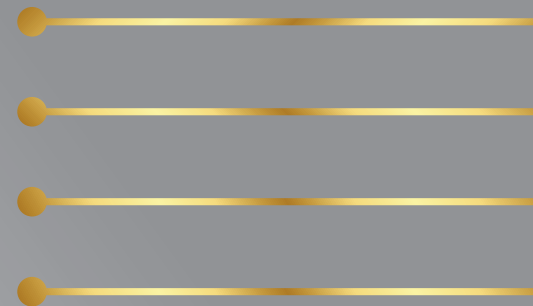




Makkah
For Air Outlets



VOLUME CONTROL DAMPER VCD

Volume Control Damper (Flanged Type) VCDF

Product Description

- Volume control damper is made of single or multi blades.
- Blades edge seal can be fitted for low leakage requirements.
- Hand locking quadrant is provided for manual operation.
- Extended shaft and motor base is provided for motorized operation.
- The blades are mounted on nylon bearing and operated by external linkage.
- Opposed blade action on request.



VCDF -WITH HAND QUADRANT

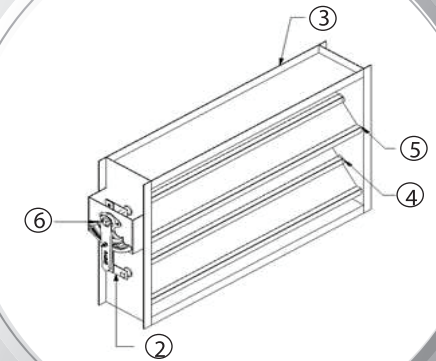


VCDFM -WITH ACTUATOR

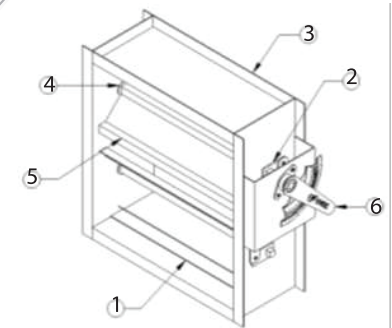
Standard Construction

- Frame :** Flanged Steel Chanel 6"× 1"× 16 gauge galvanized.
Other sizes are available on request.
- Blade :** 3 V 16 gauge galvanized steel (Reinforced with 3 longitudinal "structurally designed vees")
- Bushing :** Nylon bearings
- Control shaft :** 1/2" × 1/2" square steel spindle.
- Operation :** Hand Quadrant For manual operation.
Actuator for motorized.
- Finish :** Mill galvanized.
- Minimum size :** 4"× 4"
- Maximum size :** 48"×72" as a single section.
Multiple section assembly of unlimited size, where each section operates independently. For details of multiple sections consult Makkah AlTakyef Factory

1. Landing Angle
- 2 Side Linkage.
- 3.Casing
4. Bushing
5. Blade
6. Spindle
7. Quadrant



Parallel Blades



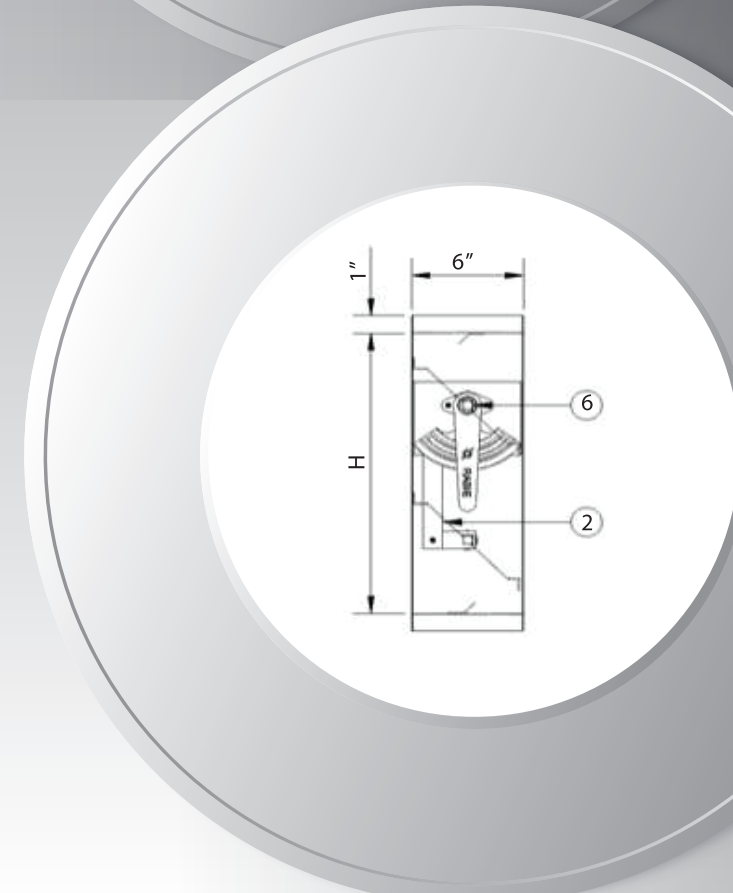
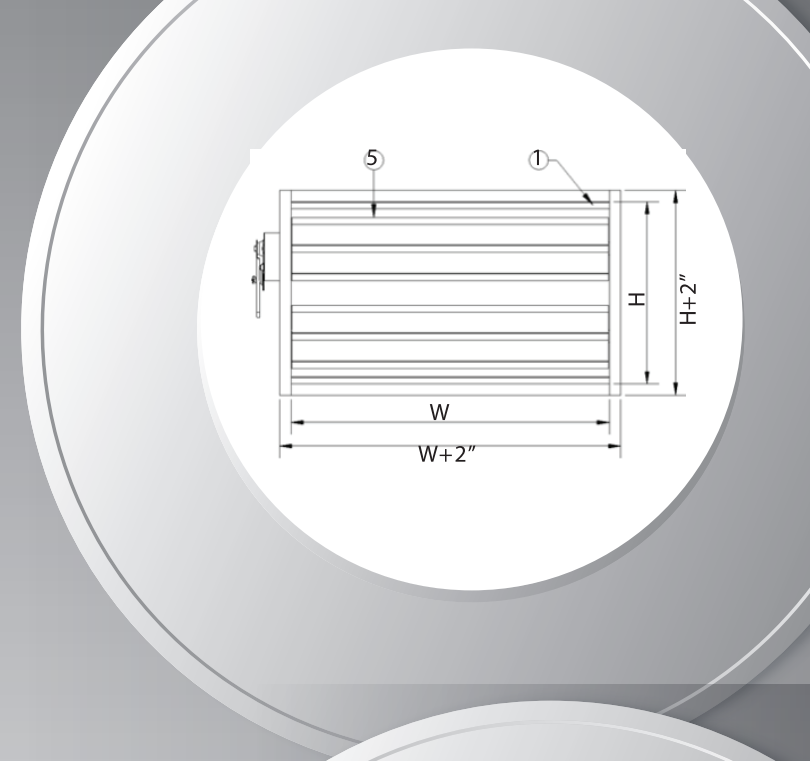
Opposed Blades

Dimensions

Parallel Blades

Standard sizes

| W in inches | H in inches | Number of Blades |
|-------------|-------------|------------------|
| 4 | 4 | 1 |
| 6 | 6 | 1 |
| 8 | 8 | 1 |
| 10 | 10 | 1 |
| 12 | 12 | 2 |
| 14 | 14 | 2 |
| 16 | 16 | 2 |
| 18 | 18 | 2 |
| 20 | 20 | 3 |
| 22 | 24 | 3 |
| 24 | 28 | 4 |
| 26 | 32 | 5 |
| 28 | 36 | 5 |
| 30 | 40 | 6 |
| 32 | 44 | 7 |
| 34 | 48 | 7 |
| 36 | 52 | 8 |
| 38 | 56 | 9 |
| 40 | 60 | 9 |
| 42 | 64 | 10 |
| 44 | 68 | 11 |
| 48 | 72 | 12 |

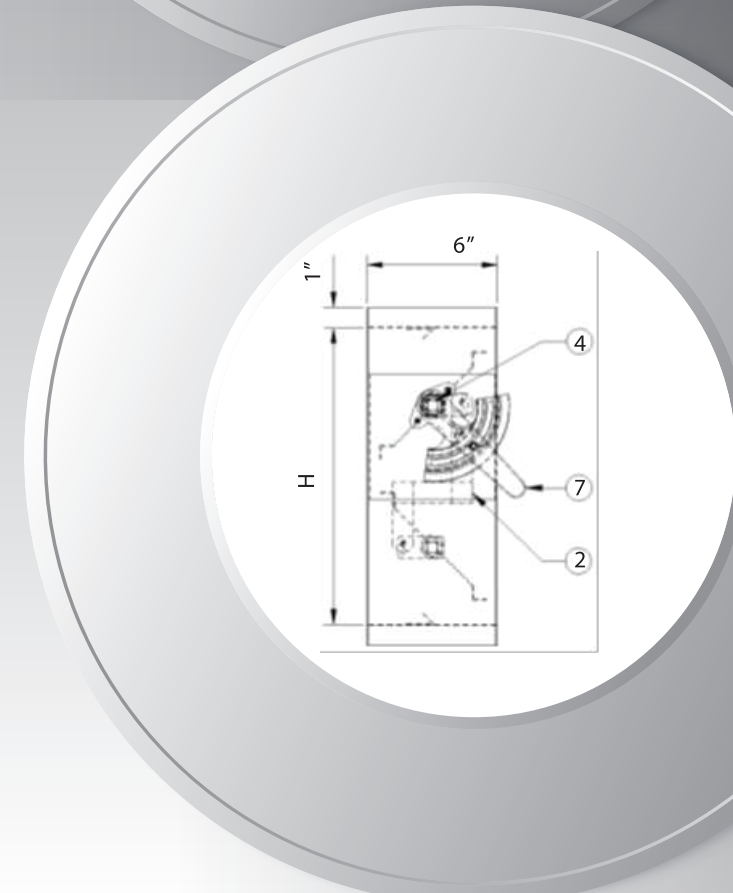
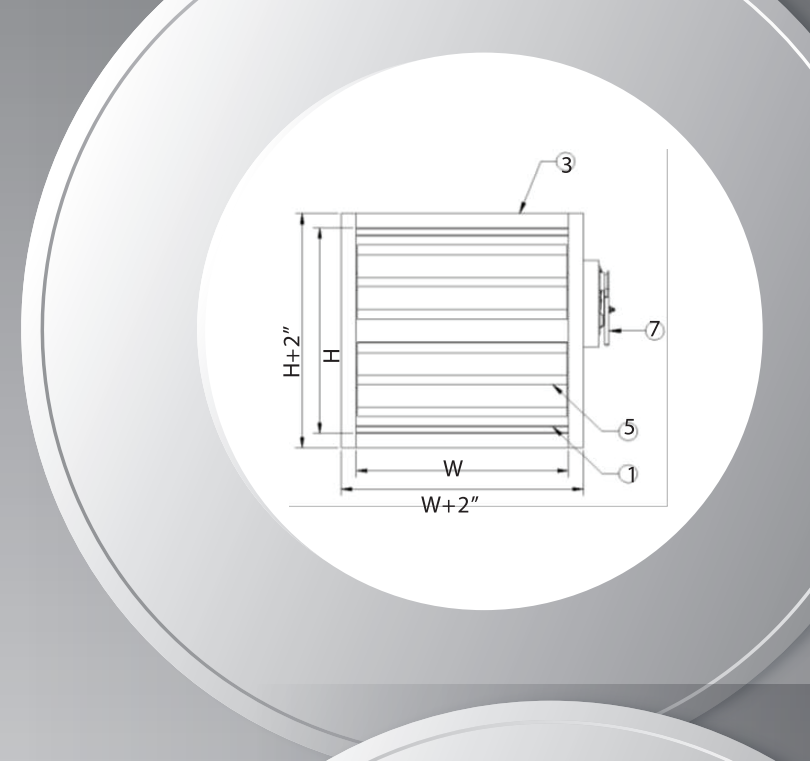


Dimensions

Opposed Blades

Standard sizes

| W in inches | H in inches | Number of Blades |
|-------------|-------------|------------------|
| 8 | 8 | 2 |
| 10 | 10 | 2 |
| 12 | 12 | 2 |
| 14 | 14 | 2 |
| 16 | 16 | 2 |
| 18 | 18 | 2 |
| 20 | 20 | 3 |
| 22 | 24 | 3 |
| 24 | 28 | 4 |
| 26 | 32 | 5 |
| 28 | 36 | 5 |
| 30 | 40 | 6 |
| 32 | 44 | 7 |
| 34 | 48 | 7 |
| 36 | 52 | 8 |
| 38 | 56 | 9 |
| 40 | 60 | 9 |
| 42 | 64 | 10 |
| 44 | 68 | 11 |
| 48 | 72 | 12 |



Volume Control Damper (Cee Shape) VCDC

Product Description

- Volume control damper is made of single or multi blades.
- Frame is of galvanized steel construction.
- Blades are of single skin inter locking galvanized steel.
- Hand locking quadrant is provided for manual operation.
- Extended shaft and motor base is provided for motorized operation.
- The blades are mounted on Nylon bearing and operated by external and internal linkage.
- Opposed blade action on request.



VCDC -WITH HAND QUADRANT



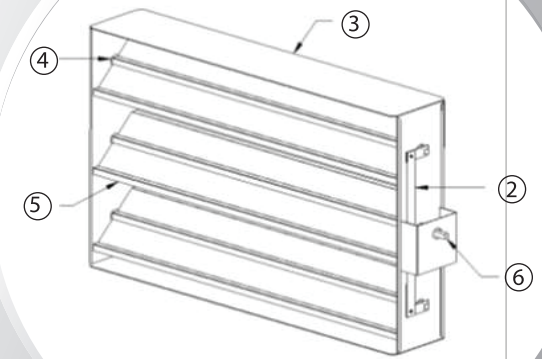
VCDCM -WITH ACTUATOR

Standard Construction

- Frame :** Flanged Steel Chanel 6"× 1"× 16 gauge galvanized.
Other sizes are available on request.
- Blade :** 3 V 16 gauge galvanized steel (Reinforced with 3longitudinal "structurally designed vees"
- Bushing :** Nylon bearings
- Control shaft :** 1/2" × 1/2" square steel spindle.
- Operation :** Hand Quadrant For manual operation.
Actuator for motorized.
- Finish :** Mill galvanized.
- Minimum size :** 4"× 4"
- Maximum size:** 48"×72" as a single section.
Multiple section assembly of unlimited size, where each section operates independently. For details of multiple sections consult Makkah Al Takyeef Factory

1. Landing Angle
- 2 Side Linkage.
- 3.Casing
4. Bushing
5. Blade
6. Spindle

Parallel Blades

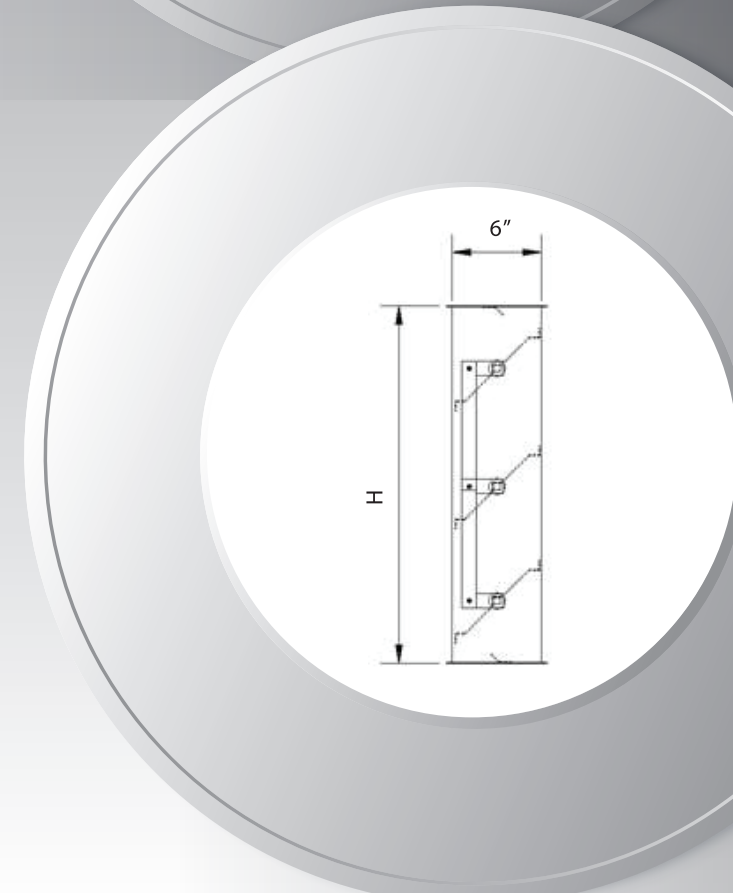
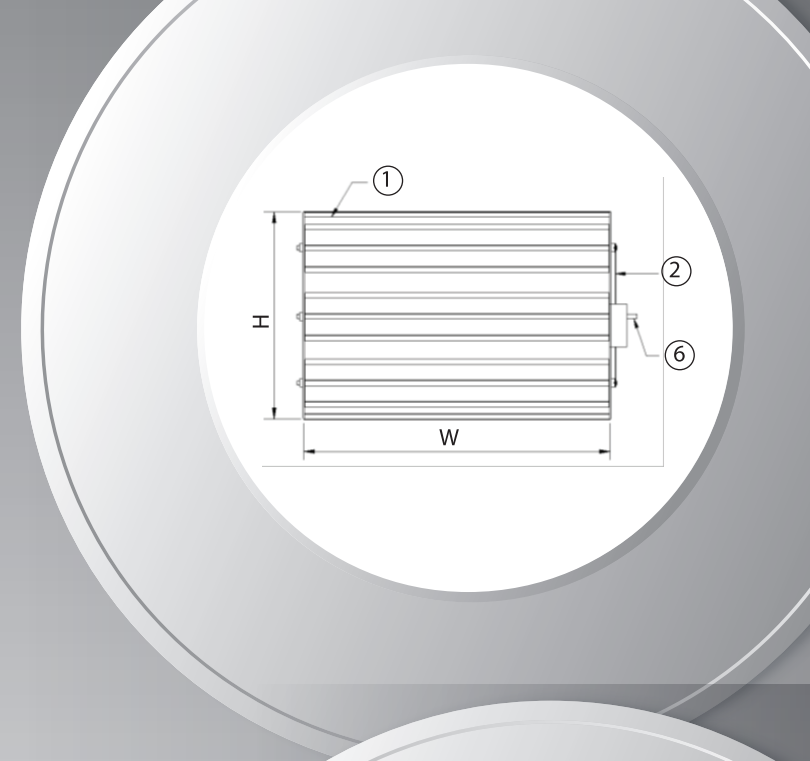


Dimensions

Parallel Blades

Standard sizes

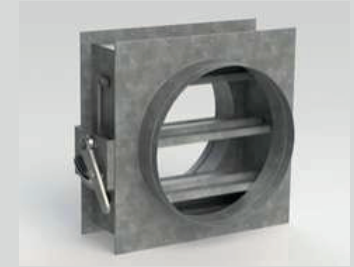
| W in inches | H in inches | Number of Blades |
|-------------|-------------|------------------|
| 4 | 4 | 1 |
| 6 | 6 | 1 |
| 8 | 8 | 1 |
| 10 | 10 | 1 |
| 12 | 12 | 2 |
| 14 | 14 | 2 |
| 16 | 16 | 2 |
| 18 | 18 | 2 |
| 20 | 20 | 3 |
| 22 | 24 | 3 |
| 24 | 28 | 4 |
| 26 | 32 | 5 |
| 28 | 36 | 5 |
| 30 | 40 | 6 |
| 32 | 44 | 7 |
| 34 | 48 | 7 |
| 36 | 52 | 8 |
| 38 | 56 | 9 |
| 40 | 60 | 9 |
| 42 | 64 | 10 |
| 44 | 68 | 11 |
| 48 | 72 | 12 |



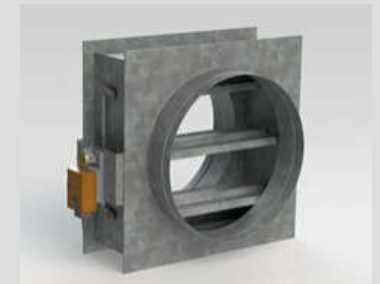
Volume Control Damper (with Circular Spigot Transmission) VCDS

Product Description

- Volume control damper is made of single or multi blades.
- Frame is of galvanized steel, constructed with two circular spigot duct connections.
- Blades are of single skin inter locking galvanized steel.
- Hand locking quadrant is provided for manual operation.
- Extended shaft and motor base is provided for motorized operation.
- The blades are mounted on bearing and operated by external and internal linkage.
- Opposed blade action on request.



VCDS -WITH HAND QUADRANT



VCDSM -WITH ACTUATOR

Standard Construction

| | |
|-----------------|--|
| Frame : | Steel Chanel " 6 /12"× 16 gauge galvanized. Other sizes are available on request. |
| Blade : | 3 V 16 gauge galvanized steel (Reinforced with 3longitu- dinal "structurally designed vees" |
| Bushing : | Nylon bearings |
| Control shaft : | 1/2" × 1/2" square steel spindle. |
| Operation : | Hand Quadrant For manual operation. Actuator for motorized. |
| Finish : | Mill galvanized. |
| Minimum size : | 4"x 4" |
| Maximum size : | 48"x72" as a single section. Multiple section assembly of unlimited size, where each section operates independently. For details of multiple sections consult Makkah Al Takyeef Factory |

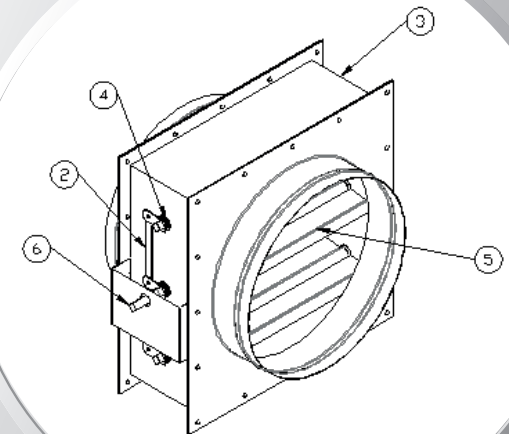
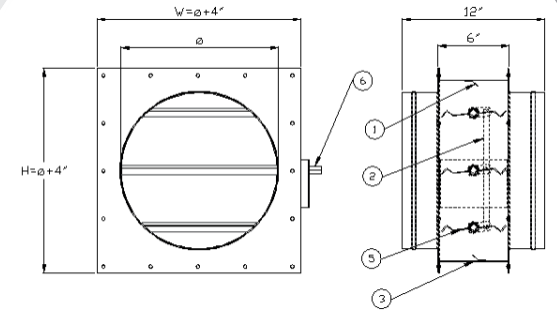
Dimensions

- 1. Landing Angle
- 2 Side Linkage.
- 3.Casing
- 4. Bushing
- 5. Blade
- 6. Spindle

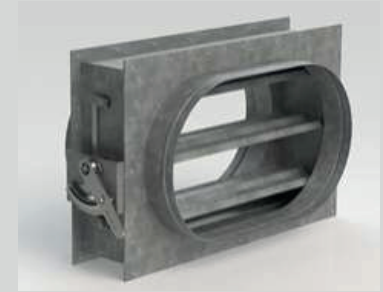
Parallel Blades

Standard sizes

| W in inches | H in inches | Number of Blades |
|-------------|-------------|------------------|
| 4 | 4 | 1 |
| 6 | 6 | 1 |
| 8 | 8 | 1 |
| 10 | 10 | 1 |
| 12 | 12 | 2 |
| 14 | 14 | 2 |
| 16 | 16 | 2 |
| 18 | 18 | 2 |
| 20 | 20 | 3 |
| 22 | 24 | 3 |
| 24 | 28 | 4 |
| 26 | 32 | 5 |
| 28 | 36 | 5 |
| 30 | 40 | 6 |
| 32 | 44 | 7 |
| 34 | 48 | 7 |
| 36 | 52 | 8 |
| 38 | 56 | 9 |
| 40 | 60 | 9 |
| 42 | 64 | 10 |
| 44 | 68 | 11 |
| 48 | 72 | 12 |



Volume Control Damper (with Oval Transmission) VCDO



VCDO -WITH HAND QUADRANT

Product Description

- Volume control damper is made of single or multi blades.
- Frame is of galvanized steel casing, constructed with two oval spigot duct connections.
- Blades are of single skin inter locking galvanized steel.
- Hand locking quadrant is provided for manual operation.
- Extended shaft and motor base is provided for motorized operation.
- The blades are mounted on bearing and operated by external and internal linkage.
- Opposed blade action on request.



VCDOM-WITH ACTUATOR

Standard Construction

- Frame :** Steel Chanel " 6 /12"× 16 gauge galvanized.
Other sizes are available on request.
- Blade :** 3 V 16 gauge galvanized steel (Reinforced with 3longitudinal "structurally designed vees"
- Bushing :** Nylon bearings
- Control shaft :** 1/2" × 1/2" square steel spindle.
- Operation :** Hand Quadrant For manual operation.
Actuator for motorized.
- Finish :** Mill galvanized.
- Minimum size :** 4"× 4"
- Maximum size :** 48"×72" as a single section.
Multiple section assembly of unlimited size, where each section operates independently. For details of multiple sections consult Makkah Al Takyeef Factory

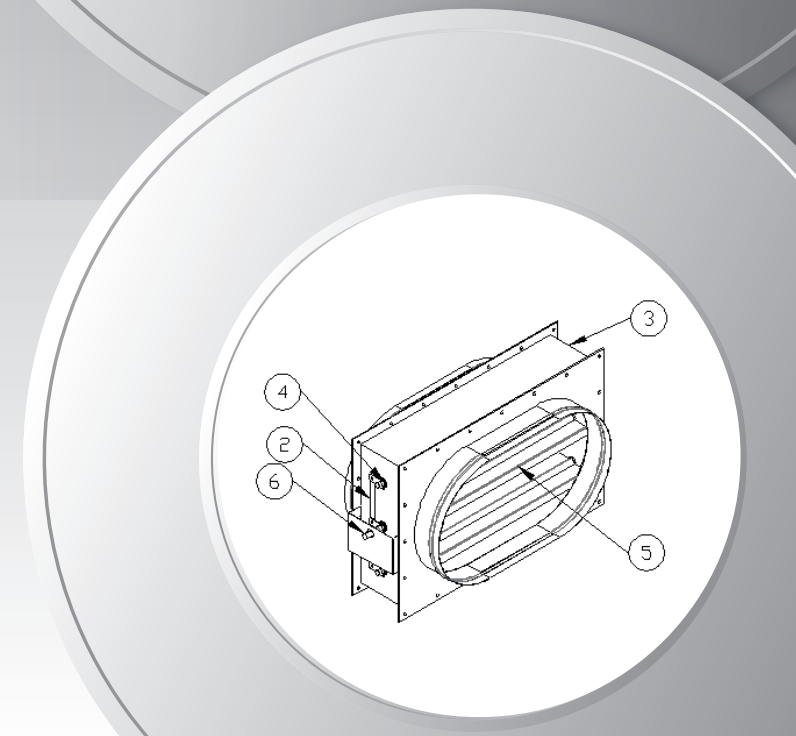
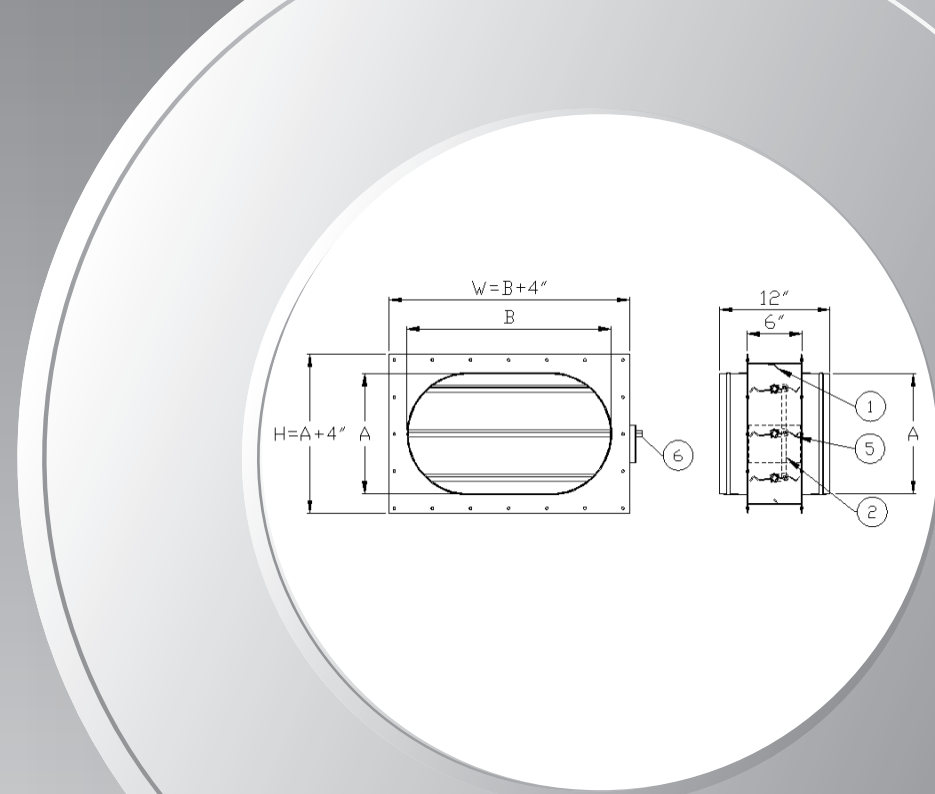
Dimensions

- 1. Landing Angle
- 2 Side Linkage.
- 3.Casing
- 4. Bushing
- 5. Blade
- 6. Spindle

Standard sizes

Parallel Blades

| W in inches | H in inches | Number of Blades |
|-------------|-------------|------------------|
| 4 | 4 | 1 |
| 6 | 6 | 1 |
| 8 | 8 | 1 |
| 10 | 10 | 1 |
| 12 | 12 | 2 |
| 14 | 14 | 2 |
| 16 | 16 | 2 |
| 18 | 18 | 2 |
| 20 | 20 | 3 |
| 22 | 24 | 3 |
| 24 | 28 | 4 |
| 26 | 32 | 5 |
| 28 | 36 | 5 |
| 30 | 40 | 6 |
| 32 | 44 | 7 |
| 34 | 48 | 7 |
| 36 | 52 | 8 |
| 38 | 56 | 9 |
| 40 | 60 | 9 |
| 42 | 64 | 10 |
| 44 | 68 | 11 |
| 48 | 72 | 12 |



Volume Control Damper (Round Type) VCDR

Product Description

Dampers can be manual with locking quadrant or motorized with different sizes of actuator.v

Standard Construction

| | |
|----------------|-------------------------------------|
| Casing: | 20 gauge galvanized Steel |
| Blade: | 20 gauge galvanized steel |
| Bushing: | Brass bearings |
| Control shaft: | 1/2" round bar steel. |
| Hand Quadrant: | For manual operation. |
| Finish: | Mill galvanized. |
| Minimum size: | ø4" in single blade construction. |
| Maximum size: | ø24" in single blade construction.v |



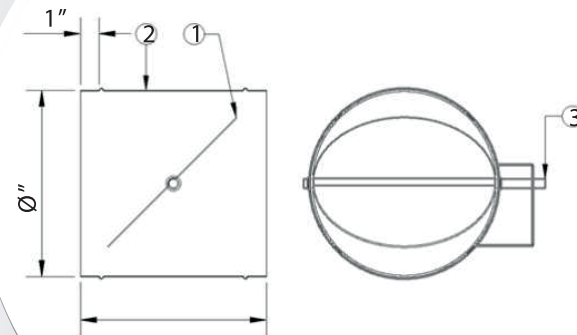
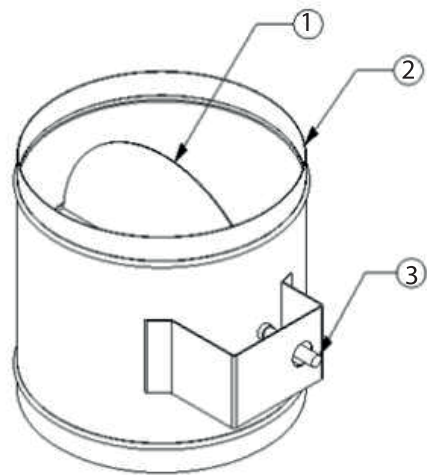
VCDR - WITH HAND QUADRANT



VCDRM - WITH ACTUATOR

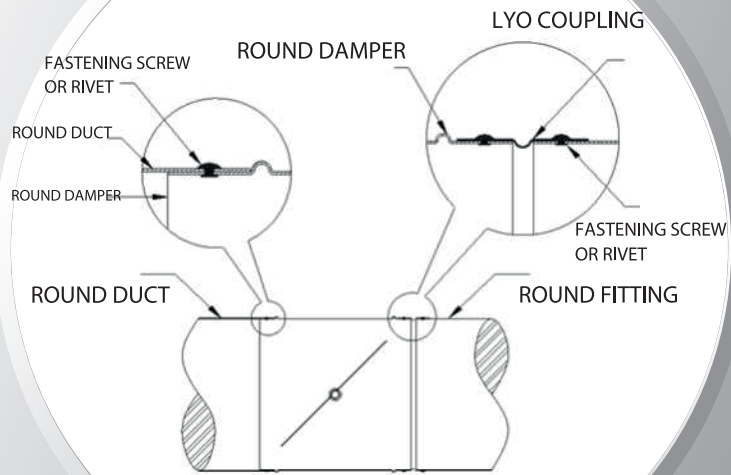
Dimensions

- 1. Blade
- 2. Casing
- 3. Drive shaft / spindle

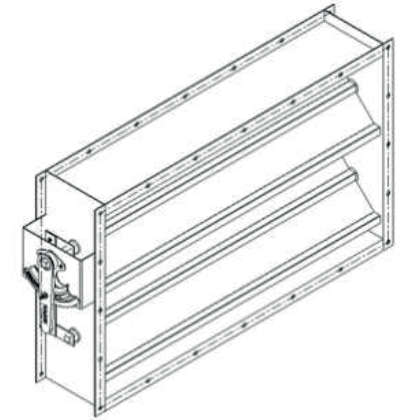


Installation

Round



Flange Drilling



Circular and Oval

