

PRE-INSULATED NON RETURN DAMPER (PA-NRD)

APPLICATION

The PA - NRD is a duct mounted device that is composed of a set of horizontally mounted blades that are normally closed and are free to rotate around their horizontal axis.

The PA - NRD can be used at the exit terminal of exhaust ducts and fans for low & medium pressure (minimum 25 Pa, maximum 500 Pa).

Certain pressure is usually required before the damper opens to expel the exhaust air, which ensures the elimination of back flow.

DIMENSIONS OF DAMPERS

Minimum size of 100mm (width) x 100mm (height) and maximum size of 600mm x 600mm for single section and 1200mm x 1200mm for multisection.

Standard size of the flange is 20mm.

Standard length is 170mm.

MATERIAL SPECIFICATIONS

Casing

Pre-insulated Sandwich Panel
20mm/30mm thickness

Blades

Blades are made of 1.0mm thick aluminum extruded

Blade Seal

Foam Gasket

Bushes

Brass bushes size 8mm ø

Spindle

Spindles are made of 8mm Galvanized steel

Operating Temperature

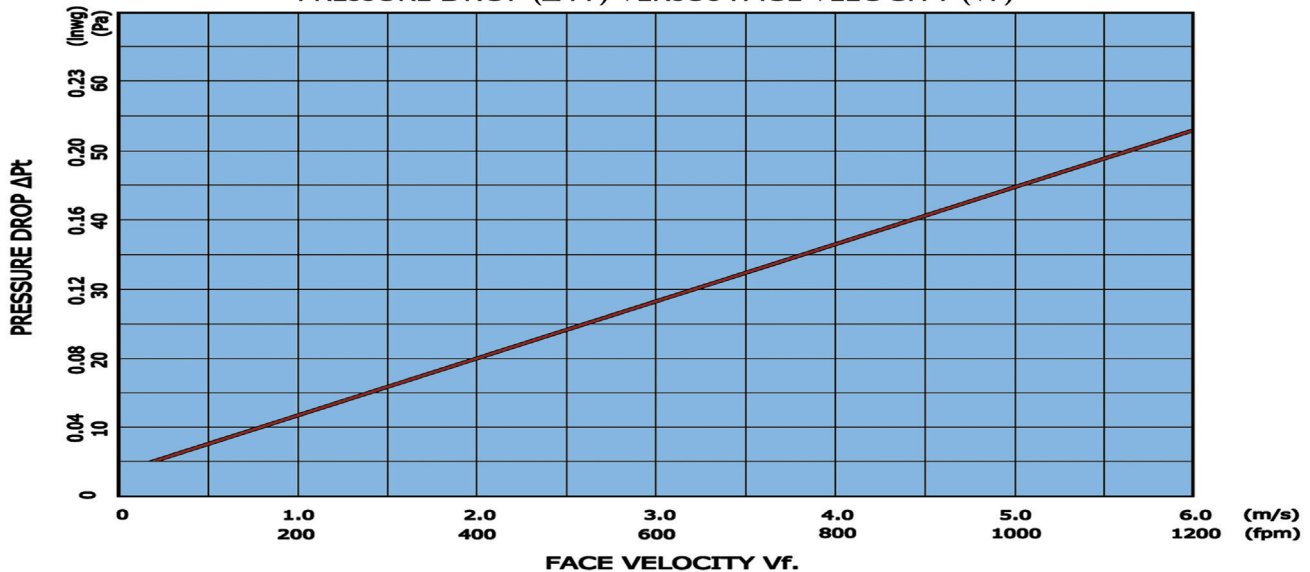
-10°C to 80°C as standard

**Material Specifications subject to change as per customer's demand.*



ENGINEERING AND PERFORMANCE DATA

**AIR FLOW RESISTANCE DIAGRAM
PRESSURE DROP (Δ Pf) VERSUS FACE VELOCITY (Vf)**



TO CALCULATE THE AIR FLOW RATE

Simply the Air Flow Rate in (L/S) or (CFM) can be calculated using any of the following equations: $\frac{L(\text{inch}) \times H(\text{inch}) \times V f.(\text{fpm})}{151}$

Air Flow Rate in (L/S) = $0.80 \times \frac{L(\text{mm}) \times H(\text{mm}) \times V f.(\text{m/s})}{1000}$ or Air Flow Rate in (CFM) = $0.80 \times$

Where:

L = Damper Length H = Damper Height