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**Filter cassette for circular, rectangular and square ducts**

# Table of content

1	Introduction .....	1
1.1	Product description .....	1
1.2	Intended use .....	1
1.3	Document description.....	1
1.4	Product overview FFK and FFS .....	1
1.5	Product overview FFR and FGR .....	1
1.6	Product liability.....	2
2	Safety .....	2
2.1	Safety definitions .....	2
2.2	Safety instructions .....	2
2.3	Personal protective equipment .....	3
3	Transportation and storage .....	3
4	Installation.....	4
4.1	To do before installation of the product .....	4
4.2	To install the product .....	4
5	Technical data .....	5
5.1	Product dimensions FGR .....	5
5.2	Product dimensions FFR.....	6
5.3	Product dimensions FFK.....	7
5.4	Product dimensions FFS.....	8
6	Maintenance.....	9
6.1	To replace the filter .....	9
6.1.1	Filter class .....	9

# 1 Introduction

Filter cassettes with square, rectangular or round connection. The product casing is made from galvanised steel sheet.

Filter used in cassettes needs to be changed regularly, how often depends of how the product is used and in what environment the filter cassette is located.

## 1.1 Product description

The products are filter cassettes with a casing made from galvanized steel. FGR and FFR has circular connections with rubber sealing.

FFK has rectangular connection and FFS has square connection.

## 1.2 Intended use

The filter cassette is together with filter intended to filter the air from particles.

FGR is used for panel filter.

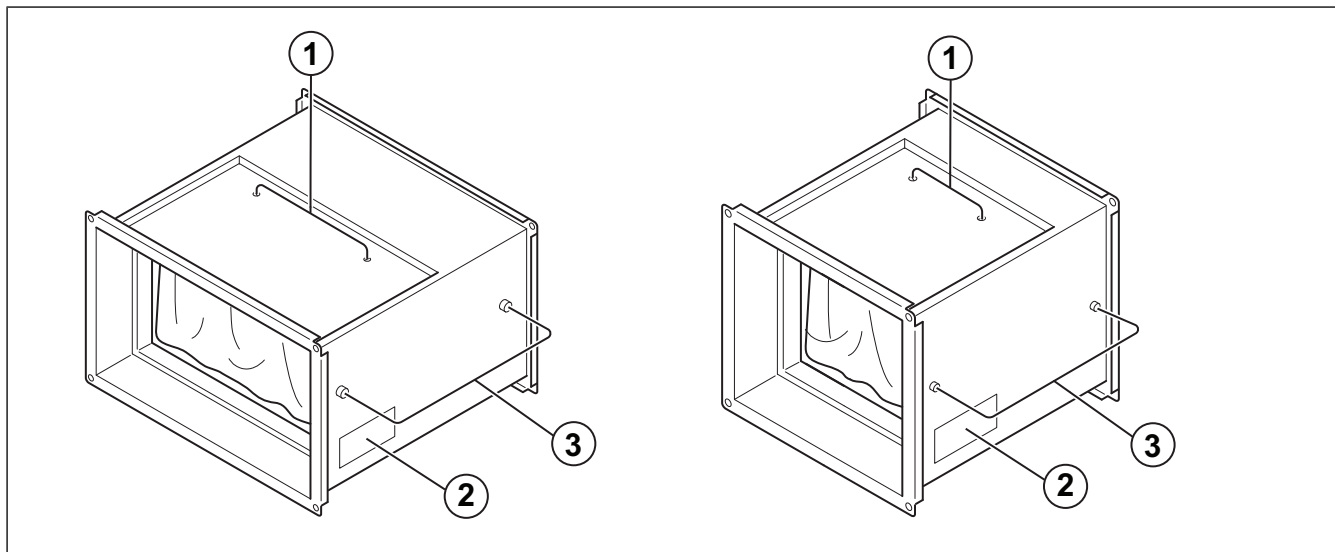
FFR, FFK, FFS are used for bag filter.

## 1.3 Document description

This document contains instructions for installation, operation and maintenance of the product. The procedures must be done by approved personnel only.

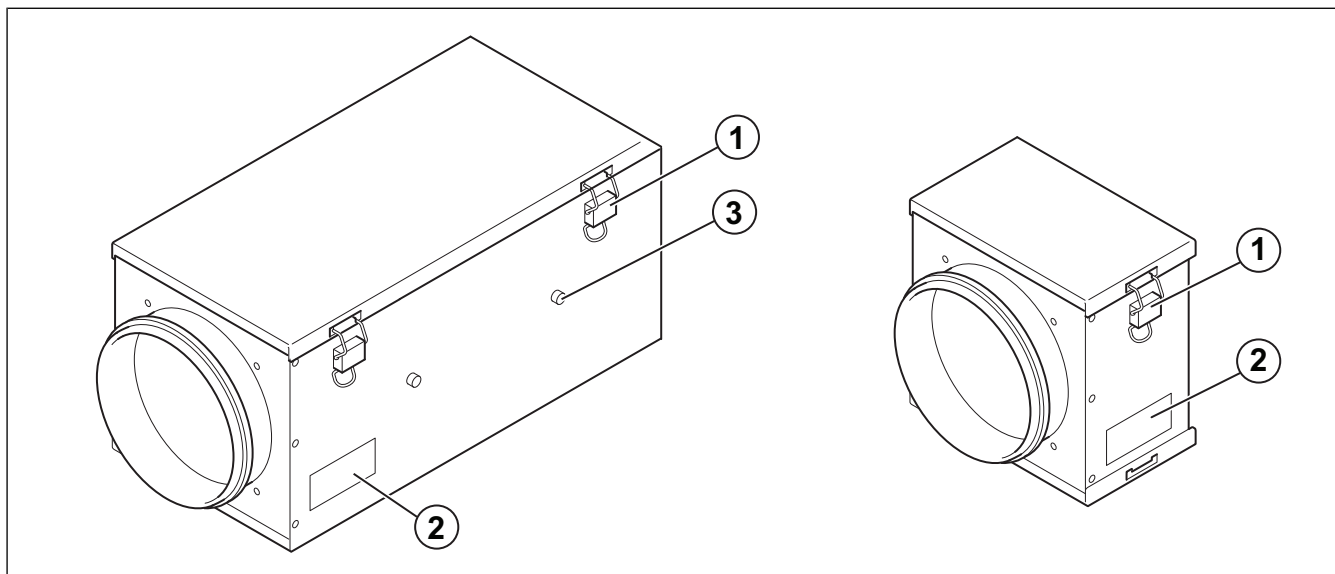
Speak to Systemair for more information on how to install the product in different installation locations.

## 1.4 Product overview FFK and FFS



1. Screws to open the lid
2. Name plate
3. Connections for a pressure sensor

## 1.5 Product overview FFR and FGR



1. Locking device
2. Name plate
3. Connections for a pressure sensor

## 1.6 Product liability

Systemair is not liable for damages that the product causes in these conditions:

- The product is incorrectly installed, operated or maintained.
- The product is repaired with parts that are not original spare parts from Systemair.
- The product is used together with accessories that are not original accessories from Systemair.

## 2 Safety

### 2.1 Safety definitions

Warnings, cautions and notes are used to point out specially important parts of the manual.



#### Warning

If you do not obey these instructions, there is a risk of death or injury.



#### Caution

If you do not obey these instructions, there is a risk of damage to the product, other materials or the adjacent area.

#### Note:

Information that is necessary in a given situation.

### 2.2 Safety instructions



#### Warning

Read the warning instructions that follow before you do work on the product.

- Read this manual and make sure that you understand the instructions before you do work on the product.
- Obey local conditions and laws.
- The ventilation contractor and the operator are responsible for correct installation and intended use.
- Keep this manual at the location of the product.
- Do not install or operate the product if it is defective.
- Do not remove or disconnect safety devices.
- Make sure that you can read all warning signs and labels on the product when it is installed. Replace labels that have damage.
- Only permit approved personnel to work on the product and to be in the adjacent area during all work on the product.
- Use applicable safety devices and personal protective equipment during all work on the product.
- If the maintenance is not correctly and regularly done, there is risk of injury and damage to the product.
- Only do the maintenance as given in this manual. Speak to Systemair technical support if other servicing is necessary.
- Always use spare parts from Systemair.
- The product is not to be used by persons, including children, with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction.
- Do not allow children to play with the device.

## 2.3 Personal protective equipment

Use personal protective equipment during all work on the product.

- Approved eye protection
- Approved protective helmet
- Approved hearing protection
- Approved protective gloves
- Approved protective shoes
- Approved work clothing

## 3 Transportation and storage



### Caution

Make sure that the product does not become damaged or wet during transportation.

- Before you move the product to the installation location, examine the packaging for damages.
- Keep the correct side of the packaging up during transportation. Refer to the arrows on the packaging.
- Load and unload the product carefully.
- Keep the product in a dry and clean location during storage.
- Keep the product in storage for maximum 1 year.

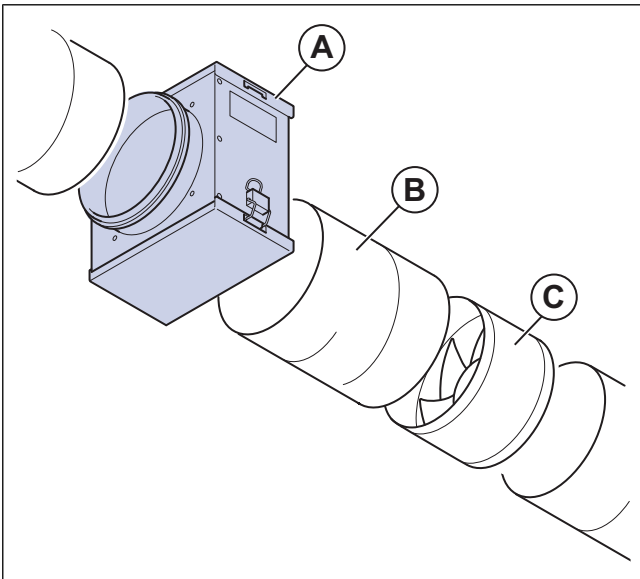
## 4 Installation

### 4.1 To do before installation of the product

- Use installation material with fire resistance rating for the installation location.
- Examine the packaging for transportation damage and remove the packaging from the product carefully.
- Examine the product and all components for damage.
- Make sure that the dimensions of the product agrees with the expectations at the installation location.
- Make sure that the information on the name plate agrees with the operation conditions.
- Install the product in a location where there is space for commissioning, troubleshooting and maintenance.
- Make sure that the installation surface has sufficient capacity to hold the weight of the product.

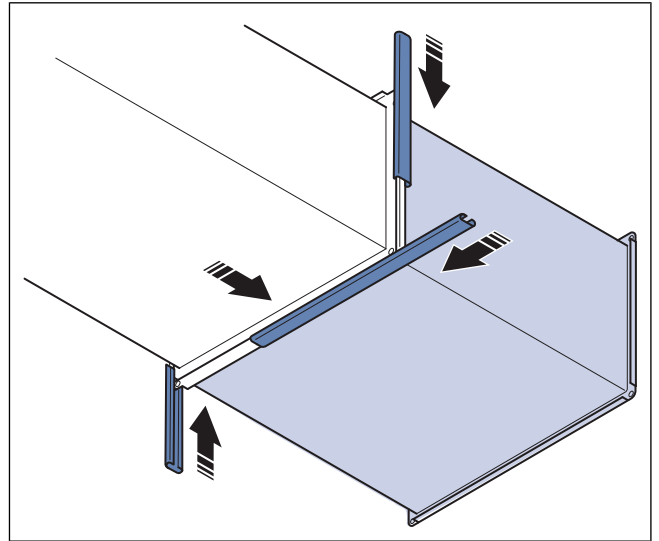
### 4.2 To install the product

- 1 For products with circular connection, do these steps:
  - a. Put the outside air duct to the product (A) with a short duct or a duct connector (B) before the fan (C)
  - b. Use self drilling screws to attach the duct to the product.



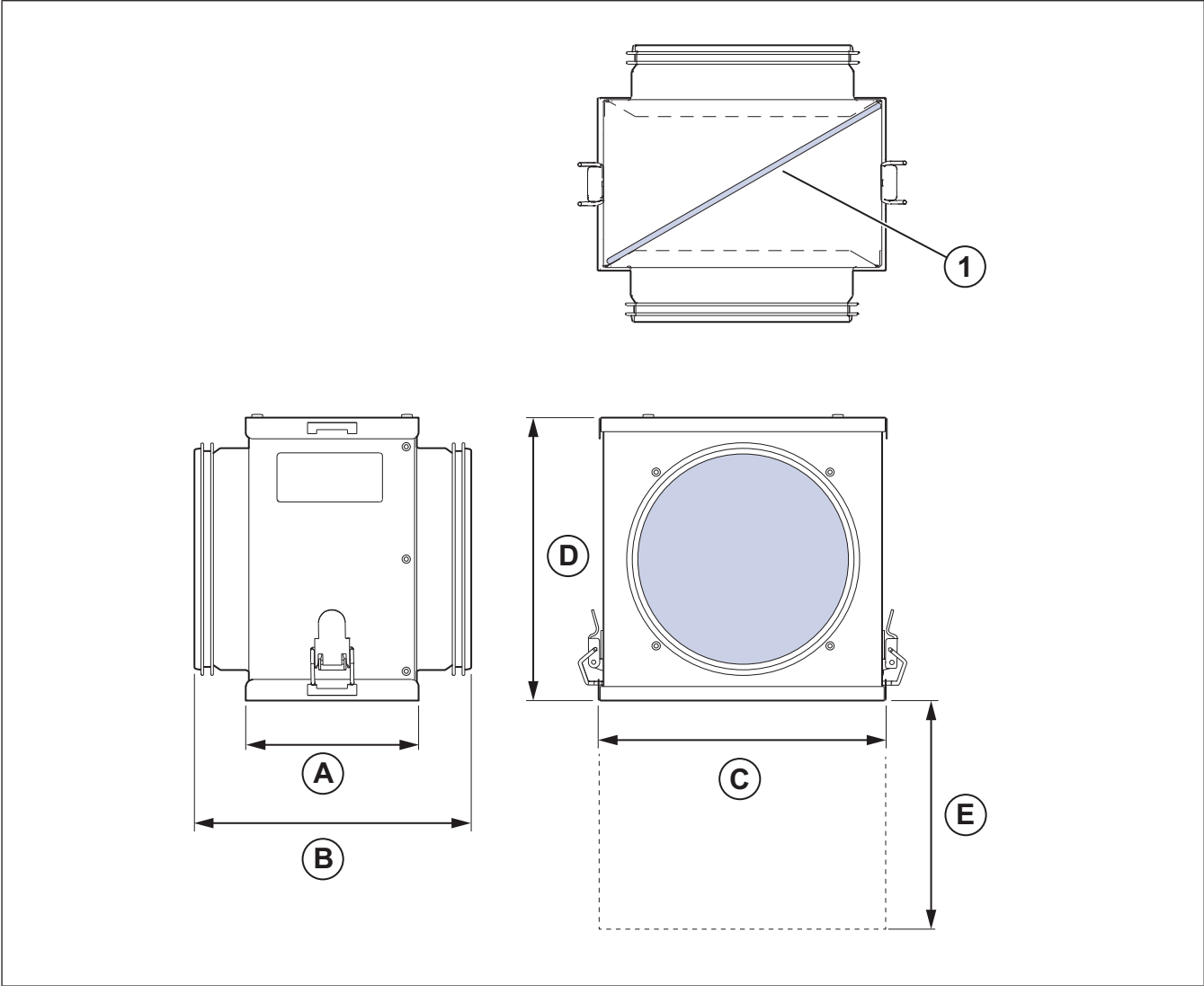
- 2 For products with rectangular duct connections, do these steps:

- a. Use guide rails to attach the duct to the product. Guide rails are not supplied by Systemair.



# 5      Technical data

## 5.1    Product dimensions FGR



Filter installation (1) for FGR.

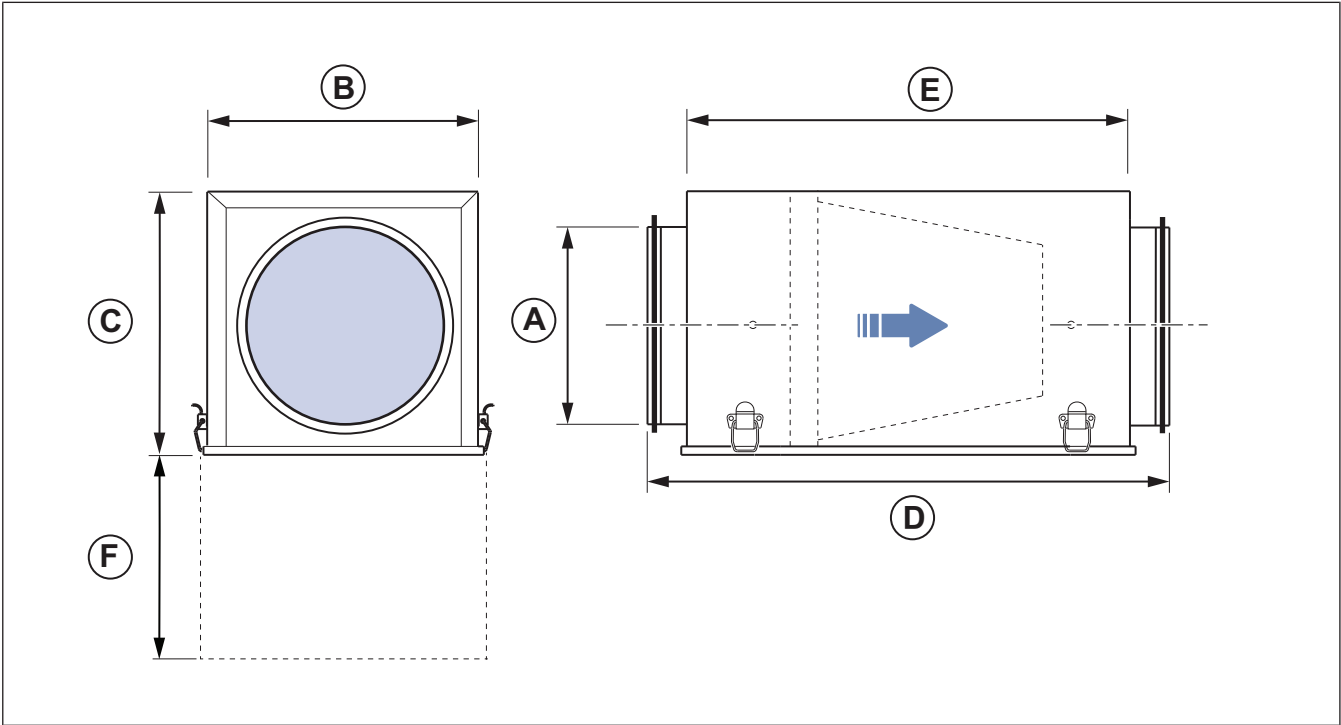
FFR	ø	A	B	C	D	E 1
100	100	123	199	205	201	190
125	125	123	199	205	201	190
150	150	123	199	205	201	190
160	160	123	199	205	201	190
200	200	123	199	302	297	280
250	250	123	239	302	297	280
315	315	123	239	350	345	330
355	355	123	239	454	450	435
400	400	123	259	454	450	435

1. Free area for filter change.

## 5.2 Product dimensions FFR

**Note:**

Install the filter cassette in flat or vertical position. If installed vertically, the direction of the airflow must be in the direction down so that the filter bags do not collapse.



FGR	A	B	C	D	E	F 1
100	100	200	203	522	450	200
125	125	200	203	522	450	200
150	150	200	203	522	450	200
160	160	200	203	522	450	200
200	200	245	248	530	450	245
250	250	295	298	584	500	295
315	315	345	348	634	550	345
355	355	445	448	780	650	445
400	400	445	448	782	650	445

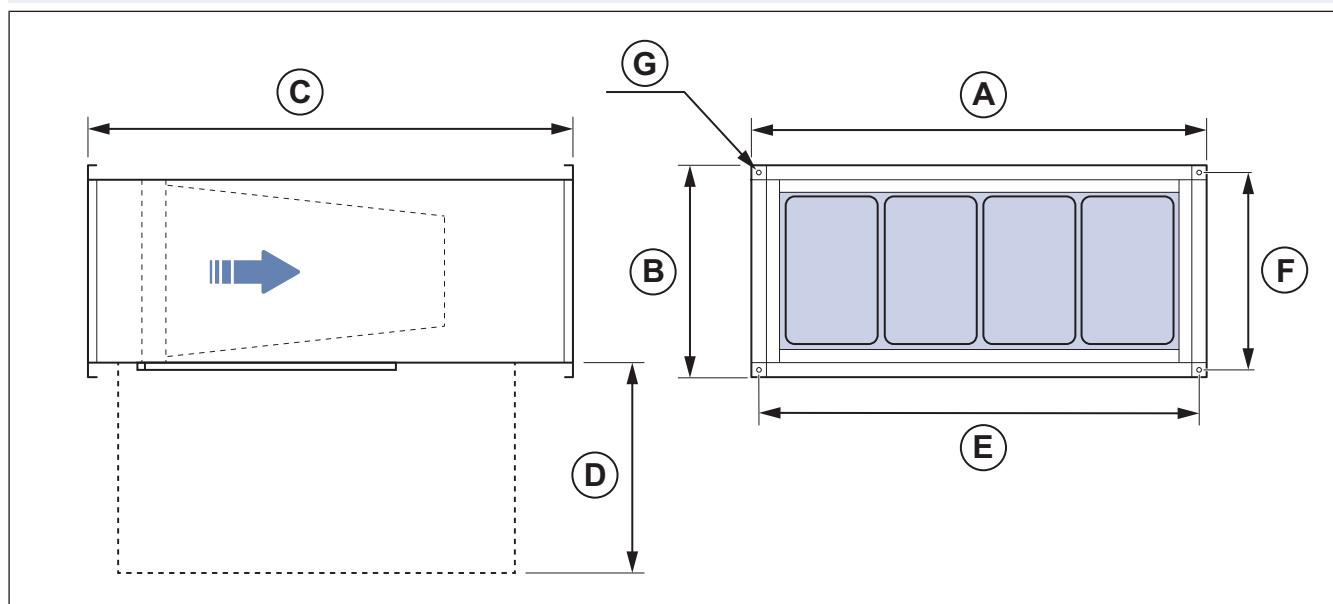
1. Free area for filter change



## 5.3 Product dimensions FFK

### Note:

Install the filter cassette in flat or vertical position. If installed vertically, the direction of the airflow must be in the direction down so that the filter bags do not collapse.



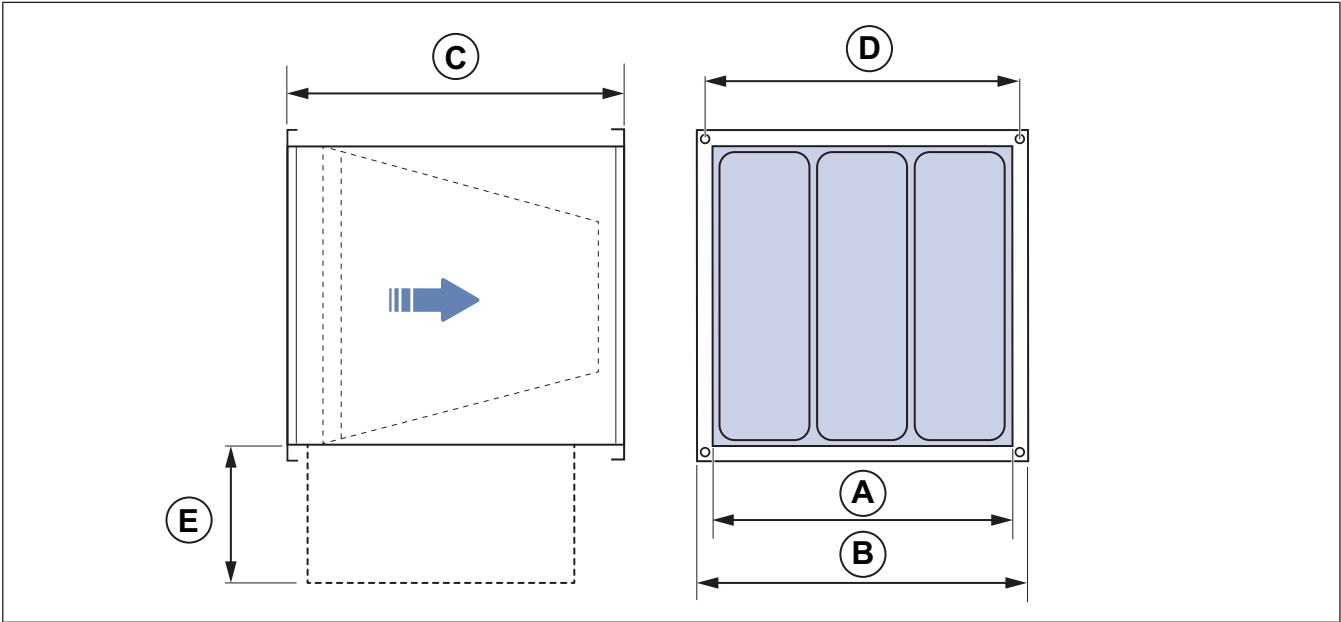
FFK	A	B	C	D <sup>1</sup>	c/c E	c/c F
30–15	340	190	402	250	320	170
40–20	440	240	502	350	420	220
50–25	540	290	532	350	520	270
50–30	540	340	562	350	520	320
50–40	540	440	550	390	520	420
60–30	640	340	642	350	620	320
60–35	640	390	717	350	620	370
70–30	740	340	700	390	720	320
70–40	740	440	787	420	720	420
80–40	840	440	800	466	820	420
80–50	840	540	882	530	820	520
100–50	1040	540	882	530	1020	520
120–50	1240	540	900	616	1220	520

1. Free area for filter change

## 5.4 Product dimensions FFS

**Note:**

Install the filter cassette in flat or vertical position. If installed vertically, the direction of the airflow must be in the direction down so that the filter bags do not collapse.



FFS	□A	□B	C	c/c D	E <sup>1</sup>
45	447	492	502	470	350
50	502	547	532	520	350
55	550	595	562	573	350
65	661	707	642	680	350
70	697	742	642	720	350

1. Free area for filter change

## 6 Maintenance

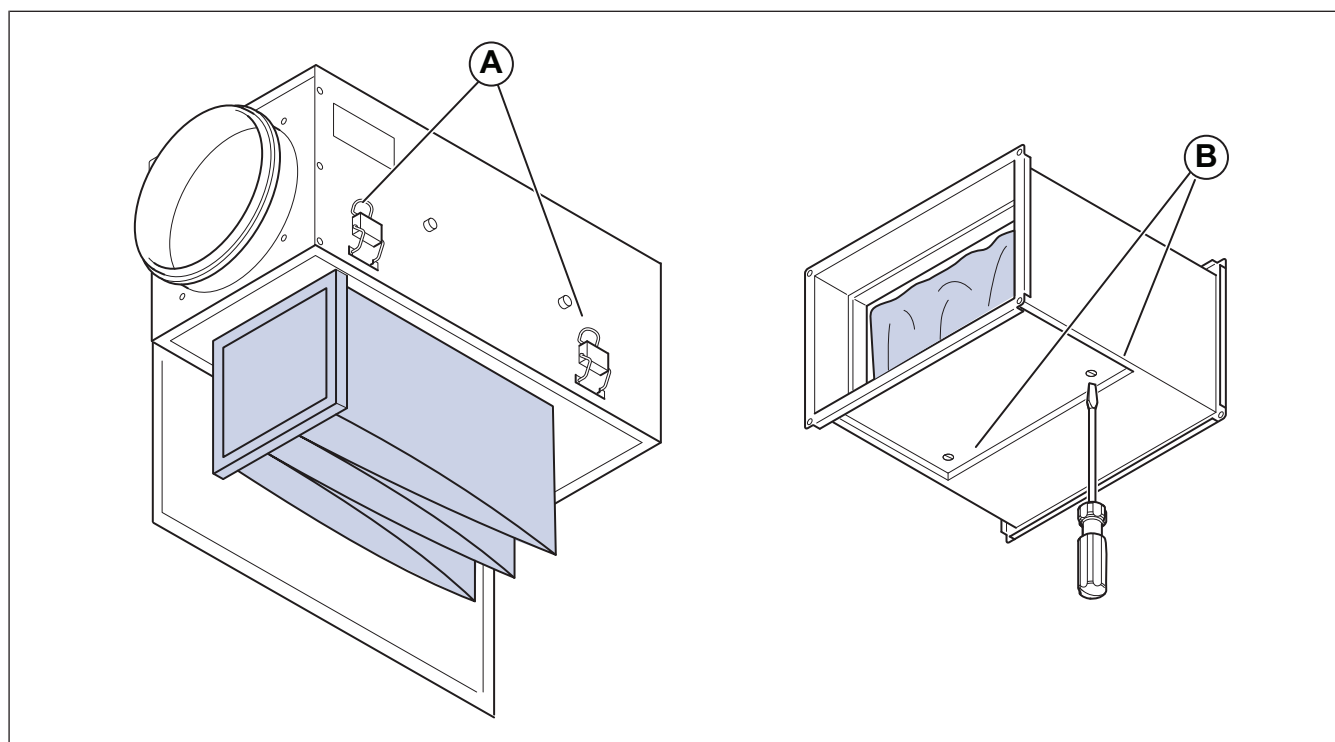
### 6.1 To replace the filter



#### Warning

Wear a protective mask to prevent that dust and dirty particles goes into the lungs.

- 1 Switch the ventilation off.
- 2 Open the filter hatch.
  - For FGR and FFR open the hatch with the locking device (A).
  - For FFK and FFS use a screw driver and turn the 2 locking screws (B) 45° to open the hatch.



- 3 Remove the filter and place the filter in a protective bag.
- 4 Push the new filter into position. Make sure that the filter is in the correct direction.
- 5 Close and lock the hatch.

#### 6.1.1 Filter class

Product	FGR <sup>1</sup>	FFR <sup>2</sup>	FFK	FFS
Coarse 50%	x	x		
Coarse 60%			x	
Coarse 70%		x	x	
ePM1 60%		x	x	
ePM10 55%				x

1. Panel filter
2. For other filter classes available, refer to [www.systemair.com](http://www.systemair.com)



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