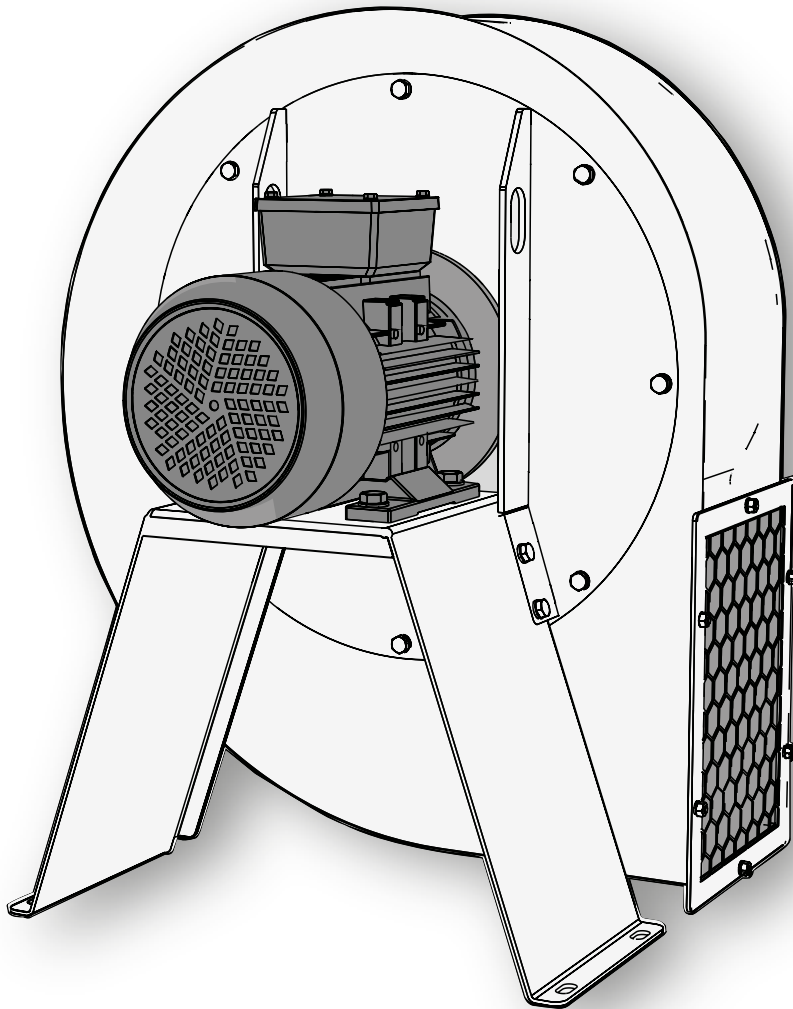


INSTALLATION INSTRUCTIONS

**FUMEX**<sup>®</sup>

**FB**



<b>Contents</b>	<b>Page</b>
User instructions	3-5
General	3
Fan installation	3-4
Maintenance	3
Electrical installation	5
Troubleshooting	5
Technical description	6-8
General	6
Classification	6
Technical specification	6
Manufacturer's declaration	6
Exploded view	7
Accessories	8

**User instructions**  
**General**

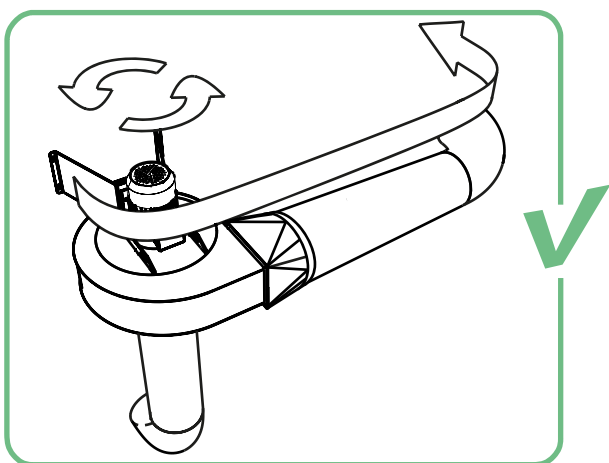
The Fumex FB fan is a radial fan for the evacuation of gases, smoke and low weight particles. The fan series conforms to the protection and safety regulations in the EU's Machinery Directive. The fans boast high levels of quality and operational reliability. ALL fans undergo inspection and test operation before leaving the factory. However, risks can arise with any fan if:

- it is not installed, used or maintained by trained personnel.
- it is not used in the intended manner.

**⚠** Please note that electronic equipment is always susceptible to static electricity, high humidity, high temperatures and line failures. The equipment is supplied with high voltage. Use the isolating switch when carrying out service work on the fan.  
The fans are not intended for use in the evacuation of explosive gases.

**Fan installation**

Installation may only be performed by authorised personnel with regard to these installation instructions and applicable regulations. Make sure that all safety-related fan components satisfy their function. The stability of the fan must always be ensured during operation. In order to achieve optimum function, it is important for the fan's duct connections to be correctly executed. Incorrect installation can cause considerable deterioration in the fan's performance with regard to pressure drop and sound levels.  
In order to achieve optimum performance, we recommend that the inlet connection is a straight duct that is 5 times the diameter of the duct. If an outlet duct is used, the same applies to this. If the system requires a 90° bend in the outlet, it should deviate in the impeller's direction of rotation (see below).



**⚠** There is always a risk of clothes or loose items being sucked into a free-blowing fan. This can cause personal injury or damage to property.

The fan is supplied with the outlet pointing as illustrated on page 1. If an alternative outlet air direction is required, the fan housing can be set in 8 possible positions. Take great care to ensure that the impeller is not damaged when reinstalling the fan housing.  
In the event of outdoor installation, a drainage hole must be drilled at what becomes the lowest point in the installed fan, according to the selected outlet direction.

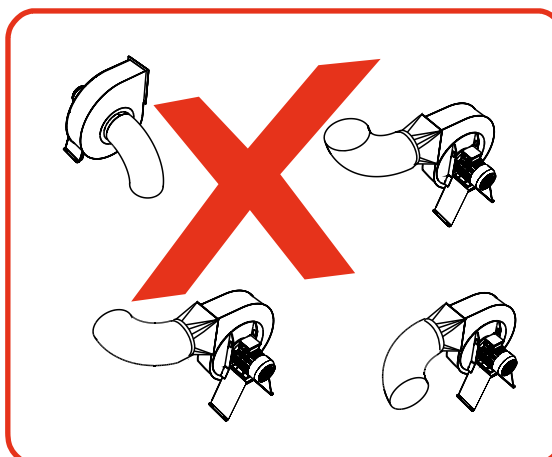
**⚠** In the case of professional installation, too, fans can produce harmful noise levels. It should also be noted that specified noise data (see separate product sheet) can be altered by the surroundings or resonance in the operating location.

**⚠** The fans are designed for installation in systems and therefore have no guard on the inlet. This means that the fan must not be started until it is connected to a duct. The guard installed on the outlet can be removed if you want to connect an outlet duct (see accessories on page 8).

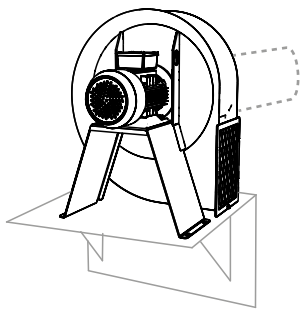
**Maintenance**

Fumex fans have been designed for continuous use for an extended time with a high level of reliability. Like all machines, regular servicing and maintenance are required to achieve optimum function. Movex recommends the following maintenance schedule:

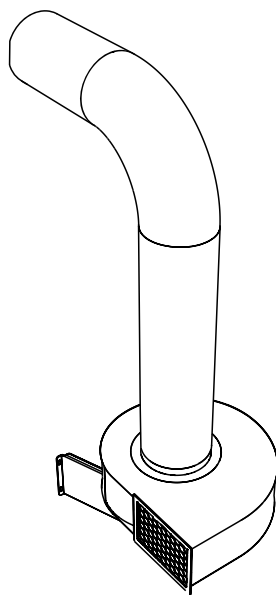
Component	Interval 6 months
Motor	Check function. Replace motor if necessary.
Impeller	Check for any damage and clear away foreign objects if necessary. Replace impeller in the event of damage.
Fan housing	Check that connections are secure and clear away foreign objects. Check the drainage hole and clear if necessary.



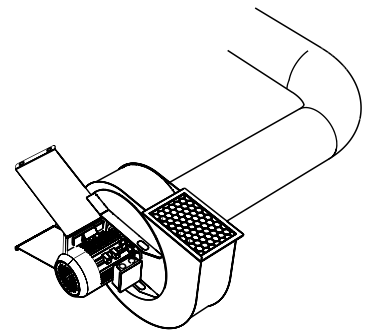
## Outdoor wall installation



A flexible installation that optimises the pressure drop on the inlet side. Makes it possible to choose outlet direction. In the event of condensation problems, installation as illustrated is recommended. If noise levels are the priority, it is recommended to have the outlet pointing straight up, with drainage in the fan housing (for drainage see page 3).  
 Note! The fan bracket must be made on site.

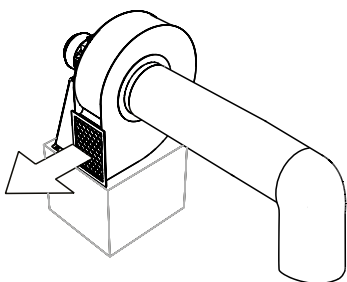


An installation that prioritises service-friendliness and that is suitable for most systems, as the connection to the extract air is located high up. The fan housing protects the motor against rain. The disadvantage of this arrangement is that the outlet sound is not routed away.

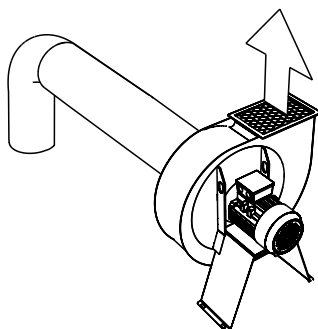


An installation that is used when low noise levels are prioritised. The disadvantage of this arrangement is that the fan is located high up if the extract air duct is high.  
 Note! The fan housing needs to be drained (for drainage see page 3).

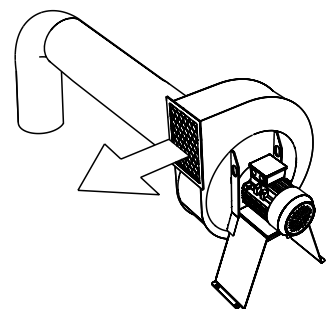
## Outdoor roof installation



A low-level, sideways outlet direction is suitable in the event of condensation problems.  
 Note! The base must be made on site due to possible snow.



Upwards outlet direction, suitable in the event of noise problems.  
 Note! Drainage is required (for drainage see page 3).

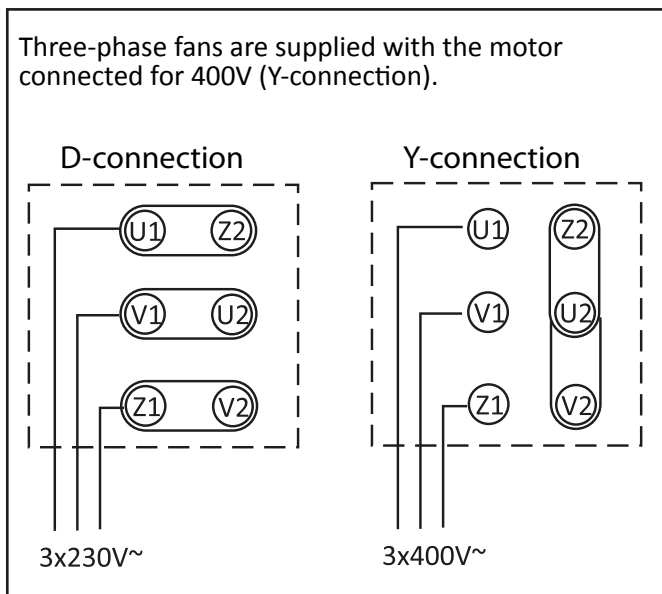
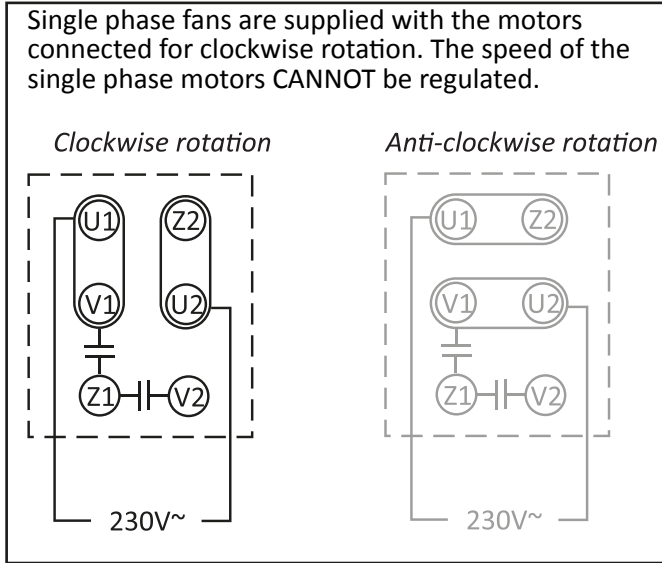


A high-level, sideways outlet direction is suitable when condensation is not a problem.  
 Note! Drainage is required (for drainage see page 3).

## Electrical installation

**!** The equipment is supplied with high voltage and must always be fitted with a safety switch for carrying out servicing work in connection with the fan.

The choice of cable and cable cross-section must comply with the national requirements that apply to fixed installations.



In order to satisfy applicable standards, the FB fan must be fitted with a contactor and overcurrent protection. The overcurrent protection should be calculated to cope with 20% extra power. To choose the correct contactor, see page 6.

If technical regulating apparatus (e.g. frequency converter) is used, the manufacturer's recommendations for avoiding interference must be observed. E.g. EMC, protective earth, cable length, cable shielding, etc..

## Troubleshooting

Always go through the troubleshooting schedule before contacting Fumex. This schedule contains information that makes it easy to identify faults that are simple to rectify.

**!** Set external safety switch in the off position. The fan can start up without warning following a power outage. Only qualified personnel may perform servicing work on the fan.

Symptom	Possible fault
The fan has stopped	Fault in the power supply. <i>Check the power supply.</i>
	Short circuit in connection. <i>Check for moisture in the safety switch and motor connection.</i>
	Locked impellar <i>Check that there are no foreign objects in the fan housing.</i>
Loss of performance	Locked impellar <i>Check that no ice has formed in the fan housing.</i>
	Motor winding <i>Check for resistance between windings.</i>
	Debris <i>Check that there are no foreign objects in the fan housing.</i>
	Incorrect direction of rotation <i>Check the direction of rotation.</i>
	Connections <i>Check that connections and duct routing are correct.</i>


## Technical description

### General

The Fumex FB fan series is delivered in a robust box or on a wooden pallet with the required packaging material.

A rating plate is affixed to the motor.

The working temperature through the fan is max. 80°C and the ambient temperature between -10° to +40°C. Atmospheric humidity must not exceed 90%.

 The fan's motor generates heat and is fitted with a cooling fan. The inlet to the cooling fan is at the rear of the motor. Do not block the inlet.

### Classification

Fumex fans are designed for maximum efficiency. This means that the Movex FB fan series satisfies the efficiency requirements for ErP (Energy related Products 2009/125/EC).



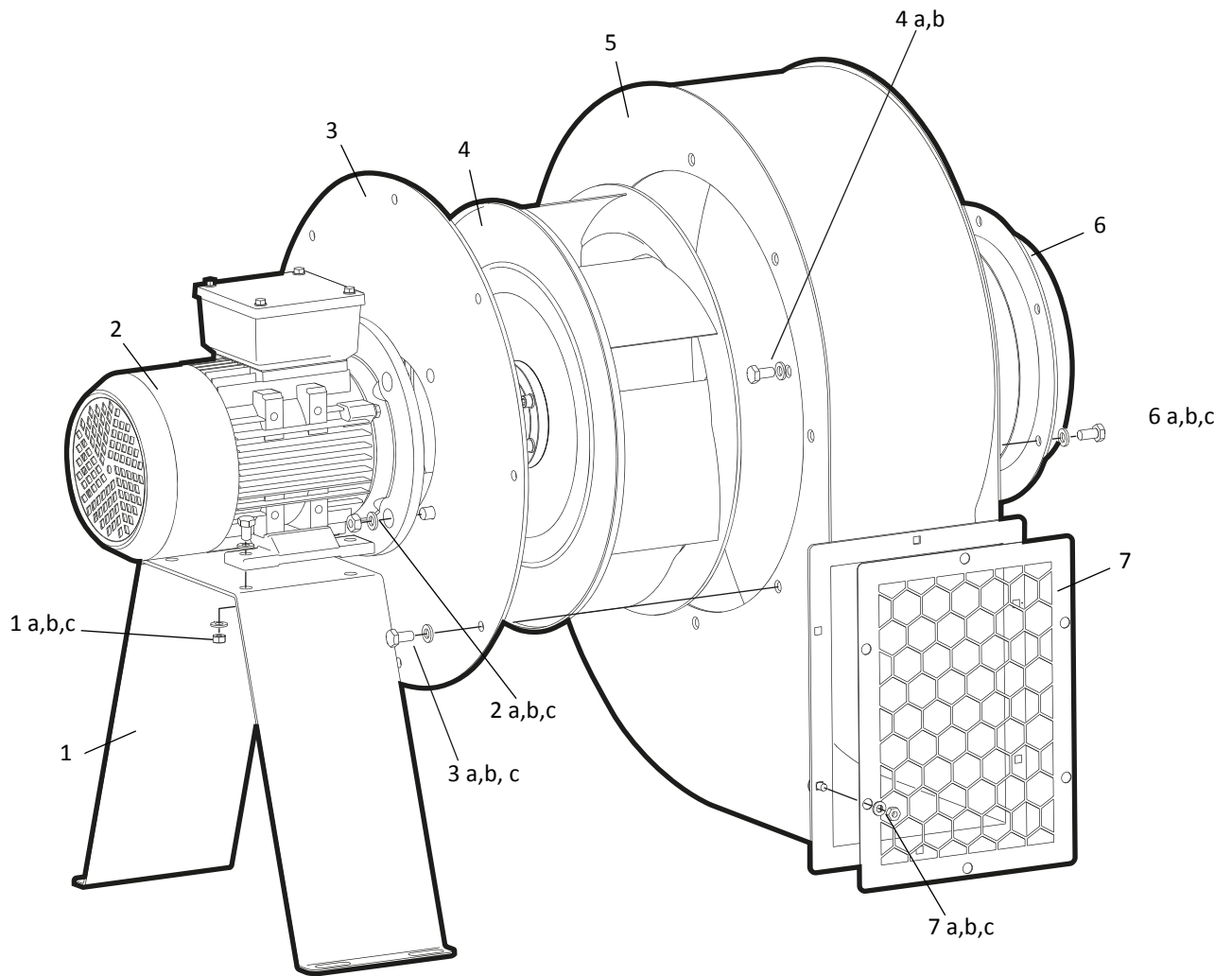
Enclosure class: IP 55  
Usage type: Continuous

Conformity:

Fumex FB fans conform to demands in accordance with the Machinery Directive 2006/42/EC.

## Technical specification

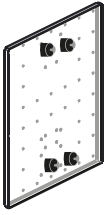
Model	Output	Voltage	Frequency	Current	Motor speed	Cos	Weight	Contactor with overcurrent protection	Amperage	Motor protection switch
FB 037-1	0.37 kW	230 V 1N~	50 Hz	2.7 A	2800 rpm	0,92	20 kg	SKO 40/xxx	2.5 - 4A	SMB 40
FB 055-1	0.55 kW	230 V 1N~	50 Hz	3.9 A	2800 rpm	0,92	21 kg	SKO 60/xxx	4 - 6A	SMB 63
FB 075-1	0.75 kW	230 V 1N~	50 Hz	4.9 A	2800 rpm	0,95	27 kg	SKO 60/xxx	4 - 6A	SMB 63
FB 110-1	1.10 kW	230 V 1N~	50 Hz	7.0 A	2800 rpm	0,95	30 kg	SKO 80/xxx	5.5 - 8A	SMB 100
FB 037-3	0.37 kW	230 V 3~	50 Hz	1.7 A	2755 rpm	0,81	20 kg			
FB 055-3	0.55 kW	230 V 3~	50 Hz	2.3 A	2790 rpm	0,82	21 kg			
FB 075-3	0.75 kW	230 V 3~	50 Hz	2.9 A	2890 rpm	0,83	27 kg			
FB 110-3	1.10 kW	230 V 3~	50 Hz	4.0 A	2890 rpm	0,83	30 kg			
FB 220-3	2.20 kW	230 V 3~	50 Hz	7.6 A	2890 rpm	0,85	46 kg			
FB 400-3	4.00 kW	230 V 3~	50 Hz	13.0 A	2910 rpm	0,88	48 kg			
FB 750-3	7.50 kW	230 V 3~	50 Hz	23.5 A	2940 rpm	0,88	66 kg			
FB 037-3	0.37 kW	400 V 3~	50 Hz	1.0 A	2755 rpm	0,81	20 kg	SKO 17/xxx	1 - 1.6A	SMB 16
FB 055-3	0.55 kW	400 V 3~	50 Hz	1.3 A	2790 rpm	0,82	21 kg	SKO 17/xxx	1 - 1.6A	SMB 16
FB 075-3	0.75 kW	400 V 3~	50 Hz	1.6 A	2890 rpm	0,83	27 kg	SKO 25/xxx	1.6 - 2.5A	SMB 25
FB 110-3	1.10 kW	400 V 3~	50 Hz	2.3 A	2890 rpm	0,83	30 kg	SKO 40/xxx	2.5 - 4A	SMB 40
FB 220-3	2.20 kW	400 V 3~	50 Hz	4.3 A	2890 rpm	0,85	46 kg	SKO 60/xxx	4 - 6A	SMB 63
FB 400-3	4.00 kW	400 V 3~	50 Hz	7.4 A	2910 rpm	0,88	48 kg	SKO 100/xxx	7 - 10A	SMB 100
FB 750-3	7.50 kW	400 V 3~	50 Hz	13.5 A	2940 rpm	0,88	66 kg	SKO 180/xxx	12 - 18A	SMB 180



- |                   |                |                    |
|-------------------|----------------|--------------------|
| 1. Bracket        | 1 a. Bolt      | 4 a. Bolt          |
| 2. Motor          | 1 b. Washer    | 4 b. Washer        |
| 3. Motor plate    | 1 c. Nut       | 6 a. Bolt          |
| 4. Impeller       | 2 a. Bolt      | 6 b. Washer        |
| 5. Fan housing    | 2 b. Washer    | 6 c. Rivet nut     |
| 6. Inlet          | 2 c. Nut       | 7 a. Carriage bolt |
| 7. Outlet grating | 3 a. Bolt      | 7 b. Washer        |
|                   | 3 b. Washer    | 7 c. Nut           |
|                   | 3 c. Rivet nut |                    |

## Mounting plate, FBF

Intended to be used for simple, safe mounting of fans on walls made of uneven material, e.g. corrugated metal. Supplied complete with vibration dampers for optimum function.



Designation:  
FBF 110 - Fits FB 037, 055, 075 and 110.  
FBF 750 - Fits FB 220, 400 and 750.

## Technical information

Material:	Steel (SS-EN 10025 S235JR)
Surface treatment:	Hot-dip galvanisation
Weight FBF 110:	20 kg
Weight FBF 750:	23 kg
Outer dimensions	650 x 650 x 30
Outer dimensions	670 x 770 x 30

## Connection, FBD

Intended to be used to prevent the spread of structure-borne noise. Supplied complete with hose clip.



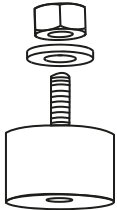
Designation:  
FBD 055 - Fits FB 037 and 055.  
FBD 110 - Fits FB 075 and 110.  
FBD 220 - Fits 220.  
FBD 400 - Fits FB 400.  
FBD 750 - Fits FB 750.

## Technical information

Material:	PVC membrane reinforced with polyester mesh
Weight:	~0.1 - 0.2 kg
Outer dimensions FBD 055:	Ø164 x 125 x 0.5
Outer dimensions FBD 110:	Ø204 x 125 x 0.5
Outer dimensions FBD 220:	Ø254 x 125 x 0.5
Outer dimensions FBD 400:	Ø404 x 150 x 0.5
Outer dimensions FBD 750:	Ø504 x 150 x 0.5

## Vibration damper, FBV

Intended to be used to prevent the spread of vibrations, which can result in increased noise levels.



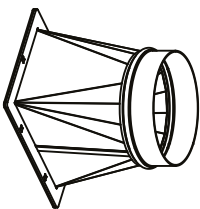
Designation:  
FBV - Fits all sizes.

## Technical information

Material:	EPDM rubber with mounting components made of chromated steel.
Weight:	~0.25 kg
Outer dimensions FBV:	Ø50 x 30 x M10

## Outlet transition piece, FBU

Intended to be used for simple and optimised transition when a round outlet duct is to be connected. Supplied complete with installation components.



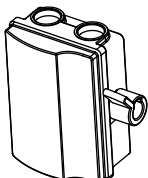
Designation:  
FBU 037 - Fits FB 037.  
FBU 055 - Fits FB 055.  
FBU 075 - Fits FB 075.  
FBU 110 - Fits FB 110.  
FBU 220 - Fits FB 220.  
FBU 400 - Fits FB 400.  
FBU 750 - Fits FB 750.

## Technical information

Material:	Steel (SS-EN 10025 S235JR)
Surface treatment:	Hot-dip galvanisation
Weight:	~1.2 - 5.1 kg
Outer dimensions FBU 037:	171 x 230 x 195 (Ø160)
Outer dimensions FBU 055:	195 x 230 x 195 (Ø160)
Outer dimensions FBU 075:	208 x 252 x 245 (Ø200)
Outer dimensions FBU 110:	205 x 280 x 245 (Ø200)
Outer dimensions FBU 220:	220 x 311 x 255 (Ø250)
Outer dimensions FBU 400:	280 x 401 x 345 (Ø400)
Outer dimensions FBU 750:	323 x 441 x 445 (Ø500)

## Safety switch, SSB 750

Safety switch with lockable with locking lever. Supplied with 2 lead-in M25



Designation:  
SSB 750 - Fits all sizes.

## Technical information

Material:	PC
Weight:	0,3 kg
Outer dimension:	138 x 63x118 mm