

Modulating Control Damper (MCD)

High quality engineering meets cost effectiveness with the Wozair Modulating Control Damper (MCD).



Modulating Control Damper

Designed to meet the requirements of the Offshore Oil and Gas and Nuclear industry, the Modulating Control Damper is used to control airflow through ventilation systems. If isolation is required, refer to dampers in the Wozair range that offer isolation.

The blade linkage is operated by a pneumatic or electric actuator. The supply to the actuator is controlled by a positioner unit which is provided with an electric (4-20 mA, 0-10 V dc), or pneumatic (3-15 psi) control signal.

The positioner unit can be supplied to provide a feedback signal at the HVAC control panel or management system. Electrical units can be supplied suitable for safe or hazardous areas. This system varies the airflow through the damper by adjusting the position of the blades in relation to an external parameter such as air temperature or room pressurisation. Microswitches for remote indication of blades fully open and fully closed positions can also be installed. The actuator, positioner unit and microswitches can be housed within an enclosure mounted on one side of the damper casing.

Technical Information

Minimum Size

150W x 150H mm

Maximum Size

2500W x 21000H (Bulkhead), 2500W x 1000H mm (Deck)

Dampers for larger airways can be assembled from a number of single units. Contact Wozair to discuss your requirements.

Blade Leakage

Air tight at 6,000 Pa differential pressure. Water tight at 50,000 Pa differential pressure (to 800 x 800 mm).

Case Leakage

Maximum 1% of the enclosed volume per hour with air at 10,000 Pa differential pressure. Water tight at 50,000 Pa differential pressure.

Materials of Construction

Casing and Flanges:

Materials

Stainless Steel 304L/316L (1.4307/1.4404/1.4432)
Galvanised Carbon Steel
Galvanised Sheet Steel

Thickness

Minimum 3.0 mm thick (W or H > 500 mm, 5.0 mm minimum)
Fully welded

Flange drilling detail to ES (Sellafeld) standard
Custom flanges as option

Blades:

Materials

Stainless Steel 304L/316L (1.4307/1.4404)
Formed from 3 mm thick Stainless Steel with Neoprene or EPDM sealing gasket (subject to environment)

Shafts:

Ø25.4 mm (1") continuous solid shaft in Stainless Steel 316/316L (1.4401/1.4404)

Bearings:

Oil impregnated sintered bronze. Low temperature option to -55°C and low leakage bearing assembly option available.

Linkage:

Stainless Steel 316L (1.4404)
5.0 mm thick link bars arranged to provide opposed blade motion

Blade Gasket:

EPDM or Neoprene

Mechanical Options

The following options can be incorporated if required.

- Increased flange thickness
- Transitions; various options for fitting into circular ductwork
- Earth bosses
- Lifting lugs

Control Options

As standard the damper is manually operated. As an option it is possible to offer, subject to available torque output, operation of the damper with electric or pneumatic actuators.

The pneumatic and electric controls will be selected based on your exacting requirements.

Weights

TID Bare Shaft Damper Weight Matrix - 350D

| Kg | H (mm) | | | | | | | |
|--------|--------|-----|-----|-----|-----|-----|------|-----|
| | 350 | 450 | 550 | 650 | 750 | 850 | 1000 | |
| W (mm) | 350 | 27 | 29 | 48 | 54 | 59 | 64 | 72 |
| | 450 | 30 | 34 | 54 | 60 | 65 | 70 | 80 |
| | 550 | 50 | 54 | 60 | 68 | 72 | 77 | 87 |
| | 650 | 56 | 60 | 65 | 74 | 78 | 83 | 94 |
| | 750 | 60 | 66 | 71 | 80 | 86 | 90 | 101 |
| | 850 | 66 | 71 | 77 | 86 | 92 | 96 | 108 |
| | 1000 | 75 | 81 | 86 | 95 | 101 | 107 | 119 |

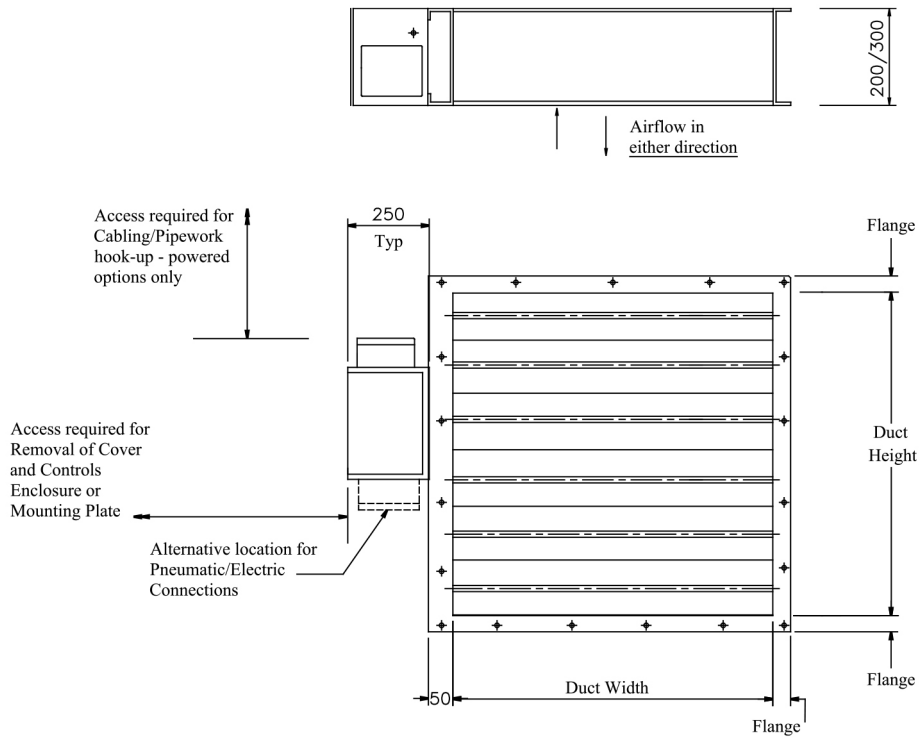
Please Note:

For Manual hand wheel and gearbox add 5kg nominally

For Electric actuator add 10 kg nominally

For Pneumatic actuator and components with controls enclosure add 15kg nominally

Dimension Drawing Example



Additional Images



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