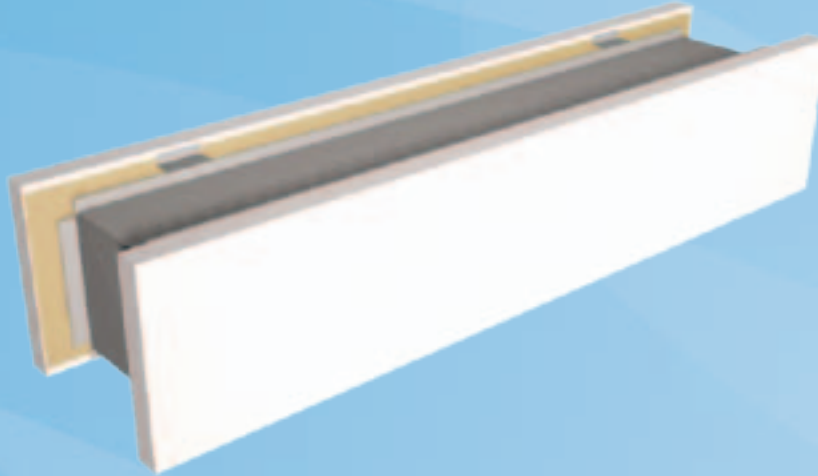


TVA

Transfer Unit



- Transfer unit for partition wall installation
- Adjustable casing depth adapts to the thickness of the wall
- Large free area, minimal pressure drop
- Detachable front panel allows cleaning of the unit

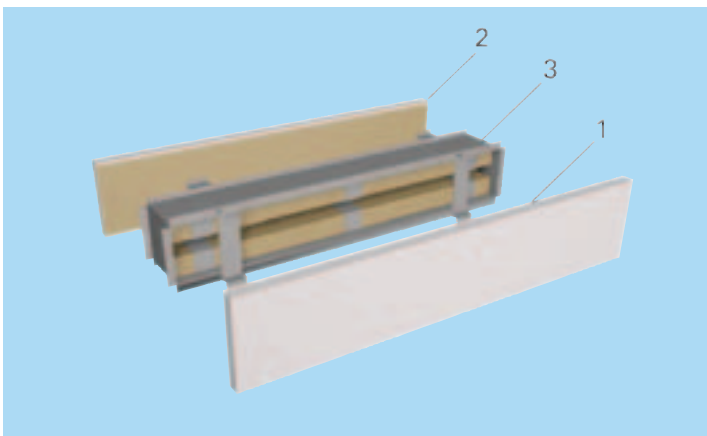
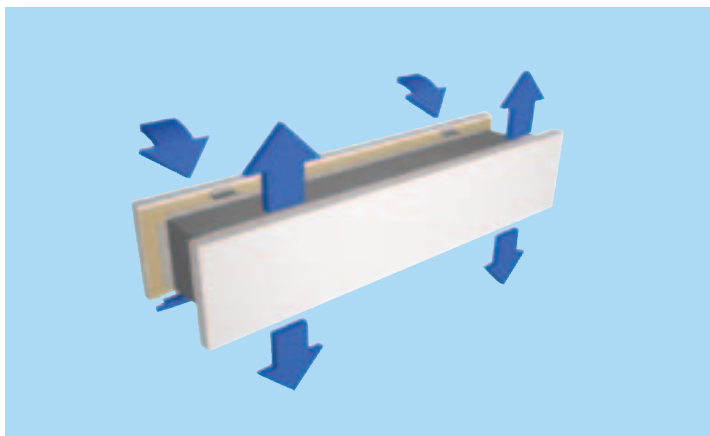
- Effective sound attenuation; reduced noise propagation between the adjacent rooms
- No visibility through the transfer unit

Product Models

- Model with front panels only

MATERIAL AND FINISHING

PART	MATERIAL	NOTE
Casing	Galvanised steel	
Front panel	Galvanised steel	
Attenuation material	Mineral wool	
Finishing	Front panels epoxy-painted/White RAL 9010	Special colours available



Function

Air moves to adjoining rooms through the transfer unit due to pressure difference.

The transfer unit attenuates sound and reduces air-borne noise between rooms.

The transfer unit distributes air evenly in different directions.

The transfer unit prevents vision from room to room.

Installation

CODE DESCRIPTION

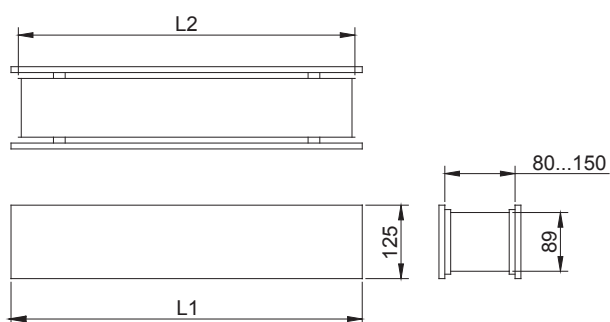
1, 2	Front panels
3	Casing

The transfer unit is installed in an opening made in a wall. The dimensions for installation holes are:

	TVA	TVA-B
Installation hole	$(L2+5) \times 95$ mm	$(L2+5) \times 30 \dots 60$ mm
Wall thickness	80...150 mm	unlimited

The two models are identical in appearance when installed.

DIMENSIONS



LxH	L1	L2
600x100	600	545
700x100	700	660
800x100	800	760
900x100	900	860
1000x100	1000	960

Product Models

- TVA/N: complete unit with 2 front panels and attenuation casing

- TVA/B: front panels without casing, when less sound attenuation are required.

SOUND ATTENUATION

	ΔL [(dB) f [Hz]]					
	125	250	500	1000	2000	4000
TVA-600x100	20	19	17	26	38	39
TVA-700x100	19	19	16	26	37	38
TVA-800x100	17	18	16	26	36	37
TVA-900x100	16	17	15	26	34	37
TVA-1000x100	15	16	14	25	33	37

	ΔL [(dB) f [Hz]]					
	125	250	500	1000	2000	4000
TVA/B-600x100	18	21	17	22	31	36
TVA/B-700x100	17	20	16	21	31	35
TVA/B-800x100	16	19	15	20	30	34
TVA/B-900x100	15	18	14	19	30	33
TVA/B-1000x100	14	17	13	19	29	33

The unit attenuation D_1 is calculated in accordance with Nordtest method NT ACOU 037. The total attenuation of the wall in each frequency band can be calculated using this formula :

$$R_p = 10 \times \log \left(\frac{S}{S \times 10^{-R/10} + 10^{-D_1/10}} \right)$$

R_p = total attenuation of wall in considered frequency band (dB)

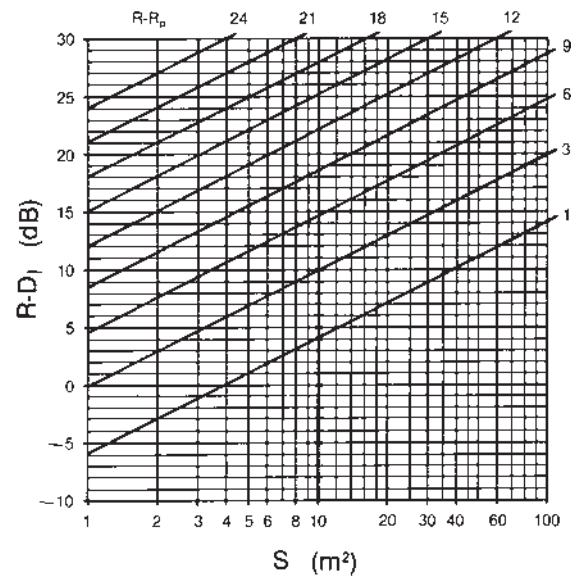
S = wall area (m²)

R = attenuation of wall in considered frequency band without transfer unit (dB)

D_1 = attenuation of transfer unit in considered frequency band (dB)

This formula is valid when the area of the transfer unit is less than 15% of the wall area. The total attenuation of the wall in each frequency band may also be obtained from the chart.

WALL SOUND ATTENUATION



Example

TVA 800x100

Frequency band : $f = 1000$ Hz

Wall area : $S = 10$ m²

Attenuation of the wall : $R = 40$ dB ($f=1000$ Hz)

Unit attenuation : $D_1 = 26$ dB ($f=1000$ Hz)

$$R_p = 10 \times \log \left(\frac{10}{10 \times 10^{-40/10} + 10^{-26/10}} \right) = 34,5 \text{ dB}$$

or from the chart :

$$R-D_1 = (40-26) \text{ dB} = 14 \text{ dB}$$

$$R-R_p = 5,5 \text{ dB}$$

$$R_p = R - 5,5 = 40 - 5,5 = 34,5 \text{ dB}$$

Servicing

Detach the front panels for cleaning.
 Clean the unit using a vacuum cleaner.
 Wipe the front panels with a damp cloth instead of immersing into water.

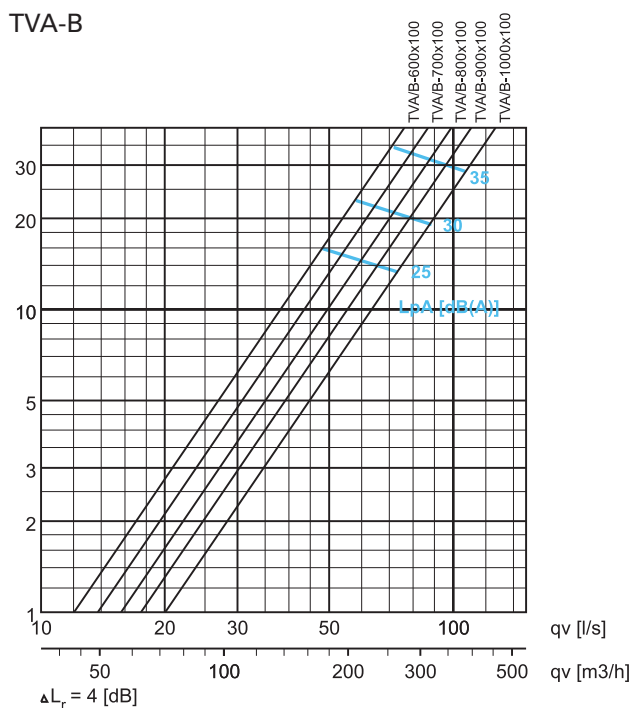
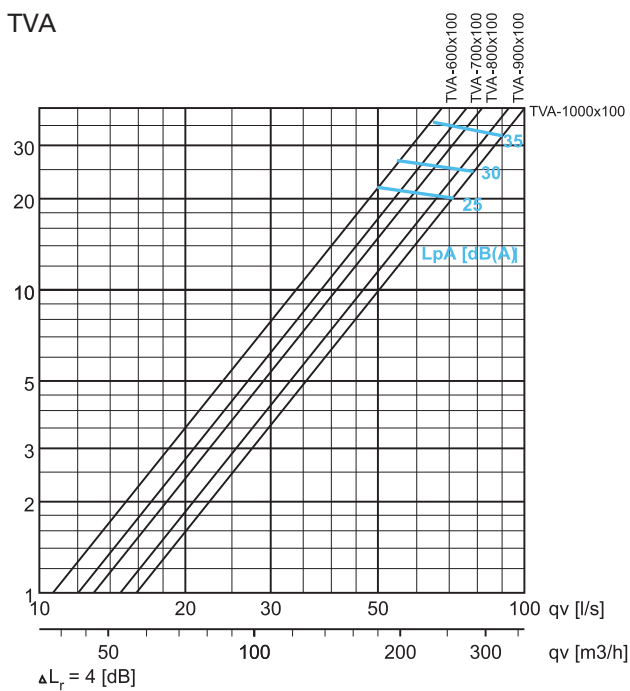
Suggested Specifications

The transfer unit shall have a sound attenuating casing and two exposed front panels with side openings.
 The transfer unit shall be manufactured from hot galvanised steel with a white (RAL 9010) colour.
 Sound attenuation material shall be coated mineral wool.
 The depth of the casing shall be adjustable according to the thickness of the wall.

Option

The transfer unit shall have two exposed front panels without casing.

Pressure drop and sound data



Product Code

TVA/S-W-H

S = Construction

- N Standard (front panels + casing)
- B Front panels without casing

W = Width

- S=N: 600, 700, 800, 900, 1000
- S=B: 300, 400, 500, 600, 700, 800, 900

H = Height

100

Specifics and accessories

CO = Colour

- W White
- X Special colour

Code example

TVA/N-600-100, CO=W