EXC

Extract air valve for ceiling or wall installation

QUICK FACTS

- Easy installation
- Large throttle range
- High attenuation
- Lockable adjustment
- Bayonet fixing

AIR FLOW - SOUND PRESSURE ROOM (Lp10A) *)						
EXC Size	25 dB(A)		30 dB(A)		35 dB(A)	
	l/s	m³/h	l/s	m³/h	l/s	m³/h
100	23	83	29	104	35	126
125	35	126	41	148	50	180
160	58	209	70	252	85	306
200	71	256	81	292	92	331

Table data apply to fully open position for the cone.

**) L_{p10A} = Sound pressure incl. A-filter with 4 dB room attenuation and 10 m^2 room absorption area.*

Swegon

Technical description

Design

This extract air valve consists of three parts: the mounting frame, the outer and inner cones. The mounting frame has a sleeve connection to the connecting duct and a bayonet fixing to the cone. The fixing frame is available with or without a rubber ring sealing to the duct. The aerodynamically shaped outer cone has a sealing strip on the connection to the mounting frame. The inner cone, which is suspended on a threaded bar in the outer cone, is adjustable and can be locked in position.

Materials and surface treatment

The cones are made of sheet steel. The mounting frame is made of galvanized sheet steel. The cones are painted.

- Standard colour:
  - White semi-gloss, lustre 40, RAL 9003/NCS S 0500-N

Accessories

Mounting frame EXCT 2

Mounting frame with rubber sealed nipple connector.

Mounting frame EXCT 3

Conical mounting frame for connection to nipple. The mounting frame has a larger inner diameter than the connecting duct. The valve is turned in the bayonet socket in the mounting frame. See figure 1.

Installation

The hole is cut according to the dimension of the connecting duct. The mounting frame is fixed in the connecting duct. The valve is turned in the bayonet socket in the mounting frame. See Figure 1.

Commissioning

The inner cone is rotated clockwise to increase the pressure drop and anticlockwise to decrease it. The position of the cone is locked by the locknut on the rear of the valve. The k-factor is stated on the product label. It is also found in the relevant k-factor guide which can be found on our website.

The extract air valve is commissioned with air pressure measurement or air flow measurement. If air pressure is measured, a "measuring hook" isused, and when air flow is measured, any air flow measurer can be used. See Figures 2 and 3.

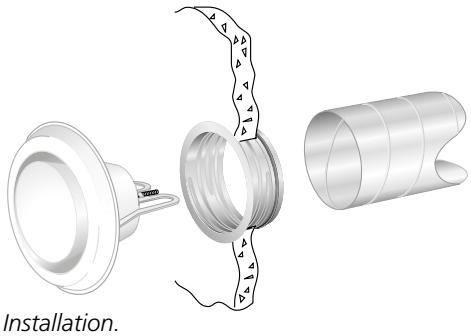


Figure 1. Installation.

Maintenance

The valve can be cleaned when necessary using lukewarm water and detergent or cleaned using a vacuum cleaner and brush attachment.

Environment

The Declaration of Construction Materials is available at www.swegon.com.

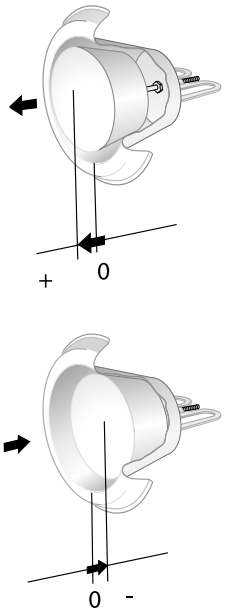


Figure 2. Commissioning.

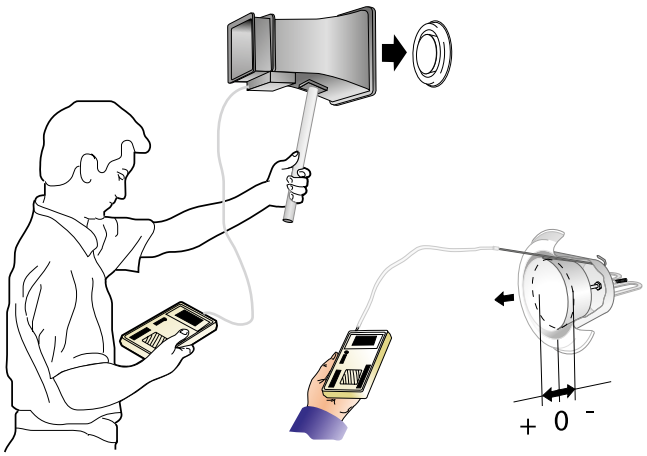


Figure 3. Commissioning.

Swegon reserves the right to alter specifications.

Sizing

- Sound pressure level dB(A) applies to rooms with 10 m^2 equivalent sound absorption area.
- Sound attenuation (ΔL) below is shown in the octave band. Orifice attenuation is included in the values.
- Data is for EXC + EXCT 2.
- The octave band correction value K_{OK} is given for the zero position of the cone according to Figure 2.
- Attenuation ΔL is given for the zero position of the cone for sizes 100-160 and for size 200 at the +10 mm cone position.

L_W = Sound power level

L_{p10A} = Sound pressure level dB (A)

K_{ok} = Correction for producing the L_W value in the octave band

$L_W = L_{p10A} + K_{OK}$ gives the frequency divided octave band

Sound data - EXC with inner cone at 0 mm

Sound effect level L_w(dB)
Table K_{OK}

Size	Mid-frequency (octave band) Hz							
EXC	63	125	250	500	1000	2000	4000	8000
100	-1	-4	-6	-5	-1	-1	-9	-12
125	1	-2	-1	-2	-3	0	-10	-11
160	-1	0	-2	-1	0	-5	-7	-11
200	-1	-1	-6	-6	-2	-6	-10	-15
Tol.±	2	3	2	2	2	2	2	3

Sound attenuation ΔL (dB)
Table ΔL

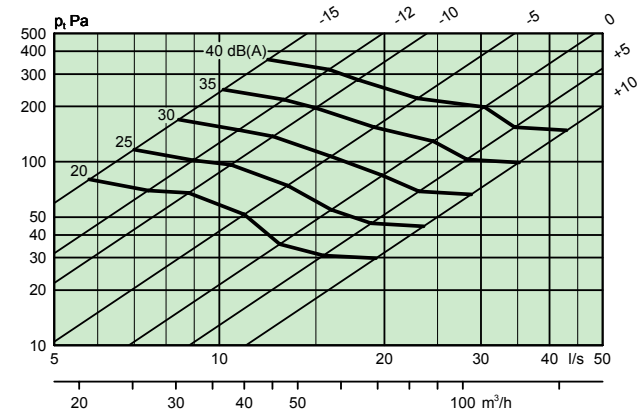
Size	Mid-frequency (octave band) Hz							
EXC	63	125	250	500	1000	2000	4000	8000
100	23	18	14	12	12	14	5	6
125	21	17	12	11	12	11	7	6
160	19	14	12	11	11	14	5	7
200	15	13	11	11	13	12	7	7
Tol.±	6	3	2	2	2	2	2	3

Engineering graphs - EXC - Extract air

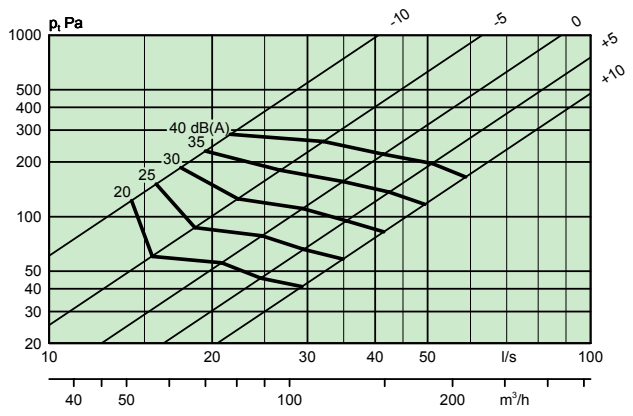
Air flow - Pressure drop - Sound level

- The graphs are not to be used for commissioning.
- The graphs show different positions for the inner cone relative to the outer cone in mm.
- The dB(A) values are for rooms with normal acoustic absorption of 4 dB.
- The dB(C) value is normally 6-9 dB higher than the dB(A) value.

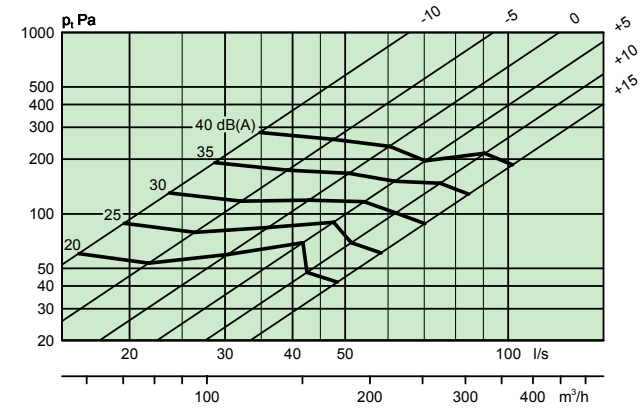
EXC 100



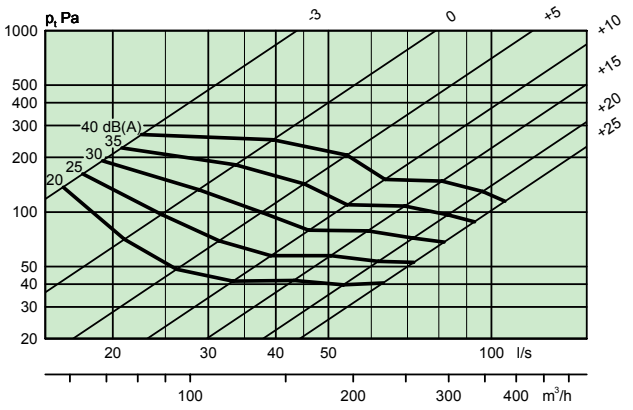
EXC 125



EXC 160



EXC 200



Dimensions and weight

EXC

Size	A	B	ØD	Weight, g
100	70	16	142	265
125	85	16	173	350
160	85	16	205	475
200	108	16	252	700

Mounting frame EXCT 2

Size	ØD1	H	Weight, g
100	99	50	100
125	124	50	125
160	159	50	190
200	199	50	240

Mounting frame EXCT 3

Size	ØD2	H	Weight, g
100	101	55	100
125	126	55	125
160	161	55	190
200	201	55	240

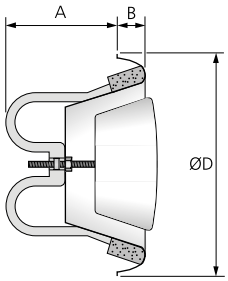


Figure 4. Extract air valve EXC.

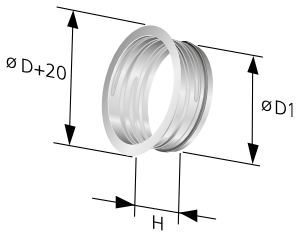


Figure 5. Mounting frame EXCT 2.

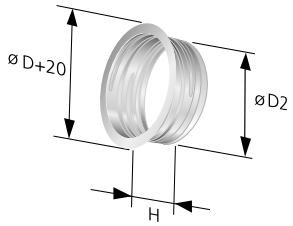


Figure 6. Mounting frame EXCT 3. Conical mounting frame for connecting directly to a duct section with nipple connector, for example an elbow.

Order key

Product

Extract air valve including mounting frame	EXC	-aaa	-b
Size: 100, 125, 160, 200			
Alternatives:			
2. Mounting frame with rubber sealing	EXCT 2		
3. Mounting frame for direct connection to nipple	EXCT 3		

Specification example

Swegon's extract air valve of the type EXC, with the following functions:

- Settings can be locked
- Cleanable
- Powder coated in white, RAL 9003/ NCS S 0500-N.
- Including mounting frame with rubber seal

Size:	EXC	100-2	xx items
		125-2	xx items
		160-2	xx items
		200-2	xx items

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