CFCClean Filtering Cassettes Data Sheet





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Description

The clean filtering cassettes for clean areas are intended for filtering the air supplied into areas with high requirements for hygiene and particle-free environment, such as operating rooms, intensive care units, laboratories, clean manufacturing areas etc.

It is possible to install filters that have a filtration class in EPA, HEPA and ULPA range with rubber gaskets or gel gaskets into the filtering cassettes for the highest possible tightness.

Highlights

- · Mounting into different types of ceilings as well as walls, including narrowed-down ceiling spaces with a clearance height of less than 300 mm.
- Applicable filter frame thickness 69 mm to 80 mm or 150 mm.
- · Side or top connection.
- Version for less challenging applications with lower price requirements.
- · Version for the highest requirements for supply air cleanliness and airtightness of the ventilation elements.
- · Front panels with diffuser functionality and ventilation grilles with different air flow patterns for installation heights up to 4 m from the occupied zone.
- · Option to check the filter gasket tightness and clogging level, simple maintenance and cleaning.

List of Accessories

Detailed information about accessories for CFC is available from page ${\mathscr O}$ 20.

- · CFC-PP, CFC-SF, CFC-AQ, CFC-VR, CFC-VN: Front Diffuser Panels
- · CFC-NA: Ventilation Grille
- · CFC-AF: Adapter Ledge
- · CEC-GE and CEC-HE: Filters



Design

Material Composition

All the clean filtering cassette types are manufactured from a carbon steel sheet with a powder coating surface finish, signal white RAL9003 gloss 30% as standard. Other RAL colours available upon request.

The structural joints on the clean filtering cassette casings are consistently welded to ensure the cassette airtightness in front of as well as behind the filter. CFC-B's joints in front of the filter are spot welded and hermetically sealed by putty.

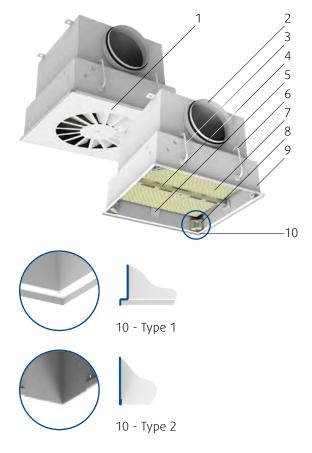


Fig. 1: Components of the CFC

Product Parts:

- 1. Front diffuser panel
- 2. Connection
- 3. Filter clogging measurement pipe
- 4. Central fixing traverse available for CFC design type C, B, G or R to attach front diffuser panels CFC-AQ, CFC-VR and CFC-VN
- 5. Gel gasket filter fixing springs available on CFC-G
- 6. Filter gasket tightness indication pipe available on CFC design type C, B, R or W. It is functional only for filters with double row gaskets.
- 7. Filter
- 8. Combined fixing bracket available for CFC design type C, B, G or R to attach front diffuser panels CFC-PP and CFC-SF
- 9. Clean filtering cassette casing
- 10. Front panel fitting surface on CFC design type C, B, G and R:
- · Type 1 (alignment rim) intended for plasterboard suspended ceiling.
- Type 2 (simple) intended for metal plate or T-bar suspended ceiling.

Front panel fitting surface on CFC-W is identical with Systemair plenum box PB-NOVA.

| | Тур | es of Installat | ion - Front Par | nel Fitting Sur | face | | Connection | | Filter Gasket | | | |
|-------------|----------------------------|----------------------|-------------------------------|-------------------------------|----------|----------------------|--------------|----------|------------------|---------------|--|--|
| | Plaste Suspende | rboard ed Ceiling | Metal Plat Suspende | | Wall | Si | de | Тор | | | | |
| | (CFC with Front Panel F | | (CFC with 1 Front Panel Fi | the Type 2 itting Surface) | | | | | Rubber Gasket | Gel Gasket | | |
| CFC | | Front Diffuse | er Panel Moun | ting Method | | Circular Rectangular | | Circular | | | | |
| Design Type | 1B | 4B | 1B | 4B | Slide-in | Circulai | rectarigatar | Circulai | | | | |
| c | | • | / | | | Tight | × | Tight | √ | × | | |
| В | | • | / | | | Untight | , | K | √ | × | | |
| G | √ | | X | | X | Tight | X | Tight | × | √ | | |
| R | | ✓ | | | | X | Flange | X | √ | X | | |
| w | | 7 | × | | √ | | X | Tight | √ | X | | |

Front Panel Fitting Surface

The ceiling filtering cassettes (CFC design type C, B, G and R) are delivered with two types of front panel fitting surface (see \mathscr{O} Fig. 1).

- Type 1 is intended for installation in plasterboard suspended ceiling.
- Type 2 is intended for installation in metal plate or T-bar suspended ceiling.
- The wall filtering cassette (CFC design type W) has fitting surface identical with Systemair plenum box PB-NOVA (see the NOVA grilles catalogue).

Front Diffuser Panel Mounting

- The front diffusers panels are mounted either using one central bolt into the central fixing traverse (mounting method 1B),
- or using four bolts into combined fixing brackets (see \mathscr{O} Fig. 1) in the filtering cassette corners (mounting method 4B).

Connection

- · Side connection is situated sidewards to the front diffuser panel or ventilation grille.
- Top connection is situated opposite to the front diffuser panel or ventilation grille.
- · Tight: with rubber gasket. Untight: without rubber gasket.
- Flange: Rectangular connection with flange.

Filter Gasket

- · CFC design types C, B, R and W have flat sealing surface for double row rubber filter gaskets.
- In CFC design type G the blade sealing surface is used for the **gel** filter gaskets.

Filter Installation

Four brackets (see \mathscr{O} Fig. 1) attached to the corners of the CFC secure proper hermetic contact between the filter and the cassette (design types C, B, R and W).

CFC-G uses 4 gel gasket filter fixing springs (see \mathscr{E} Fig. 1) on the inside walls of the cassette.

Types of CFC Installation

- The **ceiling** clean filtering cassettes are mounted by suspension into a supporting ceiling. For this purpose they are equipped with hangers. The details of embedding for the respective types of suspended ceilings are demonstrated on Fig. 2 up to Fig. 4 (below).
- · Clean filtering cassettes with the type 1 front panel fitting surface are by default intended for installation into a plasterboard suspended ceiling (see Fig. 2 below).
- Clean filtering cassettes with the type 2 front panel fitting surface are by default intended for installation into a metal plate suspended ceiling (see Fig. 3 below) and a T-bar suspended ceiling (see Fig. 4 below).
- · The wall clean filtering cassette installation is done, depending on the wall type, the same way as it is done for Systemair PB-NOVA plenum boxes along with a ventilation grille (see the \mathscr{O} NOVA grilles catalogue).

Information about installation, maintenance and operation is available at $\mathscr O$ Systemair DESIGN.

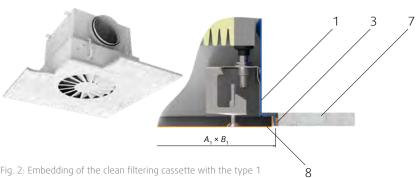
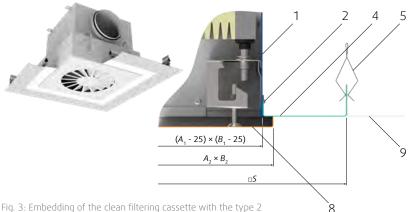


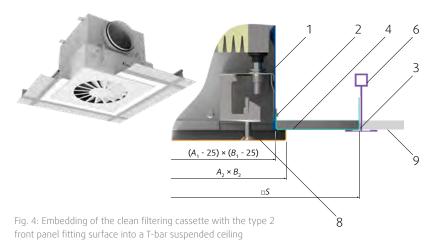
Fig. 2: Embedding of the clean filtering cassette with the type 1 front panel fitting surface into a plasterboard suspended ceiling



front panel fitting surface into a metal plate suspended ceiling

Legend:

- 1. Clean filtering cassette casing
- 2. Rivet
- 3. Sealant
- 4. Adapter ledge (CFC accessories)
- 5. Buffer section
- 6. Ceiling T-bar
- 7. Plasterboard
- 8. Pront diffuser panel (CFC accessories)
- 9. Ceiling tile
- $\Box S$ = Raster of the suspended metal plate or T-bar ceiling



Quick Selection

Tab. 2: CFC suitability with front diffuser panel/ventilation grille

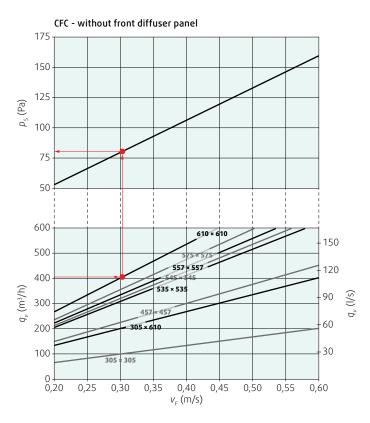
| | | Front Diff | user Panel | | Ventilation Grille |
|-----------------|---------------|--|-----------------------------|---|---|
| | | | Front Panel Fitting Surface | | |
| | (inte | e 1 - alignment rim ended for plasterboard pended ceiling) | | simple d for metal plate suspended ceiling) | Fitting surface identical with plenum box |
| | | PB-NOVA | | | |
| CFC Design Type | 1B | 4B | 1B | 4B | |
| c | CFC-VR CFC-VN | CFC-PP CFC-SF | CFC-AQ CFC-VR CFC-VN | CFC-PP CFC-SF | |
| В | CFC-VR CFC-VN | CFC-PP CFC-SF | CFC-AQ CFC-VR CFC-VN | CFC-PP CFC-SF | × |
| G | CFC-VR CFC-VN | × | , | < | ^ |
| R | CFC-VR CFC-VN | CFC-PP CFC-SF | CFC-AQ CFC-VR CFC-VN | CFC-PP CFC-SF | |
| w | | CFC-NA | | | |

Details of front diffuser panel and ventilation grille can be found on page $oldsymbol{\mathscr{O}}$ 20.

Details of front panel fitting surface and front diffuser panel mounting can be found on page \mathscr{O} 5.

Legend

| Ps | (Pa) | Pressure drop |
|---------------------|-----------------|----------------------|
| $q_{_{\mathrm{v}}}$ | (m³/h) (l/s) | Air flow volume |
| V _F | (m/s) | Filter face velocity |



Relation between filter face velocity and pressure drop on clean filtering cassettes without front diffuser panel, equipped by 80 mm thick H14 filter.

Relation between filter face velocity and air flow volume on clean filtering cassettes without front diffuser panel.

Diagram 1: Quick CFC size selection - filter resistance and air flow volume through CFC dependent on the face air velocity

Example of Quick CFC Size Definition for Desired Air Flow:

Let the desired velocity be 400 m³/h.

At this air flow volume in lower diagram the corresponding filter air face velocity can be found for chosen CFC size 610×610 .

It is 0,3 m/s. For the same face velocity and the same air flow volume the upper diagram shows initial pressure drop of the standard class H14 filter with 80 mm thickness (measured in CFC without diffuser panel).

The value is app. 80 Pa.

Product Types

CFC-C

Classic Clean Filtering Cassette



Description

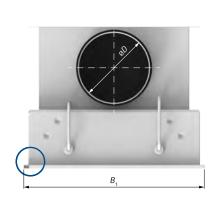
CFC-C is a high standard clean filtering cassette for EPA, HEPA or ULPA type filters. It is intended mainly for filtering of supply air. Suitable front diffuser panels: CFC-PP, CFC-SF, CFC-AQ, CFC-VR and CFC-VN (see \mathscr{O} Tab. 2).

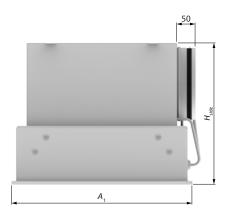
Design

Whole box is hermetically welded.

- **Connection**: Air tight, side or top circular connection
- Filter Gasket: Double row rubber filter gaskets with flat sealing surface
- Front Diffuser Panel Mounting: Mounting method 1B (one central bolt into the central fixing traverse) or mounting method 4B (four bolts into combined fixing brackets in the filtering cassette corners)
- · Types of installation:
- 1. Plasterboard suspended ceiling (CFC with the Type 1 front panel fitting surface)
- 2. Metal plate or T-bar suspended ceiling (CFC with the Type 2 front panel fitting surface)

Dimensions





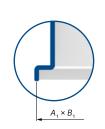


Technical Parameters are available at Ø design.systemair.com

CFC-C1-H







Type 1 front panel fitting surface



Type 2 front panel fitting surface

CFC-C1-V

Fig. 5: Dimensions of the CFC-C NOTE: See 🔗 Tab. 3.



Tab. 3: Dimensions of the CFC-C

| | | | Front Panel Fitting Surface: Type 1 | | | | | | | | | | | | | |
|-------------------------------------|-------------------|----------------|-------------------------------------|----------------|-----------------|----------------|-----------------|----------------|-----------------|----------------|-----------------|------------|-----------------|--|--|--|
| Nomina Dimension A × B × T (r | s ¹⁾ | 305 × 305 × 80 | 305 × 305 × 150 | 457 × 457 × 80 | 457 × 457 × 150 | 535 × 535 × 80 | 535 × 535 × 150 | 557 × 557 × 80 | 557 × 557 × 150 | 575 × 575 × 80 | 575 × 575 × 150 | 610×610×80 | 610 × 610 × 150 | | | |
| A ₁ (mm) |) | 34 | 12 | 49 |).E | 5- | 73 | 59 |)5 | 6. | 13 | 6 | 48 | | | |
| B ₁ (mm) | | ٠. | +5 | 4. | ,,, | , ر | | . د | ,,, | U | 13 | O. | +0 | | | |
| øD/DN (m | m) | 158/ | /160 | | | | | 198/200 | | | 313/315 | | | | | |
| Connection | H _{side} | 338 | 408 | 388 | 458 | 388 | 458 | 388 | 458 | 388 | 458 | 388 | 558 | | | |
| (mm) | H _{top} | 260 | 330 | 260 | 330 | 260 | 330 | 260 | 330 | 260 | 330 | 260 | 330 | | | |
| Plasterboa Suspended Co | | | | | | | • | / | | | | | | | | |

| | | | | | | Front | Panel Fittin | g Surface: 1 | Гуре 2 | | | | |
|-------------------------------------|-------------------|----------------|-----------------|----------------|-----------------|----------------|-----------------|----------------|-----------------|----------------|-----------------|------------|-------------|
| Nomina Dimension A × B × T (r | s ¹⁾ | 305 × 305 × 80 | 305 × 305 × 150 | 457 × 457 × 80 | 457 × 457 × 150 | 535 × 535 × 80 | 535 × 535 × 150 | 557 × 557 × 80 | 557 × 557 × 150 | 575 × 575 × 80 | 575 × 575 × 150 | 610×610×80 | 610×610×150 |
| A ₁ (mm) |) | 2. | 18 | 4- | 70 | 548 570 | | 70 | 588 | | 6 | 23 | |
| B ₁ (mm) |) | | | 470 | | ٥. | +0 | 3,0 | | 50 | | 0. | 23 |
| ø <i>D/DN</i> (m | m) | 158, | /160 | | | | | 198/200 | | | | | 313/315 |
| Connection | H _{side} | 333 | 403 | 383 | 453 | 383 | 453 | 383 | 453 | 383 | 453 | 383 | 553 |
| (mm) | H _{top} | 255 | 325 | 255 | 325 | 255 | 325 | 255 | 325 | 255 | 325 | 255 | 325 |
| | S600 | | | | | | | | | 7 | X | | |
| Ceiling Type, | S625 | | | | | , | | | | | / | , | x |
| Raster 2) | T600 | | | | ` | / | | | | 7 | X | ' | ^ |
| | T625 | | | | | | | | | , | / | | |

NOTES:

- 1) The nominal dimensions of CFC are related to exact dimensions of corresponding flters.
- 2) S600 Metal plate suspended ceiling, raster 600
 - S625 Metal plate suspended ceiling, raster 625
 - T600 T-bar suspended ceiling, raster 600
 - T625 T-bar suspended ceiling, raster 625

Ordering Code

| | | CFC-C- | - | - | - |
|----------------------------------|---------------------------------|---------|---|---|---|
| | With alignment rim (Type 1) | 1 | | | |
| Front Panel Fitting Surface 1) | Simple (Type 2) | 2 | | | |
| | Side | Н | | | |
| Connection | Тор | V | | | |
| Nominal Dimensions ²⁾ | Length × Width × Thickness | A×B×T | | | |
| | Signal white RAL9003, 30% gloss | SW | | | |
| Surface Finish 3) | Other RAL colour | RALXXXX | | | |

NOTES:

- 1) See 🔗 Fig. 1.
- 2) See Tab. 3 Nominal dimensions $A \times B$ are identical with dimensions of corresponding filter. Thickness 80 mm as standard. If filter thickness 80 is denoted, the cassette can be used with filters 69 mm ... 80 mm thick.
- 3) If no Surface finish is defined, RAL9003 will be delivered.

Example of the Ordering Code

CFC-C2-V-557×557×80-SW

Classic clean filtering cassette with the Type 2 front panel fitting surface (for installation in metal plate or T-bar suspended ceiling). Top connection. Corresponding filter dimensions (mm) $557 \times 557 \times 80$. Signal white powder coating.

CFC-B

Basic Clean Filtering Cassette



Description

CFC-B is a basic standard clean filtering cassette for EPA, HEPA or ULPA type filters. It is intended mainly for filtering of supply air. Suitable front diffuser panels: CFC-PP, CFC-SF, CFC-AQ, CFC-VR and CFC-VN (see \mathscr{O} Tab. 2).

Technical Parameters are available at Ø design.systemair.com



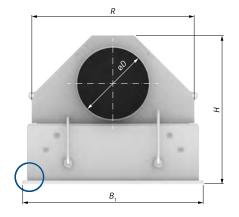
Design

"Dirty side" (in front of the filter - in the sense of air flow) of the box is spot welded.

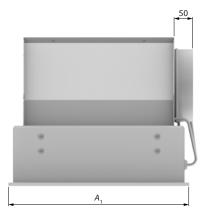
"Clean side" (behind the filter - in the sense of air flow) is hermetically welded.

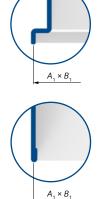
- Connection: Air non-tight, side circular connection
- Filter Gasket: Double row rubber filter gaskets with flat sealing surface
- Front Diffuser Panel Mounting: Mounting method 1B (one central bolt into the central fixing traverse) or mounting method 4B (four bolts into combined fixing brackets in the filtering cassette corners)
- Types of Installation:
- 1. Plasterboard suspended ceiling (CFC with the Type 1 front panel fitting surface)
- 2. Metal plate or T-bar suspended ceiling (CFC with the Type 2 front panel fitting surface)

Dimensions









Type 1 front panel fitting surface

Type 2 front panel fitting surface



Tab. 4: Dimensions of the CFC-B

| | | Front Panel Fitting Surface: Type 1 | | | | | | | | | | | | | | | | |
|---|----------------|-------------------------------------|----------------|-----------------|----------------|-----------------|-----|----------------|-------------|-----------------|---------|-----------|---------|-----------|----------------|---------|---------|-----------------|
| Nominal Dimensions ¹⁾ $A \times B \times T$ (mm) | 305 × 305 × 80 | 305 × 305 × 150 | 457 × 457 × 80 | 457 × 457 × 150 | 535 × 535 × 80 | 535 × 535 × 150 | 7 | 09 × 755 × 766 | : L : | 051 × 755 × 755 | , , | × 0/0 × 0 | , , | × 0/0 × 0 | 610 × 610 × 80 | | 7 | 051 × 010 × 010 |
| A ₁ (mm) | 3, | 43 | 49 | 05 | 5- | 73 | 595 | | | 613 | | | 648 | | | | | |
| B ₁ (mm) | , | +5 | 4. | | , | | 373 | | | | | 15 | | 0.0 | | | | |
| ø <i>D/DN</i> (mm) | 98/ | 100 | | | 198/200 | 0 | | 248/250 | 198/200 | 248/250 | 198/200 | 248/250 | 198/200 | 248/250 | 198/200 | 248/250 | 313/315 | 248/250 |
| H (mm) | 308 | 378 | 408 | 478 | 408 | 478 | 408 | 458 | 478 | 528 | 408 | 458 | 478 | 528 | 408 | 458 | 578 | 528 |
| R (mm) | 29 | 93 | 44 | 45 | 52 | 23 | 545 | | | | | 50 | 53 | | | 59 | 98 | |
| Plasterboard Suspended Ceiling | | | | | | | | | • | / | | | | | | | | |

| | | | | | | | Fre | ont Pan | el Fittin | g Surfa | се: Туре | 2 | | | | | | |
|---|----------------|-----------------|----------------|-----------------|----------------|-----------------------|-----|---------|-------------|-----------------|----------|----------------|---------|-----------------|---------|------------------|---------|-----------------|
| Nominal Dimensions ¹⁾ $A \times B \times T$ (mm) | 305 × 305 × 80 | 305 × 305 × 150 | 457 × 457 × 80 | 457 × 457 × 150 | 535 × 535 × 80 | 5 × 535 × 5 × 535 × 7 | | | : 1 L | 051 × 755 × 755 | ; | 575 × 575 × 80 | | 051 × 5/5 × 5/5 | | 08 × 01 0 × 01 0 | 7 07 | 051 × 010 × 010 |
| A ₁ (mm) | 3 | 18 | 1 | 70 | 54 | 12 | | 5- | 70 | | | 5.5 | 28 | | | 6. | 23 | |
| <i>B</i> ₁ (mm) | | | 7. | |). | +0 | 570 | | | 588 | | | | 623 | | | | |
| ø <i>D/DN</i> (mm) | 98/ | 100 | | - | 198/200 |) | | 248/250 | 198/200 | 248/250 | 198/200 | 248/250 | 198/200 | 248/250 | 198/200 | 248/250 | 313/315 | 248/250 |
| H (mm) | 309 | 379 | 409 | 479 | 409 | 479 | 409 | 459 | 479 | 529 | 409 | 459 | 479 | 529 | 409 | 459 | 579 | 529 |
| R (mm) | 2' | 93 | 44 | 45 | 52 | 23 | | 54 | 45 | | | 56 | 63 | | | 59 | 98 | |
| S60 | o e | | | | | | | | | | | 7 | K | | | | | |
| Ceiling Type, S62 | 5 | | | | , | , | | | | | | • | / | | | | K | |
| Raster ²⁾ T60 | D | | | | | • | | | | | | | K | | | • | • | |
| T62 | 5 | | | | | | | | | | | | / | | | | | |

NOTES:

1) The nominal dimensions of CFC are related to exact dimensions of corresponding flters.

2) S600 - Metal plate suspended ceiling, raster 600

S625 - Metal plate suspended ceiling, raster 625

T600 - T-bar suspended ceiling, raster 600 T625 - T-bar suspended ceiling, raster 625



Ordering Code

| | | CFC-B- | - | - | - | | |
|----------------------------------|---------------------------------|---------|-----|---|---|--|--|
| | With alignment rim (Type 1) | 1 | | | | | |
| Front Panel Fitting Surface 1) | Simple (Type 2) | 2 | | | | | |
| Nominal Dimensions ²⁾ | Length × Width × Thickness | A×B×T | | | | | |
| | | 100 | | | | | |
| | | 200 | | | | | |
| | | 250 | 250 | | | | |
| Connection Nominal Size 3) | DN (mm) | 315 | | | | | |
| | Signal white RAL9003, 30% gloss | SW | | | | | |
| Surface Finish 4) | Other RAL colour | RALXXXX | | | | | |

NOTES:

- 1) See 🔗 Fig. 1.
- 2) See Tab. 4 Nominal dimensions A × B are identical with dimensions of corresponding filter. Thickness 80 mm as standard. If filter thickness 80 is denoted, the cassette can be used with filters 69 mm ... 80 mm thick.
- 3) In case, that there are 2 possible Connection nominal sizes for the same CFC: if no Connection nominal size is defined, the bigger one will be delivered. See Tab. 4.
- 4) If no Surface finish is defined, RAL9003 will be delivered.

Example of the Ordering Code

CFC-B1-557×557×80-250-SW

Basic clean filtering cassette with Type 1 front panel fitting surface (for installation in plasterboard suspended ceiling). Connection nominal size 250 mm. Corresponding filter dimensions (mm) $557 \times 557 \times 80$. Signal white powder coating.

CFC-G Gel Gasket Clean Filtering Cassette



Description

CFC-G is a high standard clean filtering cassette for EPA, HEPA or ULPA type filters with gel gasket. It is intended mainly for filtering of supply air. Suitable front diffuser panels: CFC-VR and CFC-VN (see **P** Tab. 2).

Design

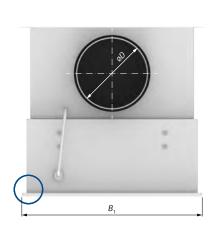
Whole box is hermetically welded.

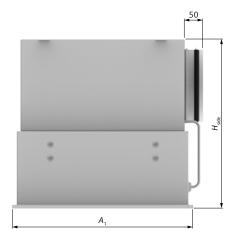
- **Connection**: Air tight, side or top circular connection
- · Filter Gasket: Gel filter gaskets with blade sealing surface (absolute tight)
- Front Diffuser Panel Mounting: Mounting method 1B (one central bolt into the central fixing traverse)
- Type of Installation: Plasterboard suspended ceiling



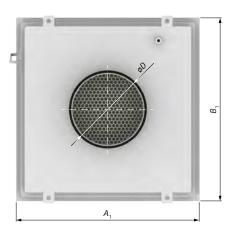
Technical Parameters are available at Ø design.systemair.com

Dimensions

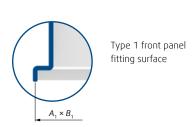




CFC-G-H







CFC-G-V

Fig. 7: Dimensions of the CFC-G

Tab. 5: Dimensions of the CFC-G

| | | F | ront Panel | Fitting Sur | face: Type | 1 | | | | |
|--------------------------------------|-------------------|----------------|----------------|----------------|------------|-----------------|--|--|--|--|
| Nominal Dimension A × B × T (r | s ¹⁾ | 305 × 305 × 80 | 457 × 457 × 80 | 545 × 545 × 80 | 610×610×80 | 610 × 610 × 128 | | | | |
| A ₁ (mm) | | 344 | 496 | 64 | 649 | | | | | |
| <i>B</i> ₁ (mm) | | | | | | | | | | |
| øD/DN (m | m) | 158/160 | | 198/200 | | 248/250 | | | | |
| Connection | H _{side} | 425 | | 465 | | 563 | | | | |
| (mm) H _{top} | | | 3 | 13 | | 361 | | | | |
| Plasterboard Suspended Ceiling | | ✓ | | | | | | | | |

NOTE: 1) The nominal dimensions of CFC are related to exact dimensions of corresponding flters.

Ordering Code

| | | CFC-G- | | - | | - | |
|------------------------------|---------------------------------|---------|---|---|---|---|---|
| | Side | Н | Γ | | Γ | | |
| Connection | Тор | V | | | | | |
| Nominal Dimensions 1) | Length × Width × Thickness | A×B×T | | | | | Ι |
| | Signal white RAL9003, 30% gloss | SW | | | | | |
| Surface Finish ⁴⁾ | Other RAL colour | RALXXXX | | | | | |

NOTES:

1) See Tab. 5 Nominal dimensions A × B are identical with dimensions of corresponding filter. Thickness 80 mm as standard. If no Surface finish is defined, RAL9003 will be delivered.

Example of the Ordering Code

CFC-G-H-545×545×80-SW

Gel gasket clean filtering cassette. Side connection. Corresponding filter dimensions $545 \times 545 \times 80$ mm. Signal white powder coating.

CFC-R

Clean Filtering Cassette with a Rectangular Connection



Description

CFC-R is a high standard clean filtering cassette for EPA, HEPA or ULPA type filters. It is intended mainly for filtering of supply air. Due to low height of the cassette it fits in ceilings with low profile height (min. 290 mm). Suitable front diffuser panels: CFC-VR and CFC-VN (see & Tab. 2).

Design

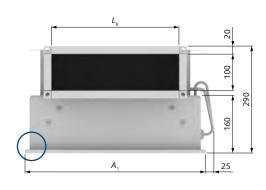
Whole box is hermetically welded.

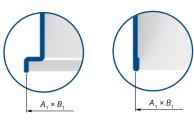
- · Connection: Flanged, side rectangular connection
- Filter Gasket: Double row rubber filter gaskets with flat sealing surface
- Front Diffuser Panel Mounting: Mounting method 1B (one central bolt into the central fixing traverse) or mounting method 4B (four bolts into combined fixing brackets in the filtering cassette corners)
- · Types of Installation:
- 1. Plasterboard suspended ceiling (CFC with the Type 1 front panel fitting surface)
- 2. Metal plate or T-bar suspended ceiling (CFC with the Type 2 front panel fitting surface)



Technical Parameters are available at Ø design.systemair.com

Dimensions

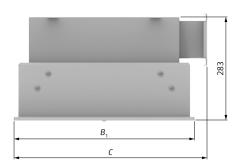




Type 1 front panel fitting surface

Type 2 front panel fitting surface

Fig. 8: Dimensions of the CFC-R



Tab. 6: Dimensions of the CFC-R

| | | Front Panel Fitting Surface: Type 1 | | | | |
|---|-----------------|-------------------------------------|----------------|----------------|----------------|------------|
| Nominal Dimensions ¹⁾ A × B × T (mm) | 305 × 305 × 80 | 457 × 457 × 80 | 535 × 535 × 80 | 557 × 557 × 80 | 575 × 575 × 80 | 610×610×80 |
| A ₁ (mm) | 343 | 495 | 573 | 595 | 613 | 648 |
| B ₁ (mm) | 545 | 775 | 3.3 | 373 | 013 | 040 |
| C (mm) | 382 | 534 | 612 | 634 | 652 | 687 |
| Connection L_h (mm) | 200 350 450 500 | | | | 00 | |
| Plasterboard Suspended Ceiling | | | | / | | |

| | | | Front Panel Fitting Surface: Type 2 | | | | | |
|---------------------------------------|-----------------|----------------|-------------------------------------|----------------|----------------|----------------|------------|---|
| Nominal Dimension: A × B × T (n | s ¹⁾ | 305 × 305 × 80 | 457 × 457 × 80 | 535 × 535 × 80 | 557 × 557 × 80 | 575 × 575 × 80 | 610×610×80 | |
| A ₁ (mm) | | 318 | 470 | 548 | 570 | 588 | 623 | |
| <i>B</i> ₁ (mm) | | | | | | | | |
| <i>C</i> (mm) | | 368 | 520 | 598 | 620 | 638 | 673 | |
| Connection L_h (mm) | | 200 | 350 | 45 | 450 50 | | 00 | |
| | S600 | | | | | X | | |
| Ceiling Type, Raster ²⁾ | S625 | , | | | | √ | ~ | |
| | T600 | | ✓ | | | ~ | | X |
| | T625 | | | | | √ | | |

NOTES:

- 1) The nominal dimensions of CFC are related to exact dimensions of corresponding flters.
- 2) S600 Metal plate suspended ceiling, raster 600
- S625 Metal plate suspended ceiling, raster 625
- T600 T-bar suspended ceiling, raster 600
- T625 T-bar suspended ceiling, raster 625

Ordering Code

| | | CFC-R- | - | - |
|----------------------------------|---------------------------------|---------|---|---|
| | With alignment rim (Type 1) | 1 | | |
| Front Panel Fitting Surface 1) | Simple (Type 2) | 2 | | |
| Nominal Dimensions ²⁾ | Length × Width × Thickness | A×B×T | | |
| | Signal white RAL9003, 30% gloss | SW | | |
| Surface Finish 4) | Other RAL colour | RALXXXX | | |

- 1) See 🔗 Fig. 1.
- 2) See 🔗 Tab. 6 Nominal dimensions A × B are identical with dimensions of corresponding filter. Thickness 80 mm as standard. If filter thickness 80 is denoted, the cassette can be used with filters 69 mm ... 80 mm thick.
- 3) If no Surface finish is defined, RAL9003 will be delivered.

Example of the Ordering Code

CFC-R1-557×557×80-SW

Clean filtering cassette with a rectangular connection, with the Type 1 front panel fitting surface (for installation in plasterboard suspended ceiling). Corresponding filter dimensions (mm) $557 \times 557 \times 80$. Signal white powder coating.



CFC-W

Wall Clean Filtering Cassette



Description

CFC-W is a high standard clean filtering cassette for EPA, HEPA or ULPA type filters. It is intended mainly for filtering of supply air. Suitable ventilation grille: CFC-NB (see 🔗 Tab. 2).

Design

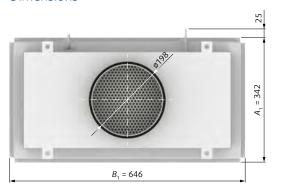
Whole box is hermetically welded.

- · Connection: Air tight, side circular connection
- Filter Gasket: Double row rubber filter gaskets with flat sealing surface
- · Ventilation Grille Mounting: Slide-in fixing
- Type of Installation: Wall installation

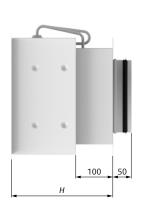


Technical Parameters are available at \mathscr{O} design.systemair.com

Dimensions







Tab. 7: Dimensions of the CFC-W

| Nominal Dimensions ¹⁾ B × A × T (mm) | 305 × 610 × 80 | 305 × 610 × 150 | |
|---|----------------|-----------------|--|
| | 342 | | |
| B ₁ | 646 | | |
| H (mm) | 278 348 | | |

NOTE: 1) The nominal dimensions of CFC are related to exact dimensions of corresponding flters.

Ordering Code

| | | CFC-W- | - | |
|----------------------------------|---------------------------------|---------|---|--|
| Nominal Dimensions ²⁾ | Length × Width × Thickness | B×A×T | | |
| | Signal white RAL9003, 30% gloss | SW | | |
| Surface Finish ⁴⁾ | Other RAL colour | RALXXXX | | |

NOTES

- 1) See \mathscr{O} Tab. 7. Nominal dimensions B × A are identical with dimensions of corresponding filter. Thickness 80 mm as standard. If filter thickness 80 is denoted, the cassette can be used with filters 69 mm ... 80 mm thick.
- 2) If no Surface finish is defined, RAL9003 will be delivered.

Example of the Ordering Code

CFC-W-305×610×80-SW

Wall clean filtering cassette. Corresponding filter dimensions (mm) $305 \times 610 \times 80$. Signal white powder coating.



Accessories

CFC-PP, CFC-SF, CFC-AQ, CFC-VR, CFC-VN and CFC-NA

Front Diffuser Panels and Ventilation Grille



Description

Recommended equipment for CFC are the front diffuser panels or the ventilation grilles.

Design

From the design and parameter point of view the front diffuser panels and ventilation grilles are identical to the standard Systemair diffusers and grilles. The only difference is in the outer dimensions. Further information of these accessories is therefore available in the technical documentation for the Systemair diffusers and grilles (see \mathscr{O} Tab. 8).

Dimensions

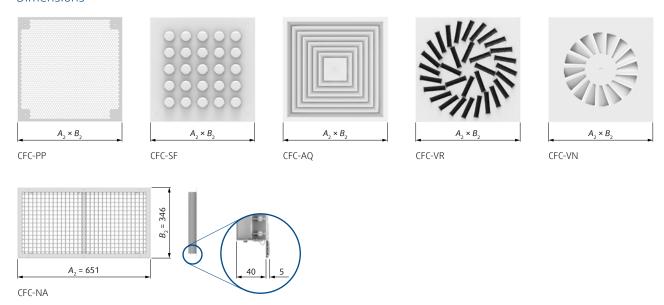


Fig. 10: Dimensions of the front diffuser panels and ventilation grille for the CFC clean filtering cassettes NOTE: See 🔗 Tab. 8.

Ordering Code

| | | CFC- | - | - |
|------------------------------------|---------------------------------|---------|---|---|
| | | PP | | |
| | | SF | | |
| | | AQ | | |
| | | VR | | |
| Front Diffuser Panel | | VN | | |
| or Ventilation Grille Type | | NA | | |
| Corresponding Filter Dimensions 2) | | A×B | | |
| | Signal white RAL9003, 30% gloss | SW | | |
| Surface Finish ⁴⁾ | Other RAL colour | RALXXXX | | |

NOTES:

1) If no Surface finish is defined, RAL9003 will be delivered.

Example of the Ordering Code

CFC-SF-305×305-SW

Front diffuser panel CFC-SF for filter dimensions 305×305 mm. Signal white powder coating.

Tab. 8: Dimensions of front diffuser panels and ventilation grille for the CFC clean filtering cassettes

| Front Panel Type | Dimensions $A_2 \times B_2$ (mm) | P ¹⁾ | Filter Size A × B (mm) | Mounting Method ²⁾ | Types of CFC Installation |
|--|----------------------------------|-----------------|---------------------------|----------------------------------|---------------------------|
| | 338 × 338 | | 305 × 305 | | |
| | 490 × 490 | | 457 × 457 | | |
| | 568 × 568 | | 535 × 535 | | |
| | 580 × 580 | - | 545 × 545 | 4B | Ceiling |
| | 590 × 590 | | F F 7 F F 7 | | |
| | 608 × 608 | | 557 × 557 | | |
| CFC-PP | 643 × 643 | | 610 × 610 | | |
| 000 | 338 × 338 | 16 | 305 × 305 | | |
| 000 | 490 × 490 | 25 | 457 × 457 | | |
| | 568 × 568 | 36 | 535 × 535 | | |
| | 580 × 580 | | 545 × 545 | 4B | Ceiling |
| | 590 × 590 | 49 | 557 - 557 | | |
| - THE STATE OF THE | 608 × 608 | | 557 × 557 | | |
| CFC-SF | 643 × 643 | 64 | 610 × 610 | | |
| | 500 × 500 | | 457 × 457 | | |
| | | | 535 × 535 | | |
| | 600 × 600 | - | 545 × 545 | 1B | Ceiling |
| from aung | | | 557 × 557 | | |
| CFC-AQ | 625 × 625 | | 610 × 610 | | |
| | 338 × 338 | 10 | 305 × 305 | | |
| | 490 × 490 | 24 | 457 × 457 | | |
| | 568 × 568 | 22 | 535 × 535 | | |
| 7711 | 580 × 580 | 32 | 545 × 545 | 1B | Ceiling |
| auer. | 590 × 590 | | F7F F7F | | |
| | 608 × 608 | 40 | 575 × 575 | | |
| CFC-VR | 643 × 643 | | 610 × 610 | | |
| 1/A | 338 × 338 | 8 | 305 × 305 | | |
| | 490 × 490 | 16 | 457 × 457 | | |
| | 568 × 568 | | 535 × 535 | | |
| | 580 × 580 | | 545 × 545 | 1B | Ceiling |
| | 590 × 590 | 24 | 557 × 557 | | |
| | 608 × 608 | | 575 × 575 | | |
| CFC-VN | 643 × 643 | | 610 × 610 | | |
| | 651 × 346 | - | 305 × 610 | Slide-in | Wall |
| CFC-NA | | | | | |

NOTES:

- 1) p = number of vents on the front diffuser panel
- 2) 1B = mounting with one central bolt into the central fixing traverse
 - 4B = Mounting with four bolts into combined fixing brackets in the filtering cassette corners



CFC-AF

Adapter Ledge



Description

When mounting the clean filtering cassette into a metal plate or a T-bar suspended ceiling, the clean filtering cassette is equipped with adapter ledges to adjust the given clean filtering cassette dimensions to the installation opening size (see \mathscr{O} Fig. 3 and Fig. 4).

It is needed to specify the corresponding information in the ordering code (in the "Ceiling type, raster" field).

Design

The ledges are manufactured from a steel sheet with the same surface finish as the one chosen for the clean filtering cassette.

Dimensions

Dimensions of the adapter ledge $(A_1 \times B_1)$ correspond with dimensions of CFC design types C, B and R. The adapter ledge CFC-AF can be used only for selected sizes and types of CFC in combination with selected rasters and types of the suspended ceilings. See \mathscr{O} Tab. 3, \mathscr{O} Tab. 4 and \mathscr{O} Tab. 6.

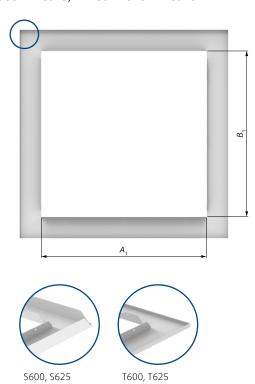


Fig. 11: Design and dimensions of the CFC-AF

Ordering Code

| | | CFC-AF- | - | - | |
|---------------------------------|--|---------|---|---|--|
| Corresponding Filter Dimensions | | A×B | | | |
| | Metal plate suspended ceiling, Raster 600 mm | S600 | | | |
| | Metal plate suspended ceiling, Raster 625 mm | S625 | | | |
| | T-bar suspended ceiling, Raster 600 mm | T600 | | | |
| Ceiling Type, Raster 1) | T-bar suspended ceiling, Raster 625 mm | T625 | | | |
| | Signal white RAL9003, 30% gloss | SW | | | |
| Surface Finish ²⁾ | Other RAL colour | RALXXXX | | | |

NOTES:

By default, the adapter ledge is supplied already mounted onto the clean filtering cassette, if clean filtering cassette and the adapter ledge were ordered together.

- 1) Applicable sizes of clean filtering cassettes for combination with adapter ledge are in $\overset{\frown}{O}$ Tab. 3, $\overset{\frown}{O}$ Tab. 4 and $\overset{\frown}{O}$ Tab. 6.
- 2) If no Surface finish is defined, RAL9003 will be delivered.

Example of the Ordering Code

CFC-AF-305×305-T600-SW

Adapter ledge for filter dimensions (mm) 305×305 , intended for T-bar suspended ceiling with raster 600 mm. Signal white powder coating.



CFC-GF & CFC-HF

Filters



Description

EPA, HEPA and ULPA filters with class E11 up to U16 are intended for the clean filtering cassettes. Recommended standard equipment for CFC is the class H14 filter. The filter thickness is 80 or 150 mm.

Dimensions

Dimensions of the filters $(A \times B \times T)$ are identical with the clean filtering cassettes nominal dimensions (see \mathscr{O} Tab. 3 up to \mathscr{O} Tab. 7).

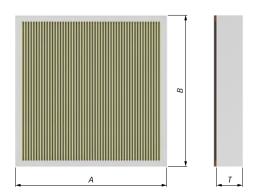


Fig. 12: Dimensions of the CFC filter

Ordering Code

| | | CFC- | |
|----------------------|---|-------|--|
| | Gel gasket (for CFC-G) | GF | |
| Filter Gasket Type | Rubber gasket (for CFC-C, -B, - R and -W) | HF | |
| | EPA filter class E11 | E11 | |
| | EPA filter class E12 | E12 | |
| | HEPA filter class H13 | H13 | |
| Filter Class | HEPA filter class H14 | H14 | |
| Filter Dimensions 1) | Length × Width × Thickness | A×B×T | |

NOTE: 1) Filter dimensions $A \times B$ correspond to the CFC nominal dimensions. See \mathscr{O} Tab. 3 up to \mathscr{O} Tab. 7.

Example of the Ordering Code

CFC-HF-14-305×305×80

Hepa filter with rubber gasket, filter class H14, with dimensions (mm) 305×305 , thickness 80 mm.

Installation, Maintenance & Operation

Information about installation, maintenance and operation is available in the "InstalMaintenOperInstr_PP-38_ CFC_201702" document on \mathscr{O} Systemair DESIGN.

Dry indoor conditions with an operation temperature range of -20°C to +50°C.

Transport & Storage

Dry indoor conditions with a temperature range of -20°C to +40°C.

Supplement

Any deviations from the technical specifications contained herein and the terms should be discussed with the manufacturer. We reserve the right to make any changes to the product without prior notice, provided that these changes do not affect the quality of the product and the required parameters.

Current information on all products is available on \mathscr{O} Systemair DESIGN.

