

# PARASOL Zenith

Installation - Commissioning - Maintenance

03/07/2025  
Art. 942428089

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The document refers to version "e"

## Symbol key

### Symbols on the machine

This product complies with applicable  
EU directives

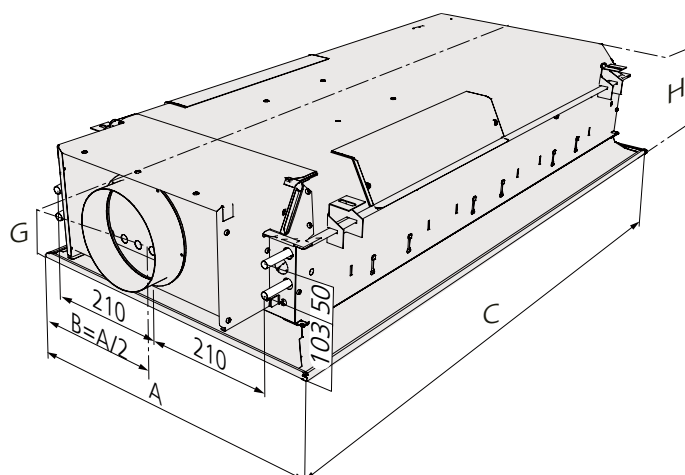
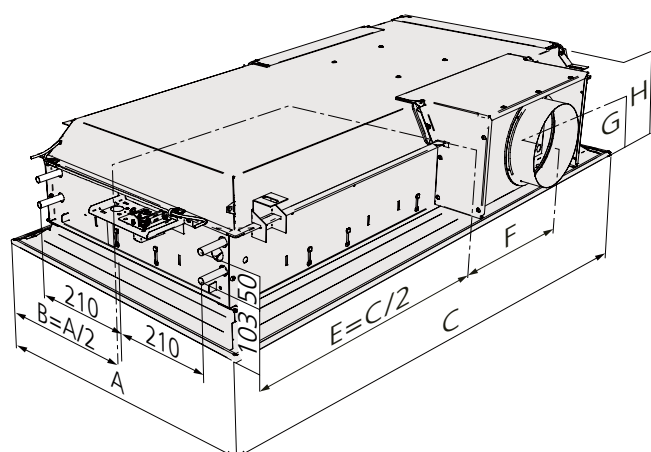


### Symbols in this Instructions for Use

Warning/Caution!



# Dimensions and weights



## Dimensions

### Parasol Zenith 600

| Dimensions (mm) |       |     |         |       |     |         |         |
|-----------------|-------|-----|---------|-------|-----|---------|---------|
| A               | B     | C   | ØD*     | E     | F   | G*      | H*      |
| 584             | 292   | 584 | 125/160 | 292   | 178 | 137/153 | 220/250 |
| 592             | 296   | 592 | 125/160 | 296   | 178 | 137/153 | 220/250 |
| 598             | 299   | 598 | 125/160 | 299   | 178 | 137/153 | 220/250 |
| 617             | 308.5 | 617 | 125/160 | 308.5 | 178 | 137/153 | 220/250 |
| 623             | 311.5 | 623 | 125/160 | 311.5 | 178 | 137/153 | 220/250 |
| 642             | 321   | 642 | 125/160 | 321   | 178 | 137/153 | 220/250 |
| 667             | 333.5 | 667 | 125/160 | 333.5 | 178 | 137/153 | 220/250 |

### Parasol Zenith 1200

| Dimensions (mm) |       |      |         |     |     |         |         |
|-----------------|-------|------|---------|-----|-----|---------|---------|
| A               | B     | C    | ØD*     | E   | F   | G*      | H*      |
| 584             | 292   | 1184 | 125/160 | 592 | 178 | 137/153 | 220/250 |
| 592             | 296   | 1192 | 125/160 | 596 | 178 | 137/153 | 220/250 |
| 598             | 299   | 1198 | 125/160 | 599 | 178 | 137/153 | 220/250 |
| 617             | 308.5 | 1242 | 125/160 | 621 | 178 | 137/153 | 220/250 |
| 623             | 311.5 | 1248 | 125/160 | 624 | 178 | 137/153 | 220/250 |
| 642             | 321   | 1292 | 125/160 | 646 | 178 | 137/153 | 220/250 |
| 667             | 333.5 | 1342 | 125/160 | 671 | 178 | 137/153 | 220/250 |

### Parasol Zenith 1800

| Dimensions (mm) |       |      |     |       |     |     |     |
|-----------------|-------|------|-----|-------|-----|-----|-----|
| A               | B     | C    | ØD  | E     | F   | G   | H   |
| 584             | 292   | 1784 | 200 | 892   | 478 | 173 | 290 |
| 592             | 296   | 1792 | 200 | 896   | 478 | 173 | 290 |
| 598             | 299   | 1798 | 200 | 899   | 478 | 173 | 290 |
| 617             | 308.5 | 1823 | 200 | 911,5 | 478 | 173 | 290 |
| 623             | 311.5 | 1867 | 200 | 933.5 | 478 | 173 | 290 |
| 642             | 321   | 1873 | 200 | 936.5 | 478 | 173 | 290 |
| 667             | 333.5 | 1942 | 200 | 971   | 478 | 173 | 290 |

\* Dimensions refer to products with air connection Ø125/Ø160.

## Weight

### Parasol Zenith 600

| Length | Type | Dim. | Dry weight | Water volume (l) |         |
|--------|------|------|------------|------------------|---------|
|        |      |      |            | cooling          | heating |
| 600    | A    | 125  | 12.9       | 1.08             | -       |
| 600    | B    | 125  | 13.0       | 0.84             | 0.34    |
| 600    | A    | 160  | 13.5       | 1.08             | -       |
| 600    | B    | 160  | 13.6       | 0.84             | 0.34    |

### Parasol Zenith 1200

| Length | Type | Dim. | Dry weight | Water volume (l) |         |
|--------|------|------|------------|------------------|---------|
|        |      |      |            | cooling          | heating |
| 1200   | A    | 125  | 23.6       | 2.4              | -       |
| 1200   | B    | 125  | 23.6       | 1.8              | 0.7     |
| 1200   | A    | 160  | 24.4       | 2.4              | -       |
| 1200   | B    | 160  | 24.4       | 1.8              | 0.7     |

### Parasol Zenith 1800

| Length | Type | Dim. | Dry weight | Water volume (l) |         |
|--------|------|------|------------|------------------|---------|
|        |      |      |            | cooling          | heating |
| 1800   | A    | 200  | 35.7       | 3.8              | -       |
| 1800   | B    | 200  | 35.7       | 2.7              | 1.1     |

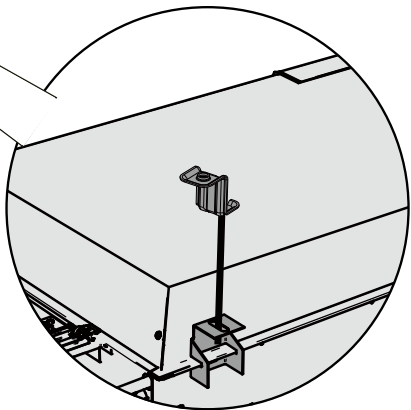
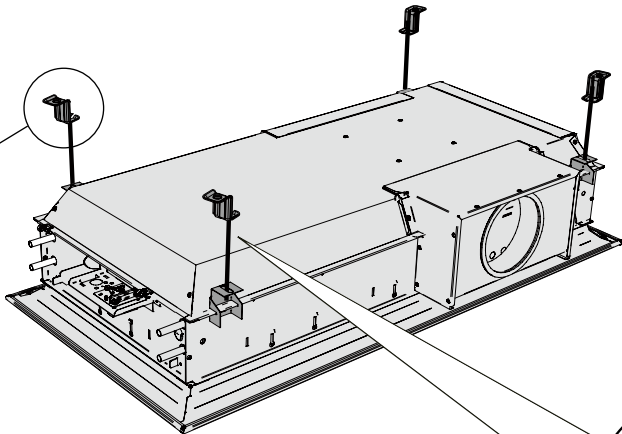
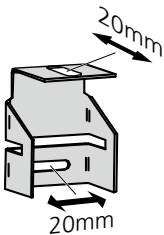
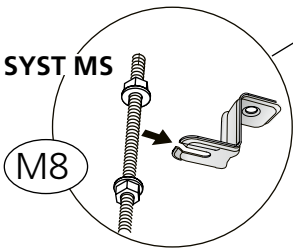
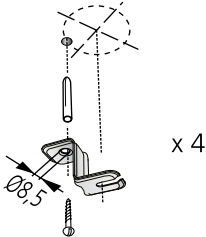
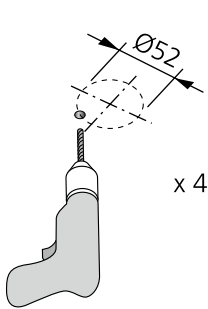
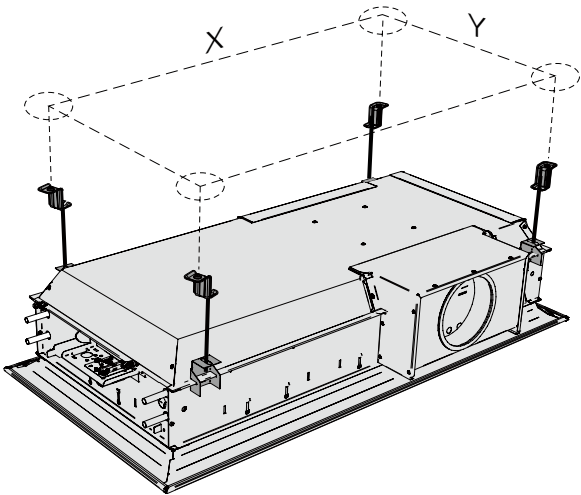
Weights above are excl. control plate (0.12 kg).

These are examples of the most common sizes of WISE Parasol. For the other variants, refer to ProSelect or IC Design at [www.swegon.com](http://www.swegon.com).

# Installation

## Suspension bracket

To mount the product on the ceiling using standard suspension bracket SYST MS



### c - c measurement

| Placement of the bracket on delivery |              |              |
|--------------------------------------|--------------|--------------|
|                                      |              |              |
| Length of the unit                   | c - c (mm) X | c - c (mm) Y |
| 600                                  | 330 ±10      | 508 ±10      |
| 1200                                 | 930 ±10      | 508 ±10      |
| 1800                                 | 1530 ±10     | 508 ±10      |

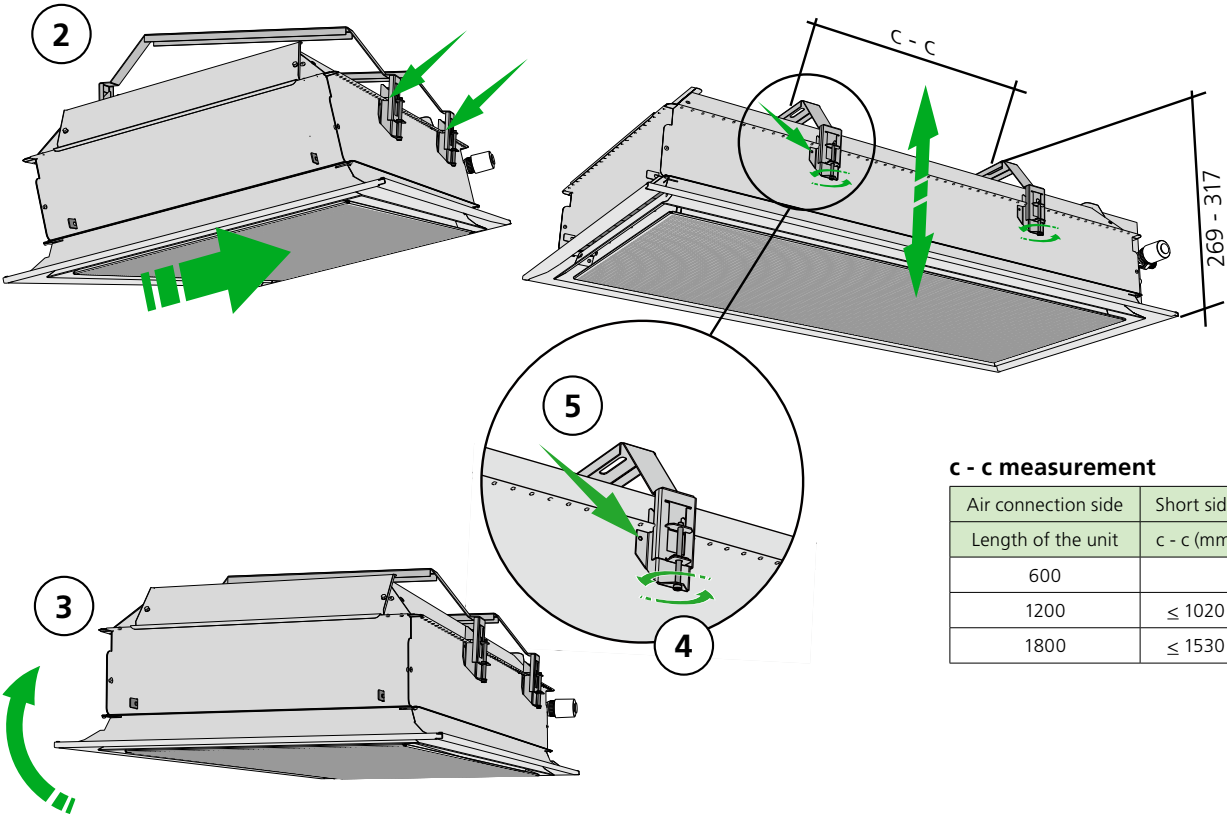
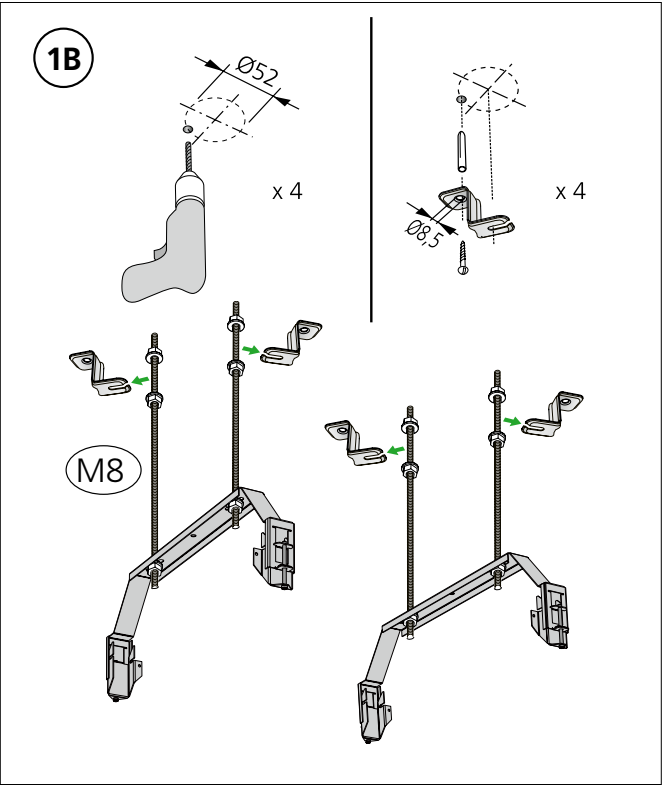
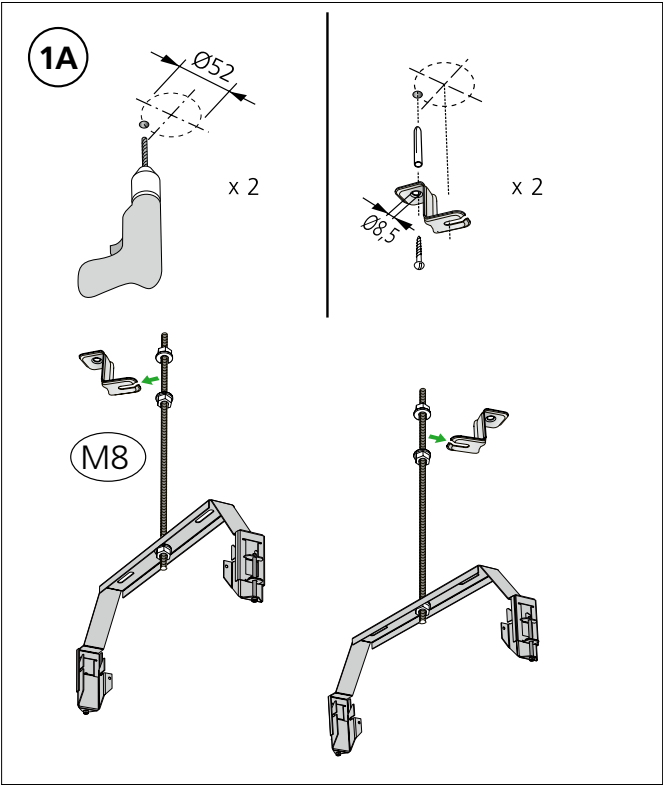
| Alternative placement of the suspension bracket |                        |                       |
|---|------------------------|-----------------------|
|   |                        |                       |
| Length of the unit                              | Out towards the corner | In towards the centre |
|   | c - c (mm) X (A1)      | c - c (mm) X (A2)     |
| 600   | 398 ±10                | 262 ±10               |
| 1200  | 998 ±10                | 862 ±10               |
| 1800  | 1598 ±10               | 1462 ±10              |

Accessory - Quick bracket

To mount the product on the ceiling using accessor, quick bracket

1A: Installation with one centred threaded rod per quick bracket.

1B: Installation with two threaded rods per quick bracket



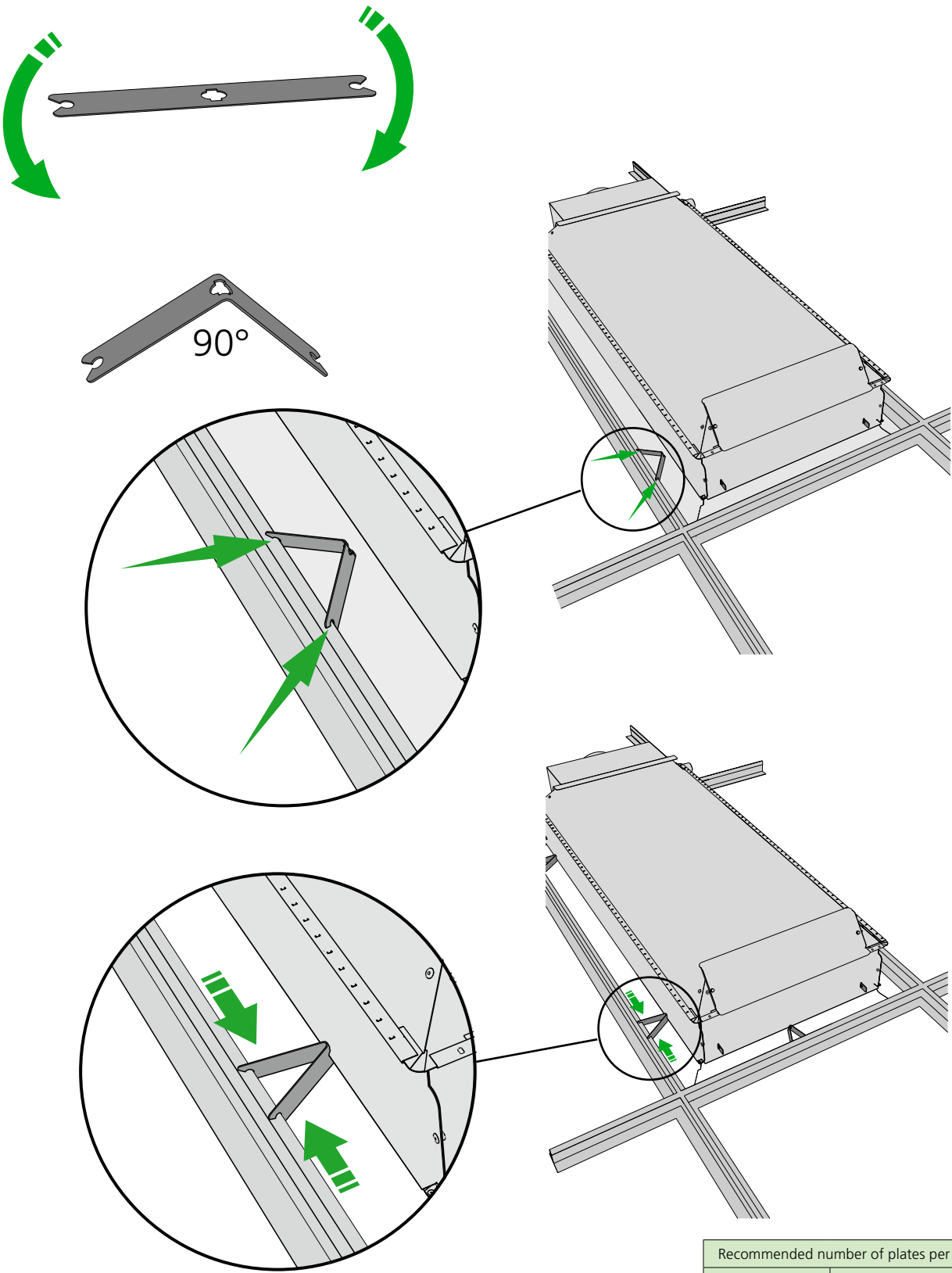
c - c measurement


| Air connection side | Short side | Long side  |
|---------------------|------------|------------|
| Length of the unit  | c - c (mm) | c - c (mm) |
| 600                 | ≤ 320      |            |
| 1200                | ≤ 1020     | 900-1020   |
| 1800                | ≤ 1530     | 900-1530   |



Accessory - Mounting in concealed T-bars

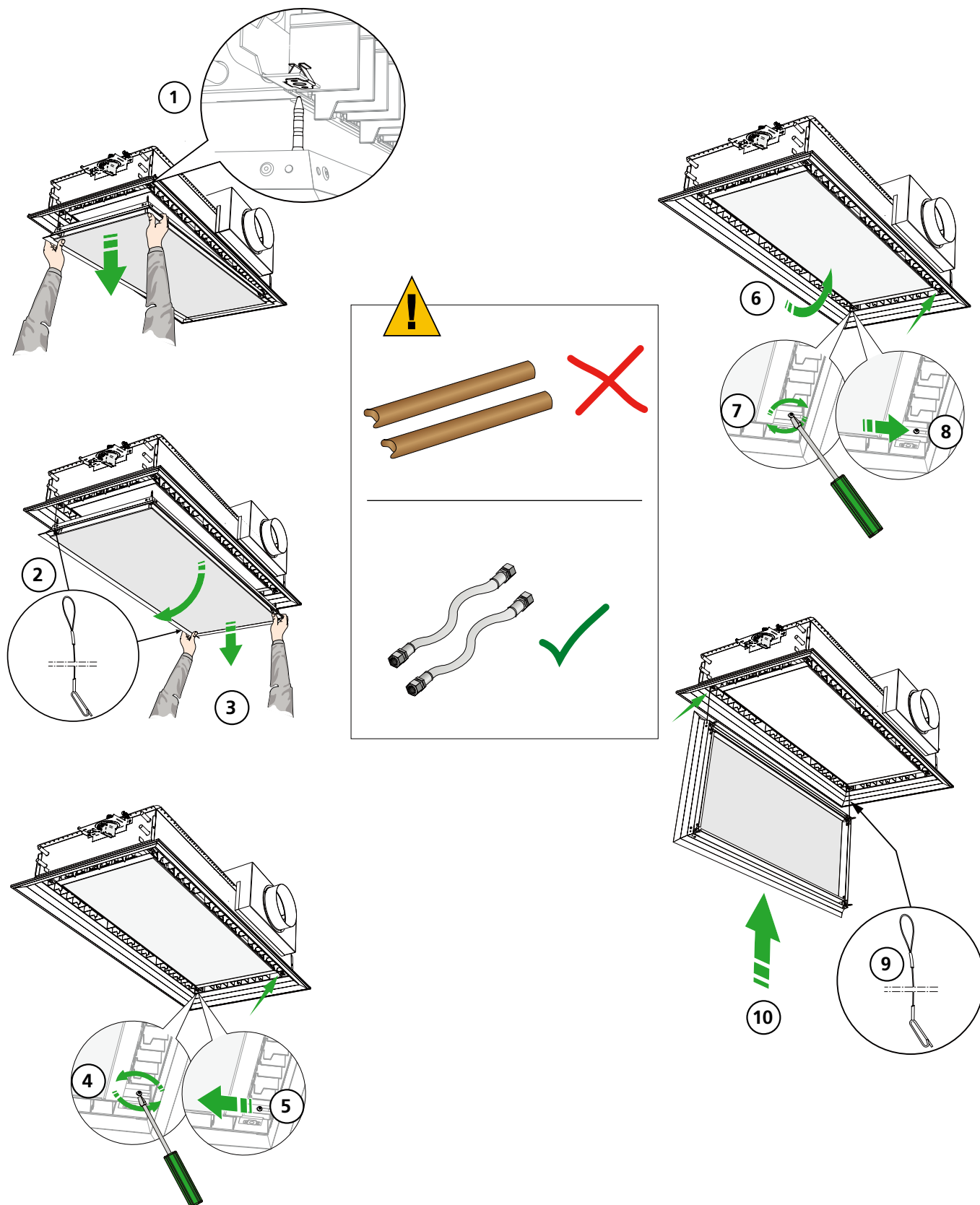
To centre the product when mounting in concealed T-bars.



| Recommended number of plates per product. |   |
|---|---|
| Length of the unit                        |  |
| 600                                       | 4   |
| 1200                                      | 6   |
| 1800                                      | 6-8   |

## Accessory - Fold-out coil

PARASOL Zenith with fold-out coil (accessory) for easy access and cleaning when stringent demands are made on hygiene. The accessory, fold-out coil, requires flexible connecting hoses on the water side.

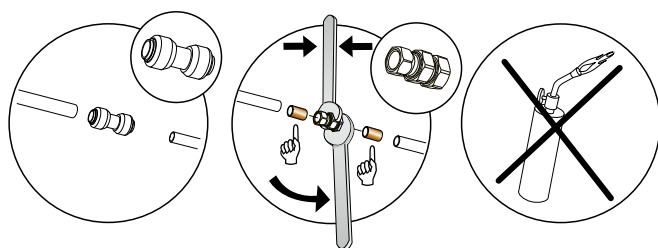
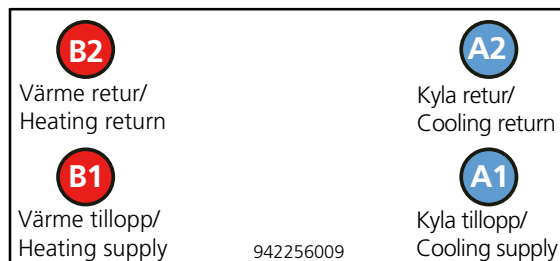


## Water connection

### Parasol Zenith 600/1200/1800

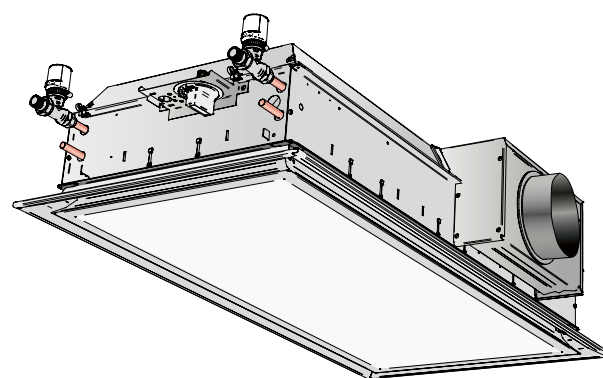
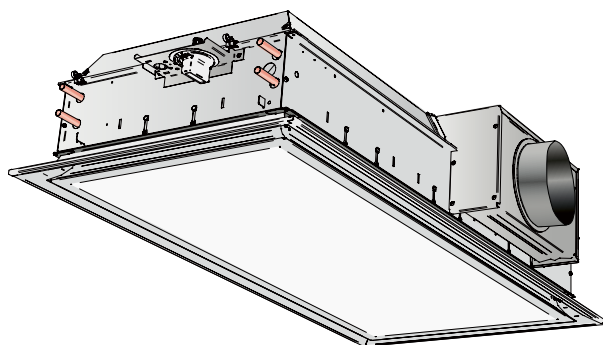


**Important!**



**N.B!**

Use support sleeves inside the pipes together with compression ring couplings.



## Water quality

Swegon recommends water quality according to VDI 2035-2 for both the heating and cooling systems. In order to maintain the oxygen content in the water below the levels (<0.1 mg/l) prescribed in VDI 2035-2, it is recommended to install a vacuum degasser, particularly in the cooling system where it's more challenging to dissolve gas. It is also important that the prepressure in the expansion vessel is dimensioned according to EN-12828 for both the heating and cooling systems and that regular checks are made of the pre-pressure. The cooling and heating systems must be designed to prevent oxygen from entering the system, this is particularly important to consider when

selecting flex hose, pipes and expansion vessels. When the system is filled with fresh water, it has an oxygen content of approximately 8 mg/l, however, this oxygen is consumed quickly through corrosion processes and within a few days the oxygen in the water should be consumed. Nevertheless, it is important to avoid filling the system with fresh water unnecessarily.

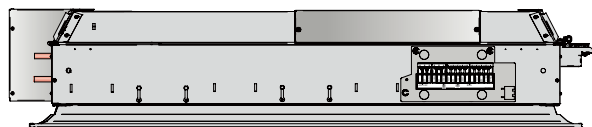
Automatic deaerators are often installed to facilitate filling of the system. It is recommended that the automatic deaerators are turned off once the system has been fully vented to avoid these drawing in air in the system if the pre-pressure in the expansion vessel should drop.

### Connection sizes

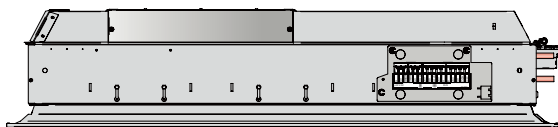
| Model             | Length    | Factory-fitted     | Connection | Coupling type                                    | Connection  | Coupling type                                    |
|-------------------|-----------|--------------------|------------|--|-------------|--|
| A cooling only    | 600, 1200 | Actuator and valve | Return     | DN15, male thread                                | Supply pipe | Plain pipe 12 x 1.0 mm                           |
| B Cooling/heating | 600, 1200 | Actuator and valve | Return     | DN15, male thread                                | Supply pipe | Plain pipe 12 x 1.0 mm                           |
| A cooling only    | 1800      | Actuator and valve | Return     | DN20 external threads                            | Supply pipe | Plain pipe 15 x 1.0 mm                           |
| B Cooling/heating | 1800      | Actuator and valve | Return     | DN20 external threads<br>DN15 external threads   | Supply pipe | Plain pipe 15 x 1.0 mm<br>Plain pipe 12 x 1.0 mm |
| A cooling only    | 600, 1200 | -                  | Return     | Plain pipe 12 x 1.0 mm                           | Supply pipe | Plain pipe 12 x 1.0 mm                           |
| B Cooling/heating | 600, 1200 | -                  | Return     | Plain pipe 12 x 1.0 mm                           | Supply pipe | Plain pipe 12 x 1.0 mm                           |
| A cooling only    | 1800      | -                  | Return     | Plain pipe 15 x 1.0 mm                           | Supply pipe | Plain pipe 15 x 1.0 mm                           |
| B Cooling/heating | 1800      | -                  | Return     | Plain pipe 15 x 1.0 mm<br>Plain pipe 12 x 1.0 mm | Supply pipe | Plain pipe 15 x 1.0 mm<br>Plain pipe 12 x 1.0 mm |

## Wiring diagram for accessories

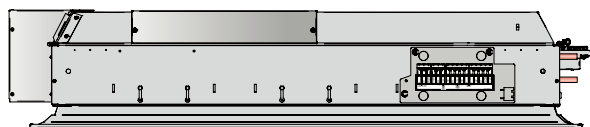
Placement of the control plate for connection of the control equipment (In cases the product is ordered with control equipment)



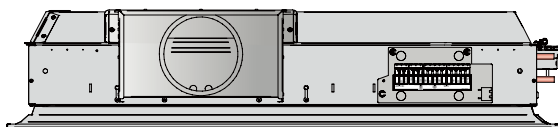
Air connection on side 1



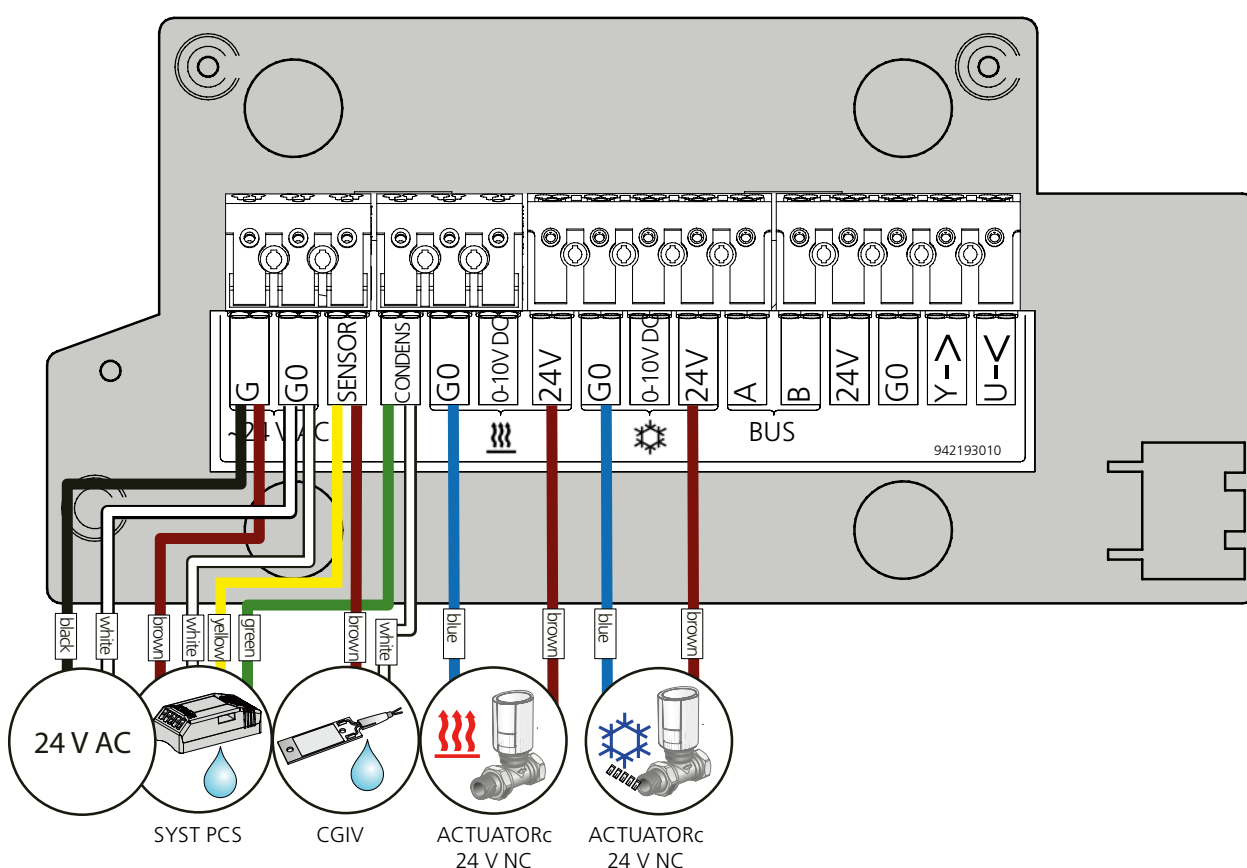
Air connection on side 2



Air connection on side 3

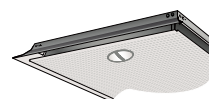
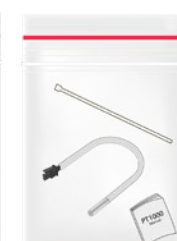
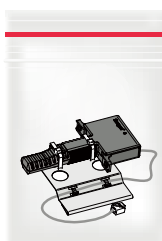
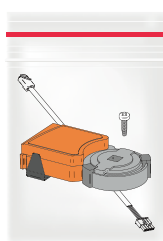
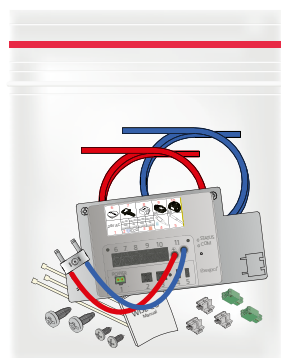


Air connection on side 4



## Upgrade kits

PARASOL Zenith can also be upgraded with the help of the upgrade kit for integration in the WISE system.



## Air connection

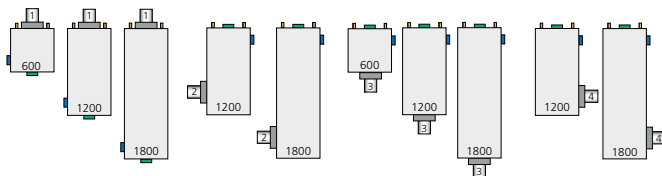
### Connection sizes

| Length of the unit | Dim. Ø |     |     |
|--------------------|--------|-----|-----|
|                    | 125    | 160 | 200 |
| 600, 1200          | Yes    | Yes | No  |
| 1800               | No     | No  | Yes |

### Selectable air connection sides.

When ordering, depending on the length, it is possible to choose connection side 1, 2, 3 or 4, see the table and figure below (view from above).

| Length of the unit | Side |     |     |     |
|--------------------|------|-----|-----|-----|
|                    | 1*   | 2   | 3   | 4   |
| 600                | Yes  | No  | Yes | No  |
| 1200               | Yes  | Yes | Yes | Yes |
| 1800               | Yes  | Yes | Yes | Yes |

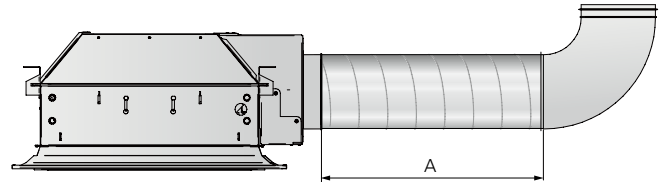


### PARASOL Zenith with bend

PARASOL Zenith can be upgraded with VAV or DCV functionality, for these functions we recommend 3xØ straight connection before the product to maintain a very high airflow accuracy.

Incorporating this requirement into your project planning not only guarantees optimal performance but also simplifies installation and future system upgrades.

PARASOL Zenith has the option to place the air spigot connection on all four sides, to simplify installation and reduce installation costs.



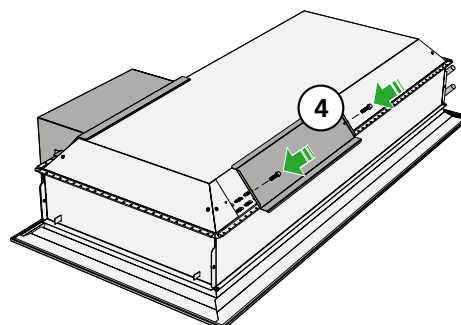
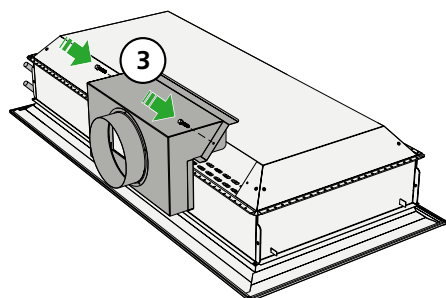
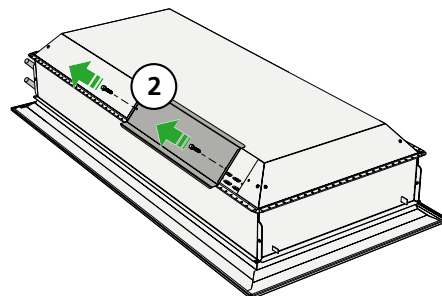
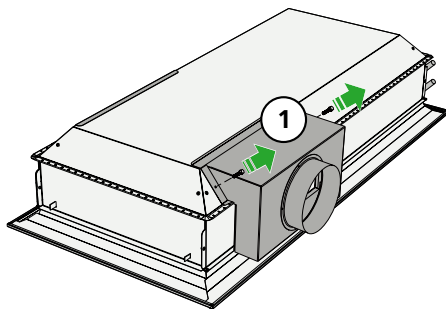
Dimensional drawing, long side connection with bend

### Recommendation for accurate flow measurement

| Air connection size (mm) | A (mm) |
|--------------------------|--------|
| 125                      | 375    |
| 160                      | 480    |
| 200                      | 600    |

### Alternative air connection side

1. Unscrew two screws each from the sleeve and cover
2. Change the location of the spigot and cover
- 3 - 4. Screw the sleeve and cover in position each with two screws on the new side.



# Commissioning

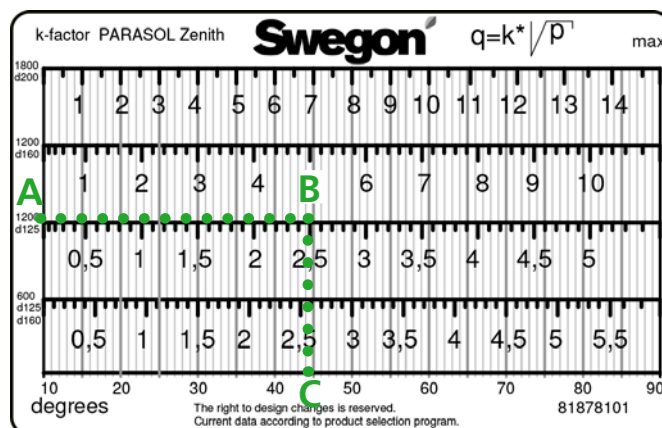
## K-factor setting

**Example: To achieve the required flow of 25 l/s at 100 Pa, requires k-factor 2.5**

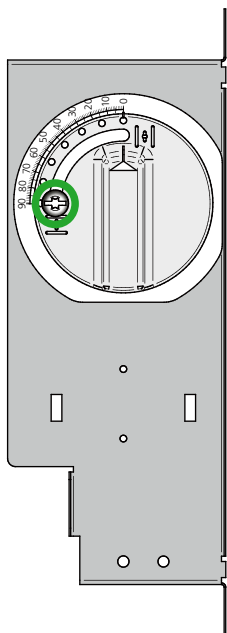
- A** Find the product's length and air connection diameter from left-hand side of the k-factor table.
- B** Read the required k-factor on the row in question.
- C** Follow the vertical row and read the number of degrees at the bottom.

Product, dimensioned via Room Unit Design, comes with a default setting for the desired airflow. Swegon recommends fine-tuning during commissioning.

K-factor table

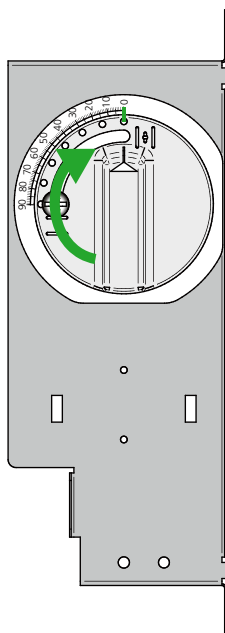


## To enter settings for k-factor



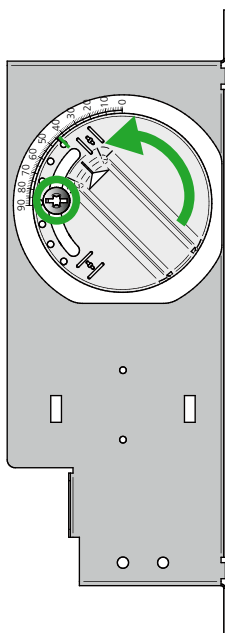
1.

Loosen the screw located in the knob's groove.



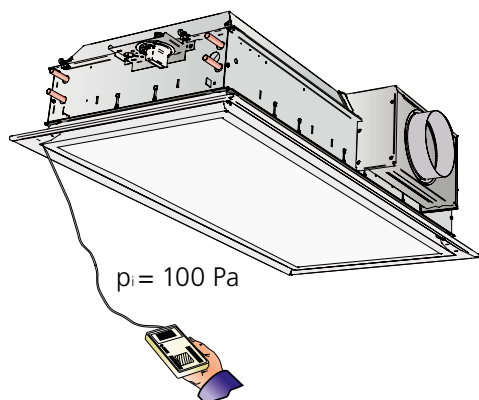
2.

Then turn the knob to the fully closed position, 0°.



3.

Then turn the knob back to the angle for the desired k-factor (44° in our example) and tighten the screw.



$$p_i = \left( \frac{q}{k} \right)^2 \text{ [Pa]}$$

$$q = k \cdot \sqrt{p_i} \text{ [l/s]}$$

$$\frac{q}{\sqrt{p_i}} = k$$

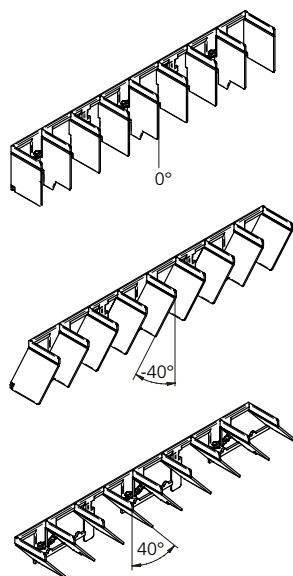
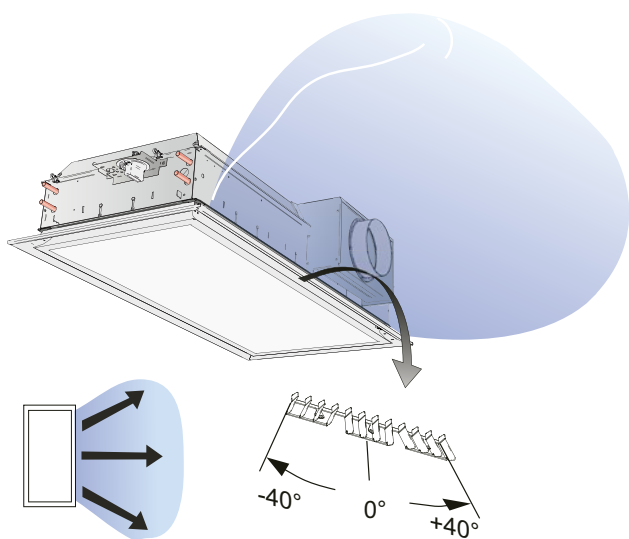
$$p_i \text{ [Pa]}$$

$$q \text{ [l/s]}$$

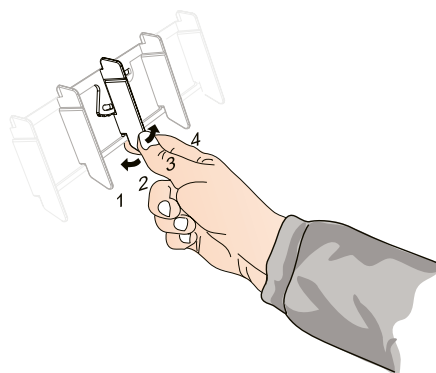
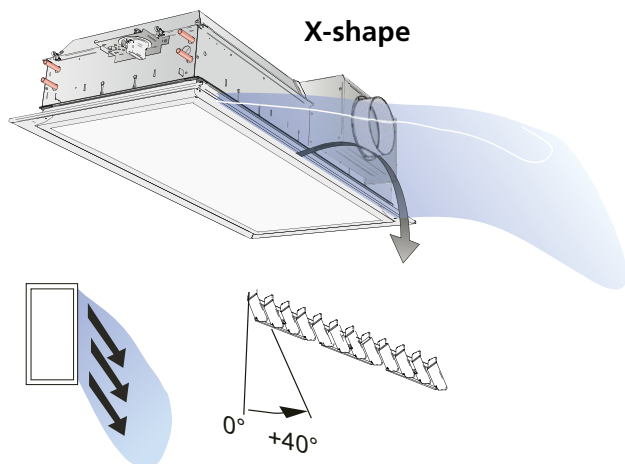
$$k = \text{k-factor}$$

## ADC

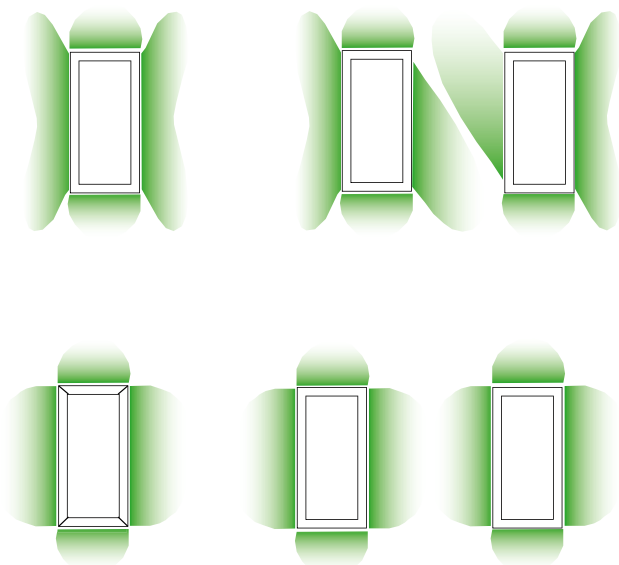
### Fan-shape



### X-shape



### Examples of ADC settings





# Maintenance

