

EAGLE Single b

Installation – Commissioning – Maintenance

20140301

Accessories

Commissioning box:

ALS. Made of galvanised sheet steel. The box contains a removable commissioning damper, fixed measurement tapping and sound absorbent insulation covered by a reinforced surface layer, rated to Fire resistance class B-s1,d0 conforming to EN ISO 11925-2.

Installation

If the air diffuser is suspended, the diffuser inlet sleeve must be secured to the connecting duct using blind rivets. For flush-mounting in fixed ceiling constructions, secure the terminal by means of screws into place in the framework through the top of the diffuser backing box.

To remove the diffuser face, unscrew the screws on underside of the air diffuser. If an ALS commissioning box is used, the sleeve coupling between the ALS and the air diffuser can be lengthened using an ordinary circular duct of up to 500 mm without having to lengthen the measuring tubes and damper adjustment cords. See Figure 1.

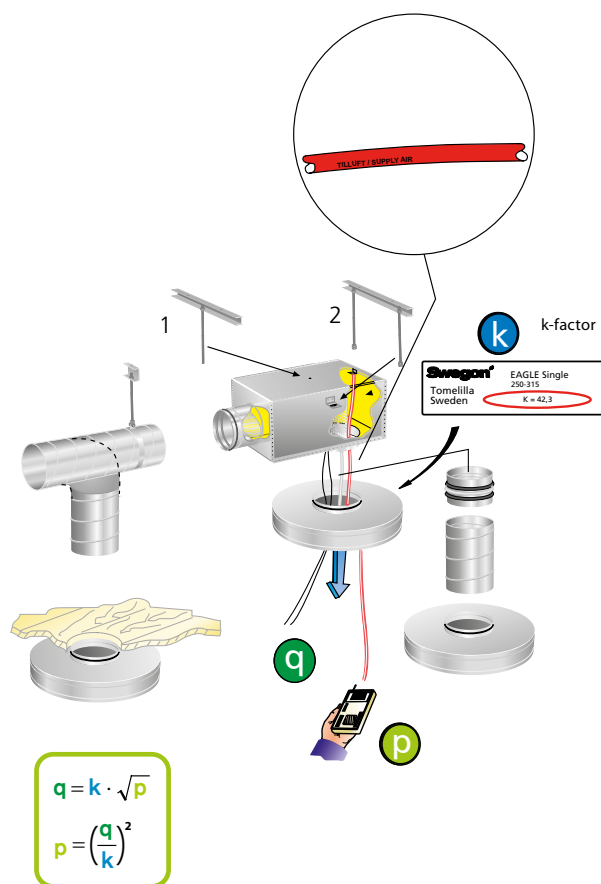
Commissioning with the ALS

Commissioning must be carried out with the air diffuser mounted. Pull the measuring tube and damper adjustment cords out of the air diffuser through a disc. Then connect the manometer to the correct measuring tube. The red tube in the ALS commissioning box is used for supply air. The rated coefficient of performance of the air register 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.

The rated coefficient of performance (K-factor) 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 luke-warm water with dishwashing detergent added or by vacuum cleaning using a brush nozzle. The duct system can be reached for cleaning after you remove the diffuser face. Unscrew the screws on underside of the air diffuser. If a type ALS commissioning box is used, swing the distribution plate to the side on so that you then can grip the handle of the tubular damper casing and rotate it out of its holder. See Figure 1.



$$q = k \cdot \sqrt{p}$$

$$p = \left(\frac{q}{k}\right)^2$$

- q** = flow reading l/s
- p** = current pressure reading (Pa)
- k** = commissioning factor

Figure 1. Installation. Commissioning.

Throw lengths

The throw $l_{0,2}$ is specified in the sizing programs for standard disc settings, clockwise swirling air discharge. If a different setting is desirable, Table 1 can be used. See also Figure 4, Disc settings.

Table 1.

4-way	3-way	2-way	1-way
1.5	2.1	2.5	3.8

Example: According to the diagram, the EAGLE S has a throw of $l_{0,2} = 2.3$ m
For 2M-way the throw will be $l_{0,2} = 2.3 \times 2.5 = 5.75$ m

Dimensions and weights

EAGLE S

Size	ØA	B	ØD	Number of discs	Weight, kg
125	380	60	124	21	1.4
160	456	88	159	29	2.9
200	568	88	199	51	4.2
250	568	88	249	59	4.2
315	700	117	314	80	6.4
400	700	117	399	115	6.4

EAGLE S + ALS

Size	A	B	C	D	E	F
125	380	282	217	99	60	182
160	456	342	252	124	88	206
200	568	404	288	159	88	241
250	568	504	332	199	88	281
315	700	622	388	249	117	342
400	700	767	488	314	117	402

Size	G	H	J	K	Weight, kg
125	100	270	130	80	3.5
160	112	315	165	80	5.8
200	130	375	205	100	8.3
250	150	465	255	115	9.9
315	175	575	320	140	14.9
400	210	712	405	175	18.2

J = Dimension for hole cutting
CL = Center line

K-faktor (COP)

ALSd Size	EAGLE S, supply air	
	EAGLE S	Colour of the tube
100-125	7.5	Red
125-160	12.1	Red
160-200	20.1	Red
200-250	29.8	Red
250-315	42.3	Red
315-400	67.8	Red

Number of measuring tubes: 1

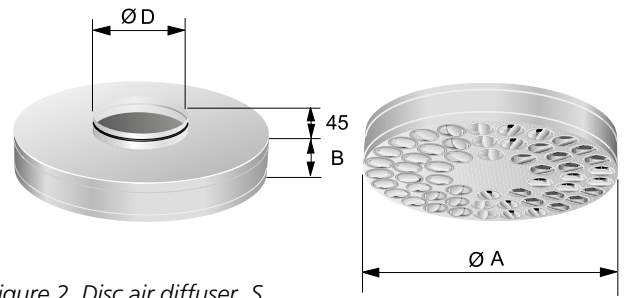


Figure 2. Disc air diffuser, S.

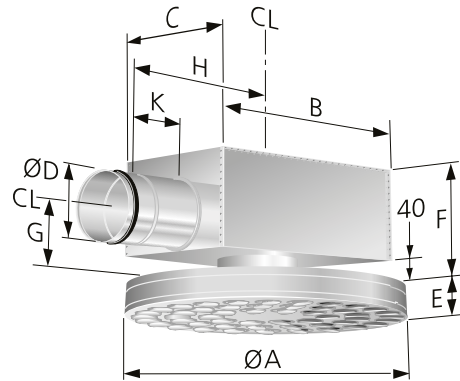


Figure 3. EAGLE S + ALS.

Disc setting, example

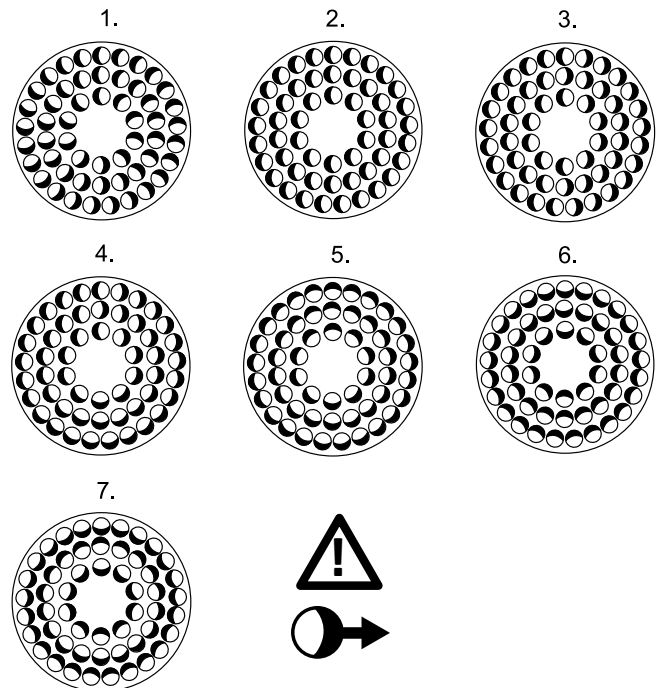


Figure 4. Disc settings, EAGLE S.
NOTE: Air direction in the figure.

1. Clock-wise swirling air discharge (standard)
2. 1-way
3. 2-way
4. 3-way
5. 4-way
6. V1 Vertical concentrated
7. V2 Vertical diffused