

BACKDRAUGHT DAMPERS

**B
S
B**



BD
SERIES

MANUFACTURERS OF AIR/FIRE/SMOKE CONTROL PRODUCTS

REGULATING DAMPERS

Product Description and Features

Introduction

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.

Features

- * Standard case construction is galvanised mild steel
- * Extruded aluminium blades
- * Flange or spigot casing options
- * Infinite sizing capability
- * Unique blade end seal and stop (see chart)
- * Variable blade position for alternate airflow direction

Specifications & Testing

- * 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.
- * Conforms to HVCA specification DW144 classes A and B, and Eurovent as relevant
- * Independent performance tests for pressure drop. Test report 165 refers.

Blades

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

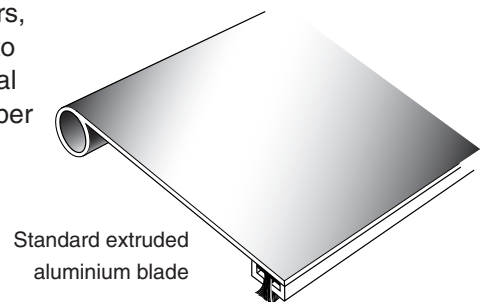
All blades are fitted for parallel operation only

Blades are linked with a precise linkage, minimum two blades and a maximum of 6 blades per linkage set, alleviating movement and subsequent rattling of individual blades. 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.



Material Specification

Casing

1.2mm (18swg) galvanised mild steel to BS EN 10346 DX51.

Please note:- When Stainless steel case models are supplied, our quotation will be for the supply of natural finish product only. Cleaned and polished welds/casing are available at extra cost.

Blade Bushes

Injection moulded Nylon 66.

Blades

Extruded aluminium to BS EN 755-9:2008. Wall thickness 1.0mm. Alternative blade materials are currently not available.

Blade Spindles

IXEF semi-crystalline polymer polyarylamide.

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 755-9:2008. 3.0mm (10swg) thick, that is also a combination blade limiting stop in the open and closed position.

Paint

Aluminium primer is applied to all welds and ground surfaces.

Edge Seal

Nylon brush seal.

Performance and Application

Temperature: -10°C to +100°C.

Velocity: 1m/s to 12m/s, horizontal airflow.

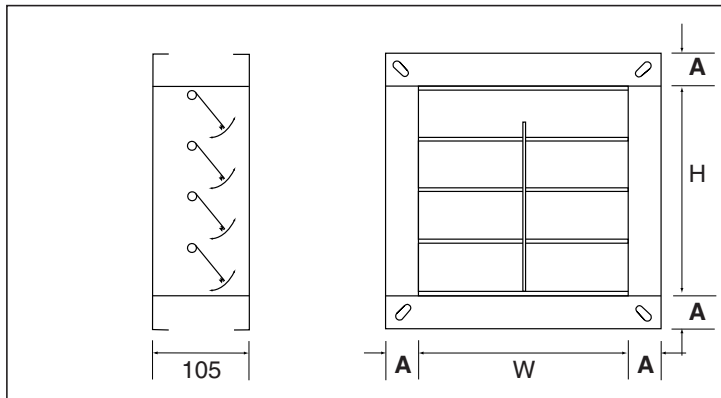
Dimensions

Flangefit

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

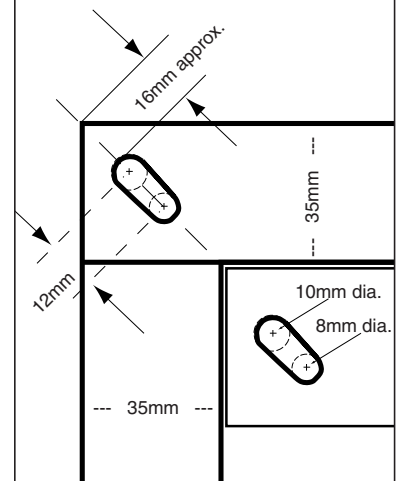
A = 25, 30 or 35mm
Please specify

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



Flange Detail

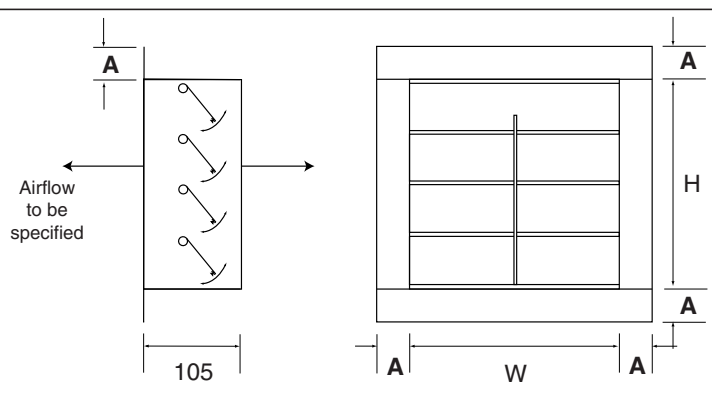
Flangefit Rectangular/Square



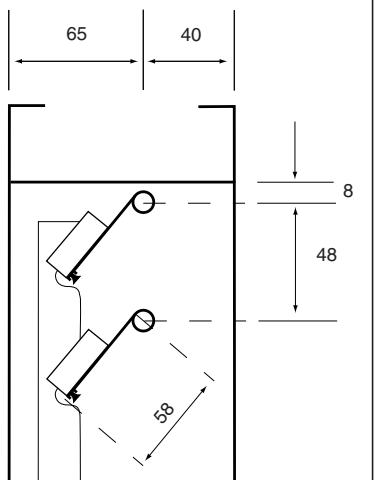
Framefit

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

A = 25, 30 or 35mm
Please specify



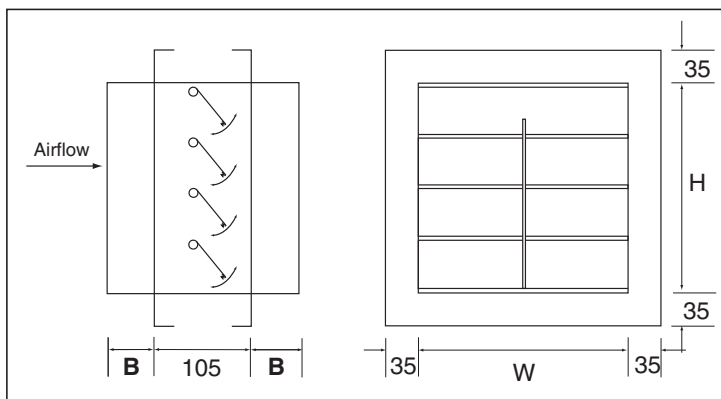
Blade Dimensions and Position



Spigotfit

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

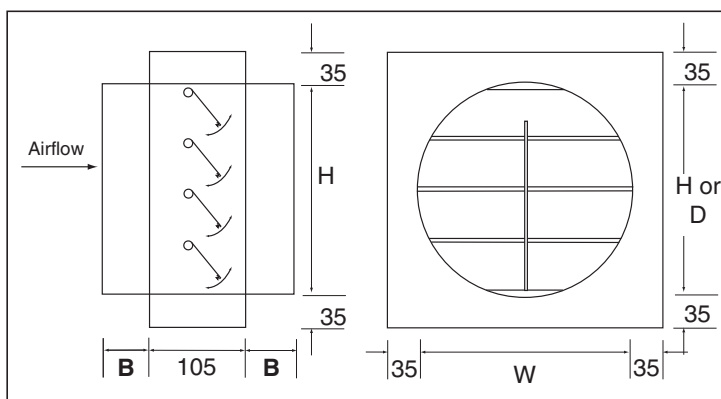
100-354mm: B = 40mm
355-600mm: B = 55mm



Circular Spigotfit

Dia. = 100mm to 600mm

100-354mm: B = 40mm
355-600mm: B = 55mm

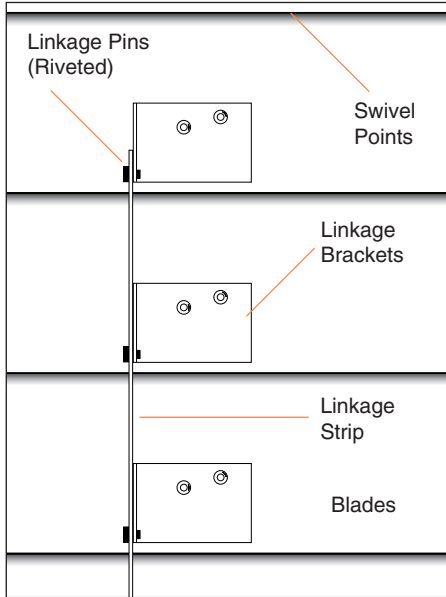


Horizontal application:

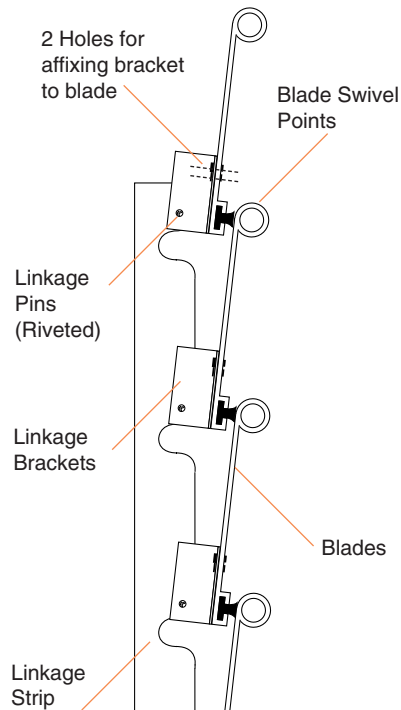
The BD Series damper has not been tested in the horizontal position and therefore, we do not have any performance data available. Damper blade linkage can be omitted for horizontal applications where requested.

Circular Spigotfit Dimensions

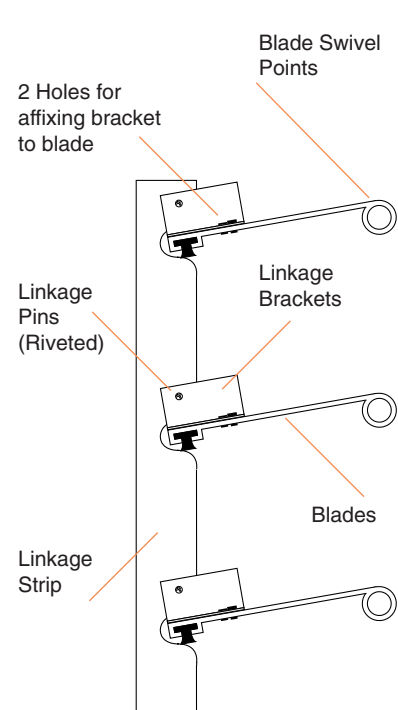
As standard, blades are linked as illustrated with galvanised mild steel connection bars, to control evenly the opening and closing of the blades.



BLADES CLOSED



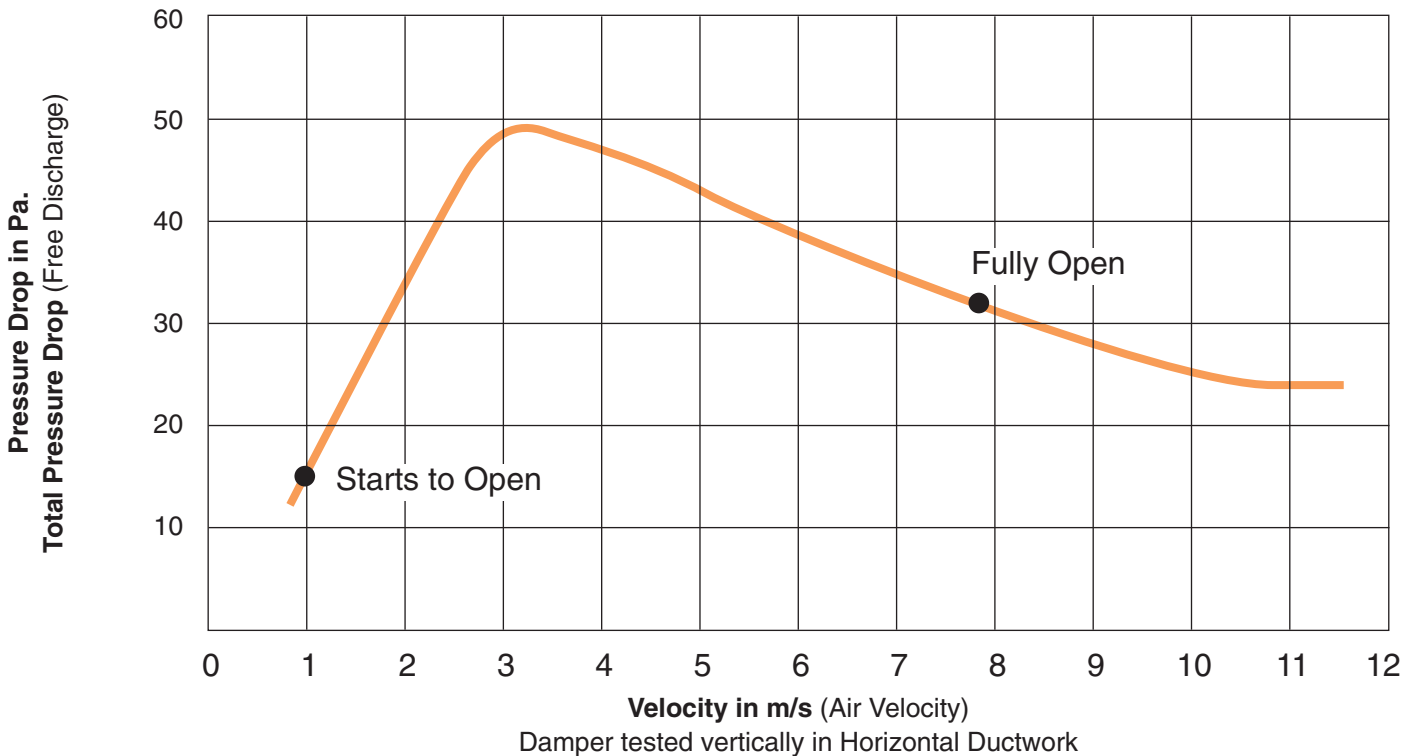
BLADES OPEN



Performance Characteristics

Pressure Loss (Report Ref. 165) Vertical installation only

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



MANUFACTURERS OF AIR/FIRE/SMOKE CONTROL PRODUCTS

Control Options

Weight Chart (kg)

Damper Height (mm)	Damper Width (mm)								
	200	300	400	500	600	700	800	900	1000
100	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5
200	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	7.0
300	3.0	4.0	4.5	5.5	6.0	6.5	7.0	8.0	9.0
400	4.0	5.0	6.0	6.5	7.5	8.5	9.0	10.0	10.5
500	4.5	5.5	6.5	7.5	8.5	9.5	10.5	11.0	12.0
600	5.5	6.5	7.5	9.0	10.0	11.0	12.0	13.0	14.0
700	6.0	7.5	9.0	10.5	12.0	13.0	14.0	15.0	15.5
800	7.0	8.5	9.5	11.0	12.5	13.5	15.0	16.5	17.5
900	7.5	9.0	11.0	12.5	13.5	15.0	15.5	17.0	19.0
1000	8.0	10.0	12.0	13.5	15.5	17.0	17.5	19.0	21.0

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

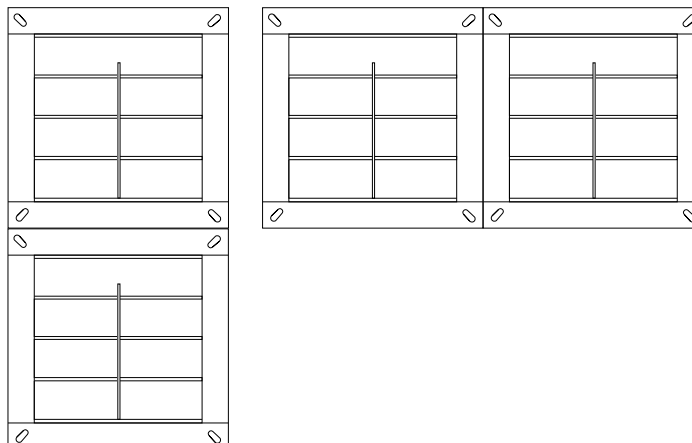
Damper Details Case Depth and Flange sizes standard (see illustrations Page 2)

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

* Actual Height differs slightly from specified nominal height

Multiple Assemblies

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



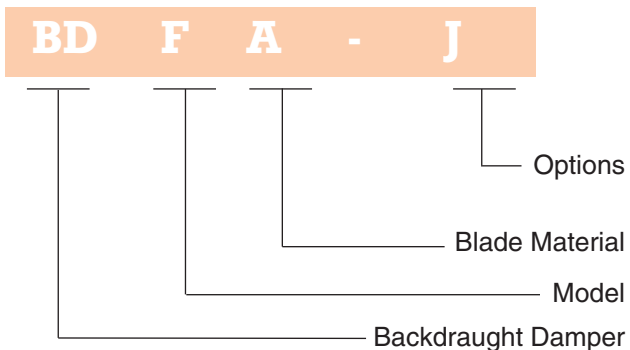
When there are transportation restrictions, large multiple units will be broken down and shipped as individual sections for on-site assembly.

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

BSB

Ordering Codes

Example:



BD Backdraught Regulating Damper

Model:

F Flangefit
 FF Framefit
 R Rectangular/Square Spigotfit
 C Circular Spigotfit

Blade Material:

A Aluminium

Options:

J Jamb Seals

BSB Product Range



BSB

BSB Engineering Limited

Unit E, Tribune Drive, Trinity Trading Estate,
 Sittingbourne, Kent ME10 2PD

Tel: +44 (0)1795 422609. Fax: +44 (0)1795 429543

Email: sales@bsb-dampers.co.uk

www.bsb-dampers.co.uk



Assessed to ISO 9001 Cert. No. 828

BSB Engineering Services Ltd. reserves the right to modify or withdraw any specification without prior notice that may result from continuous product development. The information contained within this brochure is correct at the time of going to press.

A member of the Maico group

BSBBD. MAY. 2011

MANUFACTURERS OF AIR/FIRE/SMOKE CONTROL PRODUCTS