# **DAMPERS**

# **WE CONTROL AIR**

















PRODUCTS CATALOGUE

PRODUCT BULLETIN





# ind∈x

| >> VOLUME CONTROL DAMPER - 3VCD SERIES             | I-4           |
|--|---------------|
| >> VOLUME CONTROL DAMPER - AVCD SERIES             | 5-8           |
| >> LOW-LEAKAGE VOLUME CONTROL DAMPER - LVCD SERIES | 9-11          |
| >> ROUND VOLUME CONTROL DAMPER - VDR SERIES        | 12-14         |
| >> BACK DRAFT DAMPER - NRD SERIES                  | <b>15-16</b>  |
| >> BACK DRAFT DAMPER - PRD SERIES                  | I <b>7-I8</b> |
| >> BACK DRAFT DAMPER - MPRD SERIES                 | 19-20         |
| >> ACCESS DOORS                                    | 20-21         |

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: I.2mm thick galvanized steel sheet.

Blades: 3 V-shaped I.2mm thick roll-formed galvanized steel.

Axles: 1/2" square galvanized steel rod.

Linkage: made of galvanized steel.

Concealed in frame.

Bushing: Self lubricating plastic nylon bushes.

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

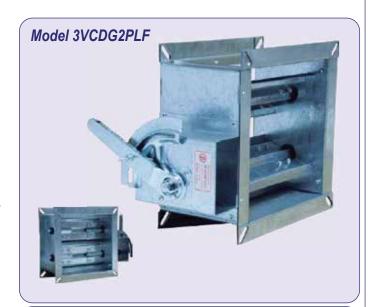
Fixing to duct: Flanged frame.

Single section minimum size:

IOOXIOOmm for Flanged/Box/Slip & clip types.

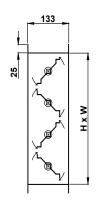
IOOXISOmm for Hat-shaped type.

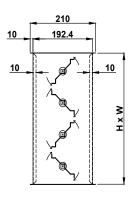
Single section maximum size:
I200XI200mm for Hat-shaped/Flanged types.
I000XI000mm for Slip & clip/Box types.

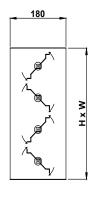


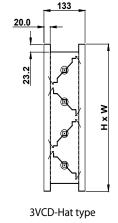


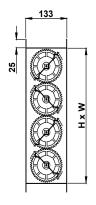
## **DIMENSIONS**













3VCD-Flange type

3VCD-Slip & Clip type

3VCD-Box type

3VCD with gear mechanism

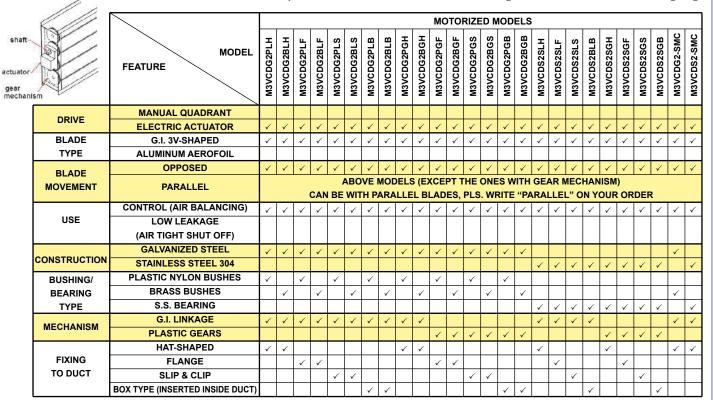


# **VOLUME CONTROL DAMPER - 3VCD SERIES 3V-SHAPED STEEL BLADES**

## **OPTIONS**

|                     |                                       |          |           |           |           |           |           |           |           |           | MAI       | AUA       | L Q       | UAD       | RA        | NT I      | NOD       | ELS       | 3         |           |           |           |           |           |           |            |
|---------------------|---------------------------------------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|
| blades              | MODEL FEATURE                         | зусреден | зуср62ВСН | 3VCDG2PLF | 3VCDG2BLF | 3VCDG2PLS | 3VCDG2BLS | 3VCDG2PLB | 3VCDG2BLB | зусрезрен | зусрезвен | 3VCDG2PGF | 3VCDG2BGF | 3VCDG2PGS | 3VCDG2BGS | 3VCDG2PGB | 3VCDG2BGB | 3VCDS2SLH | 3VCDS2SLF | 3VCDS2SLS | 3VCDS2BLB | 3VCDS2SGH | 3VCDS2SGF | 3VCDS2SGS | 3VCDS2SGB | 3VCDG2-SMC |
| DRIVE               | MANUAL QUADRANT                       | ✓        | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓          |
| DRIVE               | ELECTRIC ACTUATOR                     |          |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |            |
| BLADE               | G.I. 3V-SHAPED                        | ✓        | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | <b>✓</b>  | ✓         | ✓         | ✓         | ✓         | ✓         | ✓          |
| TYPE                | ALUMINUM AEROFOIL                     |          |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |            |
| BLADE               | OPPOSED                               | ✓        | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | <b>✓</b>  | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | <b>√</b>  | ✓         | ✓         | ✓         | ✓         | ✓          |
| MOVEMENT            | PARALLEL                              |          |           |           | CAN       |           |           |           |           |           | •         | (CEI      |           |           |           |           |           |           |           |           |           |           | ,         | RDEF      | ₹         |            |
|                     | CONTROL (AIR BALANCING)               | ✓        | <b>✓</b>  | <b>✓</b>  | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓          |
| USE                 | LOW LEAKAGE                           |          |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |            |
|                     | (AIR TIGHT SHUT OFF)                  |          |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |            |
|                     | GALVANIZED STEEL                      | ✓        | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | <b>✓</b>  | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         |           |           |           |           |           |           |           |           | ✓          |
| CONSTRUCTION        | STAINLESS STEEL 304                   |          |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         |            |
| BUSHING/            | PLASTIC NYLON BUSHES                  | ✓        |           | ✓         |           | ✓         |           | ✓         |           | ✓         |           | ✓         |           | ✓         |           | ✓         |           |           |           |           |           |           |           |           |           |            |
| BEARING             | BRASS BUSHES                          |          | ✓         |           | ✓         |           | ✓         |           | <b>✓</b>  |           | ✓         |           | ✓         |           | ✓         |           | ✓         |           |           |           |           |           |           |           |           | ✓          |
|                     | S.S. BEARING                          | l        |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         |            |
| TYPE                | 3.3. BEAKING                          |          |           |           | 1         | ✓         | ✓         | ✓         | <b>✓</b>  | ✓         | ✓         |           |           |           |           |           |           | ✓         | ✓         | <b>✓</b>  | <b>\</b>  |           |           |           |           | ✓          |
|                     | G.I. LINKAGE                          | ✓        | ✓         | ✓         | _ *       |           |           |           |           |           |           | /         | /         | 1         | ✓         | ✓         | 1         |           |           |           |           | 1         | /         | /         | /         |            |
| TYPE MECHANISM      |                                       | ✓        | ✓         | <b>✓</b>  | •         |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |            |
| MECHANISM           | G.I. LINKAGE                          | <b>√</b> | ✓         | ✓         | v         |           |           |           |           | ✓         | ✓         |           |           |           |           |           |           | ✓         |           |           |           | ✓         | •         | ·         |           | ✓          |
| MECHANISM<br>FIXING | G.I. LINKAGE<br>PLASTIC GEARS         |          |           | ✓<br>✓    | ✓         |           |           |           |           | <b>√</b>  | ✓         | ✓         | ✓         |           |           |           |           | ✓         | <b>√</b>  |           |           | ✓         | √         |           |           | ✓          |
| MECHANISM           | G.I. LINKAGE PLASTIC GEARS HAT-SHAPED |          |           |           |           | <b>✓</b>  | <b>√</b>  |           |           | ✓         | ✓         | ✓         | ✓         | <b>√</b>  | <b>√</b>  |           |           | ✓         | ✓         | <b>√</b>  |           | <b>√</b>  | √         | √         |           | <b>√</b>   |

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



\*\*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      | 2"* 12"    | Size 24             | 4"* 24"  | Size 30      | 5"* 36"    | Size 12      | 2"* 48"    | Size 48      | 8"* 12"    |
|--------------|------------|---------------------|----------|--------------|------------|--------------|------------|--------------|------------|
| Air Velocity | Pressure   | Air Velocity        | Pressure | Air Velocity | Pressure   | Air Velocity | Pressure   | Air Velocity | Pressure   |
| (fpm)        | Drop (IWG) | G) (fpm) Drop (IWG) |          | (fpm)        | Drop (IWG) | (fpm)        | Drop (IWG) | (fpm)        | Drop (IWG) |
| 297          | 0.002      | 347                 | 0.003    | 318          | 0.002      | 346          | 0.003      | 346          | 0.003      |
| 730          | 0.009      | 749                 | 0.01     | 747          | 0.009      | 756          | 0.01       | 754          | 0.01       |
| 976          | 0.02       | 999                 | 0.02     | 995          | 0.015      | 1003         | 0.02       | 1001         | 0.02       |
| 1466         | 0.04       | 1514                | 0.05     | 1494         | 0.034      | 1520         | 0.04       | 1515         | 0.04       |
| 1958         | 0.08       | 2008                | 0.08     | 1991         | 0.061      | 2014         | 0.07       | 2007         | 0.08       |

#### AIR LEAKAGE DATA

| Size 12"*                     | 48"        | Size 24"*                     | 36"        | Size 36"*                     | Size 48"*  | 36"                           |            |
|-------------------------------|------------|-------------------------------|------------|-------------------------------|------------|-------------------------------|------------|
| Leakage through               | Pressure   |
| face area cfm/ft <sup>2</sup> | Drop (IWG) |
| 6.1                           | 0.098      | 10.3                          | 0.109      | 5.5                           | 0.106      | 4.6                           | 0.105      |
| 14.9                          | 0.509      | 22.6                          | 0.510      | 11.5                          | 0.511      | 10.6                          | 0.514      |
| 21.3                          | 1.025      | 32.7                          | 1.025      | 15.7                          | 1.025      | 14.8                          | 1.031      |
| 30.2                          | 2.052      | 46.5                          | 2.063      | 23.2                          | 2.049      | 20.6                          | 2.070      |
| 43.6                          | 4.104      | 66.4                          | 4.137      | 34.4                          | 4.097      | 26.4                          | 4.137      |

| Maximum A         | llowable    | Leakage   | , cfm/ft² |
|-------------------|-------------|-----------|-----------|
| Pressure<br>Class | 1.0"<br>W.G | 4"<br>W.G | 8"<br>W.G |
| 1A                | 3           | N/A       | N/A       |
| 1                 | 4           | 8         | 11        |
| 2                 | 10          | 20        | 28        |
| 3                 | 40          | 80        | 112       |

|         | Width | Height |
|---------|-------|--------|
| Minimum | 4"    | 4" *   |
| Maximum | 48"   | 48"    |

<sup>\*</sup> Minimum height for Hat-shaped type is 6"(150mm)

Bulletin No. 8, June 2021



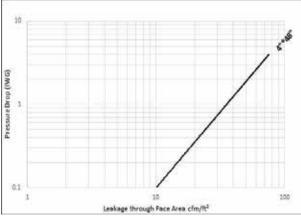


# VOLUME CONTROL DAMPER - 3VCD SERIES 3V-SHAPED STEEL BLADES

# **PERFORMANCE DATA**



#### AIR LEAKAGE DATA



#### PRESSURE DROP DATA

| Size 4                | "* <b>48</b> "         |
|-----------------------|------------------------|
| Air Velocity<br>(fpm) | Pressure<br>Drop (IWG) |
| 516                   | 0.034                  |
| 992                   | 0.130                  |
| 1482                  | 0.291                  |
| 1985                  | 0.524                  |
| 2480                  | 0.819                  |

IOOOXIOOOmm for Slip & clip/Box types.

Tested at AMCA 500-D lab Arlington Heights, USA



| D.4              |                                | VCD           | <b>C</b> | Р                   |                 | _         |
|------------------|--------------------------------|---------------|----------|---------------------|-----------------|-----------|
| M                | 3                              | VCD           | G2       | Р                   | L               | F         |
| :                |                                |               |          |                     |                 |           |
| QUADRANT         |                                |               |          |                     |                 |           |
| DRIVEN           |                                |               |          |                     |                 |           |
| M: MOTORIZED     |                                |               |          |                     |                 |           |
| 2 22/51/4050     | S L DI ADSS                    |               |          |                     |                 |           |
| 3: 3V-SHAPED     |                                |               |          |                     |                 |           |
|                  | CONTROL DAMP<br>CONSTRUCTION   | 'ER           |          |                     |                 |           |
|                  | CONSTRUCTION                   |               |          |                     |                 |           |
|                  | CONSTRUCTION                   |               |          |                     |                 |           |
|                  | CONSTRUCTION                   |               |          |                     |                 |           |
|                  | 304 CONSTRUC                   | TION          |          |                     |                 |           |
|                  | . 304 CONSTRUC                 |               |          |                     |                 |           |
|                  | 304 CONSTRUC                   |               |          |                     |                 |           |
| 54: I.7MM 5.5    | . 304 CONSTRUC                 | TION          |          |                     |                 |           |
| P: PLASTIC N     | YLON BUSHES                    |               |          | •                   |                 |           |
| B: BRASS BUS     | SHES                           |               |          |                     |                 |           |
| X: S.S. BUSHE    | 5                              |               |          |                     |                 |           |
| S: S.S. BEARII   |                                |               |          |                     |                 |           |
|                  | E MECHANISM                    |               |          |                     |                 |           |
|                  | ARS MECHANIS                   | M             |          |                     |                 |           |
| H: HAT-SHAPE     |                                |               |          |                     |                 |           |
| F: FLANGED T     |                                |               |          |                     |                 |           |
| S: SLIP & CLIP   | , WITH DUCT<br>(INSERTED INSID | C DUCT)       |          |                     |                 |           |
| SIZE: WIDTH )    |                                | EDUCIJ        |          |                     |                 |           |
| Single section m |                                |               | Sino     | gle section maximun | n size:         |           |
| •                | or Flanged/Box/Slip            | & clip types. |          | I200XI200mm for     |                 | ed tunes  |
|                  | ag-a/po//onb                   | J P 20.       |          | ILCCAILCOIIIII 101  | mac-smaped/mang | ca types. |



100X150mm for Hat-shaped types.



# **VOLUME CONTROL DAMPER - AVCD SERIES AEROFOIL BLADES**

# STANDARD CONSTRUCTION

Frame: I.2mm thick galvanized steel sheet. Blades: Aerofoil I.Omm double skin extruded

Aluminum profiles/ GI Sheet.

½" square galvanized steel rod.

Linkage: Made of galvanized steel. Concealed in

frame.

Bushing: Self lubricating plastic nylon 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. Single section minimum size:

IOOXIOOmm for Flanged/Box/Slip & clip types.

IOOXI50mm for Hat-shaped type.

Single section maximum size:

I200XI200mm for Hat-shaped/Flanged types.

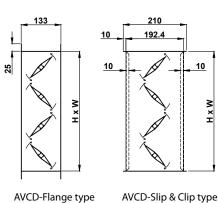
IOOOXIOOOmm for Slip & clip/Box types.



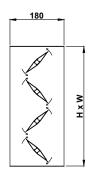




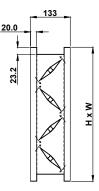
## **DIMENSIONS**



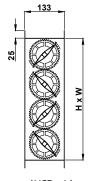
AVCD-Slip & Clip type



**AVCD-Box type** 



AVCD-Hat type



AVCD with gear mechanism



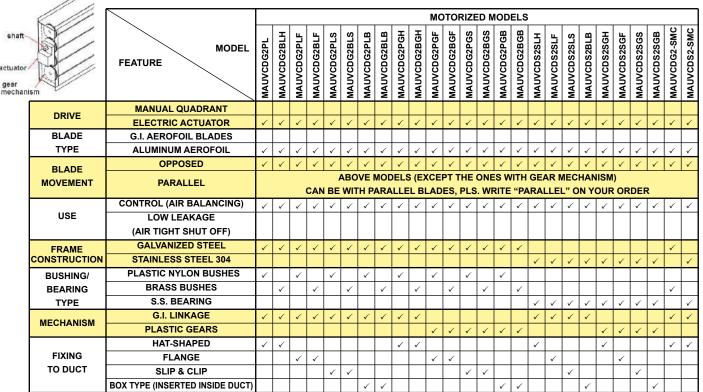


# VOLUME CONTROL DAMPER - AVCD SERIES AEROFOIL BLADES

# **ALUMINIUM BLADES OPTIONS**

|                   |                         |            |            |            |            |            |            |            |            |            | MAI        | NUA        | L Q               | UAD        | RA           | NT I       | MOD          | ELS        | S          |            |            |            |            |            |            |             |   |
|-------------------|-------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------------|------------|--------------|------------|--------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|---|
| blades            | MODEL                   | AUVCDG2PLH | AUVCDG2BLH | AUVCDG2PLF | AUVCDG2BLF | AUVCDG2PLS | AUVCDG2BLS | AUVCDG2PLB | AUVCDG2BLB | AUVCDG2PGH | AUVCDG2BGH | AUVCDG2PGF | <b>AUVCDG2BGF</b> | AUVCDG2PGS | AUVCDG2BGS   | AUVCDG2PGB | AUVCDG2BGB   | AUVCDS2SLH | AUVCDS2SLF | AUVCDS2SLS | AUVCDS2BLB | AUVCDS2SGH | AUVCDS2SGF | AUVCDS2SGS | AUVCDS2SGB | AUVCDG2-SMC |   |
| DRIVE             | MANUAL QUADRANT         | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓                 | ✓          | ✓            | ✓          | ✓            | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓           | Ī |
| DRIVE             | ELECTRIC ACTUATOR       |            |            |            |            |            |            |            |            |            |            |            |                   |            |              |            |              |            |            |            |            |            |            |            |            |             |   |
| BLADE             | G.I. AEROFOIL BLADES    |            |            |            |            |            |            |            |            |            |            |            |                   |            |              |            |              |            |            |            |            |            |            |            |            |             |   |
| TYPE              | ALUMINUM AEROFOIL       | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓                 | ✓          | ✓            | ✓          | ✓            | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓           |   |
| BLADE             | OPPOSED                 | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓                 | ✓          | ✓            | ✓          | $\checkmark$ | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓           |   |
| MOVEMENT          | PARALLEL                |            |            |            |            |            |            |            |            |            |            |            |                   |            |              |            |              |            |            |            |            |            |            |            |            |             |   |
|                   | CONTROL (AIR BALANCING) | ✓          | <b>✓</b>   | ✓          | <b>✓</b>   | ✓          | ✓          | <b>√</b>   | ✓          | ✓          | ✓          | ✓          | ✓                 | ✓          | ✓            | ✓          | ✓            | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓           | Γ |
| USE               | LOW LEAKAGE             |            |            |            |            |            |            |            |            |            |            |            |                   |            |              |            |              |            |            |            |            |            |            |            |            |             | Ī |
|                   | (AIR TIGHT SHUT OFF)    |            |            |            |            |            |            |            |            |            |            |            |                   |            |              |            |              |            |            |            |            |            |            |            |            |             |   |
| FRAME             | GALVANIZED STEEL        | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓                 | ✓          | ✓            | ✓          | ✓            |            |            |            |            |            |            |            |            | ✓           | Г |
| CONSTRUCTION      | STAINLESS STEEL 304     |            |            |            |            |            |            |            |            |            |            |            |                   |            |              |            |              | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          |             | I |
| BUSHING/          | PLASTIC NYLON BUSHES    | ✓          |            | ✓          |            | ✓          |            | ✓          |            | ✓          |            | ✓          |                   | ✓          |              | ✓          |              |            |            |            |            |            |            |            |            |             | Ī |
| BEARING           | BRASS BUSHES            |            | ✓          |            | <b>✓</b>   |            | ✓          |            | <b>✓</b>   |            | ✓          |            | ✓                 |            | ✓            |            | ✓            |            |            |            |            |            |            |            |            | ✓           | Ī |
| TYPE              | S.S. BEARING            |            |            |            |            |            |            |            |            |            |            |            |                   |            |              |            |              | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | <b>~</b>   |             |   |
| MECHANISM         | G.I. LINKAGE            | ✓          | ✓          | ✓          | ✓          | >          | ✓          | ✓          | ✓          | ✓          | ✓          |            |                   |            |              |            |              | ✓          | ✓          | ✓          | ✓          |            |            |            |            | ✓           |   |
| MECHANISM         | PLASTIC GEARS           |            |            |            |            |            |            |            |            |            |            | ✓          | ✓                 | ✓          | $\checkmark$ | ✓          | ✓            |            |            |            |            | ✓          | ✓          | ✓          | ✓          |             |   |
|                   | HAT-SHAPED              | ✓          | ✓          |            |            |            |            |            |            | ✓          | ✓          |            |                   |            |              |            |              | ✓          |            |            |            | ✓          |            |            |            | ✓           | Ι |
|                   | FLANGE                  |            |            | 1          | <b>✓</b>   |            |            |            |            |            |            | ✓          | <b>√</b>          |            |              |            |              |            | ✓          |            |            |            | <b>√</b>   |            |            |             |   |
| FIXING            |                         |            |            |            |            |            |            |            |            |            |            |            |                   |            |              |            |              |            |            | /          |            |            |            | 1 7        |            |             | 1 |
| FIXING<br>TO DUCT | SLIP & CLIP             |            |            |            |            | ✓          | ✓          |            |            |            |            |            |                   | ✓          | ✓            |            |              |            |            | V          |            |            |            | ✓          |            |             | L |

<sup>\*\*</sup>Other options of S.S. bushes "X" and S.S. bearing "S" are shown at the ordering key.



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





# **VOLUME CONTROL DAMPER - AVCD SERIES AEROFOIL BLADES**

# **STEEL BLADES OPTIONS**

| 1                                      |  |            |            |            |            |            |            |            |            |            | MAN        | JIIA       |            | ПΛГ          | PΛ         | NT N       | /OD        | FIS        |            |            |            |             |            |            |            |             |             |
|--|--|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|--------------|------------|------------|------------|------------|------------|------------|------------|-------------|------------|------------|------------|-------------|-------------|
| biedes                                 | MODEL  | АGVCDG2РLН | AGVCDG2BLH | AGVCDG2PLF | AGVCDG2BLF | AGVCDG2PLS | AGVCDG2BLS | AGVCDG2PLB | AGVCDG2BLB | АGVCDG2PGH | АGVCDG2BGH | AGVCDG2PGF | AGVCDG2BGF | AGVCDG2PGS ) | AGVCDG2BGS | AGVCDG2PGB | AGVCDG2BGB | AGVCDS2SLH | AGVCDS2SLF | AGVCDS2SLS | AGVCDS2BLB | AGVCDS2SGH  | AGVCDS2SGF | AGVCDS2SGS | AGVCDS2SGB | AGVCDG2-SMC | AGVCDS2-SMC |
| DRIVE                                  | MANUAL QUADRANT  | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓            | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓           | ✓          | ✓          | ✓          | ✓           | ✓           |
| DRIVE                                  | ELECTRIC ACTUATOR  |            |            |            |            |            |            |            |            |            |            |            |            |              |            |            |            |            |            |            |            |             |            |            |            |             |             |
| BLADE                                  | G.I. AEROFOIL BLADES   | ✓          | ✓          | ✓          | ✓          | <b>~</b>   | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓            | ✓          | ✓          | ✓          |            |            |            |            |             |            |            |            | ✓           |             |
| TYPE                                   | STAINLESS STEEL AEROFOIL   |            |            |            |            |            |            |            |            |            |            |            |            |              |            |            |            | ✓          | ✓          | ✓          | ✓          | ✓           | ✓          | ✓          | ✓          |             | ✓           |
| BLADE                                  | OPPOSED  | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓            | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓           | ✓          | ✓          | ✓          | ✓           | ✓           |
| MOVEMENT                               | PARALLEL   |            |            |            | CAN        | N BE       |            |            |            |            | E (E)      |            |            |              |            |            |            |            |            |            |            |             | •          | DEF        | ₹          |             |             |
|  | CONTROL (AIR BALANCING)  | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓            | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓           | ✓          | ✓          | ✓          | ✓           | ✓           |
| USE                                    | LOW LEAKAGE<br>(AIR TIGHT SHUT OFF)                              |            |            |            |            |            |            |            |            |            |            |            |            |              |            |            |            |            |            |            |            |             |            |            |            |             |             |
| FRAME                                  | GALVANIZED STEEL   | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓            | ✓          | ✓          | ✓          |            |            |            |            |             |            |            |            | ✓           |             |
| CONSTRUCTION                           | STAINLESS STEEL 304  |            |            |            |            |            |            |            |            |            |            |            |            |              |            |            |            | ✓          | ✓          | ✓          | ✓          | ✓           | ✓          | ✓          | ✓          |             | ✓           |
| BUSHING/                               | DI ACTICANIA CAL DIJOUEC   | -          |            |            |            |            |            |            |            |            |            |            |            |              |            |            |            |            |            |            |            |             |            |            |            |             |             |
| BUSHING/                               | PLASTIC NYLON BUSHES   | ✓          |            | ✓          |            | ✓          |            | ✓          |            | ✓          |            | ✓          |            | ✓            |            | ✓          |            |            |            |            |            |             |            |            |            |             |             |
| BEARING                                | BRASS BUSHES   | <b>√</b>   | <b>✓</b>   | ✓          | <b>√</b>   | ✓          | ✓          | ✓          | ✓          | ✓          | <b>✓</b>   | ✓          | ✓          | ✓            | ✓          | <b>√</b>   | ✓          |            |            |            |            |             |            |            |            | <b>√</b>    |             |
|  |  | <b>✓</b>   | ✓          | <b>✓</b>   | ✓          | <b>✓</b>   | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | <b>√</b>     | ✓          | ✓<br>      | ✓          | <b>√</b>   | <b>√</b>   | <b>✓</b>   | <b>✓</b>   | <b>✓</b>    | <b>√</b>   | <b>√</b>   | <b>√</b>   | ✓           | <b>√</b>    |
| BEARING<br>TYPE                        | BRASS BUSHES   | ✓<br>✓     | ✓          | ✓<br>      | ✓          | ✓            | ✓          | ✓          | ✓          | ✓<br>✓     | ✓<br>✓     | ✓<br>✓     | ✓<br>✓     | <b>✓</b>    | <b>√</b>   | <b>√</b>   | <b>√</b>   | ✓           | ✓<br>✓      |
| BEARING                                | BRASS BUSHES<br>S.S. BEARING                                     |            | ✓<br>✓     |            |            |            |            |            |            |            |            | ✓<br>✓     | ✓<br>✓     | ✓<br>✓       | ✓<br>✓     | ✓<br>✓     | ✓<br>✓     | _          | ✓<br>✓     | ✓<br>✓     | ✓<br>✓     | ✓           | ✓<br>✓     | ✓<br>✓     | ✓<br>✓     | ✓<br>✓      | √<br>✓      |
| BEARING<br>TYPE<br>MECHANISM           | BRASS BUSHES S.S. BEARING STEEL LINKAGE                          |            | ✓<br>✓     |            |            |            |            |            |            |            |            |            | ✓<br>✓     | ✓<br>✓       | ✓<br>✓     | ✓<br>✓     | ✓<br>✓     | _          | ✓<br>✓     | ✓<br>✓     | ✓<br>✓     | ✓<br>✓<br>✓ | ✓<br>✓     | ✓<br>✓     | ✓<br>✓     | ✓<br>✓      | ✓<br>✓<br>✓ |
| BEARING<br>TYPE<br>MECHANISM<br>FIXING | BRASS BUSHES S.S. BEARING STEEL LINKAGE PLASTIC GEARS            | ✓          | ✓          |            |            |            |            |            |            | ✓          | ✓          |            | ✓<br>✓     | ✓<br>✓       | ✓<br>✓     | ✓<br>✓     |            | ✓          | ✓<br>✓     | ✓<br>✓     | ✓<br>✓     | _           | ✓<br>✓     | ✓<br>✓     | ✓<br>✓     | ✓           | √<br>✓<br>✓ |
| BEARING<br>TYPE<br>MECHANISM           | BRASS BUSHES S.S. BEARING STEEL LINKAGE PLASTIC GEARS HAT-SHAPED | ✓          | ✓          | √          | ✓          |            |            |            |            | ✓          | ✓          | ✓ <        | ✓          | ✓<br>✓       | ✓<br>✓     | ✓<br>✓     | ✓<br>✓     | ✓          | ,          | ✓<br>✓     | ✓<br>✓     | _           | ✓          | ✓<br>✓     | ✓<br>✓     | ✓           | ✓<br>✓<br>✓ |

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

|                                      | // //  |   |                                       |   |                                       |                                       |             |             |   |             |                                       |             |             |             |             |             |                                       |             |             |             |   |   |                                       |   |             |                                       |                   | _            |
|--------------------------------------|--|---|---------------------------------------|---|---------------------------------------|---------------------------------------|-------------|-------------|---|-------------|---------------------------------------|-------------|-------------|-------------|-------------|-------------|---------------------------------------|-------------|-------------|-------------|---|---|---------------------------------------|---|-------------|---------------------------------------|-------------------|--------------|
|                                      | 6.11   |   |                                       |   |                                       |                                       |             |             |   |             |                                       |             | MC          | TOI         | RIZE        | D N         | IOD                                   | ELS         |             |             |   |   |                                       |   |             |                                       |                   |              |
| shaft<br>actuator<br>gear<br>mechani | Ism  | MODEL FEATURE   | MAGVCDG2PLH                           | MAGVCDG2BLH   | MAGVCDG2PLF                           | MAGVCDG2BLF                           | MAGVCDG2PLS | MAGVCDG2BLS | MAGVCDG2PLB   | MAGVCDG2BLB | MAGVCDG2PGH                           | MAGVCDG2BGH | MAGVCDG2PGF | MAGVCDG2BGF | MAGVCDG2PGS | MAGVCDG2BGS | MAGVCDG2PGB                           | MAGVCDG2BGB | MAGVCDS2SLH | MAGVCDS2SLF | MAGVCDS2SLS   | MAGVCDS2BLB   | MAGVCDS2SGH                           | MAGVCDS2SGF   | MAGVCDS2SGS | MAGVCDS2SGB                           | MAGVCDG2-SMC      | MAGVCDS2-SMC |
|                                      | DRIVE  | MANUAL QUADRANT   |                                       |   |                                       |                                       |             |             |   |             |                                       |             |             |             |             |             |                                       |             |             |             |   |   |                                       |   |             |                                       |                   |              |
|                                      | DRIVE  | ELECTRIC ACTUATOR   | ✓                                     | ✓   | ✓                                     | ✓                                     | ✓           | ✓           | ✓   | ✓           | ✓                                     | ✓           | ✓           | ✓           | ✓           | ✓           | ✓                                     | ✓           | ✓           | ✓           | ✓   | ✓   | ✓                                     | ✓   | ✓           | ✓                                     | ✓                 | ✓            |
|                                      | BLADE  | G.I. AEROFOIL BLADES  | ✓                                     | ✓   | ✓                                     | ✓                                     | ✓           | ✓           | ✓   | ✓           | ✓                                     | ✓           | ✓           | ✓           | ✓           | ✓           | ✓                                     | ✓           |             |             |   |   |                                       |   |             |                                       | ✓                 |              |
|                                      | TYPE   | STAINLESS STEEL AEROFOIL  |                                       |   |                                       |                                       |             |             |   |             |                                       |             |             |             |             |             |                                       |             | ✓           | ✓           | ✓   | ✓   | ✓                                     | ✓   | ✓           | ✓                                     |                   | ✓            |
|                                      | BLADE  | OPPOSED   | ✓                                     | ✓   | ✓                                     | ✓                                     | ✓           | ✓           | ✓   | ✓           | ✓                                     | ✓           | ✓           | ✓           | ✓           | ✓           | ✓                                     | ✓           | ✓           | ✓           | ✓   | ✓   | ✓                                     | ✓   | ✓           | ✓                                     | ✓                 | ✓            |
|                                      | MOVEMENT   | PARALLEL  |                                       | ABOVE MODELS (EXCEPT THE ONES WITH GEAR MECHANISM) CAN BE WITH PARALLEL BLADES, PLS. WRITE "PARALLEL" ON YOUR ORDER |                                       |                                       |             |             |   |             |                                       |             |             |             |             |             |                                       |             |             |             |   |   |                                       |   |             |                                       |                   |              |
|                                      |  |   |                                       |   |                                       | _                                     |             |             |   |             |                                       |             |             |             |             |             |                                       |             |             |             |   |   |                                       |   |             |                                       |                   |              |
|                                      | Hee  | CONTROL (AIR BALANCING)   | ✓                                     | ✓   | ✓                                     | ✓                                     | ✓           | ✓           | ✓   | ✓           | ✓                                     | <b>✓</b>    | ✓           | ✓           | ✓           | ✓           | <b>✓</b>                              | ✓           | ✓           | ✓           | ✓   | ✓   | ✓                                     | ✓   | ✓           | ✓                                     | ✓                 | ✓            |
|                                      | USE  | CONTROL (AIR BALANCING)  LOW LEAKAGE  | ✓                                     | ✓   | ✓                                     | ✓                                     | ✓           | ✓           | ✓   | ✓           | ✓                                     | ✓           | ✓           | ✓           | ✓           | ✓           | ✓                                     | ✓           | ✓           | ✓           | ✓   | ✓   | ✓                                     | ✓   | ✓           | ✓                                     | ✓                 | ✓            |
|                                      | USE  | ,   | ✓                                     | ✓   | ✓                                     | ✓                                     | ✓           | ✓           | ✓   | ✓           | ✓                                     | ✓           | ✓           | ✓           | ✓           | ✓           | ✓                                     | ✓           | ✓           | ✓           | ✓   | ✓   | ✓                                     | ✓   | ✓           | <b>√</b>                              | ✓                 | ✓            |
|                                      | USE  | LOW LEAKAGE   | ✓<br>✓                                | ✓<br>✓  | ✓                                     | ✓<br>✓                                | ✓           | ✓           | ✓   | ✓ ✓ ✓       | ✓<br>✓                                | ✓<br>✓      | ✓           | ✓           | ✓<br>✓      | ✓           | ✓                                     | ✓           | ✓           | <b>√</b>    | √<br>   | ✓<br>   | ✓<br>                                 | √<br>   | ✓           | ✓<br>                                 | ✓                 | <b>√</b>     |
|                                      |  | LOW LEAKAGE<br>(AIR TIGHT SHUT OFF)   |                                       |   |                                       |                                       |             |             | ✓<br>✓  |             |                                       |             | ✓           |             | ŕ           |             |                                       |             | ✓<br>✓      | ✓           | ✓<br>✓  | ✓<br>✓  | ✓<br>✓                                | ✓<br>✓  | ✓<br>✓      | ✓<br>✓                                |                   | ✓<br>✓       |
|                                      | FRAME  | LOW LEAKAGE (AIR TIGHT SHUT OFF) GALVANIZED STEEL   |                                       |   |                                       |                                       |             |             | \[   \lambda   \]   \[   \lambda   \]   \[   \lambda   \] |             |                                       |             | ✓<br>✓<br>✓ |             | ŕ           |             |                                       |             | ✓<br>✓      | ✓<br>✓      | ✓<br>✓  | ✓<br>✓  | ✓<br>✓                                | ✓<br>✓  | ✓<br>✓      | ✓<br>✓                                |                   | ✓<br>✓       |
|                                      | FRAME<br>CONSTRUCTION                                      | LOW LEAKAGE (AIR TIGHT SHUT OFF) GALVANIZED STEEL STAINLESS STEEL 304   | ✓                                     |   | ✓                                     |                                       | ✓           |             |   |             | ✓                                     |             |             |             | ✓           |             | ✓                                     |             | ✓<br>✓      | ✓<br>✓      | ✓<br>✓  | ✓<br>✓  | ✓<br>✓                                | ✓<br>✓  | ✓<br>✓      | ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ |                   | ✓<br>✓       |
|                                      | FRAME CONSTRUCTION BUSHING/                                | LOW LEAKAGE (AIR TIGHT SHUT OFF)  GALVANIZED STEEL  STAINLESS STEEL 304  PLASTIC NYLON BUSHES  BRASS BUSHES  S.S. BEARING   | ✓                                     | ✓   | ✓                                     | ✓ <b>/</b>                            | ✓           | ✓ <b>/</b>  |   | ✓ ·         | ✓                                     | ✓ ·         |             | ✓           | ✓           | ✓ <u> </u>  | ✓                                     | <b>✓</b>    | ✓<br>✓      | ✓<br>✓      | ✓<br>✓<br>✓   | ✓<br>✓<br>✓   | ✓<br>✓<br>✓                           | ✓<br>✓<br>✓   | ✓<br>✓<br>✓ | ✓<br>✓                                | ✓                 | ✓<br>✓       |
|                                      | FRAME CONSTRUCTION BUSHING/ BEARING TYPE                   | LOW LEAKAGE (AIR TIGHT SHUT OFF)  GALVANIZED STEEL  STAINLESS STEEL 304  PLASTIC NYLON BUSHES  BRASS BUSHES   | ✓                                     | ✓   | ✓                                     | ✓ <b>/</b>                            | ✓           | ✓ <b>/</b>  |   | ✓ ·         | ✓                                     | ✓ ·         |             | ✓           | ✓           | ✓ <u> </u>  | ✓                                     | <b>✓</b>    | <b>✓</b>    | ✓<br>✓<br>✓ | \[   \lambda   \]   \[   \lambda   \]   \[   \lambda   \] | \[   \lambda   \]   \[   \lambda   \]   \[   \lambda   \] | ✓<br>✓<br>✓                           | ✓<br>✓<br>✓   | ✓           | ✓                                     | ✓                 | ✓            |
|                                      | FRAME CONSTRUCTION BUSHING/ BEARING                        | LOW LEAKAGE (AIR TIGHT SHUT OFF)  GALVANIZED STEEL  STAINLESS STEEL 304  PLASTIC NYLON BUSHES  BRASS BUSHES  S.S. BEARING  STEEL LINKAGE  PLASTIC GEARS             | ✓<br>✓                                | ✓<br>✓  | ✓<br>✓                                | ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ | ✓ ✓         | ✓ ✓ ✓       | <b>√</b>  | ✓ ✓ ✓       | ✓<br>✓                                | ✓<br>✓      |             | ✓           | ✓           | ✓ <u> </u>  | ✓                                     | <b>✓</b>    | ✓<br>✓      | ✓<br>✓      | ✓<br>✓  | ✓<br>✓  | \(  \)                                | \(  \)  | ✓           | ✓                                     | ✓<br>✓            | ✓            |
|                                      | FRAME CONSTRUCTION BUSHING/ BEARING TYPE MECHANISM         | LOW LEAKAGE (AIR TIGHT SHUT OFF)  GALVANIZED STEEL  STAINLESS STEEL 304  PLASTIC NYLON BUSHES  BRASS BUSHES  S.S. BEARING  STEEL LINKAGE  PLASTIC GEARS  HAT-SHAPED | ✓<br>✓                                | ✓<br>✓  | ✓<br>✓                                | ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ | ✓ ✓         | ✓ ✓ ✓       | <b>√</b>  | ✓ ✓ ✓       | ✓<br>✓                                | ✓<br>✓      | ✓ ·         | ✓           | ✓           | ✓ <u> </u>  | ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ | <b>✓</b>    | ✓<br>✓      | ✓<br>✓      | ✓<br>✓  | ✓<br>✓  | \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | \[     \lambda     \]     \[     \lambda     \]     \[     \lambda     \] | ✓           | ✓ ✓ ✓                                 | ✓<br>✓            | ✓            |
|                                      | FRAME CONSTRUCTION BUSHING/ BEARING TYPE MECHANISM  FIXING | LOW LEAKAGE (AIR TIGHT SHUT OFF)  GALVANIZED STEEL  STAINLESS STEEL 304  PLASTIC NYLON BUSHES  BRASS BUSHES  S.S. BEARING  STEEL LINKAGE  PLASTIC GEARS             | ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ | \frac{1}{4}   | ✓<br>✓                                | ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ | ✓ ✓         | ✓ ✓ ✓       | <b>√</b>  | ✓ ✓ ✓       | ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ | ✓<br>✓      | ✓ ·         | ✓           | ✓           | ✓ <u> </u>  | ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ | <b>✓</b>    | ✓<br>✓<br>✓ | ✓<br>✓      | ✓<br>✓  | ✓<br>✓  | ✓<br>✓                                | \frac{1}{4}   | ✓           | ✓ ✓ ✓                                 | \[   \lambda   \] | ✓            |
|                                      | FRAME CONSTRUCTION BUSHING/ BEARING TYPE MECHANISM         | LOW LEAKAGE (AIR TIGHT SHUT OFF)  GALVANIZED STEEL  STAINLESS STEEL 304  PLASTIC NYLON BUSHES  BRASS BUSHES  S.S. BEARING  STEEL LINKAGE  PLASTIC GEARS  HAT-SHAPED | ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ | \frac{1}{4}   | ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ | ✓ ✓ ✓ ✓                               | ✓ ✓         | ✓ ✓ ✓       | <b>√</b>  | ✓ ✓ ✓       | ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ | ✓<br>✓      | ✓ ✓ ✓       | ✓<br>✓      | ✓           | ✓ <u> </u>  | ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ | <b>✓</b>    | ✓<br>✓<br>✓ | ✓<br>✓<br>✓ | ✓<br>✓  | ✓<br>✓  | ✓<br>✓                                | \frac{1}{1}   | ✓           | ✓ ✓ ✓                                 | \[   \lambda   \] | ✓            |

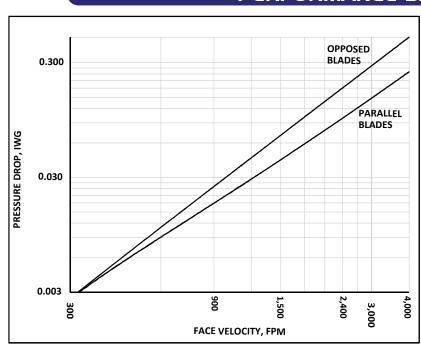
<sup>\*\*</sup>Other options of S.S. bushes "X" and S.S. bearing "S" are shown at the ordering key.

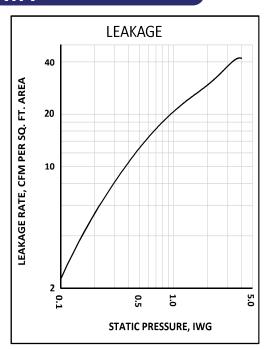




# **VOLUME CONTROL DAMPER - AVCD SERIES AEROFOIL BLADES**

# **PERFORMANCE DATA**





# **EXECUTA**

## Ordering Key:

| M                    | AU              | VCD               | G2     | P                | L              | F              |     |
|----------------------|-----------------|-------------------|--------|------------------|----------------|----------------|-----|
| :                    |                 |                   |        |                  |                |                |     |
| QUADRANT             |                 |                   |        |                  |                |                |     |
| DRIVEN               |                 |                   |        |                  |                |                |     |
| M:                   |                 |                   |        |                  |                |                |     |
| MOTORIZED            |                 |                   |        |                  |                |                |     |
| AU: AEROFOIL A       | LUMINUM BLADES  |                   |        |                  |                |                |     |
| AG: AEROFOIL S       | TEEL BLADES     |                   |        |                  |                |                |     |
| VCD: VOLUME          | CONTROL DAMP    | ER                |        |                  |                |                |     |
| GI: 0.9MM G.I.0      | CONSTRUCTION    |                   |        |                  |                |                |     |
| G2: I.2MM G.I.0      | CONSTRUCTION (  | STANDARD)         |        |                  |                |                |     |
| G3: I.5MM G.I.0      | ONSTRUCTION     |                   |        |                  |                |                |     |
| G4: I.7MM G.I.0      | CONSTRUCTION    |                   |        |                  |                |                |     |
| SI: I.OMM S.S.       | 304 CONSTRUCT   | ΓΙΟΝ              |        |                  |                |                |     |
| S2: I.2MM S.S.       | . 304 CONSTRUC  | TION              |        |                  |                |                |     |
| <b>S3 I.5MM S.S.</b> | 304 CONSTRUC    | TION              |        |                  |                |                |     |
|                      | 304 CONSTRUC    | TION              |        |                  |                |                |     |
| P: PLASTIC NY        |                 |                   |        |                  |                |                |     |
| B: BRASS BUS         |                 |                   |        |                  |                |                |     |
| X: S.S. BUSHES       |                 |                   |        |                  |                |                |     |
| S: S.S. BEARIN       |                 |                   |        |                  |                |                |     |
|                      | AGE MECHANISN   |                   |        |                  |                |                |     |
|                      | ARS MECHANISI   | M                 |        |                  |                |                |     |
| H: HAT-SHAPE         |                 |                   |        |                  |                |                |     |
|                      | O DUCT (STANDA  | (RD)              |        |                  |                |                |     |
| S: SLIP & CLIP       |                 |                   |        |                  |                |                |     |
|                      | INSERTED INSID  | E DUCT)           |        |                  |                |                |     |
| SIZE: WIDTH X        |                 |                   |        |                  |                |                |     |
| _                    | minimum size:   |                   |        | Single section m |                |                |     |
| ΙΟΟΧΙΟΟπ             | nm for Flanged/ | Box/Slip & clip t | types. | 1200X1200r       | nm for Hat-sha | aped/Flanged t | уре |



IOOXI50mm for Hat-shaped types.

IOOOXIOOOmm for Slip & Clip/ Box types.



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

# **STANDARD CONSTRUCTION**

Frame: I33mm Roll formed hat-shaped made of I.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 I.2mm thick

galvanized steel.

Bushes: Brass bushes.

Axles: I/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.

Single section minimum size:

ISOXISOmm for Hat-shaped/Flanged types.

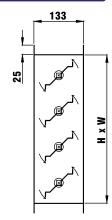
Single section maximum size:

I200XI200mm for Hat-shaped/Flanged types.

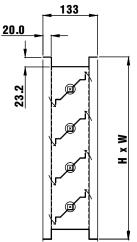
# Model LVCDG2BLH



## **DIMENSIONS**



LVCD-Flange type



LVCD-Hat type





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

# **OPTIONS**

|                               |                                 | MA        | NUA       | L Q       | UAD       | RAN       | IT M      | ODE        | LS         |
|-------------------------------|---------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|------------|------------|
| blades<br>that shaft<br>trame | MODEL FEATURE                   | гусрезвин | LVCDG2XLH | LVCDG2BLF | LVCDG2XLF | LVCDS2SLH | LVCDS2SLF | LVCDG2-SCM | LVCDS2-SMC |
| DRIVE                         | MANUAL QUADRANT                 | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓          | ✓          |
| DRIVE                         | ELECTRIC ACTUATOR               |           |           |           |           |           |           |            |            |
| BLADE                         | G.I. 3V-SHAPED                  | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓          | ✓          |
| TYPE                          | ALUMINUM AEROFOIL               |           |           |           |           |           |           |            |            |
| BLADE                         | OPPOSED                         |           |           |           |           |           |           |            |            |
| MOVEMENT                      | PARALLEL                        | <b>✓</b>  | <b>✓</b>  | <b>✓</b>  | 1         | <b>✓</b>  | <b>✓</b>  | <b>✓</b>   | 1          |
|                               | CONTROL (AIR BALANCING)         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓          | ✓          |
| USE                           | LOW LEAKAGE                     | <b>~</b>  |           | _         | _         | /         | ,         | ,          | /          |
|                               | APPLICATIONS                    | <b>'</b>  | <b>✓</b>  | ٧         | ·         | <b>'</b>  | ·         | ľ          | ľ          |
|                               | GALVANIZED STEEL                | ✓         | ✓         | ✓         | ✓         |           |           | ✓          |            |
| CONSTRUCTION                  | STAINLESS STEEL 304             |           |           |           |           | ✓         | ✓         |            | ✓          |
| BUSHING/                      | PLASTIC NYLON BUSHES            |           |           |           |           |           |           |            |            |
| BEARING                       | BRASS BUSHES                    | <b>✓</b>  |           | ✓         |           |           |           | ✓          |            |
| TYPE                          | S.S. BEARING                    |           | ✓         |           | ✓         |           |           |            |            |
|                               | S.S. BEARING                    |           |           |           |           | <b>✓</b>  | ✓         |            | ✓          |
| MECHANISM                     | G.I. LINKAGE                    | ✓         | ✓         | ✓         | ✓         | ✓         | ✓         | ✓          | ✓          |
| MEGNATION                     | PLASTIC GEARS                   |           |           |           |           |           |           |            |            |
|                               | HAT-SHAPED                      | ✓         | ✓         |           |           | ✓         |           | ✓          | ✓          |
| FIXING                        | FLANGE                          |           |           | <b>✓</b>  | ✓         |           | ✓         |            |            |
| TO DUCT                       | SLIP & CLIP                     |           |           |           |           |           |           |            |            |
|                               | BOX TYPE (INSERTED INSIDE DUCT) |           |           |           |           |           |           |            |            |

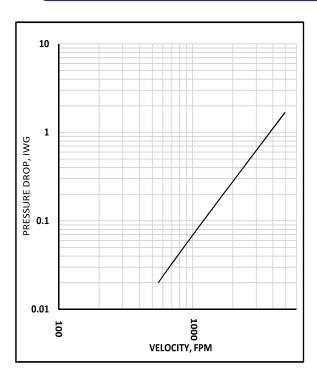
|       |              |                                 |            | МО         | TOR        | RISE       | D M        | ODE        | ELS         | $\neg$      |
|-------|--------------|---------------------------------|------------|------------|------------|------------|------------|------------|-------------|-------------|
| SHAFT |              | MODEL FEATURE                   | MLVCDG2BLH | MLVCDG2XLH | MLVCDG2BLF | MLVCDG2XLF | MLVCDS2SLH | MLVCDS2SLF | MLVCDG2-SMC | MLVCDS2-SMC |
|       | DRIVE        | MANUAL QUADRANT                 | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓           | ✓           |
|       | DIGIVE       | ELECTRIC ACTUATOR               |            |            |            |            |            |            |             |             |
|       | BLADE        | G.I. 3V-SHAPED                  | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓           | ✓           |
|       | TYPE         | ALUMINUM AEROFOIL               |            |            |            |            |            |            |             |             |
|       | BLADE        | OPPOSED                         |            |            |            |            |            |            |             |             |
|       | MOVEMENT     | PARALLEL                        | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓           | ✓           |
|       |              | CONTROL (AIR BALANCING)         | ✓          | ✓          | ✓          | ✓          | ✓          | ✓          | ✓           | ✓           |
|       | USE          | LOW LEAKAGE                     | \ \ \      | <b>/</b>   | <b>√</b>   | 1          | <b>/</b>   | _          | <b>/</b>    | 1           |
|       |              | APPLICATIONS                    | ٧          | v          | ٧          | <b>'</b>   | •          | ٧          | v           | ľ           |
|       |              | GALVANIZED STEEL                | ✓          | ✓          | ✓          | ✓          |            |            | ✓           |             |
|       | CONSTRUCTION | STAINLESS STEEL 304             |            |            |            |            | ✓          | ✓          |             | ✓           |
|       | BUSHING/     | PLASTIC NYLON BUSHES            |            |            |            |            |            |            |             |             |
|       | BEARING      | BRASS BUSHES                    | ✓          |            | ✓          |            |            |            | ✓           |             |
|       | TYPE         | S.S. BUSHES                     |            | ✓          |            | ✓          |            |            |             |             |
|       |              | S.S. BEARING                    |            |            |            |            | ✓          | ✓          |             | ✓           |
|       | MECHANISM    | G.I. LINKAGE                    | ✓          | <b>✓</b>   | ✓          | ✓          | ✓          | ✓          | ✓           | <b>✓</b>    |
|       | MEGNATION    | PLASTIC GEARS                   |            |            |            |            |            |            |             |             |
|       |              | HAT-SHAPED                      | <b>\</b>   | ✓          |            |            | ✓          |            | ✓           | ✓           |
|       | FIXING       | FLANGE                          |            |            | ✓          | ✓          |            | ✓          |             |             |
|       | TO DUCT      | 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 L         | Maximum Leakage, cfm/ft <sup>2</sup> |           |           |  |  |  |  |  |  |  |  |  |
|-------------------|--------------------------------------|-----------|-----------|--|--|--|--|--|--|--|--|--|
| Pressure<br>Class | 1.0"<br>W.G                          | 4"<br>W.G | 8"<br>W.G |  |  |  |  |  |  |  |  |  |
| 1                 | 4                                    | 8         | 11        |  |  |  |  |  |  |  |  |  |



| M             | Ĺ                               | VCD                  | G2    | В                              | L | Н              |    |
|---------------|---------------------------------|----------------------|-------|--------------------------------|---|----------------|----|
| <del></del> : |                                 |                      |       |                                |   |                |    |
| QUADRANT-     |                                 |                      |       |                                |   |                |    |
| DRIVED        |                                 |                      |       |                                |   |                |    |
| M:            |                                 |                      |       |                                |   |                |    |
| MOTORIZED     |                                 |                      |       |                                |   |                |    |
| L: 3V-SHAPEI  | G.I. BLADES                     |                      |       |                                |   |                |    |
| LOW-LEAK      | AGE TYPE                        |                      |       |                                |   |                |    |
| VCD: CONTRO   | DL DAMPER                       | ,                    |       |                                |   |                |    |
| GI: O.9MM G.  | I. CONSTRUCTIO                  | N                    |       |                                |   |                |    |
| G2: I.2MM G.I | . CONSTRUCTIO                   | N (STANDARD)         | )     |                                |   |                |    |
| G3: I.5MM G.I | . CONSTRUCTIO                   | N                    |       |                                |   |                |    |
| G4: I.7MM G.I | . CONSTRUCTIO                   | N                    |       |                                |   |                |    |
| SI: I.OMM S.S | 5. <b>304 CONSTR</b> U          | JCTION               |       |                                |   |                |    |
| 52: I.2MM 5.9 | 5 304 CONSTRU                   | JCTION               |       |                                |   |                |    |
| 53: I.5MM S.9 | 5 304 CONSTRU                   | JCTION               |       |                                |   |                |    |
|               | 5 304 CONSTRU                   |                      |       |                                |   |                |    |
|               | ISHES (STANDA                   | (RD)                 |       |                                |   |                |    |
| X: S.S. BUSH  |                                 |                      |       |                                |   |                |    |
| S: S.S. BEAR  |                                 |                      |       |                                |   |                |    |
|               | E MECHANISM (                   | ·                    |       |                                |   |                |    |
|               | ED FRAME (STA                   | NDARD)               |       |                                |   |                |    |
| F: FLANGED    |                                 |                      |       |                                |   |                |    |
| SIZE: WIDTH   |                                 |                      |       |                                |   |                |    |
|               | on minimum siz<br>mm for Hat-sh | e:<br>aped/Flanged t | ypes. | Single section n<br>I200XI200r |   | aped/Flanged t | yı |





# ROUND VOLUME CONTROL DAMPER - VDR MODEL STEEL BLADE

# STANDARD CONSTRUCTION

Frame: 0.9mm thick galvanized steel

sheet.

Blades: O.9mm thick galvanized steel

sheet.

Axles: ½" 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 inch diameter (AMCA certified).

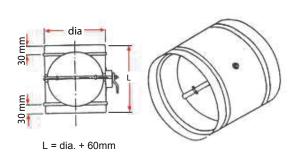
Diameters I4 inch and above are available up on request.

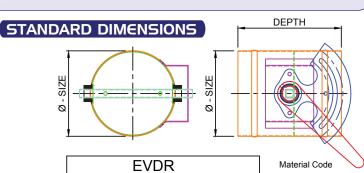


# 



## OPTIONAL DIMENSIONS





| EVDR |                 |        |  |  |  |  |  |  |
|------|-----------------|--------|--|--|--|--|--|--|
|      | Ø - Size (mm)   | Depth  |  |  |  |  |  |  |
| 1    | 100 - 125       | 120 mm |  |  |  |  |  |  |
| 2    | Above 125 - 200 | 150 mm |  |  |  |  |  |  |
| 3    | Above 200 - 300 | 180 mm |  |  |  |  |  |  |
| 4    | Above 300       | 250 mm |  |  |  |  |  |  |

G0.8 - GI 0.8 mm S0.8 - SS 0.8 mm Other thickness





# ROUND VOLUME CONTROL DAMPER - VDR MODEL STEEL BLADE

# **OPTIONS**

|               | MODEL                   |        | MANUAL<br>QUADRANT<br>MODELS |          |          |          |        |           | MOTORIZED<br>MODELS |          |          |          |                |          |          |            |            |
|---------------|-------------------------|--------|------------------------------|----------|----------|----------|--------|-----------|---------------------|----------|----------|----------|----------------|----------|----------|------------|------------|
|               | FEATURE                 | VDRG2P | VDRG2B                       | VDRG2X   | VDRG2S   | VDR52X   | VDRS2S | VDRG2-SMC | VDRS2-SMC           | MVDRG2P  | MVDRG2B  | MVDRG2X  | <b>MVDRG2S</b> | MVDR52X  | MVDRS2S  | MVDRG2-SMC | MVDRS2-SMC |
| DRIVE         | MANUAL QUADRANT         | ✓      | ✓                            | ✓        | ✓        | ✓        | ✓      | ✓         | ✓                   |          |          |          |                |          |          |            |            |
| DRIVE         | ELECTRIC ACTUATOR       |        |                              |          |          |          |        |           |                     | ✓        | ✓        | ✓        | ✓              | ✓        | ✓        | ✓          | ✓          |
| BLADE<br>TYPE | SINGLE SKIN             | ✓      | <b>✓</b>                     | <b>✓</b> | ✓        | <b>✓</b> | ✓      | <b>✓</b>  | <b>✓</b>            | ✓        | <b>✓</b> | <b>✓</b> | ✓              | <b>✓</b> |          | <          | <b>✓</b>   |
|               | CONTROL (AIR BALANCING) | ✓      | ✓                            | ✓        | ✓        | ✓        | ✓      | ✓         | ✓                   | ✓        | ✓        | ✓        | ✓              | ✓        | ✓        | ✓          | ✓          |
| USE           | LOW LEAKAGE             |        |                              |          |          |          |        |           |                     |          |          |          |                |          |          |            |            |
|               | (AIR TIGHT SHUTT OFF)   |        |                              |          |          |          |        |           |                     |          |          |          |                |          |          |            |            |
| CONSTRUCTION  | GALVANIZED STEEL        | ✓      | ✓                            | ✓        | >        |          |        | ✓         |                     | <b>~</b> | ✓        | <b>✓</b> | <b>\</b>       |          |          | ✓          |            |
| CONSTRUCTION  | STAINLESS STEEL 304     |        |                              |          |          | ✓        | ✓      |           | <b>✓</b>            |          |          |          |                | <b>✓</b> | <b>✓</b> |            | ✓          |
| DUCUING (     | PLASTIC NYLON BUSHES    |        |                              |          |          |          |        |           |                     | ✓        |          |          |                |          |          |            |            |
| BUSHING/      | BRASS BUSHES            |        | ✓                            |          |          |          |        | ✓         | <b>✓</b>            |          | ✓        |          |                |          |          | ✓          | ✓          |
| BEARING       | S.S. BUSHES             |        |                              | ✓        |          | ✓        |        |           |                     |          |          | ✓        |                | <b>✓</b> |          |            |            |
| TYPE          | S.S. BEARING            |        |                              |          | <b>✓</b> |          | ✓      |           |                     |          |          |          | <b>~</b>       |          | ✓        |            |            |

<sup>\*\*</sup>Other options of S.S. bushes "X" and S.S. bearing "S" are shown at the ordering key.



| M  | V                   | €V                     | DR       | G2 | Р | SIZE |  |  |  |
|--|---------------------|------------------------|----------|----|---|------|--|--|--|
| : QUADRANT-  |                     |                        |          |    |   |      |  |  |  |
| DRIVED   |                     |                        |          |    |   |      |  |  |  |
| M: MOTORIZED   |                     |                        |          |    |   |      |  |  |  |
| V: SINGLE SKIN B   | BLADE               |                        |          |    |   |      |  |  |  |
| EV: STANDARD S   | INGLE SKIN BLAD     |                        |          |    |   |      |  |  |  |
| DR: CONTROL DA   | MPER ROUND TYP      | E                      |          |    |   |      |  |  |  |
| GI: O.7MM G.I. CONSTRUCTION G2: O.9MM G.I. CONSTRUCTION (STANDARD) G3: I.2MM G.I. CONSTRUCTION G4: I.5MM G.I. CONSTRUCTION SI: O.8MM S.S. 304 CONSTRUCTION S2: I.0MM S.S. 304 CONSTRUCTION S3: I.2MM S.S. 304 CONSTRUCTION S3: I.2MM S.S. 304 CONSTRUCTION |                     |                        |          |    |   |      |  |  |  |
| P: PLASTIC NYL<br>B: BRASS BUSI<br>X: S.S. BUSHES<br>S: S.S. BEARING   |                     | ANDARD)                |          |    |   |      |  |  |  |
| SIZE: DIAMETE  | R OF 4, 5, 6, 8, 10 | ), I2, I4, I6, I8, 20, | 22 or 24 |    |   | •    |  |  |  |





# ROUND VOLUME CONTROL DAMPER - VDR MODEL STEEL BLADE

# **PERFORMANCE DATA**

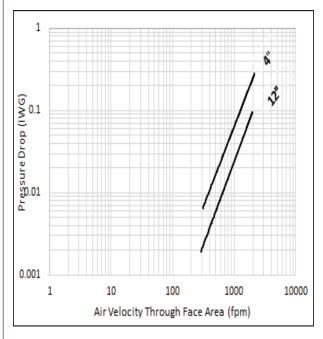
Beta Industrial LLC certifies that the VDR shown hereon is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program.

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

#### AIR PERFORMANCE DATA



#### AIR LEAKAGE DATA

AND CONTROL ASSOCIATION
INTERNATIONAL, INC.

AIR

LEAKAGE AIR PERFORMANCE

|            | Leakage Class |         |         |         |  |  |  |  |  |  |  |
|------------|---------------|---------|---------|---------|--|--|--|--|--|--|--|
| Damper Dia | 0.5 in.wg     | 1 in.wg | 2 in.wg | 4 in.wg |  |  |  |  |  |  |  |
| 4"         | 1             | 1A      | 1       | 1       |  |  |  |  |  |  |  |
| 12"        | 3             | 3       | 3       | 3       |  |  |  |  |  |  |  |

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

Bulletin No. 8, September 2022





# **NON-RETURN DAMPER - MODEL NRD**

# **STANDARD CONSTRUCTION**

Frame: 0.9mm thick galvanized steel.

Blades: I.Omm thick extruded Aluminum profiles.

Bushing: Brass bushes.

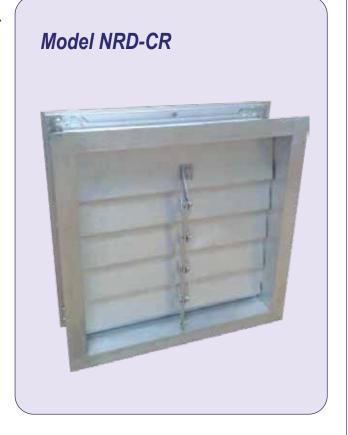
Axles: Round extruded Aluminum profiles.

Seal: Foam blades seals.

Size: Single section up to 600 X 600mm.

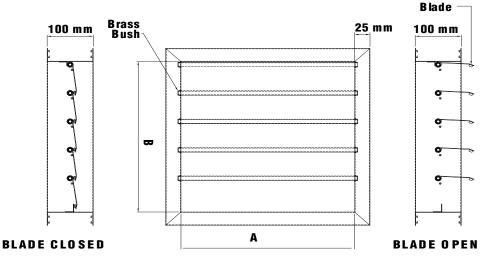
## **OPTIONS**

|                | MODEL FEATURE         | NRD      | NRD-CR   | NRDE     | NRDE-CR  |
|----------------|-----------------------|----------|----------|----------|----------|
| BRASS BUSHES   | YES                   | ✓        | ✓        |          |          |
|                | NO                    |          |          | ✓        | ✓        |
| CONNECTING ROD | YES                   |          | ✓        |          | ✓        |
| CONNECTING ROD | NO                    | ✓        |          | ✓        |          |
| COUNTERWEIGHT  | NO                    | <b>✓</b> | <b>✓</b> | <b>✓</b> | <b>✓</b> |
| FLANGES        | 2 SIDES               | ✓        | ✓        | ✓        | ✓        |
| FINISH         | MILL FINISH           | ✓        | ✓        | ✓        | ✓        |
| INSTALLATION   | 2-SIDES DUCTED        | <b>√</b> | ✓        | ✓        | ✓        |
| APPLICATION    | DISCHARGE<br>& INTAKE | ✓        | ✓        | ✓        | ✓        |



# **DIMENSIONS**

## DUCTED NON RETURN DAMPER NRD MODEL:







# 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 Perfomance ratings.

#### **Test Information**

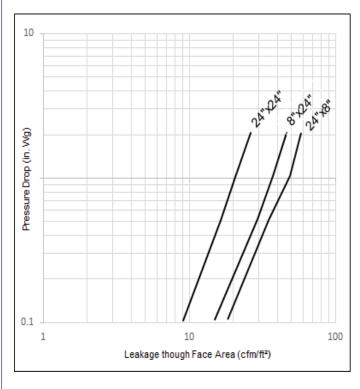
Air leakage is based on operation between 32 °F and 120 °F

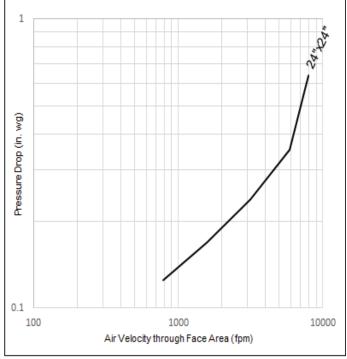
Tests were conducted at standard air density in accordance with ANSI/AMCA Standard 500-D, Figure 5.4 for Air Leakage & Fig 5.5 for Pressure drop, on a 24 in. x 24 in. sample. Air Performance testing conducted in accordance with ANSI/AMCA Standard 500-D, Figure 5.4 for Air Leakage & Fig 5.5 for Pressure drop.



#### AIR LEAKAGE DATA

#### AIR PERFORMANCE DATA





## Ordering Key:

SIZE: WIDTH X HEIGHT

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

Bulletin No. 8, June 2021





# PRESSURE RELIEF DAMPER - MODEL PRD

# **STANDARD CONSTRUCTION**

#### PRD:

Frame: 0.9mm thick galvanized steel.

Blades: I.Omm 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 I200 X I200mm.

#### DPRD & IPRD:

Frame: I.2mm thick extruded Aluminum profiles.

Blades: I.Omm 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 I200 X I200mm.



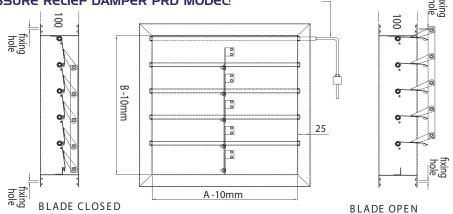
## **OPTIONS**

|                      | MODEL                        | PRD      | DPRD     | IPRD |
|----------------------|------------------------------|----------|----------|------|
| BRASS BUSHES         | YES                          | <b>✓</b> | 1        | ✓    |
| BLADES<br>CONNECTING | YES                          | <b>✓</b> | <b>✓</b> | ✓    |
| COUNTERWEIGHT        | YES                          | <b>~</b> | <b>✓</b> | ✓    |
| FLANGES              | 1 SIDE                       |          | ✓        | ✓    |
| PLANGES              | 2 SIDES                      | ✓        |          |      |
| FINISH               | MILL FINISH                  | ✓        |          |      |
| THUSH                | POWDER COATED TORAL9010/9016 |          | ✓        | ✓    |
| INSTALLATION         | 2-SIDES DUCTED               | ✓        |          |      |
| INSTALLATION         | WALL-MOUNTED                 |          | ✓        | ✓    |
| APPLICATION          | DISCHARGE                    |          | ✓        |      |
| AFFLICATION          | INTAKE                       |          |          | ✓    |



## DIMENSIONS

DUCTED PRESSURE RELIEF DAMPER PRD MODEL:

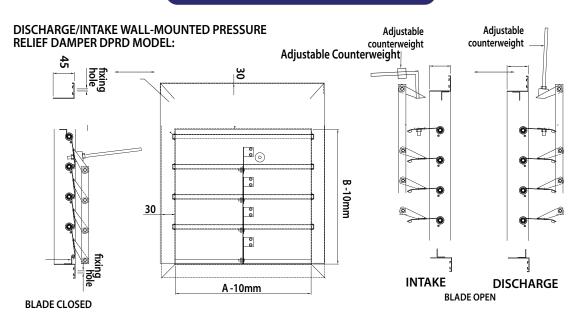


OPTION: PRD MODELS CAN BE MADE OF I.2MM THICK ALUMINUM FRAME INSTEAD OF STEEL FRAME. OTHER COMPENENTS REMAIN AS STANDARD CONSTRUCTION.

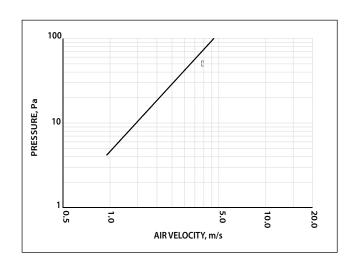


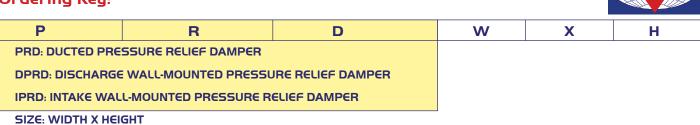


# **DIMENSIONS**



## **FOR PRD MODELS:**









# MOTORIZED PRESSURE RELIEF DAMPER - MODEL MPRD

# STANDARD CONSTRUCTION

# **DESCRIPTION**

Frame: I.2mm thick galvanized steel.

Blade: 3-V shaped I.2mm thick roll formed galvanized steel.

Axels: I/2" square galvanized steel rod.

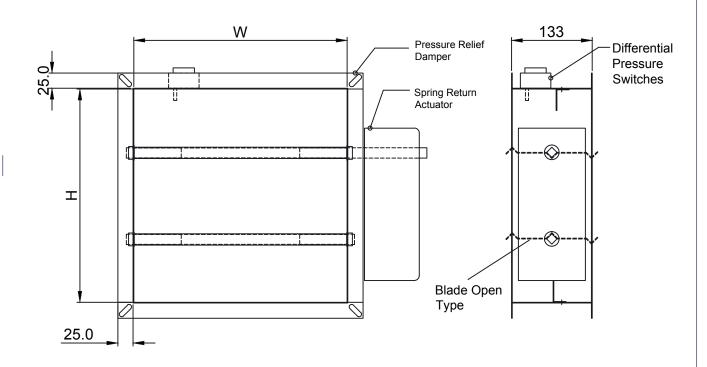
Bushing: Plastic Nylon Bushes / Brass Bushes

Size: Single section upto = I200XI200 mm

Multiple section upto = 2400 X 2400 mm



## **DIMENSIONS**







# MOTORIZED PRESSURE RELIEF DAMPER - MODEL MPRD

# DIFFERENTIAL PRESSURE SWITCH

# Differential Pressure Switches DPS Series

FOR AIR CONDITIONING / VENTILATION, USER-ADJUSTABLE

#### PRODUCT DATA AND INSTALLATION INSTRUCTIONS



#### **BENEFITS**

- Switching-point easily adjustable with scale in Pascal;
- Direction of M2OxI.5 conduit entry can be rotated in steps of I2O°:

#### **APPROVALS**

- CE approval according to low-voltage directive 2006/95/EC;
- Switch according to VDE 0630;
- EC Gas Appliance Directive 90/396/EEC according to DIN EN I854 (Nov. OI, 1997)
- ROHS 2002/95/EC

#### **TECHNICAL SPECIFICATIONS**

Max. operating pressure IO kPa

Pressure media air, non-flammable gases, and

non-aggressive gases

Pressure connections two plastic tubes, outside

diameter: 6.0 mm

Switching capacity I.5 A, (0.4) /250 Vac

**Electrical connections** AMP connectors, 6.3 x 0.8,

DIN 46244 or screw terminals

Conduit entry M20xl.5
Protection class IP 54

Mounting lugs integrated in bottom housing

(alternative: mounting angles)

Medium/ambient temp. -20...+85 °C
Storage temperature -40...+85 °C
Membrane material silicone

#### **OPERATING RANGES**

| typ∈    | adjustment      | switching    | tolerance at |  |  |
|---------|-----------------|--------------|--------------|--|--|
|         | range for upper | difference   | adjusted     |  |  |
|         | trip pressure*  | (hysteresis) | switch-point |  |  |
| DPS 200 | 20200 (Pa)      | IO (Pa)      | ±20%         |  |  |

\*The trip pressure refers to ve rtical mounting. In case of horizontal mounting (with the cover pointing upwards), the range values increase by 20 Pa.

| M  | Р | R | D | G2 | P/B |  |
|--|---|---|---|----|-----|--|
| M: MOTORIZED   |   |   |   |    |     |  |
| PRD - Pressure Reli  |   |   |   |    |     |  |
| G2 = I.2 mm GI Blade<br>G3 = I.5 mm GI Blade<br>G4 = I.7 mm GI Blade |   |   |   |    |     |  |
| P - Plastic Nylon B<br>B - Brass Bushes                              |   |   |   |    | •   |  |







# ACCESS DOORS







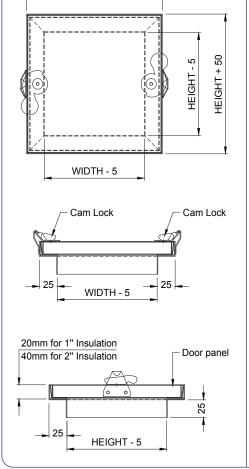
## **Description**:

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

#### Dimensions:

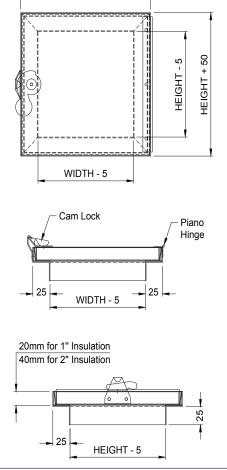
WIDTH + 50

# ACCESS DOOR WITH 2 CAM LOCKS

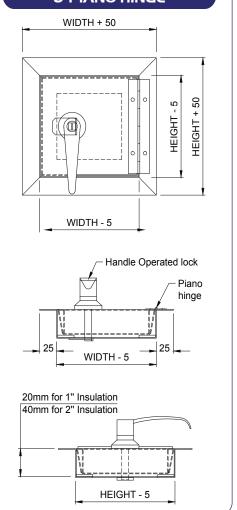


# ACCESS DOOR WITH A CAM LOCK & PIANO HINGE

WIDTH + 50



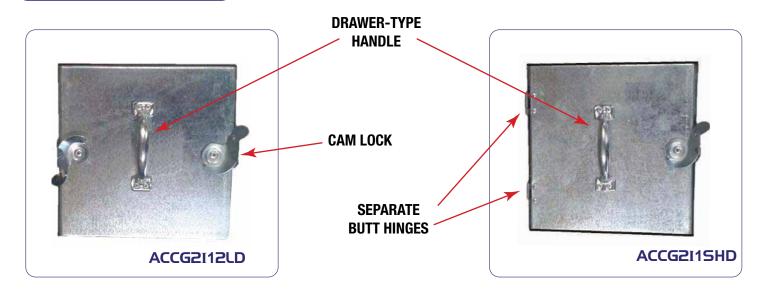
# ACCESS DOOR WITH A HANDLE OPERATED LOCK & PIANO HINGE







# OPTIONS





| Α  | С           | С        | G2                | I1     | Р | Н | L | K | W | Х | Н |
|--|-------------|----------|-------------------|--------|---|---|---|---|---|---|---|
| ACCES  | ACCESS DOOR |          |                   |        |   |   |   |   |   |   |   |
| GO: O.   | .7MM G.I.   | CONSTR   | UCTION            |        |   |   |   |   |   |   |   |
| G1: O.   | 9MM G.I.    | CONSTRI  | JCTION            |        |   |   |   |   |   |   |   |
| G2: 1.2  | MM G.I. C   | ONSTRU   | CTION (STANDARD)  |        |   |   |   |   |   |   |   |
| G3: I.5  | MM G.I. C   | ONSTRU   | CTION             |        |   |   |   |   |   |   |   |
| I1: 1"   | INSULATI    | ON THICH | (NESS (STANDARD)  | •      |   |   |   |   |   |   |   |
| I2: 2"   | INSULATI    | ON THIC  | KNESS (OPTIONAL)  |        |   |   |   |   |   |   |   |
| 2L: W  | ITH 2 CAN   | / LOCKS  | (STANDARD)        |        |   |   |   |   |   |   |   |
| 2LD: V   | NITH 2 CA   | M LOCK   | 5 & DRAWER - TYPE | HANDLE |   |   |   |   |   |   |   |
| PH: WITH PIANO HINGE AND A CAM LOCK                          |             |          |                   |        |   |   |   |   |   |   |   |
| PHD: WITH PIANO HINGE, A CAM LOCK & DRAWER - TYPE HANDLE     |             |          |                   |        |   |   |   |   |   |   |   |
| SH: WITH SEPARATE HINGES & A CAM LOCK                        |             |          |                   |        |   |   |   |   |   |   |   |
| SHD: WITH SEPARATE HINGES, A CAM LOCK & DRAWER - TYPE HANDLE |             |          |                   |        |   |   |   |   |   |   |   |
| PHLK: WITH PIANO HINGES & HANDLE OPERATED LOCK WITH A KEY    |             |          |                   |        |   |   |   |   |   |   |   |
| SHLK: WITH SEPARATE BUTT HINGES & HANDLE OPERATED LOCK / KEY |             |          |                   |        |   |   |   |   |   |   |   |
| SIZE: WIDTH X HEIGHT   |             |          |                   |        |   |   |   |   |   |   |   |



Dubai Head Office: Tel: +971 4 706 9777 Fax: +971 4 706 9787

Abu Dhabi Branch: Tel: +971 2 645 0107 Fax: +971 2 645 0167

Saudi Arabia:

Tel: +966 1 265 4551 Fax: +966 1 265 4550

Email: betai@betag.com P.O.Box 50708, Dubai United Arab Emirates

# www.betag.com









