

Static Rated Fire Dampers

3 Hour Fire Resistance Rating

Application

Model FD-350 is approved for use in walls and partitions with fire resistance ratings of 3 hours or more. This model carries a 3 hour UL fire damper label. UL555 classifies static rated fire dampers for use in HVAC systems that are automatically shut down in the event of fire.

Ratings

UL555 Fire Resistance Rating
Fire Rating: 3 hours

Construction	Standard	Optional
Frame Material	Galvanized Steel*	-
Frame Depth	3 11/16 in. (94mm)	-
Blade Material	Galvanized steel*	-
Closure Spring	Stainless Steel	-
Fusible Link	165°F (74°C)	212°F or 286°F (100°C) or (141°C)
Mounting	Vertical	Horizontal

* in gauges required by UL listing R-13317

Optional Features

- Sealed transitions and sleeves
- Security Bars
- One piece retaining angles (POC)
- Transitions (B, B2, C, CO, CR, R)

Installation

All fire damper installations require the use of sleeves, angles and methods described in Greenheck Fire Damper Installation Instructions #452763, included with every damper shipment. Sleeves can be field fabricated or factory furnished as a complete damper/sleeve assembly. See Factory Sleeve Option below for details.

Factory Sleeve Option

FD-350 Fire Dampers are available in factory furnished sleeves. Sleeves are galvanized steel and are available in 10 thru 20 ga. (1mm - 3.5mm) thicknesses and lengths up to 36 in. (914mm).

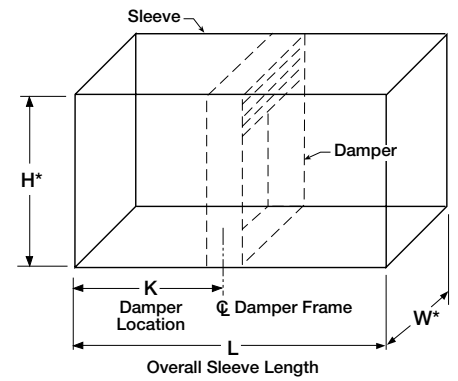
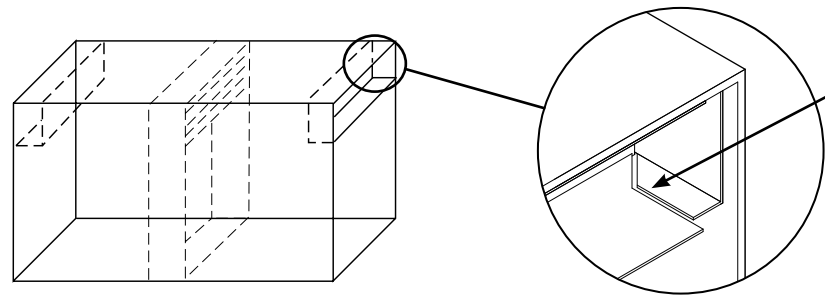
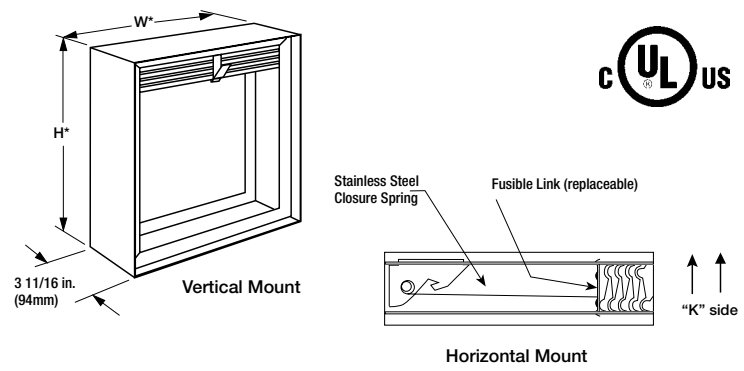
"K" dimension specifies location of damper within the sleeve. Minimum is 4 in. (102mm), maximum is "L" less 4 in. (102mm), which allows for mounting angle installation and duct connection at each end of sleeve. If "K" dimension is not specified, it will be provided as one half of "L" dimension (damper centered in sleeve).

Note: If using access doors, the door should be installed on the "K" side of the damper.

Model FD-350 meets the requirements for fire damper established by:

- National Fire Protection Association** (NFPA Standards 80, 90A & 101)
- Underwriters Laboratories Standard 555** (Listing #R-13317)
- IBC International Building Codes**
- New York City (MEA listing #260-91-M)**
- California State Fire Marshall** (Listing #3225-981:102)

"UL CLASSIFIED (see complete marking on product)"
"UL CLASSIFIED to Canadian safety standards (see complete marking on product)"
Standard 555 (Listing #R13317)



When sealed option is selected, B transitions will need to be field sealed in the area where duct to sleeve connection is made.

Sizing Data

FD-350 Type A

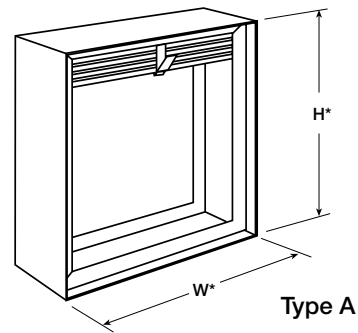
Dampers larger than maximum single section size are supplied in 2 or more sections of equal size. If ordered with a factory sleeve, multi-section dampers are factory assembled ready for installation. If ordered without a factory sleeve, multi-section dampers require field assembly. (See Greenheck Fire Damper Installation Instructions #452763).

The following chart show minimum and maximum damper sizes. Dimensions are in inches (mm in parentheses).

Size Limitations

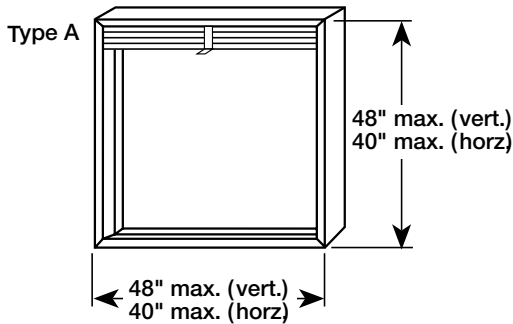
inches (mm)	Type A		Type B & B2	
	minimum	maximum	minimum	maximum
Single Section Vertical	4 x 4 (102 x 102)	48 x 48 (1219 x 1219)	4 x 3 (102 x 76)	48 x 42 (1219 x 1067)
Single Section Horizontal	4 x 4 (102 x 102)	40 x 40 (1016 x 1016)	4 x 3 (102 x 76)	40 x 35 (1016 x 889)
Multi Section Horizontal**	NA	80 X 40 (2032 X 1016)	NA	80 X 35 (2032 X 889)

** Consult factory for number of sections.

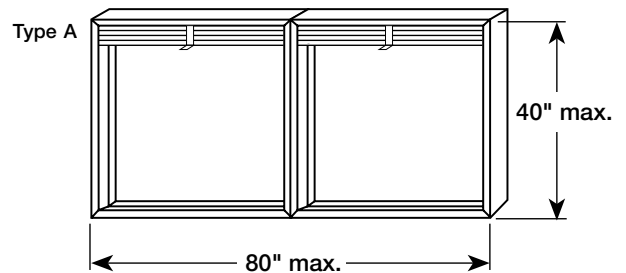


* These dimensions are furnished approximately 1/4 in. (6mm) undersize.

Maximum Single Section Dimensions



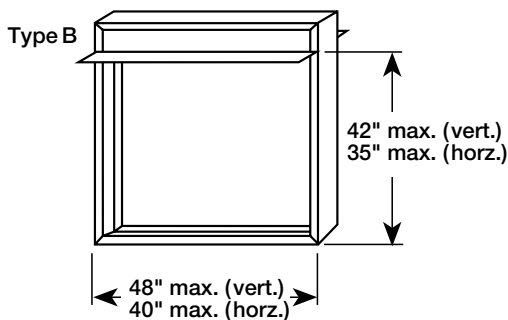
Multi-Section Limitations (horizontal only)



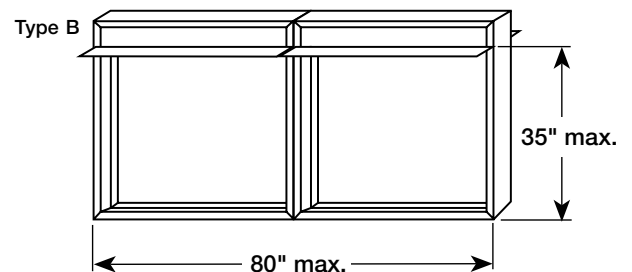
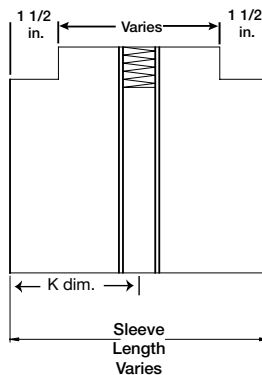
Sizing Data

FD-350 Type B & B2

Dampers larger than maximum single section size are supplied in 2 or more sections of equal size. *Note: All multiple section dampers with transitions, will include a factory installed sleeve.*

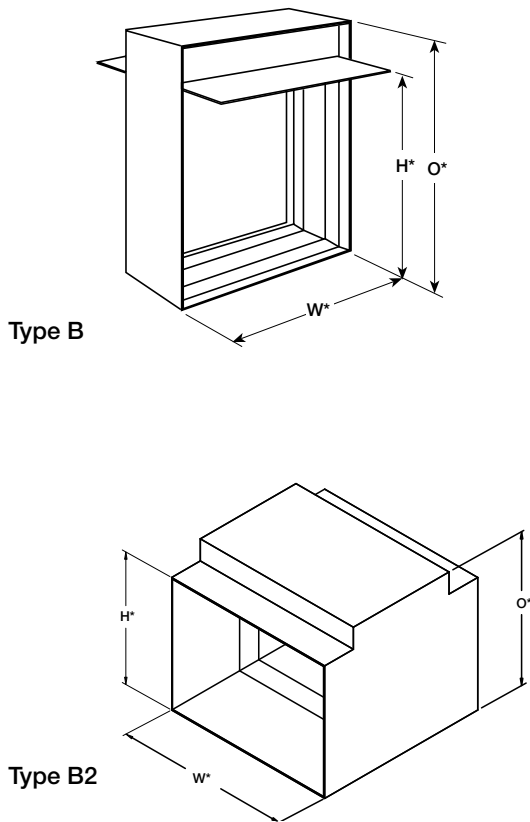


Type B2



Sizing Data

FD-350 Type B & B2 cont...



Type B & B2 Overall Damper Dimensions

H*	O*	H*	O*
3 (76)	5 (127)	23 (584)	27 (686)
4 (102)	6 (152)	24 (610)	28 (711)
5 (127)	7 (178)	25 (635)	29 (737)
6 (152)	8 (203)	26 (660)	30 (762)
7 (178)	9 (229)	27 (686)	31 (787)
8 (203)	10 (254)	28 (711)	32 (813)
9 (229)	11 (279)	29 (737)	33 (838)
10 (254)	12 (305)	30 (762)	34 (864)
11 (279)	13 (330)	31 (787)	36 (914)
12 (305)	14 (356)	32 (813)	37 (940)
13 (330)	15 (381)	33 (838)	38 (965)
14 (356)	16 (406)	34 (864)	39 (991)
15 (381)	18 (457)	35 (889)	40 (1016)
16 (406)	19 (483)	36 (914)	41 (1041)
17 (432)	20 (508)	37 (940)	42 (1067)
18 (457)	21 (533)	38 (965)	44 (1118)
19 (483)	22 (559)	39 (991)	45 (1143)
20 (508)	23 (584)	40 (1016)	46 (1168)
21 (533)	24 (610)	41 (1041)	47 (1194)
22 (559)	26 (660)	42 (1067)	48 (1219)

Sizing Data

FD-350 Type CR, C, CO & R

Dampers larger than maximum single section size are supplied in 2 or more sections of equal size. *Note: All multiple section dampers with transitions, will include a factory installed sleeve.*

The following chart show minimum and maximum damper sizes. Dimensions are in inches (mm in parentheses).

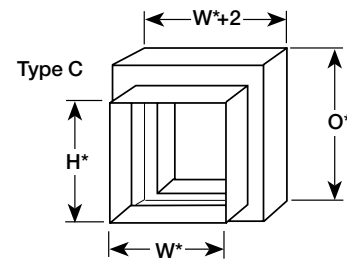
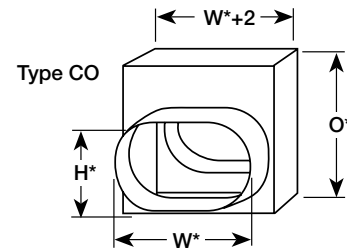
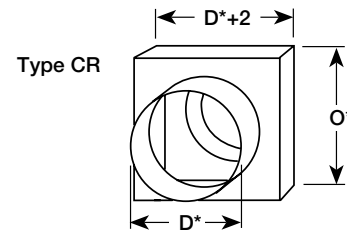
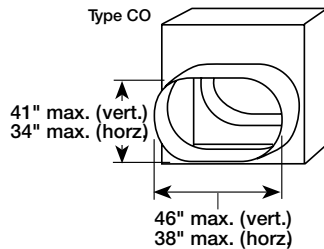
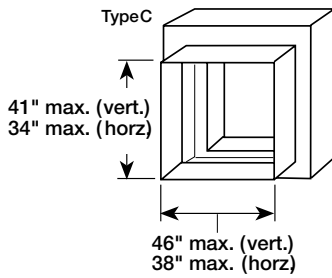
Inches (mm)	Type CR		Type C & CO		Type R*1	
	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
Single Section Vertical	3 (76)	41 (1041)	3 x 3 (76 x 76)	46 x 41 (1168 x 1041)	3 (76)	46 (1219)
Single Section Horizontal	3 (76)	34 (864)	3 x 3 (76 x 76)	38 x 34 (965 x 864)	3 (76)	38 (1016)
Multi Section Horizontal**	NA	NA	NA	78 X 34 (1981 X 864)	NA	NA

** Consult factory for number of sections.

Sizing Data

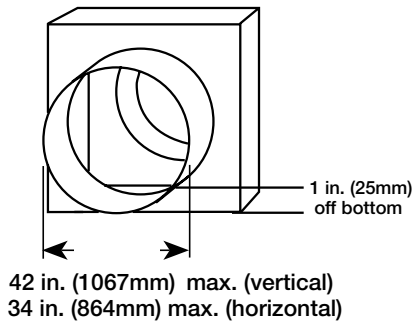
FD-350 Type CR, CO, C & R

Maximum Single Section Dimensions

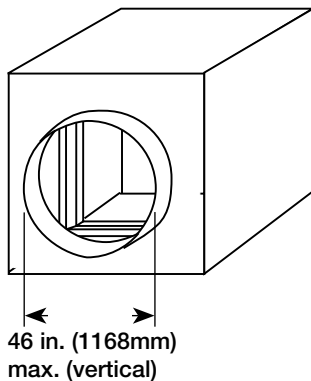


C, CO, CR transitions are positioned 1 in. (25mm) from bottom of sleeve

Type CR



Type R



H* or D*	O*	H* or D*	O*
3 (76)	6 (152)	23 (584)	28 (711)
4 (102)	7 (178)	24 (610)	29 (737)
5 (127)	8 (203)	25 (635)	30 (762)
6 (152)	9 (229)	26 (660)	31 (787)
7 (178)	10 (254)	27 (686)	32 (813)
8 (203)	11 (279)	28 (711)	33 (838)
9 (229)	12 (305)	29 (737)	34 (864)
10 (254)	13 (330)	30 (762)	36 (914)
11 (279)	14 (356)	31 (787)	37 (940)
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13 (330)	16 (406)	33 (838)	39 (991)
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15 (381)	19 (483)	35 (889)	41 (1041)
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19 (483)	23 (584)	39 (991)	46 (1168)
20 (508)	24 (610)	40 (1016)	47 (1194)
21 (533)	26 (660)	41 (1041)	48 (1219)
22 (559)	27 (686)		

* Dimensions are inches (mm). These dimensions are furnished approximately 1/4 in. (6mm) undersize, except round and oval dimensions (D, H, W) are approximately 1/8 in. (3mm) undersize. (All 'H' dimensions larger than single section height are two sections high. Refer to chart.)

* All multiples section dampers, with transitions, will include a factory installed sleeve.

