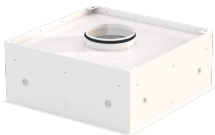




Side entry, circular spigot



Side entry, rectangular spigot



Top entry, circular spigot

Particulate filter air diffuser

TFEA



Filter extract air casing for high hygienic requirements for installation in ceilings

Ceiling diffuser for extract air applications

- Use in medicine, biology, pharmacy and sensitive areas of technology
- Various diffusers to ideally meet individual requirements
- Compact design, suitable for connection to commercially available cleanroom ceiling systems
- Integrated filter holder, connection option horizontal (round, square) or vertical (round)
- For cleanroom classes 5 - 8 according to EN ISO 14644-1
- Meets the hygiene requirements of VDI 6022
- Leakage class: EN 1886 L1, EN 15727 class D



Tested to VDI 6022

| | | | |
|---------------------------------|---|------------------------------------|----|
| General information | 2 | SR: Side entry, rectangular spigot | 8 |
| Function | 3 | Construction | 8 |
| Specification text | 4 | Type of ceiling | 9 |
| Order code | 5 | Air diffusers | 11 |
| Variants | 6 | Suspension | 13 |
| SC: Side entry, circular spigot | 6 | Dimensions | 14 |
| TC: Top entry, circular spigot | 7 | | |

General information

Application

- Ceiling diffuser for extract air applications
- Inclusion of filter elements for the separation of suspended matter such as aerosols, toxic dusts, viruses, bacteria from the extract air

Special features

- Compact construction
- Easy to use
- High operational reliability

Classification

Hygiene tested to VDI 6022

Nominal sizes

400, 500, 600, 625, 680 [mm]

Variants

- SC: Side entry, circular spigot
- TC: Top entry, circular spigot
- SR: Side entry, rectangular spigot

Construction

SPC: Steel, powder-coated, RAL 9010 (pure white)

Air terminal devices

- ADLQ: Ceiling diffuser
- DLQ: Ceiling diffuser
- LF: Ceiling diffuser
- FD: Ceiling swirl diffuser
- TDF: Ceiling swirl diffuser
- VDWF: Ceiling swirl diffuser

Copy of Useful additions

- Mini pleat filter plates MFP and MFPCR
- Suitable filter elements to be ordered separately

Standards and guidelines

Hygiene conformity: VDI 6022, VDI 3803, DIN 1946 Part 4, ÖNORM H 6021 and ÖNORM H 6020, SWKI VA 104-01 and SWKI 99-3 and EN 16798

Leakage class: EN 1886 L1, EN 15727 class D

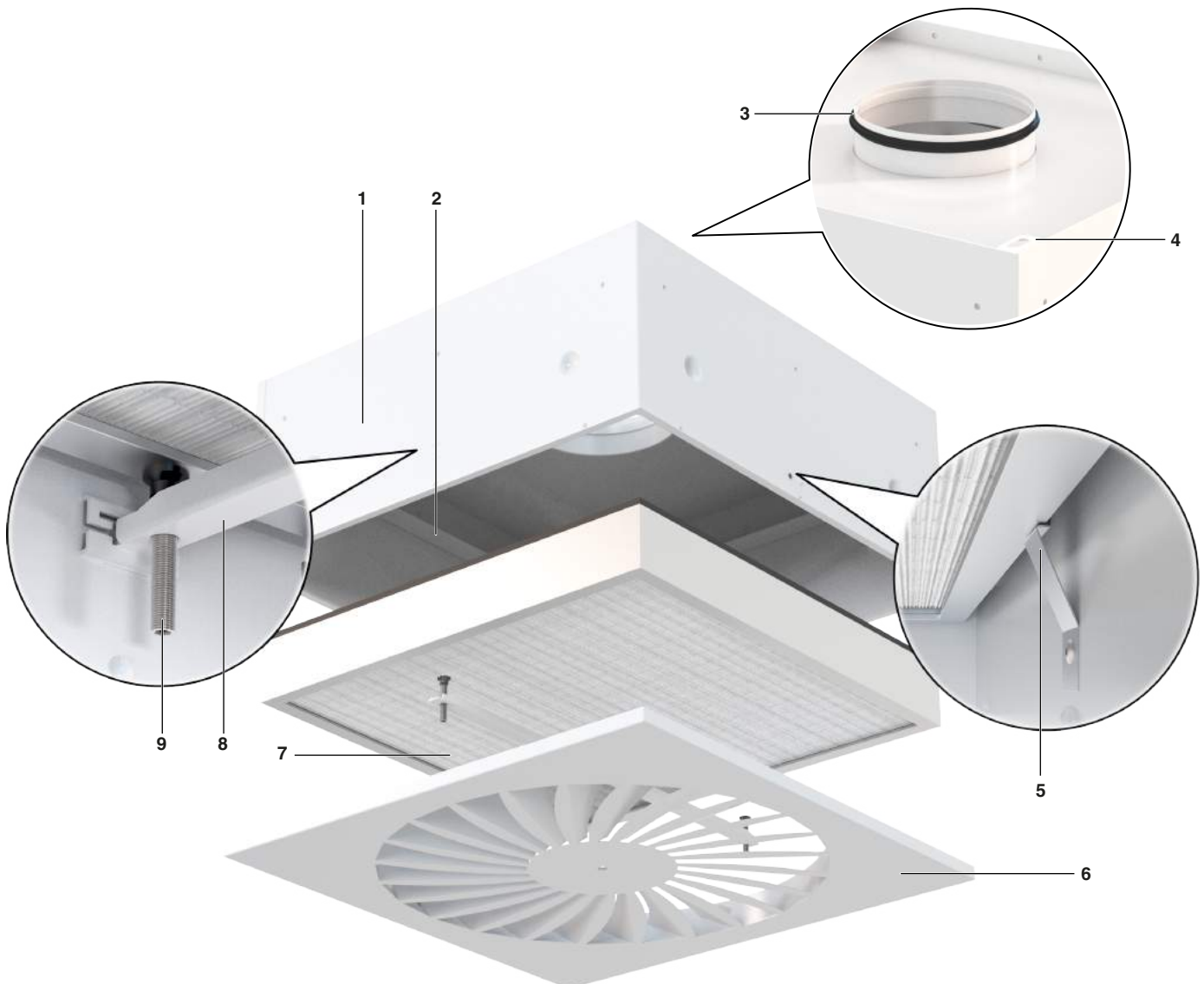
Commissioning

- Installation of filter elements with flat profile gasket and endless foamed half-round gasket
- The filter element is pressed on by means of 2 easy-to-operate clamping screws
- Simple mounting of the air diffusers without tools due to centre point fixing with quick release spring

Maintenance

- Diffusers with central fixing can be easily removed for filter changes and cleaning.

Function



- 1 Casing
- 2 Filter mount
- 3 Spigot with lip seal
- 4 Suspension
- 5 Holding spring
- 6 Air diffuser
- 7 Filter element
- 8 Holding traverse
- 9 Clamping screws

Specification text

This specification text describes the general properties of the product. Texts for variants can be generated with our Easy Product Finder design programme.

Specification text

Ceiling diffuser TFEA for extract air applications, e.g. in clean rooms or sensitive areas of extract air filtration. Use as extract air housing without filter or with filter elements to separate particles such as aerosols, dusts, viruses and bacteria from the extract air. Casing with side entry or top entry spigot. Ceiling diffusers TFEA with circular spigots are fitted with lip seals as standard. The filter elements are pressed on by means of a crossbar with 2 fastening points. Enclosure suspension on the upper part of the enclosure. Installation in standard ceiling systems by adapting the dimensions of the housing flange. Can be combined with air diffusers of different designs. For holding Mini-Pleat filter plates with flat profile or continuous seal. Leakage class L1 according to DIN EN 1886; leakage class D according to DIN EN 15727; hygiene conformity according to VDI 6022.

Special features

- Compact construction
- Easy to use
- High operational reliability
- Easy cleaning

Materials and surfaces

- Housing made of sheet steel, powder-coated, RAL 9010 (pure white)
- Sheet steel diffusers, powder-coated, RAL 9010 (pure white), types DLQ(A), FD, TDF, VDWF, LF

Constructions

- SPC: Steel, powder-coated, RAL 9010 (pure white)

Order code

TFEA – SC – SPC – CC – ID – VDWF / 400 × 16 – 158 – 15
 1 2 3 4 5 6 7 8 9

1 Type

TFEA Filter extract air casing

LF, VDWF, TDF, FD

2 Variant

SC Side entry, circular spigot
 TC Top entry, circular spigot
 SR Side entry, rectangular spigot

7 Nominal size [mm]

Without diffuser, DLQ, ADLQ, LF, TDF, FD
400 (not with SR)
500, 600, 625, 680

3 Material

SPC Steel, powder-coated, RAL 9010 (pure white)

VDWF × 16

400 × 16

4 Type of ceiling

No entry: standard

CC Clip-in tile ceiling

VDWF × 24

500 × 24, 600 × 24, 625 × 24, 680 × 24

5 Position of air diffuser

ED external

ID Internal

VDWF × 48

625 × 48

6 Air diffuser

No entry: none

External diffuser (ED)

DLQ, ADLQ

External or internal diffuser (ED, ID)

VDWF × 54

680 × 54

8 Spigot size [mm]

For SC, TC: Diameter

For SR: width × height

9 Flange width [mm]

No entry: Standard

10 – 55

Order example: TFEA-SC-SPC-CC-ID-VDWF/400×16-158-15

| | |
|---------------------------------|---------------------------------------------|
| Type | TFEA |
| Variant | Side entry circular spigot |
| Casing material | Steel, powder-coated, RAL 9010 (pure white) |
| Type of ceiling | Clip-in tile ceiling |
| Position of air terminal device | Internal |
| Air terminal device | VDWF |
| Nominal size [mm] | 400 × 16 blades |
| Spigot size [mm] | Ø 158 |
| Flange width [mm] | 15 |

Order example: TFEA-SR-SPC-ED-VDWF/625×24-460×100-10

| | |
|---------------------------------|---------------------------------------------|
| Type | TFEA |
| Variant | Side entry rectangular spigot |
| Casing material | Steel, powder-coated, RAL 9010 (pure white) |
| Type of ceiling | Standard |
| Position of air terminal device | External |
| Air terminal device | VDWF |
| Nominal size [mm] | 625 × 24 blades |
| Spigot size [mm] | Width 460, height 100 |
| Flange width [mm] | 10 |

Variants

Variants, overview

SC: Side entry, circular spigot

TC: Top entry, circular spigot

SC, TC: spigot diameter

| NS | ØD | | | |
|-----|----------|------------|------------|------------|
| | 158 | 198 | 248 | 313* |
| 400 | Standard | optional** | - | - |
| 500 | Standard | optional** | - | - |
| 600 | - | Standard | optional** | optional** |
| 625 | - | Standard | optional** | optional** |
| 680 | - | - | Standard | optional** |

* Only for TC

** For a surcharge

SR: Side entry, rectangular spigot

SR: Spigot size

| NS | Spigot size |
|-----|-------------|
| 500 | 360 × 100 |
| 600 | 460 × 100 |
| 625 | 460 × 100 |
| 680 | 535 × 100 |

SC: Side entry, circular spigot

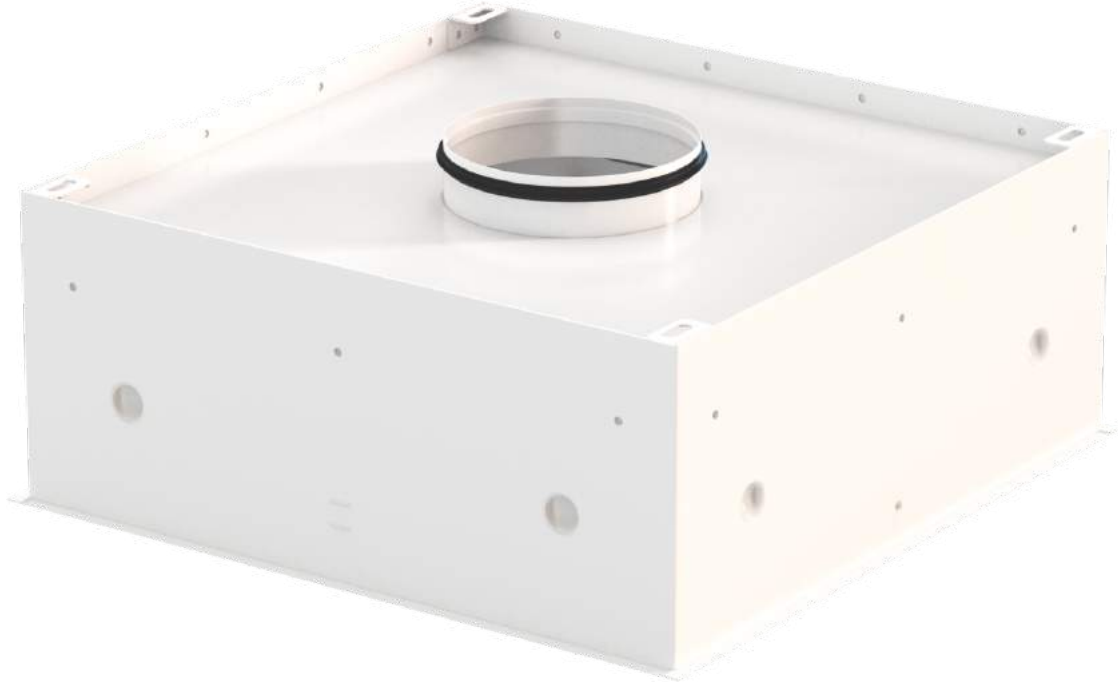
TFEA-SC



Side entry, circular spigot

TC: Top entry, circular spigot

TFEA-TC



Top entry, circular spigot

SR: Side entry, rectangular spigot

TFEA-SR

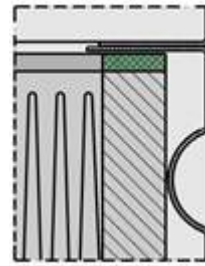
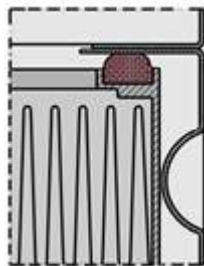


Side entry, rectangular spigot

Construction

For filters with continuous seal or flat seal CSU/FNU

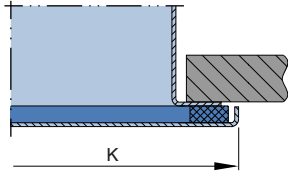
- Frame depths 48 – 69 mm
- MFP (48 mm)
- MFPCR-ALD (66 mm)
- MFPCR-ALB (69 mm)



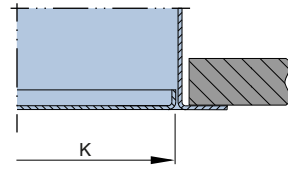
Type of ceiling

Plasterboard ceiling or MDF ceiling

ED, external diffuser

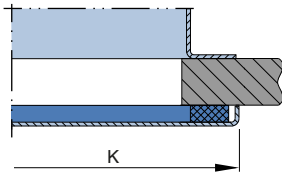


ID, internal diffuser

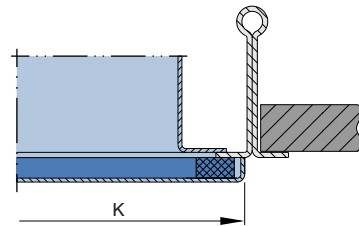


Walk-on ceiling

Walk-on ceiling

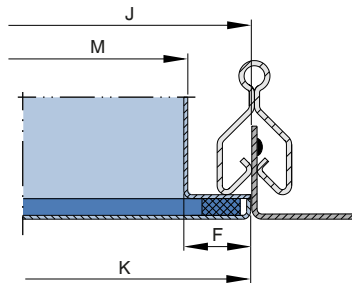


T-bar ceiling

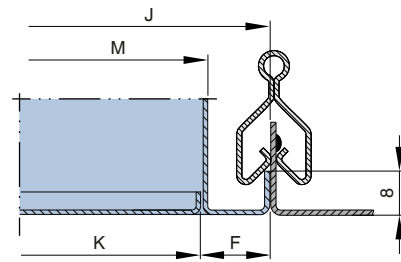


Construction CC
Clip-in tile ceiling

ED, external diffuser



ID, internal diffuser





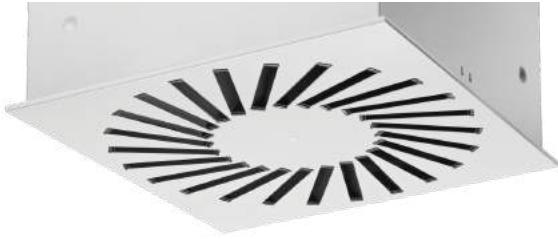
Air diffusers

| Material | Construction | ED Diffuser external nominal sizes | | | | | Construction | ID Diffuser internal nominal sizes | | | | |
|----------|------------------------|------------------------------------|-----|-----|-----|-----|------------------------|------------------------------------|-----|-----|-----|-----|
| | | 400 | 500 | 600 | 625 | 680 | | 400 | 500 | 600 | 625 | 680 |
| Casing | Flange width → | 10 | 15 | | 10 | 15 | Flange width → | 15 | 20 | | 12 | 21 |
| SPC | VDWF (number of slats) | 16 | 24 | 24 | 24 | 24 | VDWF (number of slats) | 16 | 24 | 24* | 24 | 24 |
| SPC | VDWF (number of slats) | | | | 48 | 54 | VDWF (number of slats) | | | | 48 | 54 |
| SPC | LF | ✓ | ✓ | ✓ | ✓ | ✓ | LF | ✓ | ✓ | ✓ | ✓ | ✓ |
| SPC | FD | ✓ | ✓ | ✓ | ✓ | ✓ | FD | ✓ | ✓ | ✓ | ✓ | ✓ |
| SPC | TDF | ✓ | ✓ | ✓ | ✓ | ✓ | TDF | ✓ | ✓ | ✓ | ✓ | ✓ |
| SPC | DLQ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ |
| SPC | ADLQ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ |

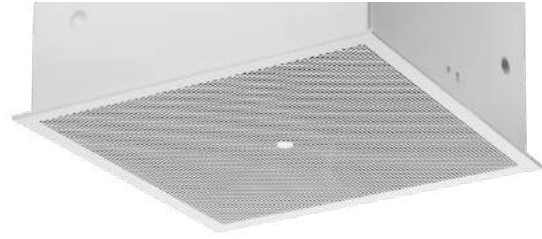
* Diffuser face style 500 × 24

SPC: Steel powder-coated RAL 9010

Air terminal device VDWF



Air terminal device LF



Air terminal device FD



Air terminal device TDF



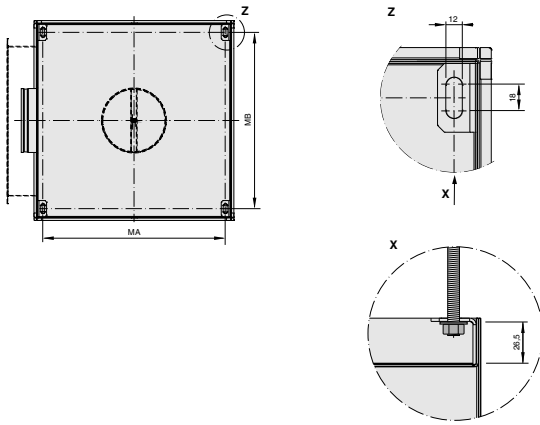
Air terminal device DLQ



Air terminal device ADLQ



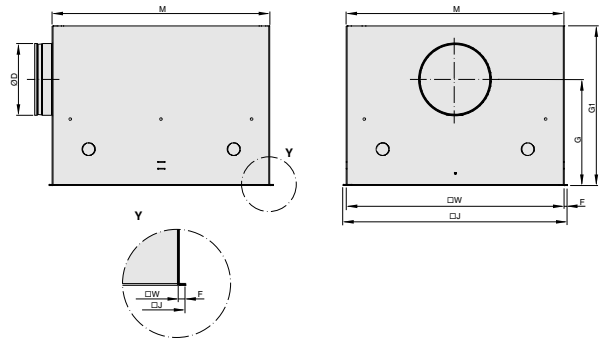
Suspension



| Variant | NS | MA | MB |
|------------|-----|-----|-----|
| SC, TC | 400 | 334 | 315 |
| SC, SR, TC | 500 | 424 | 405 |
| SC, SR, TC | 600 | 524 | 505 |
| SC, SR, TC | 625 | 564 | 545 |
| SC, SR, TC | 680 | 599 | 580 |

Dimensions

TFEA-SC



Side entry, circular spigot

Product-specific data TFEA-SC

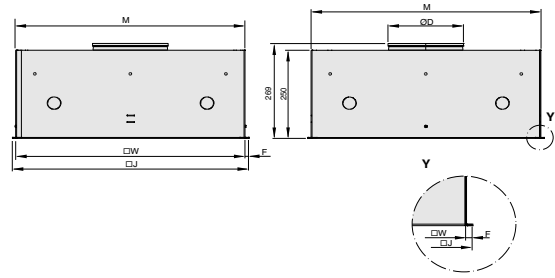
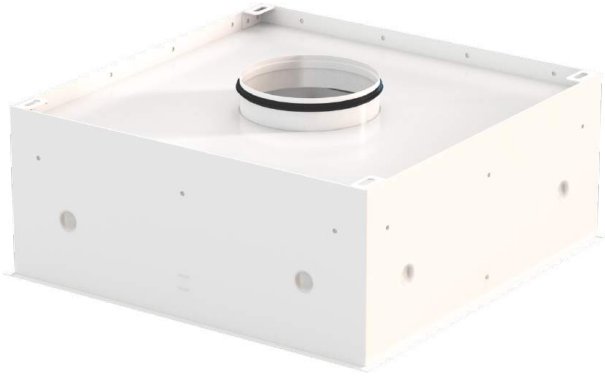
All weights are net, without packaging

| | | | | | Standard ceiling 0 with ED | | | other options* | | | |
|-----|-----|-------------------|-----|-----|----------------------------|-----|-----|----------------|-----|-----|----|
| 1 | 2 | 3 | 4 | 6 | 7 | 8 | 9 | 7 | 8 | 9 | 13 |
| NS | ØD | W × H × D | G1 | M | F | J | K | F | J | K | kg |
| 400 | 158 | 345 × 345 × 48-69 | 395 | 371 | 10 | 388 | 398 | 15 | 398 | 365 | 9 |
| 400 | 198 | 345 × 345 × 48-69 | 440 | 371 | 10 | 388 | 398 | 15 | 398 | 365 | 10 |
| 500 | 158 | 435 × 435 × 48-69 | 395 | 461 | 15 | 488 | 498 | 20 | 498 | 455 | 12 |
| 500 | 198 | 435 × 435 × 48-69 | 440 | 461 | 15 | 488 | 498 | 20 | 498 | 455 | 13 |
| 600 | 198 | 535 × 535 × 48-69 | 440 | 561 | 15 | 588 | 598 | 20 | 598 | 555 | 16 |
| 600 | 248 | 535 × 535 × 48-69 | 495 | 561 | 15 | 588 | 598 | 20 | 598 | 555 | 17 |
| 625 | 198 | 575 × 575 × 48-69 | 440 | 601 | 10 | 618 | 623 | 12 | 623 | 595 | 17 |
| 625 | 248 | 575 × 575 × 48-69 | 495 | 601 | 10 | 618 | 623 | 12 | 623 | 595 | 19 |
| 680 | 248 | 610 × 610 × 48-69 | 495 | 636 | 15 | 663 | 676 | 21 | 676 | 630 | 20 |

* Standard ceiling 0 with ID, clamping cassette ceiling with ED or ID

1 Nominal size, 2 Connection spigot diameter, 3 Filter size, 4 Casing height, 6 Outer casing dimension, 7 Flange width, 8 Outer casing flange dimension, 9 Outer diffuser dimension, 13 Weight

TFEA-TC



Top entry, circular spigot

Product-specific data TFEA-TC

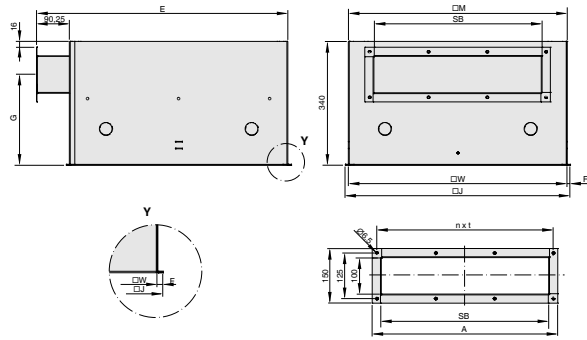
All weights are net, without packaging

| | | | | | Standard ceiling 0 with ED | | | other options* | | | |
|-----|-------------|-------------------|-----|-----|----------------------------|-----|-----|----------------|-----|-----|----|
| 1 | 2 | 3 | 4 | 6 | 7 | 8 | 9 | 7 | 8 | 9 | 13 |
| NS | ØD | W × H × D | G1 | M | F | J | K | F | J | K | kg |
| 400 | 158/198 | 345 × 345 × 48-69 | 250 | 371 | 10 | 388 | 398 | 15 | 398 | 365 | 7 |
| 500 | 158/198 | 435 × 435 × 48-69 | 250 | 461 | 15 | 488 | 498 | 20 | 498 | 455 | 9 |
| 600 | 198/248/313 | 535 × 535 × 48-69 | 250 | 561 | 15 | 588 | 598 | 20 | 598 | 555 | 12 |
| 625 | 198/248/313 | 575 × 575 × 48-69 | 250 | 601 | 10 | 618 | 623 | 12 | 623 | 595 | 13 |
| 680 | 248/313 | 610 × 610 × 48-69 | 250 | 636 | 15 | 663 | 676 | 21 | 676 | 630 | 15 |

* Standard ceiling 0 with ID, clamping cassette ceiling with ED or ID

1 Nominal size, 2 Connection spigot diameter, 3 Filter size, 4 Casing height, 6 Outer casing dimension, 7 Flange width, 8 Outer casing flange dimension, 9 Outer diffuser dimension, 13 Weight

TFEA-SR



Side entry, rectangular spigot

Product-specific data TFEA-SR

All weights are net, without packaging

| | | | | | Standard ceiling 0 with ED | | | other options* | | | | | | |
|-----|-------------------|-----|-----|-----|----------------------------|-----|-----|----------------|-----|-----|-----|---------|-----|----|
| 1 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| NS | W × H × D | G1 | G | M | F | J | K | F | J | K | A | n × t | E | kg |
| 500 | 435 × 435 × 48-69 | 340 | 249 | 461 | 15 | 488 | 498 | 20 | 498 | 455 | 410 | 3 × 128 | 551 | 12 |
| 600 | 535 × 535 × 48-69 | 340 | 249 | 561 | 15 | 588 | 598 | 20 | 598 | 555 | 510 | 3 × 161 | 651 | 15 |
| 625 | 575 × 575 × 48-69 | 340 | 249 | 601 | 10 | 618 | 623 | 12 | 623 | 595 | 510 | 3 × 161 | 691 | 16 |
| 680 | 610 × 610 × 48-69 | 340 | 249 | 636 | 15 | 663 | 676 | 21 | 676 | 630 | 585 | 3 × 186 | 726 | 19 |

* Standard ceiling 0 with ID, clamping cassette ceiling with ED or ID

1 Nominal size, 3 Filter size, 4 Casing height, 5 Connection dimension to centre of spigot, 6 Outer dimension casing, 7 Flange width, 8 Outer dimension casing flange, 9 Outer dimension diffuser, 10 Hole spacing suspension, 11 Hole spacing flange, 12 Outer dimension including spigot, 13 Weight