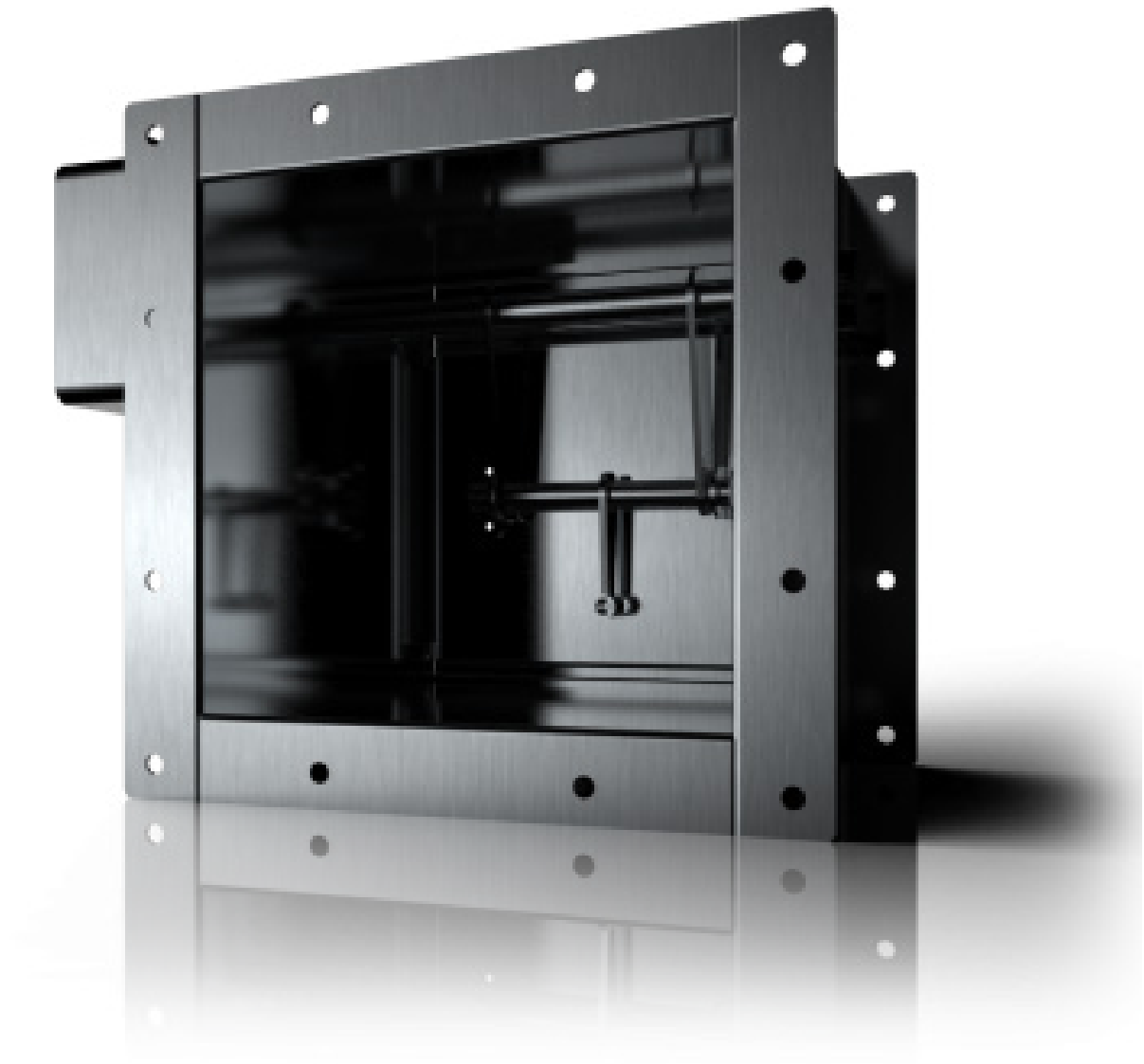
Total Isolation Damper (TID)

Simplicity in design delivers excellent sealing with the Wozair TID, offering ultra tight closed blade leakage for total isolation.



Total Isolation Damper

Designed for critical process ventilation systems where there is a requirement to prevent blade leakage at a differential air pressure up to 6,000 Pa for air and prevent water leakage at a pressure of 50,000 Pa.

For use in applications such as Nuclear facilities and Military installations. The damper is provided with local mechanical indication of open and closed positions and where required may be fitted with limit switches to provide remote indication.

The TID has a fully welded casing which is performed by coded welders. Non-destructive testing of the welds, case leakage testing and blade leakage testing are available on request.

Technical Information

Minimum Size
250W x 250H x 350D mm

Maximum Size
1000W x 1000H x 350D mm

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

Blade Leakage
Very low blade leakage 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)

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, EPDM or silicone 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 with drive end bearing housings incorporating nitrile or Viton lip seal.

Linkage:
Stainless Steel 316L (1.4404)
5.0 mm thick link bars arranged to provide parallel 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.

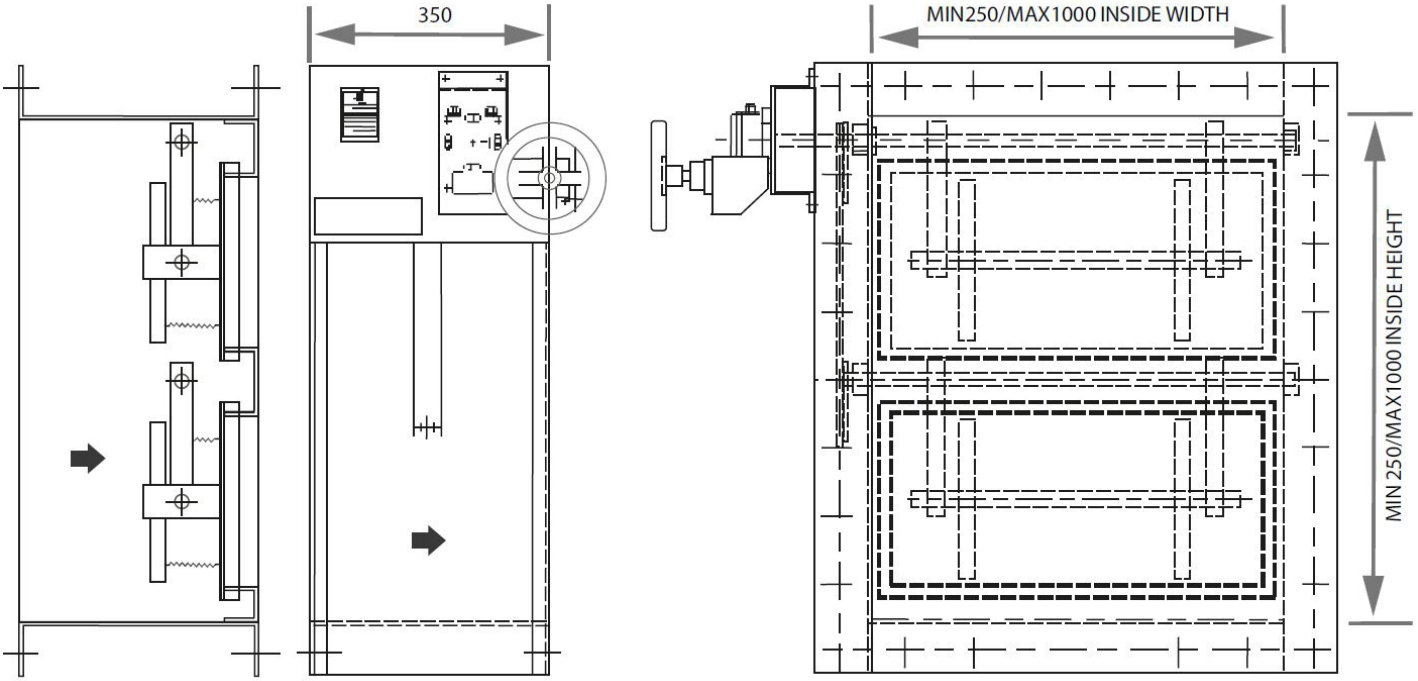
Weights

TID Bare Shaft Damper Weight Matrix - 350D

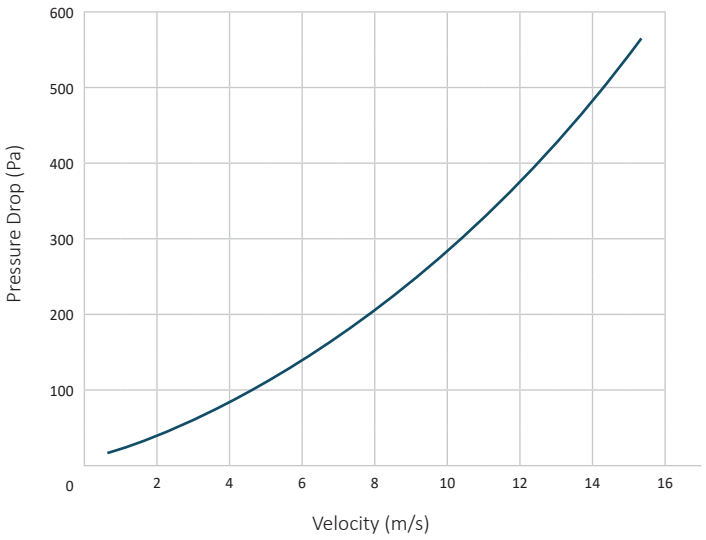
Kg		H (mm)						
		350	450	550	650	750	850	1000
W (mm)	350	27	29	48	54	59	64	72
	450	30	34	54	60	65	70	80
	550	50	54	60	68	72	77	87
	650	56	60	65	74	78	83	94
	750	60	66	71	80	86	90	101
	850	66	71	77	86	92	96	108
	1000	75	81	86	95	101	107	119

Please Note:
For Manual hand wheel and gearbox add 5kg nominally
For Electric or Pneumatic actuator add 10 kg nominally

Dimension Drawing Example (Manual Control)



Pressure Drop Curve



Ordering

Type: TID	**Duct Width:** 500
Duct Height: 300	**Case Depth:** 350
Type Wozair: Total Isolation Damper	

Case Material:
Stainless Steel
Low Carbon 1.4307 = 304L
Low Carbon 1.4404 = 316L

Case Thickness: 3.0 mm (W or H > 500 mm, 5.0 mm minimum)

Controls Options
P = Pneumatic
E = Electric
M = Manual

Nominal: Clear inside duct dimensions
Duct Size: 'Quote' (Width x Height)

Order Code Example:
TID/316L/3.0/500W/300H/350D/M

FPAL empowered by Achilles Registered

wozair HVAC SPECIALISTS

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
JAFZA One
Tower B, Office 1316
Jebel Ali Free Zone
Dubai, UAE
P.O. Box 262404

Phone +971 (0) 4 887 0147
Email dubaihvac@wozair.com