

EXF

Extract air valve for ceiling or wall mounting



QUICK FACTS

- Simple to install
- Large throttling range
- High natural attenuation
- Lockable adjustment
- Spring mounting

AIR FLOW - SOUND PRESSURE ROOM (L_{p10A} *)						
EXF Size	25 dB(A)		30 dB(A)		35 dB(A)	
	l/s	m ³ /h	l/s	m ³ /h	l/s	m ³ /h
100	28	101	35	126	42	151
125	49	176	58	209	70	252
160	75	270	88	317	104	374

The data applies to a fully open gap between the inner and outer cone.

**) L_{p10A} = Sound pressure incl. A-filter with 4 dB room attenuation and 10 m² room absorption area.*

Technical description

Design

The EXF consists of three parts: the outer cone, inner cone and spring fasteners. Mounting frames are selectable with nipple or sleeve connection to ducts. The extract air valve has spring fasteners for securing it to the mounting frame. The aerodynamically designed outer cone has a sealing strip for a tight fit against the mounting frame. The inner cone, which is suspended on a threaded spindle inside the outer cone, is adjustable and can be locked in position.

Materials and surface treatment

The extract air valve is made of sheet steel. The mounting frame is made of galvanized sheet steel. The entire extract air valve is painted.

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

Accessories

Mounting frame, EXFT1

Mounting frame for insertion mounting.

Mounting frame EXFT5

Mounting frame for fit-on mounting.

Assembly

Size of opening, see the dimensions of the connecting duct. Install the mounting frame by inserting its nipple into the connecting duct. Press the extract air valve into the mounting frame to engage it. The spring fasteners lock in the grooves of the mounting frame as shown in Figure 1.

Commissioning

Rotate the inner cone clockwise to increase the pressure drop and counterclockwise to decrease it. Lock the position of the cone by tightening the lock nut on the rear side of the extract air valve. The K-factor (COP) is specified on the product's identification label. K-factors can also be found in the relevant commissioning instructions at www.swegon.com.

The extract air valve can be commissioned by measuring the pressure or the air flow. For pressure measurement, use a so-called "measuring hook" (probe) and for air flow measurement use a commonly marketed air flow meter. See Figures 2 and 3.

Maintenance

The extract air valve can be cleaned, if necessary, using lukewarm water with dishwashing detergent added.

Environment

The Building Materials Declaration is available from www.swegon.com.

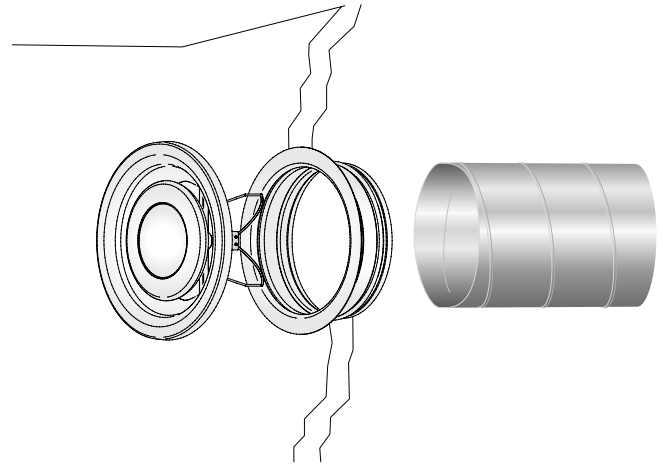
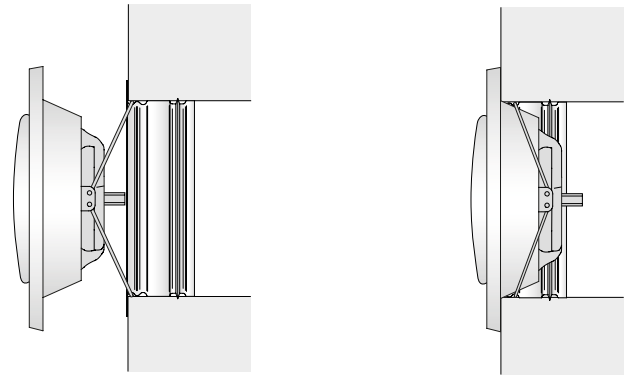


Figure 1. Installation.

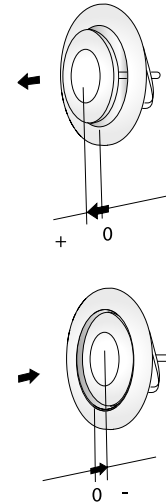


Figure 2. Commissioning.

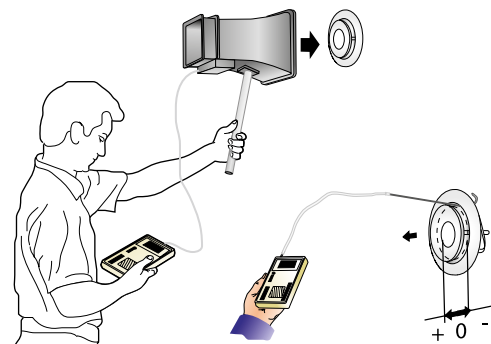


Figure 3. Commissioning.

Sizing

- Sound pressure level dB(A) applies to rooms with 10 m² equivalent sound absorption area.
- Sound attenuation (ΔL) below is shown in the octave band. Orifice attenuation is included in the values. The data applies to EXF + EXFT1.

Acoustic data

EXF, cone position of 0 mm

Sound power level, L_w (dB)

Table K_{OK}

Size EXF	Mid-frequency (octave band) Hz							
	63	125	250	500	1000	2000	4000	8000
100	-8	4	0	-1	-3	-3	-5	-9
125	-7	6	0	-3	-3	-1	-5	-13
160	-9	2	0	-1	-2	-2	-7	-12
Tol.±	2	3	2	2	2	2	2	3

Sizing diagram

EXF – Extract air

Air flow – Pressure drop – Sound level

- The diagrams should not be used for commissioning.
- The diagrams show various positions of the inner cone relative to the outer cone in mm.
- The diagrams apply to straight connection.

- Specify the correction K_{OK} of the octave bands for the zero position of the cone as shown in Figure 2.
- Specify the sound attenuation ΔL for the zero position of the cone for sizes 100-160.

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

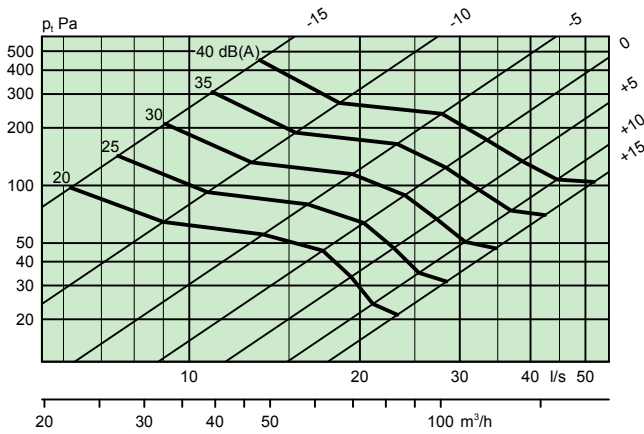
L_w = L_{p10A} + K_{OK} gives the frequency divided octave band

Attenuation from duct to room, ΔL (dB)

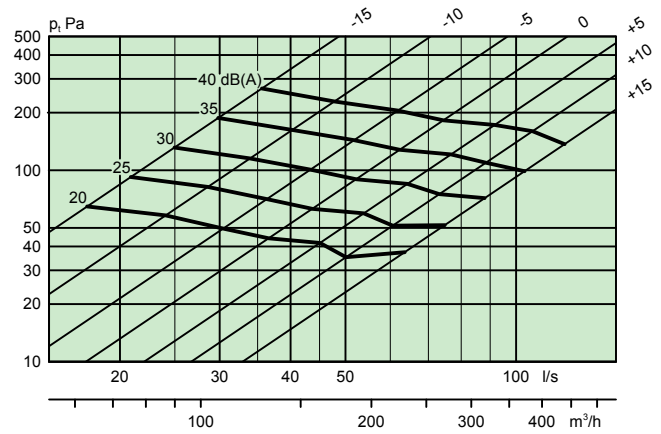
Table ΔL

Size EXF	Mid-frequency (octave band) Hz							
	63	125	250	500	1000	2000	4000	8000
100	22	16	9	9	6	7	6	10
125	20	14	10	8	5	5	7	9
160	18	13	8	6	5	6	11	9
Tol.±	6	3	2	2	2	2	2	3

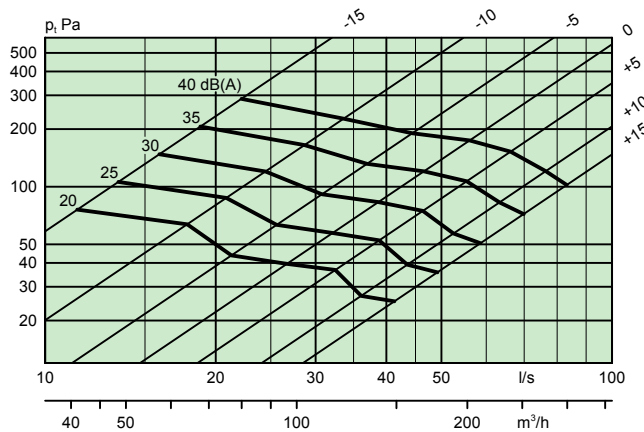
EXF 100



EXF 160



EXF 125



- The sound will increase by 3 dB if a 90° bend or a T-piece is arranged closer than 300 mm from the EXF.
- The dB(C) value is normally 6-9 dB higher than the dB(A) value.

Dimensions and weights

EXF

Size	B	C	ØD	E*	Weight, g
100	41	9	132	69	162
125	50	10	162	72	237
160	55	10	192	80	334

*Cone at position -15mm.

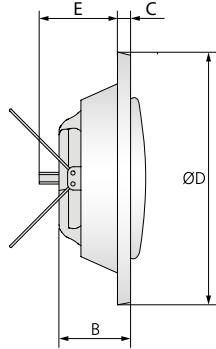


Figure 4. Extract air valve, EXF.

Mounting frame, EXFT1, for insertion mounting/ EXFT5, for fit-on mounting

Size	ØA	ØD1	ØD2	Size of opening*	Weight, g	
					EXFT1	EXFT5
100	123	99	100	110	78	72
125	149	124	125	135	97	92
160	185	159	160	170	123	118

*Tolerance +5 / -0 mm

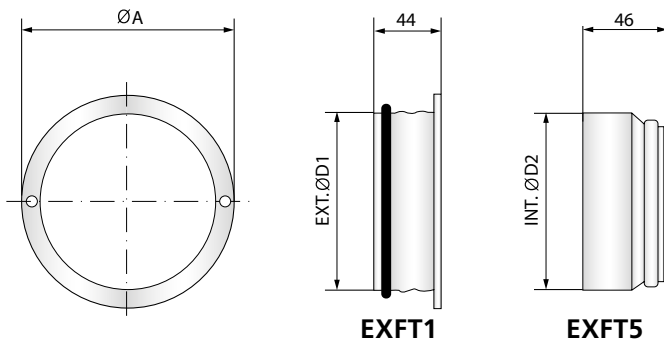


Figure 5. Mounting frame, EXFT1/EXFT5.

Ordering key

Product

Extract air valve	EXFa	-aaa
Sizes:	100, 125, 160	

Accessories

Mounting frame for insertion mounting.	EXFT1a	-aaa
Sizes:	100, 125, 160	

Mounting frame for fit-on mounting	EXFT5a	-aaa
Sizes:	100, 125, 160	

Specification text

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

- Lockable adjustment
- Cleanable
- White powder paint sprayed and baked finish, RAL 9003/ NCS S 0500-N
- Accessories: Mounting frame with rubber seal

Size: EXFa-100 xx pcs. with EXFT1a-100