

## Round Damper (Multiple Blade)



### APPLICATION

The CRD-VCD(RM) is a low leakage rated control damper used in low to high pressure and velocity system. The CRD-VCD(RM) damper is constructed with triple V-groove shape for velocities up to 3000 fpm (15.24 m/s) and 10 in w.g. (2.5 kPa). The CRD-VCD(RM) may be installed vertically or horizontally position and a wide range of electric or handed actuators are available for these models.

### Ratings

Pressure: 0 to 2.5 kPa (0 to 10 in. wg) pressure differential.

Velocity: 0 to 15.24 m/s (0 to 3000 fpm)

Leakage: Class 1A @ 0.25 kPa (1 in. wg)

Class 1 @ 1.0 kPa (4 in. wg)

Class 1 @ 2.5 kPa (10 in. wg)

Temperature: 0 to 49 °C (32 to 120 °F)

### STANDARD CONSTRUCTION

#### FRAME :

Stainless Steel with ETFE coating

#### Blade

Stainless Steel with ETFE coating

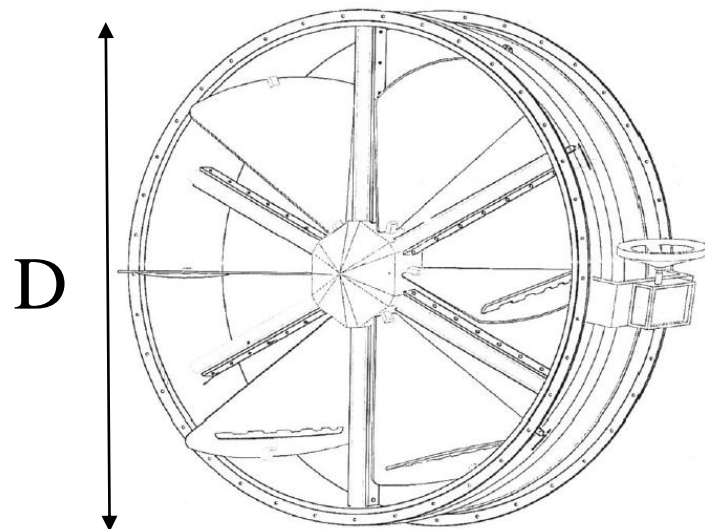
### DAMPER SIZES

#### MINIMUM SIZE

D : 12"W ( 305 mm).

#### MAXIMUM SIZE

D : 64"W (1600 mm)



## AMCA LICENSED AIR LEAKAGE AND PERFORMANCE DATA



Chern Dar Enterprise co., Ltd. certifies that the CRD-VCD(RM) show herein is licensed to bear the AMCA Seal. The ratings shown are based on tests 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 Leakage and Air Performance Ratings.

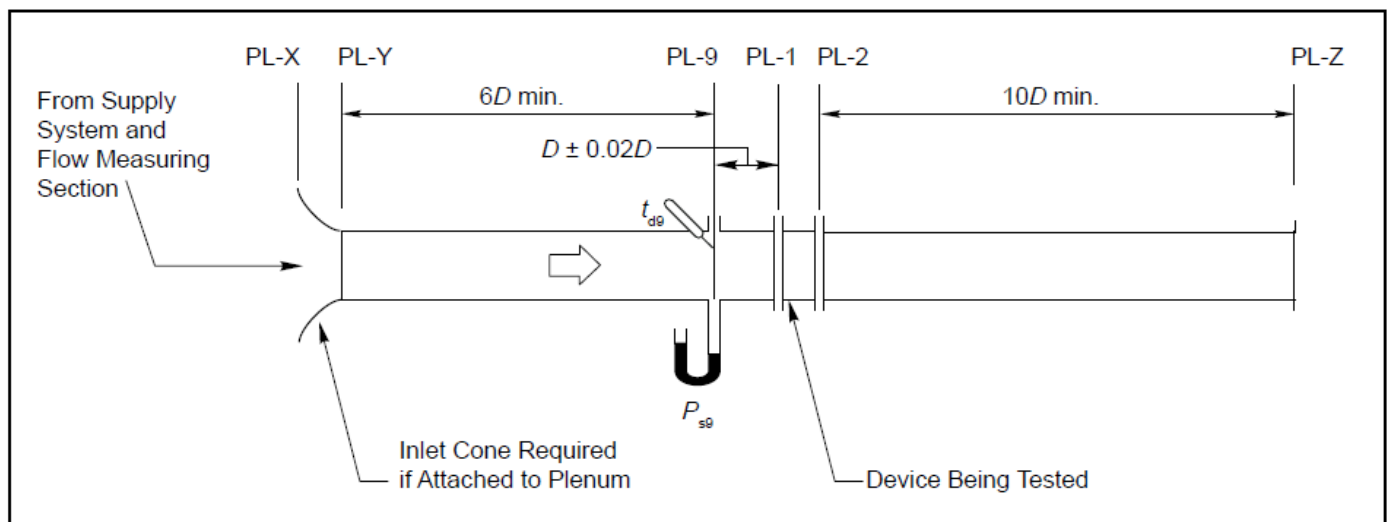
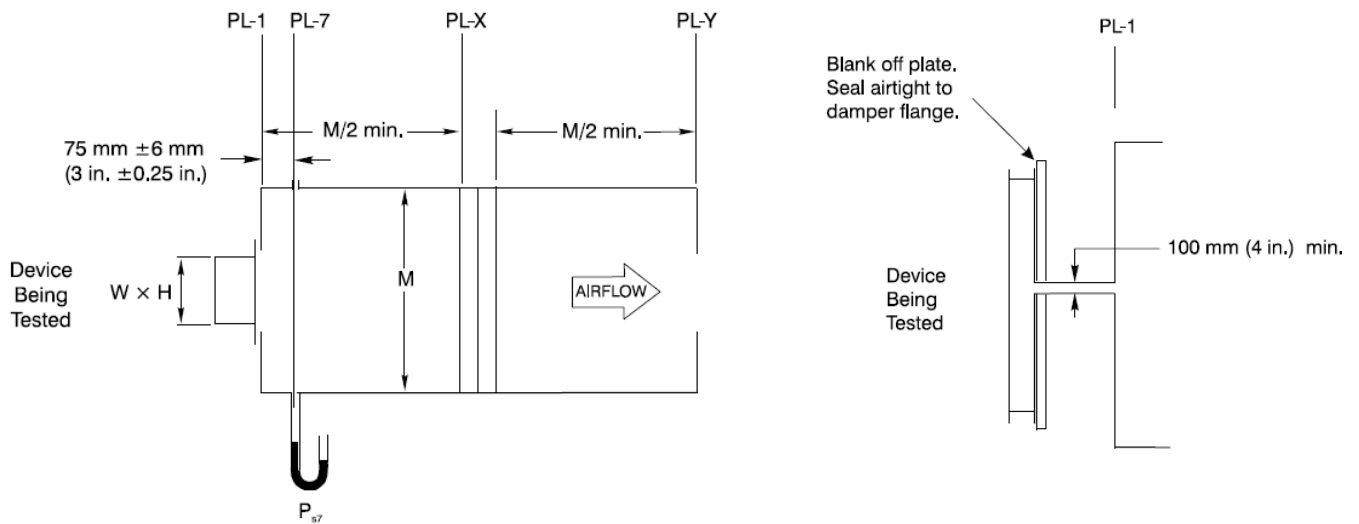


Figure 5.3 Test Device Setup with Inlet and Outlet Ducts

**CRD-VCD(RM) Air performance of Actual Test Results from Individual Sizes**

305mm		610mm		914mm	
Pressure Drop (Pa)	Velocity (m/s)	Pressure Drop (Pa)	Velocity (m/s)	Pressure Drop (Pa)	Velocity (m/s)
329	11.88	61.2	12.03	37.2	12.01
235	9.89	40.8	10.01	25.7	10.01
157	7.90	25.7	8.00	15.5	8.01
92	5.92	13.7	6.03	8.7	6.00
43	3.94	5.5	4.00	3.8	4.01



**Figure 5.4 Test Damper Setup with Outlet Chamber**

**CRD-VCD(RM) Leakage Class of Actual Test Results from Individual Sizes**

Damper Size (in.)	Maximum Allowable Leakage, cfm/ft <sup>2</sup>				
	1 in. wg	4 in. wg	6 in. wg	8 in. wg	10 in. wg
305mm Torque = 216 N · m/m <sup>2</sup>	1A	I (1)	I (1)	I (1)	I (1)
1600mm Torque = 88.9 N · m/m <sup>2</sup>	II	I (1)	I (1)	I (1)	I (1)

Air Leakage testing conducted in accordance with ANSI/AMCA 500-D Figure 5.4. Data are based on a torque of 216 N · m/m<sup>2</sup> applied to close and seat the damper during the test. Air leakage is based on operation between 0°C - 49°C (32°F - 120°F)

**AMCA Allowable Air Leakage to Achieve Classification**

Pressure / Class	Maximum Allowable Leakage, cfm/ft <sup>2</sup>				
	1 in. wg	4 in. wg	6 in. wg	8 in. wg	10 in. wg
1A	3	N/A	N/A	N/A	N/A
I (1)	4	8	9.8	11	12.6
II (2)	10	20	24.5	28	31.6
III (3)	40	80	98	112	126.5