RP-2000 Pressure Relief Backdraft Damper

Since 1905, Johnson Controls has provided the highest quality control dampers and controls that fit your application and size requirements.

Johnson Controls now presents the RP-2000 Round Pressure Relief Backdraft Damper with formed aluminum blade/galvanized shroud damper.

Figure 1: RP-2000

Features and Benefits	
❑ **Adjustable Spring**	Sets pressure at which damper opens
❑ **Galvanized Shroud**	Fits standard or spiral duct
❑ **Aluminum Blades with Non-Metallic Seals**	Operates quietly when closing

Standard Materials and Construction

Frame	20 gauge (1.0 mm) galvanized steel
Blades	0.016 (0.40 mm) aluminum
Blade Stop and Axle Keeper	20 gauge (1.0 mm) galvanized
Axles	3/16” diameter (4.8 mm) plated steel
Blade Seal	Vinyl foam

Specifications

Furnish and install Johnson Controls® RP-2000 Pressure Relief Backdraft dampers, which can be used for vertical or horizontal applications.

Shroud is to be constructed of 20-gauge galvanized sheet steel with integral rolled blade stop. The shroud shall include rolled stiffener beads to allow easy sealing to spiral ductwork joints.

Blades are to be constructed of 0.016 inch thick aluminum with closing spring to ensure a tight seal and minimize back flow through the damper. Seals are to be vinyl foam pressed onto the blade. The blade hinge shall be designed with no frame penetrations, which would allow air leakage out of the duct.

Performance shall be designed for tight shutoff and tested in accordance with AMCA Standard 500. Leakage resistance for a 6-inch damper shall not exceed 8.7 cfm per square foot at a 1-inch pressure differential. The damper must be rated to operate over a temperature range of -40 to 200°F (-40 to 93°C) standard.

There shall be a spring adjustment to allow for field setting of pressure to open the damper.

Sizing shall be determined by the designer in accordance with accepted industry practices to ensure proper system performance.

Dimensional Data

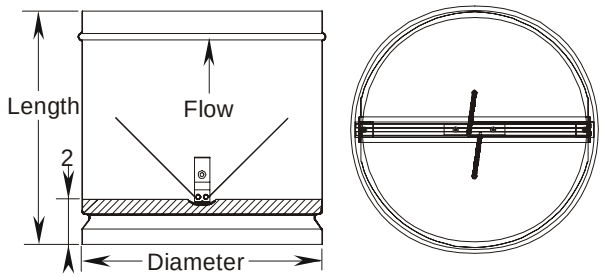

Figure 1: Damper Dimensions, inches

Table 1: Damper Dimensions

Diameter	Length
6” (152 mm) through 9” (229 mm)	6” (152 mm)
10” (254 mm) through 16” (406 mm)	10” (254 mm)
18” (441mm) through 24” (610 mm)	14” (356 mm)

Note: Damper is furnished approximately 1/8” (3 mm) smaller than given opening dimensions.

Selection Information

Table 2: RD-2000 Pressure Relief Backdraft Damper Selector

	Ordering Code Number	R	P	G	d	d	N
Product Family	R = Round dampers						
Application	P = Pressure Relief Backdraft						
Shroud Type	G = Galvanized steel						
Diameter	06 to 10-inches, 1-inch increments 12 to 24-inches, 2-inch increments						
Actuator	N = None						

Performance Data

Pressure Drop (inches WG) - Fully Open	**500 fpm**	**1000 fpm**	**1500 fpm**	**2000 fpm**
6 inch	0.4	0.41	0.55	0.91
24 inch	0.07	0.16	0.30	0.55
Maximum System Velocity	2000 fpm			
Leakage for 6” Diameter Damper				
Static Pressure, inch WG	1.0	1.5	2.0	2.5	3.0
Leakage, cfm/sq ft	8.7	11.0	10.6	11.6	13.0
Temperature Rating	-40 to 200°F (-40 to 93°C)			
Approximate Weight	5 lbs/sq ft (2.27 kg/sq ft)			

Note: Dampers are tested at an AMCA Certified Laboratory using instrumentation and procedures in accordance with AMCA Standard No. 500, Test Methods for Louvers, Dampers, and Shutters. All dampers are labeled as to direction of airflow and position during testing.

The performance specifications are nominal and conform to acceptable industry standards. For application at conditions beyond these specifications, consult the local Johnson Controls’ office. Johnson Controls, Inc. shall not be liable for damages resulting from misapplication or misuse of its products.

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