

Application

The FD-4D-A fire damper employs curtain style blades for point-of-origin control of fire in static and dynamic HVAC systems. The FD-4D-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" x 6" (152 x 152)

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

Stainless Steel: Single section: Vertical: 36" x 36" (914 x 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)

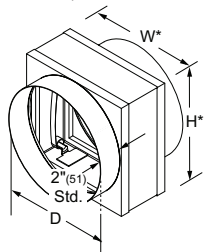
Duct access door factory mounted in common sleeve.

Generic mullion for oversized masonry or concrete openings.

Type-304 stainless steel construction.

Round Transitions

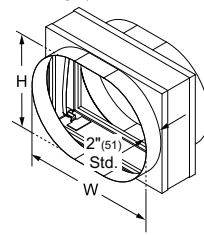
(Standard with D=W=H. Available with D<W and H)



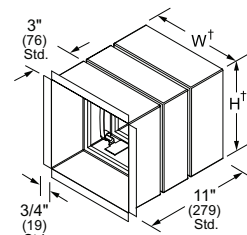
Style AR (optional)

Oval Transitions

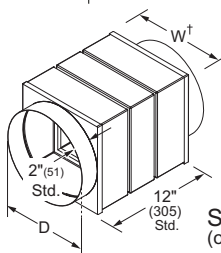
(Standard with W and H equal to damper width and height dimensions. Available with W and H smaller than damper width and height)



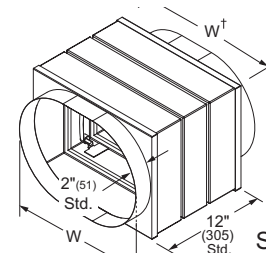
Style AO (optional)



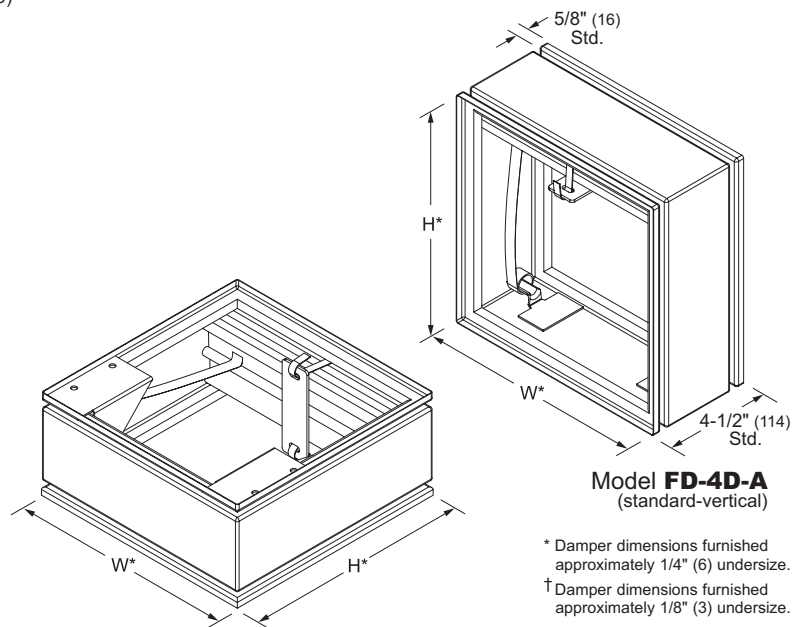
Sleeve Style ISAF (optional)
 with standard flange
 (Typical for use with grille.)



Sleeve Style ISAR (optional)



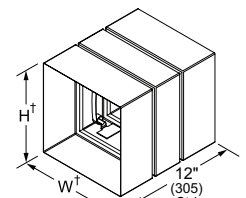
Sleeve Style ISAO (optional)



Model **FD-4D-A**
 (standard-vertical)

Model **FD-4D-A**
 (standard-horizontal)

* Damper dimensions furnished approximately 1/4" (6) undersize.
 † Damper dimensions furnished approximately 1/8" (3) undersize.



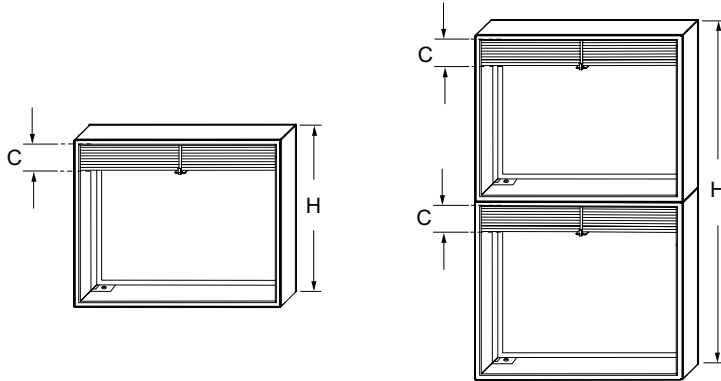
Sleeve Style ISA (optional)

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

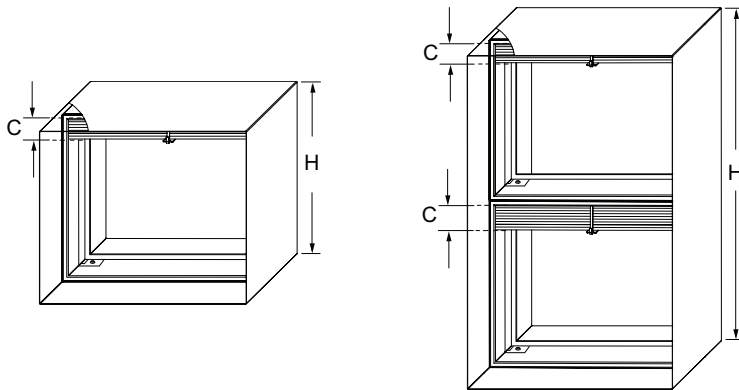
Single section: Vertical: 36" x 48" (914 x 1219)
 Horizontal: 36" x 18" (914 x 457)
 Multiple section: Horizontal: 36" x 36" (914 x 914)
 72" x 18" (1829 x 457)

NOTE: Dimensions in parentheses () are millimeters.

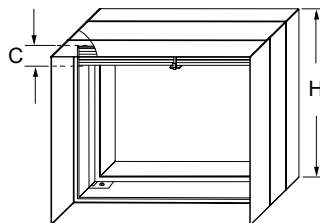
Blade Stack Dimensional Layout



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)
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)	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".