model BD-50-SS
backdraft damper
formed style blade

Application

BD-50-SS backdraft dampers employ gravity operated formed style blades to restrict reverse airflow and to permit the forward flow of air in the intended direction. The BD-50-SS damper may be mounted vertically or horizontally in either exhaust or intake installations for low velocity and pressure applications.

Standard Construction

Frame: 2" × 1/2" × 20 ga. (51 × 13 × 0.95) 304 stainless steel channel.

Blades: 22 gauge (0.80) 304 stainless steel formed.

Axles: 3/16" (4.8) diameter synthetic.

Linkage: 22 gauge (0.80) 304 stainless steel.

Bearings: Synthetic.

Seals: Neoprene blade edge seals.

Minimum Size: 6" × 6" (152 × 152)

Maximum Size: Single Section: 36" × 24" (914 × 610)
Multiple Sections: Unlimited

Options

☐ Integral 1 1/2" mounting flange:
☐ Type B (discharge side) ☐ Type C (intake side)

☐ Factory installed sleeve.
Gauge: ☐ 20 (1.0) ☐ 16 (1.5)
Length: ☐ 10" (254) ☐ 12" (305) ☐ 24" (610) ☐ Other ___

☐ Transitions (sleeve required): ☐ Flanged
Round: ☐ AR Oval: ☐ AO

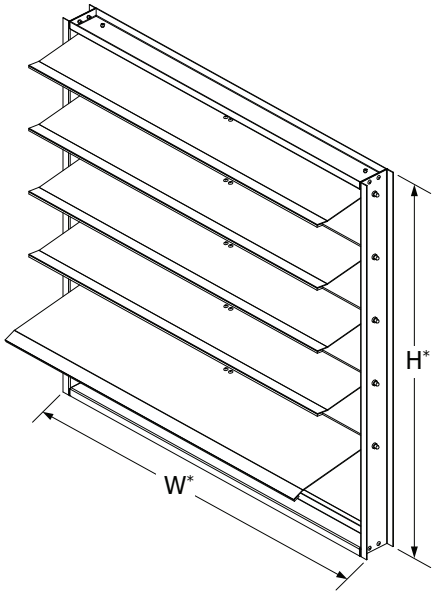
☐ Type-316 stainless steel construction.

Ratings

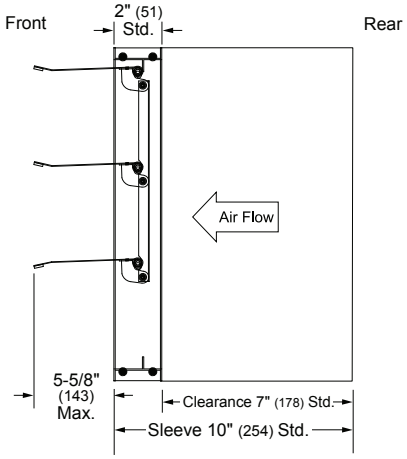
Damper Width	Maximum System Pressure	Maximum System Velocity
12" (305)	3.5 in. wg (0.9 kPa)	1250 fpm (6.4 m/s)
24" (610)	3.0 in. wg (0.8 kPa)	1250 fpm (6.4 m/s)
36" (914)	2.0 in. wg (0.5 kPa)	1250 fpm (6.4 m/s)

Leakage: 9.5 cfm/ft² @ 3.5 in. wg. (0.05 m³/s/ m²@ 0.9 kPa)
8.5 cfm/ft² @ 3.0 in. wg. (0.04 m³/s/ m²@ 0.8 kPa)
7.0 cfm/ft² @ 2.0 in. wg. (0.03 m³/s/ m²@ 0.5 kPa)

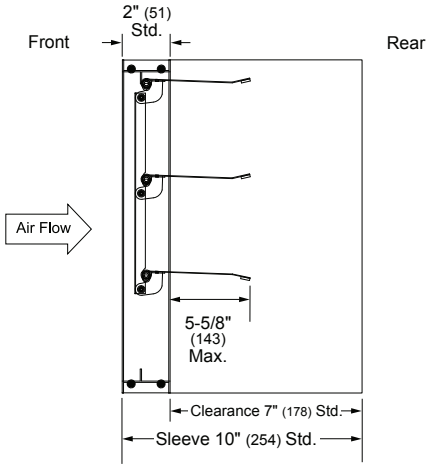
Temperature: –25°F to 150°F (–32°C to 66°C)



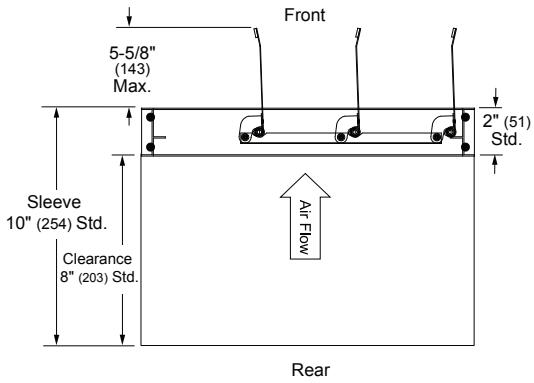
Model BD-50-SS
(standard)
*Damper dimensions furnished approximately 1/4" (6) undersize.



Vertical Mount with Sleeve
Discharge.



Vertical Mount with Sleeve
Intake.



Horizontal Mount
Up-flow only.

Information is subject to change without notice or obligation.

NOTE: Dimensions in parentheses ( ) are millimeters.

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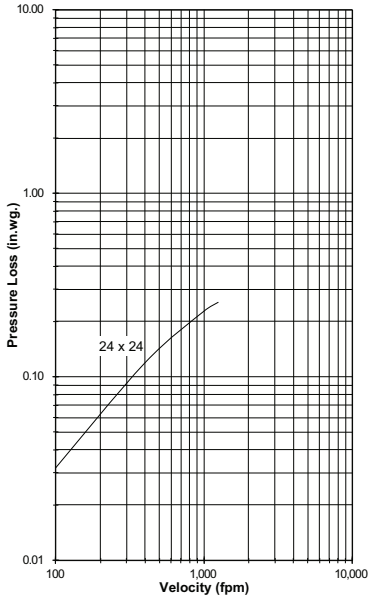
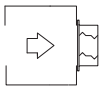
Airflow Performance Data

Pressure Loss vs. Velocity

Figure 5.5 — Plenum Mount



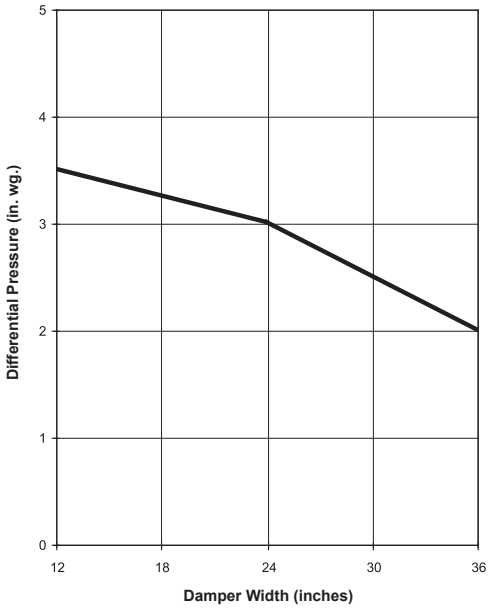
Pressure drop testing was performed in accordance with AMCA Standard 500-D using Figure 5.5 — Plenum Mount. All data has been corrected to represent air density of 0.075 lb/ft. Actual pressure drop in any ducted HVAC system is a combination of many elements. This information, along with analysis of other system influences, should be used to estimate actual pressure losses for a damper installed in a given HVAC system.



Plenum Mount

AMCA Figure 5.5 Illustrates a plenum mounted damper. This configuration has the highest pressure drop because of extremely high entrance and exit losses due to the sudden changes of area in the system.

Pressure Limitations



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