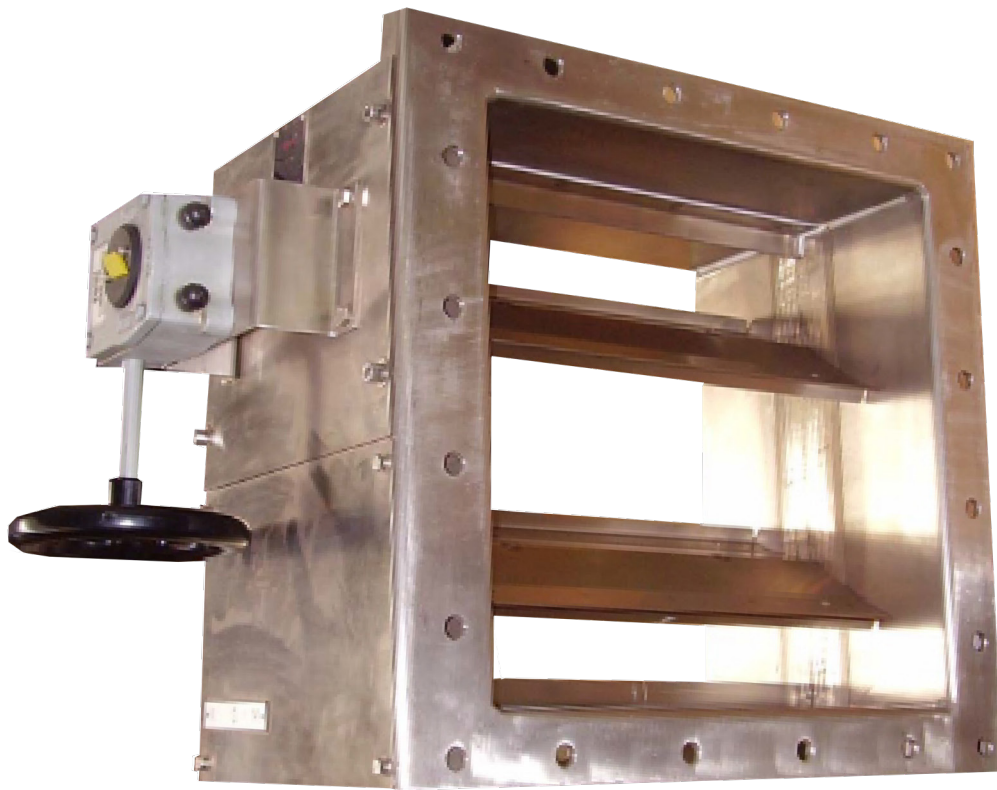


Ultra Low Leakage Isolation Damper (IDX)

Built with stainless steel closed blade isolation seals, oil impregnated bearings and a parallel blade design.



Ultra Low Leakage Isolation Damper

To supplement the existing comprehensive range of Nuclear dampers, Wozair offer an Ultra Low Leakage Isolation Damper (IDX) suited for safety critical applications where there is the need to achieve very low leakage rates while maintaining extreme ductwork pressures such as tie-in sections and venting to atmosphere.

The IDX has continually welded construction resulting in low case leakage for both manual and electric operation.

A 1m square damper was tested under stringent conditions and subjected to pressure in excess of 7.0 kPa. A blade leakage of 21.4 l/s/m² was achieved at (7000 Pa).

In order to achieve this figure a unique parallel blade design has been developed in line with the latest Nuclear industry standards.

Technical Information

Minimum Size

150W x 150H x 300D mm

Maximum Size

1000W x 1000H x 300D mm

Leakage

Blade leakage 21.4 l/s/m² @7.0 kPa and 4.5 l/s/m² @2.0 kPa

Materials of Construction

Casing and Flanges:

Materials

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

Thickness

3.0 or 5.0 mm thick
Fully welded

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

Blades:

Materials

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

Thickness

Double skin from minimum 1.5 mm thick each skin
Plug welded to solid shafts

Shafts:

Ø19 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.

There is a sprung Stainless Steel seal trapped between the blade skins.

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 can be operated manually or with electric or pneumatic actuators. The pneumatic and electric controls will be selected based on your exacting requirements.

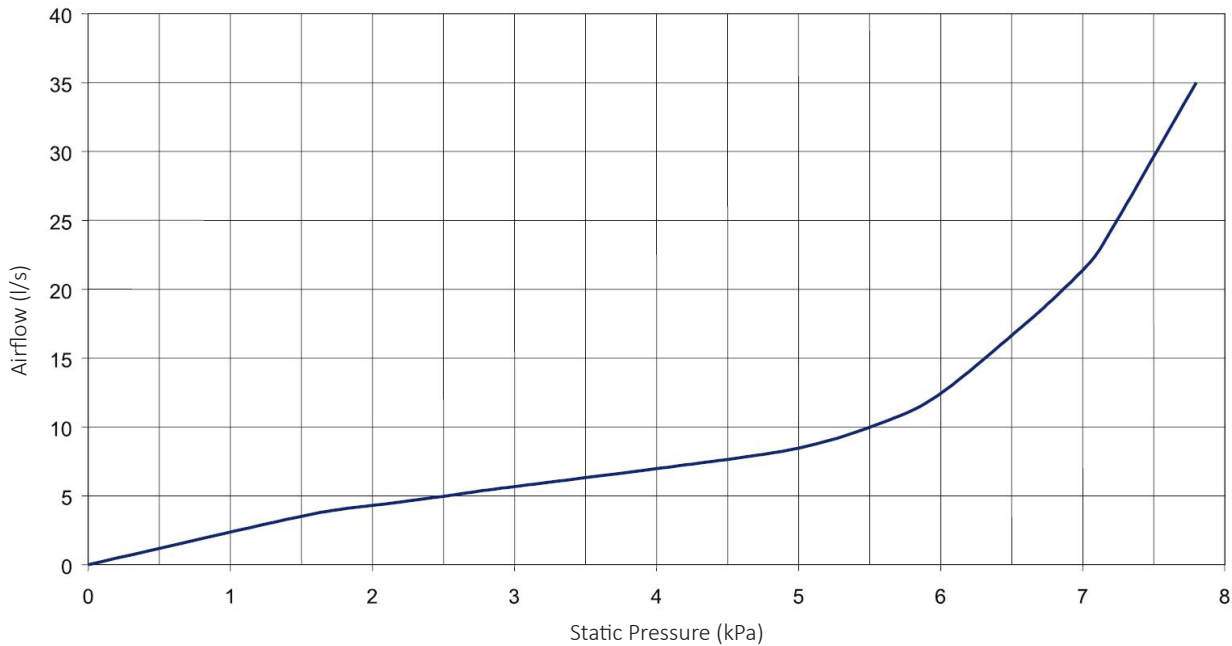
Dampers can be designed to close, open, or stay put on loss of power when fitted with an electric or pneumatic actuator. The four in-house actuators manufacturers options are Petz, Schischek, Belimo and Powertork.

The actuator will be selected following your technical needs:

- Electric or pneumatic actuation system
- Fail open, fail close or fail stay put
- Requested closing time (1, 2 or 3 seconds closing time or longer)
- ATEX Zone 1, 21 (II 2GD) and 2, 22 (II 3GD) or non hazardous area, IECEX
- Design temperature (from -60°C to + 70°C)
- IP level
- Environment (High corrosion resistance)

Blade Leakage Graph

IDX Blade Leakage (m²)



Weights

IDX Bare Shaft Damper Weight Matrix - 300D

Kg	H (mm)							
	350	450	550	650	750	850	1000	
W (mm)	350	27	31	35	39	43	47	51
	450	31	36	40	45	50	54	58
	550	36	41	46	51	56	61	66
	650	40	46	51	58	63	68	73
	750	45	51	57	64	70	75	80
	850	49	56	63	70	76	82	87
	1000	56	64	71	79	86	93	98

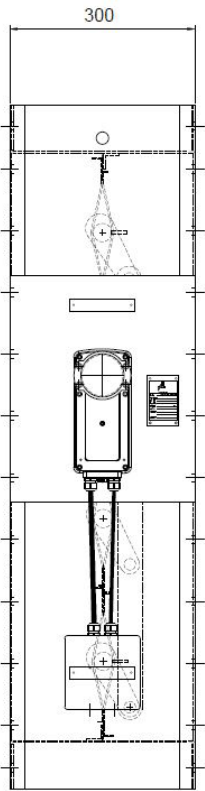
Please Note:

For Manual handwheel and gearbox add 5kg nominally
 For Belimo actuator with junction box add 3.5kg nominally
 For Petz or Schischek actuator with junction box add 5kg nominally
 For Pneumatic actuator and components with controls enclosure add 15kg nominally
 Control enclosure as an option

Ordering

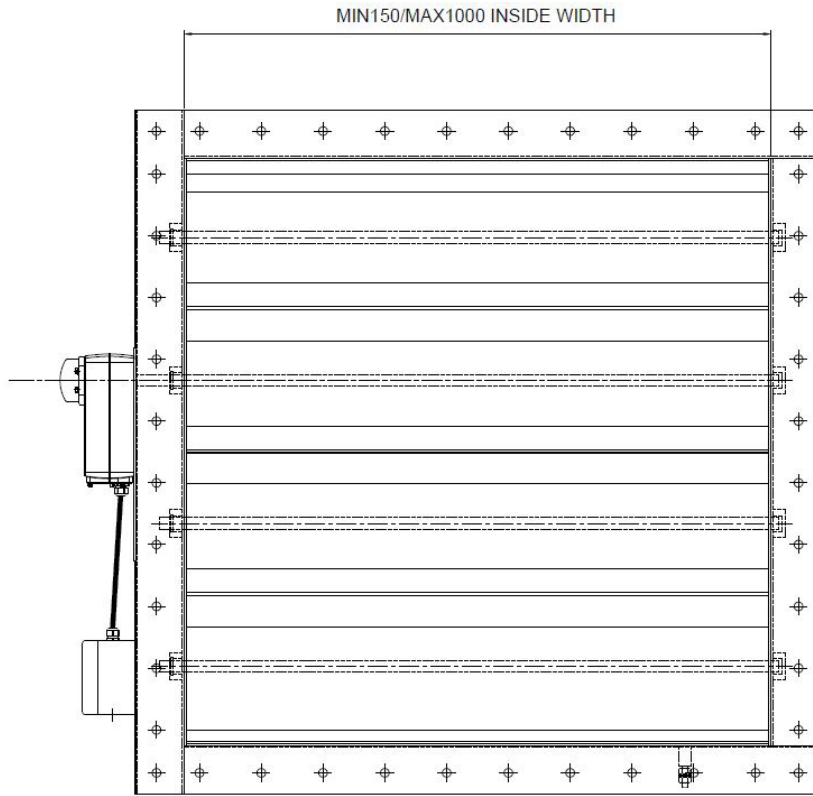
Type: IDX	Duct Width: 1000
Duct Height: 1000	Case Depth: 300
Type Wozair: Ultra Low Leakage Isolation Damper	
Case Material:	
<u>Stainless Steel</u>	
Low Carbon	1.4307 = 304L
Low Carbon	1.4404 = 316L
<u>Mild Steel Sheet</u>	
Pre-Galvanised	FeP02 nac = GSS
Galvanised after Manufacture	= GAM
Case Thickness: 3.0 - 5.0 mm	
<u>Controls Options</u>	
P	= Pneumatic
E	= Electric
M	= Manual
Nominal: Clear inside duct dimensions	
Duct Size: 'Quote' (Width x Height)	
Order Code Example:	
IDX/316L/5.0/1000W/1000H/300D/M	

Dimension Drawing Example



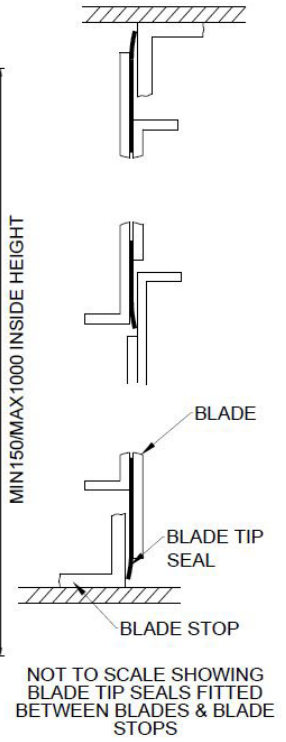
END ELEVATION

LINKAGE COVER PLATES
OMITTED FOR CLARITY



FRONT ELEVATION

NUCLEAR ELECTRIC ISOLATION DAMPER WITH BLADE TIP SEALS (EIDX)



NOT TO SCALE SHOWING
BLADE TIP SEALS FITTED
BETWEEN BLADES & BLADE
STOPS



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