G-3 Double Wall Round Catalog





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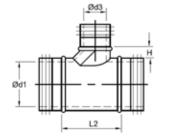
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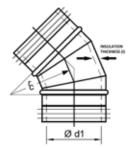
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Diagram Abbreviations and Ordering





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 (°).

Ordering example: RCGI-07-05

Ød1	Ød2	L]
(inch)	(inch)	(inch)	
5	3	1½	ightarrow installed length
5	4	1	
6	3	1%	
6	4	1¼	
6	5	3⁄4	
7	4	15⁄8	$] \rightarrow$ nominal diameters added to order code
7	6	21⁄2	



Nomenclature Abbreviations

END CONNECTION

Gasketed end connection or nongasketed? Example: BSI vs. BSGI Elbow





DUCT	SRI = double wall round, spiral duct I = insulated	CROSSING TEES	X = cross I = insulated C = center
ELBOWS	B = elbow S = radius of 1.5 (standard) w/o "S" radius = 1.0 radius (nonstandard) F = fabricated (aka not stamped)		P = pressed G = gasketed B = boot-style
	G = gasketed I = insulated	LATERAL TEES	T = tee I = insulated V = 45°
REDUCERS	R = reducer C = concentric or center taper F = female G = gasketed		G = gasketed 45 = angle of take-off X = take-off each side
	L = long I = insulated	Y-BRANCH	Y = wye I = insulated V = 45°
TAPS	P = pressed S = saddle		G = gasketed
	$G = gasketed$ $I = insulated$ $V = 45^{\circ}$ $B = boot-style$ $R = non-specific$ $C = concentric or center taper$	END CAPS	E = end cap $I = insulated$ $S = fits inside duct$ $G = gasketed$ $P = fits outer duct$ $F = female$ $H = handle$
TEES	B = boot-style T = tee G = gasketed C = concentric/center P = pressed I = insulated	DAMPERS	D = damper S = full blade R = slotted damper blade T = gasketed blade G = gasketed I = insulated
TAKE-OFFS	IL = initial leg R = bell mouth type or <i>radiused</i> G = gasketed I = insulated	COUPLINGS	MF = outer coupling NP = inner coupling I = insulated

EHG G-3[®] Connection

Design by Diameter



Gasket connection for diameters 26" and smaller

"Leading Edge" for diameters 28" and larger

The EHG G-3 self-sealing duct system is based on a triple-lipped EPDM rubber gasket. This gasket is located in a groove at the end of the fitting. 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 EHG G-3 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 EHG G-3 gasket is rated for temperatures from -20° F to $+212^{\circ}$ F (silicone gasket rated for temperatures from -94° F to $+302^{\circ}$ F).

Benefits of the EHG G-3 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 -20°F to +212°F
- Triple-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 5) in accordance with ASTM standard E84-91a
- · Rolled over edges for easier installation, reduces risk of injury and adds strength
- Adjustability fittings can be rotated 360° during installation and still maintain the seal's integrity

Gasket Size by Diameter 14 Size 7 9 20 11 30 Dia (inch) 3-7 8-11 12-20 22-36 38-58 60



om -94°F to +302°F).

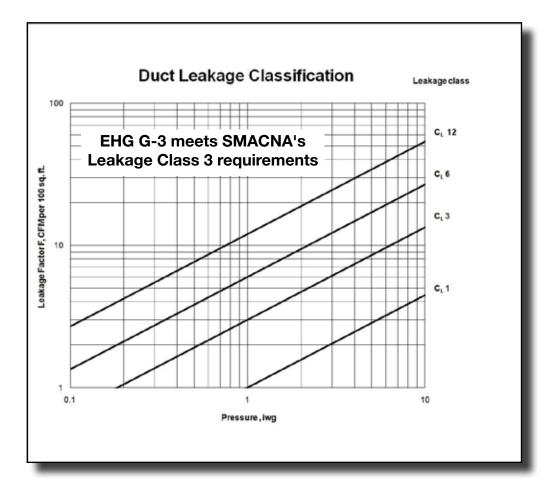


Duct System Leakage Classification

The graph below represents a selected series of leakage classes as defined by the formula $C_L=F/P0.65$. The formula defines leakage class as the relationship between leak rate, duct surface area, and pressure.

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

EHG G-3 meets SMACNA's Leakage Class 3 requirements without the use of any duct sealants.



F = Leak rate per unit of duct surface (cfm/100 sq. ft.) C_{L} = Leakage Class P = Static pressure (iwg)

1985 SMACNA Duct Leakage Guide; used with permission of SMACNA



Assembly Instructions

Preparations for assembly

Check that ducts and fittings to be used in the system are EHG G-3 and are undamaged. All EHG G-3 fittings must be used with calibrated spiral duct certified by EHG.

Do not use ducts or fittings that have been damaged in such a way that they jeopardize the air tightness or structural strength of the system.

Store ducts and fittings in a well-ordered and weatherproof storage area to minimize the risk of damage.

Cut ducts at right angles. Carefully remove any burrs from cut edges. Installation is easier and the risk of damaging the gasket is reduced if there are no burrs.

Assembly

Start by inserting the turned-over edge of the fitting into the duct.

Check that the first lip of the gasket is in contact with the edge of the duct all the way around and sticks straight out so that the lip is not twisted in one direction or the other.

Push the end of the fitting into the duct. Turning the fitting slightly aids insertion. (Removal, if necessary, is also aided by turning.)

Secure the fitting in the duct using self-tapping screws or airtight pop rivets.

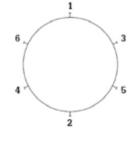
Fasteners should be positioned 1/2" from the bead to prevent damage to the gasket.

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 (see diagram). Start where the distance between the duct and the fitting is largest. Screws should be placed approximately 1/2" from the bead in order to avoid damaging the EHG G-3 gasket. In the event of incorrect installation, holes caused by screws or pop rivets must be sealed before reassembly.

Quantities and sizes to be used are listed in the below table.

Duct Dia.	Screw Dia.	Quantity
(inch)	(inch)	
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



Always start the first fastener at the largest radial gap between fitting and duct. Be sure to achieve even distribution around the circumference.

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



Specification

Glass Fiber Insulation Perforated Inner Shell

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 T3003*

Double Wall

- Tested in accordance to UL-723 with flame developed index and smoke developed index of 0/0.
- Perforated inner liner will consist of 0.125" perforations on 0.250" staggered centers corresponding to an overall open area of 23%.
- Glass fiber insulation will have a maximum conductivity factor (k) of 0.26 BTU-in/hr x ft² x °F at 75°F mean ambient temperature (R=3.8).
- Retaining fabric will be 0.008" thick, 15.6 lb/ft³ density non-woven polyester fabric with an air permeability rate of 9.2 ft³/ft² x s.
- EnergyX[™] insulation stop is constructed of a closed-cell elastomeric foam with a maximum conductivity factor (k) of 0.28 BTU-in/hr x ft² x °F and an operating temperature range of -70°F to +220°F.

Surface Finish

- Galvanized steel (galvanized in accordance with latest SMACNA standards).
- Stainless steel type 304L Mill Finish
- Stainless steel type 316L 2B Mill Finish
- 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)
 - · Coating to meet or exceed 1,000 hour Salt Spray Test per ASTM B117-97
- Antimicrobial coating containing antimicrobial compound complies with UL standard not to exceed flame or smoke developed ratings of 25/50.

Thickness

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

Construction

- 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. Inner and outer duct will be of spiral lockseam construction.
- Double wall duct and fittings will consist of a perforated or solid inner liner, 1" thick x 1.0 lb/ft³ layer of glass fiber insulation, and a solid outer pressure shell. When a perforated inner liner is specified, a retaining fabric must be wrapped, between the perforated inner and the glass fiber insulation. This is to prevent glass fiber tearing into the airstream and maintains the desired acoustical properties.
- Double wall options: 1" thick insulation (standard); and 2" thick insulation (optional).
 - The outer pressure shell diameter shall be two times the insulation thickness larger than the inner liner.
 - 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

Specifications

CONNECTIONS

Fitting ends shall be sized to slip-fit into spiral duct of the same nominal size.

JOINT SEALING

Fitting ends are equipped with factory installed, triple-lipped 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.

EnergyX[™] is a foam insulation stop and is included on EHG G-3 product only.

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

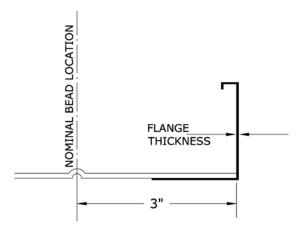
The gasket shall be EPDM rubber. The gasket is located in a groove at the end of the fitting. In order to achieve optimum sealing for all diameters, different size gaskets shall be used. The gasket shall be classified by Underwriters Laboratories for flame spread and smoke developed in accordance with ASTM E84-91a.

NOTE: For systems under negative pressure, please refer to the Industrial Catalog or an EHG representative.

Fitting Slip Dimension

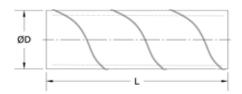
Our products are designed with a male/female slip connections. For gasket (G-3) connections, refer to the e-dimension listed in the chart on page 11. If flanges are utilized, Add 3" per flange plus flange thickness to the published L (length) dimension as shown elsewhere in this catalog as depicted in the diagram to the right.

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

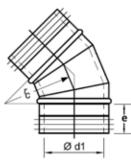




Tolerance, Gauge, & e-dimensions



Tolerance for spiral duct



۵D	^Ø D Tolerance (inch)	ť*	t**	Ød ₁	Ød ₁ Tolerance (inch)
(inch)	min max.	(gauge)	(gauge)	(inch)	min max.
3	2.950 - 2.969	28	28	3	2.902 - 2.917
4	3.950 - 3.969	28	28	4	3.902 - 3.917
5	4.950 - 4.969	28	28	5	4.902 - 4.917
6	5.950 - 5.969	28	28	6	5.898 - 5.917
7	6.950 - 6.972	28	28	7	6.894 - 6.913
8	7.950 - 7.972	28	28	8	7.890 - 7.913
9	8.950 - 8.972	28	28	9	8.886 - 8.909
10	9.950 - 9.976	28	28	10	9.882 - 9.909
11	10.950 - 10.976	28	28	11	10.882 - 10.909
12	11.950 - 11.976	28	28	12	11.882 - 11.909
13***	12.950 - 12.976	28	28	13***	12.878 - 12.909
14	13.950 - 13.976	28	28	14	13.878 - 13.909
15***	14.936 - 14.969	26	26	15***	14.862 - 14.898
16	15.936 - 15.969	26	26	16	15.862 - 15.898
17***	16.936 - 16.969	26	26	17***	16.862 - 16.898
18	17.936 - 17.969	26	26	18	17.862 - 17.898
19***	18.936 - 18.967	26	26	19***	18.862 - 18.898
20	19.936 - 19.972	26	26	20	19.858 - 19.898
22	21.936 - 21.972	26	26	22	21.858 - 21.898
24	23.936 - 23.976	26	26	24	23.854 - 23.898
26	25.936 - 25.976	24	24	26	25.854 - 25.898
28	27.934 - 27.976	24	24	28	27.846 - 27.894
30	29.924 - 29.969	24	24	30	29.839 - 29.886
32	31.924 - 31.976	24	24	32	31.835 - 31.886
34	33.924 - 33.976	24	24	34	33.835 - 33.886
36	35.924 - 35.988	24	24	36	35.831 - 35.886
38	37.912 - 37.976	24	24	38	37.819 - 37.874
40	39.912 - 39.976	24	24	40	39.819 - 39.874
42	41.912 - 41.976	24	24	42	41.819 - 41.874
44	43.912 - 43.988	22	22	44	43.815 - 43.874
46	45.912 - 45.998	22	22	46	45.815 - 45.874
48	47.912 - 47.988	22	22	48	47.815 - 47.874
50	49.912 - 49.988	22	22	50	49.815 - 49.874
52	51.913 - 51.992	22	22	52	51.811 - 51.874
54	53.913 - 53.992	22	22	54	53.811 - 53.874
56	55.909 - 55.992	22	22	56	55.799 - 57.862
58	57.909 - 57.992	22	22	58	57.799 - 57.862
	51.000 01.00L				

Tolerance for fittings

Pressed

Fabricated

е

ť*

nax. (gauge) t** (gauge) **(gauge) (inch) 2.917 1.625 28 24 -----3.917 28 24 1.625 4.917 28 24 1.625 28 5.917 24 1.625 -----6.913 28 24 1.625 -----7.913 28 1.625 24 -----8.909 28 24 1.625 9.909 28 24 2.375 10.909 28 24 2.375 -----11.909 28 24 2.375 -----12.909 28 2.375 ----------28 13.909 2.375 24 -----26 14.898 3.125 -----15.898 26 24 3.125 26 3.125 16.898 ----17.898 26 24 3.125 24 3.125 18.898 ____ 19.898 24 3.125 24 21.898 24 24 3.125 23.898 24 24 3.125 -----25.898 22 22 3.125 -----27.894 22 22 4.000 -----22 22 29.886 -----4.000 22 22 31.886 -----4.000 33.886 22 22 4.000 -----22 22 35.886 4.000 ----22 37.874 20 4.000 -----22 39.874 20 4.750 -----22 41.874 20 4.750 ----20 20 43.874 4.750 45.874 20 20 4.750 47.874 20 20 4.750 -----49.874 20 20 4.750 -----51.874 20 20 4.750 -----53.874 20 20 4.750 -----57.862 20 20 4.750 57.862 20 20 4.750 -----22 22 60 59.795 - 59.862 20 20 4.750 _____

* In accordance with the latest SMACNA HVAC Duct Construction Standards for +10" wg

** EHG Manufacturing Standard

60

59.909 - 59.992

*** " --- " = Not currently available



Tolerances for Spiral

Material Specifications

EHG components are made of galvanized sheet ASTM A653/A924.

Duct and fittings are also available in the following materials:

- G60
- G90
- 304 stainless steel ASTM A240*
- 316 stainless steel ASTM A240*
- Coated
- Agion
- Antimicrobial
- Aluminum*

(*) not available in pressed construction

DOUBLE WALL:

Tested in accordance to UL-723 with flame developed index and smoke developed index of 0/0.

Perforated Metal Liner (double wall duct only): Consists of 0.125" perforations on 0.250" staggered centers and 23% open area. Perforated liner is available in galvanized only. All double wall fittings are manufactured with a solid inner liner; a perforated

liner is available upon request.

Insulation (EHG G-3 only):

1" thick x 1.0 lb/ft³, k = 0.26 BTU-in/hr x ft² x $^{\circ}$ F at 75 $^{\circ}$ F mean ambient temperature (R=3.8). Optional: 1", 2", 3" and 4" (1" & 2" EHG G-3 only).

Insulation stop (EHG G-3 only):

k = 0.28 BTU-in/hr x ft2 x °F at 75°F mean ambient temperature.

Retaining Fabric:

Non-woven polyester fabric, 0.008" thick, 15.6 lb/ft³ and air permeability rate of 9.2 ft³/ft² x s.

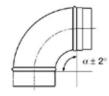
Length Tolerances

Length -L, H, e, D, d	Tolerances
inch	inch
1 - 10	± 3/8
12 - 16	± ⁵ /8
18 - 28	± ¾
30 - 50	± 1
52 - 60	± 1 ¼

Weight Tolerance ±10%

Thickness Tolerance ±10%

Angular Tolerance



Surface/Finish

Die stamped products of G90 construction.

Stainless steel 316L 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 inside and out. ProCoat[™] (OD only) or ProCoat[™] Plus (ID & OD) coated duct.

Antimicrobial coated spiral duct and fittings are made from G60 galvanized steel treated with a factory applied antimicrobial agent.



Acoustical Performance

NET INSERTION LOSS

Standard 1" thick double wall with perforated inner

Duct	Insulation	Velocity			Octav	e Band /	Frequenc	y (Hz)		
Diameter	Thickness	(fpm)	1	2	3	4	5	6	7	8
(in)	(in)		63	125	250	500	1000	2000	4000	8000
0	_	0	0.3	0.5	1.2	2.1	2.5	2.3	2.3	2.1
		1000	0.2	0.5	1.2	2.1	2.3	2.3	2.3	2.2
6	1	2000	0.2	0.5	1.2	2.1	2.5	2.4	2.3	2.3
		3000	0.1	0.5	1.2	2.1	2.2	2	2.3	2.3
		0	0.1	0.3	0.7	1.7	2.5	2.5	1.9	1.6
2	1	1000	0.1	0.3	0.7	1.6	2.5	2.5	2	1.7
2	I	2000	0.1	0.3	0.7	1.6	2.4	2.5	2.1	1.8
		3000	0.1	0.3	0.7	1.5	2	2.1	2.1	1.9
		0	0.3	0.3	0.6	1.5	2.5	2.3	1.6	1.4
18	1	1000	0.3	0.3	0.6	1.4	2.6	2.4	1.6	1.4
10		2000	0.2	0.2	0.6	1.4	2.5	2.3	1.6	1.4
		3000	0.2	0.1	0.6	1.3	2.3	2.3	1.5	1.4
		0	0.2	0.2	0.5	1.2	2.7	1.7	1.3	1.4
24	1	1000	0.2	0.2	0.5	1.2	2.7	1.6	1.3	1.2
24		2000	0.2	0.2	0.5	1.2	2.7	1.6	1.2	1.2
		3000	0.3	0.2	0.4	1.1	2.6	1.7	1.2	1.3
		0	0.1	0.2	0.4	1.3	2.1	1.3	1.2	1.2
30	1	1000	0.1	0.2	0.4	1.3	2.1	1.2	1.1	1.1
30		2000	0.1	0.2	0.4	1.3	2.1	1.2	1.1	1.1
		3000	0.1	0.2	0.4	1.3	2	1.2	1	1.1
		0	0.1	0.2	0.3	1.1	1.6	1.2	1	0.9
36	1	1000	0.1	0.2	0.3	1.1	1.6		0.9	0.9
30	1	2000	0.1	0.2	0.3	1.1	1.6		0.9	0.9
		3000	0.1	0.2	0.3	1	1.5	1	0.9	0.9
		0	0.1	0.1	0.3	1.1	1.2	1	0.8	0.8
42	1	1000	0.1	0.2	0.3	1.1	1.1	1	0.7	0.6
44		2000	0.1	0.2	0.3	1.1	1	0.9	0.7	0.6
		3000	0.1	0.2	0.3	1	1	0.9	0.7	0.6

• The Net Insertion Loss chart represents tests performed by an independent testing laboratory in accordance with ASTM standard E477-96, entitled "Standard Method of Testing Duct Liner Materials and Prefabricated Silencers for Acoustical and Airflow Performance". Data for test specimens with inside diameters of 6", 12", 18", 24", 30", 36" and 42" were recorded for 20' lengths of duct and then divided to obtain the dB/foot ratings.

• Insertion loss gains of approximately 0.25 to 0.50 dB/ft in the 4th, 5th, and 6th octave bands were recorded for 24" diameter duct with 2" thick insulation. Gains were negligible in the 1st, 2nd, 3rd, 7th and 8th octave bands.

• Data recorded for a 30' section of 24" diameter duct indicates an average gain of 1 dB in the 2nd octave band, 3 dB in the 3rd octave band, 9 dB in the 4th octave band, 1 dB in the 5th octave band, 4 dB in the 6th octave band, 4 dB in the 7th octave band and 3 dB in the 8th octave band. These gains were the average for insertion loss data collected at 0, 1000, 2000 and 3000 fpm with 0.000, 0.006, 0.031, and 0.070 inch water gauge respectively.

• Data was not collected for duct lengths greater than 30'. However, the results for the 30' test indicate the insertion loss gains diminish with longer duct lengths. For this reason, the data in the above table should be considered valid only for sections of duct 20' or less in length. In addition, data was not collected for larger diameter duct. As the test data indicates, insertion loss decreases with increasing duct diameters.

• The self-generated noise for double wall duct is too low to be measured by ASTM E477-96. The measurements obtained for these ducts are equal to the corresponding single wall duct reference condition or are within +/- 10 dB per ASTM E477-96 section 9.1.2.

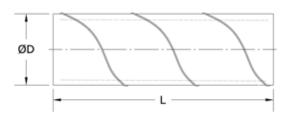
• Reduced breakout noise in double wall duct with outer diameter 14" and larger is attributed to double corrugation which increases rigidity and minimizes the area of the outer shell that allows sound waves to break out of the system.



Spiral Duct

SRI/SRVI





Description

spiral lock seam duct

- SMACNA RL-1 spiral seam
- evenly spaced integral seam locking feature
- multiple corrugations on all duct 8" diameter and larger
- standard length: 120"
- standard inner liner: perforated
 - solid inner liner optional
- built in accordance with the latest SMACNA HVAC Duct Construction Standard for +10 iwg
- diameters available in nongasketed systems (SRVI) 3"- 60"
- diameters available in gasketed systems (SRI) 3" - 58" for 1" insulation and 3" - 56" for 2" insulation

Dimensions

Standard length is 120" or 10'. Also available in lengths of 12" to 240"; aluminum is the exception with a maximum 120" length. Duct with $\emptyset \ge 12$ " has a minimum length of 16".

Order Example

USED with EHG G-3 SRI - ØD - L with EHG Nongasketed SRVI - ØD - L

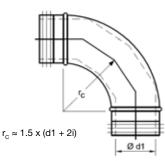
All sizes refer to inside dimensions. EHG G-3 comes with 1" insulation thicknesses standard and 2" as an option. 3" and 4" thicknesses are available in nongasketed only.



Description

90° elbow

- inner shell
 - solid, die-stamped
 - continuously stitch welded
- outer shell
 - die stamped
 - continuously stitch welded
 - rolled edges
- available in Ø 3"-10" with 1" insulation
 - optional: 2" insulation in Ø 3"-8"



Order Example

EHG G-3 BSGI 90 - Ød1 EHG Nongasketed BSI 90 - Ød1

BSGI 90 / BSFGI 90

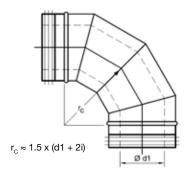


15

Description

90° elbow

- inner shell
 - solid, gored
- outer shell
 - 5-gore standing seam
 - gore locked and internally sealed
 - rolled edges
- note: BF/G 90 elbows 48-inch diameter and larger will be supplied as two BF/G 45° elbows and an MF coupling
- available in Ø 12"-58" with 1" insulation
 optional: 2" insulation in Ø 8"-56"



Order Example

EHG G-3 BSFGI 90 - Ød1 EHG Nongasketed BSFI 90 - Ød1

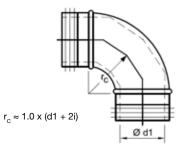
All sizes refer to inside dimensions. EHG G-3 comes with 1" insulation thicknesses standard and 2" as an option. 3" and 4" thicknesses are available in nongasketed only.





Description

- 90° elbow
- inner shell
 - solid, die-stamped
 - continuously stitch welded
- outer shell
 - die stamped
 - continuously stitch welded
 - rolled edges
- available in Ø 3"-10" with 1" insulation
 - optional: 2" insulation in Ø 3"-8"



Order Example

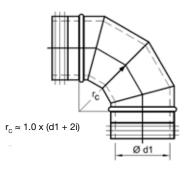
EHG G-3 BGI 90 - Ød1 EHG Nongasketed BI 90 - Ød1

BGI 90 / BFGI 90



Description

- 90° elbow
- inner shell
 - solid, gored
- outer shell
 - 4-piece gored, standing seam
 - gore locked and internally sealed
- available in Ø 12"-58" with 1" insulation
 optional: 2" insulation in Ø 8"-56"
- note: BF/G 90 elbows 48-inch diameter and larger will be supplied as two BF/G 45° elbows and an MF coupling



Order Example

EHG G-3 BFGI 90 - Ød1 EHG Nongasketed BFI 90 - Ød1

All sizes refer to inside dimensions. EHG G-3 comes with 1" insulation thicknesses standard and 2" as an option. 3" and 4" thicknesses are available in nongasketed only.

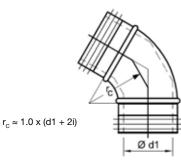




Description

60° elbow

- inner shell
 - solid, die stamped
 - continuous stitch welded
- outer shell
 - die-stamped
 - continuously stitch welded
 - rolled edges
- available in Ø 3"-10" with 1" insulation
 - optional: 2" insulation in Ø 3"-8"



Order Example

EHG G-3 BGI 60 - Ød1 EHG Nongasketed Bl 60 - Ød1

BGI 60 / BFGI 60

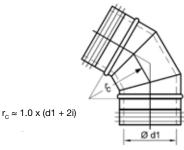


17

Description

60° elbow

- inner shell
 - solid, gored
- outer shell
 - 3-piece gored, standing seam
 - gore locked and internally sealed
- available in Ø 12"-58" with 1" insulation
 - optional: 2" insulation in Ø 8"-56"



Order Example

EHG G-3 BFGI 60 - Ød1 EHG Nongasketed BFI 60 - Ød1

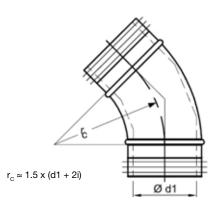
All sizes refer to inside dimensions. EHG G-3 comes with 1" insulation thicknesses standard and 2" as an option. 3" and 4" thicknesses are available in nongasketed only.





Description

- 45° elbow
- inner shell
 - solid, die stamped
 - continuous stitch welded
- outer shell
 - die-stamped
 - continuous stitch welded
 - rolled edges
- available in Ø 3"-10" with 1" insulation
 optional: 2" insulation in Ø 3"-8"
- note: 11" diameter is fabricated



Order Example

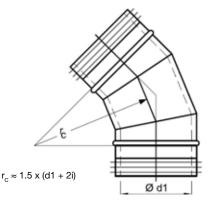
EHG G-3 BSGI 45 - Ød1 EHG Nongasketed BSI 45 - Ød1

BSGI 45 / BSFGI 45



Description

- 45° elbow
- inner shell
 - solid, gored
- outer shell
 - 3-piece gored, standing seam
 - gore locked and internally sealed
 - rolled edges
- available in Ø 12"-58" with 1" insulation
 - optional: 2" insulation in Ø 8"-56"



Order Example

EHG G-3 BSFGI 45 - Ød1 EHG Nongasketed BSFI 45 - Ød1

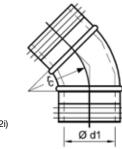
All sizes refer to inside dimensions. EHG G-3 comes with 1" insulation thicknesses standard and 2" as an option. 3" and 4" thicknesses are available in nongasketed only.



Description

45° elbow

- inner shell
 - solid, die stamped
 - continuous stitch welded
- outer shell
 - die-stamped
 - continuously stitch welded
 - rolled edges
- available in Ø 3"-10" with 1" insulation
 - optional: 2" insulation in Ø 3"-8"



r_c ≈ 1.0 x (d1 + 2i)

Order Example

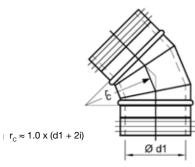
EHG G-3 BGI 45 - Ød1 EHG Nongasketed BI 45 - Ød1

BGI 45 / BFGI 45



Description

- 45° elbow
- inner shell
 - solid, gored
- outer shell
 - 3-piece gored, standing seam
 - gore locked and internally sealed
 - rolled edges
- available in Ø 12"-58" with 1" insulation
 - optional: 2" insulation in Ø 8"-56"



Order Example

EHG G-3 BFGI 45 - Ød1 EHG Nongasketed BFI 45 - Ød1

All sizes refer to inside dimensions. EHG G-3 comes with 1" insulation thicknesses standard and 2" as an option. 3" and 4" thicknesses are available in nongasketed only.



Description

- 30° elbow
- inner shell
 - solid, die stamped
 - continuous stitch welded
- outer shell
 - die-stamped
 - continuous stitch welded
 - rolled edges
- available in Ø 3"-10" with 1" insulation
 - optional: 2" insulation in Ø 3"-8"

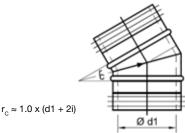


BGI 30 / BFGI 30

Description

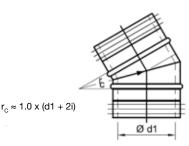
30° elbow

- inner shell
 - solid, gored
- outer shell
 - 2-piece gored, standing seam
 - gore locked and internally sealed
 - rolled edges
- available in Ø 12"-58" with 1" insulation
 - optional: 2" insulation in Ø 8"-56"



Order Example

EHG G-3 BGI 30 - Ød1 **EHG Nongasketed** BI 30 - Ød1



Order Example

EHG G-3 BFGI 30 - Ød1 **EHG Nongasketed** BFI 30 - Ød1

All sizes refer to inside dimensions. EHG G-3 comes with 1" insulation thicknesses standard and 2" as an option. 3" and 4" thicknesses are available in nongasketed only.

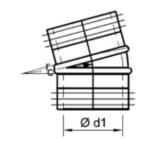


0

Description

15° elbow

- inner shell
 - solid, die stamped
 - continuous stitch welded
- outer shell
 - die-stamped
 - continuous stitch welded
 - rolled edges
- available in Ø 3"-10" with 1" insulation
 - optional: 2" insulation in Ø 3"-8"



r_c ≈ 1.0 x (d1 + 2i)

Order Example

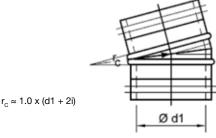
EHG G-3 BGI 15 - Ød1 EHG Nongasketed Bl 15 - Ød1

BGI 15 / BFGI 15



Description

- 15° elbow
- inner shell
 - solid, gored
- outer shell
 - 2-piece gored, standing seam
 - gore locked and internally sealed
 - rolled edges
- available in Ø 12"-58" with 1" insulation
 - optional: 2" insulation in Ø 8"-56"



Order Example

EHG G-3 BFGI 15 - Ød1 EHG Nongasketed BFI 15 - Ød1

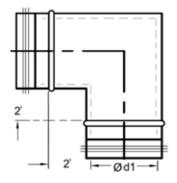
All sizes refer to inside dimensions. EHG G-3 comes with 1" insulation thicknesses standard and 2" as an option. 3" and 4" thicknesses are available in nongasketed only.



Description

mitered elbow

- rolled edge
- 2" standard throat length
- available in Ø 4"-58" with 1" insulation
 - optional: 2" insulation in Ø 4"-56"



Order Example

EHG G-3 BMGI - Ød1 EHG Nongasketed BMI - Ød1

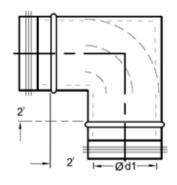
BMGI / BMVGI



Description

mitered elbow with vanes

- rolled edge
- 2" standard throat length
- turning vanes evenly spaced
- number of vanes vary by diameter
 - Ø 4"-10" = 2 vanes
 - Ø 12"-14" = 3 vanes
 - Ø 16"-20" = 4 vanes
 - Ø 22"-58" = 5 vanes
- available in Ø 4"-58" with 1" insulation
 - optional: 2" insulation in Ø 4"-56"



Order Example

EHG G-3 BMVGI - Ød1 EHG Nongasketed BMVI - Ød1

All sizes refer to inside dimensions. EHG G-3 comes with 1" insulation thicknesses standard and 2" as an option. 3" and 4" thicknesses are available in nongasketed only.





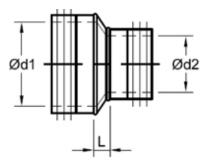
Description

concentric reducer

- inner shell fabricated
- galvanized construction only

Dimension (fabricated outer shell)

Ød1	Ød2	L
inch	inch	inch
9	6	2
10	5	25⁄8
12	9	2
14	8	3
16	8	4
16	10	3
16	12	2
16	14	2
18	8	5
18	10	4
18	12	3
18	14	2
18	16	2



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RCGI

Dimension (die-stamped outer shell)

Ød1	Ø d2	L
inch	inch	inch
4	3	3/4
5	3	1½
5	4	1
6	3	15⁄8
6	4	1¼
6	5	3⁄4
7	4	1⁵⁄ଃ
7	5	21/8
7	6	11/8
8	4	2¼
8	5	1⁵⁄ଃ
8	6	11/8
8	7	5/8
9	7	21/8
9	8	11/8
10	6	21/8
10	7	1⁵⁄ଃ
10	8	11/8
10	9	5/8
12	8	23⁄8
12	10	1¾
14	10	2
14	12	7/8

Order Example

EHG G-3 RCGI - Ød1- Ød2 EHG Nongasketed RCI - Ød1- Ød2

All sizes refer to inside dimensions. EHG G-3 comes with 1" insulation thicknesses standard and 2" as an option. 3" and 4" thicknesses are available in nongasketed only.



RCFGI



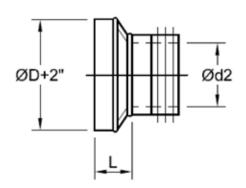
Description

concentric reducer

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

Dimension (fabricated outer shell)

Ød1	Ød2	L
inch	inch	inch
9	6	31⁄4
10	5	4¼
12	8	4¾
12	9	43⁄8
14	8	61⁄8
16	8	71/8
16	10	61⁄8
16	12	51⁄8
16	14	51⁄8
18	8	81/8
18	10	71/8
18	12	61⁄8
18	14	51⁄8
18	16	51⁄8



Dimension (die stamped outer shell)

Ød1	Ød2	L
inch	inch	inch
4	3	23⁄8
5	3	3
5	4	21/2
6	3	21/8
6	4	21/8
6	5	23⁄8
7	4	3¼
7	5	3¾
7	6	2¾
8	4	31/8
8	5	31⁄4
8	6	2¾
8	7	21⁄4
9	7	3¾
9	8	23⁄4
10	6	43⁄8
10	7	43⁄8
10	8	23⁄4
10	9	21/4
12	10	35⁄8
14	10	5½
14	12	51⁄8

Order Example

EHG G-3 RCFGI - ØD-Ød2 EHG Nongasketed RCFI - ØD-Ød2

All sizes refer to inside dimensions. EHG G-3 comes with 1" insulation thicknesses standard and 2" as an option. 3" and 4" thicknesses are available in nongasketed only.





Description

fabricated concentric reducer • L1 = $(\emptyset d1 + 2i) - (\emptyset d2 + 2i)^*$

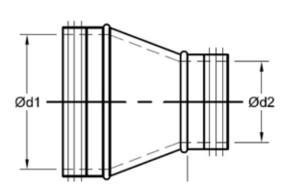
(*) minimum 4"

RCLGI/RLGI



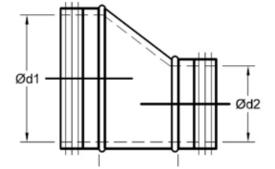
Description fabricated eccentric reducer • L1 = (Ød1 + 2i) - (Ød2 + 2i)*

(*) minimum 4"



Order Example

EHG G-3 RCLGI - Ød1- Ød2 EHG Nongasketed RCLI - Ød1- Ød2



Order Example

EHG G-3 RLGI - Ød1- Ød2 EHG Nongasketed RLI - Ød1- Ød2

All sizes refer to inside dimensions. EHG G-3 comes with 1" insulation thicknesses standard and 2" as an option. 3" and 4" thicknesses are available in nongasketed only.





Description

fabricated concentric reducer

- ØD + 2i = duct size slips over EHG G-3 double wall fittings
- L = $[(\emptyset D1 + 2i) (\emptyset d2 + 2i)]^* + e$ dimension
- (*) minimum 4"

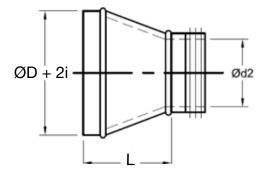
RCLFGI/RLFGI



Description

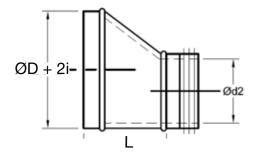
fabricated eccentric reducer

- ØD + 2i = duct size slips over EHG G-3 double wall fittings
- L = [(ØD + 2i) (Ød2 + 2i)]* + e dimension
- (*) minimum 4"



Order Example

EHG G-3 RCLFGI - ØD - Ød2 EHG Nongasketed RCLFI - ØD - Ød2



Order Example

EHG G-3 RLFGI - ØD - Ød2 EHG Nongasketed RLFI - ØD - Ød2

All sizes refer to inside dimensions. EHG G-3 comes with 1" insulation thicknesses standard and 2" as an option. 3" and 4" thicknesses are available in nongasketed only.



TBSGI/TBSRGI



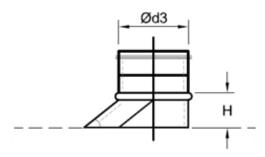
Description

45° boot-style tap

- New One Piece Design
- No assembly needed
- installed on flat side of duct or plenum

Dimension

- If \emptyset d3 + 2i ≤ 8" H = 4"
- If Ød3 + 2i = 9"-14", H = 7"
- If Ød3 + 2i = 15"-26", H = 10"
- If Ød3 + 2i = 27"-46", H = 13"
- If Ød3 + 2i = 47"-60", H = 16"



Order Example

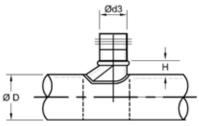
EHG G-3 TBSGI- Ød3 **EHG Nongasketed** TBSI- Ød3

Description

- 45° combination boot-style saddle tap
- New One Piece Design
- No assembly needed

Dimension

If $Ød3 + 2i \le 8"$, H = 4"If Ød3 + 2i = 9"-14", H = 7" If Ød3 + 2i = 15"-26", H = 10" If Ød3 + 2i = 27"-46", H = 13" If Ød3 + 2i = 47"-60", H = 16"



Order Example

EHG G-3 TBSRGI - ØD - Ød3

EHG Nongasketed TBSRI - ØD - Ød3

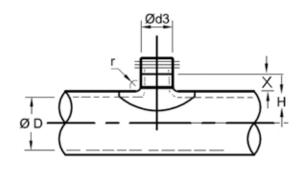
All sizes refer to inside dimensions. EHG G-3 comes with 1" insulation thicknesses standard and 2" as an option. 3" and 4" thicknesses are available in nongasketed only.

PSGI



pressed PSGI





Dimension

• H = X + 0.5(OD)

Description

saddle tap

- New One Piece Design
- No assembly needed
- pressed:
 - radius entry
 - limited to galvanized steel only
 - available in Ød3 or tap diameters 3"-16", exceptions listed below
 - X-dimensions listed on right
- fabricated
 - sizes listed below
 - X = 1"

Fabricated Sizes										
Ød3	ØD									
	8	8 9 10 12 14 16 18 20 22 24								
3	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
7					\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
12										\checkmark
14					\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark

Order Example

EHG G-3 PSGI - ØD - Ød3 EHG Nongasketed PSI - ØD - Ød3

All sizes refer to inside dimensions. EHG G-3 comes with 1" insulation thicknesses standard and 2" as an option. 3" and 4" thicknesses are available in nongasketed only.

X - Dimensions



PSVGI45/PSVGFI45



Description

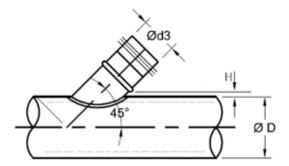
fabricated 45° lateral tap for round

- New One Piece Design
- No assembly needed
- H = 2.5"
- special order: 15°, 30°, 60° i.e. PSVU 15° - aa - bb

Description

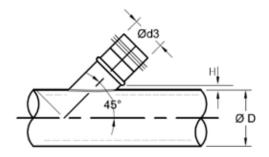
fabricated 45° lateral tap for flat surface

- New One Piece Design
- No assembly needed
- H = 2.5"
- special order: 15°, 30°, 60° i.e. PSVUF 15° - aa - bb



Order Example

EHG G-3 PSVGI45 - ØD - Ød3 EHG Nongasketed PSVI45 - ØD - Ød3



Order Example

EHG G-3 PSVGFl45 - Ød3 EHG Nongasketed PSVFI45 - Ød3

All sizes refer to inside dimensions. EHG G-3 comes with 1" insulation thicknesses standard and 2" as an option. 3" and 4" thicknesses are available in nongasketed only.

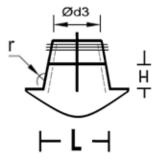




Description

conical saddle tap

- New One Piece Design
- No assembly needed
- H = 6"
- L = Ød3 + 2i + 2



Order Example

EHG G-3 PSCGI - ØD- Ød3 EHG Nongasketed PSCI - ØD- Ød3

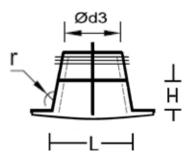
PSCGI/CTFGI



Description

conical tap for flat surface

- New One Piece Design
- No assembly needed
- H = 6"
- L = Ød3 + 2i + 2
- flat lip = ³/₈" ⁵/₈" depending on diameter
- offered in standard 2" reducing pairs



Order Example

EHG G-3 CTFGI - Ød3 EHG Nongasketed CTFI - Ød3

All sizes refer to inside dimensions. EHG G-3 comes with 1" insulation thicknesses standard and 2" as an option. 3" and 4" thicknesses are available in nongasketed only.

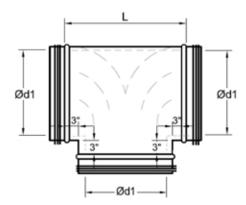


Tees



Description

bullhead teeL = Ød1 + 6" + 2i



Order Example

EHG G-3 BHTGI - Ød1 EHG Nongasketed BHTI - Ød1

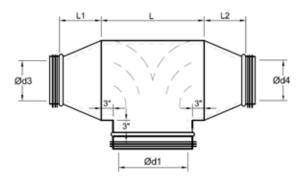
BHTGI/BHTRGI



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Description bullhead reducing tee • $L = \emptyset d1 + 6" + 2i$ • $L1 = (\emptyset d1 - \emptyset d3)^*$

- $L2 = (Ød1 Ød4)^*$
- (*) minimum 4"



Order Example

EHG G-3 BHTRGI - Ød1- Ød3- Ød4 EHG Nongasketed BHTRI - Ød1- Ød3- Ød4

All sizes refer to inside dimensions. EHG G-3 comes with 1" insulation thicknesses standard and 2" as an option. 3" and 4" thicknesses are available in nongasketed only.



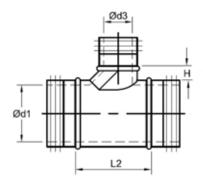
Tees

32



Description

- 45° boot-style tee
- assembled with TBSRGI tap
- Ød3 ≤ Ød1
- L2 = Ød3 + 2i + H2 + 4"
- If $\emptyset d3 + 2i \le 8$ ", H2 = 4", If $\emptyset d3 + 2i = 9-14$ ", H2 = 7", If $\emptyset d3 + 2i = 15-26$ ", H2 = 10", If $\emptyset d3 + 2i = 27-46$ ", H2 = 13", and If $\emptyset d3 + 2i = 47-60$ ", H2 = 16".



Order Example

EHG G-3 TBGI - Ød1- Ød3 EHG Nongasketed TBI - Ød1- Ød3

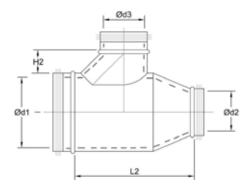
TBGI/TBRGI



Description

- 45° boot-style tee with reducer
- assembled with TBSRGI tap
- Ød $3 \le$ Ød1
- L2 = (Ød3 + 2i + H2 + 4") + [(Ød1+2i) (Ød2+2i)]*
- If $Ød3 + 2i \le 8"$, H2 = 4",
 - If Ød3 + 2i = 9-14", H2 = 7",
 - If Ød3 + 2i = 15-26", H2 = 10",
 - If $Ød3 + 2i = 27-46^{\circ}$, $H2 = 13^{\circ}$, and
 - If Ød3 + 2i = 47-60", H2 = 16".

(*) minimum of 4"



Order Example

EHG G-3 TBRGI - Ød1- Ød2 - Ød3 EHG Nongasketed TBRI - Ød1 - Ød2- Ød3

All sizes refer to inside dimensions. EHG G-3 comes with 1" insulation thicknesses standard and 2" as an option. 3" and 4" thicknesses are available in nongasketed only.



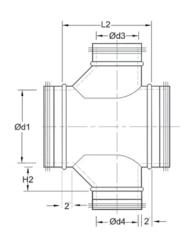
Crossing Tees



Description

45° boot-style crossing tee

- assembled with TBSRGI taps
- Ød3 and Ød4 \leq Ød1
- \emptyset d4 \leq \emptyset d3
- L = Ød3 + 2i + H2 + 4"
- If $\emptyset d3 + 2i \le 8$ ", H2 = 4", If $\emptyset d3 + 2i = 9-14$ ", H2 = 7", If $\emptyset d3 + 2i = 15-26$ ", H2 = 10", If $\emptyset d3 + 2i = 27-46$ ", H2 = 13", and If $\emptyset d3 + 2i = 47-60$ ", H2 = 16".



Order Example

EHG G-3 XBGI - Ød1-Ød3- Ød4

EHG Nongasketed XBI - Ød1- Ød3- Ød4

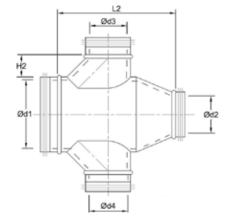
XBGI/XBRGI



Description

45° boot-style crossing tee with reducer

- assembled with TBSRGI taps
- Ød3 and Ød4 \leq Ød1
- \emptyset d4 \leq \emptyset d3
- L = $(Ød3 + 2i + H2 + 4") + [(Ød1+2i) (Ød2+2i)]^*$
- If $Ød3 + 2i \le 8" H2 = 4"$,
 - If Ød3 + 2i = 9-14", H2 = 7",
 - If Ød3 + 2i = 15-26", H2 = 10"
 - If Ød3 + 2i = 27-46", H2 = 13", and
- If Ød3 + 2i = 47-60", H2 = 16".
- (*) minimum of 4"



Order Example

EHG G-3 XBRGI - Ød1-Ød2- Ød3-Ød4 EHG Nongasketed XBRI - Ød1- Ød2-Ød3-Ød4

All sizes refer to inside dimensions. EHG G-3 comes with 1" insulation thicknesses standard and 2" as an option. 3" and 4" thicknesses are available in nongasketed only.



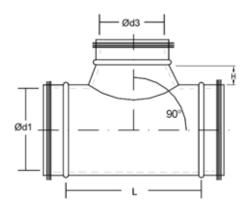
Tees



Description

conical tee

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



Order Example

EHG G-3 TCCGI - Ød1 -Ød3 EHG Nongasketed TCCI - Ød1 -Ød3

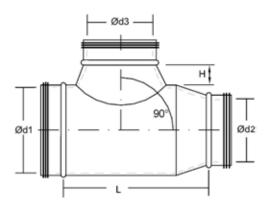
TCCGI/TCCRGI



Description

conical reducing tee

- $L = (\emptyset d3 + 8" + 2i) + [(\emptyset d1 + 2i) (\emptyset d2 + 2i)]^*$
- H = 6"
- Ød1 must be 2" or larger than Ød3
- (*) minimum of 4"



Order Example

EHG G-3 TCCRGI - Ød1-Ød2 -Ød3 EHG Nongasketed TCCRI - Ød1 -Ød2 -Ød3

All sizes refer to inside dimensions. EHG G-3 comes with 1" insulation thicknesses standard and 2" as an option. 3" and 4" thicknesses are available in nongasketed only.



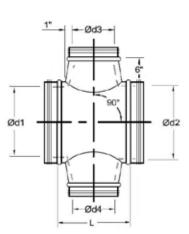
Crossing Tees



Description

conical crossing tee

- L = Ød3 + 8" + 2i
- H = 6"
- Ød1 must be 2" or larger than Ød3
- \emptyset d4 \leq \emptyset d3



Order Example

EHG G-3 EHG Nongasketed XCCGI - Ød1-Ød3- Ød4 XCCI - Ød1- Ød3- Ød4

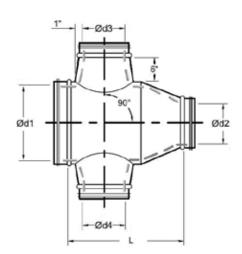
XCCGI/XCCRGI



Description

conical reducing crossing tee

- L = (Ød3 + 8" + 2i) + [(Ød1+2i) (Ød2+2i)]*
- H = 6"
- Ød1 must be 2" or larger than Ød3
- \emptyset d4 \leq \emptyset d3
- (*) minimum of 4"



Order Example

EHG G-3

EHG Nongasketed XCCRGI - Ød1-Ød2-Ød3-Ød4 XCCRI - Ød1-Ød2-Ød3-Ød4

All sizes refer to inside dimensions. EHG G-3 comes with 1" insulation thicknesses standard and 2" as an option. 3" and 4" thicknesses are available in nongasketed only.



Tees



Description

assembled straight tee with die-stamped or fabricated PSGI

- L = Ød3 + 6" + 2i
- see page 28 for tap height details

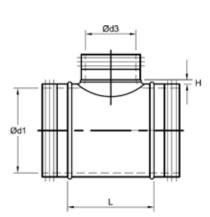


TCPGI/TCPRGI

Description

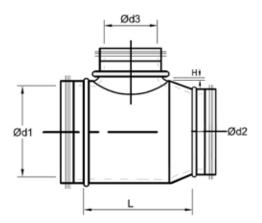
assembled straight reducing tee with diestamped or fabricated PSGI

- L = (Ød3 + 6" + 2i) + [(Ød1+2i) (Ød2+2i)]*
- see page 28 for tap height details
- (*) minimum of 4"



Order Example

EHG G-3 TCPGI - Ød1- Ød3 EHG Nongasketed TCPI - Ød1- Ød3



Order Example

EHG G-3 EHG Nongasketed TCPRGI - Ød1- Ød2 - Ød3 TCPRI - Ød1 - Ød2- Ød3

All sizes refer to inside dimensions. EHG G-3 comes with 1" insulation thicknesses standard and 2" as an option. 3" and 4" thicknesses are available in nongasketed only.



Crossing Tees



Description

assembled crossing tee with die-stamped or fabricated PSGI

- Ød4 < Ød3
- L = [Ød3+2i] + 6"
- see page 28 for tap height details



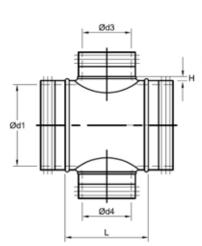


Description

assembled reducing crossing tee with die-stamped or fabricated PSGI

- \emptyset d4 \leq \emptyset d3
- L = (Ød3 + 6" + 2i) + [(Ød1+2i) (Ød2+2i)]*
- see page 28 for tap height details

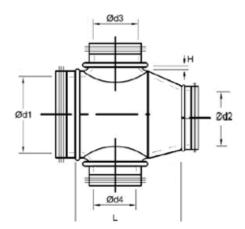
(*) minimum of 4"



Order Example

EHG G-3

EHG Nongasketed XCPGI - Ød1-Ød3- Ød4 XCPI - Ød1- Ød3- Ød4



Order Example

EHG G-3 XCPRGI - Ød1-Ød2-Ød3-Ød4 EHG Nongasketed XCPRI - Ød1- Ød2-Ød3-Ød4

All sizes refer to inside dimensions. EHG G-3 comes with 1" insulation thicknesses standard and 2" as an option. 3" and 4" thicknesses are available in nongasketed only.



Tees



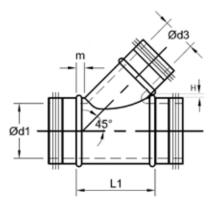
Description

45° lateral tee

- L1 = [Ød3+2i][1/sin(a)] + 4"
- H = 2.5" (constant)(throat height)
- special order: 15°- 30°- 60°

i.e. TVU 15° - aa - bb

Note: Use outer shell dimensions to locate tap on the fitting body



Order Example

EHG G-3 TVGl45 - Ød1 -Ød3 EHG Nongasketed TVI45 - Ød1 -Ød3 TVGI45/TVRGI45



Description

45° lateral reducing tee

- L = [Ød3+2i][1/sin(a)] + 4"+ [(Ød1+2i) (Ød2+2i)]*
- H = 2.5" (constant)(throat height)
- (*) minimum of 4

Order Example

EHG G-3 TVRGI45 Ød1-Ød2-Ød3 EHG Nongasketed TVRI45 Ød1-Ød2-Ød3

All sizes refer to inside dimensions. EHG G-3 comes with 1" insulation thicknesses standard and 2" as an option. 3" and 4" thicknesses are available in nongasketed only.

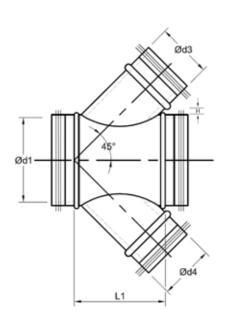


Crossing Tees



Description

- 45° lateral crossing tee
- following dimension data for \emptyset d4 = \emptyset d3
- \emptyset d4 \leq \emptyset d3
- L1 = [Ød3+2i][1/sin(a)] + 4"
- H = 2.5" (constant)(throat height)
- special order: 15°- 30°- 60° i.e. XVU 15° - aa - bb - cc



Order Example

EHG G-3 XVGI45 - Ød1-Ød3-Ød4

EHG Nongasketed XVI45 - Ød1-Ød3-Ød4

XVGI45/XVRGI45



Description

45° lateral reducing crossing tee

- $L1 = [\emptyset d3+2i][1/sin(a)] + 4" + [(\emptyset d1+2i) (\emptyset d2+2i)]^*$
- H = 2.5" (constant)(throat height)
- \emptyset d4 \leq \emptyset d3
- (*) minimum of 4"

Order Example

EHG G-3

EHG Nongasketed XVRGI45 Ød1-Ød2-Ød3-Ød4 XVRI45 Ød1-Ød2-Ød3-Ød4

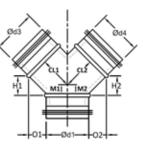
All sizes refer to inside dimensions. EHG G-3 comes with 1" insulation thicknesses standard and 2" as an option. 3" and 4" thicknesses are available in nongasketed only.



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Y-branch/Offset





Dimension

- $H1 = \left[\frac{(d3 \times 0.5)}{TAN(45)} + (d1 \times 0.9)\right] \times COS(45) \frac{d3 \times 0.5}{SIN(45)}$
- $O1 = \left[\begin{array}{c} (\underline{d3 \times 0.5}) \\ TAN(45) \end{array} + (d1 \times 0.8) \right] \times SIN(45) (d1 \times 0.5)$
- $H2 = \left[\underbrace{(d4 \times 0.5)}_{TAN(45)} + (d1 \times 0.9) \right] \times COS(45) \underbrace{d4 \times 0.5}_{SIN(45)}$
- $O2 = \left[(\underline{d4 \times 0.5)}_{TAN(45)} + (d1 \times 0.8) \right] \times SIN(45)] (d1 \times 0.5)$
- $\begin{aligned} \mathsf{M1} &= \mathsf{H1} + (\mathsf{d3} \times 0.5)(\mathsf{COS}(45)) (\mathsf{d1} \times 0.5) + \mathsf{O1} \\ & (\mathsf{d3} \times 0.5)(\mathsf{COS}(45)) \end{aligned}$
- $\begin{aligned} \mathsf{M2} &= \mathsf{H2} + (\mathsf{d4} \times 0.5)(\mathsf{COS}(45)) (\mathsf{d1} \times 0.5) + \mathsf{O2} \\ & (\mathsf{d4} \times 0.5)(\mathsf{COS}(45)) \end{aligned}$
- $CL1 = (d1 \times 0.5) + O1 (d3 \times 0.5)(COS(45))$ COS (45)
- $CL2 = (d1 \times 0.5) + O2 (d4 \times 0.5)(COS(45))$ COS (45)

Note: These dimensions apply for 45° SW. For DW, 'd3+2i'. Call for dimensions on all others.

Order Example

 EHG G-3
 EHG Nongasketed

 YVGl45 - Ød1 - Ød3 - Ød4
 YVl45 - Ød1 - Ød3 - Ød4

YVGI45/OSETGI

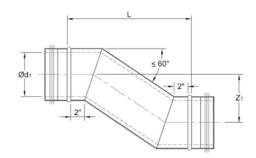


Description

one-piece offset

- 60° max angle of convergence
- max offset Z1 \leq (Ød1+2i) / 2
- max length L = 60"

Note: SMACNA recommends that offsets be 30° or less



Order Example

EHG G-3 EHG OSETGI - Ød1 - L - Z OSET

EHG Nongasketed OSETI - Ød1 - L - Z

All sizes refer to inside dimensions. EHG G-3 comes with 1" insulation thicknesses standard and 2" as an option. 3" and 4" thicknesses are available in nongasketed only.



Couplings

Description

• If Ø 3"-18", L = ³/₈", If Ø 20"-24", L = ¹/₂"

If Ø 26"-58", L = %"

duct

\bigcirc

coupling used for joining double wall spiral

Order Example

EHG G-3 NPGI - Ød1 EHG Nongasketed NPI - Ød1 NPGI/MFI

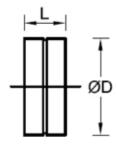


Description

noninsulated outer shell used for joining double wall fittings

• If Ø 3"-7", L = $3\frac{5}{8}$ ", If Ø 8"-12", L = $5\frac{1}{8}$ ", If Ø 14"-18", L = $6\frac{5}{8}$ ", If Ø 20"-24", L = $6\frac{3}{4}$ ", If Ø 26"-42", L = $8\frac{5}{8}$ ", If Ø 44"-58", L = $10\frac{1}{8}$ "

Note: MFVI option consists of 2 MF couplings. One MF for each ID and OD connection.



Order Example

EHG Nongasketed MFI - ØD

All sizes refer to inside dimensions. EHG G-3 comes with 1" insulation thicknesses standard and 2" as an option. 3" and 4" thicknesses are available in nongasketed only.



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End Caps



Description

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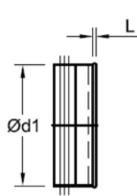
end cap for double wall spiral duct • If Ø 3"-18", L = ¾", If Ø 20"-24", L = ½" If Ø 26"-58", L = 5%"

ESGI/EPFI



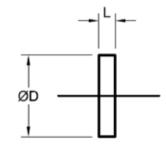
Description

end cap for fittings • If Ø 5"-7", L = $1\frac{5}{6}$ ", If Ø 8"-12", L = $2\frac{3}{6}$ ", If Ø 14"-24", L = $3\frac{1}{6}$ ", If Ø 26"-36", L = 4", If Ø 38"-60", L = $4\frac{3}{4}$ "



Order Example

EHG G-3 ESGI - Ød1 EHG Nongasketed ESI - Ød1



Order Example

EHG Nongasketed EPFI - ØD

All sizes refer to inside dimensions. EHG G-3 comes with 1" insulation thicknesses standard and 2" as an option. 3" and 4" thicknesses are available in nongasketed only.

Take-offs

Description

take-off/starting collar

- installed on flat side of duct or plenum
- available in Ø 3"-58" with 1" insulation
 - optional: 2" insulation in Ø 3"-56"



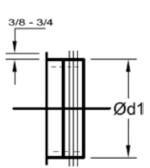


Description

gasketed take-off with damper
lengths (in): diameters 4" - 7" : L= 5¹/₂"

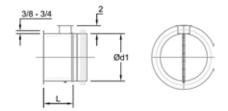
diameters $4^{"} - 7^{"}$: L= $5\frac{1}{2}^{"}$ diameters $9^{"} - 12^{"}$: L= $5\frac{1}{2}^{"}$ diameters $14^{"} - 24^{"}$: L= $6\frac{3}{8}^{"}$

- shaft = 8 mm²
- 2" shaft extension available



Order Example

EHG G-3 ILGI - Ød1 EHG Nongasketed ILI - Ød1



Order Example

EHG G-3 DSILGI - Ød1 EHG Nongasketed DSILI - Ød1

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All sizes refer to inside dimensions. EHG G-3 comes with 1" insulation thicknesses standard and 2" as an option. 3" and 4" thicknesses are available in nongasketed only.



Dampers

DSGI/DSWGI



Description

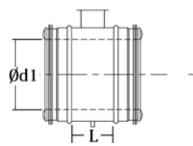
balancing damper

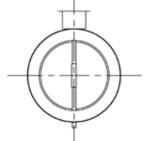
- for use in systems where a complete shutoff of air flow is not required
- gasketed shaft-mounted load bearing bushing to minimize air leakage
- integral shaft-blade assembly
- 2" sheet metal insulation stand-off
- locking blade quadrant w/damper position indicator
- full fitting body assembly with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

Also available:

DSWGI– DS(G) damper with cable-operating option. Equipped with 20' cable.

Note: Dampers with \emptyset d1 > 12" equipped with extended handle and a reinforced damper blade. Dampers with \emptyset d1 > 22" have 2" bracket in place of cup-shaped stand-off.





Dimension

Ød1	L	Shaft	
inch	inch	mm²	
4	3.9	8*	
5	3.9	8*	
6	3.9	8*	
7	3.9	8*	
8	3.5	8*	
9	3.5	8*	
10	3.5	8*	
12	3.75	8*	
14	3.75	8* 8* 8* 8*	
16	3.75		
18	3.75		
20	3.75		
22	3.75	8*	
24	3.75	8*	
26	3.75	8*	
28	3.75	8*	
30	3.75	8*	
32	10.4	25.4**	
34	10.4	25.4**	
36	10.4	25.4**	

* 2" shaft extensions availab ** 1" square tube shaft

Order Example

EHG G-3 DSGI - Ød1 DSWGI - Ød1 EHG Nongasketed DSI - Ød1 DSWI - Ød1

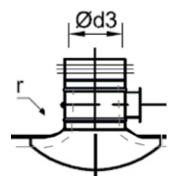
All sizes refer to inside dimensions. EHG G-3 comes with 1" insulation thicknesses standard and 2" as an option. 3" and 4" thicknesses are available in nongasketed only.



Dampers



DSPSGI



Description

damper (DSGI) with saddle tap base

- shaft = 8 x 8 mm²
- 2" shaft extensions available
- L = [PSGI(L) + "e" dimension] + [DSGI(L) + "e" dimension]
- refer to page 11 for "e" dimensions
- refer to page 28 for PSGI construction details (pressed/fabricated)

Available in the following sizes (\checkmark):

	Available Sizes								
ØD	Ød3								
	3	4	5	6	7	8	10	12	14
4	\checkmark	\checkmark							
5	✓	\checkmark	\checkmark						
6		\checkmark	\checkmark	\checkmark					
7		\checkmark	\checkmark	\checkmark	\checkmark				
8		\checkmark	\checkmark	\checkmark	\checkmark	\checkmark			
10		\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark		
12		\checkmark	\checkmark	\checkmark		\checkmark	\checkmark	\checkmark	
14		\checkmark	\checkmark	\checkmark		\checkmark	\checkmark	\checkmark	\checkmark
16		\checkmark	\checkmark	\checkmark		\checkmark	\checkmark	\checkmark	\checkmark
18		\checkmark	\checkmark	\checkmark		\checkmark	\checkmark	\checkmark	\checkmark
20		\checkmark	✓	\checkmark		\checkmark	\checkmark	\checkmark	\checkmark
22		\checkmark	\checkmark	\checkmark		\checkmark	\checkmark	\checkmark	\checkmark

Order Example

EHG G-3 DSPSGI - ØD - Ød3 EHG Nongasketed DSPSI - ØD - Ød3

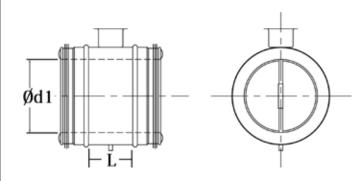
All sizes refer to inside dimensions. EHG G-3 comes with 1" insulation thicknesses standard and 2" as an option. 3" and 4" thicknesses are available in nongasketed only.



Dampers

DTGI





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 = 8 mm²
- 2" shaft extension available
- damper cup height = 2"
- foam insulation stop (EHG G-3 only)
- Stainless steel construction available in Ø4", Ø6", Ø8", Ø10", and Ø12".
- Not available in aluminum.

Note: dampers with \emptyset d1 > 12" have 2" extended handle and reinforced damper blade

Dimension

Ød1	L	Shaft
inch	inch	mm²
4	3.9	8
5	3.9	8
6	3.9	8
7	3.9	8
8	3.5	8
9	3.5	8
10	3.5	8
12	3.75	8
14	3.75	8
16	3.75	8
18	3.75	8
20	3.75	8
22	3.75	8
24	3.75	8

Order Example

EHG G-3 DTU - Ød1

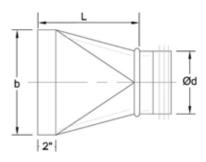
All sizes refer to inside dimensions. EHG G-3 comes with 1" insulation thicknesses standard and 2" as an option. 3" and 4" thicknesses are available in nongasketed only.



Square-to-Round

RRTGI

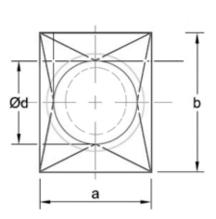




Description

square to round transition

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



Order Example

EHG G-3 RRTGI - a - b - Ød1 - L **EHG Nongasketed** RRTI - a - b - Ød1 - L

All sizes refer to inside dimensions. EHG G-3 comes with 1" insulation thicknesses standard and 2" as an option. 3" and 4" thicknesses are available in nongasketed only.



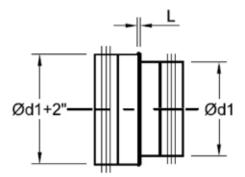
Transitions



Description

double wall to single wall transition

- slips into double wall spiral duct
- available Ø 3"-58"
- L = 1/8"



Order Example

EHG G-3 RCKG - Ød1-insulation thickness

EHG Nongasketed RCK - Ød1-insulation thickness

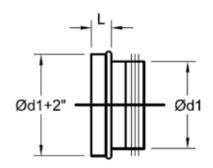
RCKG/RCKFG



Description

double wall to single wall transition

- large end slips over double wall fittings
- available Ø 3"-58"
- Lengths (L):
 - \emptyset 3"-7", L = 1⁵/₈" \emptyset 8"-12", L = 2³/₈" \emptyset 14"-24", L = 3¹/₈" \emptyset 26"-36", L = 4" \emptyset 38"-58", L = 4³/₄"



Order Example

EHG G-3 RCKFG - Ød1 EHG Nongasketed RCKF - Ød1

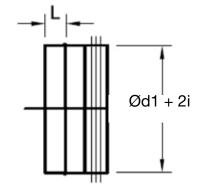
All sizes refer to inside dimensions. EHG G-3 comes with 1" insulation thicknesses standard and 2" as an option. 3" and 4" thicknesses are available in nongasketed only.



Field-cut Adapter

FCAGI





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Description

adapter for preparing field cut double wall duct for connection to double wall fittings

- available Ø 5"-58"
- Lengths (L):
 - \emptyset 5"-7", L = 1⁵/₈" \emptyset 8"-12", L = 2³/₈" \emptyset 14"-24", L = 3¹/₈" \emptyset 26"-42", L = 4" \emptyset 44"-58", L = 4³/₄"

Order Example

EHG G-3 FCAGI - Ød1 EHG Nongasketed FCAI - Ød1

All sizes refer to inside dimensions. EHG G-3 comes with 1" insulation thicknesses standard and 2" as an option. 3" and 4" thicknesses are available in nongasketed only.





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