

## Application

The VFD-10D-A fire damper employs curtain style blades for point-of-origin control of fire in static and dynamic HVAC systems. The VFD-10D-A is qualified to 4,000 ft/min (20.3 m/s) and 4 in.wg. (1.0 kPa) and may be installed in vertical walls or partitions, or horizontally in floors or assemblies with fire resistance ratings up to 2 hours.

## Standard Construction

**Frame:** 22 gauge (0.85) galvanized steel.

**Blades:** 24 gauge (0.7) galvanized steel – curtain style.

**Fire Closure Device:** Fusible link.

**Fire Closure Temperature:** 165°F (75°C).

**Minimum Size:** 6" × 6" (152 × 152)

**Maximum Size:** Single section: Vertical: 36" × 48" (914 × 1219)  
 Horizontal: 36" × 36" (914 × 914)  
 Multiple Section: Vertical: 72" × 120" (1829 × 3048)  
 120" × 72" (3048 × 1829)  
 Horizontal: 36" × 36" (914 × 914)  
 72" × 18" (1829 × 457)

**Stainless Steel:** Single section: Vertical: 36" × 36" (914 × 914)

## Options

- Installation:  Vertical Mount  Horizontal Mount  
 Velocity Rating:  2000 fpm  4000 fpm
- Factory installed sleeve:  Integral  
 Gauge:  20 (1.0)  18 (1.3)  16 (1.6)  14 (2.0)  10 (3.5)  
 Length:  12" (305)  16" (406)  24" (610)  Other \_\_\_\_\_
- Low leakage taped joints. (Integral sleeve required)
- Transitions:  Flanged (sleeve required)  
 Round  Oval  
 Duct connections (sleeve required):  
 1" (25) S-clip  
 DM-25  DM-35  S & Drive  WARD
- Retaining angle systems:  
 Gauge:  20 (1.0)  16 (1.6)  
 Picture frame:  SSPF (single-side)  DSPF (2-side)  
 Individual angle sets:  SS (single-side)  DS (2-side)
- Alternate fire closure temperature.  
 212°F (100°C)
- Duct access door factory mounted in common sleeve.  
 Generic mullion for oversized masonry or concrete openings.  
 Type-304 stainless steel construction.
- PI-10 (Blade closure indication switch package):  
 External mount (sleeve required)  Internal mount  Loose

## Ratings

**UL 555 Fire Resistance Rating:** 1½ hour (vertical and horizontal)

**UL HNLJ.V-5:** Ventilation Duct Assemblies

\*\*\* **Maximum Dynamic Closure Velocity:** 4,000 fpm (20.3 m/s)  
 2,000 fpm (10.2 m/s)

**Maximum UL555S Rated Pressure:** 4 in.wg. (1.0 kPa)

## Listings

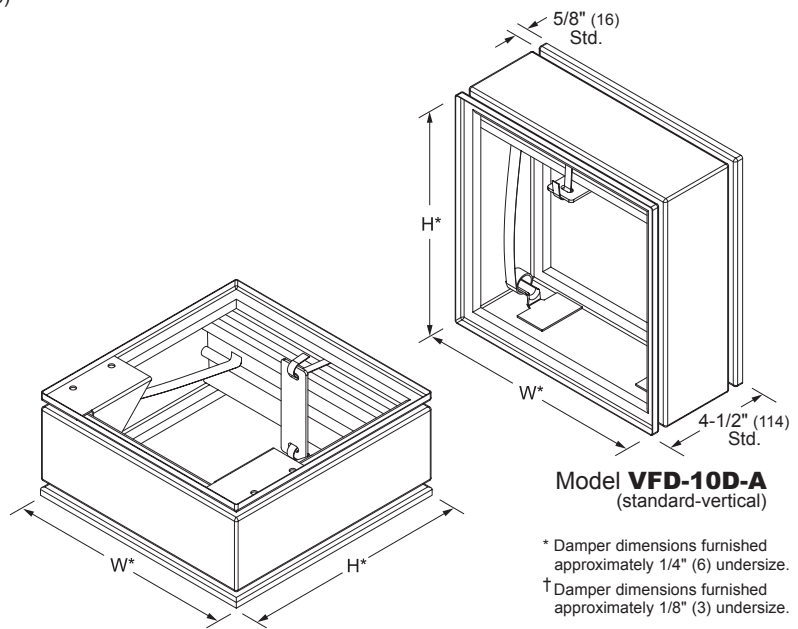
**UL 555 listing:** R11767

**CSFM listing:** 3225-0368:101

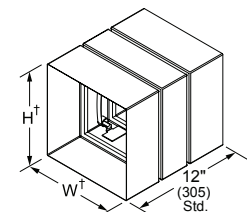
**New York City MEA listing:** 295-98-E

**Meets NFPA Standards:** 90A, 92A, 92B and 101

**Meets Building Code Standards:** IBC, NBC, NFPA, SBC and UBC

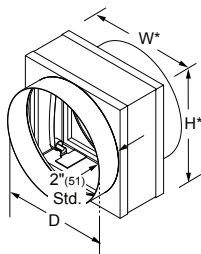


Model **VFD-10D-A** (standard-horizontal)



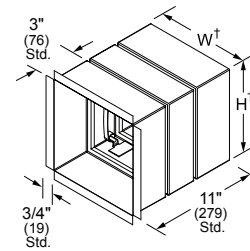
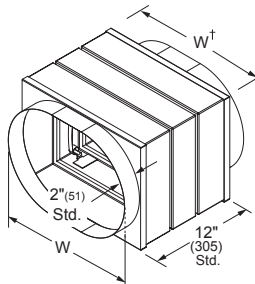
### Round Transitions

(Standard with D=W=H. Available with D<W and H)



### Oval Transitions

(Standard with W and H equal to damper width and height dimensions. Available with W and H smaller than damper width and height)

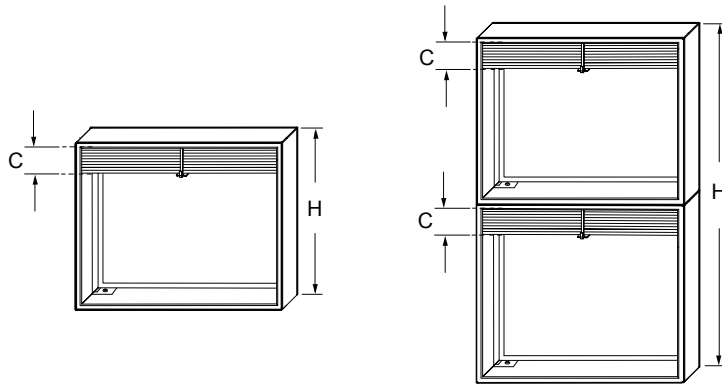


\*\*\* 4000 fpm (20.3 m/s) limited to:

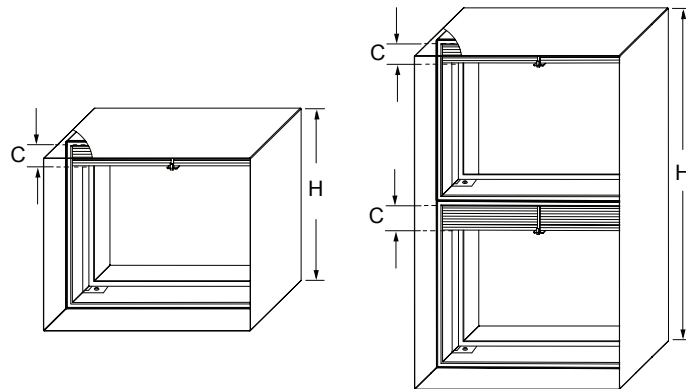
Single section: Vertical: 36" × 48" (914 × 1219)  
 Horizontal: 36" × 18" (914 × 457)  
 Multiple section: Horizontal: 36" × 36" (914 × 914)  
 72" × 18" (1829 × 457)

**NOTE:** Dimensions in parentheses ( ) are millimeters.

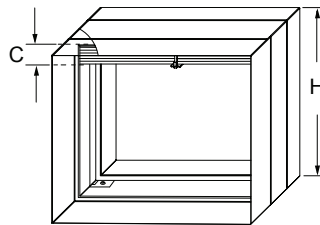
# Blade Stack Dimensional Layout



Framed Unit — No Sleeve  
(Multiple section units supplied as individual dampers for field assembly)



Sleeve Style S — Common Sleeve  
(Multiple section units supplied as a single assembly)



Sleeve Style IS — Integral Sleeve

Multiple section dampers shown as one wide by two high - two wide by one high similar.

# Blade Stack Dimensional Data Sizing Chart

Nominal Duct Height 'H'	Damper Width	
	6" (152) - 36" (914)	37" (940) - 48" (1219)
	Blade Stack Height 'C'	Blade Stack Height 'C'
6" (152)	1-1/16" (27)	1-1/16" (27)
7" (178) - 9" (229)	1-3/16" (30)	1-3/16" (30)
10" (254) - 12" (305)	1-7/16" (37)	1-7/16" (37)
13" (330) - 14" (356)	1-9/16" (40)	1-9/16" (40)
15" (381) - 17" (432)	1-13/16" (46)	1-13/16" (46)
18" (457) - 19" (483)	1-15/16" (49)	1-15/16" (49)
20" (508) - 22" (559)	2-3/16" (56)	2-3/16" (56)
23" (584) - 24" (610)	2-5/16" (59)	2-5/16" (59)
25" (635) - 27" (686)	2-9/16" (65)	2-9/16" (65)
28" (711) - 29" (737)	2-11/16" (68)	2-11/16" (68)
30" (762) - 32" (813)	2-15/16" (75)	2-15/16" (75)
33" (838) - 34" (864)	3-1/16" (78)	3-1/16" (78)
35" (889) - 36" (914)	3-5/16" (84)	3-5/16" (84)
37" (940) - 39" (991)	3-5/16" (84)	3-5/16" (84)
40" (1016) - 42" (1067)	3-11/16" (94)	3-11/16" (94)
43" (1092) - 44" (1118)	3-13/16" (97)	3-13/16" (97)
45" (1143) - 47" (1194)	4-1/16" (103)	4-1/16" (103)
48" (1219)	4-3/16" (106)	4-3/16" (106)
49" (1245) - 54" (1372)	2-9/16" (65)	2-9/16" (65)
55" (1397) - 58" (1473)	2-11/16" (68)	2-11/16" (68)
59" (1499) - 64" (1626)	2-15/16" (75)	2-15/16" (75)
65" (1651) - 68" (1727)	3-1/16" (78)	3-1/16" (78)
69" (1753) - 72" (1829)	3-5/16" (84)	3-5/16" (84)
73" (1854) - 74" (1880)	3-5/16" (84)	2-5/16" (59)
75" (1905) - 78" (1981)	3-7/16" (87)	2-9/16" (65)
79" (2007) - 84" (2134)	3-11/16" (94)	2-9/16" (65)
85" (2159) - 88" (2235)	3-13/16" (97)	2-11/16" (68)
89" (2291) - 94" (2388)	4-1/16" (103)	2-11/16" (68)
95" (2413) - 96" (2438)	4-3/16" (106)	2-15/16" (75)
97" (2464) - 120" (3048)	2-15/16" (75)	2-15/16" (75)

Nominal Duct Height 'H'	Damper Width	
	49" (1245) - 72" (1829)	73" (1854) - 120" (3048)
	Blade Stack Height 'C'	Blade Stack Height 'C'
6" (152)	1-1/16" (27)	1-1/16" (27)
7" (178) - 9" (229)	1-3/16" (30)	1-3/16" (30)
10" (254) - 12" (305)	1-7/16" (37)	1-7/16" (37)
13" (330) - 14" (356)	1-9/16" (40)	1-9/16" (40)
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18" (457) - 19" (483)	1-15/16" (49)	1-15/16" (49)
20" (508) - 22" (559)	2-3/16" (56)	2-3/16" (56)
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30" (762) - 32" (813)	2-15/16" (75)	2-15/16" (75)
33" (838) - 34" (864)	3-1/16" (78)	3-1/16" (78)
35" (889) - 36" (914)	3-5/16" (84)	3-5/16" (84)
37" (940) - 39" (991)	1-15/16" (49)	1-15/16" (49)
40" (1016) - 47" (1194)	2-3/16" (56)	2-3/16" (56)
46" (1168) - 49" (1245)	2-5/16" (59)	2-5/16" (59)
50" (1270) - 55" (1397)	2-9/16" (65)	2-9/16" (65)
56" (1422) - 59" (1499)	2-11/16" (68)	2-11/16" (68)
60" (1524) - 65" (1651)	2-15/16" (75)	2-15/16" (75)
66" (1676) - 72" (1829)	3-1/16" (78)	3-1/16" (78)
73" (1854) - 74" (1880)	2-5/16" (59)	
75" (1905) - 83" (2108)	2-9/16" (65)	
84" (2134) - 89" (2291)	2-11/16" (68)	
90" (2286) - 120" (3048)	2-15/16" (75)	

**NOTES:**

Dampers in the shaded area are for Vertical Mount only.

Dampers inside the Bold Outline will be manufactured in individual sections not exceeding 36" x 48".

Vertical dampers exceeding 72" x 48" or 36" x 96" will be manufactured in individual sections not exceeding 36" x 36".