


## ACS

## The EDGE ${ }^{\text {- }}$ - Features, Benefits \& Materials

The EDGE ${ }^{\circledR}$ 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 $-20^{\circ} \mathrm{F}$ to $212^{\circ} \mathrm{F}$.
। 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 $180^{\circ}$ 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 ${ }^{\circledR}$ 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 ${ }^{\circledR}$ System has been tested in accordance to SMACNA's Air Duct Leakage Test Manual and meets SMACNA Class 3 leakage standards.

## BENEFITS

। Stronger fitting
, Eliminates sharp edge
। Consistent diameter
। Factory installed resulting in a cost savings
। The EDGE ${ }^{\circledR}$ gasket is treated with anti-friction coating for easy installation.

## The EDGE ${ }^{\circledR}$ - 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 ${ }^{\circledR}$ listed below:


## CONSTRUCTION (GAUGE):

- All duct and fittings are made per SMACNA's Duct Construction Standards (+10" W.G.).
1 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 |
| :---: | :---: | :---: |
| $4 "-24 "$ | $26 \mathrm{ga}$. | $24 \mathrm{ga}$. |
| $26^{\prime \prime}-36^{\prime \prime}$ | 24 ga. | 22 ga. |
| $38^{\prime \prime}-60^{\prime \prime}$ | $22 \mathrm{ga}$. | Please Specify |


| Stamped Fittings ${ }^{\text {® }}$ | 4" | 5" | $6 "$ | 7" | 8" | 9" | 10" | 12" | 14" - 36 " |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| GDSE | 24 ga. | 22 ga . | 22 ga . | 22 ga. | 22 ga. | 22 ga. | 22 ga. | 22 ga. | N/A |
| GDSE1 | 24 ga . | 24 ga . | 24 ga . | 24 ga . | 24 ga . | 24 ga . | 24 ga . | 22 ga . | N/A |
| GDST | 24 ga . | 24 ga . | 24 ga . | 24 ga . | 24 ga . | 24 ga . | 24 ga . | 24 ga . | N/A |
| GBTO - stamped | 24 ga . | 24 ga . | 24 ga . | 24 ga . | 24 ga . | 24 ga . | 24 ga . | 24 ga . | N/A |
| GBTO - spun | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | 20 ga . |
| GSPR - spun | 20 ga. | $20 \mathrm{ga}$. | 20 ga . | $20 \mathrm{ga}$. | 20 ga. | $20 \mathrm{ga}$. | 20 ga. | $20 \mathrm{ga}$. | 20 ga. |

## CONSTRUCTION (PIPE):

Spiral pipe

- Calibration of spiral is required by The EDGE ${ }^{\circledR}$ System manufacturer, Stamped Fittings Inc.


## CONSTRUCTION (FITTINGS):

All EDGE ${ }^{\circledR}$ fittings, $4^{\prime \prime}-60^{\prime \prime}$, will have a factory installed gasket that is attached to the fitting with a $180^{\circ}$ hemmed edge for strength, rigidity and maintaining proper tolerances.

## CONSTRUCTION (GASKET):

। The EDGE ${ }^{\circledR}$ 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 $-20^{\circ} \mathrm{F}$ to $212^{\circ} \mathrm{F}$.
। The smoke and flame spread is in accordance to ASTM E-84-91A.

## PRESSURE CLASS:

। The EDGE ${ }^{\circledR}$ 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 ${ }^{\circledR}$ - Installation Instructions

The EDGE ${ }^{\circledR}$ 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 $1 / 2^{\prime \prime}$ from the bead in order to avoid damaging The EDGE ${ }^{\circledR}$ 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.

## ASSEMBLY:



Patent Pending US 2006-0006610A1

The EDGE ${ }^{\ominus}$ - Products




The EDGE ${ }^{\circledR}$ - Products



Air Cleaning Specialists, Inc

## Gasket $90^{\circ}$ Die Stamped Saddle Tap (GDST)



* Field installed fitting

Gasket $90^{\circ}$ Reducing Tee with Die Stamped Saddle Tap (GDSTRT)


Gasket $90^{\circ}$ Tee with Die Stamped Saddle Tap (GTDST)


| ```A1 = 4", 5", 6", 8", 10", 12" A2 = Up to 24" (A2 is greater than or equal to A1) S =2" H=3/4" (where A1 = 6" or less), 1" (where A1 = 8" or more)``` |
| :---: |
|  |  |
|  |
| $\begin{aligned} & \text { A1 }=\text { Up to } 24^{\prime \prime} \text { (A1 is greater than or equal to A2) } \\ & \text { A2 }=4^{\prime \prime}, 5^{\prime \prime}, 6^{\prime \prime}, 8^{\prime \prime}, 10^{\prime \prime}, 12^{\prime \prime} \\ & S=2^{\prime \prime} \\ & H=3 / 4^{\prime \prime} \text { (where A1 }=6^{\prime \prime} \text { or less), } \\ & \left.\quad 1^{\prime \prime} \text { (where A1 = } 8^{\prime \prime} \text { or more }\right) \\ & L=A 2+4^{\prime \prime} \end{aligned}$ |
| Key (GDSTRT) |
| $\begin{aligned} & A 1=U p \text { to } 24^{\prime \prime}(A 1 \text { is greater than or equal to } A 3) \\ & A 2=U p \text { to } 24^{\prime \prime}(A 2 \text { is less than A1) } \\ & A 3=4^{\prime \prime}, 5^{\prime \prime}, 6^{\prime \prime}, 8^{\prime \prime}, 10^{\prime \prime}, 12^{\prime \prime} \\ & S=2^{\prime \prime} \\ &\left.H=3 / 4^{\prime \prime} \text { (where } A 3=6^{\prime \prime} \text { or less }\right), \\ &\left.1^{\prime \prime} \text { (where A3 }=8^{\prime \prime} \text { or more }\right) \\ & L=A 3+4^{\prime \prime} \\ & X=A 1-A 2\left(4^{\prime \prime} \text { minimum }\right) \end{aligned}$ |
|  |

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## The EDGE ${ }^{\circledR}$ - Product Specifications




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## The EDGE ${ }^{\text {® }}$ - Product Specifications



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Gasket Straight Take-off (GSTO)


## Gasket Straight Take-off with

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

| Key (GSTOD) |
| :---: |
| $\begin{aligned} & A=4^{\prime \prime}-10^{\prime \prime} \text { (all sizes), } 12 \text { "and } 14^{\prime \prime} \\ & S=2^{\prime \prime} \\ & L=8^{\prime \prime} \end{aligned}$ |
| Features |
| 22 Gauge galvanized body Peel \& Stick gasket included |
| Low-Leakage Dampers |
| 2" Stand-off <br> Nylon bushings <br> Locking handle for adjustment of damper - <br> ease of balancing <br> $3 / 8^{\prime \prime}$ Continuous square rod through damper |

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Gasket Y Branch (GY)



## Gasket Reducing Y Branch (GRY)



Key
Sizes Available for A1, A2 \& A3:
$4 "-10 "$ (all sizes), $12 "-60$ " (even sizes only) A2 \& A3 are less than A1 S = ${ }^{\prime \prime}$

## Gasket Conical Cross (GCROSC)



## Key (GCROSC)

Sizes Available for A1, A2, A3 \& A4:
$4^{\prime \prime}-10 "$ (all sizes), 12 "- 60 " (even sizes only) A1 \& A2 are greater than A3 \& A4 ( $=2^{\prime \prime}$ min.) A3 is greater than or equal to A4
S = 2 "
H $=4^{\prime \prime}$
L = A3 + 4"

## Key (GCROSS)

Sizes Available for A1, A2, A3 \& A4:
4"-10" (all sizes), 12 "- 60 " (even sizes only) A1 \& A2 are greater than or equal to A3 \& A4 A3 is greater than or equal to A4
$\mathrm{S}=2^{\prime \prime}$
H $=4$ "
$\mathrm{L}=\mathrm{A} 3+4^{\prime \prime}$

## Key (GCROSL)

Sizes Available for A1, A2, A3 \& A4:
4"-10" (all sizes), $12{ }^{\prime \prime}$ - 60 " (even sizes only) A1 \& A2 are greater than or equal to A3 \& A4 A3 is greater than or equal to A4
$\mathrm{S}=2^{\prime \prime}$
H $=4$ "
$\mathrm{L}=(\mathrm{A} 3 \times 1.414)+4^{\prime \prime}$

Gasket Straight Cross (GCROSS)


Gasket $45^{\circ}$ Lateral Cross (GCROSL)


The EDGE ${ }^{\circledR}$ - Product Specifications


Gasket Reducing Straight Cross (GRCS)

Gasket Reducing $45^{\circ}$ Lateral Cross (GRCL)

## Key (All)

Sizes available for A1, A2, A3 \& A4:
4" - 10" (all sizes), 12" - 60" (even sizes only) $A 1$ is greater than $A 3 \& A 4(=2 " \mathrm{~min}$.)
A2 is less than A1
A3 is greater than or equal to A4
S = 2"
H $=4$ "
$\mathrm{X}=\mathrm{A} 1-\mathrm{A} 2$ (4" minimum)
Key (GRCC)

## $\mathrm{L}=\mathrm{A} 3+4 \prime$

Key (GRCS)
$\mathrm{L}=\mathrm{A} 3+4 "$

## Key (GRCL)

$\mathrm{L}=(\mathrm{A} 3 \times 1.414)+4^{\prime \prime}$


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Key (GBTP)
A1 $=4 "-10^{\prime \prime}$ (all sizes), $12^{\prime \prime}-60$ " (even sizes only)
A 2 is greater than or equal to A 1
S = 2"
$H=2 "$
Options
Available with damper installed

* Field installed fitting

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