Stainless Steel Corrosive Fume Exhaust Systems With PermaShield Fluoropolymer Barrier Coating

PRODUCT CATALOG
Catalog 10/12.8
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### EZ FITTINGS
- EZ Straight Duct, Tee and Reducing Tee
- EZ Double Tee, Lateral, 90° Elbow
- EZ 45° Elbow, 30° Elbow, Eccentric Reducer
- EZ Concentric Reducer, Angle Ring to EZ Reducer, End Cap
- Micro-Adjustable EZ Damper
- Field Installed Straight Duct EZ Flange
- EZ Blastgate

### FAB-TECH FLANGE SYSTEM
- Fab-Tech Flange
- KF Flange Adapter
- NPT Male Nipple Adapter
- NPT Female Coupler Adapter
- SWAGELOK® Adapter
- Dwyer Pitot Adapter
- Sprinkler Adapter
- Field Installed 2" Fab-Tech Flange
- Field Installed Fab-Tech Flange Saddle Tap

### RECTANGULAR DUCT
- Mounting Flange Standards
- Straight Duct
- Straight Duct with Straight Rectangular Tap
- Straight Duct with Rectangular Boot Tap
- Straight Duct with Rectangular Conical Tap
- Straight Duct with Rectangular Lateral Tap
- Straight Duct with Round Tap
- Straight Duct with Multiple Taps
- 90°, 60°, 45°, 30° or Custom Elbow
- Concentric Transition
- Concentric Rectangular to Round Transition
- Vertical Offset
- Horizontal Offset
- Double Offset
- End Cap

### RECTANGULAR CONTROL DEVICES
- Industrial Parallel Blade Control Damper
- Industrial Opposed Blade Control Damper
- Industrial Backdraft Damper
- Heavy Duty Parallel Blade Control Damper
- Heavy Duty Opposed Blade Control Damper
- Horizontal Blastgate
- Vertical Blastgate
The Fab-Tech Ductwork Fabrication Standard Manual is designed to aid you, our customer, in becoming acquainted with our fabrication practices. The manual is in strict accordance with the practices in the latest S.M.A.C.N.A. manuals.

**GENERAL**

**Codes and Standards**

a. **Ducts** shall be listed for use without the necessity for internal fire protection sprinklers or any devices relied on to cut off air flow in the event of fire by the following:

   **Factory Mutual Research Standard 4922**

   **Limitations and Requirements:**

   1. All ducts shall be interiorly furnished with a fluoropolymer thermoplastic resin. The total interior coating thickness shall not exceed 16 mils (0.30 mm). Complete and uniform coating coverage is required.

   2. This duct may be used for smoke removal in special purpose areas when properly designed and sized. Sprinklers are not required.

   3. The product shall be manufactured with identical resins as tested, and according to the formulation on file with FMRC, and shall meet all physical requirements of S.M.A.C.N.A. manual for Industrial Duct Construction Standards.

   4. Vertical height of individual risers within the duct system are not restricted, however, they shall not penetrate other fire areas.

   5. The manufacturer shall determine the suitability of the duct systems for specific corrosive environments.

   6. If the process served by such duct system produces flammable residue or a combustible fume source exceeding 1ft² (0.09 m²) in area per inlet which can build up inside the duct, then internal sprinklers will be required.


b. **Fab-Tech’s FM Global Approval** ( 4922 ) extends the widest possible limits from 4" diameter ( 100mm ) up to and including 60" diameter ( 1525mm ) duct and fittings.

d. **Testing** shall be performed at the factory over the entire coated surface inside and out (where applicable) and edges. The testing shall be performed with a DC spark tester used at 2500 volts.

e. **Delivery, Storage, and Handling:**

   1. **Protection:** Protection is factory applied to ends of ductwork to prevent end damage and prevent dirt and moisture from entering ducts and fittings.

   2. **Delivery:** Consignee must inspect shipment upon delivery and note any and all damages and discrepancies on Bill of Lading and notify manufacturer within 24 hours.

   3. **Storage:** Coated ductwork should not be stored in an area where it will have a chance to be damaged from traffic or debris. All coated ductwork should be stored on cardboard, Styrofoam or similar materials. Where possible, store inside and protect from dirt and debris. Where necessary to store outside, store above ground and enclose with water proof wrapping to protect from dirt and debris.

   4. **Handling:** If coating is scratched use appropriate protocol to “spark test” (refer to Installation and Assembly Guide, Field Modification section) and if spark is detected, contact manufacturer for repair instruction.

   5. **Welding:** Under no circumstances shall welding or a heat source greater than 300°F (150°C) be allowed on the stainless steel surface of the duct.

e. **Duct Assembly** shall be accomplished utilizing either companion rings or Fab-Tech’s PSP-EZ™ clamp:

   1. Companion rings are available as angle rings in sizes 4” thru 120” diameter or as cast rings in sizes 4” thru 14” diameter. The minimum number of holes for flange connections is one hole for each 4” of duct circumference to the next higher number.

   2. PSP-EZ™ clamps are available in sizes 2” thru 14”. The PSP-EZ™ band ring style of joining system shall provide a minimum compression load to the gasket of 900 PSI.

f. **Gasket Technology:**

   1. Ring gasket material shall be PermaShield form in place, fully expanded 100% PTFE joint sealant.

   2. PSP-EZ™ clamp gasket material shall be PermaShield form in place, fully expanded 100% PTFE tape or die cut gasket (2”-3” diameter).

   3. PSP-EZ™ clamp gasket material shall be PermaShield form in place, fully expanded 100% PTFE tape or die cut gasket (2”-3” diameter).

**DUCTWORK**

a. **Base Metal** shall be a series 300 Stainless Steel. Longitudinal seams shall be fusion welded. Traverse seams shall be continuous weld. All seams shall be smooth on the interior of duct.

b. **Coating** shall be PermaShield Fluoropolymer Barrier Coating and shall be applied per Factory Mutual Research Corporation’s limitations and requirements.

c. **Black Iron Rings** shall be coated with PermaProtect, Black Iron Ring Powder®. This heat and chip resistant coating is electro statically applied and sintered to the substrate.
**STANDARDS**

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</tbody>
</table>

10GA OR 12 GA WITH STIFFENER

**MIN GAUGE FOR 4' DUCT**

**MIN GAUGE FOR 8' DUCT**

**STANDARDS**

Fab-Tech, Inc. / 480 Hercules Drive, Colchester, VT 05446 / Tel: 802-655-8800 / Fax: 802-655-8804 / www.fabtechinc.com
Duct and fittings greater than 84" diameter requires engineering review and approval. Custom angle rings available on request. See Installation and Assembly Guide for metric duct size conversions.

**PTFE GASKETS**

- 4"-30"Ø: .01 X .75 TAPE
  - P/N: GAS09
- 32"-120"Ø: 1/4" X 3/16" ROPE
  - P/N: GAS03

**Notes:**
- Duct 4" to 14" manufactured with cast rings as standard. Duct 16" to 120" manufactured with angle rings as standard.
- Standard mounting hole locations for welded angle rings (32" to 120") straddle the vertical centerline unless otherwise specified.
- Standard hardware provided for angle ring applications are plated GRADE 5 fasteners. Stainless steel hardware is not recommended.

**Torque Bolt Markings:**

Torque in at least 3 stages

<table>
<thead>
<tr>
<th>Duct Dia</th>
<th>Bolt Size</th>
<th>Ft lb</th>
<th>In lb</th>
<th>M kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>4&quot;-10&quot;</td>
<td>3/8&quot;</td>
<td>36</td>
<td>432</td>
<td>5.0</td>
</tr>
<tr>
<td>12&quot;-120&quot;</td>
<td>1/2&quot;</td>
<td>75</td>
<td>900</td>
<td>10.4</td>
</tr>
</tbody>
</table>

- Duct and fittings greater than 84" diameter requires engineering review and approval.
- Custom angle rings available on request.
- See Installation and Assembly Guide for metric duct size conversions.
STANDARDS

Ring Mechanical Specifications

Cast Ring
STANDARD FOR DUCT 4" TO 14"

Angle Ring
BLACK IRON ANGLE RING 4" TO 100"
STAINLESS STEEL ANGLE RING 16" TO 120"

Floating Cast Ring

Floating Angle Ring

Stitch Welded Angle Ring

Welded Angle Ring

REV: 12/01/17 CAT007EA

Fab-Tech, Inc. / 480 Hercules Drive, Colchester, VT 05446 / Tel: 802-655-8800 / Fax: 802-655-8804 / www.fabtechinc.com
PSP-EZ™ Clamp Mechanical Specifications

The PSP-EZ™ joining system is available for standard PSP® duct from 2" to 14" in diameter. The combination of half round backing rings and the unique angled clamp band provides excellent clamping force with the added benefit of ease of installation.

| Duct Diameter | Bolt Size | Torque Specifications:
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4&quot;,6&quot;</td>
<td>1/4&quot;</td>
<td>Torque in at least 3</td>
</tr>
<tr>
<td>8&quot;,10&quot;,12&quot;,14&quot;</td>
<td>5/16&quot;</td>
<td>stages</td>
</tr>
</tbody>
</table>

| 4",6"         | 1/4"      | 6.25 lb*ft        |
| 8",10",12",14"| 5/16"     | 10 lb*ft          |

The cross-sectional view of the joint shows the clamp and backing ring for different diameter ducts. The torque specifications for the clamps are provided at three stages: 6.25 lb*ft for 4", 1/4" bolt size, 10 lb*ft for 8", 5/16" bolt size.
DUCT & FITTINGS

Product Guide

4" to 120" DUCT

STRAIGHT DUCT
SIZE: 4"-120"
PAGE: 10

STRAIGHT DUCT WITH STRAIGHT TAP
SIZE: 6"-120"
PAGE: 12

STRAIGHT DUCT WITH LATERAL TAP
SIZE: 6"-120"
PAGE: 15

CONCENTRIC REDUCER
SIZE: 6"-120"
PAGE: 18

END CAP
SIZE: 4"-120"
PAGE: 20

STRAIGHT DUCT WITH CONICAL TAP
SIZE: 6"-120"
PAGE: 13

STRAIGHT DUCT WITH MULTIPLE TAPS
SIZE: 4"-120"
PAGE: 16

OFFSET
SIZE: 4"-120"
PAGE: 17

STRAIGHT DUCT WITH SHOE TAP
SIZE: 6"-120"
PAGE: 14

GORED ELBOW
30°, 45°, 60°, 90°
SIZE: 4"-120"
PAGE: 14

STRAIGHT DUCT WITH MULTIPLE TAPS
SIZE: 4"-120"
PAGE: 16

STRAIGHT DUCT WITH LATERAL TAP
SIZE: 4"-120"
PAGE: 15

CONCENTRIC REDUCER
SIZE: 4"-120"
PAGE: 18

END CAP
SIZE: 4"-120"
PAGE: 20

4" to 14" PSP-EZ™ CLAMP

STRAIGHT DUCT
SIZE: 4" TO 14"
PAGE: 10

STRAIGHT DUCT WITH STRAIGHT TAP
SIZE: 4" TO 14"
PAGE: 12

STRAIGHT DUCT WITH LATERAL TAP
SIZE: 4" TO 14"
PAGE: 15

CONCENTRIC REDUCER
SIZE: 4" TO 14"
PAGE: 18

END CAP
SIZE: 4" TO 14"
PAGE: 20

STRAIGHT DUCT WITH CONICAL TAP
SIZE: 6" TO 14"
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STRAIGHT DUCT WITH MULTIPLE TAPS
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PAGE: 16

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PAGE: 14

GORED ELBOWS
30°, 45°, 60°, 90°
SIZE: 4" TO 14"
PAGE: 14

STRAIGHT DUCT WITH MULTIPLE TAPS
SIZE: 4" TO 14"
PAGE: 16

OFFSET
SIZE: 4" TO 14"
PAGE: 17
OPTIONS:
- Custom lengths available.
- Duct greater than 84" diameter requires Engineering review and approval.
- Refer to FAB-TECH FLANGE SYSTEM section for adapters, drains and test ports.
- See Duct Gauge chart in STANDARDS section for other duct pressures.
- Raw end available.

NOTES:
- All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.
- See INSTALLATION AND ASSEMBLY GUIDE for shortening 4" thru 22" duct in the field.

LONGER THAN STANDARD LENGTHS AND/OR HIGHER SYSTEM PRESSURES MAY REQUIRE ADDITIONAL STIFFENERS PER SMACNA, CONTACT FAB-TECH FOR SPECIFIC GUIDELINES.

STANDARD DUCT LENGTHS ("L1")

<table>
<thead>
<tr>
<th>JOINT SYSTEM</th>
<th>DIAMETER</th>
<th>&quot;L1&quot; (4')</th>
<th>&quot;L1&quot; (8')</th>
</tr>
</thead>
<tbody>
<tr>
<td>EZ CLAMP / CAST RING</td>
<td>4&quot; &amp; 6&quot;</td>
<td>47.25&quot;</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>8&quot; TO 14&quot;</td>
<td>47.25&quot;</td>
<td>95.25&quot;</td>
</tr>
<tr>
<td>BLACK IRON ANGLE RING</td>
<td>4&quot; &amp; 6&quot;</td>
<td>47.25&quot;</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>8&quot; TO 48&quot;</td>
<td>47.25&quot;</td>
<td>95.25&quot;</td>
</tr>
<tr>
<td></td>
<td>50&quot; TO 100&quot;</td>
<td>46.75&quot;</td>
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<td></td>
<td>102&quot; TO 120&quot;</td>
<td>48.75&quot;</td>
<td>96.25&quot;</td>
</tr>
</tbody>
</table>
### Our Recommendation

Our recommendation is to add taps to standard 4' and 8' straight duct when possible. Tap dimensions shown are mins.

---

### See Fab-Tech Flange System Section

See Fab-Tech Flange system section for adapters and the EZ fittings section for duct to use with the Fab-Tech Flange. Fab-Tech Flange / Test Port may be installed on fittings other than straight duct (use custom order sheet).

---

### View of "D1" Duct End

- **T.O.D.**
  - 90°
  - 180°
  - 270°

- Specify port/drain location angle from 0°

---

### Parts Table

<table>
<thead>
<tr>
<th>PART NO.</th>
<th>DESCRIPTION</th>
<th>&quot;D&quot;</th>
<th>&quot;L&quot;</th>
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</thead>
<tbody>
<tr>
<td>FTFL2</td>
<td>2&quot; FT FLANGE</td>
<td>2&quot;</td>
<td>.75&quot;</td>
</tr>
<tr>
<td>FTFL3</td>
<td>3&quot; FT FLANGE</td>
<td>3&quot;</td>
<td>.75&quot;</td>
</tr>
</tbody>
</table>
Straight Duct with Straight Tap

NOTE
► All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

OPTIONS
► Custom lengths available.
► Raw end available.
► Multiple and offset taps available (see the multiple tap page).
► Duct greater than 84" diameter requires Fab-Tech Engineering review and approval.

WITH JOINT SYSTEM

<table>
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<td>96.25&quot;</td>
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</table>

STRAIGHT TAP
"L1" MIN = "D3" + 8"
"L1" MAX = 96-1/4"
"D3" MAX = 88"

STRAIGHT TAP GREATER THAN 88" [ "D3" ]
REQUIRES 2 PIECE DESIGN AND ENGINEERING REVIEW

* MIN DISTANCE TO DUCT END
"D1" = 4" - 94": 4" MIN
"D1" = 96" - 120": 5" MIN

OR A COMBINATION OF JOINING SYSTEMS

JOINING SYSTEMS

- EZ CLAMP 4" - 14"
- SS CAST RING 4" - 14"
- BI ANGLE RING 4" - 100"
- SS ANGLE RING 16" - 120"

NOTES
- All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.
- Custom lengths available.
- Raw end available.
- Multiple and offset taps available (see the multiple tap page).
- Duct greater than 84" diameter requires Fab-Tech Engineering review and approval.

STANDARD DUCT LENGTHS ( "L1" )

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NOTES
- All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.
- Custom lengths available.
- Raw end available.
- Multiple and offset taps available (see the multiple tap page).
- Duct greater than 84" diameter requires Fab-Tech Engineering review and approval.

STANDARD DUCT LENGTHS ( "L1" )
**NOTE**
- All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

**OPTIONS**
- Custom lengths available.
- Raw end available.
- Multiple and offset taps available (see the multiple tap page).
- Duct greater than 84" diameter requires Fab-Tech Engineering review and approval.

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</tbody>
</table>

**OR A COMBINATION OF JOINING SYSTEMS**

**CONICAL TAP**

- "L1" MIN = "D3" + 10"
- "L1" MAX = 96-1/4"
- "D3" MAX = 86"

Conical tap greater than 86" ["D3"] requires 2 piece design and engineering review.

---

**STANDARD DUCT LENGTHS ("L1")**

- **EZ CLAMP / CAST RING**
  - 4" & 6": 47.25" (4'), 95.25" (8')
  - 8" TO 14": 47.25" (4'), 95.25" (8')

- **BLACK IRON ANGLE RING**
  - 4" & 6": 47.25" (4'), 95.25" (8')
  - 8" TO 48": 47.25" (4'), 95.25" (8')
  - 50" TO 100": 46.75" (4'), 94.75" (8')

- **STAINLESS ANGLE RING**
  - 16" TO 48": 47.25" (4'), 95.25" (8')
  - 50" TO 100": 46.75" (4'), 94.75" (8')
  - 102" TO 120": 48.25" (4'), 96.25" (8')

**REFERENCES**

- Custom lengths available.
- Raw end available.
- Multiple and offset taps available (see the multiple tap page).
- Duct greater than 84" diameter requires Fab-Tech Engineering review and approval.

**NOTES**

- All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

**OPTIONS**

- Custom lengths available.
- Raw end available.
- Multiple and offset taps available (see the multiple tap page).
- Duct greater than 84" diameter requires Fab-Tech Engineering review and approval.

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- Multiple and offset taps available (see the multiple tap page).
- Duct greater than 84" diameter requires Fab-Tech Engineering review and approval.
**NOTE**
- All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

**OPTIONS**
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<td>102&quot; TO 120&quot;</td>
<td>48.25&quot;</td>
<td>96.25&quot;</td>
</tr>
</tbody>
</table>

### SHOE TAP
- "L1" MIN = "D3" + 6" (SHOE LENGTH) + 8"  
- "L1" MAX = 96-1/4"  
- "D3" MAX = 86"

SHOE TAP GREATER THAN MAX "D3" REQUIRES 2 PIECE DESIGN AND ENGINEERING REVIEW
NOTE
► All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

OPTIONS
► Custom lengths available.
► Raw end available.
► Multiple and offset taps available (see the multiple tap page).
► Duct greater than 84” diameter requires Fab-Tech Engineering review and approval.

WITH JOINT SYSTEM

| EZ CLAMP | 4” - 14” |
| SS CAST RING | 4” - 14” |
| BI ANGLE RING | 4” - 100” |
| SS ANGLE RING | 16” - 120” |

OR A COMBINATION OF JOINING SYSTEMS

OUR RECOMMENDATION IS TO ADD TAPS TO STANDARD 4’ AND 8 STRAIGHT DUCT WHEN POSSIBLE - TAP DIMENSIONS SHOWN ARE MINS LONGER THAN STANDARD LENGTHS AND/OR HIGHER SYSTEM PRESSURES MAY REQUIRE ADDITIONAL STIFFENERS PER SMACNA, CONTACT FAB-TECH FOR SPECIFIC GUIDELINES.

**L2 MIN DISTANCE**

| D1 | 4” - 94” | 4” MIN | D1 = 96” - 120” | 5” MIN |

*MIN LENGTH FOR “L3” AND “L4”*

<table>
<thead>
<tr>
<th>D1</th>
<th>L3</th>
<th>L4</th>
</tr>
</thead>
<tbody>
<tr>
<td>4” - 48”</td>
<td>6” MIN</td>
<td>4” MIN</td>
</tr>
<tr>
<td>50” - 58”</td>
<td>7” MIN</td>
<td>4” MIN</td>
</tr>
<tr>
<td>60” - 94”</td>
<td>8” MIN</td>
<td>5” MIN</td>
</tr>
<tr>
<td>96” - 120”</td>
<td>10½” MIN</td>
<td>6” MIN</td>
</tr>
</tbody>
</table>

45° LATERAL TAP

"L1" MIN = ("D3" X 1.414) + 4” + "L4"

(SEE MIN LENGTH CHART ABOVE FOR "L4")

"L1" MAX = 96-1/4"

"D3" MAX = 60"

LATERAL TAP GREATER THAN 60” ["D3"] REQUIRES 2 PIECE DESIGN AND ENGINEERING REVIEW
NOTE
- All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

OPTIONS
- Custom lengths available.
- Raw end available.
- Duct greater than 84" diameter requires Fab-Tech Engineering review and approval.

OUR RECOMMENDATION IS TO ADD TAPS TO STANDARD 4' AND 8' STRAIGHT DUCT WHEN POSSIBLE - TAP DIMENSIONS SHOWN ARE MINS LONGER THAN STANDARD LENGTHS AND/OR HIGHER SYSTEM PRESSURES MAY REQUIRE ADDITIONAL STIFFENERS PER SMACNA. CONTACT FAB-TECH FOR SPECIFIC GUIDELINES.

* MIN DISTANCE TO DUCT END
- D1 = 4" - 94": 4" MIN
- D1 = 96" - 120": 5" MIN

WITH JOINT SYSTEM
- EZ CLAMP 4" - 14"
- SS CAST RING 4" - 14"
- BI ANGLE RING 4" - 100"
- SS ANGLE RING 16" - 120"

OR A COMBINATION OF JOINING SYSTEMS

STANDARD DUCT LENGTHS ("L1")

<table>
<thead>
<tr>
<th>JOINT SYSTEM</th>
<th>DIAMETER</th>
<th>L1 (4&quot;)</th>
<th>L1 (8&quot;)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EZ CLAMP / CAST RING</td>
<td>4&quot; &amp; 6&quot;</td>
<td>47.25&quot;</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>8&quot; TO 14&quot;</td>
<td>47.25&quot;</td>
<td>95.25&quot;</td>
</tr>
<tr>
<td>BLACK IRON ANGLE RING</td>
<td>4&quot; &amp; 6&quot;</td>
<td>47.25&quot;</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>8&quot; TO 48&quot;</td>
<td>47.25&quot;</td>
<td>95.25&quot;</td>
</tr>
<tr>
<td></td>
<td>50&quot; TO 94&quot;</td>
<td>46.75&quot;</td>
<td>94.75&quot;</td>
</tr>
<tr>
<td>STAINLESS ANGLE RING</td>
<td>16&quot; TO 48&quot;</td>
<td>47.25&quot;</td>
<td>95.25&quot;</td>
</tr>
<tr>
<td></td>
<td>50&quot; TO 100&quot;</td>
<td>46.75&quot;</td>
<td>94.75&quot;</td>
</tr>
<tr>
<td></td>
<td>102&quot; TO 120&quot;</td>
<td>48.25&quot;</td>
<td>96.25&quot;</td>
</tr>
</tbody>
</table>

* STANDARD MINIMUMS FOR 45° LATERAL AND 90° STRAIGHT TAPS:

- 4" - 48" DUCT
  - 2" X 2" RINGS
  - 6" MIN
  - 4" MIN

- 50" - 58" DUCT
  - 2-1/2" X 2-1/2" RINGS
  - 7" MIN
  - 4" MIN

- 60" - 94" DUCT
  - 3" X 3" RINGS
  - 8" MIN
  - 5" MIN

- 96" - 120" DUCT
  - 4" X 4" RINGS
  - 10½" MIN
  - 6" MIN

REV: 12/01/17 CAT016EA

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**NOTE**
- All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

**OPTIONS**
- Standard gores and radii are shown, custom number of gores, custom radii, and throat extensions are available.
- Duct greater than 84" diameter requires Fab-Tech Engineering review and approval.

**90° ELBOW**

**WITH JOINT SYSTEM**

<table>
<thead>
<tr>
<th>Type</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>EZ CLAMP</td>
<td>4&quot; - 14&quot;</td>
</tr>
<tr>
<td>SS CAST RING</td>
<td>4&quot; - 14&quot;</td>
</tr>
<tr>
<td>BI ANGLE RING</td>
<td>4&quot; - 100&quot;</td>
</tr>
<tr>
<td>SS ANGLE RING</td>
<td>16&quot; - 120&quot;</td>
</tr>
</tbody>
</table>

**LIMITATIONS**

DUE TO MANUFACTURING LIMITATIONS, THE FOLLOWING ELBOWS ARE NOT AVAILABLE AS ONE PIECE FITTINGS:

- FULL RADIUS 90° ELBOW > 56" DIA.
- FULL RADIUS 60° ELBOW > 82" DIA.
- FULL RADIUS 45° ELBOW > 106" DIA.
- HALF RADIUS 90° ELBOW > 76" DIA.

LARGE ELBOWS ABOVE THESE LIMITS WILL BE MANUFACTURED AS SMALLER FITTINGS (AN 86" DIA. 90° ELBOW WILL BE SUPPLIED AS TWO 45° ELBOWS FOR EXAMPLE) OR AS A CLAM SHELL DESIGNED FITTING AS TWO OR MORE PIECES. THIS APPLIES TO ALL LARGE FITTINGS AS WELL AS ELBOWS.

ALSO DUE TO MANUFACTURING LIMITATIONS, MANY OF THE SMALLER 1/2 RADIUS ELBOWS WILL REQUIRE CAST RINGS OR FLAT RINGS.
NOTE
► All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

OPTIONS
► Custom lengths available.

WITH JOINT SYSTEM

<table>
<thead>
<tr>
<th>EZ CLAMP</th>
<th>4&quot; - 14&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>SS CAST RING</td>
<td>4&quot; - 14&quot;</td>
</tr>
<tr>
<td>BI ANGLE RING</td>
<td>4&quot; - 100&quot;</td>
</tr>
<tr>
<td>SS ANGLE RING</td>
<td>16&quot; - 120&quot;</td>
</tr>
</tbody>
</table>

OR A COMBINATION OF JOINING SYSTEMS

ECCENTRIC
Formula to calculate the minimum length for an eccentric reducer:

"L1" = "L2" + "L4" + "L5"

Use this chart for minimum length of "L2":

<table>
<thead>
<tr>
<th>AMOUNT OF REDUCTION &quot;D1&quot; minus &quot;D2&quot;</th>
<th>MINIMUM LENGTH &quot;L2&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>6&quot; AND LESS</td>
<td>12&quot;</td>
</tr>
<tr>
<td>7&quot; TO 9&quot;</td>
<td>18&quot;</td>
</tr>
<tr>
<td>10&quot; TO 13&quot;</td>
<td>24&quot;</td>
</tr>
<tr>
<td>14&quot; TO 17&quot;</td>
<td>30&quot;</td>
</tr>
</tbody>
</table>

Use this chart for minimum length of "L4 & L5":

<table>
<thead>
<tr>
<th>DUCT DIAMETER &quot;D1&quot; or &quot;D2&quot;</th>
<th>MINIMUM LENGTH &quot;L4&quot; or &quot;L5&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>4&quot; TO 58&quot;</td>
<td>3&quot;</td>
</tr>
<tr>
<td>60&quot; TO 94&quot;</td>
<td>4&quot;</td>
</tr>
<tr>
<td>96&quot; TO 120&quot;</td>
<td>5&quot;</td>
</tr>
</tbody>
</table>

CONCENTRIC
Formula to calculate the minimum length for a concentric reducer:

"L1" = "L2" + "L4" + "L5"

Use this chart for minimum length of "L2":

<table>
<thead>
<tr>
<th>AMOUNT OF REDUCTION &quot;D1&quot; minus &quot;D2&quot;</th>
<th>MINIMUM LENGTH &quot;L2&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>9&quot; AND LESS</td>
<td>12&quot;</td>
</tr>
<tr>
<td>10&quot; TO 14&quot;</td>
<td>18&quot;</td>
</tr>
<tr>
<td>15&quot; TO 19&quot;</td>
<td>24&quot;</td>
</tr>
<tr>
<td>20&quot; TO 24&quot;</td>
<td>30&quot;</td>
</tr>
</tbody>
</table>

Use this chart for minimum length of "L4 & L5":

<table>
<thead>
<tr>
<th>DUCT DIAMETER &quot;D1&quot; or &quot;D2&quot;</th>
<th>MINIMUM LENGTH &quot;L4&quot; or &quot;L5&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>4&quot; TO 58&quot;</td>
<td>3&quot;</td>
</tr>
<tr>
<td>60&quot; TO 94&quot;</td>
<td>4&quot;</td>
</tr>
<tr>
<td>96&quot; TO 120&quot;</td>
<td>5&quot;</td>
</tr>
</tbody>
</table>
NOTE

All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.
End Cap

NOTE
- All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

OPTIONS
- Clear polycarbonate viewport endcaps available up to 12" dia. Larger sizes available with engineering review and approval.

END CAP - FLAT PLATE
SAME AS FOR EZ CONFIG
( SEE OPTIONS )

END CAP - HAT STYLE
SAME AS FOR EZ CONFIG
( SEE OPTIONS )

CLEAR POLYCARBONATE END CAP ( SEE OPTIONS )

"D" DUCT DIA

"D" DUCT DIA

1/2"

1/2"

4" - 14"
CAST RING CONFIGURATION

4" - 14"
PSP-EZ™ CONFIGURATION

16" - 120"
ANGLE RING CONFIGURATION
WITH ADDED SUPPORT ANGLE RING
TRANSVERSE STIFFENERS REQUIRED FOR END CAPS OVER 36" DIA.

End Cap

OPTIONS
- Clear polycarbonate viewport endcaps available up to 12" dia. Larger sizes available with engineering review and approval.
NOTES

- All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.
- Raw end available.
- Round duct greater than 84" diameter requires Fab-Tech Engineering review and approval.
- Rectangular duct width or height of 98" and larger requires Fab-Tech Engineering review.
- A center stiffener (1" SCH40 pipe) is added at the midpoint of the flange for rectangular duct width or height of 50" and greater.

FOR ECCENTRIC ROUND TO RECTANGULAR FITTING, USE THE CUSTOM FITTING ORDER SHEET.
USE CUSTOM FITTING ORDER SHEET TO DESCRIBE YOUR FITTING.
## CONTROL DEVICES

4"-14" Wafer Isolation Damper

### SPECIFICATIONS

**BODY:** COATED SOLID ALUMINUM BODY  
**BODY LENGTH:** 1"  
**COATING:** PERMASHIELD FLUOROPOLYMER BARRIER COATING  
**BLADE:** COATED 10GA STAINLESS STEEL WITH FULLY WELDED DRIVE AXLE  
**4"Ø BLADE:** MACHINED PTFE  
**EDGE SEALS:** VITON EXTRUDED RUBBER  
**BLADE HOLDERS:** MOLDED 25% GLASS FILLED PTFE  
**AXLE:** DUAL SHAFT 1/2"Ø STAINLESS STEEL  
**AXLE SEALS:** LIQUID TIGHT - POS & NEG SYSTEM PRESSURE  
**BEARINGS:** NYLON  
**COATING:** FLUOROPOLYMER BARRIER COATING  
**QUADRANT:** MANUAL LOCKING HANDLE  
**LOCKOUT:** 1/2" INTERVALS  
**BLADE OPENS:** CW  
**OPEN/CLOSE TORQUE:** 250 in-lb  
**RECOMMENDED MIN**

### NOTE:
All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

### BOLT HOLE SPECIFICATIONS

<table>
<thead>
<tr>
<th>DUCT DIAMETER</th>
<th>NO. OF HOLES</th>
<th>BOLT HOLE SIZE</th>
<th>BOLT SIZE</th>
<th>BOLT CIRCLE DIAMETER</th>
</tr>
</thead>
<tbody>
<tr>
<td>4&quot;</td>
<td>6</td>
<td>7/16</td>
<td>3/8</td>
<td>5.31</td>
</tr>
<tr>
<td>6</td>
<td>8</td>
<td>7/16</td>
<td>3/8</td>
<td>7.50</td>
</tr>
<tr>
<td>8</td>
<td>8</td>
<td>9/16</td>
<td>1/2</td>
<td>13.81</td>
</tr>
<tr>
<td>10</td>
<td>12</td>
<td>9/16</td>
<td>1/2</td>
<td>15.81</td>
</tr>
</tbody>
</table>

**EXTRUDED FLUOROELASTOMER ISOLATION BLADE SEAL**
### NOTE
- All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

<table>
<thead>
<tr>
<th>PART NO.</th>
<th>DESCRIPTION</th>
<th>&quot;D&quot;</th>
<th>&quot;L&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>PZD02</td>
<td>2&quot; EZ-DAMPER</td>
<td>2&quot;</td>
<td>3.875&quot;</td>
</tr>
<tr>
<td>PZD03</td>
<td>3&quot; EZ-DAMPER</td>
<td>3&quot;</td>
<td>3.875&quot;</td>
</tr>
</tbody>
</table>

![Diagram of 2" & 3" Micro-Adjustable EZ Damper](image-url)

![Diagram of 2" & 3" Micro-Adjustable EZ Damper](image-url)
4"-14" Industrial Balancing Damper

**SPECIFICATIONS**

- **BODY**: COATED 20GA STAINLESS STEEL
- **BODY LENGTH**: 9-1/4"  
  - **OPTION**: CUSTOM LENGTH
- **COATING**: PERMAShield FLUOROPOLYMER BARRIER COATING
- **JOINING SYSTEM**: FLOATING CAST STAINLESS STEEL RINGS
  - **OPTION**: PSP-EZ™ JOINING SYSTEM 4"-14"
  - **OPTION**: FLOATING BLACK IRON ANGLE RINGS 4"-14"
  - **OPTION**: CUSTOM HOLE PATTERN
- **PTFE BLADE**: 4"Ø DAMPER ONLY
- **BLADE**: COATED 10GA STAINLESS STEEL
- **BLADE HOLDERS**: MOLDED PTFE
- **AXLES**: DUAL SHAFT 1/2"Ø STAINLESS STEEL
- **AXLE SEALS**: LIQUID TIGHT
- **ACTUATOR**: MANUAL LEVER
  - **OPTION**: ELECTRIC ACTUATOR
  - **OPTION**: PNEUMATIC ACTUATOR
- **LOCKOUT**: 1/2" INTERVALS
- **BLADE OPENS**: CCW
- **OPEN/CLOSE TORQUE**: 250 in-lb RECOMMENDED MIN

**NOTE**: All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

<table>
<thead>
<tr>
<th>DIAMETER</th>
<th>BLADE</th>
<th>BODY</th>
</tr>
</thead>
<tbody>
<tr>
<td>4&quot;</td>
<td>PTFE</td>
<td>20GA</td>
</tr>
<tr>
<td>6&quot; TO 14&quot;</td>
<td>10GA</td>
<td>20GA</td>
</tr>
</tbody>
</table>
**SPECIFICATIONS**

**BODY:** COATED 20GA STAINLESS STEEL  
**BODY LENGTH:** 9-1/4"  
**OPTION:** CUSTOM LENGTH  
**COATING:** PERMASHIELD FLUOROPOLYMER BARRIER COATING  
**JOINING SYSTEM:** FLOATING CAST STAINLESS STEEL RINGS  
**OPTION:** PSP-EZ™ JOINING SYSTEM 4"  
**OPTION:** CUSTOM HOLE PATTERN  
**BLADE & BLADE HOLERS:** VIRGIN TEFlon  
**EDGE SEALS:** FLUOROElastomer  
**AXLES:** DUAL SHAFT 1/2"Ø STAINLESS STEEL  
**AXLE SEALS:** LIQUID TIGHT  
**ACTUATOR:** MANUAL LEVER  
**OPTION:** ELECTRIC ACTUATOR  
**OPTION:** PNEUMATIC ACTUATOR  
**LOCKOUT:** 1/2" INTERVALS  
**BLADE OPENS:** CCW  
**OPEN/CLOSE TORQUE:** 250 in-lb RECOMMENDED MIN  

**NOTE:** All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.
6"-14" Industrial Isolation Damper

SPECIFICATIONS

**BODY:** COATED 20GA STAINLESS STEEL

**BODY LENGTH:** 9-1/4"

**OPTION:** CUSTOM LENGTH

**COATING:** PERMASHIELD FLUOROPOLYMER BARRIER COATING

**JOINING SYSTEM:** FLOATING CAST STAINLESS STEEL RINGS

**OPTION:** PSP-EZ™ JOINING SYSTEM 6"-14"

**OPTION:** FLOATING BLACK IRON ANGLE RINGS 6"-14"

**OPTION:** CUSTOM HOLE PATTERN

**BLADE:** 10GA COATED STAINLESS STEEL

**EDGE SEALS:** FLUOROELASTOMER

**BLADE HOLDERS:** MOLDED PTFE

**AXLES:** DUAL SHAFT 1/2"Ø STAINLESS STEEL

**AXLE SEALS:** LIQUID TIGHT

**ACTUATOR:** MANUAL LEVER

**OPTION:** ELECTRIC ACTUATOR

**OPTION:** PNEUMATIC ACTUATOR

**LOCKOUT:** 1/2" INTERVALS

**BLADE OPENS:** CCW

**OPEN/CLOSE TORQUE:** 250 in-lb RECOMMENDED MIN

**NOTE:** All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.
Fab-Tech, Inc. certifies that the Industrial Single Blade Isolation Damper shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program.

The AMCA Certified Ratings Seal applies to Air Leakage ratings and Air Performance ratings.

1. Test method per AMCA Standard 500-89
   Data based on a seating torque of: 764 in-lbf/ft² for 6" damper, 234 in-lbf/ft² for 14" damper
2. Air leakage is based on operation between 50°F & 104°F (10°C to 40°C) and data corrected to represent standard air density 0.075 lbs/ft³.

### Specifications

<table>
<thead>
<tr>
<th>Damper Dia.</th>
<th>Pressure</th>
<th>AMCA Leakage Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>6&quot; - 14&quot;</td>
<td>1&quot;WG</td>
<td>1A</td>
</tr>
<tr>
<td></td>
<td>4&quot;, 8&quot;, 12&quot;WG</td>
<td>1</td>
</tr>
</tbody>
</table>

Tested Leakage Rates Available, Contact Fab-Tech Inc.

**Leakage Classification**

<table>
<thead>
<tr>
<th>Pressure Class</th>
<th>Required Range</th>
<th>Extended Range (Optional)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.25 kPa (1&quot; wg)</td>
<td>1.0 kPa (4&quot; wg)</td>
</tr>
<tr>
<td>1A</td>
<td>15.2 (3)*</td>
<td>N/A</td>
</tr>
<tr>
<td>1</td>
<td>20.3 (4)</td>
<td>40.6 (8)</td>
</tr>
<tr>
<td>2</td>
<td>50.8 (10)</td>
<td>102 (20)</td>
</tr>
<tr>
<td>3</td>
<td>203 (40)</td>
<td>406 (80)</td>
</tr>
</tbody>
</table>

*Units for maximum ratings in ( ) are CFM Sq. Ft.

- Damper Leakage Test based on ANSI/AMCA Standard 500-D-07, Ref. Fig 5.6
- Pressure Drop Test based on AMCA Standard 500-D-98, Ref. Fig 5.3

**NOTE:** All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.
**4"-14" Industrial Short Damper - Isolation & Balancing**

**SPECIFICATIONS**

**BODY:** COATED 20GA STAINLESS STEEL  
**BODY LENGTH:** 4" MINIMUM  
**OPTION:** CUSTOM LENGTH  
**COATING:** PERMASHIELD FLUOROPOLYMER BARRIER COATING  
**JOINING SYSTEM:** FLOATING CAST STAINLESS STEEL RINGS  
**OPTION:** FLOATING STAINLESS STEEL FLAT RINGS 4"-14"  
**OPTION:** FLOATING BLACK IRON FLAT RINGS 4"-14"  
**OPTION:** PSP-EZ™ JOINING SYSTEM 4"-14"  
**OPTION:** CUSTOM HOLE PATTERN  
**BLADE:** 4" VIRGIN TEFLOM  
6"-14": 10GA COATED STAINLESS STEEL  
**EDG SEALS:** FLUOROELASTOMER  
**BLADE HOLDERS:** MOLDED PTFE  
**AXLES:** DUAL SHAFT 1/2"Ø STAINLESS STEEL  
**AXLE SEALS:** LIQUID TIGHT  
**ACTUATOR:** MANUAL LEVER  
**LOCKOUT:** 1/2" INTERVALS  
**BLADE OPENS:** CCW  
**OPEN/CLOSE TORQUE:** 250 in-lb RECOMMENDED MIN  

**NOTE:** All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

<table>
<thead>
<tr>
<th>DIAMETER</th>
<th>BLADE</th>
<th>BODY</th>
</tr>
</thead>
<tbody>
<tr>
<td>4&quot;</td>
<td>PTFE</td>
<td>20GA</td>
</tr>
<tr>
<td>6&quot; TO 14&quot;</td>
<td>10GA</td>
<td>20GA</td>
</tr>
</tbody>
</table>
CONTROL DEVICES

6"-14" Industrial Isolation Damper

From Supply System and Airflow Measuring Section

Inlet Cone Required if Attached to Plenum

Fig. 5.3: Test Damper Setup with Inlet and Outlet Ducts

$D = $ duct diameter for round ducts

Fig. 5.6: Test Damper Setup - Leakage Test with Damper under Positive Pressure

Pressurized Supply Air

Blank off plate. Seal airtight to damper flange.

Flowmeter

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Fab-Tech, Inc. certifies that the Industrial Single Blade Isolation Damper shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program.

The AMCA Certified Ratings Seal applies to Air Leakage ratings and Air Performance ratings.

1. Test method per AMCA Standard 500-89
   Data based on a seating torque of: 125 in-lbf/ft² for 16" damper, 86 in-lbf/ft² for 48" damper
2. Air leakage is based on operation between 50°F & 104°F (10°C to 40°C) and data corrected to represent standard air density 0.075 lbs/ft³.

### SPECIFICATIONS

<table>
<thead>
<tr>
<th>Damper Dia.</th>
<th>Pressure Class</th>
<th>AMCA Leakage Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>16&quot; - 34&quot;</td>
<td>1&quot;WG</td>
<td>1A</td>
</tr>
<tr>
<td></td>
<td>4&quot;, 8&quot;, 12&quot;WG</td>
<td>1</td>
</tr>
</tbody>
</table>

Tested Leakage Rates Available, Contact Fab-Tech Inc.

#### Leakage Classification

<table>
<thead>
<tr>
<th>Pressure Class</th>
<th>Required Range</th>
<th>Extended Range (Optional)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1A</td>
<td>15.2 (3)*</td>
<td>N/A</td>
</tr>
<tr>
<td>1</td>
<td>20.3 (4)</td>
<td>55.9 (11)</td>
</tr>
<tr>
<td>2</td>
<td>50.8 (10)</td>
<td>142 (28)</td>
</tr>
<tr>
<td>3</td>
<td>203 (40)</td>
<td>569 (112)</td>
</tr>
</tbody>
</table>

*Units for maximum ratings in ( ) are CFM Sq. Ft.

- Damper Leakage Test based on ANSI/AMCA Standard 500-D-07, Ref. Fig 5.6
- Pressure Drop Test based on AMCA Standard 500-D-98, Ref. Fig 5.3

#### BODY:
- COATED 12GA STAINLESS STEEL

#### BODY LENGTH:
- 10"

#### COATING:
- PERMASHIELD FLUOROPOLYMER BARRIER COATING

#### JOINING SYSTEM:
- STITCH WELDED BLACK IRON VAN STONE RINGS

#### OPTION:
- CUSTOM HOLE PATTERN

#### MOUNTING HOLES:
- STRADDLE VERTICAL CENTERLINE

#### BLADE:
- 1/4" COATED STAINLESS STEEL WITH VITON EDGE SEAL

#### BLADE STOPS:
- WELDED

#### AXLES:
- DUAL SHAFT 1.380 STAINLESS STEEL

#### AXLE SEALS:
- LIQUID TIGHT

#### SLEEVE Bearings:
- THERMOPLASTIC

#### ACTUATOR:
- MANUAL LEVER
  - MANUAL GEAR BOX W/ LOCK OUT
  - CUSTOM ACTUATOR MOUNTING KIT
  - ELECTRIC ACTUATOR
  - PNEUMATIC ACTUATOR

#### LOCKOUT:
- 1/2" INTERVALS

#### BLADE OPENS:
- CCW

#### OPEN/CLOSE TORQUE:
- 1000 in-lb RECOMMENDED MIN

#### NOTE:
- All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.
16"-48" High Value Heavy Duty Industrial Damper (HVD)

SPECIFICATIONS
BODY: COATED 12GA STAINLESS STEEL
BODY LENGTH: 10"
COATING: PERMASHIELD FLUOROPOLYMER BARRIER COATING
JOINING SYSTEM: STITCH WELDED COATED BLACK IRON VAN STONE RINGS

OPTION: CUSTOM HOLE PATTERN
OPTION: STITCH WELDED STAINLESS STEEL VAN STONE RINGS

MOUNTING HOLES: STRADDLE VERTICAL CENTERLINE

BLADE: 1/4" COATED STAINLESS STEEL
BLADE STOPS: WELDED W/ VITON BLADE SEAL
AXLES: DUAL SHAFT 1.38Ø STAINLESS STEEL
AXLE SEALS: LIQUID TIGHT

SLEEVE BEARINGS: THERMOPLASTIC

ACTUATOR: MANUAL LEVER
OPTION: MANUAL GEAR BOX W/ LOCK OUT
OPTION: CUSTOM ACTUATOR MOUNTING KIT
OPTION: ELECTRIC ACTUATOR
OPTION: PNEUMATIC ACTUATOR

LOCKOUT: 1/2" INTERVALS
BLADE OPENS: CCW
OPEN/CLOSE TORQUE: 1000 in-lb RECOMMENDED MIN

NOTE: All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.
Fab-Tech, Inc. certifies that the Industrial Single Blade Isolation Damper shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program.

The AMCA Certified Ratings Seal applies to Air Leakage ratings and Air Performance ratings.

1. Test method per AMCA Standard 500-89
   Data based on a seating torque of: 125 in-lbf/ft²
   for 16" damper, 86 in-lbf/ft² for 48" damper
2. Air leakage is based on operation between 50°F & 104°F (10°C to 40°C) and data corrected to represent standard air density 0.075 lbs/ft³.

<table>
<thead>
<tr>
<th>Damper Dia.</th>
<th>Pressure</th>
<th>AMCA Leakage Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>36&quot; - 48&quot;</td>
<td>1&quot;WG</td>
<td>1A</td>
</tr>
<tr>
<td></td>
<td>4&quot;, 8&quot;, 12&quot;WG</td>
<td>1</td>
</tr>
</tbody>
</table>

Tested Leakage Rates Available, Contact Fab-Tech Inc.

### SPECIFICATIONS

**BODY:** COATED 12GA STAINLESS STEEL

**BODY LENGTH:** 10"

**COATING:** PERMASHIELD FLUOROPOLYMER BARRIER COATING

**JOINING SYSTEM:** STITCH WELDED COATED BLACK IRON VAN STONE RINGS

**OPTION:** CUSTOM HOLE PATTERN

**MOUNTING HOLES:** STRADDLE VERTICAL CENTERLINE

**BLADE:** 1/4" COATED STAINLESS STEEL WITH VITON EDGE SEAL

**BLADE OPS:** WELDED

**AXLES:** DUAL SHAFT 1.38Ø STAINLESS STEEL

**AXLE SEALS:** LIQUID TIGHT

**SLEEVE BEARINGS:** THERMOPLASTIC

**ACTUATOR:** MANUAL GEAR BOX W/ LOCK OUT

**OPTION:** CUSTOM ACTUATOR MOUNTING KIT

**OPTION:** ELECTRIC ACTUATOR

**OPTION:** PNEUMATIC ACTUATOR

**LOCKOUT:** 1/2" INTERVALS

**BLADE OPENS:** CCW

**OPEN/CLOSE TORQUE:** 1000 in-lb RECOMMENDED MIN

**NOTE:** All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.
50" & Larger Reinforced Heavy Duty Industrial Damper

**SPECIFICATIONS**

**BODY:** COATED 1/4" STAINLESS STEEL  
**OPTION:** AVAIL TO 120" DIA W/ ENGINEERING REVIEW  
**LENGTH:** 10"  
**COATING:** PERMASHIELD FLUOROPOLYMER BARRIER COATING  
**JOINING SYSTEM:** FULLY WELDED STAINLESS STEEL VAN STONE RINGS  
**OPTION:** CUSTOM HOLE PATTERN  
**MOUNTING HOLES:** STRADDLE VERTICLE CENTERLINE  
**BLADE:** 3/8" COATED REINFORCED STAINLESS STEEL  
**BLADE STOPS:** WELDED  
**AXLES:** DUAL SHAFT 1.85Ø STAINLESS STEEL  
**AXLE SEALS:** LIQUID TIGHT  
**SLEEVE BEARINGS:** THERMOPLASTIC  
**ACTUATOR:** GEAR ACTUATOR W/ LOCK OUT  
**OPTION:** CUSTOM ACTUATOR MOUNTING KIT  
**OPTION:** ELECTRIC ACTUATOR  
**OPTION:** PNEUMATIC ACTUATOR

**PNEUMATIC ACTUATED DAMPERS**  
**HYTORK ACTUATOR STANDARD**  
XL45 - UP TO 20"  
XL280 - 21" TO 48"  
XL425 - 49" TO 94"

**LOCKOUT:** 1/2° INTERVALS  
**BLADE OPENS:** CCW  
**OPEN/CLOSE TORQUE:** 1600 in-lb RECOMMENDED MIN

**NOTE:** All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.
## Specifications

**Body:**
- Coated 24"-40" Dia. 10ga Stainless Steel
- Coated 42"-84" Dia. 1/4" Stainless Steel
- **Option:** Avail to 120" Dia w/ Engineering Review

**Body Length:** 10"

**Coating:**
- Permashield Fluoropolymer Barrier Coating

**Joining System:**
- Fully welded stainless steel van stone rings

**Option:** Custom hole pattern

**Mounting Holes:**
- Straddle vertical centerline

**Blade:**
- Coated reinforced
- 24"-58" Dia. 1/4" Stainless Steel
- 60"-84" Dia. 3/8" Stainless Steel

**Blade Stops:** Welded

**Axes:**
- 24"-44" Dia. Dual Shaft 1.20Ø Stainless Steel
- 46"-58" Dia. Dual Shaft 1.85Ø Stainless Steel
- 60" Dia. & Up Dual Shaft 2.45Ø Stainless Steel

**Axle Seals:** Liquid tight

**Sleeve Bearings:** Bronze

**Actuator:**
- Standard Rotork High Speed
- SI-1-Q Series Interface
- **Option:** Custom Actuator Mounting Kit
- **Option:** Electric Actuator
- **Option:** Pneumatic Actuator

**Lockout:** 1/2" Intervals

**Blade Opens:** CCW

**Note:** All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.
**NOTE**

- All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

**SPECIFICATIONS**

- Stainless steel frame material.
- Blade lockout system.

<table>
<thead>
<tr>
<th>PART NO.*</th>
<th>DESCRIPTION</th>
<th>&quot;D&quot;</th>
<th>&quot;L&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>PZB02H</td>
<td>2&quot; EZ-BLASTGATE HORIZONTAL</td>
<td>2&quot;</td>
<td>8.000&quot;</td>
</tr>
<tr>
<td>PZB03H</td>
<td>3&quot; EZ-BLASTGATE HORIZONTAL</td>
<td>3&quot;</td>
<td>8.000&quot;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PART NO.*</th>
<th>DESCRIPTION</th>
<th>&quot;D&quot;</th>
<th>&quot;L&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>PZB02V</td>
<td>2&quot; EZ-BLASTGATE VERTICAL</td>
<td>2&quot;</td>
<td>8.000&quot;</td>
</tr>
<tr>
<td>PZB03V</td>
<td>3&quot; EZ-BLASTGATE VERTICAL</td>
<td>3&quot;</td>
<td>8.000&quot;</td>
</tr>
</tbody>
</table>
CONTROL DEVICES

4"-36" Horizontal Run Isolation Blastgate

NOTE
- All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

SPECIFICATIONS
- Stainless steel frame material.
- Blade lockout system.

WITH JOINT SYSTEM

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EZ CLAMP</td>
<td>4&quot; - 14&quot;</td>
<td>4&quot; - 14&quot;</td>
<td>4&quot; - 36&quot;</td>
</tr>
<tr>
<td></td>
<td>SS CAST RING</td>
<td>4&quot; - 14&quot;</td>
<td>18&quot; - 36&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BI ANGLE RING</td>
<td>4&quot; - 36&quot;</td>
<td>18&quot; - 36&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SS ANGLE RING</td>
<td>16&quot; - 36&quot;</td>
<td>16&quot; - 36&quot;</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DUCT DIA. &quot;D&quot;</th>
<th>OUTSIDE DIM &quot;L1&quot;</th>
<th>BODY</th>
<th>BLADE</th>
<th>BODY BOLTS</th>
<th>NO. OF BLADES</th>
</tr>
</thead>
<tbody>
<tr>
<td>4&quot; TO 16&quot;</td>
<td>DIA. &quot;D&quot; + 4&quot;</td>
<td>18GA</td>
<td>18GA</td>
<td>.31&quot;</td>
<td>1</td>
</tr>
<tr>
<td>18&quot; TO 36&quot;</td>
<td>DIA. &quot;D&quot; + 4.5&quot;</td>
<td>16GA</td>
<td>16GA</td>
<td>.31&quot;</td>
<td>1</td>
</tr>
</tbody>
</table>

**NOTE**
All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

Stainless steel frame material.
Blade lockout system.

Stainless steel blade.
PTFE wiper (typ both sides of blade).

BLADE LOCKOUT (STD)

"L1" (SEE CHART)

ANGLE RING
STAINLESS STEEL BLADE
PTFE WIPER (TYP BOTH SIDES OF BLADE)
16"-36" Horizontal Run Actuated Isolation Blastgate

**NOTE**
- All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

**SPECIFICATIONS**
- Stainless steel frame material.
- Blade lockout system.
- Exterior position indicator.

**OPTIONS**
- Bellows enclosed lead screw for additional corrosion resistance (adds to L1 length)

**RING TYPES**

<table>
<thead>
<tr>
<th>BI ANGLE RING</th>
<th>SS ANGLE RING</th>
</tr>
</thead>
<tbody>
<tr>
<td>16&quot; - 36&quot;</td>
<td>16&quot; - 36&quot;</td>
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</tbody>
</table>

**DIMENSIONS**

<table>
<thead>
<tr>
<th>DUCT DIA. &quot;D&quot;</th>
<th>OUTSIDE DIM &quot;L1&quot;</th>
<th>BODY</th>
<th>BLADE</th>
<th>BODY BOLTS</th>
<th>NO. OF BLADES</th>
</tr>
</thead>
<tbody>
<tr>
<td>16&quot; TO 36&quot;</td>
<td>2&quot;D + 30&quot;</td>
<td>10GA</td>
<td>12GA</td>
<td>.38&quot;</td>
<td>1</td>
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</tbody>
</table>

**NOTES**
- All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.
- Exterior position indicator.

**OPTIONS**
- Bellows enclosed lead screw for additional corrosion resistance (adds to L1 length)
38" & Larger Horizontal Run Isolation Blastgate

NOTE
- All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.
- Blastgates 86" diameter and larger subject to engineering review and approval.

SPECIFICATIONS
- Stainless steel body, rings and blade.
- Blade lockout system.

<table>
<thead>
<tr>
<th>DUCT DIA. &quot;D&quot;</th>
<th>OUTSIDE DIM &quot;L1&quot;</th>
<th>BODY</th>
<th>BLADE</th>
<th>COLLAR</th>
<th>BODY BOLTS</th>
<th>NO. OF BLADES</th>
</tr>
</thead>
<tbody>
<tr>
<td>38&quot; TO 46&quot;</td>
<td>DIA. &quot;D&quot; + 10&quot;</td>
<td>10GA</td>
<td>14GA</td>
<td>14GA</td>
<td>.31&quot;</td>
<td>2</td>
</tr>
<tr>
<td>48&quot; TO 60&quot;</td>
<td>DIA. &quot;D&quot; + 11&quot;</td>
<td>10GA</td>
<td>12GA</td>
<td>14GA</td>
<td>.38&quot;</td>
<td>2</td>
</tr>
<tr>
<td>62&quot; TO 84&quot;</td>
<td>DIA. &quot;D&quot; + 11&quot;</td>
<td>10GA</td>
<td>12GA</td>
<td>14GA</td>
<td>.38&quot;</td>
<td>3</td>
</tr>
<tr>
<td>*86&quot; TO 96&quot;</td>
<td>DIA. &quot;D&quot; + 11&quot;</td>
<td>10GA</td>
<td>10GA</td>
<td>12GA</td>
<td>.50&quot;</td>
<td>3</td>
</tr>
<tr>
<td>&quot;98&quot; and UP</td>
<td>DIA. &quot;D&quot; + 11&quot;</td>
<td>3/16</td>
<td>10GA</td>
<td>10GA</td>
<td>.63&quot;</td>
<td>4</td>
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</tbody>
</table>

* Blastgates 86" diameter and larger subject to engineering review and approval.
38" & Larger Horizontal Run Actuated Isolation Blastgate

NOTE
- All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.
- Blastgates 90" diameter and larger subject to engineering review and approval.

SPECIFICATIONS
- Stainless steel body, rings and blade.
- Blade lockout system.
- Exterior position indicator.

OPTIONS
- Bellows enclosed lead screw for additional corrosion resistance (adds to L1 length)

RING TYPES
- BI ANGLE RING 38" - 100"
- SS ANGLE RING 38" - 120"

<table>
<thead>
<tr>
<th>DUCT DIA. &quot;D&quot;</th>
<th>OUTSIDE DIM &quot;L1&quot;</th>
<th>BODY</th>
<th>BLADE</th>
<th>BODY BOLTS</th>
<th>NO. OF BLADES</th>
</tr>
</thead>
<tbody>
<tr>
<td>38&quot; TO 64&quot;</td>
<td>2&quot;D&quot; + 30&quot;</td>
<td>10GA</td>
<td>12GA</td>
<td>.38&quot;</td>
<td>1</td>
</tr>
<tr>
<td>66&quot; TO 88&quot;</td>
<td>2&quot;D&quot; + 30&quot;</td>
<td>10GA</td>
<td>12GA</td>
<td>.43&quot;</td>
<td>1</td>
</tr>
</tbody>
</table>

* Blastgates 90" diameter and larger subject to engineering review and approval.
**CONTROL DEVICES**

4\"-36\" Vertical Run Isolation Blastgate

**NOTE**
- All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

**SPECIFICATIONS**
- Stainless steel body, rings and blade.
- Blade lockout system.

---

**WITH JOINT SYSTEM**

<table>
<thead>
<tr>
<th>Type</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>EZ CLAMP</td>
<td>4&quot; - 14&quot;</td>
</tr>
<tr>
<td>SS CAST RING</td>
<td>4&quot; - 14&quot;</td>
</tr>
<tr>
<td>BI ANGLE RING</td>
<td>4&quot; - 48&quot;</td>
</tr>
<tr>
<td>SS ANGLE RING</td>
<td>16&quot; - 120&quot;</td>
</tr>
</tbody>
</table>

---

### BLADE LOCKOUT

**STAINLESS STEEL BLADE**

**PTFE WIPER**
- Typ both sides of blade.

**ANGLE RING**
- (See Chart)

**UPPER BODY**

**LOWER BODY**

---

<table>
<thead>
<tr>
<th>Duct Dia. &quot;D&quot;</th>
<th>Outside Dim &quot;L1&quot;</th>
<th>Body</th>
<th>Blade</th>
<th>Frame Bolts</th>
<th>No. of Blades</th>
<th>Blade Angle</th>
<th>Length &quot;L2&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>4&quot; - 8&quot;</td>
<td>Dia. &quot;D&quot; + 4&quot;</td>
<td>18GA</td>
<td>18GA</td>
<td>.31&quot;</td>
<td>1</td>
<td>15°</td>
<td>8&quot;</td>
</tr>
<tr>
<td>10&quot; - 16&quot;</td>
<td>Dia. &quot;D&quot; + 4&quot;</td>
<td>18GA</td>
<td>18GA</td>
<td>.31&quot;</td>
<td>1</td>
<td>15°</td>
<td>12&quot;</td>
</tr>
<tr>
<td>18&quot; - 36&quot;</td>
<td>Dia. &quot;D&quot; + 4.5&quot;</td>
<td>16GA</td>
<td>16GA</td>
<td>.31&quot;</td>
<td>1</td>
<td>15°</td>
<td>16&quot;</td>
</tr>
</tbody>
</table>
CONTROL DEVICES

16"-36" Vertical Run Actuated Isolation Blastgate

NOTE
► All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

SPECIFICATIONS
► Stainless steel frame material.
► Blade lockout system.
► Exterior position indicator.

OPTIONS
► Bellows enclosed lead screw for additional corrosion resistance (adds to L1 length)

RING TYPES

| BI ANGLE RING | 16" - 36" |
| SS ANGLE RING | 16" - 36" |

SPECIFICATIONS
Stainless steel frame material.
Blade lockout system.
Exterior position indicator.

OPTIONS
Bellows enclosed lead screw for additional corrosion resistance (adds to L1 length)

RING TYPES

| BI ANGLE RING | 16" - 36" |
| SS ANGLE RING | 16" - 36" |

OPTIONS
Bellows enclosed lead screw for additional corrosion resistance (adds to L1 length)

RING TYPES

| BI ANGLE RING | 16" - 36" |
| SS ANGLE RING | 16" - 36" |

OPTIONS
Bellows enclosed lead screw for additional corrosion resistance (adds to L1 length)
### CONTROL DEVICES

#### 38" & Larger Vertical Run Isolation Blastgate

**NOTE**
- All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.
- Blastgates 86" diameter and larger are subject to engineering review and approval.

**SPECIFICATIONS**
- Stainless steel body, rings and blade.
- Blade lockout system.
- Vertical run blastgates greater than 84" require engineering review and approval.

---

**WITH JOINT SYSTEM**

<table>
<thead>
<tr>
<th>BLADE LOCKOUT (STD)</th>
<th>&quot;D&quot;</th>
<th>BLADE</th>
<th>BLADE</th>
<th>BLADE</th>
<th>BLADE</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTFE WIPER (TYP BOTH SIDES OF BLADE)</td>
<td>ANGLE RING</td>
<td>&quot;L1&quot;</td>
<td>(SEE CHART)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ANGLE RING</td>
<td>&quot;L2&quot;</td>
<td>(SEE CHART)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DUCT DIA. &quot;D&quot;</td>
<td>OUTSIDE DIM &quot;L1&quot;</td>
<td>BODY</td>
<td>BLADE</td>
<td>COLLAR</td>
<td>BODY BOLTS</td>
</tr>
<tr>
<td>38&quot; TO 46&quot;</td>
<td>DIA. &quot;D&quot; + 10&quot;</td>
<td>10GA</td>
<td>14GA</td>
<td>14GA</td>
<td>.31&quot;</td>
</tr>
<tr>
<td>48&quot; TO 60&quot;</td>
<td>DIA. &quot;D&quot; + 11&quot;</td>
<td>10GA</td>
<td>12GA</td>
<td>14GA</td>
<td>.38&quot;</td>
</tr>
<tr>
<td>62&quot; TO 84&quot;</td>
<td>DIA. &quot;D&quot; + 11&quot;</td>
<td>10GA</td>
<td>12GA</td>
<td>14GA</td>
<td>.38&quot;</td>
</tr>
</tbody>
</table>

* Blastgates 86" diameter and larger are subject to engineering review and approval.

---

REW: 12/01/17 CAT044EA

Fab-Tech, Inc. / 480 Hercules Drive, Colchester, VT 05446 / Tel: 802-655-8800 / Fax: 802-655-8804 / www.fabtechinc.com
CONTROL DEVICES

38" & Larger Vertical Run Actuated Isolation Blastgate

NOTE

- All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.
- Blastgates 90" diameter and larger are subject to engineering review and approval.

SPECIFICATIONS

- Stainless steel body, rings and blade.
- Blade lockout system.
- Exterior position indicator.

OPTIONS

- Bellows enclosed lead screw for additional corrosion resistance (adds to L1 length)

RING TYPES

| BI ANGLE RING  | 38" - 100" |
| SS ANGLE RING  | 38" - 120" |

Duct Dia. | Outside Dim | BODY | BLADE | COLLAR | BODY BOLTS | NO. OF BLADES | BLADE ANGLE |
--- | --- | --- | --- | --- | --- | --- | --- |
38" TO 64" | 2"D" + 30" | 10GA | 12GA | 12GA | .38" | 1 | 10° |
66" TO 88" | 2"D" + 30" | 10GA | 12GA | 12GA | .43" | 1 | 10° |

* Blastgates 90" diameter and larger are subject to engineering review and approval.
ACCESSORIES

FIELD INSTALLED NIPPLE
SIZE: 1", 1-1/2", 2"
PAGE: 47

FIELD INSTALLED TEST PORT
SIZE: 3/8", 3/4", 2"
PAGE: 48

FIELD INSTALLED SADDLE TAP
SIZE: 4"-24" TEE
PAGE: 49

FIELD INSTALLED HOT TAP
SIZE: 4"-24"
PAGE: 50

CAST RING STAINLESS STEEL
SIZE: 4"-14"
PAGE: 51

ANGLE RING STAINLESS STEEL OR BLACK IRON
SIZE: 4"-120"
PAGE: 52

ACCESSORIES

FIELD INSTALLED SADDLE TAP
SIZE: 4" TO 14" TEE
PAGE: 49

CAST RING STAINLESS STEEL
SIZE: 4"-14"
PAGE: 51

ANGLE RING STAINLESS STEEL OR BLACK IRON
SIZE: 4"-120"
PAGE: 52

ACCESSORIES

FIELD INSTALLED SADDLE TAP
SIZE: 4" TO 14" TEE
PAGE: 49

CLAMP
SIZE: 2" & 3"
PAGE: 53

DIE CUT GASKET
SIZE: 2" & 3"
PAGE: 53

CLAMP KIT
SIZE: 2" & 3"
PAGE: 53

CLAMP KIT
SIZE: 4" TO 14"
PAGE: 53
Field Installed Nipple

NOTES

- Refer to Fab-Tech's INSTALLATION AND ASSEMBLY GUIDE for assembly instructions.

<table>
<thead>
<tr>
<th>PART NO.</th>
<th>DESCRIPTION</th>
<th>MIN. HOST DUCT</th>
<th>MATERIAL THICKNESS</th>
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<td>16 GA MAX* MATERIAL THICKNESS</td>
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*SWAGE KIT REQUIRED TO INSTALL
ONLY ONE KIT REQUIRED TO INSTALL MULTIPLE NIPPLES

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<td>TPS02</td>
<td>HYDRAULIC KIT FOR 1&quot;, 1-1/2&quot;, &amp; 2&quot;</td>
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Field Installed Test Port

**PART NO.** | **DESCRIPTION** | **MIN. HOST DUCT** | **THRU HOLE** | **REDRILL** | **I.D. TAP HOLE**
---|---|---|---|---|---
FTFI38TP | 3/8" TEST PORT | 2" DIA. DUCT MIN. | 1/4" DIA. | 3/8" MAX | 1/16" NPT
FTFI34TP | 3/4" TEST PORT | 6" DIA. DUCT MIN. | 1/2" DIA. | 3/4" MAX | 1/4" NPT
FTFI20TP | 2" TEST PORT | 12" DIA. DUCT MIN. | 9/16" DIA. | 1-3/4" MAX | 3/8" NPT

**SPECIFICATIONS**
- Nipple made of pure PVDF, seal made of Viton®
- Stainless steel hex nut
- Able to re-drill through hole to slightly larger hole or drill and tap test port for female threads - thread O.D. cannot exceed max re-drill diameter
- Installs in duct as small as 2" diameter - provides liquid tight seal - does not compromise the integrity of the duct interior coating

**NOTES**
- Refer to Fab-Tech’s INSTALLATION AND ASSEMBLY GUIDE for assembly instructions.
- The unique handle design of this test port allows it to be installed quickly and easily in-the-field with common tools and without system shutdown or disassembly.

**TO COMPLETE THE INSTALLATION,** SIMPLY REMOVE THE STEM TO EXPOSE THE PORT AND ATTACH FITTING OR LINE.
Field Installed Saddle Tap

NOTES

► All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.
► Refer to Fab-Tech's INSTALLATION AND ASSEMBLY GUIDE for assembly instructions.
► Straight tap standard - other tap styles available with engineering review and approval.
► Fab-Tech's PSP® saddle tap will allow a new branch to be installed without shutting down the exhaust system.

WITH JOINT SYSTEM

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<th>Joint Type</th>
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<tr>
<td>SS CAST RING</td>
<td>4&quot; - 14&quot;</td>
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<tr>
<td>BI ANGLE RING</td>
<td>4&quot; - 100&quot;</td>
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<tr>
<td>SS ANGLE RING</td>
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HOST DUCT I.D., WALL THICKNESS & MATERIAL TYPE (REQUIRED INFORMATION)

SECTION THROUGH DUCT - STRAIGHT TAP

SECTION THROUGH DUCT - BOOT TAP

SECTION THROUGH DUCT - LATERAL TAP

Fluoropolymer coated threaded caps welded to PSP® saddle tap.
NOTES

- All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.
- Refer to Fab-Tech's INSTALLATION AND ASSEMBLY GUIDE for assembly instructions.
- Only straight tap available for this tap configuration.
- Fab-Tech's PSP® Field Installed Hot Tap will allow a new branch to be installed in an existing system without shutting down the exhaust system.
- Isolation box required for installation.

**Allowable Tap Sizes**

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</table>

**WITH JOINT SYSTEM**

- SS CAST RING 4" - 14"
- BI ANGLE RING 4" - 24"
- SS ANGLE RING 4" - 24"

**SECTION THROUGH DUCT - HOT TAP**

- Anchor Bolt
- Backing Ring
- End Cap
- D2 Host Duct
- PTFE Gasket
- Fluoropolymer Coated Threaded Caps Welded to Backing Ring

**HOST DUCT I.D., PRESSURE CLASS & MATERIAL TYPE**

(REQUIRED INFORMATION)
### Cast Ring Specifications

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<thead>
<tr>
<th>DUCT DIA</th>
<th>WIDTH (W)</th>
<th>HEIGHT (H)</th>
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<th>BOLT HOLE SIZE</th>
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<th>BOLT CIRCLE DIA.</th>
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**NOTES:**
- Cast rings available in stainless.
- Refer to chart for standard cast rings.
- All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

### Cast Ring Accessories

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## Angle Ring Specifications

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### Notes:
- Standard mounting hole locations for welded (fixed) angle rings straddle the vertical centerline unless otherwise specified.
- Refer to chart for standard angle rings.
- All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

### Options:
- Custom hole pattern and orientation available.
### ACCESSORIES

#### PSP-EZ™ Clamp Kit

**CROSS SECTION OF 2" & 3" PSP-EZ™ JOINT**

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<td>2&quot;</td>
</tr>
<tr>
<td>CL003</td>
<td>3&quot; CLAMP</td>
<td>3&quot;</td>
</tr>
<tr>
<td>GAS11</td>
<td>2&quot; GASKET</td>
<td>2&quot;</td>
</tr>
<tr>
<td>GAS13</td>
<td>3&quot; GASKET</td>
<td>3&quot;</td>
</tr>
</tbody>
</table>

Each Kit above contains a clamp and PTFE die cut gasket.

**NOTE**

- All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

**CROSS SECTION OF 4"-14" PSP-EZ™ JOINT**

<table>
<thead>
<tr>
<th>PART NO.</th>
<th>DESCRIPTION</th>
<th>DUCT DIA.</th>
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<tbody>
<tr>
<td>CL004KT</td>
<td>4&quot; CLAMP KIT</td>
<td>4&quot;</td>
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<tr>
<td>CL006KT</td>
<td>6&quot; CLAMP KIT</td>
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<tr>
<td>CL008KT</td>
<td>8&quot; CLAMP KIT</td>
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<tr>
<td>CL010KT</td>
<td>10&quot; CLAMP KIT</td>
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<td>CL012KT</td>
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</tr>
<tr>
<td>CL014KT</td>
<td>14&quot; CLAMP KIT</td>
<td>14&quot;</td>
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</tbody>
</table>

Each Kit above contains a clamp, PTFE tape gasket, and two backing rings.

The PSP-EZ™ joining system is available for standard PSP® duct from 2" to 14" in diameter. The combination of half round backing rings and the unique angled clamp band provides excellent clamping force with the added benefit of ease of installation.
2" & 3" EZ FITTINGS

Product Guide

2" & 3" PSP-EZ™ CLAMP

STRAIGHT DUCT
4' LENGTH OR CUSTOM
SIZE: 2" & 3"
PAGE: 55

STRAIGHT TEE
SIZE: 2" & 3"
PAGE: 55

REDUCING TEE
SIZE: 3" TO 2"
PAGE: 55

DOUBLE TEE
SIZE: 2" & 3"
PAGE: 56

LATERAL - 45°
SIZE: 2" & 3"
PAGE: 56

ELBOW 90°
SIZE: 2" & 3"
PAGE: 56

ELBOW 45°
SIZE: 2" & 3"
PAGE: 57

ELBOW 30°
SIZE: 2" & 3"
PAGE: 57

ECCENTRIC ADAPTER
SIZE: 3" TO 2"
4" TO 2", 4" TO 3"
PAGE: 57

CONCENTRIC ADAPTER
SIZE: 3" TO 2"
4" TO 2", 4" TO 3"
PAGE: 58

VAN STONE TO EZ FLANGE ADAPTER
SIZE: 3" TO 2"
4" TO 2", 4" TO 3"
PAGE: 58

END CAP
SIZE: 2" & 3"
PAGE: 58

MICRO ADJUSTABLE DAMPER
SIZE: 2" & 3"
PAGE: 59

FIELD INSTALL STRAIGHT DUCT FLANGE
SIZE: 2" & 3"
PAGE: 60
All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

**EZ Straight**

<table>
<thead>
<tr>
<th>PART NO.</th>
<th>DESCRIPTION</th>
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<tbody>
<tr>
<td>PZP002</td>
<td>2&quot; LINE</td>
<td>2&quot;</td>
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<tr>
<td>PZS002</td>
<td>2&quot; LINE CUSTOM LENGTH</td>
<td>2&quot;</td>
<td>CUSTOM</td>
</tr>
<tr>
<td>PZP003</td>
<td>3&quot; LINE</td>
<td>3&quot;</td>
<td>47.25&quot;</td>
</tr>
<tr>
<td>PZS003</td>
<td>3&quot; LINE CUSTOM LENGTH</td>
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**EZ Tee**

<table>
<thead>
<tr>
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<th>DESCRIPTION</th>
<th>&quot;D1&quot;</th>
<th>&quot;D2&quot;</th>
<th>&quot;L1&quot;</th>
<th>&quot;L2&quot;</th>
<th>&quot;L3&quot;</th>
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</thead>
<tbody>
<tr>
<td>02T02</td>
<td>2&quot; LINE WITH 2&quot; TEE</td>
<td>2&quot;</td>
<td>2&quot;</td>
<td>6.24&quot;</td>
<td>3.12&quot;</td>
<td>3.12&quot;</td>
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<tr>
<td>03T03</td>
<td>3&quot; LINE WITH 3&quot; TEE</td>
<td>3&quot;</td>
<td>3&quot;</td>
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All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

**EZ Reducing Tee**

<table>
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<th>&quot;D2&quot;</th>
<th>&quot;L1&quot;</th>
<th>&quot;L2&quot;</th>
<th>&quot;L3&quot;</th>
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<td>3&quot;</td>
<td>2&quot;</td>
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All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.
### 2" & 3" EZ FITTINGS

#### EZ Double Tee

<table>
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<tr>
<th>PART NO.</th>
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<th>&quot;D1&quot;</th>
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<th>&quot;L1&quot;</th>
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<th>&quot;L3&quot;</th>
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All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

#### EZ Lateral

<table>
<thead>
<tr>
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<th>&quot;D1&quot;</th>
<th>&quot;D2&quot;</th>
<th>&quot;L1&quot;</th>
<th>&quot;L2&quot;</th>
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</thead>
<tbody>
<tr>
<td>02Y02</td>
<td>2&quot; LINE WITH 2&quot; LATERAL</td>
<td>2&quot;</td>
<td>2&quot;</td>
<td>7.50&quot;</td>
<td>2.00&quot;</td>
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<tr>
<td>03Y03</td>
<td>3&quot; LINE WITH 3&quot; LATERAL</td>
<td>3&quot;</td>
<td>3&quot;</td>
<td>9.31&quot;</td>
<td>2.03&quot;</td>
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All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

#### 90° EZ Elbow

<table>
<thead>
<tr>
<th>PART NO.</th>
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<th>&quot;L&quot;</th>
<th>R</th>
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<tbody>
<tr>
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<td>2&quot; 90° ELBOW</td>
<td>2&quot;</td>
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<td>2&quot;</td>
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<td>PZE03</td>
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<td>4.62&quot;</td>
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All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.
2" & 3" EZ FITTINGS

45° EZ Elbow

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<tbody>
<tr>
<td>PZ502</td>
<td>2&quot; 45° ELBOW</td>
<td>2&quot;</td>
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<td>PZ503</td>
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All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

30° EZ Elbow

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<th>&quot;L&quot;</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>PZ302</td>
<td>2&quot; 30° ELBOW</td>
<td>2&quot;</td>
<td>1.94&quot;</td>
<td>2&quot;</td>
</tr>
<tr>
<td>PZ303</td>
<td>3&quot; 30° ELBOW</td>
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<td>2.38&quot;</td>
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All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

Eccentric EZ Reducer

<table>
<thead>
<tr>
<th>PART NO.</th>
<th>DESCRIPTION</th>
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<th>&quot;D2&quot;</th>
<th>&quot;L1&quot;</th>
<th>&quot;L2&quot;</th>
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</thead>
<tbody>
<tr>
<td>PEA32F</td>
<td>2&quot; TO 3&quot; ECCENTRIC</td>
<td>2&quot;</td>
<td>3&quot;</td>
<td>8.25&quot;</td>
<td>0.50&quot;</td>
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<tr>
<td>PEA42F</td>
<td>2&quot; TO 4&quot; ECCENTRIC</td>
<td>2&quot;</td>
<td>4&quot;</td>
<td>12.75&quot;</td>
<td>1.00&quot;</td>
</tr>
<tr>
<td>PEA43F</td>
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<td>3&quot;</td>
<td>4&quot;</td>
<td>8.00&quot;</td>
<td>0.50&quot;</td>
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</table>

All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.
2\" & 3\" EZ FITTINGS

Concentric EZ Reducer

<table>
<thead>
<tr>
<th>PART NO.</th>
<th>DESCRIPTION</th>
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<th>&quot;D2&quot;</th>
<th>&quot;L1&quot;</th>
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</thead>
<tbody>
<tr>
<td>PCA32F</td>
<td>2&quot; TO 3&quot; CONCENTRIC</td>
<td>2&quot;</td>
<td>3&quot;</td>
<td>4.31&quot;</td>
</tr>
<tr>
<td>PCA42F</td>
<td>2&quot; TO 4&quot; CONCENTRIC</td>
<td>2&quot;</td>
<td>4&quot;</td>
<td>3.94&quot;</td>
</tr>
<tr>
<td>PCA43F</td>
<td>3&quot; TO 4&quot; CONCENTRIC</td>
<td>3&quot;</td>
<td>4&quot;</td>
<td>4.31&quot;</td>
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</table>

All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

Angle Ring to EZ Reducer

<table>
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<tr>
<th>PART NO.</th>
<th>DESCRIPTION</th>
<th>&quot;D1&quot;</th>
<th>&quot;D2&quot;</th>
<th>&quot;L1&quot;</th>
<th>&quot;D3&quot; O.D.</th>
<th>&quot;D4&quot; DIA.</th>
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</thead>
<tbody>
<tr>
<td>PCA32R</td>
<td>2&quot; TO 3&quot; ANGLE RING</td>
<td>2&quot;</td>
<td>3&quot;</td>
<td>4.25&quot;</td>
<td>5.06&quot;</td>
<td>4.31&quot;</td>
</tr>
<tr>
<td>PCA42R</td>
<td>2&quot; TO 4&quot; ANGLE RING</td>
<td>2&quot;</td>
<td>4&quot;</td>
<td>3.88&quot;</td>
<td>6.06&quot;</td>
<td>5.31&quot;</td>
</tr>
<tr>
<td>PCA43R</td>
<td>3&quot; TO 4&quot; ANGLE RING</td>
<td>3&quot;</td>
<td>4&quot;</td>
<td>4.25&quot;</td>
<td>6.06&quot;</td>
<td>5.31&quot;</td>
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</table>

All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

EZ End Cap

<table>
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<tr>
<th>PART NO.</th>
<th>DESCRIPTION</th>
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<th>&quot;L&quot;</th>
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<tbody>
<tr>
<td>PZC02</td>
<td>2&quot; END CAP</td>
<td>2&quot;</td>
<td>0.21&quot;</td>
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<tr>
<td>PZC03</td>
<td>3&quot; END CAP</td>
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<td>0.21&quot;</td>
</tr>
</tbody>
</table>

All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.
## 2" & 3" EZ FITTINGS

Micro-Adjustable EZ Damper

<table>
<thead>
<tr>
<th>PART NO.</th>
<th>DESCRIPTION</th>
<th>&quot;D&quot;</th>
<th>&quot;L&quot;</th>
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<tbody>
<tr>
<td>PZD02</td>
<td>2&quot; EZ-DAMPER</td>
<td>2&quot;</td>
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<tr>
<td>PZD03</td>
<td>3&quot; EZ-DAMPER</td>
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<td>3.875&quot;</td>
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</tbody>
</table>

All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.
NOTES

- All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.
- PermaShield fluoropolymer barrier coating on interior and exterior surfaces.
- Requires purchase of Pressing Wheel, Part #D0700 for installation. The pressing wheel is used to press a bead around the duct to complete the installation. Wheel fits Ridgid Pipe Cutter Model 3S. Refer to Fab-Tech's INSTALLATION AND ASSEMBLY GUIDE for assembly instructions.

<table>
<thead>
<tr>
<th>PART NO.</th>
<th>DESCRIPTION</th>
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<tbody>
<tr>
<td>HTB02</td>
<td>2&quot; FIELD FLANGE</td>
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<tr>
<td>HTB03</td>
<td>3&quot; FIELD FLANGE</td>
<td>3&quot;</td>
<td>2&quot;</td>
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</tbody>
</table>

FOR USE ON EZ STRAIGHT DUCT ONLY
NOT DESIGNED FOR EZ ELBOWS, TEES, OR REDUCERS

REPLACEMENT FLANGE FOR 2" & 3" STRAIGHT DUCT MODIFIED OR CUT TO LENGTH IN THE FIELD
REFER TO INSTALLATION AND ASSEMBLY GUIDE
2" & 3" EZ FITTINGS

EZ Blastgate

NOTE

- All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

SPECIFICATIONS

- Stainless steel frame material.
- Blade lockout system.

<table>
<thead>
<tr>
<th>PART NO.</th>
<th>DESCRIPTION</th>
<th>&quot;D&quot;</th>
<th>&quot;L&quot;</th>
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<tbody>
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<td>PZB02H</td>
<td>2&quot; EZ-BLASTGATE HORIZONTAL</td>
<td>2&quot;</td>
<td>8.000&quot;</td>
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<tr>
<td>PZB03H</td>
<td>3&quot; EZ-BLASTGATE HORIZONTAL</td>
<td>3&quot;</td>
<td>8.000&quot;</td>
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<table>
<thead>
<tr>
<th>PART NO.</th>
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<th>&quot;L&quot;</th>
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<td>PZB02V</td>
<td>2&quot; EZ-BLASTGATE VERTICAL</td>
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<td>PZB03V</td>
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<td>8.000&quot;</td>
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</table>
NOTES

- All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.
- Refer to Fab-Tech's INSTALLATION AND ASSEMBLY GUIDE for assembly instructions.
- PermaShield fluoropolymer barrier coating on inside surface and flange faces.
- Fab-Tech Flange / Test Port may be installed on fittings other than straight duct.
- Refer to the EZ fittings section for duct or the Fab-Tech Flange system section for adapters to attach to the Fab-Tech Flange.

<table>
<thead>
<tr>
<th>PART NO.</th>
<th>DESCRIPTION</th>
<th>&quot;D&quot;</th>
<th>&quot;L&quot;</th>
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<tbody>
<tr>
<td>FTFL2</td>
<td>2&quot; FT FLANGE</td>
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<td>FTFL3</td>
<td>3&quot; FT FLANGE</td>
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<td>.75&quot;</td>
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</table>

ADAPTERS AVAILABLE FOR THE FT FLANGE:

- Dwyer Pitot Adapter
- NPT Male Nipple
- Sprinkler Adapter
- KF Flange Adapter
- NPT Female Coupler
- SWAGELOK® Adapter
## NOTES

- All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.
- Refer to Fab-Tech’s INSTALLATION AND ASSEMBLY GUIDE for assembly instructions.
- PermaShield fluoropolymer barrier coating on inside surface and flange faces.
- KF Adapters are only available for 2” Fab-Tech Flange connection.

<table>
<thead>
<tr>
<th>PART NO.</th>
<th>DESCRIPTION</th>
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<tr>
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<tr>
<td>FTK40</td>
<td>2” TO 40 KF FLANGE</td>
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<td>1.25&quot;</td>
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<tr>
<td>FTK50</td>
<td>2” TO 50 KF FLANGE</td>
<td>50mm</td>
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</tbody>
</table>

**NOTES**

Refer to Fab-Tech’s INSTALLATION AND ASSEMBLY GUIDE for assembly instructions.

KF Adapters are only available for 2” Fab-Tech Flange connection.
NOTES

► All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.
► Refer to Fab-Tech's INSTALLATION AND ASSEMBLY GUIDE for assembly instructions.
► PermaShield fluoropolymer barrier coating on inside surface and flange face.
► NPT nipples are not covered under warranty other than for defects in manufacture. NPT threads are not coated and since the threads could possibly come in direct contact with corrosive fumes and fluids, Fab-Tech offers only a limited warranty for these parts. Depending on the specific application, NPT adapters should fall into the classification of consumable parts.

<table>
<thead>
<tr>
<th>PART NO.</th>
<th>DESCRIPTION</th>
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<th>PIPE THREAD</th>
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<td>1/8&quot; NPT</td>
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<tr>
<td>FTN14</td>
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<td>1/4&quot; NPT</td>
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<td>3/8&quot; NPT</td>
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<td>FTN12</td>
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<td>1/2&quot; NPT</td>
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<td>FTN34</td>
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<td>3/4&quot; NPT</td>
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<td>3&quot; NPT</td>
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<td>4&quot;</td>
<td>4&quot; NPT</td>
<td>3.00&quot;</td>
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**USED WITH 4" PSP-EZ™ TAP
NOTES

- All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.
- Refer to Fab-Tech's INSTALLATION AND ASSEMBLY GUIDE for assembly instructions.
- PermaShield fluoropolymer barrier coating on flange face.
- NPT nipples are not covered under warranty other than for defects in manufacture. NPT threads are not coated and since the threads could possibly come in direct contact with corrosive fumes and fluids, Fab-Tech offers only a limited warranty for these parts. Depending on the specific application, NPT adapters should fall into the classification of consumable parts.

<table>
<thead>
<tr>
<th>PART NO.</th>
<th>DESCRIPTION</th>
<th>&quot;D&quot;</th>
<th>PIPE THREAD</th>
<th>&quot;L1&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>FTF18</td>
<td>2&quot; TO 1/8&quot; NPT</td>
<td>2&quot;</td>
<td>1/8&quot; NPT</td>
<td>.75&quot;</td>
</tr>
<tr>
<td>FTF14</td>
<td>2&quot; TO 1/4&quot; NPT</td>
<td>2&quot;</td>
<td>1/4&quot; NPT</td>
<td>.75&quot;</td>
</tr>
<tr>
<td>FTF38</td>
<td>2&quot; TO 3/8&quot; NPT</td>
<td>2&quot;</td>
<td>3/8&quot; NPT</td>
<td>.75&quot;</td>
</tr>
<tr>
<td>FTF12</td>
<td>2&quot; TO 1/2&quot; NPT</td>
<td>2&quot;</td>
<td>1/2&quot; NPT</td>
<td>.75&quot;</td>
</tr>
<tr>
<td>FTF34</td>
<td>2&quot; TO 3/4&quot; NPT</td>
<td>2&quot;</td>
<td>3/4&quot; NPT</td>
<td>.75&quot;</td>
</tr>
<tr>
<td>FTF01</td>
<td>2&quot; TO 1&quot; NPT</td>
<td>2&quot;</td>
<td>1&quot; NPT</td>
<td>1.25&quot;</td>
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<tr>
<td>FTF15</td>
<td>2&quot; TO 1.5&quot; NPT</td>
<td>2&quot;</td>
<td>1.5&quot; NPT</td>
<td>1.25&quot;</td>
</tr>
<tr>
<td>FTF02</td>
<td>2&quot; TO 2&quot; NPT</td>
<td>2&quot;</td>
<td>2&quot; NPT</td>
<td>1.25&quot;</td>
</tr>
</tbody>
</table>

Fab-Tech, Inc. / 480 Hercules Drive, Colchester, VT 05446 / Tel: 802-655-8800 / Fax: 802-655-8804 / www.fabtechinc.com
## Swagelok® Adapter

### NOTES
- All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.
- Refer to Fab-Tech's INSTALLATION AND ASSEMBLY GUIDE for assembly instructions.
- PermaShield fluoropolymer barrier coating on flange face.
- SWAGELOK® Adapters are not covered under warranty other than for defects in manufacture. SWAGELOK® threads are not coated and since the threads could possibly come in direct contact with corrosive fumes and fluids, Fab-Tech offers only a limited warranty for these parts. Depending on the specific application, SWAGELOK® adapters should fall into the classification of consumable parts.

### Table

<table>
<thead>
<tr>
<th>PART NO.</th>
<th>DESCRIPTION</th>
<th>&quot;D&quot;</th>
<th>THREAD</th>
<th>&quot;L1&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>FTS18**</td>
<td>2&quot; TO 1/8&quot; SWAGELOK®</td>
<td>2&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FTS14</td>
<td>2&quot; TO 1/4&quot; SWAGELOK®</td>
<td>2&quot;</td>
<td>7/16-20</td>
<td>.59&quot;</td>
</tr>
<tr>
<td>FTS38</td>
<td>2&quot; TO 3/8&quot; SWAGELOK®</td>
<td>2&quot;</td>
<td>9/16-18</td>
<td>.65&quot;</td>
</tr>
<tr>
<td>FTS12</td>
<td>2&quot; TO 1/2&quot; SWAGELOK®</td>
<td>2&quot;</td>
<td>3/4-16</td>
<td>.77&quot;</td>
</tr>
<tr>
<td>FTS34</td>
<td>2&quot; TO 3/4&quot; SWAGELOK®</td>
<td>2&quot;</td>
<td>1-1/16-12</td>
<td>.77&quot;</td>
</tr>
</tbody>
</table>

**FTS18 IS AVAILABLE AS A CUSTOM ADAPTER, NOT A STOCK ITEM**
NOTES

- All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.
- Refer to Fab-Tech's INSTALLATION AND ASSEMBLY GUIDE for assembly instructions.
- PermaShield fluoropolymer barrier coating on inside surface and flange faces.

<table>
<thead>
<tr>
<th>PART NO.</th>
<th>DESCRIPTION</th>
<th>&quot;D&quot;</th>
<th>&quot;L1&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>FTPT2</td>
<td>2&quot; PITOT FLANGE</td>
<td>2&quot;</td>
<td>0.88&quot;</td>
</tr>
<tr>
<td>FTPT3</td>
<td>3&quot; PITOT FLANGE</td>
<td>3&quot;</td>
<td>0.88&quot;</td>
</tr>
</tbody>
</table>

ALIGN PITOT TUBE TO CENTER OF DUCT BY ADJUSTING TO MARKINGS ON TUBE

VARIES ACCORDING TO DIAMETER OF DUCT (ADJUST AS NEEDED)

FAB-TECH FLANGE
CLAMP
PITOT ADAPTER
"O" RING
GASKET
SPLIT FLANGE MOUNTING KIT
Dwyer Pitot Adapter

FROM: Dwyer Instruments
www.dwyer-inst.com
NOTES

- All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.
- Refer to Fab-Tech's INSTALLATION AND ASSEMBLY GUIDE for assembly instructions.
- PermaShield fluoropolymer barrier coating on flange face and o-ring surfaces.

<table>
<thead>
<tr>
<th>PART NO.</th>
<th>DESCRIPTION</th>
<th>&quot;D&quot;</th>
<th>&quot;L1&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>FTSP2</td>
<td>2&quot; SPRINKLER FLANGE</td>
<td>2&quot;</td>
<td>1.10&quot;</td>
</tr>
<tr>
<td>FTSP3</td>
<td>3&quot; SPRINKLER FLANGE</td>
<td>3&quot;</td>
<td>2.00&quot;</td>
</tr>
</tbody>
</table>

WATER SUPPLY CONNECTION

DUCT

GASKET

CLAMP

FAB-TECH FLANGE

"O" RING (SECONDARY SEAL AND TO HOLD BAG IN PLACE)

SPRINKLER HEAD

(BAG USED TO PREVENT CORROSION OF SPRINKLER HEAD

(SPRINKLER HEAD AND BAG SUPPLIED BY OTHERS CALL FOR DETAILS)

BAG
NOTES

- All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.
- Refer to Fab-Tech's INSTALLATION AND ASSEMBLY GUIDE for assembly instructions.
- PermaShield fluoropolymer barrier coating on inside surface and flange faces.
- Requires Hydraulic Punch & Swage Kit (TPSO2) to install - check accessories section.
- Requires disassembly of duct to install this fitting.

<table>
<thead>
<tr>
<th>PART NO.</th>
<th>DESCRIPTION</th>
<th>&quot;D&quot;</th>
<th>&quot;L1&quot;</th>
<th>HOST DUCT DIAMETER</th>
</tr>
</thead>
<tbody>
<tr>
<td>FTFL2FI</td>
<td>2&quot; FIELD FLANGE</td>
<td>2&quot;</td>
<td>1.69&quot;</td>
<td>10&quot; DIAMETER MINIMUM</td>
</tr>
</tbody>
</table>

SPLIT LOCKING RING

DUCT (10" DIA MIN)

GASKET

LOCKING RING
NOTES

► All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.
► Refer to Fab-Tech’s INSTALLATION AND ASSEMBLY GUIDE for assembly instructions.
► PermaShield fluoropolymer barrier coating on inside surfaces and flange face.
► Fab-Tech’s field installed PSP™ saddle tap will allow a new 2” diameter branch to be installed in a 6” and larger diameter duct or a new 3” diameter branch to be installed in an 8” and larger diameter duct without shutting down the exhaust system.

<table>
<thead>
<tr>
<th>PART NO.</th>
<th>DESCRIPTION</th>
<th>“D1”</th>
<th>“D2”</th>
</tr>
</thead>
<tbody>
<tr>
<td>PZQ02</td>
<td>2” EZ-TAP</td>
<td>2”</td>
<td>6” MIN</td>
</tr>
<tr>
<td>PZQ03</td>
<td>3” EZ-TAP</td>
<td>3”</td>
<td>8” MIN</td>
</tr>
</tbody>
</table>

Field Installed Fab-Tech Flange Saddle Tap

SECTION THROUGH DUCT
Flange material is stainless steel.

The number of holes for the bolt hole pattern is determined from the duct width and depth. Hole to hole distance will be calculated to be between 3" to 4". Oblong holes are punched along the flange centerline.

Duct width or depth of 98" and larger requires engineering review.

Interior stiffeners (1" SCH40 pipe) are welded between duct sides 50" wide or greater. Separate offset stiffeners are used when both duct width and depth are 50" or greater.
Rectangular Duct

**Straight Duct**

- **NOTE**
  - All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

- **OPTIONS**
  - Custom lengths available.
  - Raw end available.
  - Duct width or depth of 98" and larger requires Fab-Tech engineering review and approval.
  - An interior stiffener (1" SCH40 pipe) is added at the midpoint of the flange for duct width or depth of 50" and greater.

- **INTERIOR STIFFENER**
  - MAX. 48-1/4"

- **OPTIONS**
  - Custom lengths available.
  - Raw end available.
  - Duct width or depth of 98" and larger requires Fab-Tech engineering review and approval.
  - An interior stiffener (1" SCH40 pipe) is added at the midpoint of the flange for duct width or depth of 50" and greater.

---

**Straight Duct with Straight Rectangular Tap**

- **NOTE**
  - All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

- **OPTIONS**
  - Custom lengths available.
  - Raw end available.
  - Duct width or depth of 98" and larger requires Fab-Tech engineering review and approval.
  - An interior stiffener (1" SCH40 pipe) is added at the midpoint of the flange for duct width or depth of 50" and greater.

- **LONGER THAN STANDARD LENGTHS AND/OR HIGHER SYSTEM PRESSURES MAY REQUIRE ADDITIONAL STIFFENERS PER SMACNA, CONTACT FAB-TECH FOR SPECIFIC GUIDELINES.**
**NOTE**
- All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

**OPTIONS**
- Custom lengths available.
- Raw end available.
- Duct width or depth of 98” and larger requires Fab-Tech engineering review and approval.
- An interior stiffener (1” SCH40 pipe) is added at the midpoint of the flange for duct width or depth of 50” and greater.

**Straight Duct with Rectangular Boot Tap**

**Straight Duct with Rectangular Conical Tap**

**NOTE**
- All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

**OPTIONS**
- Custom lengths available.
- Raw end available.
- Duct width or depth of 98” and larger requires Fab-Tech engineering review and approval.
- An interior stiffener (1” SCH40 pipe) is added at the midpoint of the flange for duct width or depth of 50” and greater.

---

LONGER THAN STANDARD LENGTHS AND/OR HIGHER SYSTEM PRESSURES MAY REQUIRE ADDITIONAL STIFFENERS PER SMACNA, CONTACT FAB-TECH FOR SPECIFIC GUIDELINES.
NOTE
► All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

OPTIONS
► Custom lengths available.
► Raw end available.
► Duct width or depth of 98" and larger requires Fab-Tech engineering review and approval.
► An interior stiffener (1" SCH40 pipe) is added at the midpoint of the flange for duct width or depth of 50" and greater.

LONGER THAN STANDARD LENGTHS AND/OR HIGHER SYSTEM PRESSURES MAY REQUIRE ADDITIONAL STIFFENERS PER SMACNA, CONTACT FAB-TECH FOR SPECIFIC GUIDELINES.

NOTE
► All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

OPTIONS
► Custom lengths available.
► Raw end available.
► Duct width or depth of 98" and larger requires Fab-Tech engineering review and approval.
► An interior stiffener (1" SCH40 pipe) is added at the midpoint of the flange for duct width or depth of 50" and greater.

LONGER THAN STANDARD LENGTHS AND/OR HIGHER SYSTEM PRESSURES MAY REQUIRE ADDITIONAL STIFFENERS PER SMACNA, CONTACT FAB-TECH FOR SPECIFIC GUIDELINES.
Straight Duct with Multiple Taps

- 6" STD
- "L1" - MAX. 48-1/4"
- "L2" MIN 6"
- "L3" STRAIGHT TAP
- "L3" CONICAL TAP
- "L3" ROUND TAP
- "L3" 45° LATERAL TAP
- 4" MIN "TX"
- "RX"
- "TX"
- "TX"
- "TX"
- "TX"
- "TX"
- "TX"
- 45°

OPTIONS
- Custom lengths available.
- Raw end available.
- Duct width or depth of 98" and larger requires Fab-Tech engineering review and approval.
- An interior stiffener (1" SCH40 pipe) is added at the midpoint of the flange for duct width or depth of 50° and greater.

NOTE
- All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

LONGER THAN STANDARD LENGTHS AND/OR HIGHER SYSTEM PRESSURES MAY REQUIRE ADDITIONAL STIFFENERS PER SMACNA, CONTACT FAB-TECH FOR SPECIFIC GUIDELINES.
90°, 60°, 45°, 30° or Custom Elbow

NOTE

- All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

OPTIONS

- Raw end available.
- Duct width or depth of 98" and larger requires Fab-Tech engineering review and approval.
- An interior stiffener (1" SCH40 pipe) is added at the midpoint of the flange for duct width or depth of 50" and greater.

90°, 60°, 45°, 30° or Custom Mitered Elbow

NOTE

- All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

OPTIONS

- Raw end available.
- Duct width or depth of 98" and larger requires Fab-Tech engineering review and approval.
- An interior stiffener (1" SCH40 pipe) is added at the midpoint of the flange for duct width or depth of 50" and greater.
CONCENTRIC TRANSITION

FOR ECCENTRIC RECTANGULAR TO RECTANGULAR FITTING, USE THE CUSTOM FITTING ORDER SHEET.

NOTE
► All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

OPTIONS
► Raw end available.
► Duct width or depth of 98" and larger requires Fab-Tech engineering review and approval.
► An interior stiffener (1" SCH40 pipe) is added at the midpoint of the flange for duct width or depth of 50" and greater.

CONCENTRIC RECTANGULAR TO ROUND TRANSITION

FOR ECCENTRIC RECTANGULAR TO ROUND FITTING, USE THE CUSTOM FITTING ORDER SHEET.

NOTE
► All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

OPTIONS
► Raw end available.
► Duct width or depth of 98" and larger requires Fab-Tech engineering review and approval.
► An interior stiffener (1" SCH40 pipe) is added at the midpoint of the flange for duct width or depth of 50" and greater.
NOTE
- All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

OPTIONS
- Raw end available.
- Duct width or depth of 98" and larger requires Fab-Tech engineering review and approval.
- An interior stiffener (1" SCH40 pipe) is added at the midpoint of the flange for duct width or depth of 50" and greater.

Horizontal Offset

NOTE
- All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

OPTIONS
- Raw end available.
- Duct width or depth of 98" and larger requires Fab-Tech engineering review and approval.
- An interior stiffener (1" SCH40 pipe) is added at the midpoint of the flange for duct width or depth of 50" and greater.
**Double Offset**

**NOTE**
- All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

**OPTIONS**
- Raw end available.
- Duct width or depth of 98" and larger requires Fab-Tech engineering review and approval.
- An interior stiffener (1" SCH40 pipe) is added at the midpoint of the flange for duct width or depth of 50" and greater.

**End Cap**

**NOTE**
- All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

**OPTIONS**
- Flange material will be stainless steel unless other material is specified.
- Duct width or depth of 98" and larger requires Fab-Tech engineering review and approval.
- A stiffener (angle material matching the frame) is added at the flange midpoint or where aesthetically pleasing for duct width or depth of 50" and greater (as required to meet maximum 4' spacing).
Industrial Rectangular Parallel Blade Control Damper

NOTE
► All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

SPECIFICATIONS
► Frame 8” standard length with 2” flanges.
► Mounting holes (.562” x .750” slot) located between 3” to 4” on center.
► Blades - 10 GA stainless steel.
► Axles - .50” diameter stainless steel.
► Liquid tight shaft seals.
► Linkage located outside the airstream - 10 GA stainless steel twin drive as required.
► Quadrant plates - 10 GA stainless steel.
► Quadrant lever - .25” stainless steel.
► Full open / full close lockouts.
► PTFE frame seals.

OPTIONS
► Actuator mounting kits.
► Blank mounting kit (plate & shaft adapter) for customer supplied actuator.
► Pneumatic / electric actuator.
► Gear drive with locking damper shaft.

FOR "L1" OR "L2" LONGER THAN 36” HEAVY DUTY DAMPER IS REQUIRED

Industrial Rectangular Opposed Blade Control Damper

NOTE
► All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

SPECIFICATIONS
► Frame 8” standard length with 2” flanges.
► Mounting holes (.562” x .750” slot) located between 3” to 4” on center.
► Blades - 10 GA stainless steel.
► Axles - .50” diameter stainless steel.
► Liquid tight shaft seals.
► Linkage located outside the airstream - 10 GA stainless steel twin drive as required.
► Quadrant plates - 10 GA stainless steel.
► Quadrant lever - .25” stainless steel.
► Full open / full close lockouts.
► PTFE frame seals.

OPTIONS
► Actuator mounting kits.
► Blank mounting kit (plate & shaft adapter) for customer supplied actuator.
► Pneumatic / electric actuator.
► Gear drive with locking damper shaft.

FOR "L1" OR "L2" LONGER THAN 36” HEAVY DUTY DAMPER IS REQUIRED
**NOTE**

- All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

**SPECIFICATIONS**

- 10 GA stainless steel frame 8" std length with 2" flanges center support as required.
- Flange mounting holes (.562" X .750" slot) equal to or less than 4" on center.
- 14 GA stainless steel blades.
- .50" diameter stainless steel axles.
- Liquid tight shaft seals.
- All linkages 10 GA stainless steel outside airstream.
- PTFE frame seals.

**CENTER SUPPORT REQUIRED FOR BLADES LONGER THAN 36" ("L1")**
**Heavy Duty Rectangular Parallel Blade Control Damper**

**NOTE**
- All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

**SPECIFICATIONS**
- Frame 10" standard length with 2" flanges.
- Mounting holes (.562" x .750" slot) located between 3" to 4" on center.
- Blades - 10 GA stainless steel.
- Axles - 1.38" diameter stainless steel.
- Liquid tight shaft seals.
- Linkage located outside the airstream - 10 GA stainless steel twin drive as required.
- Quadrant plates - 10 GA stainless steel.
- Quadrant lever - .25" stainless steel.
- Full open / full close lockouts.
- PTFE frame seals.

**OPTIONS**
- Actuator mounting kits.
- Blank mounting kit (plate & shaft adapter) for customer supplied actuator.
- Pneumatic / electric actuator.
- Gear drive with locking damper shaft.

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**Heavy Duty Rectangular Opposed Blade Control Damper**

**NOTE**
- All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

**SPECIFICATIONS**
- Frame 10" standard length with 2" flanges.
- Mounting holes (.562" x .750" slot) located between 3" to 4" on center.
- Blades - 10 GA stainless steel.
- Axles - 1.38" diameter stainless steel.
- Liquid tight shaft seals.
- Linkage located outside the airstream - 10 GA stainless steel twin drive as required.
- Quadrant plates - 10 GA stainless steel.
- Quadrant lever - .25" stainless steel.
- Full open / full close lockouts.
- PTFE frame seals.

**OPTIONS**
- Actuator mounting kits.
- Blank mounting kit (plate & shaft adapter) for customer supplied actuator.
- Pneumatic / electric actuator.
- Gear drive with locking damper shaft.
Horizontal Blastgate

CENTER SUPPORT REQUIRED FOR BLADES LONGER THAN 36\(^\prime\) ("L1")

**SPECIFICATIONS**
- Stainless steel body, rings and blades.
- Blade lockout system.
- All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

Vertical Blastgate

CENTER SUPPORT REQUIRED FOR BLADES LONGER THAN 36\(^\prime\) ("L1")

**SPECIFICATIONS**
- Stainless steel body, rings and blades.
- Blade lockout system.
- All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.