

## Application

AC-25R low leakage control dampers employ a sturdy round frame and a single round blade for automatic air control and manual balancing in medium to high pressure and velocity applications.

## Standard Construction

**Frame:** 12" x 20 ga. (305 x 1.0) galvanized steel.

**Blades:** 14 gauge (2.0) equivalent galvanized steel — round.

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

**Bearings:** Synthetic

**Seals:** Polyethylene blade edge seals.

**Control Shaft:** 1/2" x 3" (13 x 76) round drive axle.

**Minimum Size:** 6" Ø (152 Ø)

**Maximum Size:** 24" Ø (610 Ø)

## Options

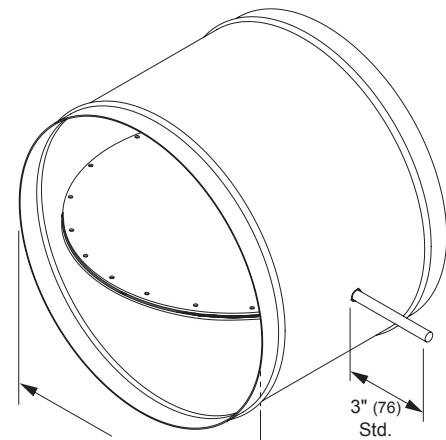
- Factory installed external mount actuator:
  - Manual locking quadrant (supplied loose).
  - 24 VAC    120 VAC    230 VAC
    - Pneumatic    Modulating
- Actuator Mounting Bracket.
- Actuator/Quadrant standoff bracket - accommodates up to 1" (25) thick insulated duct.
- Stainless steel oilite bearings.
- Type-304 stainless steel construction.

## Ratings

Damper Diameter	Maximum System Pressure	Maximum System Velocity
6" (152)	10.0 in. wg. (2.5 kPa)	4000 fpm (20.4 m/s)
12" (305)	8.0 in. wg (2.0 kPa)	4000 fpm (20.4 m/s)
18" (457)	6.0 in. wg (1.5 kPa)	3500 fpm (17.8 m/s)
24" (610)	4.0 in. wg (1.0 kPa)	3000 fpm (15.3 m/s)

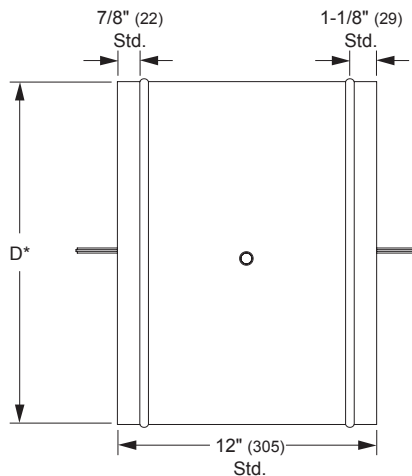
**Maximum Leakage:** 5.5 cfm/ft<sup>2</sup> @ 10 in. wg (0.028m<sup>3</sup>/s/ m<sup>2</sup> @ 2.5 kPa)  
 5.0 cfm/ft<sup>2</sup> @ 8 in. wg (0.026m<sup>3</sup>/s/ m<sup>2</sup> @ 2.0 kPa)  
 3.3 cfm/ft<sup>2</sup> @ 4 in. wg (0.017m<sup>3</sup>/s/ m<sup>2</sup> @ 1.0 kPa)  
 1.5 cfm/ft<sup>2</sup> @ 1 in. wg (0.008m<sup>3</sup>/s/ m<sup>2</sup> @ 0.25 kPa)

**Temperature:** -25°F to 180°F (-32°C to +83°C)



**Model AC-25R**  
(standard)

\*Damper dimensions furnished approximately 1/8" (3) undersize.

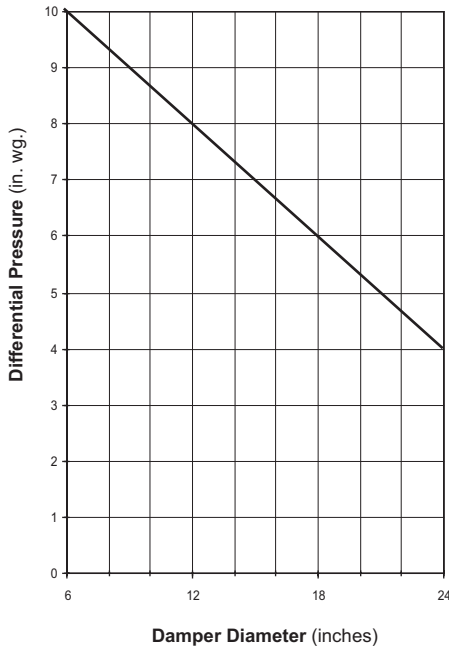


**Side View**

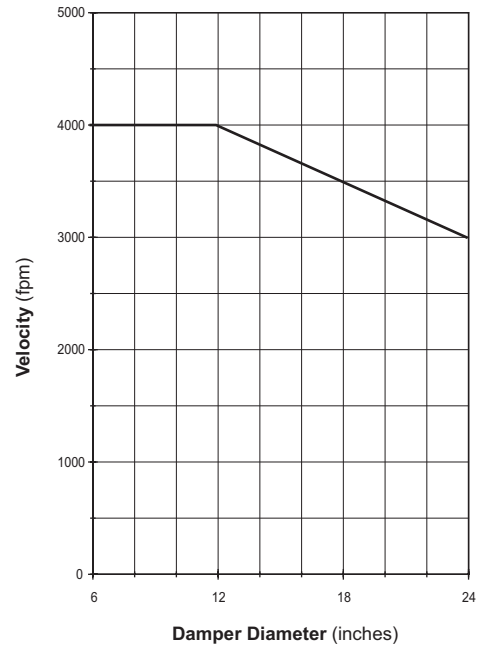
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# Airflow Performance Data

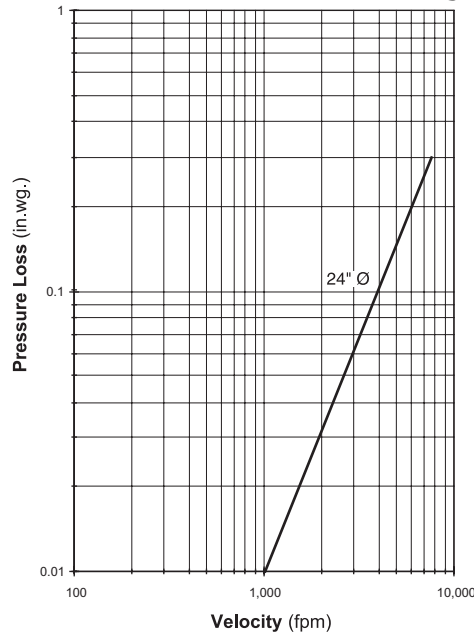
## Pressure Limitations



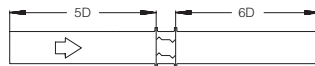
## Velocity Limitations



## Pressure Loss vs. Velocity



Pressure drop testing was performed in accordance with AMCA Standard 500-D. 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.



### Ducted Inlet and Outlet

AMCA Figure 5.3 illustrates a fully ducted damper. This configuration represents the lowest pressure drop because entrance and exit losses are minimized by straight duct runs upstream and downstream of the damper.

Control Dampers AC25R (2/2) March 2010