



Non Return / Pressure Relief Dampers



Our Product Ranges

Dampers

- 1 Fire Dampers
- 2 Fire / Smoke Dampers
- 3 Volume Control Dampers
- 4 Motorized Control Dampers
- 5 Pressure Relief Dampers /Non Return Dampers

Variable Air Volumes

- 6 Pressure Independent VAV
- 7 Constant Air Volume VAV
- 8 By Pass VAV

Louvers

- 9 Sand Trap Louvers
- 10 Acoustic Louvers
- 11 Stationery Louvers / Architectural Louvers
- 12 Storm Louvers
- 13 Weather Louvers

Sound Attenuators

- 14 Rectangular Sound Attenuators
- 15 Circular Sound Attenuators
- 16 Crosstalk Attenuators

Electric Duct Heaters

- 17 Flange & Slip 'n' Type
- 18 Modulating & On/Off Type

Air Outlets

- 19 Registers & Grilles
- 20 Diffusers (Linear Diffusers, Sq. & Rect. Ceiling Diffusers, Round Diffusers, Jetflow Diffusers)
- 21 Swirl Diffusers & Disc Valves
- 22 Drum Louvers



Model : AHS 100

Non Return Dampers / Pressure Relief Dampers are used to prevent reverse airflow in intake & discharge openings in commercial and residential air-conditioning systems. Airwellcare NRDs/ PRDs are suitable for medium pressure and velocity application. During ventilation system is on, the dampers are held in open position by the air flow. If the system is switched off, the damper blades close automatically. The NRDs/PRDs are also preventing against the ingress of untampered air, rain and birds into the air-conditioning system during switch off position.

Standard Construction Details

Frame

Frames are made of 18 Gauge corrosion resistant high quality Extruded Aluminium.

Frame Width : 100mm as Standard

Blade

Blades are made of 22 Gauge / 20 Gauge corrosion resistant high quality Extruded Aluminium.

Linkage

A common linkage will be provided connecting to all blades from top to bottom.

Bush / Bearing

Nylon bush will be positioned on the damper frame through the damper axle / spindle.

Gasket

3mm wide Neoprene gasket will be fixed at blade edges for Low Leakage and to prevent rattling noise.



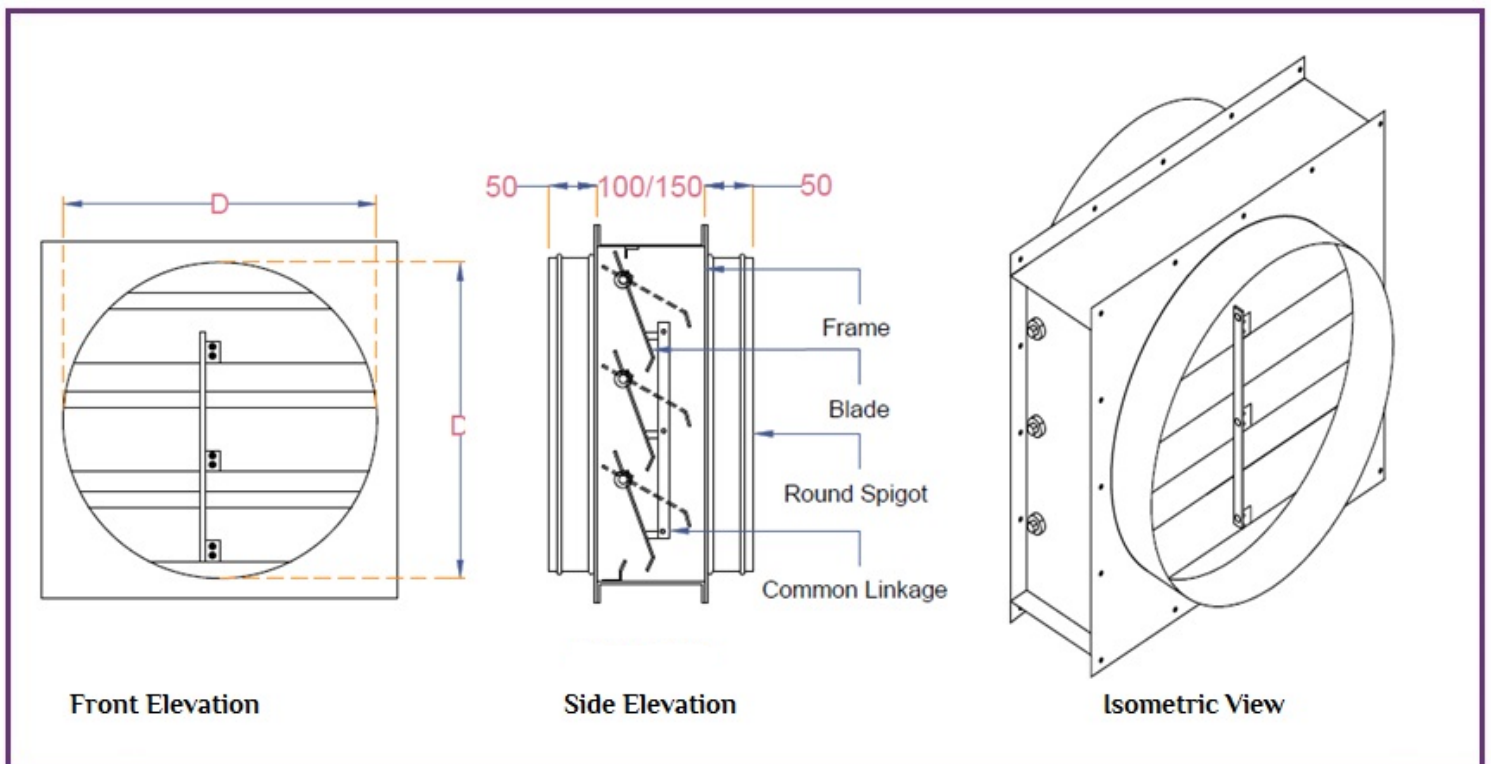
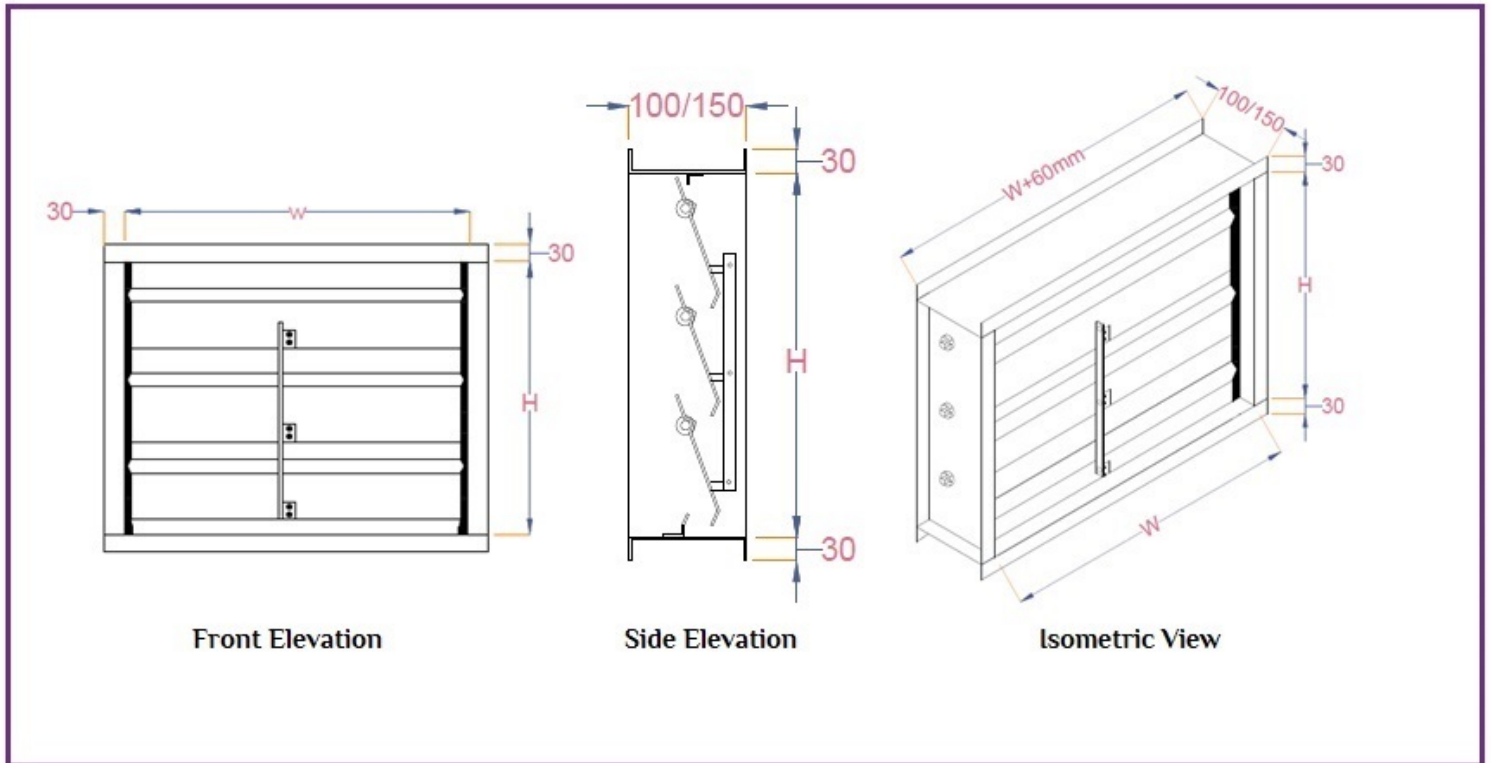
Finish

NRDs are supplied in Mill Finish.

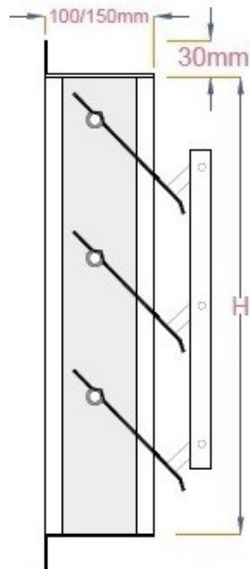
Optional Construction

- Low Leakage Construction with counter sunk bushes
- Brass Bush
- Limit Switch, for remote indication of damper open/close indication.
- Combination of Galvanized Steel Frame & Aluminium Blade
- Complete construction with Galvanized sheet steel.
- Without Common Linkage
- Complete construction with Stainless Steel 304/316

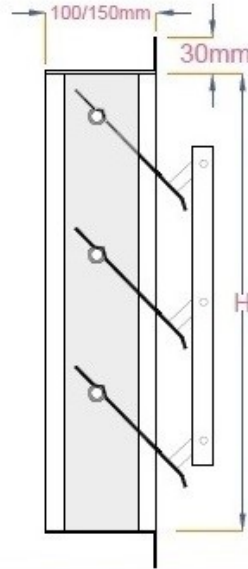
Constructional Dimensions & Model Reference



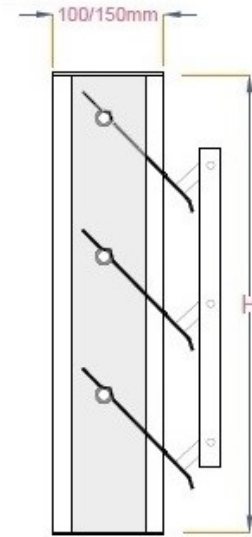
Constructional Dimensions & Model Reference



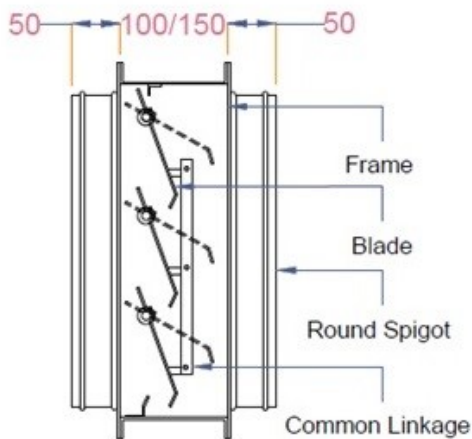
AHS 100 A
Flange on Intake



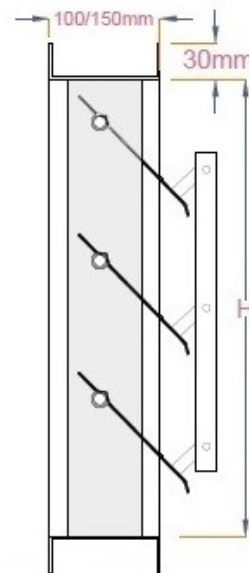
AHS 100 B
Flange on Exhaust



AHS 100 C
Flangeless



AHS 100 S
With Round Spigot

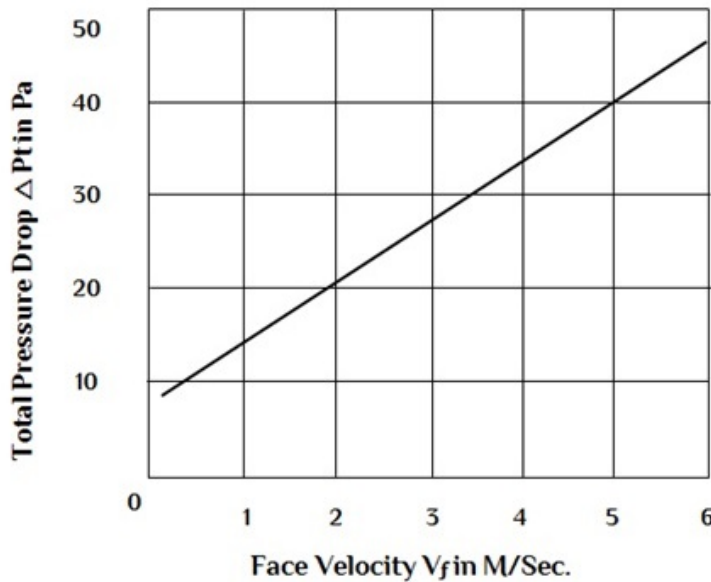


AHS 100 D
With Duct Mount Flange

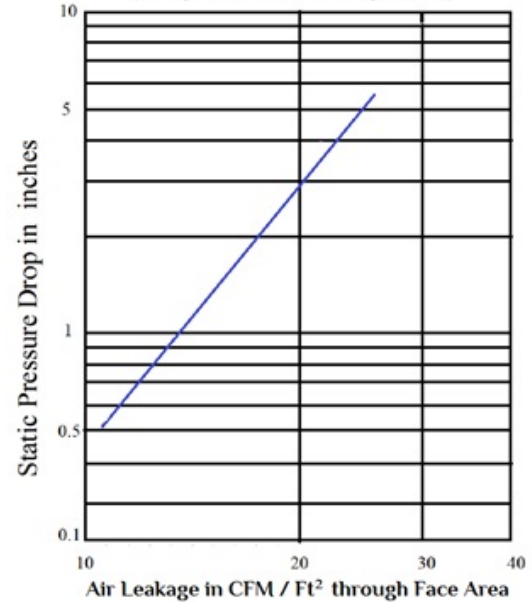


Engineering Guidelines

Pressure Drop Vs Face Velocity



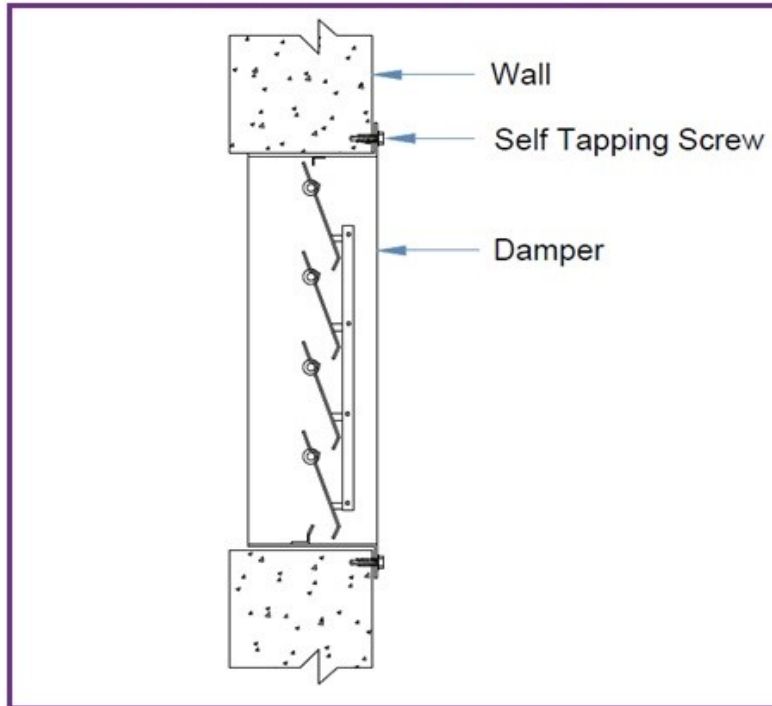
Leakage
(Damper in 100% Closed position)



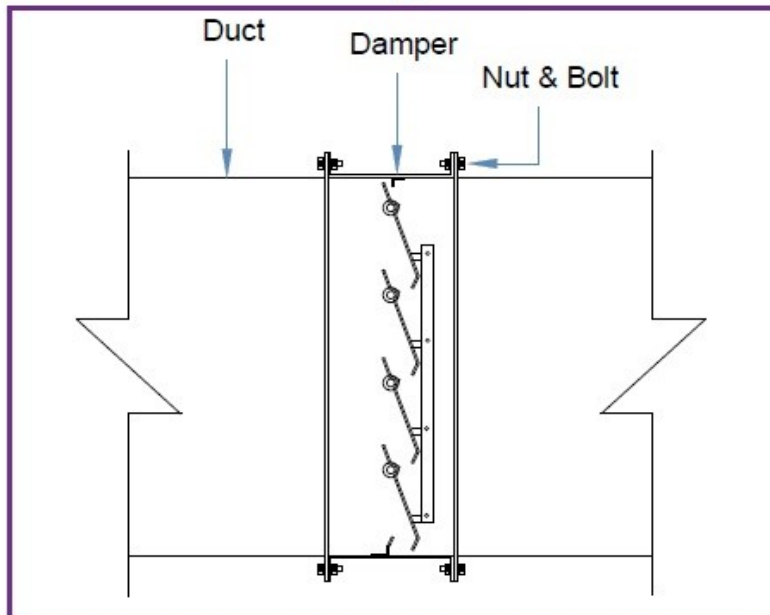
- Leakage information based on pressure relief dampers blades in 100% closed position.
- Dampers may tolerate higher pressures and velocities than specified above.
- NRD/PRD construction are based on International standards for leakage DW 142 Class C.
- The pressure drops given in the graph are related to the corresponding face velocities V_k M/sec.
- The effective face velocities V_f given are related to the corresponding Air volume Q_v and effective face area A_f for the corresponding sizes.
- Actual pressure drop found in any HVAC System is a combination of many factors. This Pressure Drop information along with an analysis of other system influences should be used to estimate actual pressure losses for a damper installed in a given HVAC System.
- When used in fan discharge applications, damper should be located at a minimum distance equal to half the fan diameter away from the fan discharge.

Installation Details

Wall Mounting Installation



Duct Mounting Installation





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