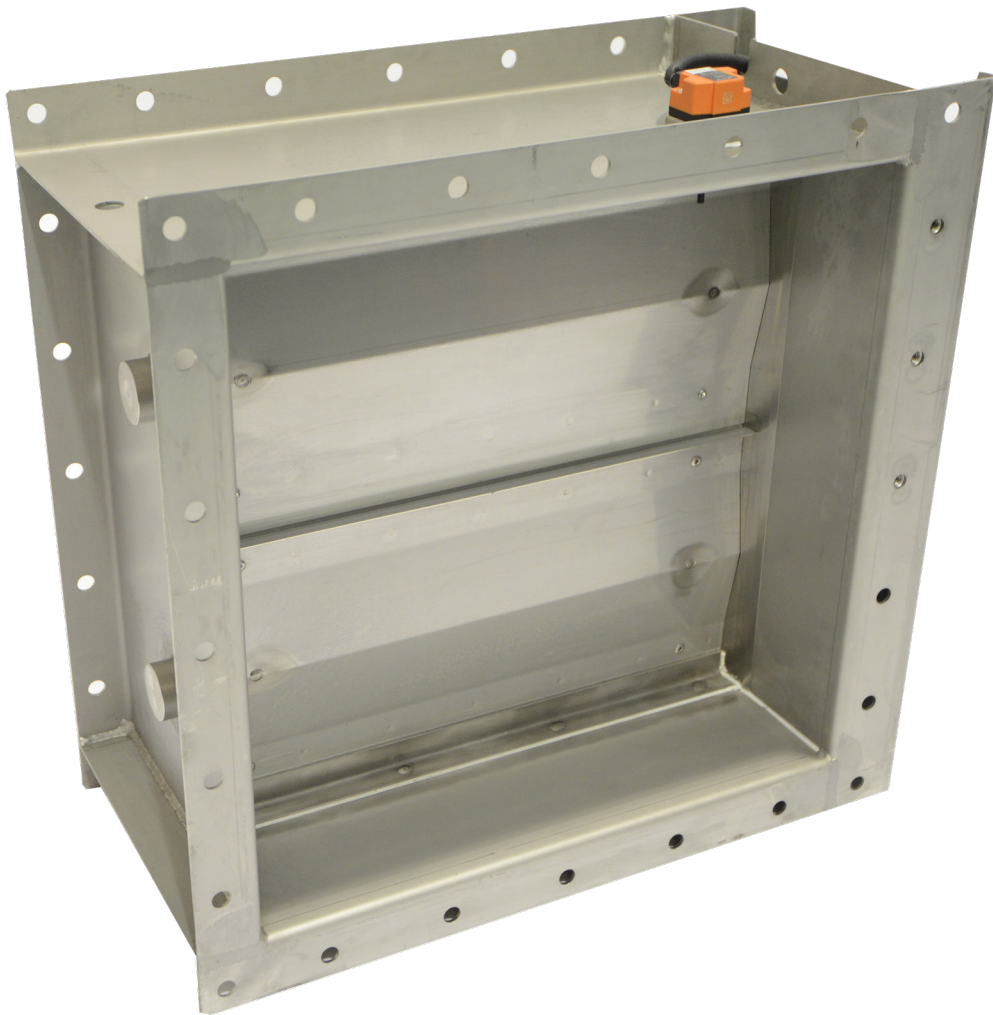


Nuclear Fire Damper (MFD)

Simplicity in design delivers long-life reliability with the Wozair MFD Fire Damper for Nuclear applications.



Nuclear Fire Damper

The stainless steel isolation seals, oil impregnated bearings and low leakage bearing assemblies prevent fire and smoke spread through ventilation systems.

Manufactured using modern CNC laser cutting and folding processes, with metal to metal blade tip and blade edge sealing arrangements to achieve exceptional performance without the aid of gasket materials.

The MFD holds a Certificate of Constancy of Performance and can be CE marked against the Construction Products Regulation.

The MFD is a tried and tested design, which has been supplied on hundreds of projects since 2003. It can be used in both safe and hazardous areas, and has a fully customisable design from simple control layouts to SIL2 compliant assemblies.

Technical Information

Minimum Size

200W x 200H x 300D mm - duct mounted wall applications

Maximum Size

1220W x 1220H x 300D mm - duct mounted wall applications

Fire Rating

E120S, EN13501-3 and EN13366-2

Leakage

Closed blade leakage to Class 2 EN1751

Case leakage to Class B EN1751, Class C available on request

Certification

CE marked in accordance with the Construction Products Regulation

Materials of Construction

Casing and Flanges:

Materials

Stainless Steel 304L/316L (1.4307/1.4404)

Thickness

3.0 mm

Fully welded

Flange drilling detail to ES (Sellafield) or customer requirements

Blades:

Materials

Stainless Steel 304L/316L (1.4307/1.4404)

Thickness

Double skin 1.5 mm thick. Each skin in same material as casing

Plug welded to solid shafts

Shafts:

Ø19.0 mm (3/4") 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

Side Seals:

Stainless Steel 316L (1.4404)

Linkage:

Stainless Steel 316L (1.4404)

5.0 mm thick link bars arranged to provide opposed blade motion

Blade Gasket:

N/A; metal to metal forms the seal

Mechanical Options

The following options can be incorporated if required.

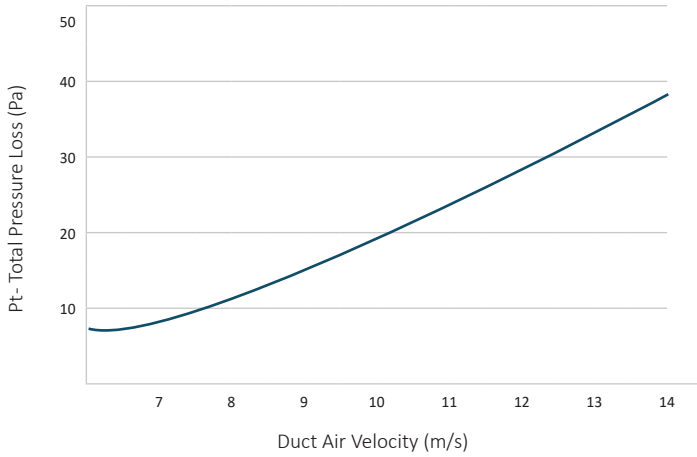
- Increased flange thickness
- Transitions; various options for fitting into circular ductwork
- Earth bosses
- Lifting lugs

Control Options

Wozair dampers are electrically operated. In a fire they will close automatically.

The damper is currently offered with Belimo actuators suitable for 230V AC power supply. Contact us to discuss your requirements and see Controls Datasheet for full details.

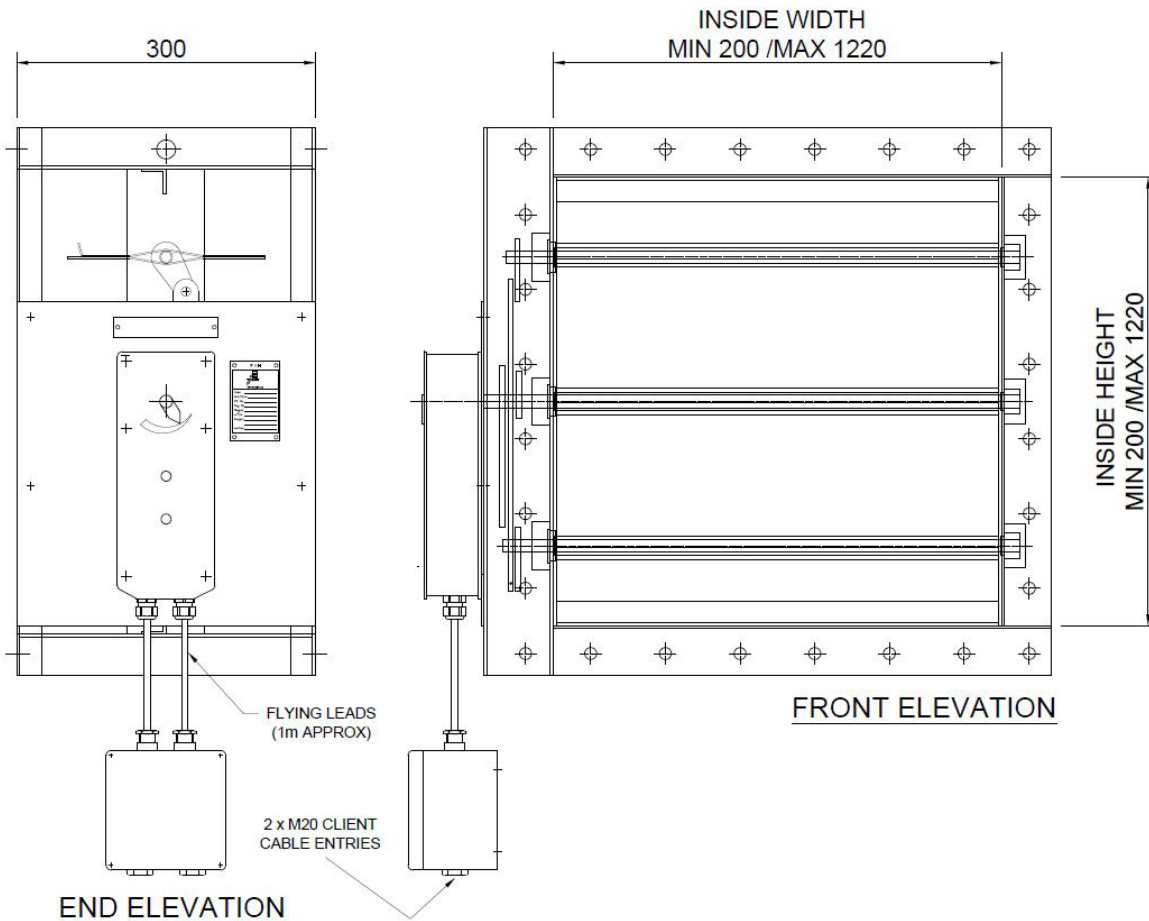
Performance



Full aerodynamic performance data is presented above and is based on conclusive tests.

Total Pressure Loss - the difference in pressure measured across the Fire Damper when the blades are fully open.

Dimension Drawing (Certified to A0 Fire Conditions)



Ordering

Type: MFD	Duct Width: 500
Duct Height: 300	Case Depth: 300
Type Wozair: Nuclear Fire Damper	
Case Material: <u>Stainless Steel</u> Low Carbon 1.4307 = 304L Low Carbon 1.4404 = 316L	
Case Thickness: 3.0 mm	
<u>Controls Options</u> E = Electric	
Nominal: Clear inside duct dimensions Duct Size: 'Quote' (Width x Height)	
Order Code Example: MFD/316L/2.0/500W/300H/200D/E	

Weights

MFD Bare Shaft Damper Weight Matrix - 300D

Kg	H (mm)							
	150	300	450	600	750	900	1050	
W (mm)	150	9	13	17	21	25	28	32
	300	13	19	24	29	33	37	41
	450	18	24	31	36	42	46	51
	600	22	30	38	44	50	55	61
	750	26	36	45	52	59	65	71
	900	31	42	52	59	67	74	80
	1050	35	47	59	67	76	83	90

Please Note:

For Belimo actuator with junction box add 3.5kg nominally

Wozair Controls Enclosure Nominal Size and Weight Estimates

Actuator Model ¹	No. Blades ³	W ¹ (mm)	H ^{1,4} (mm)	D ¹ (mm)	Weight ^{2,5,6} (kg)	Lid Weight ^{2,5,6} (kg)
PT063	1 - 2	300	400	200	7.4	3.7
PT075/85	3 - 4	300	475	200	8.4	4.2
PT100/115	4 +	300	550	200	9.4	4.7

Please Note:

- ¹ Dimensions are nominal and exclude for, toggle latches, BHU's, JB's, hand valves etc.
- ² Weights are nominal and exclude actuator, components and labels.
- ³ Subject to EN 1751 blade leakage requirement.
- ⁴ Includes +25 mm on H dimension for a manual push/pull valve.
- ⁵ Weight estimates are for 1.5 mm thick 304L or 316L Controls Enclosures.
- ⁶ Additional controls such as filter regulators and black start facilities will add to the height dimensions above.

Additional Images



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