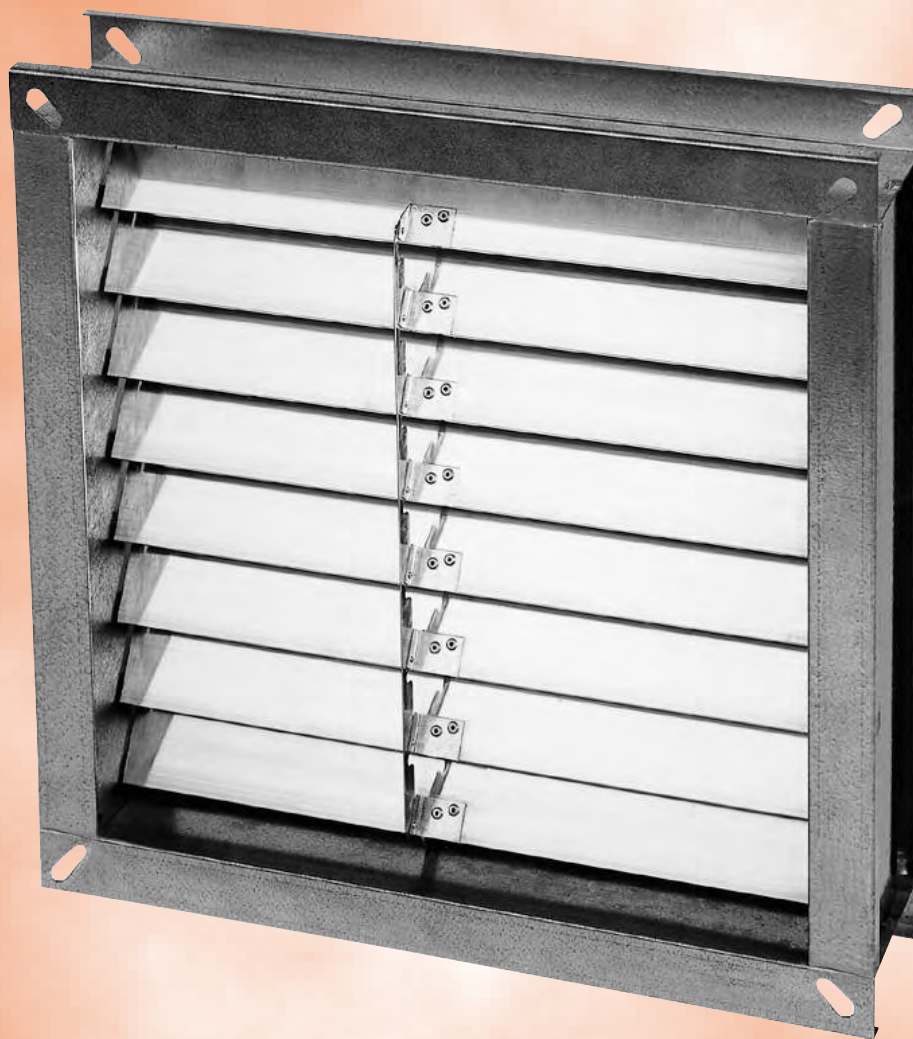
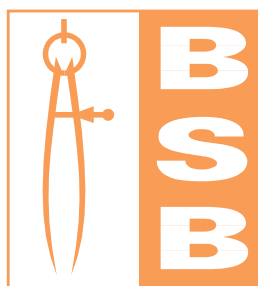


# BACKDRAUGHT DAMPERS



**BD**  
**SERIES**

MANUFACTURERS OF AIR/FIRE/SMOKE CONTROL PRODUCTS

REGULATING DAMPERS

# 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

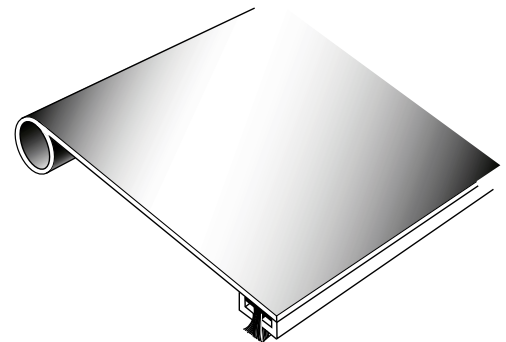
Blades are linked with a precise linkage, alleviating movement and subsequent rattling of individual blades. Please refer to pressure drop figures for suitability.

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.

Standard extruded aluminium blade



# 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.

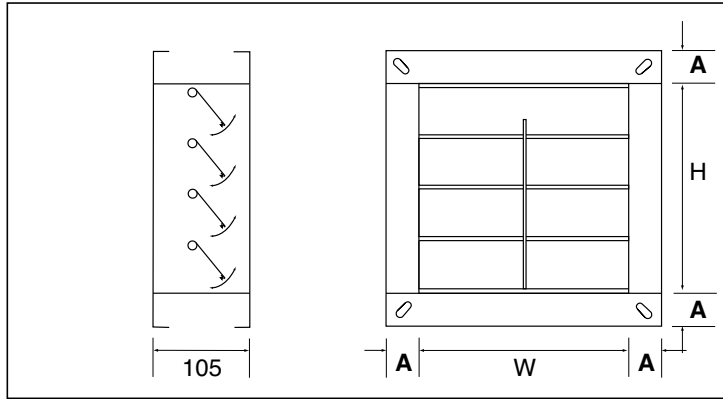
Velocity: 1m/s to 12m/s, horizontal airflow.

# Dimensions

## Flangefit

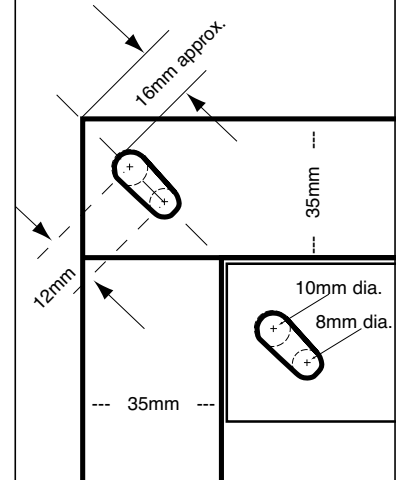
W = 100mm to 600mm  
H = 100mm to 1000mm

A = 25, 30 or 35mm  
Please specify



## Flange Detail

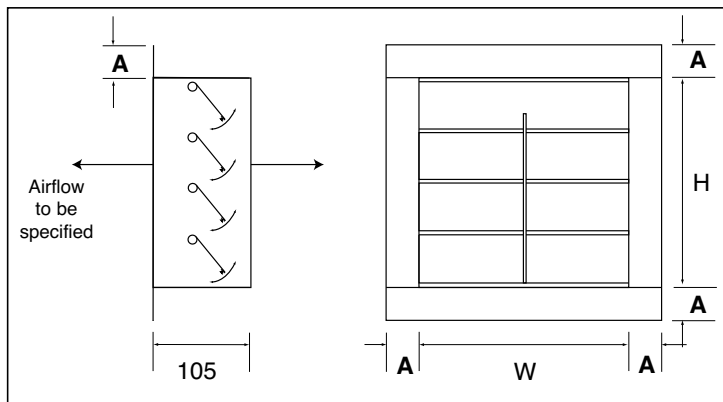
Flangefit and Rectangular/Square Spigotfit



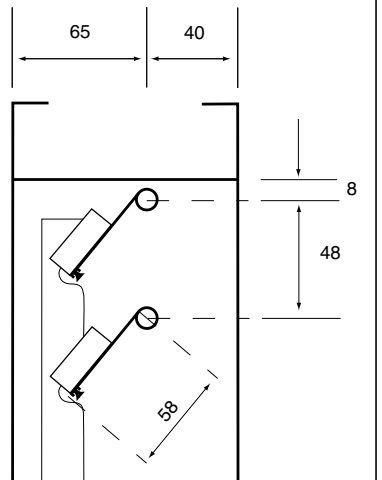
## Framefit

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

A = 25, 30 or 35mm  
Please specify



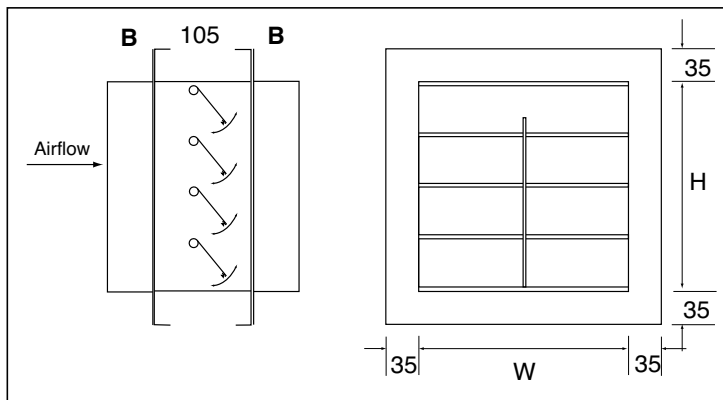
## Blade Dimensions and Position



## Spigotfit

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

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



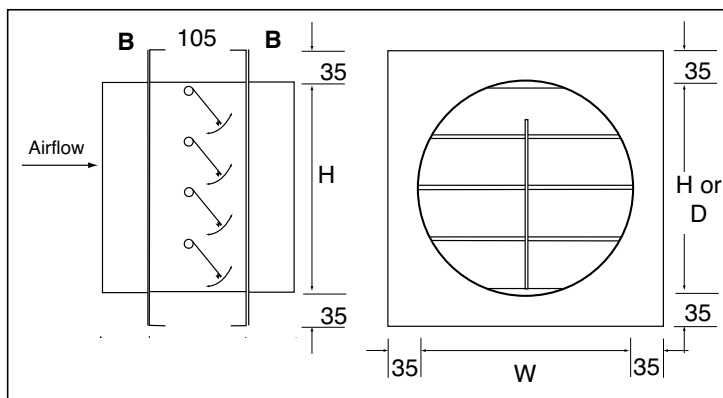
### Special Note:

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

## Circular Spigotfit

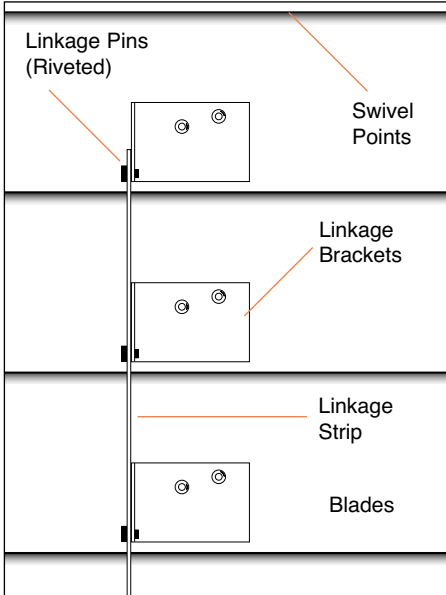
Dia. = 100mm to 600mm

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

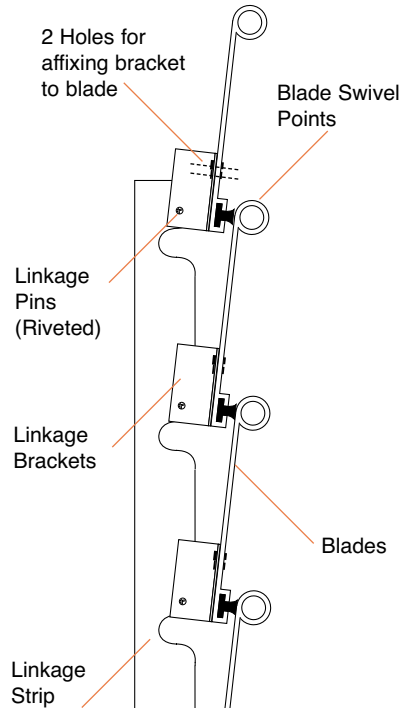


# Circular Spigotfit Dimensions

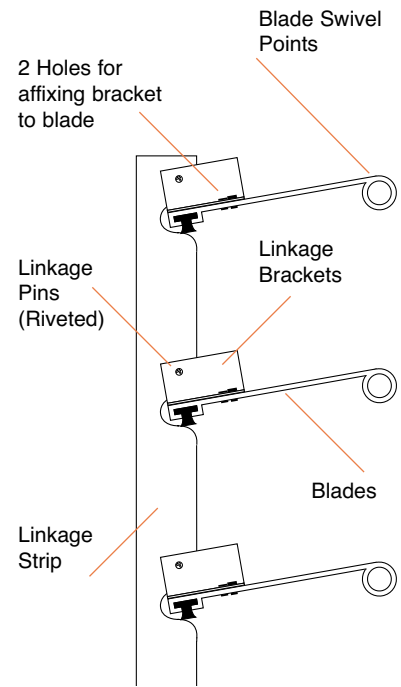
As standard, blades are linked as illustrated with galvanised mild steel connection bars, to control evenly the opening and closing of the blades.



## BLADES CLOSED



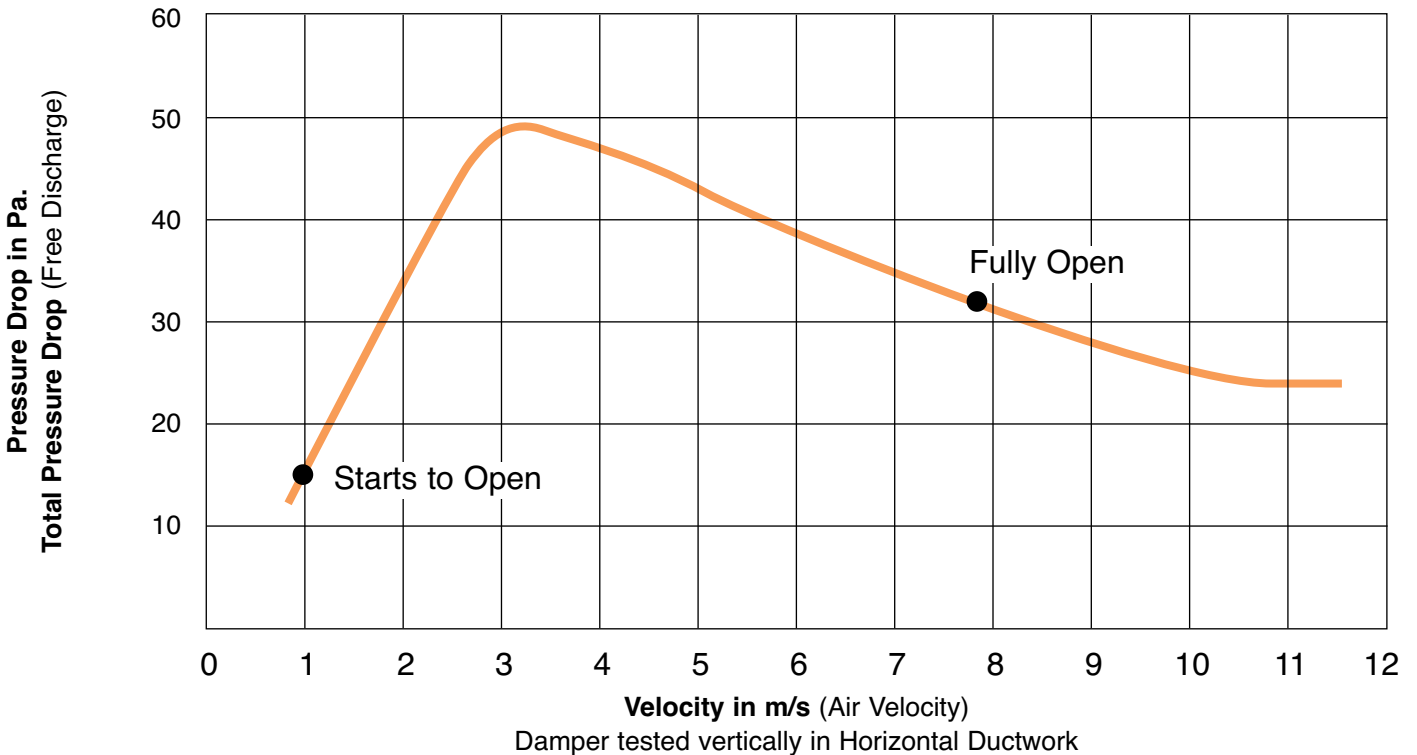
## BLADES OPEN



# 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.

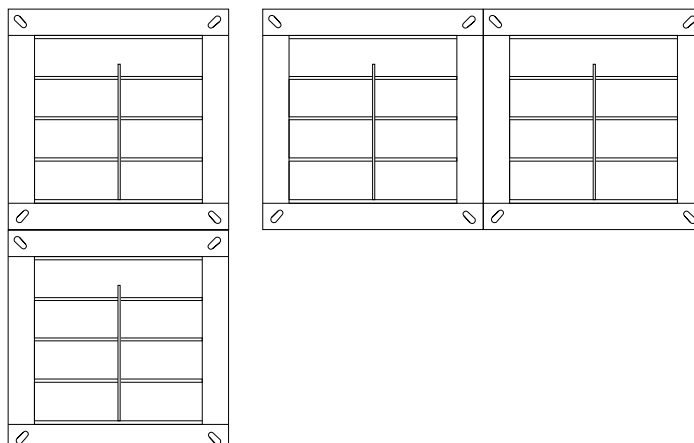
## Damper Details Case Depth and Flange sizes standard (see illustrations Page 2))

Ordered Duct Height	Actual Height "H" or "D"	No. of Blades	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

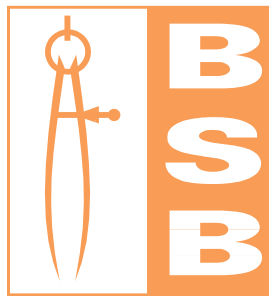
## Multiple Assemblies

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



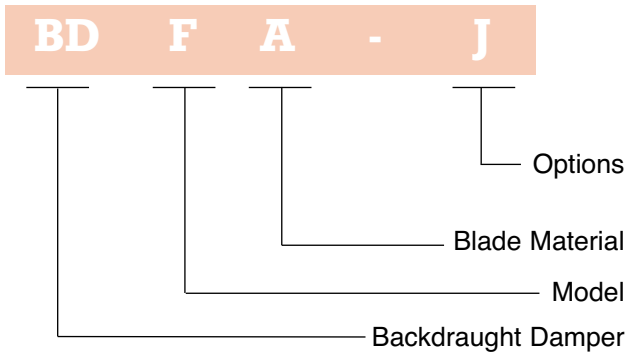
When there are transportation restrictions, large multiple units will be broken down and shipped as individual sections for on-site assembly.

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



## Ordering Codes

Example:



**BD** Backdraught Regulating Damper

**Model:**

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

**Blade Material:**

- A** Aluminium (standard)

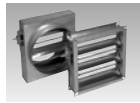
**Options:**

- J** Jamb Seals

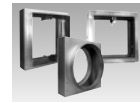
## BSB Product Range



**BD Series**  
Backdraught Damper



**DD Series**  
Duct Damper



**FD Series**  
Fire Damper



**FSD Series**  
Fire/Smoke Damper



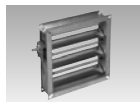
**HD Series**  
Heavy Duty Control Damper



**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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BSBBD. Jun. 2008

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