

Application and Design

The BR Series is an eccentrically pivoted backdraft damper for low velocity applications. To increase sensitivity and reduce blade mounted counterbalance, the blade skin is formed aluminum. On-blade counterweights are provided to fine tune start-to-open and full open blade operation. Ball bearings minimize friction. The top part of the blade rotates toward the incoming flow, resulting in more pressure loss at high velocities.

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 0.13in. wg



Ratings

- Backpressure:** 2.0 in. wg (500 Pa)
- Start-to-Open Pressure:** 0.05 in. wg (12 Pa)
- Velocity:** 2000 fpm (10.2 m/s)
- Temperature:** 180°F (82°C)

Standard Construction

- Frame:** Insert mount 16 ga. galvanized hat channel
- Blades:** 0.063 thick formed aluminum, eccentrically pivoted
- Axles:** 3/8 in. square plated steel
- Bearings:** Galvanized steel press-fit ball
- Linkage:** Side mounted (out-of-airstream)
- Blade Seals:** Pressure activated vinyl
- Counterbalance:** Blade mounted with adjustable weights

Size Limitations

- Minimum Size:** 8 in. W x 6 in. H (203 mm x 152 mm)
- Maximum Size:** 48 in. W x 74 in. H (1220 mm x 1880 mm)
w & h dimensions furnished approximately 1/4" undersize

Options

- Stainless steel or aluminum frame
- Stainless steel axles and linkage
- Type 316 ball bearings with acetal races
- Selectable start open from .05 to .13
- Flanged frames: 1 1/2" Flange on Discharge
1 1/2" Flange on Intake

Models

Flow Direction	Insert Type Frame (no flange)	Flange on Discharge	Flange on Intake
Vertical up flow	BR-10	BR-11	BR-12
Horizontal flow	BR-30	BR-31	BR-32
Vertical down flow	BR-40	BR-41	BR-42