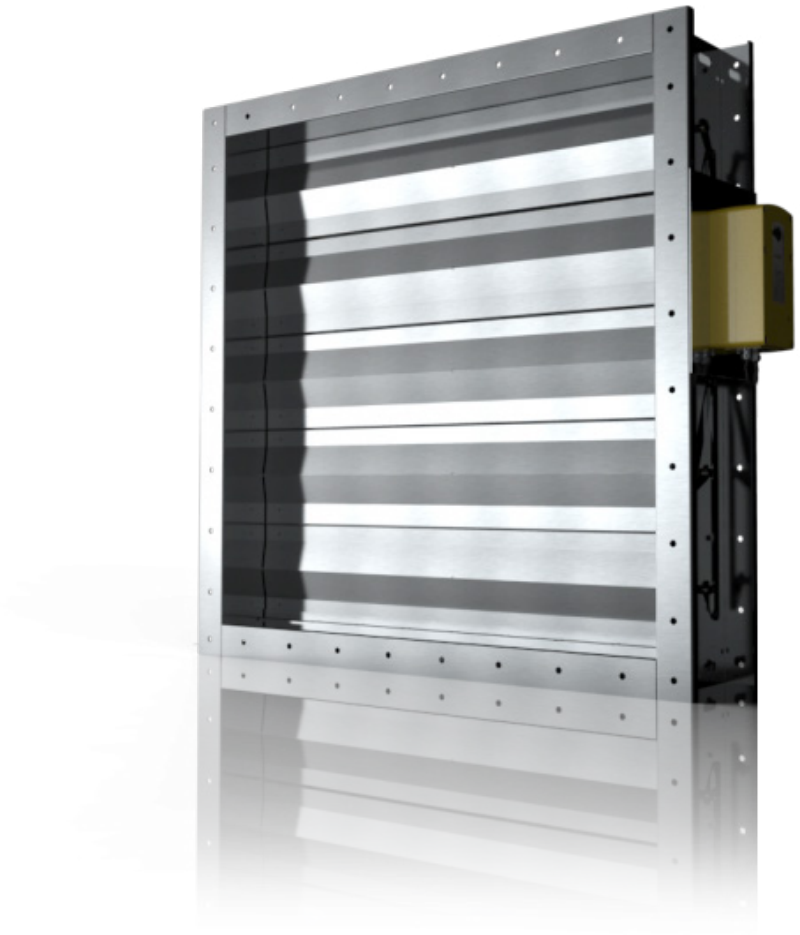
Modulating Control Damper (MCD)

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



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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 2100H (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 (Sellafield) 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

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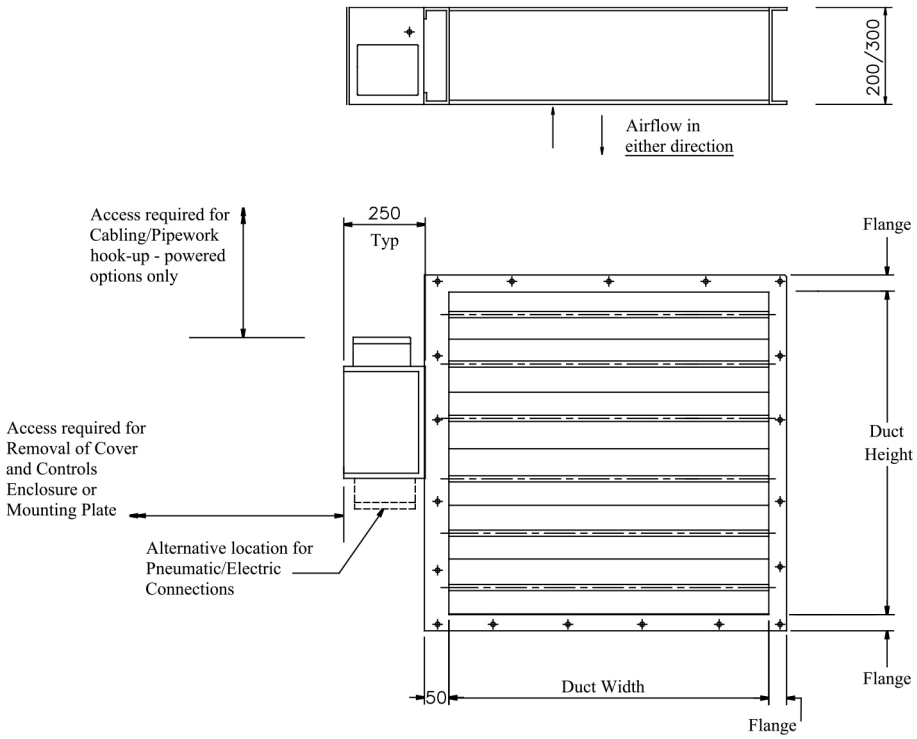
Dimension Drawing Example



Additional Images

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