



**Shut-Off Damper  
SOD**



### DESCRIPTION:

For applications where gas leakage integrity matters, use the Gmcair Shut-Off Damper.

Available in Pneumatic Isolation, Electric Isolation and Manual control configurations, the Shut-Off Damper is designed for operation to ensure leakage is kept to a minimum without compromising on ATEX third party approval.

As with many of our products, the SOD is a highly versatile device for use in both safe and hazardous areas. Its design is totally customisable, from simple control layouts to SIL 2 certified assemblies where reliability is critical.

### MATERIAL :

Sheet metal Frame and Blade, Brass and stainless steel bearings

### FUNCTION :

#### SOD-H

The shut-off damper is opened and closed manually, by turning a hand wheel. Turning the hand wheel approx. 30 times moves the blades into the corresponding end position. Turning the hand wheel clockwise closes the damper.

#### SOD-E

The shut-off damper is opened and closed with an electric actuator. The control input signal is provided by others. In case of a power failure the shut-off damper can be opened or closed manually by turning the hand wheel.

#### SOD-P

The shut-off damper is opened and closed with a double acting pneumatic actuator. The easiest way to generate the control input signal is electrically, using solenoid valves.

Different opening and closing times can be set using throttle valves. The running time is at least 2 seconds.

### INSTALLATION :

- Screw



STANDARD SIZES (mm):

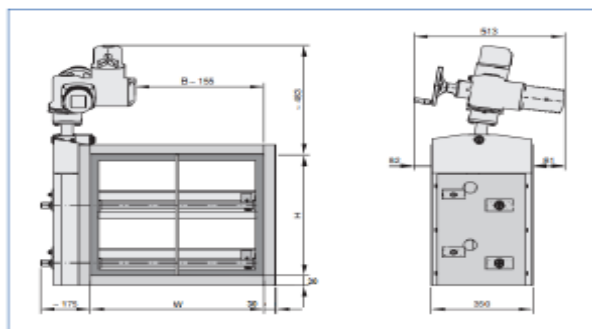
AVAILABLE SIZES (mm) - Always width x height				
HEIGHT	WIDHT			
	400	600	800	1000
270	X	X	X	X
510	X	X	X	X
755	X	X	X	X
1000	X	X	X	X

DRAWING

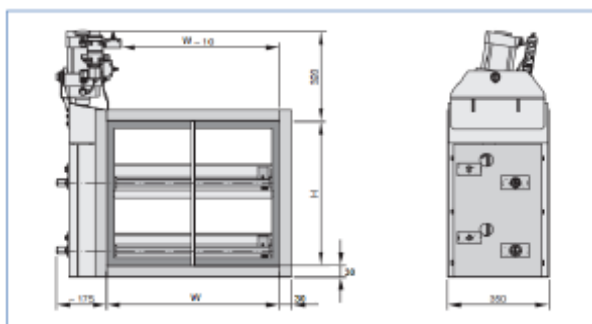
Type SOD-H



Type SOD-E

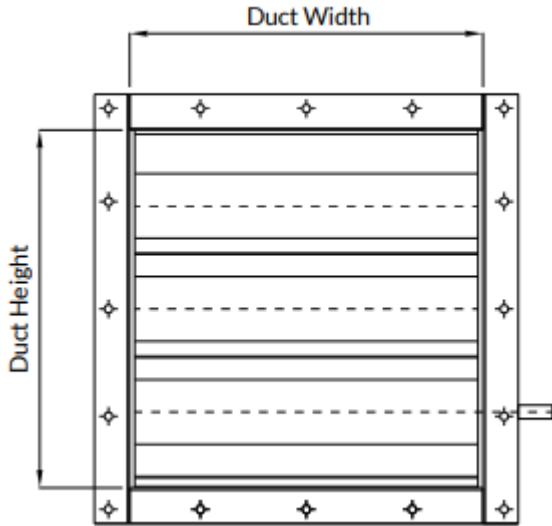


Type SOD-H





SELECTION TABLES



Nominal sizes	400 x 270 to 1000 x 1000 mm
Maximum differential pressure	5000 Pa, in closing direction
Closed blade air leakage	< 0.0028 (l/s)/m <sup>2</sup> or 0.01 (m <sup>3</sup> /h)/m <sup>2</sup>
Operating temperature	80 °C

Free Area

H	B [mm]			
	400	600	800	1000
mm	m <sup>2</sup>			
270	0.06	0.096	0.13	0.16
510	0.12	0.19	0.26	0.33
755	0.18	0.29	0.39	0.5
1000	0.24	0.38	0.52	0.66

Differential Pressure

v	$\Delta p_{st}$
m/s	Pa
2	4
4	10
6	30
8	60
10	70



## CONTROLLER

### HAND WHEEL



### ELECTRIC ACTUATOR



### PNEUMATIC ACTUATOR





### Installation & Assembly

Larger dampers can be constructed by joining multiple assemblies together. An approved fire-resistant sealant should be inserted between the damper and duct to ensure a good seal.

Each section shall have a drive spindle which can be linked together externally or driven independently

