

CKD_d

Installation – Commissioning – Maintenance

20131122

Accessories

Commissioning box:

ALS. Made of galvanised sheet steel; removable commissioning damper. Sound absorbing insulation with reinforced surface layer. Fire resistance rated to Bs-1, d0 in accordance with EN ISO 11925-2.

Distribution box:

CKDT 1. Distribution box without damper for 2 - 6 air diffusers.

Controller for resetting motor-actuated air diffusers:

VHC. The controller resets motor-actuated air diffusers intended for cooling and heating with supply air. The controlling parameter is the temperature difference between the supply air and the room air. See separate product datasheet for the VHC.

Installation

Secure the inlet spigot to the connecting duct using blind rivets. If an ALS commissioning box is used, the sleeve coupling between the ALS and the CKD 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 should be carried out with the diffuser face mounted. Pull the measuring tubes and damper adjustment cords out of the air diffuser between the cones. 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.

The K-factor is specified on the product's identification label and last in these instructions.

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 by removing the through bolt on the outside of the outer clamp and withdrawing the cone package. 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.

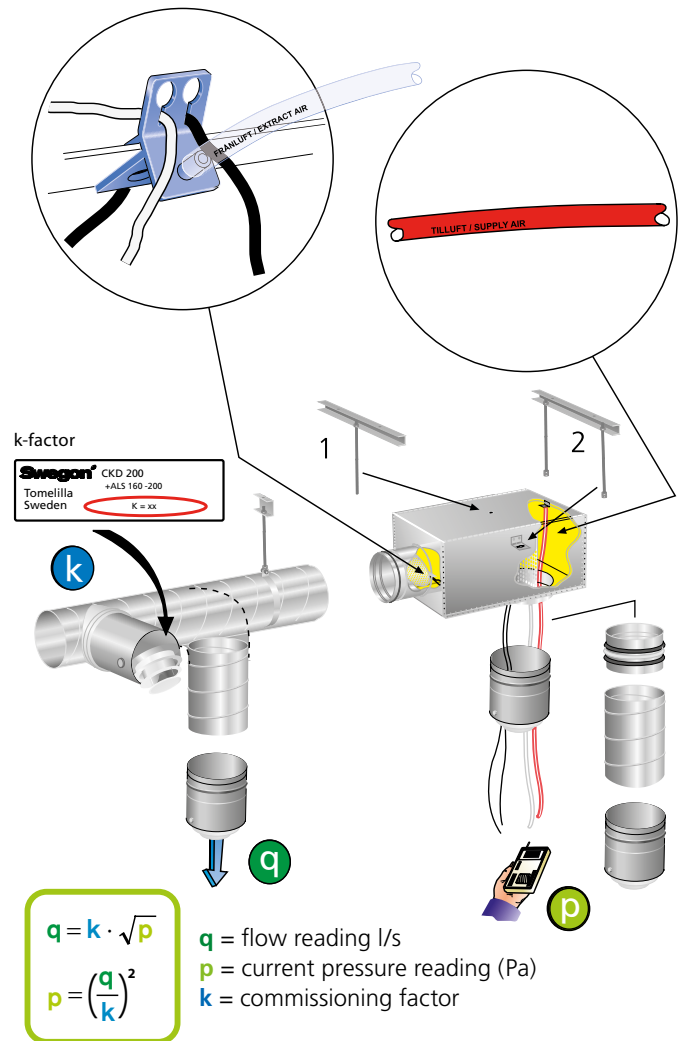


Figure 1. Installation Commissioning.

Connections

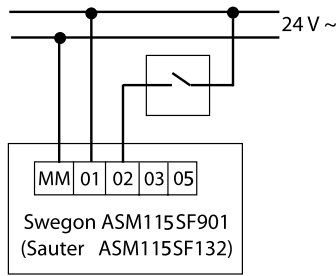


Figure 2. Wiring diagram for CKD 2 – 2-point motor positioning control. The switch is not included.

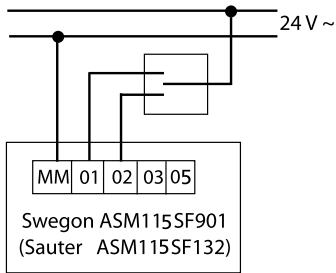


Figure 3. Wiring diagram for CKD -2 – 3-point motor positioning control. The switch is not included.

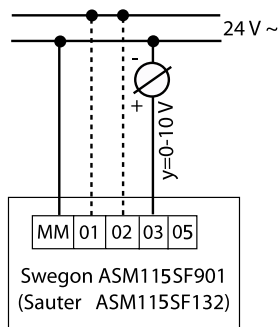


Figure 4. Wiring diagram for CKD-2 – Motor positioning control with 0-10 V regulation. The potentiometer is not included.

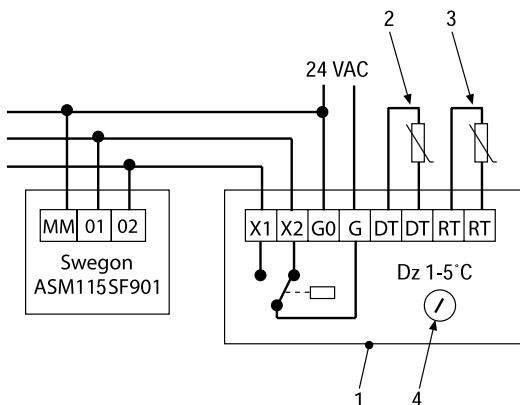


Figure 5. The wiring diagram shows the connections with the Sauter damper motor against the supply air diffuser.

- Key to Figure 5.
- 1 = VHC controller
 - 2 = Duct temperature sensor (DT)
 - 3 = Room temperature sensor (RT)
 - 4 = Setting the switch-over temperature

Dimensions and Weights

CKD 1 + ALS

Size	B	C	ØD	Ød	E	F
200	404	288	159	200	80	239
250	504	332	199	250	105	279
315	622	388	249	315	140	340
400	767	488	314	400	190	400

Size	G	H	K	Weight, kg
200	130	375	100	6.6
250	150	465	115	9.2
315	175	575	140	13.0
400	212	712	175	15.3

CKD 1 + CKD 2

Size	I	J	Ød	Weight, kg
200	162	162	199	2.5
250	204	204	249	3.5
315	262	262	314	4.5
400	342	337	399	4.5
500	450	440	499	9,8

CL = Center line

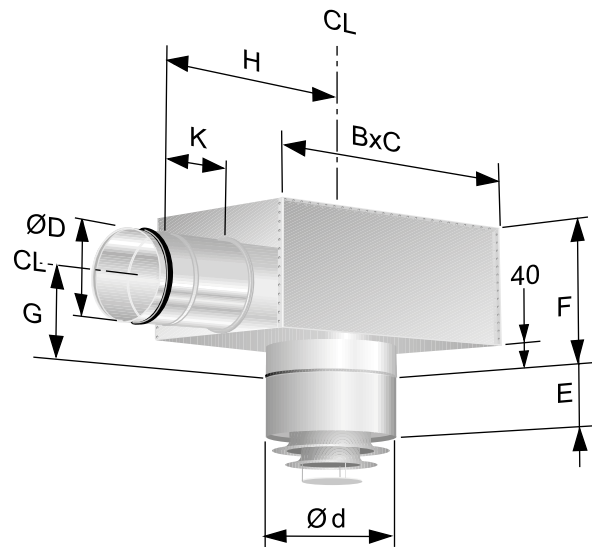


Figure 6. CKD 1 + ALS.

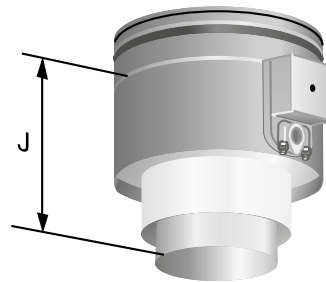
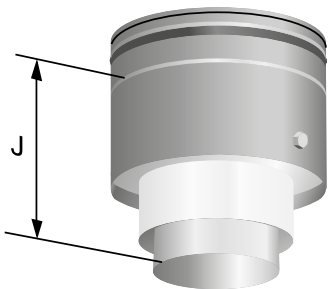
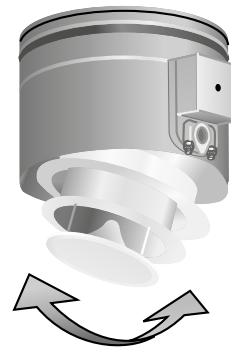
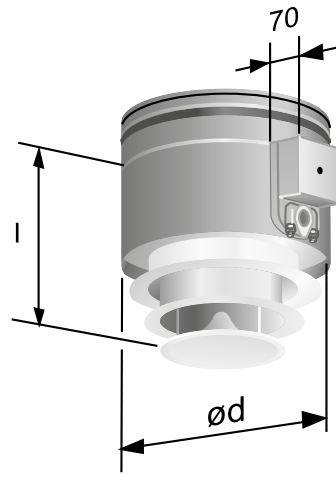
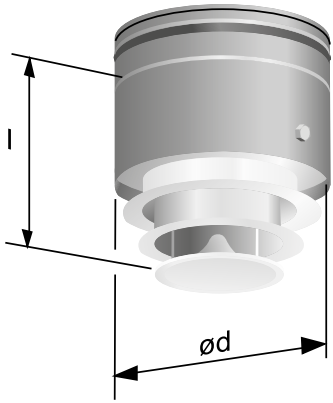


Figure 7. CKD 1.

Figure 8. CKD 2 with electric motor.

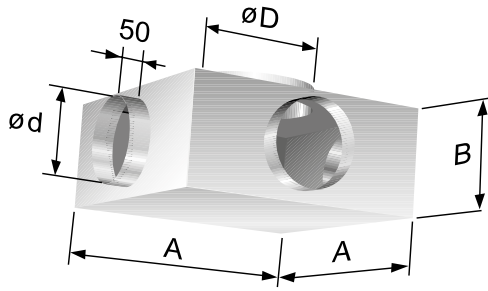


Figure 9. CKDT 1, 4 diffusers, 0° casing angle.

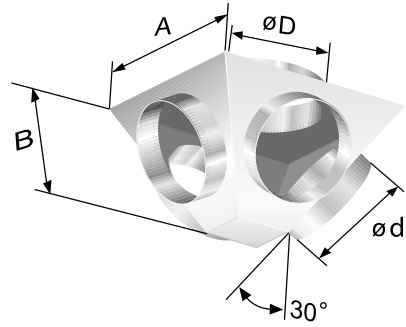


Figure 11. CKDT 1, 4 diffusers, 30° casing angle.

Dimensions – CKDT 1, 4 diffusers, 0° casing angle

Product designation	Size	A	B	ØD	Ød
CKDT 1a-200-4-250-0	200	400	250	249	200
CKDT 1a-250-4-315-0	250	470	315	314	250
CKDT 1a-315-4-400-0	315	600	400	399	315
CKDT 1a-400-4-500-0	400	750	500	499	400
CKDT 1a-500-4-630-0	500	945	600	629	500

Dimensions – CKDT 1, 4 diffusers, 30° casing angle

Product designation	Size	A	B	ØD	Ød
CKDT 1a-200-4-250-30	200	565	250	249	200
CKDT 1a-250-4-315-30	250	710	315	314	250
CKDT 1a-315-4-400-30	315	990	400	399	315
CKDT 1a-400-4-500-30	400	1235	500	499	400
CKDT 1a-500-4-630-30	500	1350	600	629	500

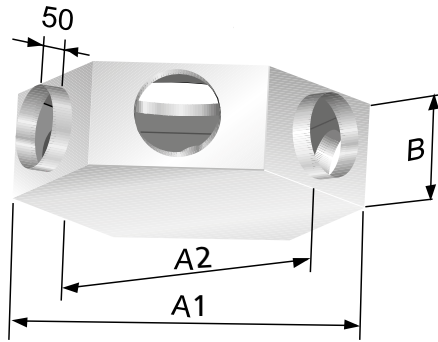


Figure 10. CKDT 1, 6 diffusers, 0° casing angle.

K-factor (Rated COP)

ALSd Size	CKDa, supply air			Tube Colour
	Size	Diffused	Concentrated	
160-200	200	13,9	12,6	Red
200-250	250	22,8	21,1	Red
250-315	315	34,7	32,3	Red
315-400	400	55,8	52,9	Red

Number of measuring tubes: 1

Dimensions – CKDT 1, 6 diffusers

Product designation	Size	A1	A2	B	ØD	Ød
0° Casing angle						
CKDT 1a-200-6-315-0	200	693	600	250	314	200
CKDT 1a-250-6-400-0	250	866	750	315	399	250
CKDT 1a-315-6-500-0	315	1090	945	400	499	315
CKDT 1a-400-6-630-0	400	1090	945	500	629	400
CKDT 1a-500-6-800-0	500	1385	1200	600	799	500
30° Casing angle						
CKDT 1a-200-6-315-30	200	825	715	250	314	200
CKDT 1a-250-6-400-30	250	1030	890	315	399	250
CKDT 1a-315-6-500-30	315	1290	1120	400	499	315
CKDT 1a-400-6-630-30	400	1390	1207	500	629	400
CKDT 1a-500-6-800-30	500	1755	1520	600	799	500