

DAMPERS

WE CONTROL
AIR



BETA
industrial
PRODUCTS CATALOGUE

PRODUCT BULLETIN

8

Ver. 1 January 2017





BETA
i n d u s t r i a l

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Note: AMCA certified products are available at AMCA directory of listed products at <http://www.amca.org/certified-listed/listedproducts.php>



VOLUME CONTROL DAMPER - 3VCD SERIES 3V-SHAPED STEEL BLADES

STANDARD CONSTRUCTION

Frame: 1.2mm thick galvanized steel sheet.

Blades: 3 V-shaped 1.2mm thick roll-formed galvanized steel.

Axes: 1/2" square galvanized steel rod.

Linkage: made of galvanized steel.
Concealed in frame.

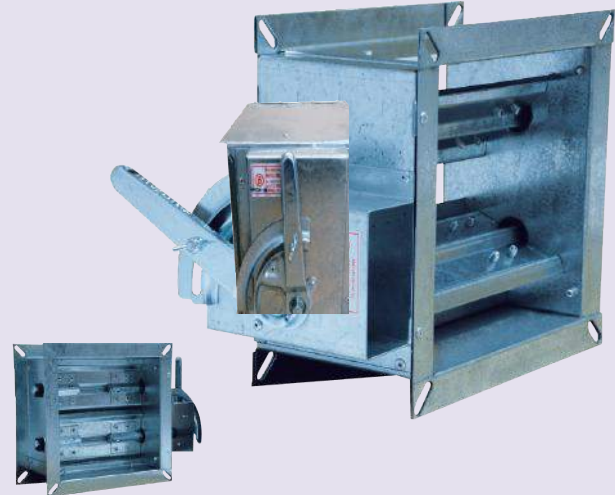
Bushing: Self lubricating plastic bushes.

Quadrant: Plated steel with wing nut to lock the blades position. Marked to show the position of the blades.

Fixing to duct: Flanged frame.

Size: Single section up to:
1200X1200mm for Hat-shaped/flanged types.
1000X1000mm for slip & clip/box types.

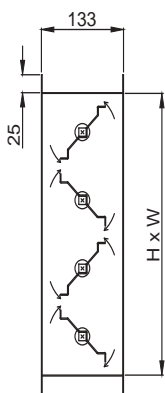
Model 3VCDG2PLF



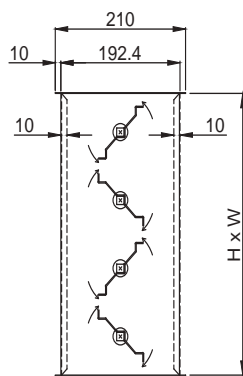
Model 3VCDG2PLH



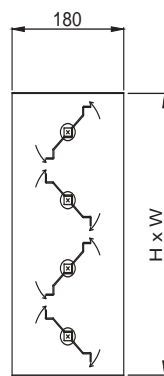
DIMENSIONS



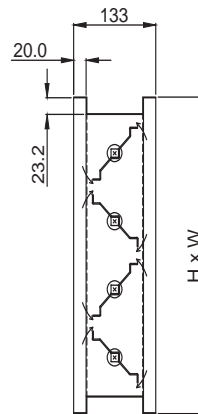
3VCD-Flange type



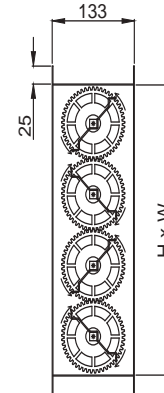
3VCD-Slip & Clip type



3VCD-Box type



3VCD-Hat type



3VCD with gear mechanism



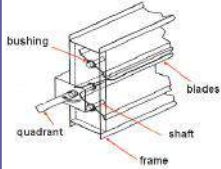
Plastic Bushes





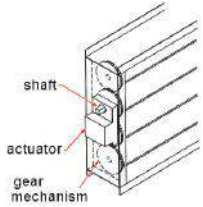
VOLUME CONTROL DAMPER - 3VCD SERIES 3V-SHAPED STEEL BLADES

OPTIONS



FEATURE	MODEL	MANUAL QUADRANT MODELS																									
		3VCDG2PLH	3VCDG2BLH	3VCDG2PLF	3VCDG2BLF	3VCDG2PLS	3VCDG2BLS	3VCDG2PLB	3VCDG2BLB	3VCDG2PGH	3VCDG2BGH	3VCDG2PGF	3VCDG2BGF	3VCDG2PGS	3VCDG2BGS	3VCDG2PGB	3VCDG2BGB	3VCDG2SLH	3VCDG2SLF	3VCDG2SLS	3VCDG2SLB	3VCDG2SGH	3VCDG2SGF	3VCDG2SGS	3VCDG2SGB	3VCDG2-SMC	3VCDG2-SMC
DRIVE	MANUAL QUADRANT	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	ELECTRIC ACTUATOR																										
BLADE TYPE	G.I. 3V-SHAPED	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	ALUMINUM AEROFOIL																										
BLADE MOVEMENT	OPPOSED	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	PARALLEL	ABOVE MODELS (EXCEPT THE ONES WITH GEAR MECHANISM) CAN BE WITH PARALLEL BLADES, PLS. WRITE "PARALLEL" ON YOUR ORDER																									
USE	CONTROL (AIR BALANCING)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	LOW LEAKAGE (AIR TIGHT SHUT OFF)																										
CONSTRUCTION	GALVANIZED STEEL	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	STAINLESS STEEL 304																	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
BUSHING/ BEARING TYPE	PLASTIC BUSHES	✓		✓		✓		✓		✓		✓		✓		✓											
	BRASS BUSHES		✓		✓		✓		✓		✓		✓		✓		✓										
	S.S. BEARING																	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
MECHANISM	G.I. LINKAGE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	PLASTIC GEARS																										
FIXING TO DUCT	HAT-SHAPED	✓	✓							✓	✓							✓								✓	✓
	FLANGE			✓	✓							✓	✓						✓								
	SLIP & CLIP					✓	✓							✓	✓					✓					✓		
	BOX TYPE (INSERTED INSIDE DUCT)							✓	✓								✓	✓			✓				✓		

**Other options of S.S. bushes "X" and S.S. bearing "S" are shown at the ordering key.



FEATURE	MODEL	MOTORIZED MODELS																									
		M3VCDG2PLH	M3VCDG2BLH	M3VCDG2PLF	M3VCDG2BLF	M3VCDG2PLS	M3VCDG2BLS	M3VCDG2PLB	M3VCDG2BLB	M3VCDG2PGH	M3VCDG2BGH	M3VCDG2PGF	M3VCDG2BGF	M3VCDG2PGS	M3VCDG2BGS	M3VCDG2PGB	M3VCDG2BGB	M3VCDG2SLH	M3VCDG2SLF	M3VCDG2SLS	M3VCDG2SLB	M3VCDG2SGH	M3VCDG2SGF	M3VCDG2SGS	M3VCDG2SGB	M3VCDG2-SMC	M3VCDG2-SMC
DRIVE	MANUAL QUADRANT																										
	ELECTRIC ACTUATOR	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
BLADE TYPE	G.I. 3V-SHAPED	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	ALUMINUM AEROFOIL																										
BLADE MOVEMENT	OPPOSED	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	PARALLEL	ABOVE MODELS (EXCEPT THE ONES WITH GEAR MECHANISM) CAN BE WITH PARALLEL BLADES, PLS. WRITE "PARALLEL" ON YOUR ORDER																									
USE	CONTROL (AIR BALANCING)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	LOW LEAKAGE (AIR TIGHT SHUT OFF)																										
CONSTRUCTION	GALVANIZED STEEL	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	STAINLESS STEEL 304																	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
BUSHING/ BEARING TYPE	PLASTIC BUSHES	✓		✓		✓		✓		✓		✓		✓		✓											
	BRASS BUSHES		✓		✓		✓		✓		✓		✓		✓		✓										
	S.S. BEARING																	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
MECHANISM	G.I. LINKAGE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	PLASTIC GEARS																										
FIXING TO DUCT	HAT-SHAPED	✓	✓							✓	✓							✓								✓	✓
	FLANGE			✓	✓							✓	✓						✓								
	SLIP & CLIP					✓	✓							✓	✓					✓					✓		
	BOX TYPE (INSERTED INSIDE DUCT)							✓	✓								✓	✓			✓				✓		

**Other options of S.S. bushes "X" and S.S. bearing "S" are shown at the ordering key.





VOLUME CONTROL DAMPER - 3VCD SERIES 3V-SHAPED STEEL BLADES

PERFORMANCE DATA

Beta Industrial LLC certifies that the 3VCD shown hereon is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program.

The AMCA Certified Ratings Seal applies to Air Leakage and Air Performance ratings only.

Test Information

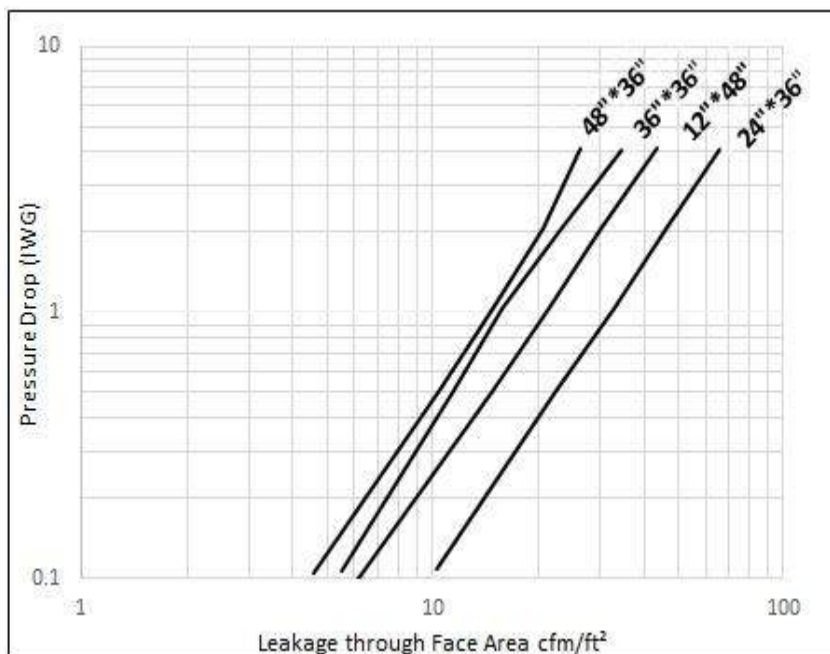
- * Air leakage is based on operation between 32 °F and 120 °F
- * Tested for air leakage at standard air density in accordance with ANSI/AMCA Standard 500-D, Figure 5.4
- * Tested for air performance at standard air density in accordance with ANSI/AMCA 500-D, Figure 5.3
- * Data are based on a torque of 21 in-lb/ft² applied to close and seat the damper during the test.



PRESSURE DROP DATA

Size 12" x 12"		Size 24" x 24"		Size 36" x 36"		Size 12" x 48"		Size 48" x 12"	
Air Velocity (fpm)	Pressure Drop (IWG)	Air Velocity (fpm)	Pressure Drop (IWG)	Air Velocity (fpm)	Pressure Drop (IWG)	Air Velocity (fpm)	Pressure Drop (IWG)	Air Velocity (fpm)	Pressure Drop (IWG)
297	0.002	347	0.003	311	0.002	346	0.003	346	0.003
730	0.009	749	0.01	758	0.008	756	0.01	754	0.01
976	0.02	999	0.02	1006	0.01	1003	0.02	1001	0.02
1466	0.04	1514	0.05	1510	0.03	1520	0.04	1515	0.04
1958	0.08	2008	0.08	2000	0.05	2014	0.07	2007	0.08

AIR LEAKAGE DATA



Pressure Class	Pressure		
	1.0" W.G	4" W.G	8" W.G
1A	3	N/A	N/A
1	4	8	11
2	10	20	28
3	40	80	112

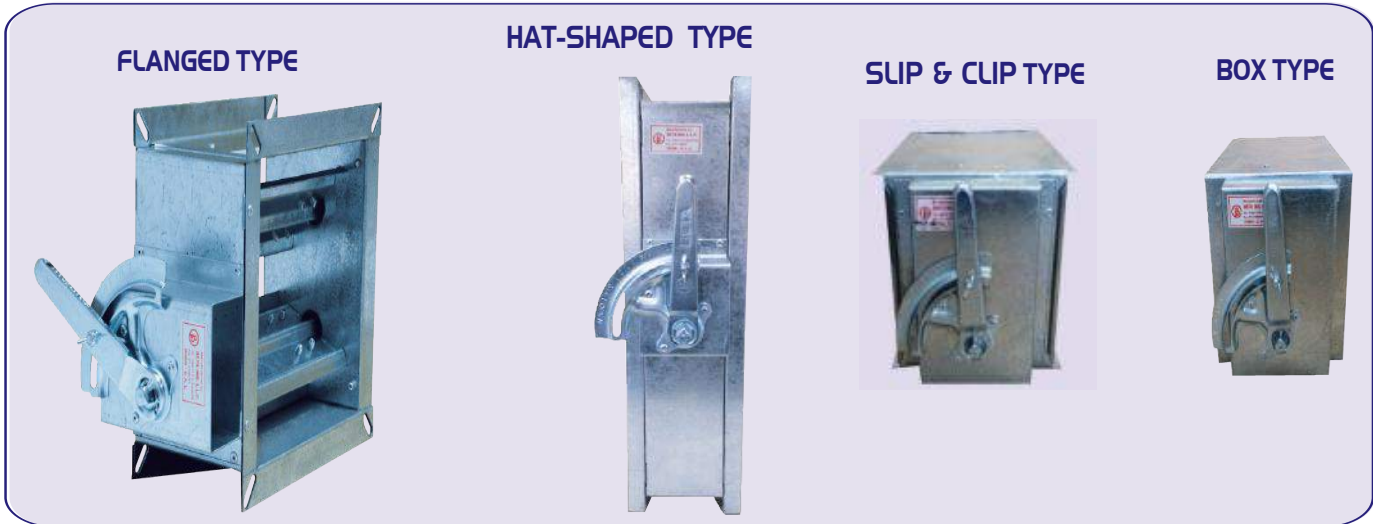
Bulletin No. 8, January 2017





VOLUME CONTROL DAMPER - 3VCD SERIES 3V-SHAPED STEEL BLADES

PERFORMANCE DATA



Ordering Key:

M	3	VCD	G2	P	L	F	SIZE
-- : QUADRANT DRIVED M: MOTORIZED							
3: 3V-SHAPED G.I. BLADES VCD: VOLUME CONTROL DAMPER							
G1: 0.9MM G.I.CONSTRUCTION G2: 1.2MM G.I.CONSTRUCTION G3: 1.5MM G.I.CONSTRUCTION G4: 1.7MM G.I.CONSTRUCTION S1: 1.0MM S.S. 304 CONSTRUCTION S2: 1.2MM S.S. 304 CONSTRUCTION S3: 1.5MM S.S. 304 CONSTRUCTION S4: 1.7MM S.S. 304 CONSTRUCTION							
P: PLASTIC BUSHES B: BRASS BUSHES X: S.S. BUSHES S: S.S. BEARINGS							
L: G.I. LINKAGE MECHANISM G: PLASTIC GEARS MECHANISM							
H: HAT-SHAPED FRAME F: FLANGED TO DUCT S: SLIP & CLIP WITH DUCT B: BOX TYPE (INSERTED INSIDE DUCT)							
SIZE: WIDTH X HEIGHT Single section up to:		1200X1200mm for flanged types/ Hat-Shaped 1000X1000mm for slip & clip / box types.					



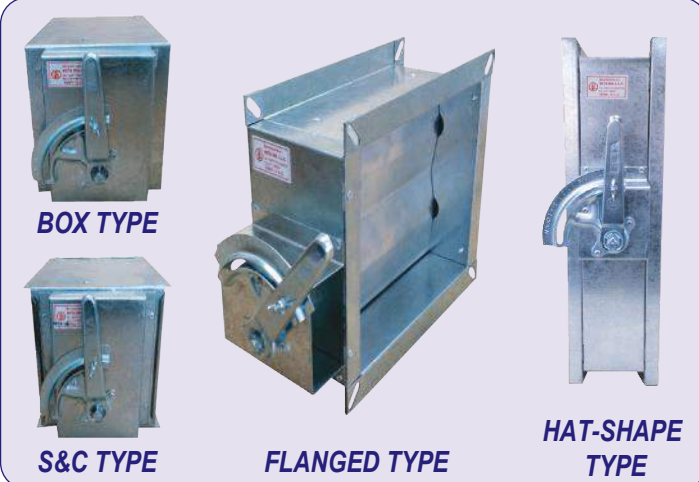


VOLUME CONTROL DAMPER - AVCD SERIES AEROFOIL ALUMINUM BLADES

STANDARD CONSTRUCTION

Frame: 1.2mm thick galvanized steel sheet.
Blades: Aerofoil 1.0mm double skin extruded Aluminum profiles.
Axles: 1/2" square galvanized steel rod.
Linkage: Made of galvanized steel. Concealed in frame.
Bushing: Self lubricating plastic bushes.
Quadrant: Plated steel with wing nut to lock the blades position. Marked to show the position of the blades.
Fixing to duct: Flanged frame.
Size: Single section up to:
 1200X1200mm for hat-shaped / flanged types.
 1000X1000mm for slip & clip / box types.

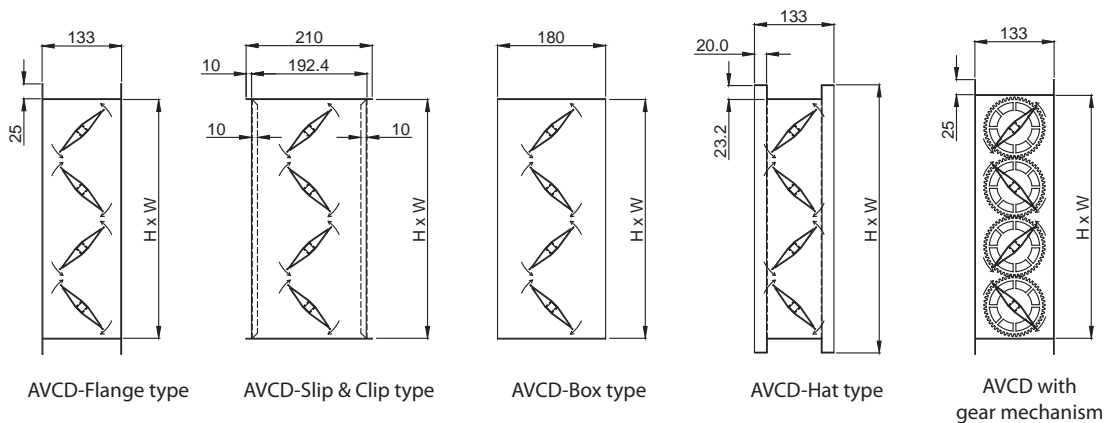
Model AVCDG2PLF



Model MAVCDG2PLF



DIMENSIONS



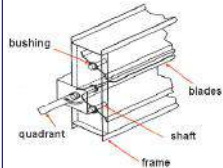
Plastic Bushes





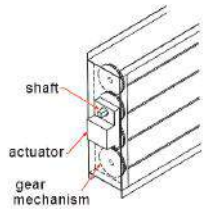
VOLUME CONTROL DAMPER - AVCD SERIES AEROFOIL ALUMINUM BLADES

OPTIONS



FEATURE	MODEL	MANUAL QUADRANT MODELS																								
		AVCDG2PLH	AVCDG2BLH	AVCDG2PLF	AVCDG2BLF	AVCDG2PLS	AVCDG2BLS	AVCDG2PLB	AVCDG2BLB	AVCDG2PGH	AVCDG2BGH	AVCDG2PGF	AVCDG2BGF	AVCDG2PGS	AVCDG2BGS	AVCDG2PGB	AVCDG2BGB	AVCDS2SLH	AVCDS2SLF	AVCDS2SLS	AVCDS2BLB	AVCDS2SGH	AVCDS2SGF	AVCDS2SGS	AVCDS2SGB	AVCDG2-SMC
DRIVE	MANUAL QUADRANT	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	ELECTRIC ACTUATOR																									
BLADE TYPE	G.I. 3V-SHAPED																									
	ALUMINUM AEROFOIL	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
BLADE MOVEMENT	OPPOSED	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	PARALLEL	ABOVE MODELS (EXCEPT THE ONES WITH GEAR MECHANISM) CAN BE WITH PARALLEL BLADES, PLS. WRITE "PARALLEL" ON YOUR ORDER																								
USE	CONTROL (AIR BALANCING)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	LOW LEAKAGE (AIR TIGHT SHUT OFF)																									
CONSTRUCTION	GALVANIZED STEEL	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	STAINLESS STEEL 304																	✓	✓	✓	✓	✓	✓	✓	✓	✓
BUSHING/ BEARING TYPE	PLASTIC BUSHES	✓		✓		✓		✓		✓		✓		✓		✓										
	BRASS BUSHES		✓		✓		✓		✓		✓		✓		✓		✓									
	S.S. BEARING																	✓	✓	✓	✓	✓	✓	✓	✓	✓
MECHANISM	G.I. LINKAGE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	PLASTIC GEARS																									
FIXING TO DUCT	HAT-SHAPED	✓	✓							✓	✓							✓				✓				✓
	FLANGE			✓	✓							✓	✓						✓				✓			
	SLIP & CLIP					✓	✓							✓	✓					✓				✓		
	BOX TYPE (INSERTED INSIDE DUCT)							✓	✓							✓	✓			✓				✓		

**Other options of S.S. bushes "X" and S.S. bearing "S" are shown at the ordering key.



FEATURE	MODEL	MOTORIZED MODELS																								
		MAVCDG2PLH	MAVCDG2BLH	MAVCDG2PLF	MAVCDG2BLF	MAVCDG2PLS	MAVCDG2BLS	MAVCDG2PLB	MAVCDG2BLB	MAVCDG2PGH	MAVCDG2BGH	MAVCDG2PGF	MAVCDG2BGF	MAVCDG2PGS	MAVCDG2BGS	MAVCDG2PGB	MAVCDG2BGB	MAVCD2SLH	MAVCD2SLF	MAVCD2SLS	MAVCD2BLB	MAVCD2SGH	MAVCD2SGF	MAVCD2SGS	MAVCD2SGB	MAVCDG2-SMC
DRIVE	MANUAL QUADRANT																									
	ELECTRIC ACTUATOR	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
BLADE TYPE	G.I. 3V-SHAPED																									
	ALUMINUM AEROFOIL	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
BLADE MOVEMENT	OPPOSED	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	PARALLEL	ABOVE MODELS (EXCEPT THE ONES WITH GEAR MECHANISM) CAN BE WITH PARALLEL BLADES, PLS. WRITE "PARALLEL" ON YOUR ORDER																								
USE	CONTROL (AIR BALANCING)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	LOW LEAKAGE (AIR TIGHT SHUT OFF)																									
CONSTRUCTION	GALVANIZED STEEL	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	STAINLESS STEEL 304																	✓	✓	✓	✓	✓	✓	✓	✓	✓
BUSHING/ BEARING TYPE	PLASTIC BUSHES	✓		✓		✓		✓		✓		✓		✓		✓										
	BRASS BUSHES		✓		✓		✓		✓		✓		✓		✓		✓									
	S.S. BEARING																	✓	✓	✓	✓	✓	✓	✓	✓	✓
MECHANISM	G.I. LINKAGE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	PLASTIC GEARS																									
FIXING TO DUCT	HAT-SHAPED	✓	✓							✓	✓							✓				✓				✓
	FLANGE			✓	✓							✓	✓						✓				✓			
	SLIP & CLIP					✓	✓							✓	✓					✓				✓		
	BOX TYPE (INSERTED INSIDE DUCT)							✓	✓							✓	✓			✓				✓		

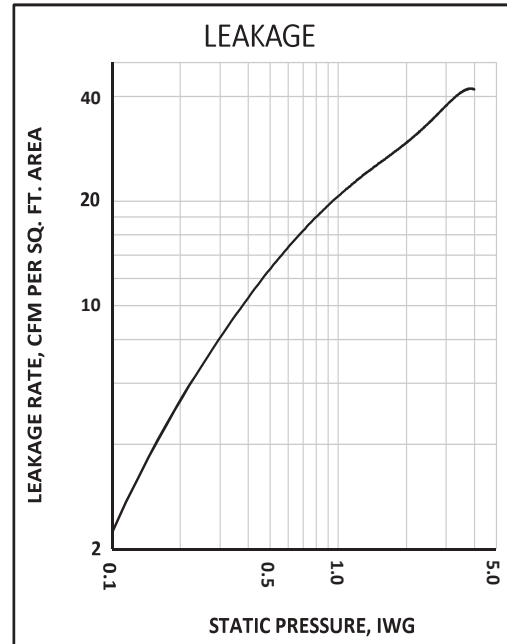
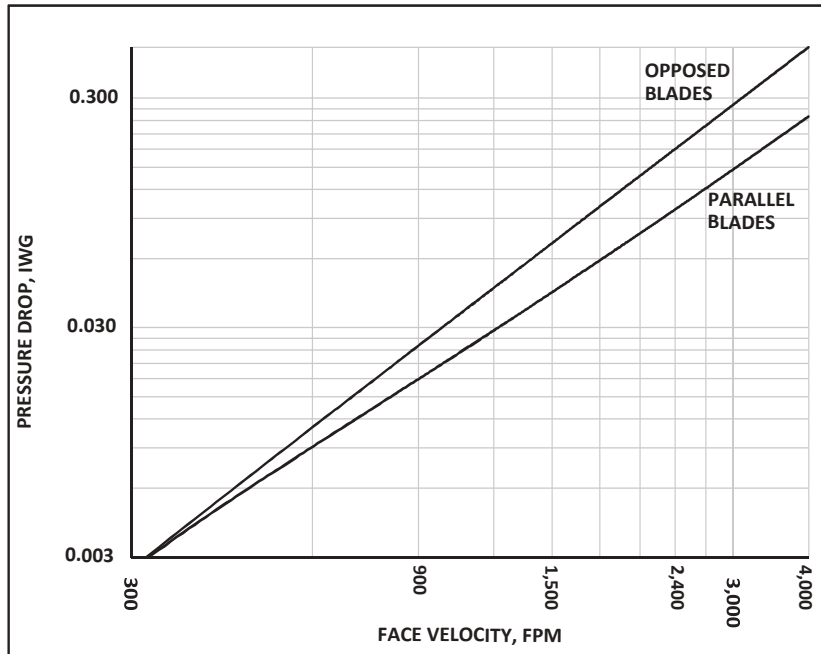
**Other options of S.S. bushes "X" and S.S. bearing "S" are shown at the ordering key.





VOLUME CONTROL DAMPER - AVCD SERIES AEROFOIL ALUMINUM BLADES

PERFORMANCE DATA



Ordering Key:

M	A	VCD	G2	P	L	F	SIZE
--- : QUADRANT DRIVED M: MOTORIZED							
A: AEROFOIL ALUMINUM BLADES VCD: VOLUME CONTROL DAMPER							
G1: 0.9MM G.I.CONSTRUCTION G2: 1.2MM G.I.CONSTRUCTION (STANDARD) G3: 1.5MM G.I.CONSTRUCTION G4: 1.7MM G.I.CONSTRUCTION S1: 1.0MM S.S. 304 CONSTRUCTION S2: 1.2MM S.S. 304 CONSTRUCTION S3: 1.5MM S.S. 304 CONSTRUCTION S4: 1.7MM S.S. 304 CONSTRUCTION							
P: PLASTIC BUSHES (STANDARD) B: BRASS BUSHES X: S.S. BUSHES S: S.S. BEARINGS							
L: G.I. LINKAGE MECHANISM (STANDARD) G: PLASTIC GEARS MECHANISM							
H: HAT-SHAPED FRAME F: FLANGED TO DUCT (STANDARD) S: SLIP & CLIP WITH DUCT B: BOX TYPE (INSERTED INSIDE DUCT)							
SIZE: WIDTH X HEIGHT							





LOW-LEAKAGE VOLUME CONTROL DAMPER - LVCD SERIES 3V-SHAPED STEEL BLADES

STANDARD CONSTRUCTION

- Frame:** 133mm Roll formed hat-shaped made of 1.2mm thick galvanized steel with reinforced corners, having integral bracing and 90° perpendicular overlap at a corner.
- Blades:** Roll formed 3 V-shaped made of 1.2mm thick galvanized steel.
- Bushes:** Brass bushes.
- Axles:** 1/2" Square axles made of galvanized steel.
- Linkage:** Mechanical and concealed in frame.
- Jamb Seals:** Stainless steel jamb seals.
- Blades Seal:** Silicone blades edges seal/gasket.
- Leakage:** Class I
- Air Flow Rating:** 2000 FPM / 4 IWG.
- Sizes:** Single Section: Max. 36" X 36"
Multiple Section: Max. 72" X 72"

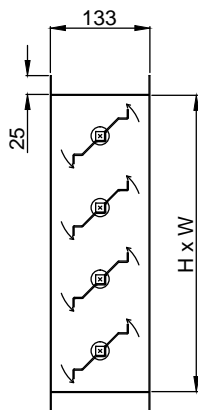
Model LVCDG2BLH



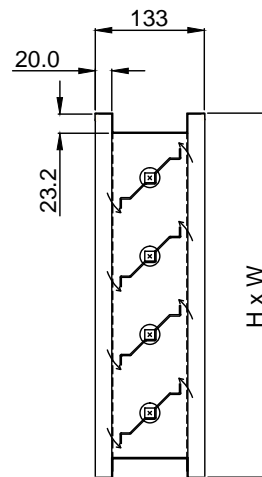
Model MLVCDG2BLH



DIMENSIONS



LVCD-Flange type



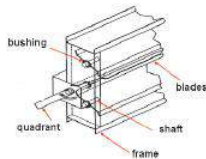
LVCD-Hat type



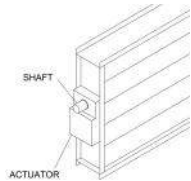


LOW-LEAKAGE VOLUME CONTROL DAMPER - LVCD SERIES 3V-SHAPED STEEL BLADES

OPTIONS



FEATURE	MODEL	MANUAL QUADRANT MODELS							
		LVCDG2BLH	LVCDG2XLH	LVCDG2BLF	LVCDG2XLF	LVCDG2SLH	LVCDG2SLF	LVCDG2-SCM	LVCDG2-SMC
DRIVE	MANUAL QUADRANT	✓	✓	✓	✓	✓	✓	✓	✓
	ELECTRIC ACTUATOR								
BLADE TYPE	G.I. 3V-SHAPED	✓	✓	✓	✓	✓	✓	✓	✓
	ALUMINUM AEROFOIL								
BLADE MOVEMENT	OPPOSED								
	PARALLEL	✓	✓	✓	✓	✓	✓	✓	✓
USE	CONTROL (AIR BALANCING)	✓	✓	✓	✓	✓	✓	✓	✓
	LOW LEAKAGE APPLICATIONS	✓	✓	✓	✓	✓	✓	✓	✓
CONSTRUCTION	GALVANIZED STEEL	✓	✓	✓	✓			✓	
	STAINLESS STEEL 304					✓	✓		✓
BUSHING/ BEARING TYPE	PLASTIC BUSHES								
	BRASS BUSHES	✓		✓				✓	
	S.S. BUSHES		✓		✓				
	S.S. BEARING					✓	✓		✓
MECHANISM	G.I. LINKAGE	✓	✓	✓	✓	✓	✓	✓	✓
	PLASTIC GEARS								
FIXING TO DUCT	HAT-SHAPED	✓	✓			✓		✓	✓
	FLANGE			✓	✓		✓		
	SLIP & CLIP								
	BOX TYPE (INSERTED INSIDE DUCT)								



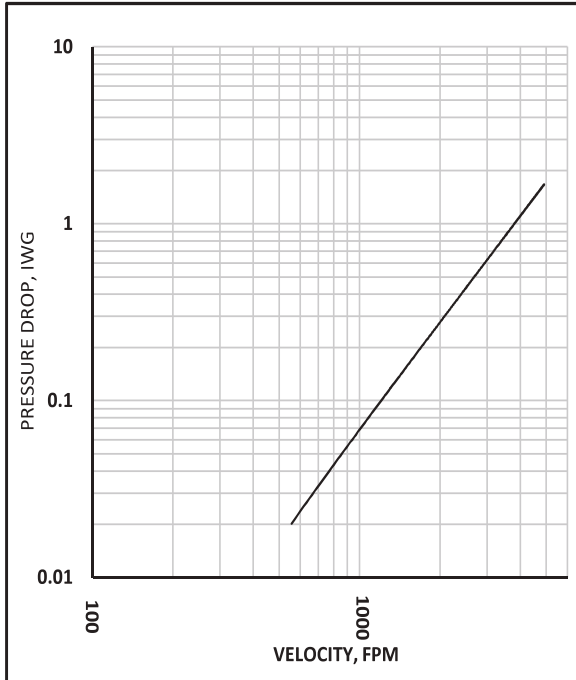
FEATURE	MODEL	MOTORIZED MODELS							
		MLVCDG2BLH	MLVCDG2XLH	MLVCDG2BLF	MLVCDG2XLF	MLVCDG2SLH	MLVCDG2SLF	MLVCDG2-SMC	MLVCDG2-SMC
DRIVE	MANUAL QUADRANT	✓	✓	✓	✓	✓	✓	✓	✓
	ELECTRIC ACTUATOR								
BLADE TYPE	G.I. 3V-SHAPED	✓	✓	✓	✓	✓	✓	✓	✓
	ALUMINUM AEROFOIL								
BLADE MOVEMENT	OPPOSED								
	PARALLEL	✓	✓	✓	✓	✓	✓	✓	✓
USE	CONTROL (AIR BALANCING)	✓	✓	✓	✓	✓	✓	✓	✓
	LOW LEAKAGE APPLICATIONS	✓	✓	✓	✓	✓	✓	✓	✓
CONSTRUCTION	GALVANIZED STEEL	✓	✓	✓	✓			✓	
	STAINLESS STEEL 304					✓	✓		✓
BUSHING/ BEARING TYPE	PLASTIC BUSHES								
	BRASS BUSHES	✓		✓				✓	
	S.S. BUSHES		✓		✓				
	S.S. BEARING					✓	✓		✓
MECHANISM	G.I. LINKAGE	✓	✓	✓	✓	✓	✓	✓	✓
	PLASTIC GEARS								
FIXING TO DUCT	HAT-SHAPED	✓	✓			✓		✓	✓
	FLANGE			✓	✓		✓		
	SLIP & CLIP								
	BOX TYPE (INSERTED INSIDE DUCT)								





LOW-LEAKAGE VOLUME CONTROL DAMPER - LVCD SERIES 3V-SHAPED STEEL BLADES

PERFORMANCE DATA



Note:
Pressure drop test was done at an independent laboratory in accordance with the AMCA 500-D standard on 36"X36" sample.

Maximum Leakage, cfm/ft ²			
Pressure Class	1.0" W.G	4" W.G	8" W.G
1	4	8	11



Ordering Key:

M	L	VCD	G2	B	L	H	SIZE
-: QUADRANT-DRIVEN M: MOTORIZED L: 3V-SHAPED G.I. BLADES LOW-LEAKAGE TYPE VCD: CONTROL DAMPER G1: 0.9MM G.I. CONSTRUCTION G2: 1.2MM G.I. CONSTRUCTION (STANDARD) G3: 1.5MM G.I. CONSTRUCTION G4: 1.7MM G.I. CONSTRUCTION S1: 1.0MM S.S. 304 CONSTRUCTION S2: 1.2MM S.S 304 CONSTRUCTION S3: 1.5MM S.S 304 CONSTRUCTION S4: 1.7MM S.S 304 CONSTRUCTION B: BRASS BUSHES (STANDARD) X: S.S. BUSHES S: S.S. BEARINGS L: G.I LINKAGE MECHANISM (STANDARD) H: HAT-SHAPED FRAME (STANDARD) F: FLANGED TO DUCT SIZE: WIDTH X HEIGHT							





ROUND VOLUME CONTROL DAMPER - VDR MODEL STEEL BLADE

STANDARD CONSTRUCTION

- Frame: 0.9mm thick galvanized steel sheet.
- Blades: 0.9mm thick galvanized steel sheet.
- Axles: 1/2" square hollow Aluminum extruded profile.
- Bushing: Self lubricating plastic bushes.
- Quadrant: Plated steel with wing nut to lock the blades position. Marked to show the position of the blades.
- Seal: Foam gasket.
- Sizes: 4, 5, 6, 8, 10, 12, 14, 16, 18, 20, 22 & 24 inch diameter.

Model VDRG2P

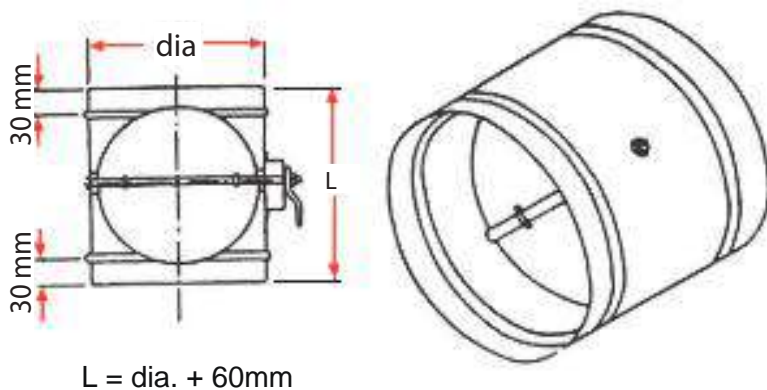


Model MVDRG2P



Plastic Bushes

DIMENSIONS





ROUND VOLUME CONTROL DAMPER - VDR MODEL STEEL BLADE

OPTIONS

FEATURE	MODEL	MANUAL QUADRANT MODELS						MOTORIZED MODELS									
		VDRG2P	VDRG2B	VDRG2X	VDRG2S	VDRS2X	VDRS2S	VDRG2-SMC	VDRS2-SMC	MVDRG2P	MVDRG2B	MVDRG2X	MVDRG2S	MVDRS2X	MVDRS2S	MVDRG2-SMC	MVDRS2-SMC
DRIVE	MANUAL QUADRANT	✓	✓	✓	✓	✓	✓	✓	✓								
	ELECTRIC ACTUATOR									✓	✓	✓	✓	✓	✓	✓	✓
BLADE TYPE	SINGLE SKIN	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
USE	CONTROL (AIR BALANCING)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	LOW LEAKAGE (AIR TIGHT SHUTT OFF)																
CONSTRUCTION	GALVANIZED STEEL	✓	✓	✓	✓			✓		✓	✓	✓	✓			✓	
	STAINLESS STEEL 304					✓	✓		✓					✓	✓		✓
BUSHING/ BEARING TYPE	PLASTIC BUSHES	✓								✓							
	BRASS BUSHES		✓					✓	✓		✓					✓	✓
	S.S. BUSHES			✓		✓						✓		✓			
	S.S. BEARING				✓		✓						✓		✓		

**Other options of S.S. bushes "X" and S.S. bearing "S" are shown at the ordering key.



Ordering Key:

M	V	DR	G2	P	SIZE
<p>--: QUADRANT-DRIVEN M: MOTORIZED</p> <p>V: SINGLE SKIN BLADE</p> <p>DR: CONTROL DAMPER ROUND TYPE</p> <p>G1: 0.7MM G.I. CONSTRUCTION G2: 0.9MM G.I. CONSTRUCTION (STANDARD) G3: 1.2MM G.I. CONSTRUCTION G4: 1.5MM G.I. CONSTRUCTION S1: 0.8MM S.S. 304 CONSTRUCTION S2: 1.0MM S.S. 304 CONSTRUCTION S3: 1.2MM S.S. 304 CONSTRUCTION</p> <p>P: PLASTIC BUSHES (STANDARD) B: BRASS BUSHES X: S.S. BUSHES S: S.S. BEARINGS</p> <p>SIZE: DIAMETER OF 4, 5, 6, 8, 10, 12, 14, 16, 18, 20, 22 or 24</p>					





ROUND VOLUME CONTROL DAMPER - VDR MODEL STEEL BLADE

PERFORMANCE DATA

Beta Industrial LLC certifies that the VDR shown hereon is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program.

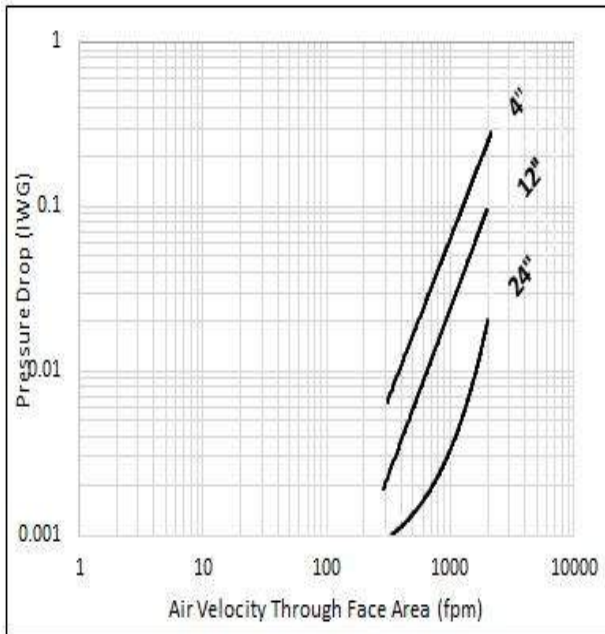
The AMCA Certified Ratings Seal applies to Air Leakage and Air Performance ratings.



Test Information

- * 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
- * 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 117 in-lb/ft² applied to close and seat the damper during the test.

AIR PERFORMANCE DATA



AIR LEAKAGE DATA

Damper Width	Leakage Class			
	0.5 in.wg	1 in.wg	2 in.wg	4 in.wg
4"	1A	1A	1A	1A
24"	1A	1A	1A	2

Maximum Allowable Leakage, cfm/ft ²			
Pressure Class	1.0" W.G	4" W.G	8" W.G
1A	3	N/A	N/A
1	4	8	11
2	10	20	28
3	40	80	112

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NON-RETURN DAMPER - MODEL NRD

STANDARD CONSTRUCTION

- Frame: 0.9mm thick galvanized steel.
- Blades: 1.0mm thick extruded Aluminum profiles.
- Bushing: Brass bushes.
- Axles: Round extruded Aluminum profiles.
- Seal: Foam blades seals.
- Size: Single section up to 600 X 600mm.

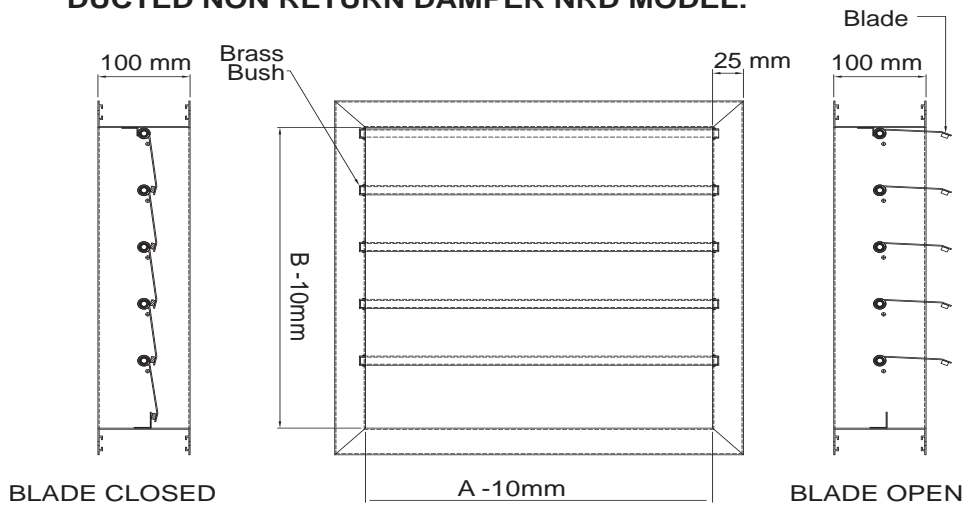
OPTIONS

FEATURE	MODEL	MODEL			
		NRD	NRD-CR	NRDE	NRDE-CR
BRASS BUSHES	YES	✓	✓		
	NO			✓	✓
BLADES-CONNECTING ROD	YES		✓		✓
	NO	✓		✓	
COUNTERWEIGHT	NO	✓	✓	✓	✓
FLANGES	2 SIDES	✓	✓	✓	✓
FINISH	MILL FINISH	✓	✓	✓	✓
INSTALLATION	2-SIDES DUCTED	✓	✓	✓	✓
APPLICATION	DISCHARGE & INTAKE	✓	✓	✓	✓



DIMENSIONS

DUCTED NON RETURN DAMPER NRD MODEL:



OPTION: NRD MODELS CAN BE MADE OF 12MM THICK ALUMINUM FRAME INSTEAD OF STEEL FRAME. OTHER COMPONENTS REMAIN AS STANDARD CONSTRUCTION.





NON-RETURN DAMPER - MODEL NRD

PERFORMANCE DATA

Beta Industrial LLC certifies that the NRD-CR shown hereon is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program.

The AMCA Certified Ratings Seal applies to Air Leakage and Air Performance ratings.

Test Information

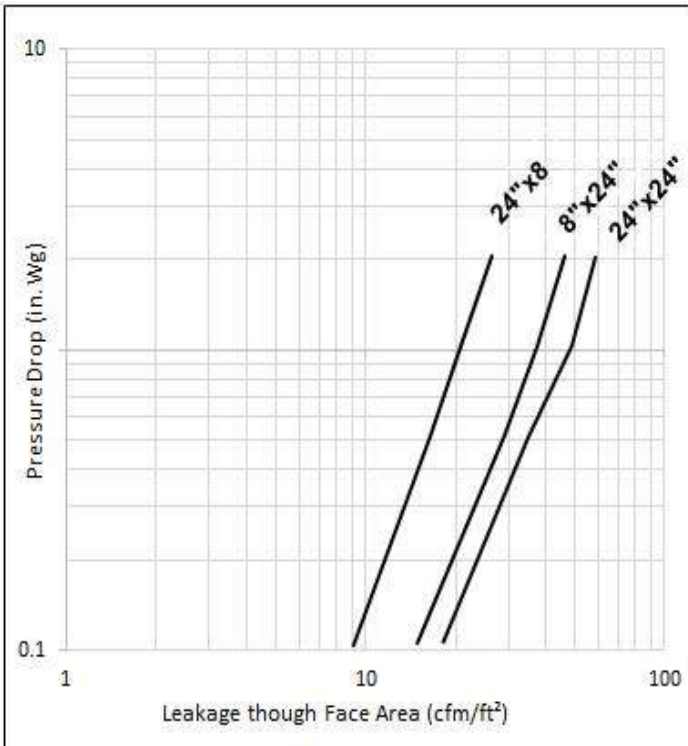
Air leakage is based on operation between 32 °F and 120 °F

Tests were conducted at standard air density in accordance with ANSI/AMCA Standard 500-D, Figure 5.4, on a 24 in. x 24 in. sample

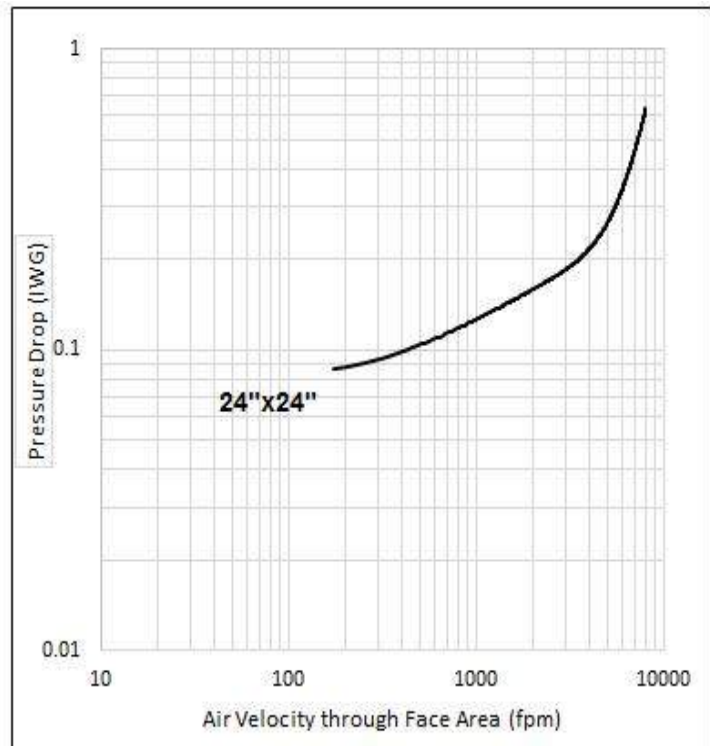
Air Performance testing conducted in accordance with ANSI/AMCA Standard 500-D, Figure 5.4



AIR LEAKAGE DATA



AIR PERFORMANCE DATA



Ordering Key:



N	R	D	E	CR	W	X	H
NRD: NON-RETURN DAMPER WITH BRASS BUSHES							
NRD-CR: NON-RETURN DAMPER WITH BRASS BUSHES & CONNECTING ROD							
NRDE: NON-RETURN DAMPER WITHOUT BRASS BUSHES							
NRDE-CR: NON-RETURN DAMPER WITHOUT BRASS BUSHES WITH CONNECTING ROD							
SIZE: WIDTH X HEIGHT							

Bulletin No. 8, January 2017





PRESSURE RELIEF DAMPER - MODEL PRD

STANDARD CONSTRUCTION

PRD:

- Frame:** 0.9mm thick galvanized steel.
- Blades:** 1.0mm thick extruded Aluminum profiles with adjustable counterweight for fine-tune operation.
- Axles:** Round extruded Aluminum profiles.
- Bushing:** Brass bushes.
- Seal:** Foam blades seals.
- Size:** Single section up to 1200 X 1200mm.

DPRD & IPRD:

- Frame:** 1.2mm thick extruded Aluminum profiles.
- Blades:** 1.0mm thick extruded Aluminum profiles with adjustable counterweight for fine-tune operation.
- Axles:** Round extruded Aluminum profiles.
- Bushing:** Brass bushes.
- Seal:** Foam blades seals.
- Size:** Single section up to 1200 X 1200mm.



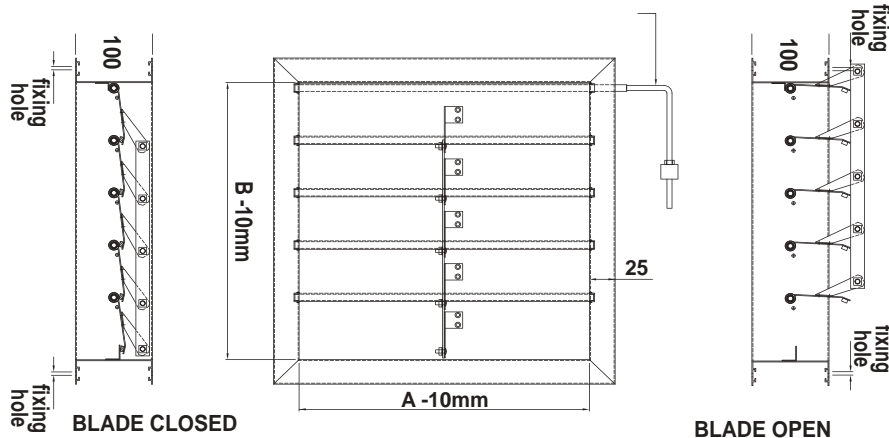
OPTIONS

FEATURE	MODEL		
	PRD	DPRD	IPRD
BRASS BUSHES	YES	✓	✓
BLADES-CONNECTING ROD	YES	✓	✓
COUNTERWEIGHT	YES	✓	✓
FLANGES	1 SIDE		✓
	2 SIDES	✓	
FINISH	MILL FINISH	✓	
	POWDER COATED TO		✓
INSTALLATION	RAL9010/9016 2-SIDES DUCTED	✓	
	WALL-MOUNTED		✓
APPLICATION	DISCHARGE		✓
	INTAKE		✓



DIMENSIONS

DUCTED PRESSURE RELIEF DAMPER PRD MODEL:



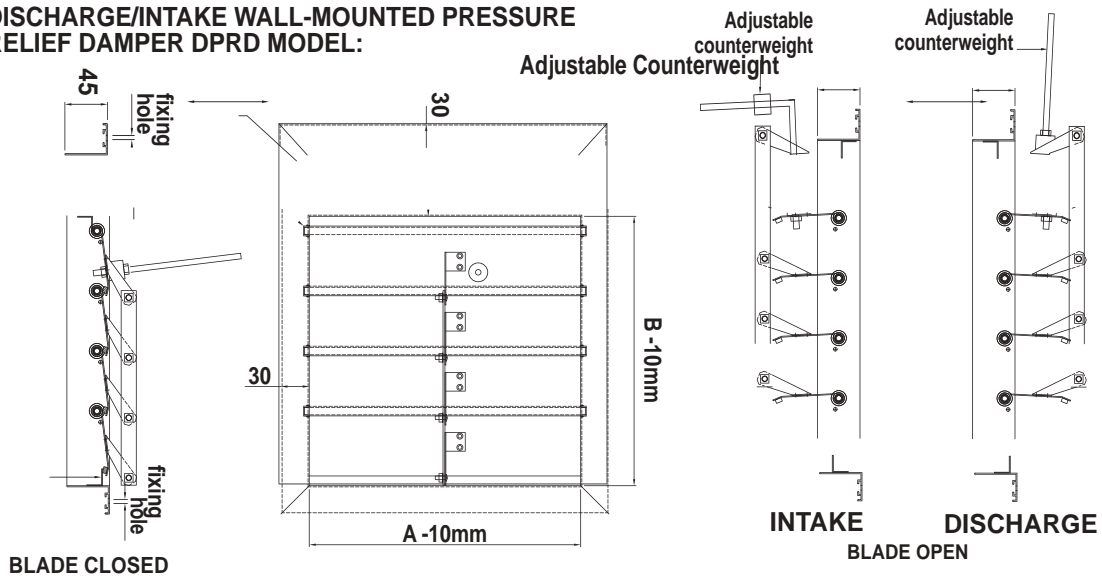
OPTION: PRD MODELS CAN BE MADE OF 1.2MM THICK ALUMINUM FRAME INSTEAD OF STEEL FRAME. OTHER COMPONENTS REMAIN AS STANDARD CONSTRUCTION.



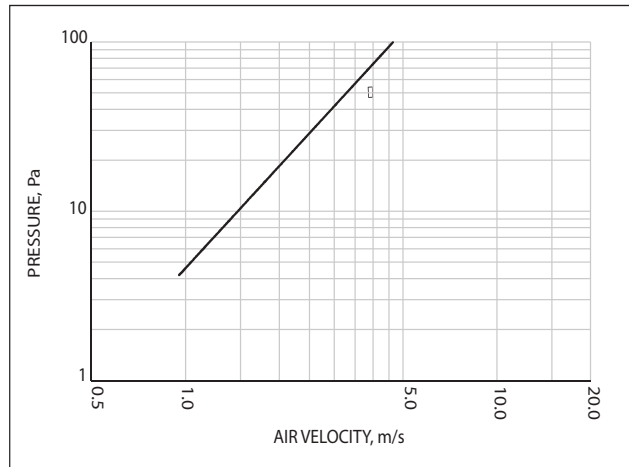


DIMENSIONS

DISCHARGE/INTAKE WALL-MOUNTED PRESSURE RELIEF DAMPER DPRD MODEL:



FOR PRD MODELS:



Ordering Key:

D	P	R	D	W	X	H
PRD: DUCTED PRESSURE RELIEF DAMPER DPRD: DISCHARGE WALL-MOUNTED PRESSURE RELIEF DAMPER IPRD: INTAKE WALL-MOUNTED PRESSURE RELIEF DAMPER						
SIZE: WIDTH X HEIGHT						





DAMPERS



ACC2L



ACCPH



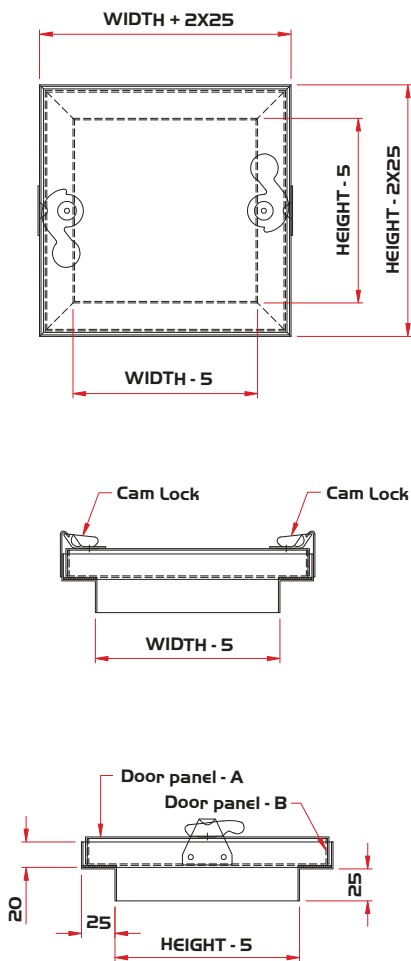
ACCPHLK

Description:

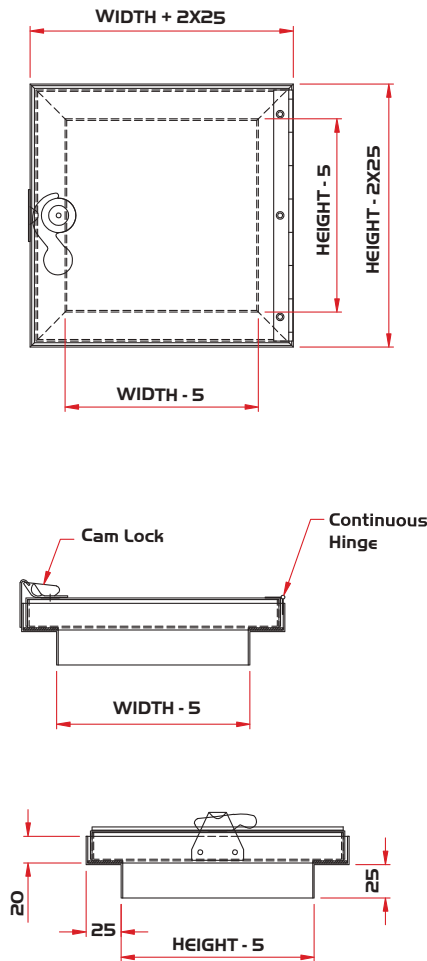
- Made of 1.2mm thick galvanized steel.
- Contain 1" thick glass fiber insulation of 24kg/m³.
- Provided with gasket between door & frame.
- For closure, equipped with one of the following alternatives.
 - 2 cam locks (standard)
 - 1 cam lock & Piano-hinge.
 - Piano-hinge & handle operated lock with key.

Dimensions :

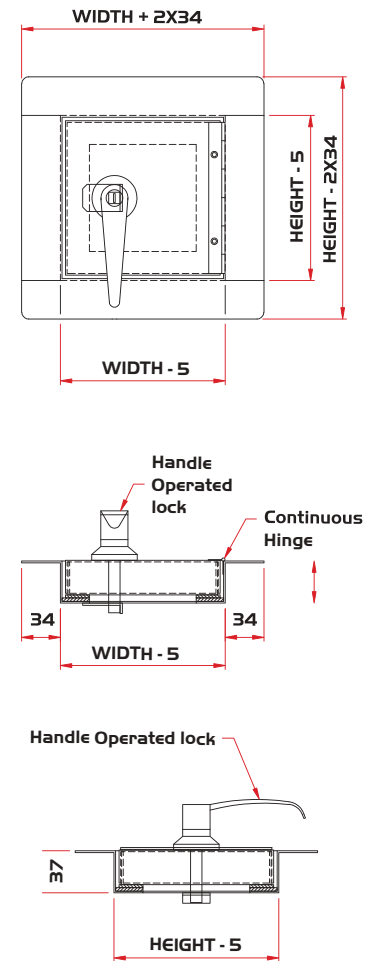
ACCESS DOOR WITH 2 CAM LOCKS



ACCESS DOOR WITH A CAM LOCK & PIANO HINGE

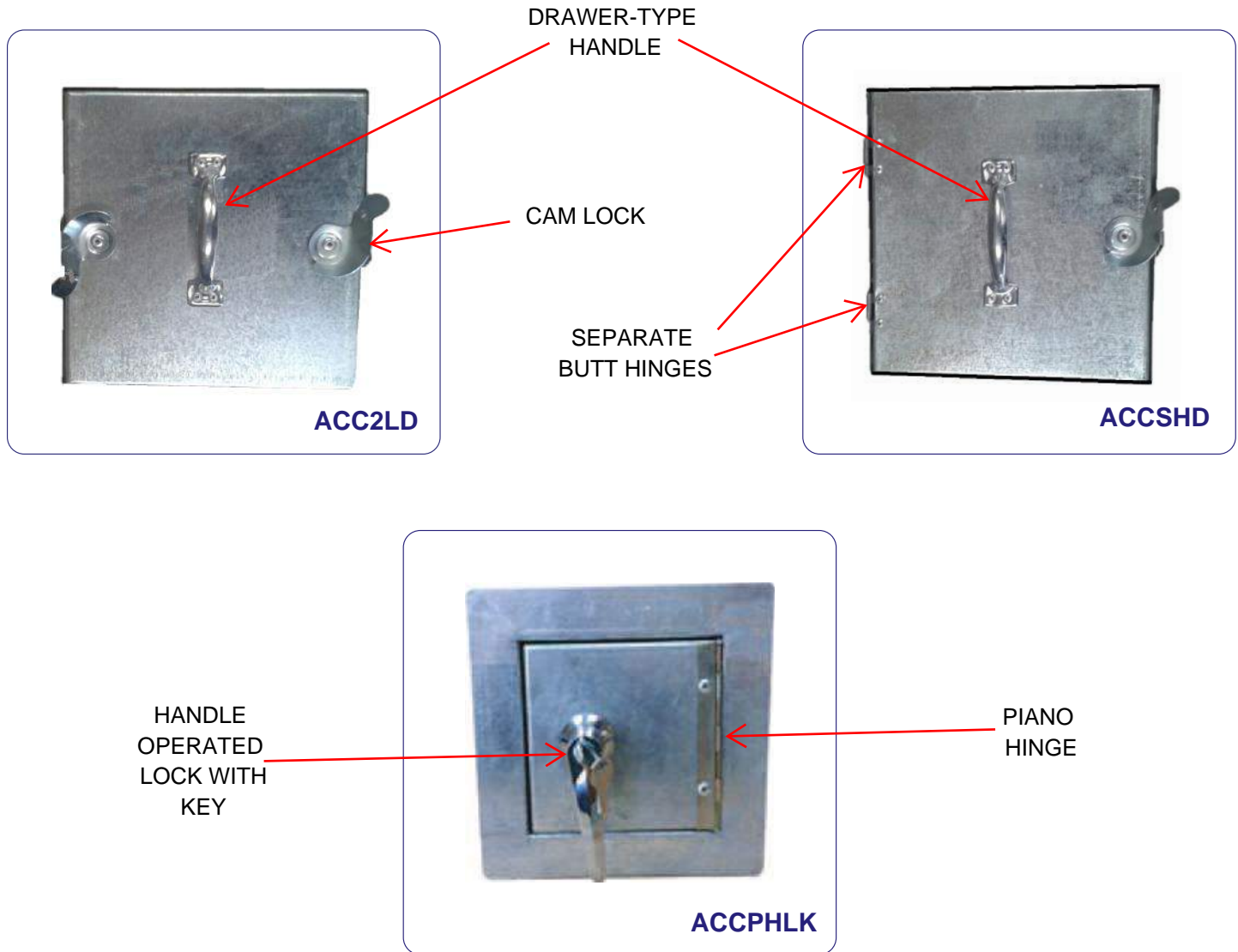


ACCESS DOOR WITH A HANDLE OPERATED LOCK & PIANO HINGE





OPTIONS



Ordering Key:



A	C	C	P	H	L	K	W	X	H
ACCESS DOOR									
<p>2L : WITH 2 CAM LOCKS (STANDARD)</p> <p>2LD : WITH 2 CAM LOCKS & DRAWER-TYPE HANDLE</p> <p>PH : WITH PIANO HINGE & A CAM LOCK</p> <p>PHD : WITH PIANO HINGE, A CAM LOCK & DRAWER-TYPE HANDLE</p> <p>SH : WITH SEPARATE HINGES & A CAM LOCK</p> <p>SHD : WITH SEPARATE HINGES, A CAM LOCK & DRAWER-TYPE HANDLE</p> <p>PHLK : WITH PIANO HINGES & HANDLE OPERATED LOCK WITH A KEY</p> <p>SHLK : WITH SEPARATE BUTT HINGES & HANDLE OPERATED LOCK / KEY</p>									
SIZE : WIDTH X HEIGHT									





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