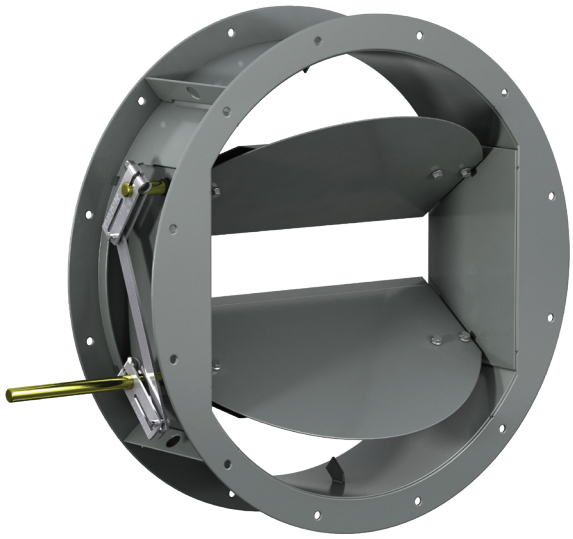
HCDR-152

Two-Blade Round Industrial Control Damper

Application

Model HCDR-152 is a heavy duty two-blade round industrial control damper with a flanged style frame. This damper provides a more precise control of the airstream through blade modulation.

A variety of optional features makes the model HCDR-152 extremely versatile, allowing its capabilities to be tailored to your application.



* actual inside dimension

Ratings

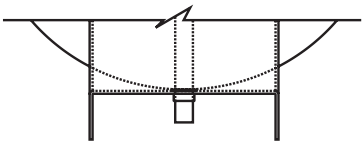
Pressure
Up to 6 in. wg (1.5 kPa) differential pressure
Velocity
Up to 4000 fpm (20.3 m/s)
Temperature
-40° to 400°F (-40 to 205°C) maximum

Construction

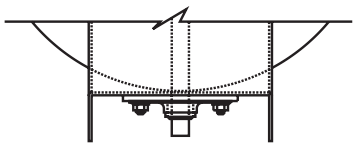
	Standard	Optional
Frame Material	Painted	304SS or 316SS
Frame Type	Flanged Channel	
Blade Action	Opposed	-
Blade Material	Painted	304SS or 316SS
Blade Seals	None	EPDM, Silicone
Blade Stop	Pin Stop	Rolled Bar
Blade Type	Single Thickness	
Axle Bearing	Stainless steel sleeve	External Bronze
Axle Material	Plated Steel	303SS or 316SS
Linkage	Plated Steel	-
Axle Seals	None	O-ring
Linkage	Plated Steel	304SS, 316SS
Paint Finishes	Hi Pro Polyester	Hi Temperature Flame Control, Hi Temperature Silver, Industrial Epoxy, None

Diameter	Minimum Size	Maximum Size
Inches	12	48
mm	305	1219

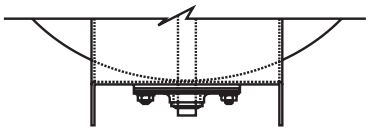
Bearing and Shaft Options



Stainless Steel
Sleeve Bearing
(Standard)



External Mounted
Bronze Sleeve Bearing
(Optional)



External Mounted
Bronze Sleeve Bearing
with O-Ring
(Optional)

Document Links

Installation Instructions

Heavy Duty Industrial Catalog

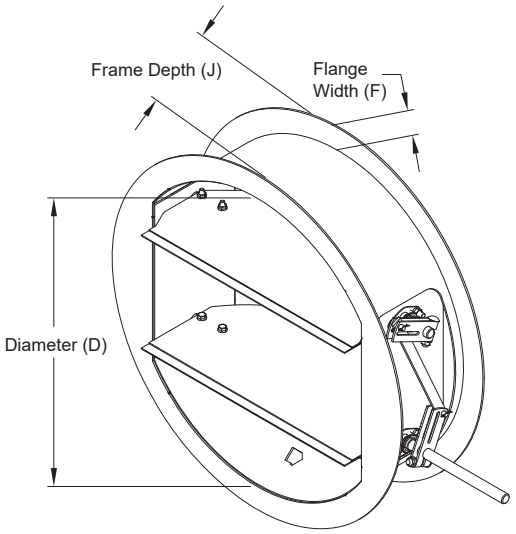
Damper Product Selection Guide

Heavy Duty Industrial Product Selection

Damper Warranty

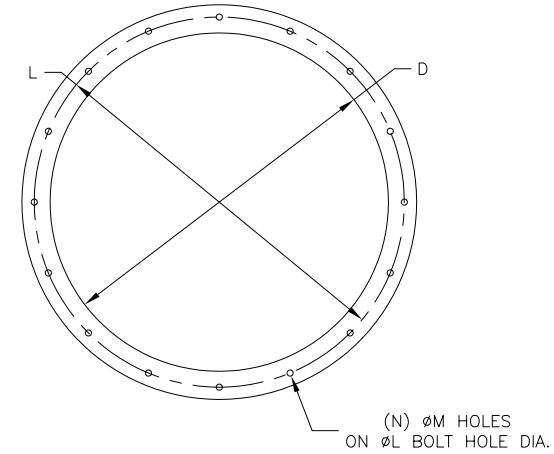
Dimensions

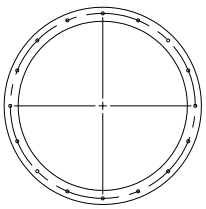
Diameter D Inches (mm)		Frame Depth J Inches (mm)	Frame & Flange Gauge (mm)	Flange Width F Inches (mm)	Axle Diameter Inches (mm)	Blade Thickness Gauge (mm)
Above	Through					
11.99 (305)	20 (508)	8 (203)	12 (2.7)	1.5 (32)	0.75 (19)	16 (1.5)
20 (508)	24 (610)	8 (203)	10 (3.5)	1.5 (32)	0.75 (19)	14 (2)
24 (610)	36 (914)	8 (203)	10 (3.5)	2.0 (51)	0.75 (19)	14 (2)
36 (914)	48 (1219)	8 (203)	10 (3.5)	2.0 (51)	1.00 (25)	14 (2)

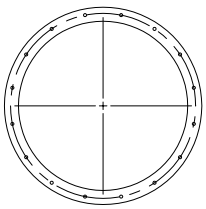


Bolt Holes

The recommended bolt hole pattern is shown in the table below. Customer must specify bolt holes that are parallel to 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.




On Centerline


Straddle Centerline

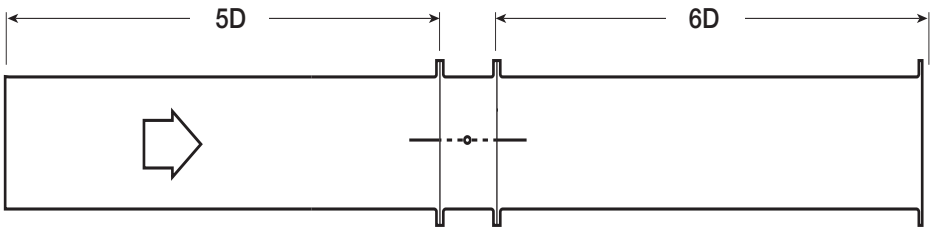
Recommended Bolt Hole Pattern (Bolt Holes Parallel to Axle Centerline)					
Diameter Inches (mm)		Number of Holes	Mounting Hole Diameter in. (mm) N	Bolt Circle Diameter L	Degrees Between Holes
Above	Through				
11.99 (305)	18 (457)	8	7/16 (11)	*	45
18.001 (457)	24 (610)	12	7/16 (11)	*	30
24.001 (610)	36 (914)	16	7/16 (11)	*	22 1/2
36.001 (914)	58 (1473)	24	7/16 (11)	*	15
58.001 (1473)	72 (1829)	32	9/16 (14)	*	11 1/4
* Bolt Circle Diameter = Damper Diameter + Flange Height + 1/4 in. (6mm)					

Pressure Drop 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.

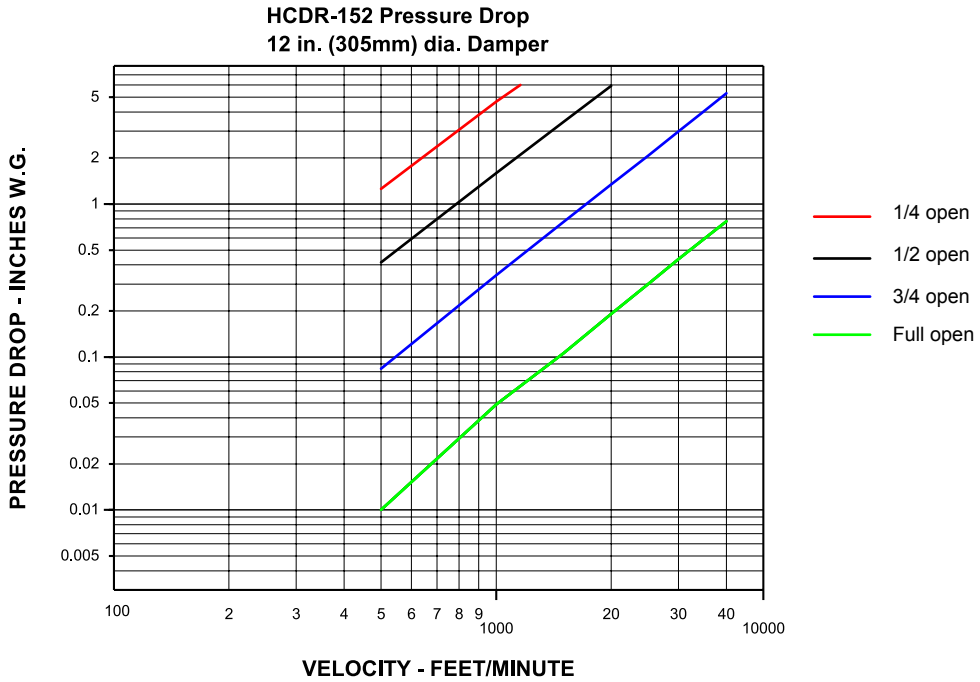
AMCA Test Figure 5.3

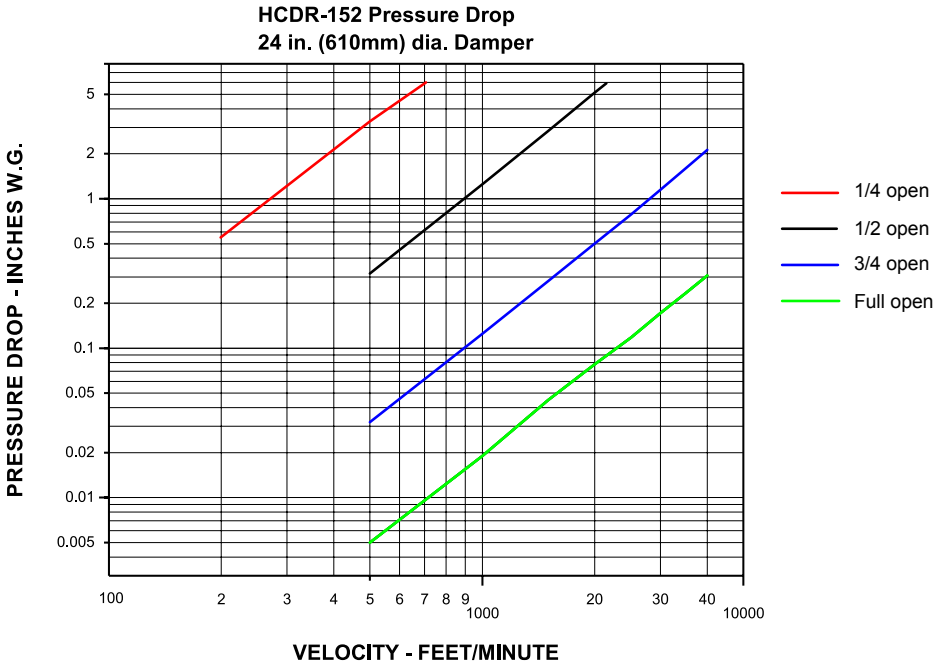


This pressure drop data was conducted in accordance with AMCA Standard 500-D using Test Figure 5.3. All data has been corrected to represent standard air at a density of 0.075 lb/ft^3 (1.2 kg/m^3).

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.

Back to Front with the bar stops upstream





Leakage Data

Damper leakage (with blades fully closed) varies based on the type of blade stops and low leakage seals applied. Model HCDR-152 is available with no seals (standard) or with EPDM or silicone rubber blade seals. 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).