

## Application

The FD-4D-C fire damper employs out of the airstream frame and curtain style blades for point-of-origin control of fire in static and dynamic HVAC systems. The FD-4D-C is qualified to 4,000 ft/min (20.4 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:** 4" x 3" (102 x 76)

**Maximum Size:** Single section: Vertical: 34" x 43" (864 x 1092)  
 Horizontal: 34" x 32" (864 x 813)  
 Multiple Section: Vertical: 118" x 68" (2997 x 1727)  
 70" x 116" (1778 x 2976)  
 Horizontal: 34" x 33" (864 x 838)  
 70" x 15" (1778 x 381)

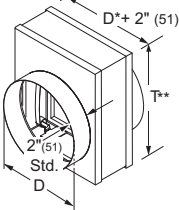
**Stainless Steel:** Single section: Vertical: 34" x 32" (864 x 813)

## Options

- 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:
  - Round  Oval
  - Duct connections (sleeve required):
  - 1" (25) S-clip  DM-25  DM-3  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

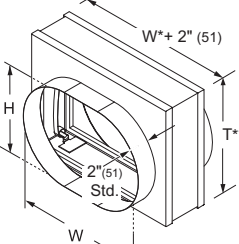
(Standard with D=W=H. Available with D<W and H)



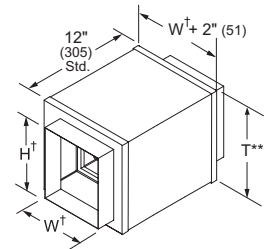
Style CR (optional)

### Oval Transitions

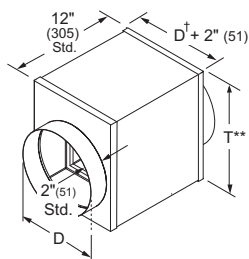
(Standard with W and H equal to damper width and height dimensions. Available with W and H smaller than damper width and height)



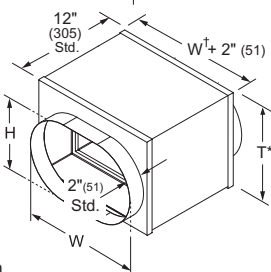
Style CO (optional)



Sleeve Style C (optional)

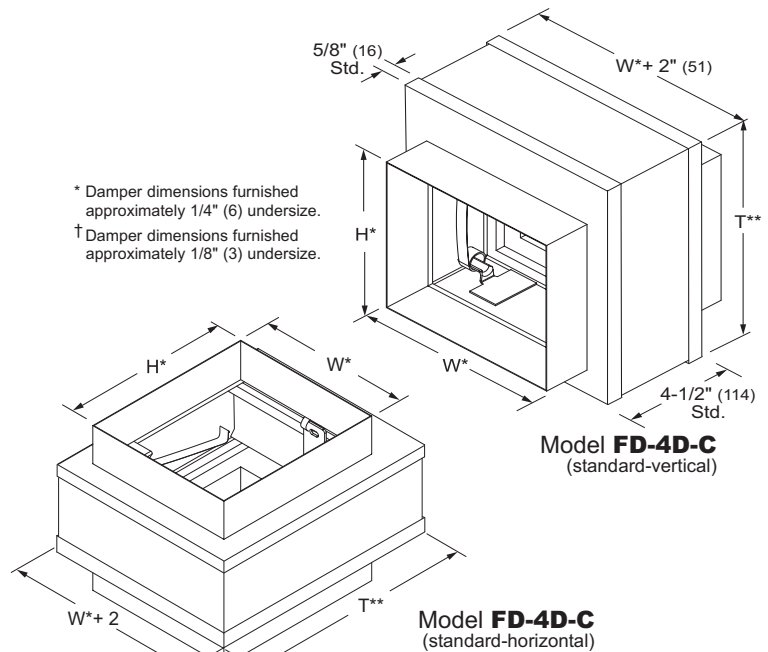


Sleeve Style CR (optional)



Sleeve Style CO (optional)

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



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

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



## 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:** R149817

**CSFM listing:** 3225-1404:101

**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

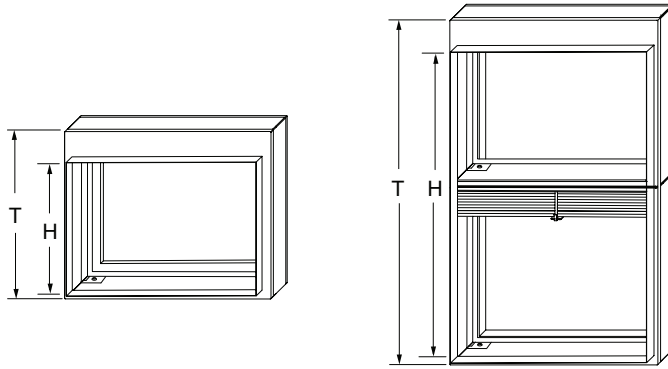
\*\*See table on page 3 for 'T' dimension

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

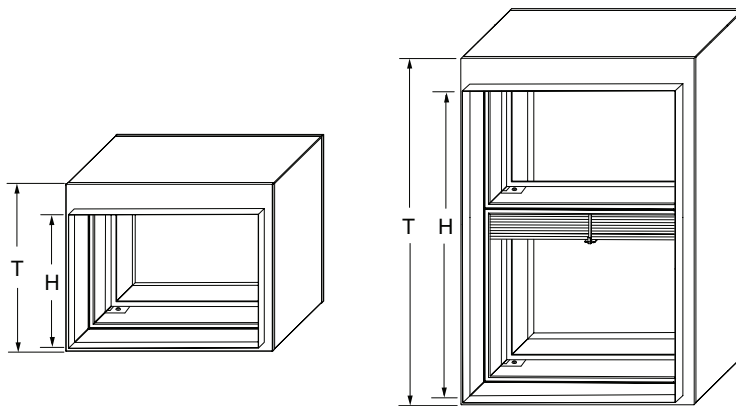
Single Section: Vertical: 34" x 43" (864 x 1092)  
 Horizontal: 34" x 15" (864 x 381)  
 Multiple Section: Horizontal: 34" x 33" (864 x 838)  
 70" x 15" (1778 x 381)

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

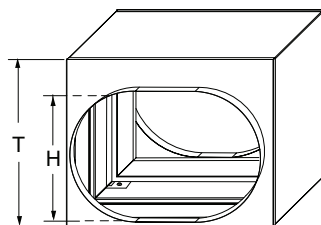
# Blade Stack Dimensional Layout



Framed Unit — No Sleeve  
(Multiple section units supplied as a single assembly)



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



Sleeve Style IS — Integral Sleeve

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

Information is subject to change without notice or obligation.

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

# Blade Stack Dimensional Data Sizing Chart

Nominal Duct Height 'H'	Nominal Duct Width		
	4" (102) - 34" (864)	35" (889) - 70" (1778)	71" (1803) - 118" (2997)
	Damper Height 'T'	Damper Height 'T'	Damper Height 'T'
3" (76)	6" (152)	6" (152)	6" (152)
4" (102)	7" (178)	7" (178)	7" (178)
5" (127)	8" (203)	8" (203)	8" (203)
6" (152)	9" (229)	9" (229)	9" (229)
7" (178)	10" (254)	10" (254)	10" (254)
8" (203)	11" (279)	11" (279)	11" (279)
9" (229)	12" (305)	12" (305)	12" (305)
10" (254)	13" (330)	13" (330)	13" (330)
11" (279)	14" (356)	14" (356)	14" (356)
12" (305)	15" (381)	15" (381)	15" (381)
13" (330)	16" (406)	16" (406)	16" (406)
14" (356)	17" (432)	17" (432)	17" (432)
15" (381)	18" (457)	18" (457)	18" (457)
16" (406)	19" (483)	19" (483)	19" (483)
17" (432)	20" (508)	20" (508)	20" (508)
18" (457)	21" (533)	21" (533)	21" (533)
19" (483)	22" (559)	22" (559)	22" (559)
20" (508)	23" (584)	23" (584)	23" (584)
21" (533)	24" (610)	24" (610)	24" (610)
22" (559)	25" (635)	25" (635)	25" (635)
23" (584)	26" (660)	26" (660)	26" (660)
24" (610)	28" (711)	28" (711)	28" (711)
25" (635)	29" (737)	29" (737)	29" (737)
26" (660)	30" (762)	30" (762)	30" (762)
27" (686)	31" (787)	31" (787)	31" (787)
28" (711)	32" (813)	32" (813)	32" (813)
29" (737)	33" (838)	33" (838)	33" (838)
30" (762)	34" (864)	34" (864)	34" (864)
31" (787)	35" (889)	35" (889)	35" (889)
32" (813)	36" (914)	36" (914)	36" (914)
33" (838)	37" (940)	37" (940)	36" (914)
34" (864)	38" (965)	38" (965)	37" (940)
35" (889)	39" (991)	39" (991)	38" (965)
36" (914)	41" (1041)	41" (1041)	39" (991)
37" (940)	42" (1067)	42" (1067)	40" (1016)
38" (965)	43" (1092)	43" (1092)	41" (1041)
39" (991)	44" (1118)	44" (1118)	42" (1067)
40" (1016)	45" (1143)	45" (1143)	43" (1092)
41" (1041)	46" (1168)	46" (1168)	44" (1118)
42" (1067)	47" (1194)	47" (1194)	45" (1143)
43" (1092)	48" (1219)	48" (1219)	46" (1168)
44" (1118)	47" (1194)	47" (1194)	47" (1194)
45" (1143)	48" (1219)	48" (1219)	48" (1219)
46" (1168)	49" (1245)	49" (1245)	50" (1270)
47" (1194)	50" (1270)	50" (1270)	51" (1295)
48" (1219)	51" (1295)	51" (1295)	52" (1321)
49" (1245)	52" (1321)	52" (1321)	53" (1346)
50" (1270)	54" (1372)	54" (1372)	54" (1372)
51" (1295)	55" (1397)	55" (1397)	55" (1397)
52" (1321)	56" (1422)	56" (1422)	56" (1422)
53" (1346)	57" (1448)	57" (1448)	57" (1448)
54" (1372)	58" (1473)	58" (1473)	58" (1473)
55" (1397)	59" (1499)	59" (1499)	59" (1499)
56" (1422)	60" (1524)	60" (1524)	60" (1524)
57" (1448)	61" (1549)	61" (1549)	61" (1549)
58" (1473)	62" (1575)	62" (1575)	62" (1575)
59" (1499)	63" (1600)	63" (1600)	63" (1600)
60" (1524)	64" (1626)	64" (1626)	64" (1626)
61" (1549)	65" (1651)	65" (1651)	65" (1651)
62" (1575)	66" (1676)	66" (1676)	66" (1676)
63" (1600)	67" (1702)	67" (1702)	67" (1702)
64" (1626)	68" (1727)	68" (1727)	68" (1727)
65" (1651)	69" (1753)	69" (1753)	69" (1753)
66" (1676)	70" (1778)	70" (1778)	70" (1778)
67" (1702)	71" (1803)	71" (1803)	71" (1803)
68" (1727)	72" (1829)	72" (1829)	72" (1829)

Nominal Duct Height 'H'	Nominal Duct Width	
	4" (102) - 34" (864)	35" (889) - 70" (1778)
	Damper Height 'T'	Damper Height 'T'
69" (1753)	73" (1854)	73" (1854)
70" (1778)	74" (1880)	74" (1880)
71" (1803)	75" (1905)	75" (1905)
72" (1829)	76" (1930)	76" (1930)
73" (1854)	77" (1956)	77" (1956)
74" (1880)	78" (1981)	78" (1981)
75" (1905)	80" (2032)	79" (2007)
76" (1930)	81" (2057)	80" (2032)
77" (1956)	82" (2083)	81" (2057)
78" (1981)	83" (2108)	82" (2083)
79" (2007)	84" (2134)	83" (2108)
80" (2032)	85" (2159)	84" (2134)
81" (2057)	86" (2184)	85" (2159)
82" (2083)	87" (2210)	86" (2184)
83" (2108)	88" (2235)	87" (2210)
84" (2134)	89" (2261)	88" (2235)
85" (2159)	90" (2286)	89" (2261)
86" (2184)	91" (2311)	90" (2286)
87" (2210)	92" (2337)	91" (2311)
88" (2235)	93" (2362)	92" (2337)
89" (2261)	94" (2388)	93" (2362)
90" (2286)	95" (2413)	94" (2388)
91" (2311)	96" (2438)	95" (2413)
92" (2337)	96" (2438)	96" (2438)
93" (2362)	97" (2464)	97" (2464)
94" (2388)	98" (2489)	98" (2489)
95" (2413)	99" (2515)	99" (2515)
96" (2438)	100" (2540)	100" (2540)
97" (2464)	101" (2565)	101" (2565)
98" (2489)	102" (2591)	102" (2591)
99" (2515)	103" (2616)	103" (2616)
100" (2540)	104" (2642)	104" (2642)
101" (2565)	105" (2667)	105" (2667)
102" (2591)	106" (2692)	106" (2692)
103" (2616)	107" (2718)	107" (2718)
104" (2642)	108" (2743)	108" (2743)
105" (2667)	109" (2769)	109" (2769)
106" (2692)	110" (2794)	110" (2794)
107" (2718)	111" (2819)	111" (2819)
108" (2743)	112" (2845)	112" (2845)
109" (2769)	113" (2870)	113" (2870)
110" (2794)	114" (2896)	114" (2896)
111" (2819)	115" (2921)	115" (2921)
112" (2845)	116" (2946)	116" (2946)
113" (2870)	117" (2972)	117" (2972)
114" (2896)	118" (2997)	118" (2997)
115" (2921)	119" (3023)	119" (3023)
116" (2946)	120" (3048)	120" (3048)

**Note:**

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".