

BD Series



Backdraught Volume Regulating Damper

- Extruded aluminium blades
- DW144 compliant
- Galvanised mild steel casing
- Flange, Framefit or Spigot casing options



BD Series

Backdraught Volume Regulating Dampers - Introduction



The BD Series

The BD Series Backdraught Damper is self-opening subject to air velocity and is designed to restrict air back flow.

The damper can be fitted to partitions or brick walls, on plenums or duct mounted.

BD Series Features and Benefits

- Standard case construction is galvanised mild steel
- Extruded aluminium blades
- Flange, Framefit or Spigot casing options

Testing and Conformities

- Unless stated otherwise, flange models are suitable for classes A & B of DW144, with spigot models being suitable for classes A, B and C of DW144
- Normal operating conditions - not exceeding 1000Pa, Specification will apply

Material Specification

Casing

1.2mm galvanised mild steel to BS EN 10346 DX51 D+Z 275.

Blade Bushes

Injection moulded Nylon 66.

Blades

Extruded aluminium to BS EN 755-9. Wall thickness 1.2mm. Alternative blade materials are currently not available.

Blade Spindles

50% glass filled nylon black.

Blade Limiting Angle (horizontal application)

10 x 15 x 18 gauge galvanised steel running full length to one side only.

Jamb Seals (optional)

Punched aluminium strip to BS EN 755-9, 3.0mm thick, that is also a combination blade limiting stop in the open and closed position.

Paint

Water based protective paint is applied to all welds and ground surfaces.

Edge Seal

Nylon brush seal.

Performance and Application

Temperature: 0°C to +70°C.

Velocity: 1m/s to 14m/s, horizontal airflow.

Blade Details

The nominal 60mm wide standard extruded aluminium blades are fitted onto 6.25mm diameter spindles, complete with blade edge brush seal fitted as standard.

All blades are fitted for parallel operation only

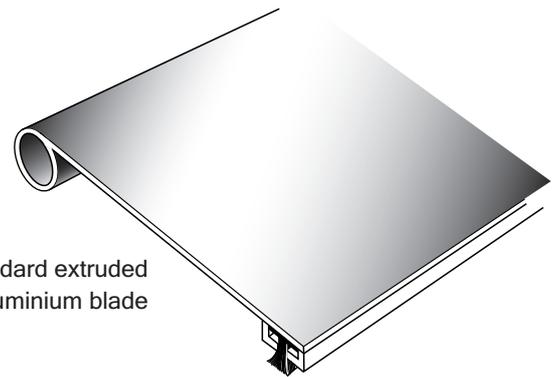
All blades are connected with a precise linkage to ensure uniformity of air control.

Please refer to pressure drop figures for suitability.

Avoid use of dampers in extremely turbulent duct conditions. Although blade linkages will stabilise blades in most conditions, abnormal circumstances may cause dampers to malfunction.

Horizontal Applications

Where dampers are required to be installed in horizontal applications, a galvanised steel blade limiting stop will be fitted running full length to one side only to prevent locking in the open position. When making an enquiry or placing orders, it is important to inform horizontal or vertical damper position.



Standard extruded aluminium blade

The BD Series Range

The BSB BD series is available in the following case sizes:

Flangefit, Framefit and Spigotfit:

100mm to 600mm width x 100mm to 1000mm height

Circular Spigotfit:

100mm to 1000mm diameter

(above 600 wide 2 x multiple unit)

Typical Tender/Specification Text

The BSB BD series Backdraught Damper is designed to restrict air back flow. The blades shall be self opening and supplied with edge brush seals as standard.

Blades shall be extruded aluminium, parallel in operation and linked to minimise noise. Blades are supported via injection moulded nylon 66 bearings to ensure smooth operation.

Blades are housed in a galvanised case and are offered in three options:

Flangefit, Framefit and Spigotfit.

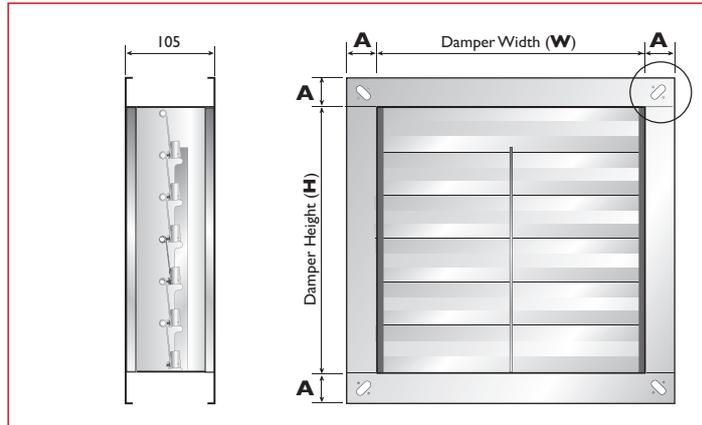
Dampers are designed for vertical installation with a blade limiting angle where horizontal applications are required.

Flangefit

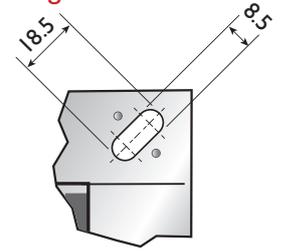
W = 100mm to 600mm
H = 100mm to 1000mm

A = 25mm, 30mm or 35mm
Please specify

Flange sizes are available under 25mm but will be without mez punch shown. These will be pre-punched with a 10mm fixing hole



Flange Detail



Damper Detail

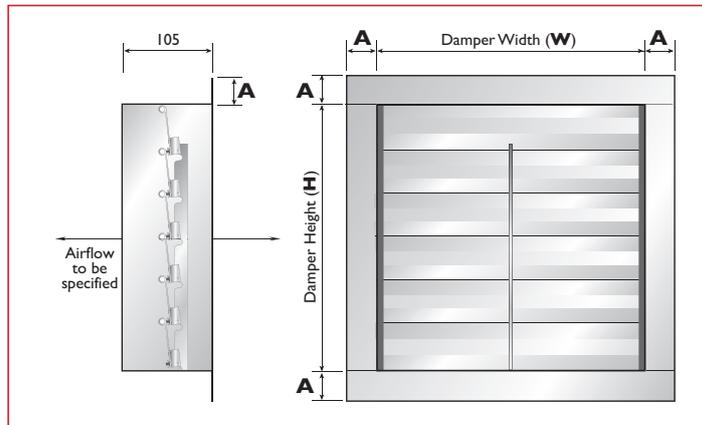
Case Depth and Flange sizes standard

Ordered Duct Height	Actual Height "H" or "D"	No. of Blades
100	108*	
125	125	2
150	156*	2
175	175	3
200	205*	3
225	225	4
250	253*	4
275	275	5
300	302*	5
325	325	6
350	350	6
375	375	7
400	400	7
425	425	8
450	450	8
475	475	9
500	500	9
525	525	10
550	550	10
575	575	11
600	600	11
625	625	12
650	650	12
675	675	13
700	700	13
725	725	14
750	750	14
775	775	15
800	800	15
825	825	16
850	850	16
875	875	17
900	900	17
925	925	18
950	950	18
975	975	19
1000	1000	19

Framefit

W = 100mm to 600mm
H = 100mm to 1000mm

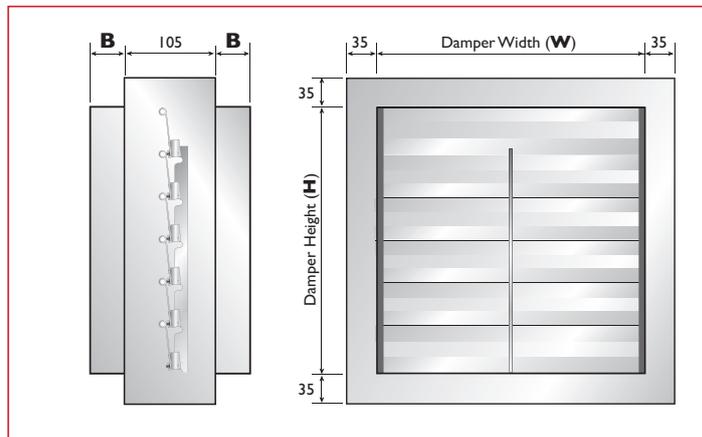
A = 25mm, 30mm or 35mm
Please specify



Spigotfit

W = 100mm to 600mm
H = 100mm to 1000mm

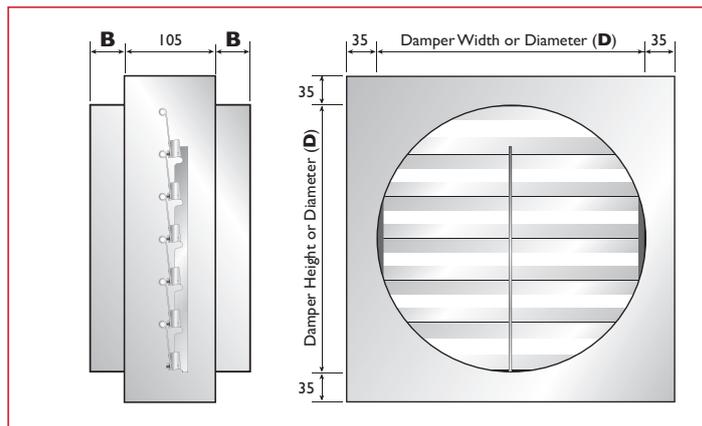
B = 40mm
(100 to 354mm)
55mm
(355 to 600mm)



Circular Spigotfit

D = 100mm to 1000mm
(above 600 wide 2 x multiple unit)

B = 40mm
(100 to 354mm)
55mm
(355 to 600mm)



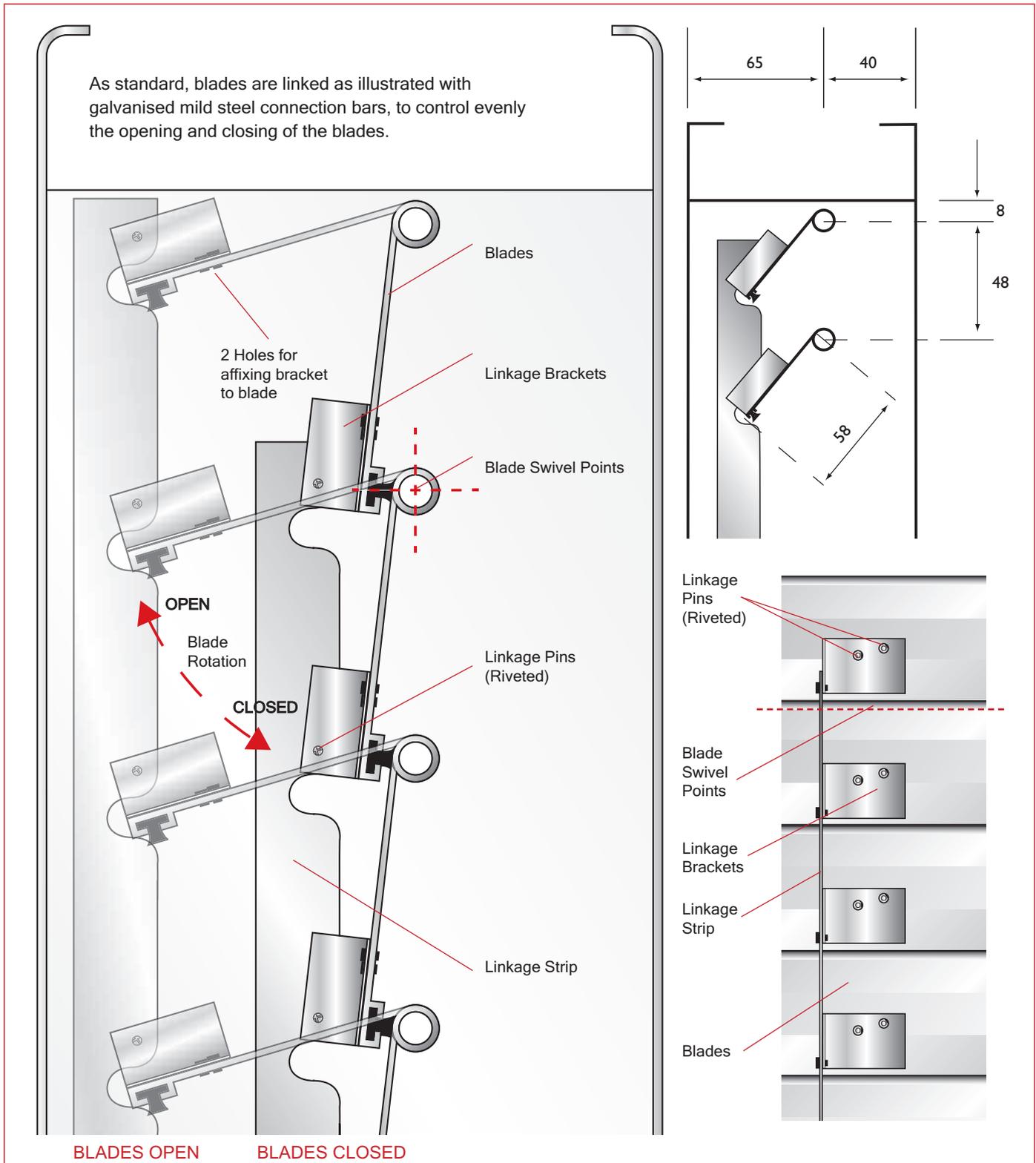
* Actual Height differs slightly from specified nominal height

BD Series

Backdraught Volume Regulating Dampers - Blades and Linkage



Blade Linkage Dimensions and Positions



Maintenance Notes

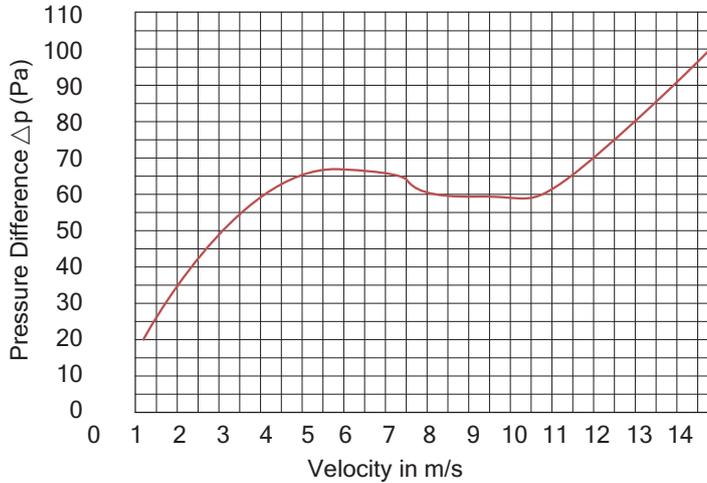
BD Series dampers are designed for normal dry filtered air systems and are not suitable for external applications. A programme of planned inspections should be carried out to include blade operation and blade linkage and general overall condition. As a guide, this should take place on a maximum of six months intervals.

Reference should be made to BS 5588-12 and BS 9999 for more information.

These inspection and maintenance programmes may need to be repeated more regularly if the dampers are exposed to inclement/dusty conditions or fresh air intakes and the frequency of such checks should be developed based on site experience.

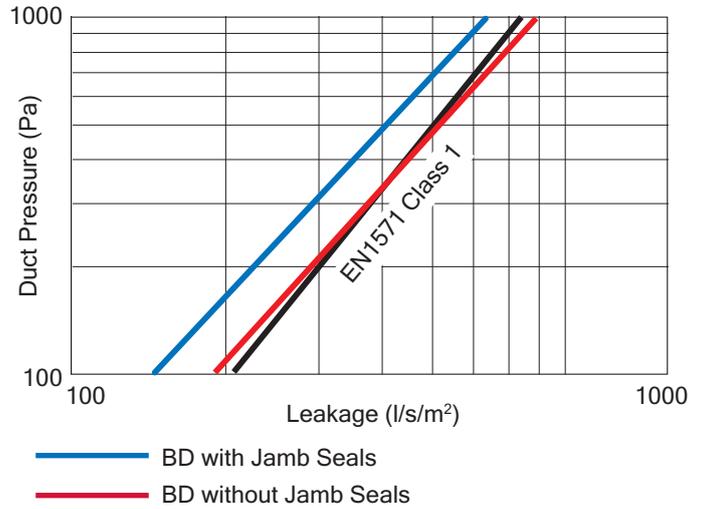
Back Draught Pressure Loss

Figures based on 600mm x 600mm sized unit installed vertically. Tolerance $\pm 10\%$



Blade Leakage

Figures based on 600mm x 600mm sized unit.



Weight Chart - Flangefit Models

Damper Height (mm)	Damper Width (mm)					
	100	200	300	400	500	600
100	1	2	2	3	3	3
200	2	2	3	3	4	4
300	3	3	4	4	5	5
400	3	4	4	5	6	6
500	4	5	5	6	7	7
600	5	5	6	7	8	8
700	5	6	7	8	8	9
800	6	7	8	8	9	10
900	7	8	8	9	10	11
1000	7	8	9	10	11	12

Weight Chart - Spigotfit Models

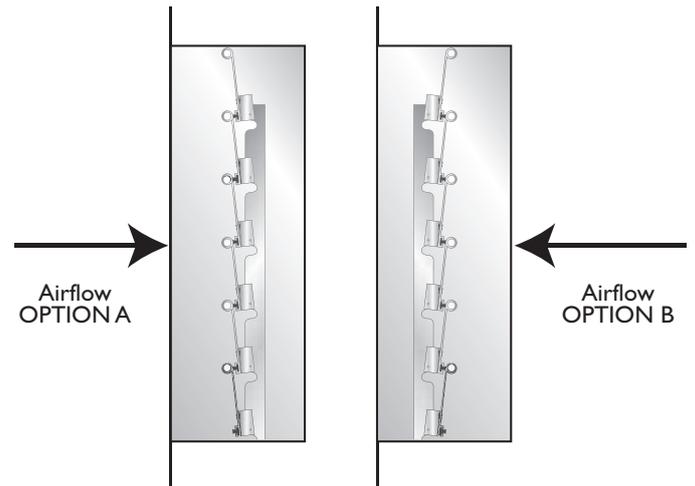
Damper Height (mm)	Damper Width (mm)					
	100	200	300	400	500	600
100	2	3	3	4	5	6
200	3	4	5	5	6	7
300	4	5	6	6	7	8
400	5	6	7	7	8	9
500	6	7	8	9	10	11
600	7	8	9	10	11	12
700	8	9	10	11	12	13
800	9	10	11	12	13	14
900	10	11	12	13	14	16
1000	11	12	13	14	16	17

Weight Chart - Circular Spigotfit Models

Damper Diameter (mm)									
100	200	300	400	500	600	700	800	900	1000
2	3	5	7	9	12	16	21	29	37

Weights shown are approximate and are for guidance only. For specific weight details please contact our sales office.

Airflow Options - Framefit Models Only

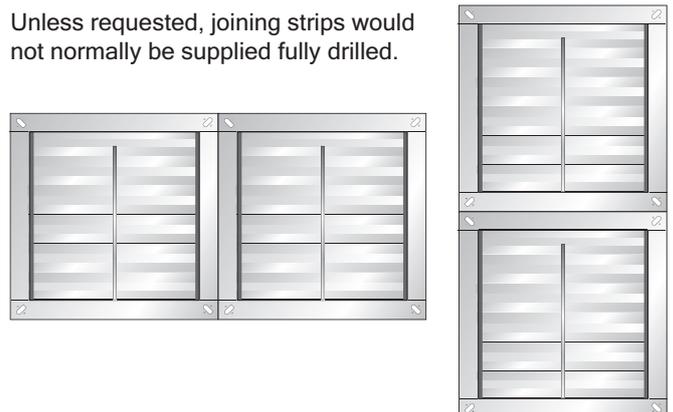


Multiple Assemblies

For assemblies greater than sizes detailed, multiple sections can be supplied for on-site assembly as illustrated.

When there are transportation restrictions, large multiple units will be broken down and shipped as individual sections for on-site assembly.

Unless requested, joining strips would not normally be supplied fully drilled.



BD Series

Backdraught Volume Regulating Dampers - Ordering Codes



BD F V A - J A

BD Backdraught Regulating Damper

Model

F Flangefit

FF Framefit

R Rectangular/Square Spigotfit

C Circular Spigotfit

Damper orientation

V Vertical

H Horizontal

Blade Material

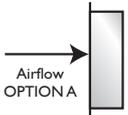
A Aluminium

Options

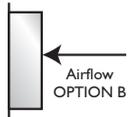
J Jamb Seals

Airflow Options (Framefit only)

A (See page 5)



B (See Page 5)



Other Air, Fire and Smoke Control Products in the BSB Range:

FSD-TD Series Fire/Smoke Dampers 	FSD-C Series Circular Fire/Smoke Dampers 	ETD Series Elevated Temperature Dampers 	FD Series Fire Dampers 	FD-C Series Circular Fire Dampers 
SS Series SlimSeal Dampers 	HD Series Heavy Duty Dampers 	A60 Series Marine Fire Dampers 	VC Series Volume Control Dampers 	Control Systems 

For full details of the complete BSB Product Range, please refer to our individual product brochures, sales office or website.



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For purchase orders and order related enquiries, please email: orders@bsb-dampers.co.uk

For pricing, technical and general enquiries, please email: enquiries@bsb-dampers.co.uk

Website: www.bsb-dampers.co.uk • A member of the Maico group

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