Motorized Volume Control Damper - MCD; Heavy Duty Application B-40 Series

Type: Square and Rectangular
Model: MCD - GB-41 A/B
Blade Type : 3V Single Skin; Galvanized Construction
Blade Operation : A-Parallel, B-Opposed

BETEC CAD B-40 Series Motorized Volume control dampers are square and rectangular type with both parallel blade operation and opposed blade operation with single skin blade design. These heavy duty dampers are used under high pressure and velocity conditions to achieve efficient and rattle free operation.

The square and rectangular type **MCD**'s are designed for handling maximum air capacities at minimum pressure drop.

MCD-GB-41B

B-40 Series Single Skin Blade Model Details				
Material Construction				
Model	Frame		Blade	
	Material	Thick	Material	Thick
MCD-GB-41A/B	GI	1.5 mm	GI	1.5 mm
MCD-GSB-41A/B	GI	1.5 mm	SS	1.5 mm
MCD-SB-41A/B	SS	1.5 mm	SS	1.5 mm

Alphabet indicates the type of blade operation
A - Parallel Blade.
B - Opposed Blade.

Damper Performance Ratings

Pressure - 6" wg (1500 Pa.) Max.
Leakage - Class - II (Refer AMCA 500 D)
Velocity - 3000 fpm (15 m/s).

Standard Construction

Frame
6" x 1.18" x 16 gauge (150 x 30 x 1.5 mm) thick rollformed galvanized steel 'C' channel.
Blades
6" (150 mm) wide,1.5 mm (16 gauge) thick galvanized steel 3V type rollformed.
Bushes
Bronze.
Mechanical Linkage
Galvanized steel linkages concealed in the frame.
Axles
12 mm square galvanized steel.
Gasket
Neoprene / foam gasket /Silicone Rubber Gasket*.
Jamb Seal
0.3 mm thick stainless spring steel.
Actuator
Siemens (On / Off type 24V AC / 230V AC)

Optional Construction

Frame : Thickness up to 3 mm
Frame Depth : Up to 200 mm
Blade : Thickness up to 3 mm
Blade Width : Up to 150 mm
Frame and Blade Material : Stainless Steel (304/316L)

Any Combination of W x H											
MCD-GB-41A/B											
W- Inch	6"	8"	12"	16"	18"	20"	24"	28"	32"	36"	48"
H - Inch	6"	8"	12"	16"	18"	20"	24"	28"	32"	36"	40"

Optional Fittings

Bushes
Brass.
Flange Holes
Available customers request, please specify.
Transitions
Neck adaptor for round duct connections.
Actuator
Honeywell /Belimo/Sauter (24V AC / 230V AC)

Note:
Increments of 2" (50 mm) possible with combination of 4"& 6" blade width.

Maximum single module size is 48"x40" (1200x1000 mm).

Damper, width W > 48" (1200 mm) or H > 40" (1000 mm), is provided with a center mullion partition.

Note :
Please contact ***BETEC CAD***. for customized design & additional information.

Selected Products of the company have been Classified / Listed / Tested by various international testing authorities.

Engineering And Performance Data - MCD

B - 20 Series

Pressure drop for Motorized Control Dampers

Single Skin Blade : MCD B 21/41
Aerofoil Blade : MCD B 22/42
AIR PERFORMANCE

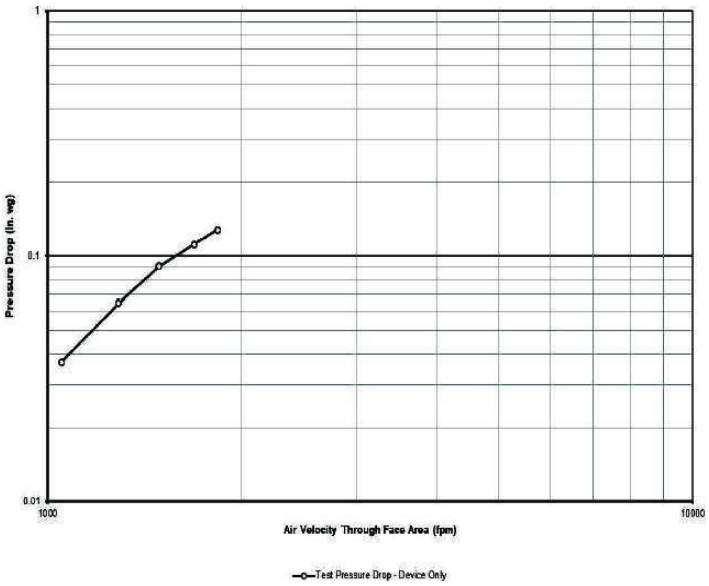
•Tested for air performance at standard air density in accordance with ANSI/AMCA 500-D,Figure 5.3

•Data are based on a torque of 24 in-lb/ft2 applied to close and seat the damper during the test.

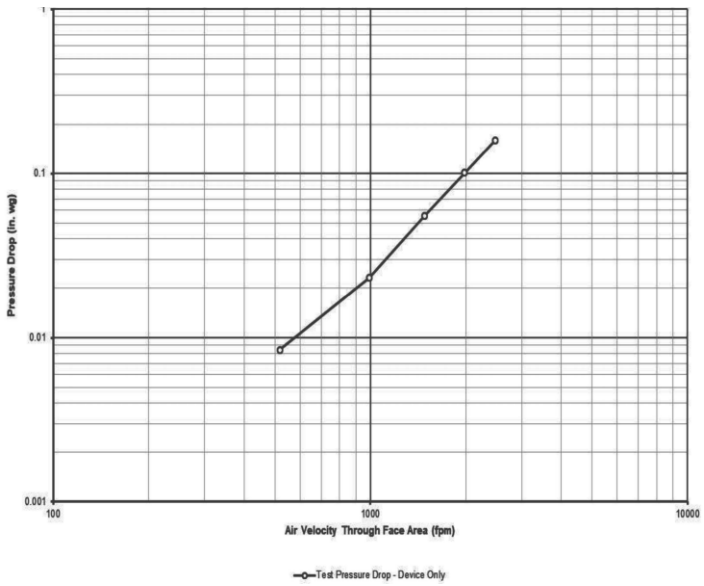
Motorized Control Damper

Pressure Loss Vs Face Velocity
Pressure Drop For Models MCD - B 20/40 Series.

SIZE 12" X12"		SIZE 24" X 24"		SIZE 12" X 48"		SIZE 48" X 12"	
Air Velocity (fpm)	Pressure Drop (in. wg)	Air Velocity (fpm)	Pressure Drop (in. wg)	Air Velocity (fpm)	Pressure Drop (in. wg)	Air Velocity (fpm)	Pressure Drop (in. wg)
1100	0.04	520	0.008	520	0.01	520	0.007
1400	0.07	1000	0.02	1000	0.04	1000	0.02
1600	0.09	1600	0.06	1500	0.08	1600	0.05
1800	0.12	2000	0.1	2000	0.14	2000	0.09
1900	0.14	2600	0.18	2600	0.22	2600	0.14



SIZE 12" X12"



SIZE 24" X24"

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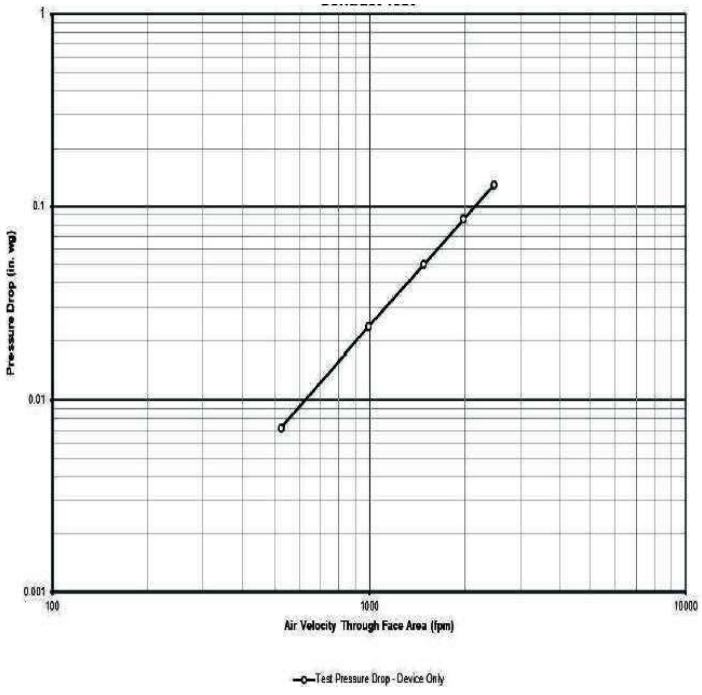
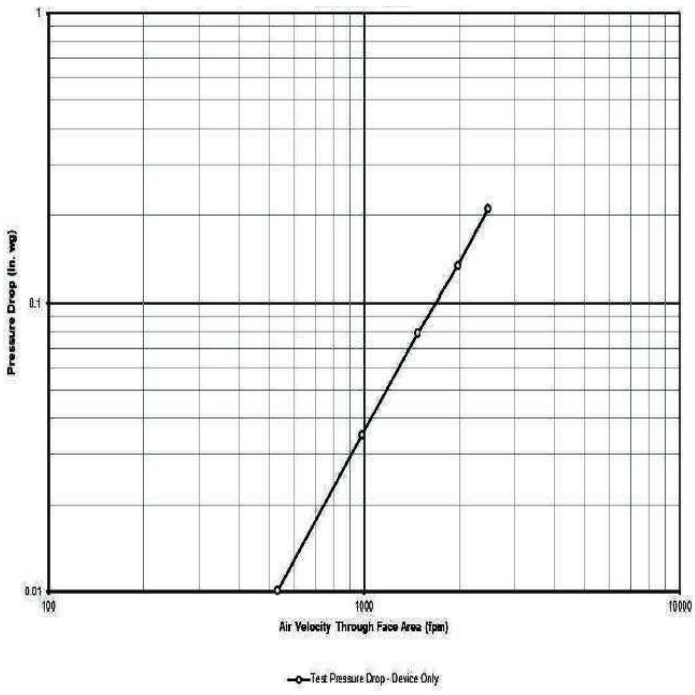
Engineering And Performance Data - VCD

B -20 Series

Pressure drop for Motorized Control Dampers



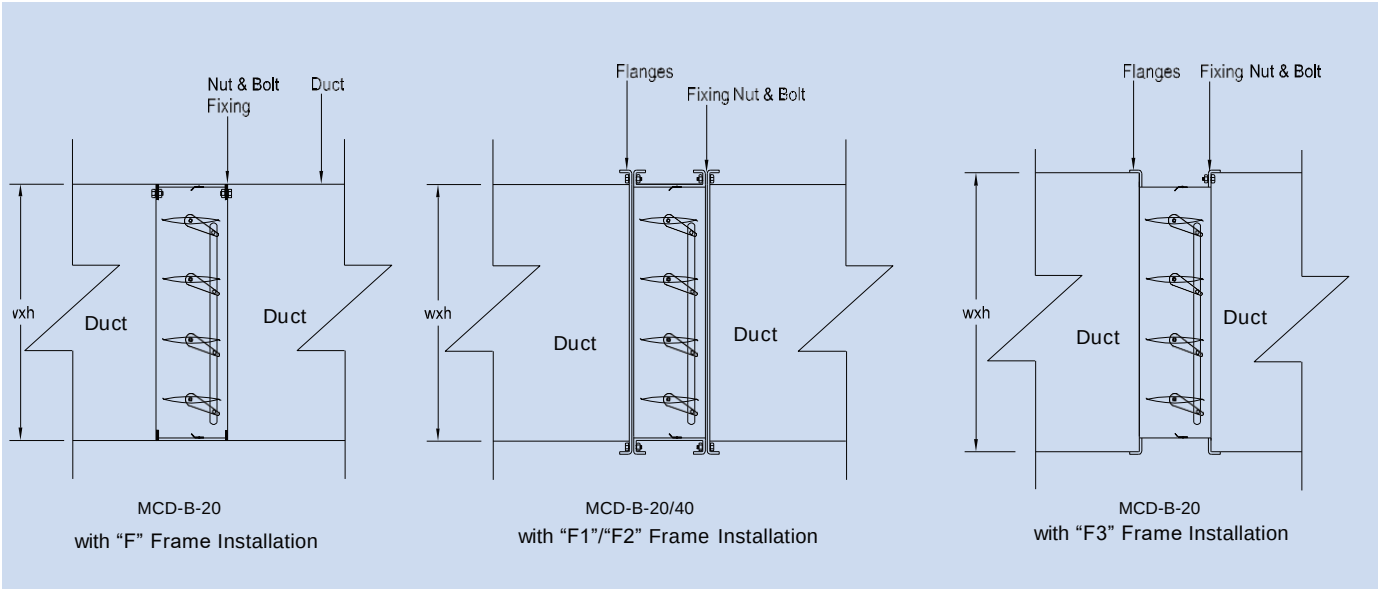
SIZE 48" X 12"



SIZE 12" X 48"

Note: MCD-B-20/40 Series Class - I Leakage type available on request.

Installation Details



MCD-B-20
with "F" Frame Installation

MCD-B-20/40
with "F1"/"F2" Frame Installation

MCD-B-20
with "F3" Frame Installation

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Engineering And Performance Data - MCD

B -20 Series

Leakage Characteristics for Motorized Control Dampers

Models MCD - B 20/40 - Leakage Curve (Blades 100% Closed Position)

AIR LEAKAGE

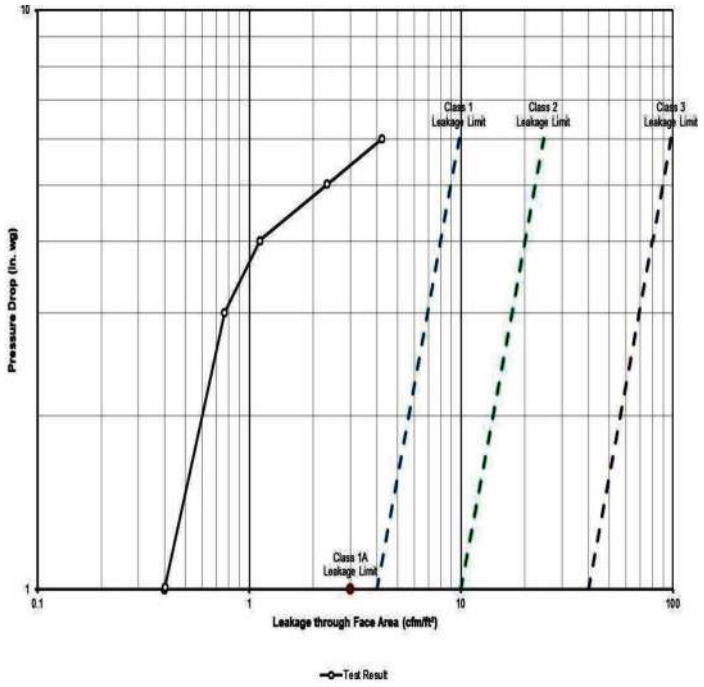
•Air leakage is based on operation between 32 °F and 120 °F

•Tested for air leakage at standard air density in accordance with ANSI/AMCA Standard 500-D,Figure 5.4

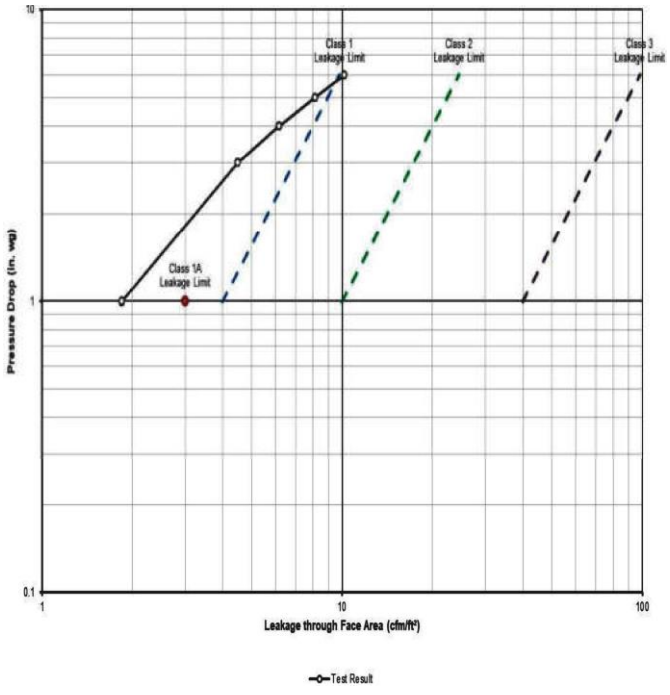
•Data are based on a torque of 24 in-lb/ft2 applied to close and seat the damper during the test.

Maximum Allowable Leakge, cfm/ft²				
Class	at 1 in.wg	at 4 in.wg	at 6 in.wg	at 8 in.wg
1A	3	N/A	N/A	N/A
1	4	8	10	11
2	10	20	24	28
3	40	80	98	112

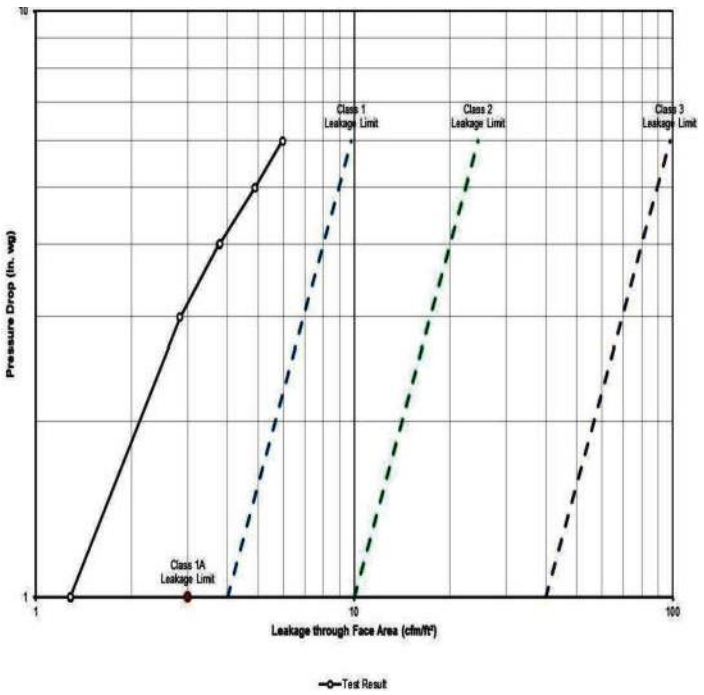
Details of MCD Leakage Class		
MCD-Series	**Leakage Class**	**Static Pressure**
MCD B-20 Series	Class - I	1.5 Kpa
MCD B-40 Series	Class - I	1.5 Kpa



MCD-GAB-22-B-36 "X 40"



MCD-GB-21-B-36 "X 40"



MCD-GB-22-B-36 "X 40"

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