

# PARASOL Zenith c

Installation - Commissioning - Maintenance

07/02/2023  
Art. 942428061

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## Symbol key

### Symbols on the machine

This product complies with applicable EU directives

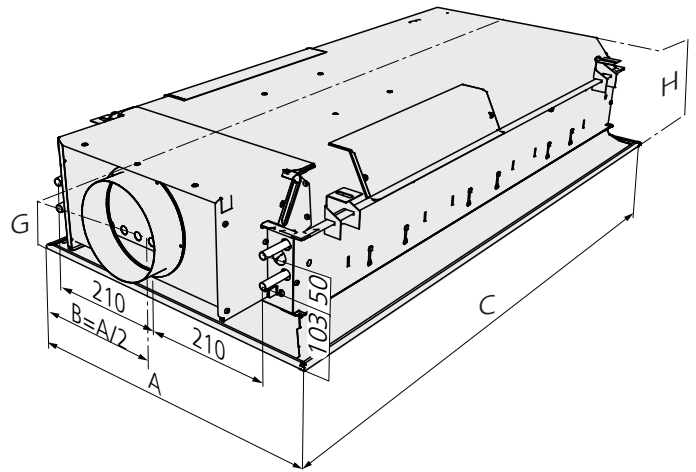
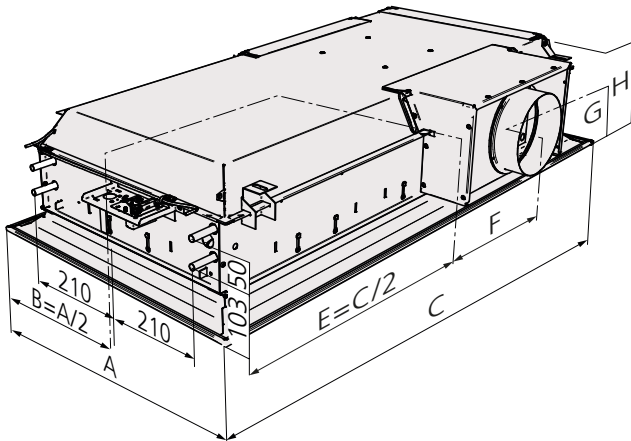


### Symbols in this Instructions for Use

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

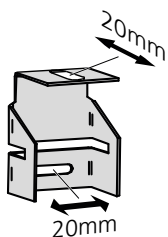
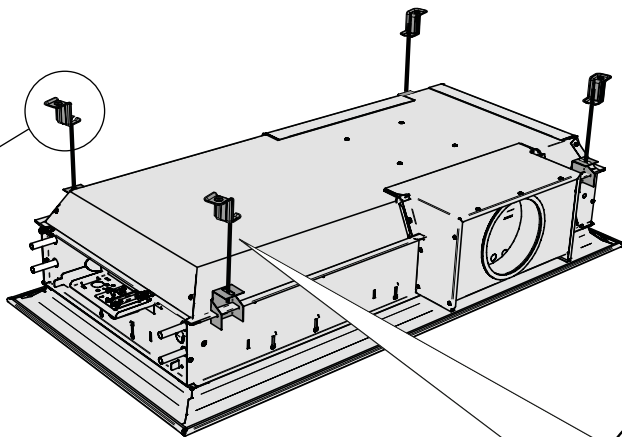
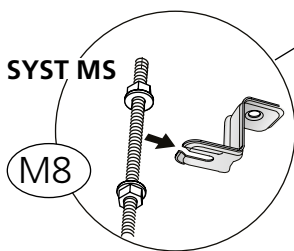
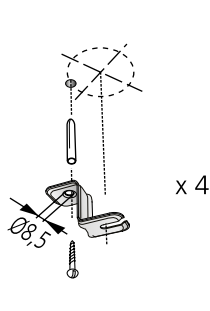
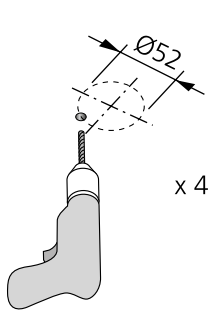
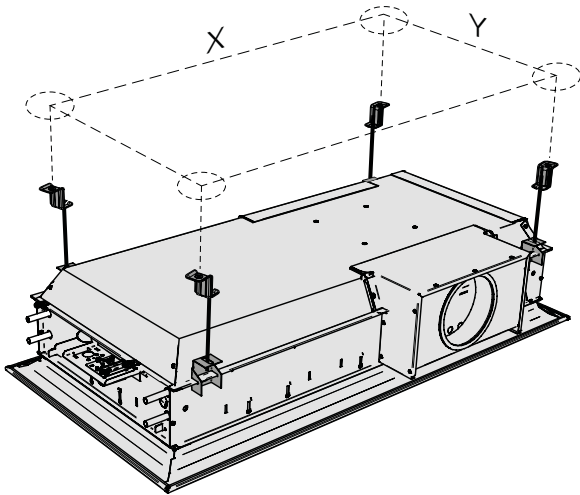
Weights above are excl. control plate (0.12 kg).

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

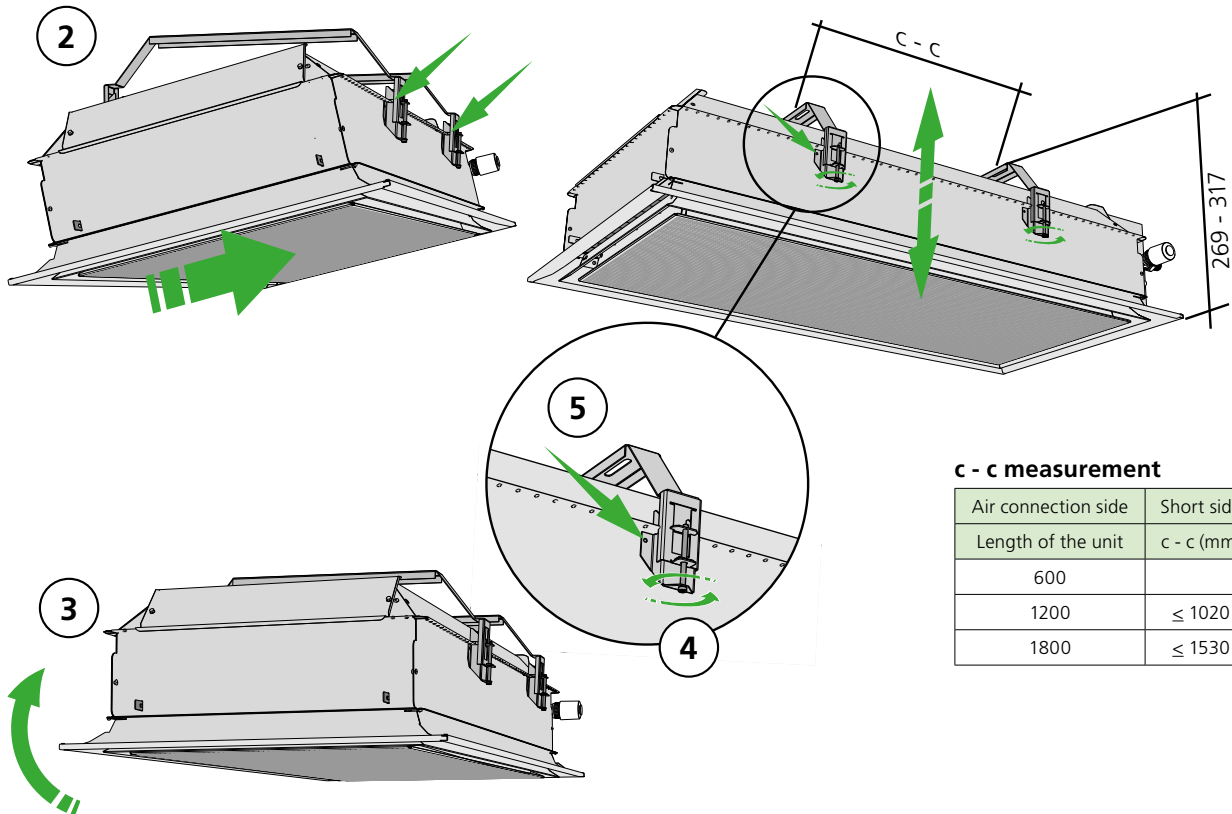
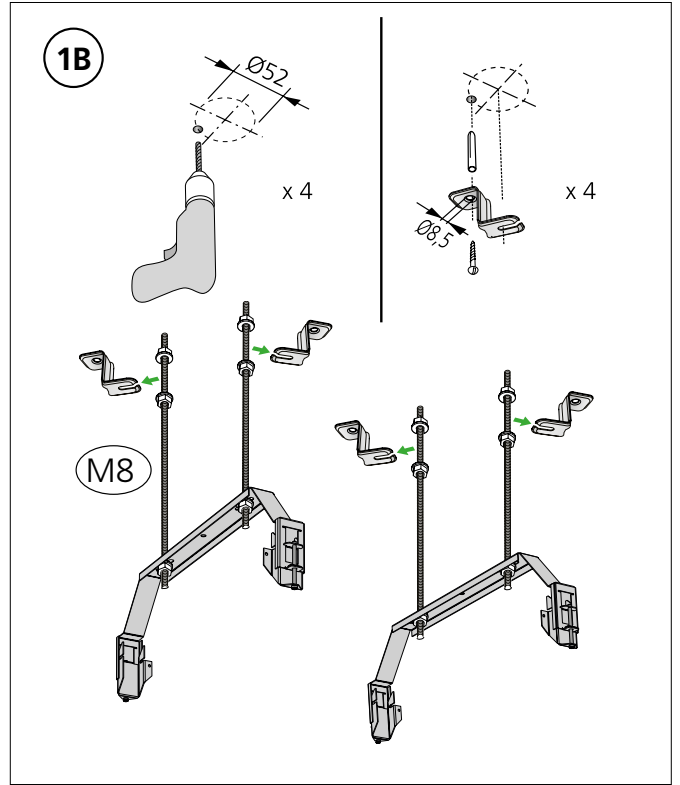
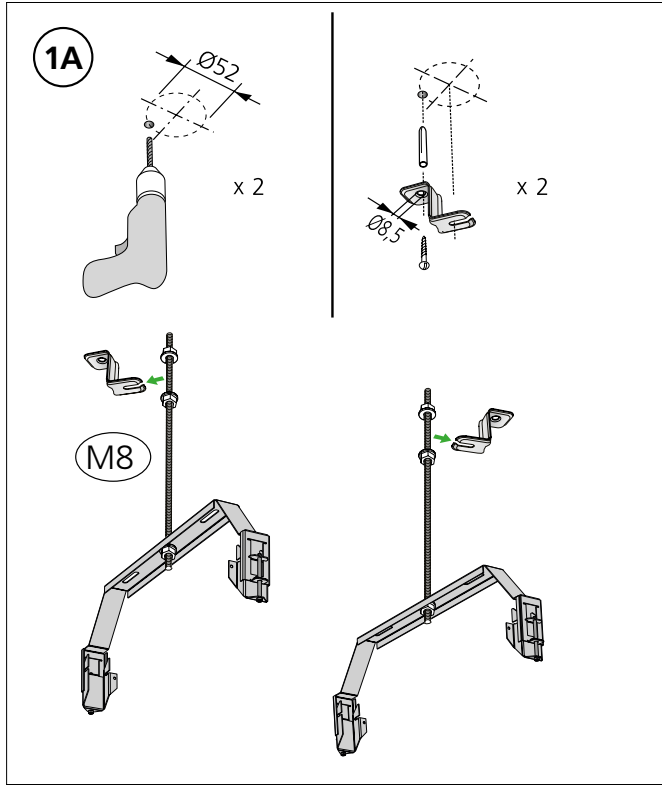
Alternative placement of the suspension bracket		
Length of the unit	Out towards the corner	In towards the centre
	c - c (mm) X (A1)	c - c (mm) X (A2)
600	398 ±10	262 ±10
1200	998 ±10	862 ±10
1800	1598 ±10	1462 ±10

**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

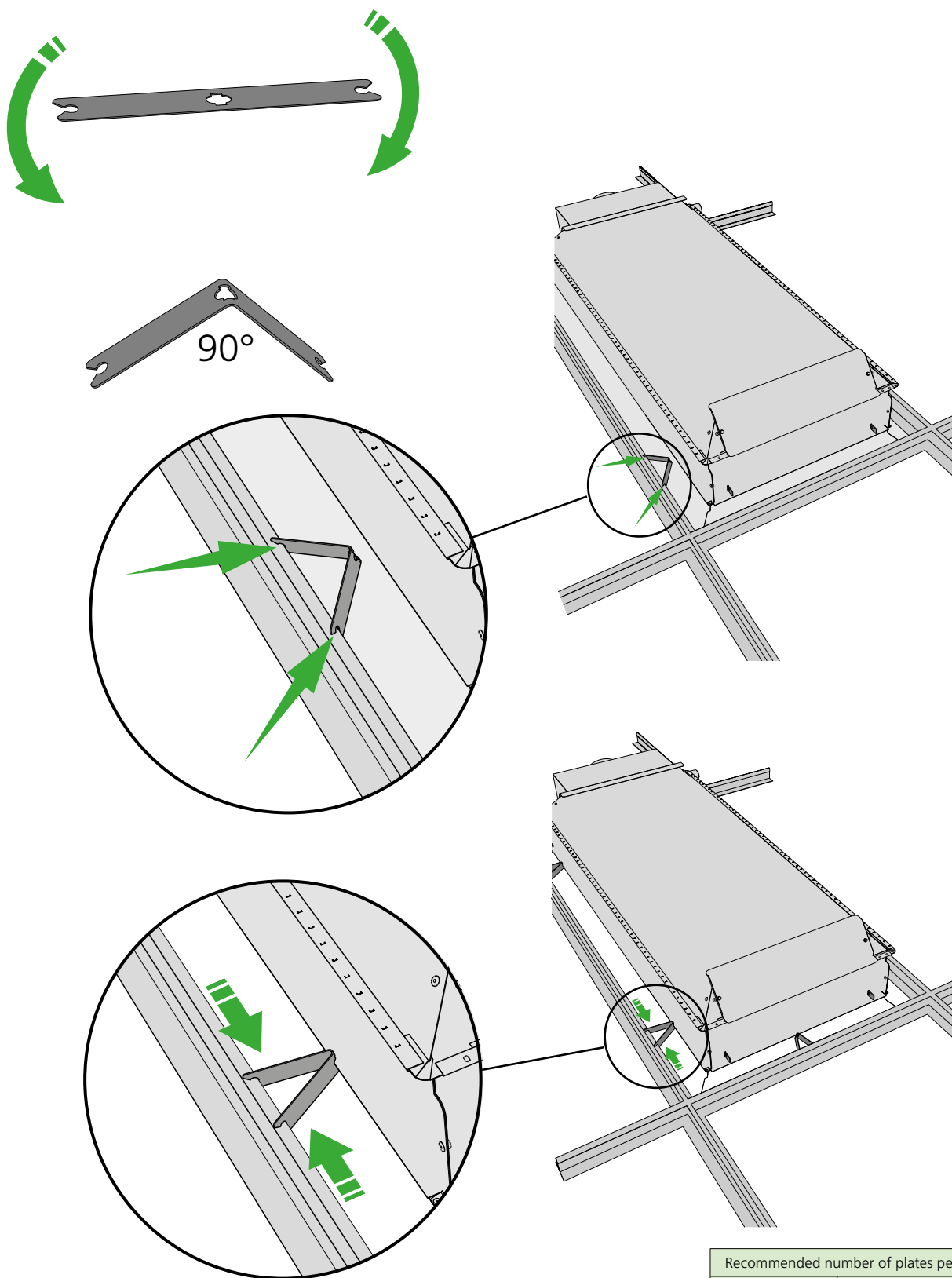



**c - c measurement**

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

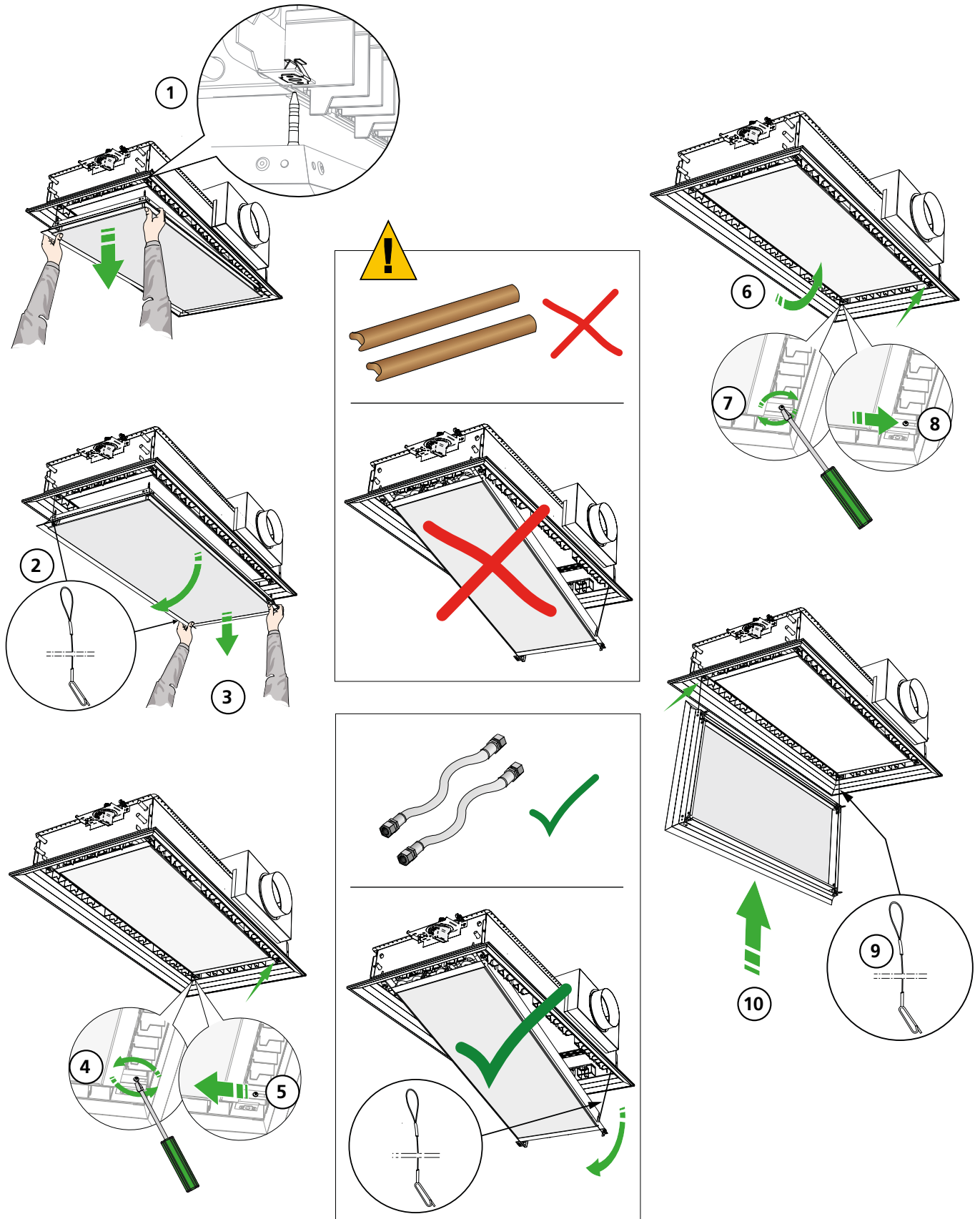
To centre the product when mounting in concealed T-bars.



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

**Accessory - Fold-out coil**

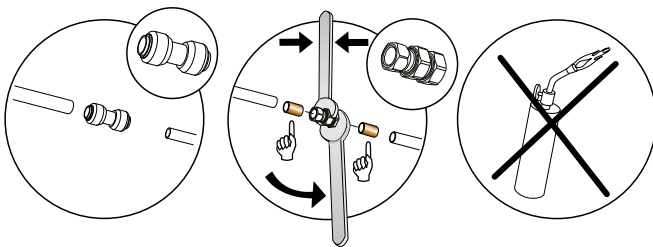
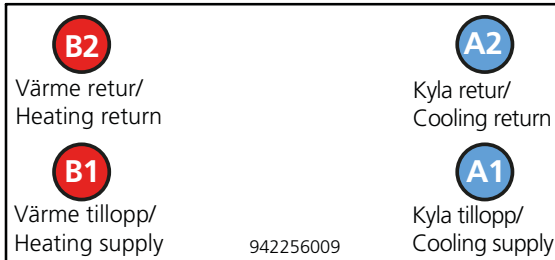
PARASOL Zenith with fold-out coil (accessory) for easy access and cleaning when stringent demands are made on hygiene. The accessory, fold-out coil, requires flexible connecting hoses on the water side.




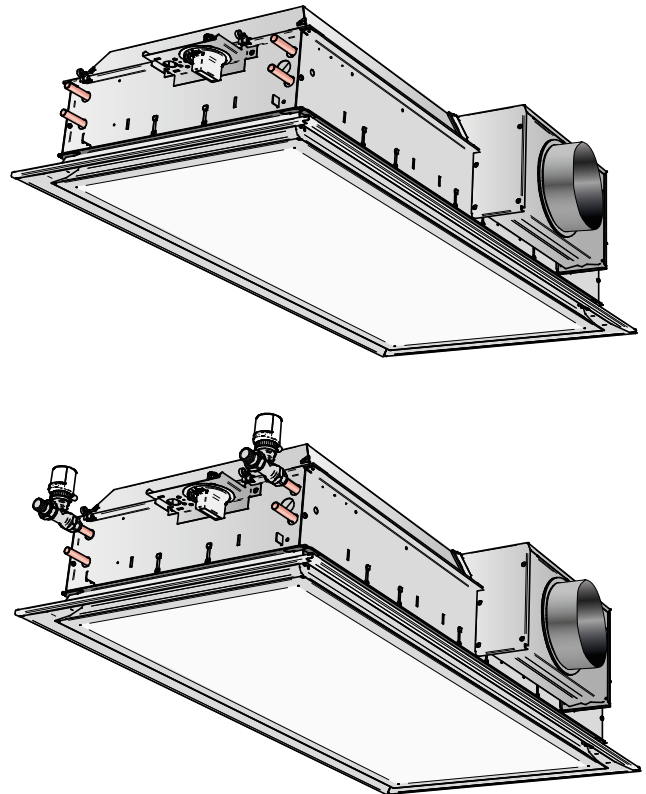
# Water connection

## 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 dissolved 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

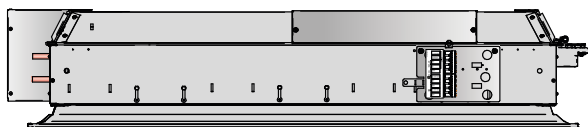
Model	Length	Factory-fitted	Connection	Coupling type	Connection	Coupling type
A cooling only	600, 1200	Actuator and valve	Return	DN15, male thread	Supply pipe	Plain pipe 12 x 1.0 mm
B Cooling/heating	600, 1200	Actuator and valve	Return	DN15, male thread	Supply pipe	Plain pipe 12 x 1.0 mm
A cooling only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

# Wiring diagram

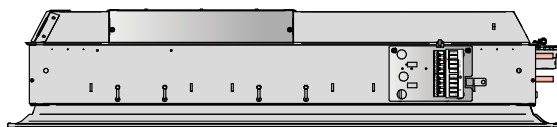
## Wiring diagram for accessories

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

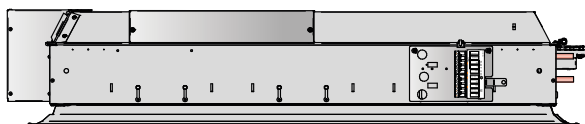
Air connection on side 1



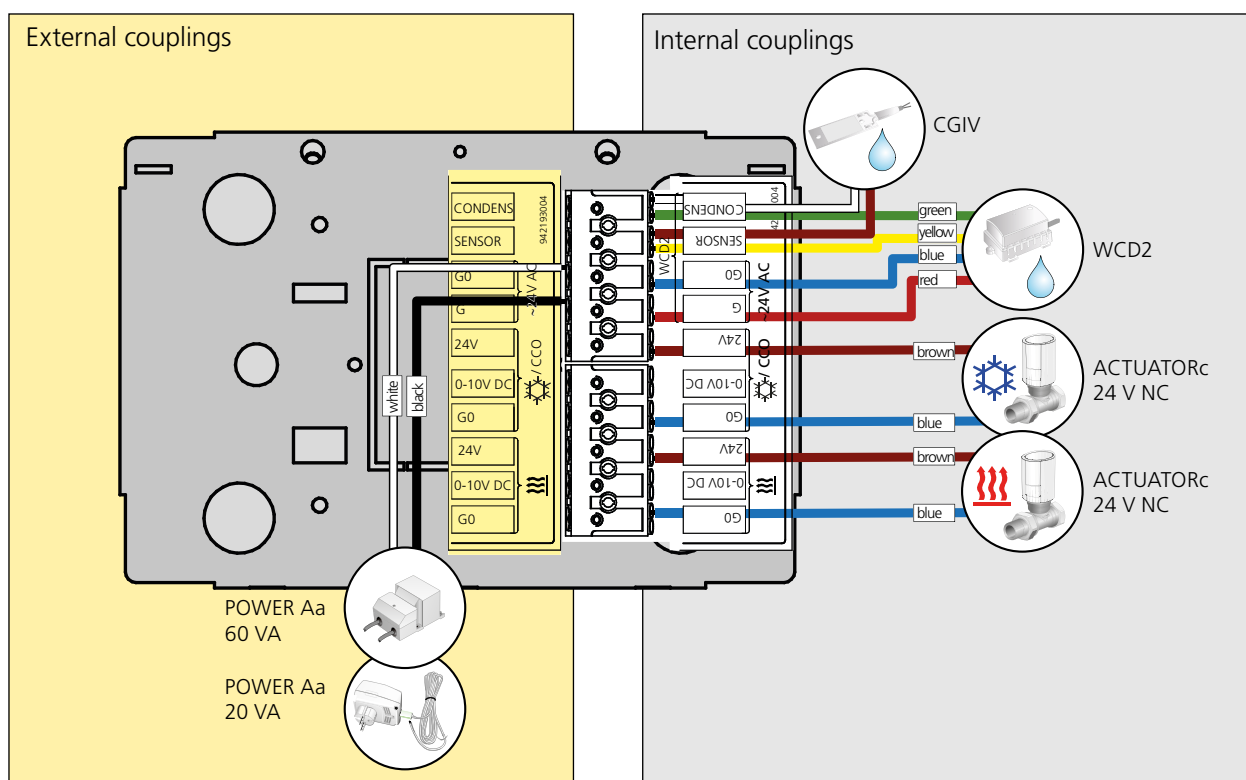
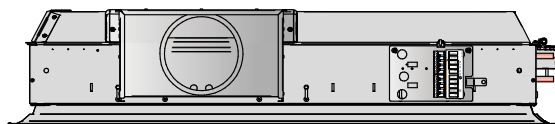
Air connection on side 2



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

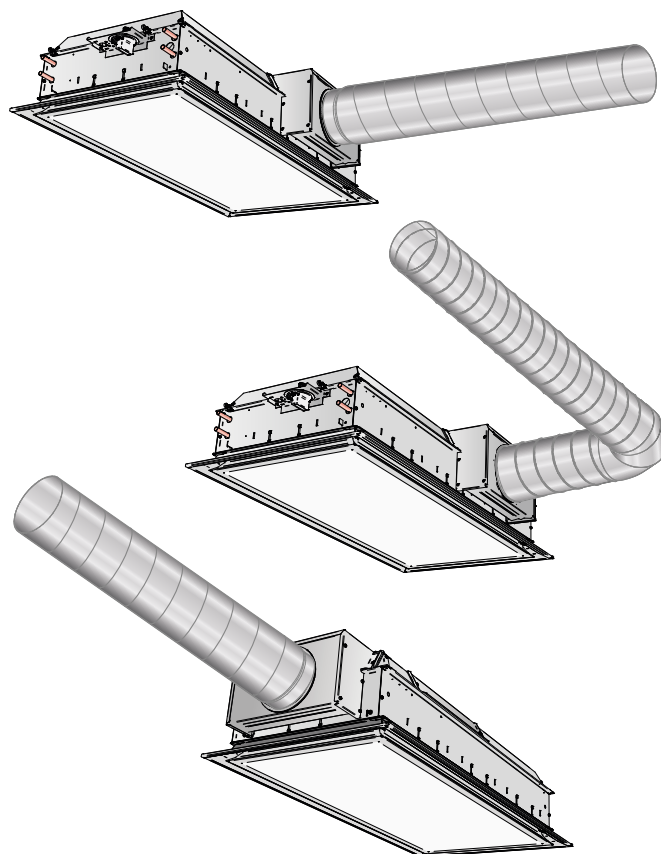
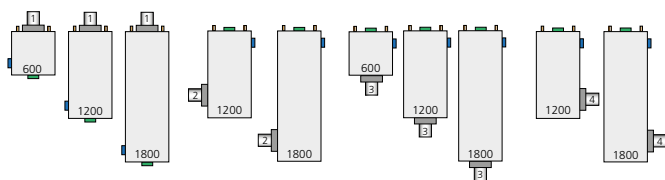
## Connection sizes

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

## Selectable air connection sides.

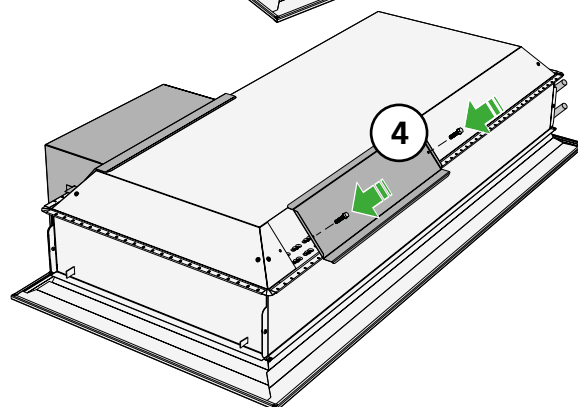
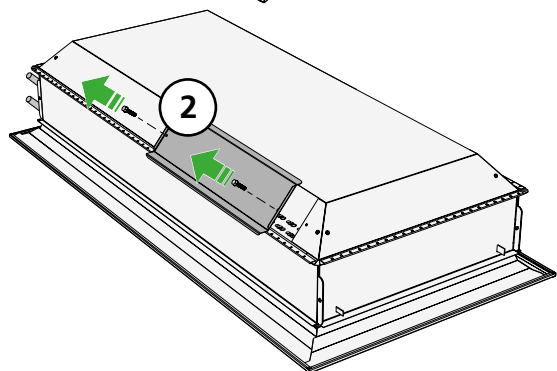
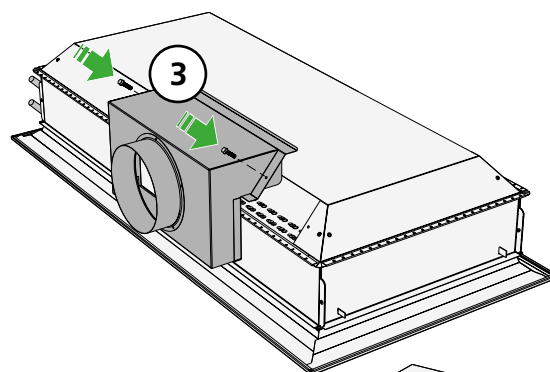
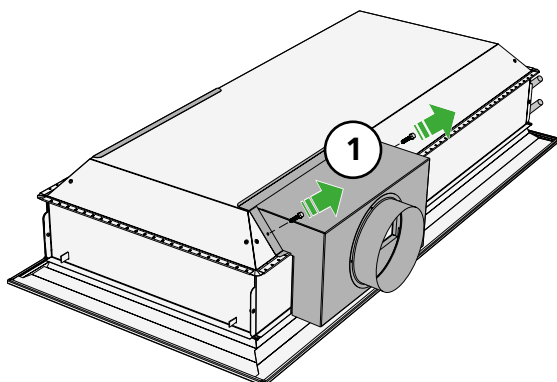
When ordering, depending on the length, it is possible to choose connection side 1, 2, 3 or 4, see the table and figure below (view from above).

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



## 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

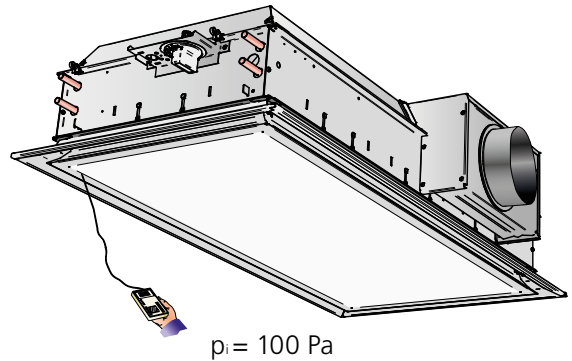
## K-factor setting

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

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

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

$p_i$  [Pa]  
 $q$  [l/s]  
 $k$  = k-factor



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

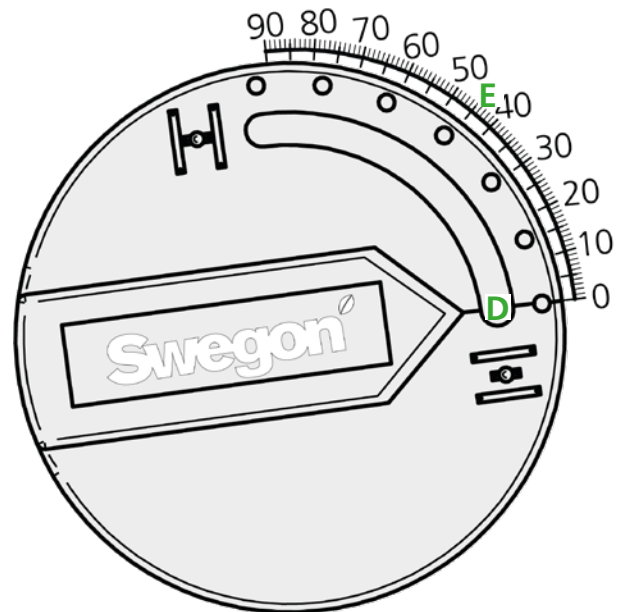
- A** Find the product’s length and air connection diameter from left-hand side of the k-factor table.
- B** Read the required k-factor on the row in question.
- C** Follow the vertical row and read the number of degrees at the bottom.
- D** Loosen the screw located in the knob’s groove (the knob then moves to the fully open position, 90°)
- E** Turn the knob until the marking “D” reaches the required number of degrees.  
*In the example from the table for a PARASOL Zenith with length 1200, ø125, k-factor 2.5, turn the knob to 44°.*
- F** Tighten the screw again when the marking is set on the required number of degrees.

### K-factor table

k-factor PARASOL Zenith		Swegon		$q = k \cdot \sqrt{p}$		max	
1800 ø200	1 2 3 4 5 6 7 8 9 10 11 12 13 14						
1200 ø160	1 2 3 4 5 6 7 8 9 10						
1200 ø125	0,5 1 1,5 2 2,5 3 3,5 4 4,5 5						
600 ø125 ø160	0,5 1 1,5 2 2,5 3 3,5 4 4,5 5 5,5						
	degrees	10	20	30	40	50	60

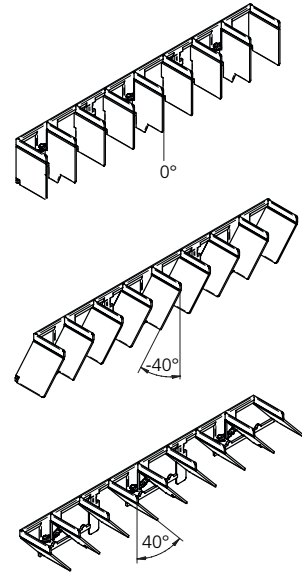
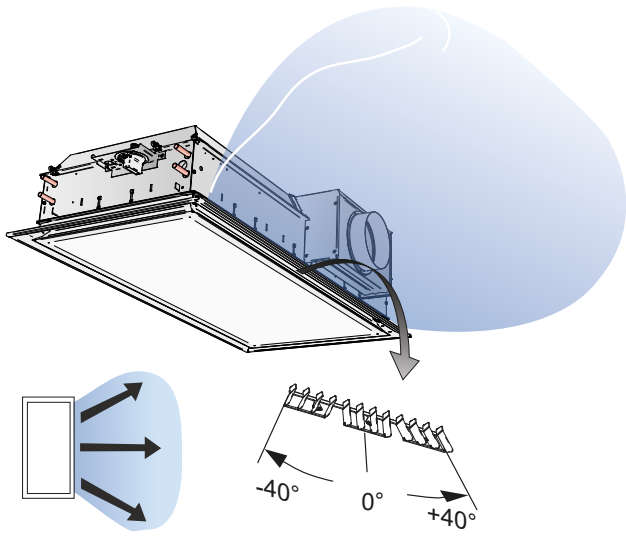
The right to design changes is reserved.  
Current data according to product selection program. 81878101

### Knob

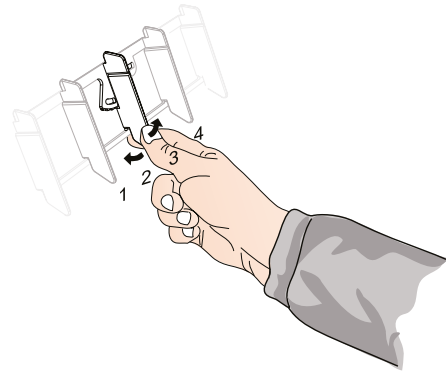
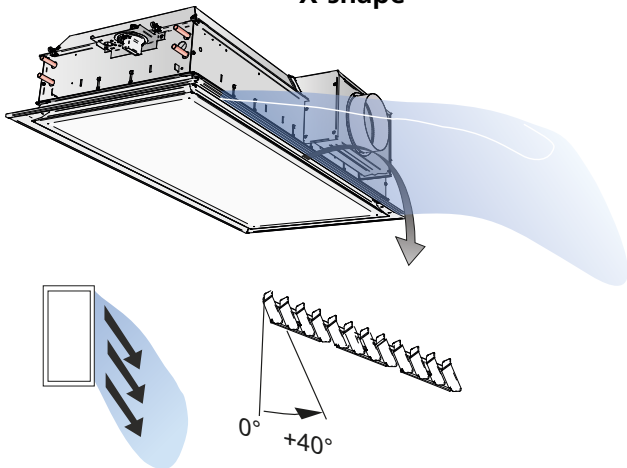


ADC

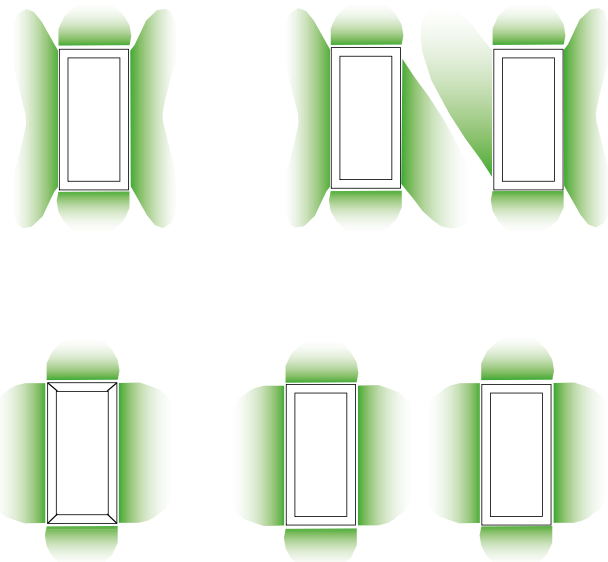
Fan-shape



X-shape



Examples of ADC settings



# Maintenance

