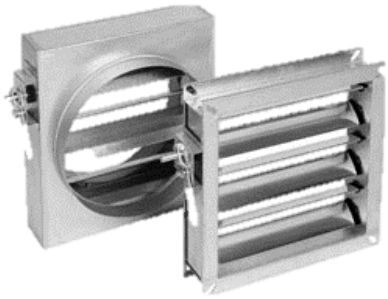






AIRONIX

'U name it, V make it'

AIRONIX STEEL & ALUMINIUM WORKS

Accurate Global Management Certification

USAS ACCREDITED

ACCURATE GLOBAL LTD Certified LONDON, UNITED KINGDOM

ISO 9001:2015 Certified

DAMPERS

INDEX

06 538 6895 P.O.Box: 1404, Umm al Quwain, U.A.E.
sales@aironix.ae www.aironix.ae

VOLUME CONTROL DAMPER

AIRONIX manufactures high quality volume control dampers, specially designed for use in HVAC Heating Ventilating and Air conditioning systems for volume, flow and pressure control of air within the ducts. The light, medium and heavy duty construction of VCD's allow even distribution and flow control of air at high duct pressures and are suitable for various type of HVAC applications. Blade operation, either parallel or opposed in operation fitted with tip seals to ensure minimum air leakage through the blades.

`

Models & Types:

All types and models of volume control dampers are available in Galvanized Steel (GI) body, with an option of Aluminium Aerofoil or GI Blades; according to the design and application.

FVCD45

BVCD45

SCVCD45

PIVCD45

MVCD45

VOLUME CONTROL DAMPER

Model Nos:

FVCD45 – This VCD model comes with flanges on all sides. Suitable for fixing between two duct ends.

BVCD45 – This VCD model is box type and comes with no flanges. Suitable for fixing inside the duct lengths.

SCVCD45 – This VCD model comes with Slip & Clip (S&C) attached to the height ends for a seamless S&C attachment to the duct trims which have S&C at the ends to accommodate the VCD.

PIVCD45 – This VCD model is made of High Quality 20mm thickness Pre Insulated Sheet. Aerofoil Aluminium blades and Galvanized steel fixtures with Aluminium flanges; make this model very heavy duty and corrosion resistant for life.

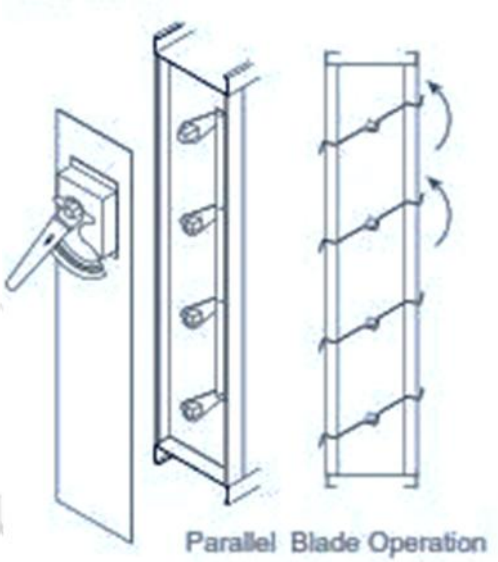
MVCD45 – Motor VCD can be any of the above models but these come with an Actuator attached. Actuators are ON/OFF type up to 240V.

All models have option for GI or Aluminium Aerofoil blades. The blades also have two options. Opposed Blades or Parallel blades. Functions of both are explained further:

VOLUME CONTROL DAMPER

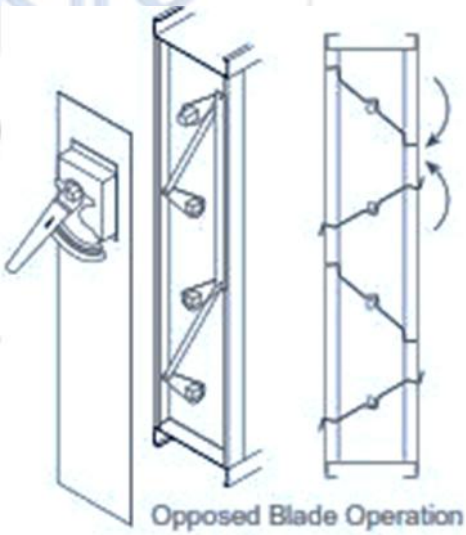
Parallel blade operation:

Parallel blade damper are constructed so all the blades move in the same direction and in parallel. Parallel blade orientation is typically used when the damper operates in two positions open and close.



Opposed blade operation:

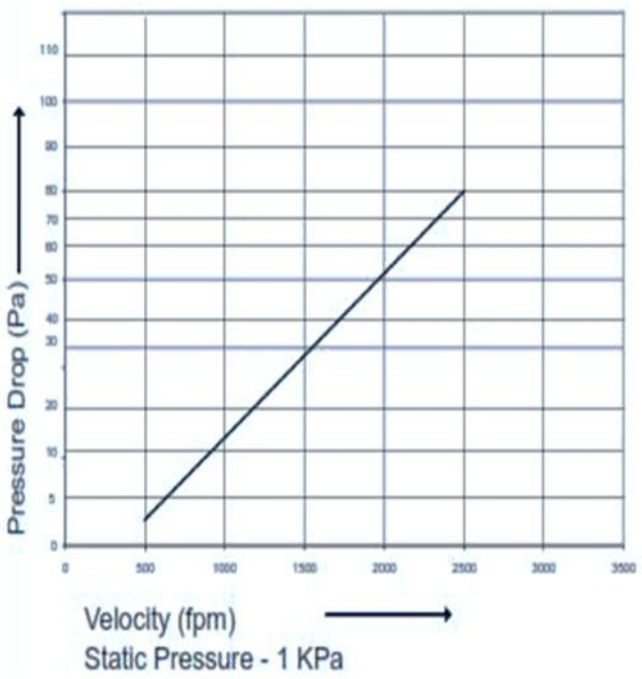
Opposed blade dampers are constructed so blades next to each other move in opposite direction. Opposed blade configuration is typically used on dampers that modulate airflow.



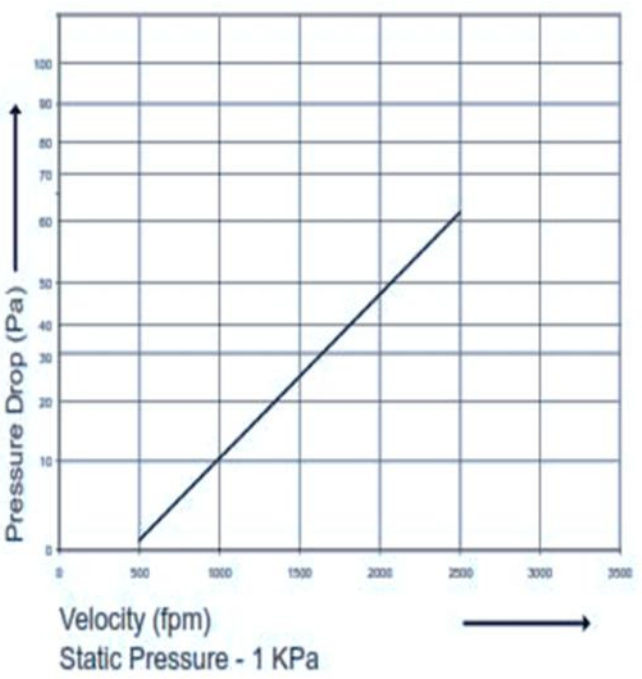
VOLUME CONTROL DAMPER

Pressure Loss Vs Face Velocity:

For VCD's with GI Blade



For VCD's with AEROFOIL Blade



Airflow V/S Pressure drop for Single skin blade - Damper 100% (full) Open.					
Max. System Pressure 1000 - Pa					
Air Velocity (fpm)	500	1000	1500	2000	2500
Pressure drop (Pa)	3.2	12.8	28.8	51.2	80

Airflow V/S Pressure drop for Single skin - Aerofoil blade - Damper 100% (full) Open.					
Max. System Pressure 1000 - Pa					
Air Velocity (fpm)	500	1000	1500	2000	2500
Pressure drop (Pa)	2.8	11	25	46	63

VOLUME CONTROL DAMPER

Single and multi-leaf volume control damper are designed for quiet, efficient and reliable air volume control in ventilation system. The AIRONIX Damper is ruggedly built damper, with a casing of robust structurally designed hat section. The blades are formed of single skin reinforced, with longitude structurally designed 'V'. Blade action is standard as parallel but can be supplied as opposed blade action at no additional charge. Blade edge seals and jamb (side) seals can be fitted for low leakage requirements. Dampers can be manual with locking quadrant or motorized with a wide range of electrical actuators readily available.

W in mm	H in mm	Number of Blades
100	100	1
150	150	1
200	200	1
250	250	1
300	300	2
350	350	2
400	400	2
450	450	2
500	500	3
550	600	3
600	700	4
650	800	5
700	900	5
750	1000	6
800	1100	7
850	1200	7
900	1300	8
950	1400	9
1000	1500	9
1050	1600	10
1100	1700	11
1200	1800	12

VOLUME CONTROL DAMPER

ورشة ايرونيكس للحدادة والالمنيوم
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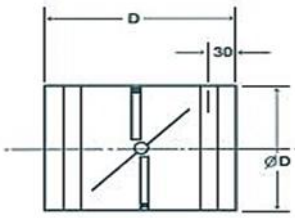
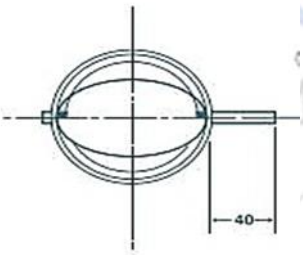
Model Nos: **ROUND**

RVCD45 – This VCD model is round in shape. Casing & blades are made from galvanized steel sheet. Adjustable damper blade is mounted on nylon bushes with manually operated quadrant and position indicator. The damper is used for regulating air flow or shut off damper when complete sealing against air flow is not required. Dampers can be manual with locking quadrant or motorized with a wide range of electrical actuators readily available. The end joints come with factory applied self-sealing durable gaskets.

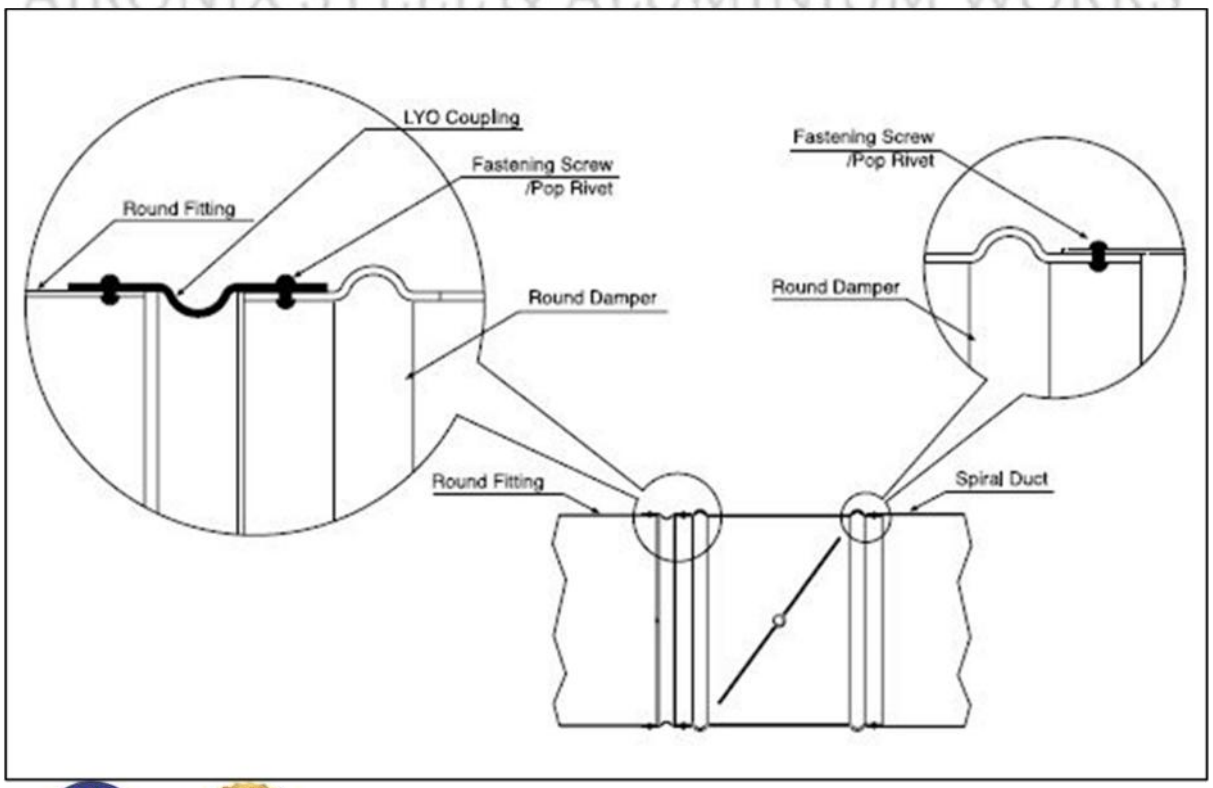




VOLUME CONTROL DAMPER

DIAMETER (inches)	DIAMETER (mm)	HEIGHT (inches)	HEIGHT (mm)
4	100	6	150
6	150	7	175
8	200	9	225
10	250	11	275
12	300	13	325
14	350	15	375
16	400	17	425
18	450	19	475
20	500	21	525

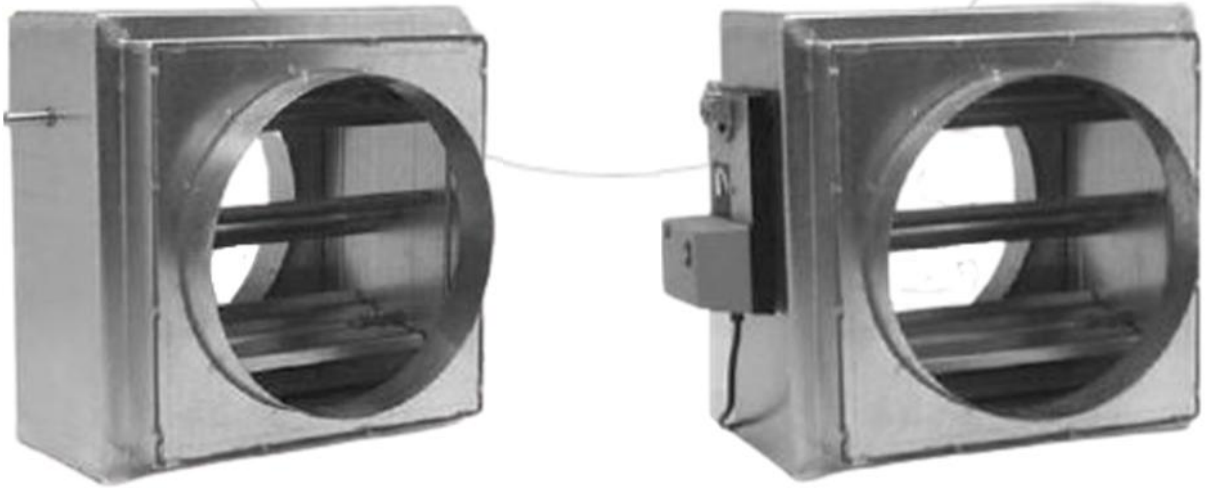
Installation Details:



VOLUME CONTROL DAMPER

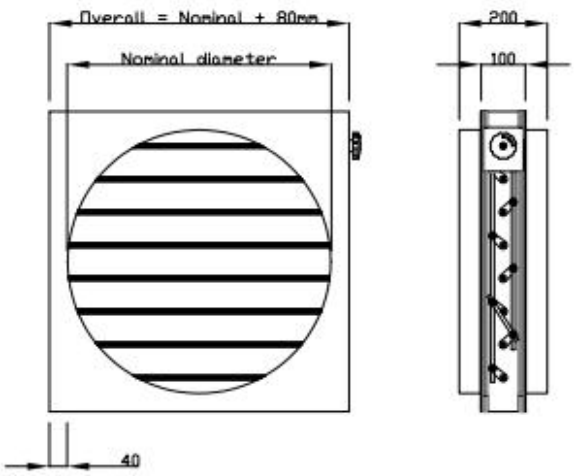
Model Nos: **SPIGOT**

SPVCD45 – AIRONIX SPIGOT volume control dampers are designed for quiet, efficient and reliable air volume control in ventilation systems. The SPVCD45 dampers are ruggedly built dampers, with a spigot case of robust assembly formed circular spigot connection to ductworks. The blades are formed single skin reinforced, with longitudinal structurally designed 'V'. Blade action is standard as parallel but can be supplied as opposed blade action at no additional charge. Blade edge seals and jamb (side) seals can be fitted for low leakage requirements. Dampers can be manual with locking quadrant or motorized with a wide range of electrical actuators readily available.

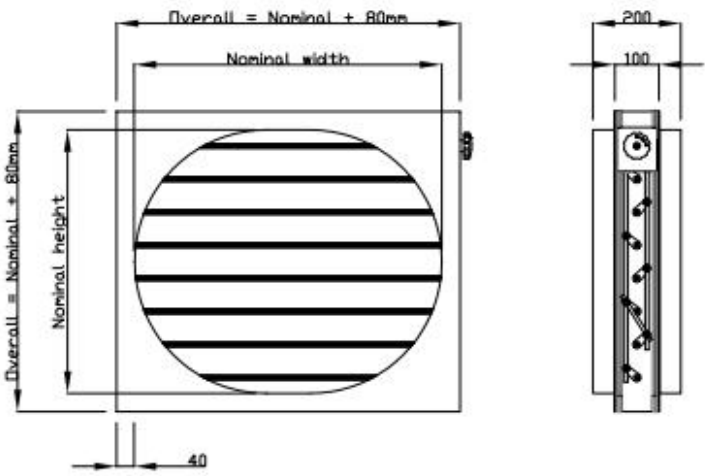


VOLUME CONTROL DAMPER

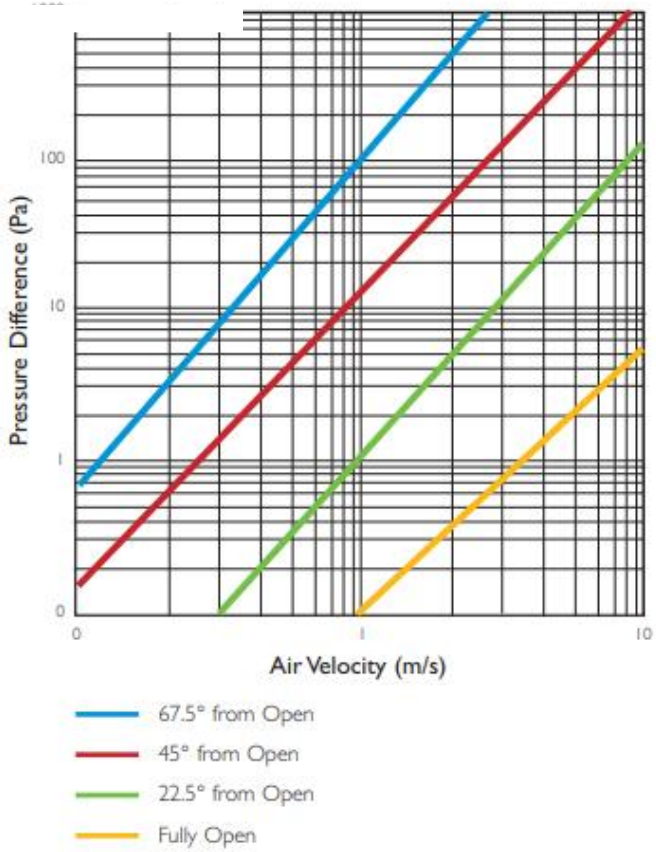
ROUND SPIGOT



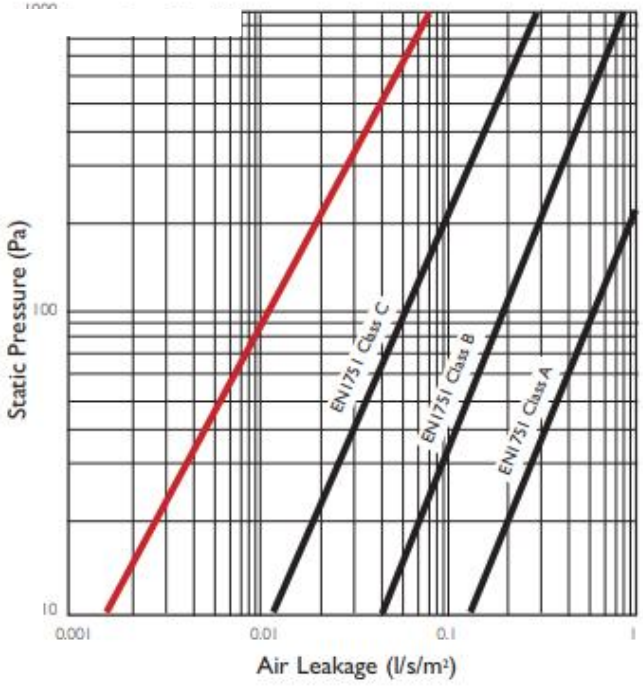
OVAL SPIGOT



Pressure Loss
VC Series 600mm square



Case Leakage
VC Series 600mm square



MOTORIZED VCD

Description:

AIRONIX make high quality single and multi blade Volume Control Dampers are designed for quiet, efficient and reliable air volume control in ventilation systems.

MVCD45 Series Volume damper allows even distribution and control of airflow under conditions of high duct pressures.

The frame is a robust weld assembly of formed channels with flanged connections to ductwork. The blades are formed single skin reinforced with longitudinal structurally designed '3V'or Aerofoil aluminium blades. Special Frame & Blade construction is undertaken for various types of site applications, light, medium and heavy duty.

Blade action is standard as parallel but can be supplied as opposed action. Blades are fitted with blade tip seals to ensure for minimum air leakage for a standard construction. For low leakage (less than 1%), as per international standards. Jamb seals are provided between blade and frame. This is optional.

VOLUME CONTROL DAMPER

Standard Construction:

FRAME: 0.7-1.2mm thick GI sheet steel coating Z-22 to Z-27 as per standard ASTM 653.

Frame is a welded construction, in flange shape, undrilled, Mill finish standard supply.

BLADE: 0.9-1.2mm thick GI sheet steel, single skin blades (3V) form. OR Aerofoil aluminium blade. Other thickness optional. Damper up to 150mm height are single blade construction.

BEARINGS: Nylon / PVC bush is standard supply.

AXLES: Blades are coupled with Linkage and Frame with Zinc plated spindles, Square or Round. Spindles are either welded or riveted as per specification.

LINKAGE: 3mm x 12mm zinc plated flat steel linkage for blades operation. Linkage is external on one side, concealed as standard supply.

QUADRANT: Manual operation, locking type quadrant made of GI steel with full “open” and “close” markings. Quadrant handle and drive axle are coupled to allow opening/closing of VCD at any position, with markers.

ACTUATOR: For Motorized operation, BELIMO/HONEYWELL or any other equivalent brand actuators are optional accessories as per client’s request. Each unit is tested in final assembly stage for its operation before dispatch.

GASKET: Black foam gasket at the blade tips to prevent air leakage in “shut off” position.

SIZE: Minimum size - 100mm x 100mm—Maximum – 1200mm x 1200mm. Bigger sizes can be supplied as multiple sections.

NON RETURN DAMPER

AIRONIX manufactures high integrity non-return dampers for use in the HVAC Duct airflow where corrosion resistance, mechanical integrity and performance are of utmost importance. Made from high quality galvanized steel sheets. Self-oiling nylon bushes, fitted with 8mm aluminium pipes. Foam gasket for air tightness with 20-25mm flanges as required.

They are used to prevent backflow and relieve pressure through ventilation and duct systems and include the following design features:

- Continuously welded construction
- Parallel blade motion
- Excellent corrosion resistance
- With or Without Linkage as an option
- Gasket applied high density GI blades
- Square, Rectangular, Spigot & Round shapes available as required.

Construction:

Frame is constructed from galvanized steel sheet. Welded joints are protected by anti-rust spray coating. Air operated damper blades are fixed to the frame by self-oiling nylon buses with 8mm dia aluminium pipes. Blade edges are sealed with foam gasket to avoid rattling noise and provide air tight operation. Blades open fully (standard NRD) or at any angle depending on the air velocity (NRD with linkage). Blades stay in position of opening without fluctuating when there is constant air flow. Blades close quietly when the air flow stops.

NON RETURN DAMPER

Designed to maintain constant pressure level inside pressurized rooms by relieving excess air when it exceeds the desired limit. Generally installed on diesel generator, plant rooms ventilation system and exhaust ducting.

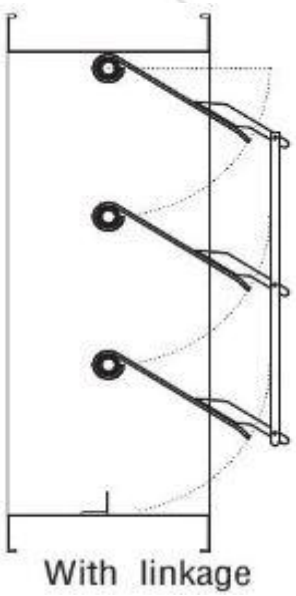
Model & Types:

NRD45 – Non Return Damper for square or rectangular ducts. Can be supplied with flanges or without flanges, as per the project requirement.

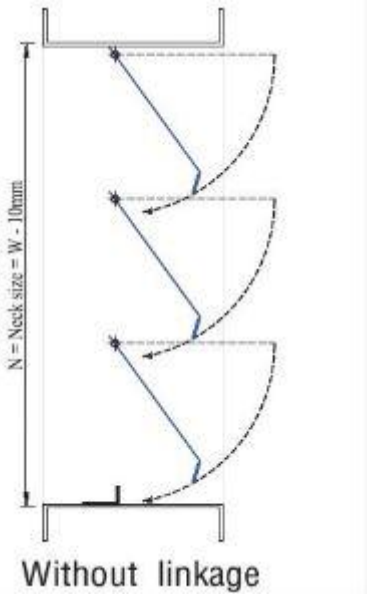
LNRD45 – Non Return Damper with Center Linkage. This controls the airflow output and the blades will open to a certain angle, without fluctuating when opened.

RNRD45 – Round Non Return Damper for round shape ducts.

SPNRD45 – Spigot Non Return Damper, as per project requirements.



With linkage



Without linkage

NON RETURN DAMPER

NRD45

LNRD45

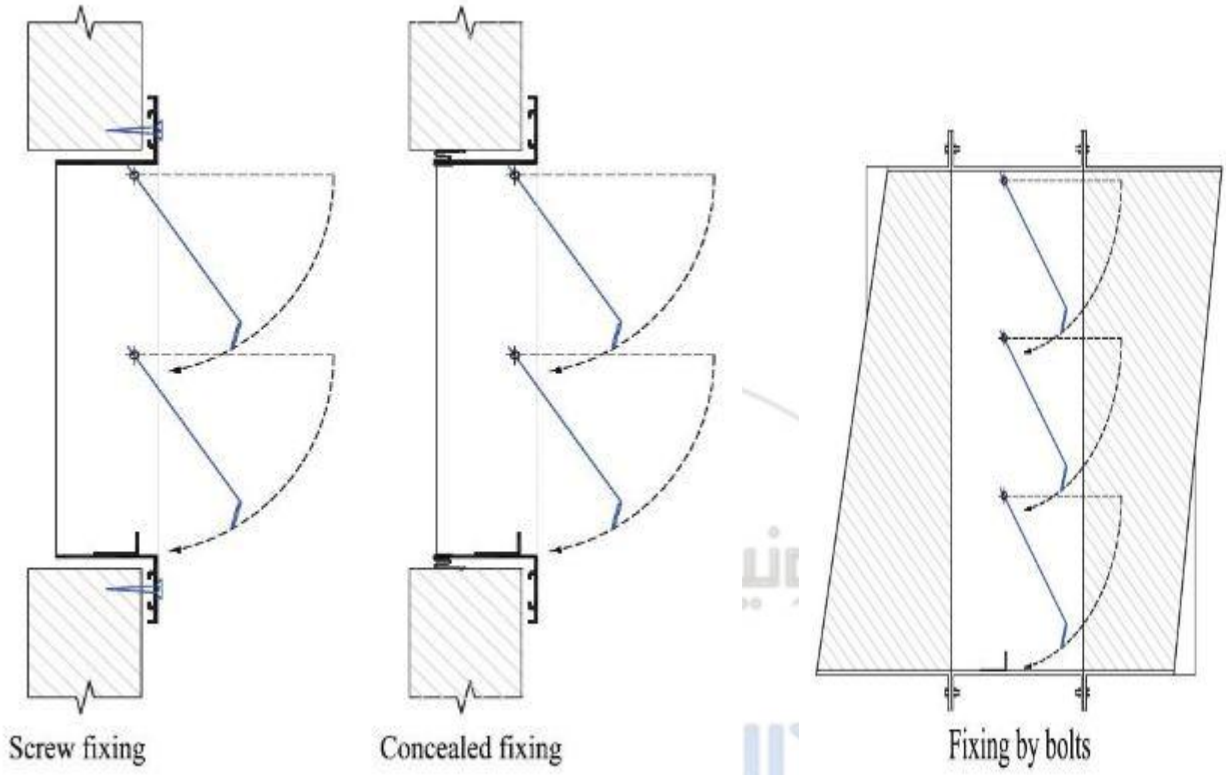
SPRD45

RNRD45

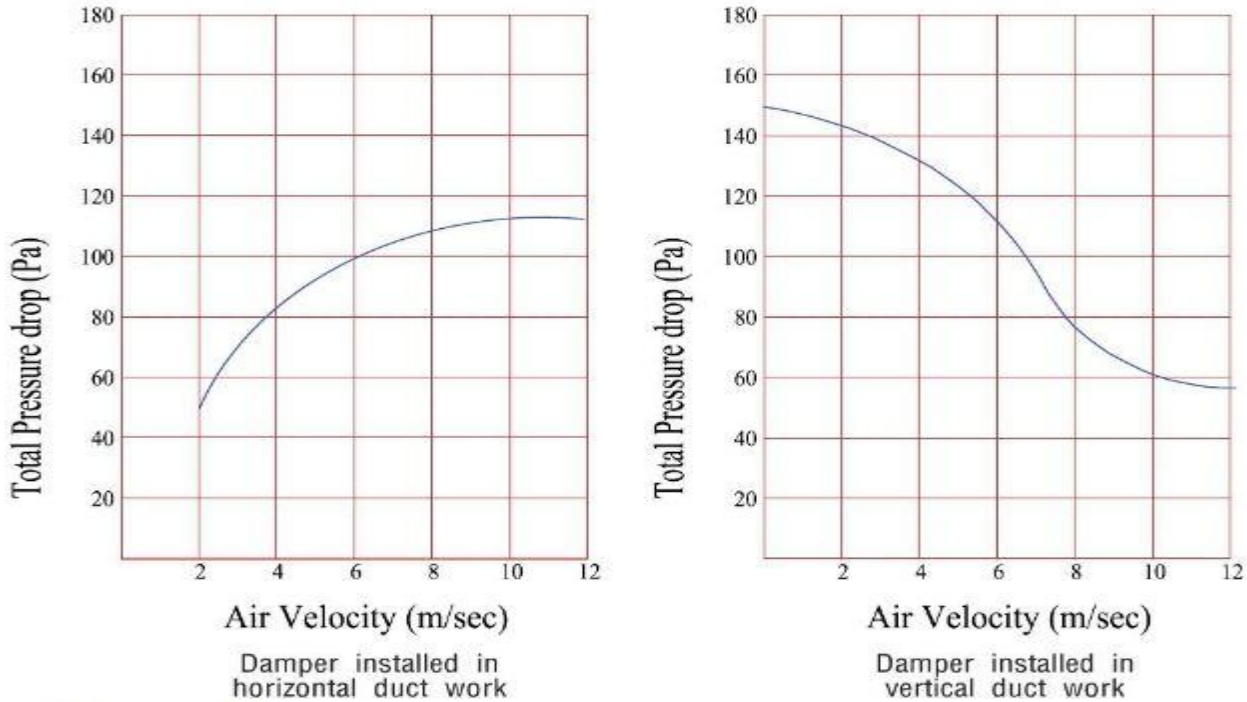
06 538 6895 P.O. Box: 1404, Umm al Quwain, U.A.E.
sales@aironix.ae www.aironix.ae

NON RETURN DAMPER

Fixtures:



Pressure Drop v/s Air Velocity:



BACK DRAFT DAMPER

AIRONIX manufactures back-draft damper with light-weight damper blades. Nylon blade seals ensure a tight seal between blades for a silent operation. It is ideal for pressure relief, intake, or exhaust in ducts, panel wall buildings, and doors. For controlling airflow in ducts or through wall openings. Pre-fitted linkages allow the damper to open up to a certain angle only and not in full.

Typically, the backdraft damper is situated into the duct system and prevents air from the outside coming into your home/office. Dampers are built with blades designed to allow air to flow through in one direction out of the house/office.

They also help improve overall ventilation. Effective ventilation is critical for a comfortable, livable place and a backdraft damper helps circulate odors in all rooms. Rooms that do not typically enjoy good circulation will benefit. The vent motor can be easily adjusted to get air flowing and to balance pressure in different spaces within the place.

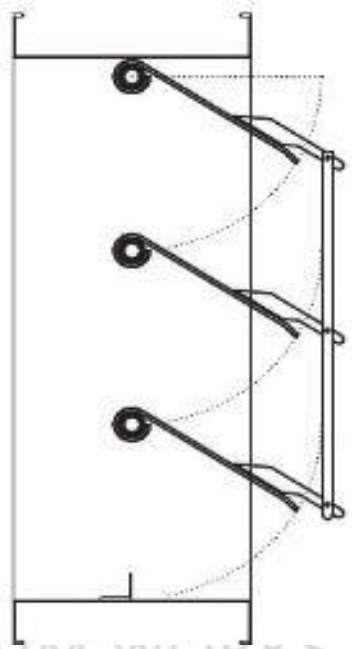
Construction:

Frame is constructed from galvanized steel sheet. Welded joints are protected by anti-rust spray coating. Air operated damper blades are fixed to the frame by self-oiling nylon bushes with 8mm dia aluminium pipes. Blade edges are sealed with foam gasket to avoid rattling noise and provide air tight operation. Blades stay in position of opening without fluctuating when there is constant air flow. Blades close quietly when the air flow stops.

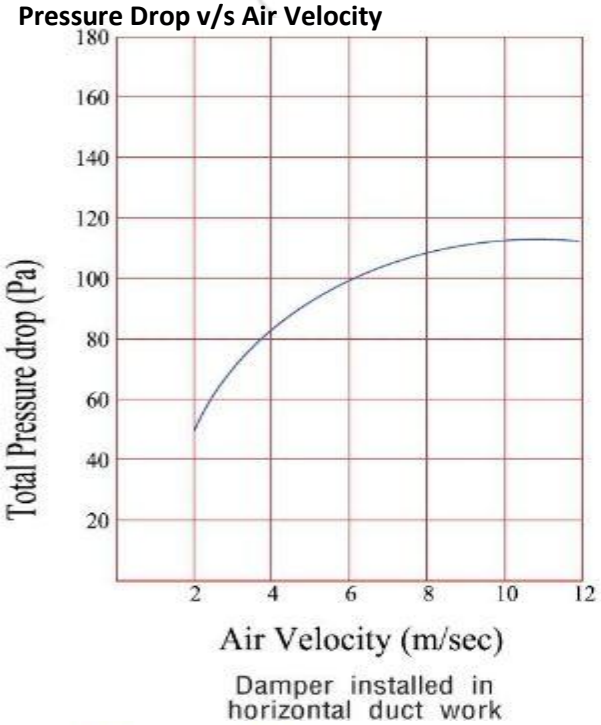
BACK DRAFT DAMPER

Model & Types:

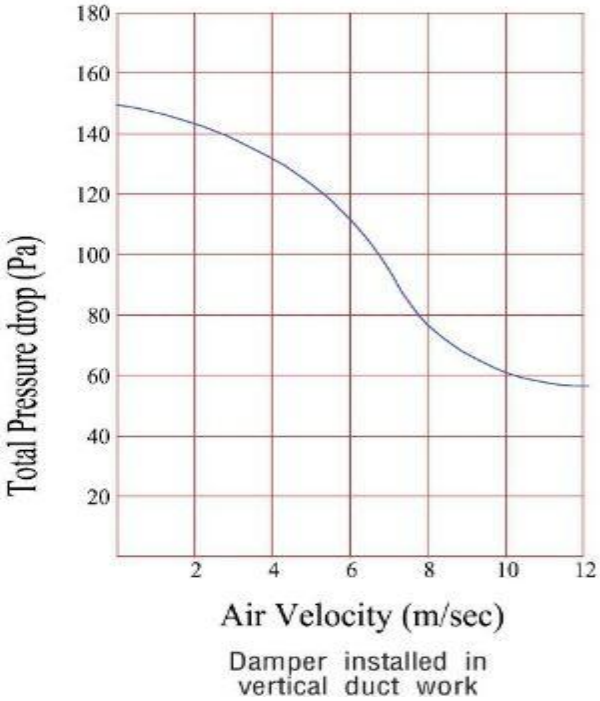
BDD45 – Back Draft Damper for ducts. Pre-fitted center or side linkages attached to prevent blades to open in full and open only in a certain angle; as per the project requirement.



Pressure Drop v/s Air Velocity



Damper installed in horizontal duct work



Damper installed in vertical duct work

PRESSURE RELIEF DAMPER

AIRONIX manufactures Pressure Relief Damper, Counter balancing damper, or Self-balancing damper. These damper open or close for intake or discharge or pressure relief vents in central HVAC applications. As the room pressure increases, the blades of the pressure relief damper automatically opens by relieving the excess pressure in the room and when pressure drops back to normal blades close by gravity or counter weight.

Construction:

Frame is constructed from galvanized steel sheet. Welded joints are protected by anti-rust spray coating. Air operated damper blades are fixed to the frame by self-oiling nylon bushes with 8mm dia aluminium pipes. Blade edges are sealed with foam gasket to avoid rattling noise and provide air tight operation. Blades stay in position of opening without fluctuating when there is constant air flow. Blades close quietly when the air flow stops.

Models & Types:

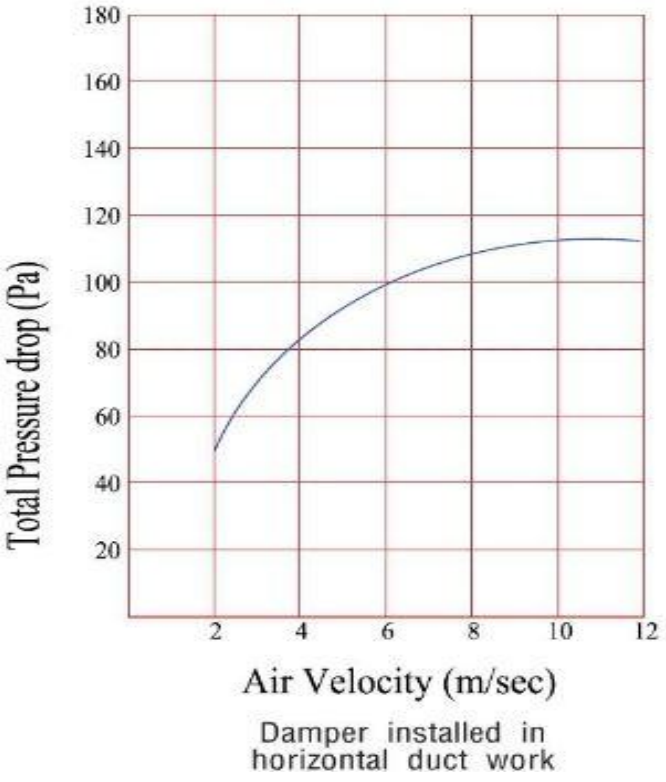
PRD45 – Pressure Relief Damper (standard specifications)

WPRD45 – Pressure Relief Damper with Weights

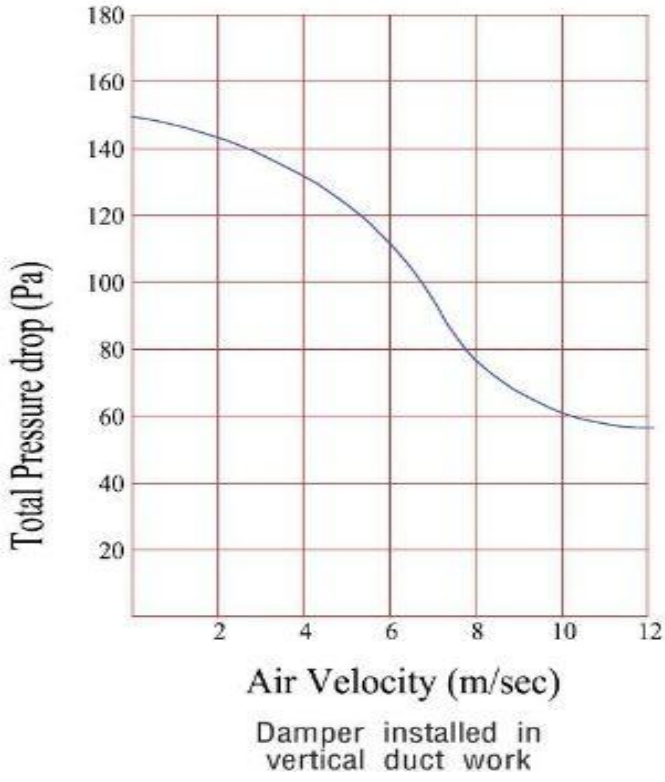
PRESSURE RELIEF DAMPER

WPRD45

PRD45



Damper installed in horizontal duct work



Damper installed in vertical duct work

GI DUCTING RINGS

AIRONIX manufactures Galvanized Iron (GI) rings; used for ducting purpose. These rings when assembled in long tubes can help direct airflow direction change in a straight run of ductwork. They are ideal for most dust, mist, and fume collection applications. GI duct and duct fittings feature corrosion-resistant material construction to perform well in harsh environments. They are chemically resistant to most acids, bases, salts, aliphatic solutions, oxidants, and halogens.

Models & Types:

RINGS45 – GI Rings with Single or Double Groove as per the project requirement.

Sizes Available:

4” (100mm) - 6” (150mm) - 8” (200mm) - 10” (250mm) - 12” (300mm) – 14” (350mm)

Standard Height is 100mm-130mm (optional)

ISO 9001:2015

Certificate of Registration

This is to Certify that
Quality Management Systems of

AIRONIX STEEL & ALUMINIUM WORKSHOP

PO Box 1404, New Industrial Area
Umm Al Quwain, UAE

has been assessed and found to conform to the requirements of

ISO 9001:2015

for the following scope:

Smithery and Welding Workshop, Aluminium & Glass Installation Workshop.

Certificate No.	**: 179AGA2901**	
Initial Registration Date	: 17.08.2020	Issuance Date: 19.08.2020
Date of Expiry *	: 18.08.2023	
1st Surve. Due	: 18.08.2021	2nd Surve. Due : 18.08.2022

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Director

Accurate Global Ltd.

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