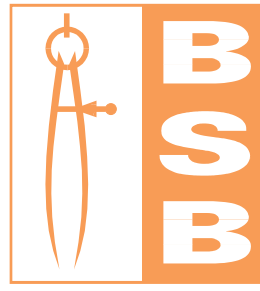


SLIMFIT REGULATING DAMPERS



MANUFACTURERS OF AIR/FIRE/SMOKE CONTROL PRODUCTS

BALANCE CONTROL

Product Description and Features

Introduction

The SF Series Slimfit Regulating Damper has been designed for installation primarily into ventilation ducts to regulate low-medium air velocities.

Its construction is robust, with detail to its application, performance and size as required by specifiers and contractors considered during development.

The selection of components and materials has been specific so as to ensure a high quality, low-maintenance product is manufactured and supplied.

Single section units are available from 100mm to 1000mm in either width or height.

Tests and Conformances

- * Unless stated otherwise, flange models are suitable for classes A & B of DW144, with spigot models suitable for classes A, B & C of DW144
- * Independently tested for pressure loss, test report 166 refers
- * Independently tested for casing leakage, test report 167 refers
- * Conforms to HVCA specification DW144, as relevant
- * Conforms to Eurovent 2/2, as relevant

Features

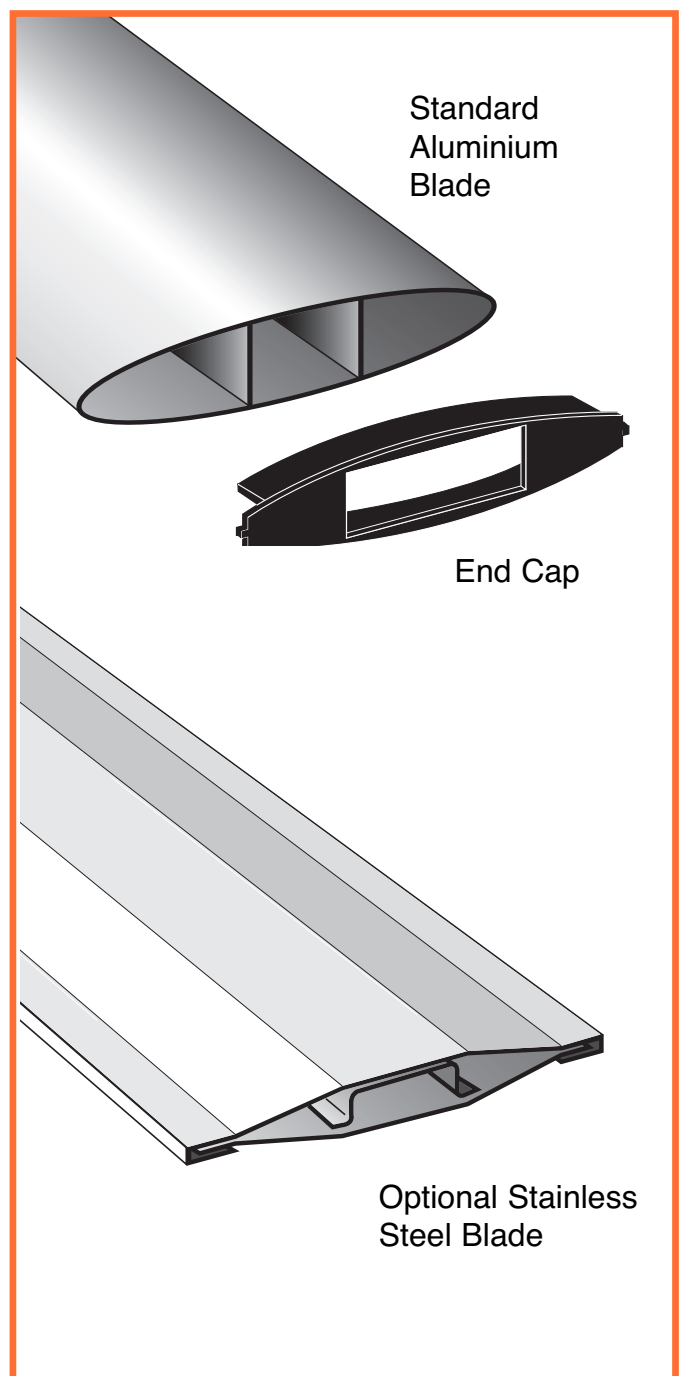
- * Standard case construction is galvanised mild steel
- * Standard blade construction is 50mm wide extruded aluminium
- * Standard out of airflow linkage
- * Standard opposed blade operation
- * Standard blade end caps (aluminium blade only)
- * Optional stainless steel case grades 316 and 430
- * Optional 63.5mm wide stainless steel blades grades 316 and 430
- * Optional flange sizes
- * Optional side seals grade 301
- * Optional control

Blades

The 50mm wide extruded aluminium airfoil blades are fitted to 12.5mm diameter spindles for robust, low-friction movement.

The option of grades 316 or 430 stainless steel blades are available to order. Stainless steel blade option available in 63.5mm width only.

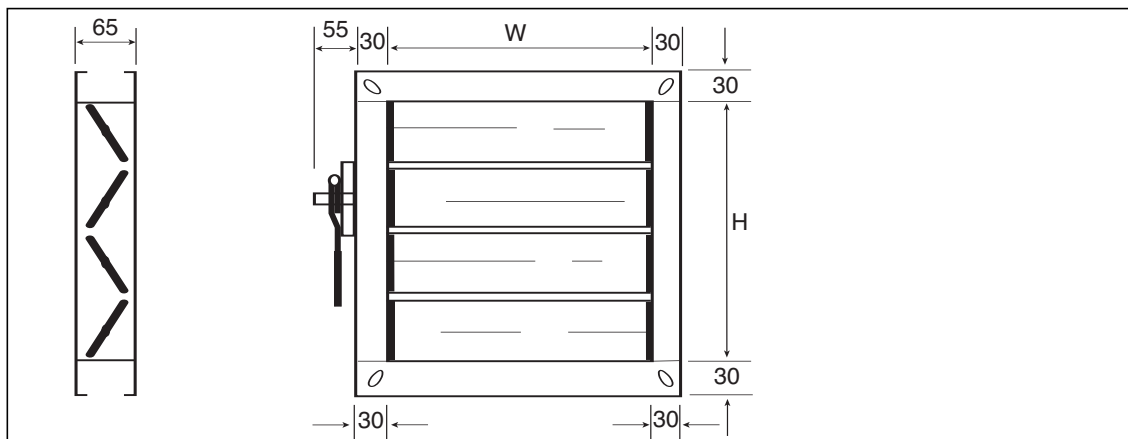
Fitted as standard to the blades are end caps to negate noise generation, with parallel blade operation available to order.



Dimensions

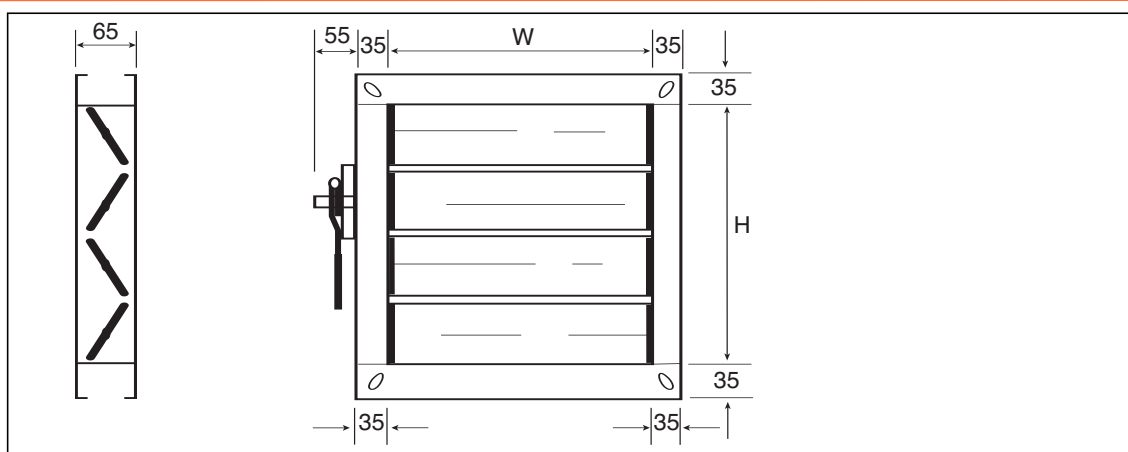
Flangefit 30

W x H = 100mm to
1000mm square



Flangefit 35

W x H = 100mm to
1000mm square



Material Specification

Casing

1.2mm (18swg) galvanised mild steel to BS EN 10142 1991.
Coating Class Fe P02b Z275 Na.

Blades

Extruded airfoil aluminium to BS 1747 1987, wall thickness
1.0mm (20swg) minimum.

Blade End Caps

Injection moulded black polypropylene to BSB's recorded
design.

Blade Spindles

12.5mm ($1/2$ " diameter die-cast Mazak alloy to BS 1004 Alloy
A DIN 1743, 2400 or engineering quality thermoplastic nylon
dependant on availability, with a 6mm diameter steel linkage
pin pressed in for the linkage bar to connect to.

Drive Spindles

12.5mm ($1/2$ " diameter die-cast Mazak alloy to BS 1004 Alloy
A DIN 1743, 2400 or IXEF semi-crystalline polymer
polyarylamide dependant on availability.

Blade Spindle Bushes

Injection moulded (Hoescht) Nylon 66 "Top Hat" design
(melting point 220°C).

Quadrant

1.2mm (18swg) galvanised mild steel chassis with integral
rotation slot and blade position indication. 20mm x 2.5mm
($3/4$ " x $1/8$ " zinc plated mild steel handle with integral clamp
and locking nut to to BS EN 10142 1991. Coating Class Fe
P02b Z275 Na.

Drive Bar

22mm x 1.6mm galvanised mild steel flat bar punched to fit
onto zinc plated drive pins.

Rivets

High quality self-sealed rivets are used to European
standards as relevant.

Sealant

All joints and seams are sealed with 3M sealant conforming
to dictates of DW144.

Paint

Aluminium primer is applied to all welds and ground surfaces.

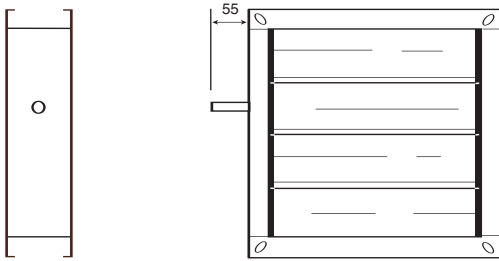
Operating Temperature

-10°C to +100°C

Control Options

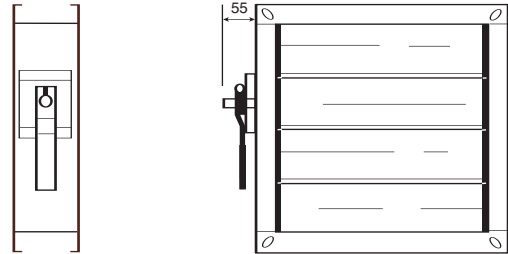
Option E - Extended Spindle

When the specification requires the Slimfit Regulating Damper to be supplied for motorisation by others, BSB supplies the damper with a 12.5mm diameter spindle, 55mm in length.



Option H - Hand Control

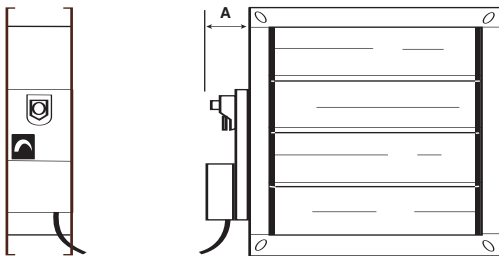
BSB's unique hand lockable quadrant is supplied complete from the factory. When the specification is amended from Option "E" to Option "H" (regardless if during manufacture or after delivery), conversion is easily completed.



Option M - Electric Motor

The SF Series Damper can be supplied with the following control motors fitted:

- Open/Close operation
- Spring Return operation



For additional details, please contact BSB's sales office for data sheet.

Option P - Pneumatic Actuator

Pneumatic Actuator available as:

- Spring Return – 6 to 8 bar/87 to 120 psig or
- Double Acting – 2 to 8 bar/30 to 120 psig.

The actuator is supplied fitted to the damper complete with Air Entry and Exhaust ports G^{1/4}" (standard) or 1/4" NPT (optional)

Actuator temperature operating range: -20°C to +80°C.

Body: Aluminium finished in epoxy primer and two component polyurethane top coating.

For additional details, please contact BSB's sales office for data sheet.

Multiple Assemblies

Illustrated opposite are several variants to multiple section units. Where sizes exceed 1000mm square, multi-section units will be supplied.

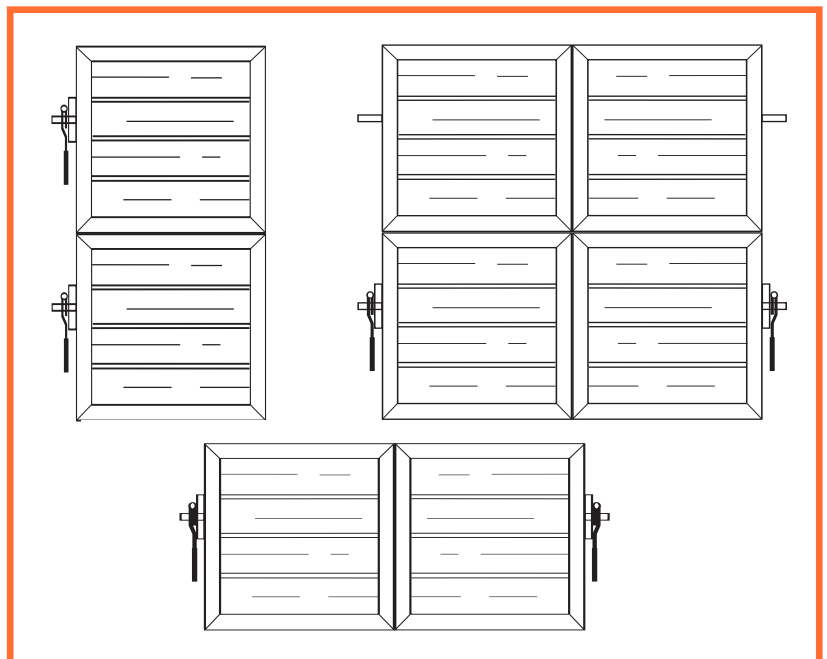
When there are transportation restrictions, large multiple units will be broken down and shipped as individual sections for site assembly. Unless requested, joining strips would not normally be supplied drilled.

Special Note:

BSB can manufacture to individual specifications and applications. Illustrated opposite are standard variants only, with other variants available to order.

For applications which necessitate the blades to be installed vertically, BSB's sales office must be informed so that thrust bearings are fitted to eliminate blade friction.

It is recommended that for sizes greater than 1000mm width or height, the HD Series Heavy Duty Damper is used.



Specification Tables

Torque Chart

Differential Pressure (Pa)	Damper Size W x H (mm)							
	250 x 250		500 x 500		750 x 750		1000 x 1000	
	Nm	lb/ins	Nm	lb/ins	Nm	lb/ins	Nm	lb/ins
250	1.5	13.0	3.0	26.0	4.5	40.0	6.0	53.0
500	2.0	18.0	4.0	62.0	6.0	53.0	7.5	66.0
750	3.0	26.0	5.0	44.0	7.0	62.0	9.0	79.0
1000	4.0	35.0	7.0	62.0	9.0	79.0	11.0	97.0

Please note these values have been rounded up or down at blade inter-action, with actual blade rotation being at reduced torque levels.

Weight Chart (kg) Flangfit - Aluminium Blades

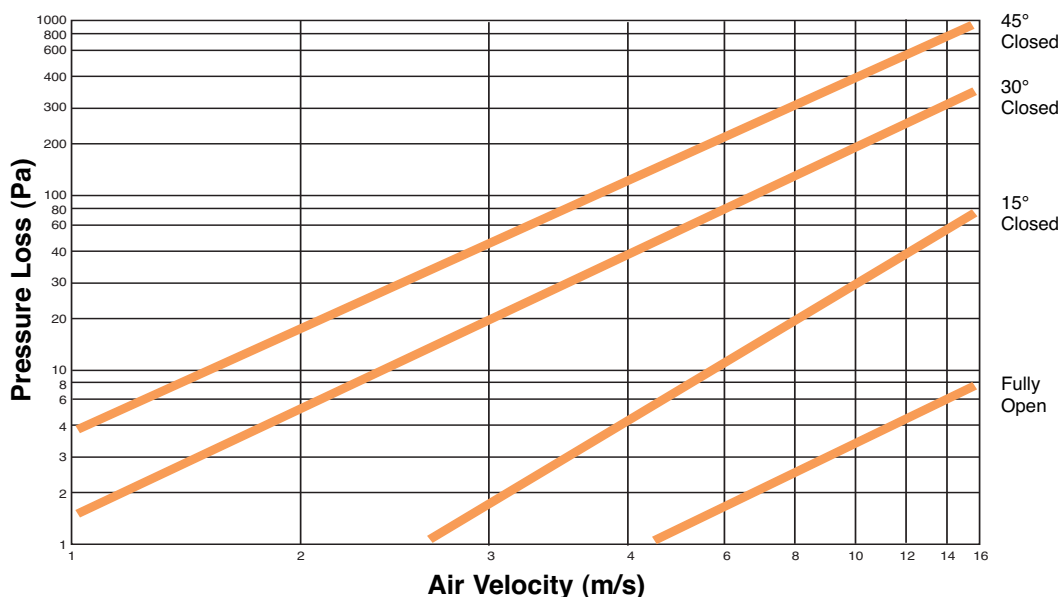
Damper Height (mm)	Damper Width (mm)									
	100	200	300	400	500	600	700	800	900	1000
100	2.0	2.0	2.0	3.0	3.0	3.0	4.0	4.0	4.0	5.0
200	3.0	3.0	4.0	4.0	5.0	5.0	5.0	6.0	6.0	7.0
300	4.0	5.0	5.0	6.0	6.0	7.0	7.0	8.0	8.0	9.0
400	6.0	6.0	7.0	7.0	8.0	9.0	9.0	10.0	10.0	11.0
500	7.0	8.0	8.0	9.0	10.0	10.0	11.0	12.0	12.0	13.0
600	8.0	9.0	10.0	11.0	11.0	12.0	13.0	13.0	14.0	15.0
700	10.0	10.0	11.0	12.0	13.0	14.0	14.0	15.0	16.0	17.0
800	11.0	12.0	13.0	14.0	15.0	15.0	16.0	17.0	18.0	19.0
900	12.0	13.0	14.0	15.0	16.0	17.0	18.0	19.0	20.0	21.0
1000	14.0	15.0	16.0	17.0	18.0	19.0	20.0	21.0	22.0	23.0

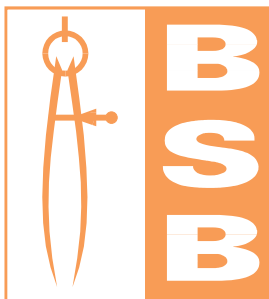
Please note these values have been rounded up or down to whole values and are therefore illustrated for estimation purposes only.

Performance Characteristics

Pressure Loss (Report Ref. 166)

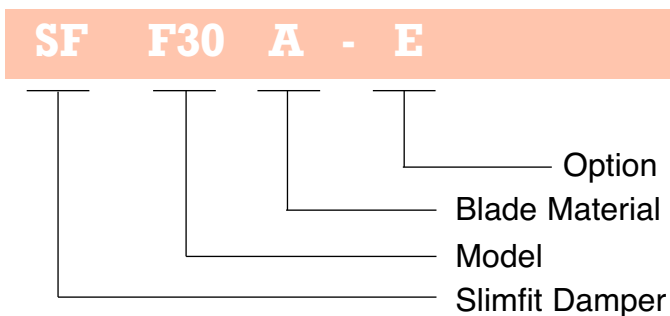
These figures are based on 600 x 600mm unit.





Ordering Codes

Example:



SF Slimfit Regulating Damper

Model:

F30 Flangefit 30mm

F35 Flangefit 35mm

Blade Material:

A Aluminium Airfoil Blades

S Stainless Steel Airfoil Blades (specify grade)

Control Options:

E Extended Spindle

H Hand Control

M Electric Motor (state voltage and model)

P Pneumatic Actuator Fitted

BSB Product Range



BD Series
Backdraught
Damper



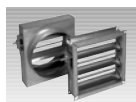
Control Panel
Standard
Electro-Mechanical



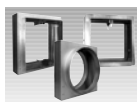
Control Panel
Premier
Electro-Mechanical



Control Panel
Fully Addressable



DD Series
Duct Damper



FD Series
Fire Damper



FSD Series
Fire/Smoke
Damper



HD Series
Heavy Duty
Control Damper



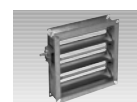
SB Series
Single Blade
Regulating
Damper



SC Series
Smoke Control
Damper



SF Series
Slimfit
Regulating
Damper



SS Series
Slimseal
Regulating
Damper



BSB Engineering Limited

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

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

E-mail: sales@bsb-dampers.co.uk

www.bsb-dampers.co.uk

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.

BSBSF. Dec. 2006

MANUFACTURERS OF AIR/FIRE/SMOKE CONTROL PRODUCTS