

# HAWK Ceiling a

Installation – Commissioning – Maintenance

20220608

## Accessories

### Commissioning box:

ALS. The ALS box is made of galvanized sheet steel and contains a removable commissioning damper, fixed measurement tappings and sound absorbing material\*<sup>1)</sup> 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.

### Frame:

SAR K. For aesthetic installation of a lowered air diffuser.

### Adapter:

ADAPTER, for adaptation to various variants and makes of systemized false ceilings: Ecophon, Gyproc, Dampa etc. Also used for adaptation to optional sizes of lay-in ceilings, for instance 625 x 625 or 675 x 675.

## Installation

To dismantle the diffuser face, insert a thin object, for example a Quick Access card or the equivalent, in between the diffuser face and the diffuser backing box in order to release the springs. Move the card from the centre out towards the corner, 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.

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 Figures 3 and 4.

## 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. The red and the blue tubes respectively from the ALS commissioning box of the one or two-step

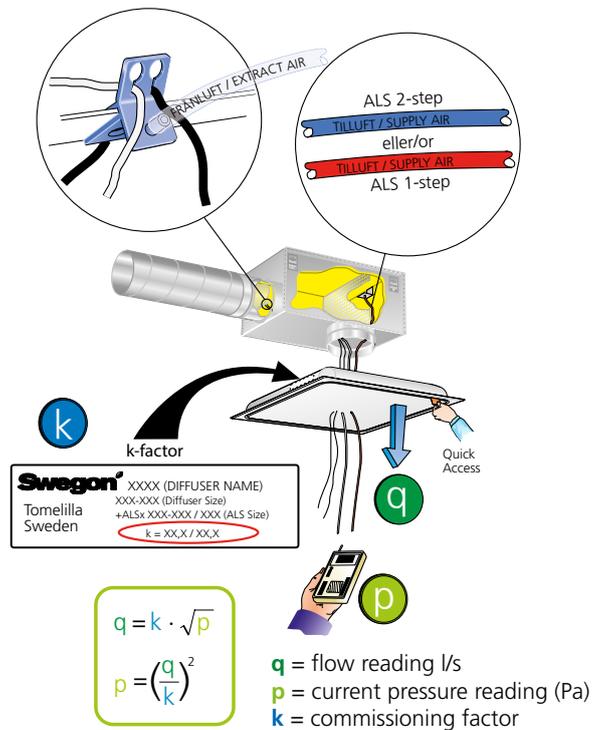


Figure 1. Commissioning.

version are used for supply air. For extract air, always use the transparent tube. The rated coefficient of performance 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.

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 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](http://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 on its hinges so that you then can grip the handle of the tubular damper casing and rotate it out of its holder. See Figure 6.

# Installation

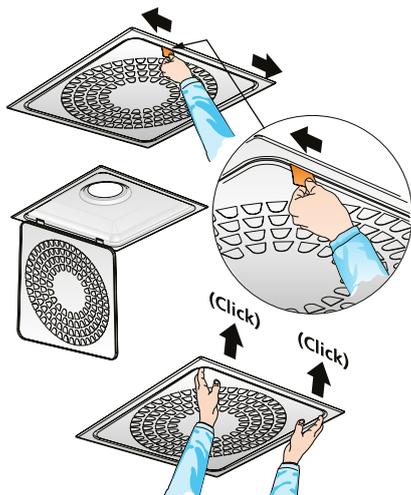


Figure 2. Quick Access, dismantling of the diffuser front.

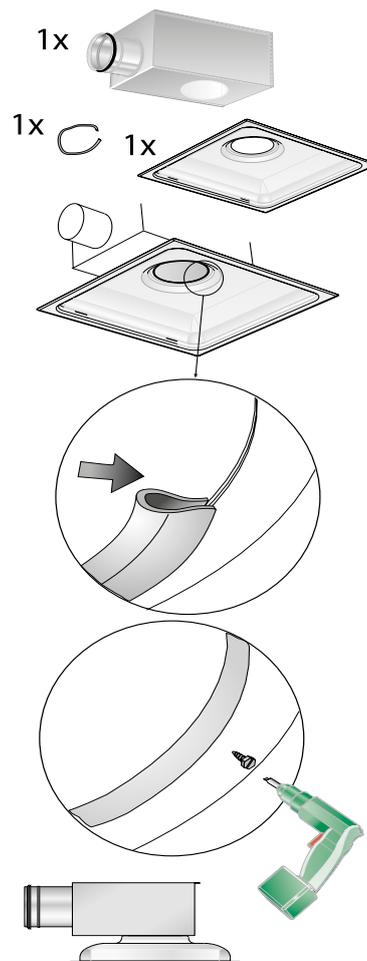


Figure 4. Installation of air diffusers and commissioning box with low installation height.

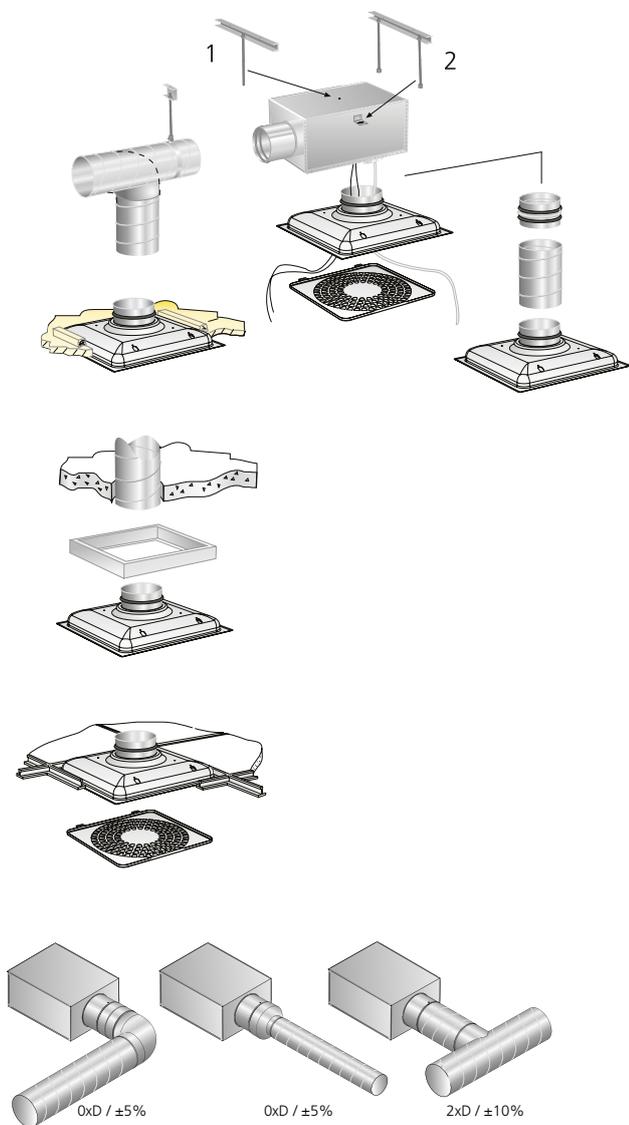


Figure 3. Installation alternatives.

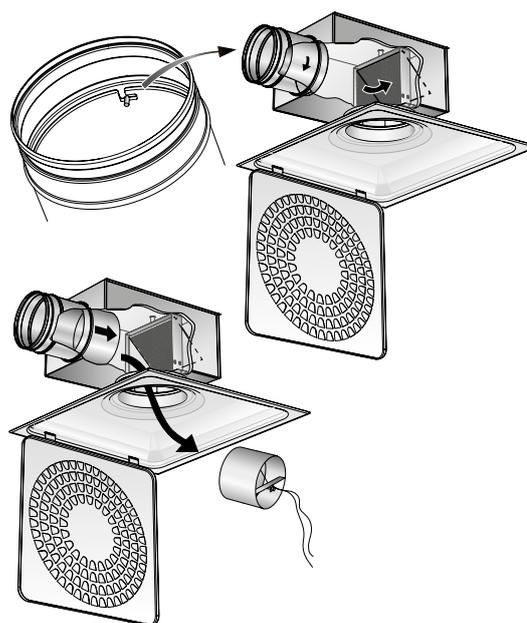


Figure 5. To dismantle the damper.

# Dimensions and Weights

## HAWK Ceiling

| Size    | A   | ØD  | ØD1 | I   | M  | Weight, kg |
|---------|-----|-----|-----|-----|----|------------|
| 125-600 | 595 | 340 | 124 | 575 | 70 | 3.5        |
| 160-600 | 595 | 340 | 159 | 575 | 70 | 3.5        |
| 200-600 | 595 | 420 | 199 | 575 | 70 | 3.5        |
| 250-600 | 595 | 500 | 249 | 575 | 70 | 3.5        |
| 315-600 | 595 | 500 | 314 | 575 | 50 | 3.5        |
| 400-600 | 595 | 500 | 399 | 575 | 50 | 3.5        |

Dimensions of opening in ceiling = l x l

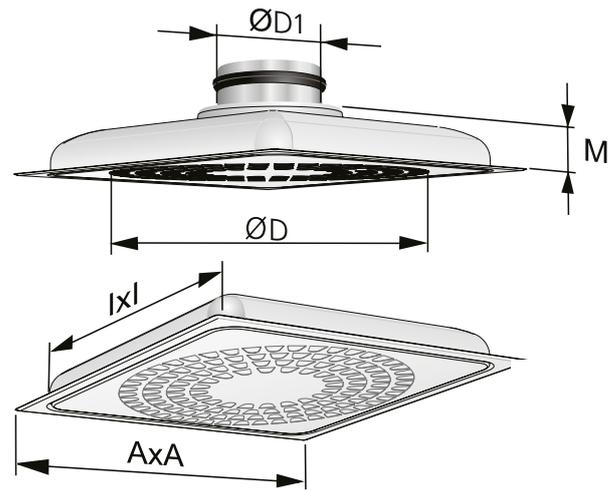


Figure 6. HAWK Ceiling

## HAWK Ceiling with ALS – 1 step

| Size    | A   | B   | C   | ØD  | Ød  | E1  | E2  |
|---------|-----|-----|-----|-----|-----|-----|-----|
| 125-600 | 595 | 282 | 217 | 99  | 125 | 255 | 212 |
| 160-600 | 595 | 342 | 252 | 124 | 160 | 279 | 236 |
| 200-600 | 595 | 404 | 288 | 159 | 200 | 314 | 271 |
| 250-600 | 595 | 504 | 332 | 199 | 250 | 354 | 311 |
| 315-600 | 595 | 622 | 388 | 249 | 315 | 395 | 352 |
| 400-600 | 595 | 767 | 488 | 314 | 400 | 455 | -   |

| Size    | F1  | F2 | G1  | G2  | H   | K   | Weight, kg |
|---------|-----|----|-----|-----|-----|-----|------------|
| 125-600 | 113 | 70 | 175 | 132 | 270 | 80  | 5.5        |
| 160-600 | 113 | 70 | 188 | 145 | 315 | 80  | 6.2        |
| 200-600 | 113 | 70 | 205 | 162 | 375 | 100 | 7.0        |
| 250-600 | 113 | 70 | 225 | 182 | 465 | 115 | 8.7        |
| 315-600 | 93  | 50 | 230 | 187 | 575 | 140 | 11.8       |
| 400-600 | 93  | -  | 262 | -   | 712 | 175 | 15.0       |

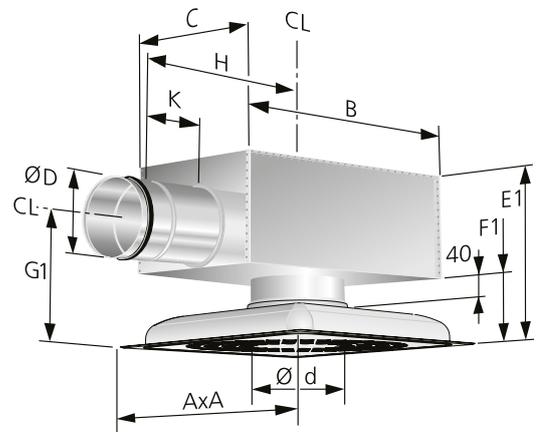


Figure 7. HAWK Ca with ALS. CL = Centerline.

## HAWK Ceiling with ALS – 2 steps

| Size    | A   | B   | C   | ØD  | Ød  | E1  | E2  |
|---------|-----|-----|-----|-----|-----|-----|-----|
| 160-600 | 595 | 342 | 252 | 99  | 160 | 255 | 212 |
| 200-600 | 595 | 404 | 288 | 124 | 200 | 279 | 236 |
| 250-600 | 595 | 504 | 332 | 159 | 250 | 314 | 271 |
| 315-600 | 595 | 622 | 388 | 199 | 315 | 334 | 291 |

| Size    | F1  | F2 | G1  | G2  | H   | K   | Weight, kg |
|---------|-----|----|-----|-----|-----|-----|------------|
| 160-600 | 113 | 70 | 175 | 132 | 315 | 80  | 5.5        |
| 200-600 | 113 | 70 | 188 | 145 | 355 | 80  | 4.2        |
| 250-600 | 113 | 70 | 205 | 162 | 450 | 100 | 7.0        |
| 315-600 | 93  | 50 | 205 | 162 | 550 | 115 | 8.7        |

CL = Center line

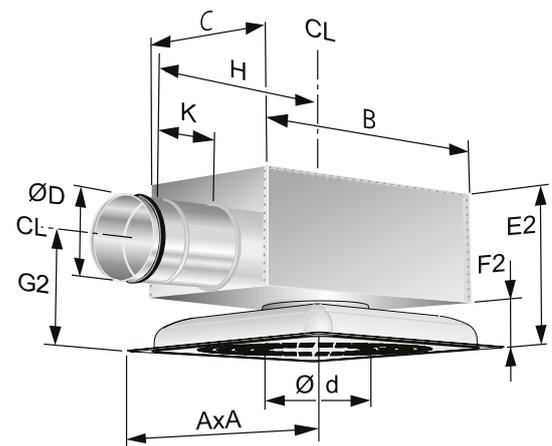


Figure 8. HAWK Ca with ALS. Low installation height.

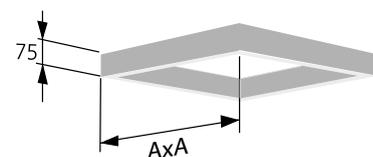


Figure 9. SARb K frame.

# Coefficient of performance

## Supply air

| ALSd<br>Size | HAWK C, supply air |          |             |                    |
|--------------|--------------------|----------|-------------|--------------------|
|              | Size               | Standard | Low version | Colour of the tube |
| 100-125      | 125-600            | 8.4      | 8.0         | Red                |
| 100-160      | 160-600            | 11.7     | 10.9        | Blue               |
| 125-160      | 160-600            | 12.3     | 11.9        | Red                |
| 125-200      | 200-600            | 19.1     | 17.0        | Blue               |
| 160-200      | 200-500            | 20.9     | 18.2        | Red                |
| 160-200      | 200-600            | 29.1     | 25.7        | Blue               |
| 200-250      | 250-500            | 28,4     | -           | Red                |
| 200-250      | 250-600            | 32.5     | 28.5        | Red                |
| 200-315      | 315-500            | 30,3     | -           | Blue               |
| 250-315      | 315-500            | 31,8     | -           | Red                |
| 200-315      | 315-600            | 37.0     | 34.2        | Blue               |
| 250-315      | 315-600            | 39.4     | 35.3        | Red                |
| 315-400      | 400-600            | 50.9     | -           | Red                |

Number of measuring tubes: 1

## Extract air

| ALSd<br>Size | HAWK C, extract air |          |                    |
|--------------|---------------------|----------|--------------------|
|              | Size                | Standard | Colour of the tube |
| 200-250      | 250-600             | 19.1     | Transparent        |
| 250-315      | 315-600             | 25.4     | Transparent        |
| 315-400      | 400-600             | 34.9     | Transparent        |

Number of measuring tubes: 1