

PELICAN Ceiling Supply a

Installation – Commissioning – Maintenance

20220704

Accessories

Commissioning box:

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.

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

Frame:

SAR K, for aesthetic installation of a lowered diffuser section.

Adapter:

ADAPTER, for adaptation to various variants and makes of systemized false ceilings: Ecophon, Gyproc, Dampa, etc. Used also for adaptation to alternative sizes of systemized false ceilings, e.g. 625 x 625 or 675 x 675.

Installation

To unfasten the diffuser face, press in the spring retainers on one side of the diffuser and let the diffuser face hang on its safety cords. 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 a blind rivets. For flush-mounting in fixed false ceiling constructions, secure the terminal by means of screws into place in the framework through either the sides or top of the diffuser backing box. The air diffuser and commissioning box in the version for low installation height must be centred and jointed together using the locking strip supplied. Secure the air diffuser in the correct position with self-tapping screws or pop rivets in the underside of the commissioning box. See Figure 4.

For mounting in modular false ceilings, it is advisable to select air diffusers with outer dimensions of 595 x 595 mm. Position these directly down in the T-bar framework, and then secure them to the duct system or to the commissioning box.

If an 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 by as much as 500 mm with an ordinary circular duct without having to lengthen the measuring tubes and damper adjustment cords. See Figure 3.

Commissioning

Commissioning should be carried out with the air diffuser face mounted. Pull the measuring tubes and damper adjustment cords out through the air diffuser face. Then connect the manometer to the correct measuring tube. Depending on whether a one or two step ALS commissioning box is used, use the red + red and the red + blue tubes respectively for supply air. The K-factor of the air diffuser can be used in a calculation to determine the required commissioning pressure. Conclude commissioning by adjusting the damper to the correct blade position, tie a commissioning knot in the damper cords to indicate the damper position. See Figure 1.

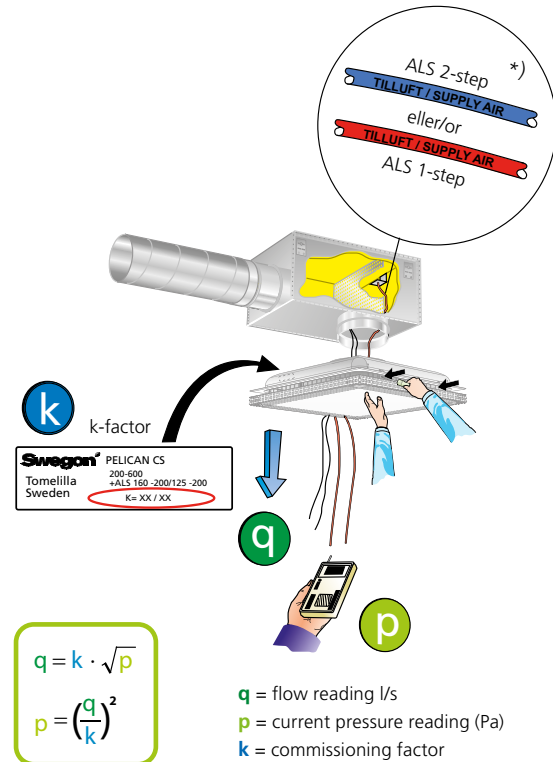


Figure 1. Commissioning.

*) For PELICAN CS (supply air) + ALS two colored hoses are used:
– One hose from the ALS, red or blue depending on version (see above).
– One red hose from the diffusion plate.

Measurement accuracy and requirement on straight duct before the commissioning box, see Figure 3. The requirements of straight duct depends on the type of disturbance before the commissioning box. Figure 3 shows a bend, a dimensional change and a T-piece. Other types of disturbances requires at least 2xD straight (D = connection dimension) for measurement accuracy of $\pm 10\%$ of the flow.

The K-factor (rated coefficient of performance) is specified on the identification label of the product and in the relevant commissioning instructions at www.swegon.com.

Maintenance

The air diffuser can be cleaned, if necessary, using lukewarm water with dishwashing detergent added or by vacuum cleaning using a brush nozzle. The duct system can be reached for cleaning after opening the air diffuser face. If a type ALS commissioning box is used, swing the air diffuser face to the side so that you can grip the damper tube by its handle and rotate it out of its holder. See Figure 5.

Installation

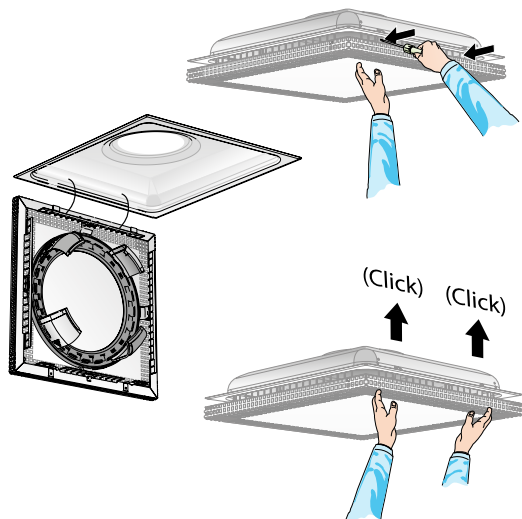


Figure 2. Quick Access, dismantling of the diffuser front.

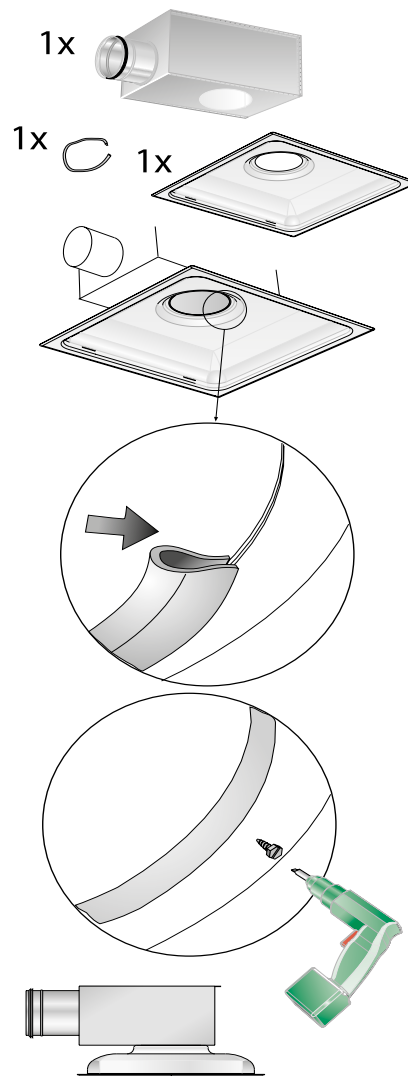


Figure 4. To install an air diffuser and commissioning box with low installation height.

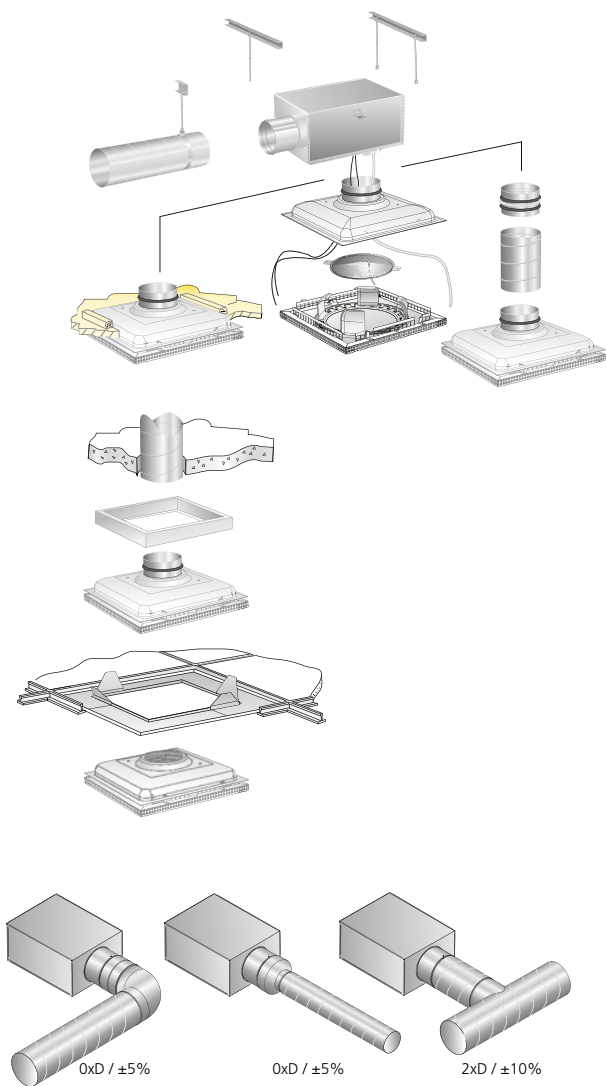


Figure 3. To install the PELICAN CS.

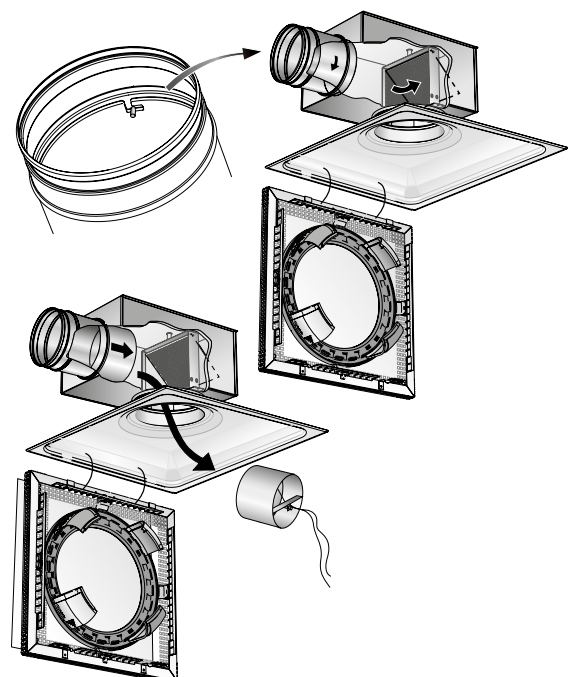


Figure 5. To dismantle the damper.

Dimensions and weights

PELICAN Ceiling

Size	Dimensions (mm)					Weight (kg)
	A	Ød	I	M	P	
125-400	395	124	375	70	35	2,1
125-600	595	124	575	70	35	4,3
160-400	395	159	375	70	35	2,1
160-600	595	159	575	70	35	4,3
200-600	595	199	575	70	35	4,3
250-600	595	244	575	70	35	4,3
315-600	595	314	575	50	34	4,3
400-600	595	399	575	50	34	4,3

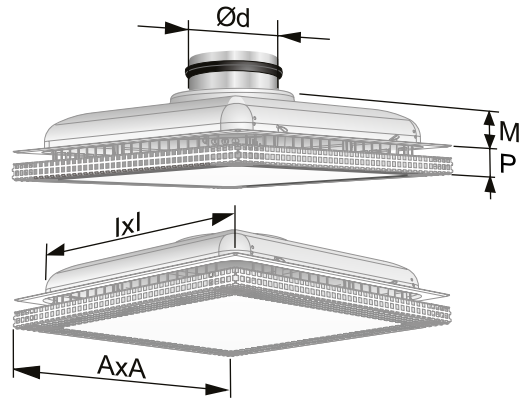


Figure 6. Dimensions, PELICAN Ceiling.

Hole cutting dimensions, I x I
CL = Centreline of branch

PELICAN Ceiling with ALS, 1 step

Size	Dimensions (mm)														Weight (kg)
	A	B	C	ØD	Ød	E1	E2	F1	F2	G1	G2	H	K	Q	
125-400	395	282	217	99	125	255	212	113	70	175	132	270	80	40	3,5
125-600	595	282	217	99	125	255	212	113	70	175	132	270	80	40	5,7
160-400	395	342	252	124	160	279	236	113	70	188	145	315	80	40	4,2
160-600	595	342	252	124	160	279	236	113	70	188	145	315	80	40	5,7
200-600	595	404	288	159	200	314	271	113	70	205	162	375	100	40	7,0
250-600	595	504	332	199	250	354	311	113	70	225	182	465	115	40	8,7
315-600	595	622	388	249	315	395	352	93	50	230	187	575	140	40	11,8
400-600	595	767	488	314	400	455	-	93	-	262	-	712	175	40	15,0

PELICAN Ceiling with ALS, 2 steps

Size	Dimensions (mm)														Weight (kg)
	A	B	C	ØD	Ød	E1	E2	F1	F2	G1	G2	H	K	Q	
160-400	395	342	252	99	160	255	212	113	70	175	132	315	80	40	4,1
160-600	595	342	252	99	160	255	212	113	70	175	132	315	80	40	5,7
200-600	595	404	288	124	200	279	236	113	70	188	145	355	80	40	5,0
250-600	595	504	332	159	250	314	271	113	70	205	162	450	100	40	7,8
315-600	595	622	388	199	315	334	291	93	50	205	162	550	115	40	9,5

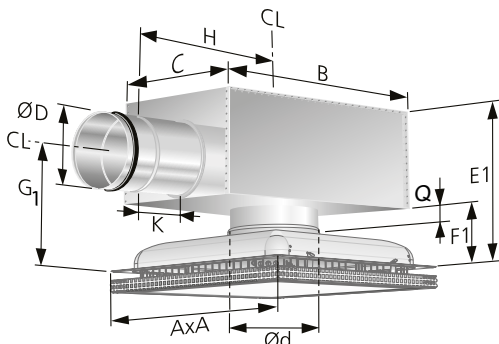


Figure 7. Dimensions, PELICAN Ceiling with ALS. CL = Centerline.

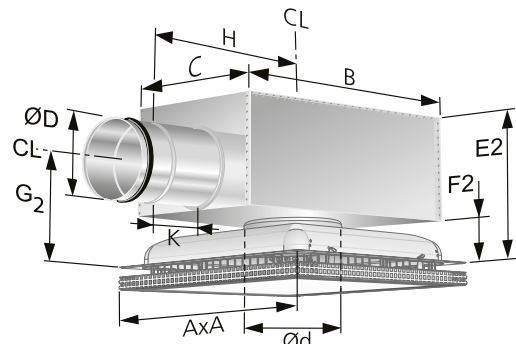


Figure 8. Dimensions, PELICAN Ceiling with ALS, low build.

Frame – SAR K

Size	Dimensions (mm)		Weight (kg)
	L	N	
400	395	75	1.0
500	495	75	1,24
600	595	75	1.6

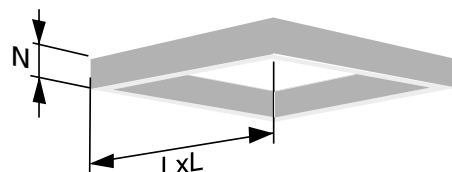


Figure 9. Dimensions, SAR K frame.

When installing size 315-600 and 400-600 diffusers, position the ALS box so that its branch extends 20 mm below the ceiling surface.

To position the blanking-off sectors

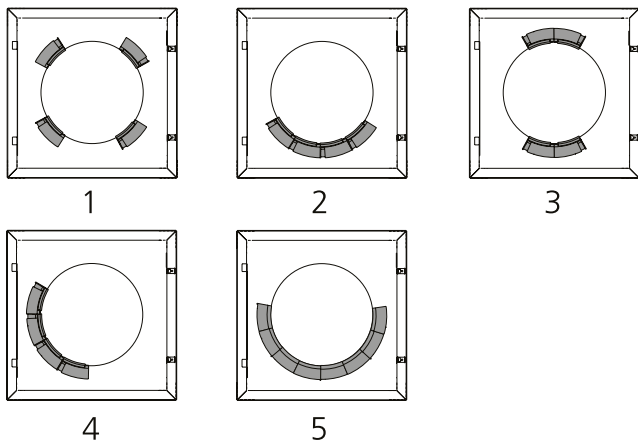


Figure 10. The positioning of blanking-off sectors.

1. 4-way
2. 3-way
3. 2-way, centre
4. 2-way, corner
5. 1-way

K-factor (COP)

ALS Size	PELICAN Ceiling Supply – supply air			
	Size	Standard	Low version	Colour of the tube
100-125	125-400	7.1	7.7	Red + Red
100-125	125-600	7.1	7.7	Red + Red
100-160	160-400	10.6	10.1	Blue + Red
100-160	160-600	10.6	10.1	Blue + Red
125-160	160-400	11.4	11.8	Red + Red
125-160	160-600	11.4	11.8	Red + Red
125-200	200-600	16.0	16.5	Blue + Red
160-200	200-600	18.1	19.0	Red + Red
200-250	250-500	30,7	-	Red + Red
160-250	250-600	25.7	27.1	Blue + Red
200-250	250-600	29.0	28.4	Red + Red
200-315	315-500	37,5	-	Blue + Red
250-315	315-500	45,4	-	Red + Red
200-315	315-600	37.6	36.1	Blue + Red
250-315	315-600	44.0	38.1	Red + Red
315-400	400-600	68.2	-	Red

Number of measuring tubes: 2 (Size 400-600: 1 measuring tube)