idealair
group

volume control and non return dampers

VCDMAN
VCDMOT
VCDS
NRD

VCDMAN – MANUAL VOLUME CONTROL DAMPERS
VCDMOT – MOTORISED VOLUME CONTROL DAMPERS

Frames

All dampers are constructed with durable 6063 T5/T6 aluminium. Utilises a “C” Section frame of 152mm x 35mm. All frames come standard with corner slots for easy installation.

Blades

Our Aluminium interlocking Blades are constructed with durable 6063 T5/T6 aluminium to a maximum length of 1200mm for VCD’s. Their 1.8mm thick edge is designed for minimal airflow resistance. As standard, opposed blades are supplied. We also offer parallel rotation and blade tip seals upon request.

Seals

All motorised dampers are provided with blade tip seals, upper and lower rubber seals and side venetian seals.

Bearings

Bearings are a two piece design manufactured from high quality acetyl plastic.

Linkages

Linkages are a combination of cast zinc and aluminium. All dampers that are greater than 1000mm wide or 8 blades in height are re-enforced with dual sided linkages to ensure a smooth action and tight seal.

Drive Shafts

Motor Drive Shafts are made from 11.11mm zinc plated hex rod for strength and durability. Manual drive quadrants are made from our own unique zinc casting for simple operation.

Testing

Air Leakage Test report is available upon request.

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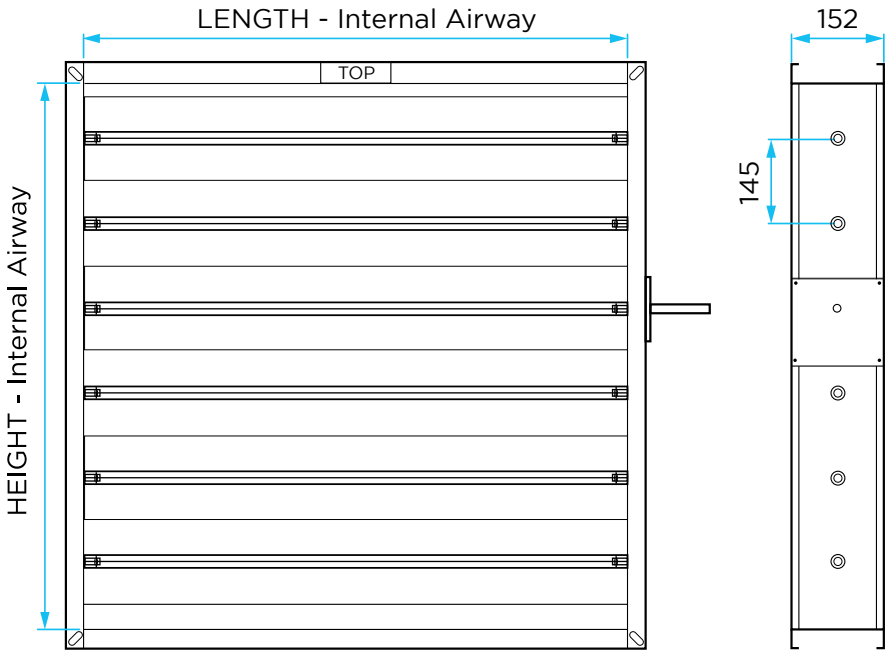

VCD - VOLUME CONTROL DAMPER

Dimensions in millimetres

VCDMAN – Manual Volume Control Damper

VCDMOT – Motorised Volume Control Damper

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VCDS – MOTORISED SMOKE / HT DAMPER

Rated to 200 degrees

Frames

All dampers are constructed with durable 6063 T5/T6 aluminium. Utilises a "C" Section frame of 152mm x 35mm. All frames come standard with corner slots for easy installation. Our aluminium has a melting point of 615 degrees

Blades

Our Aluminium interlocking Blades are constructed with durable 6063 T5/T6 aluminium to a maximum length of 1200mm. Their 1.8mm thick edge is designed for minimal airflow resistance. As standard, opposed blades are supplied.

Seals

All motorised dampers are provided with upper and lower rubber tip seals and venetian side seals. Our Motorised Smoke dampers are fitted with blade rubber tip seals made from durable silicon with a Thermal Decomposition point of 250 Degrees Celsius.

Bearings

Bearings are a two piece design manufactured from high quality Zytel plastic which has a melting point of 260 degrees.

Linkages

Linkages are a combination of cast zinc and aluminum. All dampers that are greater than 1000mm wide or 8 blades in height are re-enforced with dual sided linkages to ensure a smooth action and tight seal.

Drive Shafts

Motor Drive Shafts are made from 11.11mm zinc plated hex rod for strength and durability.

Testing

Tested in accordance with AS 1530.7:2007 (R2018).

Ambient air leakage test results (@SRC[b])

Specimen configuration/pressure	Exposure temperature	Net leakage rate[a] Q (m^3/h) corrected to standard reference conditions (SRC) at a pressure differential of				
		50 Pa	25 Pa	10 Pa	300 Pa	100 Pa
Positive pressure (chamber side)	**Ambient**	19	15	10	43	26

Note:

- The measured accuracy for these leakage values is approximately ± 1 m^3/h unless otherwise noted.
- SRC - as specified in AC 1530.7.2007 are at 20° (293.15 K) and 101.325 kPa atmospheric pressure.

Medium air leakage test results - @ standard referene conditons (SRC)

Specimen configuration/pressure	Exposure temperature	Net leakage rate[a] Q (m^3/h) corrected to standard reference conditions (SRC) at a pressure differential of				
		50 Pa	25 Pa	10 Pa	300 Pa	100 Pa
Positive pressure (chamber side)	**Medium (200°C)**	15	8	2	49	25
	Medium (200°C) after 30 minutes	33	29	26	50	38

Note:

- The measured accuracy for these leakage values is approximately ± 1 m^3/h unless otherwise noted.
- SRC - as specified in AC 1530.7.2007 are at 20° (293.15 K) and 101.325 kPa atmospheric pressure.

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NRD – NON RETURN / BAROMETRIC DAMPERS

Frames

All dampers are constructed with durable 6063 T5/T6 aluminium. Utilises a “C” Section frame of 152mm x 35mm. All frames come standard with corner slots for easy installation.

Blades

Our Aluminium Blades are constructed with durable 6063 T5/T6 aluminium to a maximum length of 1000mm. Their 1.8mm thick edge is designed for minimal airflow resistance. Blades are spaced at 71mm centre to centre.

Blades in Barometric dampers are operated simultaneously by the use of a link rod connected to the back of all the blades. This link rod is fitted with an internally mounted tension spring. The tension of this spring is controlled by an externally mounted rod and nut system. This provides a greater range of adjustment.

Seals

Each Blade is fitted with foam tip seal for quiet operation.

Bushes

Our Bushes are manufactured from durable acetyl plastic

Linkages

Linkages are constructed from 20x3 Aluminium rod ganging blades in quantities of 3—6 blades toassist in smooth operation.

Front View

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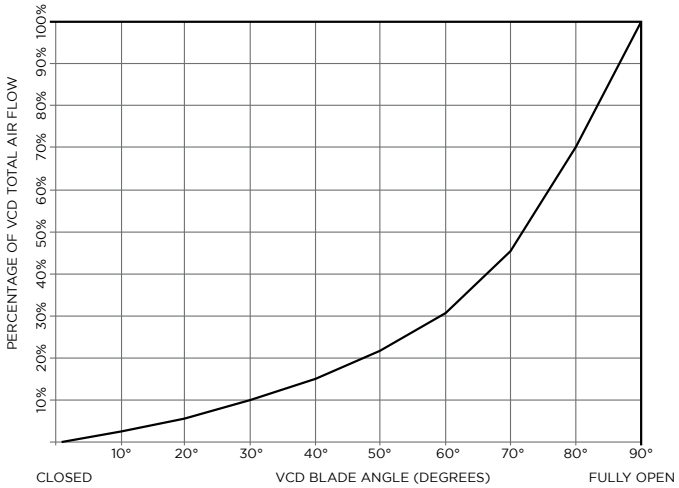
VCD Technical Data

VCDMAN & VCDMOT

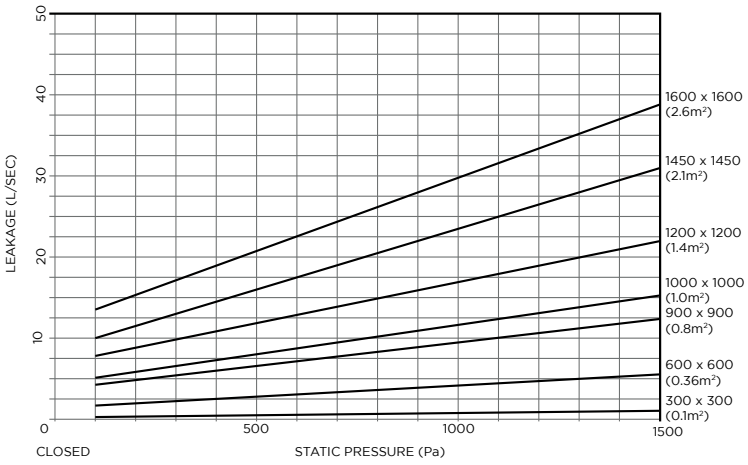
Volume control damper (opposed blade) Airflow to blade position



NOTE: This graph is to be used as a quick selection guyide and not to be used for comissioning

Leakage performance data for the VCDMOT

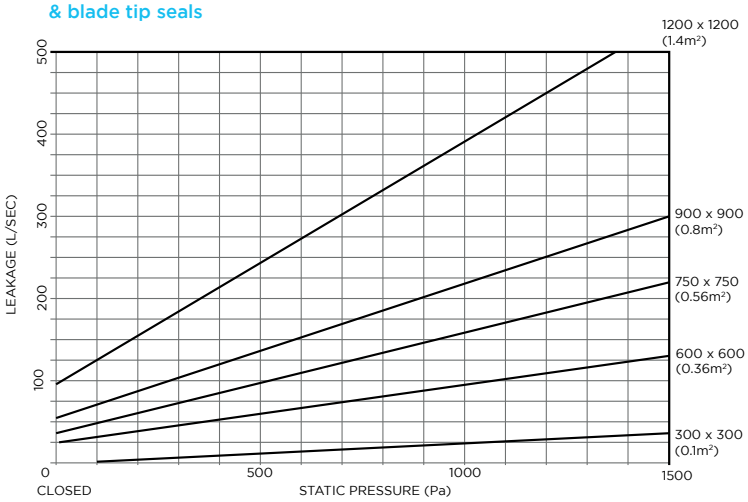
Motorised volume control damper c/w side seals & blade tip seals



NOTE: This graph is to be used as a quick selection guyide and not to be used for comissioning

Leakage performance data for the VCDMAN

Motorised volume control damper withoutside seals & blade tip seals



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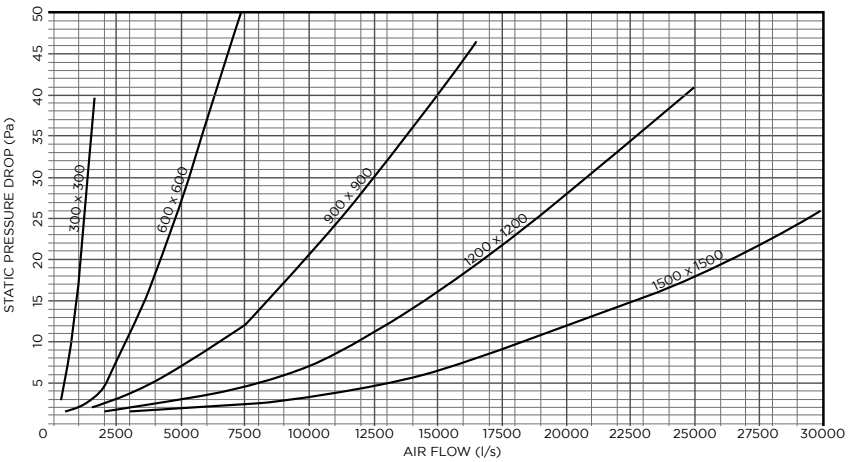
VCDMOT & VCDMAN airflow v static pressure

Volume control damper fully open



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