

VOLUME CONTROL DAMPERS

MODEL: VD-1, VD-2, VD-3, VDR-1 & VDR-2



IGC Aire

VD-1 DESIGN & CONSTRUCTION FEATURES



Description

Model VD-1 is a control damper intended for application in medium pressure and velocity systems (up to 5.0 in. w.g. pressure differential and 3000 fpm velocity)



Construction

Frame:

5" deep (127 mm) deep channel frame
18 gauge (1.2 mm) thick galvanized steel

Blades:

18 gauge (1.2 mm) thick galvanized steel 3-V shaped

Bearings:

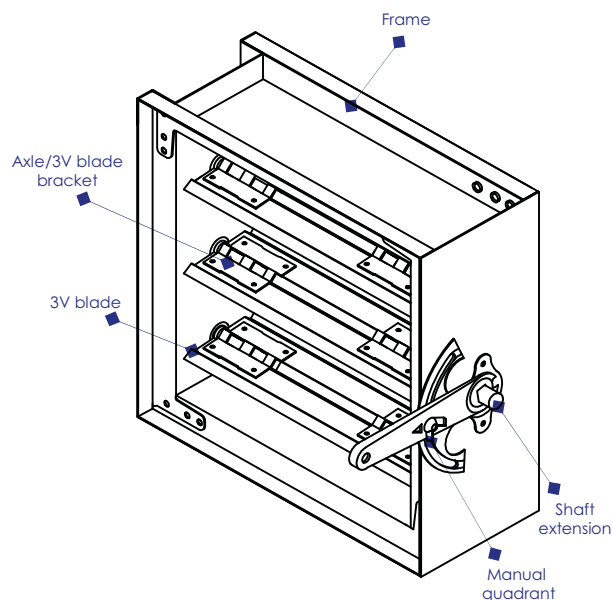
Bronze or brass

Axle:

½" (12 mm) diameter plated steel

Linkage:

Plated steel side linkage concealed in frame



VD-1 with Manual Quadrant

Optional Features

Lockable hand quadrant for manual operation

Electric Actuators: 24 V or 230 V for motorized damper

Heavier gauge galvanized steel construction

Stainless steel or aluminium construction as optional

Stainless steel linkage and bearings

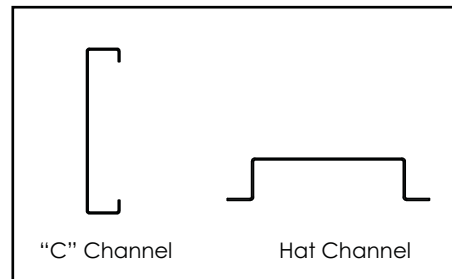
Optional flanged frame

Special finishes: Powder coated/epoxy coated

Size Limitations

SINGLE SECTION SIZE W X H, inches (mm)	
MODEL	VD-1
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.	

Types of Frame



VD-2 DESIGN & CONSTRUCTION FEATURES



Description

Model VD-2 is a low leakage control damper intended for application in medium pressure and velocity systems (up to 5.0 in. w.g. pressure differential and 3000 fpm velocity)



Construction

Frame:

5" deep (127 mm) deep channel frame
18 gauge (1.2 mm) thick galvanized steel

Blades:

18 gauge (1.2 mm) thick galvanized steel 3-V shaped

Blade Seals:

EPDM

Bearings:

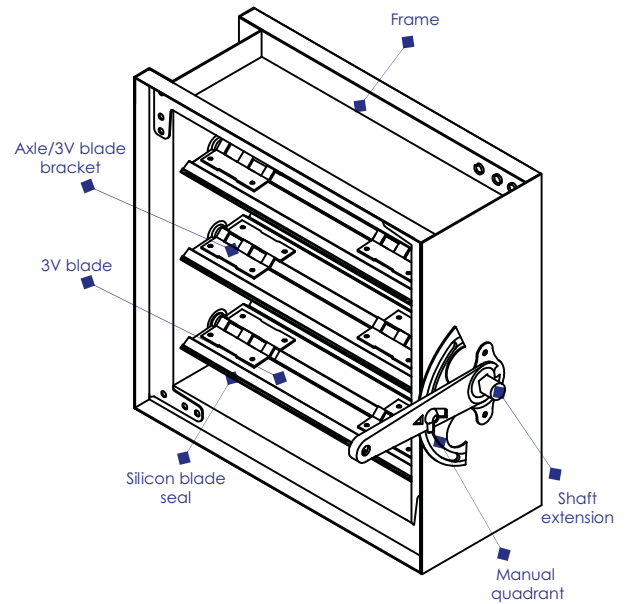
Bronze or brass

Axle:

½" (12 mm) diameter plated steel

Linkage:

Plated steel side linkage concealed in frame



VD-2 with Manual Quadrant

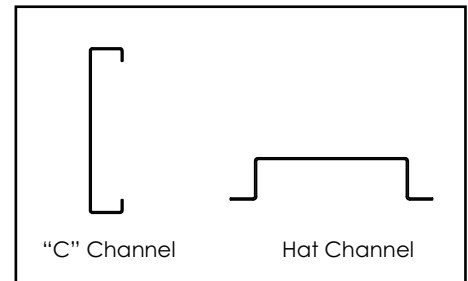
Optional Features

- Lockable hand quadrant for manual operation
- Electric Actuators: 24 V or 230 V for motorized damper
- Heavier gauge galvanized steel construction
- Stainless steel or aluminium construction as optional
- Stainless steel linkage and bearings
- Optional flanged frame
- Special finishes: Powder coated/epoxy coated

Size Limitations

SINGLE SECTION SIZE W X H, inches (mm)		
MODEL	VD-1	VD-2
MINIMUM	6" x 6" (150 x 150)	6" x 6" (150 x 150)
MAXIMUM	47" x 94" (1200 x 2400)	47" x 94" (1200 x 2400)
Multiple sections size: Unlimited "W" (width) and "H" (height) are opening sizes. Dampers are made 6 mm undersized.		

Types of Frame



VD-3 DESIGN & CONSTRUCTION FEATURES



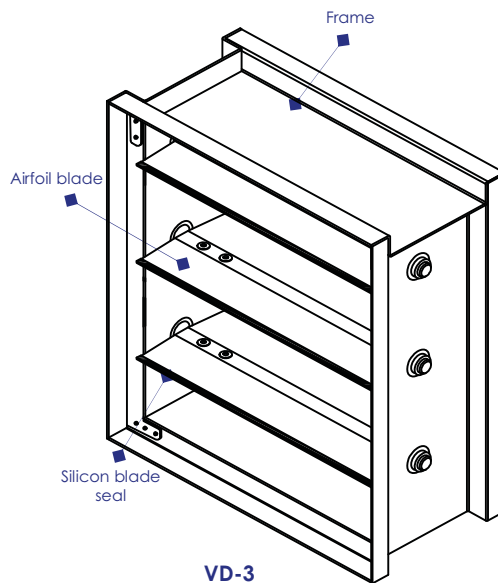
Description

Model VD-3 is a low leakage control damper with steel airfoil blades intended for application in medium to high pressure and velocity systems (up to 8.0 in. w.g. pressure differential and 4000 fpm velocity)



Construction

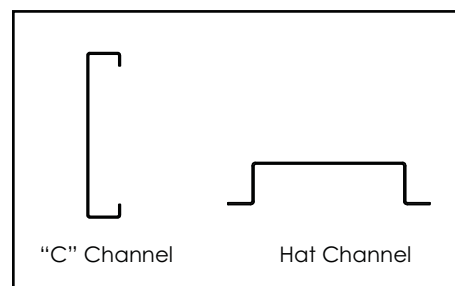
- Frame:
5" deep (127 mm) deep channel frame
16 gauge (1.6 mm) thick galvanized steel
- Blades:
14 gauge (2.0 mm) equivalent galvanized steel Airfoil Shaped/Extruded Aluminium
- Blade Seals:
Silicon blade seal
- Bearings:
Bronze or brass
- Axle:
½" (12 mm) diameter plated steel
- Linkage:
Plated steel side linkage concealed in frame



Optional Features

- Lockable hand quadrant for manual operation
- Electric Actuators: 24 V or 230 V for motorized damper
- Heavier gauge galvanized steel construction
- Stainless steel or aluminium construction as optional
- Stainless steel linkage and bearings
- Optional flanged frame
- Special finishes: Powder coated/epoxy coated

Types of Frame



Size Limitations

SINGLE SECTION SIZE W X H, inches (mm)			
MODEL	VD-1	VD-2	VD-3
MINIMUM	6" x 6" (150 x 150)	6" x 6" (150 x 150)	6" x 6" (150 x 150)
MAXIMUM	47" x 94" (1200 x 2400)	47" x 94" (1200 x 2400)	47" x 94" (1200 x 2400)
Multiple sections size: Unlimited "W" (width) and "H" (height) are opening sizes. Dampers are made 6 mm undersized.			

VDR-1 DESIGN & CONSTRUCTION FEATURES



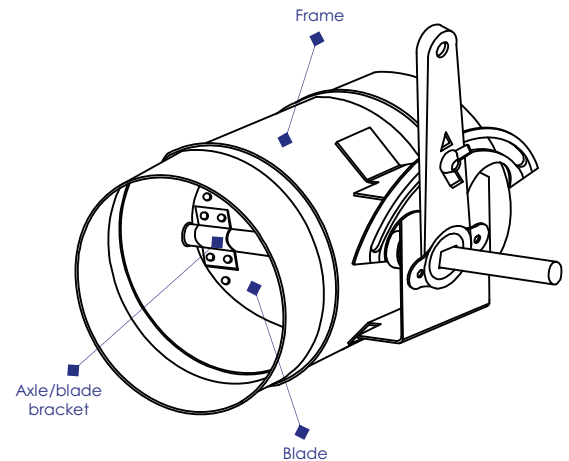
Description

Model VDR-1 is a round control damper intended for application in medium pressure and velocity systems (up to 5.0 in. w.g. pressure differential and 3000 fpm velocity)



Construction

Frame:
20 gauge (1.0 mm) thick galvanized steel
8" (200 mm) deep frame
Blades:
Double skin galvanized steel Single blade
Bearings:
Bronze or brass
Axle:
½" (12 mm) diameter plated steel



Optional Features

Electric Actuators: 24 V or 230 V for motorized damper
Heavier gauge galvanized steel construction
Stainless steel or aluminium construction as optional
Stainless steel linkage and bearings
Special finishes: Powder coated/epoxy coated

Size Limitations

SIZE DIAMETER, inches (mm)	
MODEL	VDR-1
MINIMUM	4" (100)
MAXIMUM	24" (600)
Dampers are made 3 mm undersized.	

VDR-1 with Manual Quadrant

VDR-2 DESIGN & CONSTRUCTION FEATURES



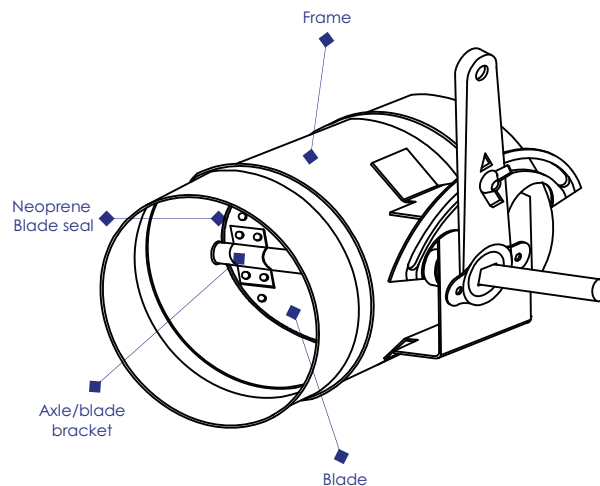
Description

Model VDR-2 is a low leakage round control damper intended for application in medium pressure and velocity systems (up to 5.0 in. w.g. pressure differential and 3000 fpm velocity)



Construction

- Frame:
20 gauge (1.0 mm) thick galvanized steel
8" (200 mm) deep frame
- Blades:
Double skin galvanized steel Single blade
- Blade Seals:
Neoprene blade seal
- Bearings:
Bronze or brass
- Axle:
½" (12 mm) diameter plated steel



VDR-2 with Manual Quadrant

Optional Features

- Electric Actuators: 24 V or 230 V for motorized damper
- Heavier gauge galvanized steel construction
- Stainless steel or aluminium construction as optional
- Stainless steel linkage and bearings
- Special finishes: Powder coated/epoxy coated

Size Limitations

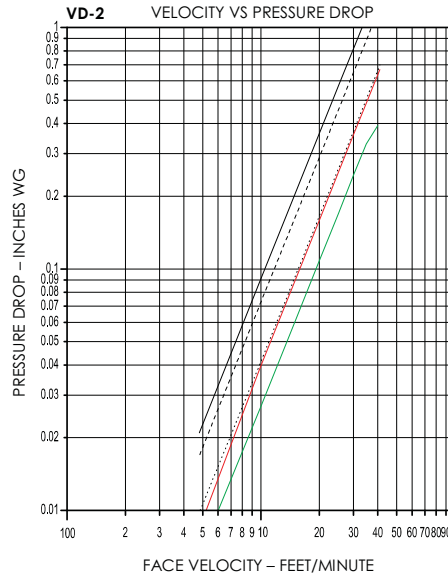
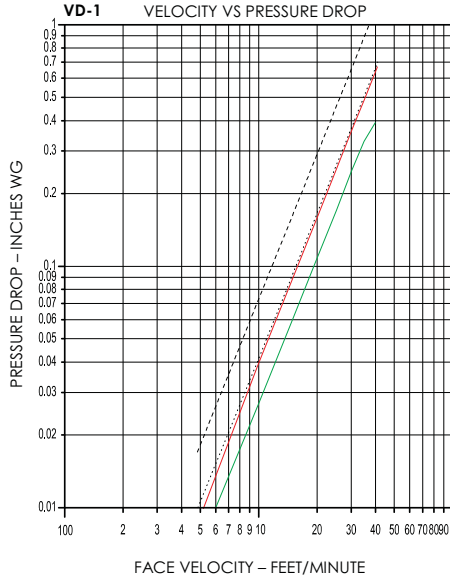
SIZE DIAMETER, inches (mm)		
MODEL	VDR-1	VDR-2
MINIMUM	4" (100)	4" (100)
MAXIMUM	24" (600)	24" (600)
Dampers are made 3 mm undersized.		

VOLUME CONTROL DAMPERS PERFORMANCE DATA



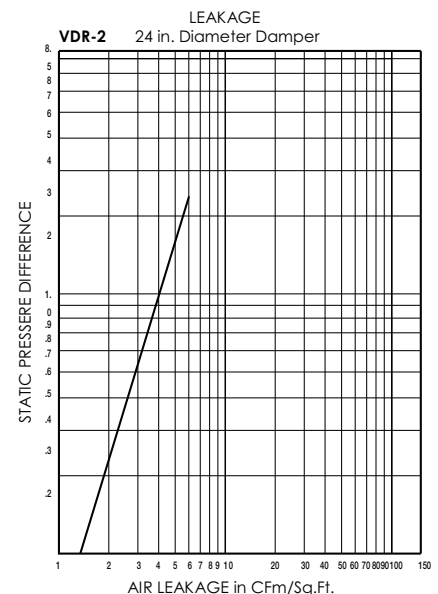
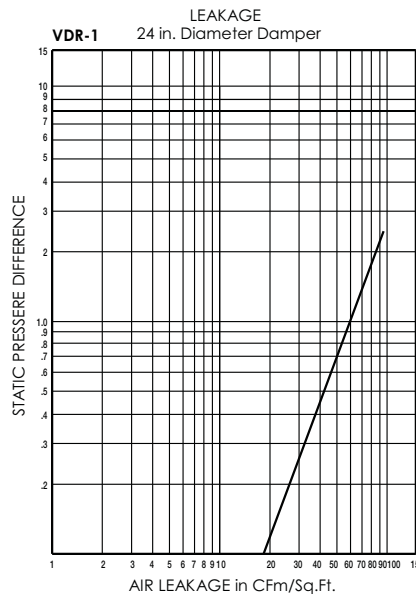
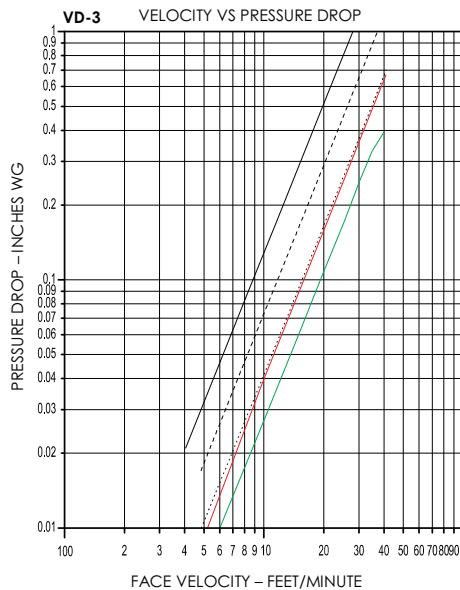
Pressure Drop

Below pressure drop data was obtained from tests conducted in accordance with AMCA Standard 500-D. Actual pressure drop found in any HVAC system is a combination of many factors. This pressure drop information along with an analysis of other system influences should be used to estimate actual pressure losses for a damper installed in a given HVAC system.



Leakage: Below Leakage data was obtained from tests conducted in accordance with AMCA Standard 500.

Pressure Differential (in w.g)	Leakage (cfm/ft ²)
1 in. w.g	3 cfm/ft ²
4 in. w.g	6 cfm/ft ²



Leakage: Below Leakage data was obtained from tests conducted in accordance with AMCA Standard 500.

Pressure Differential (in w.g)	Leakage (cfm/ft ²)
1 in. w.g	3 cfm/ft ²
4 in. w.g	6 cfm/ft ²

TEST STANDARD & 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 Aire headquartered in USA 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.

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