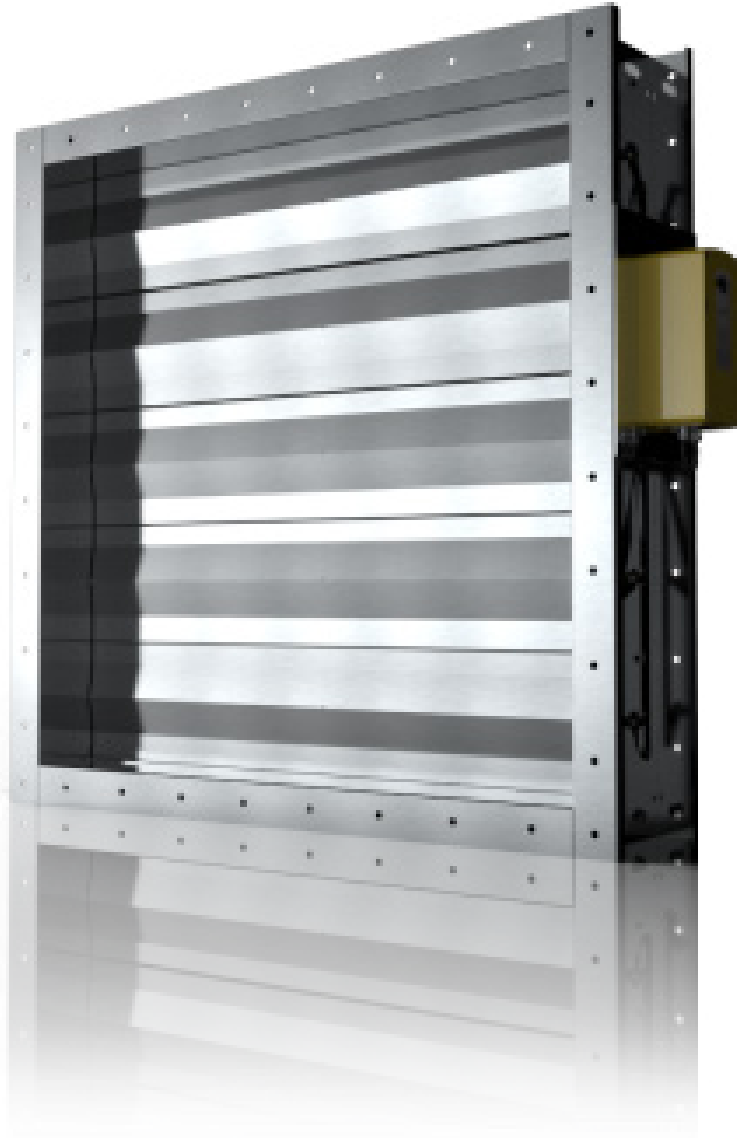


Shut Off Damper (MID/EID/PID)

High quality engineering delivers long-life reliability with the Wozair Isolation Damper. With the option for Class 3 closed blade leakage to EN1751.



Manual/Electric/Pneumatic Isolation (Shut Off) Damper

Built for ventilation systems where isolation is maintained in critical areas.

The Isolation Damper is 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 (no silicone gasket).

Airflow can be in either direction and installed in any orientation with either manual, electrical or pneumatic actuation.

Circular ductwork dampers are also available in the form of the BID and can be supplied either as single blade butterfly type up to 400mm diameter.

Technical Information

Minimum Size

150W x 150H x 300D mm

Maximum Size

2500W x 2500H x 300D mm

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

Leakage

Closed blade leakage to Class 2 EN1751, Class 3 available on request
Case leakage to Class B EN1751, Class C available on request

Explosive Atmosphere

ATEX/IECEX SGS Baseefa/SGS Fimko Oy.

Reliability Assessment

Functional Safety SIL 2 CSA Sira Certificate (PID & EID only).

Materials of Construction

Casing and Flanges:

Materials

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

Carbon Steel (GAM)

Other Stainless Steel grades available on request

Thickness

Minimum 2.0 mm (at 200 mm deep) 3.0-10.0 mm thick (at 300 mm deep)

Fully welded

Flange drilling detail to ISO 15138 or ES (Sellafield) standard
Custom flanges as option

Blades:

Materials

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

Other Stainless Steel grades available on request

Plug welded to solid shafts

Thickness

Double skin from minimum 1.2 mm thick each skin in same material as casing except Stainless Steel 304L for all GAM casing options

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.

Mechanical Options

The following options can be incorporated if required.

- Increased flange thickness
- Ceramic, Stainless Steel bearings or for chemical application PTFE bearings in place of phosphor bronze oilite (as standard)
- 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)

Weights

MID / EID / PID Bare Shaft Damper Weight Matrix - 200D

Kg	H (mm)											
	150	300	450	600	750	900	1050	1200	1550	1900	2100	
W (mm)	150	9	13	17	21	25	28	32	35	50	60	66
	300	13	19	24	29	33	37	41	46	66	78	84
	450	18	24	31	36	42	46	51	56	83	96	103
	600	22	30	38	44	50	55	61	66	99	114	122
	750	26	36	45	52	59	65	71	77	116	132	140
	900	31	42	52	59	67	74	80	87	132	150	159
	1050	35	47	59	67	76	83	90	97	149	168	178
	1200	39	53	66	75	84	92	100	108	165	186	196
	1550	56	76	96	110	125	138	151	165	236	269	286
	1900	71	94	117	132	150	164	178	193	278	314	334
	2250	83	109	135	152	171	187	203	219	317	357	378
	2500	91	119	147	166	186	203	220	237	345	387	410

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: MID	Duct Width: 500
Duct Height: 200	Case Depth: 300
Type Wozair: Manual Isolation Damper Electric Isolation Damper Pneumatic 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 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: MID/316L/3.0/500W/200H/300D/P	

Weights

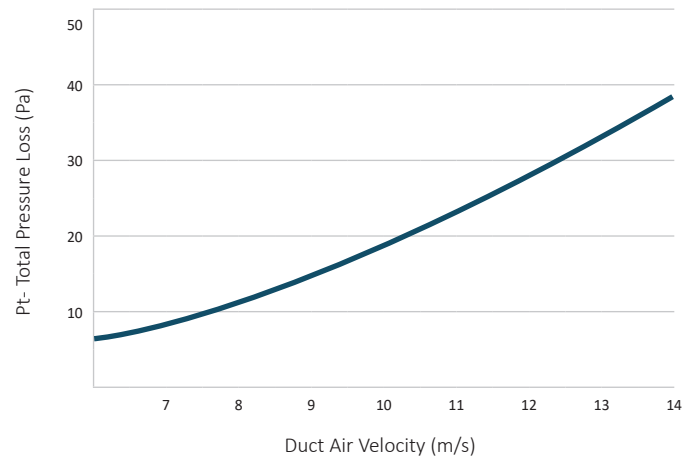
MID / EID / PID Bare Shaft Damper Weight Matrix - 300D

Kg	H (mm)											
	150	300	450	600	750	900	1050	1200	1550	1900	2100	
W (mm)	150	11	16	21	26	30	34	38	42	60	72	78
	300	16	22	28	34	40	44	49	54	78	91	98
	450	21	29	36	43	50	54	60	65	96	110	119
	600	26	35	43	52	60	65	71	77	115	130	139
	750	32	42	51	61	70	75	83	88	133	149	160
	900	37	49	59	70	79	85	94	100	151	168	180
	1050	42	55	66	78	89	95	105	111	169	187	200
	1200	47	62	74	87	99	105	116	122	188	207	221
	1550	66	87	105	125	143	154	169	181	261	292	313
	1900	82	107	127	150	170	182	200	212	308	340	364
	2250	96	124	147	172	195	207	227	240	351	386	413
	2500	105	136	160	188	212	225	247	260	382	418	447

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

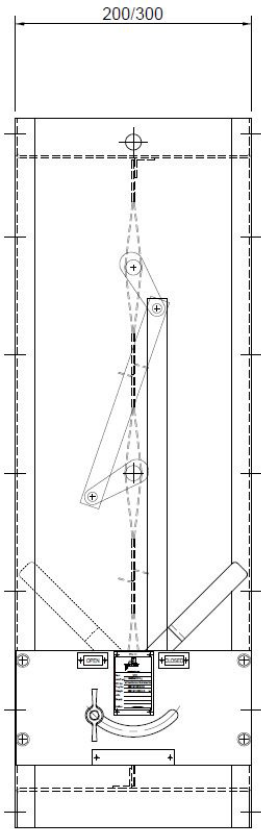
Performance



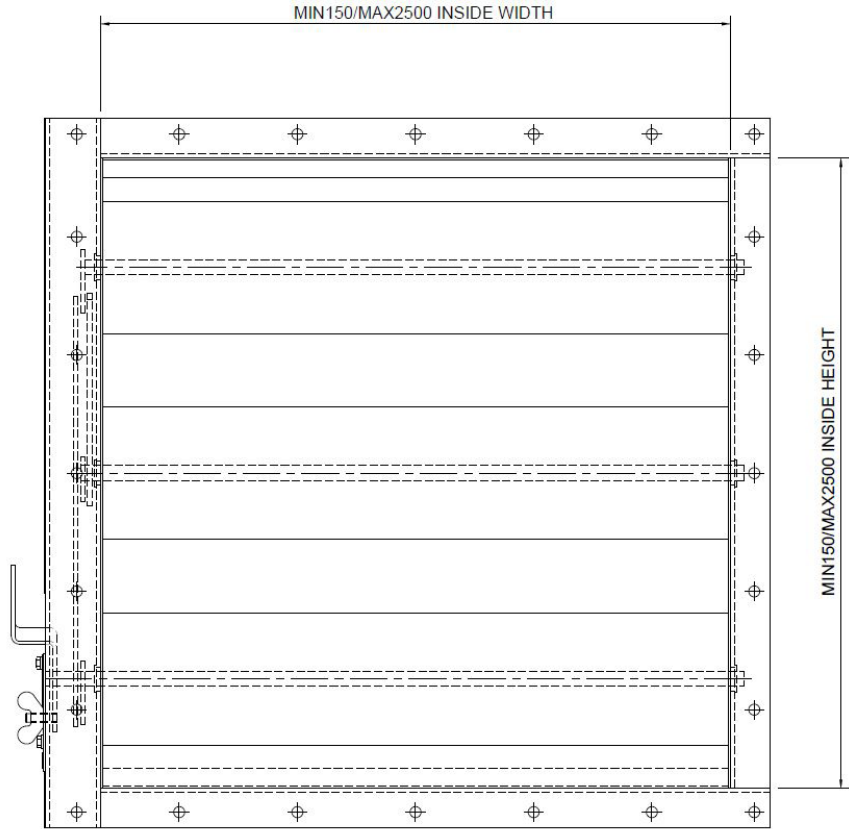
Full aerodynamic performance data is presented above and is based on conclusive tests.

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

Dimension Drawing Example



SIDE ELEVATION
LINKAGE COVER
PLATES OMITTED FOR
CLARITY



FRONT ELEVATION

Additional Images



Wozair Limited

Grosvenor Road
Gillingham Business Park
Gillingham
Kent
ME8 0SA
United Kingdom

Phone +44 (0)1634 790 336

Email hvac@wozair.com

Wozair (USA) Ltd

3601 North Loop
336 West
Conroe
Texas
77304
United States of America

Phone +1 936 521 5990

Email houstonhvac@wozair.com

Wozair (Asia) Pte Ltd

2 Venture Drive
8-23 Vision Exchange
608526
Singapore

Phone +65 6890 6506

Email hvac@wozair.com.sg

Wozair Middle East

Office 202
LOB 17 Building JAFZA
Next to Gate 4
Dubai
P.O. Box 262404
United Arab Emirates

Phone +971 (0) 4 887 0147

Email dubaihvac@wozair.com