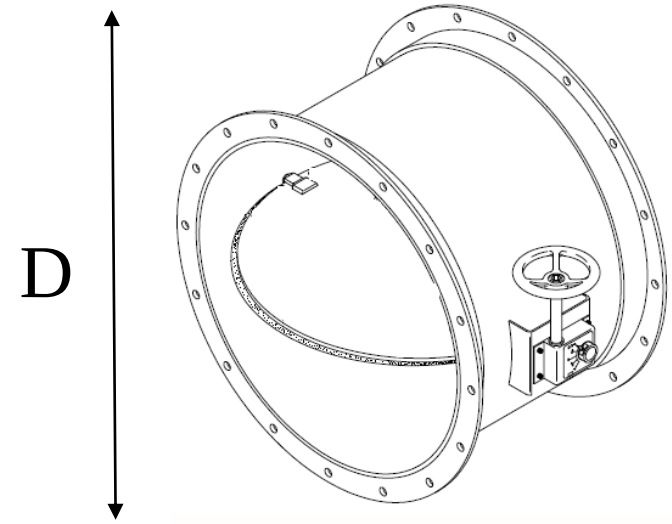
Round Damper (Single Blade)

APPLICATION

The CRD-VCD(RS) is a low leakage rated control damper used in low to high pressure and velocity system.The CRD-VCD(RS) 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(RS) 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 ℃ (32 to 120 ℉)



STANDARD CONSTRUCTION

FRAME：.
Stainless Steel with ETFE coating
Blade
Stainless Steel with ETFE coating

DAMPER SIZES

MINIMUM SIZE

D：4"W　(100 mm).

MAXIMUM SIZE

D：21.6"W　(550 mm)

9Fl., No. 319, Hoping E. Rd., Sec. 3, Taipei, Taiwan R.O.C. Tel：886-2-26094115~20 Fax：886-2-26093911

AMCA LICENSED AIR LEAKAGE AND PERFORMANCE DATA

Chern Dar Enterprise co., Ltd. certifies that the CRD-VCD(RS) show herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings Seal applies to Air Leakage and Air Performance Ratings.

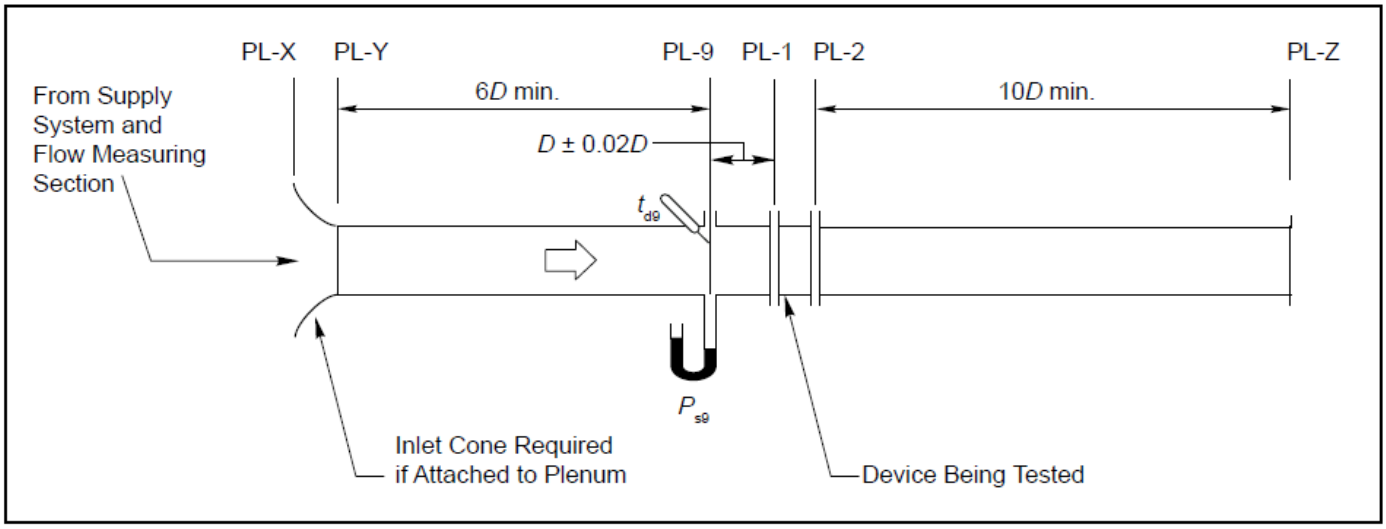
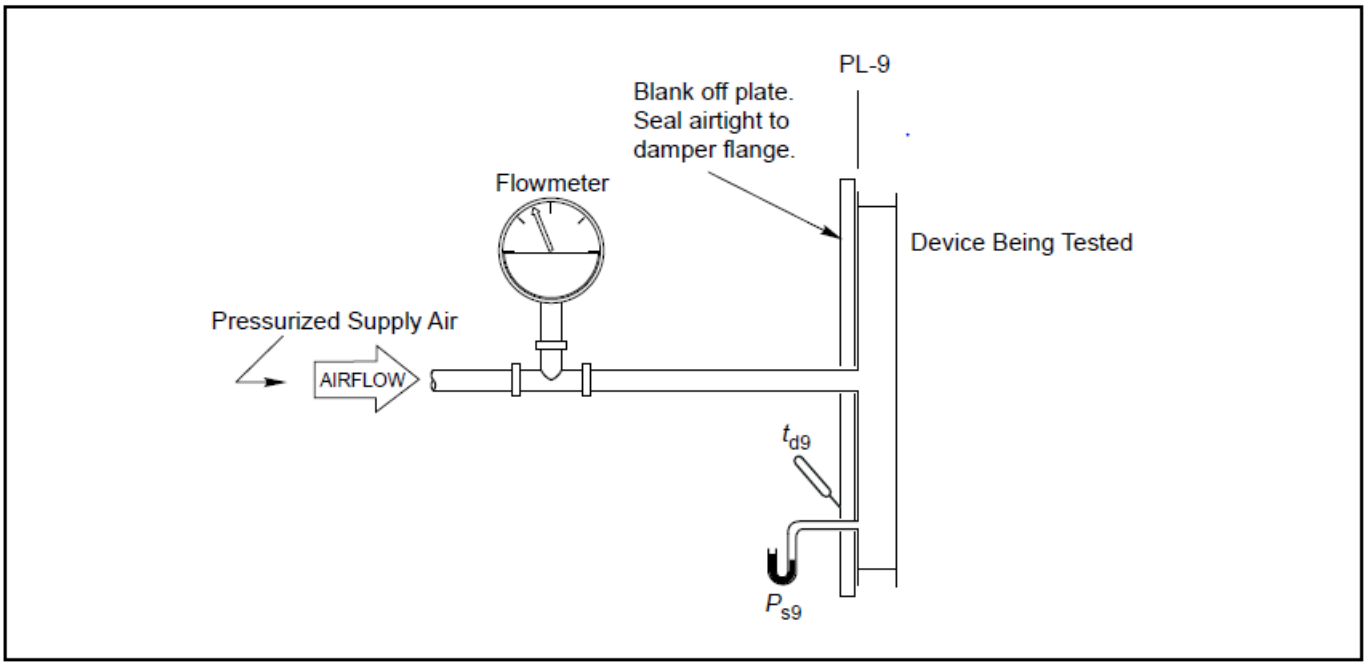


Figure 5.3 Test Device Setup with Inlet and Outlet Ducts

9Fl., No. 319, Hoping E. Rd., Sec. 3, Taipei, Taiwan R.O.C. Tel：886-2-26094115~20 Fax：886-2-26093911

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

305mm		550mm	
Pressure Drop (Pa)	Velocity (m/s)	Pressure Drop (Pa)	Velocity (m/s)
53	11.84	16.4	12.0
41	9.85	11.8	10.02
27	7.89	7.9	8.01
17	5.91	4.7	6.02
8	3.94	2.2	4.02



Test Figure 5.6A
Test Damper Setup - Leakage Test with Damper under Positive Pressure

9Fl., No. 319, Hoping E. Rd., Sec. 3, Taipei, Taiwan R.O.C. Tel：886-2-26094115~20 Fax：886-2-26093911

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

Damper Size (in.)	Maximum Allowable Leakage, cfm/ft^2				
	1 in. wg	4 in. wg	6 in. wg	8 in. wg	10 in. wg
100mm Torque = 111.1 **in-lb/ft^2**	**1A**	**II (2)**	**II (2)**	**II (2)**	**II (2)**
550mm Torque = 107.5 **in-lb/ft^2**	**1A**	**I (1)**	**I (1)**	**I (1)**	**I (1)**

Air Leakage testing conducted in accordance with ANSI/AMCA 500-D Figure 5.6A. Data are based on a torque of 111.1in-lb/ ft^2 (for 100mm size),112.7 in-lb/ft2 (for 305mm size) and 107.5 in-lb/ ft^2 (for 550mm size) applied to close and seat the damper during the test. Air leakage is based on operation between 0℃ - 49℃ (32℉ - 120℉)

AMCA Allowable Air Leakage to Achieve Classification

Pressure / Class	Maximum Allowable Leakage, cfm/ft^2				
	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**

9Fl., No. 319, Hoping E. Rd., Sec. 3, Taipei, Taiwan R.O.C. Tel：886-2-26094115~20 Fax：886-2-26093911