

BACKDRAUGHT DAMPERS



BD
SERIES

MANUFACTURERS OF AIR/FIRE/SMOKE CONTROL PRODUCTS

R E G U L A T I N G D A M P E R S

Product Description and Features

Introduction

The BD Series Back Draught 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 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.

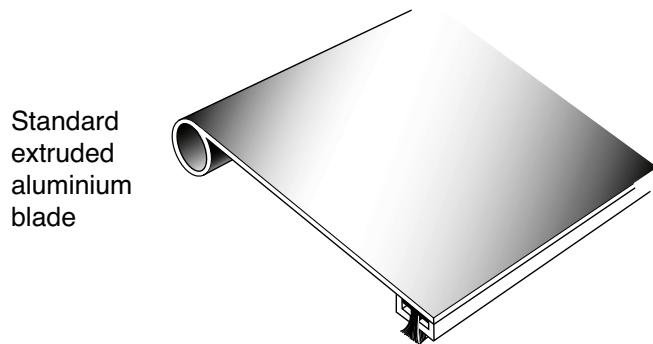
All blades are fitted for parallel operation only

Blades are linked with a precise linkage, 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, blade limiting angle will be fitted 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 10142 1991. Coating Class Fe P02g.

Blade Bushes

Injection moulded nylonic engineered Nylon 66.

Jamb Seals (Optional)

Punched aluminium strip to BS1747 1987. 3.0mm (10swg) thick, that is also a combination blade stop in the open and closed position.

Blades

Extruded aluminium to BS1747 1987. Wall thickness 1.0mm (20swg).

Blade Spindles

IXEF semi-crystalline polymer polyarylamide.

Blade Limiting Angle

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

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.

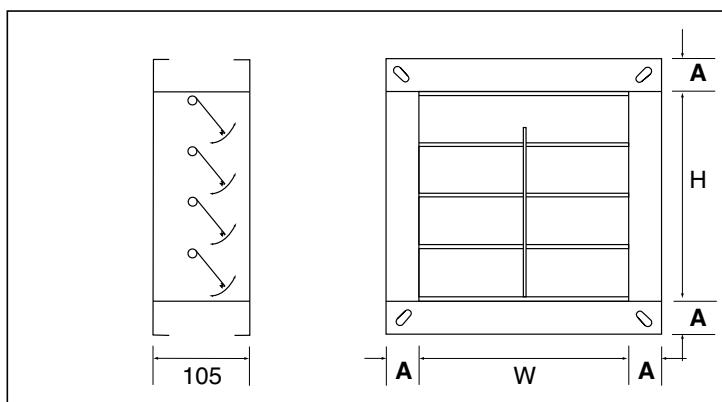
Velocity: 1m/s to 12m/s, horizontal airflow.

Dimensions

Flangefit

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

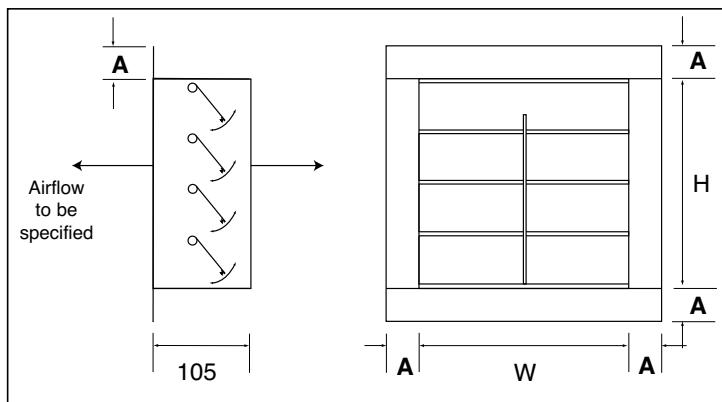
A = 25, 30 or 35mm
Please specify



Framefit

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

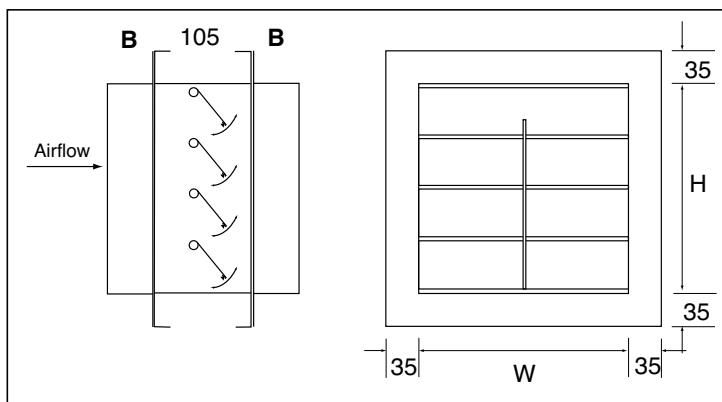
A = 25, 30 or 35mm
Please specify



Spigotfit

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

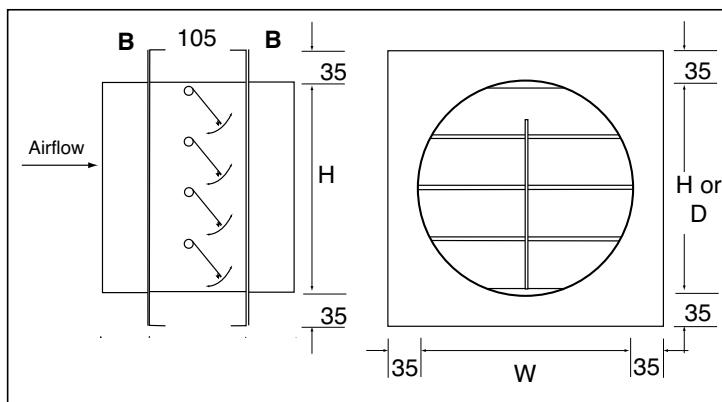
100-354mm: B = 40mm
355-600mm: B = 55mm



Circular Spigotfit

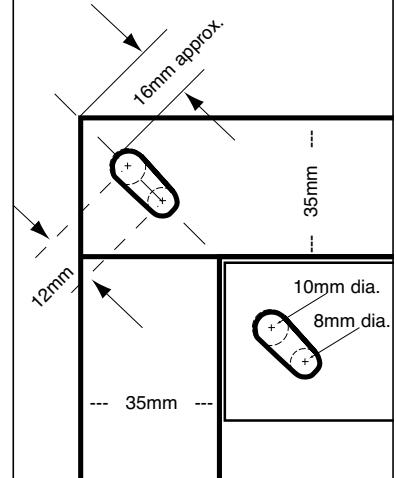
Dia. = 100mm to 600mm

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

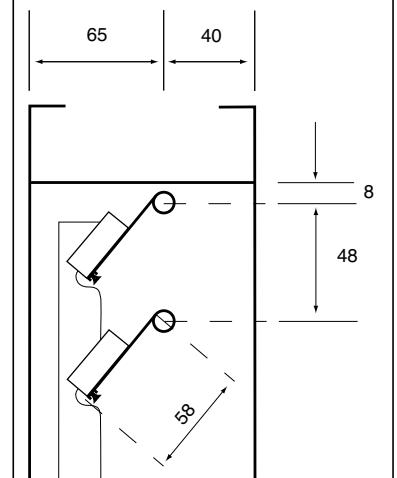


Flange Detail

Flangefit and
Rectangular/Square Spigotfit



Blade Dimensions and Position

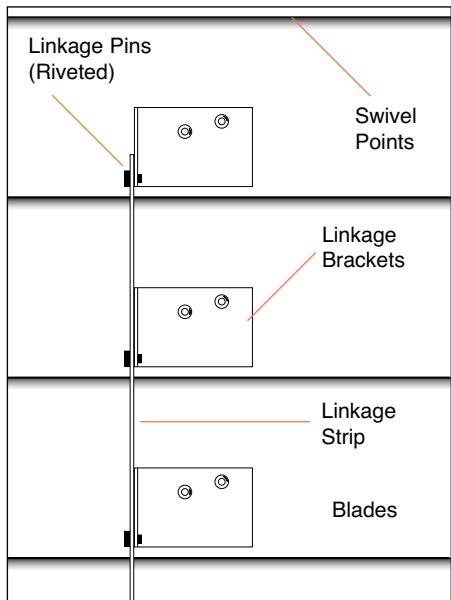


Special Note:

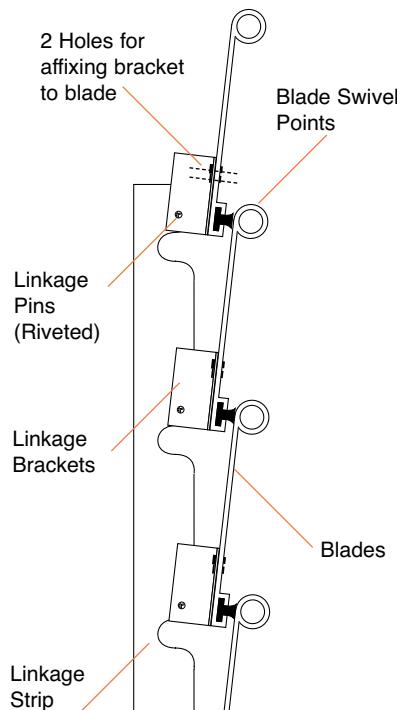
For horizontal installations,
please advise our sales office,
as blade linkage may not be
required.

Circular Spigotfit Dimensions

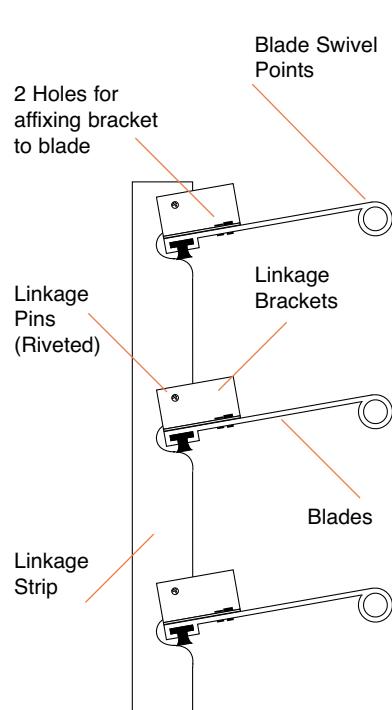
As standard, blades are linked as illustrated with galvanised mild steel connection bars, to control evenly the opening and closing of the blades.



BLADES CLOSED



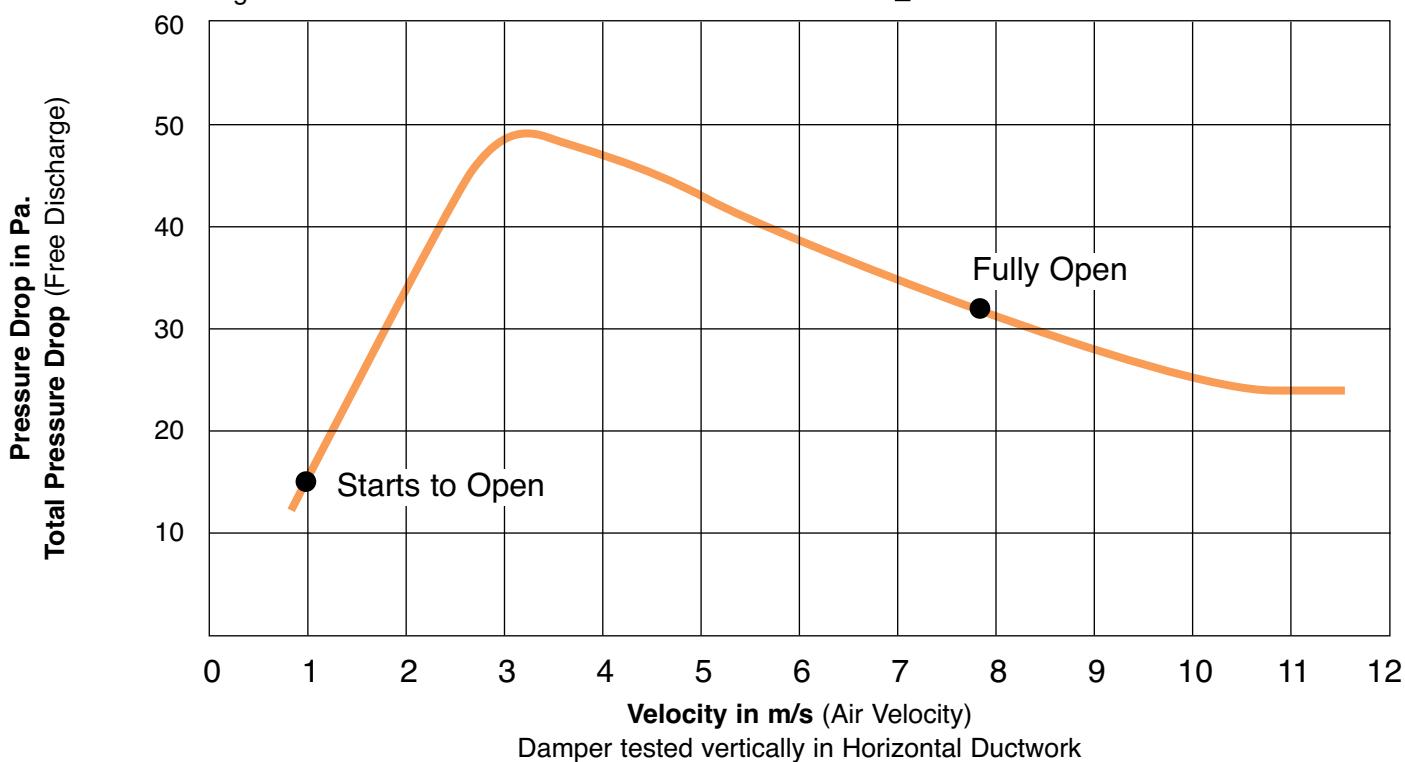
BLADES OPEN



Performance Characteristics

Pressure Loss (Report Ref. 165) Vertical installation only

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



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

These values have been rounded up and down to whole numbers and are illustrated for estimation purposes only.

Damper Details

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

Ordered Duct Height	Actual Height "H" or "D"	No. of Blades
100	108*	2
125	125	2
150	156*	3
175	175	3
200	205*	4
225	225	4
250	253*	5
275	275	5
300	302*	6
325	325	6
350	350	7
375	375	7

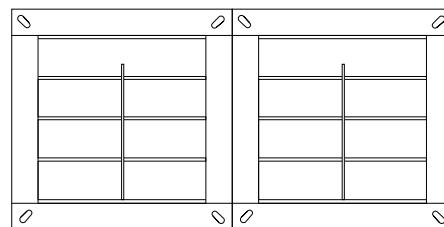
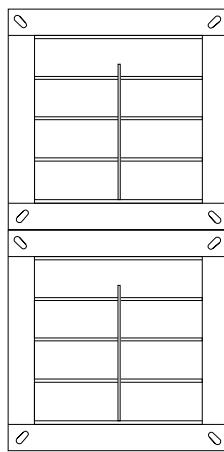
Ordered Duct Height	Actual Height "H" or "D"	No. of Blades
400	400	8
425	425	8
450	450	9
475	475	9
500	500	10
525	525	10
550	550	11
575	575	11
600	600	12
625	625	12
650	650	13
675	675	13

Ordered Duct Height	Actual Height "H" or "D"	No. of Blades
700	700	14
725	725	14
750	750	15
775	775	15
800	800	16
825	825	16
850	850	17
875	875	17
900	900	18
925	925	18
975	975	19
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.



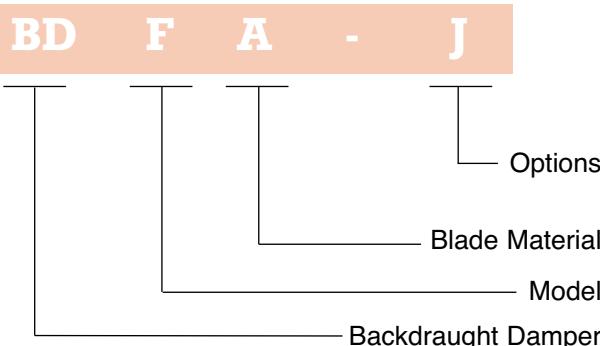
When there are transportation restrictions, large multiple units will be broken down and shipped as individual sections for on-site assembly.

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



Ordering Codes

Example:



BD Backdraught Regulating Damper

Model:

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

Blade Material:

- A** Aluminium (standard)

Options:

- J** Jamb Seals

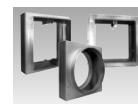
BSB Product Range



BD Series
Backdraught Damper



DD Series
Duct Damper



FD Series
Fire Damper



FSD Series
Fire/Smoke Damper



HD Series
Heavy Duty Control Damper



SB Series
Single Blade
Regulating Damper



SC Series
Smoke Control Damper



SF Series
Slimfit Regulating
Damper



Control Panel
Fully Addressable or
Electro-Mechanical



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