KITE Ceiling a

Installation – Commissioning – Maintenance

20230724

Accessories

Commissioning boxes

ALS/REACT ALS

The commissioning box is made of galvanized sheet steel and contains a removable commissioning damper, fixed measurement tapping and sound-absorbing material*) with reinforced surface layer.

The ALS commissioning box is available with one or two differences in dimension between the inlet and the outlet and also a version for low installation where a low overall height is required. The ALS commissioning box is then supplied without outlet branch.

*) Fire resistance rated to B-s1,d0 in accordance with EN ISO 11925-2

Adapter

ADAPTER

For visible T-bars in modular suspended ceiling systems.

Suitable for lay-in ceilings, e.g. 625 x 625 or 675 x 675.

Blanking plate

SECTOR KITE CR

For blanking off a sector of the air distribution pattern. Applicable to standard installation height.

Installation

- The diffuser face is easily removed with a simple action, see figure 2.
- The inlet spigot of the air diffuser backing box can be secured to the connecting duct by means of self-tapping screws or blind rivets.
- For flush-mounting in fixed ceilings, secure the air diffuser to the building structure through the top of the backing box.
- The air diffuser and ALS commissioning box with low installation height are centred with each other using the supplied locking strip. The air diffuser is secured in the correct position with screws or blind rivets in the underside of the commissioning box, see figure 4.
- For installation in suspended ceilings with a framework, place the air diffuser directly down in the T-bar framework, and then fix it to the duct system or to the commissioning box.
- When an ALS or REACT ALS commissioning box is used, it must be secured to the building structure by means of hangers or mounting brackets.
- The distance between the commissioning box and the air diffuser can be increased up to 500 mm with circular duct, without having to lengthen the measuring tubes and damper adjustment cords. See figure 3.

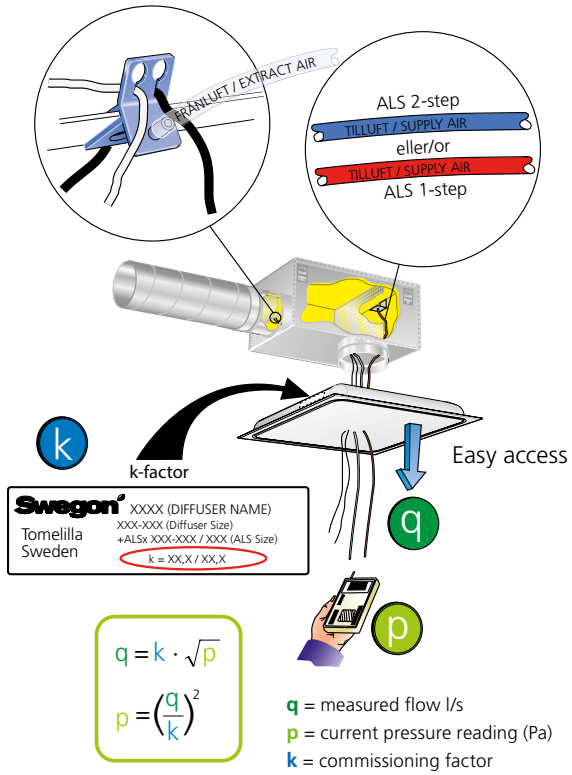


Figure 1. Commissioning.

Commissioning with ALS

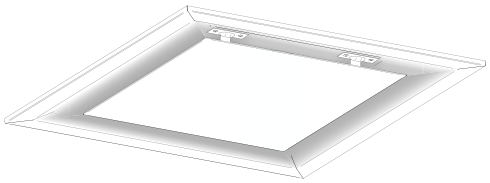
- Commissioning should be carried out with the diffuser face mounted.
- Pull the measuring tubes and damper adjustment cords out through the diffuser face.
- Connect a pressure gauge to the measuring tube/tubes.
- The red tube from the ALS commissioning box in the one-step design is used for supply air.
- The blue tube from the ALS commissioning box in the two-step design.
- For extract air, always use the transparent tube.
- K-factor label is located in the backing box.
- The adjusted damper position is saved by tying together the damper cord in an adjustment knot.
- Measurement accuracy and straight section requirement before the commissioning box, see figure 3.

- Figure 3 shows a bend, a change in dimension and T-piece.
- Other types of disturbance require at least 2xD straight section (D= connection dimension) to obtain a measurement accuracy of ±10% on the flow.
- The K-factor is also specified in the relevant commissioning instructions at www.swegon.com.

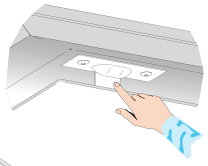
Maintenance

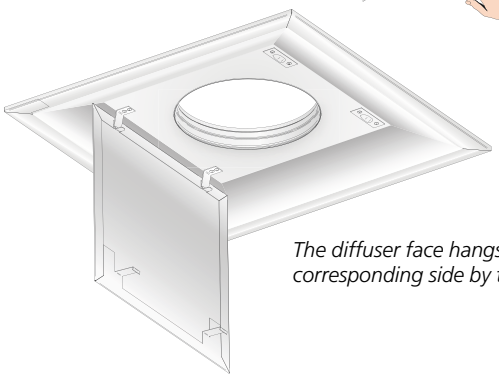
- The extract air diffuser can be cleaned, if necessary, using lukewarm water with dishwashing detergent added.
- Alternatively a vacuum cleaner and brush nozzle is used for cleaning.
- The duct system is cleaned by opening the diffuser face. If a REACT ALS or ALS commissioning box is used, pull the distributor plate aside and then grip and twist the damper unit from of its mounting. See figure 5.

Installation



1. Locate the diffuser face's locking devices (2 pcs).
2. Press the spring fasteners (2 pcs) towards the centre of the diffuser, which releases the diffuser face.





The diffuser face hangs on the corresponding side by the hinge.

Figure 2. Easy access, dismantling the diffuser face.

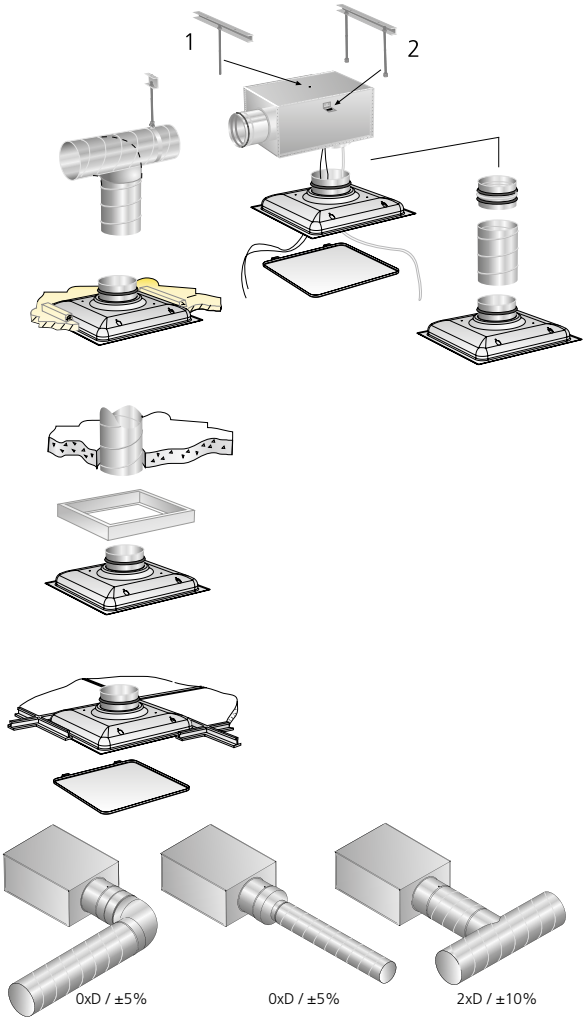


Figure 3. Installation options for the ALS commissioning box. See the REACT ALS product sheet for installation options with active commissioning box.

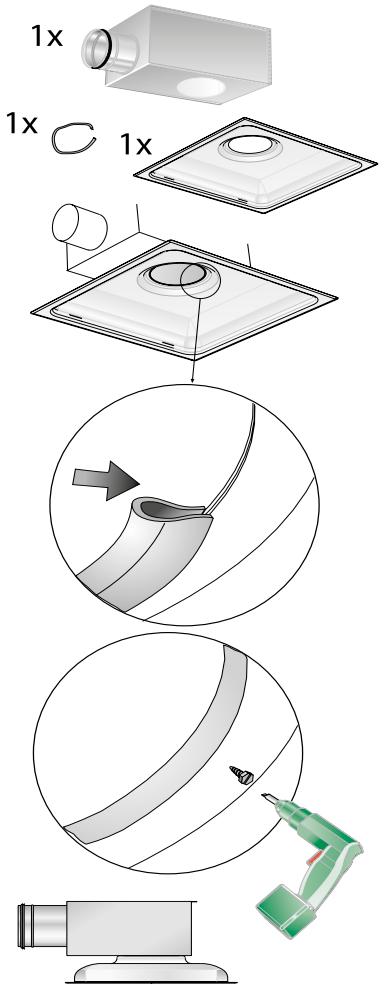


Figure 4. Installation of air diffuser and ALS commissioning box with low installation height.

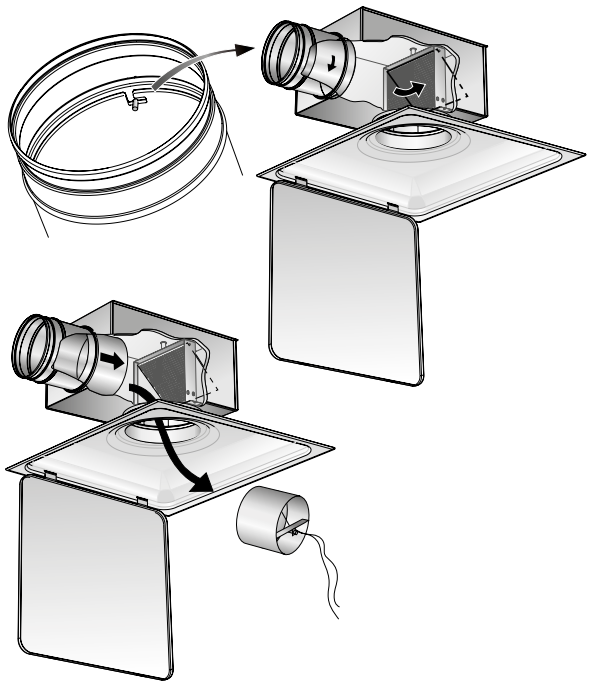


Figure 5. Dismantling the damper when using ALS and REACT ALS commissioning box.

Blanking off the air distribution pattern

Note: A maximum of 2 blanking plates may be used.
Blanking off only applies to standard installation height.

To calculate the air stream diffusion, air velocities in the occupied zone or sound levels in rooms where blanking off is performed, please refer to our calculation software available on www.swegon.com.

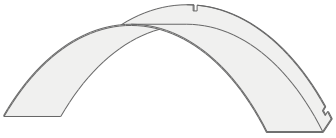


Figure 6. Blanking plate SECTOR KITE CR.

Installation

The blanking plate is equipped with a magnet, which makes it easy and flexible to place it in the desired orientation.

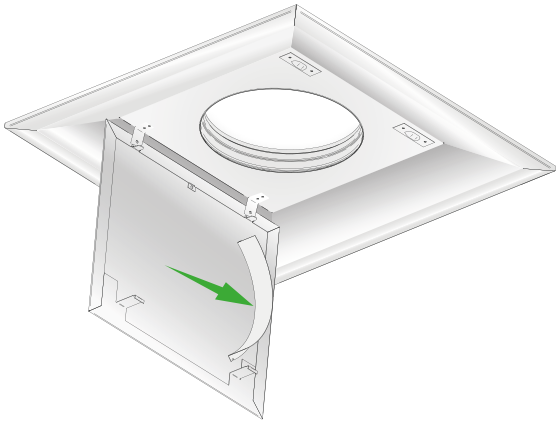


Figure 7. Alternative 1, blanking plate installed in the diffuser face.

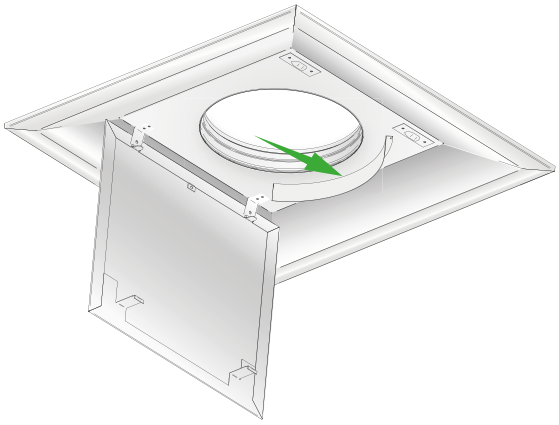


Figure 8. Alternative 2, blanking plate installed in the backing box.

Air distribution patterns with blanking plate installed

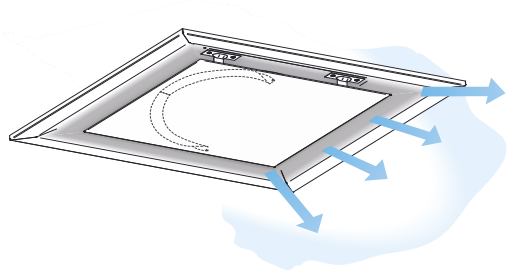


Figure 9. 1-way.
Two blanking plates installed side-by-side on the air diffuser, the joint between the blanking plates is placed in the center of the side.

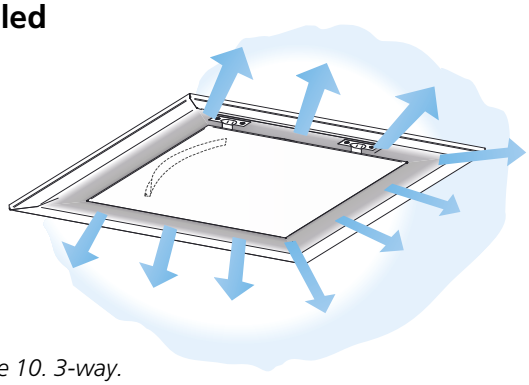


Figure 10. 3-way.
One blanking plate installed on optional side of the air diffuser.

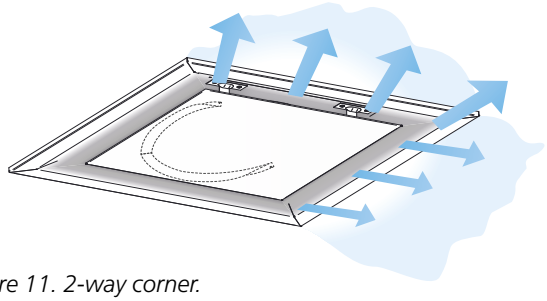


Figure 11. 2-way corner.
Two blanking plates installed side-by-side on the air diffuser, the joint between the blanking plates is placed directed at a corner.

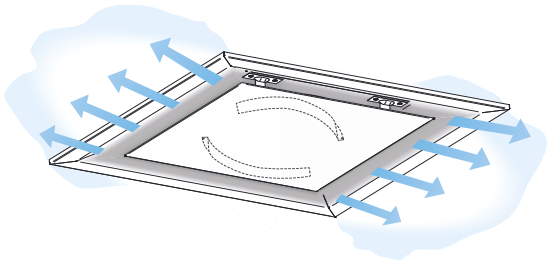


Figure 12. 2-way middle.
Two blanking plates installed on opposite sides of the air diffuser.

Dimensions and weights

KITE Ceiling

Size	ØA	Weight, kg
125	125	3.3
160	160	3.3
200	200	3.2
250	250	3.2
315	315	3.1

Size of the opening = 520 x 520

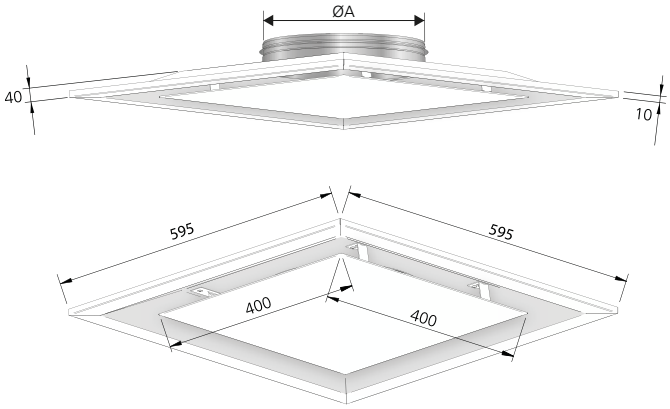


Figure 13. KITE Ceiling.

KITE Ceiling with ALS commissioning box - One step

Size	A	B	C	ØD	Ød	E1	E2	F1	F2	G1	G2	H	K	Weight, kg
125-600	595	282	217	99	125	225	182	83	40	145	102	270	80	5.2
160-600	595	342	252	124	160	249	206	83	40	158	115	315	80	5.9
200-600	595	404	288	159	200	284	241	83	40	175	132	375	100	6.8
250-600	595	504	332	199	250	324	281	83	40	195	152	465	115	8.2
315-600	595	622	388	249	315	385	342	83	40	220	177	575	140	10.9

KITE Ceiling with ALS commissioning box - Two steps

Size	A	B	C	ØD	Ød	E1	E2	F1	F2	G1	G2	H	K	Weight, kg
160-600	595	342	252	99	160	225	182	83	40	145	102	315	80	5.5
200-600	595	404	288	124	200	249	206	83	40	158	115	355	80	6.2
250-600	595	504	332	159	250	284	241	83	40	175	132	450	100	7.4
315-600	595	622	388	199	315	324	281	83	40	195	152	550	115	9.7

KITE Ceiling with REACT ALS active commissioning box

Size	A	B	C	ØD	Ød	E1	F1	G1	H	K	Weight, kg
250-600	595	504	332	159	250	284	83	184	450	100	8.1
315-600	595	622	388	249	315	383	83	235	575	140	10.9

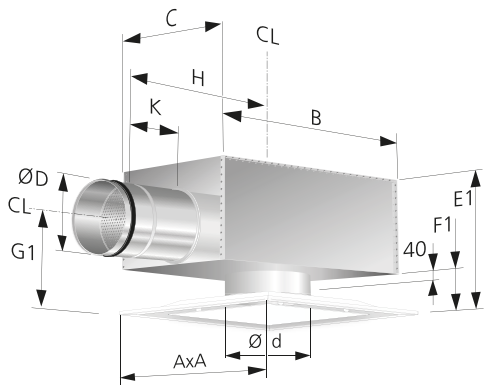


Figure 14. KITE Ceiling with ALS or REACT ALS commissioning box. CL = Centreline

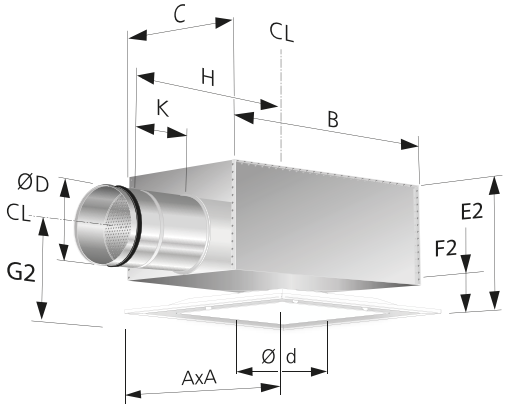


Figure 15. KITE Ceiling with ALS commissioning box. Low installation height.

K-factor

KITE Ceiling with ALS commissioning box

Supply air

ALSd Size	KITE Ceiling Size	Standard	Blanking off		Low version	Tube colour
			3-way*	1-way/ 2-way corner/ 2-way middle**		
100-125	125-600	9,2	8,9	8,2	8,1	Red
100-160	160-600	12,8	11,6	9,9	11,2	Blue
125-160	160-600	13,9	12,7	10,6	11,6	Red
125-200	200-600	18,6	16,4	12,4	15,8	Blue
160-200	200-600	20,1	18,1	13,3	16,4	Red
160-250	250-600	24,5	19,7	13,8	20,4	Blue
200-250	250-600	25,6	21	14,2	20,3	Red
200-315	315-600	29,8	22,7	15,3	25,8	Blue
250-315	315-600	30,1	23,2	15,3	24,6	Red

Number of measuring tubes: 1
*When using 1 blanking plate.
**When using 2 blanking plates.

Extract air

ALSd Size	KITE Ceiling Size	Standard	Low version	Tube colour
100-125	125-600	4.9	4.2	Transparent
100-160	160-600	5	4.7	Transparent
125-160	160-600	7.2	6.5	Transparent
125-200	200-600	8.3	7.8	Transparent
160-200	200-600	11.7	10.5	Transparent
160-250	250-600	13.1	12.4	Transparent
200-250	250-600	17	14.9	Transparent
200-315	315-600	19	17.5	Transparent
250-315	315-600	21.6	19.3	Transparent

Number of measuring tubes: 1