



Barometric Relief Dampers Horizontal Mount - Vertical Airflow Down

## **Application**

The BR-40 series is an eccentrically pivoted backdraft damper for low velocity systems. BR-40 series is a horizontally mounted damper and designed to allow vertical airflow down and prevent reverse airflow. On-blade counterweights are provided to fine tune start-to-open and full open blade operation. Ball bearings minimize friction.

#### **Recommended Applications**

- Gravity hood intake and exhaust
- Stairwell pressurization
- Room pressurization
- Ductwork outlets

### **Poor Applications**

- Propeller fan outlets (high velocity)
- Centrifugal fan outlets (high velocity)
- Building pressurization (sensitive to wind)
- Pressure relief exceeding 0.3 in. wg (0.075 kPa)

# **Ratings**

#### **Back Pressure**

2.0 in. wg (0.5 kPa)

#### Start-to-Open Pressure

0.05 in. wg (.01 kPa)

### **Velocity**

2,000 fpm (10.2 m/s)

#### **Temperature**

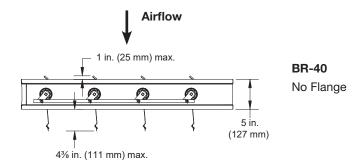
180°F (82°C)

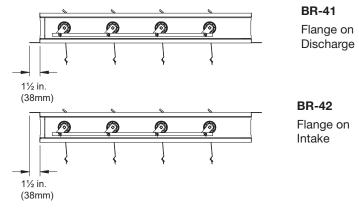
## Construction

	Standard	Optional
Frame Material	Galvanized Steel	304SS, Aluminum
Frame Thickness	16 ga. (1.5mm)	-
Frame Type	No Flange (BR-40)	-
	Flange on Discharge (BR-41)	-
	Flange on Intake (BR-42)	-
Blade Material	Material Aluminum	
Blade Seal	e Seal TPE	
Blade Thickness 0.063 in. (1.6mm)		-
Axle Plated Steel		316SS
Axle Bearings Galvanized Ball		Acetal w/SS Ball
Linkage Material	inkage Material Galvanized Steel	
Jamb Seal	None	EPDM
Counterbalance Blade mounted with adjustable weights		-



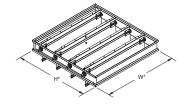
\*W & H dimensions furnished approximately 1/4 in. (6mm) undersize.





# **Size Limitations**

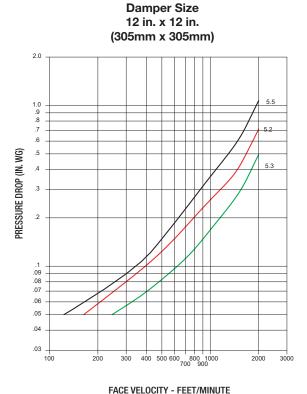
WxH	Minimum Size	Maximum Size	
WXH		Single Section	Multiple Sections
Inches	8 x 6	48 x 74	96 x 148
mm	203 x 152	1220 x 1880	2438 x 3759



### **Feature**

 Selectable start open from .05 to .30 in. wg (0.012 kPa - 0.075 kPa). Performance data results from testing a 12 in. x 12 in. and 36 in. x 36 in. (305mm x 305mm and 914mm x 914mm) in accordance with AMCA Standard 500-D using Figure 5.3 (fully ducted), 5.2 (ducted exhausting into an open area), and 5.5 (plenum mounted). All data has been corrected to represent standard air density at 0.075 lb/ft<sup>3</sup> (1.201 kg/m<sup>3</sup>).

Pressure drop data shown is based on minimum start open pressure. Higher start open pressure will result in different pressure drop.



**Damper Size** 36 in. x 36 in. (914mm x 914mm) 2.0 1.0 .9 .8 .7 .6 PRESSURE DROP (IN. WG) .5 .4 .2 .1 .09 .08 .07 .06 .05 .04 .03 100 600 800 1000 2000 3000 FACE VELOCITY - FEET/MINUTE

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