VOLUME CONTROL
DAMPERS
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VOLUME CONTROL DAMPER

CONSTRUCTION:

Frame: High quality Galvanized Steel sheet of thickness 1.2mm as standard.

Frame size: 125mm depth and standard flange height of 25mm.

Blades: Double skinned high quality extruded Aluminium aerofoil profiles.

Drive shaft: Electro-plated square rod of size 12.7mm x 12.7mm.

Bushings: Self-lubricating nylon bushings.

Blade linkage: Nylon gear.

Handle: Galvanized Steel locking hand quadrant.

Blade stopper: G.I angle of thickness 0.7mm.

Description:

• Designed for use in heating, ventilating and air conditioning systems.

• Joints are welded and protected by aluminium spray coating to prevent rusting.

• Blades are coupled by toothed nylon gears which provides opposed blade operation.

• Hand locking quadrant is provided with clear open/close indication and three intermediate open positions (1/4 – 1/2 - 3/4).

• Foam gasket is sealed across the blade edges to minimize air leakage between the blades.

• Flanged edges are supplied un-drilled as standard.

• Dampers without flanges available as option for duct insertion purpose.

Optional Accessories:

• Frame: Thickness upto 2mm on request. Aluminium frame available for light weight applications.

• Handle: Cast Aluminium.

• Bush: Brass bush, S.S. Ball Bearing.

• Gear Wheel: Aluminium Alloy.

• Blade: Low leakage: S.S Jamb seal, Nylon blade end caps.

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Performance chart:
Model: AVCD

Pressure drop - Rectangular VCD aerofoil type blades
CONSTRUCTION:

Frame: High quality Galvanized Steel sheet of thickness 1.2mm as standard.
Frame Size: 125mm depth and standard flange height of 35mm.
Blades: Double skinned high quality extruded Aluminium aerofoil profiles.

Drive Shaft: Electro plated square rod of size 12.7mm x 12.7mm.
Bushings: Self-lubricating S.S Ball bearing.
Blade linkage: Nylon gear.
Blade stopper: G.I angle of thickness 0.7mm.

Description:

• Designed for use in heating, ventilating and air conditioning systems.

• Joints are welded and protected by aluminium spray coating to prevent rusting.

• Blades are coupled by toothed nylon gears which provides opposed blade operation.

• Foam gasket is sealed across the blade edges to minimize air leakage between the blades.

• Flanged edges are supplied un-drilled as standard.

• Dampers without flanges available as option for duct insertion purpose.

• Actuators of client’s choice will be supplied separately.

• Dampers will be provided with extended spindle to fix actuator on-site.

• Bigger sizes will be provided with mechanical linkage for stability and hassle-free operation.

Optional Accessories:

• Frame: Thickness up to 2mm upon request. Aluminium frame available for off-shore or light weight applications.
• Handle: Cast Aluminium
• Bush: Brass bush, S.S. Ball Bearing.
• Gear Wheel: Aluminium Alloy.
• Low Leakage: S.S. Jamb seal, nylon blade end caps

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VOLUME CONTROL DAMPERS

model: AVCD-SC

SLIP & CLIP TYPE VOLUME CONTROL DAMPER

CONSTRUCTION:

Frame: High quality Galvanized Steel sheet of thickness 0.9mm as standard.
Frame size: 200mm depth.
Blades: Double skinned high quality extruded aluminium aerofoil profiles.
Drive Shaft: Electro-plated square rod of size 12.7mm x 12.7mm

Blade linkage: Nylon gear.
Bushings: Self-lubricating nylon bushings.
Blade stopper: G.I. angle of thickness 0.7mm.
Handle: Galvanized Steel locking hand quadrant

Description:

• Designed for use in heating, ventilating and air conditioning systems.

• Joints are welded and protected by aluminium spray coating to prevent rusting.

• Blades are coupled by toothed nylon gears which provides opposed blade operation.

• Hand locking quadrant is provided with clear open/close indication and three intermediate open positions (1/4 – 1/2 - 3/4).

• Foam gasket is sealed across the blade edges to minimize air leakage between the blades.

Options:

• Handle: Cast Aluminium
• Bush: Brass bush, S.S. Ball Bearing.
• Gear Wheel: Aluminium Alloy.
• Low Leakage: S.S Jamb seal, Nylon blade end caps.

Frame:

High quality Galvanized Steel sheet of thickness 0.9mm as standard.

Frame size:

200mm depth.

Blades:

Double skinned high quality extruded aluminium aerofoil profiles.

Drive Shaft:

Electro-plated square rod of size 12.7mm x 12.7mm

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STAINLESS STEEL
VOLUME CONTROL DAMPER
model: AVCD-SS

CONSTRUCTION:
Frame: High quality Stainless Steel sheet (Grade 304/316L) of thickness 1.2mm depending on the size.
Frame Size: 125mm depth and standard flange height of 25mm.
Blades: Single skin ridge shaped blade constructed out of 1.2mm thick S.S sheet as standard.

Drive Shaft: S.S square rod of size 12.7mm x 12.7mm.
Bushings: Self-lubricating S.S or brass bushings.
Blade linkage: Nylon gear.
Blade stopper: S.S angle of thickness 0.7mm.
Handle: S.S locking hand quadrant.

Description:
• Designed for offshore applications in heating, ventilating and air-conditioning systems.

• Can also be used in chemical industries and kitchen ventilation.

• Joints are welded and protected by chemical cleaning process.

• Blades are coupled by toothed nylon gears which provides opposed blade operation.

• Hand locking quadrant is provided with clear open/close indication and three intermediate open positions (1/4 – 1/2 - 3/4).

• Foam gasket is sealed across the blade edges to minimize air leakage between the blades.

• Flanged edges are supplied un-drilled as standard.

• Dampers without flanges available as option for duct insertion purpose.

Options:
• Frame: Thickness up to 1.6mm upon request.
• Gear Wheel: Aluminium Alloy.
• Low Leakage: S.S Jamb seal.
**VOLUME CONTROL DAMPER**

**model: AVCD-ZL**

**LOW LEAKAGE VOLUME CONTROL DAMPER**

**CONSTRUCTION:**

- **Frame:** High quality Galvanized Steel sheet of thickness 1.2mm as standard.
- **Frame size:** 125mm depth and standard flange height of 25mm.
- **Blades:** Double skinned heavy duty extruded Aluminium profiles.
- **Drive shaft:** Electro plated square rod of size 12.7mm x 12.7mm.
- **Bushings:** Self-lubricating nylon bushings.
- **Blade linkage:** Nylon gear.
- **Blade stopper:** G.I angle of thickness 0.7mm.
- **Handle:** Galvanized Steel locking hand quadrant.

**Description:**

- Designed for use in heating, ventilating and air conditioning systems for low-leakage applications.

- Joints are welded and protected by aluminium spray coating to prevent rusting.

- Blades are coupled by toothed nylon gears which provides opposed blade operation.

- Hand locking quadrant is provided with clear open/close indication and three intermediate open positions (1/4 – 1/2 - 3/4).

- Foam gasket is sealed across the blade edges to minimize air leakage between the blades.

- Flanged edges are supplied un-drilled as standard.

- Dampers without flanges available as option for duct insertion purpose.

- Air leakage from 0.18% to 1.33% only based on tests conducted in accordance with AMCA standard 500-D-98.

**Options:**

- **Frame:** G.I sheet of thickness up to 2mm available upon request. Aluminium frame is also available for light weight / offshore / exposed area applications.

- **Hand:** Cast Aluminium.
- **Bush:** Brass bush, S.S. Ball Bearing.
- **Gear Wheel:** Aluminium Alloy.
- **Low Leakage:** S.S Jamb seal.
CONSTRUCTION:

**Frame:** High quality Galvanized Steel of thickness 1.2mm as standard.

**Frame Size:** 125mm depth and standard flange height of 25mm.

**Blades:** Single skinned 3-V type G.I blade of 1.5mm thickness.

**Drive Shaft:** Electro plated square rod of size 12.7mm x 12.7mm.

**Bushings:** Self-lubricating nylon bushings.

**Blade linkage:** Nylon gear/mechanical linkage

**Blade stopper:** G.I angle of thickness 0.7mm.

**Handle:** Galvanized Steel locking hand quadrant.

Description:

- Designed for use in heating, ventilating and air conditioning systems.

- Joints are welded and protected by aluminium spray coating to prevent rusting.

- Blades are coupled by toothed nylon gears which provides opposed blade operation.

- Hand locking quadrant is provided with clear open/close indication and three intermediate open positions (1/4 – 1/2 - 3/4).

- Foam gasket is sealed across the blade edges to minimize air leakage between the blades.

- Flanged edges are supplied un-drilled as standard.

- Dampers without flanges available as option for duct insertion purpose.

Options:

- **Frame:** Thickness up to 2mm upon request.
- **Blade:** Double skin aerofoil type G.I blade of thickness 0.7mm.
- **Handle:** Cast Aluminium.
- **Bush:** Brass bush, S.S. Ball Bearing.
- **Gear Wheel:** Aluminium Alloy.
- **Low Leakage:** S.S Jamb seal.
CONSTRUCTION:

Frame: High quality Galvanized Steel sheet of thickness 1.2mm.
Frame size: 180mm depth and 30mm flange height.
Blades: Double skinned aerofoil blades made from galvanized steel with 165mm blade spacing.
Drive shaft: Electro plated rod of size 14mmØ.

Description:

• Designed for heavy duty applications in heating, ventilating and air-conditioning systems.

• Also applicable for explosive areas.

• Frame is constructed from galvanized steel sheet and joined using corner-keys.

• Blades are of robust construction, roll formed G.I having 1.2mm thickness designed to withstand high pressure without clattering.

• Service temperature ranges from -40º C to +80º C.

• Hand locking quadrant is provided with clear open and close indication.

• Rubber edge seal is provided across blade edges to minimize air leakage between the blades.

• Standard model available with corner borehole.

Options:

• Silicon Edge Seal: For use in service temperature of -40º C to +200º C.

• Jamb Seal: Between blade and frame, includes slide film and special foam plastic.

Bushings: Sintered, self-lubricating bronze bearing.

Blade linkage: Galvanized steel flat bars of 3mm thick.

Blade stopper: 1.2mm G.I angle.

Handle: Heavy duty G.I quadrant.
Air Leakage Performance - AVCD-HD

Pressure Drop: AVCD-HD
VOLUME CONTROL DAMPERS

model: AVCD-PI

PRE-INSULATED VOLUME CONTROL DAMPER

CONSTRUCTION:
Frame: 20mm thick polyurethane material with 2-sides Aluminium foil facing.
Frame Size: 200mm depth with flanges for side-fixing.
Blades: Double skinned high quality extruded Aluminium aerofoil profiles.
Drive Shaft: Electro plated square rod of size 12.7mm x 12.7mm.

Bushings: Self-lubricating nylon bushings.
Blade linkage: Nylon Gear.
Blade stopper: G.I angle of thickness 0.7mm.
Handle: Galvanized Steel locking hand quadrant.

Description:
• Designed for use in heating, ventilating and air conditioning systems in open/limited access areas and light weight applications.

• The edges are joined using special glue and silicon.

• Blades are coupled by toothed nylon gears which provides opposed blade operationn.

• Hand locking quadrant is provided with clear open/close indication and three intermediate open positions (1/4 – 1/2 - 3/4).

• Foam gasket is sealed across the blade edges to minimize air leakage between the blades.

Options:
• Frame: Thickness up to 25mm available upon request.
• Handle: Cast Aluminium.
• Bush: Brass bush.
• Gear Wheel: Aluminium Alloy.

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**CONSTRUCTION:**

Frame & Blade: High quality Galvanized Steel.

Bearing pins: Electro plated steel rod of 10mmØ with square transition of size 12.7mm x 12.7mm

Bushings: Self-lubricating nylon bushings.

Handle: Galvanized Steel locking hand quadrant.

**Description:**

- Joints are welded and protected by aluminium spray coating to prevent rusting.

- Damper blades are fixed to the bearing pin (which is coupled with hand locking quadrant) and can be fully opened or closed.

- Hand locking quadrant is provided with clear open/close indication and three intermediate open positions (1/4 – 1/2 - 3/4).

- Foam gasket is provided on the inner frame surface.

**Options:**

- **Handle:** Cast Aluminium
- **Bush:** Brass bush
- **Actuator:** Of clients choice for motorized applications

**Dimensions:**

<table>
<thead>
<tr>
<th>D = Diameter</th>
<th>L = Length</th>
<th>Sheet Thickness</th>
</tr>
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<tbody>
<tr>
<td>100 to 150 mm</td>
<td>L = D+ 50 mm</td>
<td>0.7 mm</td>
</tr>
<tr>
<td>200 to 500 mm</td>
<td>L = D</td>
<td>0.9 mm</td>
</tr>
<tr>
<td>550 to 1000 mm</td>
<td>L = D+ 50 mm</td>
<td>1.2 mm</td>
</tr>
<tr>
<td>1000 mm&amp;above</td>
<td>L = D+ 100 mm</td>
<td>1.5 mm</td>
</tr>
</tbody>
</table>

**Standard sizes:**

<table>
<thead>
<tr>
<th>D = Duct opening in mm dia</th>
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<tbody>
<tr>
<td>100</td>
</tr>
<tr>
<td>700</td>
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**Fixing details:**

- Fixing by using Jubilee clip to flexible duct.
Performance chart:
Model: AVCD-C

Pressure drop - Circular VCD
**Product Summary:**

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<th>Model</th>
<th>Product Description</th>
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<td>GI Frame with double skin Al.Blades</td>
<td>Manual Quadrant</td>
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<tr>
<td>AVCD-M</td>
<td>GI Frame with double skin Al.Blades</td>
<td>With actuator</td>
</tr>
<tr>
<td>AVCD-SC</td>
<td>Slip &amp; Clip type</td>
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</tr>
<tr>
<td>AVCD-SS</td>
<td>SS Frame with double skin SS blade</td>
<td>Option: Single skin SS blade</td>
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<tr>
<td>AVCD-ZL</td>
<td>GI Frame with double skin Al.Blades</td>
<td>With Jamb seal for Low leakage</td>
</tr>
<tr>
<td>AVCD-GI</td>
<td>GI Frame with double skin GI blade</td>
<td>Option: Single skin GI blade</td>
</tr>
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<td>AVCD-HD</td>
<td>Heavy Duty VCD</td>
<td></td>
</tr>
<tr>
<td>AVCD-PI</td>
<td>Pre-Insulated VCD</td>
<td></td>
</tr>
<tr>
<td>AVCD-C</td>
<td>Round/Circular VCD</td>
<td>Manual Quadrant</td>
</tr>
</tbody>
</table>

**Product Order check list:**

- Model
- Size in Length x Width
- Quantity
- Refer options available for each product

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**Product Installation:**

- Use C-Cleats and Nuts & Bolts for installation.

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