

# NON-RETURN DAMPER

MODEL: NRD



**IRAN**  
**IGGC**

IGC International Group

# NON-RETURN DAMPER DESIGN & CONSTRUCTION FEATURES



## Description

NRD- Non return/pressure relief dampers are designed for use in intake and discharge opening in commercial and residential air conditioning systems.

When the ventilation system is on, the blades of the non-return damper are held in the open position by the airflow.

If the system is switched off, the damper blades close automatically, thus preventing reverse airflow and giving protection against the ingress of untempered air, rain and birds into the air conditioning system.

## Construction

Frame:

5" deep (127 mm) deep channel frame  
16 gauge (1.5 mm) thick galvanized steel

Blades:

16 gauge to 24 gauge thick galvanized steel

Bearings:

Bronze or brass

Axle:

½" (12 mm) diameter plated steel / square

Linkage:

Plated steel side linkage concealed in frame



Non-Return Damper

## Optional Features

- Smooth and maintenance free blade operation.
- The Frame is manufactured from high quality stainless steel/aluminium/galvanized sheet steel of 16 to 20 gauge thickness.
- Blades are made of 1.5mm to 0.7mm thickness galvanized steel sheet or aluminium sheet.
- Blades are fitted with bronze bush for rattle free smooth operation.
- Blades are sealed with neophrene gasket at the bottom to avoid rattling noise and provide air tight operation.

SINGLE SECTION SIZE W X H, inches (mm)	
MODEL	NRD
MINIMUM	6" x 6" (150 x 150)
MAXIMUM	47" x 94" (1200 x 2400)
Multiple sections size: Unlimited "W" (width) and "H" (height) are opening sizes. Dampers are made 6 mm undersized.	

# NON-RETURN DAMPER PERFORMANCE DATA



## PERFORMANCE DATA:

Pt (Pa): Pressure Drop

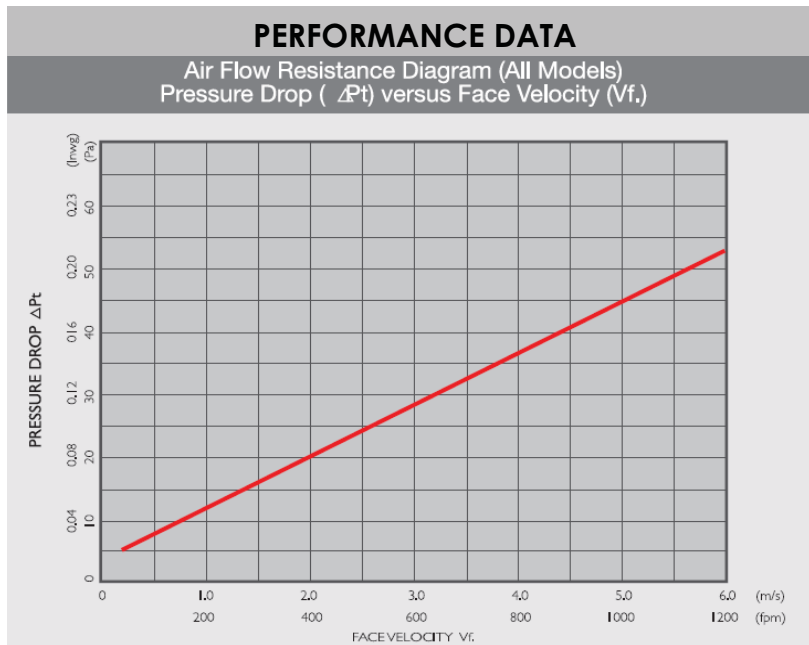
Vf (m/sec): Air Velocity

Simply the Air Flow Rate in (L/S) or (CFM) can be calculated using  
Any of the following equations:

VCD-2.2 VELOCITY VS PRESSURE DROP

$$\text{Air Flow Rate in (L/S)} = 0.80 \times L(\text{mm}) \times \frac{H(\text{mm}) \times V_f(\text{m/s})}{1000}$$

$$\text{Air Flow Rate in (CFM)} = 0.80 \times L(\text{inch}) \times \frac{H(\text{inch}) \times V_f(\text{fpm})}{151}$$



## TEST STANDARDS & CERTIFICATION

### AMCA

IGC is a member of AMCA and all of our products are under process to get Certification from AMCA.



### IGC Aire Dampers

- Commercial Control
- Backdraft
- Manual Balancing
- Barometric Relief
- Fire, Smoke, & Combination Fire Smoke
- Pressure Relief Dampers
- Access Doors

### About Us

IGC manages a sophisticated, global network of independent distributors, sales agents, assembly programs, technology agreements and offshore manufacturing for each product division. All locations are staffed with expert engineers and sales professionals who understand the unique requirements of each market. Our products are on the cutting edge of technology. Research and development is a way of life. We are constantly looking for ways to improve current products and introducing new products to satisfy our ever-changing business environment. Quality is built into all of our products. Statistical process control systems incorporate state-of-the-art computerized data gathering technology to assure performance and measure dimensional accuracy of each component. The finished product, in many instances, exceeds accepted standards, local codes or customer specifications. The combination of an established global network, state-of-the-art products, constant research and development, and built-in quality has placed us ahead of our competition. We are committed to our customers \_ we are service, we are quality, we are price. A team dedicated to solving customer problems and providing satisfaction.