

Application

CD-57 and CD-58 control dampers employ fully symmetrical aluminum airfoil blades and a rugged aluminum hat channel frame to provide extremely low leakage and exceptional air performance in medium to high pressure and velocity applications.

Standard Construction

Frame: 5" x 1" (127 x 25) 6063-T5 aluminum hat channel 0.125" (3) thick. Low profile head and sill are used on sizes less than 13" (330) high.

Blades: 6063-T5 0.070" (1.8) thick heavy duty, dual wall extruded aluminum airfoil. Opposed action.

Axles: 1/2" (13) diameter plated steel hex.

Linkage: Concealed in frame.

Bearings: Synthetic

Seals: TPV blade edge seals and flexible metal jamb seals.

Control Shaft: 1/2" x 6" (13 x 152) round drive axle with outboard shaft support bracket and bearing supplied on all single section dampers for field installation. Factory installed 3/4" (19) diameter jackshaft on all multiple section dampers.

Minimum Size: Model CD-57 (one blade): 6" x 5" (152 x 127)
Model CD-58 (two blade): 6" x 9" (152 x 229)

Maximum Size: Single section: 60" x 74" (1524 x 1880)
Multiple sections: Unlimited

Options

- Factory installed actuators:
 - Manual locking quadrant (supplied loose)
 - 24 VAC 120 VAC 230 VAC
 - Pneumatic Modulating
 - External mount (requires sleeve or sideplate option)
 - Internal mount (requires jackshafting)
- Factory installed sleeve. Factory installed side plate.
 - Gauge: 20 (1.0) 16 (1.6)
 - Length: 16" (406) 24" (610) Other _____
- Transitions (sleeve required): Flanged
 - Round Oval
 - Duct connections: DM-25 DM-35 S & Drive
- Actuator/Quadrant standoff bracket — accommodates up to 3" (76) thick insulated duct.
- Stainless steel oilite sleeve-type bearings.
 - 304 316
- Jackshafting (required with internal mounted actuators and standard on all multiple section dampers).
- Vertical mounted blades.
- Finish:
 - Mill Clear Anodized Baked enamel - Gray
 - High performance fluoropolymer - Gray
- Stainless steel linkage:
 - 304 316



Air Performance and Air Leakage
Pottorff certifies that the models CD-57 and CD-58 shown herein are licensed to bear the AMCA seal. The ratings shown are based on test and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings seal applies to Air Performance and Air Leakage Ratings.

Information is subject to change without notice or obligation.

Ratings

Damper Width	Maximum System Pressure	Maximum System Velocity
12" (305)	10.0 in. wg. (2.5 kPa)	6000 fpm (30.5 m/s)
24" (610)	8.4 in. wg. (2.1 kPa)	5000 fpm (25.4 m/s)
36" (914)	6.1 in. wg. (1.5 kPa)	4000 fpm (20.3 m/s)
60" (1524)	4.0 in. wg. (1.0 kPa)	3500 fpm (17.8 m/s)

AMCA Certified Leakage

Maximum Damper Width	*Leakage Class		
	@ 1 in. wg. (0.25 kPa)	@ 4 in. wg. (1.0 kPa)	@ 8 in. wg. (2.0 kPa)
48" (1219)	1A	1	1

*Leakage Class Definitions:

Leakage Class 1A - 3 cfm/ft² @ 1 in. wg. (0.015 m³/s/ m² @ 0.25 kPa)

Leakage Class 1 - 4 cfm/ft² @ 1 in. wg. (0.020 m³/s/ m² @ 0.25 kPa)

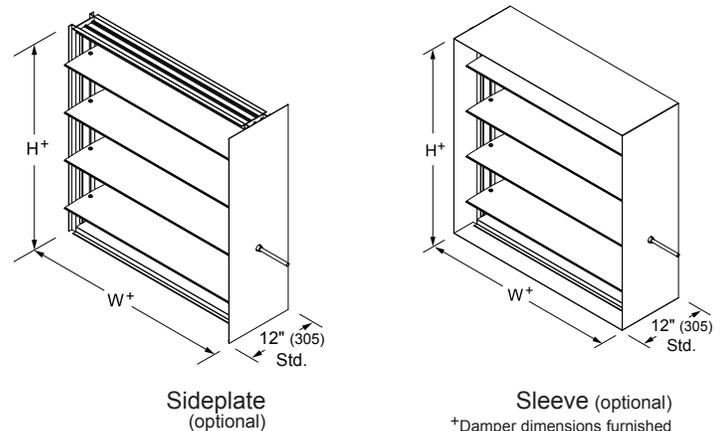
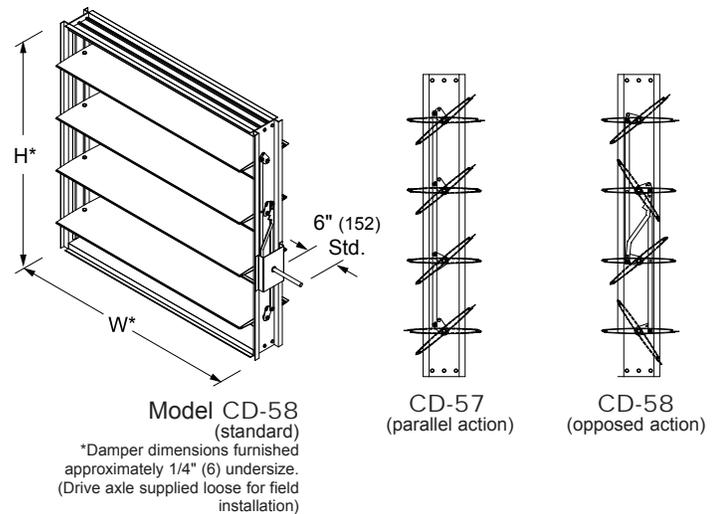
Leakage Class 1 - 8 cfm/ft² @ 4 in. wg. (0.041 m³/s/ m² @ 1.0 kPa)

Leakage Class 1 - 11.3 cfm/ft² @ 8 in. wg. (0.057 m³/s/ m² @ 2.0 kPa)

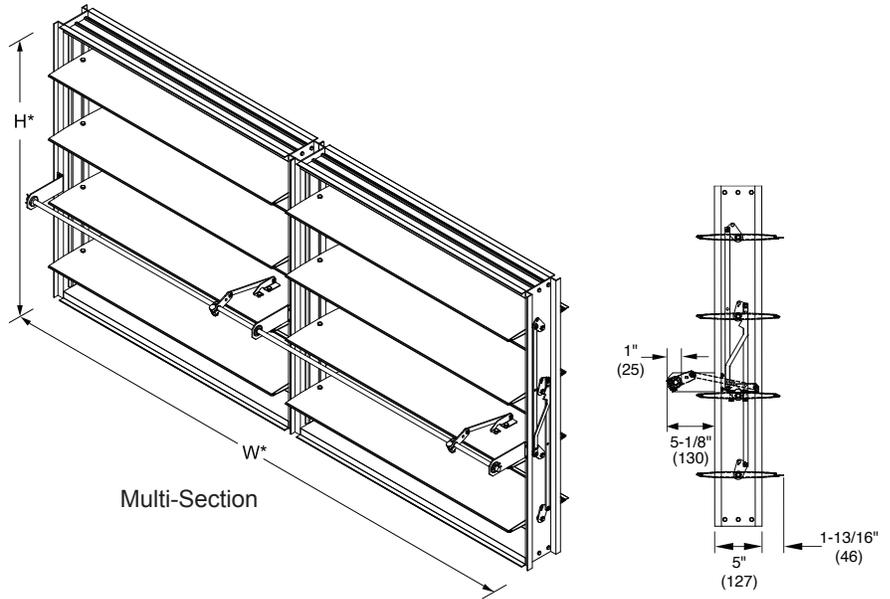
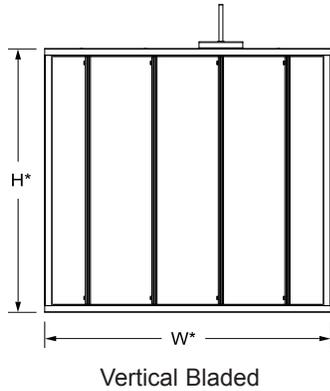
Test Information - Data are based on upon a torque of 8.0 in-lb/ft² (0.90 N-m) applied to close and seat the damper during the test.

Test Method per ANSI/AMCA Standard 500-D-07 (Leakage), Figure 5.4 Alternate.

Temperature: -25°F to 180°F (-32°C to +83°C) with synthetic bearings
-72°F to 275°F (-58°C to +135°C) with stainless bearings



Typical Damper Dimensional Details



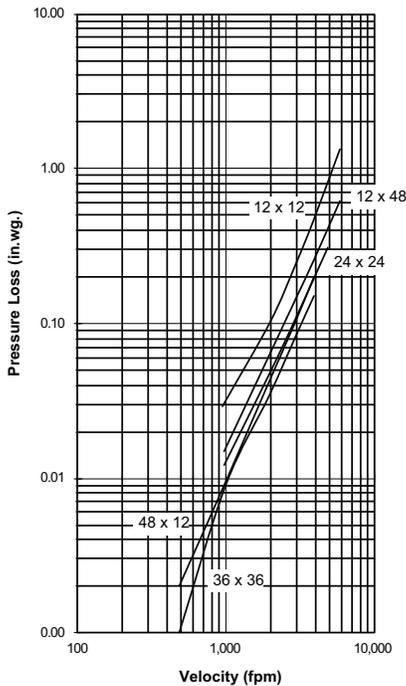
Dampers are designed to be self-supporting in the maximum single section size. When dampers are installed in multiple section assemblies, bracing may be required to support the weight of the dampers and to ensure structural integrity against system pressures. It is recommended that multiple sections be appropriately braced. In horizontal installations, it is recommended that suitable supports be installed every 8 feet of damper width. Dampers installed in vertical multiple assemblies and/or higher system pressures, may require additional bracing.

*Damper dimensions furnished approximately 1/4" (6) undersize.

Airflow Performance Data

Pressure Loss vs. Velocity

Figure 5.3 — Ducted Inlet and Outlet



Certified Ratings:
Pottorff certifies that the models CD-57 and CD-58 shown herein are licensed to bear the AMCA seal. The ratings shown are based on test and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings seal applies to Air Performance and Air Leakage Ratings.

Pressure drop testing was performed in accordance with AMCA Standard 500-D using the configuration shown. 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.