

PSP[®]

PermaShield Pipe

Stainless Steel Corrosive Fume
Exhaust Systems With
PermaShield Fluoropolymer
Barrier Coating

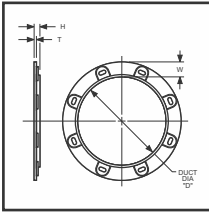
PRODUCT CATALOG

Catalog 10/12.5



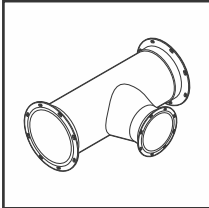
Fab-Tech, Inc.

A Critical Process Systems Group Company



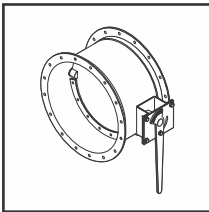
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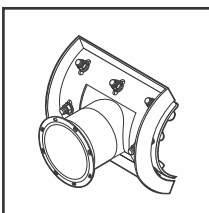
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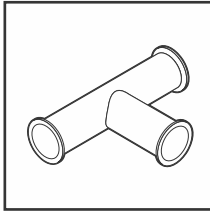
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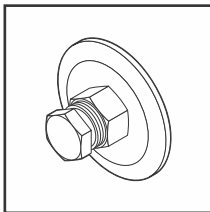
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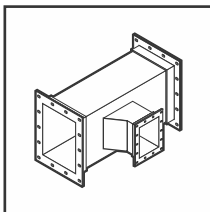
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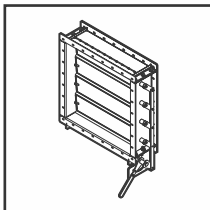
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PermaShield Pipe (PSP®) Ductwork Fabrication Standards

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.
7. ASTM E-84 Standard Test Method for Surface Burning Characteristics. Tested in flat sheet form at a 20 ga. (0.95 mm) thickness: Flame Spread 0, Smoke Density 20.

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.

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.

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



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Email address: sales@fabtechinc.com

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Straight Duct Gauge

MIN GAUGE FOR 4' DUCT

DUCT DIA "D"	-6" WG	-8" WG	-10" WG	-12" WG	-14" WG	-16" WG	-18" WG	STD DUCT LENGTH
4								
6								
8								
10								
12			20	20	20	20	20	
14		20						
16	20							
18								
20								
22								
24								
26								47.25
28								
30								
32						18	18	
34								
36					18			
38								
40								
42				18				
44								
46			18					
48							16	
50						16		
52								
54		18						
56					16			
58								
60								
62								
64	18							
66								
68								
70			16	16			14	
72								
74								
76						14		46.75
78								
80								
82		16			14			
84								
86								
88								
90								
92								
94								
96								
98	16							
100								
102			14	14			12	
104								
106						12		
108		14						
110								
112								48.25
114								
116								
118								
120	14							

MIN GAUGE FOR 8' DUCT

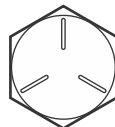
DUCT DIA "D"	-6" WG	-8" WG	-10" WG	-12" WG	-14" WG	-16" WG	-18" WG	STD DUCT LENGTH	DUCT DIA "D"
4									4
6									6
8									8
10									10
12									12
14									14
16									16
18									18
20	20								20
22									22
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104									104
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108									108
110									110
112									112
114									114
116									116
118									118
120									120

Ring Mechanical Specifications

ANGLE RING SPECIFICATIONS							RING MATERIAL & GASKETS			CAST RING SPECIFICATIONS										
DUCT DIA D	WIDTH (W)	THICKNESS (T)	# HOLES	# HOLES SS HARDWARE	BOLT HOLE SIZE	BOLT SIZE	BOLT CIRCLE DIA.	DUCT DIA D	PTFE GASKET W x H	STAINLESS STEEL	BLACK IRON	DUCT DIA D	WIDTH (W)	HEIGHT (H)	THICKNESS (T)	# HOLES	BOLT HOLE SIZE	BOLT SIZE	BOLT CIRCLE DIA.	
4	1	1/8	6	6	3/8	5/16	5.31	4	3/16 x 1/8	SC	BI	4	1-1/4	13/32	1/8	6	3/8 x 5/8	5/16	5.31	
6	8		8	8	3/8 x 5/8		7.50	6				6				7.50				
8	10		8	8	3/8 x 5/8		9.50	8				8				9.50				
10	1-1/2	3/16	12	12	7/16 x 11/16 SLOT	3/8	11.50	1/4 x 1/8	SS	FLOAT	BI	10	1-1/2	1/2	3/16	12	7/16 x 11/16	3/8	11.50	
12			12	12			12					13.81				12			12	13.81
14			12	12			12					15.81				14			14	15.81
16			12	12			12					17.63				16			16	17.63
18			12	12			12					19.63				18			18	19.63
20			12	12			12					21.63				20			20	21.63
22			12	12			12					23.88				22			22	23.88
24			12	12			12					25.88				24			24	25.88
26			12	12			12					27.88				26			26	27.88
28			12	12			12					29.88				28			28	29.88
30			12	12			12					31.88				30			30	31.88
32			12	12			12					33.88				32			32	33.88
34	2	3/16	32	32	7/16 x 11/16 SLOT	3/8	35.88	1/4 x 3/16	SS	STITCH WELDED	BI	34	2	1/2	3/16	32	7/16 x 11/16	3/8	35.88	
36			32	32			32					37.88				36			36	37.88
38			32	32			32					40.38				38			38	40.38
40			32	32			32					42.38				40			40	42.38
42			32	32			32					44.38				42			42	44.38
44			32	32			32					46.38				44			44	46.38
46			32	32			32					48.38				46			46	48.38
48			32	32			32					50.38				48			48	50.38
50			32	32			32					52.88				50			50	52.88
52			32	32			32					54.88				52			52	54.88
54			32	32			32					56.88				54			54	56.88
56			32	32			32					58.88				56			56	58.88
58	32	32	32	60.88	58	58	60.88													
60	32	32	32	62.88	60	60	62.88													
62	32	32	32	64.88	62	62	64.88													
64	32	32	32	66.88	64	64	66.88													
66	32	32	32	68.88	66	66	68.88													
68	32	32	32	70.88	68	68	70.88													
70	32	32	32	72.88	70	70	72.88													
72	32	32	32	74.88	72	72	74.88													
74	32	32	32	76.88	74	74	76.88													
76	32	32	32	78.88	76	76	78.88													
78	32	32	32	80.88	78	78	80.88													
80	32	32	32	82.88	80	80	82.88													
82	32	32	32	84.88	82	82	84.88													
84	32	32	32	86.88	84	84	86.88													
86	32	32	32	89.38	86	86	89.38													
88	32	32	32	91.38	88	88	91.38													
90	32	32	32	93.38	90	90	93.38													
92	32	32	32	95.38	92	92	95.38													
94	32	32	32	97.38	94	94	97.38													
96	32	32	32	100.38	96	96	100.38													
98	32	32	32	102.38	98	98	102.38													
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102	32	32	32	106.38	102	102	106.38													
104	32	32	32	108.38	104	104	108.38													
106	32	32	32	110.38	106	106	110.38													
108	32	32	32	112.38	108	108	112.38													
110	32	32	32	114.38	110	110	114.38													
112	32	32	32	116.38	112	112	116.38													
114	32	32	32	118.38	114	114	118.38													
116	32	32	32	120.38	116	116	120.38													
118	32	32	32	122.38	118	118	122.38													
120	32	32	32	124.38	120	120	124.38													

KEY: **SC** STAINLESS CAST RING
SS STAINLESS STEEL ANGLE RING
BI BLACK IRON ANGLE RING

- 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.



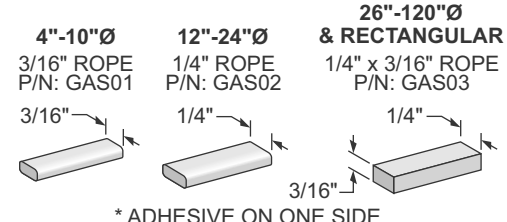
Grade 5 Bolt Markings:

Torque Specifications:
Torque in at least 3 stages

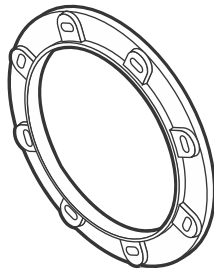
Duct Dia.	Bolt Size	Ft lb	In lb	M kg
4"-10"	5/16"	22	264	3.0
12"-48"	3/8"	36	432	5.0
50"-120"	7/16"	60	720	8.3

- ▶ Number of bolt holes for SS hardware is greater due to lower torque values than for grade 5.
- ▶ 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 ROPE GASKETS* FOR RING JOINTS

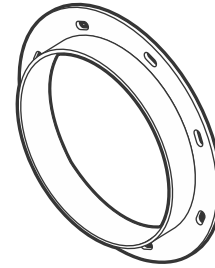
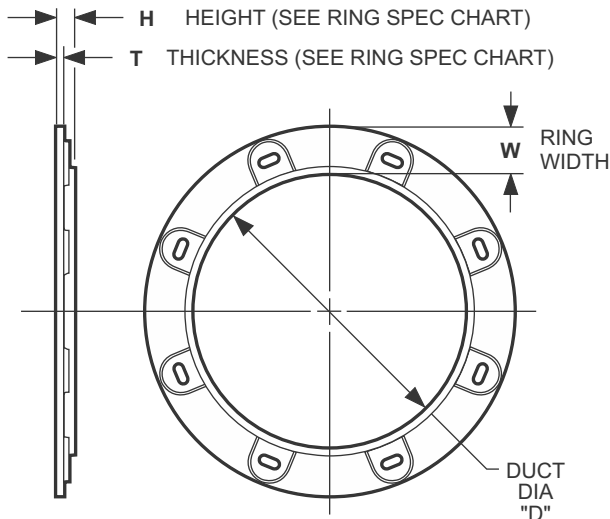


Ring Mechanical Specifications



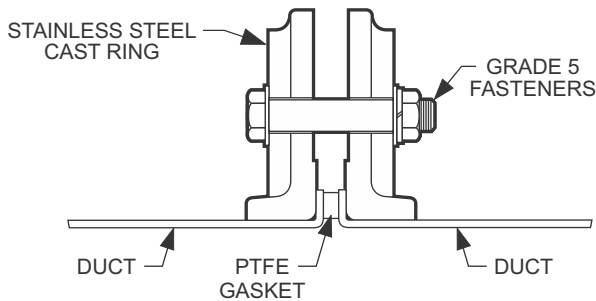
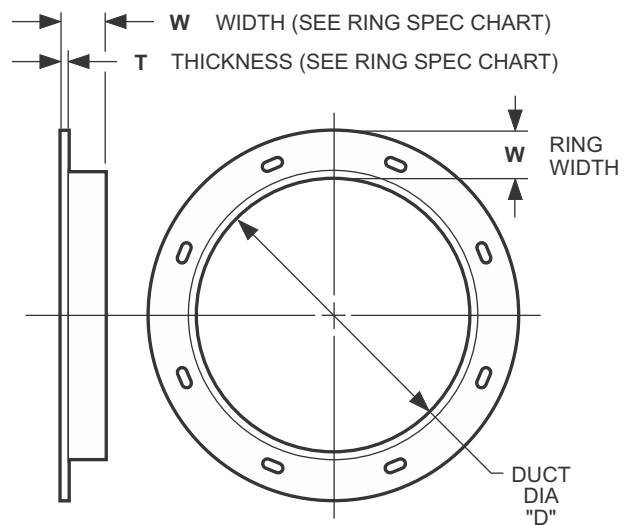
Cast Ring

STANDARD FOR DUCT 4" TO 14"

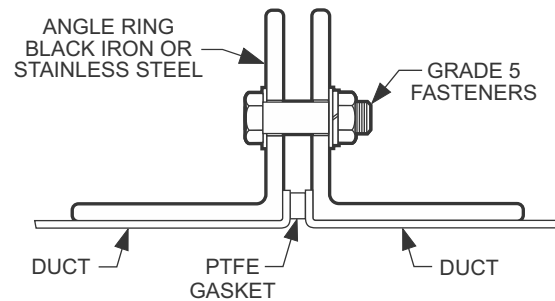


Angle Ring

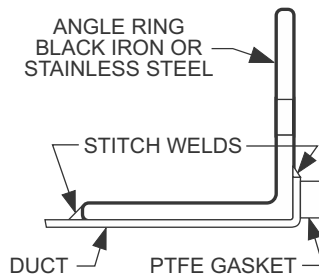
BLACK IRON ANGLE RING 4" TO 100"
STAINLESS STEEL ANGLE RING 16" TO 120"



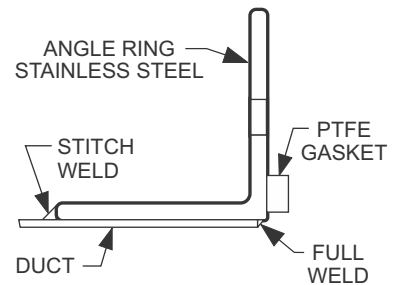
Floating Cast Ring



Floating Angle Ring



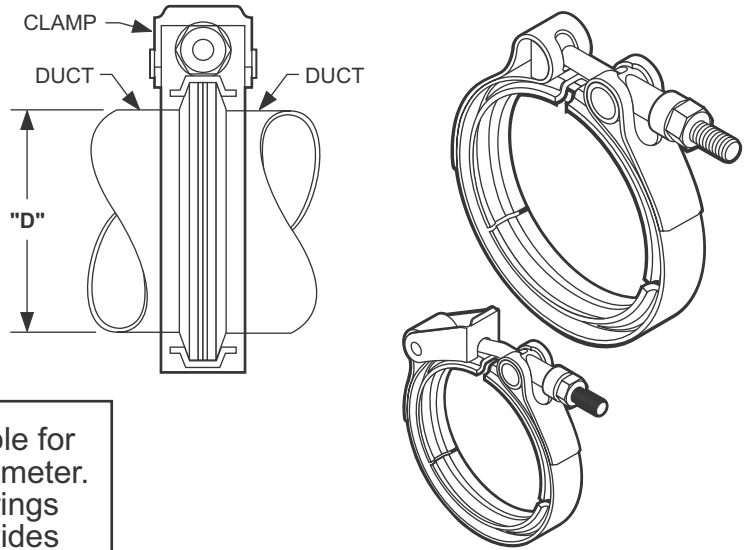
Stitch Welded Angle Ring



Welded Angle Ring

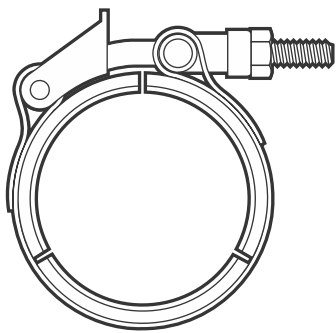
PSP-EZ™ Clamp Mechanical Specifications

DUCT DIA. "D"	DUCT GAUGE			STRAIGHT DUCT LENGTH	BACKING RING
	-6" WG	-12" WG	-18" WG		
2	.035 TUBING			4 FT (47.25" ACTUAL)	WELDED
3					FLOATING
4					
6					
8	20	20	20		
10					
12					
14					

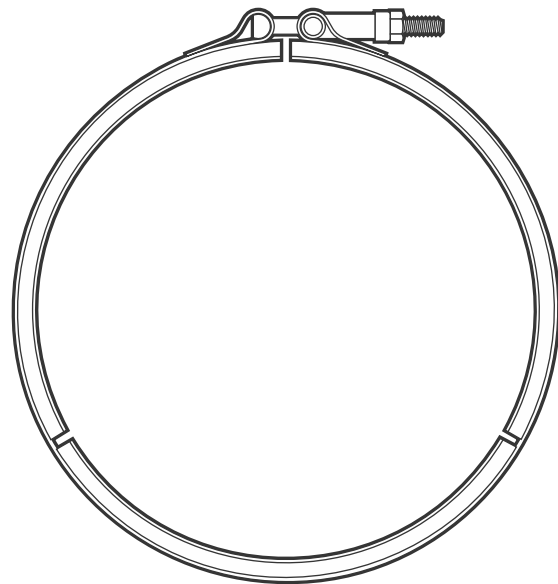


The PSP-EZ™ joining system is available for standard PSP® duct from 2" to 14" in diameter. The combination of half round backing rings and the unique angled clamp band provides excellent clamping force with the added benefit of ease of installation.

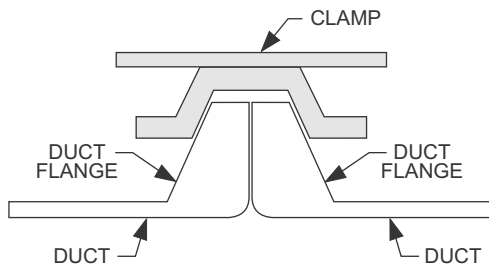
Duct Dia.	Bolt Size	Torque Specifications: Torque in at least 3 stages		
		lb*ft	lb*in	kg*m
4", 6"	1/4"	6.25	75	0.9
8", 10", 12", 14"	5/16"	10	120	1.4



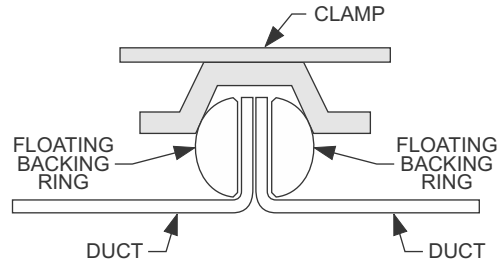
2" & 3" PSP-EZ™ CLAMP



4"-14" PSP-EZ™ CLAMP

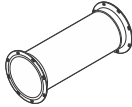

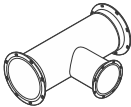
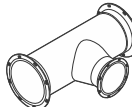
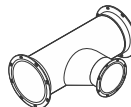
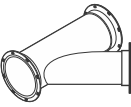
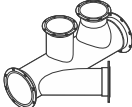
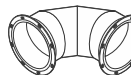
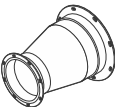

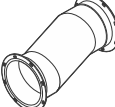

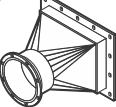
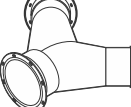
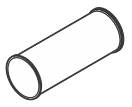







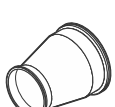



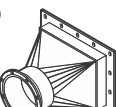
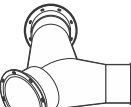


CROSS SECTION OF JOINT



CROSS SECTION OF JOINT

Product Guide

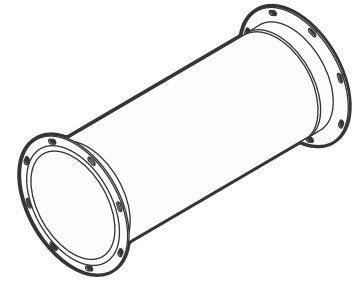
<p>4" to 120" DUCT</p>	<p>STRAIGHT DUCT</p>  <p>SIZE: 4"-120" • PAGE:10</p>	<p>STRAIGHT DUCT WITH FAB-TECH FLANGE</p>  <p>SIZE: 2", 3" • PAGE: 11</p>
<p>STRAIGHT DUCT WITH STRAIGHT TAP</p>  <p>SIZE: 6"-120" • PAGE:12</p>	<p>STRAIGHT DUCT WITH CONICAL TAP</p>  <p>SIZE: 6"-120" • PAGE: 13</p>	<p>STRAIGHT DUCT WITH SHOE TAP</p>  <p>SIZE: 6"-120" • PAGE: 14</p>
<p>STRAIGHT DUCT WITH LATERAL TAP</p>  <p>SIZE: 6"-120" • PAGE: 15</p>	<p>STRAIGHT DUCT WITH MULTIPLE TAPS</p>  <p>SIZE: 4"-120" • PAGE: 16</p>	<p>GORED ELBOW 30°, 45°, 60°, 90°</p>  <p>SIZE:4"-120" • PAGE: 17</p>
<p>CONCENTRIC REDUCER</p>  <p>SIZE:6"-120" • PAGE: 18</p>	<p>ECCENTRIC REDUCER</p>  <p>SIZE: 6"-120" • PAGE: 18</p>	<p>OFFSET</p>  <p>SIZE: 4"-120" • PAGE: 19</p>
<p>END CAP</p>  <p>SIZE: 4"-120" • PAGE: 20</p>	<p>CONCENTRIC ROUND TO RECTANGULAR TRANSITION</p>  <p>• PAGE: 21</p>	<p>CUSTOM FITTING</p>  <p>• PAGE: 22</p>
<p>4" to 14" PSP-EZ™ CLAMP</p>	<p>STRAIGHT DUCT</p>  <p>SIZE: 4" TO 14" • PAGE:10</p>	<p>STRAIGHT DUCT WITH FAB-TECH FLANGE</p>  <p>SIZE: 2", 3" • PAGE: 11</p>
<p>STRAIGHT DUCT WITH STRAIGHT TAP</p>  <p>SIZE: 4" TO 14" • PAGE: 12</p>	<p>STRAIGHT DUCT WITH CONICAL TAP</p>  <p>SIZE: 6" TO 14" • PAGE: 13</p>	<p>STRAIGHT DUCT WITH SHOE TAP</p>  <p>SIZE: 6" TO 14" • PAGE: 14</p>
<p>STRAIGHT DUCT WITH LATERAL TAP</p>  <p>SIZE: 4" TO 14" • PAGE: 15</p>	<p>STRAIGHT DUCT WITH MULTIPLE TAPS</p>  <p>SIZE: 4" TO 14" • PAGE: 16</p>	<p>GORED ELBOWS 30°, 45°, 60°, 90°</p>  <p>SIZE: 4" TO 14" • PAGE: 17</p>
<p>CONCENTRIC REDUCER</p>  <p>SIZE: 4" TO 14" • PAGE: 18</p>	<p>ECCENTRIC REDUCER</p>  <p>SIZE: 4" TO 14" • PAGE: 18</p>	<p>OFFSET</p>  <p>SIZE: 4" TO 14" • PAGE: 19</p>
<p>END CAP</p>  <p>SIZE: 4" TO 14" • PAGE: 20</p>	<p>CONCENTRIC ROUND TO RECTANGULAR TRANSITION</p>  <p>• PAGE: 21</p>	<p>CUSTOM FITTING</p>  <p>• PAGE: 22</p>

Straight Duct

DUCT DIA "D"	MIN GAUGE FOR 4' DUCT			MIN GAUGE FOR 8' DUCT		
	-6" WG	-12" WG	-18" WG	-6" WG	-12" WG	-18" WG
	4					
6						
8						
10						
12						20
14						
16						
18						
20						20
22						
24						
26						
28						
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86						
88						
90						
92						
94						
96						
98						
100						
102						
104						
106						
108						
110						
112						
114						
116						
118						
120						

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

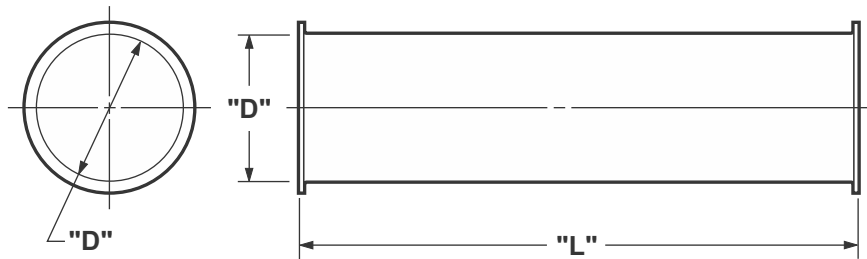
OPTIONS:

- ▶ 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.



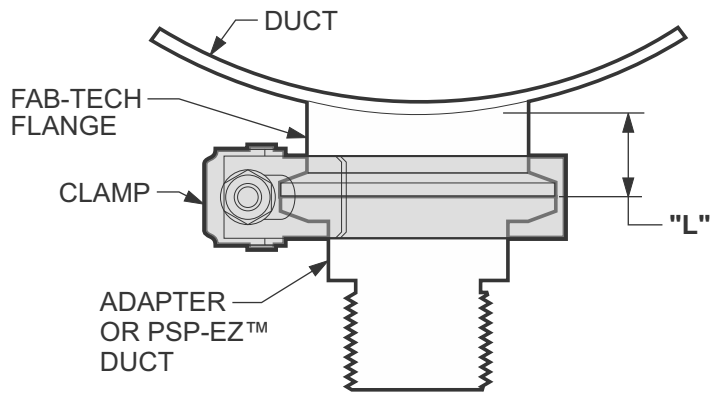
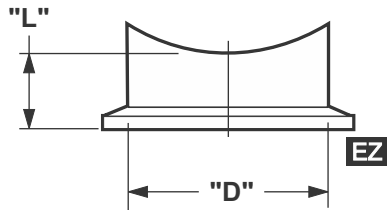
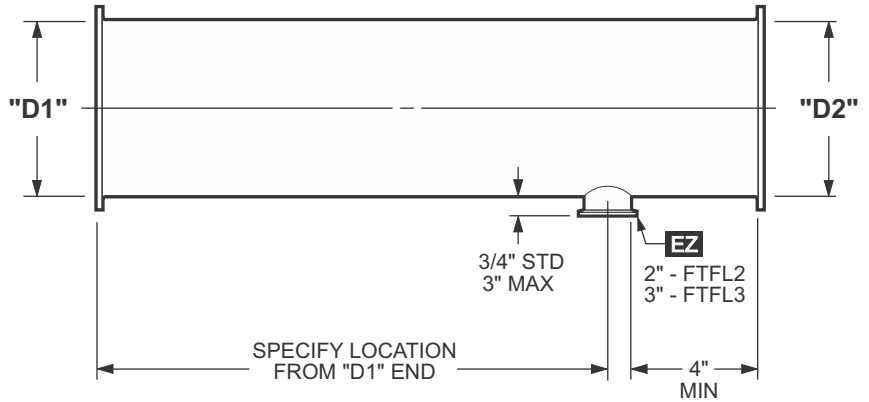
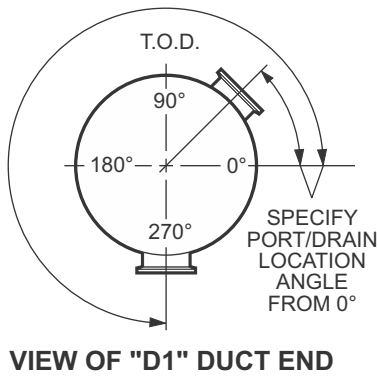
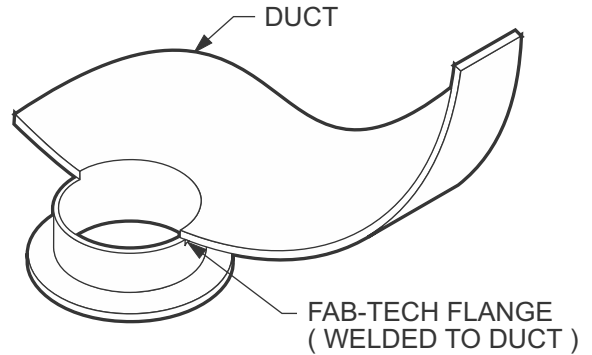
STANDARD DUCT LENGTHS ("L1")

JOINT SYSTEM	DIAMETER	"L1" (4')	"L1" (8')
EZ CLAMP / CAST RING	4" & 6"	47.25"	NA
	8" TO 14"	47.25"	95.25"
BLACK IRON ANGLE RING	4" & 6"	47.25"	NA
	8" TO 48"	47.25"	95.25"
	50" TO 100"	46.75"	94.75"
STAINLESS ANGLE RING	16" TO 48"	47.25"	95.25"
	50" TO 100"	46.75"	94.75"
	102" TO 120"	48.25"	96.25"

Straight Duct with Fab-Tech Flange

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 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).



PART NO.	DESCRIPTION	"D"	"L"
FTFL2	2" FT FLANGE	2"	.75"
FTFL3	3" FT FLANGE	3"	.75"

Straight Duct with Straight Tap

NOTE

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

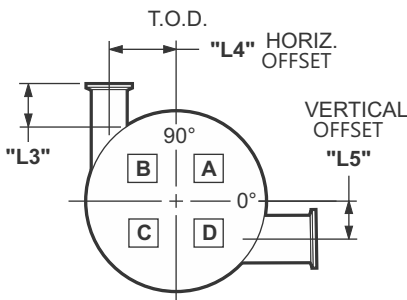
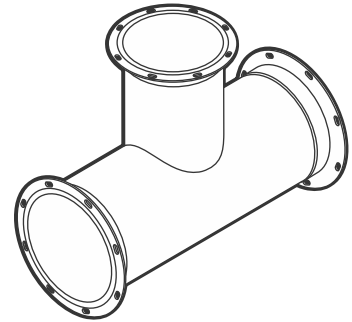
OPTIONS

- ▶ 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.

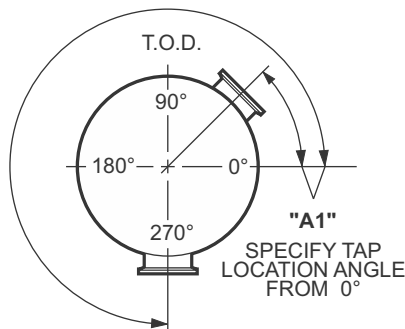
WITH JOINT SYSTEM

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



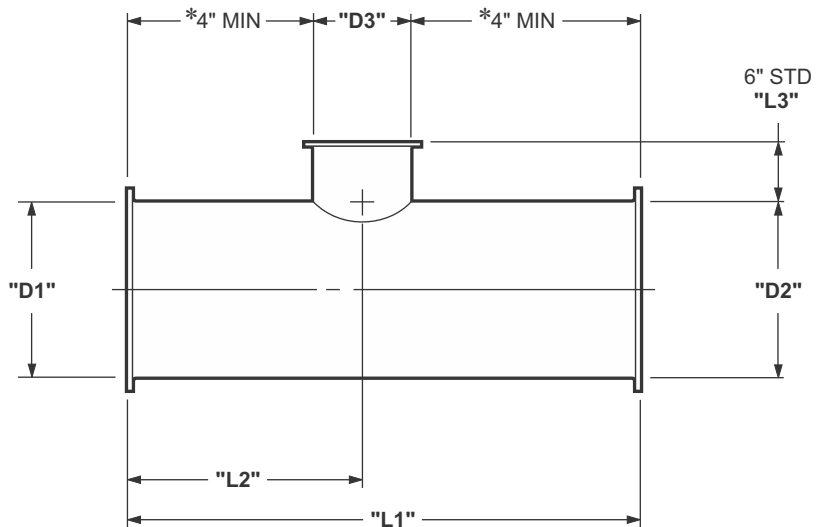
"D1" TAP OFFSET VIEW



VIEW OF "D1" DUCT END

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



STANDARD DUCT LENGTHS ("L1")

JOINT SYSTEM	DIAMETER	"L1" (4')	"L1" (8')
EZ CLAMP / CAST RING	4" & 6"	47.25"	NA
	8" TO 14"	47.25"	95.25"
BLACK IRON ANGLE RING	4" & 6"	47.25"	NA
	8" TO 48"	47.25"	95.25"
	50" TO 100"	46.75"	94.75"
STAINLESS ANGLE RING	16" TO 48"	47.25"	95.25"
	50" TO 100"	46.75"	94.75"
	102" TO 120"	48.25"	96.25"

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

Straight Duct with Conical Tap

NOTE

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

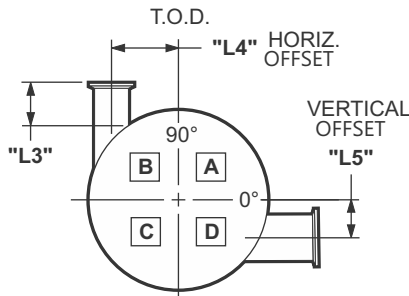
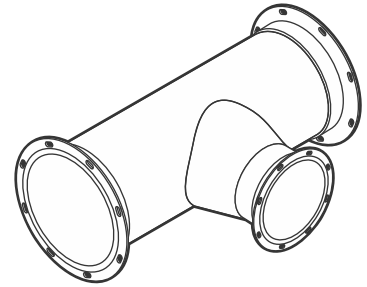
OPTIONS

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

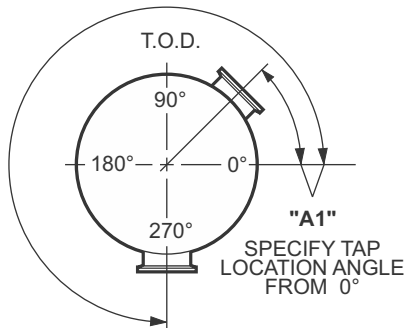
WITH JOINT SYSTEM

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



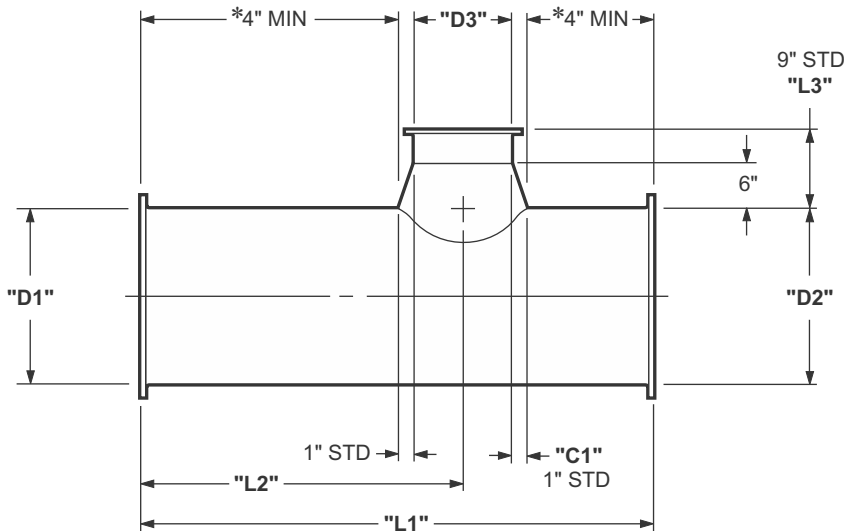
"D1" TAP OFFSET VIEW



VIEW OF "D1" DUCT END

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



STANDARD DUCT LENGTHS ("L1")

JOINT SYSTEM	DIAMETER	"L1" (4')	"L1" (8')
EZ CLAMP / CAST RING	4" & 6"	47.25"	NA
	8" TO 14"	47.25"	95.25"
BLACK IRON ANGLE RING	4" & 6"	47.25"	NA
	8" TO 48"	47.25"	95.25"
	50" TO 100"	46.75"	94.75"
STAINLESS ANGLE RING	16" TO 48"	47.25"	95.25"
	50" TO 100"	46.75"	94.75"
	102" TO 120"	48.25"	96.25"

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

Straight Duct with Shoe Tap

NOTE

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

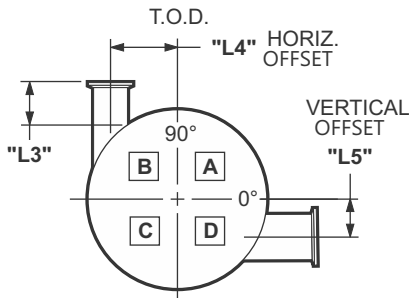
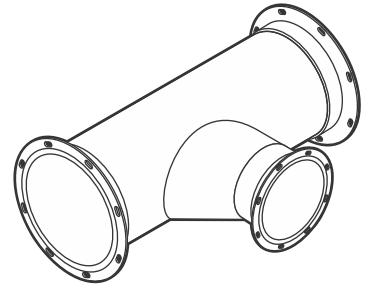
OPTIONS

- ▶ 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.

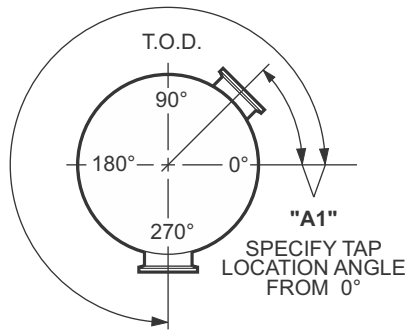
WITH JOINT SYSTEM

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



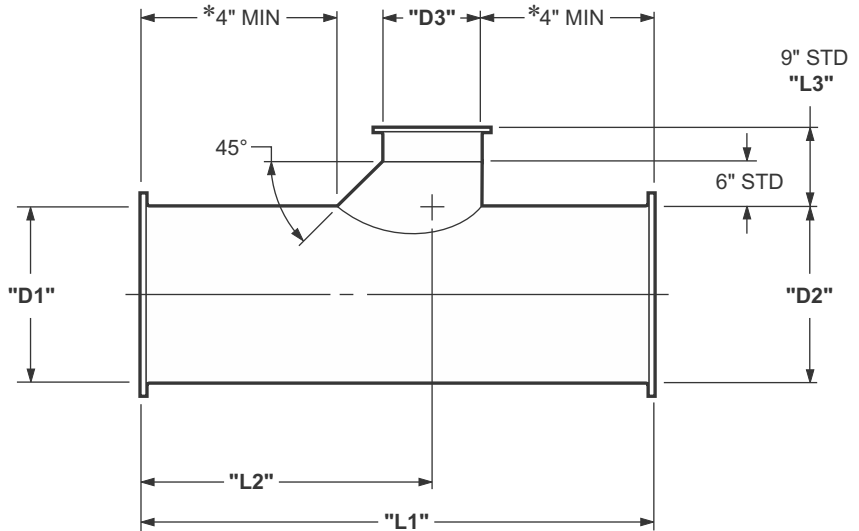
"D1" TAP OFFSET VIEW



VIEW OF "D1" DUCT END

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



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

STANDARD DUCT LENGTHS ("L1")

JOINT SYSTEM	DIAMETER	"L1" (4')	"L1" (8')
EZ CLAMP / CAST RING	4" & 6"	47.25"	NA
	8" TO 14"	47.25"	95.25"
BLACK IRON ANGLE RING	4" & 6"	47.25"	NA
	8" TO 48"	47.25"	95.25"
	50" TO 94"	46.75"	94.75"
STAINLESS ANGLE RING	16" TO 48"	47.25"	95.25"
	50" TO 100"	46.75"	94.75"
	102" TO 120"	48.25"	96.25"

Straight Duct with Lateral Tap

NOTE

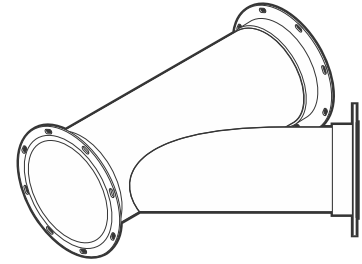
- ▶ All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

OPTIONS

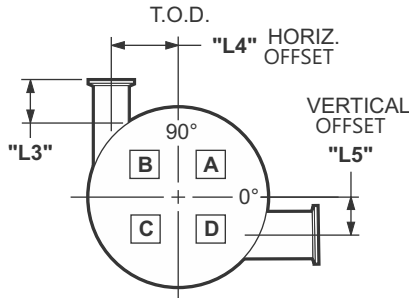
- ▶ Custom lengths available.
- ▶ Raw end available.
- ▶ Multiple and offset taps available (see the multiple tap page).
- ▶ Duct greater than 84" diameter requires Fab-Tech Engineering review and approval.

WITH JOINT SYSTEM

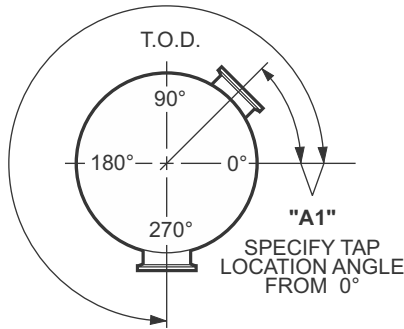
EZ CLAMP	4" - 14"
SS CAST RING	4" - 14"
BI ANGLE RING	4" - 100"
SS ANGLE RING	16" - 120"



OR A COMBINATION OF JOINING SYSTEMS



"D1" TAP OFFSET VIEW



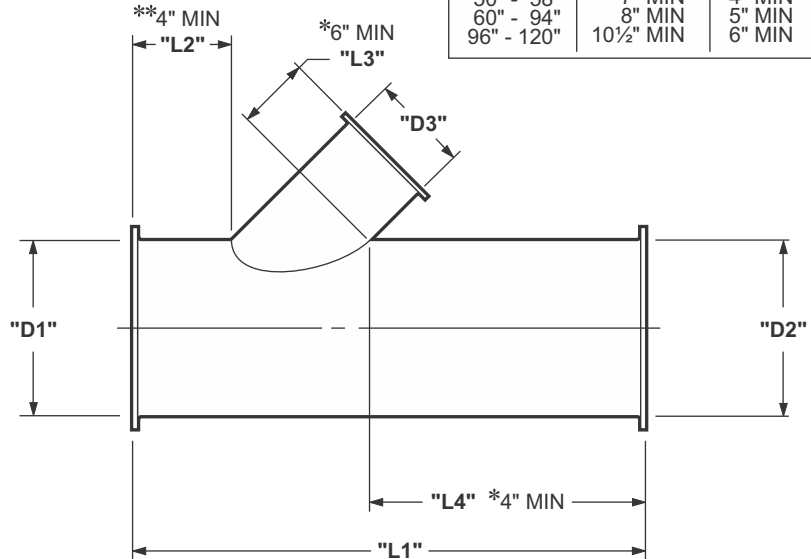
VIEW OF "D1" DUCT END

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"**

"D1"	"L3"	"L4"
4" - 48"	6" MIN	4" MIN
50" - 58"	7" MIN	4" MIN
60" - 94"	8" MIN	5" MIN
96" - 120"	10½" MIN	6" MIN



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

STANDARD DUCT LENGTHS ("L1")

JOINT SYSTEM	DIAMETER	"L1" (4')	"L1" (8')
EZ CLAMP / CAST RING	4" & 6"	47.25"	NA
	8" TO 14"	47.25"	95.25"
BLACK IRON ANGLE RING	4" & 6"	47.25"	NA
	8" TO 48"	47.25"	95.25"
	50" TO 94"	46.75"	94.75"
STAINLESS ANGLE RING	16" TO 48"	47.25"	95.25"
	50" TO 100"	46.75"	94.75"
	102" TO 120"	48.25"	96.25"

Straight Duct with Multiple Taps

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.

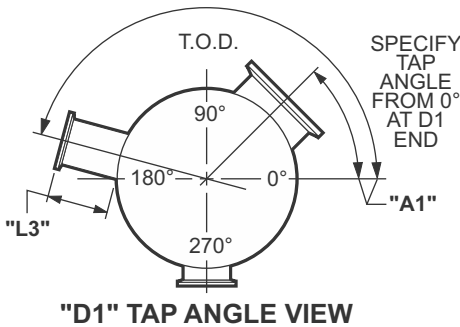
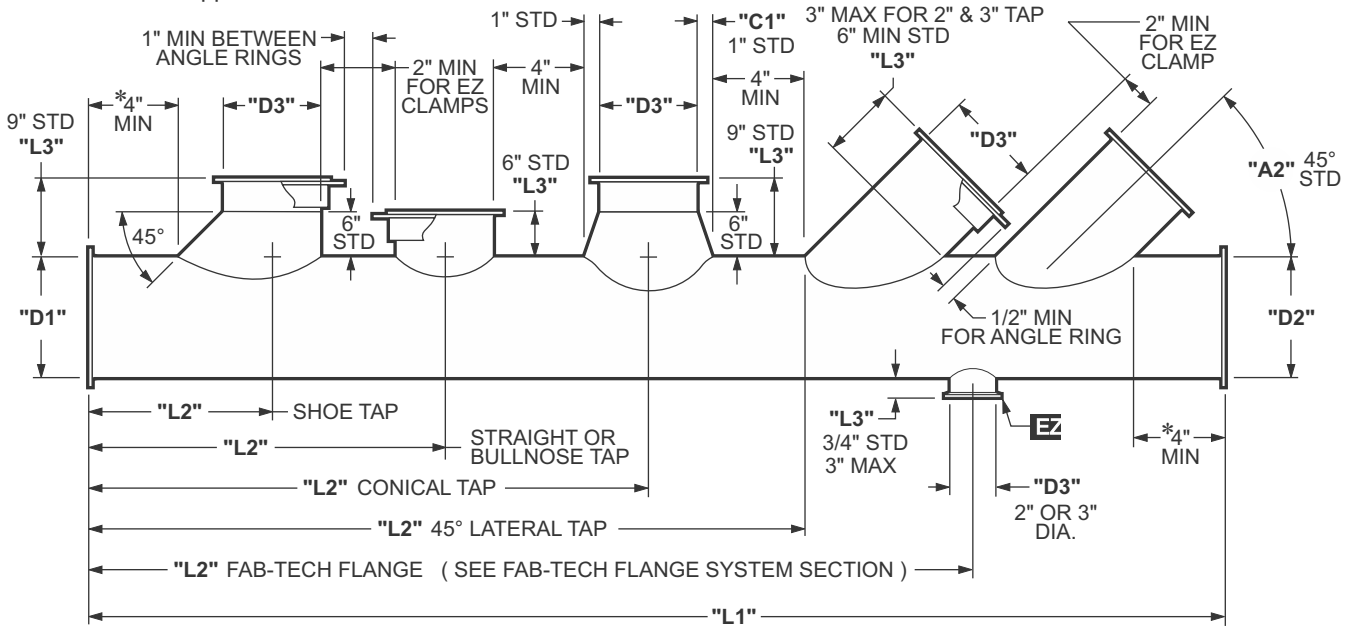
*** MIN DISTANCE TO DUCT END**

"D1" = 4" - 94": 4" MIN
 "D1" = 96" - 120": 5" MIN

WITH JOINT SYSTEM

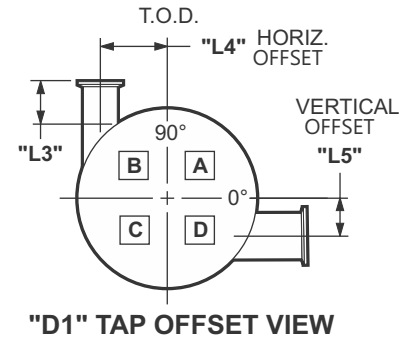
EZ CLAMP	4" - 14"
SS CAST RING	4" - 14"
BI ANGLE RING	4" - 100"
SS ANGLE RING	16" - 120"

OR A COMBINATION OF JOINING SYSTEMS

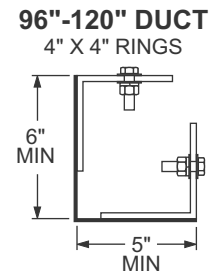
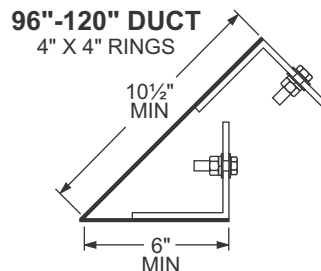
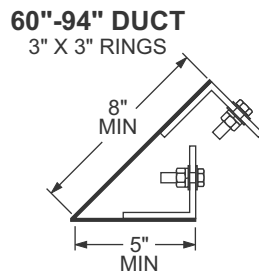
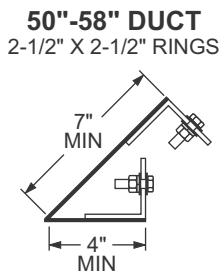
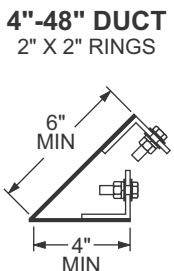


STANDARD DUCT LENGTHS ("L1")

JOINT SYSTEM	DIAMETER	"L1" (4')	"L1" (8')
EZ CLAMP / CAST RING	4" & 6"	47.25"	NA
	8" TO 14"	47.25"	95.25"
BLACK IRON ANGLE RING	4" & 6"	47.25"	NA
	8" TO 48"	47.25"	95.25"
	50" TO 94"	46.75"	94.75"
STAINLESS ANGLE RING	16" TO 48"	47.25"	95.25"
	50" TO 100"	46.75"	94.75"
	102" TO 120"	48.25"	96.25"



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



Gored Elbow

NOTE

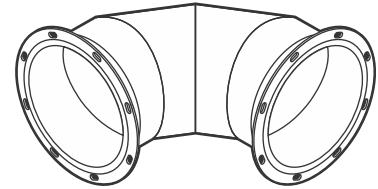
- ▶ All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

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.

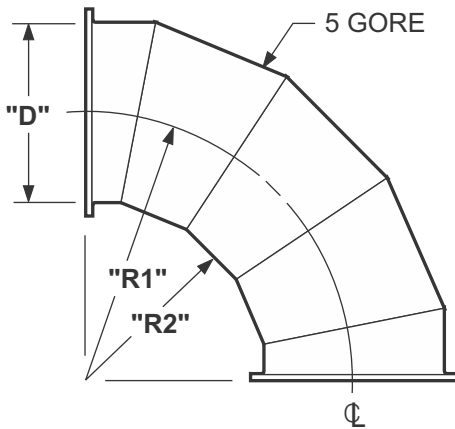
WITH JOINT SYSTEM

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

90° ELBOW



STANDARD RADIUS AT THE DUCT CENTERLINE

"R1" = 1.5 X "D"

STANDARD THROAT RADIUS

"R2" = "D"

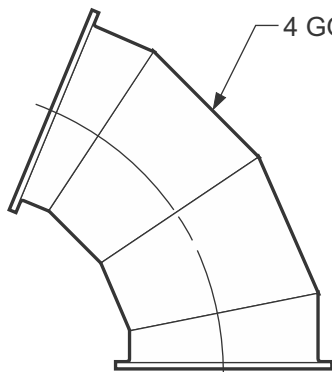
LIMITATIONS

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

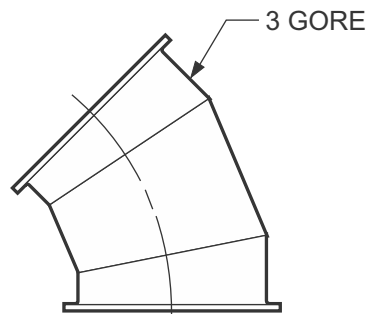
- FULL RADIUS 90° ELBOW > 56" DIA.
- FULL RADIUS 60° ELBOW > 82" DIA.
- FULL RADIUS 45° ELBOW > 106" DIA.
- HALF RADIUS 90° ELBOW > 76" DIA.

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.

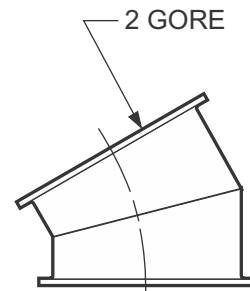
ALSO DUE TO MANUFACTURING LIMITATIONS, MANY OF THE SMALLER 1/2 RADIUS ELBOWS WILL REQUIRE CAST RINGS OR FLAT RINGS.



60° ELBOW



45° ELBOW



30° ELBOW

Concentric and Eccentric Reducer

NOTE

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

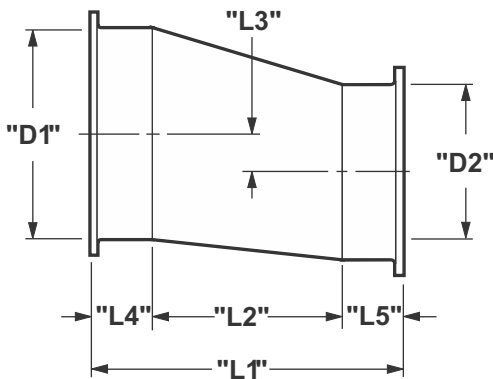
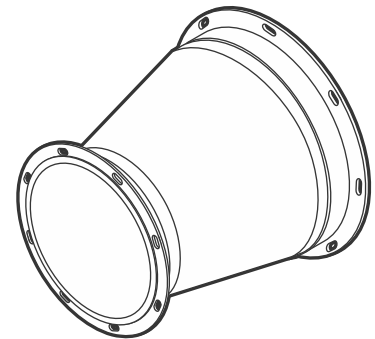
OPTIONS

- ▶ Custom lengths available.

WITH JOINT SYSTEM

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



ECCENTRIC

Formula to calculate the minimum length for an eccentric reducer:

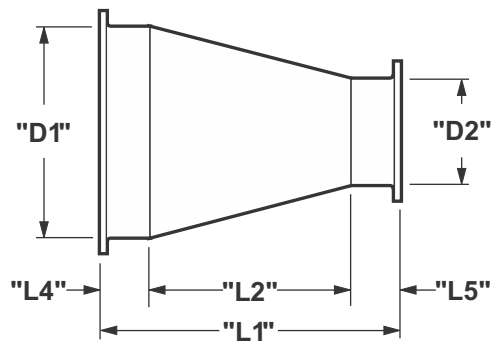
$$"L1" = "L2" + "L4" + "L5"$$

Use this chart for minimum length of "L2":
(Shorter taper or "L2" length can be fabricated, but will effect air flow.)

AMOUNT OF REDUCTION "D1" minus "D2"	MINIMUM LENGTH "L2"
6" AND LESS	12"
7" TO 9"	18"
10" TO 13"	24"
14" TO 17"	30"

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

DUCT DIAMETER "D1" or "D2"	MINIMUM LENGTH "L4" or "L5"
4" TO 58"	3"
60" TO 94"	4"
96" TO 120"	5"



CONCENTRIC

Formula to calculate the minimum length for a concentric reducer:

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

Use this chart for minimum length of "L2":
(Shorter taper or "L2" length can be fabricated, but will effect air flow.)

AMOUNT OF REDUCTION "D1" minus "D2"	MINIMUM LENGTH "L2"
9" AND LESS	12"
10" TO 14"	18"
15" TO 19"	24"
20" TO 24"	30"

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

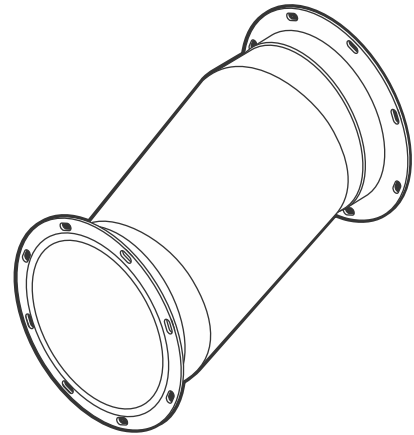
DUCT DIAMETER "D1" or "D2"	MINIMUM LENGTH "L4" or "L5"
4" TO 58"	3"
60" TO 94"	4"
96" TO 120"	5"

Offset

WITH JOINT SYSTEM

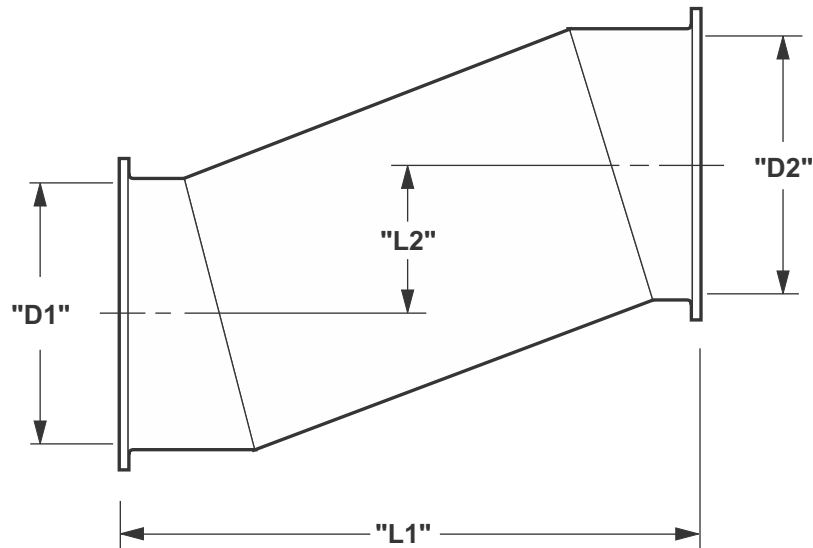
EZ CLAMP	4" - 14"
SS CAST RING	4" - 14"
BI ANGLE RING	4" - 100"
SS ANGLE RING	16" - 120"

OR A COMBINATION OF JOINING SYSTEMS



NOTE

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



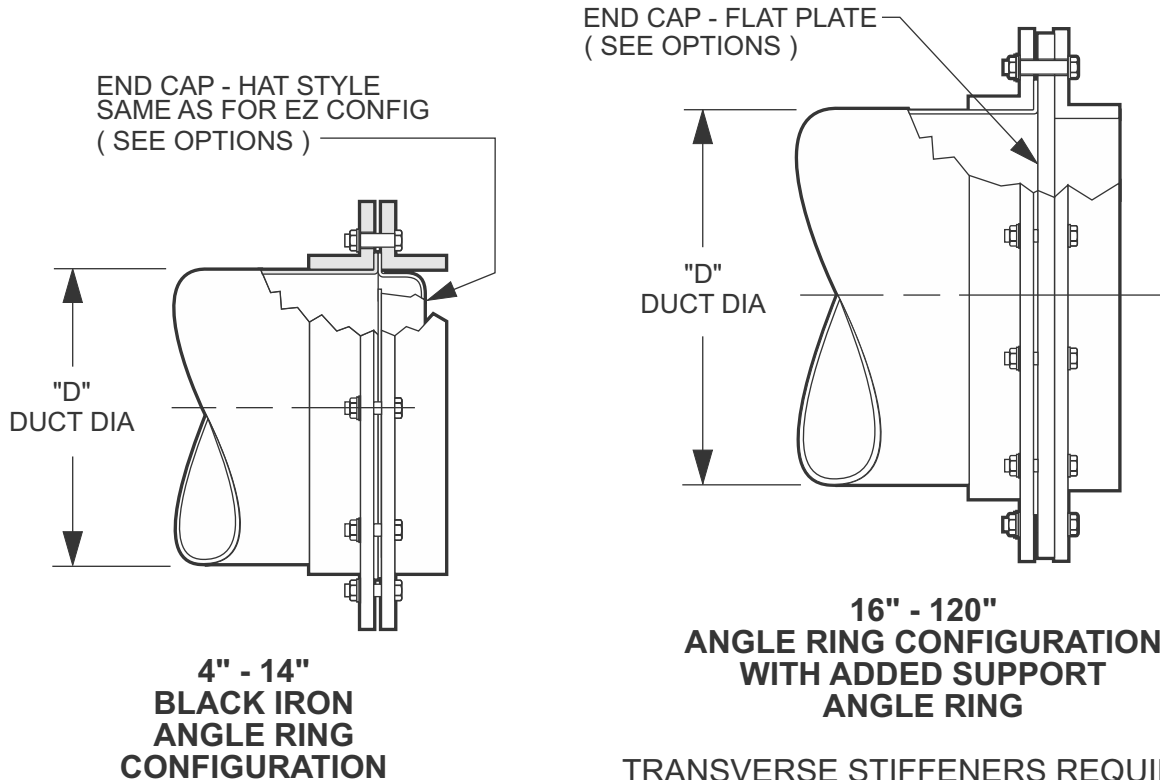
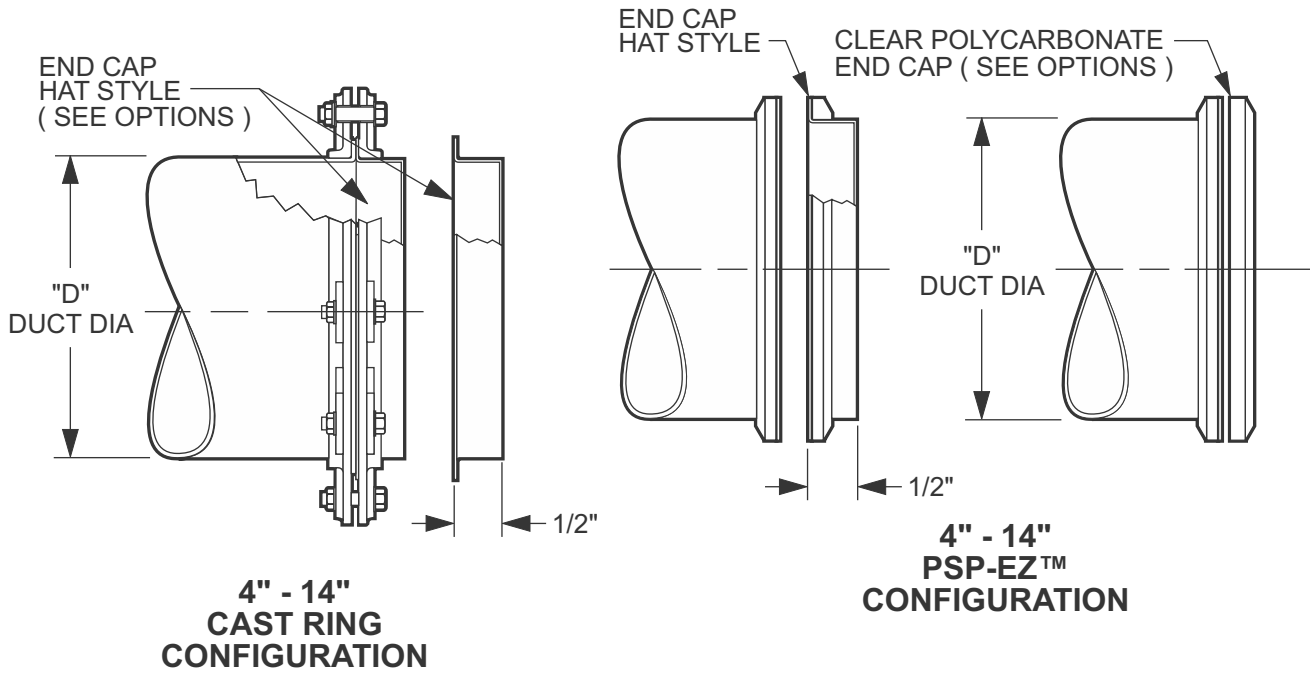
End Cap

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.

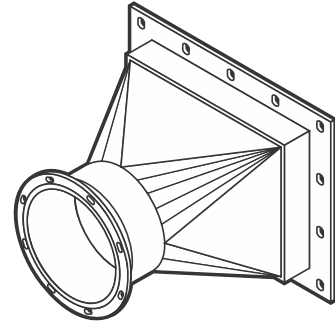


TRANSVERSE STIFFENERS REQUIRED FOR END CAPS OVER 36" DIA.

Concentric Round to Rectangular Transition

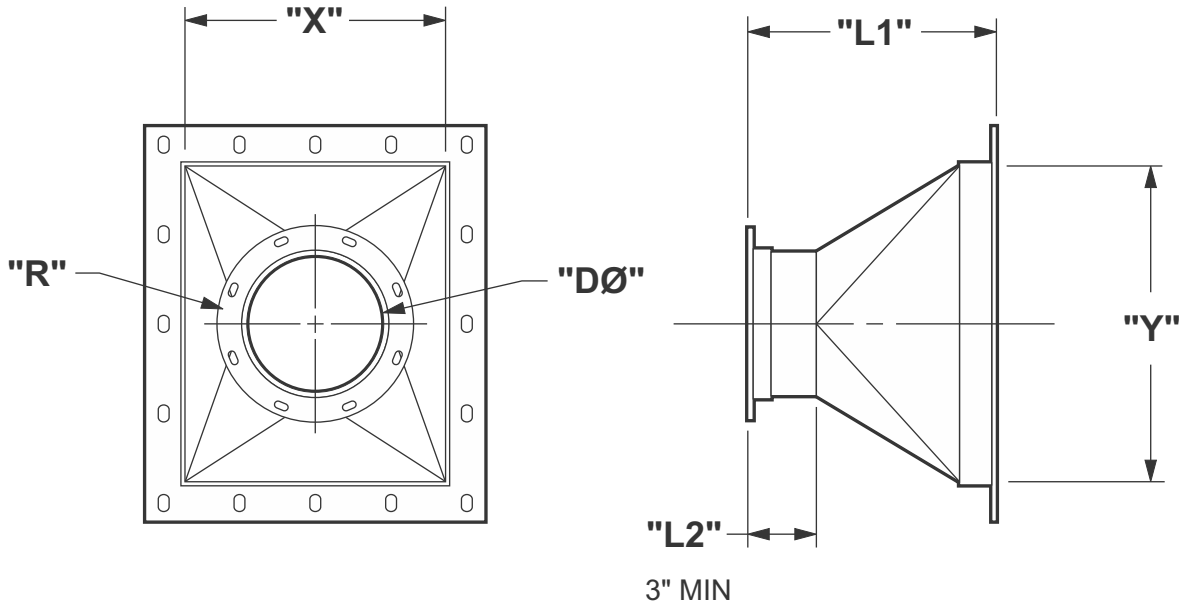
WITH ROUND JOINT SYSTEM

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



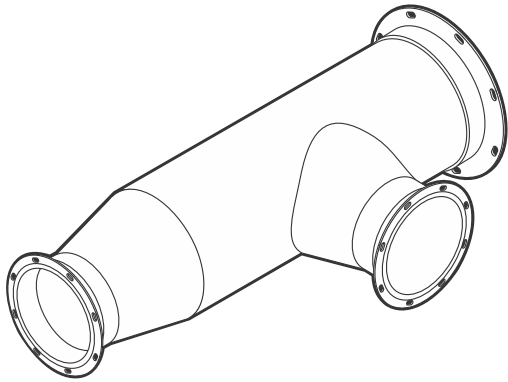
NOTES

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

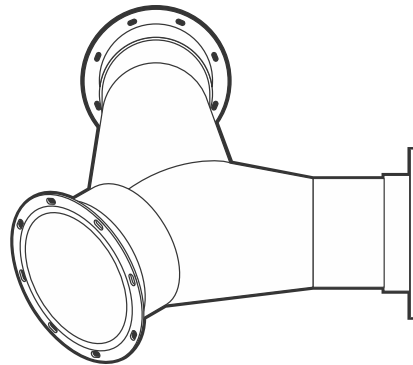


FOR ECCENTRIC ROUND TO RECTANGULAR FITTING, USE THE CUSTOM FITTING ORDER SHEET.

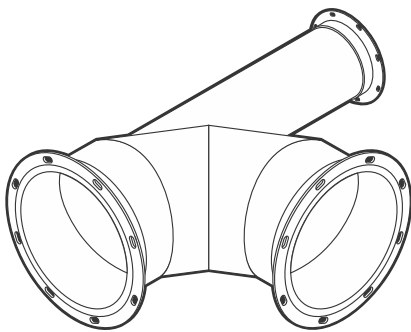
Custom Fitting



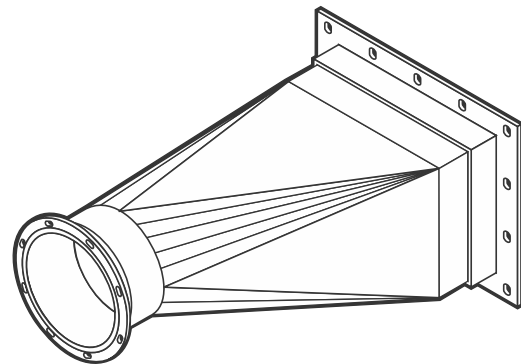
90 DEGREE REDUCING TEE



90 DEGREE WYE



ELBOW WITH HEEL TAP



ECCENTRIC ROUND TO RECTANGULAR TRANSITION

WITH ROUND 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

NOTE

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

USE CUSTOM FITTING ORDER SHEET TO DESCRIBE YOUR FITTING.

Product Guide

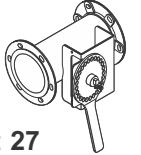
CONTROL DEVICES

4"-12" WAFER ISOLATION DAMPER

 SIZE: 4"-12"
 • PAGE: 24


4"-14" INDUSTRIAL BALANCING DAMPER

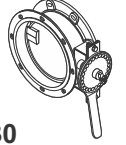
 SIZE: 4"-14"
 • PAGE: 26

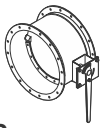
4" INDUSTRIAL ISOLATION DAMPER

 SIZE: 4"
 • PAGE: 27

6"-14" INDUSTRIAL ISOLATION DAMPER

 SIZE: 6"-14"
 • PAGE: 28

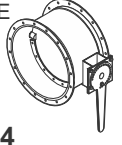
AMCA
 6"-14" INDUSTRIAL ISOLATION DAMPER

 SIZE: 6"-14"
 • PAGE: 29

4"-14" INDUSTRIAL SHORT DAMPER - ISOLATION & BALANCING

 SIZE: 4"-14"
 • PAGE: 30

16"-34" HEAVY DUTY INDUSTRIAL DAMPER

 SIZE: 16"-34"
 • PAGE: 32

AMCA
 16"-34" HEAVY DUTY INDUSTRIAL DAMPER

 SIZE: 16"-34"
 • PAGE: 33

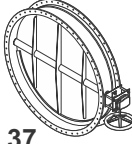
16"-48" HIGH VALUE HEAVY DUTY INDUSTRIAL DAMPER (HVD)

 SIZE: 16"-34"
 • PAGE: 34

36"-48" HEAVY DUTY INDUSTRIAL DAMPER

 SIZE: 36"-48"
 • PAGE: 35

AMCA
 36"-48" HEAVY DUTY INDUSTRIAL DAMPER

 SIZE: 36"-48"
 • PAGE: 36

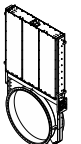
50" & LARGER HEAVY DUTY INDUSTRIAL DAMPER

 SIZE: 50"-120"
 • PAGE: 37

18"-72" VORTEX DAMPER

 SIZE: 18"-72"
 • PAGE: 38

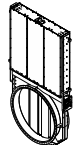
4"-36" HORIZONTAL RUN BLASTGATE

 SIZE: 4"-36"
 • PAGE: 40

16"-36" HORIZONTAL RUN ACTUATED BLASTGATE

 SIZE: 4"-36"
 • PAGE: 41

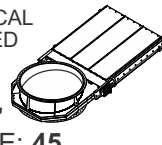
38" & LARGER HORIZONTAL RUN BLASTGATE

 SIZE: 38"-120"
 • PAGE: 42

38" & LARGER HORIZONTAL RUN ACTUATED BLASTGATE

 SIZE: 38"-120"
 • PAGE: 43

16"-36" VERTICAL RUN BLASTGATE

 SIZE: 4"-36"
 • PAGE: 44

16"-36" VERTICAL RUN ACTUATED BLASTGATE

 SIZE: 16"-36"
 • PAGE: 45

38" & LARGER VERTICAL RUN BLASTGATE

 SIZE: 38"-120"
 • PAGE: 46

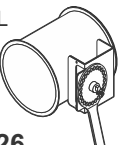
38" & LARGER VERTICAL RUN ACTUATED BLASTGATE

 SIZE: 38"-120"
 • PAGE: 47

**CONTROL DEVICES
 PSP-EZ™**

2" & 3" MICRO ADJUSTABLE EZ DAMPER

 SIZE: 2" & 3"
 • PAGE: 25

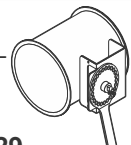
4"-14" INDUSTRIAL BALANCING DAMPER

 SIZE: 4" TO 14"
 • PAGE: 26

4" INDUSTRIAL ISOLATION DAMPER

 SIZE: 4"
 • PAGE: 27

6"-14" INDUSTRIAL ISOLATION DAMPER

 SIZE: 6" TO 14"
 • PAGE: 28

AMCA
 6"-14" INDUSTRIAL ISOLATION DAMPER

 SIZE: 6" TO 14"
 • PAGE: 29

HORIZONTAL RUN & VERTICAL RUN EZ BLASTGATE

 SIZE: 2" & 3"
 • PAGE: 39

HORIZONTAL RUN BLASTGATE

 SIZE: 4" TO 14"
 • PAGE: 40

VERTICAL RUN BLASTGATE

 SIZE: 4" TO 14"
 • PAGE: 44

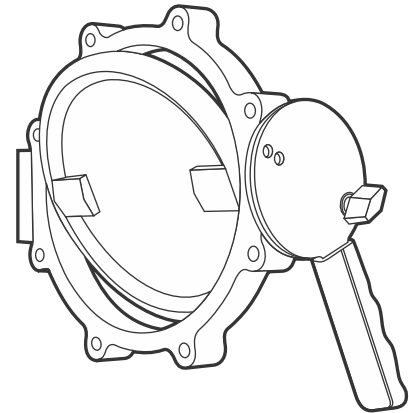
4"-12" Wafer Isolation Damper

NOTE

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

SPECIFICATIONS

- ▶ **BODY:** Solid aluminum body, 1" width.
- ▶ **BLADE:** Coated 10GA stainless steel, machined PTFE blade for 4" damper only.
- ▶ **EDGE SEALS:** Viton extruded rubber.
- ▶ **BLADE HOLDERS:** Molded 25% glass filled PTFE.
- ▶ **AXLES:** Dual shaft, 1/2" diameter stainless steel.
- ▶ **AXLE SEALS:** Liquid tight - accommodate positive and negative system pressures.
- ▶ **BEARINGS:** Nylon.
- ▶ **COATING:** All components in contact with the airstream coated with PermaShield fluoropolymer barrier coating.
- ▶ **QUADRANT:** Manual locking handle, all stainless steel construction with lockout capability in 12° intervals.



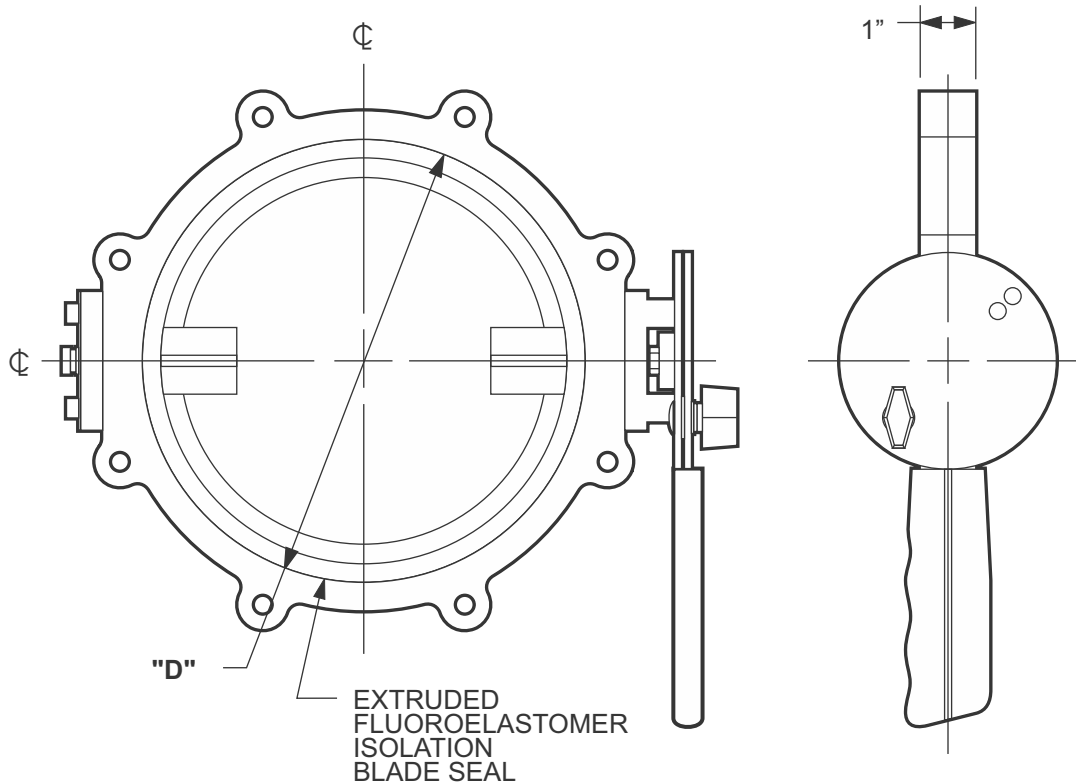
BLADE OPENS
COUNTER CLOCKWISE

OPEN/CLOSE TORQUE: 250 in-lb
(RECOMMENDED MINIMUM)

BOLT HOLE SPECIFICATIONS

DIAMETER	BLADE	BODY
4" TO 12"	10GA	SOLID

DUCT DIA "D"	NO. OF HOLES	BOLT HOLE SIZE	BOLT SIZE	BOLT CIRCLE DIA.
4	6	3/8	5/16	5.31
6				7.50
8	8	3/8	5/16	9.50
10				11.50
12	12	7/16	3/8	13.81

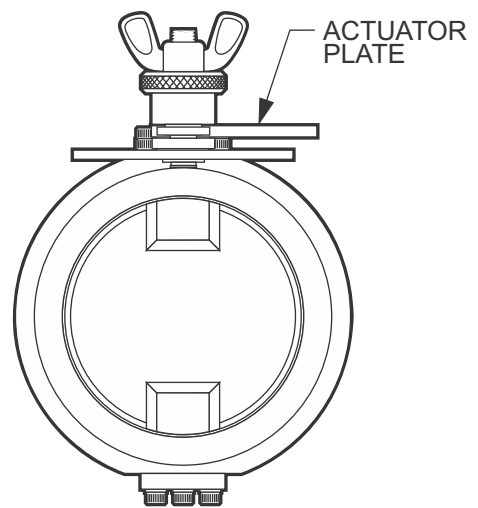
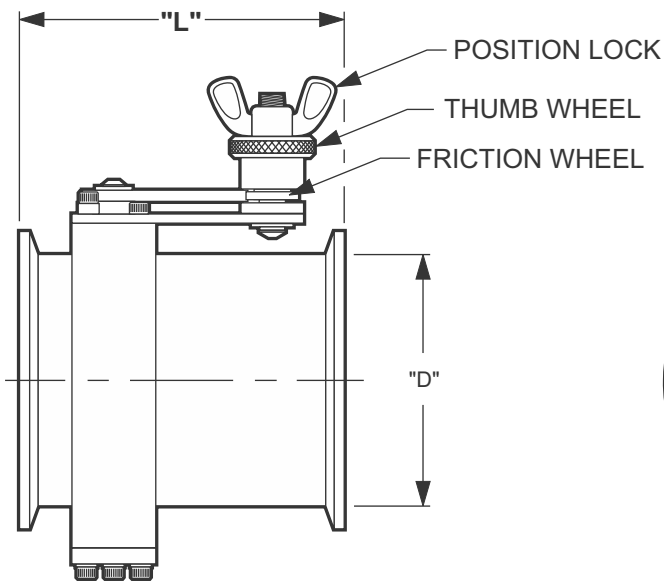
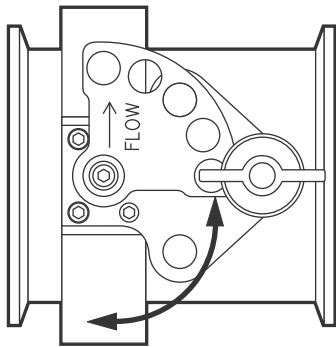
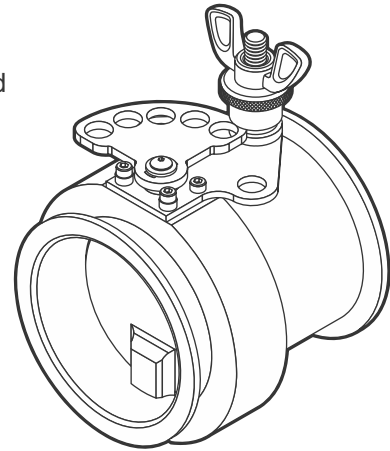


2" & 3" Micro-Adjustable EZ Damper

NOTE

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

PART NO.	DESCRIPTION	"D"	"L"
PZD02	2" EZ-DAMPER	2"	3.875"
PZD03	3" EZ-DAMPER	3"	3.875"



4"-14" Industrial Balancing Damper

SPECIFICATIONS

- ▶ Floating cast rings - stainless 4"-14".
- ▶ Manual actuation.
- ▶ 1/2"Ø stainless steel axles.
- ▶ Liquid tight axle seals.
- ▶ 20GA stainless steel rolled flanged fusion welded body
- ▶ Lockout feature - 1/2° intervals.
- ▶ Blade opens CCW.

4" DIA.

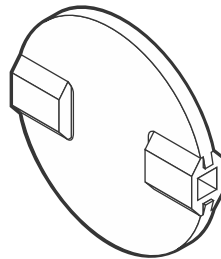
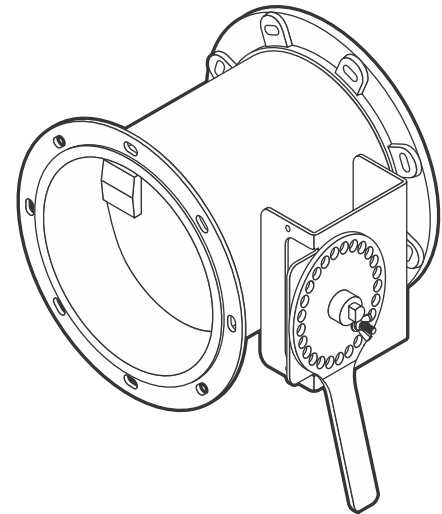
- ▶ Virgin Teflon blade (balancing)
- ▶ Fluoroelastomer edge seal (isolation)

6"-14" DIA.

- ▶ 10GA stainless steel blade
- ▶ Molded 25% glass filled PTFE blade holders.

OPTIONS

- ▶ Custom extended lengths
- ▶ Custom hole pattern
- ▶ Electric / pneumatic actuator
- ▶ Floating rings - stainless steel angle 4"-14"
- ▶ Floating rings - black iron angle 4"-14"
- ▶ PSP-EZ™ joining system 4"-14"



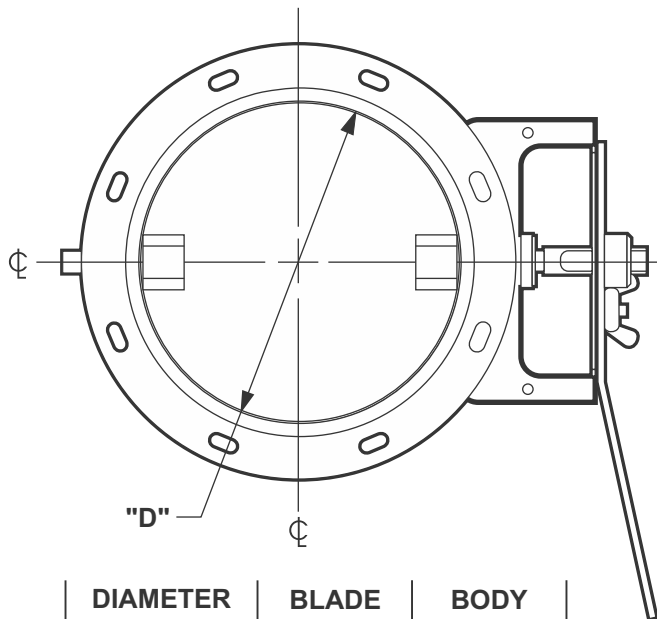
4" PTFE blade with molded PTFE blade holders

WITH JOINT SYSTEM

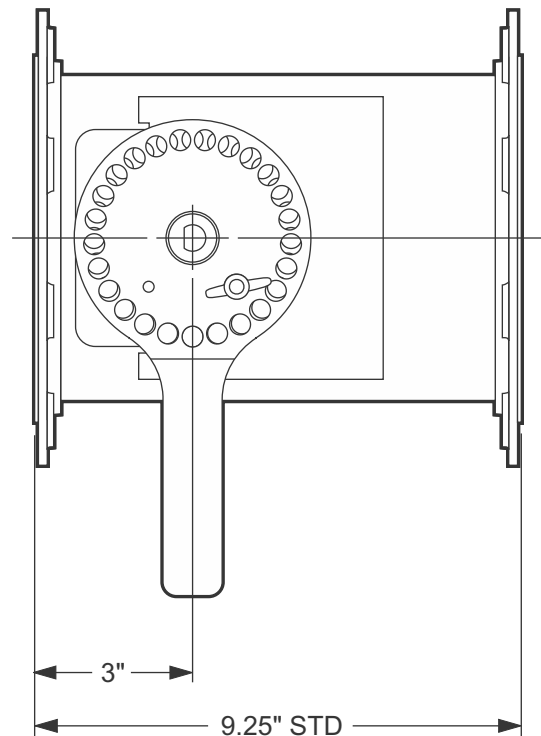
EZ CLAMP	4" - 14"
SS CAST RING	4" - 14"
BI ANGLE RING	4" - 14"
SS ANGLE RING	4" - 14"

OR A COMBINATION OF JOINING SYSTEMS

OPEN/CLOSE TORQUE: 250 in-lb (RECOMMENDED MINIMUM)



DIAMETER	BLADE	BODY
4"	PTFE	20GA
6" TO 14"	10GA	20GA



NOTE

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

4" Industrial Isolation Damper

NOTE

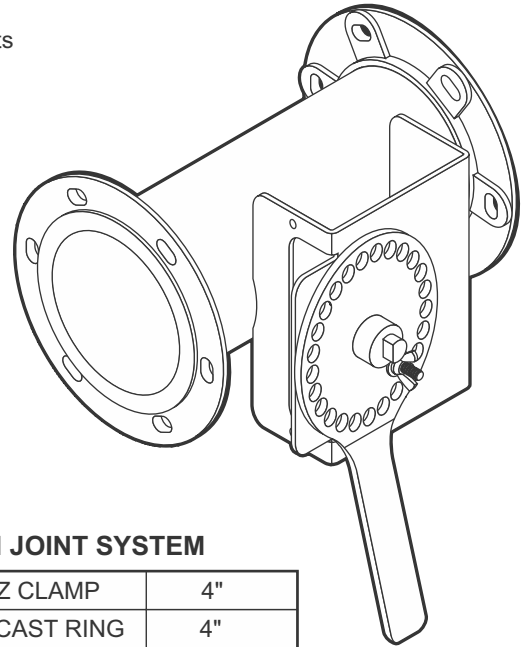
- ▶ All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

SPECIFICATIONS

- ▶ Floating rings - cast stainless.
- ▶ Floating rings - black iron.
- ▶ PSP-EZ™ joining system.
- ▶ Manual actuation.
- ▶ Fluoroelastomer edge seal.
- ▶ Virgin Teflon blade.
- ▶ 1/2"Ø stainless steel axles
- ▶ Liquid tight axle seals.
- ▶ Lockout feature - 1/2° intervals.
- ▶ Blade opens CCW.

OPTIONS

- ▶ Custom length.
- ▶ Custom hole pattern.
- ▶ Electric / pneumatic actuators.

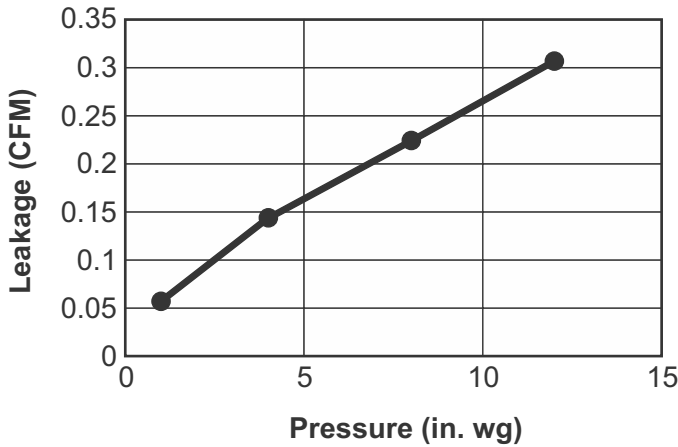


WITH JOINT SYSTEM

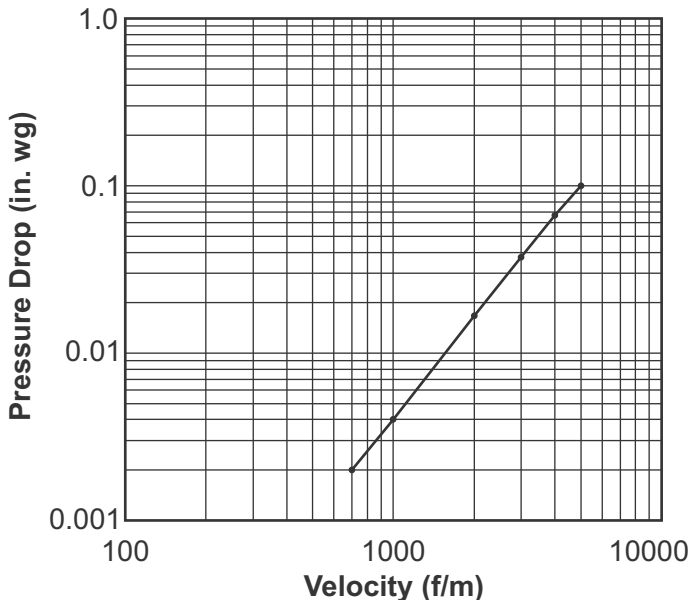
EZ CLAMP	4"
SS CAST RING	4"
BI ANGLE RING	4"

OPEN/CLOSE TORQUE: 250 in-lb
(RECOMMENDED MINIMUM)

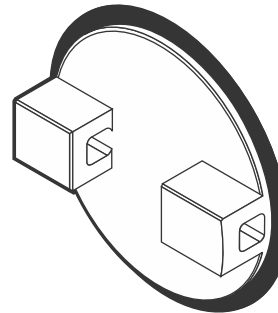
DIAMETER	BLADE	BODY
4"	TEFLON	20GA



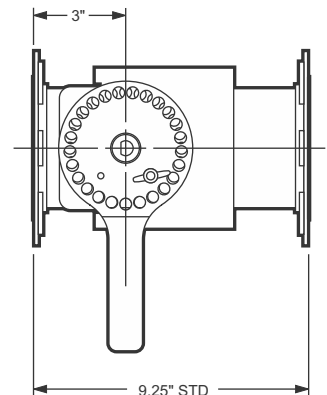
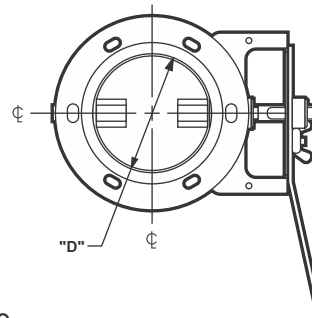
■ Damper Leakage Test based on ANSI/AMCA Standard 500-D-07, Ref. Fig 5.6



■ Pressure Drop Test based on AMCA Standard 500-D-98, Ref. Fig 5.3



Virgin Teflon blade with fluoroelastomer edge seal



6"-14" Industrial Isolation Damper

NOTE

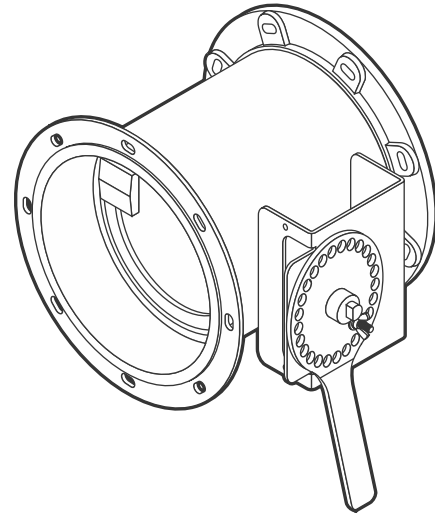
- ▶ All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

SPECIFICATIONS

- ▶ Floating cast rings - stainless 6"-14"
- ▶ Floating rings - black iron 6"-14"
- ▶ PSP-EZ™ joining system 6"-14"
- ▶ Manual actuation
- ▶ Molded 25% glass filled PTFE blade holders
- ▶ 1/2"Ø stainless steel axles
- ▶ Liquid tight axle seals
- ▶ Lockout feature - 1/2° intervals
- ▶ Blade opens CCW.

OPTIONS

- ▶ Custom length
- ▶ Custom hole pattern
- ▶ Electric / pneumatic actuators

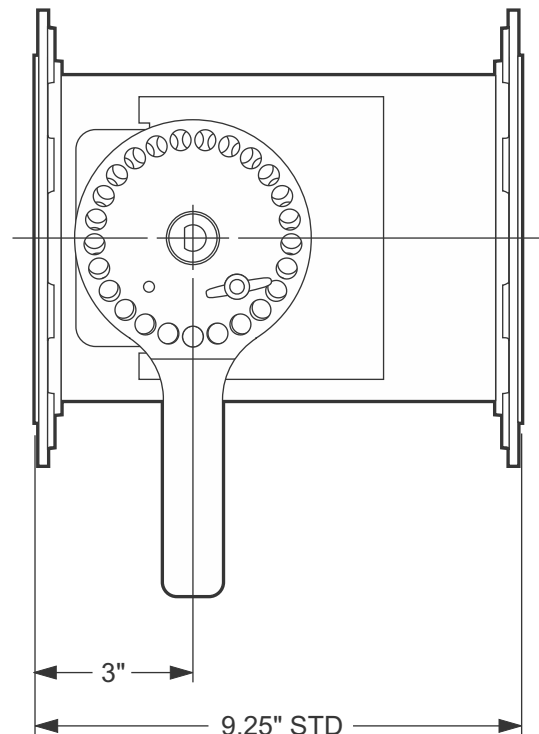
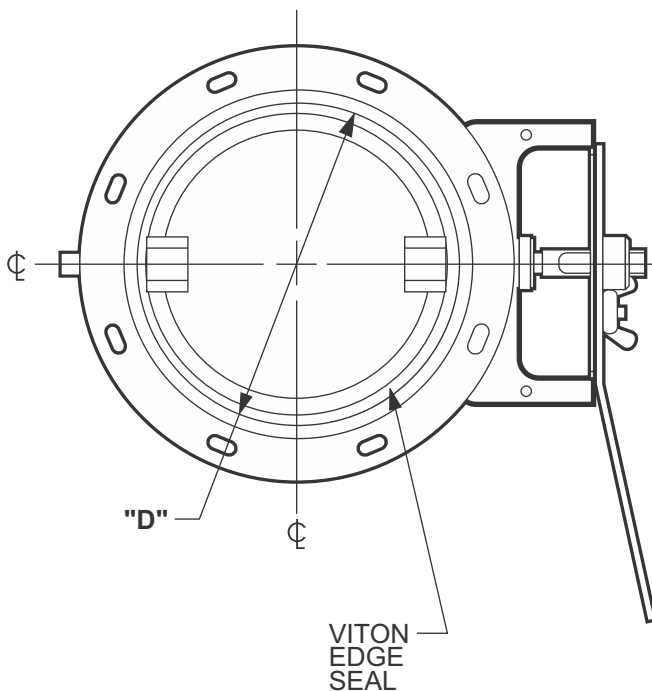


WITH JOINT SYSTEM

EZ CLAMP	6" - 14"
SS CAST RING	6" - 14"
BI ANGLE RING	6" - 14"

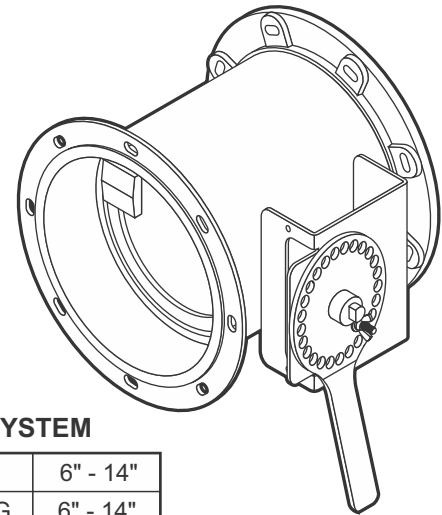
OPEN/CLOSE TORQUE: 250 in-lb
(RECOMMENDED MINIMUM)

DIAMETER	BLADE	BODY
6"-14"	10GA	20GA



6"-14" AMCA Industrial Isolation Damper

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.

WITH JOINT SYSTEM

EZ CLAMP	6" - 14"
SS CAST RING	6" - 14"
BI ANGLE RING	6" - 14"

OPEN/CLOSE TORQUE: 250 in-lb (RECOMMENDED MINIMUM)

Damper Dia.	Pressure	AMCA Leakage Class
6" - 14"	1"WG	1A
	4",8",12"WG	1

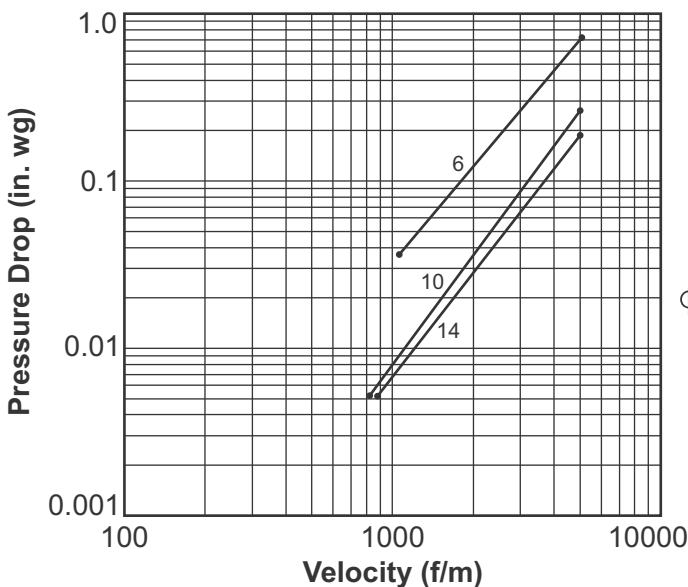
Tested Leakage Rates Available, Contact Fab-Tech Inc.

Leakage Classification L/s/m² (ft³/min/ft²)

Pressure Class	Required Range		Extended Range (Optional)	
	0.25 kPa (1" wg)	1.0 kPa (4" wg)	2.0 kPa (8" wg)	3.0 kPa (12" wg)
1A	15.2 (3)*	N/A	N/A	N/A
1	20.3 (4)	40.6 (8)	55.9 (11)	71.1 (14)
2	50.8 (10)	102 (20)	142 (28)	178 (35)
3	203 (40)	406 (80)	569 (112)	711 (140)

*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.

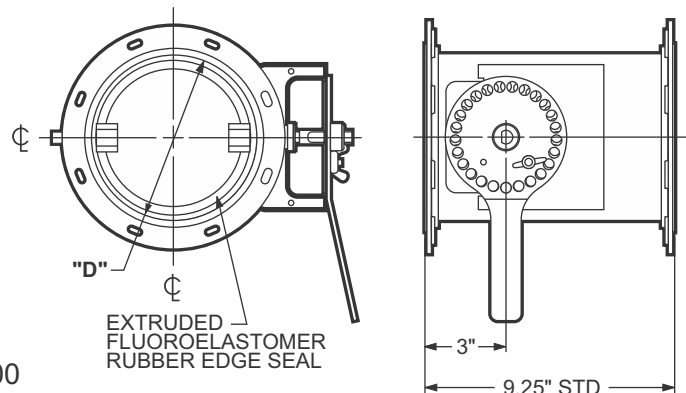
SPECIFICATIONS

- ▶ Floating cast rings - stainless 6"-14".
- ▶ PSP-EZ™ joining system 6"-14".
- ▶ Manual actuation.
- ▶ Extruded fluoroelastomer edge seal, 6"-14".
- ▶ Molded 25% glass filled PTFE blade holders.
- ▶ 1/2"Ø stainless steel axles.
- ▶ Liquid tight axle seals.
- ▶ Lockout feature - 5° intervals.
- ▶ Blade opens CCW.

OPTIONS

- ▶ Custom length.
- ▶ Custom hole pattern.
- ▶ Electric / pneumatic actuators.

DIAMETER	BLADE	BODY
6" TO 14"	10GA	20GA



4"-14" Industrial Short Damper - Isolation & Balancing

SPECIFICATIONS

- ▶ Floating cast rings - stainless steel 4"-14" dia.
- ▶ Manual actuation.
- ▶ 1/2" stainless steel axles.
- ▶ Liquid tight axle seals.
- ▶ 20GA stainless steel rolled flanged fusion welded body.
- ▶ Lockout feature - 1/2° intervals.

4" DIA.

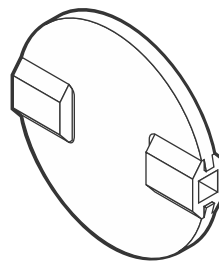
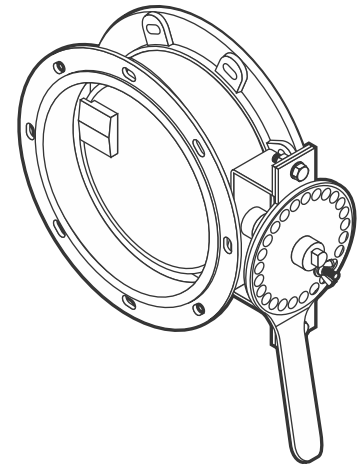
- ▶ Virgin Teflon blade (balancing).
- ▶ Fluoroelastomer edge seal (isolation).

6"-14" DIA.

- ▶ 10GA stainless steel blade.
- ▶ Molded 25% glass filled PTFE blade holders.

OPTIONS

- ▶ Custom extended lengths.
- ▶ Custom hole pattern.
- ▶ Electric / pneumatic actuator.
- ▶ Floating rings - stainless steel angle
- ▶ Floating rings - black iron angle 4"-14" dia.
- ▶ PSP-EZ™ joining system 4"-14" dia.



4" PTFE blade with molded PTFE blade holders

WITH JOINT SYSTEM

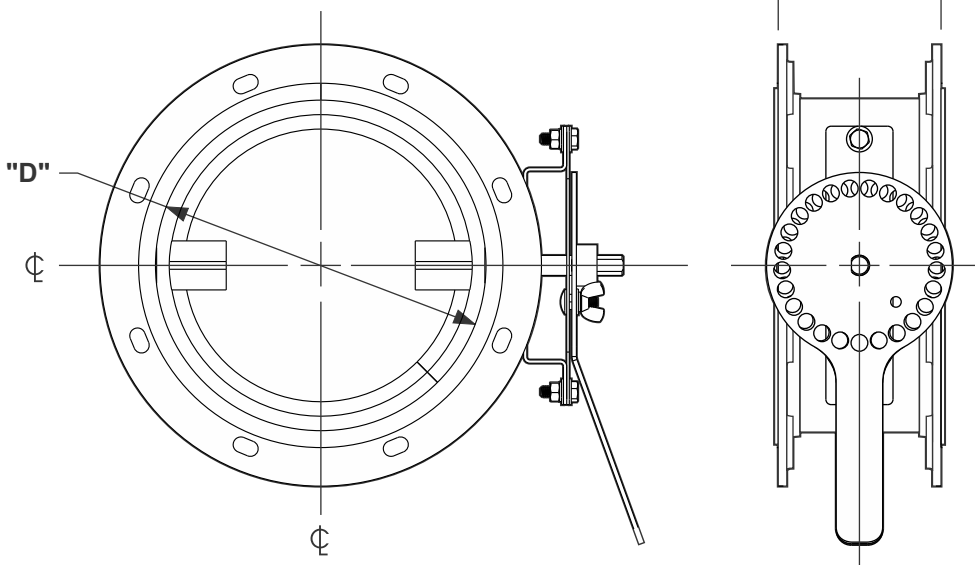
EZ CLAMP	4" - 14"
SS CAST RING	4" - 14"
BI ANGLE RING	4" - 14"
SS ANGLE RING	4" - 14"

OR A COMBINATION OF JOINING SYSTEMS

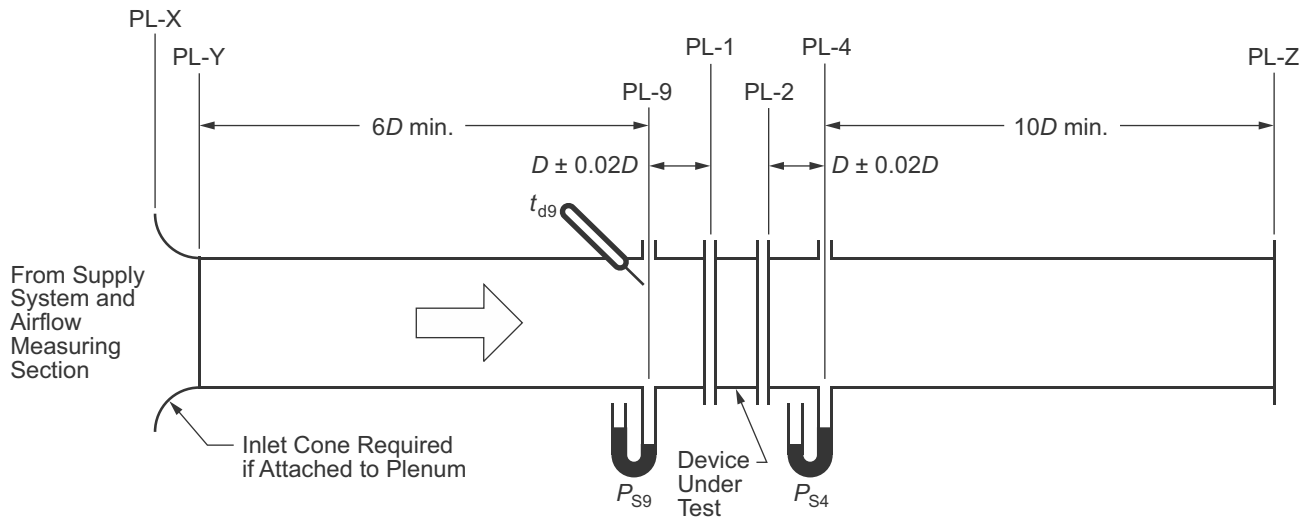
OPEN/CLOSE TORQUE: 250 in-lb (RECOMMENDED MINIMUM)

DIAMETER	BLADE	BODY
4"	PTFE	20GA
6" TO 14"	10GA	20GA

4-1/2" MIN for D1 & D2 as SS cast rings
 7" MIN for D1 & D2 as Van Stone rings
 4-1/2" MIN for D1 as Van Stone & D2 as EZ Flange
 4" MIN for D1 & D2 as EZ Flanges



6"-14" Industrial Isolation Damper



D = duct diameter for round ducts

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

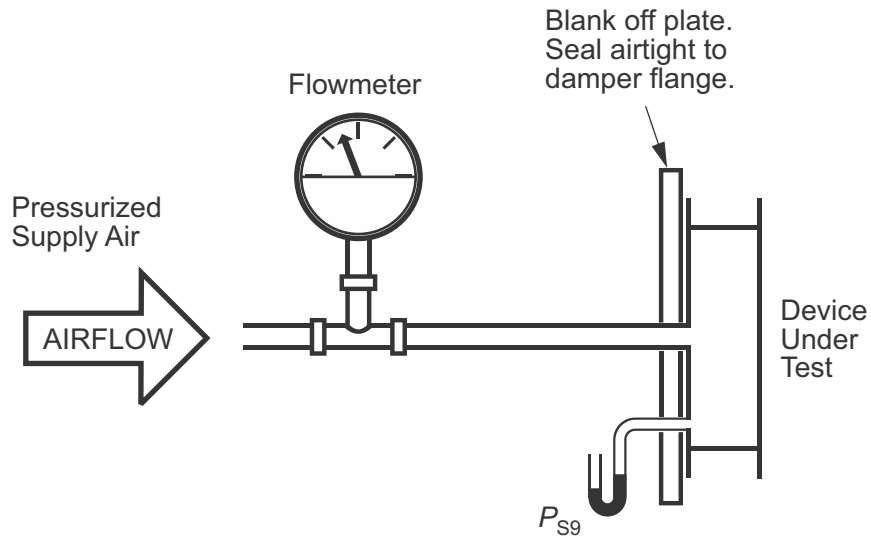


Fig. 5.6: Test Damper Setup - Leakage Test with Damper under Positive Pressure

16"-34" Heavy Duty Industrial Damper

NOTE

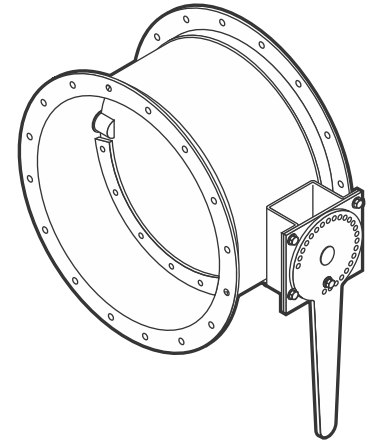
- ▶ All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

SPECIFICATIONS

- ▶ Welded stainless steel rings
- ▶ Mounting holes straddle vertical centerline.
- ▶ Liquid tight shaft seals - thermoplastic sleeve bearings.
- ▶ 1.38"Ø stainless steel axles - .25" stainless steel blades.
- ▶ Stainless steel quadrant plate.
- ▶ Multi-position handle, 1/2° lockout feature.
- ▶ Welded blade stops with Viton seal (3/16" x 1-1/2").
- ▶ Blade opens CCW.

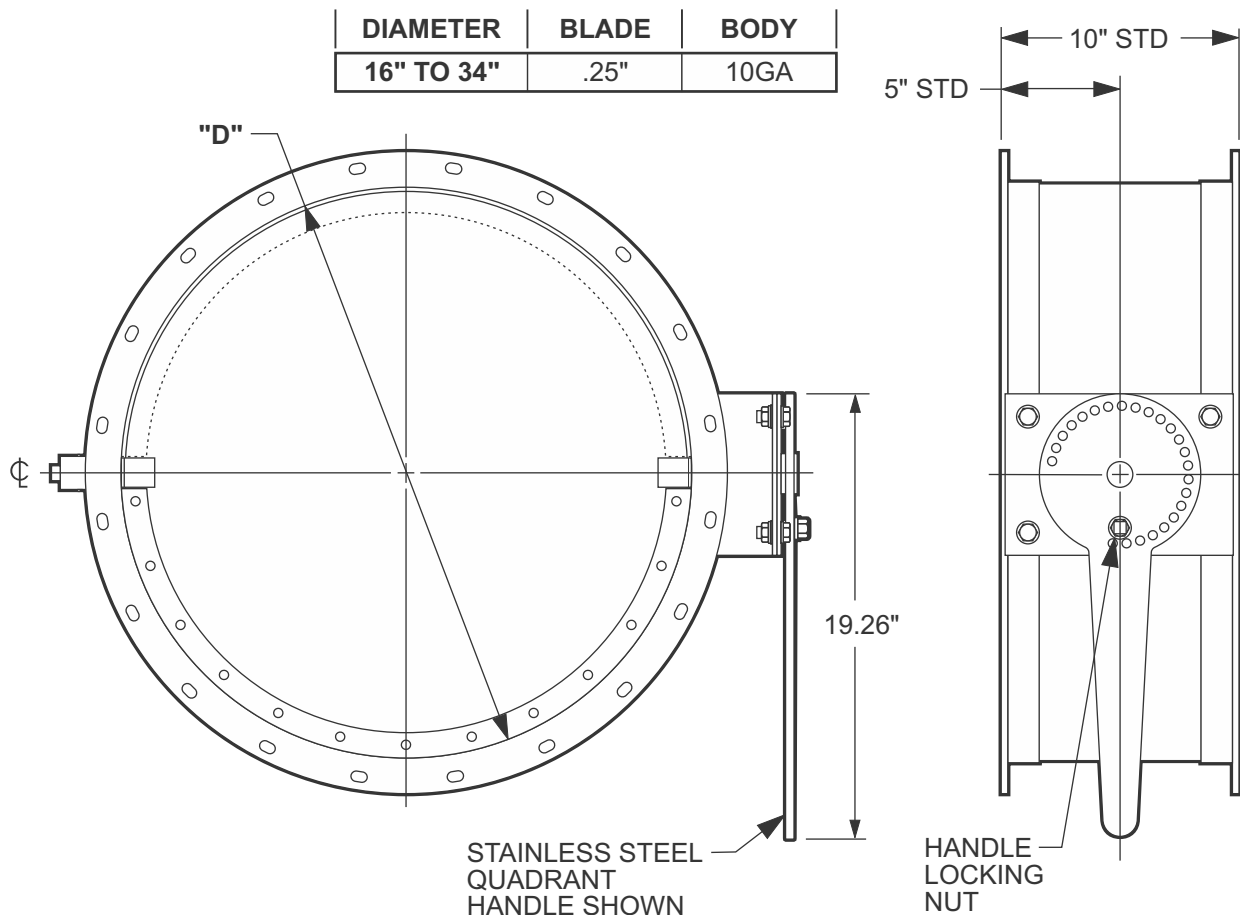
OPTIONS

- ▶ Pneumatic actuator.
- ▶ Electric actuator.
- ▶ Manual gear drive actuator.
- ▶ Blank mounting kit (plate & shaft adapter) for customer supplied actuator.
- ▶ Custom hole pattern.



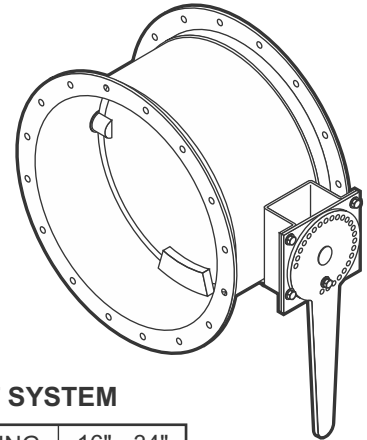
WITH JOINT SYSTEM

SS ANGLE RING	16" - 34"
OPEN/CLOSE TORQUE: 1000 in-lb (RECOMMENDED MINIMUM)	



16"-34" AMCA Heavy Duty Industrial Damper

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.

WITH JOINT SYSTEM

BI ANGLE RING	16" - 34"
SS ANGLE RING	16" - 34"

OPEN/CLOSE TORQUE: 1000 in-lb (RECOMMENDED MINIMUM)

Damper Dia.	Pressure	AMCA Leakage Class
16" - 34"	1" WG	1A
	4", 8", 12" WG	1

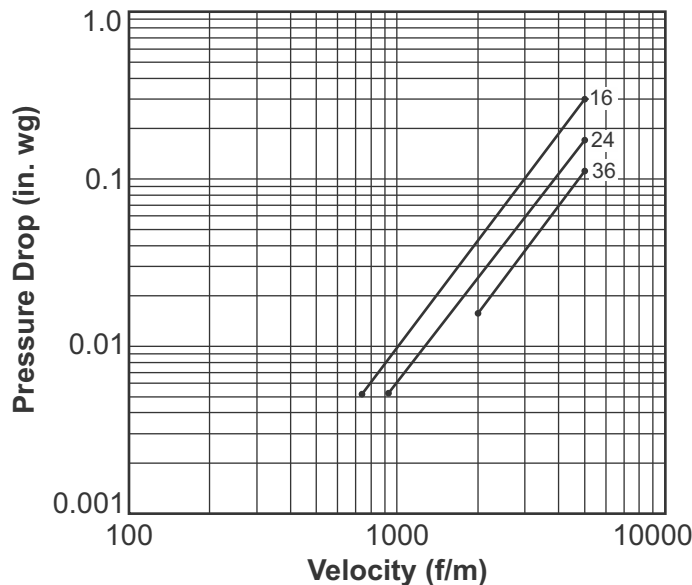
Tested Leakage Rates Available, Contact Fab-Tech Inc.

Leakage Classification L/s/m² (ft³/min/ft²)

Pressure Class	Required Range		Extended Range (Optional)	
	0.25 kPa (1" wg)	1.0 kPa (4" wg)	2.0 kPa (8" wg)	3.0 kPa (12" wg)
1A	15.2 (3)*	N/A	N/A	N/A
1	20.3 (4)	40.6 (8)	55.9 (11)	71.1 (14)
2	50.8 (10)	102 (20)	142 (28)	178 (35)
3	203 (40)	406 (80)	569 (112)	711 (140)

*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.

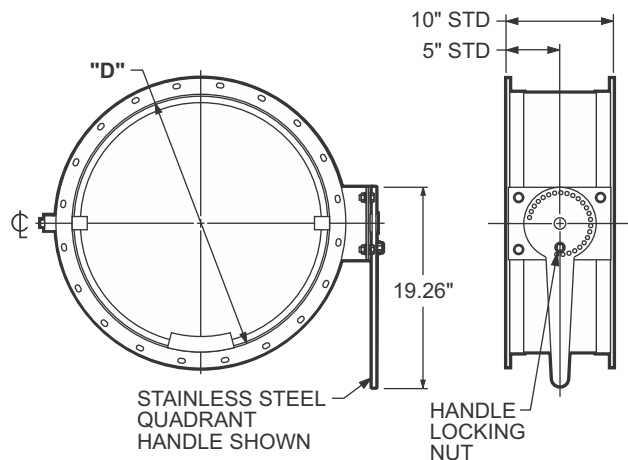
SPECIFICATIONS

- ▶ Welded stainless steel rings
- ▶ Mounting holes straddle vertical centerline.
- ▶ Liquid tight shaft seals - thermoplastic sleeve bearings.
- ▶ 1.38"Ø stainless steel axles
- ▶ .25" stainless steel blades.
- ▶ Stainless steel quadrant plate.
- ▶ Multi-position handle, 5° lockout feature.
- ▶ Welded blade stops with Viton seal (3/16" x 1-1/2").
- ▶ Blade opens CCW.

OPTIONS

- ▶ Pneumatic actuator.
- ▶ Electric actuator.
- ▶ Manual gear drive actuator.
- ▶ Custom hole pattern.
- ▶ Blank mounting kit (plate & shaft adapter) for customer supplied actuator.

DIAMETER	BLADE	BODY
16" TO 34"	.25"	10GA



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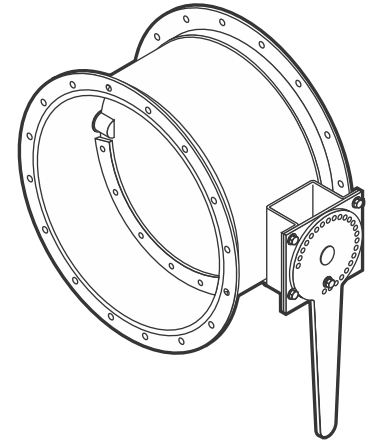
16"-48" High Value Heavy Duty Industrial Damper (HVD)

SPECIFICATIONS

- ▶ Fully coated black iron rings.
- ▶ Loose ring construction to 30" diameter.
- ▶ Stitch welded rings for 32" diameter and above dampers, mounting holes straddle vertical centerline.
- ▶ Liquid tight shaft seals - thermoplastic sleeve bearings.
- ▶ 1.38" diameter stainless steel axles.
- ▶ Keyed fully welded blade stops.
- ▶ Multi-position handle, 1/2° lockout feature.
- ▶ Blade opens CCW.

OPTIONS

- ▶ Pneumatic actuator.
- ▶ Electric actuator.
- ▶ Manual gear drive actuator.
- ▶ Blank mounting kit (plate & shaft adapter) for customer supplied actuator.
- ▶ Custom hole pattern.
- ▶ Viton Blade seal.
- ▶ Stainless steel ring.

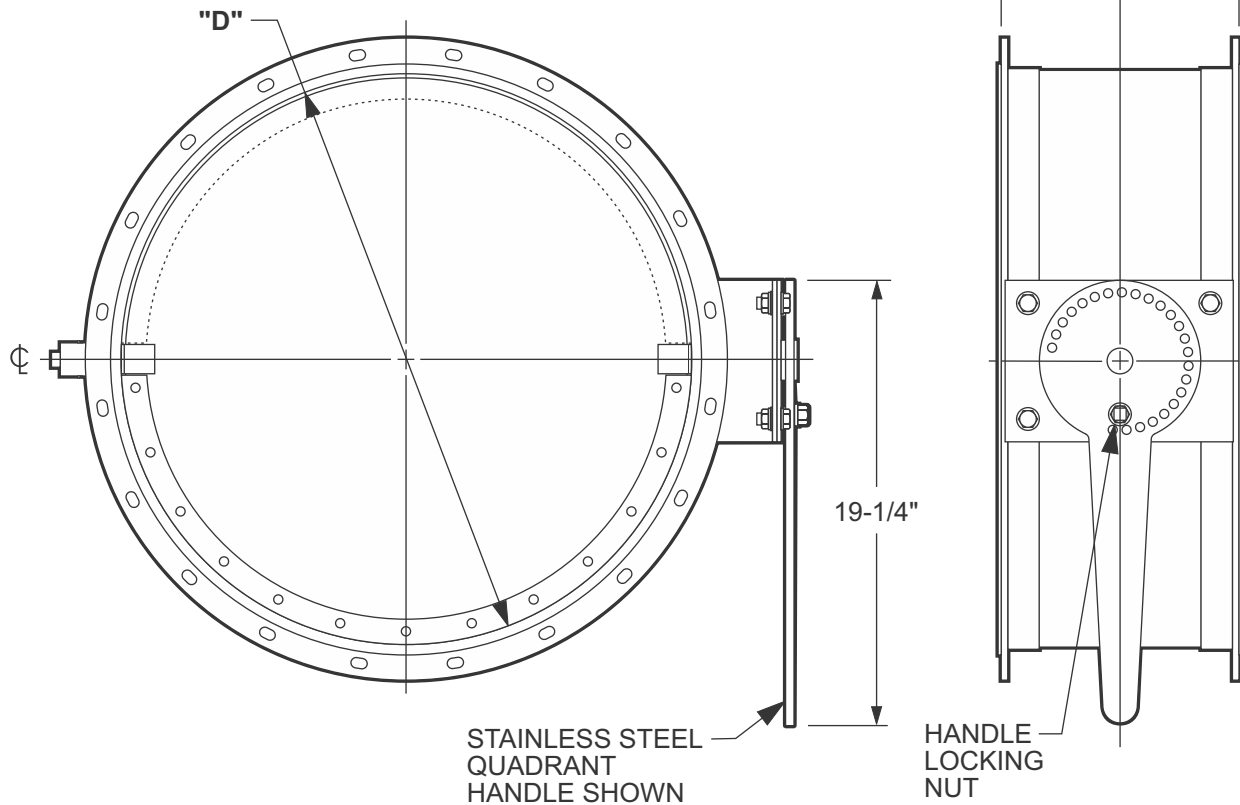


WITH JOINT SYSTEM

BI ANGLE RING	16" - 48"
SS ANGLE RING	16" - 48"

OPEN/CLOSE TORQUE: 1000 in-lb
(RECOMMENDED MINIMUM)

DIAMETER	BLADE	BODY
16" TO 48"	.250"	12GA



***SHOWN WITH MANUAL HANDLE ACTUATOR OPTION**

36"-48" Heavy Duty Industrial Damper

NOTE

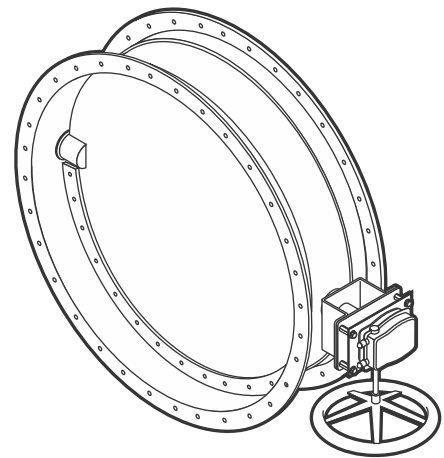
- ▶ All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

SPECIFICATIONS

- ▶ Welded stainless steel rings.
- ▶ Gear drive actuator with 1/2° damper axle lock.
- ▶ Mounting holes straddle vertical centerline.
- ▶ Liquid tight shaft seals - thermoplastic sleeve bearings.
- ▶ 1.38"Ø stainless steel axles - .25" stainless steel blades.
- ▶ Welded blade stops w/ Viton seal (3/16" x 1-1/2").
- ▶ Blade opens CCW.

OPTIONS

- ▶ Pneumatic actuator.
- ▶ Electric actuator.
- ▶ Custom hole pattern.
- ▶ Blank mounting kit (plate & shaft adapter) for customer supplied actuator.

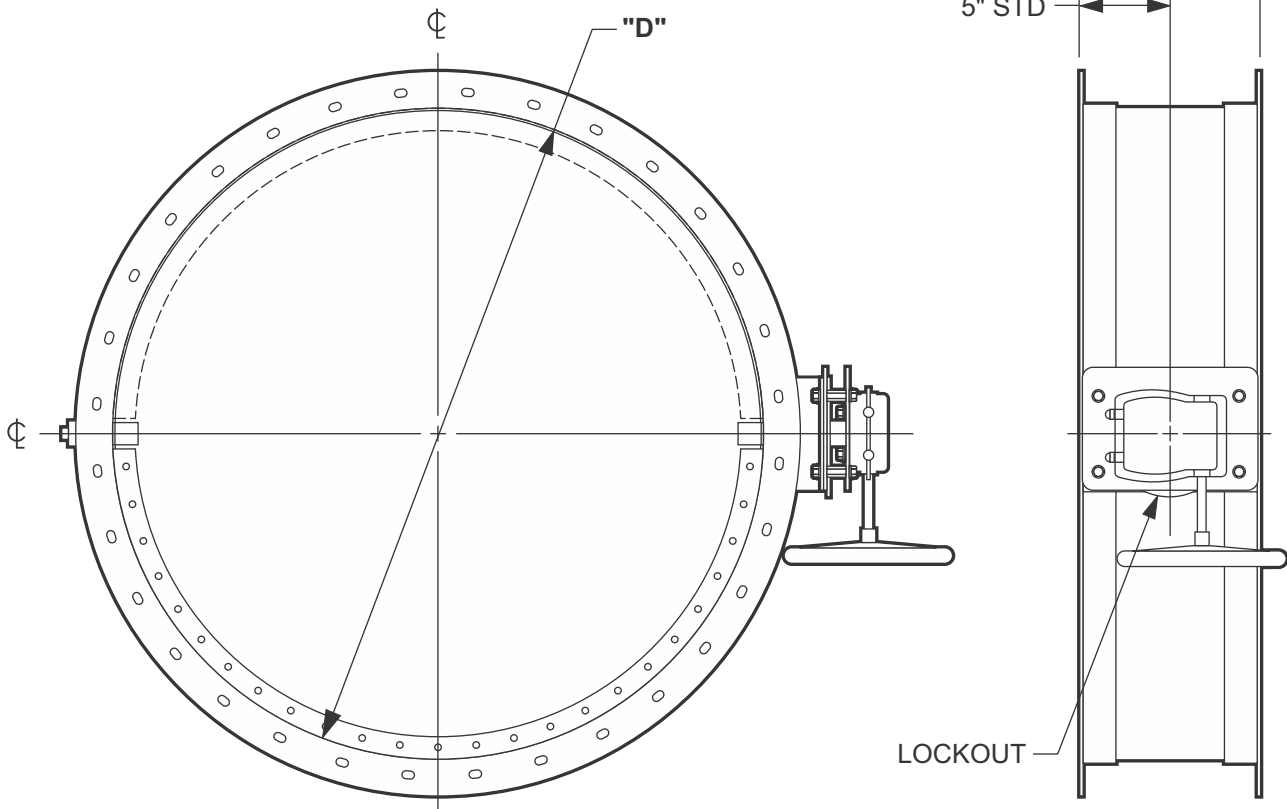


WITH JOINT SYSTEM

SS ANGLE RING	36" - 48"
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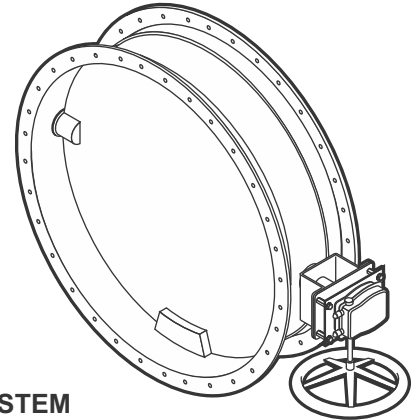
DIAMETER	BLADE	BODY
36" TO 48"	.25"	10GA

OPEN/CLOSE TORQUE: 1000 in-lb
(RECOMMENDED MINIMUM)



36"-48" AMCA Heavy Duty Industrial Damper

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.

Damper Dia.	Pressure	AMCA Leakage Class
36" - 48"	1"WG	1A
	4",8",12"WG	1

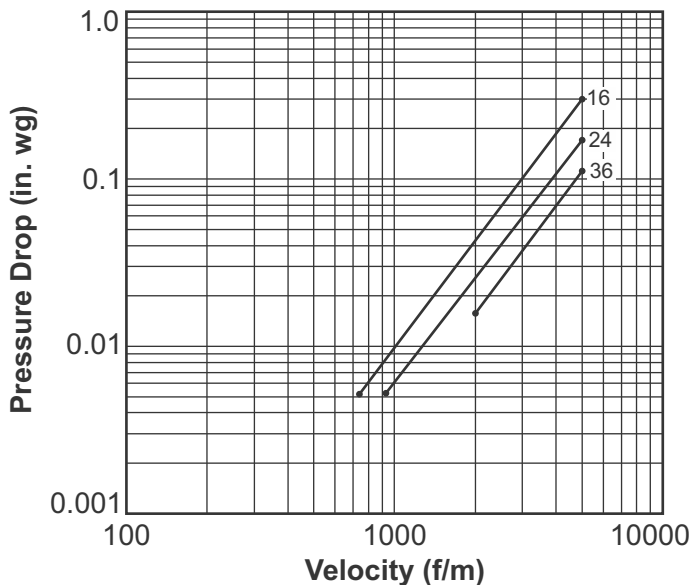
Tested Leakage Rates Available, Contact Fab-Tech Inc.

Leakage Classification L/s/m² (ft³/min/ft²)

Pressure Class	Required Range		Extended Range (Optional)	
	0.25 kPa (1" wg)	1.0 kPa (4" wg)	2.0 kPa (8" wg)	3.0 kPa (12" wg)
1A	15.2 (3)*	N/A	N/A	N/A
1	20.3 (4)	40.6 (8)	55.9 (11)	71.1 (14)
2	50.8 (10)	102 (20)	142 (28)	178 (35)
3	203 (40)	406 (80)	569 (112)	711 (140)

*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



WITH JOINT SYSTEM

BI ANGLE RING	36" - 48"
SS ANGLE RING	36" - 48"

OPEN/CLOSE TORQUE:
1000 in-lb
(RECOMMENDED MINIMUM)

NOTE

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

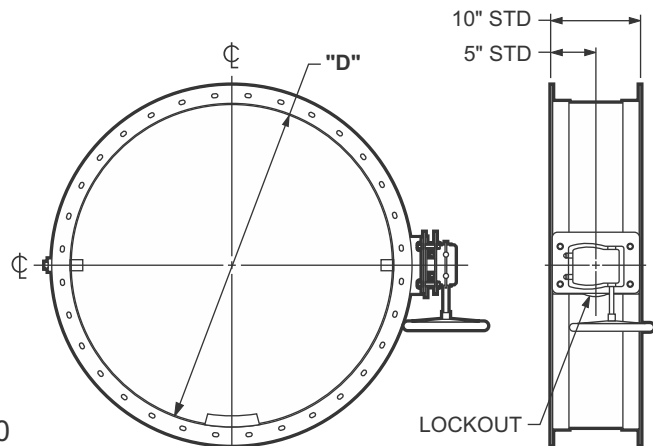
SPECIFICATIONS

- ▶ Welded stainless steel rings.
- ▶ Gear drive actuator with 1/2° damper axle lock.
- ▶ Mounting holes straddle vertical centerline.
- ▶ Liquid tight shaft seals - thermoplastic sleeve bearings.
- ▶ 1.38"Ø stainless steel axles
- ▶ .25" stainless steel blades.
- ▶ Welded blade stops with Viton seal.
- ▶ Blade opens CCW.

OPTIONS

- ▶ Pneumatic actuator.
- ▶ Electric actuator.
- ▶ Blank mounting kit (plate & shaft adapter) for customer supplied actuator.
- ▶ Custom hole pattern.

DIAMETER	BLADE	BODY
36" TO 48"	.25"	10GA



50" & Larger Heavy Duty Industrial Damper

NOTE

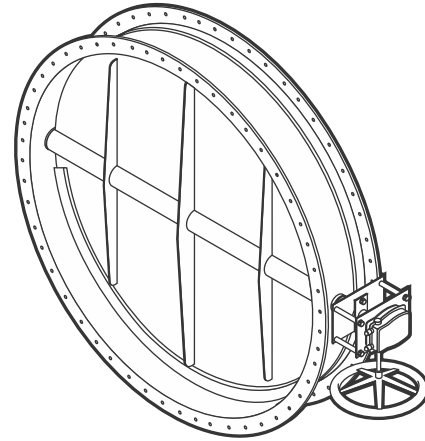
- ▶ All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

SPECIFICATIONS

- ▶ Stainless steel blade with stiffening ribs.
- ▶ Stainless steel body.
- ▶ Welded stainless steel rings.
- ▶ Gear drive actuator with lock out, 1/2° intervals.
- ▶ Mounting holes straddle vertical centerline.
- ▶ Welded blade stops.
- ▶ Liquid tight shaft seals, thermoplastic sleeve bearings.
- ▶ Available to 120" dia. - dampers larger than 84" dia. require engineering review & approval.
- ▶ Blade opens CCW.

OPTIONS

- ▶ Pneumatic actuator.
- ▶ Electric actuator.
- ▶ Blank mounting kit (plate & shaft adapter) for customer supplied actuator.
- ▶ Custom hole pattern.

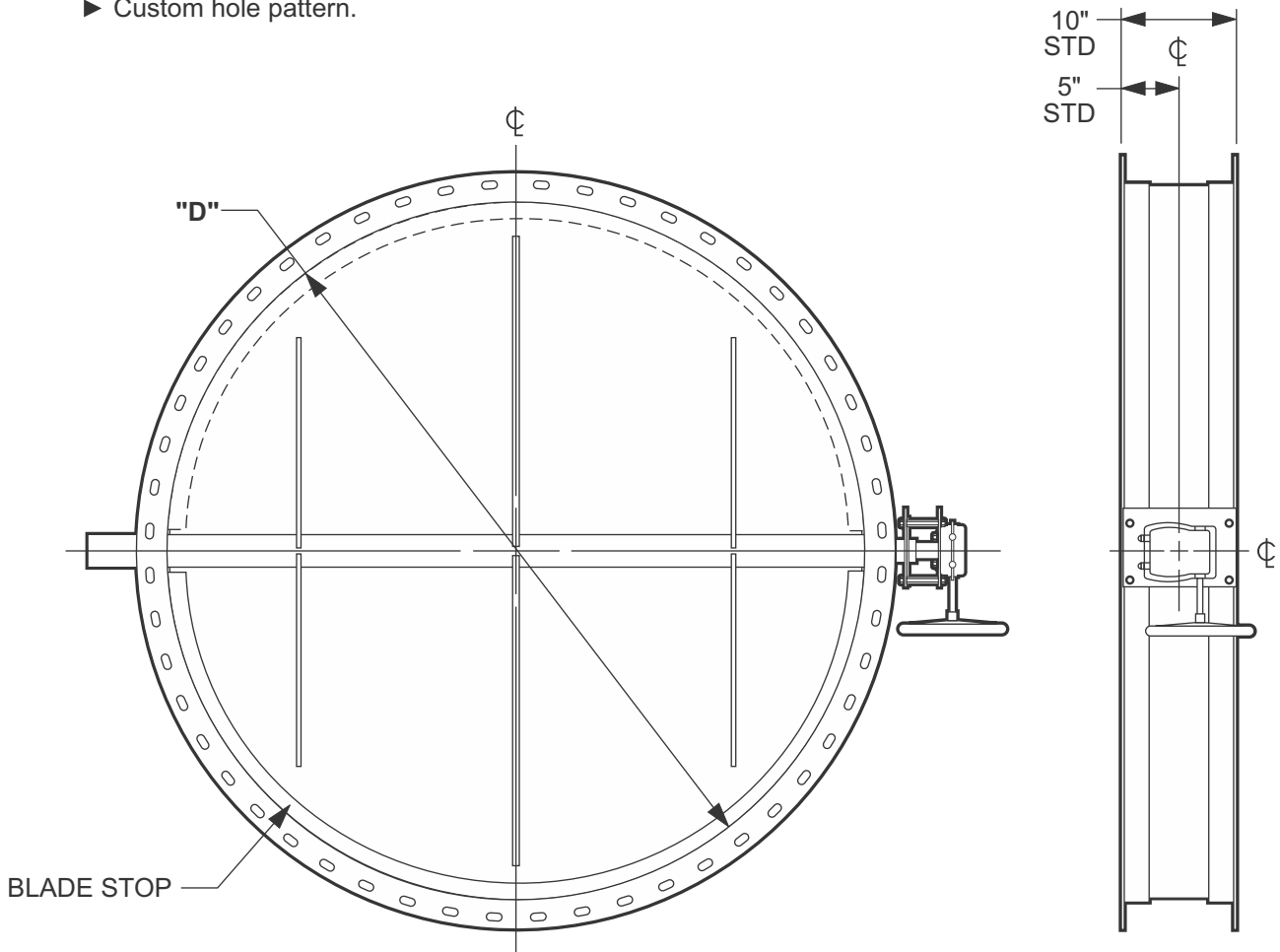


OPEN/CLOSE TORQUE: 1600 in-lb
(RECOMMENDED MINIMUM)

WITH JOINT SYSTEM

SS ANGLE RING 50" - 120"

DIAMETER	BLADE	BODY
50" TO 84"	.38"	.25"



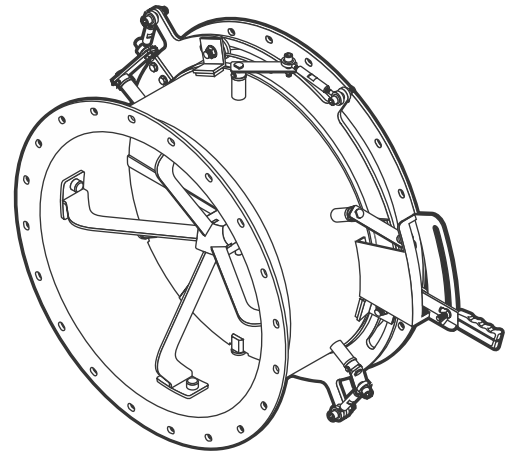
18"-72" Vortex Damper

NOTE

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

SPECIFICATIONS

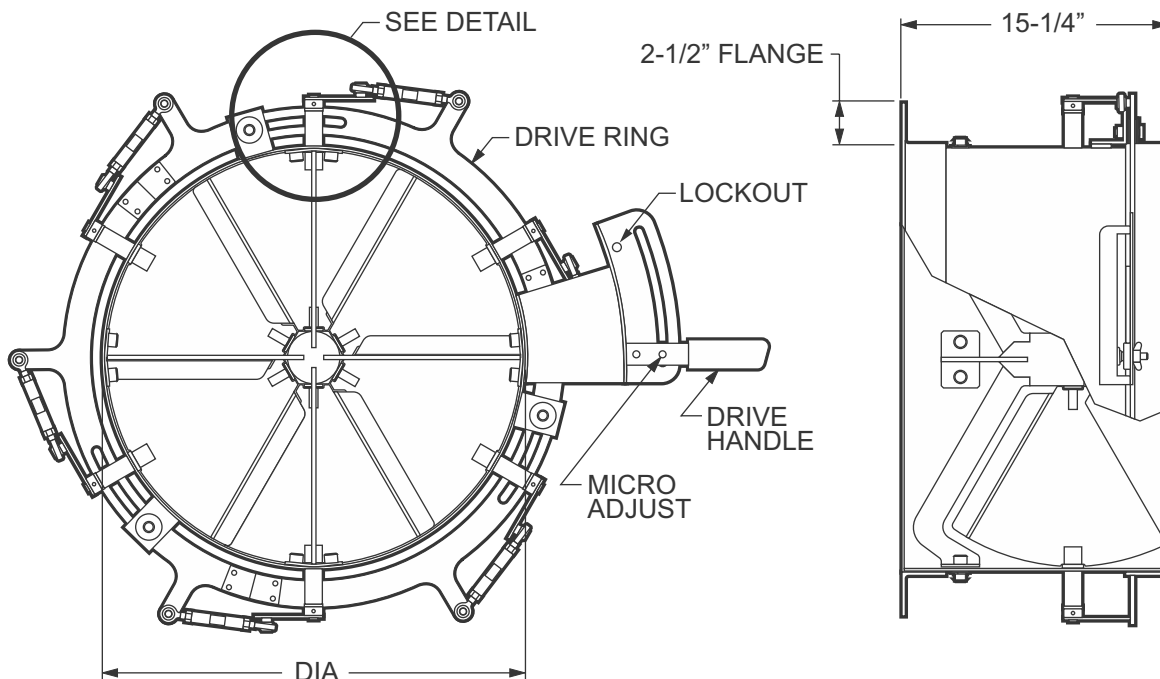
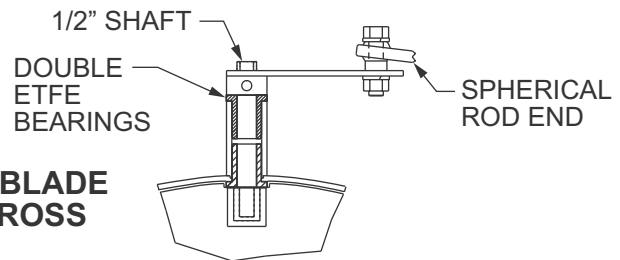
- ▶ 10 GA. stainless steel body: 2-1/2" flanges
- ▶ 7/16" x 11/16" slotted mounting holes
- ▶ Mounting holes straddle vertical centerline
- ▶ 10 GA. stainless steel blades with overlap
- ▶ 1/2" diameter stainless steel blade axles
- ▶ Glass filled ETFE bearings
- ▶ Stainless steel linkages outside airstream
- ▶ 1/4" stainless steel drive ring
- ▶ 10 GA. stainless steel quadrant plate
- ▶ Hand actuated with micro adjustment and lockout feature



WITH JOINT SYSTEM

SS ANGLE RING	18" - 72"
---------------	-----------

DETAIL - BLADE SHAFT CROSS SECTION



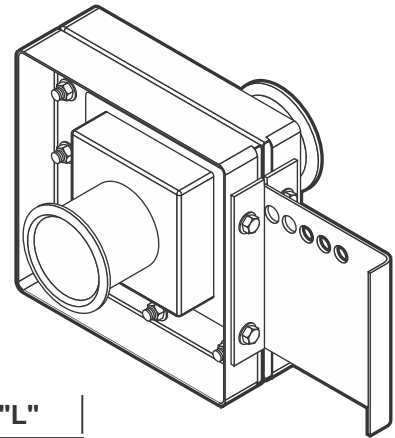
2" & 3" EZ Blastgate

NOTE

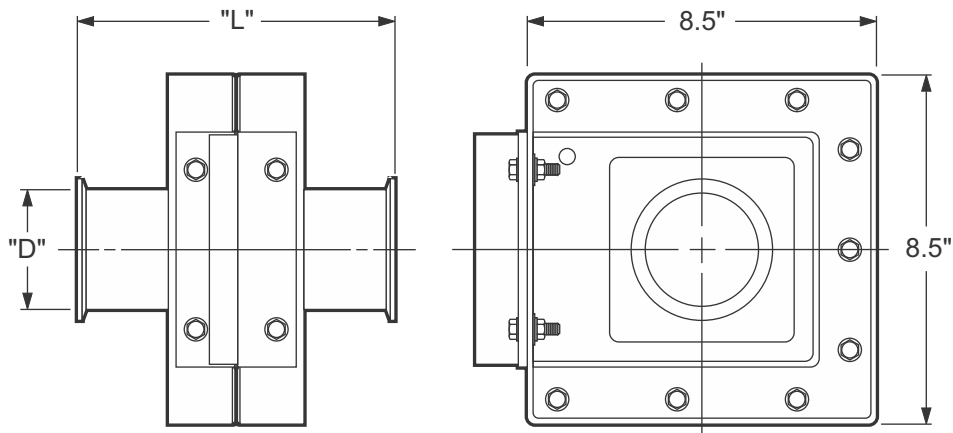
- ▶ All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

SPECIFICATIONS

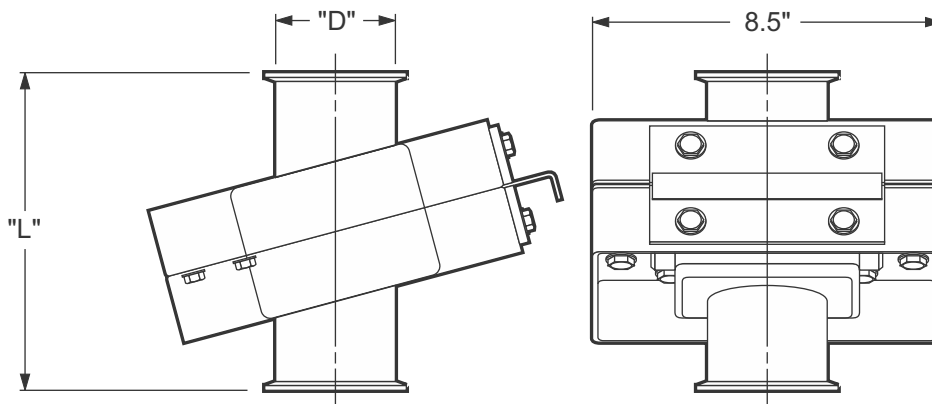
- ▶ Stainless steel frame material.
- ▶ Blade lockout system.



PART NO.*	DESCRIPTION	"D"	"L"
PZB02H	2" EZ-BLASTGATE HORIZONTAL	2"	8.000"
PZB03H	3" EZ-BLASTGATE HORIZONTAL	3"	8.000"



PART NO.*	DESCRIPTION	"D"	"L"
PZB02V	2" EZ-BLASTGATE VERTICAL	2"	8.000"
PZB03V	3" EZ-BLASTGATE VERTICAL	3"	8.000"



4"-36" Horizontal Run Isolation Blastgate

NOTE

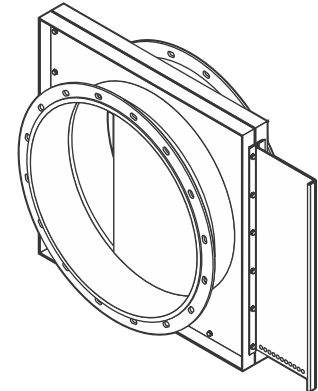
- ▶ All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

SPECIFICATIONS

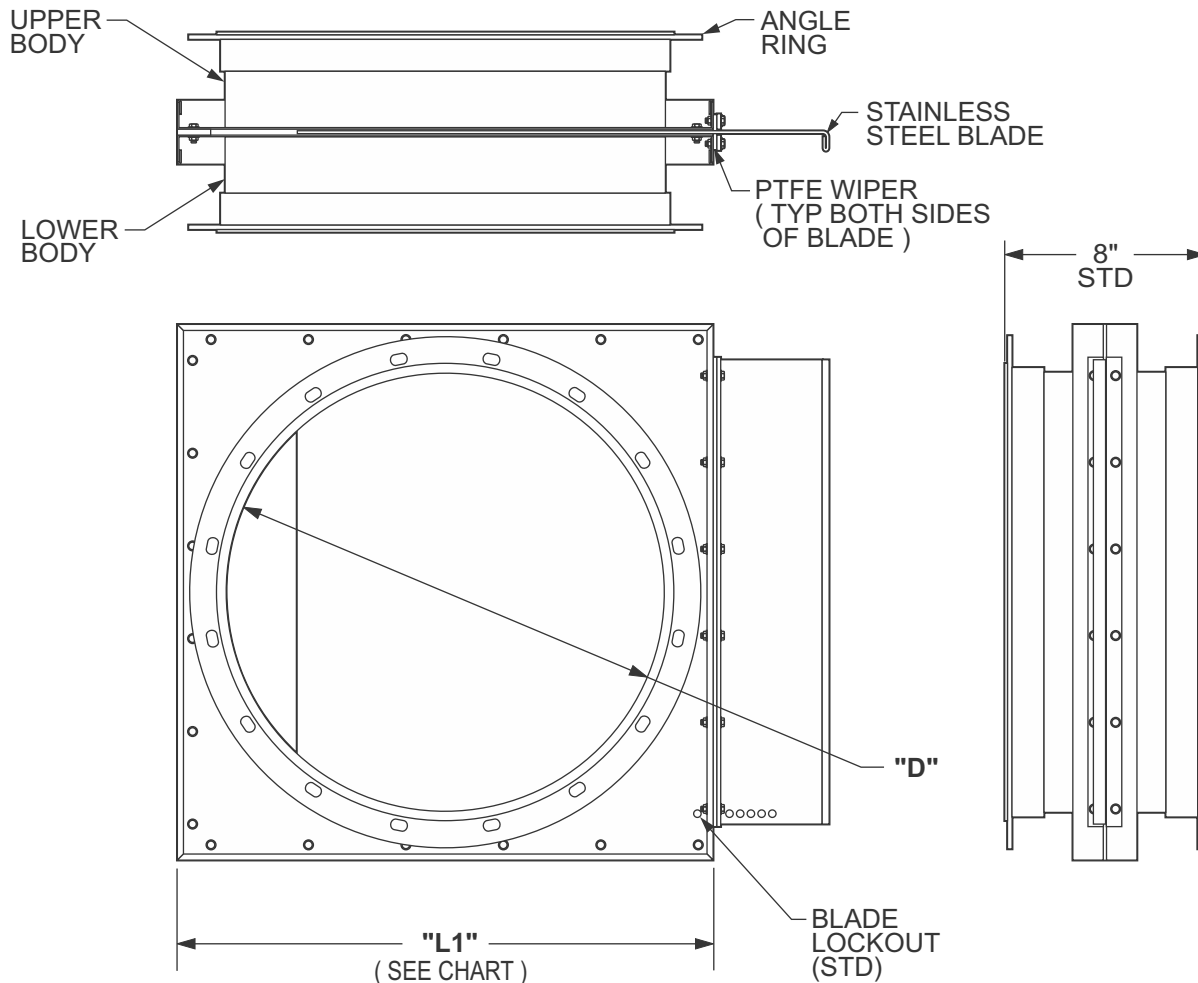
- ▶ Stainless steel frame material.
- ▶ Blade lockout system.

WITH JOINT SYSTEM

EZ CLAMP	4" - 14"
SS CAST RING	4" - 14"
BI ANGLE RING	4" - 36"
SS ANGLE RING	16" - 36"



DUCT DIA. "D"	OUTSIDE DIM "L1"	BODY	BLADE	BODY BOLTS	NO. OF BLADES
4" TO 16"	DIA. "D" + 4"	18GA	18GA	.31"	1
18" TO 36"	DIA. "D" + 4.5"	16GA	16GA	.31"	1



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

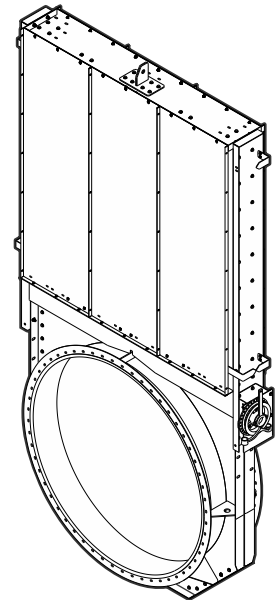
- ▶ Stainless steel frame material.
- ▶ Blade lockout system.
- ▶ Exterior position indicator.

OPTIONS

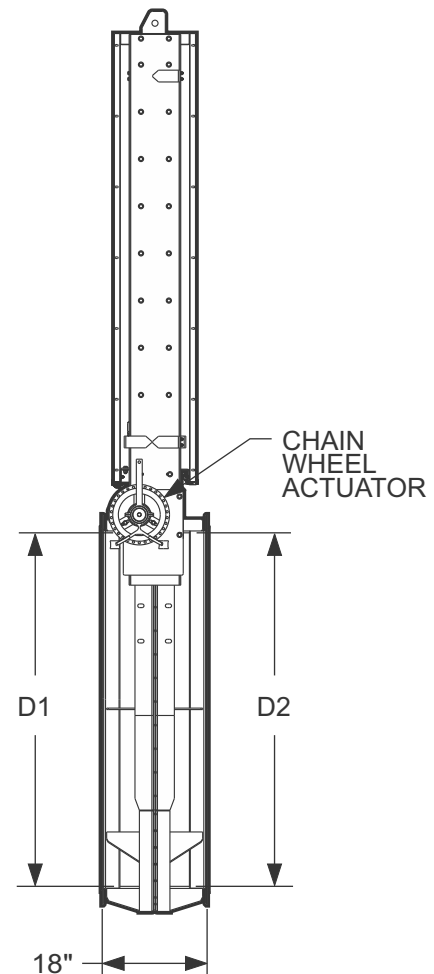
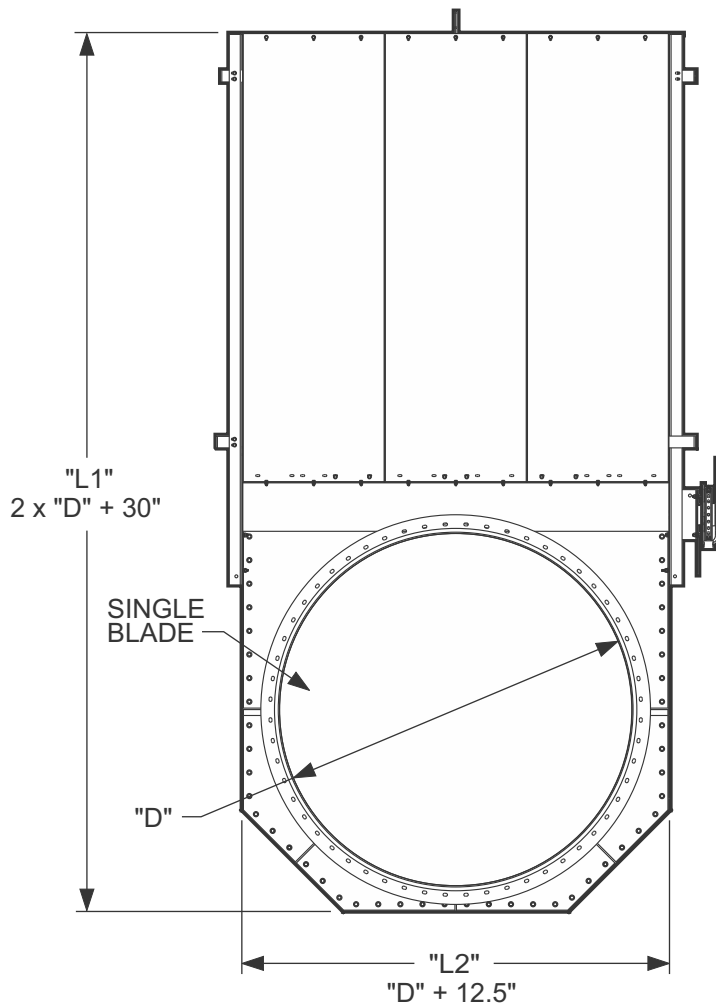
- ▶ Bellows enclosed lead screw for additional corrosion resistance (adds to L1 length)

RING TYPES

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



DUCT DIA. "D"	OUTSIDE DIM "L1"	BODY	BLADE	BODY BOLTS	NO. OF BLADES
16" TO 36"	2"D" + 30"	10GA	12GA	.38"	1



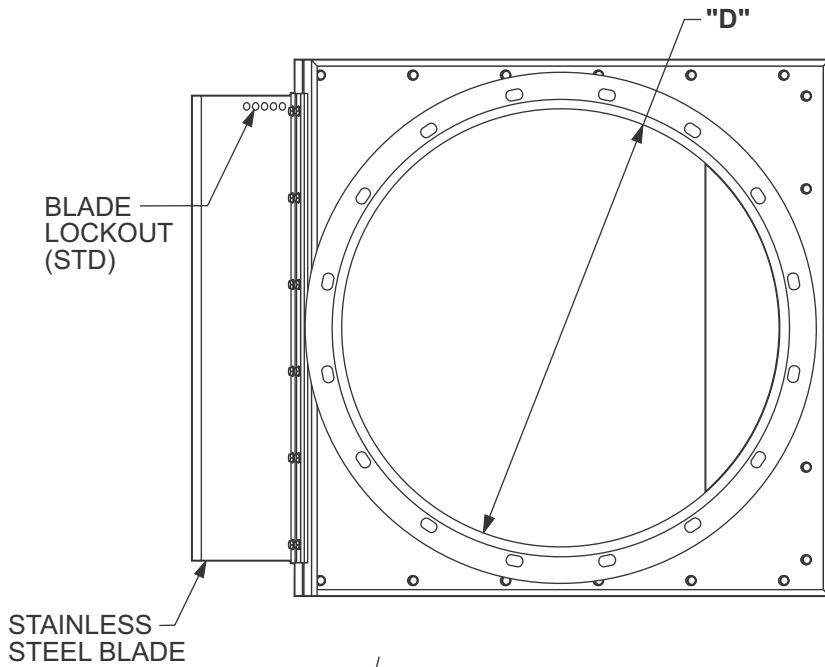
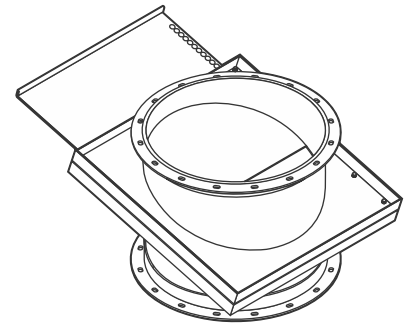
4"-36" Vertical Run Isolation Blastgate

NOTE

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

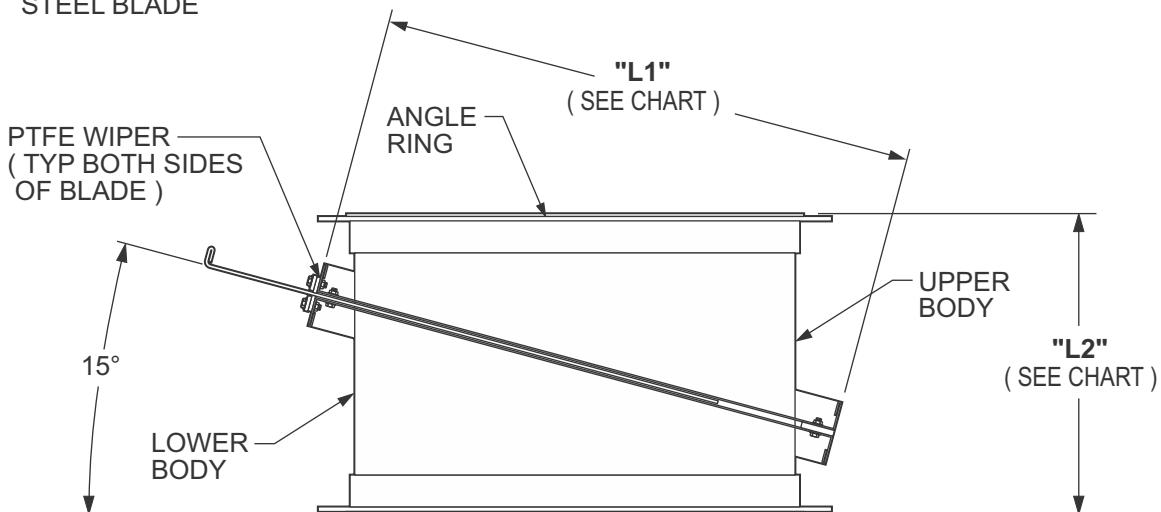
SPECIFICATIONS

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



WITH JOINT SYSTEM

EZ CLAMP	4" - 14"
SS CAST RING	4" - 14"
BI ANGLE RING	4" - 48"
SS ANGLE RING	16" - 120"



DUCT DIA. "D"	OUTSIDE DIM "L1"	BODY	BLADE	FRAME BOLTS	NO. OF BLADES	BLADE ANGLE	LENGTH "L2"
4" TO 8"	DIA. "D" + 4"	18GA	18GA	.31"	1	15°	8"
10" TO 16"	DIA. "D" + 4"	18GA	18GA	.31"	1	15°	12"
18" TO 36"	DIA. "D" + 4.5"	16GA	16GA	.31"	1	15°	16"

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

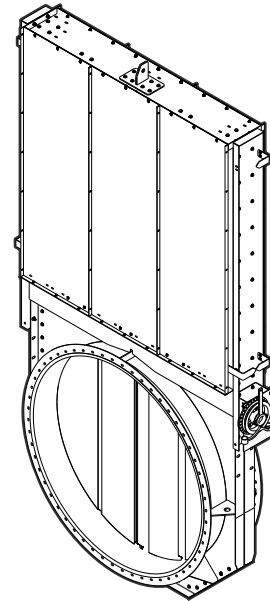
- ▶ Stainless steel body, rings and blade.
- ▶ Blade lockout system.
- ▶ Exterior position indicator.

OPTIONS

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

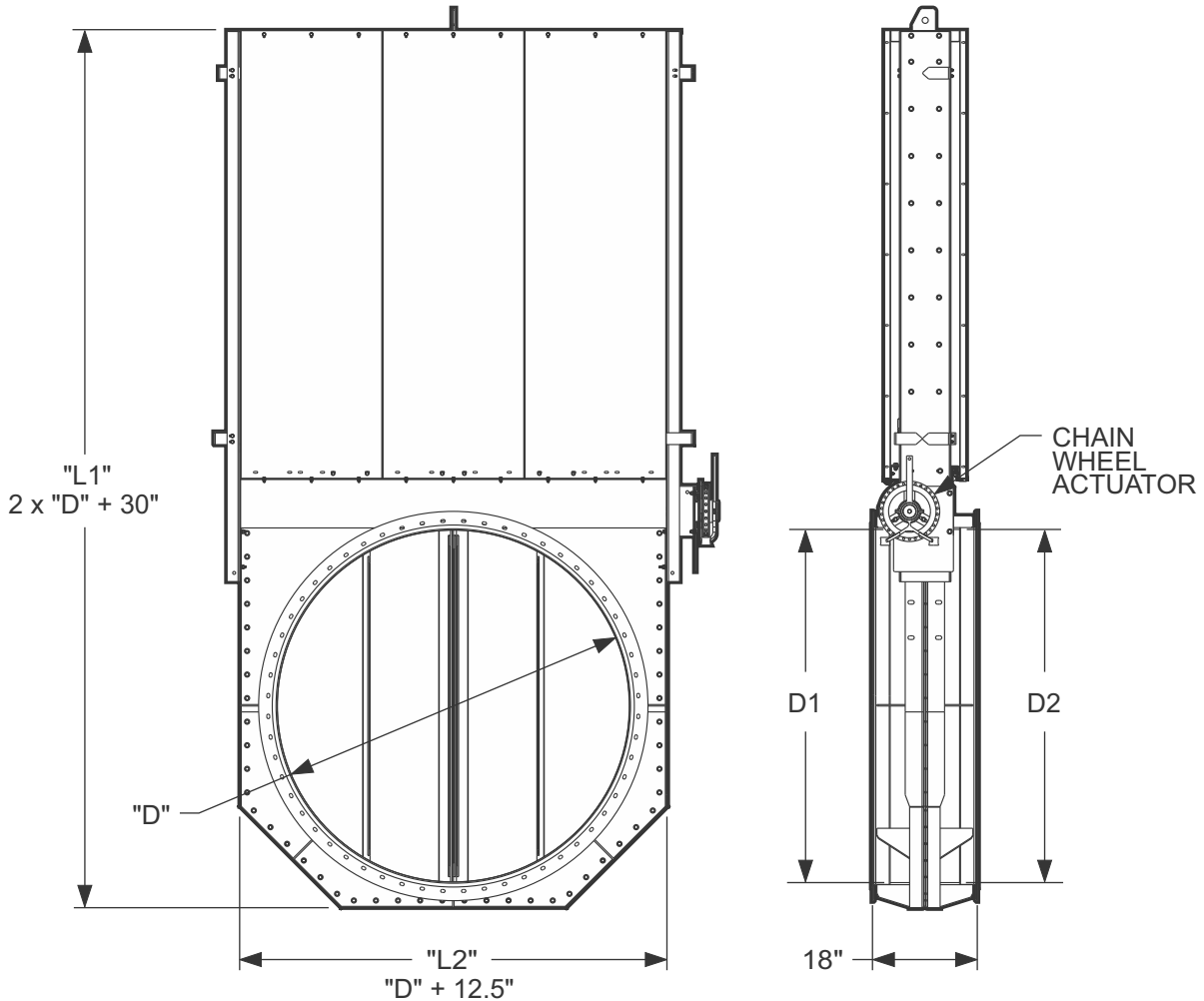
RING TYPES

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



DUCT DIA. "D"	OUTSIDE DIM "L1"	BODY	BLADE	BODY BOLTS	NO. OF BLADES
38" TO 64"	2"D" + 30"	10GA	12GA	.38"	2
66" TO 88"	2"D" + 30"	10GA	12GA	.43"	2

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



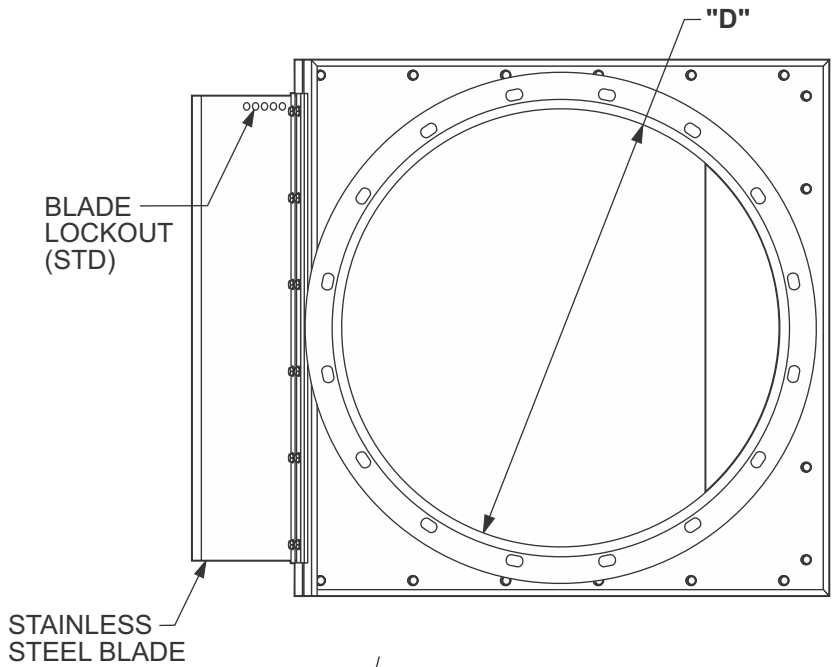
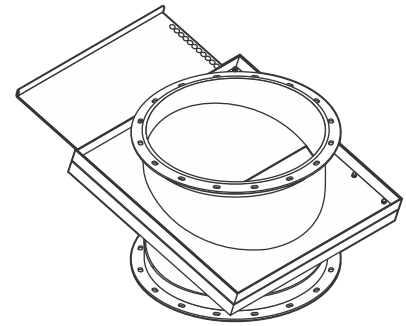
4"-36" Vertical Run Isolation Blastgate

NOTE

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

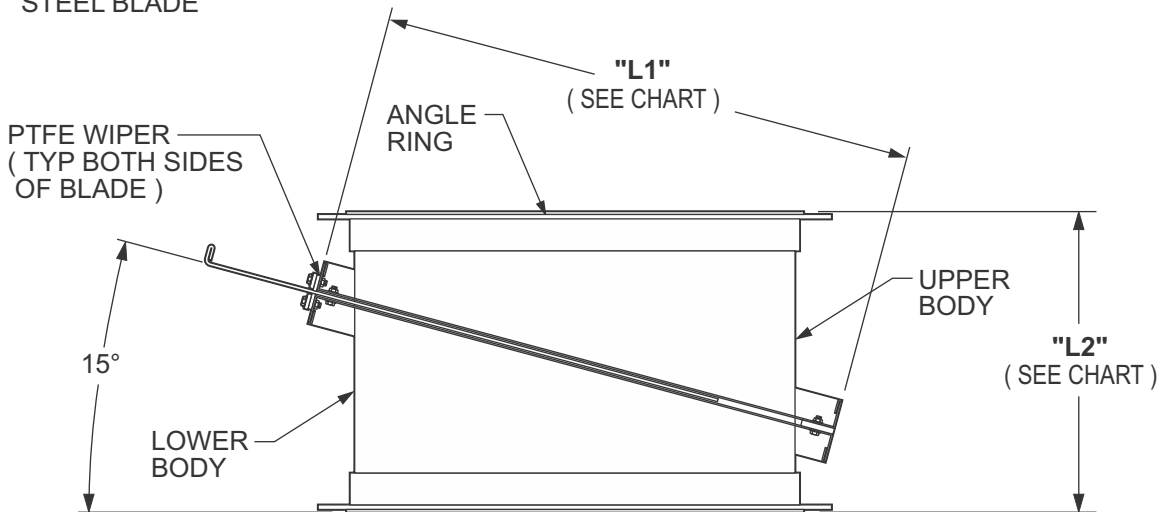
SPECIFICATIONS

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



WITH JOINT SYSTEM

EZ CLAMP	4" - 14"
SS CAST RING	4" - 14"
BI ANGLE RING	4" - 48"
SS ANGLE RING	16" - 120"



DUCT DIA. "D"	OUTSIDE DIM "L1"	BODY	BLADE	FRAME BOLTS	NO. OF BLADES	BLADE ANGLE	LENGTH "L2"
4" TO 8"	DIA. "D" + 4"	18GA	18GA	.31"	1	15°	8"
10" TO 16"	DIA. "D" + 4"	18GA	18GA	.31"	1	15°	12"
18" TO 36"	DIA. "D" + 4.5"	16GA	16GA	.31"	1	15°	16"

16"-36" Vertical Run Actuated Isolation Blastgate

NOTE

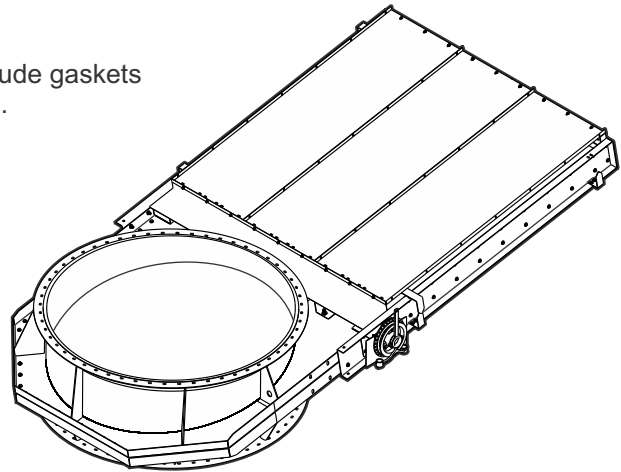
- ▶ All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

SPECIFICATIONS

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

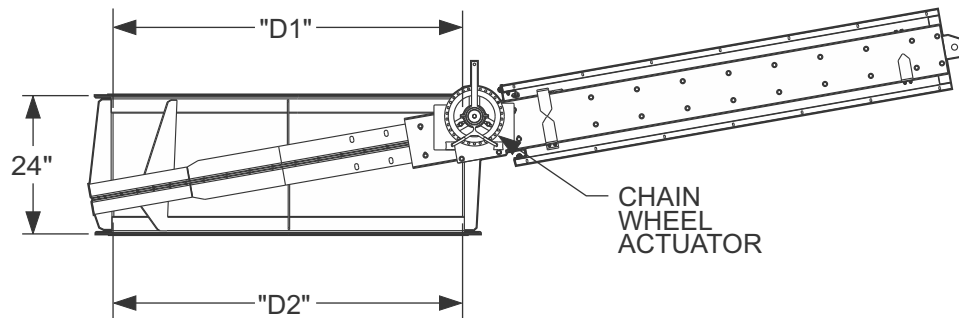
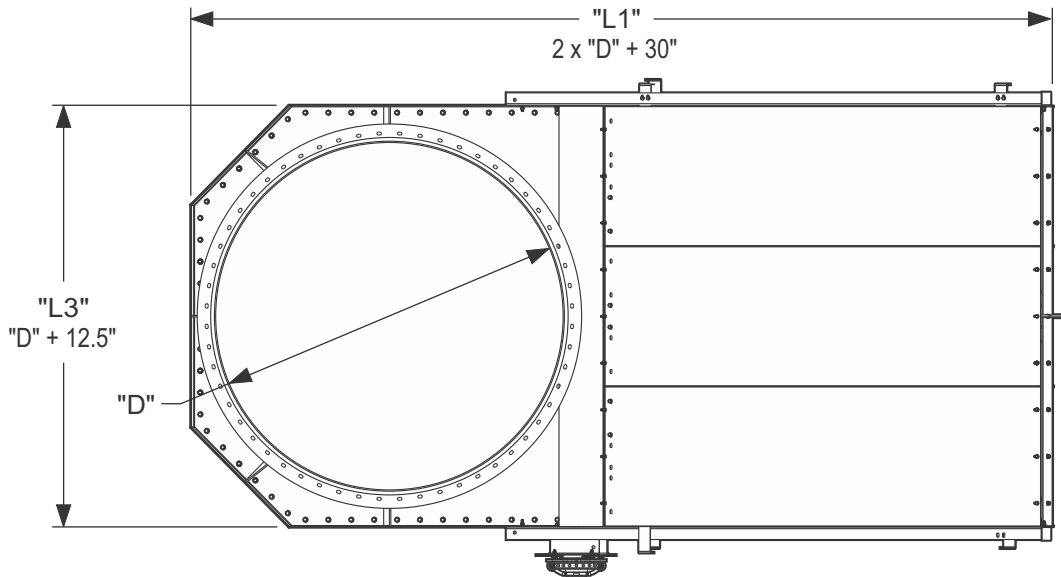
OPTIONS

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



RING TYPES

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



DUCT DIA. "D"	OUTSIDE DIM "L1"	BODY	BLADE	FRAME BOLTS	NO. OF BLADES	BLADE ANGLE
16" TO 36"	2"D" + 30"	10GA	12GA	.38"	1	10°

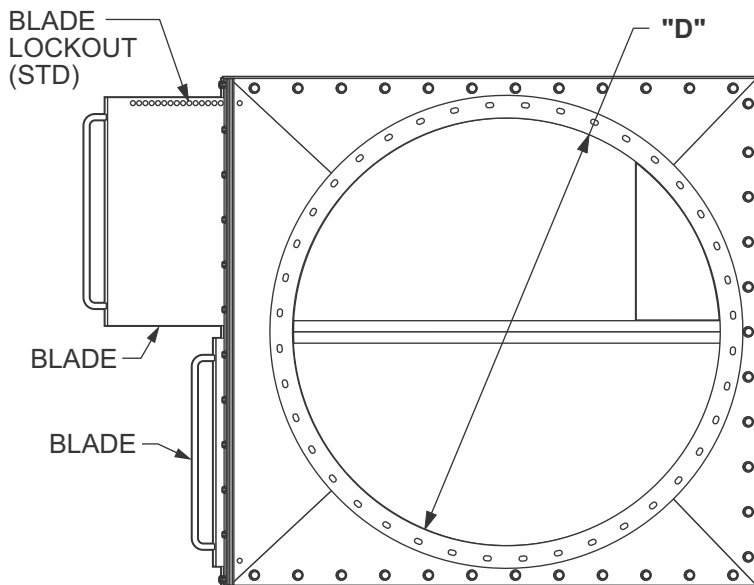
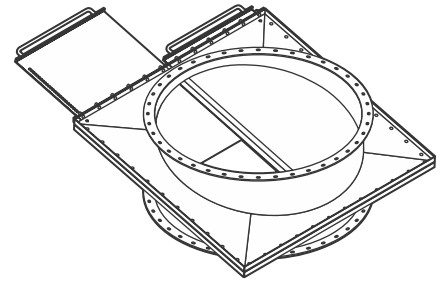
38" & Larger Vertical Run Isolation Blastgate

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.

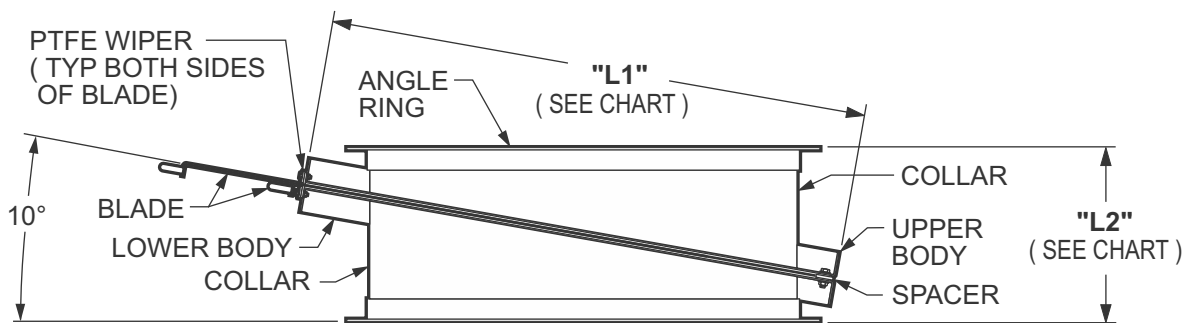
SPECIFICATIONS

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



WITH JOINT SYSTEM

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



DUCT DIA. "D"	OUTSIDE DIM "L1"	BODY	BLADE	COLLAR	BODY BOLTS	NO. OF BLADES	BLADE ANGLE	LENGTH "L2"
38" TO 46"	DIA. "D" + 10"	10GA	14GA	14GA	.31"	2	10°	16"
48" TO 60"	DIA. "D" + 11"	10GA	12GA	14GA	.38"	2	10°	24"
62" TO 84"	DIA. "D" + 11"	10GA	12GA	14GA	.38"	3	10°	24"

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

38" & Larger Vertical Run Actuated Isolation Blastgate

NOTE

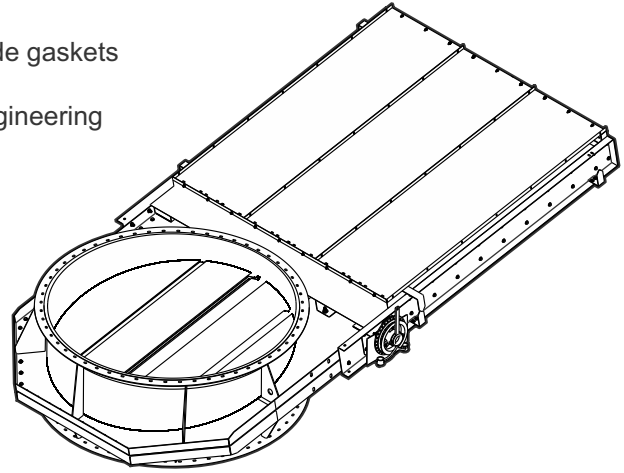
- ▶ All fittings with standard Fab-Tech connections include gaskets and clamps as required for installation.
- ▶ Blastgates 90" diameter and larger are subject to engineering review and approval.

SPECIFICATIONS

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

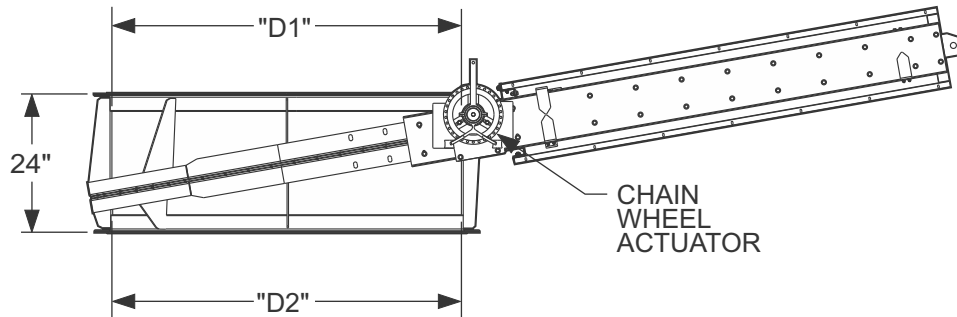
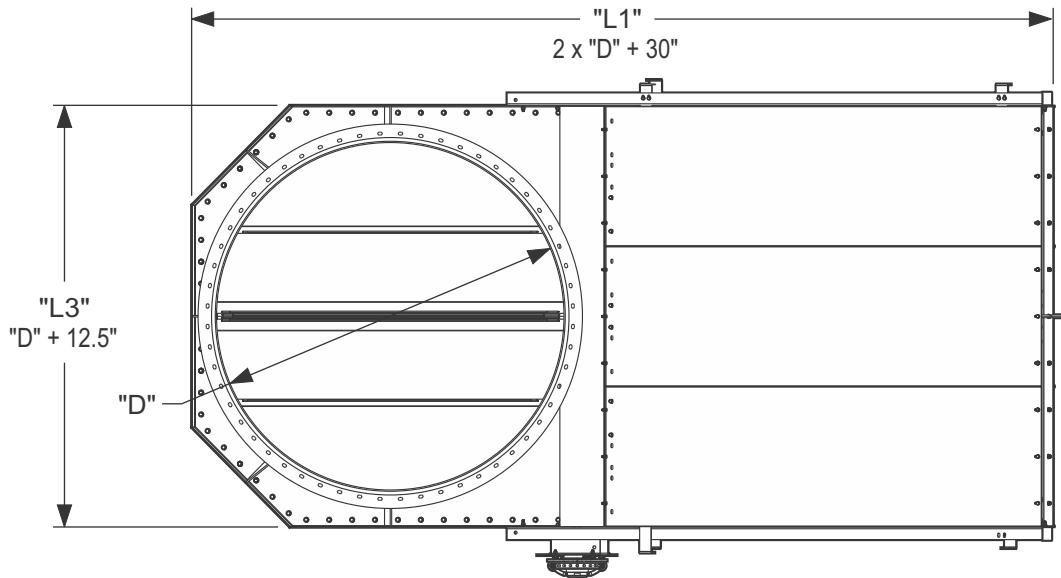
OPTIONS

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



RING TYPES


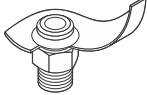

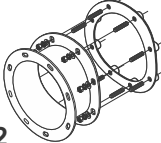







BI ANGLE RING	38" - 100"
SS ANGLE RING	38" - 120"



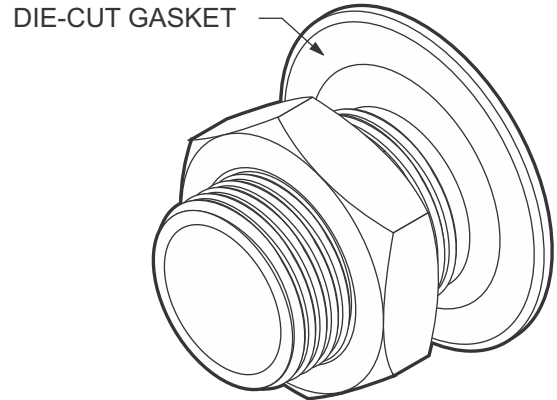
DUCT DIA. "D"	OUTSIDE DIM "L1"	BODY	BLADE	COLLAR	BODY BOLTS	NO. OF BLADES	BLADE ANGLE
38" TO 64"	2"D" + 30"	10GA	12GA	12GA	.38"	2	10°
66" TO 88"	2"D" + 30"	10GA	12GA	12GA	.43"	2	10°

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

Product Guide

<p>ACCESSORIES</p>	<p>FIELD INSTALLED NIPPLE</p>  <p>SIZE: 1", 1-1/2", 2" • PAGE: 49</p>	<p>FIELD INSTALLED TEST PORT</p>  <p>SIZE: 3/8", 3/4", 2" • PAGE: 50</p>
<p>FIELD INSTALLED SADDLE TAP</p>  <p>SIZE: 4"-24" TEE • PAGE: 51</p>	<p>FIELD INSTALLED HOT TAP</p>  <p>SIZE: 4"-24" • PAGE: 52</p>	<p>CAST RING STAINLESS STEEL</p>  <p>SIZE: 4"-14" • PAGE: 53</p>
<p>ANGLE RING STAINLESS STEEL OR BLACK IRON</p>  <p>SIZE: 4"-120" • PAGE: 54</p>		
<p>ACCESSORIES PSP-EZ™</p>	<p>FIELD INSTALLED SADDLE TAP</p>  <p>SIZE: 4" TO 14" TEE • PAGE: 51</p>	<p>CLAMP</p>  <p>SIZE: 2" & 3" • PAGE: 55</p>
<p>DIE CUT GASKET</p>  <p>SIZE: 2" & 3" • PAGE: 55</p>	<p>CLAMP KIT</p>  <p>SIZE: 2" & 3" • PAGE: 55</p>	<p>CLAMP KIT</p>  <p>SIZE: 4" TO 14" • PAGE: 55</p>

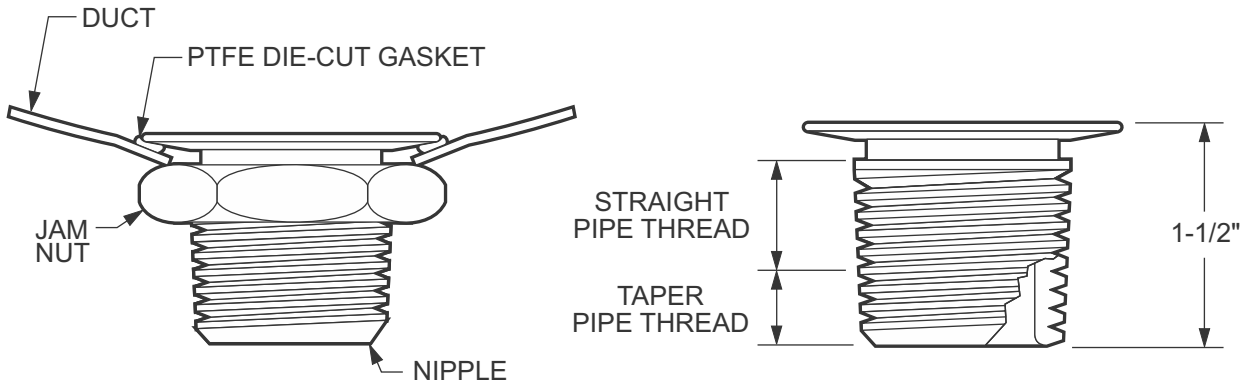
Field Installed Nipple



NOTES

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

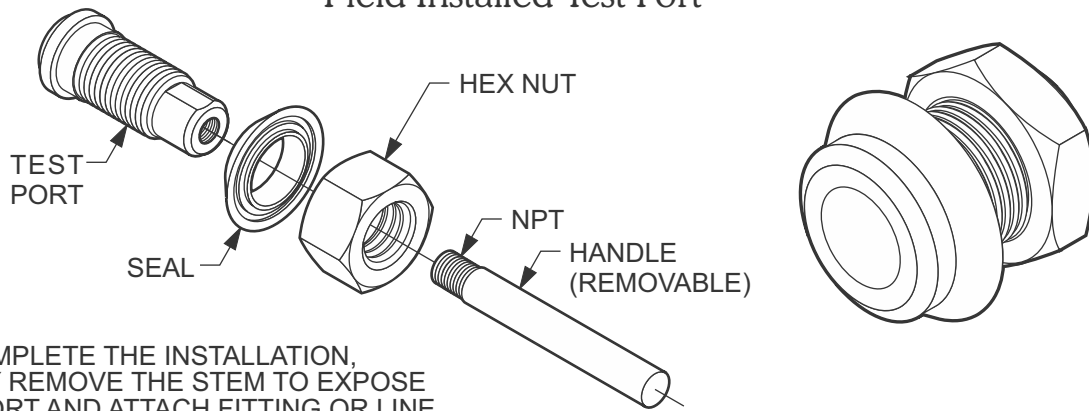
PART NO.	DESCRIPTION	MIN. HOST DUCT	MATERIAL THICKNESS
PRT01	1" NPT NIPPLE	6" DIA. DUCT MIN.	16 GA MAX MATERIAL THICKNESS
PRT15	1-1/2" NPT NIPPLE	8" DIA. DUCT MIN.	
PRT02	2" NPT NIPPLE	10" DIA. DUCT MIN.	



***SWAGE KIT REQUIRED TO INSTALL**
 ONLY ONE KIT REQUIRED TO INSTALL MULTIPLE NIPPLES

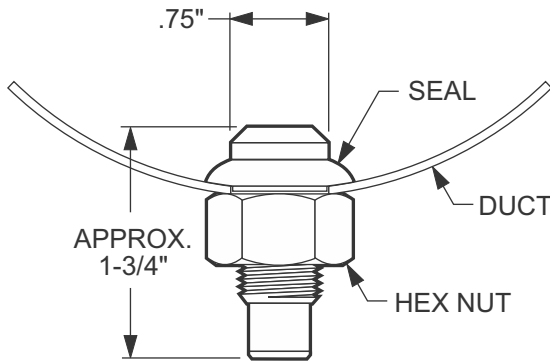
PART NO.*	DESCRIPTION
TPS01	MANUAL KIT FOR 1"
TPS02	HYDRAULIC KIT FOR 1", 1-1/2", & 2"

Field Installed Test Port



TO COMPLETE THE INSTALLATION, SIMPLY REMOVE THE STEM, TO EXPOSE THE PORT AND ATTACH FITTING OR LINE.

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



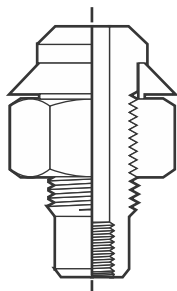
3/8" TEST PORT

SPECIFICATIONS

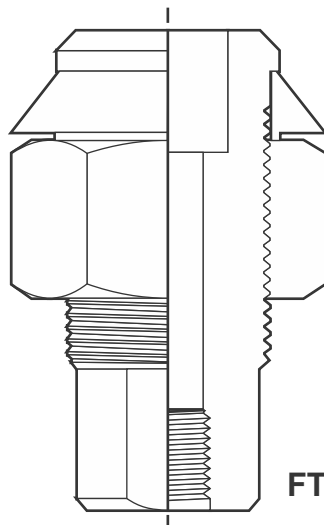
- ▶ Nipple made of pure PVDF, seal made of Viton[®]
- ▶ Stainless steel hex nut
- ▶ Able to redrill through hole to slightly larger hole or drill and tap test port for female threads
- ▶ Installs in duct as small as 2" diameter - provides liquid tight seal - does not compromise the integrity of the duct interior coating

NOTES

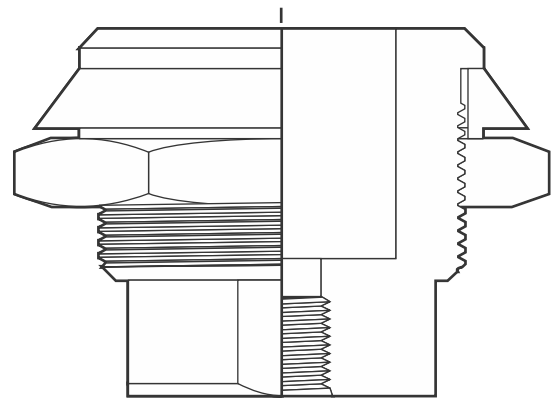
- ▶ Refer to Fab-Tech's INSTALLATION AND ASSEMBLY GUIDE for assembly instructions.
- ▶ The unique handle design of this test port allows it to be installed quickly and easily in-the-field with common tools and without system shutdown or disassembly.



FTFI38TP



FTFI34TP

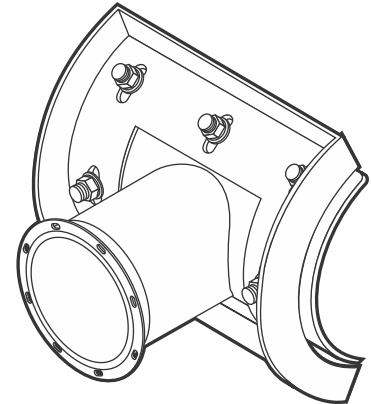


FTFI20TP

Field Installed Saddle Tap

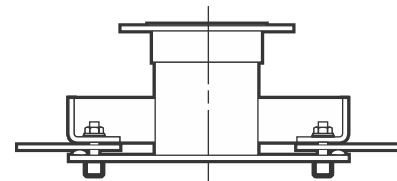
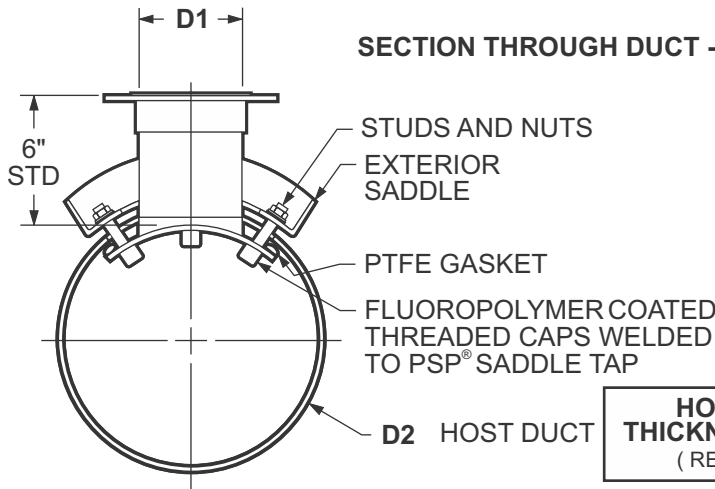
NOTES

- ▶ 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.

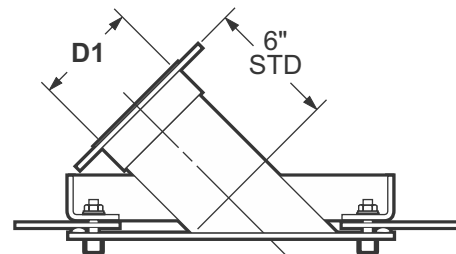
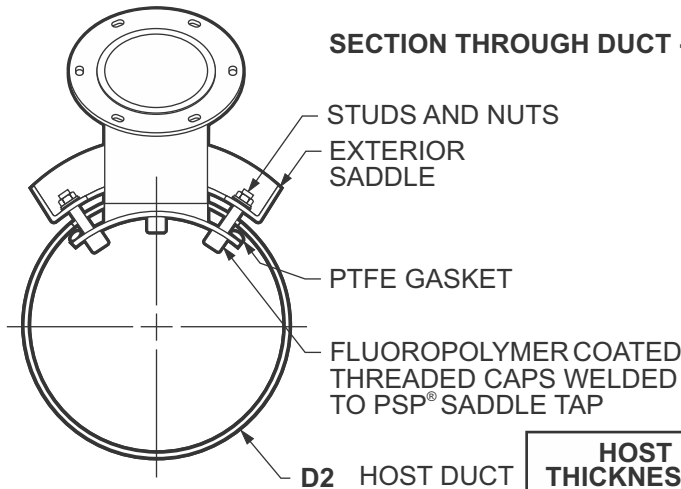


WITH JOINT SYSTEM

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



HOST DUCT I.D., WALL THICKNESS & MATERIAL TYPE
(REQUIRED INFORMATION)

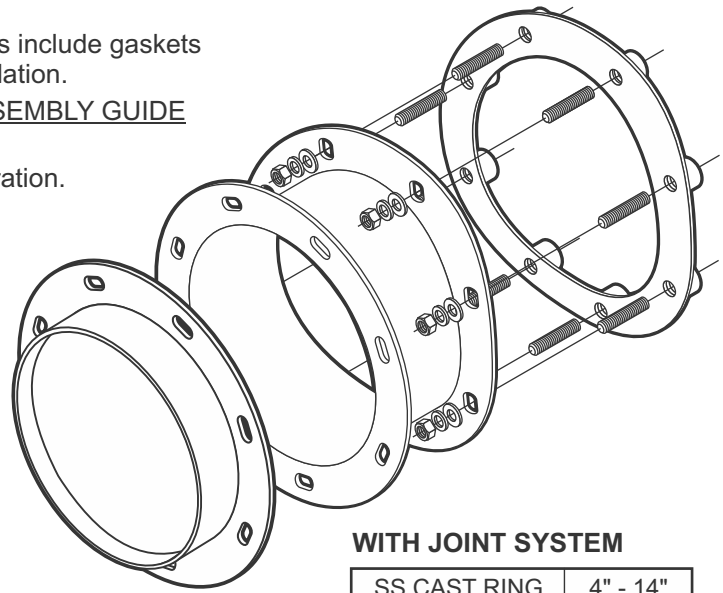


HOST DUCT I.D., WALL THICKNESS & MATERIAL TYPE
(REQUIRED INFORMATION)

Field Installed Hot 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.

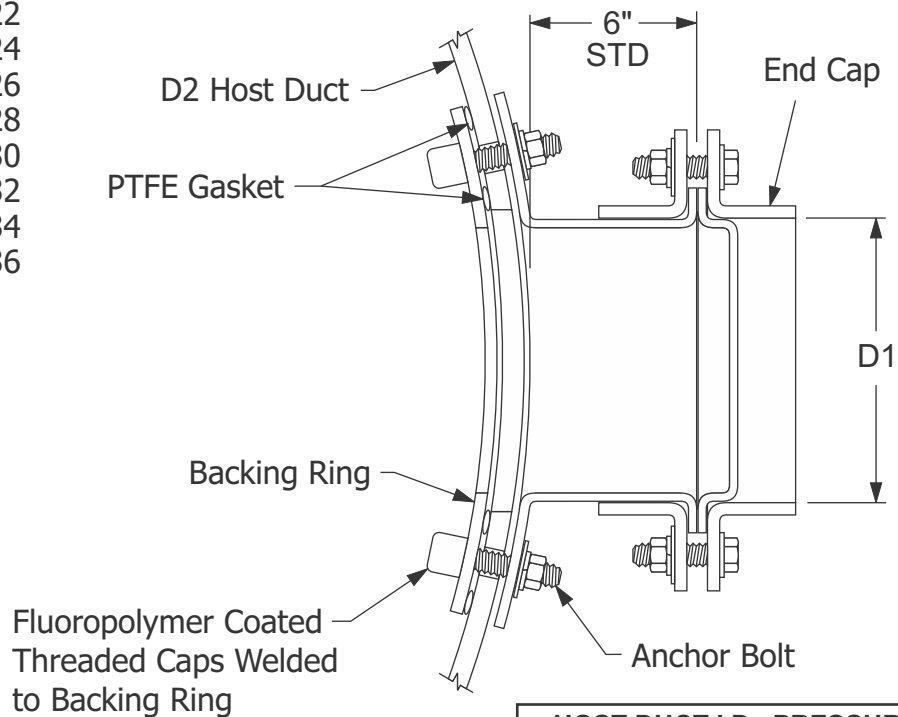


WITH JOINT SYSTEM

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

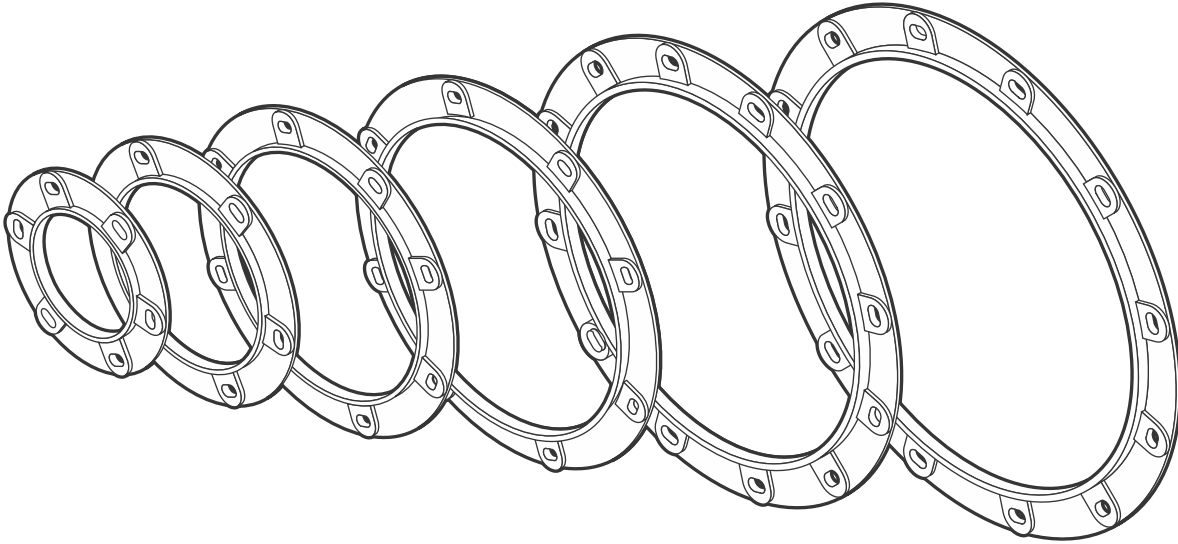
Tap Size Ø D1	Min Host Duct Ø D2
4	10
6	12
6	14
8	16
10	18
12	20
14	22
14	24
16	26
18	28
20	30
22	32
22	34
24	36

SECTION THROUGH DUCT - HOT TAP



HOST DUCT I.D., PRESSURE CLASS & MATERIAL TYPE
(REQUIRED INFORMATION)

Cast Ring



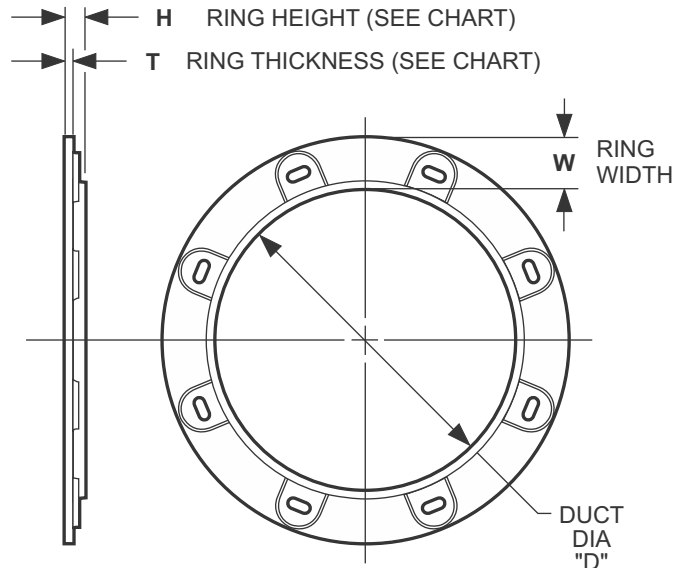
CAST RING SPECIFICATIONS

DUCT DIA.	WIDTH (W)	HEIGHT (H)	THICKNESS (T)	# HOLES	BOLT HOLE SIZE	BOLT SIZE	BOLT CIRCLE DIA.	DUCT DIA.
4	1-1/4	13/32	1/8	6	3/8 x 5/8	5/16	5.31	4
6				7.50			6	
8				9.50			8	
10				11.50			10	
12	1-1/2	1/2	3/16	12	7/16 x 11/16	3/8	13.81	12
14				15.81			14	

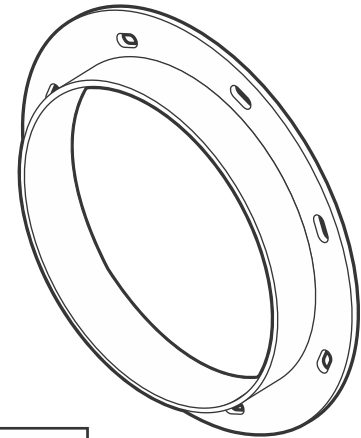
NOTES:

- ▶ 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.

PART NO.	DESCRIPTION	DUCT DIA.
RC04	STEEL CAST RING	4"
RC06	STEEL CAST RING	6"
RC08	STEEL CAST RING	8"
RC10	STEEL CAST RING	10"
RC12	STEEL CAST RING	12"
RC14	STEEL CAST RING	14"



Angle Ring



ANGLE RING SPECIFICATIONS								
DUCT DIA D ₁	WIDTH (W)	THICKNESS (T)	# HOLES	# HOLES SS HARDWARE	BOLT HOLE SIZE	BOLT SIZE	BOLT CIRCLE DIA.	DUCT DIA D ₂
4	1		6	6	3/8		5.31	4
6							7.50	6
8	1-1/4	1/8	8	8	3/8 x 5/8	5/16	9.50	8
10							11.50	10
12			12	12			13.81	12
14							15.81	14
16	1-1/2		16	24			17.63	16
18							19.63	18
20							21.63	20
22			20	28			23.88	22
24							25.88	24
26			24	32			27.88	26
28							29.88	28
30			28	36	7/16 x 11/16 SLOT	3/8	31.88	30
32							33.88	32
34			32	40			35.88	34
36	2	3/16		44			37.88	36
38			36	48			40.38	38
40							42.38	40
42			40	52			44.38	42
44							46.38	44
46			44	56			48.38	46
48							50.38	48
50			48	60			52.88	50
52							54.88	52
54	2-1/2		52	64			56.88	54
56							58.88	56
58			56	72			60.88	58
60							62.88	60
62			60	76			64.88	62
64							66.88	64
66			64	80			68.88	66
68							70.88	68
70			68	84			72.88	70
72							74.88	72
74			72	88			76.88	74
76							78.88	76
78	3		76	92			80.88	78
80							82.88	80
82			80	96	1/2 x 3/4 SLOT	7/16	84.88	82
84							86.88	84
86			84	100			89.38	86
88							91.38	88
90			88	104			93.38	90
92							95.38	92
94			92	108			97.38	94
96							100.38	96
98			96	112			102.38	98
100							104.38	100
102			100	116			106.38	102
104							108.38	104
106			104	120			110.38	106
108	4						112.38	108
110			108	128			114.38	110
112							116.38	112
114			112	132			118.38	114
116							120.38	116
118			116	136			122.38	118
120				140			124.38	120

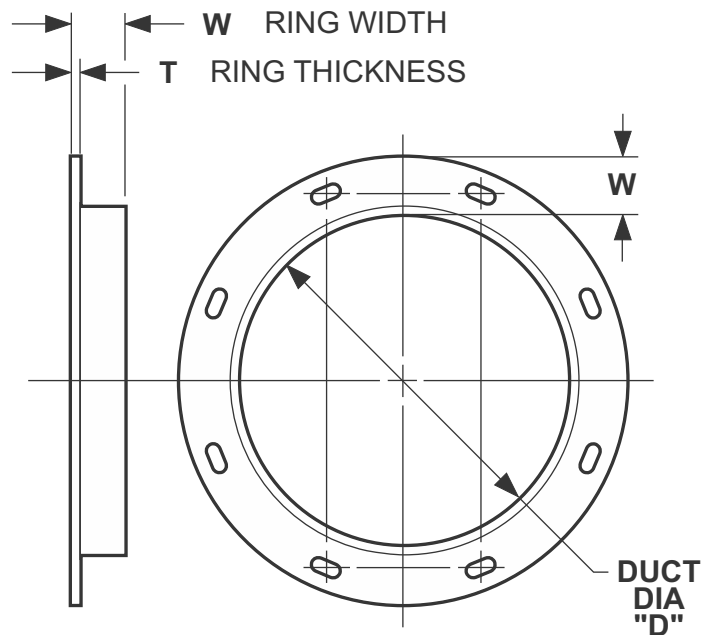
BI ANGLE RING	4" - 100"
SS ANGLE RING	16" - 120"

NOTES:

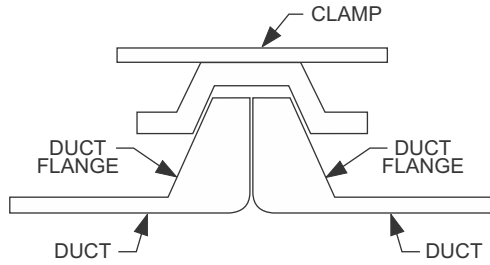
- ▶ Standard mounting hole locations for welded (fixed) angle rings straddle the vertical centerline unless otherwise specified.
- ▶ Refer to chart for standard angle rings.
- ▶ All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

OPTIONS:

- ▶ Custom hole pattern and orientation available.



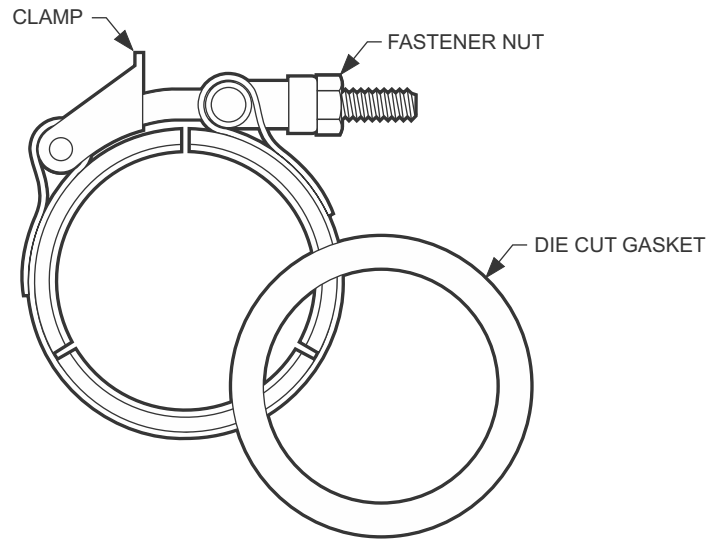
PSP-EZ™ Clamp Kit



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

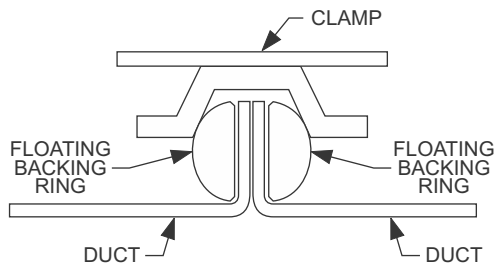
PART NO.	DESCRIPTION	DUCT DIA.
CL002KT	2" CLAMP KIT	2"
CL003KT	3" CLAMP KIT	3"
CL002	2" CLAMP	2"
CL003	3" CLAMP	3"
GAS11	2" GASKET	2"
GAS13	3" GASKET	3"

Each Kit above contains a clamp and PTFE die cut gasket



NOTE

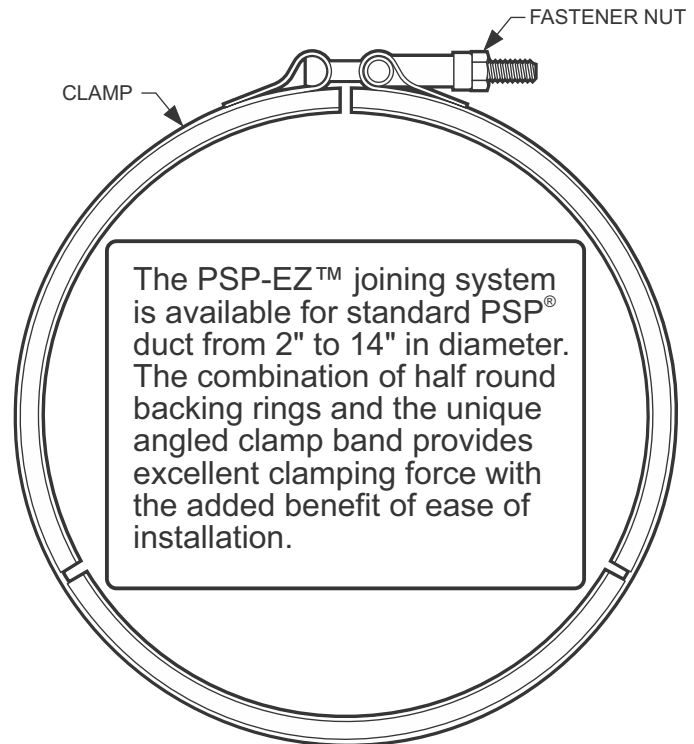
- ▶ All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.



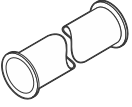
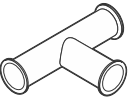
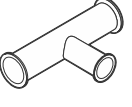
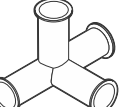
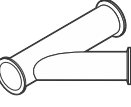








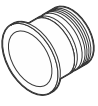
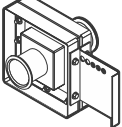
**CROSS SECTION OF
4"-14" PSP-EZ™ JOINT**

PART NO.	DESCRIPTION	DUCT DIA.
CL004KT	4" CLAMP KIT	4"
CL006KT	6" CLAMP KIT	6"
CL008KT	8" CLAMP KIT	8"
CL010KT	10" CLAMP KIT	10"
CL012KT	12" CLAMP KIT	12"
CL014KT	14" CLAMP KIT	14"

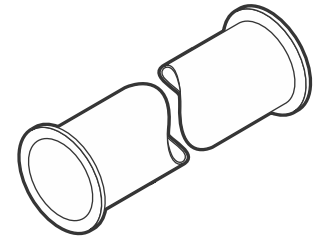
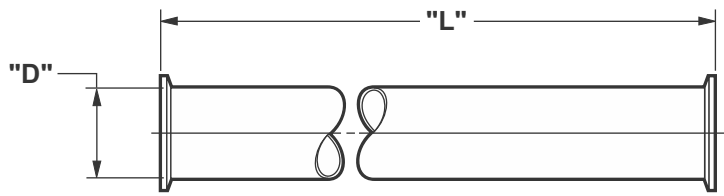
Each Kit above contains a clamp, PTFE tape gasket, and two backing rings



Product Guide

<p align="center">2" & 3" PSP-EZ™ CLAMP</p>	<p>STRAIGHT DUCT 4' LENGTH OR CUSTOM</p>  <p>SIZE: 2" & 3" • PAGE: 57</p>	<p>STRAIGHT TEE</p>  <p>SIZE: 2" & 3" • PAGE: 57</p>
<p>REDUCING TEE</p>  <p>SIZE: 3" TO 2" • PAGE: 57</p>	<p>DOUBLE TEE</p>  <p>SIZE: 2" & 3" • PAGE: 58</p>	<p>LATERAL - 45°</p>  <p>SIZE: 2" & 3" • PAGE: 58</p>
<p>ELBOW 90°</p>  <p>SIZE: 2" & 3" • PAGE: 58</p>	<p>ELBOW 45°</p>  <p>SIZE: 2" & 3" • PAGE: 59</p>	<p>ELBOW 30°</p>  <p>SIZE: 2" & 3" • PAGE: 59</p>
<p>ECCENTRIC ADAPTER</p>  <p>SIZE: 3" TO 2" 4" TO 2", 4" TO 3" • PAGE: 59</p>	<p>CONCENTRIC ADAPTER</p>  <p>SIZE: 3" TO 2" 4" TO 2", 4" TO 3" • PAGE: 60</p>	<p>VAN STONE TO EZ FLANGE ADAPTER</p>  <p>SIZE: 3" TO 2" 4" TO 2", 4" TO 3" • PAGE: 60</p>
<p>END CAP</p>  <p>SIZE: 2" & 3" • PAGE: 60</p>	<p>MICRO ADJUSTABLE DAMPER</p>  <p>SIZE: 2" & 3" • PAGE: 61</p>	<p>FIELD INSTALL STRAIGHT DUCT FLANGE</p>  <p>SIZE: 2" & 3" • PAGE: 62</p>
<p>BLASTGATE</p>  <p>SIZE: 2" & 3" • PAGE: 63</p>		

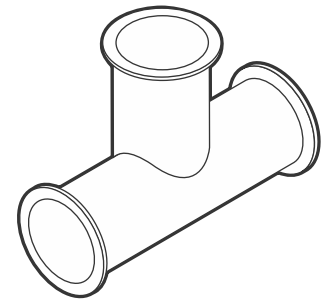
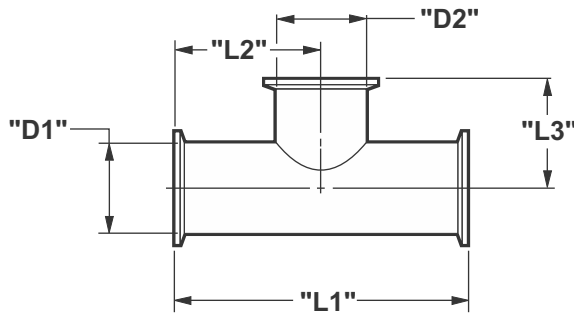
EZ Straight



PART NO.	DESCRIPTION	"D"	"L"
PZP02	2" LINE	2"	47.25"
PZS02	2" LINE CUSTOM LENGTH	2"	CUSTOM
PZP03	3" LINE	3"	47.25"
PZS03	3" LINE CUSTOM LENGTH	3"	CUSTOM

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

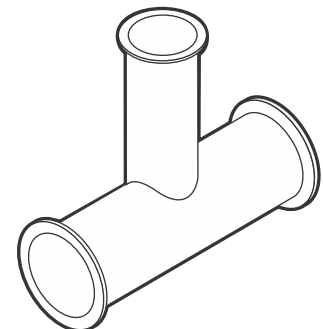
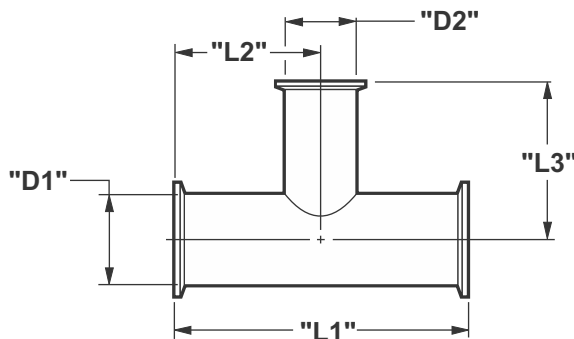
EZ Tee



PART NO.	DESCRIPTION	"D1"	"D2"	"L1"	"L2"	"L3"
02T02	2" LINE WITH 2" TEE	2"	2"	6.24"	3.12"	3.12"
03T03	3" LINE WITH 3" TEE	3"	3"	6.74"	3.37"	3.37"

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

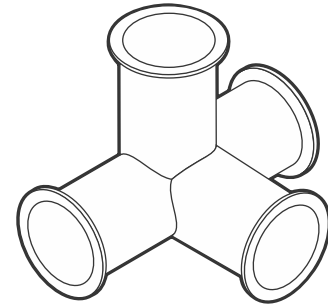
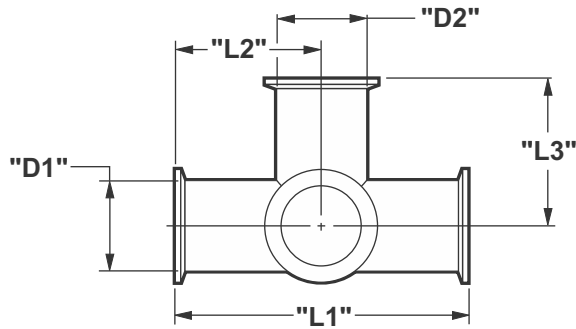
EZ Reducing Tee



PART NO.	DESCRIPTION	"D1"	"D2"	"L1"	"L2"	"L3"
03T02	3" LINE WITH 2" TEE	3"	2"	6.74"	3.37"	3.62"

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

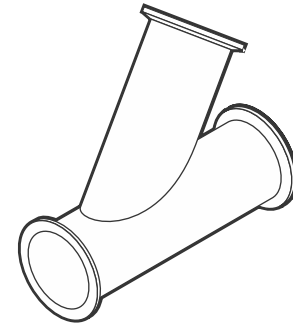
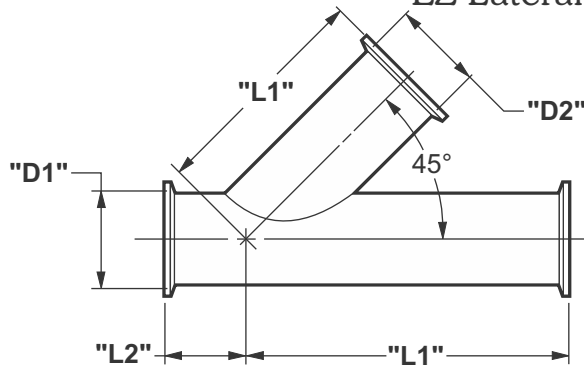
EZ Double Tee



PART NO.	DESCRIPTION	"D1"	"D2"	"L1"	"L2"	"L3"
2T2T2	2" LINE W/ DOUBLE 2" TEE	2"	2"	6.24"	3.12"	3.12"

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

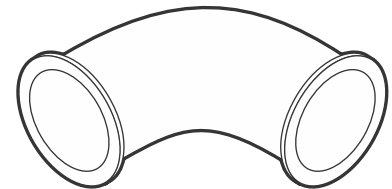
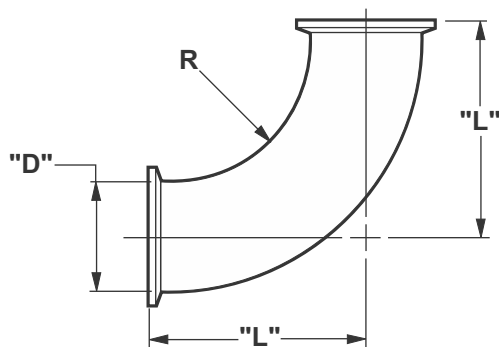
EZ Lateral



PART NO.	DESCRIPTION	"D1"	"D2"	"L1"	"L2"
02Y02	2" LINE WITH 2" LATERAL	2"	2"	7.50"	2.00"
03Y03	3" LINE WITH 3" LATERAL	3"	3"	9.31"	2.03"

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

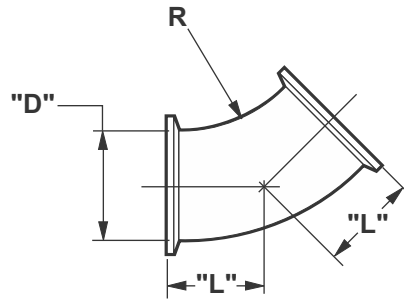
90° EZ Elbow



PART NO.	DESCRIPTION	"D"	"L"	R
PZE02	2" 90° ELBOW	2"	3.12"	2"
PZE03	3" 90° ELBOW	3"	4.62"	3"

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

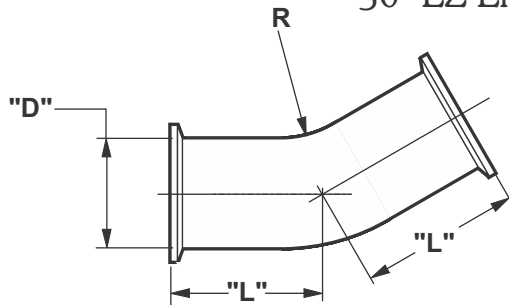
45° EZ Elbow



PART NO.	DESCRIPTION	"D"	"L"	R
PZ502	2" 45° ELBOW	2"	1.37"	2"
PZ503	3" 45° ELBOW	3"	2.00"	3"

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

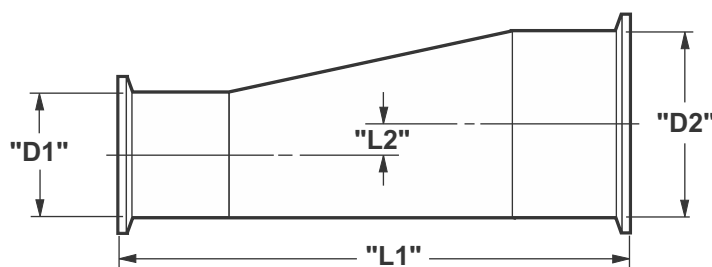
30° EZ Elbow



PART NO.	DESCRIPTION	"D"	"L"	R
PZ302	2" 30° ELBOW	2"	1.94"	2"
PZ303	3" 30° ELBOW	3"	2.38"	3"

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

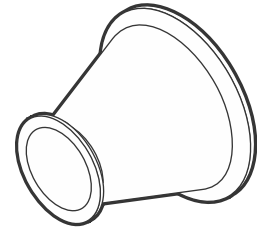
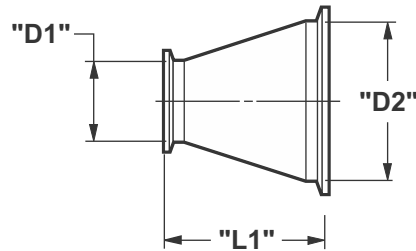
Eccentric EZ Reducer



PART NO.	DESCRIPTION	"D1"	"D2"	"L1"	"L2"
PEA32F	2" TO 3" ECCENTRIC	2"	3"	8.25"	0.50"
PEA42F	2" TO 4" ECCENTRIC	2"	4"	12.75"	1.00"
PEA43F	3" TO 4" ECCENTRIC	3"	4"	8.00"	0.50"

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

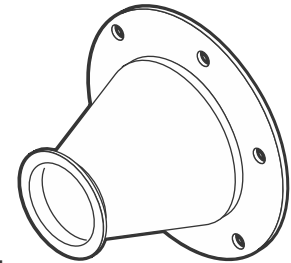
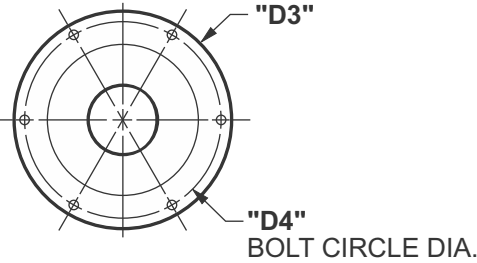
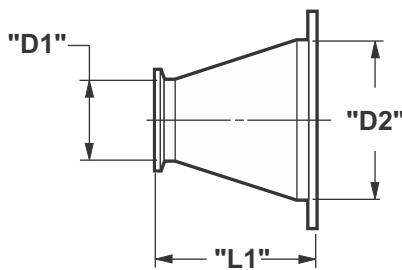
Concentric EZ Reducer



PART NO.	DESCRIPTION	"D1"	"D2"	"L1"
PCA32F	2" TO 3" CONCENTRIC	2"	3"	4.31"
PCA42F	2" TO 4" CONCENTRIC	2"	4"	3.94"
PCA43F	3" TO 4" CONCENTRIC	3"	4"	4.31"

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

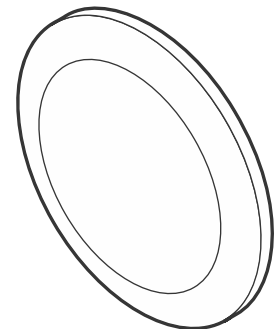
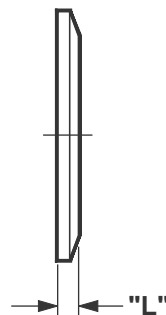
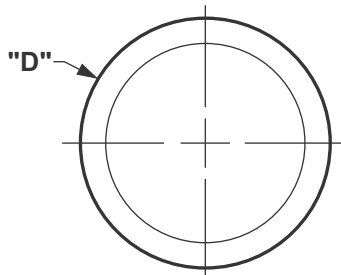
Angle Ring to EZ Reducer



PART NO.	DESCRIPTION	"D1"	"D2"	"L1"	"D3" O.D.	"D4" DIA.
PCA32R	2" TO 3" ANGLE RING	2"	3"	4.25"	5.06"	4.31"
PCA42R	2" TO 4" ANGLE RING	2"	4"	3.88"	6.06"	5.31"
PCA43R	3" TO 4" ANGLE RING	3"	4"	4.25"	6.06"	5.31"

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

EZ End Cap



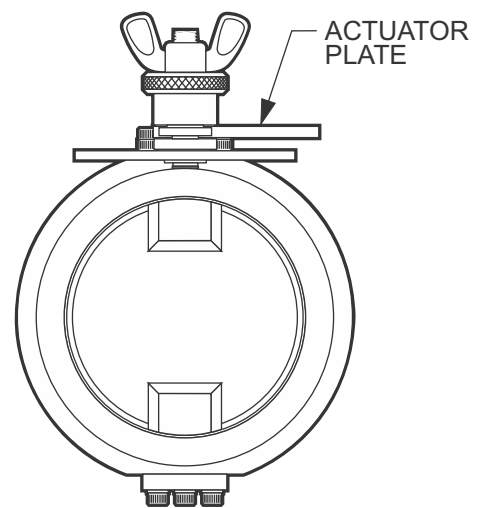
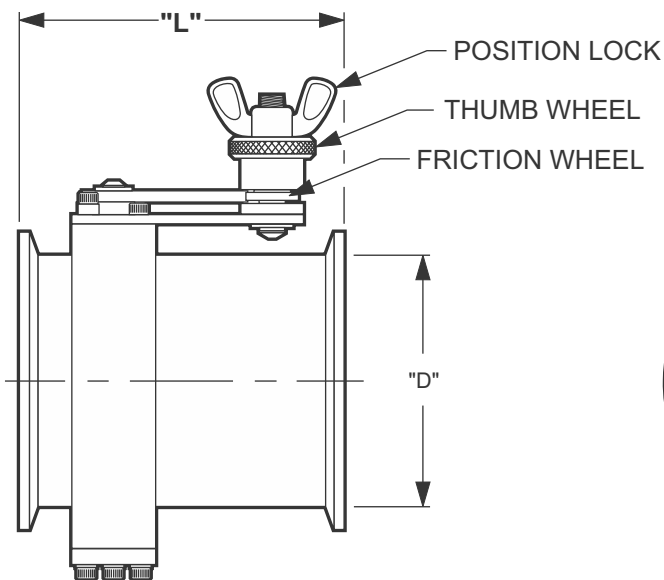
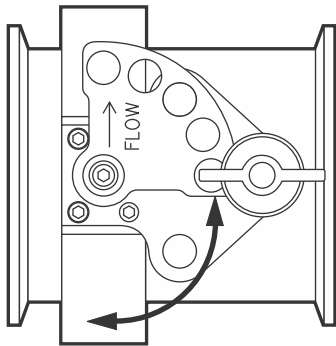
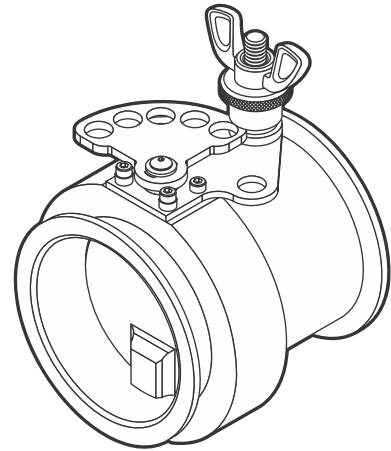
PART NO.	DESCRIPTION	"D"	"L"
PZC02	2" END CAP	2"	0.21"
PZC03	3" END CAP	3"	0.21"

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

Micro-Adjustable EZ Damper

PART NO.	DESCRIPTION	"D"	"L"
PZD02	2" EZ-DAMPER	2"	3.875"
PZD03	3" EZ-DAMPER	3"	3.875"

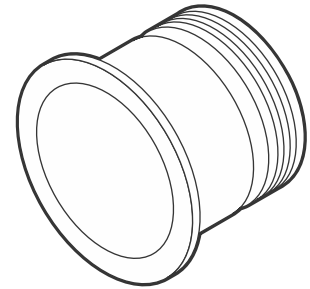
All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.



Field Installed Straight Duct EZ Flange

NOTES

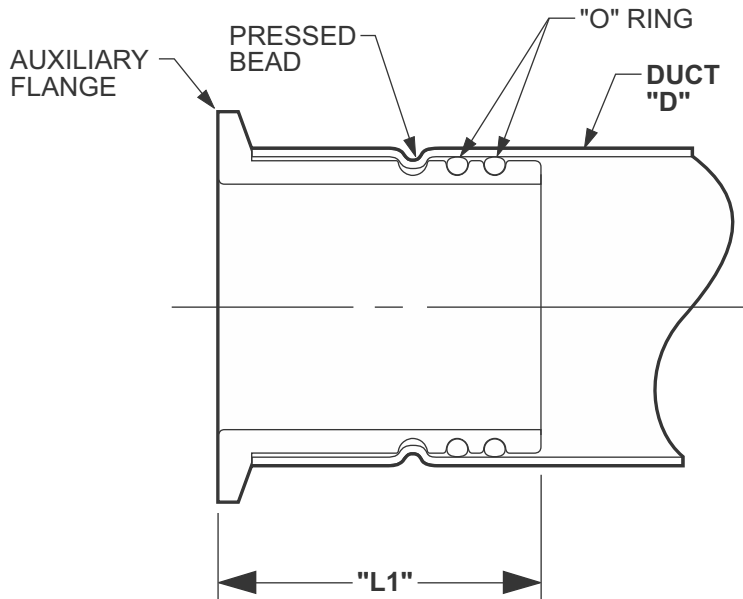
- ▶ All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.
- ▶ PermaShield fluoropolymer barrier coating on interior and exterior surfaces.
- ▶ Requires purchase of Pressing Wheel, Part #D0700 for installation. The pressing wheel is used to 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.



PART NO.	DESCRIPTION	"D"	"L1"
HTB02	2" FIELD FLANGE	2"	2"
HTB03	3" FIELD FLANGE	3"	2"

**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



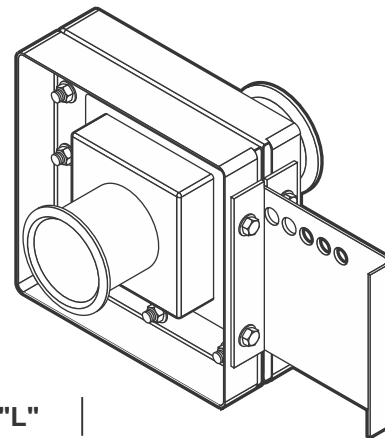
EZ Blastgate

NOTE

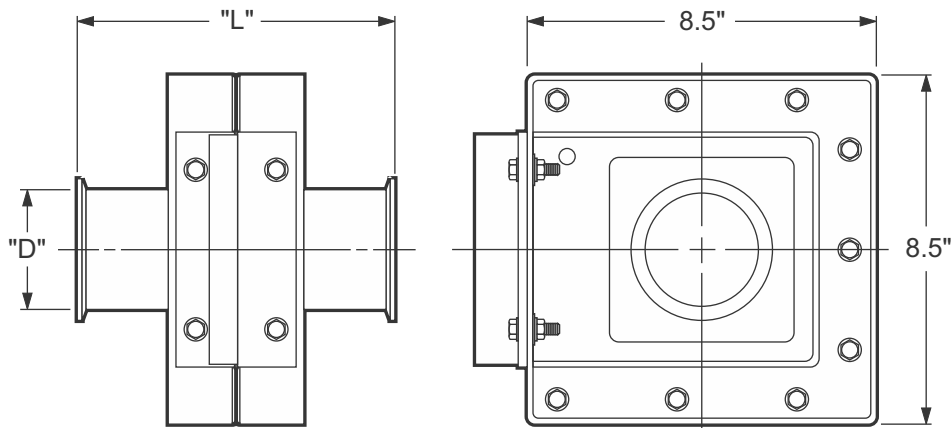
- ▶ All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

SPECIFICATIONS

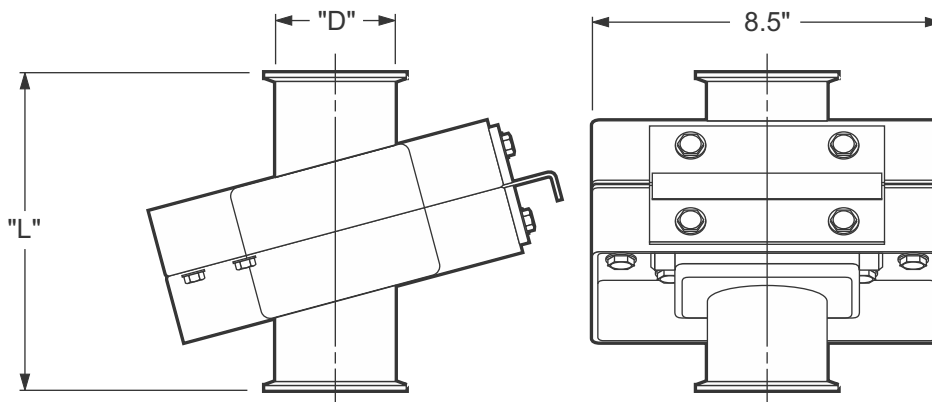
- ▶ Stainless steel frame material.
- ▶ Blade lockout system.



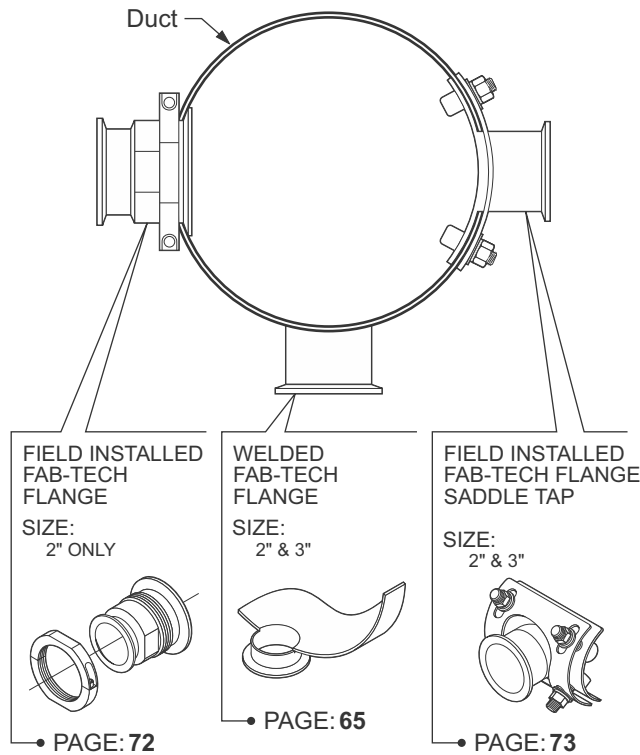
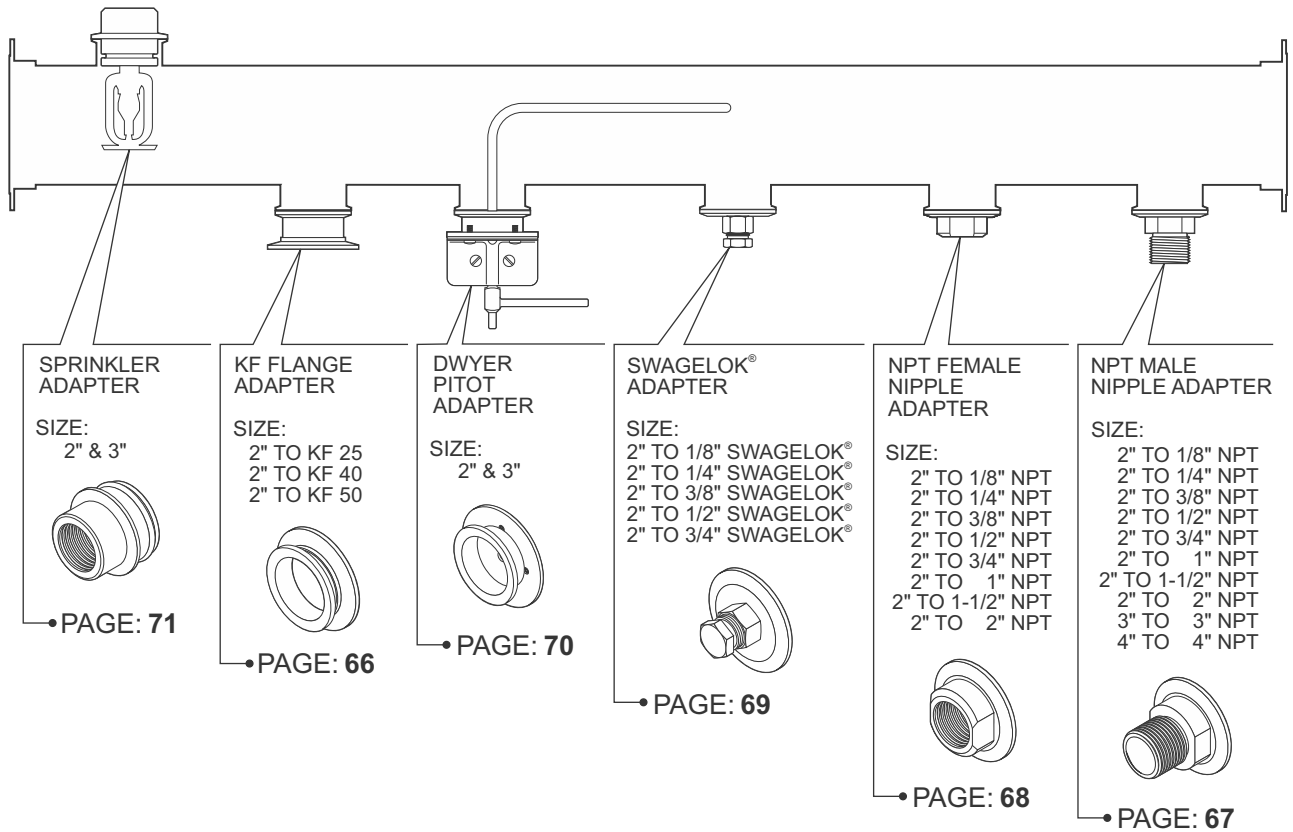
PART NO.	DESCRIPTION	"D"	"L"
PZB02H	2" EZ-BLASTGATE HORIZONTAL	2"	8.000"
PZB03H	3" EZ-BLASTGATE HORIZONTAL	3"	8.000"



PART NO.	DESCRIPTION	"D"	"L"
PZB02V	2" EZ-BLASTGATE VERTICAL	2"	8.000"
PZB03V	3" EZ-BLASTGATE VERTICAL	3"	8.000"



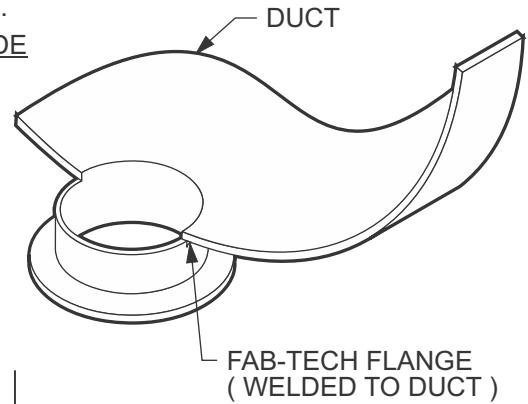
Product Guide



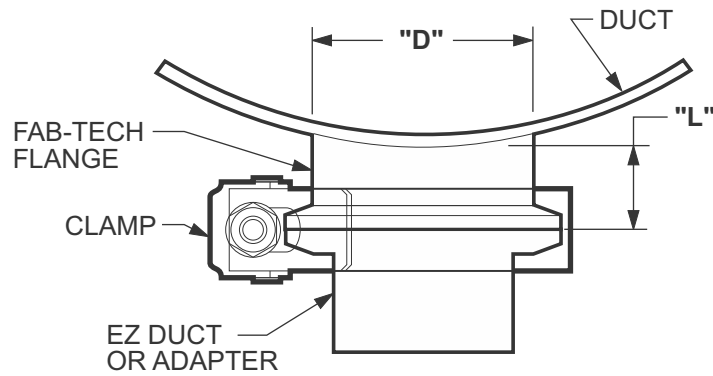
Fab-Tech Flange

NOTES

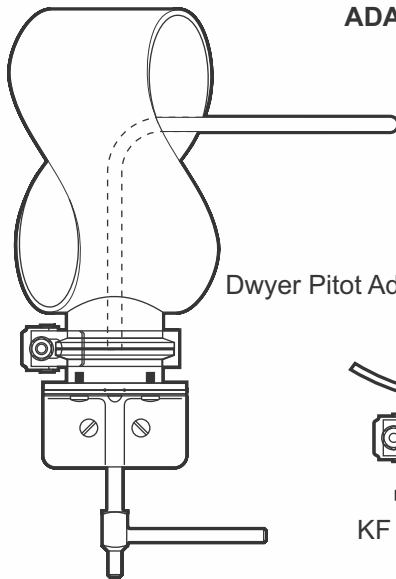
- ▶ All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.
- ▶ Refer to Fab-Tech's INSTALLATION AND ASSEMBLY GUIDE for assembly instructions.
- ▶ PermaShield fluoropolymer barrier coating on inside surface and flange faces.
- ▶ Fab-Tech Flange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



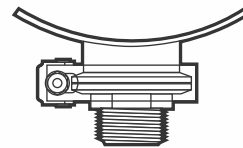
PART NO.	DESCRIPTION	"D"	"L"
FTFL2	2" FT FLANGE	2"	.75"
FTFL3	3" FT FLANGE	3"	.75"



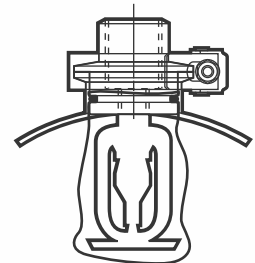
ADAPTERS AVAILABLE FOR THE FT FLANGE:



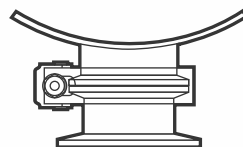
Dwyer Pitot Adapter



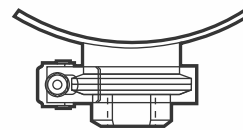
NPT Male Nipple



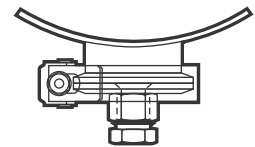
Sprinkler Adapter



KF Flange Adapter



NPT Female Coupler

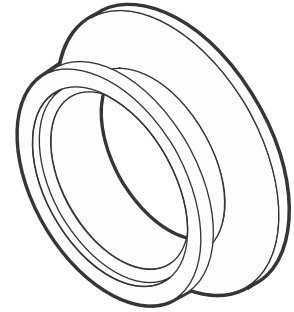


SWAGELOK® Adapter

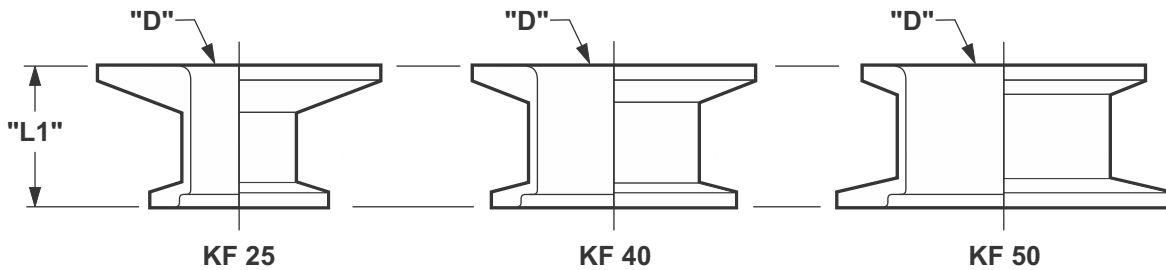
KF Flange Adapter

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.



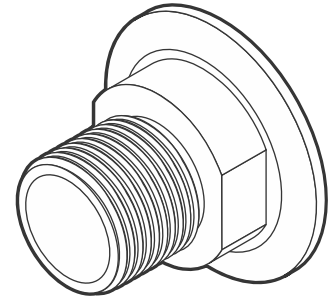
PART NO.	DESCRIPTION	KF	"D"	"L1"
FTK25	2" TO 25 KF FLANGE	25mm	2"	1.25"
FTK40	2" TO 40 KF FLANGE	40mm	2"	1.25"
FTK50	2" TO 50 KF FLANGE	50mm	2"	1.25"



NPT Male Nipple Adapter

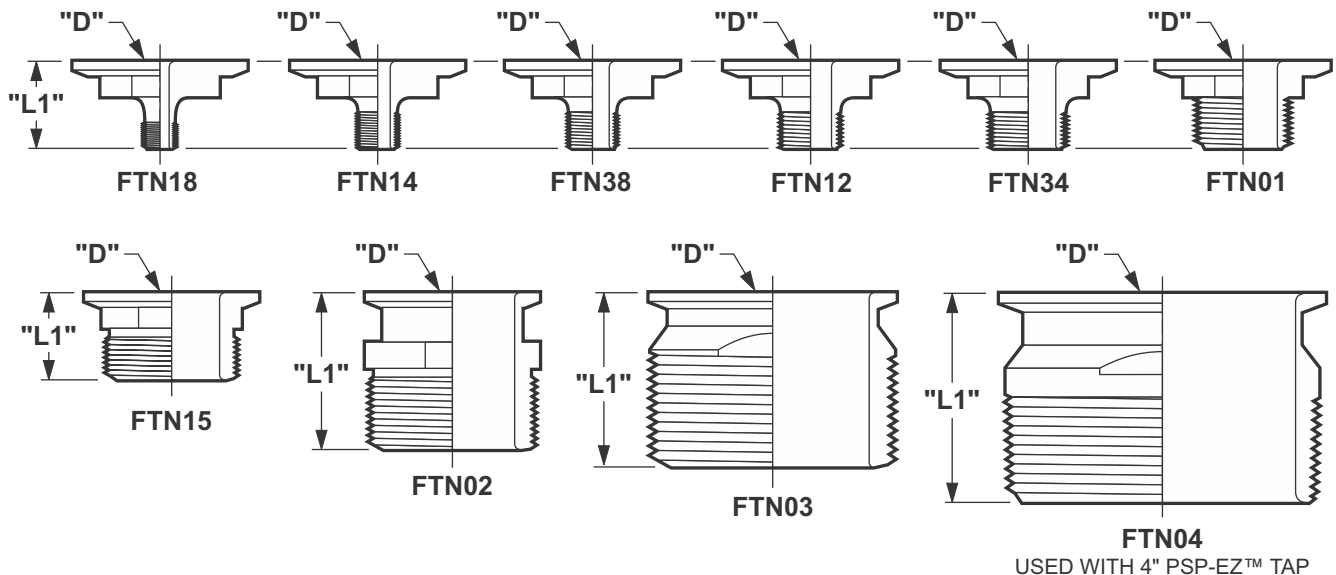
NOTES

- ▶ 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 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.



PART NO.	DESCRIPTION	"D"	PIPE THREAD	"L1"
FTN18	2" TO 1/8" NPT	2"	1/8" NPT	1.25"
FTN14	2" TO 1/4" NPT	2"	1/4" NPT	1.25"
FTN38	2" TO 3/8" NPT	2"	3/8" NPT	1.25"
FTN12	2" TO 1/2" NPT	2"	1/2" NPT	1.25"
FTN34	2" TO 3/4" NPT	2"	3/4" NPT	1.25"
FTN01	2" TO 1" NPT	2"	1" NPT	1.25"
FTN15	2" TO 1.5" NPT	2"	1.5" NPT	1.25"
FTN02	2" TO 2" NPT	2"	2" NPT	2.25"
FTN03	3" TO 3" NPT	3"	3" NPT	2.50"
FTN04**	4" TO 4" NPT	4"	4" NPT	3.00"

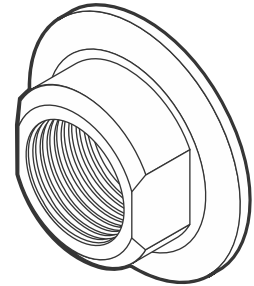
**USED WITH 4" PSP-EZ™ TAP



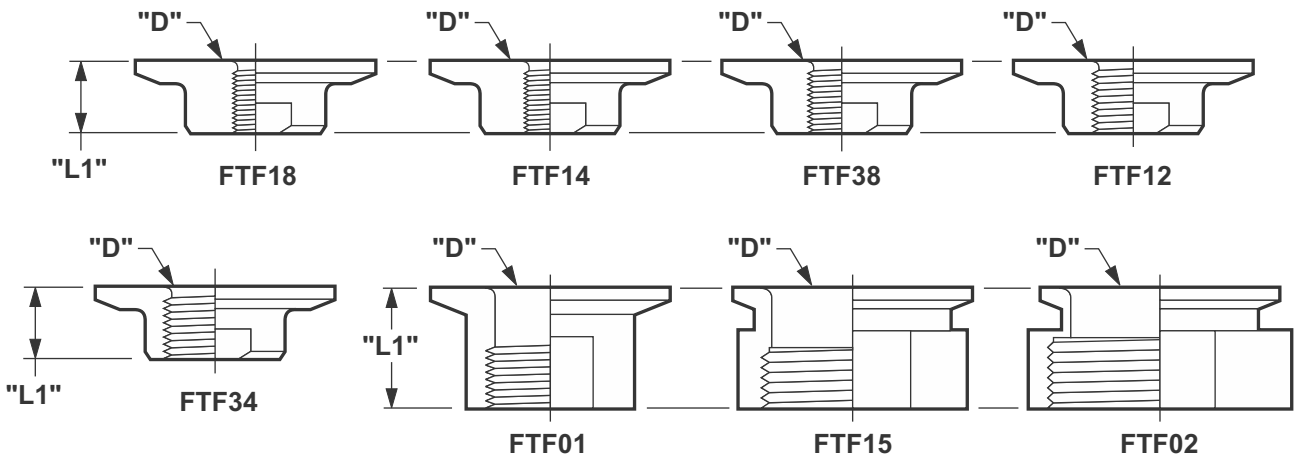
NPT Female Coupler Adapter

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.
- ▶ 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.



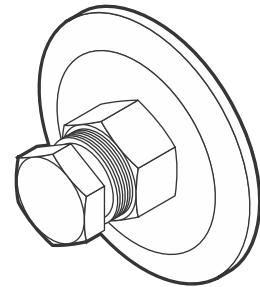
PART NO.	DESCRIPTION	"D"	PIPE THREAD	"L1"
FTF18	2" TO 1/8" NPT	2"	1/8" NPT	.75"
FTF14	2" TO 1/4" NPT	2"	1/4" NPT	.75"
FTF38	2" TO 3/8" NPT	2"	3/8" NPT	.75"
FTF12	2" TO 1/2" NPT	2"	1/2" NPT	.75"
FTF34	2" TO 3/4" NPT	2"	3/4" NPT	.75"
FTF01	2" TO 1" NPT	2"	1" NPT	1.25"
FTF15	2" TO 1.5" NPT	2"	1.5" NPT	1.25"
FTF02	2" TO 2" NPT	2"	2" NPT	1.25"



Swagelok[®] Adapter

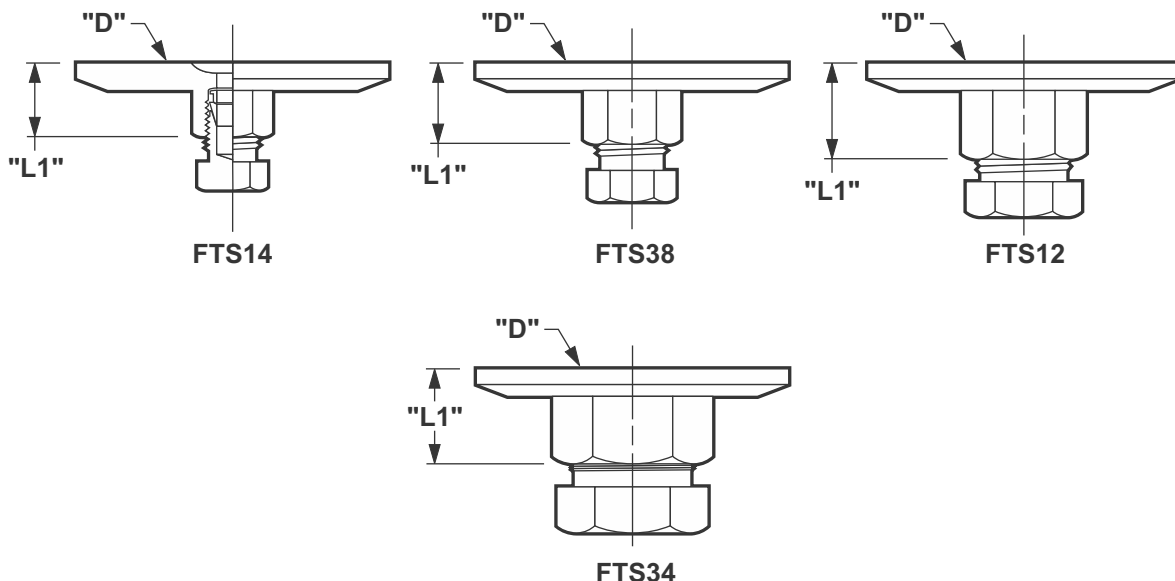
NOTES

- ▶ 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.



PART NO.	DESCRIPTION	"D"	THREAD	"L1"
FTS18**	2" TO 1/8" SWAGELOK [®]	2"		
FTS14	2" TO 1/4" SWAGELOK [®]	2"	7/16-20	.59"
FTS38	2" TO 3/8" SWAGELOK [®]	2"	9/16-18	.65"
FTS12	2" TO 1/2" SWAGELOK [®]	2"	3/4-16	.77"
FTS34	2" TO 3/4" SWAGELOK [®]	2"	1-1/16-12	.77"

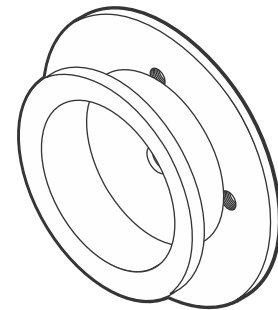
**FTS18 IS AVAILABLE AS A CUSTOM ADAPTER, NOT A STOCK ITEM



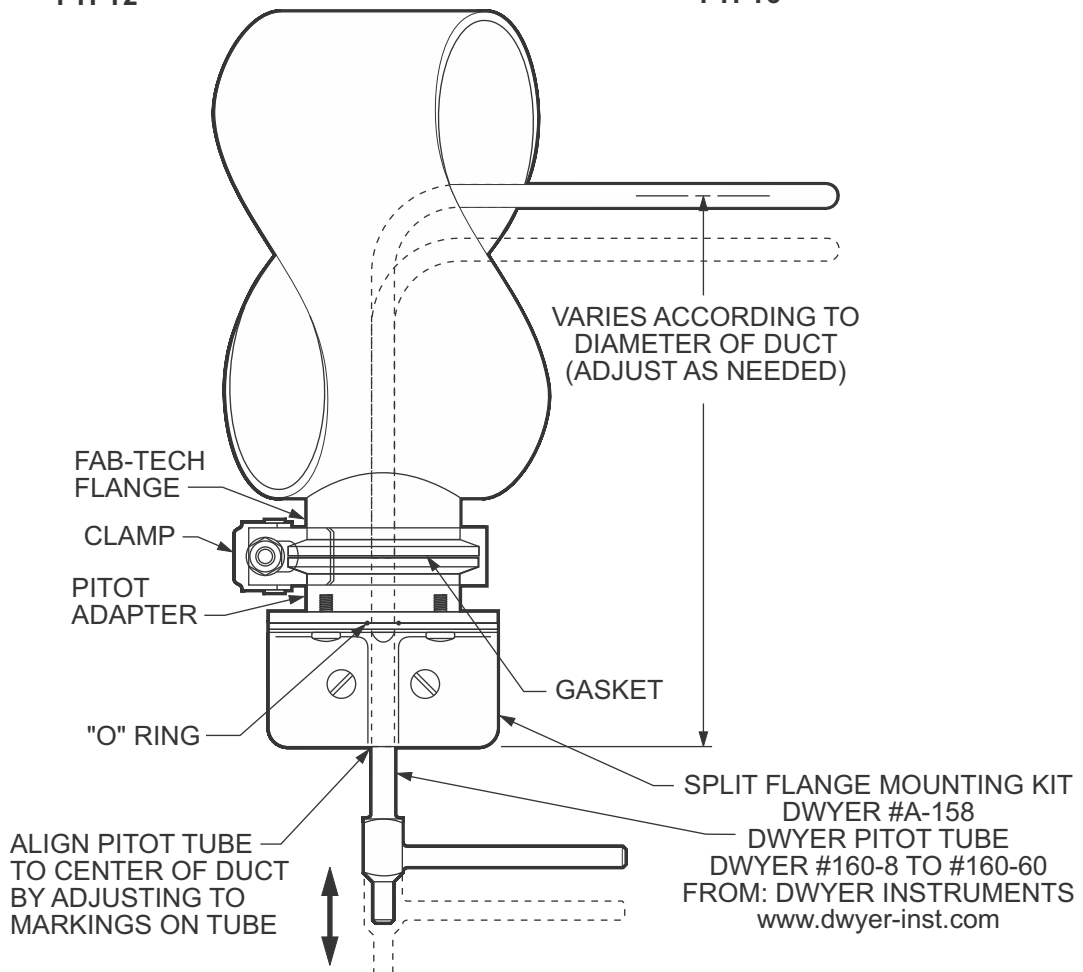
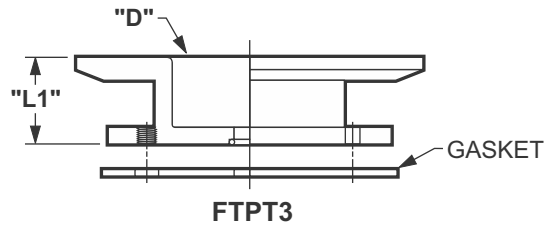
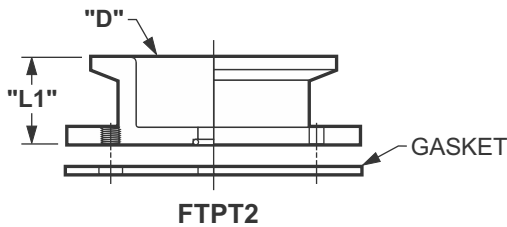
Dwyer Pitot Adapter

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.



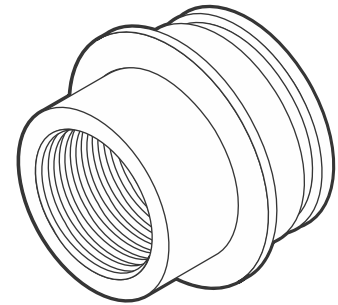
PART NO.	DESCRIPTION	"D"	"L1"
FTPT2	2" PITOT FLANGE	2"	0.88"
FTPT3	3" PITOT FLANGE	3"	0.88"



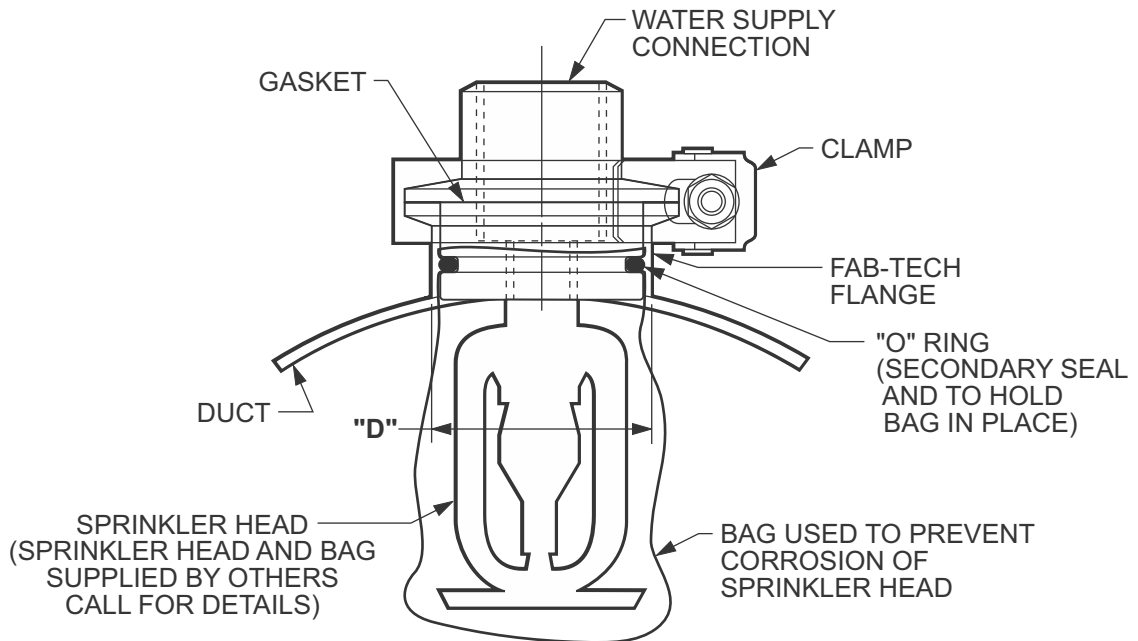
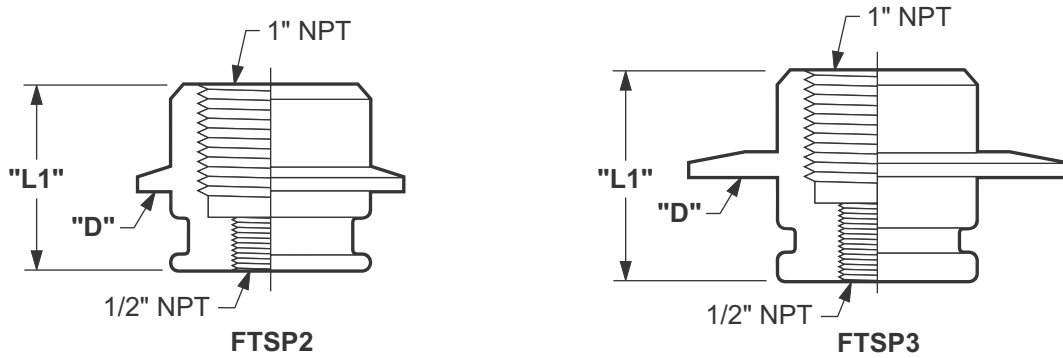
Sprinkler Adapter

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 and o-ring surfaces.



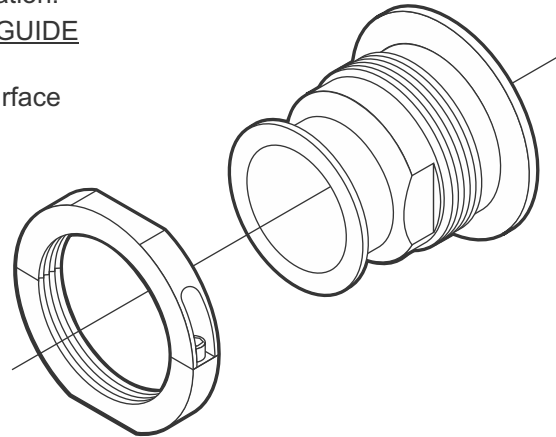
PART NO.	DESCRIPTION	"D"	"L1"
FTSP2	2" SPRINKLER FLANGE	2"	1.10"
FTSP3	3" SPRINKLER FLANGE	3"	2.00"



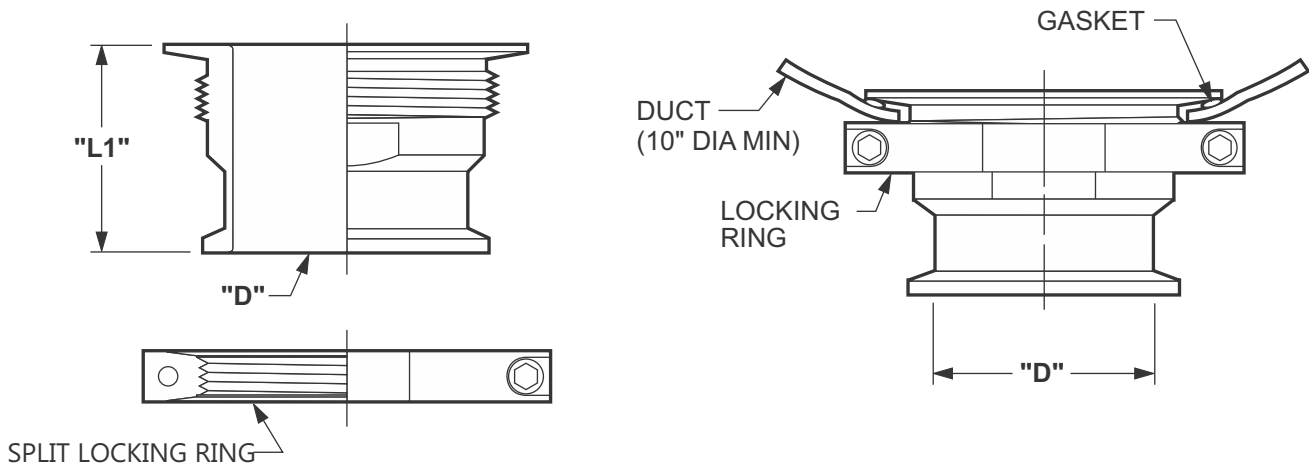
Field Installed 2" Fab-Tech Flange

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.



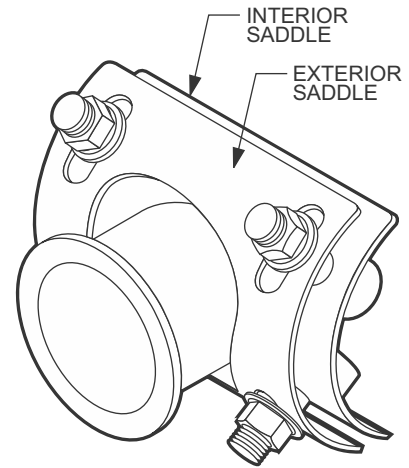
PART NO.	DESCRIPTION	"D"	"L1"	HOST DUCT DIAMETER
FTFL2FI	2" FIELD FLANGE	2"	1.69"	10" DIAMETER MINIMUM



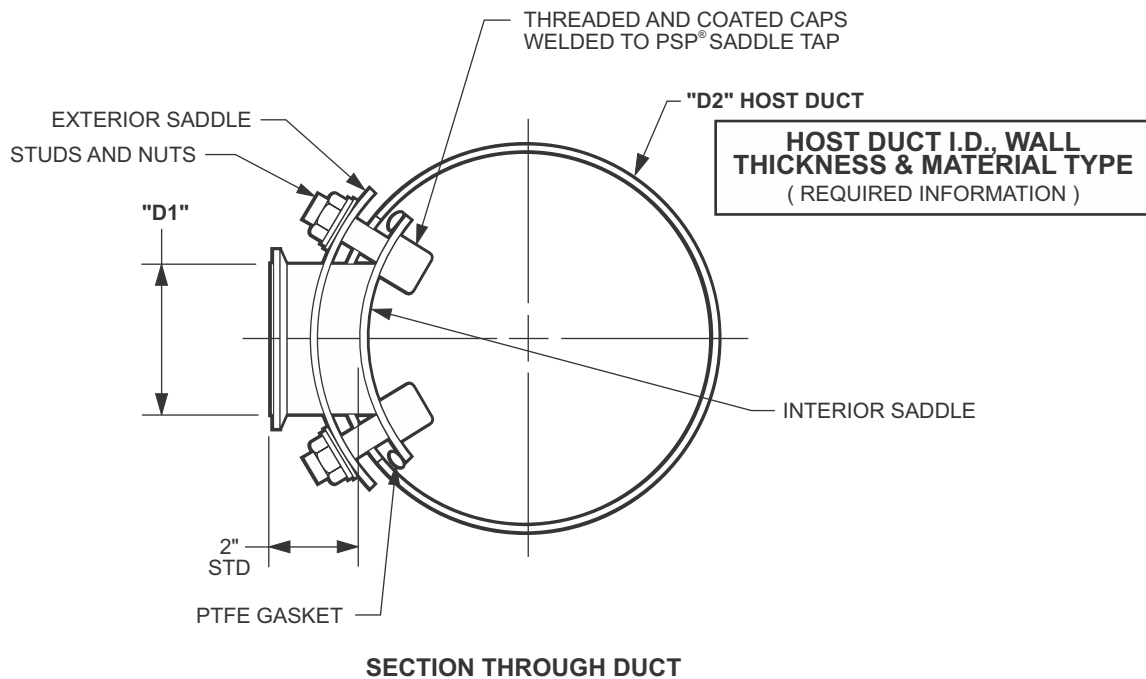
Field Installed Fab-Tech Flange
Saddle Tap

NOTES

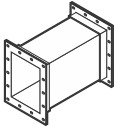
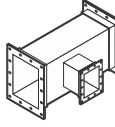
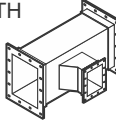
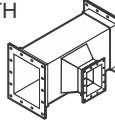
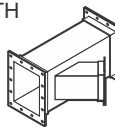
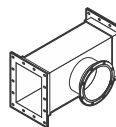
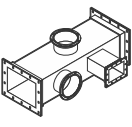
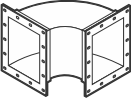
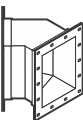
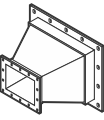
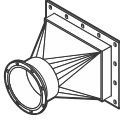
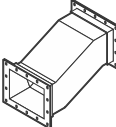
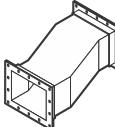
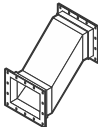
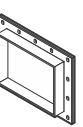
- ▶ All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.
- ▶ Refer to Fab-Tech's INSTALLATION AND ASSEMBLY GUIDE for assembly instructions.
- ▶ PermaShield fluoropolymer barrier coating on inside surfaces and flange face.
- ▶ Fab-Tech's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



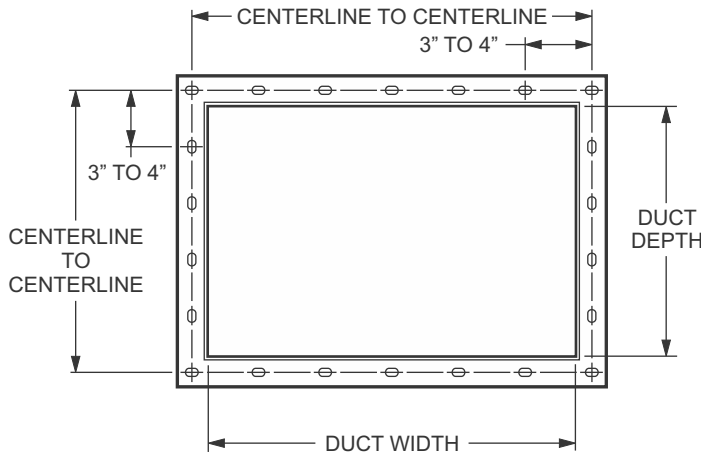
PART NO.	DESCRIPTION	"D1"	"D2"
PZQ02	2" EZ-TAP	2"	6" MIN
PZQ03	3" EZ-TAP	3"	8" MIN



Product Guide

<p>RECTANGULAR DUCT</p>	<p>STRAIGHT DUCT</p>  <p>• PAGE: 75</p>	<p>STRAIGHT DUCT WITH STRAIGHT RECTANGULAR TAP</p>  <p>• PAGE: 75</p>
<p>STRAIGHT DUCT WITH RECTANGULAR BOOT TAP</p>  <p>• PAGE: 76</p>	<p>STRAIGHT DUCT WITH RECTANGULAR CONICAL TAP</p>  <p>• PAGE: 76</p>	<p>STRAIGHT DUCT WITH RECTANGULAR LATERAL TAP</p>  <p>• PAGE: 77</p>
<p>STRAIGHT DUCT WITH ROUND TAP</p>  <p>• PAGE: 77</p>	<p>STRAIGHT DUCT WITH MULTIPLE TAPS</p>  <p>• PAGE: 78</p>	<p>RADIAL ELBOW 30°, 45°, 60°, 90°</p>  <p>• PAGE: 79</p>
<p>MITERED ELBOW 30°, 45°, 60°, 90°</p>  <p>• PAGE: 79</p>	<p>CONCENTRIC TRANSITION</p>  <p>• PAGE: 80</p>	<p>CONCENTRIC RECTANGULAR TO ROUND TRANSITION</p>  <p>• PAGE: 80</p>
<p>VERTICAL OFFSET</p>  <p>• PAGE: 81</p>	<p>HORIZONTAL OFFSET</p>  <p>• PAGE: 81</p>	<p>DOUBLE OFFSET</p>  <p>• PAGE: 82</p>
<p>END CAP</p>  <p>• PAGE: 82</p>		

Mounting Flange Standards



- ▶ Angle sizes (X): 1.5", 2", 2.5", and 3.0"
- ▶ Angle thickness for all sizes: 3/16"
- ▶ Flange angle size determined from duct width and system pressure.

TABLE BELOW IS FOR STANDARD DUCT LENGTH OF 48-1/4"
S = STIFFENER ADDED

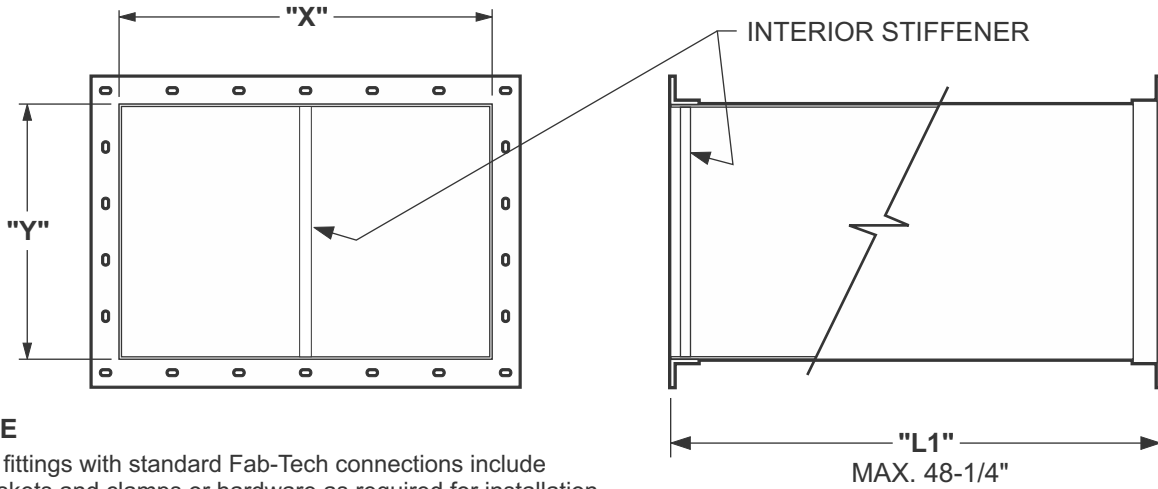
DUCT WIDTH	-6" W.G.		-8" W.G.		-10" W.G.		-12" W.G.	
	DUCT GAUGE	ANGLE SIZE	DUCT GAUGE	ANGLE SIZE	DUCT GAUGE	ANGLE SIZE	DUCT GAUGE	ANGLE SIZE
12" - 24"	16	1.5"	14	1.5"	12	1.5"	12	1.5"
26" - 36"	16	1.5"	14	2"	12	2"	12	2"
38" - 48"	16	2"	14	2"	12	2"	12	2"
50" - 60"	16 - S	2"	14 - S	2"	12 - S	2"	12 - S	2"
62" - 72"	16 - S	2"	14 - S	2"	12 - S	2"	12 - S	2"
74" - 84"	16 - S	2"	14 - S	2"	12 - S	2"	12 - S	2"
86" - 96"	16 - S	2"	14 - S	2"	12 - S	2"	12 - S	2.5"

DUCT WIDTH	-14" W.G.		-16" W.G.		-18" W.G.	
	DUCT GAUGE	ANGLE SIZE	DUCT GAUGE	ANGLE SIZE	DUCT GAUGE	ANGLE SIZE
12" - 24"	12	1.5"	10	1.5"	10	2"
26" - 36"	12	2"	10	2"	10	2"
38" - 48"	12	2"	10	2.5"	10	3.0"
50" - 60"	12 - S	2"	10 - S	2"	10 - S	2"
62" - 72"	12 - S	2"	10 - S	2"	10 - S	2"
74" - 84"	12 - S	2"	10 - S	2.5"	10 - S	2.5"
86" - 96"	12 - S	2.5"	10 - S	2.5"	10 - S	3.0"

NOTES

- ▶ 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.

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.

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

Straight Duct with Straight Rectangular Tap

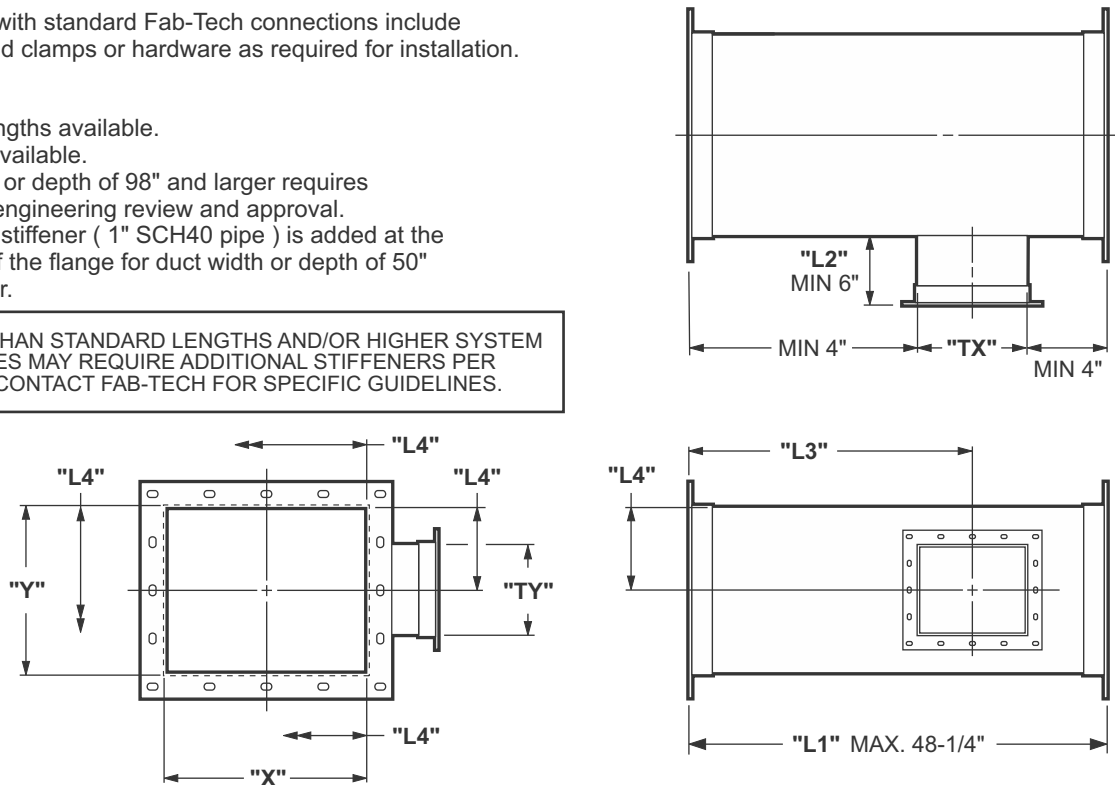
NOTE

- ▶ 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.



Straight Duct with Rectangular Boot Tap

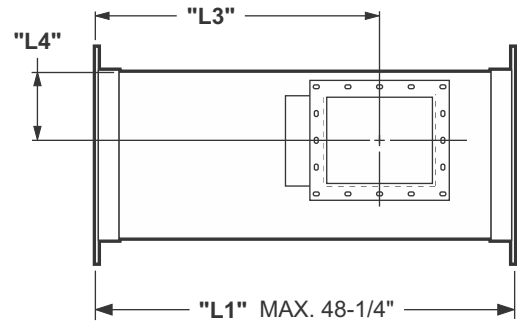
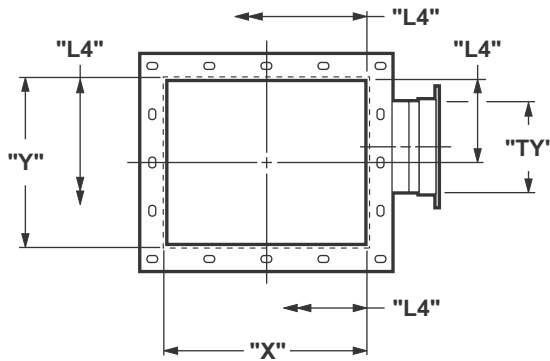
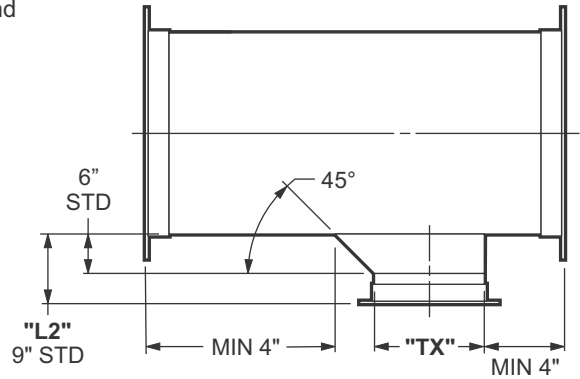
NOTE

- ▶ 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.



Straight Duct with Rectangular Conical Tap

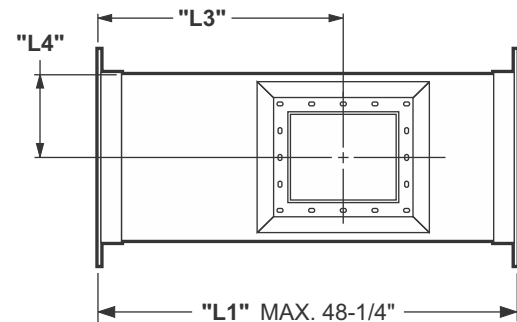
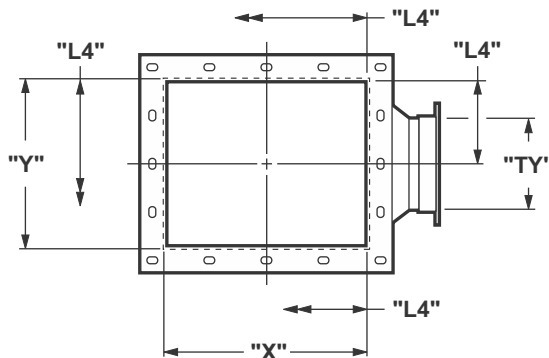
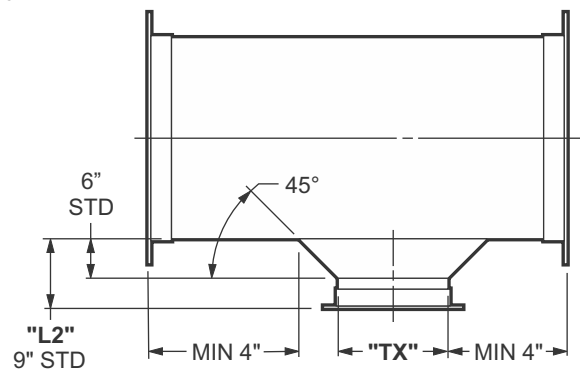
NOTE

- ▶ 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.



Straight Duct with Rectangular Lateral Tap

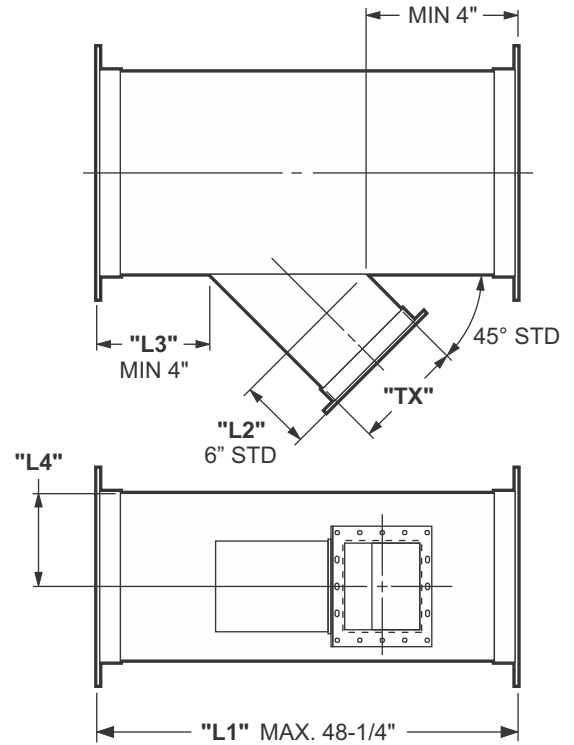
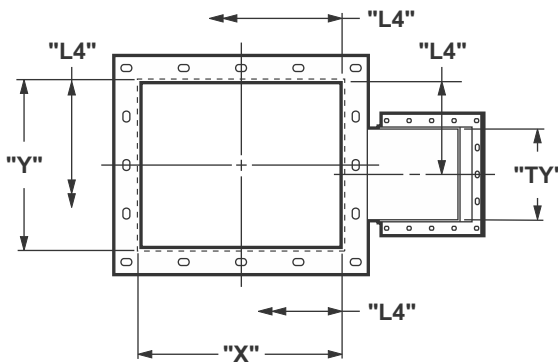
NOTE

- ▶ 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.



Straight Duct with Round Tap

NOTE

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

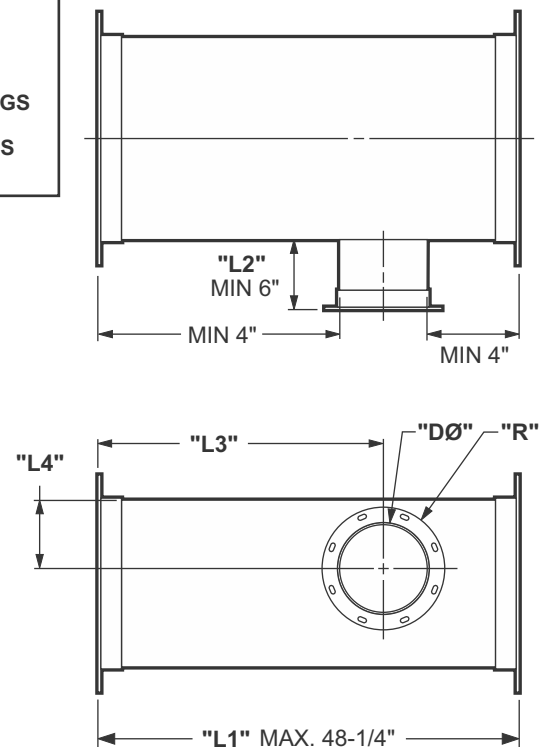
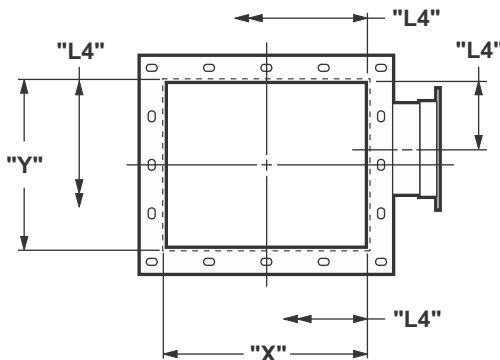
OPTIONS

- ▶ 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.

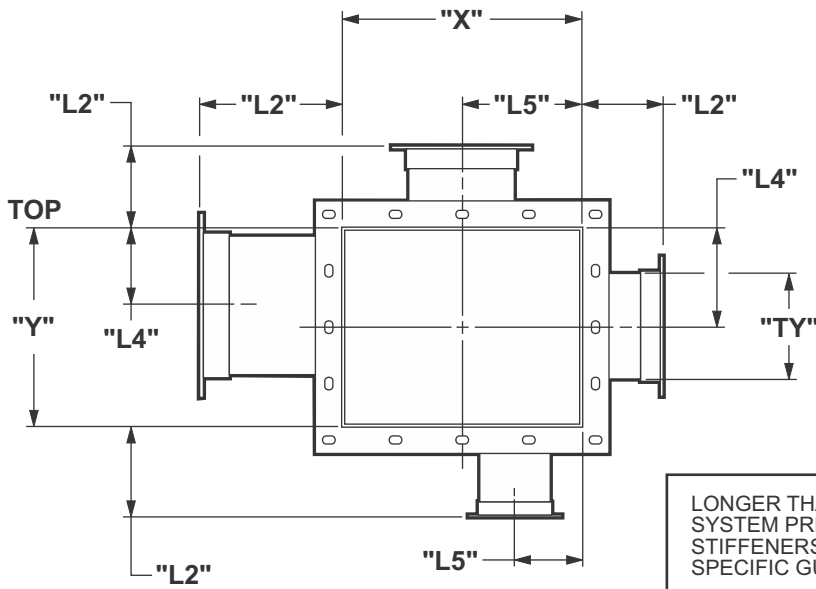
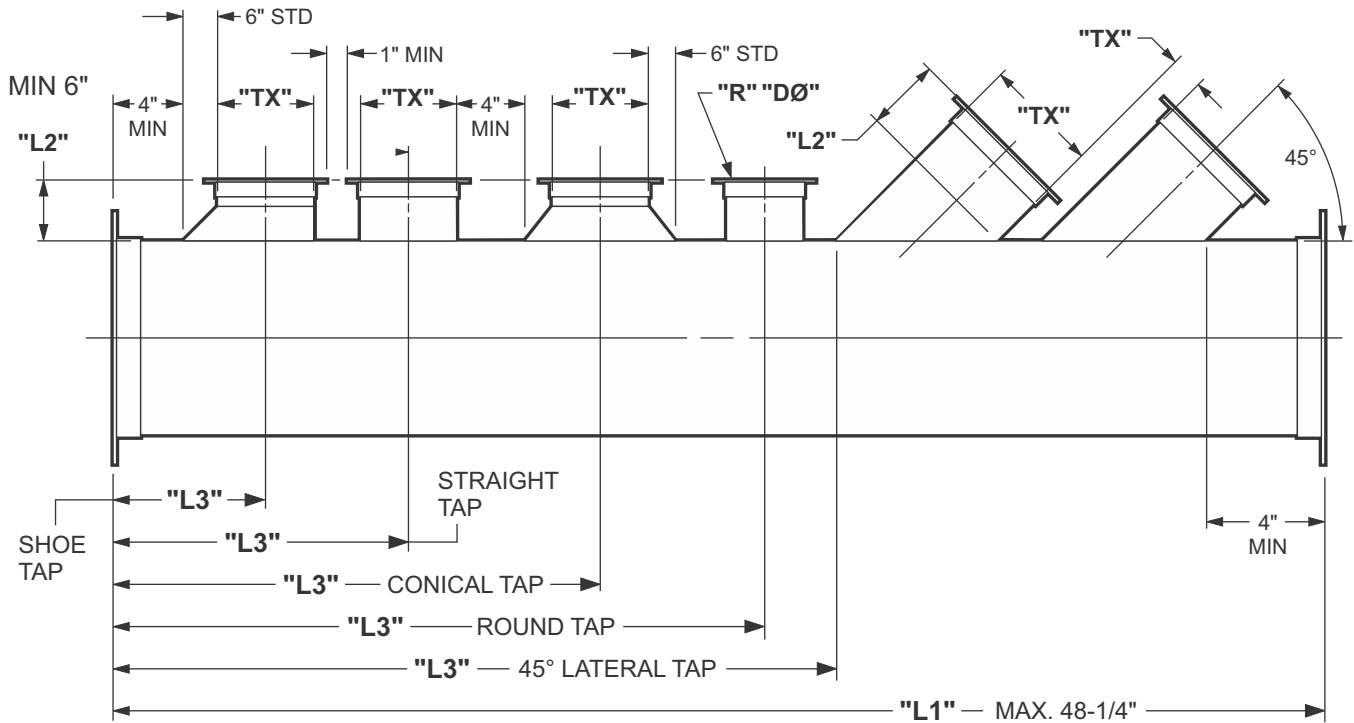
LONGER THAN STANDARD LENGTHS AND/OR HIGHER SYSTEM PRESSURES MAY REQUIRE ADDITIONAL STIFFENERS PER SMACNA, CONTACT FAB-TECH FOR SPECIFIC GUIDELINES.

ROUND RING TYPES ("R")

- EZ** EZ CLAMPS (AVAILABLE 4" - 14")
- SC** STAINLESS CAST RINGS (AVAILABLE 4" - 14")
- BI** BLACK IRON ANGLE RINGS (AVAILABLE 4" - 100")
- SS** STAINLESS ANGLE RINGS (AVAILABLE 16" - 120")



Straight Duct with Multiple Taps



- ROUND RING TYPES ("R")**
- EZ** EZ CLAMPS
(AVAILABLE 4" - 14")
 - SC** STAINLESS CAST RINGS
(AVAILABLE 4" - 14")
 - BI** BLACK IRON ANGLE RINGS
(AVAILABLE 4" - 100")
 - SS** STAINLESS ANGLE RINGS
(AVAILABLE 16" - 120")

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

END VIEW

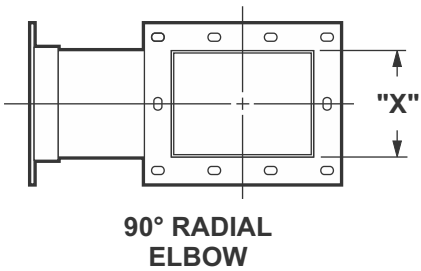
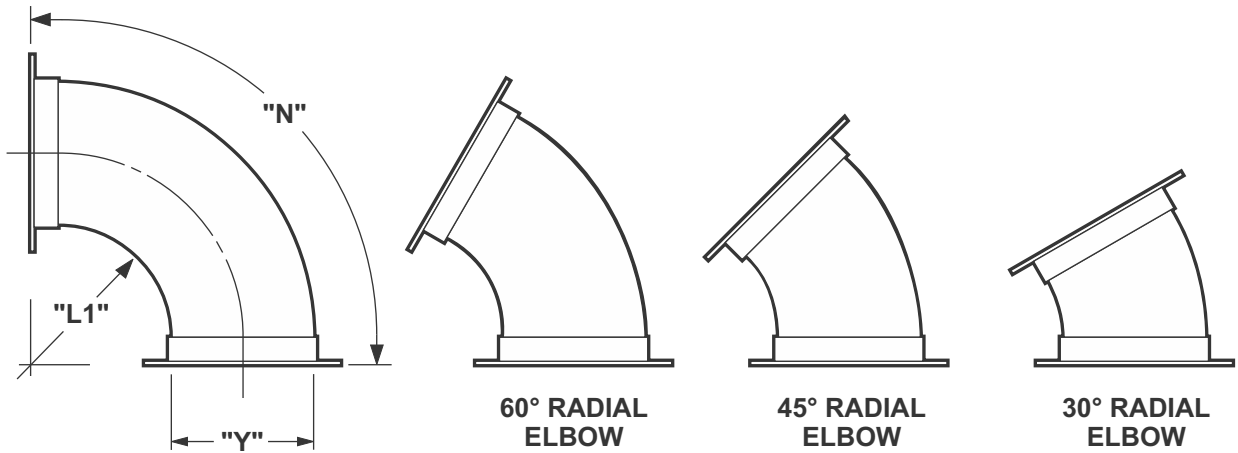
NOTE

- ▶ 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.

90°, 60°, 45°, 30° or Custom Elbow



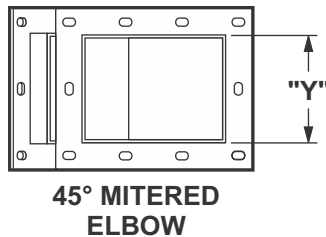
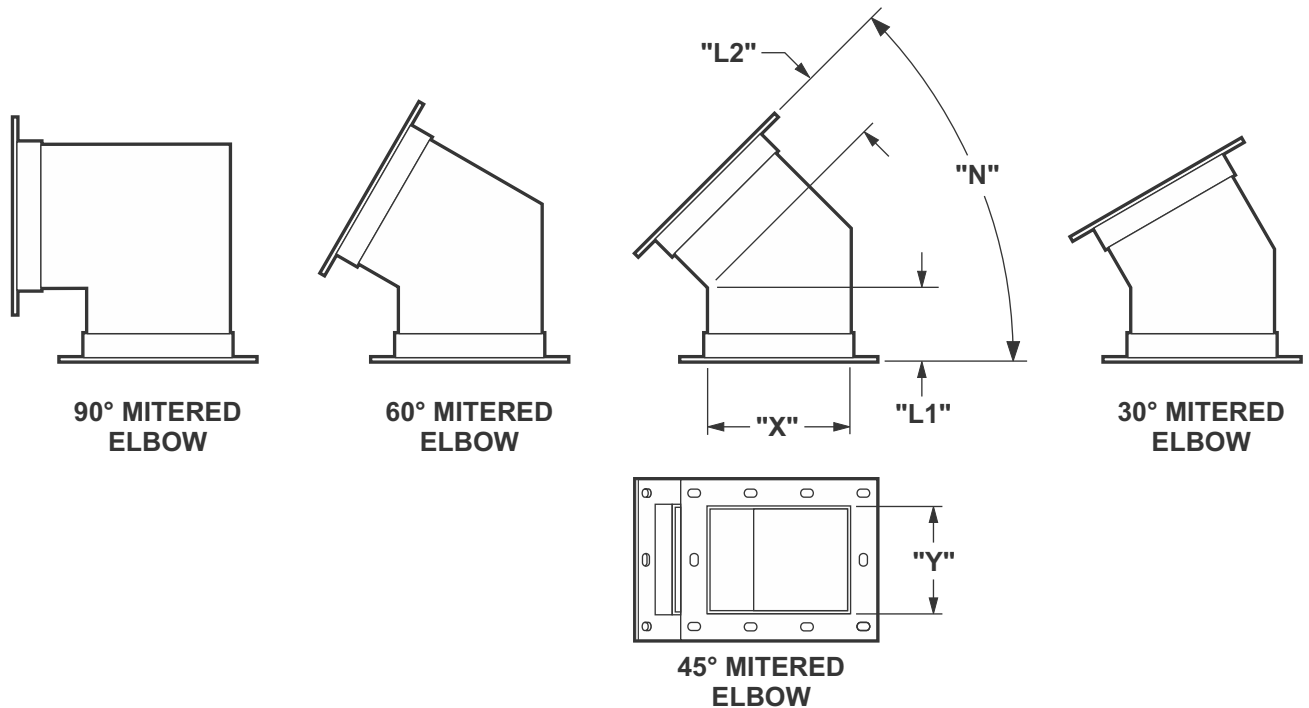
NOTE

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

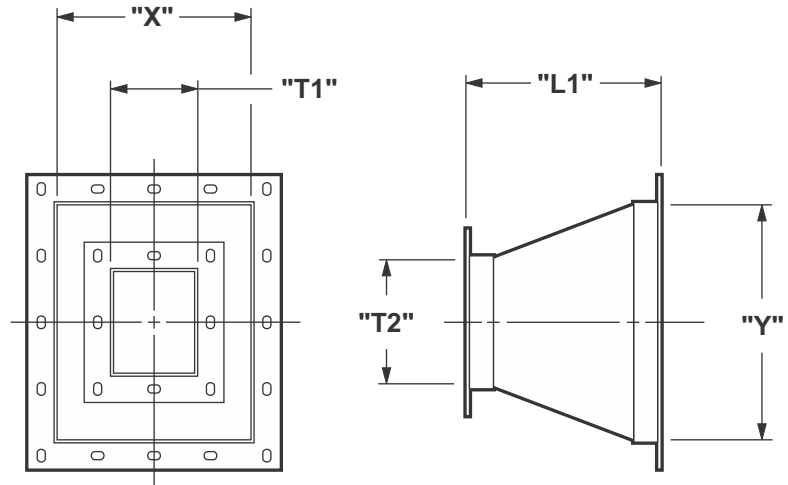
OPTIONS

- ▶ 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



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

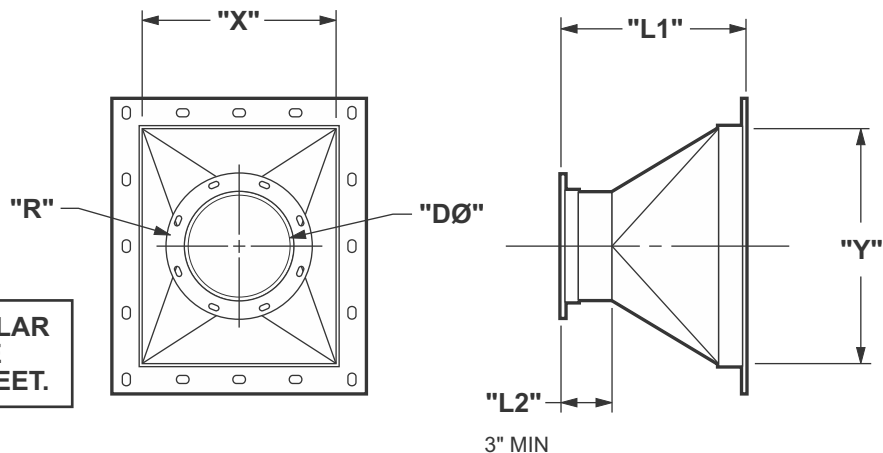
- ▶ Raw end available.
- ▶ Duct width or depth of 98" and larger requires Fab-Tech engineering review and approval.
- ▶ An interior stiffener (1" SCH40 pipe) is added at the midpoint of the flange for duct width or depth of 50" and greater.

Concentric Rectangular to Round Transition

ROUND RING TYPES

- EZ** EZ CLAMPS
(AVAILABLE 4" - 14")
- SC** STAINLESS CAST RINGS
(AVAILABLE 4" - 14")
- BI** BLACK IRON ANGLE RINGS
(AVAILABLE 4" - 100")
- SS** STAINLESS ANGLE RINGS
(AVAILABLE 16" - 120")

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

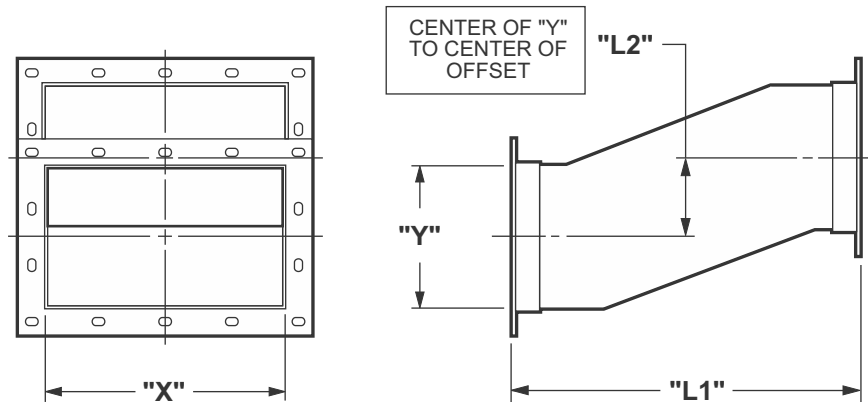
**NOTE**

- ▶ 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.

Vertical Offset



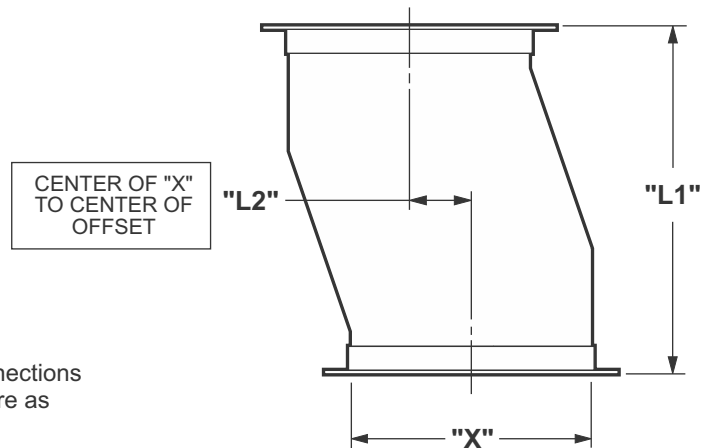
NOTE

- ▶ 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.

Horizontal Offset

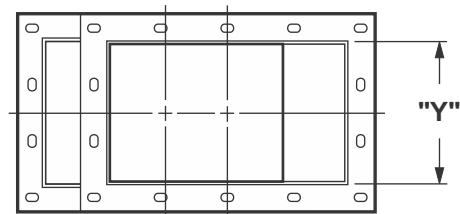


NOTE

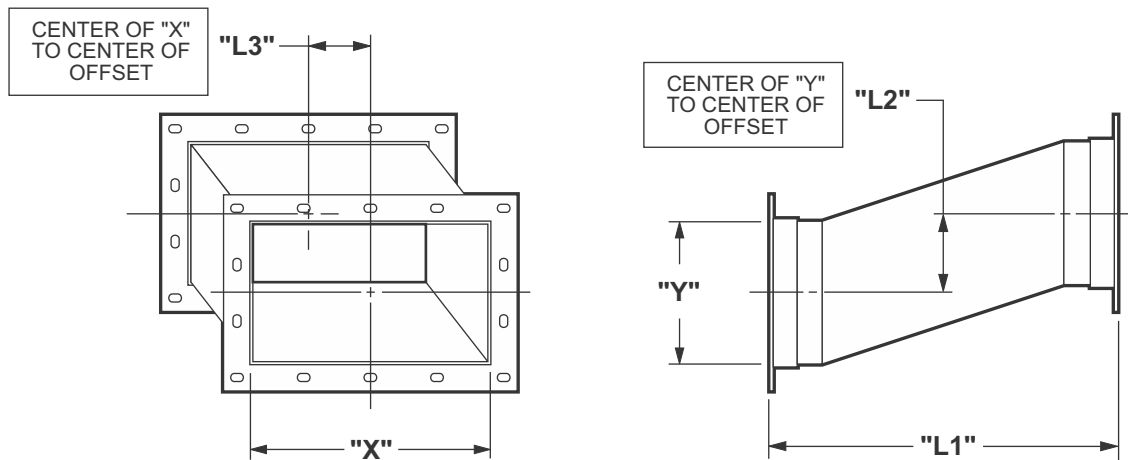
- ▶ All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

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

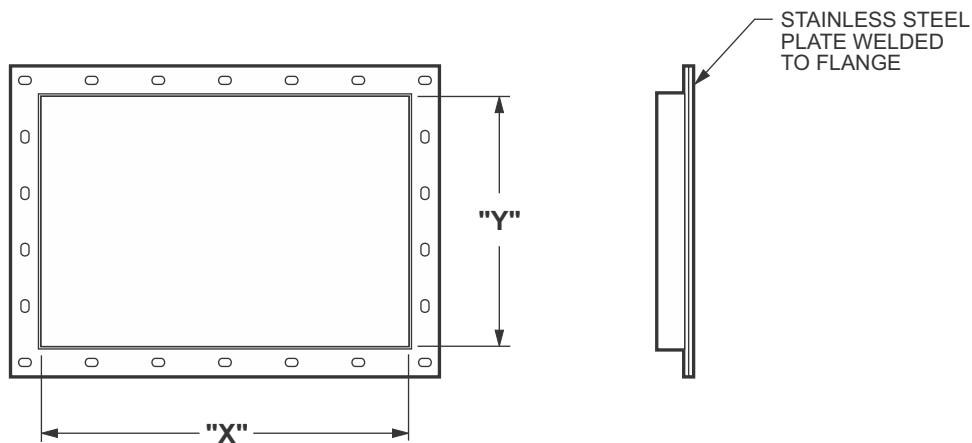
**NOTE**

- ▶ 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.

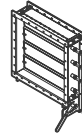
OPTIONS

- ▶ 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).

Product Guide

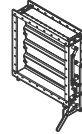
**RECTANGULAR
CONTROL
DEVICES**

INDUSTRIAL
RECTANGULAR
PARALLEL BLADE
CONTROL DAMPER



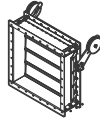
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INDUSTRIAL
RECTANGULAR
OPPOSED BLADE
CONTROL DAMPER



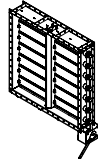
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INDUSTRIAL
RECTANGULAR
INDUSTRIAL
BACKDRAFT
DAMPER



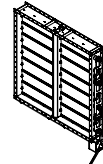
• PAGE: 86

HEAVY DUTY
RECTANGULAR
PARALLEL BLADE
CONTROL DAMPER



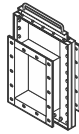
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HEAVY DUTY
RECTANGULAR
OPPOSED BLADE
CONTROL DAMPER



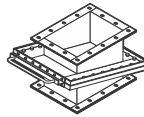
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HORIZONTAL
BLASTGATE



• PAGE: 88

VERTICAL
BLASTGATE



• PAGE: 88

Industrial Rectangular Parallel Blade Control Damper

NOTE

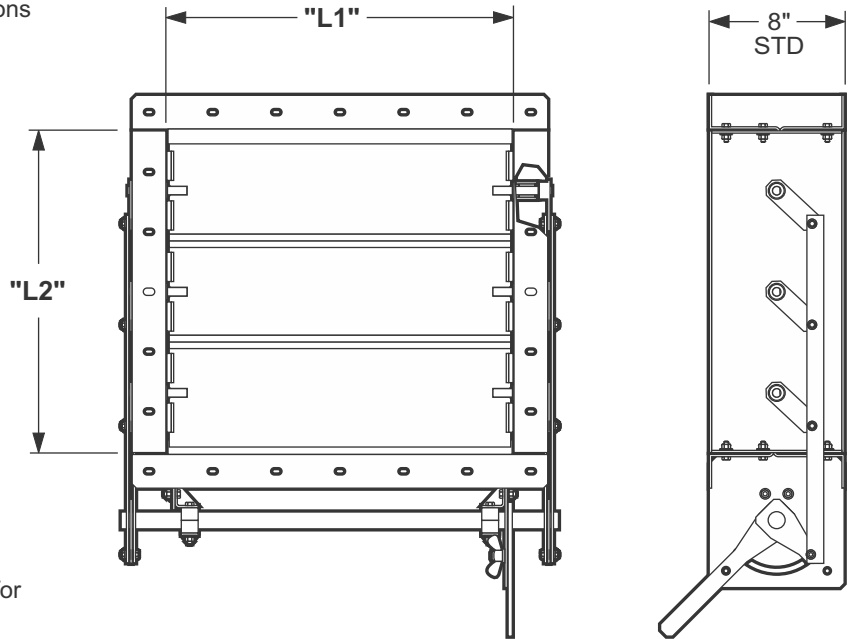
- ▶ All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

SPECIFICATIONS

- ▶ Frame 8" standard length with 2" flanges.
- ▶ Mounting holes (.44" x .69" 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

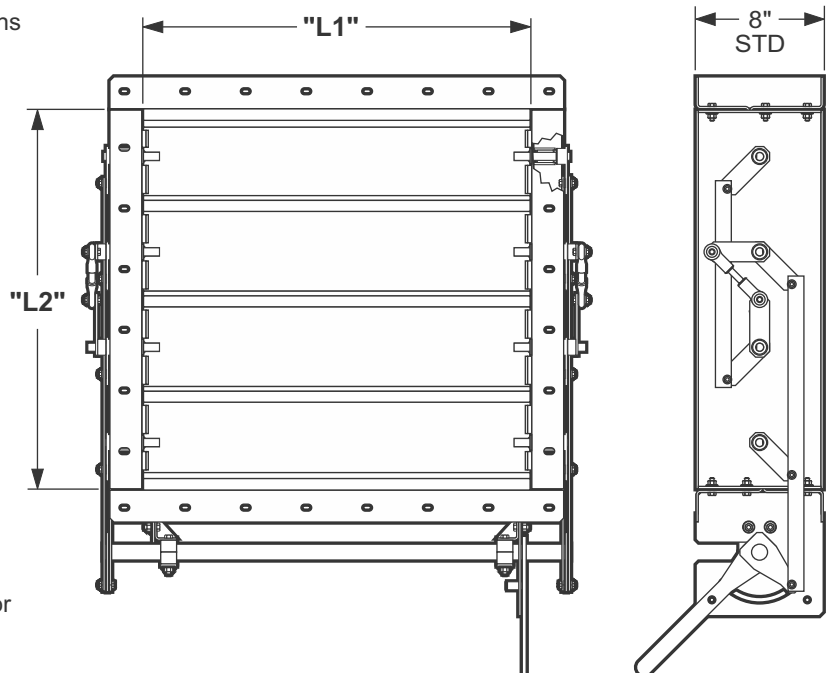
- ▶ All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

SPECIFICATIONS

- ▶ Frame 8" standard length with 2" flanges.
- ▶ Mounting holes (.44" x .69" 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

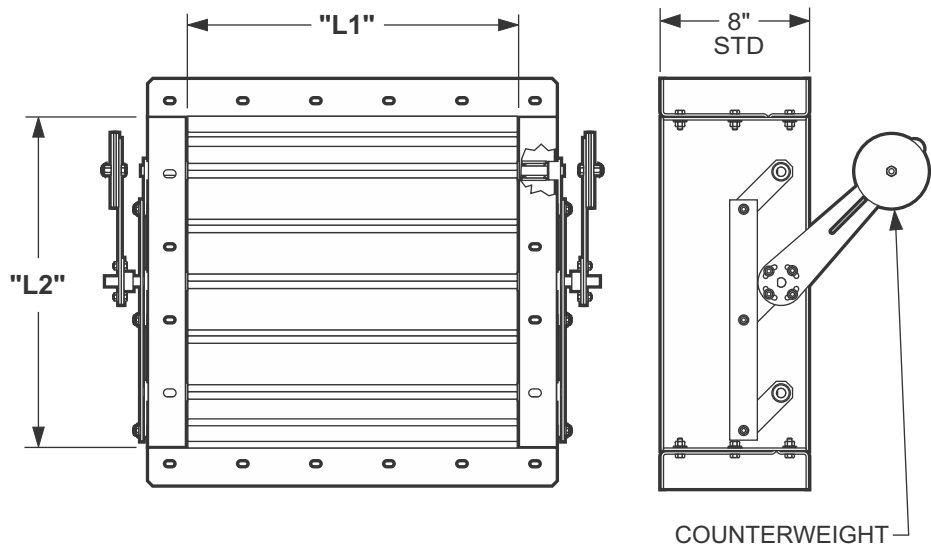
Industrial Rectangular Backdraft Damper

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 (.44" X .69" 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.
- ▶ Manual adjustable counterweights.
- ▶ PTFE frame seals.



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

Heavy Duty Rectangular Parallel Blade Control Damper

NOTE

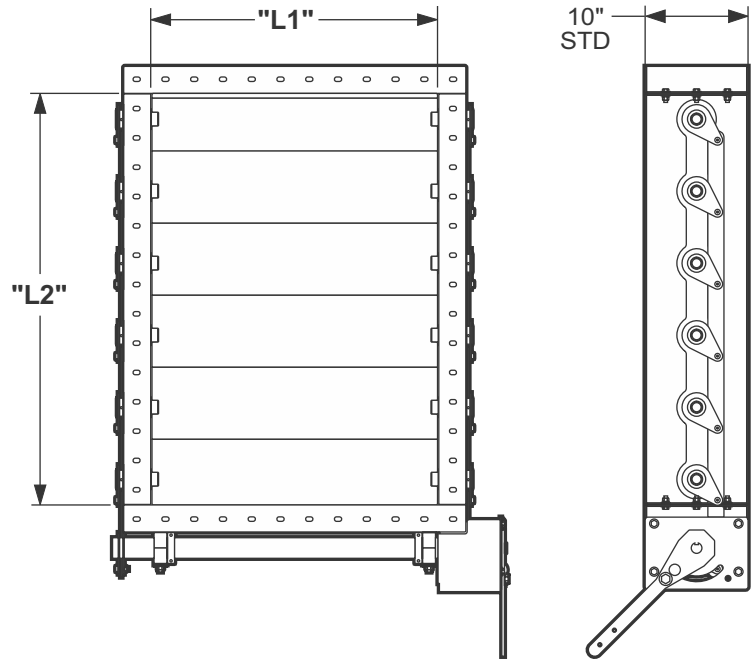
- ▶ All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

SPECIFICATIONS

- ▶ Frame 10" standard length with 2" flanges.
- ▶ Mounting holes (.44" x .69" 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.



CENTER SUPPORT W/ CENTER LINKAGE
REQUIRED FOR BLADES LONGER THAN 36" ("L1").

Heavy Duty Rectangular Opposed Blade Control Damper

NOTE

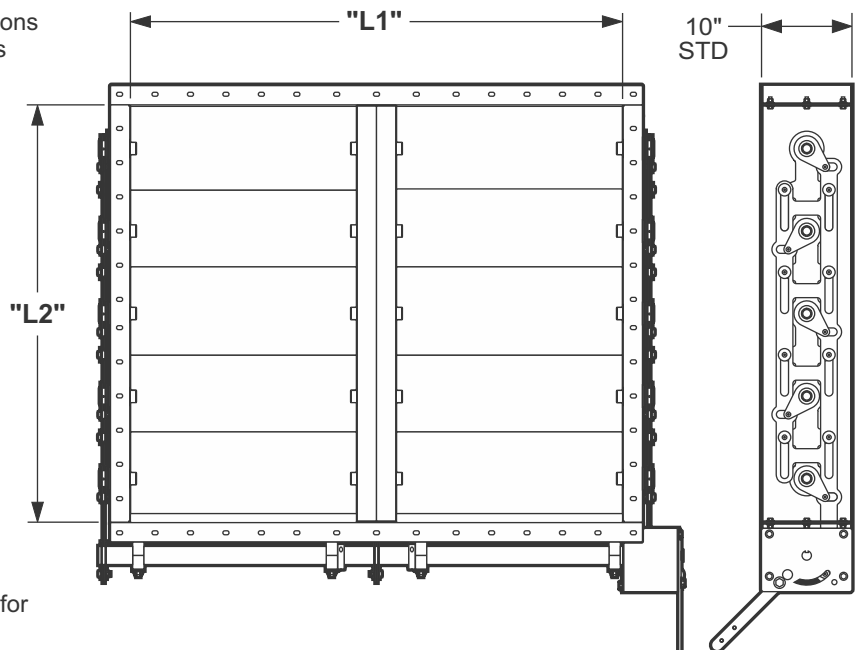
- ▶ All fittings with standard Fab-Tech connections include gaskets and clamps or hardware as required for installation.

SPECIFICATIONS

- ▶ Frame 10" standard length with 2" flanges.
- ▶ Mounting holes (.44" x .69" 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.

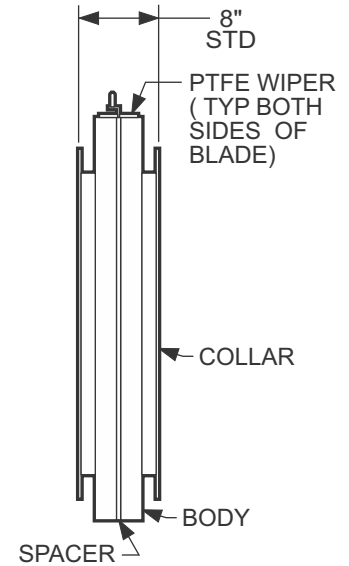
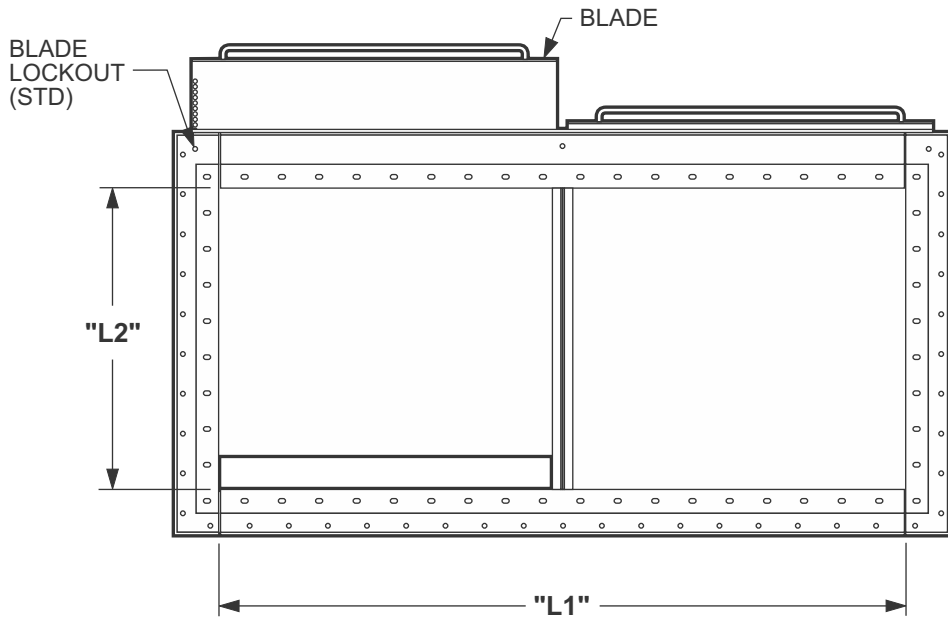
OPTIONS

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



CENTER SUPPORT W/ CENTER LINKAGE
REQUIRED FOR BLADES LONGER THAN 36" ("L1").

Horizontal Blastgate

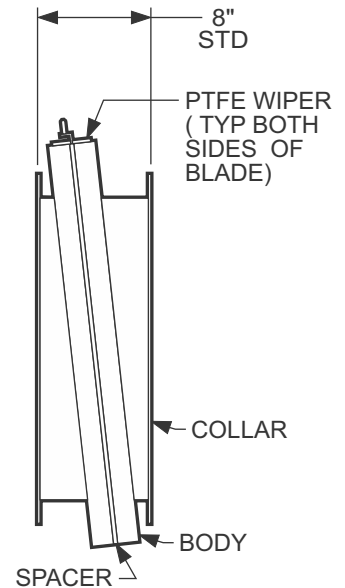
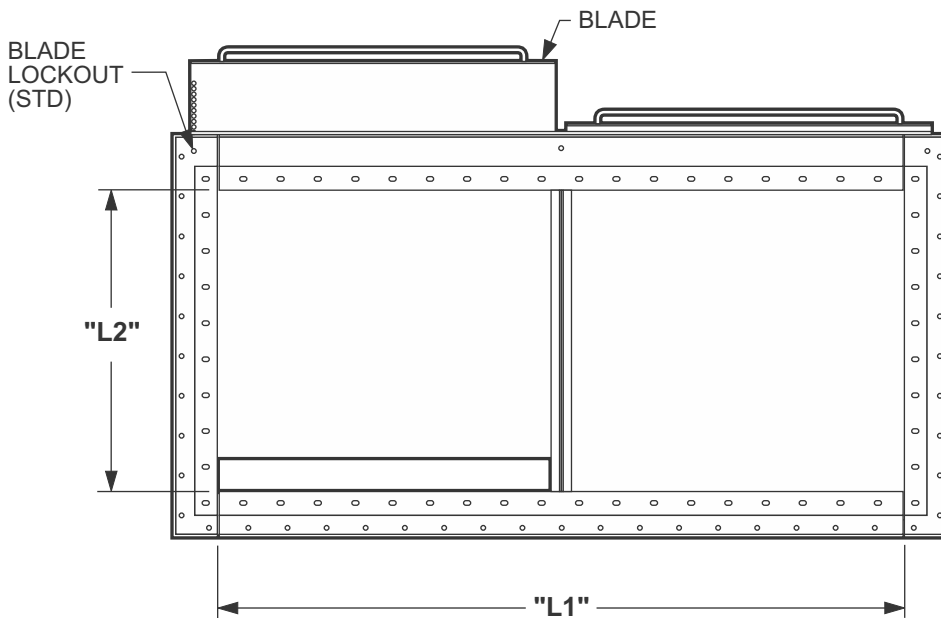


CENTER SUPPORT REQUIRED FOR BLADES LONGER THAN 36" ("L1")

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" ("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.