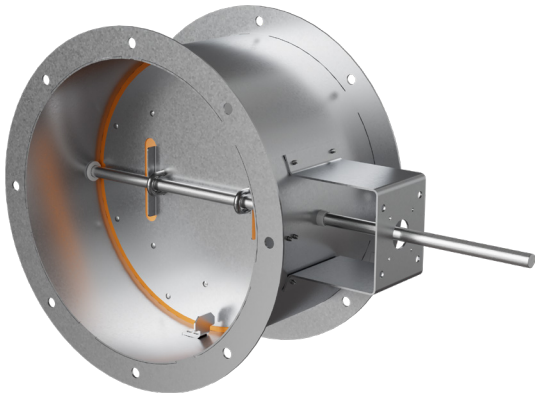
HCDR-051
Industrial Isolation Damper

Application
Model HCDR-051 is a light industrial control damper with a flanged style frame. It is designed to control airflow and provide tight shut off in HVAC or industrial process control systems.



Ratings
Velocity

Up to 3000 fpm (15.2 m/s)

Pressure

Up to 6 in. wg (1.5 kPa) - differential pressure

Temperature

-40° to 250°F (-40° to 121°C)

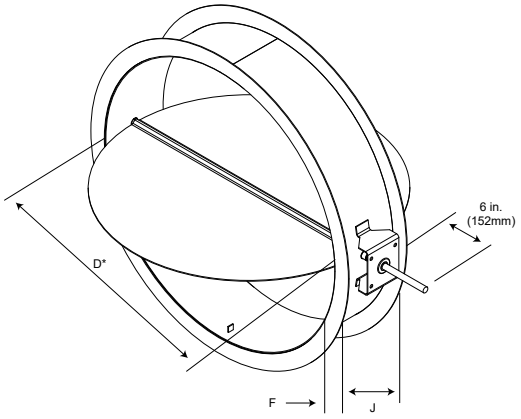
Construction

	Standard	Optional
Frame Material	Galvanized steel	Painted steel, 316SS
Frame Type	Flanged channel	-
Frame Thickness	16 ga. (1.5 mm)	-
Blade Material	Galvanized steel	Painted steel, 316SS
Blade Thickness	16 ga. (1.5 mm)	-
Blade Seals	Silicone	-
Blade Stop	Pin stop	-
Blade Type	Round butterfly	-
Axle Bearing	Stainless steel sleeve	-
Axle Material	Plated steel	316SS
Axle Diameter	½ in. (12.7 mm)	-
Paint Finishes	Mill finish	Hi Pro Polyester Industrial Epoxy, 316SS
Mounting Holes	None	On centerline, Straddle centerline

Note: Dampers selected as 316SS construction may be provided with alternate grades of stainless steel fasteners due to fastener material availability.

Diameter = Actual Inside Dimension

Diameter	Minimum Size	Maximum Size
Inches	6	24
mm	152	610

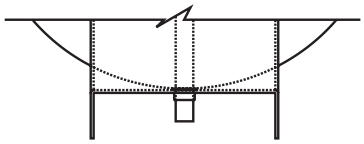


Features
- Mounting flanges can be ordered with bolt holes, customized to match your requirements.
- Wide range of actuators available.

Diameter *D* Inches (mm)		Frame Depth *J* Inches (mm)	Flange Width *F* Inches (mm)
Above	**Through**		
3.99 (101)	**12 (305)**	6 (152)	1¼ (32)
12 (305)	**24 (610)**	8 (203)	1½ (32)

Options

Bearings



Stainless Steel
Sleeve Bearing
(Standard)

Blade Seal

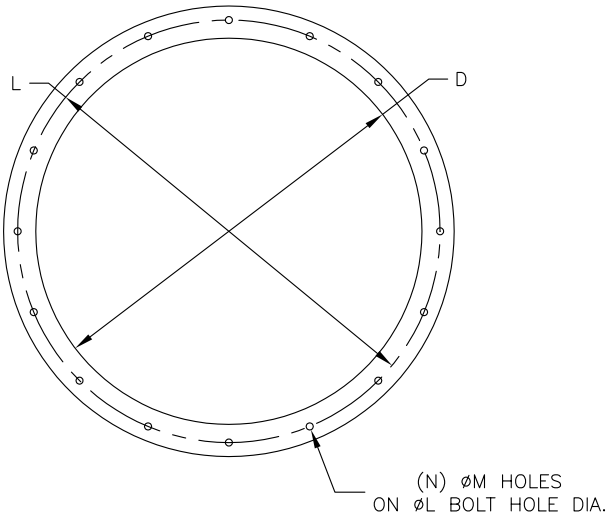
Silicone Rubber Blade Seals - Temperature up to 400°F (204°C) maximum.

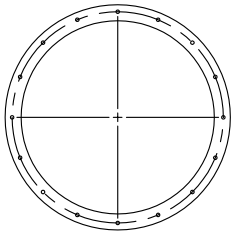
For damper maximum temperature, see page 1.

Mounting Holes

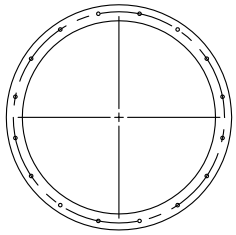
The recommended bolt hole pattern is shown in the table below. Customer must specify bolt holes that are on the axle centerline or that straddle the axle centerline as shown in the diagrams below. The factory can also provide bolt hole sizes and patterns other than those shown.

Recommended Bolt Hole Pattern (Bolt Holes Parallel to Axle Centerline)					
Diameter Inches (mm)		Number of Holes	Mounting Hole Diameter in. (mm) N	Bolt Circle Diameter L	Degrees Between Holes
Above	Through				
4 (102)	8 (203)	4	⅜ (9.5)	*	90
8.001 (203)	18 (457)	8	7⁄16 (11)	*	45
18.001 (457)	24 (610)	12	7⁄16 (11)	*	30
* Bolt Circle Diameter = Damper Diameter + Flange Height + ¼ in. (6mm)					





On Centerline



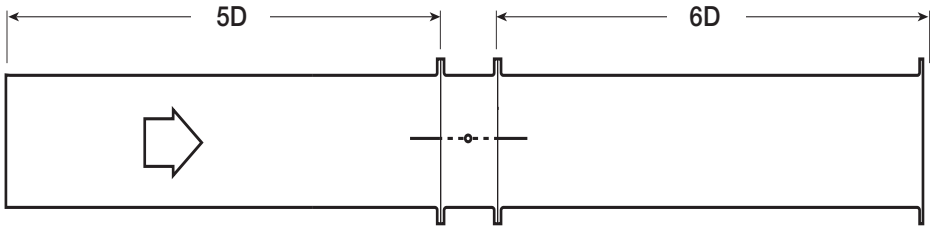
Straddle Centerline

Performance Data

AMCA Test Figure 5.3

Figure 5.3 Illustrates a fully ducted damper. This configuration has low pressure drop because entrance and exit losses are minimized by straight duct runs upstream and downstream of the damper.

AMCA Test Figure 5.3

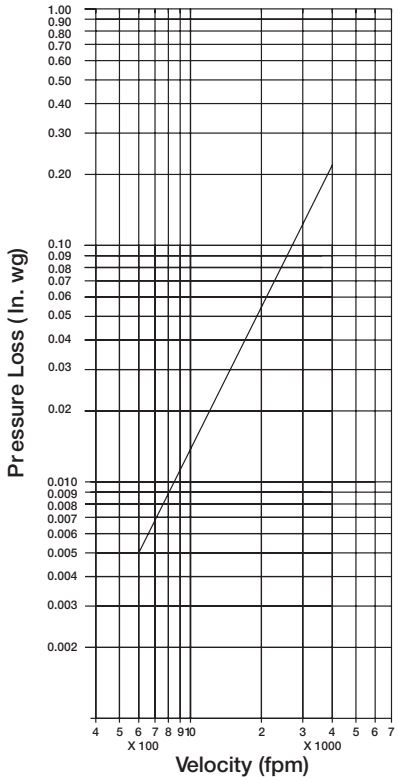


Pressure Drop Data

This pressure drop data was conducted in accordance with AMCA Standard 500-D using Test Figure 5.3. All data has been corrected to represent standard air at a density of 0.075 lb/ft^3(1.2 kg/m^3).

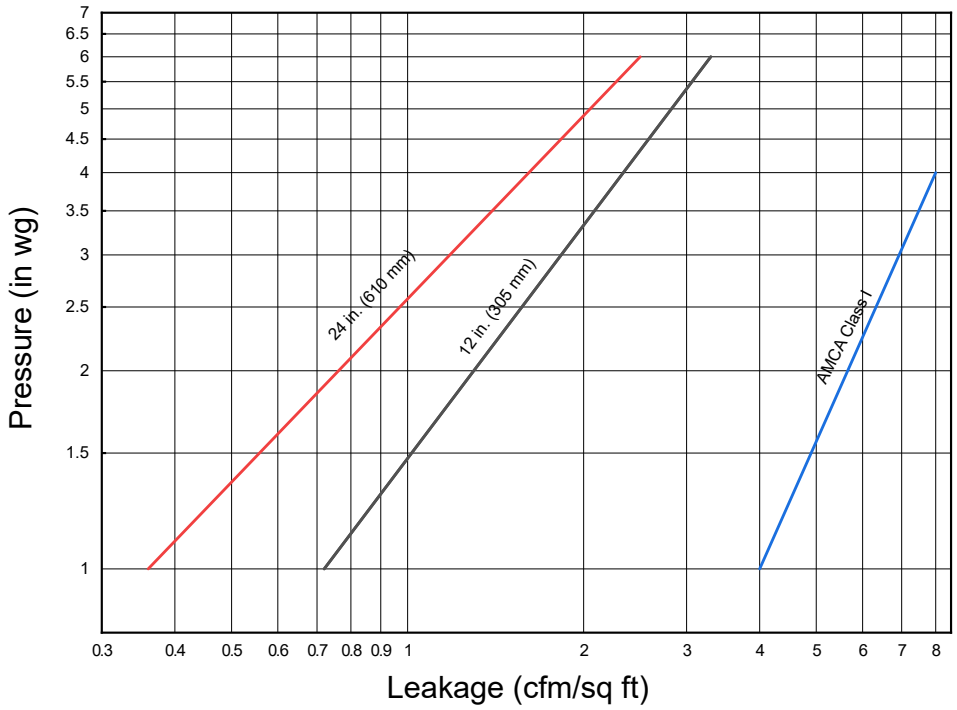
Actual pressure drop found in any HVAC system is a combination of many factors. This pressure drop information along with an analysis of other system influences should be used to estimate actual pressure losses for a damper installed in a given HVAC system.

Pressure Drop
12 in. (305mm) dia. Damper



Leakage

Damper leakage of the HCDR-051 with the blade fully closed shown below. Leakage testing was conducted in accordance with AMCA Standard 500-D and is expressed as cfm/ft^2 of damper face area. All data has been corrected to represent standard air at a density of 0.075 lb/ft^3 (1.2 kg/m^3).



Document Links

INSTALLATION

CATALOG

SELECTION GUIDE

DAMPER SELECTION GUIDE

WARRANTY

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