

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

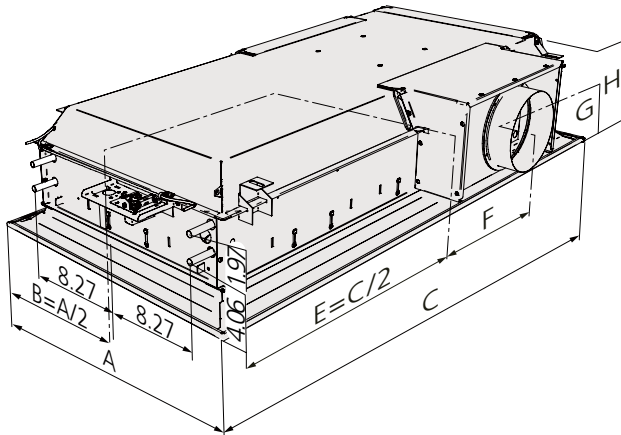


Symbols in this Instructions for Use

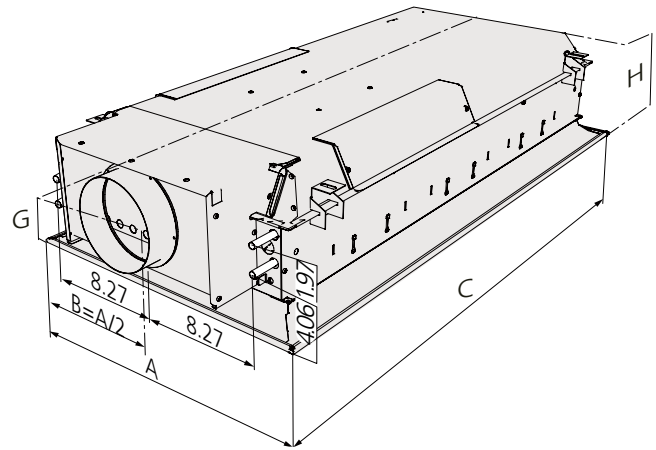
Warning/Caution!



Dimensions and weights



Dimensional drawing - long side connection (the length 4 ft.) with air connection on side 2 is shown in the example).



Dimensional drawing - short side connection (the length 4 ft.) with air connection on side 1 is shown in the example).

Dimensions

Length, 2 ft.

Dimensions (in.)							
A	B	C	ØD*	E	F	G*	H*
23.7	11.9	23.7	5 in / 6 in	11.9	7	5.39/6.02	8.66/9.84

* Dimensions refer to products with air connection ø5 or ø6

Length, 4 ft.

Dimensions (in.)							
A	B	C	ØD*	E	F	G*	H*
23.7	11.9	47.8	5 in / 6 in	23.9	7	5.39/6.02	8.66/9.84

* Dimensions refer to products with air connection ø5 or ø6

Length, 6 ft.

Dimensions (in.)							
A	B	C	ØD	E	F	G	H
23.7	11.9	71.8	8	35.9	18.8	6.8	11.4

Weight

Length, 2 ft.

Length	Coil type	Inlet	Dry weight	Water volume, cooling	Water volume, heating
ft.		Ø in.	lb	gal	gal
2	A	5	28.4	4.1	
2	B	5	28.7	3.2	1.3
2	A	6	29.8	4.1	
2	B	6	30	3.2	1.3

Length, 4 ft.

Length	Coil type	Dim.	Dry weight	Water volume, cooling	Water volume, heating
ft.		Ø in.	lb	gal	gal
4	A	5	52	9.1	
4	B	5	52	6.8	2.6
4	A	6	53.8	9.1	
4	B	6	53.8	6.8	2.6

Length 6 ft.

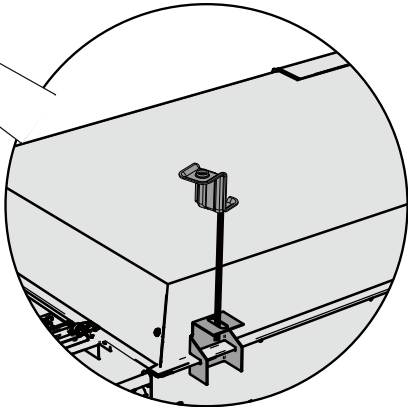
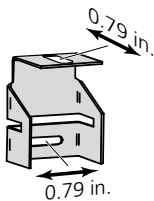
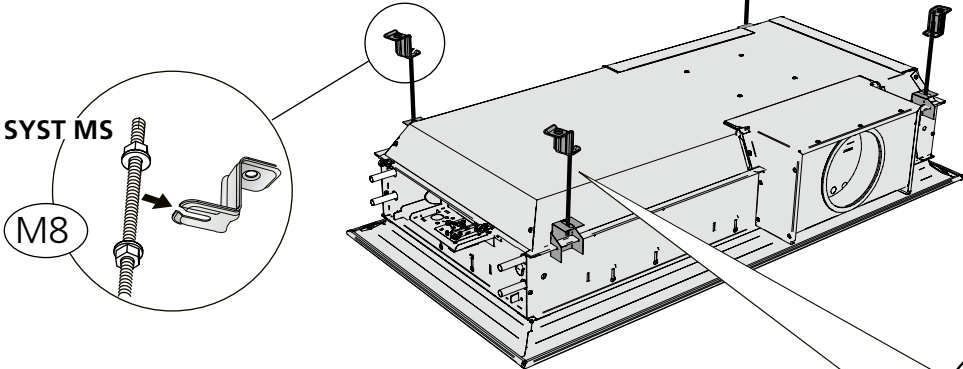
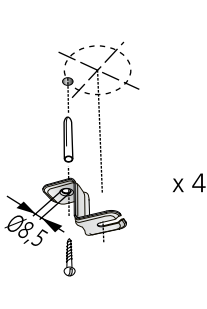
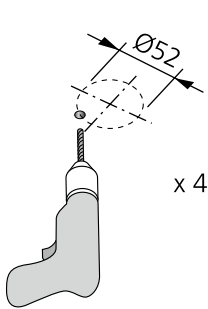
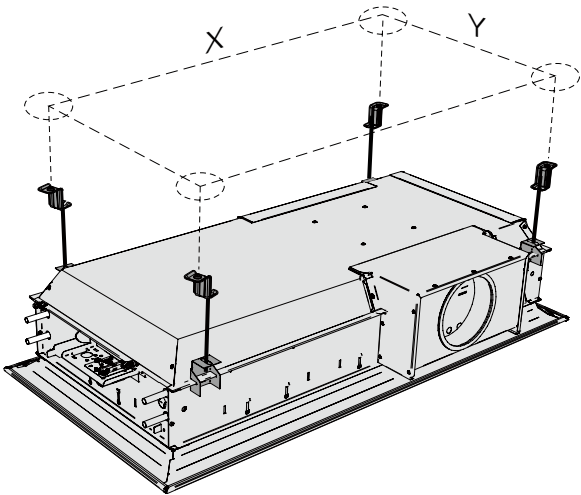
Length	Coil type	Dim.	Dry weight	Water volume, cooling	Water volume, heating
ft.		Ø in.	lb	gal	gal
6	A	8	78.7	14.4	
6	B	8	78.7	10.2	4.2

Weights above are excl.:
Control plate (0.265 lb)

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 (ft.)	c - c (in.) X	c - c (in.) Y
2	13 ±0.4	20 ±0.4
4	36.6 ±0.4	20 ±0.4
6	60.2 ±0.4	20 ±0.4

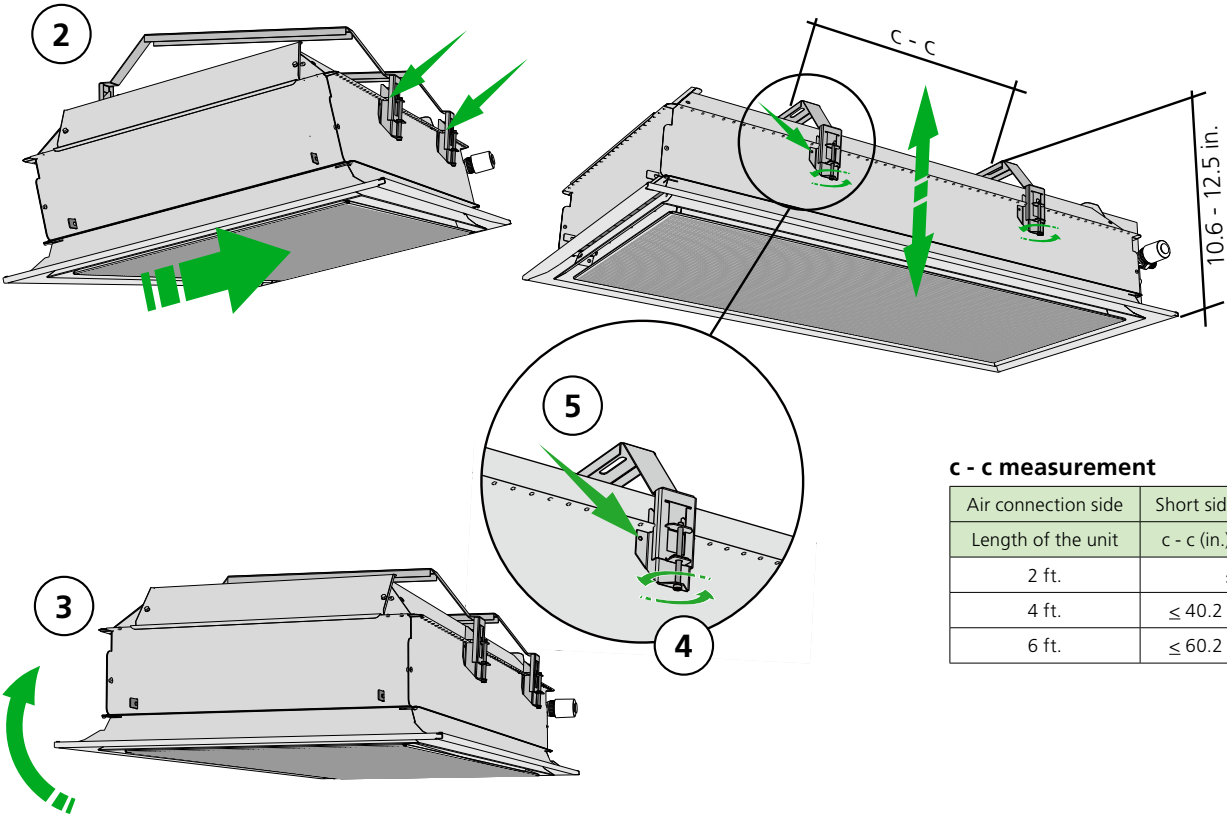
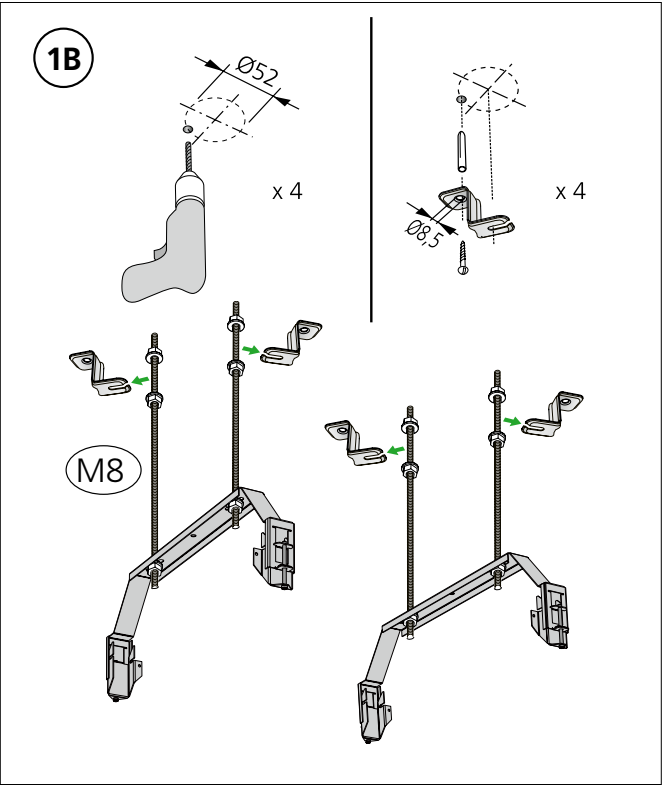
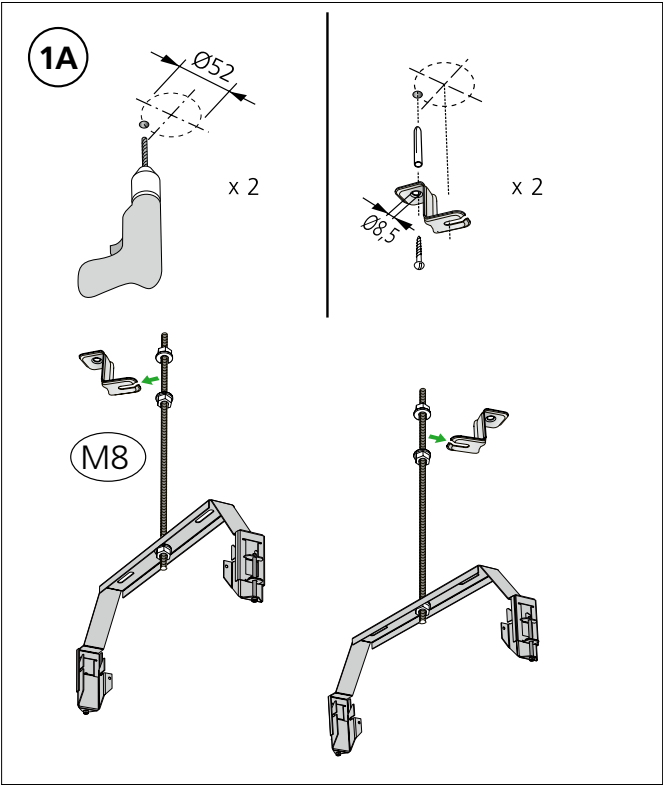
Alternative placement of the suspension bracket		
Length of the unit (ft.)	Out towards the corner	In towards the centre
	c - c (in.) X (A1)	c - c (in.) X (A2)
2	15.7 ±0.4	10.3 ±0.4
4	39.3 ±0.4	33.9 ±0.4
6	62.9 ±0.4	57.6 ±0.4

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

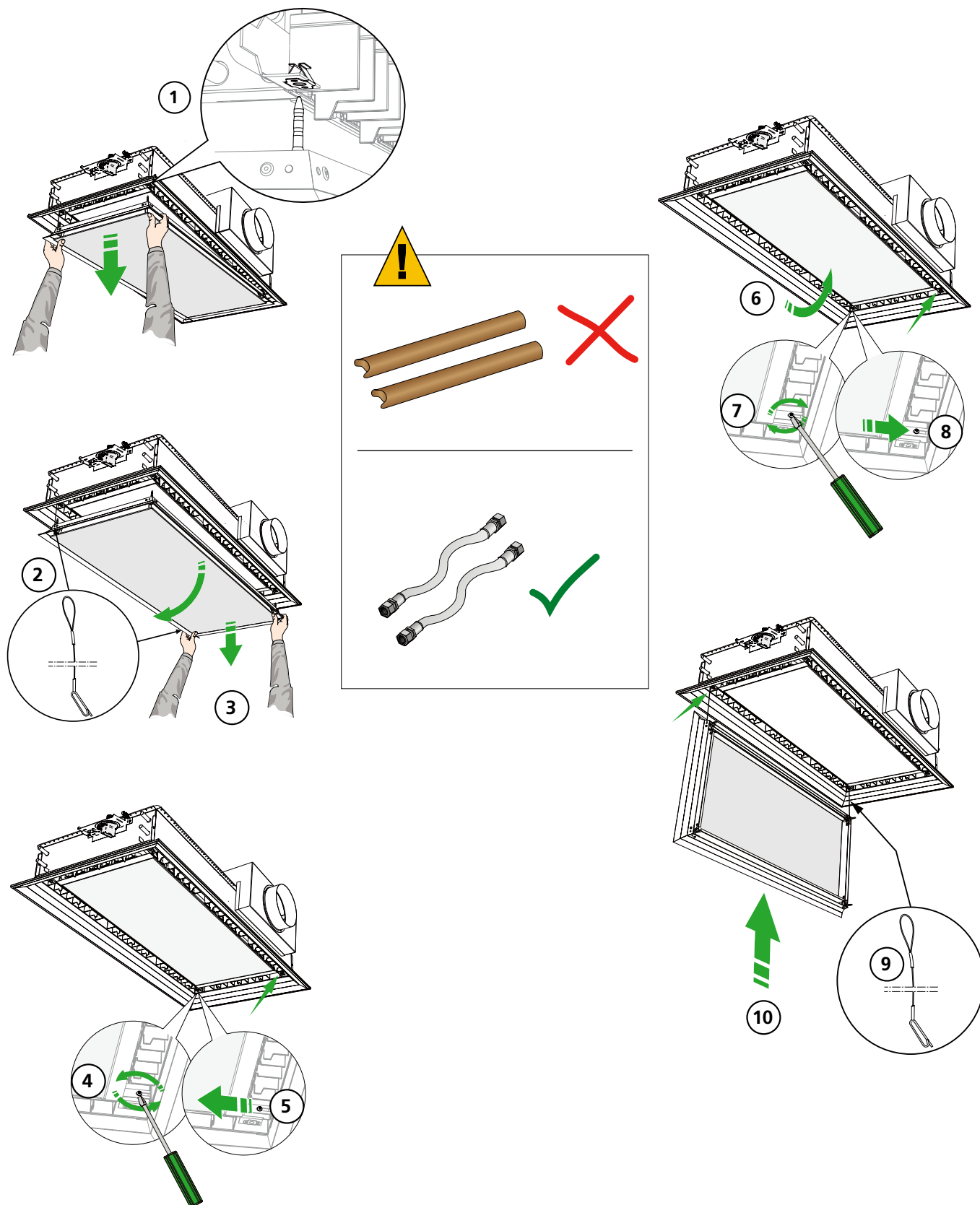


c - c measurement

Air connection side	Short side	Long side
Length of the unit	c - c (in.)	c - c (in.)
2 ft.	≤ 12.6	
4 ft.	≤ 40.2	35.4-40.2
6 ft.	≤ 60.2	35.4-60.2

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.

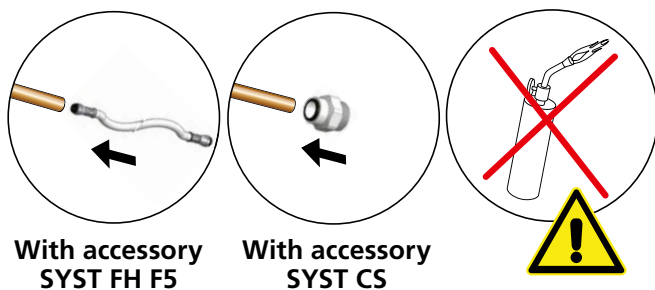
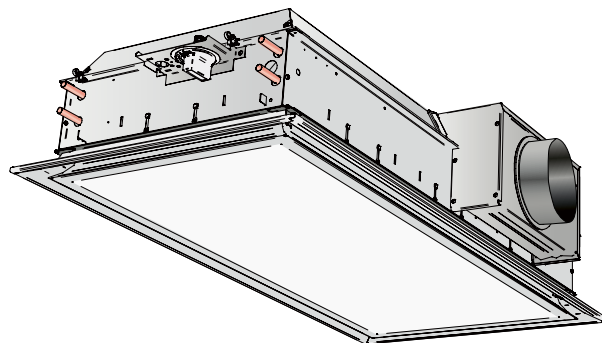
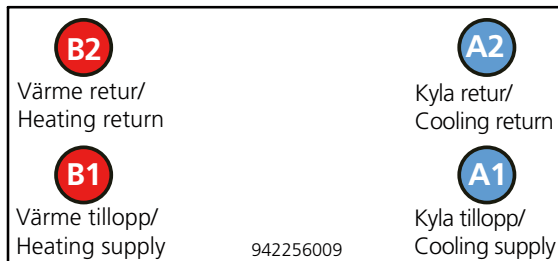


Water connection

Parasol Zenith 2, 4, 6 ft.



Important!



Notice! Do not bend or twist connection pipes

Connection sizes

Water

Unit	Cooling	Heating
(ft.)	Supply and return	Supply and return
2, 4	plain pipe ends	plain pipe ends
	(Cu) Ø 12 x 1.0 mm	(Cu) Ø 12 x 1.0 mm
6	plain pipe ends	plain pipe ends
	(Cu) Ø 15 x 1.0 mm	(Cu) Ø 12 x 1.0 mm

Adapters and connectors (accessories)

Unit	Adapter/connector	Cooling	Heating
(ft.)	(type)	Supply/return	Supply/return
2, 4	Flexible hose	Ø 12mm to "1/2" NPT	Ø 12mm to "1/2" NPT
	Nominal pipe thread connection	Ø 12mm to "1/2" NPT	Ø 12mm to "1/2" NPT
6	Flexible hose	Ø 15mm to "1/2" NPT	Ø 12mm to "1/2" NPT
	Nominal pipe thread connection	Ø 15mm to "1/2" NPT	Ø 12mm to "1/2" NPT

Adapters/connectors are sold as accessories.

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.

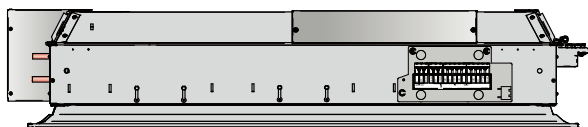
Automatic deaerators are often installed to facilitate filling of the system. It is recommended that the automatic deaerators are turned off once the system has been fully vented to avoid these drawing in air in the system if the pre-pressure in the expansion vessel should drop.

Wiring diagram

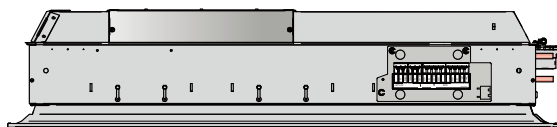
Wiring diagram for accessories

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

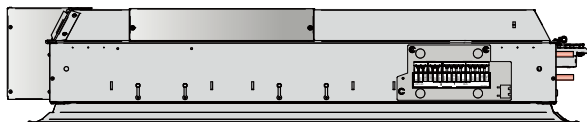
Air connection on side 1



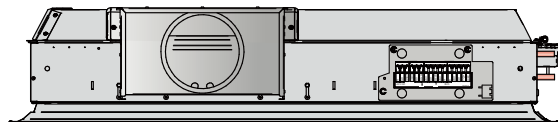
Air connection on side 2



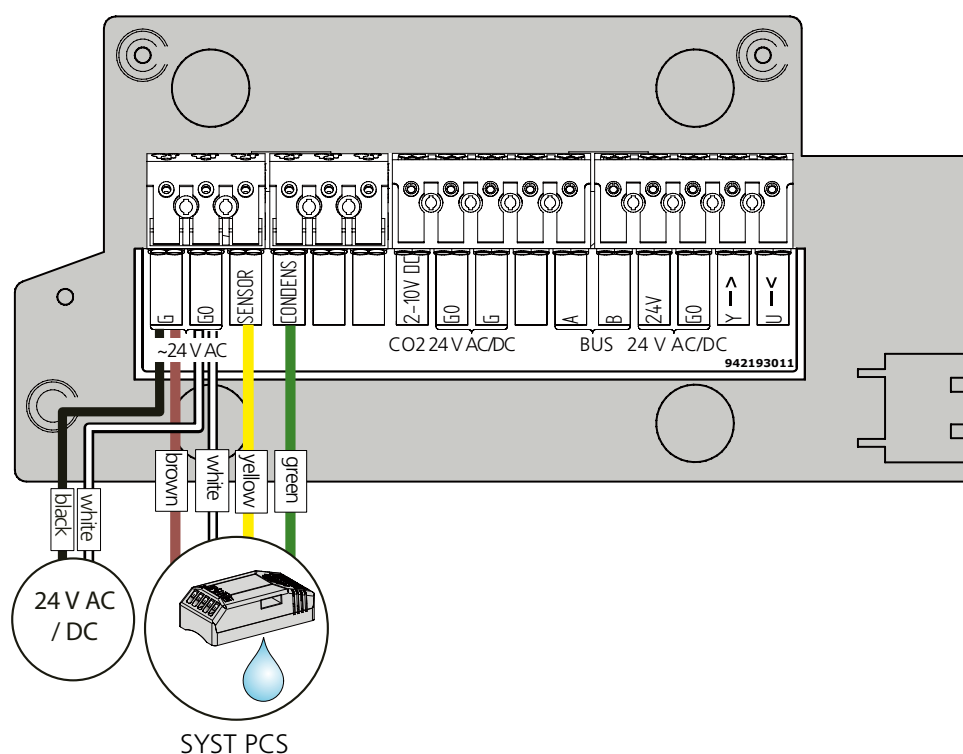
Air connection on side 3



Air connection on side 4



Connected accessories if the product is ordered with factory mounted accessories



Air connection

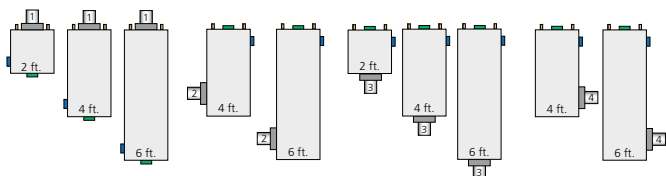
Connection sizes

Length of the unit	Dim. Ø in.		
	5	6	8
2 ft., 4 ft.	Yes	Yes	No
6 ft.	No	No	Yes

Selectable air connection sides.

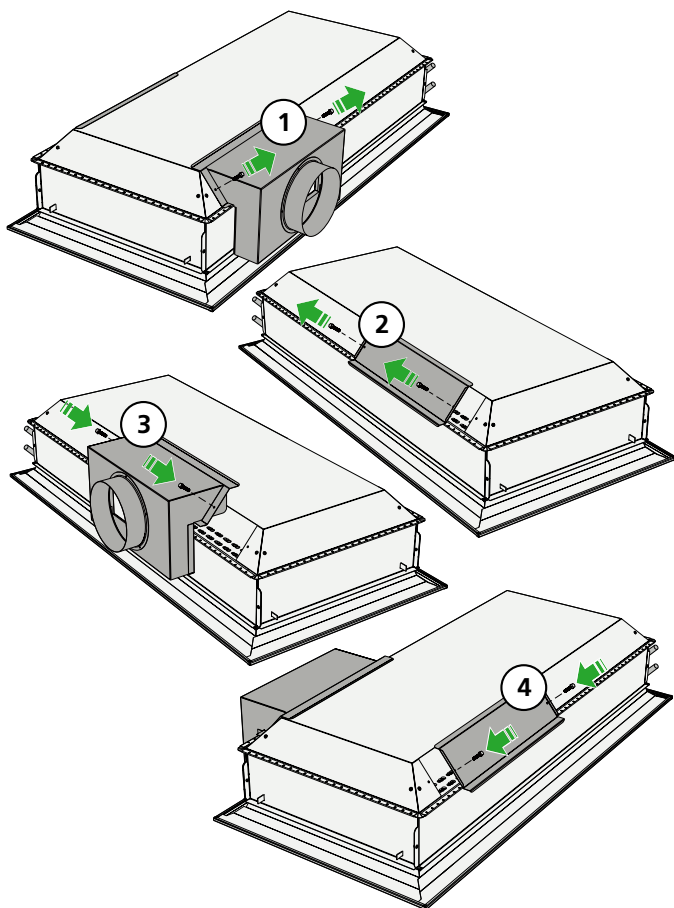
When ordering, depending on the length, it is possible to choose connection side 1 2, 3 or 4, see the table and figure below (view from above).

Length of the unit	Side			
	1*	2	3	4
2 ft.	Yes	No	Yes	No
4 ft.	Yes	Yes	Yes	Yes
6 ft.	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.

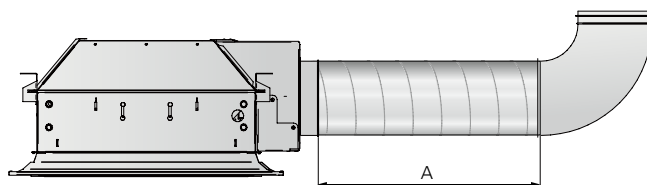


PARASOL Zenith with bend

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 (in.)	A (mm)
5	14.76
6	18.90
8	23.62

Commissioning

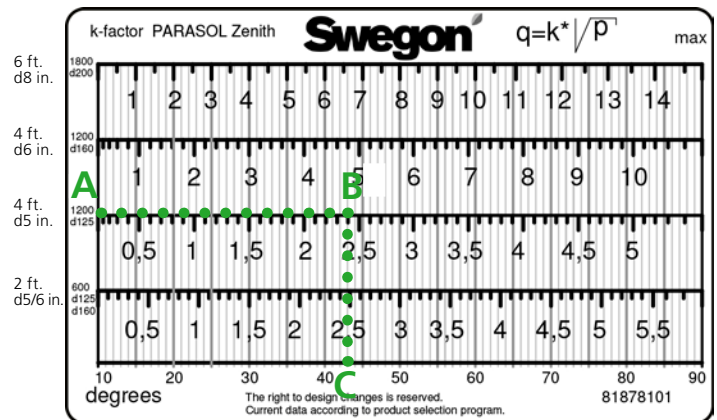
K-factor setting

Example: To achieve the required flow of 53 CFM at 0.4 in wg, requires k-factor 2.5

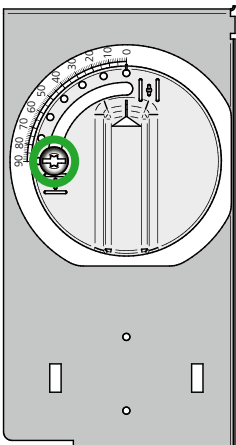
- A:** Find the product's length and air connection diameter from left-hand side of the k-factor table.
- B:** Read the required k-factor on the row in question.
- C:** Follow the vertical row and read the number of degrees at the bottom.

In the example from the table for a PARASOL Zenith with length 1200mm (4 ft.), $\phi 125$ mm (5 in.), k-factor 2.5, turn the knob to 43°.

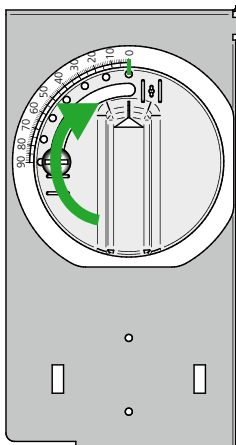
K-factor table



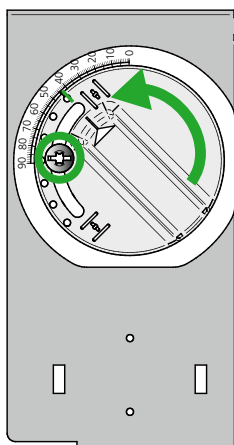
To set the k-factor



- 1.** Loosen the screw located in the knob's groove



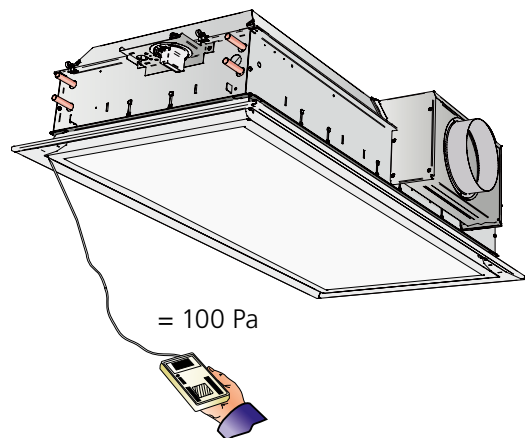
- 2.** Then turn the knob to the fully closed position 0°.



- 3.** Turn the knob back to the angle for the desired k-factor, (in our example to 43°) and tighten the screw.



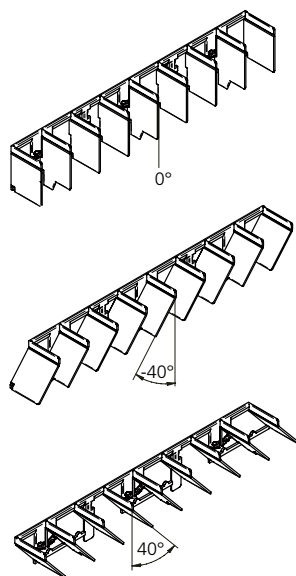
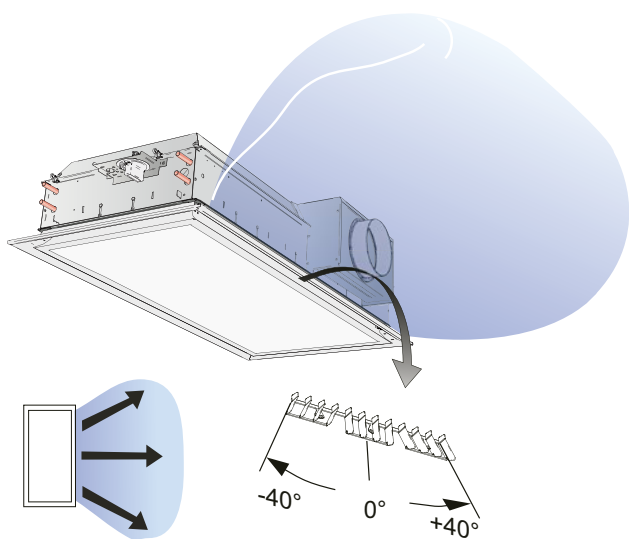
Position of the knob (for air connection 1 the knob is positioned on the opposite short side).



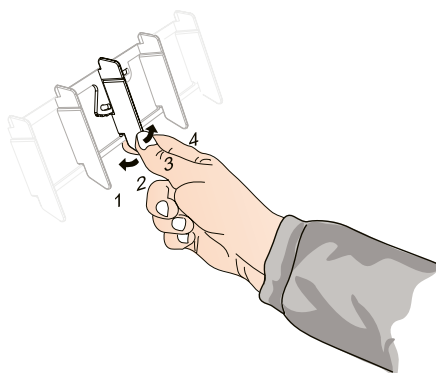
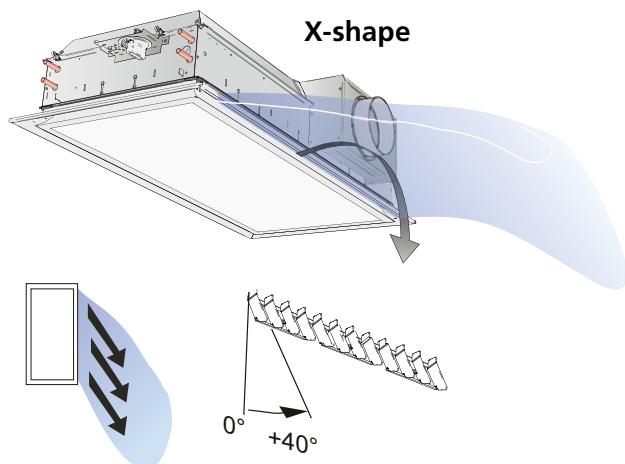
Knob seen from below

ADC

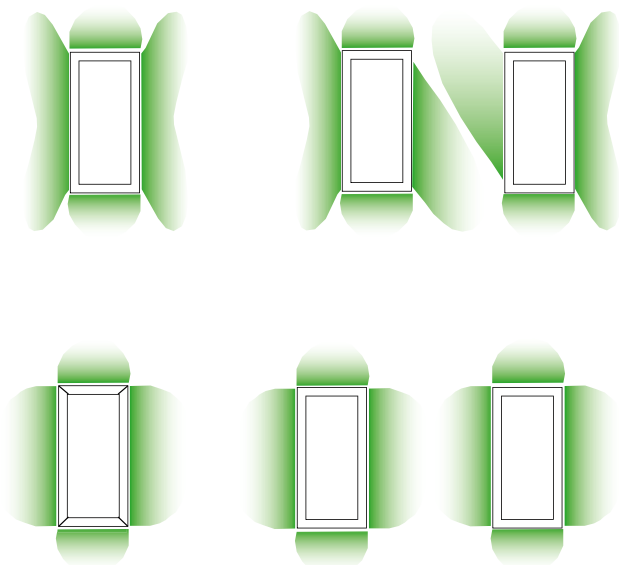
Fan-shape



X-shape



Examples of ADC settings



Maintenance

