

# **MANUFACTURED RANGE DAMPERS**



Overview



# MANUFACTURED RANGE

# **Volume Control Dampers**

#### Description

Volume Control Damper is designed to help regulate the volume of air through duct systems. The blades are designed to minimise drag when fully open and with interlocking blades providing a good seal when closed to minimise air leakage. All VCD's are made to order and are manufactured AIRWAY SIZE unless specified otherwise. Standard VCD's are manufactured with no side seals or blade tip seals (optional). High temperature seals also available for smoke relief.

#### Specification

#### **Manual Volume Control Damper**

Manual Volume Control Damper shall be specified as model MANVCD manufactured by QAE for manual operation. The frame and blades shall be constructed from 6060/T6 extruded aluminium in Mill Finish. The frame is screwed together and blades held on zinc axles and acetyl bearings. All operating gear and linkages are out of the air way and concealed within the frame. The MANVCD comes complete with quadrant arm and blade position indicator. Slotted holes are punched in each corner to suit duct flanging. Volume Control Dampers shall be fitted with accessories where required by QAE.

#### **Motorised Volume Control Damper**

Motorised Volume Control Damper shall be specified as model MOTVCD manufactured by QAE for Motorised Operation. The frame and blades shall be constructed from 6060/T6 extruded aluminium in Mill Finish. The frame is screwed together and blades held on zinc axles and acetyl bearings. All operating gear and linkages are out of the air way and concealed within the frame. The hexagonal shaft is 12.5mm and is supplied with the MOTVCD. Slotted holes are punched in each corner to suit duct flanging. Volume Control Dampers shall be fitted with accessories where required by QAE.

PRODUCT CODE	DESCRIPTION
MOTVCD	Motorised Volume Control Dampers (Motor NOT included)
MANVCD	Manual Volume Control Dampers
MOTSRD	Motorised Smoke Relief Dampers (Motor NOT included)

#### Note:

- Made to order, custom sizes are available
- For product performance data, see pages 342 343



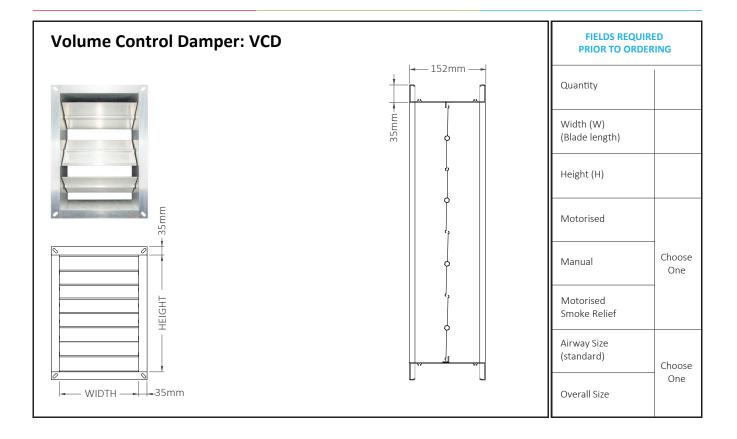


QAE strive to provide products that best suit the market's requirements. As such, QAE reserve the right to supply products which may differ slightly from those shown in this and other publications. For product warranties please refer to our standard terms and conditions.



# **MANUFACTURED RANGE DAMPERS**

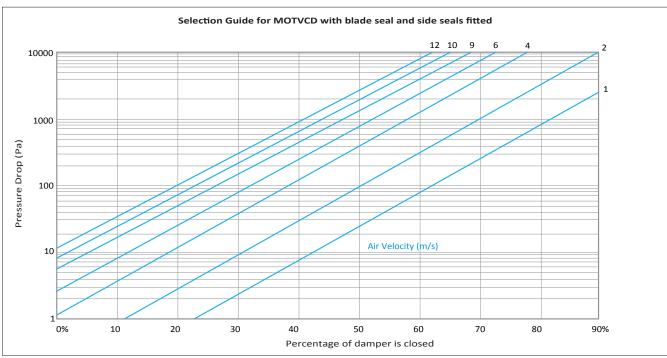








### **Volume Control Dampers: MOTVCD/MANVCD/MOTSRD**



These graphs are for selection only and should not be used for commissioning.

#### **Selection Example:**

$$V = \frac{Q}{A}$$
 where  $V = air Velocity (m/s)$   
 $Q = Air Flow (m^3/s)$   
 $A = Area of duct (m^2)$ 

2000l/s passing through a 700mm x 700mm duct

$$Q = \frac{2000}{1000} = 2 \text{ m}^3/\text{s}$$

$$A = 0.7 \times 0.7 = 0.49 \text{ m}^2$$

$$V = \frac{2}{0.49} = 4.08 \text{ m/s}$$

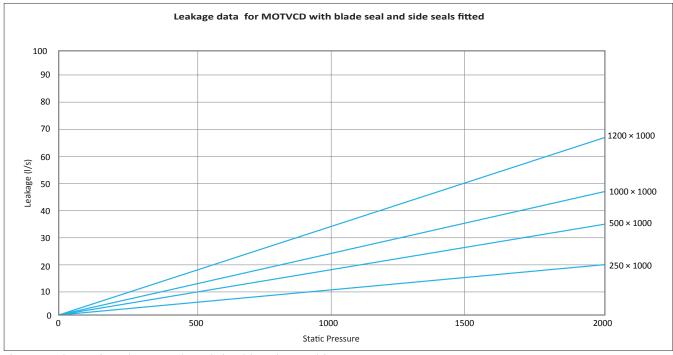
A Damper closed at 35%, with a duct velocity of 4.08m/s will have a Pressure Drop of 80Pa.

#### **Test Conditions**

- Product testing of the VCD range was conducted in a positive pressure application, and the damper was in a vertical plane with blades running horizontal.
- Before purchasing for a negative pressure application, please refer to our representative for further information.
- Applications where the damper is in a vertical plane, but turned on side (with blades running vertically), should be advised at time of ordering, to ensure appropriate inclusions are selected.



## **Volume Control Dampers: MOTVCD/MANVCD/MOTSRD**



These graphs are for selection only and should not be used for commissioning.



## Non Return Damper: NRD

