TAWREED

TAWREED TRADING & CONTRACTING · DUCT FACTORY IN QATAR SINCE 2012

TECHNICAL DATA SHEET // DAMPERS

Volume Control Damper – Opposed / Parallel Blade

دمبر تحكم بالحجم – شفرات متقابلة / متوازية

CONTENTS

01 Construction & options (seals, actuator)

02 AMCA pressure-drop performance

03 Product range & blade sizes

04 Order code & standard construction

DOCUMENT

12 pages, extracted from:
Technical Submittal - GI Duct, p. 10–20
Revision 01 · October 2026

CONTACT · REQUEST A QUOTE

Phone / WhatsApp: +974 7097 0111 Email: hvac@tawreed.ltd
Factory: Zone 91, Street 3138, Building 66, Birkat Al Awamer, Qatar
Web: tawreed.ltd Hours: Sat–Thu, 9am–5pm

Data supplied for submittal and specification purposes. Values are nominal; confirm project-specific requirements with Tawreed before ordering.

VOLUME CONTROL DAMPER

STANDARD CONSTRUCTION

FRAME:

GALVANIZED STEEL INTERLOCKING HAT CHANNEL FRAME CONSTRUCTION.

BLADES:

EXTRUDED ALUMINUM DOUBLE SKIN AIRFOIL BLADE. OPPOSED ACTION.

BEARINGS:

NYLO / PVC BEARING

AXLES:

12MM SQUARE ZINC PLATED STEEL SPINDLE.

LINKAGE:

CONCEALEDIN FRAME 10Ga (3mm) ZINC PLATEDSTEEL

FINISH:

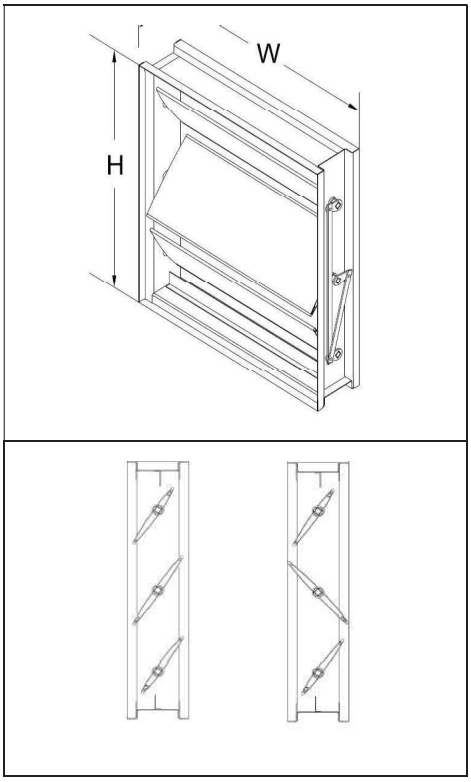
MILL GALVANIZED

OPERATING SHAFT:

12" DIAMETER OR 12X12mm ZINC PLATED STEEL SHAFT EXTENDING (63mm) BEYOND THE AIR CONTROL DAMPER FRAME.

MANUAL HAND-QUADRANT:

DIE CAST HAND QUADRANT
PLATED FOR SQUARE
OR ROUND SHAFT INSTALLED ON ELEVATED
BEARING BRACKET



VOLUME CONTROL DAMPER

OPTIONS:

- RUBBER BLADE TIPSEALS.
- SILICONE BLADE SEAL FOR HIGH TEMPERATURE
- STAINLESS STEEL JAMB SEALS.
- BRASS BUSHS
- STAINLESS STEEL BLADE .
- STAINLESS STEEL CONSTRUCTION
- STAINLESS STEEL SPINDLES & SHAFT
- STAINLESS STEEL LINKAGE
- MOTORIZED ACTUATORS (24V - 230V)

SIZES :

SINGLE BLADE:

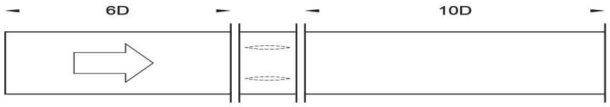
FLAT TYPE FRAME CONSTRUCTION FOR MAXIMUM AIR FLOW FOR SIZE UP TO(125mm) HEIGHT. HAT CHANNEL TYPE FRAME FOR SIZE OF 150MM - HIGHT & ABOVE.

VOLUME CONTROL DAMPER

AIR PERFORMANCE

Pressure Drop

The tests for pressure prop of Volume Control Dampers were conducted as per ANSI / AMCA Standard 500-D, Figure 5.3 which simulate the actual site condition when installed in ventilation, supply and return air conditioning ductworks.



AMCA Test Figure 5.3

Pressure Drop at Face Area Velocity

300MM*300MM	
VELOCITY (M/S)	PRESSURE DROP (PA)
2.5	1.5
3.8	4.5
5.1	7.5
6.4	11.5
7.7	16.2

600MM*600MM	
VELOCITY (M/S)	PRESSURE DROP (PA)
10.2	20
9	14.9
7.6	11
5.1	5
2.5	1.5

900MM*900MM	
VELOCITY (M/S)	PRESSURE DROP (PA)
13	27.39
10.2	17
7.6	8.7
5.1	4
2.5	1

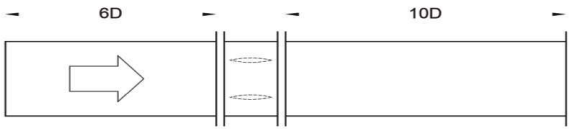
300MM*1200MM	
VELOCITY (M/S)	PRESSURE DROP (PA)
40	472.8
36	394.7
30.7	283.6
20.4	124.5
10.4	24

1200MM*300	
VELOCITY (M/S)	PRESSURE DROP (PA)
39.2	487.3
36	411
30.7	287.8
20.4	122.51
10.4	30.13

VOLUME CONTROL DAMPER

Air Performance

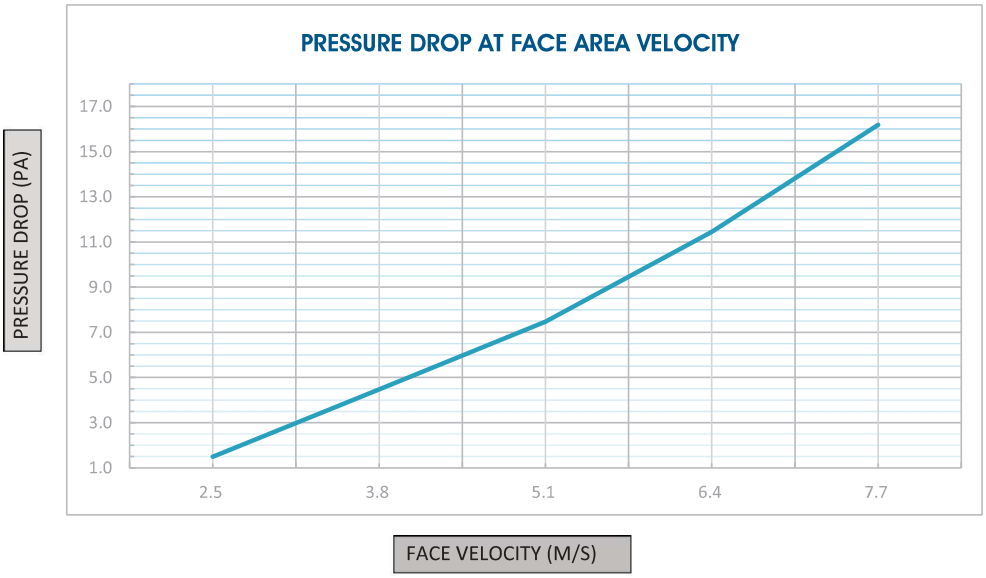
Pressure Drop



AMCA Test Figure 5.3

Pressure Drop at Face Area Velocity

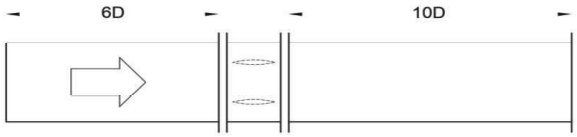
DAMPER SIZE: 300MM*300MM - FULLY OPEN BLADES



VOLUME CONTROL DAMPER

Air Performance

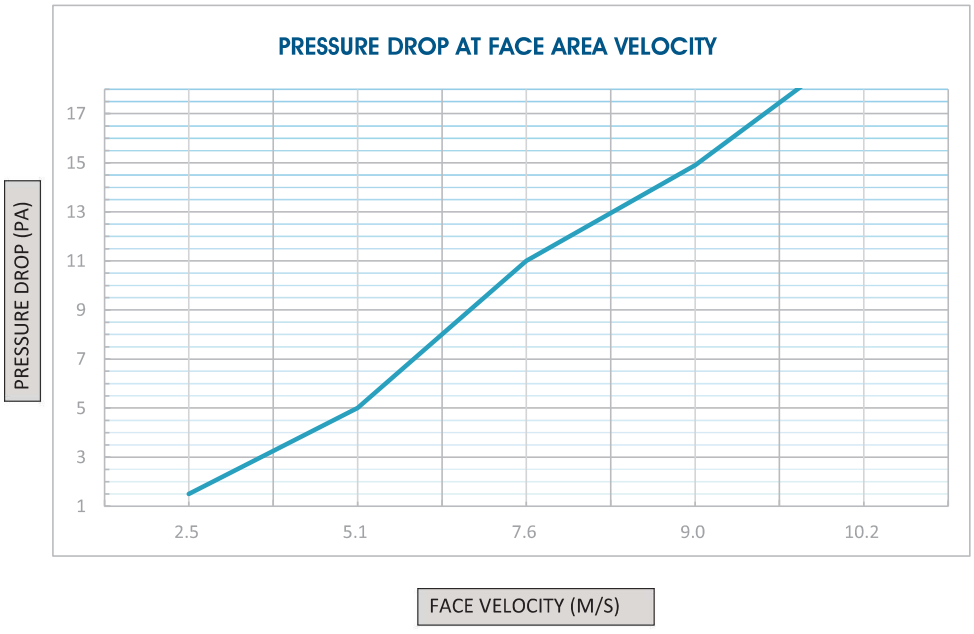
Pressure Drop



AMCA Test Figure 5.3

Pressure Drop at Face Area Velocity

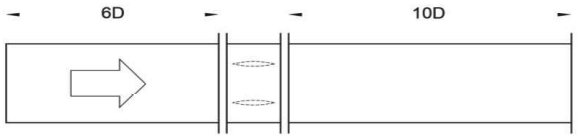
DAMPER SIZE: 600MM*600MM - FULLY OPEN BLADES



VOLUME CONTROL DAMPER

Air Performance

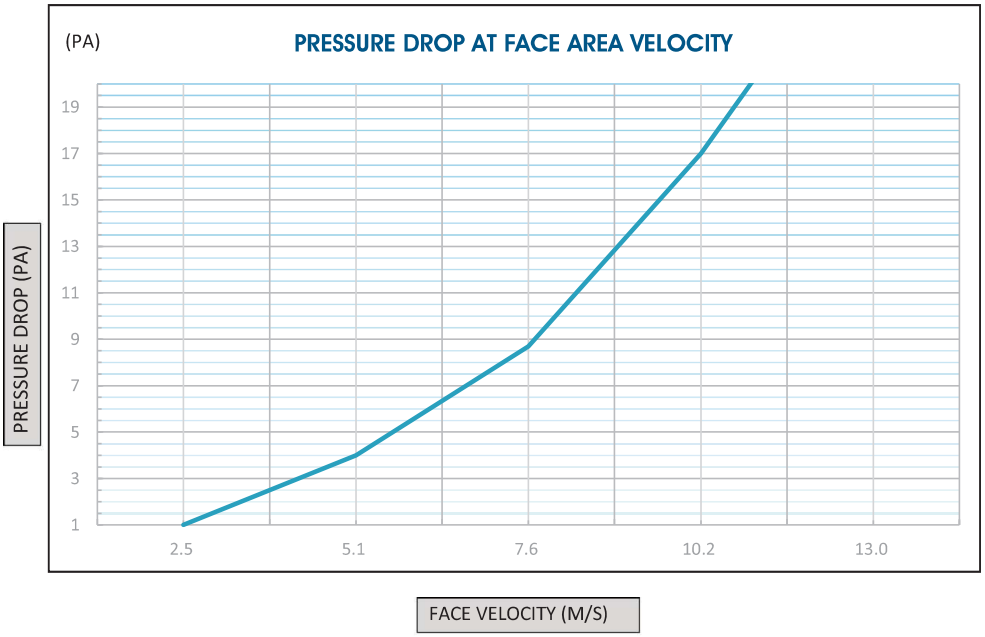
Pressure Drop



AMCA Test Figure 5.3

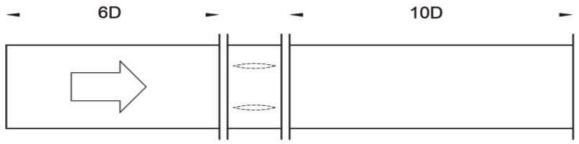
Pressure Drop at Face Area Velocity

DAMPER SIZE: 900MM*900MM - FULLY OPEN BLADES



VOLUME CONTROL DAMPER

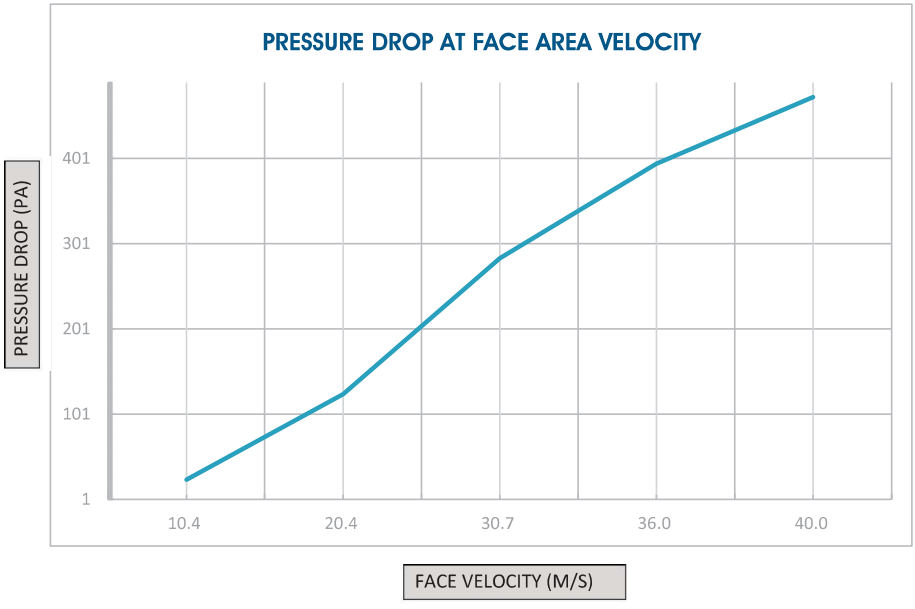
Pressure Drop



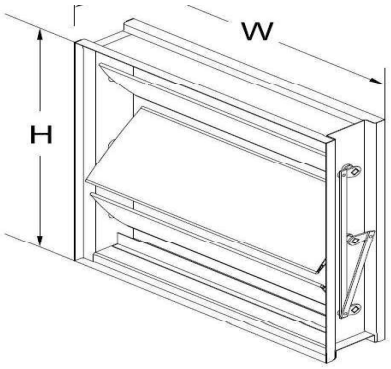
AMCA Test Figure 5.3

Pressure Drop at Face Area Velocity

DAMPER SIZE: 1200MM *300MM - FULLY OPEN BLADES



MANUAL OPERATION FIXED BLANDE



HEIGHT (MM)	NUMBER OF BLADES
100	1
150	1
200	2
250	2
300	2
350	3
400	3
450	4
500	4
550	4
600	4
650	5
700	5
750	5
800	6
850	6
900	6
950	7
1000	7

VOLUME CONTROL DAMPER

PRODUCT RANGE

Linkage

Construction Variants	Description
S	no seals.
S1	Blades edge seal. Fitted to seal blades to blads join. Blade seal is silicone cubber with temperature resistance up to 175 C, to minimize air leakage.
S2	JAMB seal. Fitted to close gap between frame and blades (jamb seal) to minimize air leakage.
S3	Combination of S1 & S2. fitted to close gap between frame and blades and blades edge seals to seal blades to blades jpints. blade seals is silicone rubber with temperature resistance up to 175 C for low air leakage characteristic.

Linkage

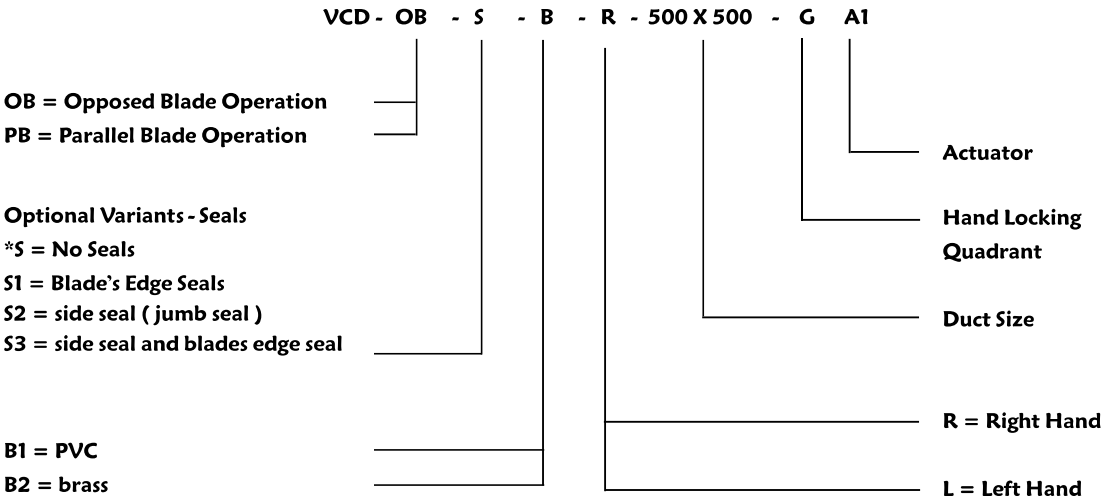
Construction Variants	Description
PB	side linkage concealed in frame for parallel blade operation
OB	side linkage concealed in frame for opposed blade operation

BUSH

Construction Variants	Description
B1	PVC Bearing
B2	BRASS

VOLUME CONTROL DAMPER

ORDER DETAILS



ORDER EXAMBLE:

STANDERD

MAKE : DYNFLOW
1.TYPE : VCD - OB 0 B0 R0 S - 500X500 - Q
2.TYPE : VCD - OB- B - R - S - 500X500 - A1

VOLUME CONTROL DAMPER

STANDERD CONSTRUCTION

FRAME
24 gauge sizes up to 12 in galvanized steel
roll formed and clinched double beaded for rigidity
and spiral Duct connetion .



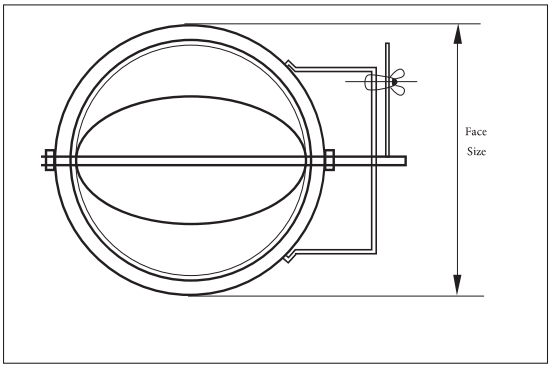
BLADES
Single blade galvanized BLADE

BUSH
Nolon / PVC

Finish
Mill galvanized

Standerd extended shaft
8mm & 12mm square zinc plated steel
Shaft extending 25mm beyond the air control
Damper frame

Sizes
Minimum : 4 di
Maximum : 24 di



OPTION:
IRIS Round danper with double skin bladed & silicon seal.