

DOMO

Square supply air diffuser for ceiling or wall mounting in homes



QUICK FACTS

- Modern design
- Provision for commissioning and flow measurement
- 5-20 l/s at sound level <30 db(A)
- One version for ceiling or wall mounting
- Eco-friendly materials

AIR FLOW - SOUND PRESSURE ROOM (Lp10A) *)						
DOMO Size	20 dB(A)		25 dB(A)		30 dB(A)	
	l/s	m ³ /h	l/s	m ³ /h	l/s	m ³ /h
100	14	50	17	61	22	79

Valid for the maximum opening in the commissioning plate.

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

Technical description

Design

Swegon's DOMO air diffuser for wall or ceiling mounting in homes combines functionality with modern design. Swegon has focused on designing an air diffuser that also satisfies today's material demands in order to minimise environmental impact.

The connection sleeve on the DOMO is compatible with standard 100 mm dia. ducting.

Materials and finish

The bottom section is cast in light magnesium and the diffuser face is made of injection moulded ABS plastic. The air deflector and air distributor are made of injection moulded PP plastic and the commissioning plate is made of galvanised sheet steel. The whole air diffuser is painted.

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

Project planning

The DOMO has square dimensions, 160 x 160 mm, and a 100 mm dia. connection. This makes it extremely easy to mount directly in a duct using the built-in spring clips; no mounting frame or the like is needed. The DOMO is compatible with the VELODUCT® system of ducting for grouting in with appropriate short bends, etc. It should, however, be noted that installation with a short bend with joint or T-piece with joint will increase the sound to a level of about 3 dB(A) above those specified in the sizing chart.

Crosstalk

To avoid crosstalk via supply air diffusers inbetween rooms, we recommend mounting sound attenuators in the duct system, inbetween the different supply air diffusers.

Installation

Remove the diffuser face and set the required diffusion pattern. Note that the transparent air deflector has a slightly wedge-shaped cross section. Install the deflector so that its thinner edge is positioned towards the bottom of the air diffuser. Press the air diffuser to secure it to the duct or joint. It will then be held in place by its built-in spring clips. If required, the air diffuser can be secured by screws to the duct or to the wall/ceiling. Finally, refit the diffuser face. See Figure 1.

N.B.! The diffuser face (cover) must be removed prior to installation. Never apply any pressure to the diffuser face (cover).

Commissioning

Commissioning must be carried out after the diffuser has been mounted and completely assembled. Remove the diffuser face and connect the measurement hose to the measurement tapping and to a manometer. Then refit the diffuser face. The air flow can be determined using the K-factor of the air diffuser. If necessary, break off one or more rings from the commissioning plate to increase the air flow. 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. The duct system can be accessed after removing the diffuser face and the commissioning plate.

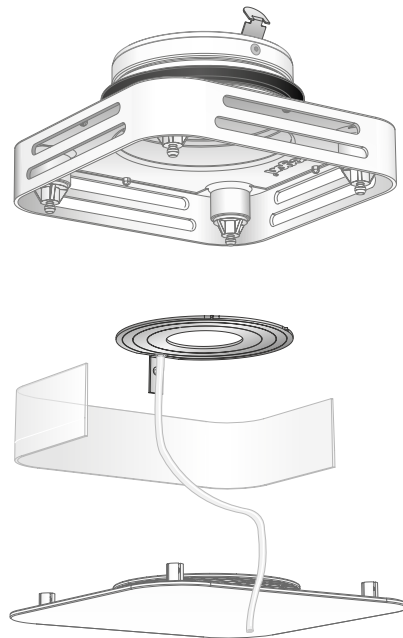


Figure 1. Installation, commissioning.

Air distribution patterns

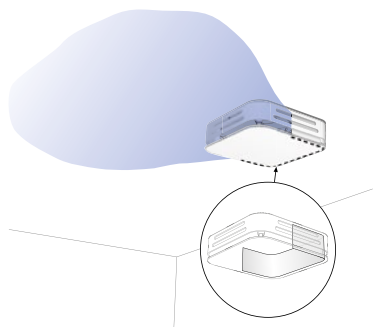


Figure 2. 1-way, ceiling mounting.

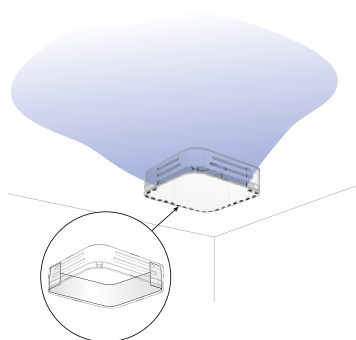


Figure 3. 2-way, in a corner, ceiling mounting.

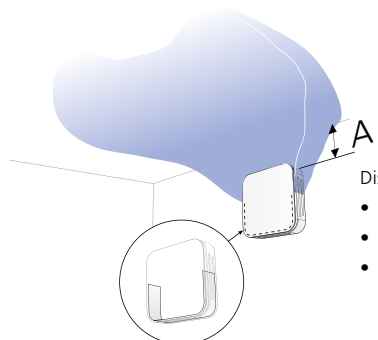


Figure 4. 1-way, wall mounting.

Distance to ceiling (A):

- Minimum distance is 100 mm
- 100-150 mm results in $1,15 \times l_{0,2}$
- More than 300 mm results in $0,8 \times l_{0,2}$ (free-blowing)

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.

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 – Supply air

Sound power level, L_w (dB)

Table K_{ok}

Size	Mid-frequency (Octave band) Hz							
DOMO	63	125	250	500	1000	2000	4000	8000
100	-1	4	2	0	-1	-4	-13	-19
Tol. \pm	2	2	2	2	2	2	2	2

Sound attenuation ΔL (dB)

Table ΔL

Size	Mid-frequency (Octave band) Hz							
DOMO	63	125	250	500	1000	2000	4000	8000
100	21	15	11	7	4	3	0	0
Tol. \pm	2	2	2	2	2	2	2	2

Sizing diagram

- Throw $l_{0,2}$ is measured under isothermal discharge conditions.
- 1-way mounted on wall is applicable for DOMO mounted 200 mm from the ceiling (measured from the top edge).
- Recommended max. permissible temperature below room temperature is 3 K.
- dB (A) applies to rooms with normal acoustic, 4 dB room attenuation / 10 m² equivalent absorption area.

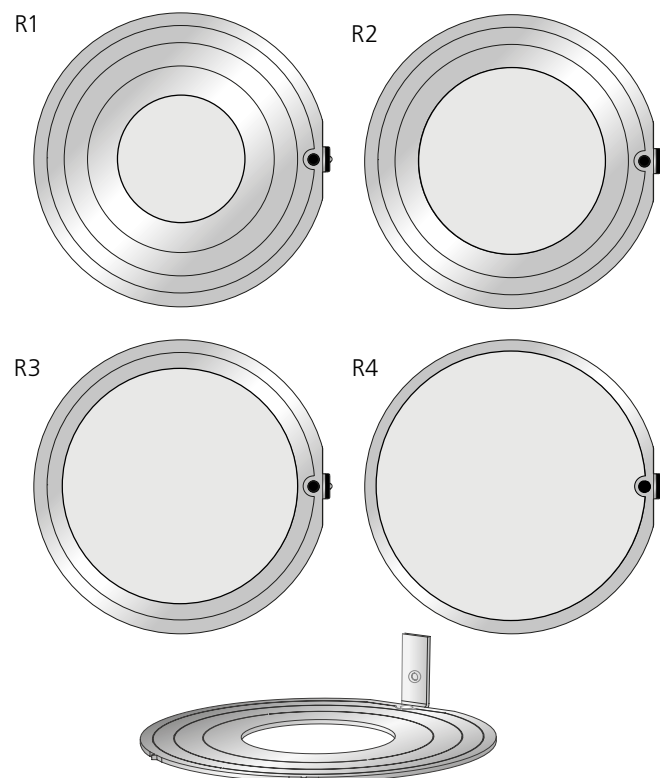
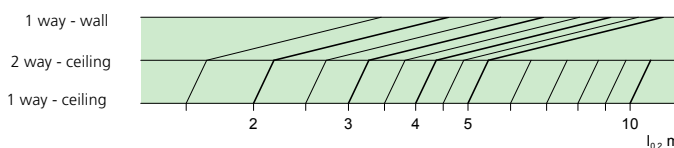
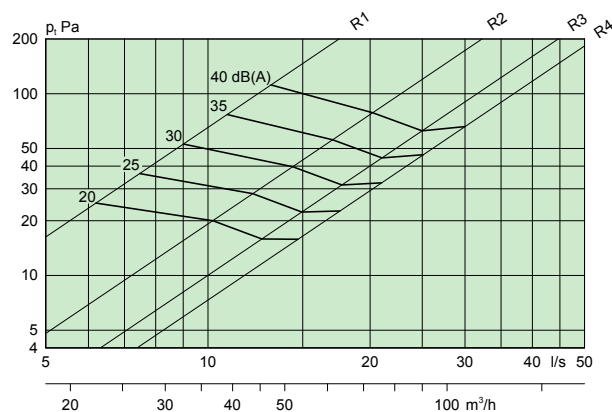


Figure 5. Detachable adjustment washer. R1-4 shows various settings.

Dimensions and weights

A	B	C	Ød	Vikt, g
160	44	44	99	365

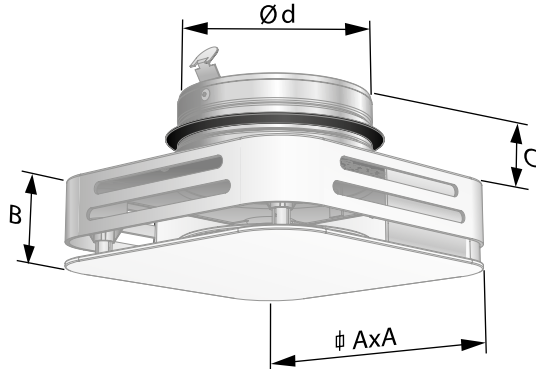


Figure 6 . DOMO.

Order key

Product

Square supply air diffusers for ceiling or wall mounting in homes DOMO c -aaa

Version

Size: 100

Specification text

Swegon's complete quadratic DOMO supply air diffuser for housing ventilation with the following features:

- For ceiling or wall mounting
- Modern design
- Provision for commissioning and flow measurement
- 5-20 l/s at sound level <30 db(A)
- Eco-friendly materials
- Powder painted in white as standard
- Easily opened for commissioning and cleaning
- Easily adjustable diffusion pattern

Example:

Size: DOMOc 100 xx items