



VOLUME CONTROL DAMPER

Description

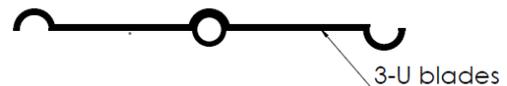
Volume Control Dampers (VDs) are essential components in HVAC (Heating, Ventilation, and Air Conditioning) systems, designed to regulate air volume and pressure within ductwork. They can be used in intake, exhaust, or mixed air applications and are available in both manual and motorized (actuator-driven) configurations.

VDs are offered in a variety of shapes and connection types to accommodate a wide range of system designs and installation requirements.



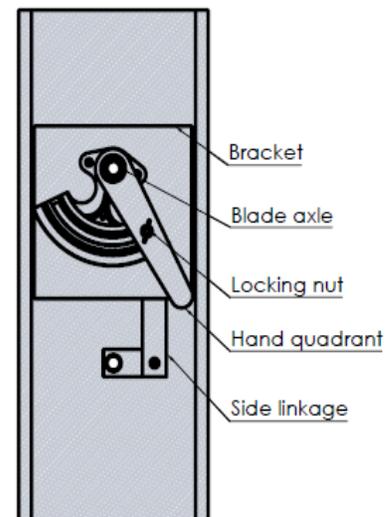
Construction

- **Frame:** Manufactured from galvanized steel, with thickness ranging from 14 to 20 gauge. Alternative materials such as stainless steel, aluminum, and black steel are available upon request.
- **Blades:** 3-U type blades made of galvanized steel, with thickness ranging from 14 to 20 gauge. Optional materials include stainless steel, aluminum, or black steel. Blades are designed with three reinforced grooves for added strength and improved overlap coverage. Optional airfoil-type blades are available with 20-gauge double-skin construction.



Standard configuration includes a single blade for heights up to 10 inches. Dampers with greater heights are supplied with parallel action blades. Opposed blades are available upon request. Maximum blade length is 48 inches.

- **Linkages:** Galvanized steel bars, or similar material to the frame, available with side-mounted linkage (standard) or face-mounted linkage.
- **Axles:** 12 mm diameter galvanized steel, strapped and bolted to blades. Stainless steel option available.
- **Bearings:** Bronze sleeve bearings; optional nylon bearings and ball bearings are available.
- **Sizes:** Custom-made to exact required dimensions.
 - Maximum section size: 48" W x 72" H.
 - Minimum damper size: 4" W x 4" H.





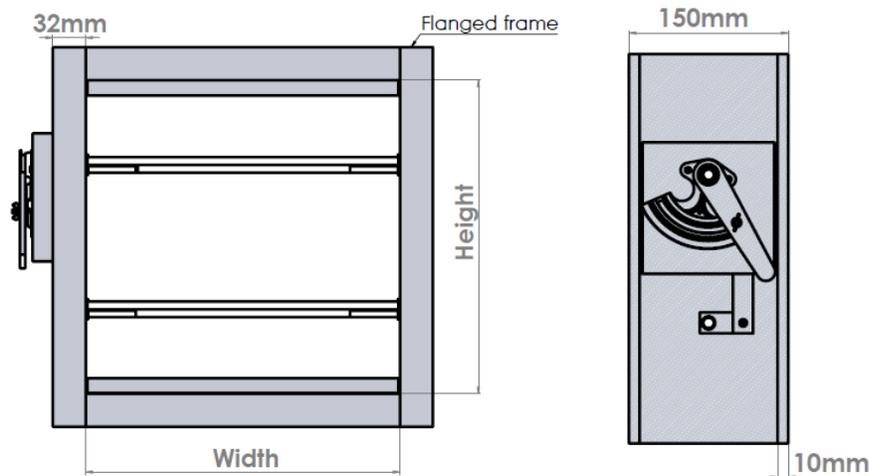
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- **Hand Quadrant:** For manual operation. Includes hand quadrant set with mounting plate. The locking quadrant is supplied with a locking nut, clear open/close indication, and three intermediate open positions (1/4, 1/2, and 3/4).
- **Motorized (Optional):** Supplied with electric actuators from "BELIMO" or "SIEMENS", operated with 24 or 230 volts, and compatible with on/off, floating, or modulating control.
- **Seals (Optional):** Rubber gasket blade-edge seals and stainless-steel jamb seals are available for low-leakage motorized dampers.

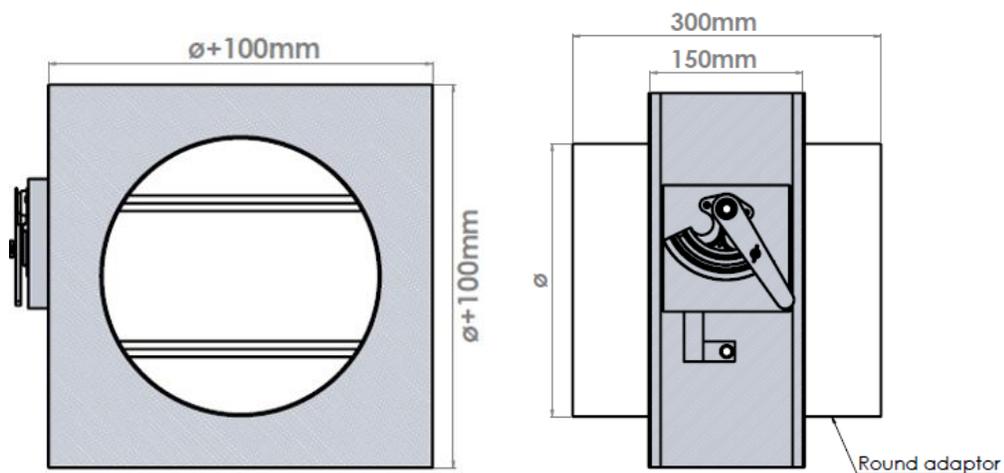
❖ **Models:**

1. Flanged volume damper, VDF (Standard): *Previously SD-35*

Other flange sizes are available to match duct connections.



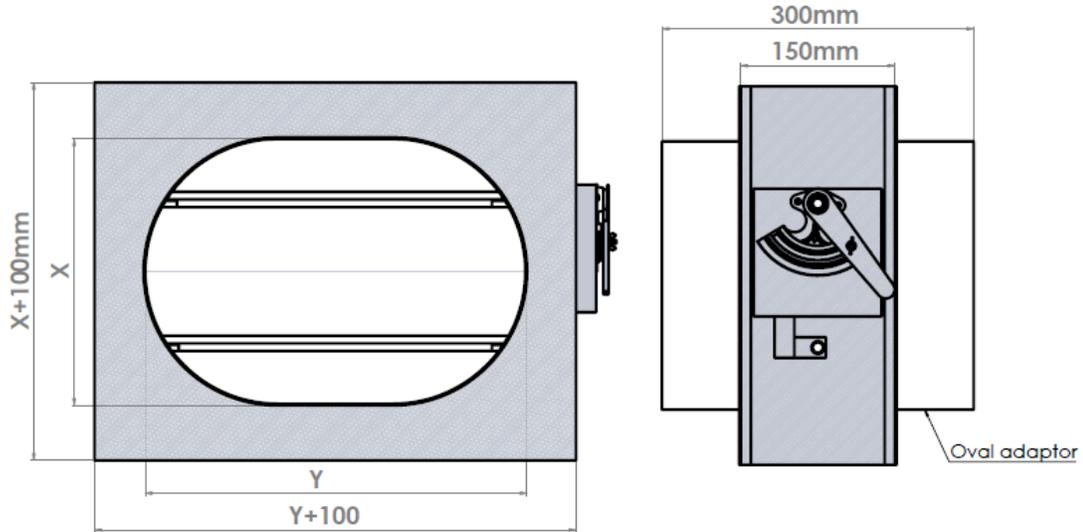
A. Flanged volume damper with round adaptor, VDF-R:
with a maximum blade width of 6 inches.



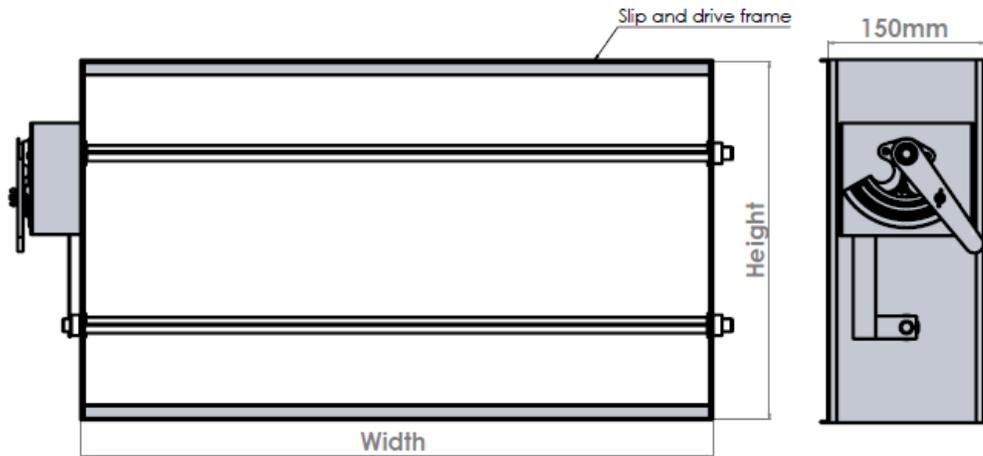


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- B. Flanged volume damper with oval adapter, VDF-0:
with a maximum blade width of 6 inches.



2. Slip and drive volume damper, VDS:
recommended for sizes up to 18 inches



❖ **Standard No. of Blades**
Without adapters

Height (in)	6	10	14	18	22	26	30	34	38	42	46	50	54	58	62	66	70
No. of blades	1	1	2	2	3	3	3	4	4	5	5	5	6	6	7	7	7

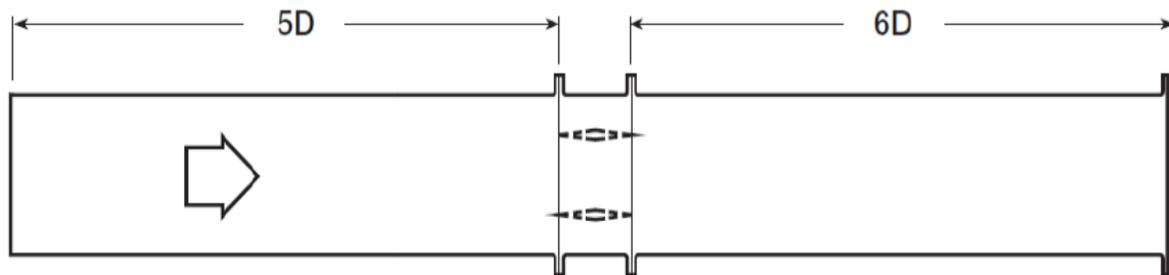
Note: Blades may extend beyond the frame. If any obstruction is present immediately next to the damper that could restrict the blades operation, it must be clearly identified prior to fabrication.

Performance

❖ Test Information:

Tested in accordance with ANSI/AMCA 500-D, Figure 5.3.

Fig. 5.3



Measure of the pressure drop of the damper only, under ideal conditions of fully developed airflow upstream and sufficient duct length for static regain downstream of the damper.

- All data has been corrected to represent standard air at a density of 1.201 kg/m³ (0.075 lb./ft³).

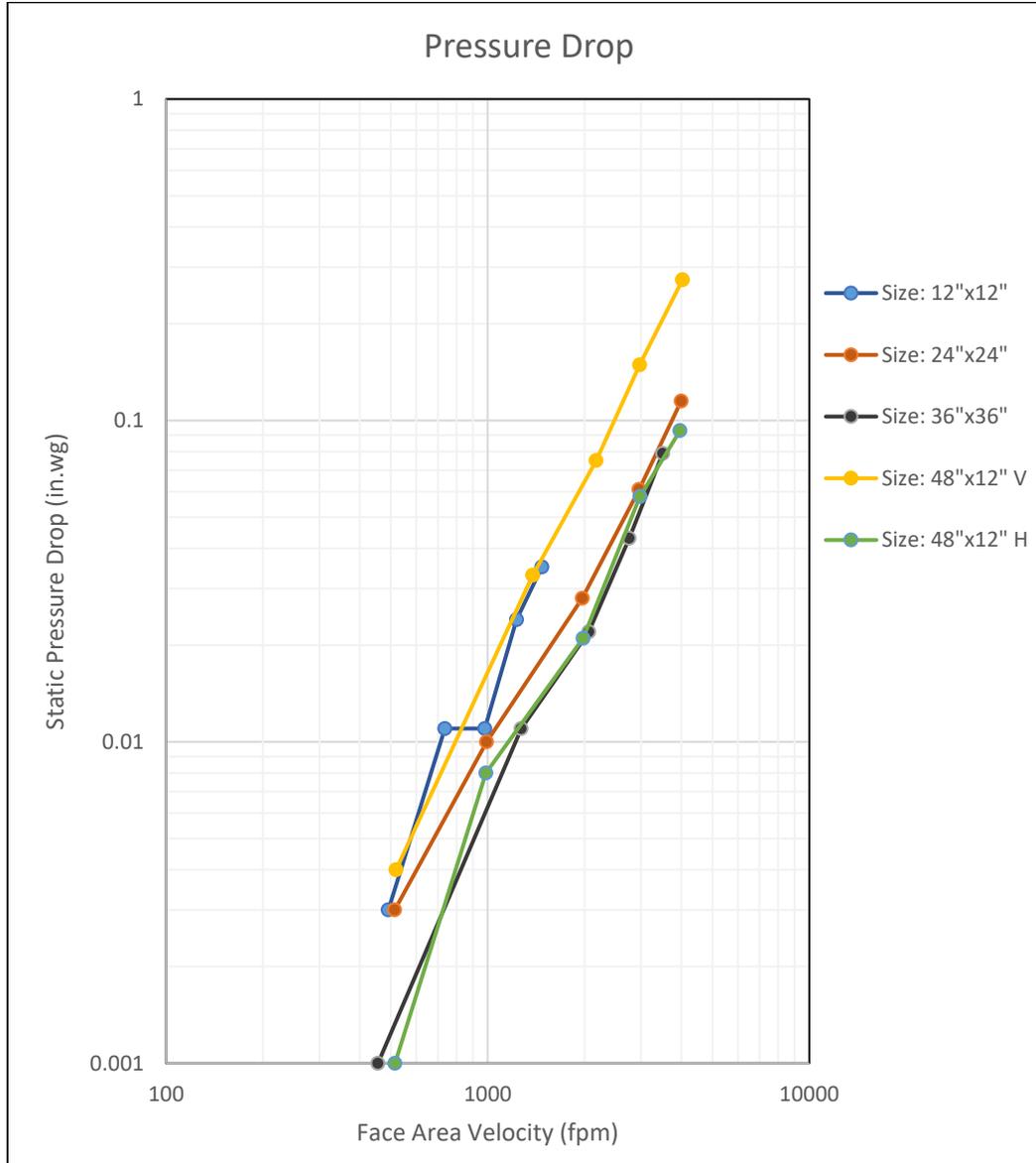


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DANIA AIR
CONTROL SYSTEM FACTORY

❖ Pressure-drop chart:

i. Intake: unit tested in the direction of airflow.

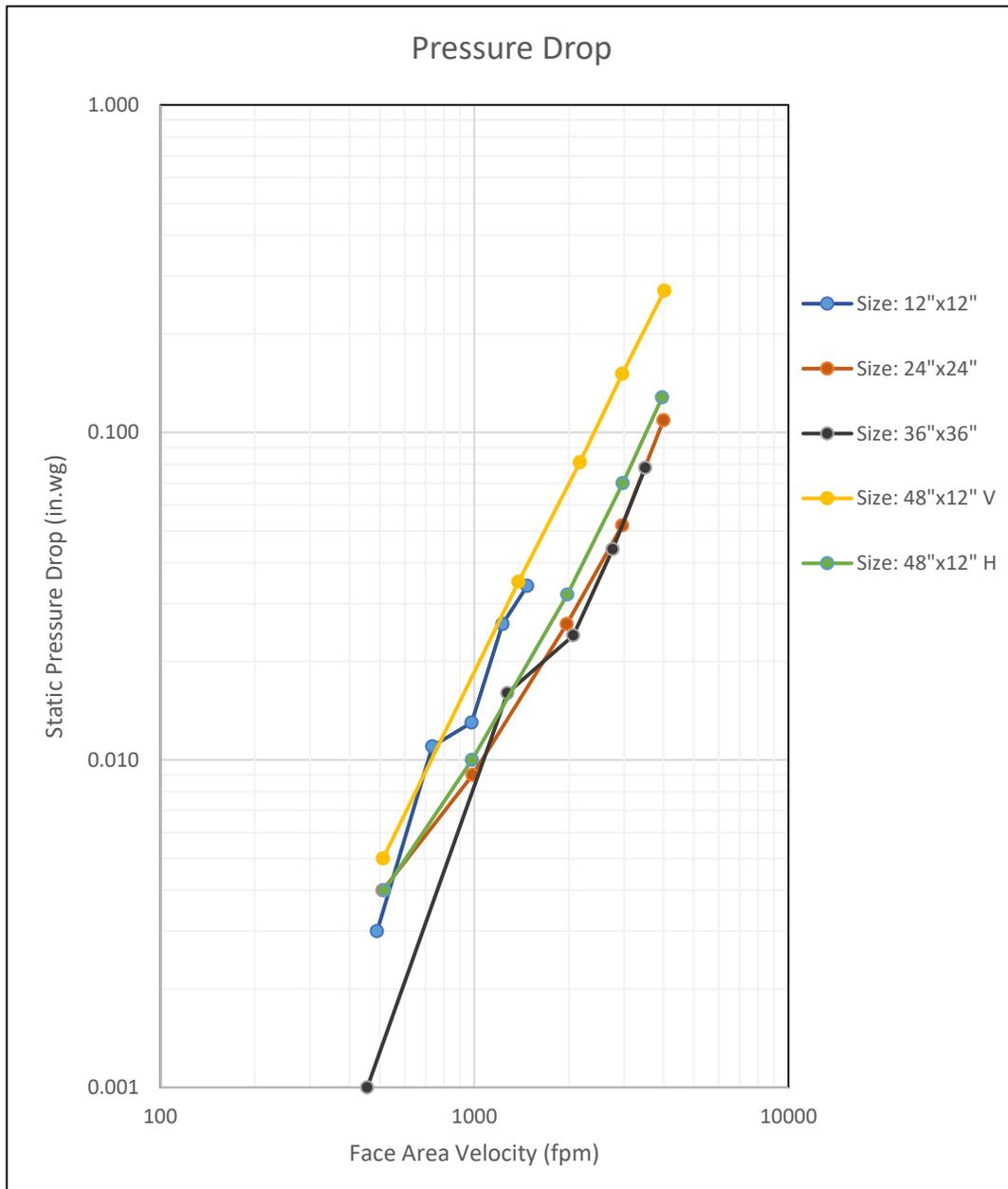


Dania Air Control System Factory certifies that the volume control damper model VD shown hereon is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMC Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings Seal applies to Air Performance ratings.





ii. Exhaust: unit tested against the direction of airflow.





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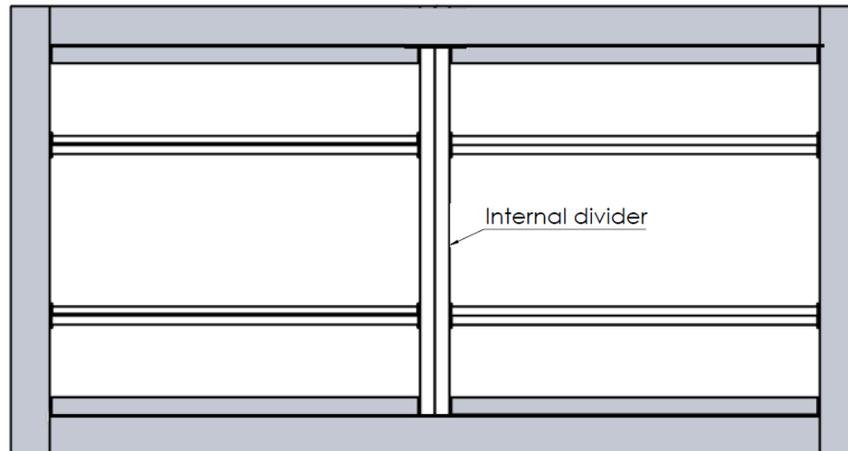




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❖ Multi-Section Details:

I. Internal divider: $1200 < \text{Width} < 1800$ mm



II. Separate sections: $\text{Width} > 1800$ mm

