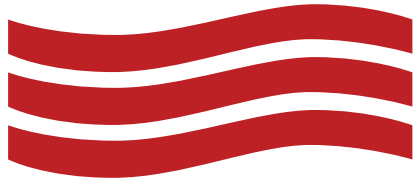


# AIRFOIL

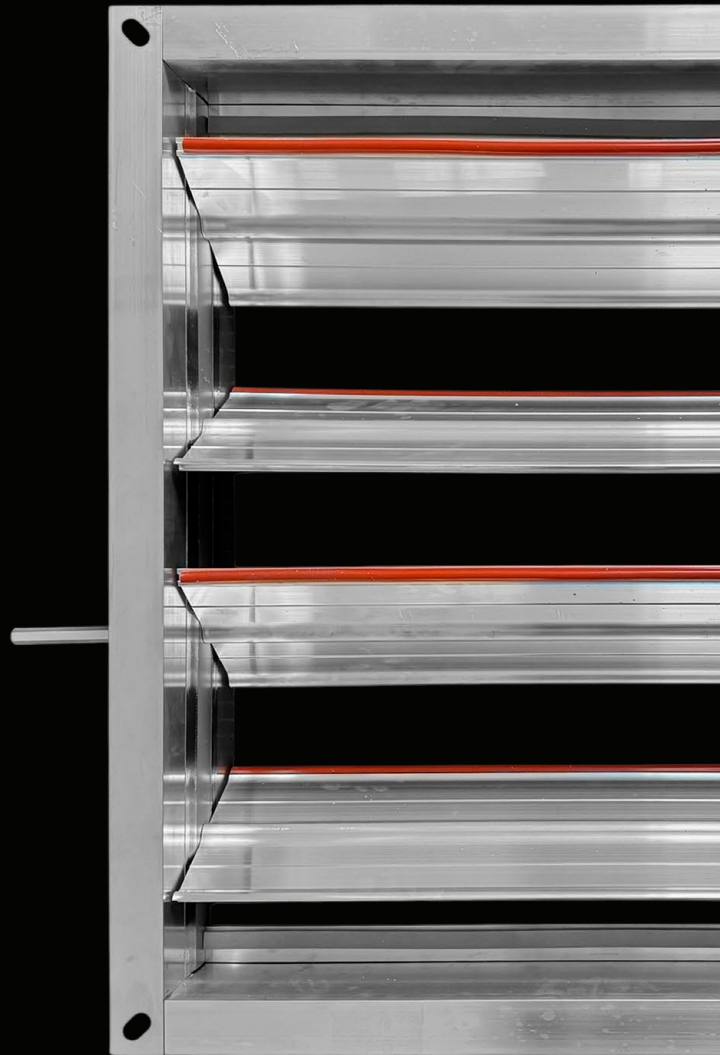


GRILLES  
DUCT  
FITTINGS

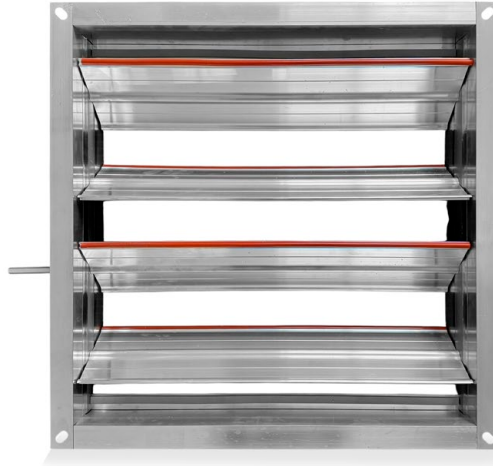
*making it happen sooner...*



Quality  
Endorsed  
Company  
ISO 9001  
 SAI GLOBAL



**MOTORISED SMOKE DAMPER  
MSD**



## MOTORISED SMOKE DAMPER MSD

### PRODUCT DESCRIPTION AND APPLICATION

Airfoil Motorised Smoke Damper (MSD) is an Australian Made and designed product, purpose-built to control and contain smoke within HVAC systems during fire events. Its primary function is to prevent the spread of smoke through ductwork and ventilation systems, helping protect occupants and supporting safe evacuation procedures. Constructed from high-strength extruded aluminium, the damper offers excellent durability, corrosion resistance, and requires minimal maintenance.

The aluminium blades feature interlocking edges that reduce leakage, while the grooved blade tips are designed to hold a high-temperature silicone seal. This seal expands under heat when the damper is closed, ensuring a tight, low-leakage barrier against smoke. The linkage mechanism is housed within the frame and located outside of the airstream. A central hexagonal cavity in the blade houses zinc die-cast crank arms that rotate in brass bushes to reduce friction and ensure smooth movement.

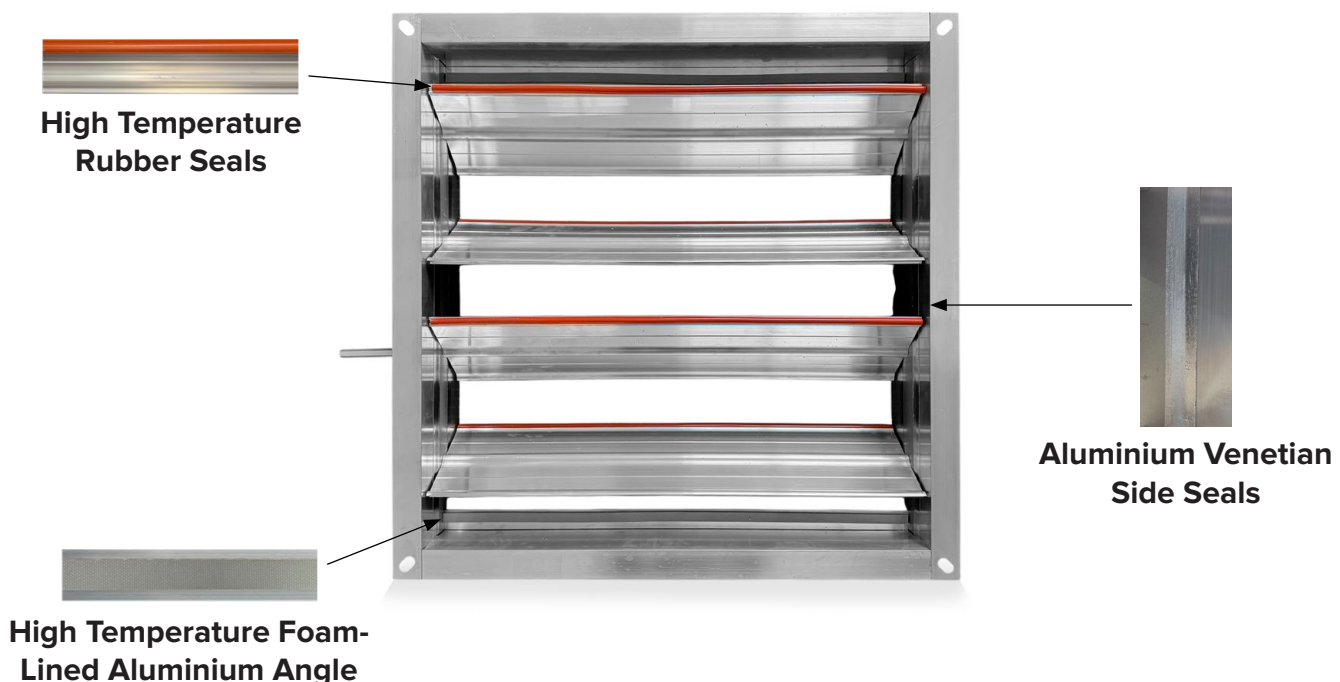
The blades are linked together using aluminium linkage bars on both sides of the damper, allowing synchronized blade operation. A 90mm long hexagonal drive shaft is connected for motorised operation. Since all blades are mechanically linked, this single drive point enables the simultaneous opening and closing of all blades whether in parallel or opposed blade operation depending on application needs. To enhance sealing performance, the frame includes a high-temperature foam-lined aluminium angle on the top and bottom and an Aluminium side seal, providing an effective seal around the perimeter of the damper. For ease of installation, the damper includes 35mm flanged edges with slotted holes, allowing quick and secure mounting to ductwork.

Larger dampers can be manufactured in modular form, ensuring a maximum blade length of 1200mm for added strength and rigidity. The damper has been tested and certified for medium air leakage in accordance with AS1530.7:2007 (R2018) and complies with AS1682.1:2015, meeting all relevant Australian standards for smoke control systems. With its robust construction, low-leakage design, and proven compliance, the Airfoil Motorised Smoke Damper is a trusted solution for fire and smoke safety in commercial, industrial, and public buildings.

## MOTORISED SMOKE DAMPER MSD

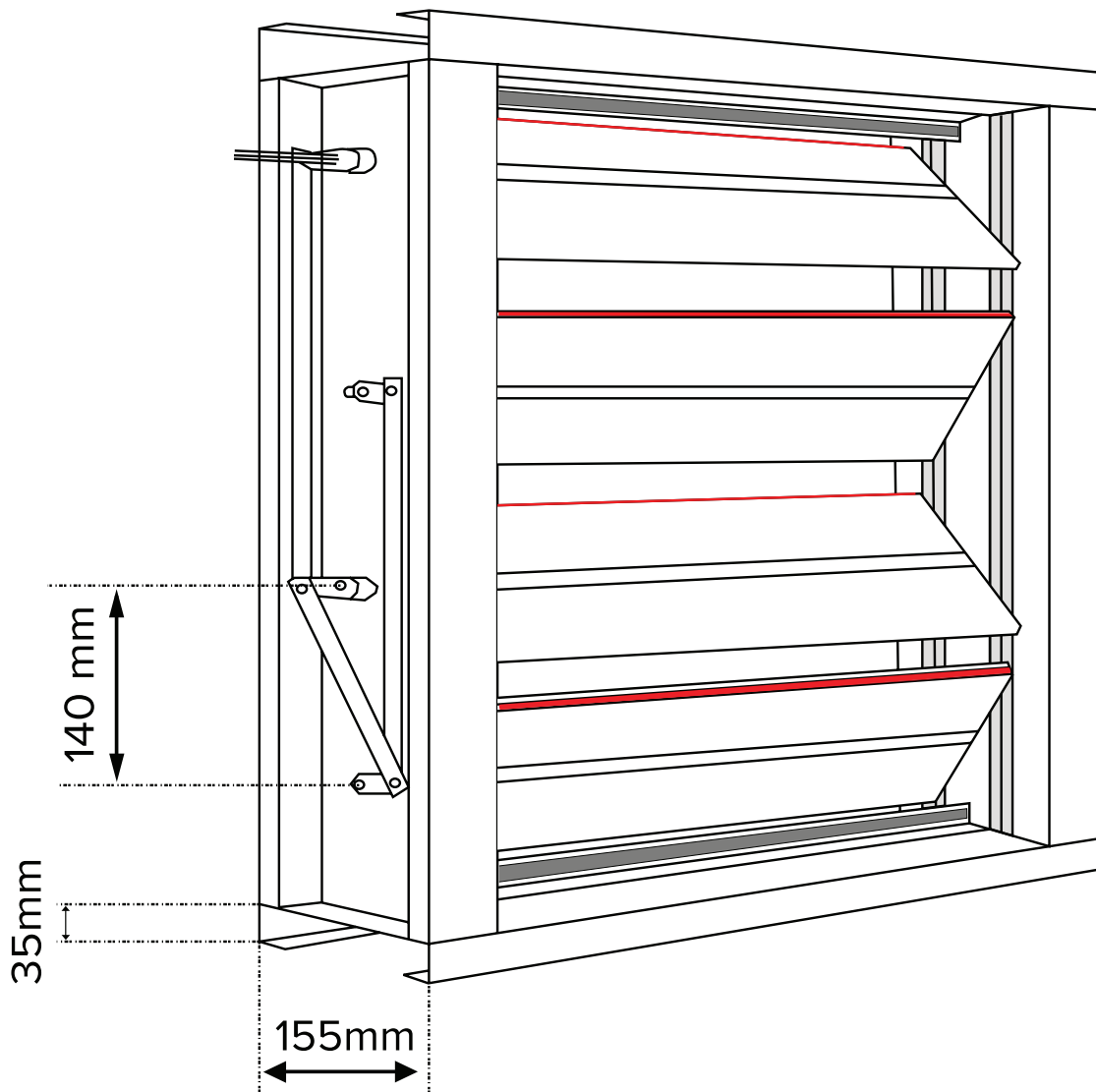
### PRODUCT SPECIFICATIONS AND INFORMATION

- **Product ordering code – MSD**
- Australian Made
- Premium Aluminium Mill Finish Construction
- Manufactured to any size
- Motorised Operator shaft included
- Available with optional internal 200mm (wide) by 300mm (high) Motor Housing
- Different Motor Housing sizes available on request
- Always ordered by the dampers “AIRWAY SIZE” blade length dimensions **first** then by height
- 150mm VCD Aluminium Blade
- 2mm frame channel 155mm deep screwed and welded for extra strength and rigidity
- 35mm frame easy installation into ductwork
- Blades come complete with high temperature rubber seals for minimising air leakage
- High-temperature foam-lined aluminium angle on the top and bottom
- Aluminium Venetian side seals
- 12mm Hexagonal drive shaft for motorised operation
- Brass Bushes
- Blades interlinked with 20mm x 3mm aluminium flat bar
- **Tested and certified for medium air leakage in accordance with AS1530.7:2007 (R2018) and complies with AS1682.1:2015.**



## MOTORISED SMOKE DAMPER MSD

### CROSS SECTIONAL DIAGRAM



#### DISCLAIMER:

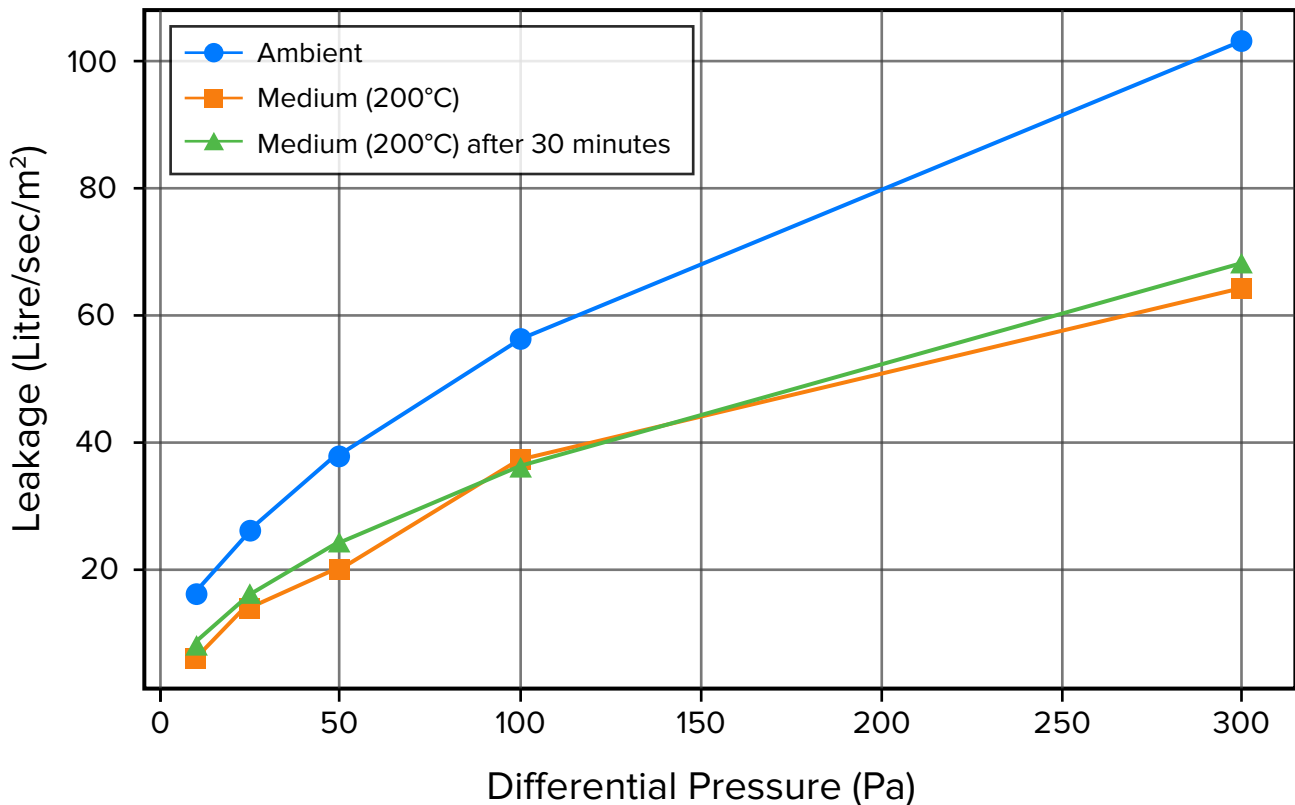
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## MOTORISED SMOKE DAMPER MSD

### PERFORMANCE DATA

|                                 | Leakage (Litres/sec/m <sup>2</sup> ) |       |       |        |        |
|---------------------------------|--------------------------------------|-------|-------|--------|--------|
| Exposure                        | 10 Pa                                | 25 Pa | 50 Pa | 100 Pa | 300 Pa |
| Ambient                         | 16                                   | 26    | 38    | 56     | 103    |
| Medium (200°C)                  | 6                                    | 14    | 20    | 37     | 64     |
| Medium (200°C) After 30 Minutes | 8                                    | 16    | 24    | 36     | 68     |

### Ambient and Medium Air Leakage test results - @ standard reference conditions



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## MOTORISED SMOKE DAMPER MSD

### PRODUCT ORDERING DETAILS

MSD  
LOW LEAKAGE  
BLADE AND/OR SIDE SEALS  
STANDARD BLADE CONFIGURATION

