PLAN VIEW UP-BLAST EXHAUST FAN 15' 10' EXHAUST UP TO ZERO LOSS STACKHEAD

FUME-A-VENT

Air Cleaning Specialists 11088 Gravois Ind Ct. St. Louis MO 63128 866-455-2130 - Phone 636-349-0556 - Fax

www.fumeavent.com info@fumeavent.com

REF. NUMBER

17-111422A

QUOTE NUMBER

FAV-SF-3D4

REVISION

0

JOB NAME BUDGETARY

DRAWING FOR: SIMPLE DROP 4 INCH

17-111422A

SHEET / VIEW NAME
3 DROP 4 INCH

DRAWN: CODY BINGAMAN

CHECKED: DAN SCHROEDER

SYSTEM TYPE
SIMPLE DROP

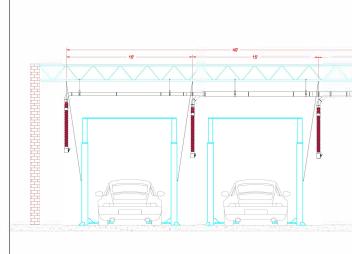
DWG DATE GAUGE 11/15/18 STD.

PAPER SIZE SHEET

PAPER SIZE SHEET 11" x 8.5" 1 OF 1

SCALE: CUSTOM

SYSTEM OVERVIEW



BLOWER DETAIL

BAZ CPM @ 4" W.G.

DETAILS

NORDFAB
ZERO-LOSS STACKHEAD

NORDFAB GALVANIZED PIPE

UP-BLAST EXHAUST FAN

MOUNTING BROWGE
DECENTION MALKEL

FAN EXHAUST DETAIL

(SHOWN IN VERTICAL EXHAUST CONFIGURATION)

NOTES:

- 1) CONCEPT DRAWING FOR ESTIMATION AND REFERENCE ONLY
- 2) DUCT SIZING BASED ON 50% USE OF SYSTEM (SUBJECT TO CHANGE AT TIME OF ORDER)
- 3) BLOWER SUBJECT TO CHANGE AT TIME OF ORDER
- 4) BLOWER MOUNTING LOCATION SUBJECT TO CHANGE PER APPLICATION REQUIREMENTS

CONFIDENTIAL

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The EDGE® – Features, Benefits & Materials

The EDGE® System will eliminate the sealing of all connections in your spiral pipe system. This system will not only provide a labor savings for the installer, it is a high efficient duct system and also great for exposed systems.

FEATURES

- All fittings will have a factory installed EPDM gasket, which has an operating temperature rating of -20°F to 212°F.
- The smoke and flame spread rating is 0/0.
- The gasket construction is of a black EPDM base with a wiper for machine application and a green EPDM hollow seal that will act as the sealing section.
- The gasket is attached to the fitting with a 180° hemmed edge that will hold the gasket in place, as shown in the diagrams to the right.
- The connections are secured with self-tapping sheet metal screws per SMACNA standards.
- The EDGE® System allows for substantial space for insertion of the screws, because the gasket is located on the leading EDGE of the fitting. (NOTE: The use of sheet metal screws with a rubber gasket would insure that all screw holes are sealed as well.
- The EDGE® System has been tested in accordance to SMACNA's Air Duct Leakage Test Manual and meets SMACNA Class 3 leakage standards.

AFTER ASSEMBLY:

BEFORE ASSEMBLY:

BENEFITS

- Stronger fitting
- Eliminates sharp edge
- Consistent diameter
- Factory installed resulting in a cost savings
- The EDGE® gasket is treated with anti-friction coating for easy installation.

The EDGE® – Fittings & Materials

Fittings: 4"-10" (all sizes), 12"-60" (even sizes only)

Materials: Galvanized, Galvaneal, Stainless Steel Type 304 & 316, Aluminum. All fittings will be fabricated, except for Galvanized Stamped Fittings® listed below:

Elbows	4"- 12" = Stamped/Stitch Welded
Reducers	4"- 18" = Spun
Bellmouths	4"- 12" = Stamped 14"- 36" = Spun
90° Tee	4"- 12" = Fabricated body with Stamped Saddle Tap
90° Tap	4"- 12" = Stamped
All Other Fittings	Any fitting can be fabricated with gasket attached.

All products will be fabricated per SMACNA standards and gauges.

All fabricated fittings conform to SPIDA dimensional data.

ACS
Air Cleaning Specialists, Inc.
(800) 878-5030

The EDGE® – Construction

CONSTRUCTION (GAUGE):

- All duct and fittings are made per SMACNA's Duct Construction Standards (+10" W.G.).
- Stamped Fittings are all 22 or 24 gauge. Spun Fittings are all 20 gauge.
- The following table shows diameter and gauges:

Diameter	Spiral Duct	Fabricated Fittings
4"- 24"	26 ga.	24 ga.
26"- 36"	24 ga.	22 ga.
38"- 60"	22 ga.	Please Specify

Stamped Fittings®	4"	5"	6"	7"	8"	9"	10"	12"	14" - 36"
GDSE	24 ga.	22 ga.	N/A						
GDSE1	24 ga.	22 ga.	N/A						
GDST	24 ga.	N/A							
GBTO - stamped	24 ga.	N/A							
GBTO - spun	N/A	20 ga.							
GSPR - spun	20 ga.								

CONSTRUCTION (PIPE):

- Spiral pipe
- Calibration of spiral is required by The EDGE® System manufacturer, Stamped Fittings Inc.

CONSTRUCTION (FITTINGS):

All EDGE® fittings, 4"-60", will have a factory installed gasket that is attached to the fitting with a 180° hemmed edge for strength, rigidity and maintaining proper tolerances.

CONSTRUCTION (GASKET):

- The EDGE® gasket consists of a two-part EPDM rubber sealing material.
- The base EPDM (black material) is classified according to ASTM D2000-86 M3BA 810 B13 C12 F17.
- The sealing EPDM (green material) is classified according to ASTM D2000-86 M8BA 507 B13 C12.
- The operating temperature is -20°F to 212°F.
- The smoke and flame spread is in accordance to ASTM E-84-91A.

PRESSURE CLASS:

The EDGE® System has been tested and meets the requirements of SMACNA's Leakage Class 3.

JOINT CONNECTIONS:

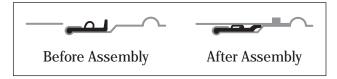
All fittings are manufactured to slip fit into spiral duct.

Any fitting to fitting connection can use a fitting coupling.



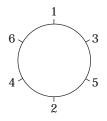
The EDGE® – Installation Instructions

The EDGE® System fittings are made to fit tight, assuring a proper seal. Care should be taken when handling these fittings as damage could result in an improper fit and a difficult installation process.



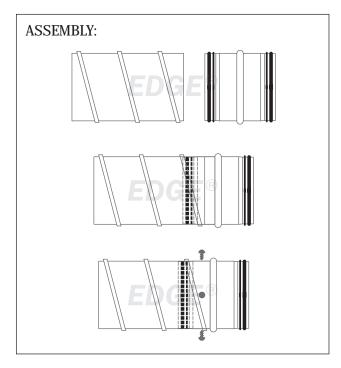
WHEN INSTALLING:

- 1. Place the hemmed EDGE of the fitting in the spiral pipe then apply pressure and the fitting will slip into place, stopping at the bead/pipe stop.
- 2. Placement of the fastening screws should be opposite from one another, evenly spaced around the circumference (see diagram). Screws should be placed approximately 1/2" from the bead in order to avoid damaging The EDGE® gasket. In the event of incorrect installation, holes caused by the screws must be sealed before reassembly.
- 3. Quantities and sizes to be used are listed in the table below.



Spiral Duct Diameter	Screw Diameter	Quantity
3"- 5"	1/8"	2
6"- 10"	1/8"	3
12"- 24"	1/8"	4
26"- 36"	1/8"	6

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



Patent Pending US 2006-0006610A1

The EDGE $^{\circ}$ – Products









































































The EDGE $^{\circ}$ – Products















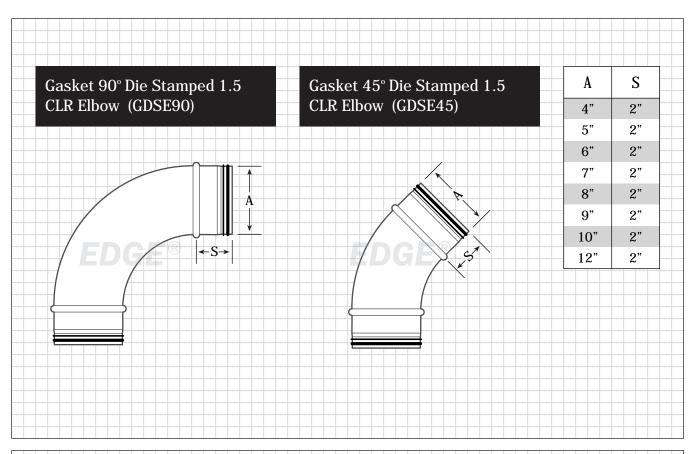


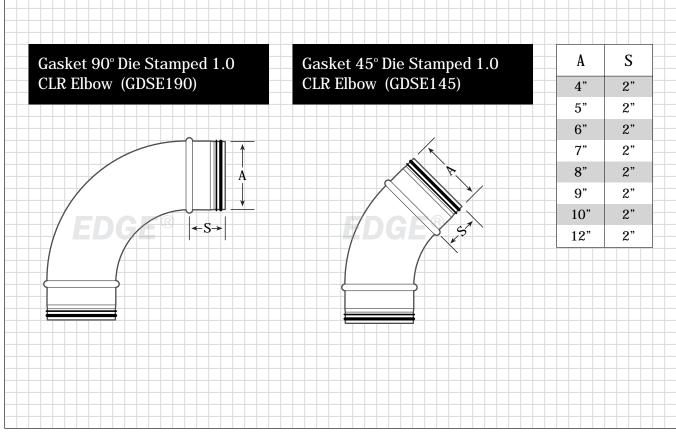


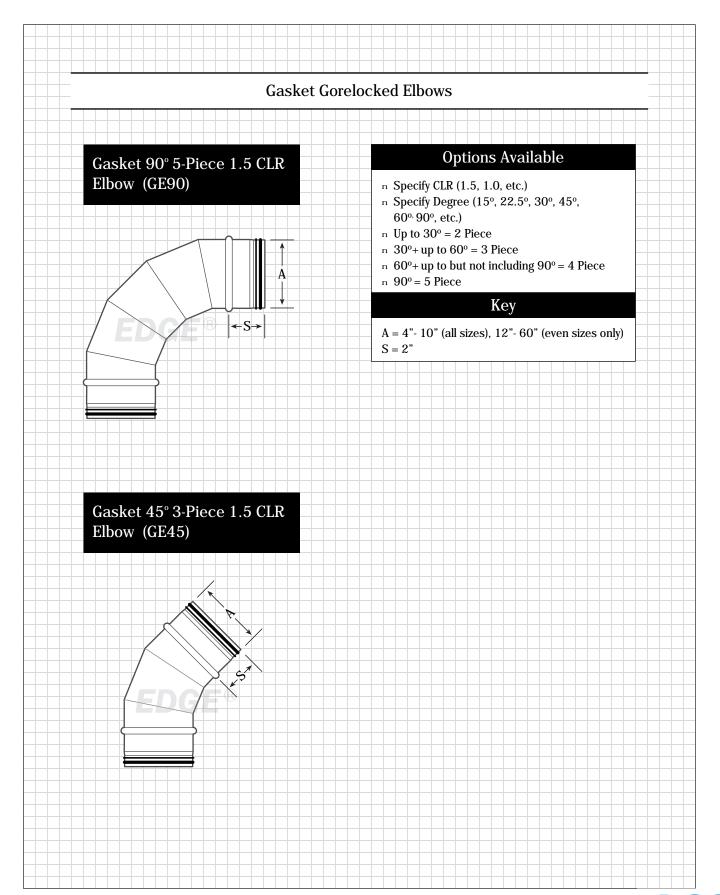


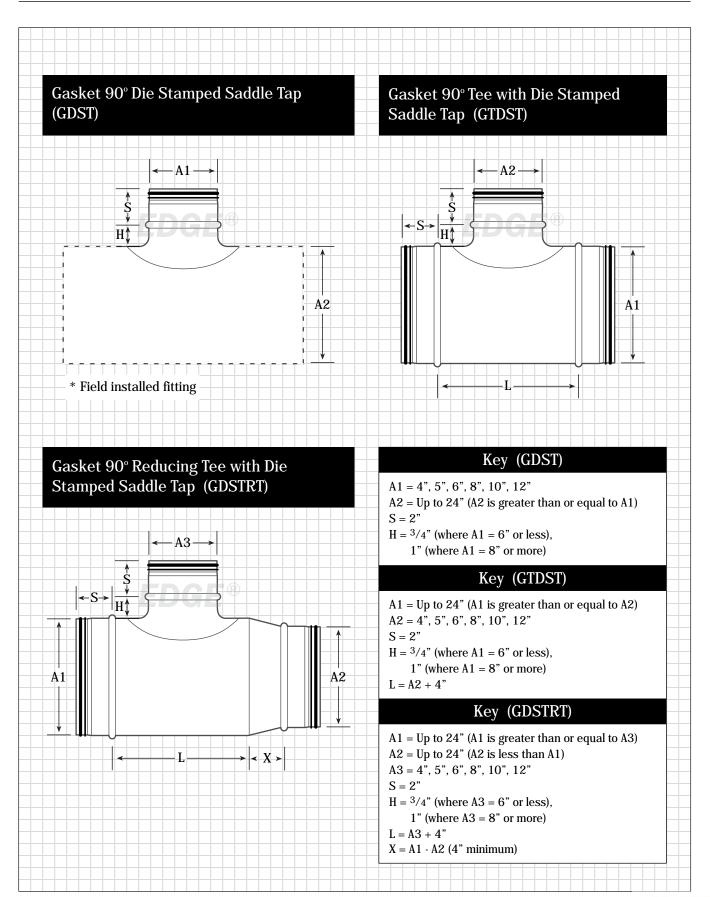


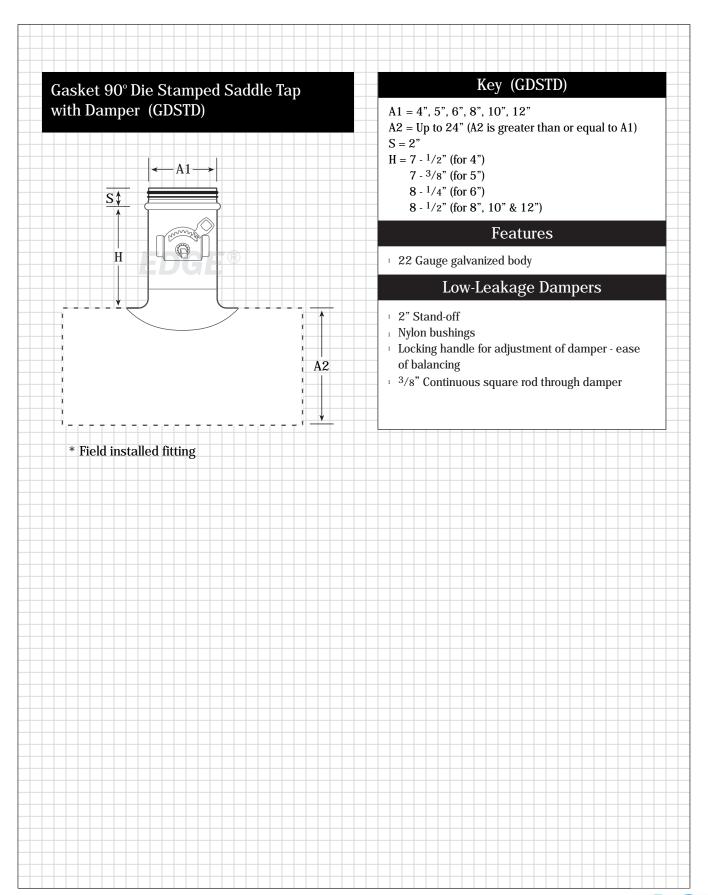


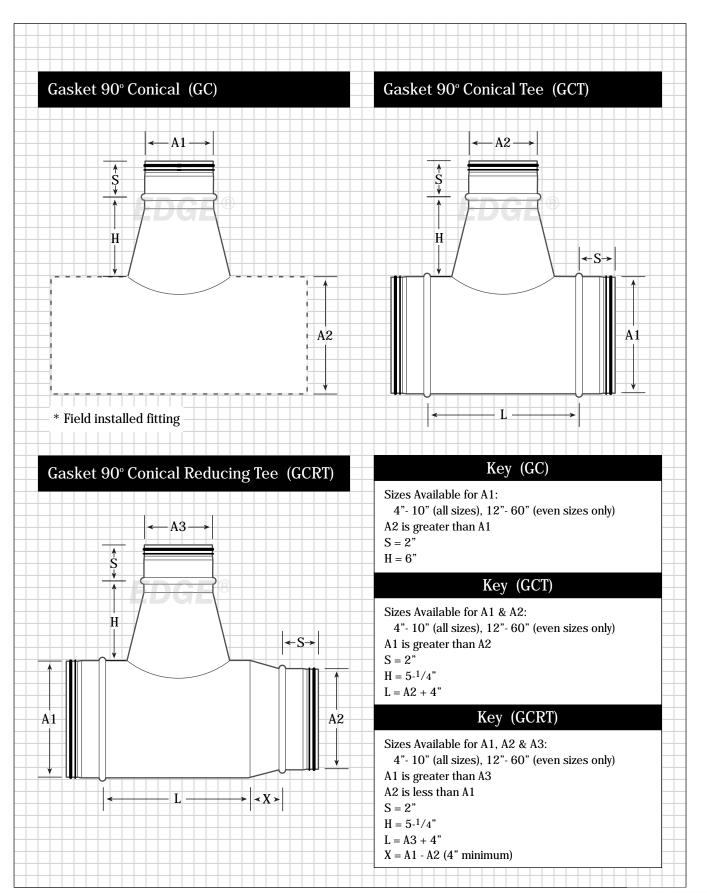


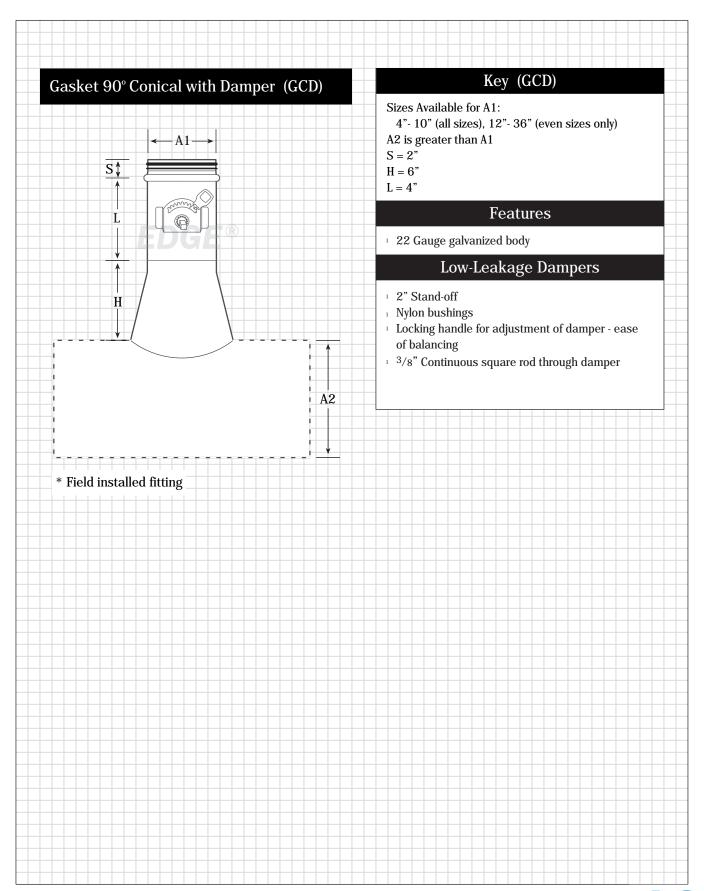


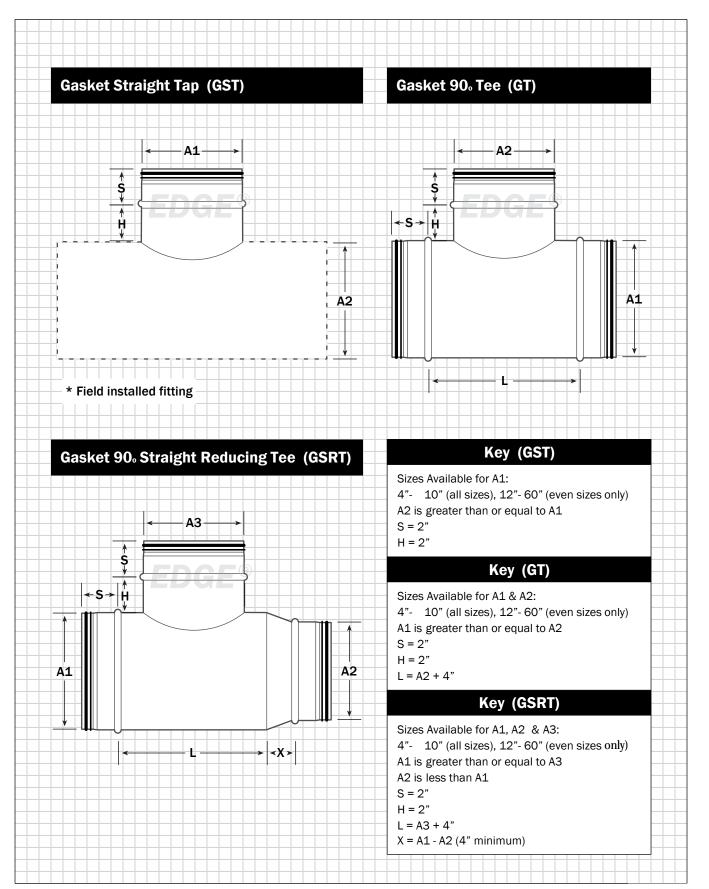


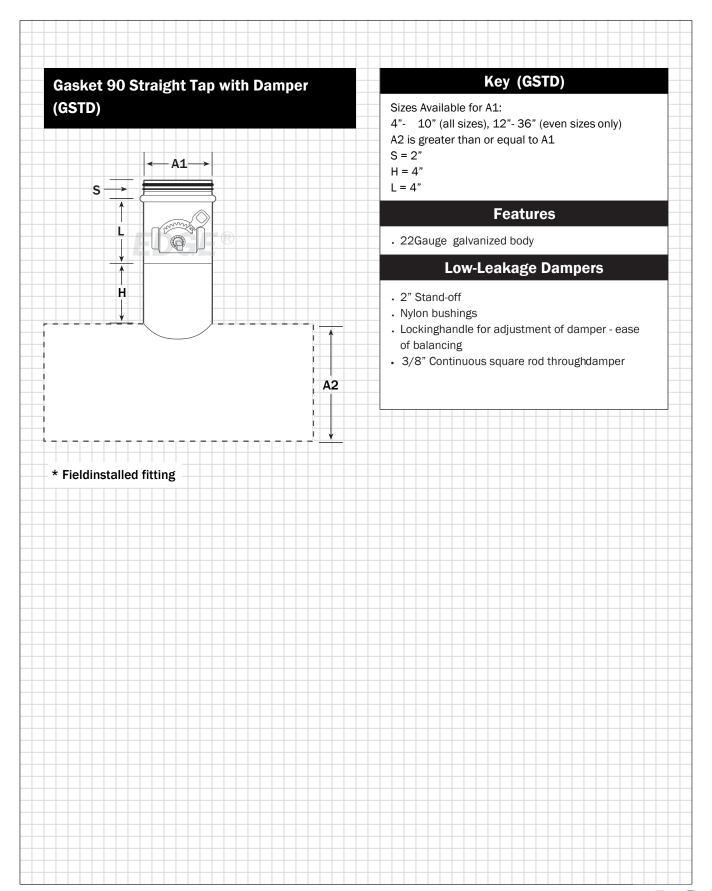


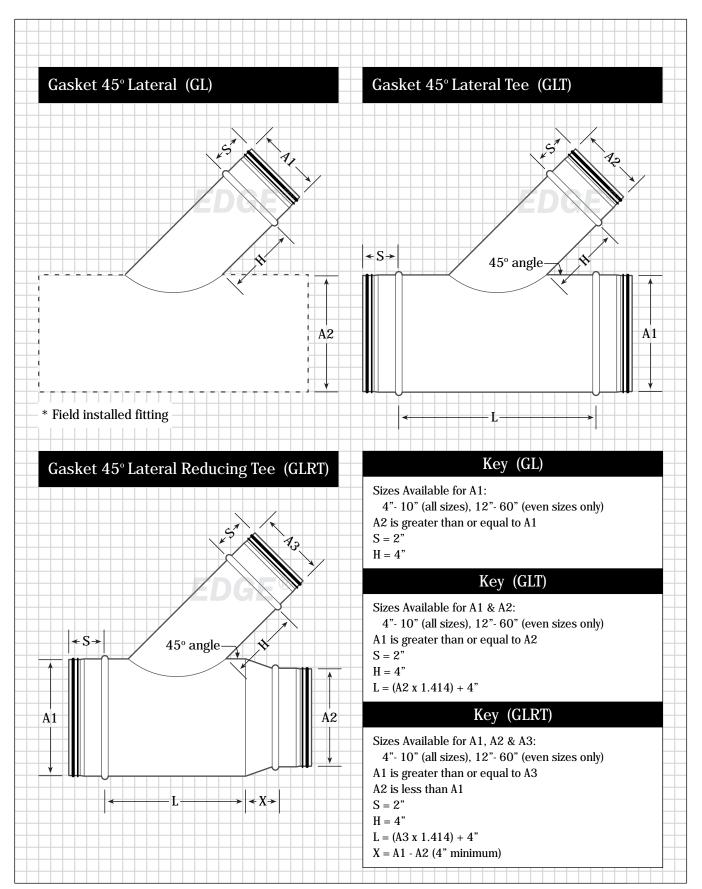


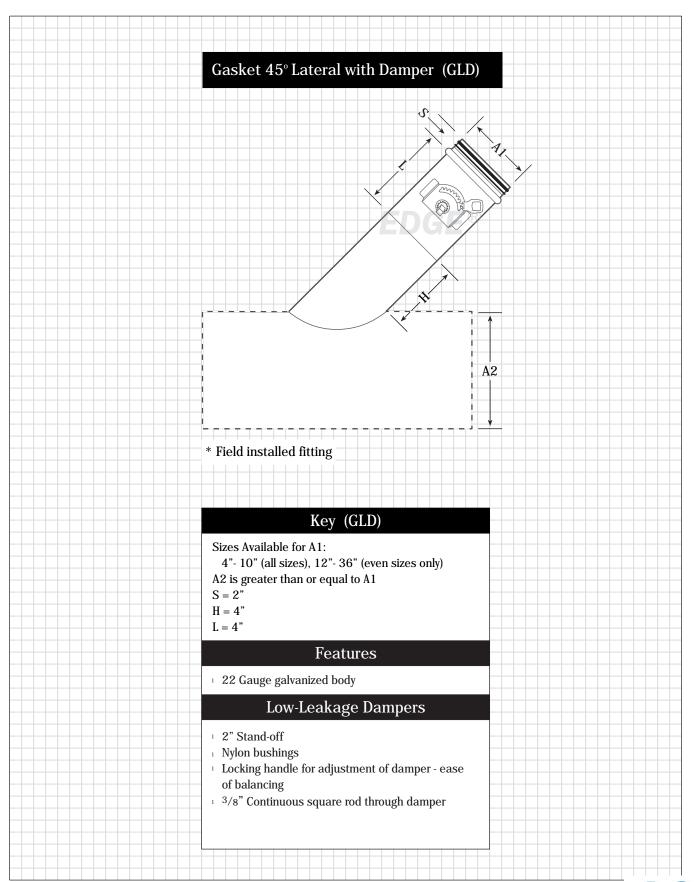


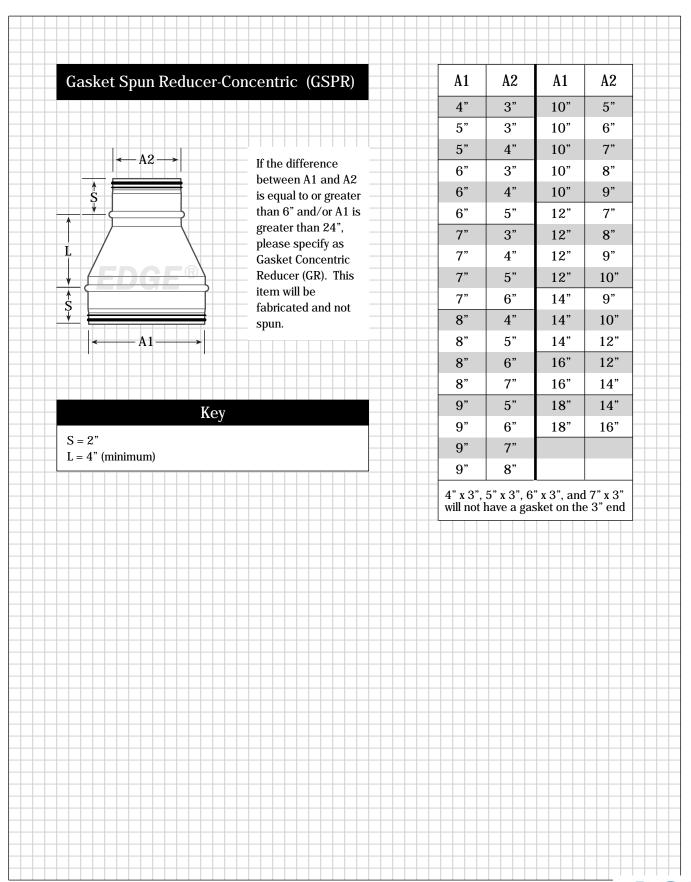


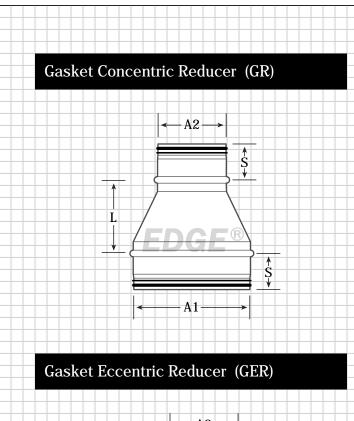












Key (GR)

Sizes Available for A1 & A2:

4"- 10" (all sizes), 12"- 60" (even sizes only)

S = 2"

- L=4" if the change in diameter (A1 A2) is less than 6"
- $_{\rm n}\,$ If the change in diameter (A1 A2) is greater than or equal to 6" then L= A1 A2.
- n Please specify any other length, if not the standard.

Key (GER)

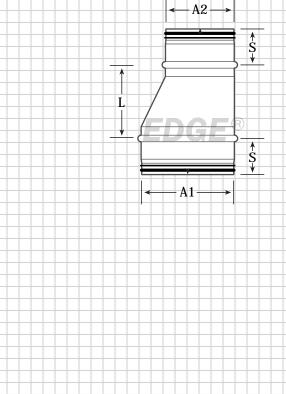
Sizes Available for A1 & A2:

4"- 10" (all sizes), 12"- 60" (even sizes only)

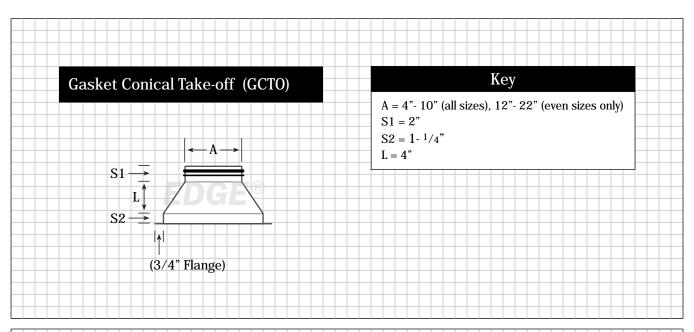
S = 2"

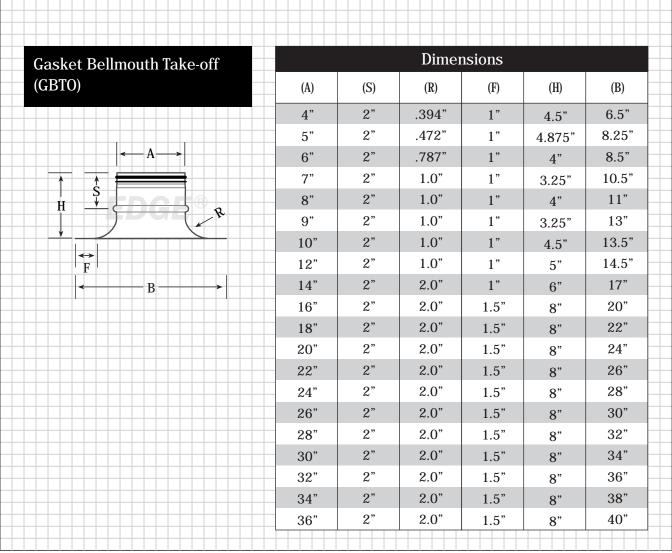
 $L = (A1 - A2) \times 2 + 2$ "

- n L minimum = 7-3/4"
- $\ensuremath{^{\mathrm{n}}}$ Please specify any other length, if not the standard.

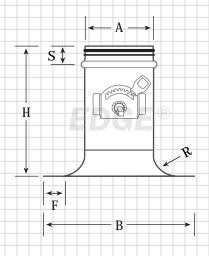








Gasket Bellmouth Take-off with Damper (GBTOD)



Features

22 Gauge galvanized body

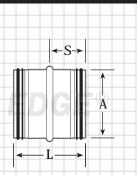
Low-Leakage Dampers

- ¹ 2" Stand-off
- Nylon bushings
- Locking handle for adjustment of damper - ease of balancing
- 1 3/8" Continuous square rod through damper

		Dimer	nsions		
(A)	(S)	(R)	(F)	(H)	(B)
4"	2"	.394"	1"	7.625"	6.5"
5"	2"	.472"	1"	7.75"	8.25"
6"	2"	.787"	1"	9.25"	8.5"
7"	2"	1.0"	1"	8.5"	10.5"
8"	2"	1.0"	1"	9.25"	11"
9"	2"	1.0"	1"	8.5"	13"
10"	2"	1.0"	1"	10"	13.5"
12"	2"	1.0"	1"	10.5"	14.5"
14"	2"	2.0"	1"	11.25"	17"
16"	2"	2.0"	1.5"	13.5"	20"
18"	2"	2.0"	1.5"	13.5"	22"
20"	2"	2.0"	1.5"	13.5"	24"
22"	2"	2.0"	1.5"	13.5"	26"
24"	2"	2.0"	1.5"	13.5"	28"
26"	2"	2.0"	1.5"	13.5"	30"
28"	2"	2.0"	1.5"	13.5"	32"
30"	2"	2.0"	1.5"	13.5"	34"
32"	2"	2.0"	1.5"	13.5"	36"
34"	2"	2.0"	1.5"	13.5"	38"
36"	2"	2.0"	1.5"	13.5"	40"



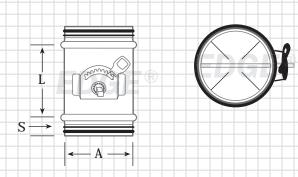
Gasket Pipe Coupling (GPC)



Key (GPC)

A = 4"- 10" (all sizes), 12"- 60" (even sizes only) S = 2"L = 4"

Gasket Damper (GD)



Key (GD)

A = 4"- 10" (all sizes), 12"- 36" (even sizes only) S = 2"L = 4"

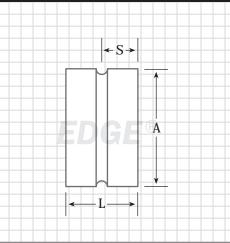
Features

22 Gauge galvanized body

Low-Leakage Dampers

- 1 2" Stand-off
- 1 Nylon bushings
- Locking handle for adjustment of damper ease of balancing
- ¹ ³/8" Continuous square rod through damper

Fitting Coupling (FC)

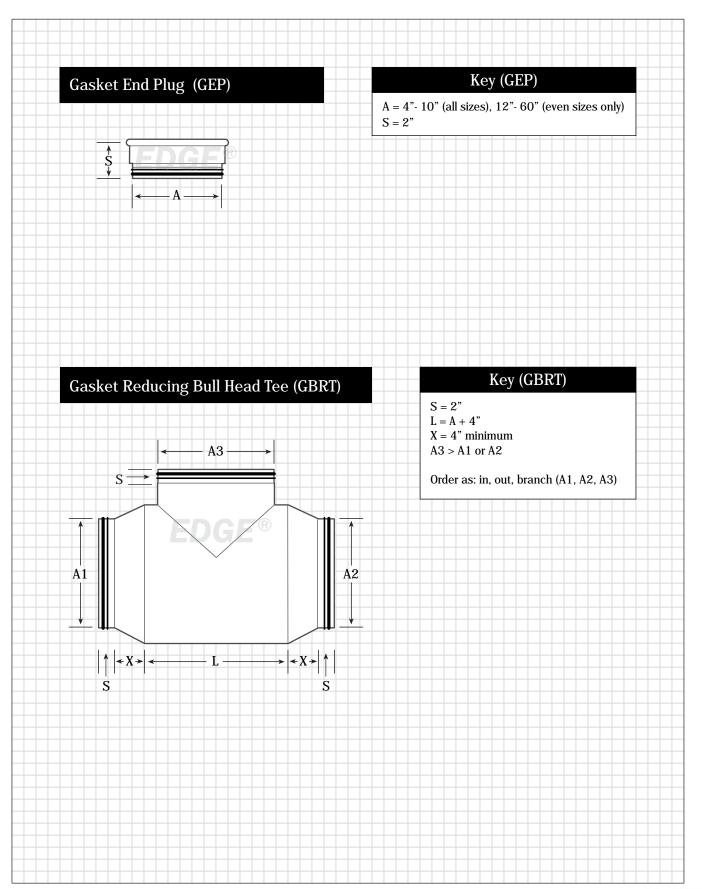


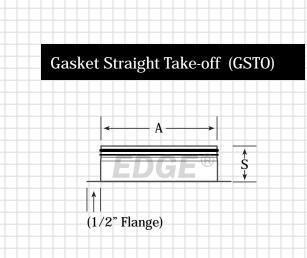
Key (FC)

A = 4"- 10" (all sizes), 12"- 60" (even sizes only) S = 2"

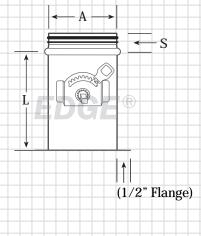
L = 4"

* This product is pipe size for use with fitting to fitting application.





Gasket Straight Take-off with Damper (GSTOD)



Key (GSTO)

 $A=4\,\mbox{\ensuremath{^{"}}}\mbox{-} 10\,\mbox{\ensuremath{^{"}}}\mbox{ (all sizes)}, 12\,\mbox{\ensuremath{^{"}}}\mbox{-} 60\,\mbox{\ensuremath{^{"}}}\mbox{ (even sizes only)} S=2\,\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{^{"}}}\mbox{\ensuremath{$

Key (GSTOD)

A = 4"- 10" (all sizes), 12" and 14" S = 2"

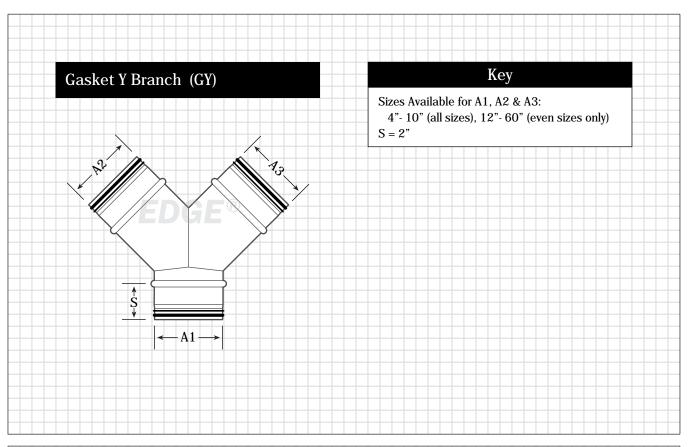
L = 8"

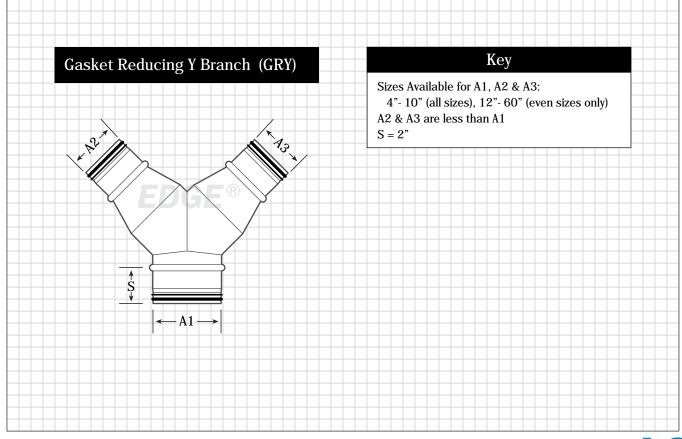
Features

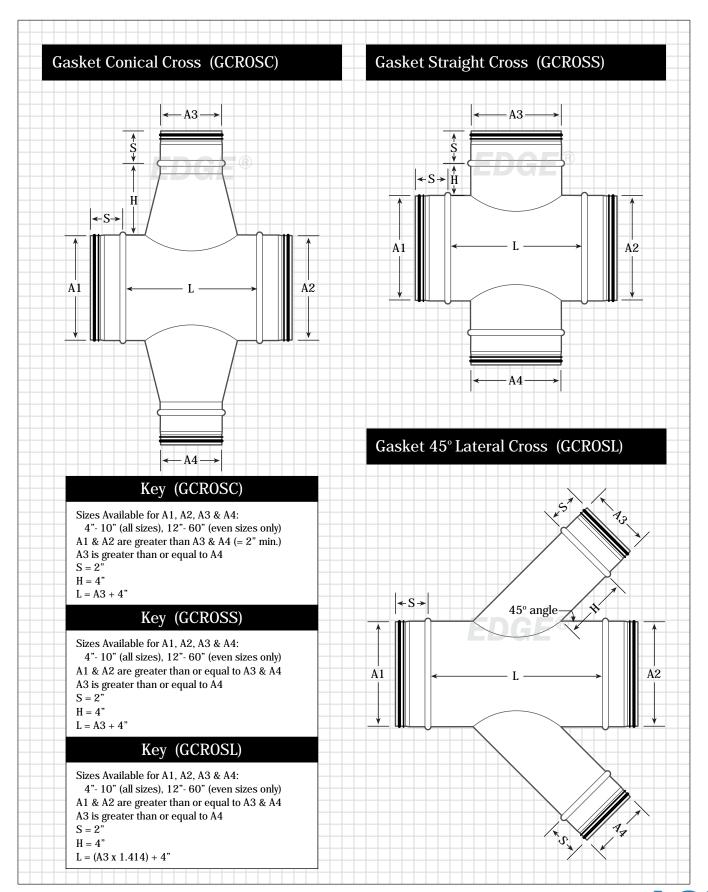
- 1 22 Gauge galvanized body
- Peel & Stick gasket included

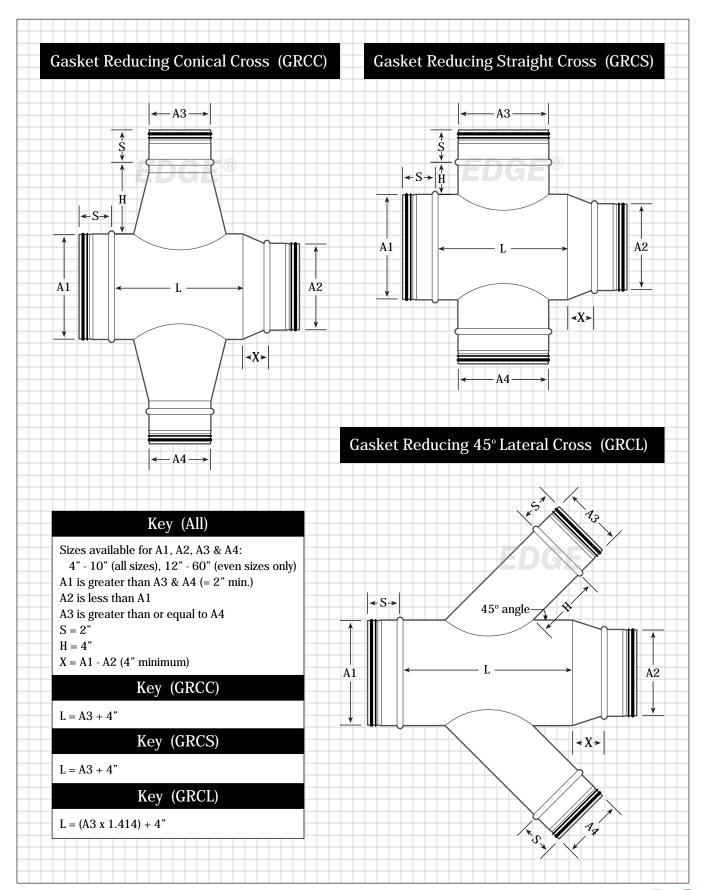
Low-Leakage Dampers

- ¹ 2" Stand-off
- Nylon bushings
- Locking handle for adjustment of damper ease of balancing
- $^{1-3}/8$ " Continuous square rod through damper





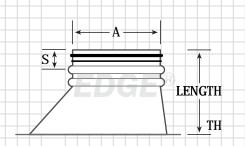




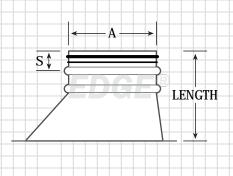
LoPro High Efficiency Take-off

Our LoPro High Efficiency Take-off is fabricated from 24 gauge G90 galvanized steel. This product is made with a low profile design to save room when installing on flat duct and to capture maximum air flow. The connection is The $EDGE^*$ self-sealing gasket which has been tested in accordance with SMACNA's Air Duct Leakage Test Manual and meets SMACNA Class 3 leakage standards. Products come standard with a peel-and-stick on the base.

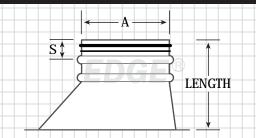
(GLPHET) No Damper



(GLPHETD2S) Standard Damper 5/8" Hardware with 2" Extension Kit

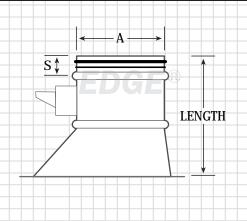


(GLPHETD) Standard Damper 5/8" Hardware



Dimensions						
(A)	(S)	Inside Opening	Overall Length			
4"	2"	4" x 6"	7.5"			
5"	2"	5" x 7"	7.5"			
6"	2"	5" x 8"	6.5"			
7"	2"	6" x 9"	7"			
8"	2"	7" x 10"	7"			
9"	2"	8" x 11"	7"			
10"	2"	9" x 12"	7"			
12"	2"	11" x 14"	7"			
14"	2"	13" x 16"	7"			
16"	2"	14" x 22"	11"			

(GLPHETDHD) Heavy Duty 2" Stand-off Locking Balancer Damper



Dimensions					
(A)	(S)	Inside Opening	Overall Length		
4"	2"	4" x 6"	10"		
5"	2"	5" x 7"	10"		
6"	2"	5" x 8"	7"		
7"	2"	6" x 9"	9"		
8"	2"	7" x 10"	9"		
9"	2"	8" x 11"	9"		
10"	2"	9" x 12"	9"		
12"	2"	11" x 14"	9"		
14"	2"	13" x 16"	9.5"		
16"	2"	14" x 22"	13.25"		

