

Air Transfer Silencer

RW45[®]



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RW45®



Unique Air Transfer Silencer RW45®



Area of use

REC's air transfer silencer RW45® has a complete solution which meets all acoustic requirements - when there is a demand for high sound attenuation. RW45® comprises a silencer and - for this purpose specifically developed - an air transfer grill for acoustic inner ceilings. RW45® meets crosstalk requirements in the air in all buildings that have up to sound class A.

The duct transfer unit has been developed to provide very good sound attenuation with low pressure drop combined with high mounting flexibility, the air transfer unit offers a very good air flow because of the high free area on the grill unit.

REC's RW45® ensures that you keep the wall requirements for high sound attenuation. RW45® does not affect the total wall R_w and a reduction calculation is therefore not needed.

Can be used in schools, offices, hospitals, medical reception rooms, interrogation rooms, public toilets, laundry rooms and other areas where the wall has sound requirements.

Design

RW45® consists of REC's flexible Aku-Comp A silencer and our acoustic suspended ceiling transfer grill. Thanks to the silencer's flexible construction, there are several installation possibilities.

The unique design of our RW45® makes it very suitable for installation in suspended ceilings.

RW45® is available in two different versions:

TT - Ceiling / Ceiling =

- 1 Aku Comp A 1,2 m
- 1 Aku Comp A 0,6 m
- 2 mounting frames with lock washers
- 2 grilles for suspended ceilings

TV - Ceiling / Wall =

- 1 Aku Comp A 1,2 m
- 1 mounting frame with lock washer
- 1 grille for suspended ceilings with lock washer
- 1 wall diffuser

Material: Aluminum /steel sheet

Finish: White powder coated steel sheet (RAL 9016)

RW45® meets the requirements for non-combustible material, Euro Class A1 according to standard EN 13501-1. It also meets the requirements for air tightness class D.

Corrosivity = C2

Air flow

Up to 60 l/s

Dimension

Ø160 mm.

Standard length

The AKU Comp silencer is flexible and comes compressed but should be extended to its full length for best sound attenuation.

0.25 m extendable to 0.6 m.

0.55 m extendable to 1.2 m.

Maximum operating temperature

+80°C.

Care

Clean the transfer grilles when necessary, using lukewarm water and a detergent.

When ordering, please state

Air Transfer Silencer

RW45® - TV - 160

Product

TT / TV

Dimension

Sound-transmission class

RW45® is a complete air transfer solution with high total sound reduction measured according to ISO 1:717, 1:140. RW45® is suited for mounting in suspended ceilings. Ensures the premises' sound class A, B, C or D in accordance with SS-EN 025267. Below you find the reduction values R , L_w and R_w – the value for RW45® refers to 1 m² transmission area.

RW45® – TT (Ceiling / Ceiling) – Ø125 mm

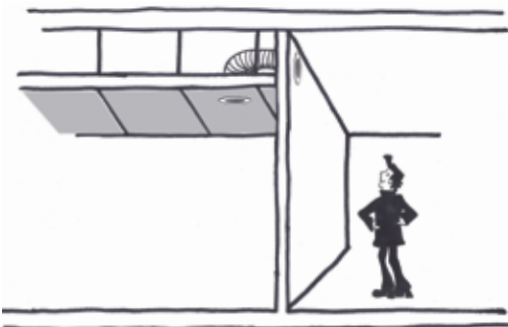
Attenuation mid frequency (Octave band) Hz Sound power L _w									R _w /1 m ²
Hz	63	125	250	500	1000	2000	4000	8000	51
Lw	11	17	26	20	41	39	33	31	
R – mid frequency (Octave band) Hz									
R	28	34	43	38	58	56	50	47	



RW45® – TV (Ceiling / Wall) – Ø125 mm

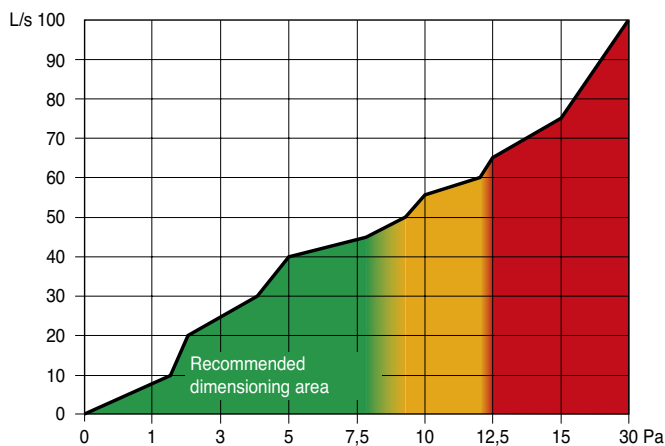
Attenuation mid frequency (Octave band) Hz Sound power L _w									R _w /1 m ²
Hz	63	125	250	500	1000	2000	4000	8000	
Lw	7	7	18	20	43	38	12	11	
R – mid frequency (Octave band) Hz									
R	24	24	35	37	60	55	29	28	

If the units are installed in a concrete wall or a wall penetration pipe of steel/plastic is used, R and R_w attenuation drop by 8-12.



Dimensioning

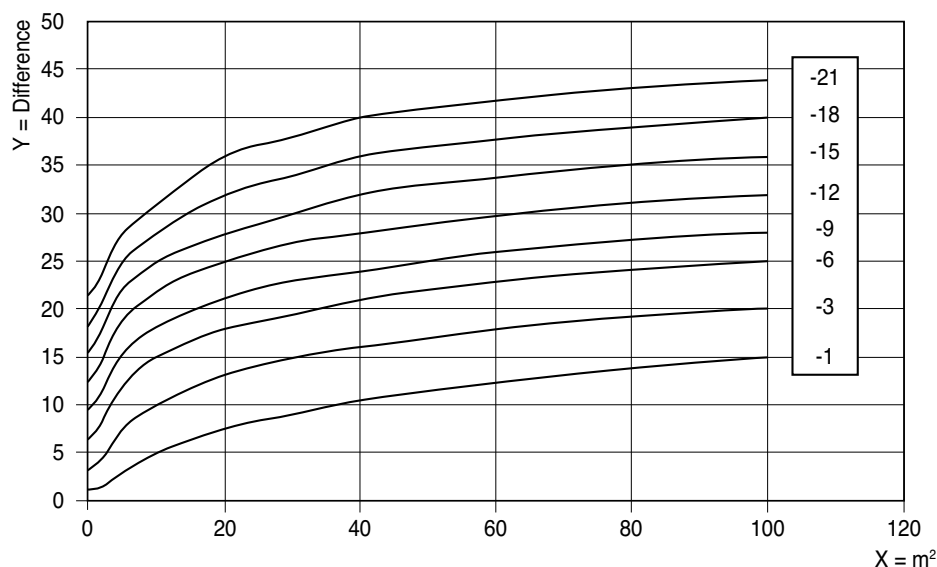
RW45® Ø160 mm



R_w reduction chart

The reduction chart below tells you how much the wall's "total R_w value" decreases after installation of for example an RW45®. However, if the given R_w for your building element (RW45®) is higher than the wall R_w , there will be no reduction. Generally speaking, the aim is to have as high R_w value for all building parts as possible.

REC's RW45® affects the total wall R_w marginally and a reduction calculation is not needed.



X. Wall surface area in relation to / Area RW45®Ø (Reference area RW45® 1 m²)

Y. Difference R_w (Wall) - R_w air transfer duct (RW45®)

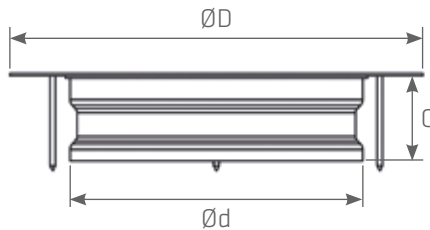
Generally, the R_w sound class of the wall is determined by reducing every wall part element's R_w -value like doors, windows, air transfer grilles or other sub-elements from the total R_w wall surface.

The R_w value is obtained by weighting the reduction values received from measuring the noise reduction by one third octave band and the frequencies from 100-3150 Hz to a reference curve according to ISO 1: 717, referring to 1 m² transmission area.

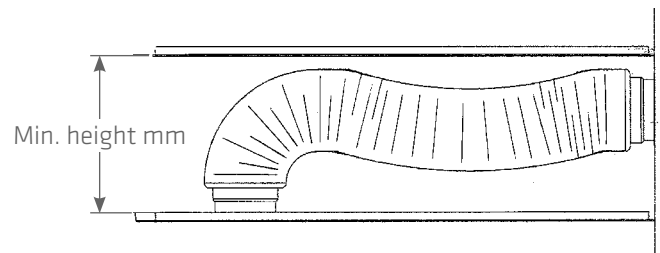
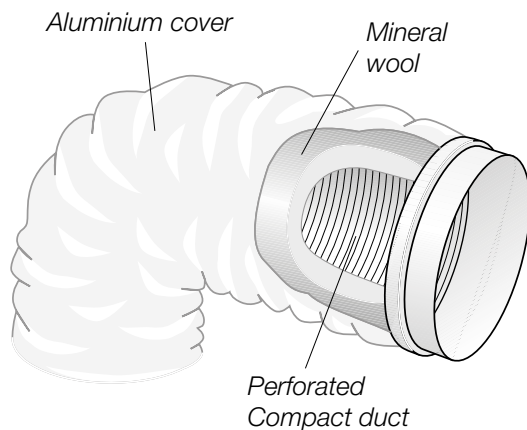
As you can see from the sound attenuation table on page 3, the sound attenuation is R_w 51/1 m² for RW45® -CC, and R_w 41/1 m² for RW45® -CW. Note the minimum requirement of at least 1 dB reduction (EN 12354).

When installing more than one air transfer unit, each additional air transfer unit will reduce the R_w value as shown in the above table.

Weight and Measures



Size	ØD (mm)	Ød (mm)	C (mm)
160	250	158	36



Size	Min. height (mm)
160	330

Standard lenght:

0,25 m – Flexible length to 0,6 m.

0,55 m – Flexible length to 1,2 m.

AMA text

RW45® is described as follows in Swedish "AMA" (AB Svensk Byggtjänst's "Guidance for the preparation of particular conditions for Building and Civil Engineering Works and Building Services Contracts").

QMD.1 AIR TRANSFER UNIT, WALL MOUNTED

ODXX- X number

Manufacturer: REC Indovent AB

Type: RW45® TV (Ceiling / Wall)

RW45® TT (Ceiling / Ceiling)

Flexible silencer for air transfer between rooms. Negligible impact on the wall's total R_w . Meets crosstalk requirements for air transfer in all buildings up to sound class A.

RW45® TV (Ceiling / Wall) - Sound class R_w 51/1 m²

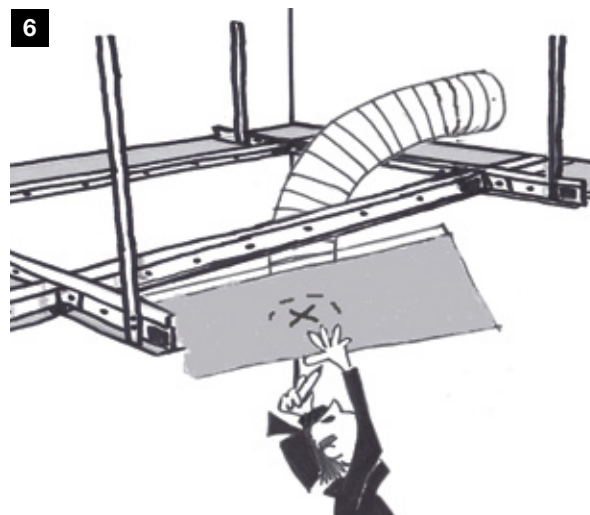
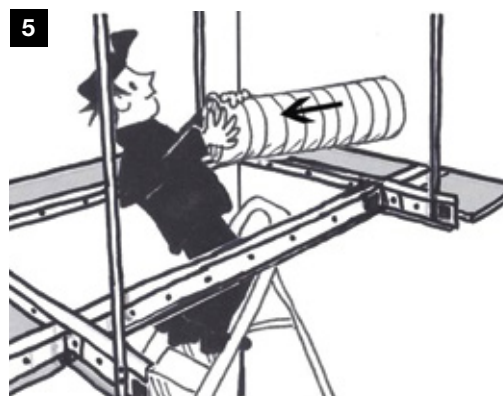
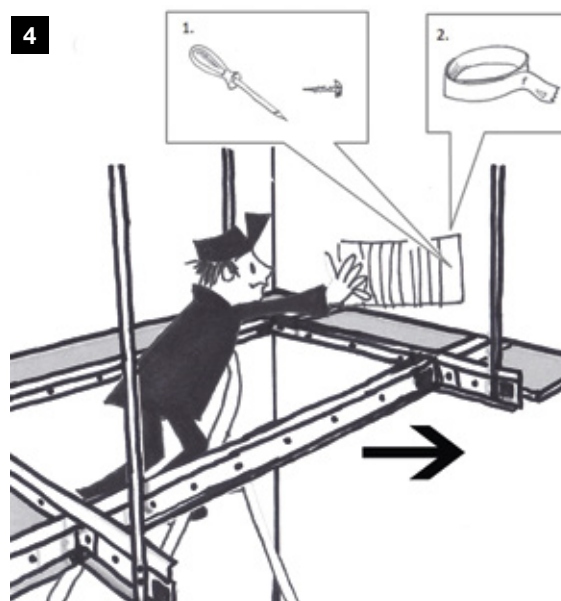
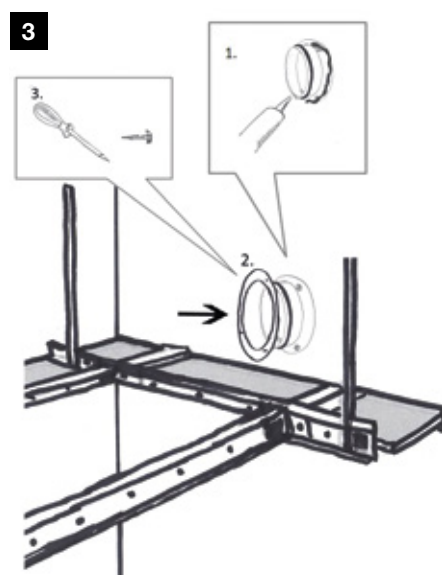
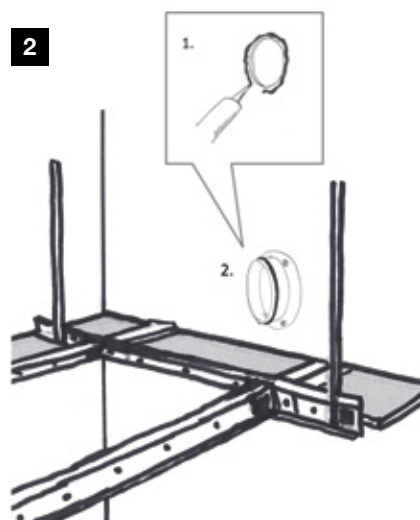
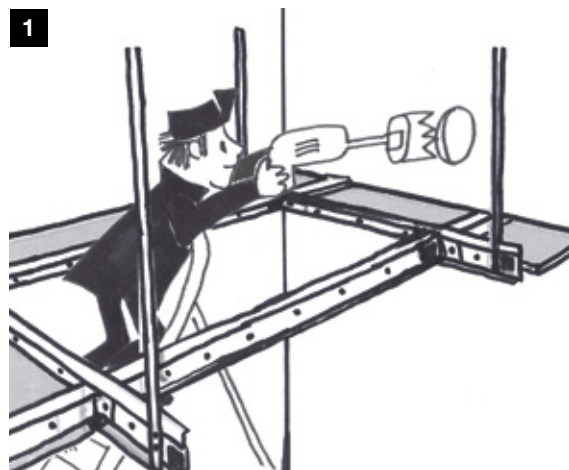
RW45® TT (Ceiling/Ceiling) - Sound class R_w 51/1 m²

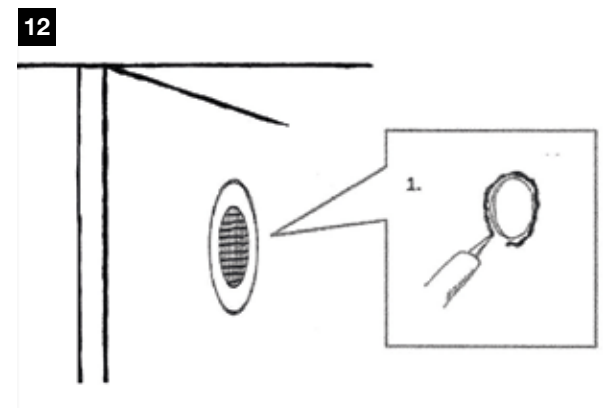
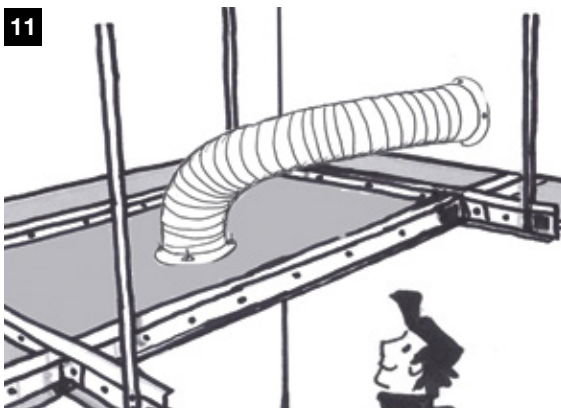
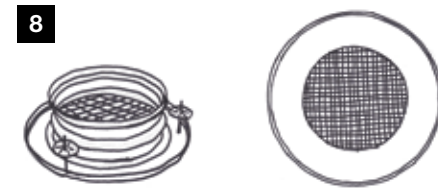
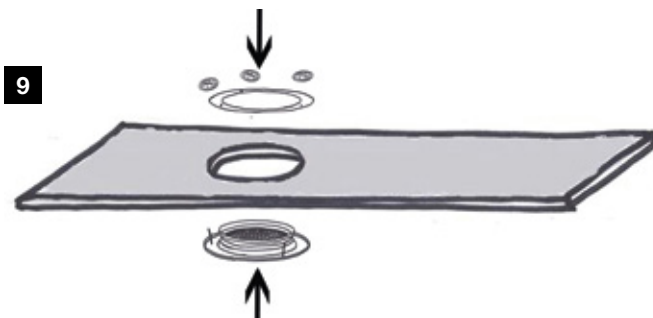
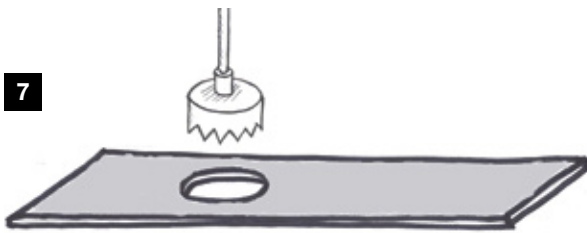
Air flow: Up to 60 l/s

Pressure drop: Up to 12 Pa

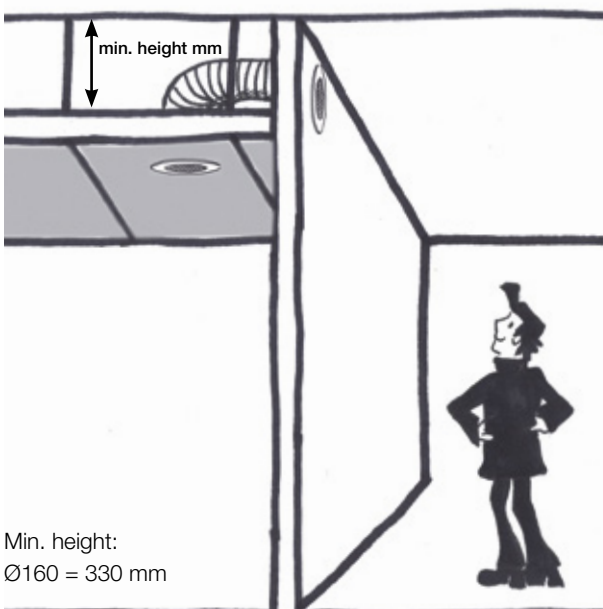
Size: Ø160 mm

Installing RW45®

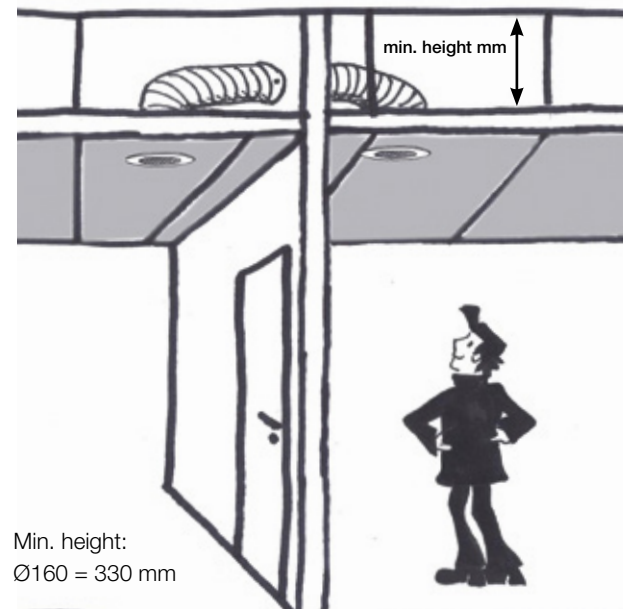




TV - Ceiling / Wall = 1-12



TT - Ceiling / Ceiling = 1-11 (x2)





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Experts on indoor climate in low-energy houses

Medlem i



Svensk Ventilation

Bransch i samverkan

A member of Svensk Ventilation
(REC is a member of this Trade organization)

*REC Indovent AB reserves the right to make alterations to
specification and construction without prior notification.*

REC Indovent AB

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Certified acc. to ISO 9001/14001