







# DAMPER STYLES AND SIZES

## CO Style – Oval Transition

Frame and blades out of air stream

95 - 100% free area

Sealed Sleeve Standard

### MINIMUM SIZE

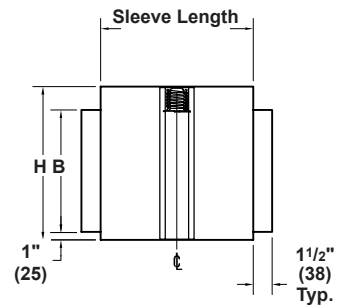
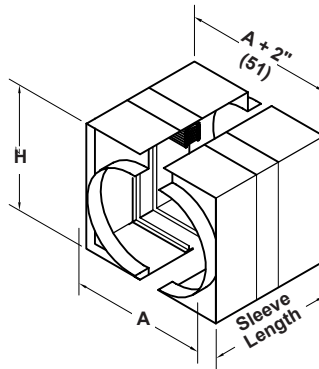
Vertical or Horizontal Installation – 4"w x 4"h (102 x 102)

### MAXIMUM SIZE

Single Section

Vertical Installation – 31"w x 47"h (787 x 1194) or  
 46"w x 25"h (1168 x 635) or 34"w x 31"h (864 x 787)  
 Horizontal Installation – 28"w x 39"h (711 x 991) or  
 31"w x 33"h (787 x 965)

A = Duct Width B = Duct Height H = Overall Damper Height
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### NOTE:

1. Style CO duct connection extends 1 1/2" (38) beyond the sleeve.
2. See page 8 overall dimensional information

## LR Style – Round Transition

Round enclosure - frame and blades out of air stream

Non-sealed sleeve standard

Sealed sleeve optional

95 - 100% free area

### MINIMUM SIZE

Vertical Installation – 3" diameter (76)

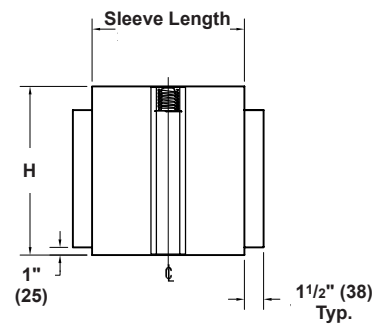
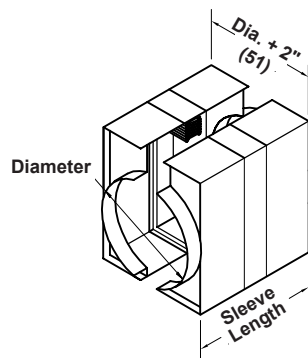
Horizontal Installation – 4" diameter (102)

### MAXIMUM SIZE

Single Section

Vertical or Horizontal Installation – 31" diameter (787)

D = Diameter H = Overall Damper Height X = Blade Package Height
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### NOTE:

1. Style LR duct connection extends 1 1/2" (38) beyond the damper.
2. See page 7 for overall dimensional information

# DAMPER STYLES AND SIZES

## LO Style – Oval Transition

Frame and blades out of air stream  
 Non-sealed sleeve standard  
 Sealed sleeve optional  
 95 - 100% free area

### MINIMUM SIZE

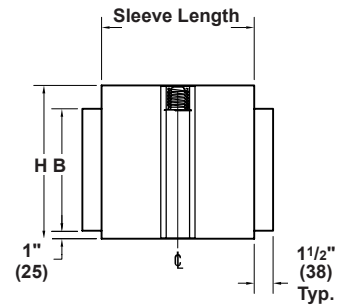
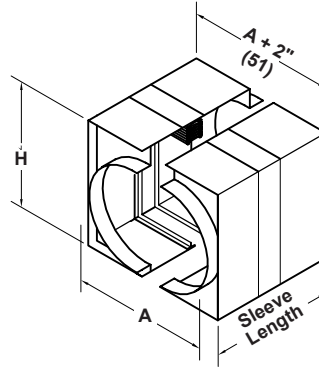
Vertical or Horizontal Installation – 4"w x 4"h (102 x 102)

### MAXIMUM SIZE

Single Section

Vertical Installation – 31"w x 47"h (787 x 1194) or  
 46"w x 25"h (1168 x 635) or 34"w x 31"h (864 x 787)  
 Horizontal Installation – 28"w x 39"h (711 x 991) or  
 31"w x 33"h (787 x 965)

A = Duct Width  
 B = Duct Height  
 H = Overall Damper Height



### NOTE:

1. Style LO the duct connection extends 1 1/2" (38) beyond the damper.
2. See page 8 for overall dimensional information

## R Style – Round Transition

Round enclosure. Blades partially in the air stream  
 Non-sealed sleeve standard  
 Sealed sleeve optional  
 85 - 95% free area

### MINIMUM SIZE

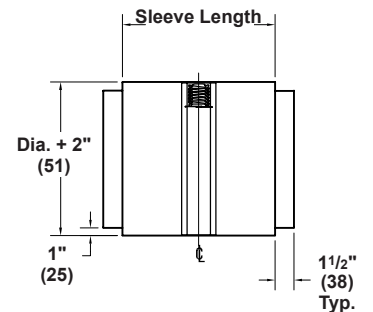
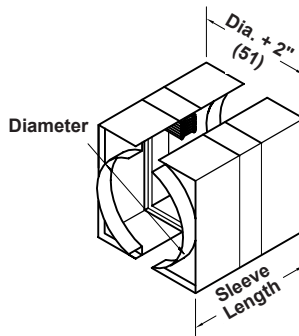
Vertical Installation – 3" diameter (76)  
 Horizontal Installation – 4" diameter (102)

### MAXIMUM SIZE

Single Section

Vertical or Horizontal Installation – 31" diameter (787)

D = Diameter  
 H = Overall Damper Height



### NOTE:

1. Style R the duct connection extends 1 1/2" (38) beyond the damper.
2. See page 10 for overall dimensional information

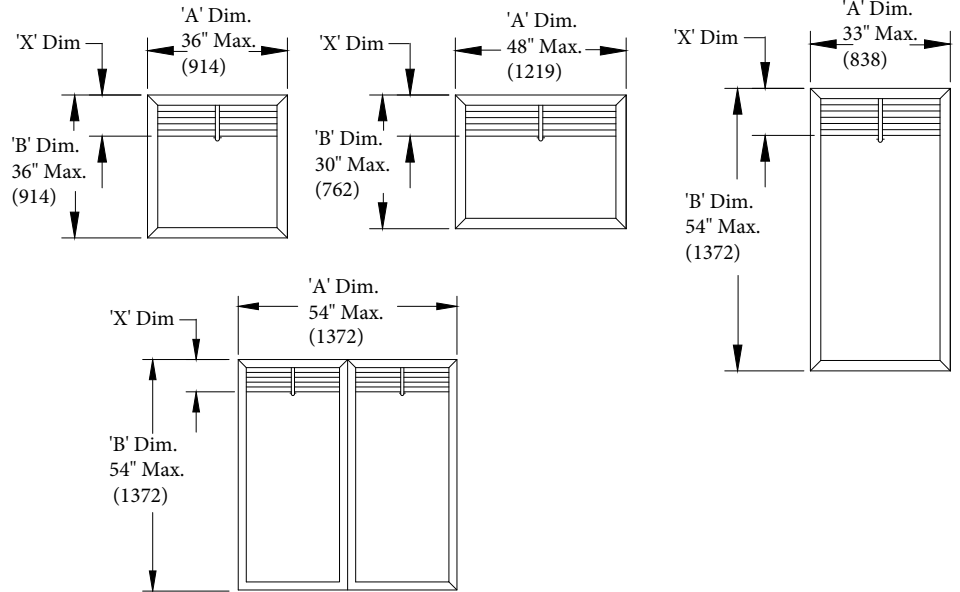
# ASSEMBLY AND DIMENSIONAL INFORMATION

Dampers normally fabricated approximately 1/4" (6) less than given duct dimensions. A (width) and B (height) dimensions shown describe maximum UL Classified sizes. Multiple section damper assemblies ordered without sleeves are shipped in individual sections, for field assembly. Multiple section dampers ordered with factory furnished sleeves are normally shipped in complete assemblies,

## IBD20 A STYLE DAMPERS

### VERTICAL INSTALLATION

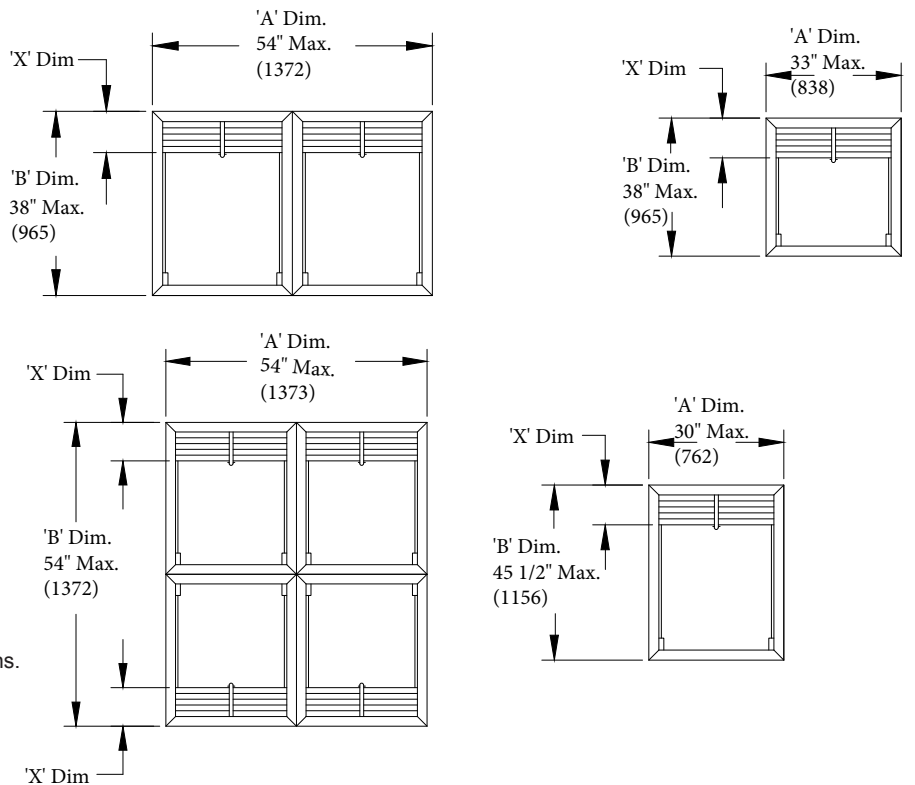
'X' BLADE STACK DIMENSION	
'B' Damper Height	'X' Dim.
4" (102) thru 10" (254)	1/1 2" (38)
10.01" (255) thru 17" (432)	2" (51)
17.01" (433) thru 21" (533)	2 1/2" (64)
21.01" (534) thru 26" (660)	3" (76)
26.01" (661) thru 31" (787)	3 1/2" (89)
31.01" (788) thru 38" (965)	4" (102)
38.01" (966) thru 42" (1067)	4 1/2" (114)
42.01" (1068) thru 47" (1194)	5" (127)
47.01" (1195) thru 54" (1372)	5 1/2" (140)



### HORIZONTAL INSTALLATION

SINGLE SECTION HIGH	
'X' BLADE STACK DIMENSION	
'B' Damper Height	'X' Dim.
6" (152) thru 10" (254)	1 1/2" (38)
10.01" (255) thru 17" (432)	2" (51)
17.01" (433) thru 21" (533)	2 1/2" (64)
21.01" (534) thru 26" (660)	3" (76)
26.01" (661) thru 31" (787)	3 1/2" (89)
31.01" (788) thru 38" (965)	4" (102)
38.01" (966) thru 42" (1067)	4 1/2" (114)
42.01" (1068) thru 45" (1143)	5" (127)

TWO SECTION HIGH	
'X' BLADE STACK DIMENSION	
'B' Damper Height	'X' Dim.
45.5 (1156) thru 52" (1321)	6" (152)
52.01" (1322) thru 54" (1372)	7" (178)



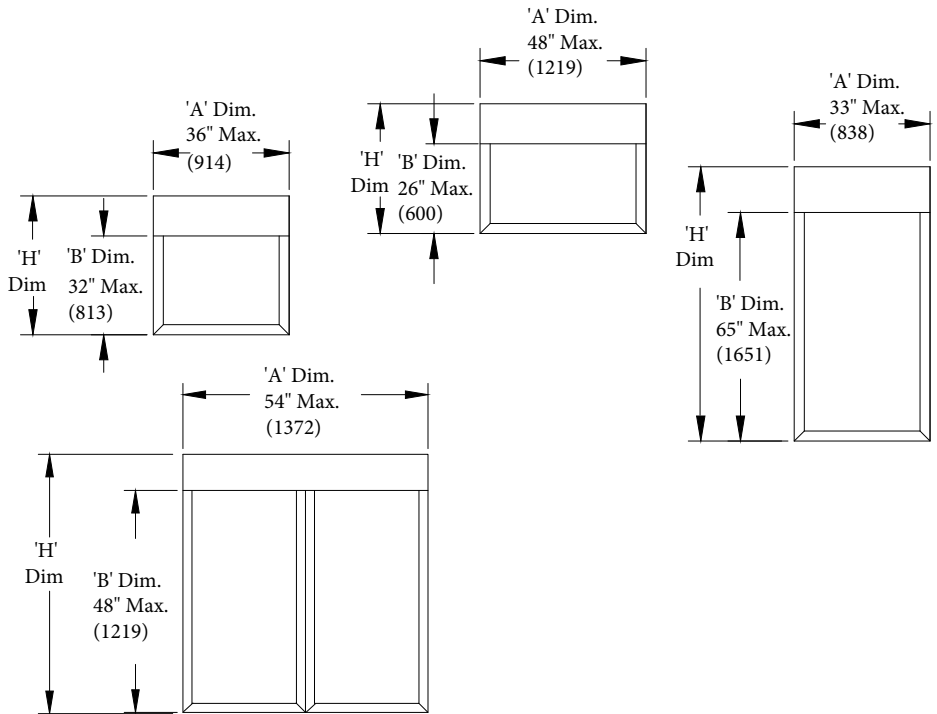
On two section high, 'X' dimension is the total of both sections.

# ASSEMBLY AND DIMENSIONAL INFORMATION

## B, BC, and WB STYLE DAMPERS VERTICAL INSTALLATION

SINGLE SECTION HIGH	
'B' Damper Height	'X' Dim.
4" (102) thru 12" (305)	1 3/4" (44)
12.01" (306) thru 23" (584)	2 3/4" (70)
23.01" (585) thru 34" (864)	3 3/4" (95)
34.01" (864) thru 42" (1067)	4 3/4" (121)
42.01" (1068) thru 48" (1219)	5 3/4" (146)

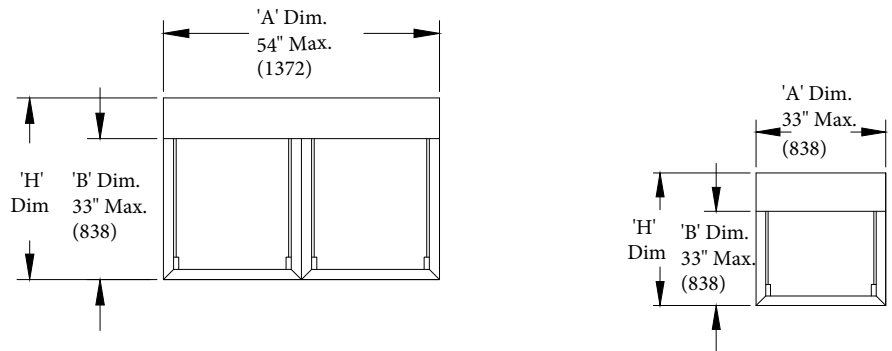
'X' dim. + 'B' dim. = 'H' dim.



## HORIZONTAL INSTALLATION

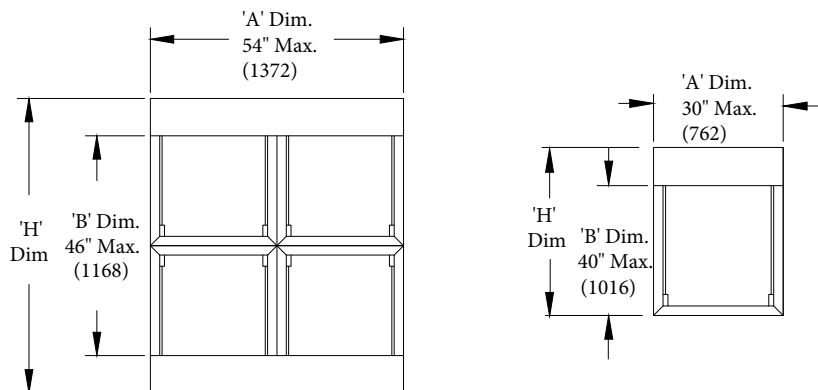
SINGLE SECTION HIGH	
'B' Damper Height	'X' Dim.
4" (102) thru 12" (305)	1 3/4" (44)
12.01" (306) thru 23" (584)	2 3/4" (70)
23.01" (585) thru 34" (864)	3 3/4" (95)
34.01" (864) thru 40" (1016)	4 3/4" (121)

'X' dim. + 'B' dim. = 'H' dim.



TWO SECTION HIGH	
'B' Damper Height	'X' Dim.
41" (1041) thru 46" (1168)	5 1/2" (140)

'X' dim. + 'B' dim. = 'H' dim.

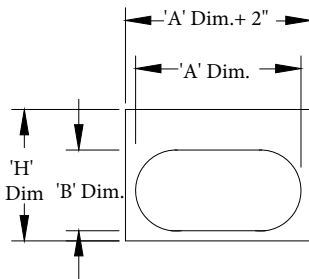
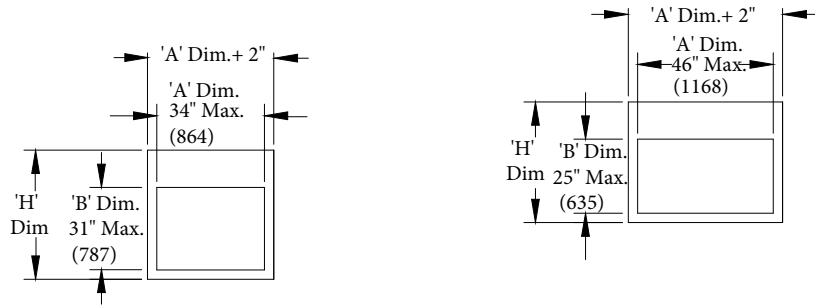


# ASSEMBLY AND DIMENSIONAL INFORMATION

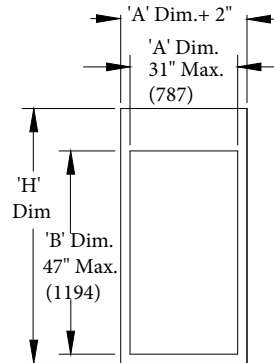
## C, CO and LO STYLE DAMPERS VERTICAL INSTALLATION

SINGLE SECTION HIGH	
'B' Damper Height	'X' Dim.
3" (76) thru 11" (279)	2 <sup>3</sup> / <sub>4</sub> " (70)
11.01" (280) thru 22" (559)	3 <sup>3</sup> / <sub>4</sub> " (95)
22.01" (560) thru 33" (838)	4 <sup>3</sup> / <sub>4</sub> " (121)
33.01" (839) thru 41" (1041)	5 <sup>3</sup> / <sub>4</sub> " (146)
41.01" (1042) thru 47" (1194)	6 <sup>3</sup> / <sub>4</sub> " (171)

'X' dim. + 'B' dim. = 'H' dim.



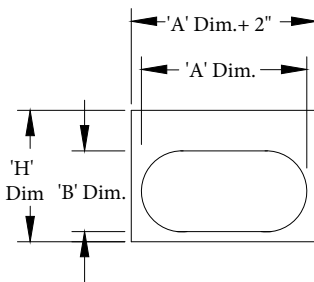
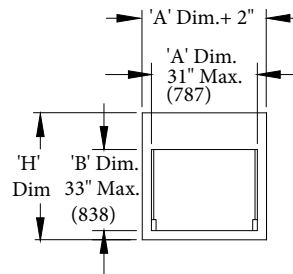
Typical Style CO and LO Construction



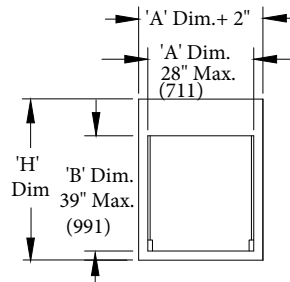
## HORIZONTAL INSTALLATION

SINGLE SECTION HIGH	
'B' Damper Height	'X' Dim.
4" (102) thru 11" (279)	2 <sup>3</sup> / <sub>4</sub> " (70)
11.01" (280) thru 22" (559)	3 <sup>3</sup> / <sub>4</sub> " (95)
22.01" (560) thru 33" (838)	4 <sup>3</sup> / <sub>4</sub> " (121)
33.01" (839) thru 39" (991)	5 <sup>3</sup> / <sub>4</sub> " (146)

'X' dim. + 'B' dim. = 'H' dim.



Typical Style CO, WO and LO Construction  
Single section shown



Typical Style CO and WO Construction



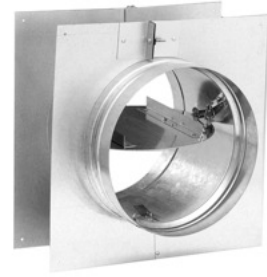
# FDR25 TRUE ROUND FIRE DAMPER

## APPLICATION

Ruskin FDR25 "true round" fire damper provides point-of-origin fire containment. The FDR series is the ideal choice when round duct is used on a project. FDR25 series dampers may be installed vertically in walls or horizontally in concrete/masonry floors and is rated for airflow and leakage in either direction. The FDR25 is rated for velocities up to 3000 fpm (15.2 m/s) and 4 in. w.g. (1 kPa). The FDR25 may be used in static (fans off) or dynamic (fans on) systems.

The integral frame and unique "Cinch Plate" design provides a low cost, easy to install, high performing damper.

Visit [RUSKIN.com](http://RUSKIN.com) for more details



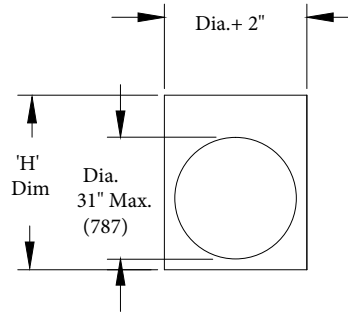
Damper	Frame	Blade	Bearings	Hourly Rating	Minimum Size	Maximum Size
FDR25	20 gauge (.9) galvanized steel	Single skin 14 gauge (1.9) galvanized steel	Stainless steel sleeve type, pressed into frame.	1 <sup>1/2</sup>	6" Dia. (152)	24" Dia. (610)

## ASSEMBLY AND DIMENSIONAL INFORMATION

### CR and LR STYLE DAMPERS VERTICAL INSTALLATION

SINGLE SECTION HIGH	
'H' DIMENSION	
Diameter	'X' Dim.
3" (76) thru 11" (279)	2 <sup>3/4</sup> " (70)
11.01" (280) thru 22" (559)	3 <sup>3/4</sup> " (95)
22.01" (560) thru 31" (787)	4 <sup>3/4</sup> " (121)

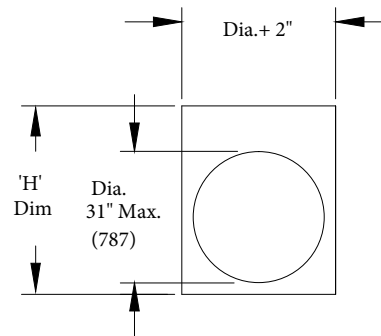
'X' dim. + 'B' dim. = 'H' dim.



### HORIZONTAL INSTALLATION

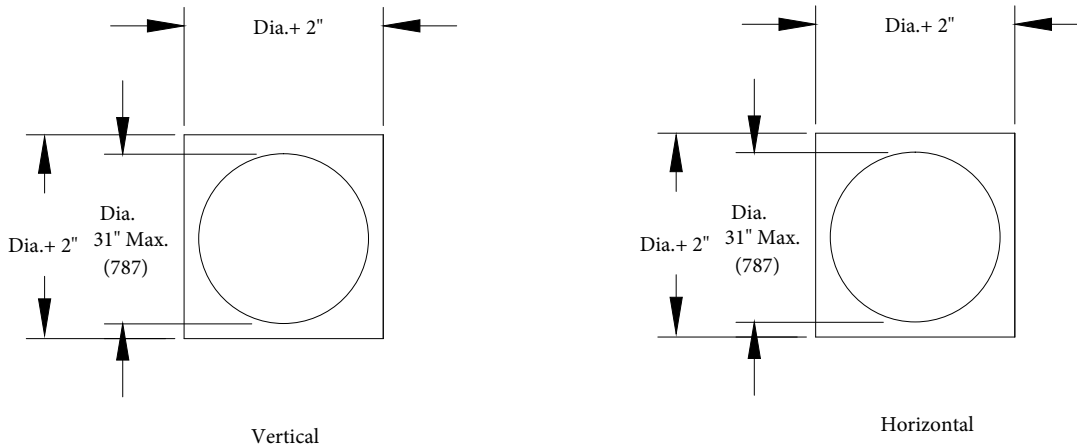
SINGLE SECTION HIGH	
'H' DIMENSION	
Diameter	'X' Dim.
4" (102) thru 11" (279)	2 <sup>3/4</sup> " (70)
11.01" (280) thru 22" (559)	3 <sup>3/4</sup> " (95)
22.01" (560) thru 31" (787)	4 <sup>3/4</sup> " (121)

'X' dim. + 'B' dim. = 'H' dim.



## ASSEMBLY AND DIMENSIONAL INFORMATION

### R STYLE DAMPERS VERTICAL OR HORIZONTAL INSTALLATION



### SUGGESTED SPECIFICATION

Furnish and install at locations shown on plans, static fire dampers tested, constructed, and labeled in accordance with the latest edition of UL555 standard. Dampers shall have a fire rating of 1½ hours and shall meet the requirements of the latest edition of NFPA90A. Curtain type fire dampers suitable for vertical wall or partitions and horizontal masonry floor or ceiling with a fire resistance rating of less than 3 hours. Fire Dampers shall be produced in an ISO 9001 certified factory.

Damper frame and blades shall be galvanized steel in gauges required by UL listing R5531 installed in a factory mounted sleeve and shipped with loose mounting angle. Damper blades shall be steel interlock to provide fire shield in gauges required by UL listing R5531. Closure springs on horizontal mounted dampers shall be of 301 stainless steel and shall be constant force type.

Each fire damper shall have a 1½ hour fire protection rating and shall be supplied with a 165°F (74°C) or 212°F (100°C) fusible link. Damper shall be installed in static (fans off) systems only. Submittal information shall include the fire protection rating and manufacturer's UL installation instruction.

#### Optional FM Approvals Specification

Each fire damper shall be listed in Factory Mutual (FM) Approvals Specification Tested Product and labeled accordingly.

Static fire dampers shall be Ruskin model IBD20, 40, and 60.

(Consult [www.ruskin.com](http://www.ruskin.com) for electronic version of this "Quick" spec as well as for complete 3-part CSI MasterFormat Specifications).

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