FLOWTECH VOLUME CONTROL DAMPER MODELS

Flange Type

- **GA - VCD**: Flange type Galvanized steel frame with aluminum blade and hand-operated quadrant
- **GG - VCD**: Flange type Galvanized steel frame with Galvanized steel blade and hand-operated quadrant
- **GAM - VCD**: Flange type Galvanized steel frame with Aluminum blade and control electric motor

  - **Application**: Generally used for application in GI ducts and pre-insulated ducts.

Box Type

- **GAB - VCD**: Box type Galvanized steel frame with aluminum blade and hand-operated quadrant

  - **Application**: Generally used for application in GI ducts and pre-insulated ducts. Sizes are limited to 600mm (width) x 400mm (height) only.

Slip & Clip Type

- **GAS - VCD**: Slip & Clip type Galvanized steel frame with aluminum blade and hand-operated quadrant
- **GGS - VCD**: Slip & Clip type Galvanized steel frame with Galvanized steel blade and hand-operated quadrant

  - **Application**: Generally used for majority applications in GI ducts. Sizes are limited to 600mm (width) x 400mm (height) only.

Pre-Insulated Type

- **PA - VCD**: Pal Sandwich panel frame with aluminum blade and hand-operated quadrant
- **PAM - VCD**: Pal Sandwich panel frame with aluminum blade and control electric motor

  - **Application**: Generally used for majority applications in pre-insulated ducts.

Round Type

- **GGR - VCD**: Round type Galvanized steel frame with Galvanized blade and hand-operated quadrant

  - **Application**: Generally used for applications in GI ducts and pre-insulated ducts. Sizes are limited to 400mm diameter.
Flange Type - GA - VCD

Application

The Flange Type Volume Control Damper has been specially designed for installation in system where high/medium/low pressure are experienced. These dampers are designed to operate from one control point. The damper's blade opening is controlled by hand locking quadrant.

Dimensions of Dampers

Minimum size of 100mm (width) x 100mm (height) and maximum size of 2000mm (width) x 2000mm (height)

Standard size of the flange is 20mm

Standard length is 170mm

Material Specifications

Casing
1.2mm thickness (18 gauge) GI sheet

Blades
Airfoil blades made of 1.1mm thick Aluminum extruded

Bushes
PVC bushes 12mm x 12mm sq w/ drive

Linkage
Linkages are made of 3mm thick Galvanized steel

Handle
Handle is made of 1.2mm thick (18 gauge) Galvanized steel with integral rotation slot indicating blade open & close position

Spindle
Spindles are made of 12mm x 12mm square Galvanized steel

Operating Temperature
-10°C to 110°C as standard
Application

The Flange Type Volume Control Damper has been specially designed for installation in systems where high/medium/low pressure are experienced. These dampers are designed to operate from one control point. The damper’s blade opening is controlled by hand locking quadrant.

Dimensions of Dampers

Minimum size of 100mm (width) x 100mm (height) and maximum size of 2000mm (width) x 2000mm (height)

Standard size of the flange is 20mm

Standard length is 170mm

Material Specifications

Casing
1.2mm thickness (18 gauge) GI sheet

Blades
Blades made of 0.9mm thickness (21 gauge) GI sheet

Bushes
PVC bushes 12mm x 12mm sq w/ drive

Linkage
Linkages are made of 3mm thick Galvanized steel

Handle
Handle is made of 1.2mm thick (18 gauge) Galvanized steel with integral rotation slot indicating blade open & close position

Spindle
Spindles are made of 12mm x 12mm square Galvanized steel

Operating Temperature
-10°C to 110°C as standard
Application

The Flange Type Volume Control Damper has been specially designed for installation in system where high/medium/low pressure are experienced. These dampers are designed to operate from one control point. The damper's blade opening is controlled by electric motor.

Dimensions of Dampers

Minimum size of 100mm (width) x 100mm (height) and maximum size of 2000mm (width) x 2000mm (height)

Standard size of the flange is 20mm

Standard length is 170mm

Material Specifications

Casing
1.2mm thickness (18 gauge) GI sheet

Blades
Airfoil Blades made of 1.1mm thick aluminum extruded

Bushes
Brass bush with 12mm diameter

Linkage
Linkages are made of 3mm thick Galvanized steel

Spindle
Spindles are made of 12mm x 12mm square Galvanized steel

Operating Temperature
-10°C to 110°C as standard

Selection of Motors

Motors are selected by torque requirement and application type in relation to the size of the damper.

<table>
<thead>
<tr>
<th>Size of Damper (mm)</th>
<th>Torque of Motor (Nm)</th>
<th>Type of Motor</th>
</tr>
</thead>
<tbody>
<tr>
<td>From 100 x 100 to 500 x 500</td>
<td>5</td>
<td>On/Off or Modulating</td>
</tr>
<tr>
<td>From 550 x 550 to 1000 x 1000</td>
<td>10</td>
<td>On/Off or Modulating</td>
</tr>
<tr>
<td>From 1050 x 2000 to 1050 x 2000</td>
<td>20</td>
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Application

The Box Type Volume Control Damper has been specially designed for installation in system where medium/low pressure are experienced. These dampers are designed to operate from one control point. The damper’s blade opening is controlled by hand locking quadrant.

Dimensions of Dampers

Minimum size of 100mm (width) x 100mm (height) and maximum size of 600mm (width) x 400mm (height)

Standard length is 170mm

Material Specifications

Casing
0.9mm thickness (21 gauge) GI sheet

Blades
Airfoil Blades made of 1.1mm thick aluminum extruded

Bushes
PVC bushes 12mm x 12mm sq w/ drive

Linkage
Linkages are made of 3mm thick Galvanized steel

Handle
Handle is made of 1.2mm thick (18 gauge) Galvanized steel with integral rotation slot indicating blade open & close position

Spindle
Spindles are made of 12mm x 12mm square Galvanized steel

Operating Temperature
-10°C to 110°C as standard
The Slip & Clip Type Volume Control Damper has been specially designed for installation in systems where medium/low pressure are experienced. These dampers are designed to operate from one control point. The damper’s blade opening is controlled by a hand locking quadrant.

**Material Specifications**

- **Casing**: 0.7mm thickness (23 gauge) GI sheet
- **Blades**: Airfoil Blades made of 1.1mm thick aluminum extruded
- **Bushes**: PVC bushes 12mm x 12mm square with drive
- **Linkage**: Linkages are made of 3mm thick Galvanized steel
- **Handle**: Handle is made of 1.2mm thick (18 gauge) Galvanized steel with integral rotation slot indicating blade open and close position
- **Spindle**: Spindles are made of 12mm x 12mm square Galvanized steel

**Operating Temperature**

-10°C to 110°C as standard

**Dimensions of Dampers**

Minimum size of 100mm (width) x 100mm (height) and maximum size of 600mm (width) x 400mm (height)

Standard length is 170mm
Material Specifications

Casing
0.7mm thickness (23 gauge) GI sheet

Blades
Blades made of 0.7mm thickness (23 gauge) GI sheet

Bushes
PVC bushes 12mm x 12mm square with drive

Linkage
Linkages are made of 3mm thick Galvanized steel

Handle
Handle is made of 1.2mm thick (18 gauge) Galvanized steel with integral rotation slot indicating blade open and close position

Spindle
Spindles are made of 12mm x 12mm square Galvanized steel

Operating Temperature
-10°C to 110°C as standard

Dimensions of Dampers

Minimum size of 100mm (width) x 100mm (height) and maximum size of 600mm (width) x 400mm (height)

Standard length is 170mm

Application

The Slip & Clip Type Volume Control Damper has been specially designed for installation in system where medium/low pressure are experienced. These dampers are designed to operate from one control point. The damper's blade opening is controlled by hand locking quadrant.
Material Specifications

Casing
- Pal Sandwich Panel 20mm/30mm thickness 80/80 micron / 80/200mm micron

Blades
- Airfoil blades made of 1.1mm thick aluminum extruded

Bushes
- PVC bushes 12mm x 12mm square with drive

Linkage
- Linkages are made of 3mm thick Galvanized steel

Handle
- Handle is made of 1.2mm thick (18 gauge) Galvanized steel with integral rotation slot indicating blade open and close position

Spindle
- Spindles are made of 12mm x 12mm square Galvanized steel

Operating Temperature
- -10°C to 110°C as standard

Application

The Pre-Insulated Type Volume Control Damper has been specially designed for installation in system where high/medium/low pressure are experienced. These dampers are designed to operate from one control point. The damper's blade opening is controlled by hand locking quadrant.

Dimensions of Dampers

Minimum size of 100mm (width) x 100mm (height) and maximum size of 2000mm (width) x 2000mm (height)

Standard thickness of the flange is 20mm

Standard length is 170mm
Material Specifications

Casing
- Pal Sandwich Panel 20mm/30mm thickness, 80/80 micron / 80mm/200mm micron

Blades
- Airfoil blades made of 1.1mm thick aluminum extruded

Bushes
- Brass bushes with 12mm diameter

Linkage
- Linkages are made of 3mm thick Galvanized steel

Spindle
- Spindles are made of 12mm x 12mm square Galvanized steel

Operating Temperature
- -10°C to 110°C as standard

Application

The Pre-Insulated Type Volume Control Damper has been specially designed for installation in system where high/medium/low pressure are experienced. These dampers are designed to operate from one control point. The damper’s blade opening is controlled by electric motor.

Dimensions of Dampers

Minimum size of 100mm (width) x 100mm (height) and maximum size of 2000mm (width) x 2000mm (height)

Standard thickness of the flange is 20mm

Standard length is 170mm

Selection of Motors

Motors are selected by torque requirement and application type in relation to the size of the damper.

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<td>20</td>
<td>On/Off or Modulating</td>
</tr>
</tbody>
</table>
Material Specifications

Casing
0.9mm thickness (21 gauge) GI sheet

Blades
Blades made of 0.9mm thickness (21 gauge) GI sheet

Bushes
PVC bushes 8mm x 8mm square with drive

Handle
Handle is made of 1.2mm thick (18 gauge) Galvanized steel with integral rotation slot indicating blade open and close position

Spindle
Spindles are made of 8mm x 8mm square Galvanized steel

Operating Temperature:
-10°C to 110°C as standard

Application

The Round Type Volume Control Damper has been specially designed for installation in system where high/medium/low pressure are experienced. These dampers are designed to operate from one control point. The damper’s blade opening is controlled by hand locking quadrant.

Dimensions of Dampers

Minimum size of VCD is 100mm Ø and maximum size is 400mm Ø

Standard length is as follows (see Table 1):

<table>
<thead>
<tr>
<th>Dia</th>
<th>Length</th>
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<tbody>
<tr>
<td>100</td>
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<td>350</td>
<td>400</td>
</tr>
<tr>
<td>400</td>
<td>450</td>
</tr>
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</table>

Table 1
Pressure Drop vs. face velocity with damper in open position.
1. Volume Control Damper opposed blades
2. Volume Control Damper parallel blades
### Ordering System

**VCD - W x H**  
(Model) - (Width) x (Height)

- **GA VCD**: Flange type galvanized steel frame with aluminum blade and hand-operated quadrant. 
- **GG VCD**: Flange type galvanized steel frame with galvanized steel blade and hand-operated quadrant. 
- **GAM VCD**: Flange type galvanized steel frame with aluminum blade and control electric motor. 
- **GAB VCD**: Box type galvanized steel frame with aluminum blade and hand-operated quadrant. 
- **GAS VCD**: Slip & clip type galvanized steel frame with aluminum blade and hand-operated quadrant. 
- **GGS VCD**: Slip & clip type galvanized steel frame with galvanized steel blade and hand-operated quadrant. 
- **PA VCD**: Pal sandwich panel frame with aluminum blade and hand-operated quadrant. 
- **PAM VCD**: Pal sandwich panel frame with aluminum blade and control electric motor. 
- **GGR VCD**: Round type galvanized steel frame with galvanized steel blade and hand-operated quadrant.

### Ordering Example

**GA VCD - 40" x 16"**

Refers to flange type galvanized steel frame with aluminum blade and hand-operated quadrant. Size 40" (width) x 16" (height).