

Application

The RD4 ceiling radiation damper employs low profile butterfly style blades for point-of-origin control of radiant heat in HVAC systems. The RD4 is installed horizontally in the ceiling membrane of floor-ceiling or roof-ceiling assemblies with fire resistance ratings up to and including 3 hours. The RD4 is specifically designed for assemblies having limited space between the ceiling membrane and the structure above.

Standard Construction

Frame: 22 gauge (0.85) galvanized steel.

Blades: 22 gauge (0.85) galvanized steel – butterfly. Insulated with ceramic refractory material for dampers larger than 114 in.² (735 cm²).

Fire Closure Device: Fusible link.

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

Minimum Size: 6" × 12" (152 × 305)

Maximum Size: 24" × 24" (610 × 610)

Options

- Factory installed sleeve.
- Transitions (sleeve required):
 - Round Oval Square/Rectangular
 - Top Bottom Side: W H P Q
 - Collar depth: 2" (51) Std. 4" (102)
- Plaster Ground 5/8" (16) deep × 5/8" (16) wide Std.
 - 1 1/4" (32) deep × 1 1/4" (32) wide
 - 2" (51) deep × 5/8" (16) wide 4" (102) deep × 5/8" (16) wide
- Flanged (sleeve required): 3/4" (19) Std. 1" (25)
- Alternate blade protection — drywall for dampers larger than 114 in.² (735 cm²).
- Alternate 212°F (100°C) fire closure temperature.
- VC — volume control device, factory mounted (2 required).
- Thermal blanket for steel backed diffuser: CRB-24 (Ceramic refractory blanket).
- WHI installation angle set:
 - 2 angles 1" × 1/2" × 28" long (25 × 13 × 711) × 20 ga. (1.0)
 - 2 angles 1" × 1/2" × 3" long (25 × 13 × 76) × 20 ga. (1.0)

Ratings

UL 555C Fire Resistance Rating: 3 hour (horizontal, for use in 1, 2 or 3 hour rated assemblies)

Listings

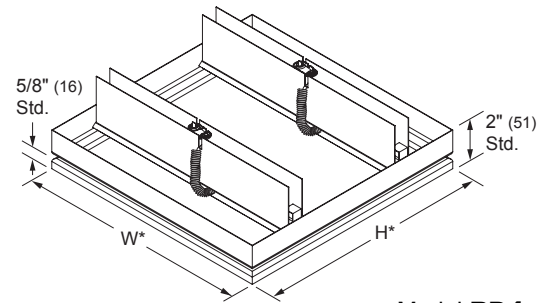
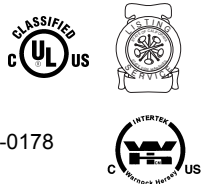
UL 555C listing: R14980

CSFM listing: 3226-1404:100

Warnock Hersey listing #: WHI-495-PSH-0177, -0178

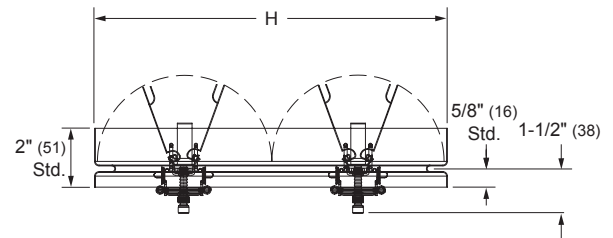
Meets NFPA Standards: 90A and 101

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

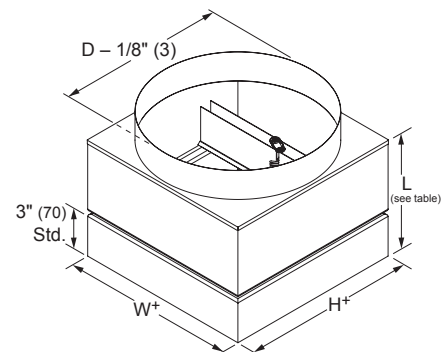


Model RD4
(standard)

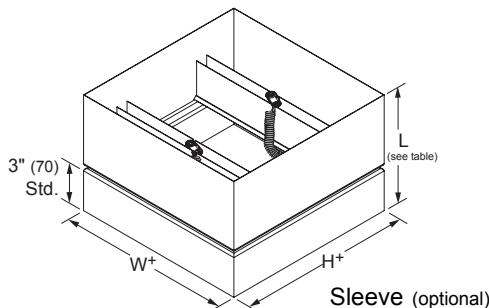
*Damper dimensions furnished approximately 1/4" (6) under net O.D.



RD4 with optional VC



Sleeve Type R
(top, optional)
Round duct transition on top.



Sleeve (optional)

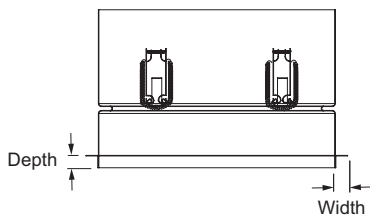
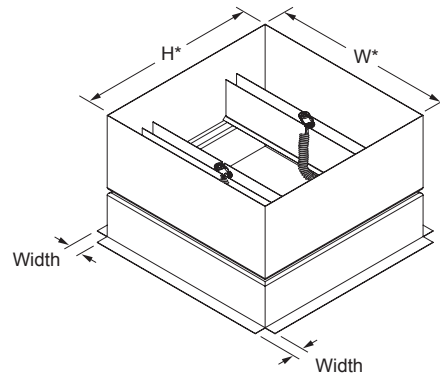
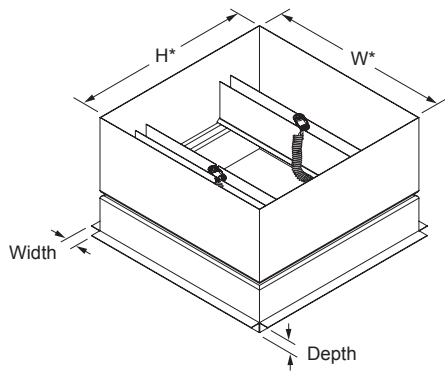
Sleeve Table	
Damper Height	Sleeve Length 'L'
H ≤ 20" (508)	8" (203)
H > 20" (508)	10" (254)

*Damper dimensions furnished approximately net O.D.

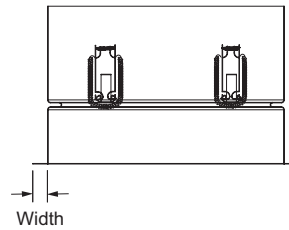
Information is subject to change without notice or obligation.

NOTE: Dimensions in parentheses () are millimeters.

RD4 Sleeve with Plaster Ground and Flange Options



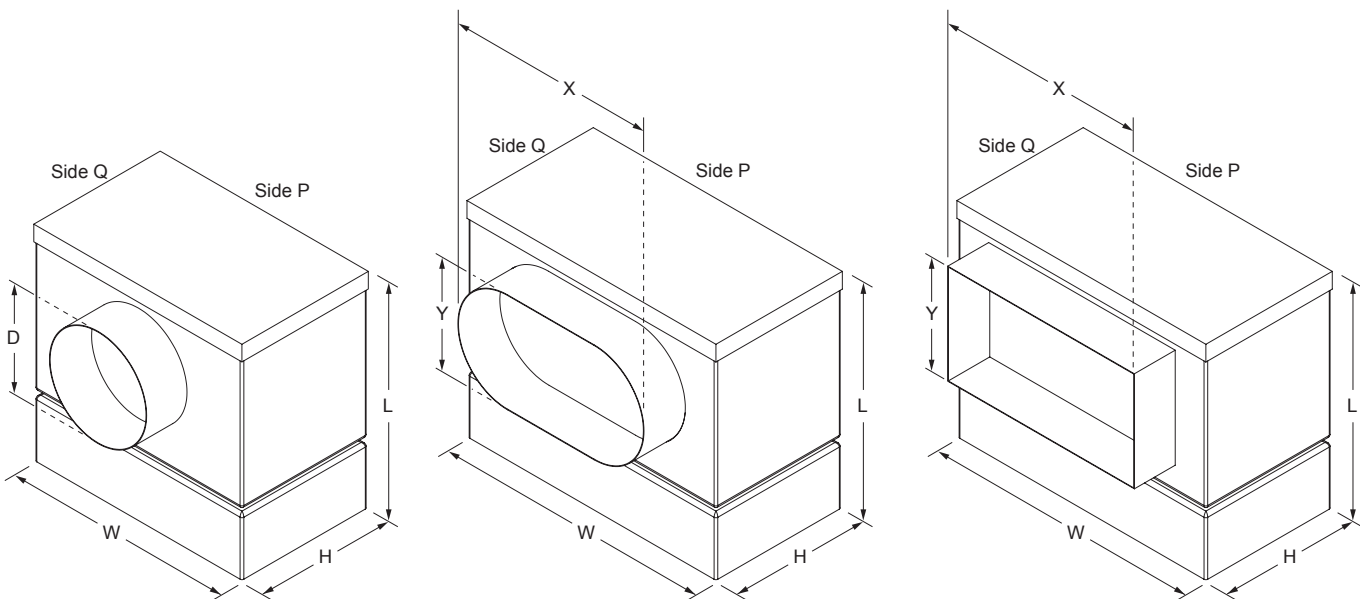
Sleeve (optional)
With standard plaster ground.



Sleeve (optional)
With standard flange.

*Damper dimensions furnished approximately net O.D.

Damper Size Limitations for Round, Oval and Square/Rectangular Duct Transitions



**Sleeve table
for transitions**

"D" or "Y" Dimension	"L" Length
D or Y ≤ 4" (102)	8" (203)
4" (102) < D or Y ≤ 6" (152)	10" (254)

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NOTE: Dimensions in parentheses () are millimeters.