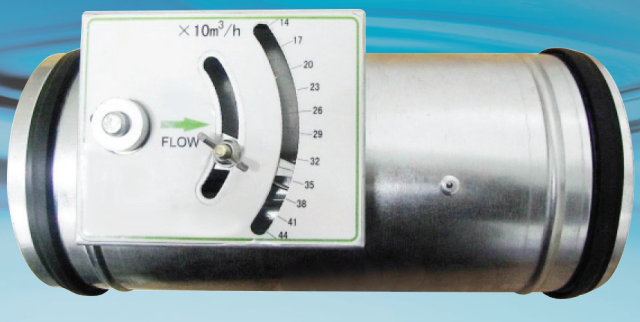
CAD Constant Air Damper



ASLI Constant Air Dampers (CAD) is designed to maintain constant air flow rate mechanically over the entire differential pressure range without power supply. The nominal air flow rate can be set easily at the external control box without using any tools.

Materials

Body : 0.7mm Galvanized steel.
Blade : 1.0mm Galvanized steel.
Control box : 0.7mm Galvanized steel.

Surface Finish

Mill galvanized.

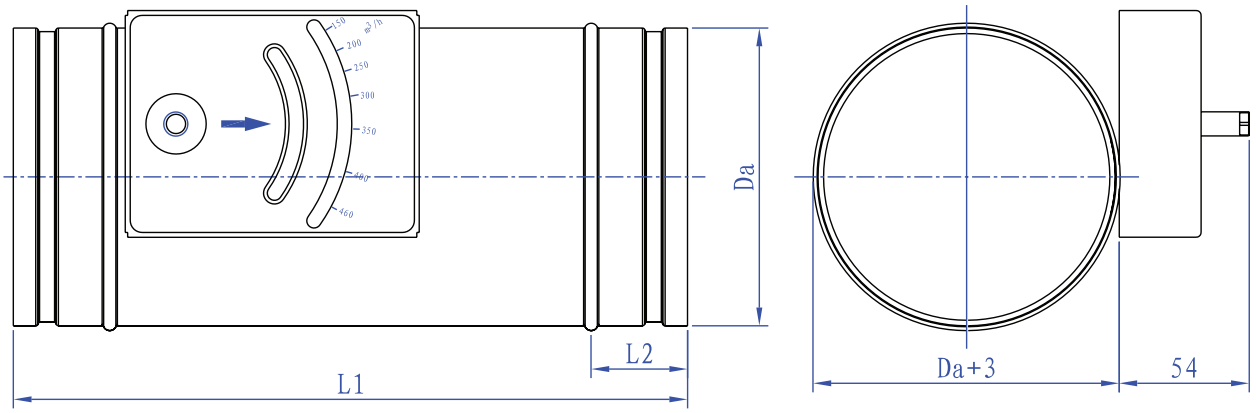
Standard Size (Ø)

100 / 160 / 200 / 250 / 315 / 400

Features

- Mechanically powered, no power supply required.
- Pressure Independent. It can be used in supply air and extract air system
- Air flow rate adjustable at control box by rotating the external scale.
- Operational pressure 50 ~ 1000Pa.
- Operating temperature is 10 °C to 80 °C.

CAD Construction Illustrations



CAD Physical Dimension *Unit : mm*

Unit Size	Da	L1	L2
100	98	250	40
160	157	350	40
200	197	350	40
250	246	460	40
315	311	500	40
400	396	550	40

CAD Constant Air Damper

Operation Principle of CAD

This device is consist of damper casing, control blade ,spring set, damper device,videotex air flow scale and so on. Control blade is underproped by blade axis, which is divided into up and down parts and also have a fold angle. When the air pass the damper casing, it bring different velocity of flow and distributing of pressure. As that different pressure will bring a strength to avoid the blade closing. then make the blade at a balanceable position.

When the pressure differential Δp changes, the angle of the control blade is adjust to provide a constant flow within a close tolerance, as that a pre-set volume flow is maintained constant over the entire differential pressure area. The damper device can reduce the surge. Finally, according testing data, draw the scale according the air flows corresponding adjustable axis at different positions, such that it is convenient adjust the air flow after a simple enactment.

Air Volume Ranges

Damper size (mm)	Air Volume Ranges (min - max)	
	CMH	L/s
100	70 - 220	19 - 61
160	180 - 580	50 - 161
200	280 - 900	78 - 250
250	440- 1400	122 - 389
315	700 - 2250	194 - 625
400	1150 - 3600	319 - 1000

- Turbulent flow approaching the terminal will create additional noise, pressure drop and greater air volume variation. It is recommended for optimum performance there should be a minimum of 3 duct diameters of straight inlet duct, same size as inlet, between the inlet and any transition, take off or fitting.
- Tolerance about 9% at mid of air volume range setting.
- Installation position: horizontal or vertical installation, recommending horizontal installation type precedence. However any installation type ,should make the axis of blade to keep horizontal.

CAD Order Code *Unit : mm*

Model	Unit size (mm)
CAD	100 / 160 / 200 / 250 / 315 / 400

Example: CAD – 200mm