



Air Cleaning Specialists Inc. 11088 Gravois Ind. Ct. St. Louis MO 63128 636-349-4400 636-349-0556 Fax

**REF. NUMBER** 

13-122723F

**QUOTE**#

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**REVISIONS** 

SHEET NAME **DETAIL** 

# FUME-A-VEN EXHAUST REMOVAL SYSTEMS

A division of Air Cleaning Specialist

**DRAWING TITLE HOSE REEL DUCTING** 7- DROP

DRAWN: CODY BINGAMAN

CHECKED; JIM GRAYEM

**PROJECT NAME** NORDFAB GALV.

DATE 12/23/13 DETAIL

SIZE DWG NO. Α

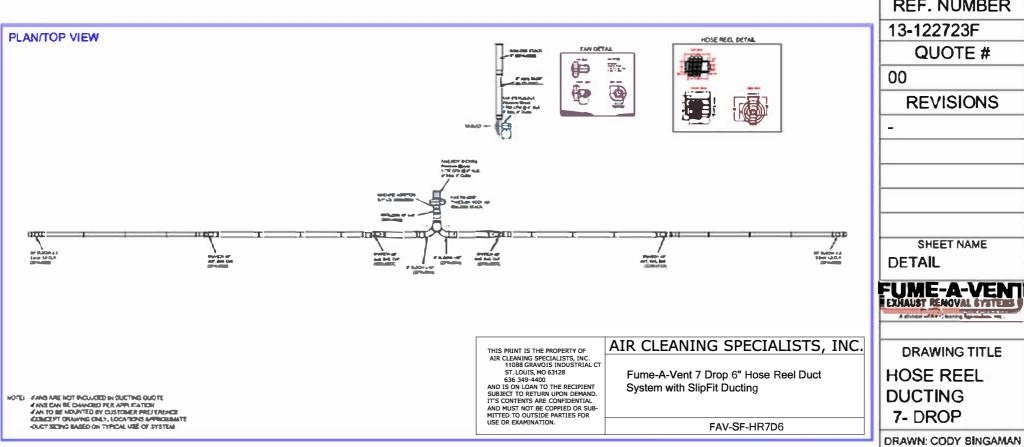
SCALE: 1:1

SHEET 1 OF 1

REV.

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VIEW





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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<br>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<br>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:

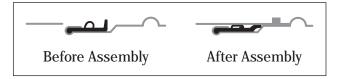
All fittings are manufactured to slip fit into spiral duct.

Any fitting to fitting connection can use a fitting coupling.



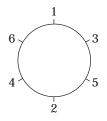
#### The EDGE® – Installation Instructions

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.



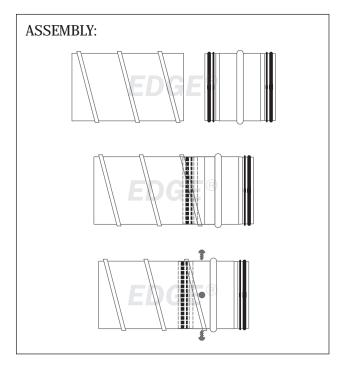
#### WHEN INSTALLING:

- 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<br>Diameter | Screw<br>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















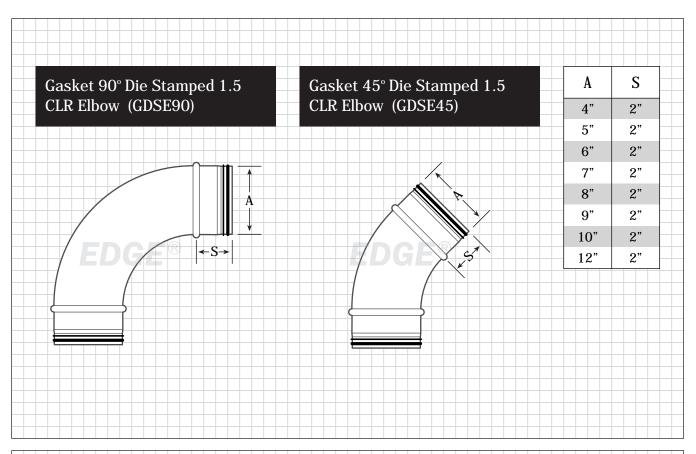


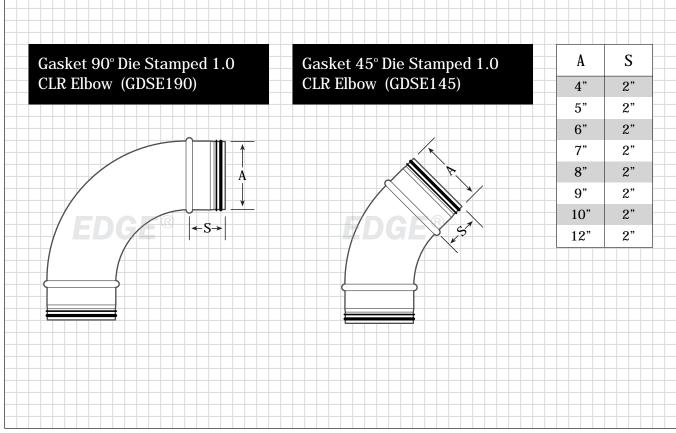


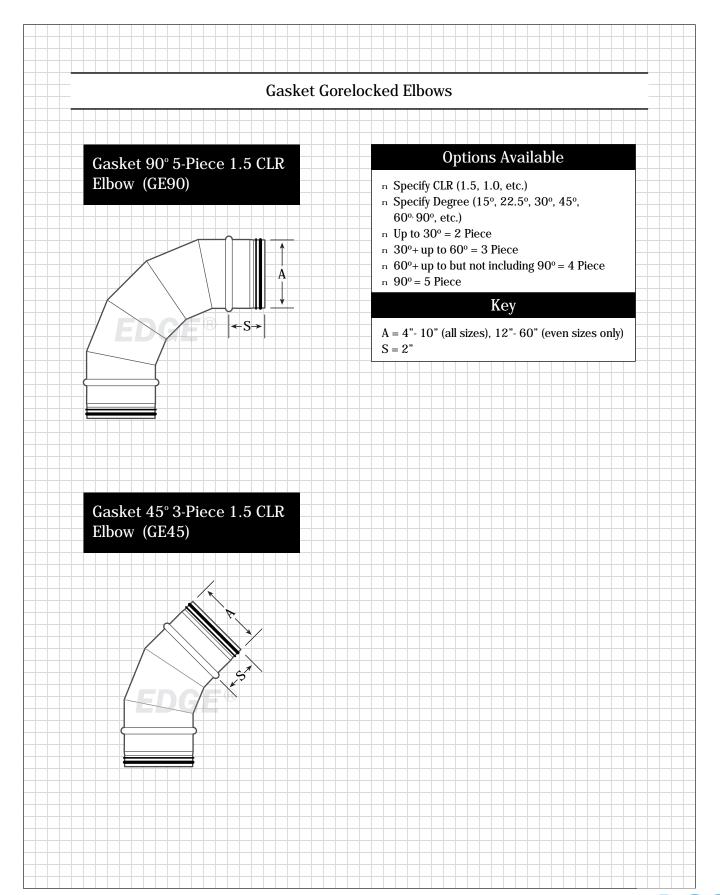


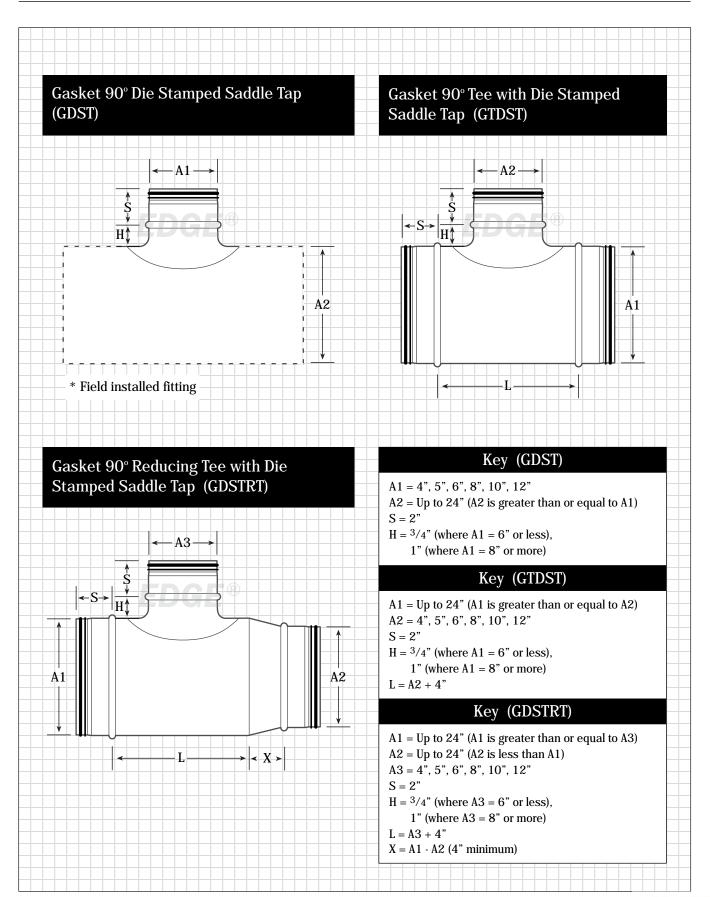


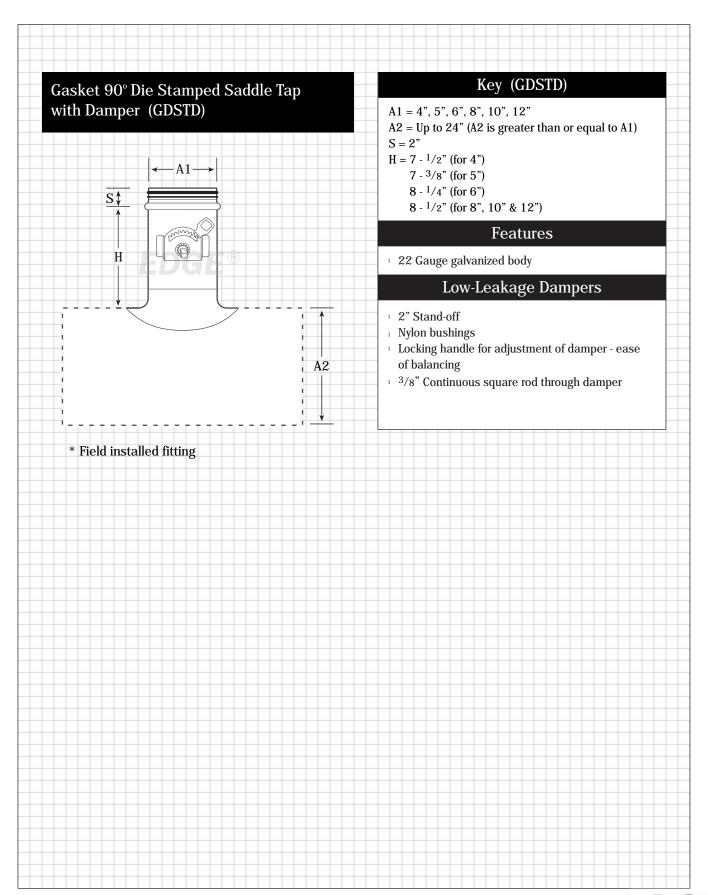


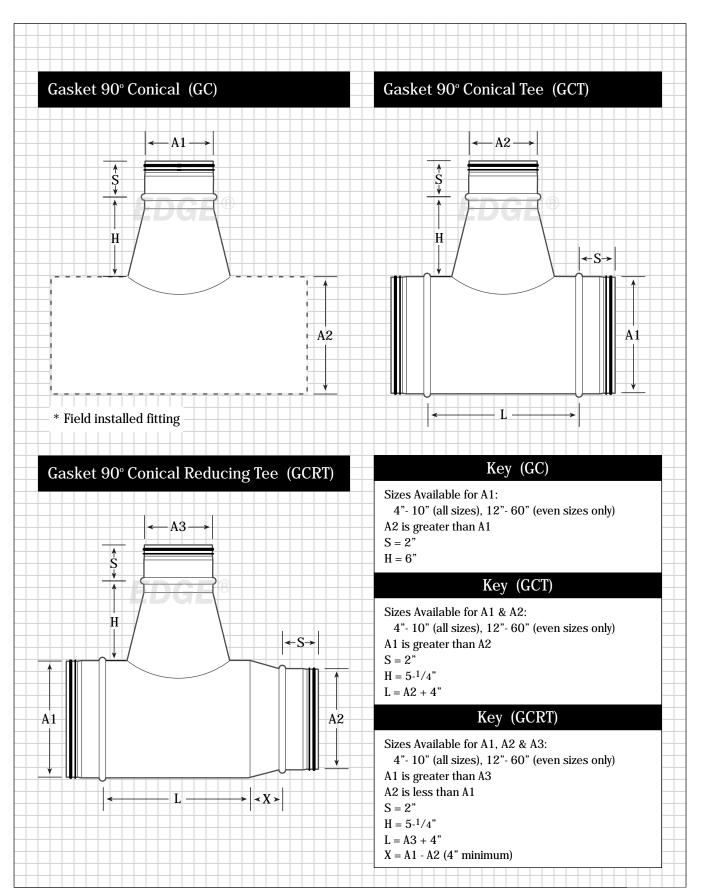


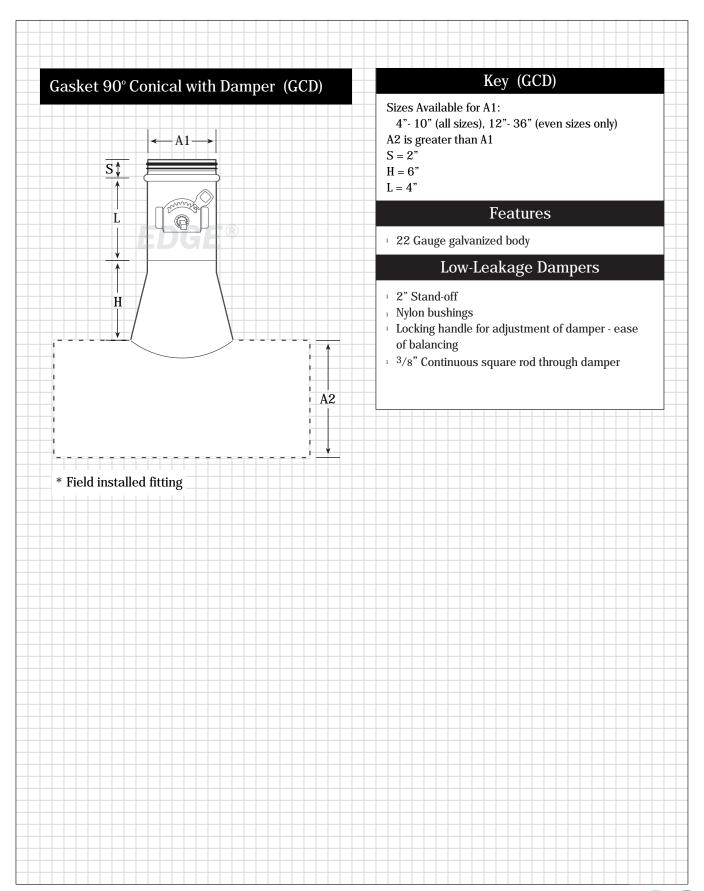


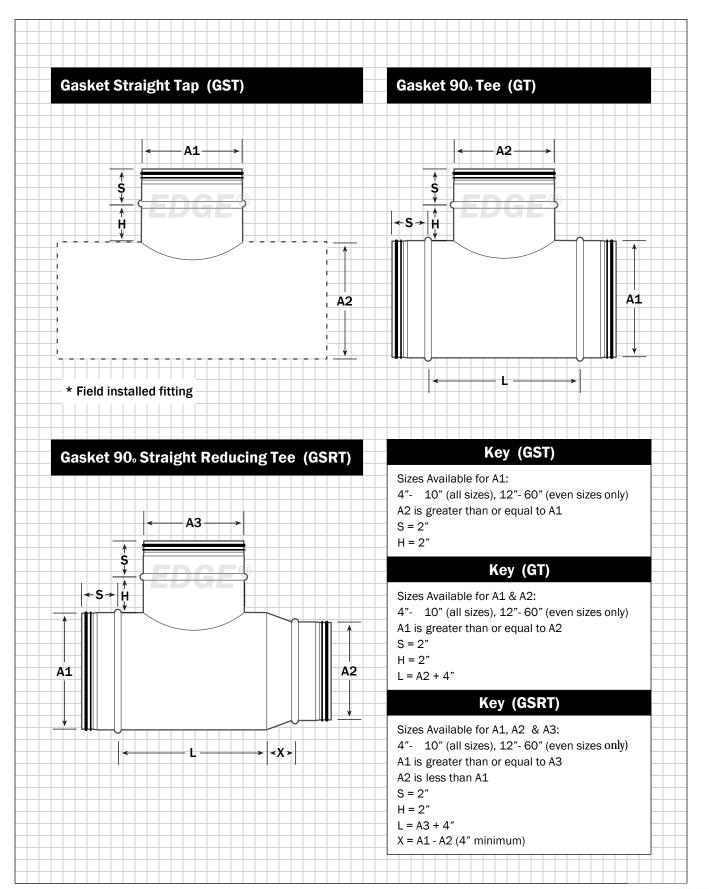


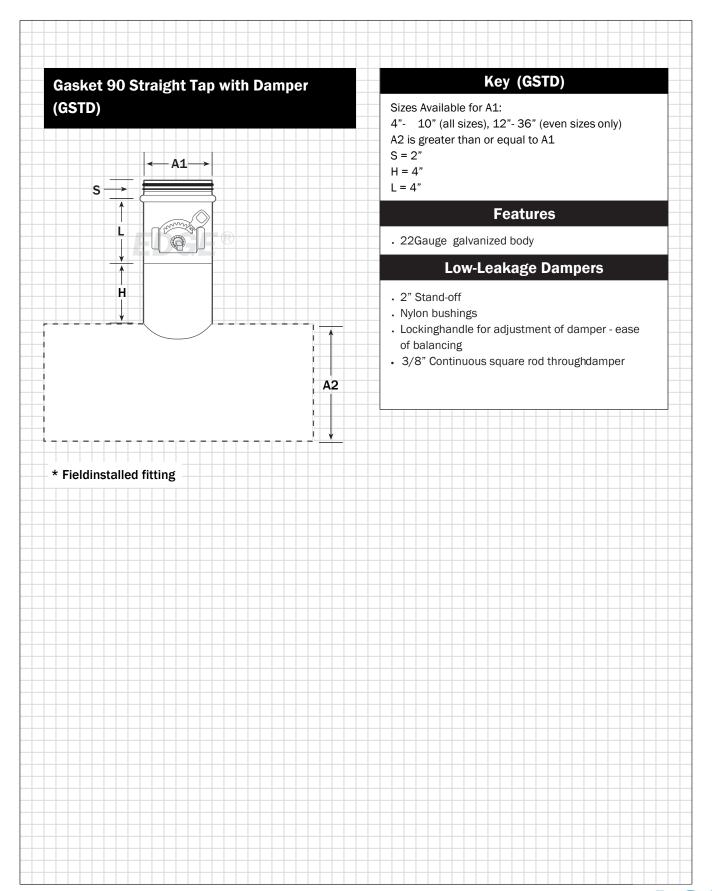


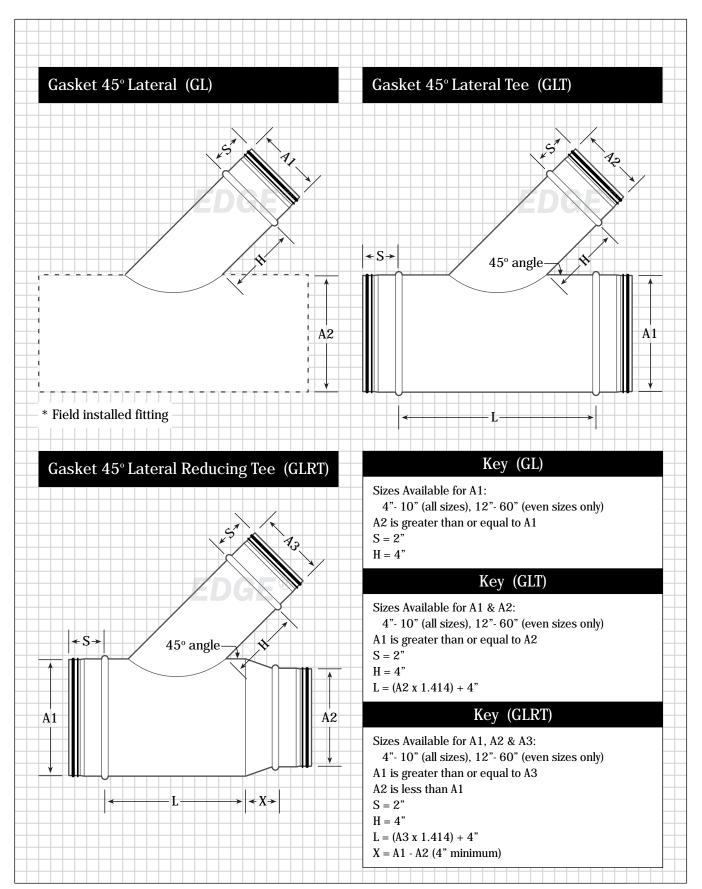


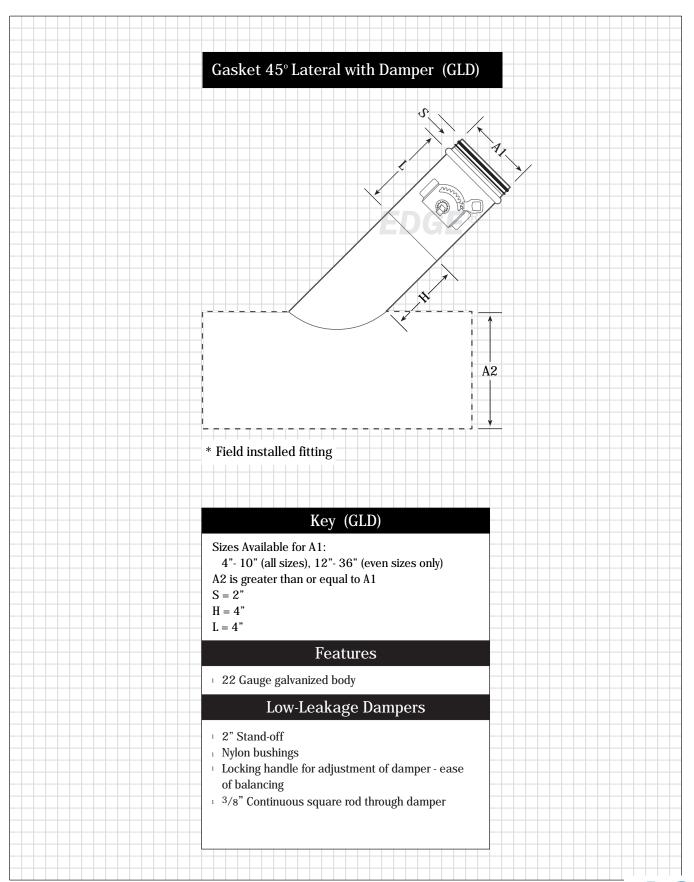


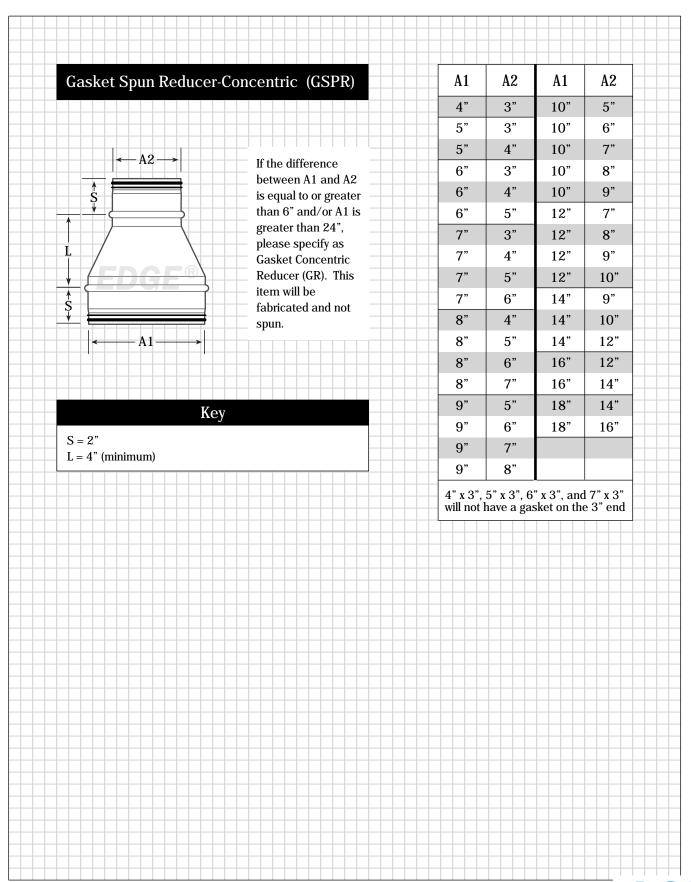


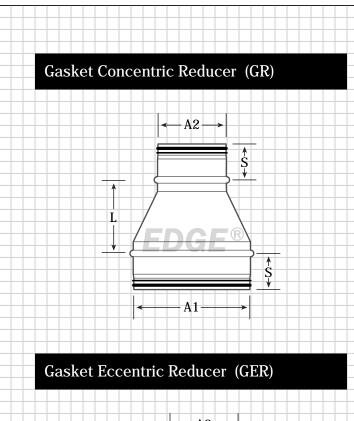












#### Key (GR)

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)

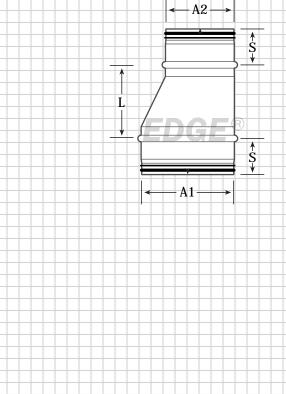
Sizes Available for A1 & A2:

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

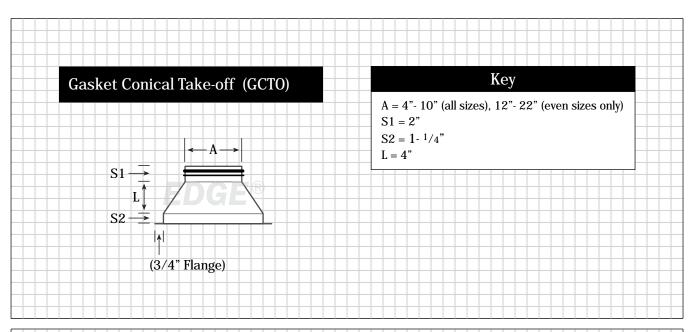
S = 2"

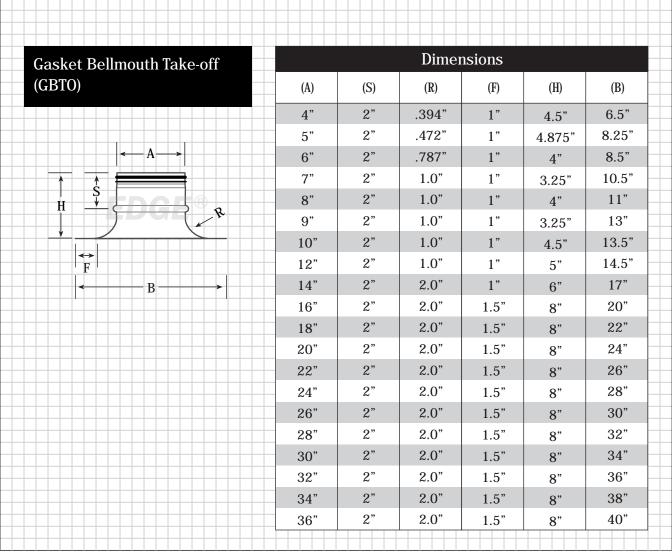
 $L = (A1 - A2) \times 2 + 2$ "

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

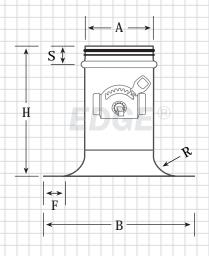








# Gasket Bellmouth Take-off with Damper (GBTOD)



#### **Features**

22 Gauge galvanized body

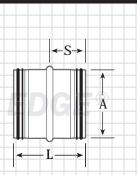
#### **Low-Leakage Dampers**

- <sup>1</sup> 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"   |



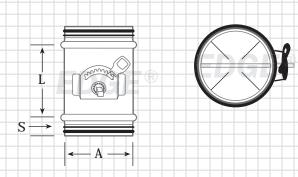
# Gasket Pipe Coupling (GPC)



#### 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"

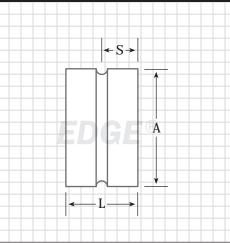
#### **Features**

22 Gauge galvanized body

#### **Low-Leakage Dampers**

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

#### Fitting Coupling (FC)

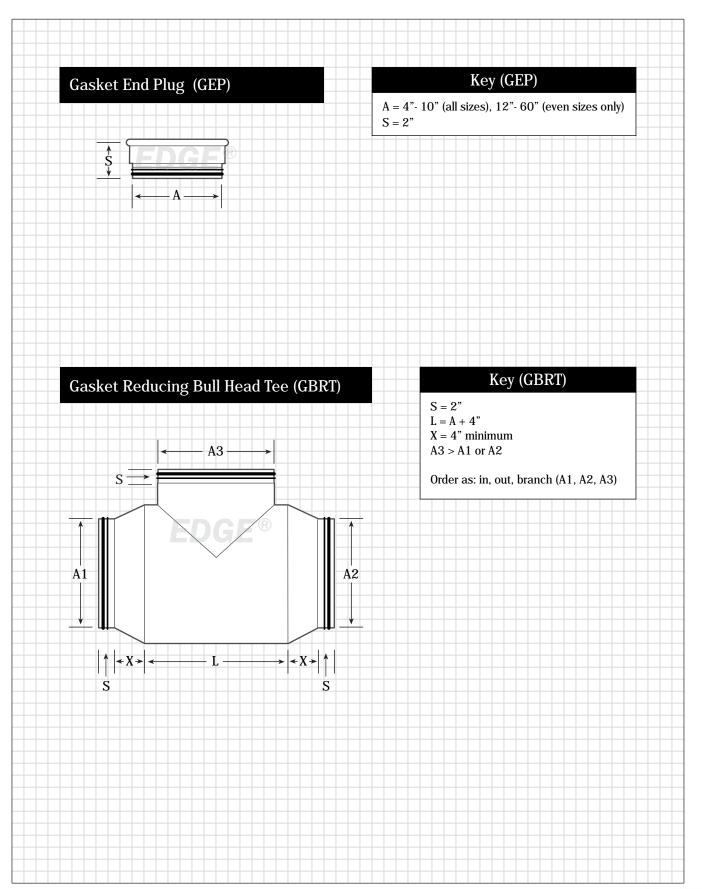


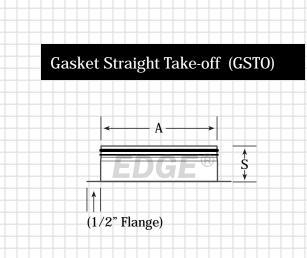
#### Key (FC)

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

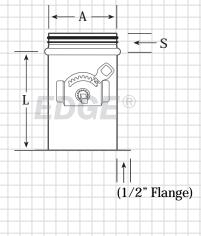
L = 4"

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





# Gasket Straight Take-off with Damper (GSTOD)



#### Key (GSTO)

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

#### Key (GSTOD)

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

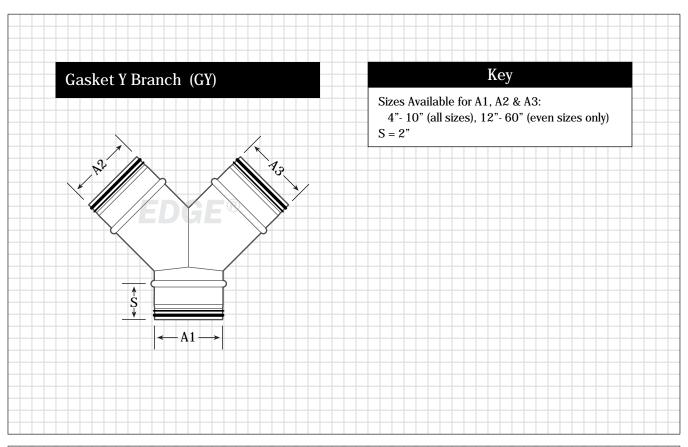
#### L = 8"

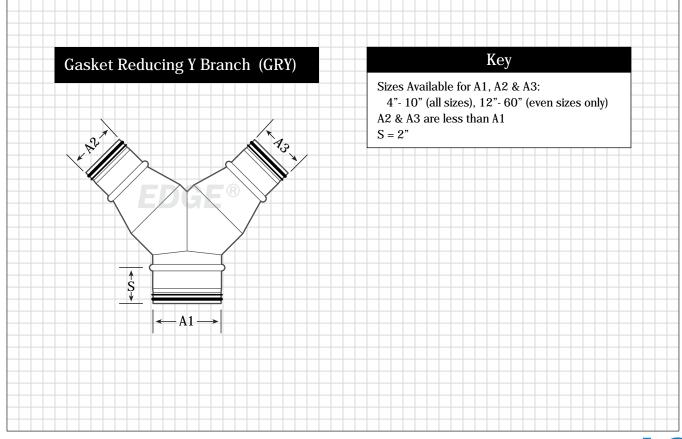
#### **Features**

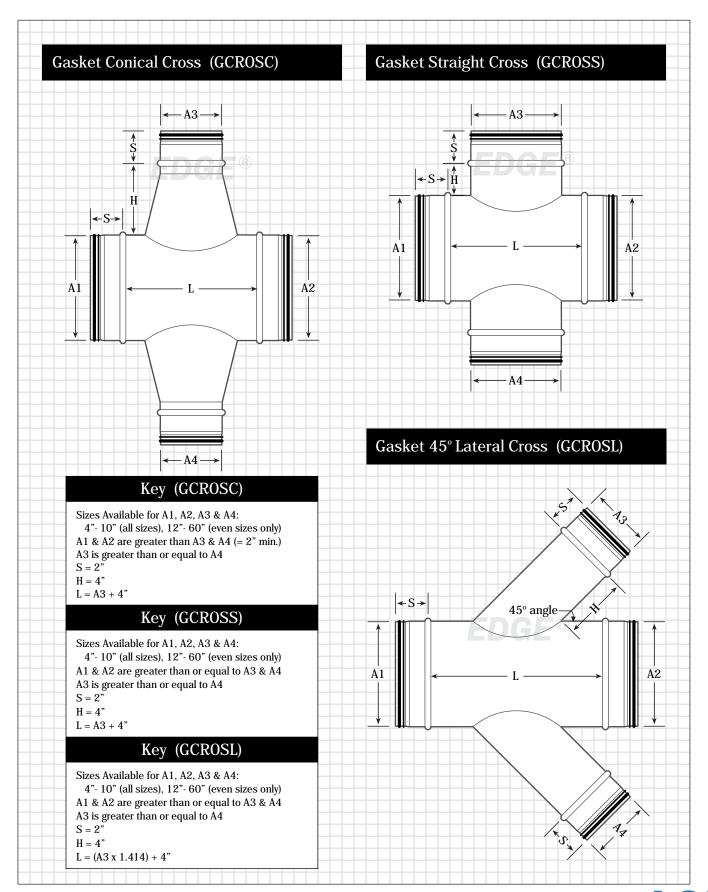
- 1 22 Gauge galvanized body
- Peel & Stick gasket included

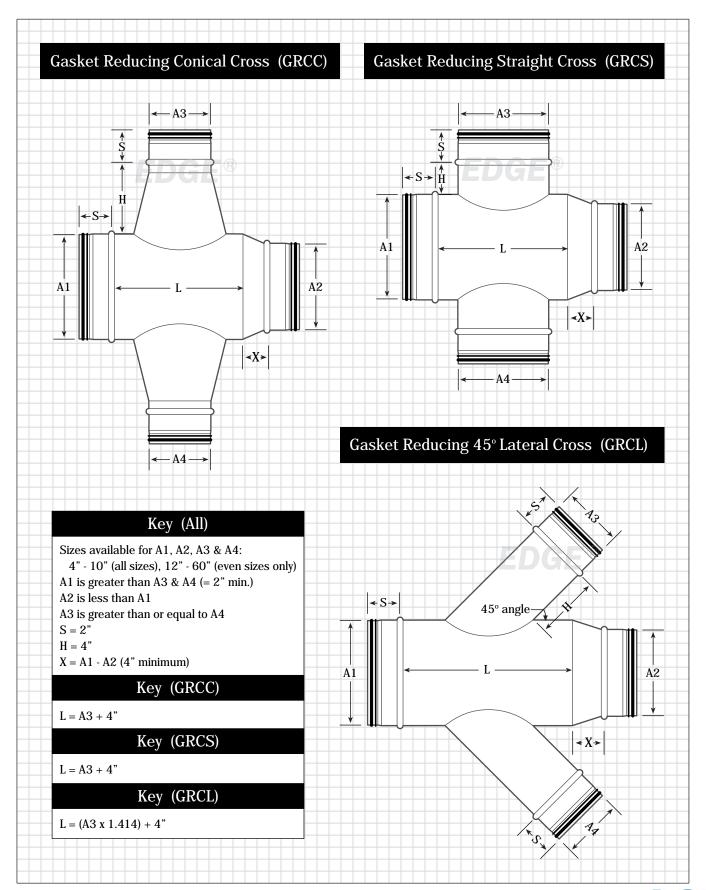
#### Low-Leakage Dampers

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





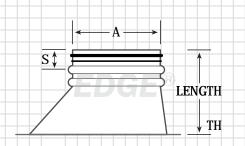




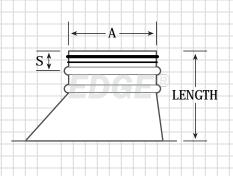
### LoPro High Efficiency Take-off

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.

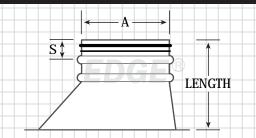
#### (GLPHET) No Damper



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

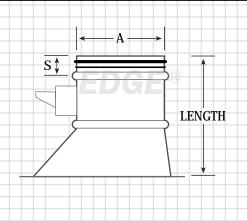


# (GLPHETD) Standard Damper 5/8" Hardware



| 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"         |  |  |

