



Handbook

BOR-S

Residential Supply Diffuser

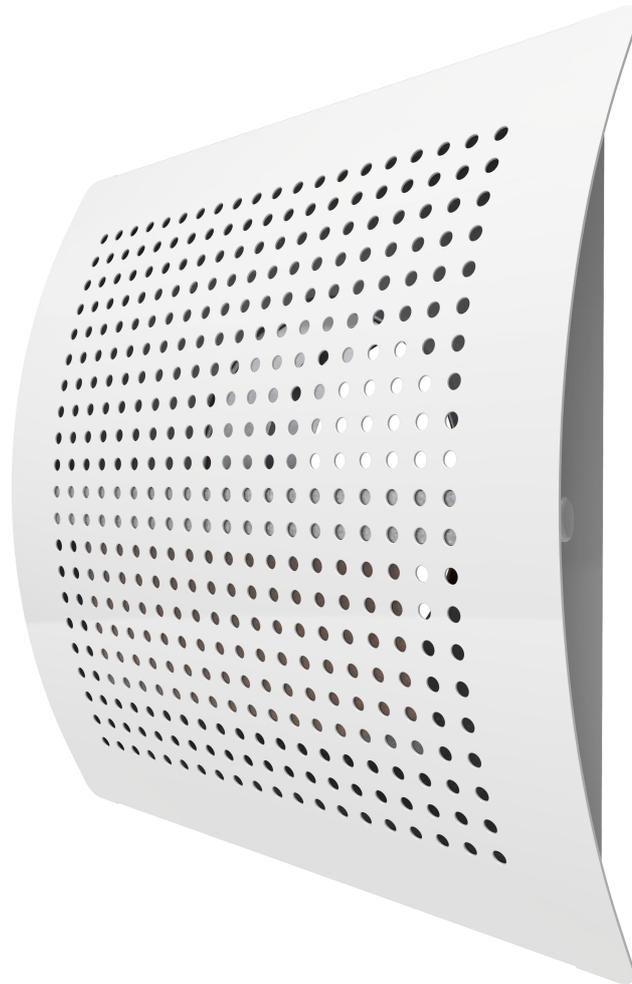
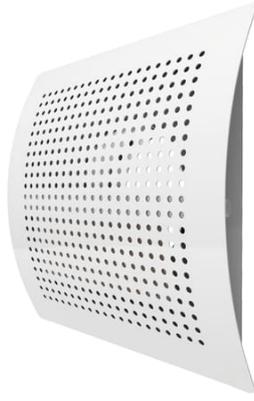


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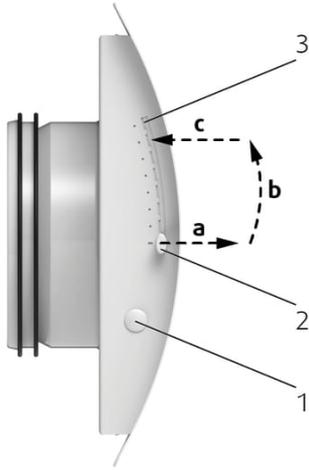
Description

BOR-S is a residential diffuser. The product is intended for air supply. The product is equipped for air flow adjustment and commissioning measurement. The product is installed on rear walls of offices, hotels, residential rooms etc., or as a part of VAV system

Design

BOR-S is manufactured from galvanized steel. The product consists of a body and a perforated front plate. The front plate is powder painted to RAL9003 (signal white). Other RAL colors are available upon request.

Product parts



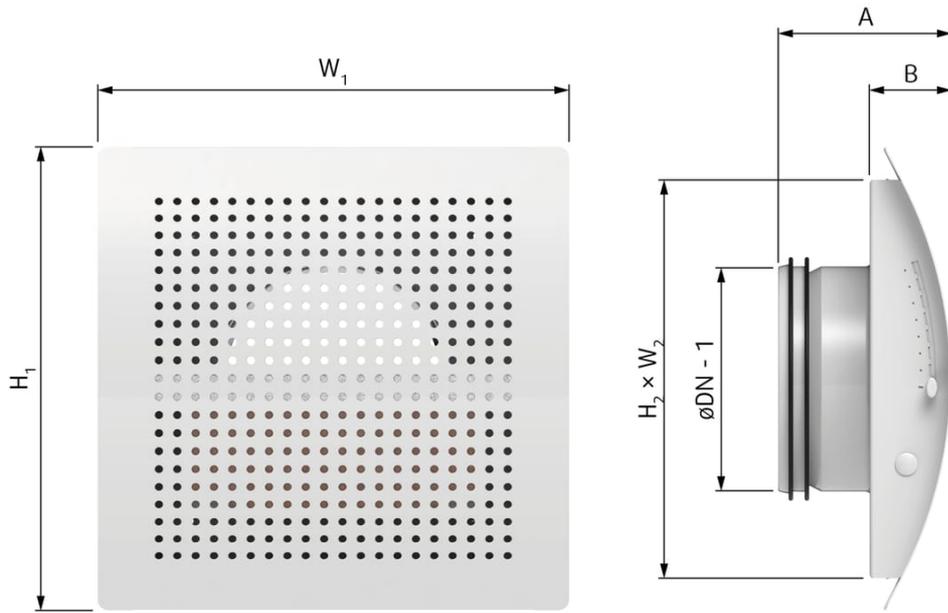
1 ΔP measurement pin

2 Adjustment knob parked in position 1.

3 Adjustment position 8

NOTE: To move the mechanism pull the ears on both sides of the diffuser with fingers towards the plate (a) . Slide along the groove to the desired position (b) . Release the ears so they remain fixed in the desired position (c) .

Dimensions & Weights



	W_1	H_1	W_2	H_2	A	B	m
DN	(mm)						kg
100	206	204	180	175	76	36	0,5
125	206	204	180	175	76	36	0,6
160	262	256	236	229	86	46	0,8

Ordering Codes

BOR-S

Connection size (mm)

100

125

160

Surface finish

SW Signal white (RAL9003, gloss 30%)

RALXXXX Other RAL colour

Example of the Ordering Code

BOR-S-100-SW

BOR-S diffuser, connection size 100 mm, in signal white colour (RAL 9003)

Quick Selection

Air flow volume q_v at different A-weighted sound power levels L_{WA}

Item	25 dB(A)		30 dB(A)		35 dB(A)	
	m ³ /h	l/s	m ³ /h	l/s	m ³ /h	l/s
BOR-S-100-SW	38	11	55	15	77	21
BOR-S-125-SW	58	16	78	22	105	29
BOR-S-160-SW	127	35	152	42	180	50

NOTE: The working points were measured with open adjustment damper.

Air flow volume q_v at different A-weighted sound pressure levels L_{pA} with 10m² absorption area

Item	20 dB(A)		25 dB(A)		30 dB(A)	
	m ³ /h	l/s	m ³ /h	l/s	m ³ /h	l/s
BOR-S-100-SW	36	10	51	14	73	20
BOR-S-125-SW	54	15	74	20	99	27
BOR-S-160-SW	122	34	147	41	174	48

NOTE: The working points were measured with open adjustment damper.

Technical Parameters

Legend

$L_{0,2}$ (m) Air throw length with terminal velocity 0,2 m/s

L_x (m) Air throw length calculated for specific terminal velocity

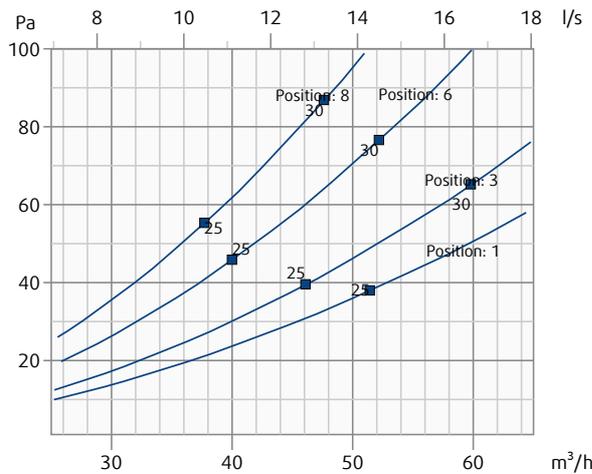
x (m/s) Terminal velocity in range of 0,1 m/s ... 1 m/s

Calculation of Air Throw for Different Terminal Velocities

$$L_x = L_{0,2} \cdot 0,2/x$$

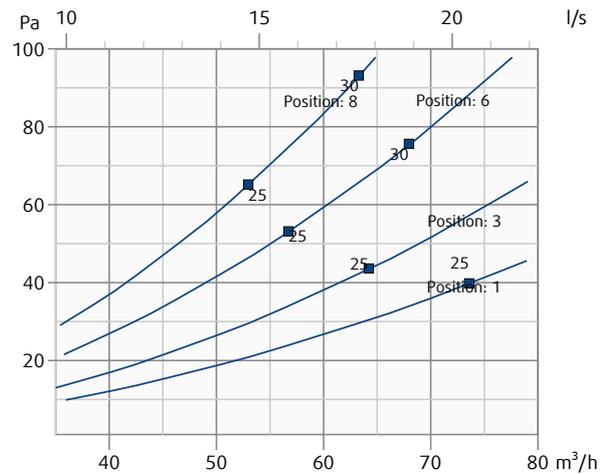
BOR-S-100-SW

Pressure drop & A-weighted sound pressure level (10 m² room absorption, dB(A))



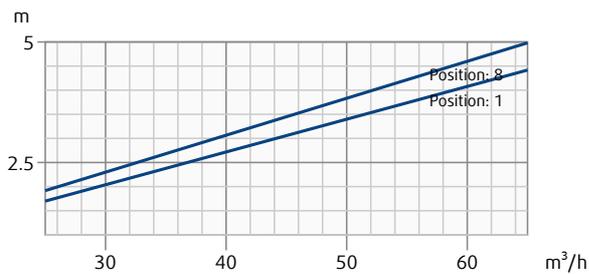
BOR-S-125-SW

Pressure drop & A-weighted sound pressure level (10 m² room absorption, dB(A))



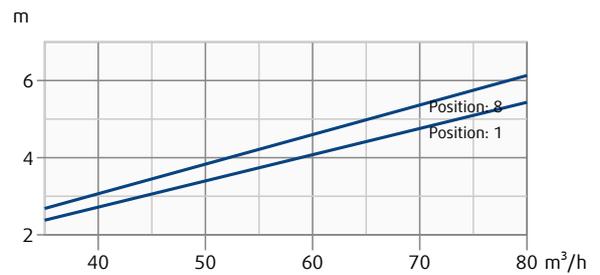
BOR-S-100-SW

Throw length (terminal velocity 0.2 m/s)



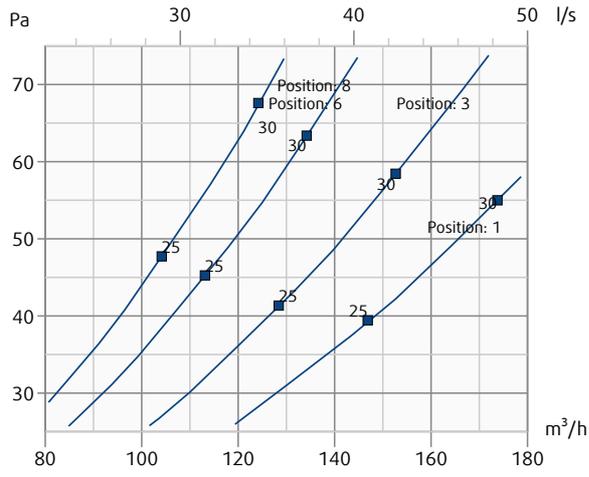
BOR-S-125-SW

Throw length (terminal velocity 0.2 m/s)



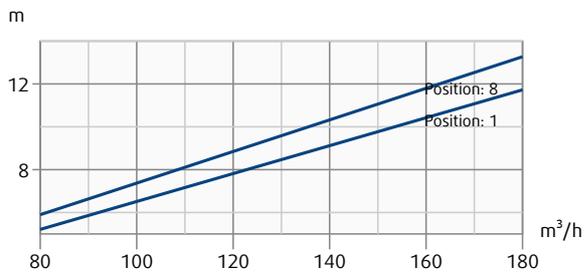
BOR-S-160-SW

Pressure drop & A-weighted sound pressure level (10 m² room absorption, dB(A))



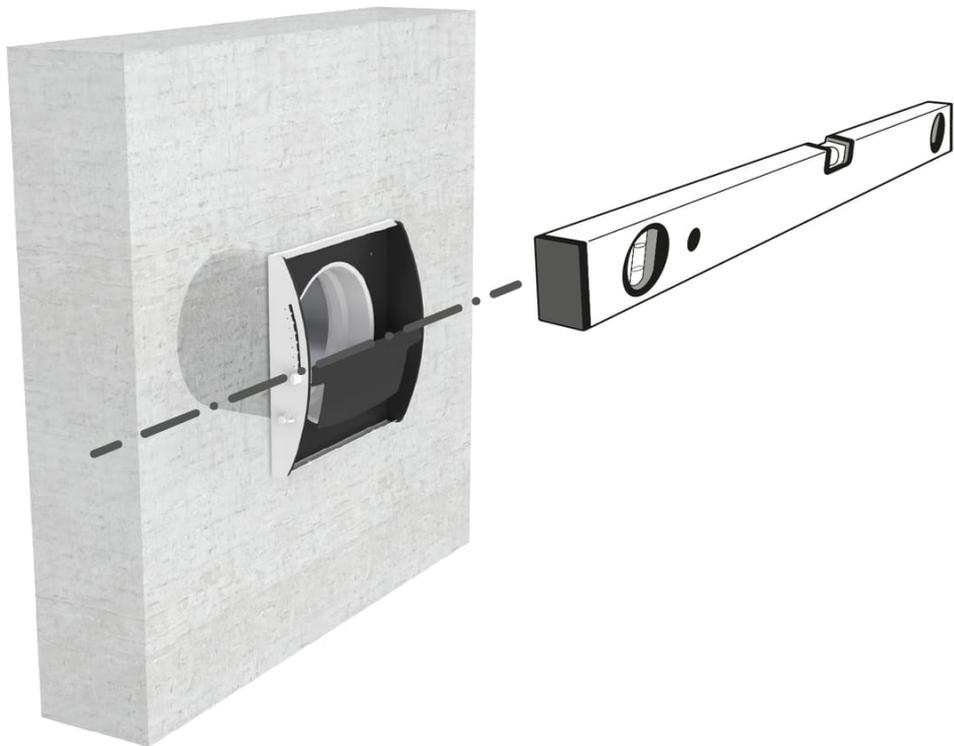
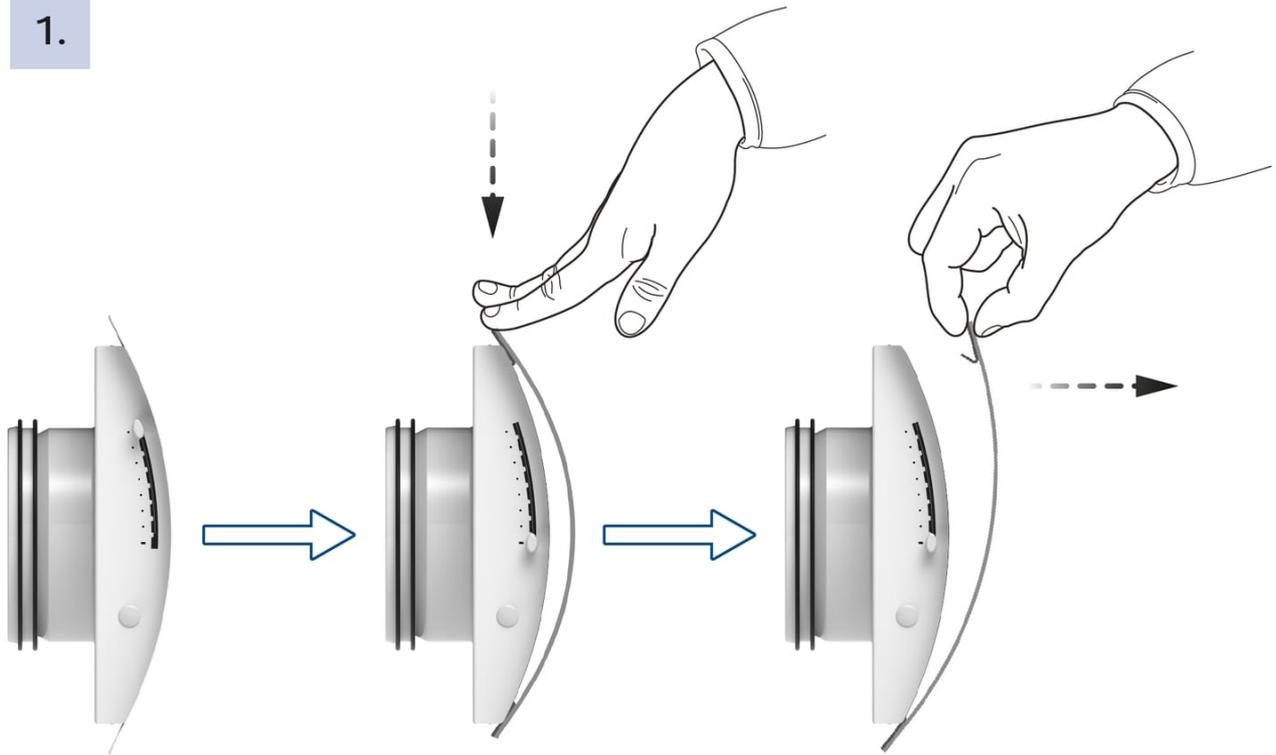
BOR-S-160-SW

Throw length (terminal velocity 0.2 m/s)



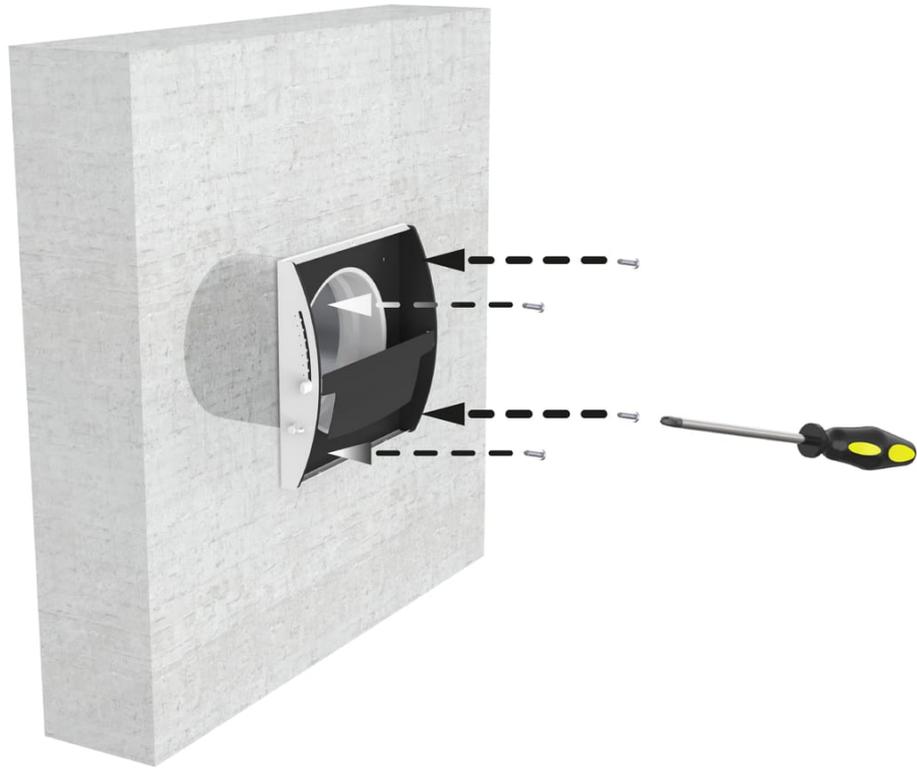
Installation

1.

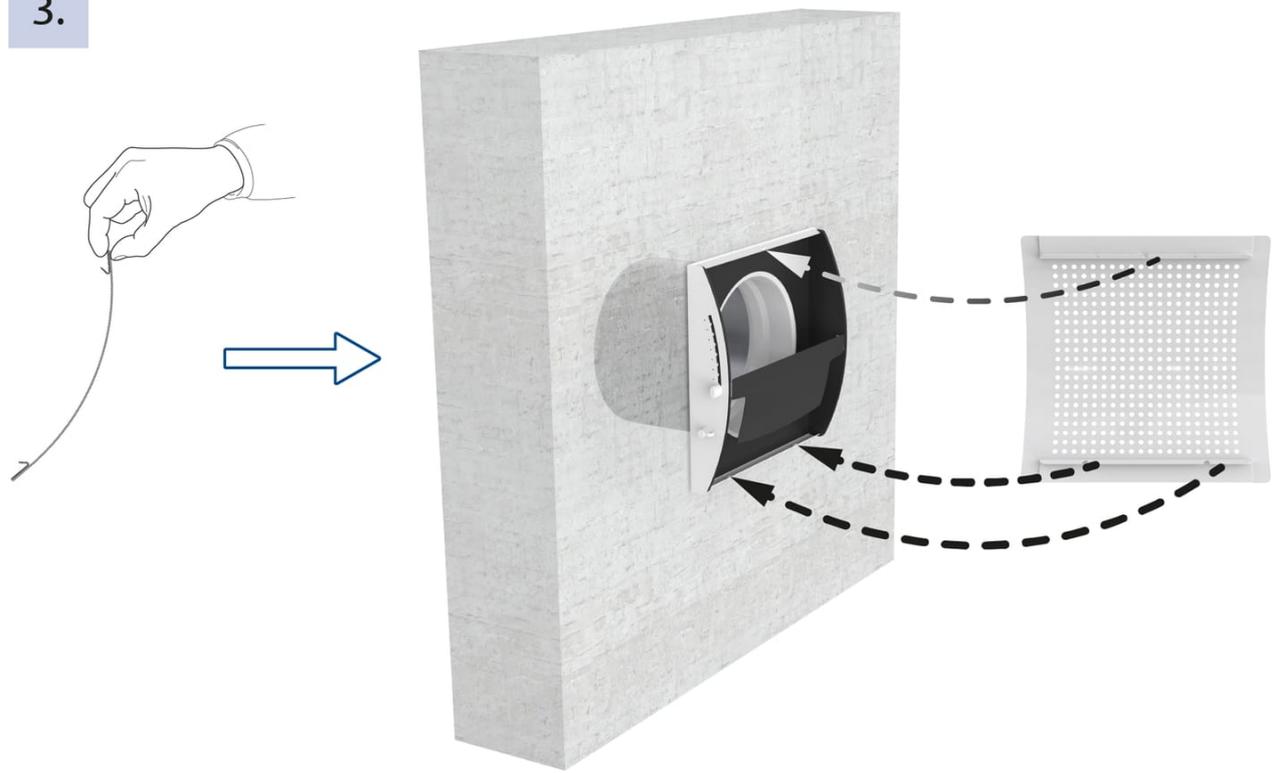


2.

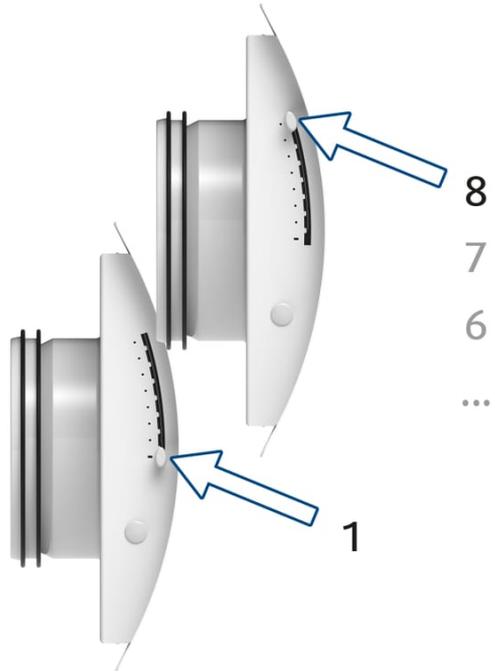
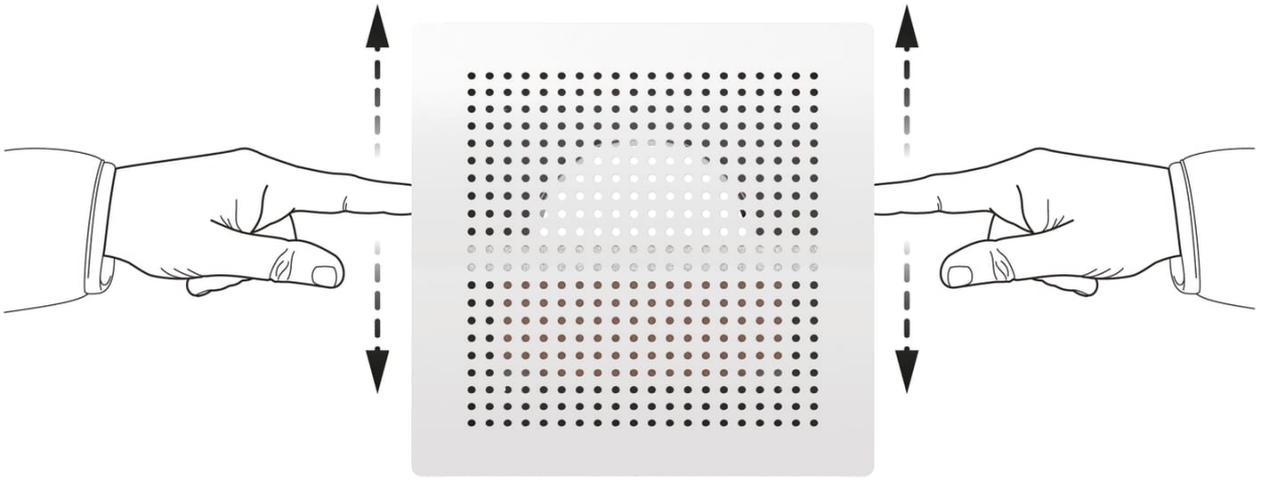
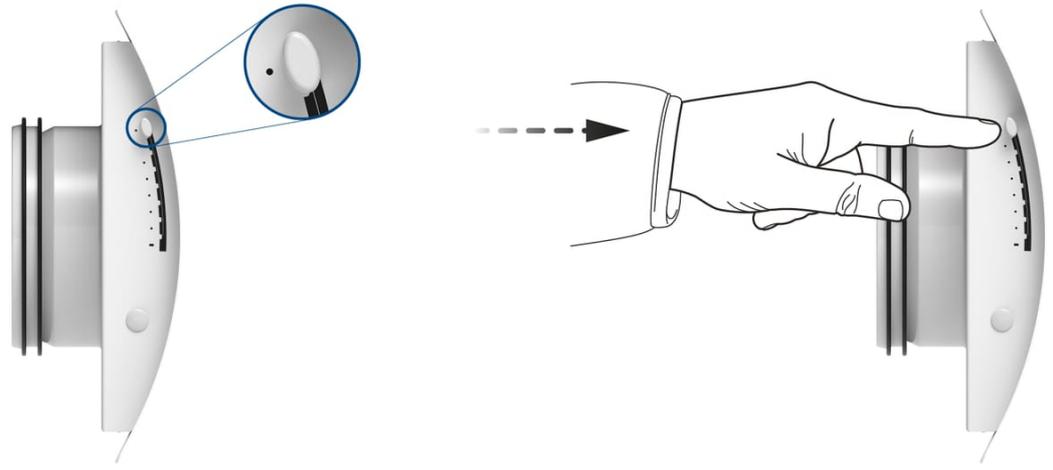
ø 4 mm



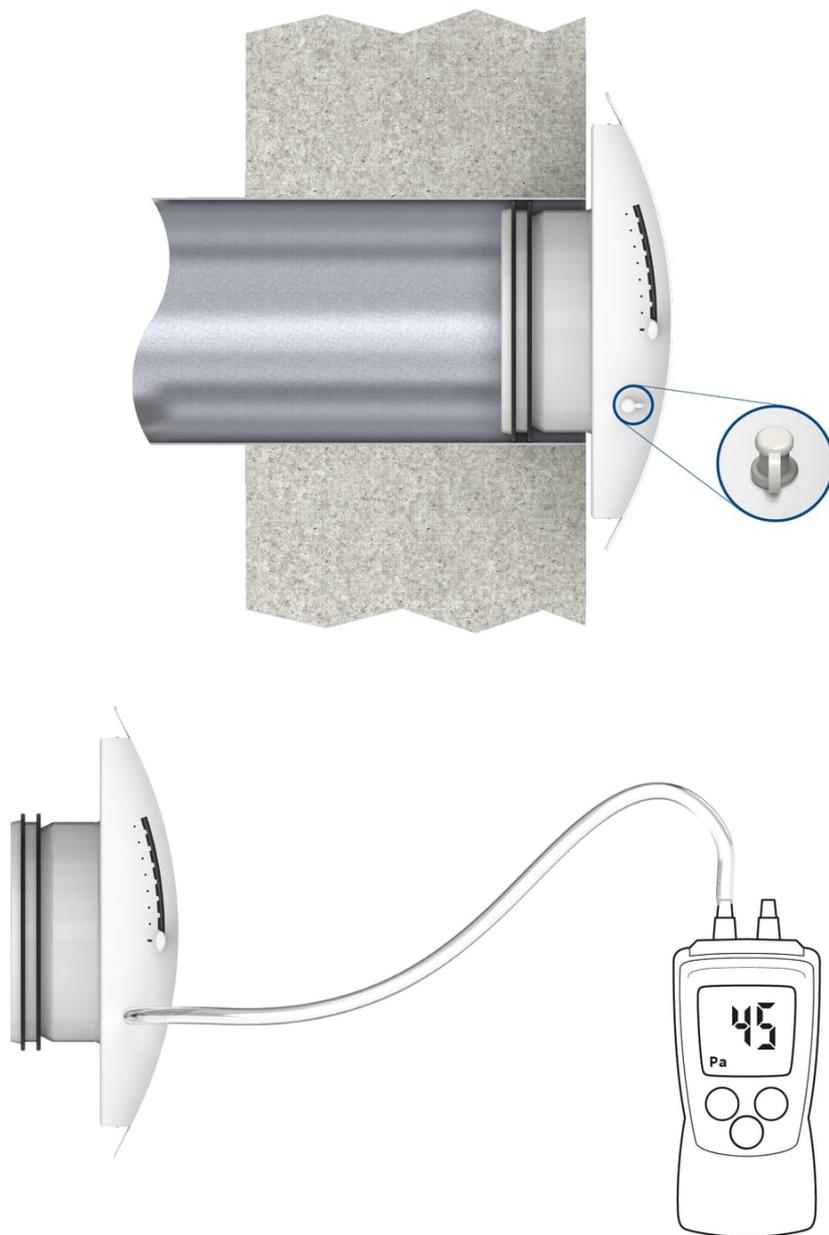
3.



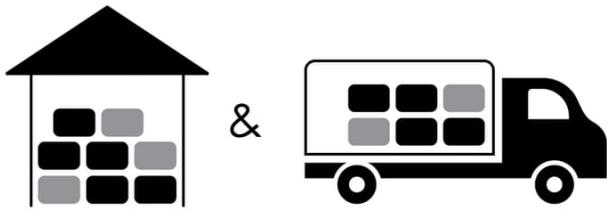
4.



Measuring



Transport, Storage and Operation



 °C -40 °C ... +50 °C

 % ≤ 95%



 °C -20 °C ... +70 °C

 % ≤ 95%

Supplement

Any deviations from the technical specifications contained herein and the terms should be discussed with the manufacturer. We reserve the right to make any changes to the product without prior notice, provided that these changes do not affect the quality of the product and the required parameters. Current information on all products is available on design.systemair.com.



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