/sin(45)] + 4"+ (Ød1 - Ød2)*
- H = 2.5" (constant) (throat height)

(*) minimum of 4



Order Example

Connection	Ød1	Designation	Ød2	Ød3
U = Safe	Diameter	TRV = 45° Lateral Tee With Reducer	Diameter	Diameter
U	14	TRV	12	08

Smart Part Number: **U14TRV1208**

Crossing Tees

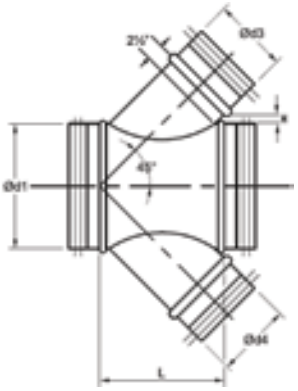
XV45 / XRV45

Old Designations | XVU / XVRU

Description

45° lateral crossing tee

- dimension data for Ød4 = Ød3 only
  L = (1.414 x Ød3) + 4"
- H = 2.5" (constant throat height)
  Ød3 ≥ Ød4
- special order: 15°- 30°- 60°
  i.e. XV 15° - aa - bb - cc



Order Example

Connection	Ød1	Designation	Ød3	Ød4
U = Safe	Diameter	XV = 45° Lateral Crossing Tee	Diameter	Diameter
U	14	XV	12	12

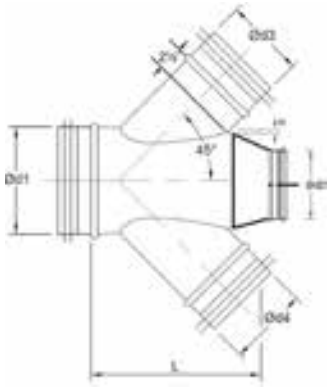
Smart Part Number: **U14XV1212**

Description

45° lateral reducing crossing tee

- dimension data for Ød4 = Ød3 only
  L = (1.414 x Ød3) + 4"+ (Ød1 - Ød2)*
- H = 2.5" (constant throat height)
- Ød3 ≥ Ød4

(*) minimum of 4"



Order Example

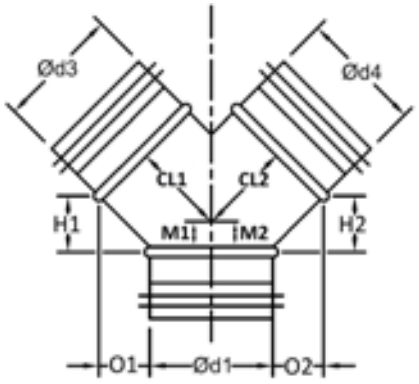
Connection	Ød1	Designation	Ød2	Ød3	Ød4
U = Safe	Diameter	XRV = 45° Lateral Crossing Tee With Reducer	Diameter	Diameter	Diameter
U	14	XRV	12	12	12

Smart Part Number: **U14XRV121212**

Y-branch

Y45

Old Designation | YVU



Description

directional split fitting: 45º

- special order: 15º, 30º, 60º
  i.e. Y 15° - aa - bb - cc
- special order: Ød3 or Ød4 < Ød1
- special order: Ød3 ≤ Ød4

Dimensions

H1 = [(Ød3 x 0.5) + (Ød1 x 0.9)] x (Ød3 x 0.5)

O1 = [(Ød3 x 0.5) + (Ød1 x 0.8)] x (Ød1 x 0.5)

H2 = [(Ød4 x 0.5) + (Ød1 x 0.9)] x (Ød4 x 0.5)

O2 = [(Ød4 x 0.5) + (Ød1 x 0.8)] x (Ød1 x 0.5)

M1 = H1 + (Ød3 x 0.5) 0.707 - (Ød1 x 0.5) + O1 - (Ød3 x 0.5) 0.707

M2 = H2 + (Ød4 x 0.5) 0.707 - (Ød1 x 0.5) + O2 - (Ød4 x 0.5) 0.707

CL1 = [(Ød1 x 0.5) + O1 - (Ød3 x 0.5) 0.707] / 0.707

CL2 = [(Ød1 x 0.5) + O2 - (Ød4 x 0.5) 0.707] / 0.707

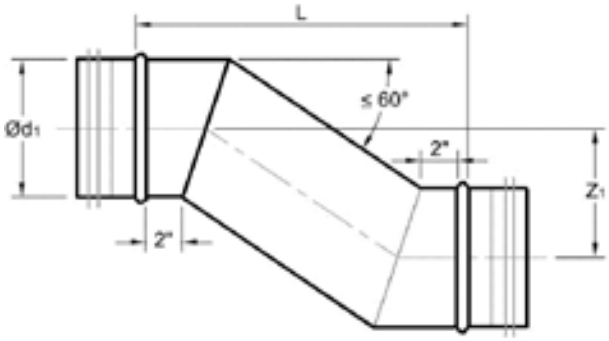
Note: These dimensions apply for 45° only. Please call for dimensions on special orders.

Order Example

Connection	Ød1	Designation	Ød2	Ød3
U = Safe	Diameter	Y = 45° Directional Split	Diameter	Diameter
U	**16**	**Y**	**14**	**14**

Smart Part Number: **U16Y1414**

Offset



Description

one-piece offset

- $L_{min} = \left[\frac{Ød_1}{4}\right] + \left[\frac{Z_1}{0.577}\right] + 4$
- L_{max} = 60"

Note: SMACNA recommends that offsets be 60° or less

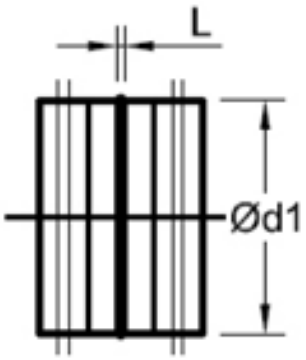
Order Example

Connection	Ød1	Designation	L	Z_1
U = Safe	Diameter	Z = Offset	Length ≥ Lmin (≤60")	Offset Dimension
U	**16**	**Z**	**12**	**20**

Smart Part Number: **U16Z1220**

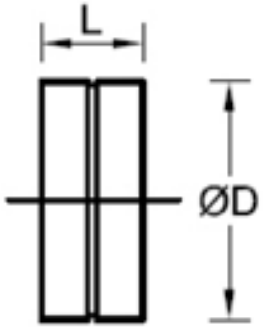
Description
coupling used for joining spiral duct

- If Ø 3"-20", L = ⅜",
  If Ø 22"-26", L = ½"
  If Ø 28"-60", L = ⅝"



Description
coupling for joining fittings

- If Ø 3"-9", L = 3⅝",
  If Ø 10"-14", L = 5⅛",
  If Ø 16"-26", L = 6⅝",
  If Ø 28"-38", L = 8⅝",
  If Ø 40"-60", L = 10⅛"



Order Example

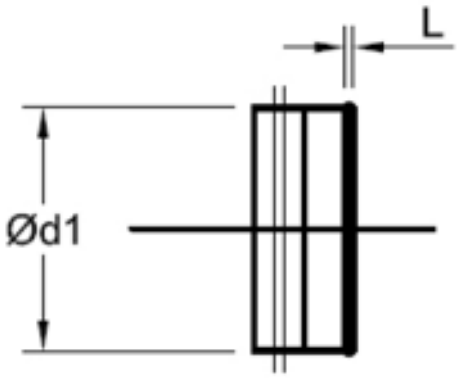
Connection	Ød1 / Ød	Designation
U = Safe	Diameter	CD = Coupling For Spiral CF = Coupling For Fitting
U	16	CD

Smart Part Number: **U16CD**

End Caps

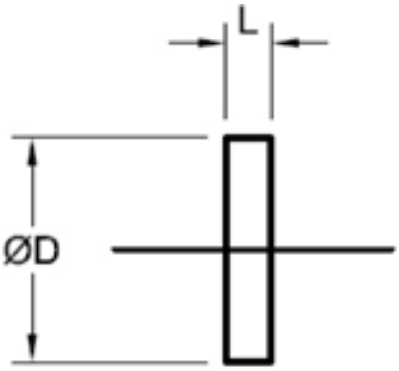
Description
end cap for spiral duct

- If Ø 3"-20", L = ⅜",
  If Ø 22"-26", L = ½"
  If Ø 28"-60", L = ⅝"



Description
end cap for fittings

- If Ø 3"-9", L = 1⅝",
  If Ø 10"-14", L = 2⅜",
  If Ø 16"-26", L = 3⅛",
  If Ø 28"-38", L = 4",
  If Ø 40"-60", L = 4¾"



Order Example

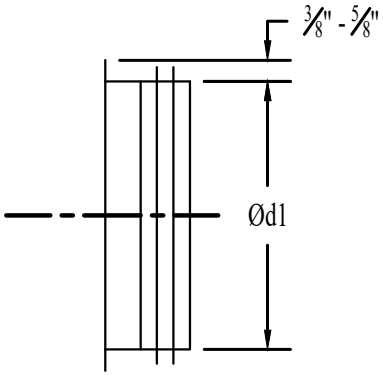
Connection	Ød1 / Ød	Designation
U = Safe	Diameter	ED = End Cap For Spiral EF = End Cap For Fitting
U	16	ED

Smart Part Number: **U16ED**

Take-offs

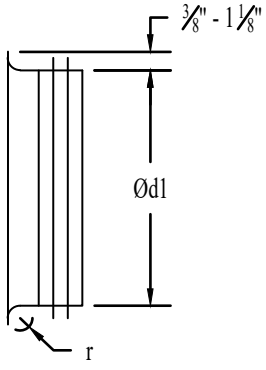
Description
take-off/starting collar

- installed on flat side of duct or plenum
- available in diameters 3"- 60"



Description
stamped radiused bellmouth take-off

- available in 4"-16" (not including 11")
- installed on flat side of duct or plenum

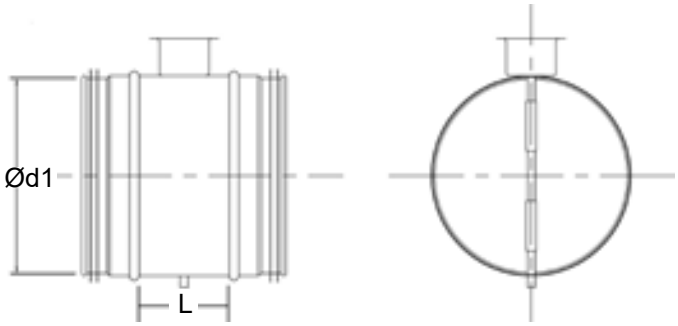


Order Example

Connection	Ød1	Designation
U = Safe	3" - 60" = Take-Off Starting Collar 4" -16" = Bellmouth Take-Off	PT = Take-Off Starting Collar PR = Bellmouth Take-Off
U	**16**	**PT**

Smart Part Number: **U16PT**

DS



Description

manual balancing damper w/ full blade

- for use in systems where a complete shut-off of air flow is not required
- gasketed shaft-mounted load bearing bushing to minimize air leakage
- integral shaft-blade assembly
- 2" sheet metal insulation stand-off
- damper cup height = 2”
- locking blade quadrant w/damper position indicator
- full fitting body assembly with bead stop

Note:

- Ød1 > 14" equipped with extended handle and a reinforced damper blade
- Ød1 > 24" provided with 2" bracket stand-off

Dimension

Ød1	‘L’	Shaft
inch	inch	inch x inch
4	3.9	5/16*
5	3.9	5/16*
6	3.9	5/16*
7	3.9	5/16*
8	3.9	5/16*
9	3.9	5/16*
10	3.5	5/16*
12	3.5	5/16*
14	3.5	5/16*
16	3.75	5/16*
18	3.75	5/16*
20	3.75	5/16*
22	3.75	5/16*
24	3.75	5/16*
26	3.75	5/16*
28	3.75	5/16*
30	3.75	5/16*
32	10.4	1**
34	10.4	1**
36	10.4	1**

** 2” shaft extensions available*
*** 1” square tube shaft*

Order Example

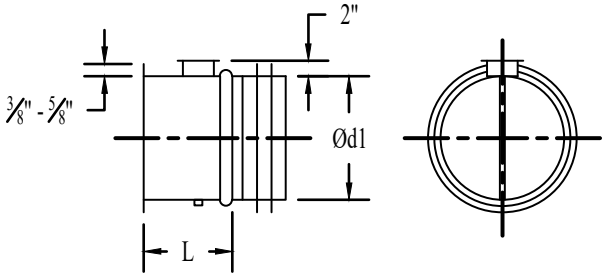
Connection	Ød1	Designation
U = Safe	4” - 10” 12” - 36” in 2” Increments	DS = Balancing Damper With Full Blade DSW = Damper With Cable-Operating Option
U	**16**	**DS**

Smart Part Number: **U16DS**

Take-offs

Description
gasketed take-off with damper

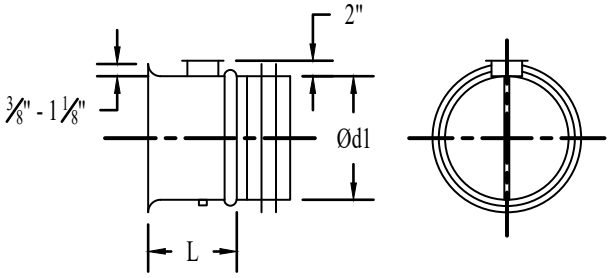
- lengths (in):
  diameters 4" - 9" : L= 5½"
  diameters 10" - 14" : L= 5⅝"
  diameters 16" - 24" : L= 6⅜"
- shaft = 5/16” x 5/16”
- 2" shaft extension available



Description
gasketed bellmouth take-off with damper

- assembled with PR radiused bellmouth take-off
- lengths:
  diameters 4" - 9" : L= 7⅞"
  diameters 10" - 14" : L= 9"
  diameters 16" : L = 10¼"
- shaft = 5/16” x 5/16”
- 2" shaft extension available

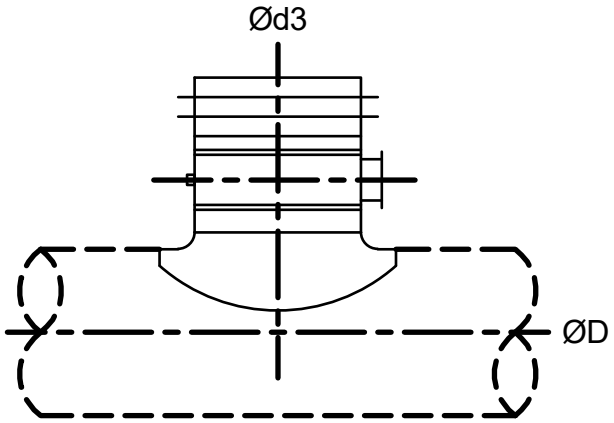
Note: 11" is not available



Order Example

Connection	Ød1	Designation
U = Safe	Diameter	DSIL = Take-Off With Damper DSILR = Bellmouth Take-Off With Damper
U	**16**	**DSIL**

Smart Part Number: **U16DSIL**



Description

damper (DS) with saddle tap (PS) base

- shaft = 5/16” x 5/16”
- 2" shaft extensions available

Available in the following sizes (✓):

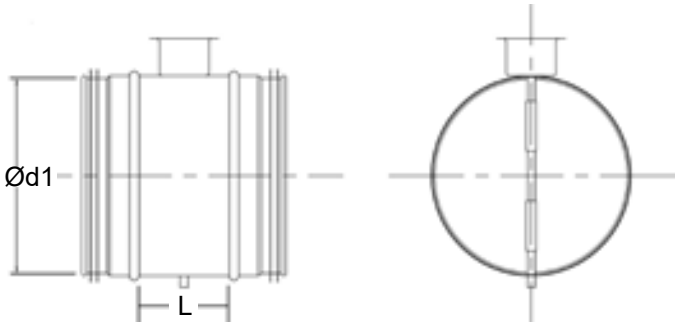
Available Sizes											
Ød	**Ød3**										
	3	4	5	6	7	8	9	10	12	14	16
4	✓	✓									
5	✓	✓	✓								
6	✓	✓	✓	✓							
7	✓	✓	✓	✓	✓						
8		✓	✓	✓	✓	✓					
9		✓	✓	✓	✓	✓	✓				
10		✓	✓	✓	✓	✓	✓	✓			
12		✓	✓	✓	✓	✓	✓	✓	✓		
14		✓	✓	✓		✓	✓	✓	✓	✓	
16		✓	✓	✓		✓	✓	✓	✓	✓	✓
18		✓	✓	✓		✓	✓	✓	✓	✓	✓
20		✓	✓	✓		✓	✓	✓	✓	✓	✓
22		✓	✓	✓		✓	✓	✓	✓	✓	✓
24		✓	✓	✓		✓	✓	✓	✓	✓	✓

Order Example

Connection	Ød3	Designation	ØD
U = Safe	See Chart Above	DSPS = Damper With Saddle Tap	4” - 24”
U	**8**	**DSPS**	**16**

Smart Part Number: **U8DSPS16**

Dampers



Description

balancing damper with a gasketed blade for complete air-flow shut-off

- gasketed shaft-mounted load bearing bushing to minimize air leakage
- integral shaft-blade assembly
- 2" sheet metal insulation stand-off
- locking blade quadrant w/damper position indicator
- full fitting body assembly with bead stop
- shaft = 5/16” x 5/16”
- damper cup height = 2"
- 2" shaft extension available
- available in stainless steel Ø4"-12"

Note: dampers with Ød1 > 24**"** have 2” bracket in place of cup-shaped stand-off.

Dimension

Length (L) in inches by diameter:

4"-9", L = 3.9"
10"-14", L = 3.5"
16"-24", L = 3.75"

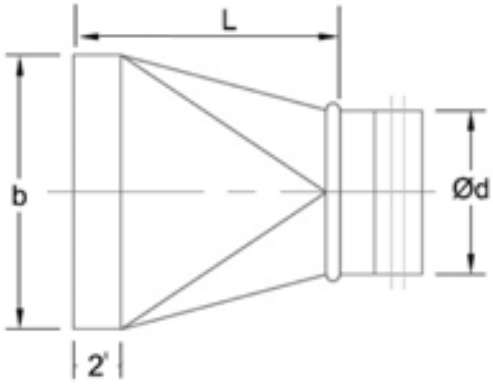
Order Example

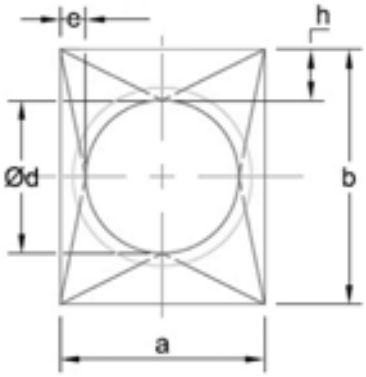
Connection	Ød1	Designation
U = Safe	Diameter	DT = Balancing Damper
U	**04**	**DT**

Smart Part Number: **U04DT**

Square-to-Round

RRT
Old Designation | RRTU





Description

square to round transition

- available in Ø 4"- 60"
- 2" raw edge rectangular end
- L = length
  minimum = 12"
  max = 60"
- a = rectangular width
- b = rectangular height
- special order: offset styles available

Order Example

Connection	Ød	Designation	a	b	L
U = Safe	4" - 60"	RRT = Square To Round	Width	Height	Length
U	10	RRT	12	13	14

Smart Part Number: **U10RRT121314**

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