



Overflow Box

AUDIX[®]-ÜSG



Ferdinand Schad KG
Steigstraße 25-27
D-78600 Kolbingen
Telephone +49 (0) 74 63 - 980 - 0
Fax +49 (0) 74 63 - 980 - 200
info@schako.de
www.schako.de

Overflow Box Model AUDIX®-ÜSG

Contents

Description	3
Construction	4
Model	4
Accessories	4
Fastening for the cover grilles	4
Models and dimensions	5
Dimensions	5
Dimensions of accessories	6
Fastening methods	6
Technical Data	7
Pressure loss	7
Legend	8
Order details	9
Specification texts	10

Overflow Box Model AUDIX®-ÜSG

Description

Modern office buildings are often built without suspended ceiling systems. This opens a saving potential regarding the floor heights. This means that the same building height can accommodate more floors.

To provide the possibly cheapest office space creates conflicts with the demand for comfort. Therefore, to reduce the room temperature partly construction cooling systems are used for the ground load cooling.

According to the thermal isolation regulations, an air conditioning installation is demanded for dense facades, to prevent building damage and mould fungus. The necessary supply and return air ducts are preferably installed between the false ceiling in the corridors. In doing so, the main ducts and the connection lines for each room are installed in the smallest possible space.

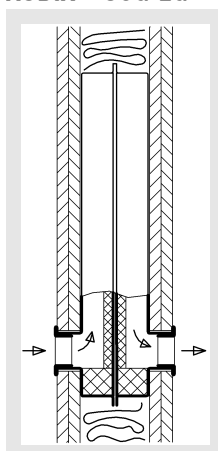
The overflow box has been developed for this application

. The integrated silencer performs the same function as the cross-talk sound attenuators previously inserted separately in the duct system, for which rarely enough space is available. Thus, the AUDIX®-ÜSG effectively prevents the transmission of cross-talk sound.

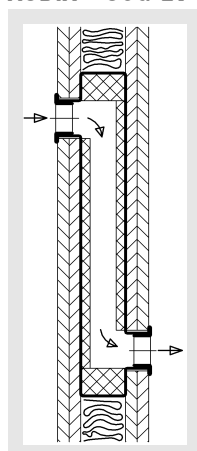
The AUDIX®-ÜSG overflow box reduces the installation costs, as an additional cross-talk sound attenuator is not required. The dimensions of the AUDIX®-ÜSG overflow box have been adjusted to the requirements in dry building and can be fitted completely into partition walls, thus facilitating the cooperation between the dry builders and the air conditioning installers and saving assembly time. As an accessory, there are covers for the opening made of galvanised sheet steel available, which can be fitted during the building phase to avoid soiling of the box.

The overflow box with the integrated silencer is made of galvanised sheet steel and an inner lining of special sound absorbing plates, which are laid out in a reverse labyrinth. To give the overflow box an elegant finish, a cover frame is included which can be fitted to the box by means of a clamp mounting device. This will also cover up any gap that may exist between the wall and the diffuser.

AUDIX®-ÜSG-LG



AUDIX®-ÜSG-LV



Advantages:

- Prevents air from entering or escaping from the dry wall construction filled with mineral wool, thus creating a hygienically safe overflow.
- Mounting brackets facilitate mounting, allowing it to be mounted by the RLT or dry builders.
- The angled connecting piece facilitates mounting of the gypsum plasterboard by the dry builders.
- Excellent sound absorbing properties
- Acoustic insulating panels of construction material class B1 (slightly flammable to DIN 4102, standard) or construction material class A2 (non-flammable to DIN 4102) (at extra cost).

Standardised sound level difference $D_{n,e}$ (according to DIN EN ISO 20140-10)

L=500	H	$D_{n,e}$ (dB)							
		f_m (Hz)							
		63	125	250	500	1000	2000	4000	8000
350	25	48	40	45	45	52	58	59	
450	26	49	45	49	52	54	63	59	

Normalised sound level difference single-number rating

$D_{n,e,w}$

(according to DIN EN 717-1)

L=500	H	$D_{n,e,w}$ (dB)
350		48
450		52

Weighted sound reduction index R_w (according to DIN 4109)

L=500	H	R_w (dB)
350		20
450		24

Installation of the AUDIX®-ÜSG in the wall reduces the resulting weighted sound reduction index (R_{wRes}). This reduction can be calculated as specified by DIN 4109.

Reference area

L	500
A m ²	0,019

Overflow Box Model AUDIX®-ÜSG

The hygiene requirements according to VDI 6022 must be observed.

4.1.2 Prior to and during mounting, the openings must be secured against entry of site dust and humidity.

- Cover ÖA

4.3.8 Air diffusers must be easy to clean. No fibres must enter the room air.

- Insulating panel without fibre content, no abrasion

5.4.7 To be checked and cleaned regularly

- Easy access to the openings is obtained by simply taking off the cover grilles. Clean by applying vacuum.

Construction

Housing

- Galvanised sheet steel
- Insulating strips against structure-borne noise on the outside

Insulation

- On both sides 10 mm of insulating material, formed as reverse
- Acoustic insulating panels of construction material class B1 (standard) or construction material class A2 (non-flammable to DIN 4102)

Cover frame

- Sheet steel painted to the RAL colour 9010 (white)

Cover grille

- Sheet steel painted to RAL 9010 (white)
- optionally FQ=43% / 46% / 70%

Model

AUDIX®-ÜSG-LG - Overflow box with ventilation openings of equal height and 2 cover frames on both sides

AUDIX®-ÜSG-LV - Overflow box with offset ventilation openings and 2 cover frames on both sides

AUDIX®-ÜSG-...-AB... - with cover frame on one side / cover grille on one side

AUDIX®-ÜSG-...-AA... - with cover grille on both sides

Accessories

Cover (-ÖA)

- Galvanised sheet steel

Box neck extension (-KHV)

- for wall thicknesses >100 mm (-LV) or > 125 mm (-LG) up to max. 260 mm

Mounting bracket

Fastening for the cover grilles

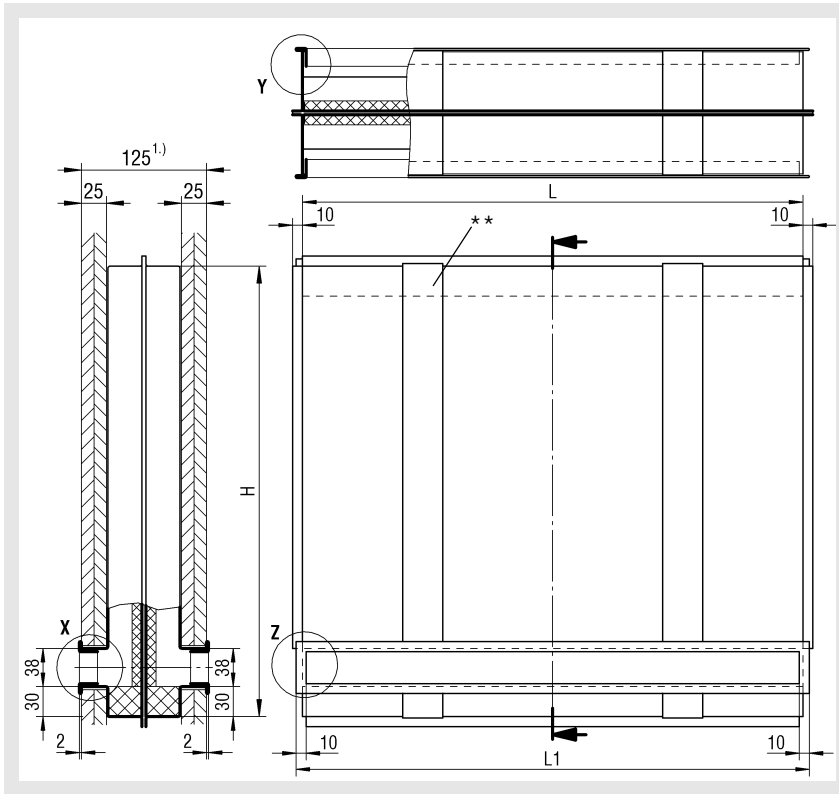
Clamp mounting

- for concealed mounting or dismounting

Overflow Box Model AUDIX®-ÜSG

Models and dimensions

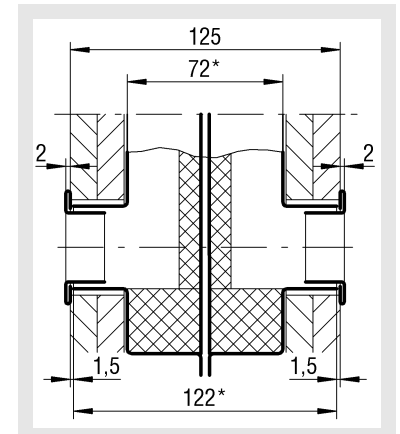
Dimensions AUDIX®-ÜSG-LG



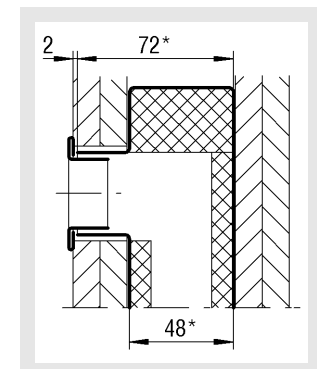
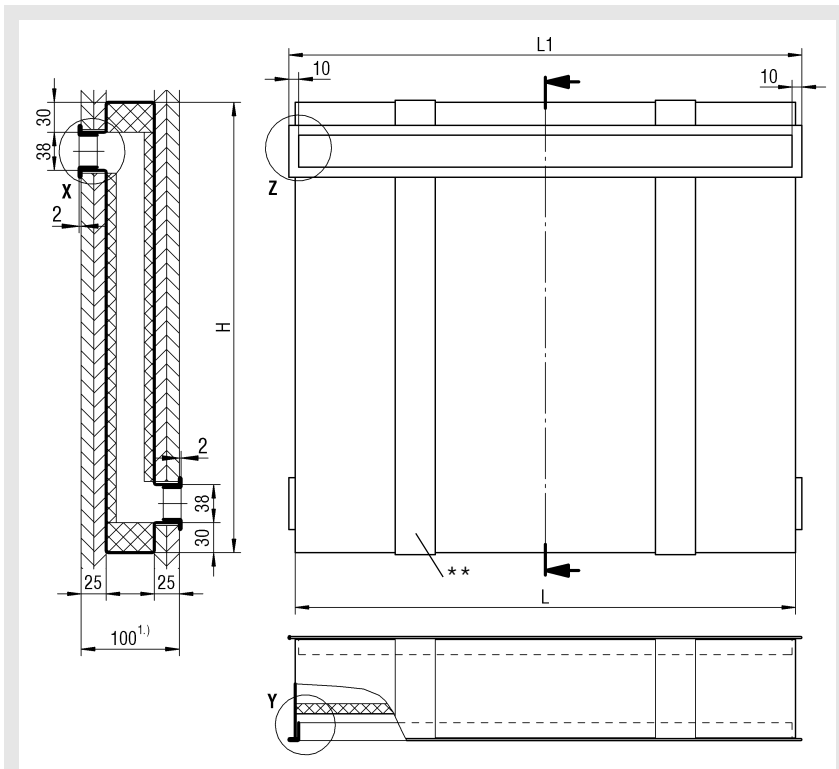
Available sizes

H	L	L1
350	500	513
450	1000	1013

All combined lengths and heights available!



AUDIX®-ÜSG-LV



* Dimension for overflow box
** Structure-borne noise insulation

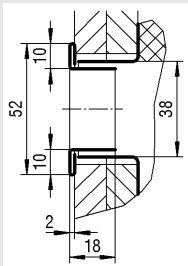
1.) For wall thicknesses >125 mm (-LG) or > 100 mm (-LV), a box neck extension up to max. 260 mm is required.

Overflow Box Model AUDIX®-ÜSG

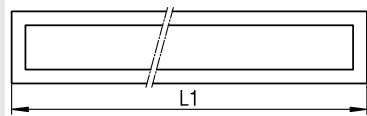
Models

with cover frame

Detail X

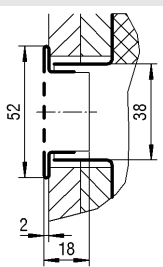


Detail Z



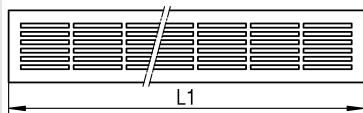
with cover grille

Detail X

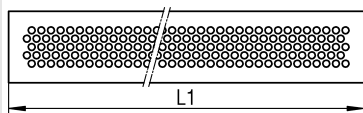


Detail Z

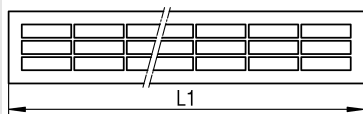
FQ=43% (-AB43/AA43)



FQ=46% (-AB46/AA46)



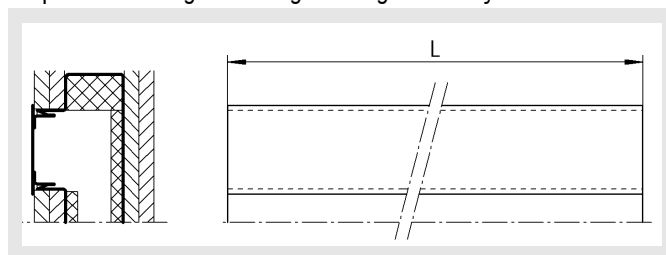
FQ=70% (-AB70/AA70)



Dimensions of accessories

Cover (-ÖA)

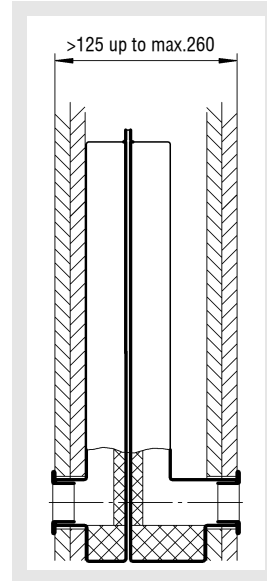
To prevent soiling or damage during assembly.



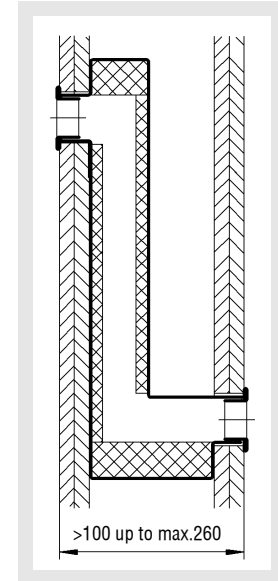
L
500
1000

Box neck extension (-KHV)

AUDIX®-ÜSG-LG-KHV



AUDIX®-ÜSG-LV-KHV

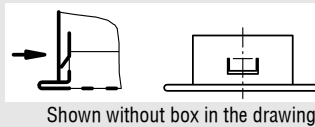


Fastening methods

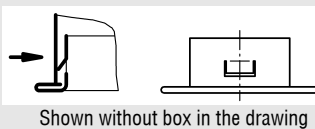
Clamp mounting

Detail Y

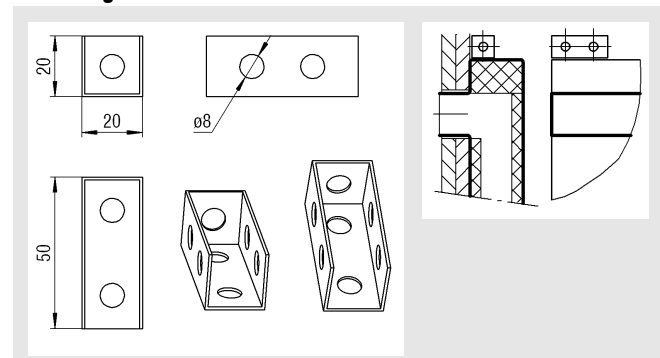
Cover grille



Cover frame



Mounting bracket



Assembly instructions:

see brochure AUDIX® Assembly instructions

Overflow Box Model AUDIX®-ÜSG

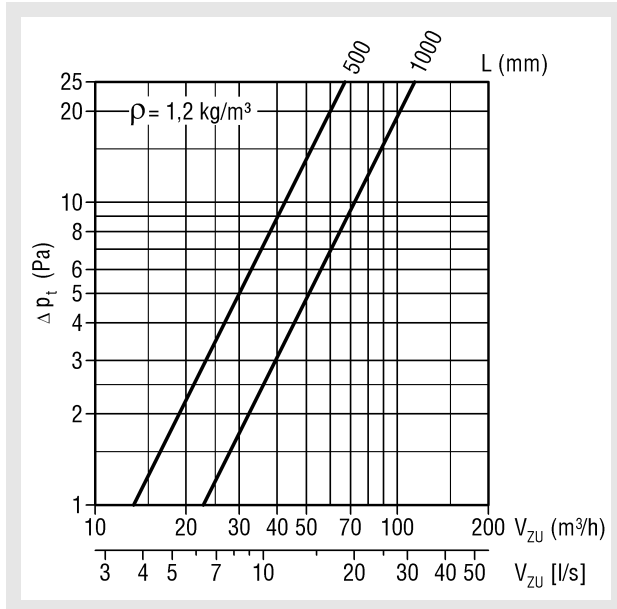
Technical Data

Pressure loss

AUDIX®-ÜSG-LG/-AB43/-AB46

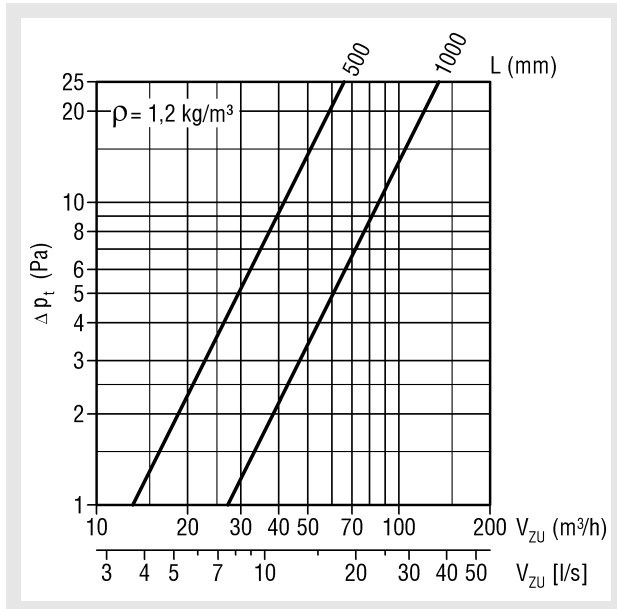
Cover frame on both sides

Cover grille on one side FQ=43% / FQ=46% and cover frame on one side



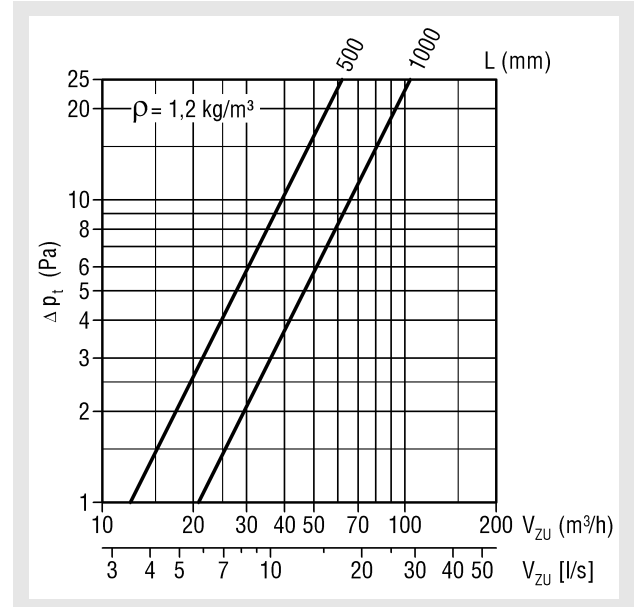
AUDIX®-ÜSG-LG-AB70

Cover grille on one side FQ=70% and cover frame on one side



AUDIX®-ÜSG-LG-AA43 /-AA46 /-AA70

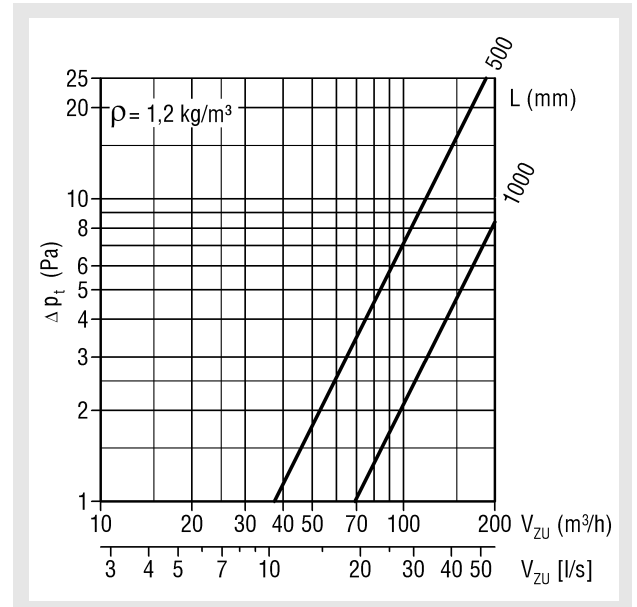
Cover grille on both sides FQ=43% / FQ=46% / FQ=70%



AUDIX®-ÜSG-LV /-AB70

Cover frame on both sides

Cover grille on one side FQ=70% and cover frame on one side

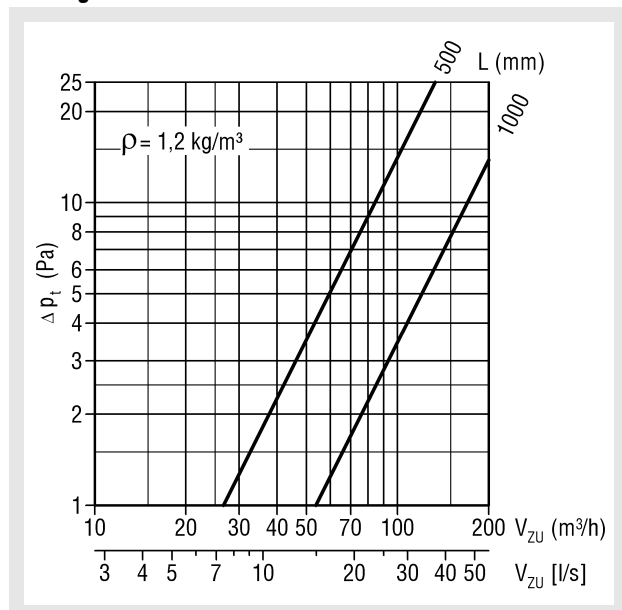


Overflow Box Model AUDIX®-ÜSG

AUDIX®-ÜSG-LV-AB43 /-AB46 /-AA46

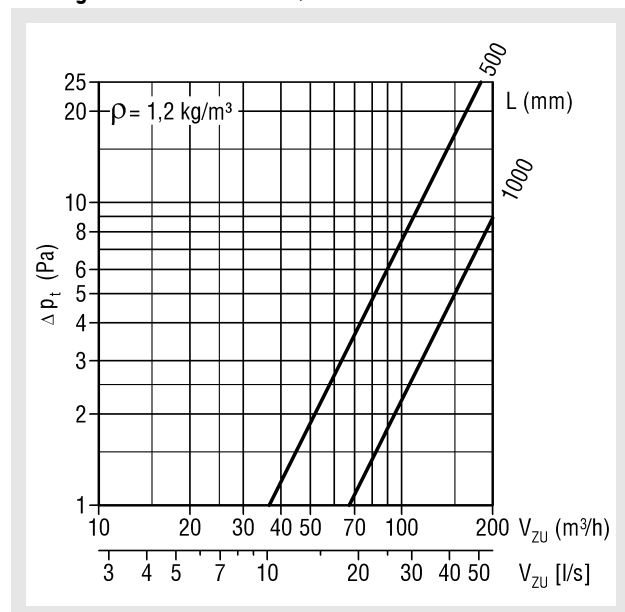
Cover grille on one side FQ=43% / FQ=46% and cover frame on one side

Cover grille on both sides FQ=46%



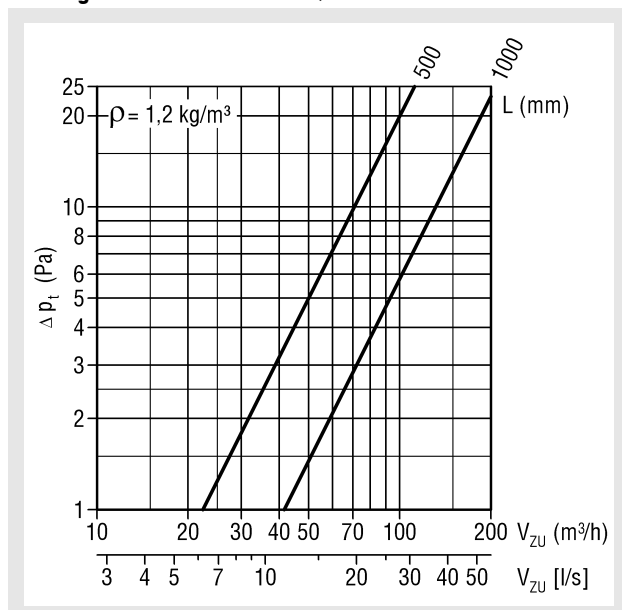
AUDIX®-ÜSG-LV-AA70

Cover grille on both sides FQ=70% and cover frame on both sides



AUDIX®-ÜSG-LV-AA43

Cover grille on both sides FQ=43%

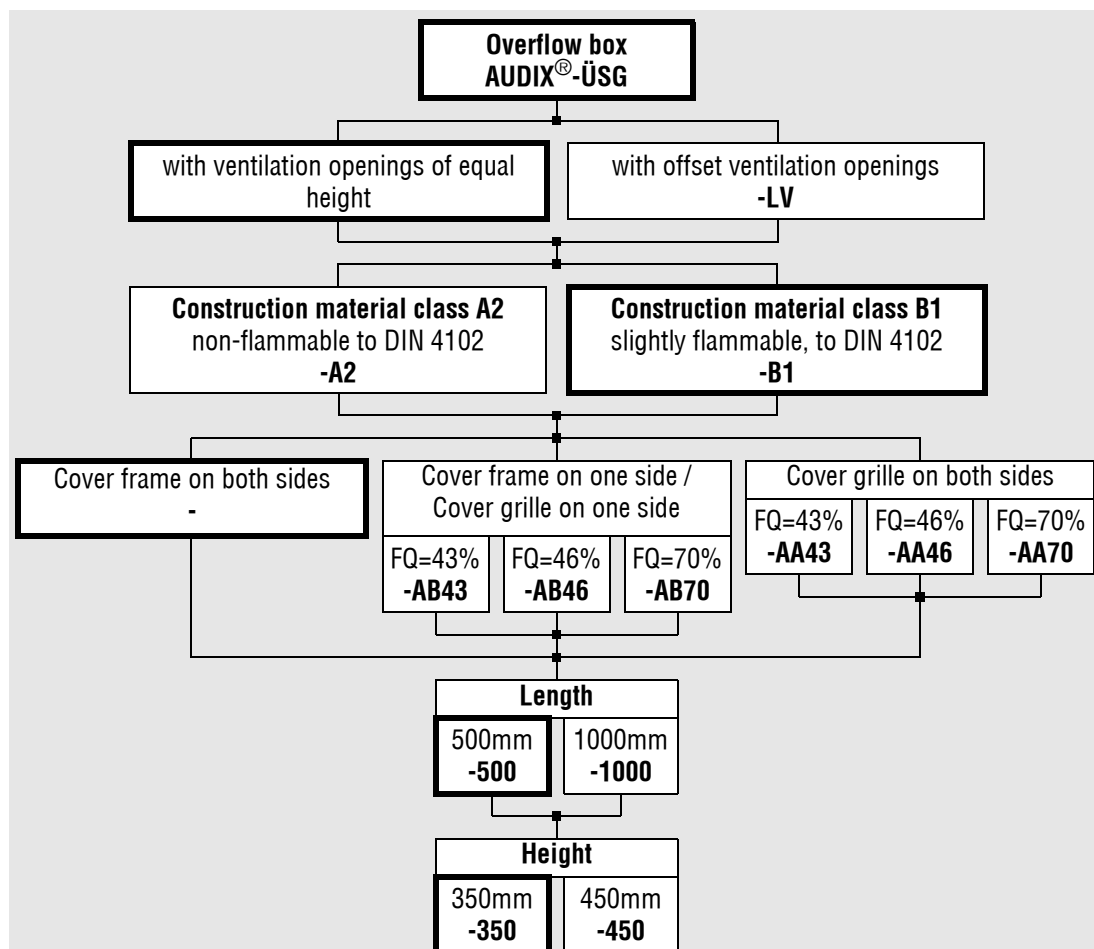


Legend

- V_{ZU} (m³/h) [l/s] = Supply air volume
- Δp_t (Pa) = Pressure loss
- f_m (Hz) = Octave centre frequency
- ρ (kg/m³) = Density
- $D_{n,e}$ (dB) = Element-normalised sound level difference
- $D_{n,e,w}$ (dB) = Rated normalised sound level difference
- R_w (dB) = Rated sound reduction index

Overflow Box Model AUDIX®-ÜSG

Order details



Accessories:

Cover
-ÖA

Mounting bracket

Box neck extension
-KHV
for wall thicknesses >100 mm (-LV) or > 125 mm (-LG)
up to max. 260 mm

Order example:

AUDIX®-ÜSG-LG-B1-AB70-500-350

Unless stated otherwise, the thick-frame model will be delivered!

Overflow Box Model AUDIX®-ÜSG

Specification texts

Overflow box with ventilation openings of equal height, with integrated sound absorber to be built into lightweight walls as overflow unit for effectively preventing cross-talk transmission through the wall.

The Audix-ÜSG have two casings with separation of structure-borne noise. Broad-band, volumetric insulation material free of mineral fibres and special insulating panels that prevent a buzzing sound allow their use in partition walls. Normalised sound level difference $D_{n,e,w} = 48$ (52) dB according to DIN 20140-10 and DIN 717-1. Sound reduction index $R_W = 20$ (24) dB according to DIN 4109.

Box consisting of galvanised sheet steel as airtight overflow box. Integrated silencer comprising abrasion-resistant absorption material of construction material class B1 (slightly flammable to DIN 4102) attached on both sides including a fitting system to assemble it into the posts of lightweight walls. Includes 2 cover frames with clamp mounting. Length 500 mm or 1000 mm.

Product: SCHAKO type **AUDIX®-ÜSG-LG**

- Overflow box with offset ventilation openings and cover frames on both sides

Product: SCHAKO type **AUDIX®-ÜSG-LV**

- Integrated silencer comprising an abrasion-resistant absorption material of construction material class A2 (non-flammable to DIN 4102) attached on both sides.

Product: SCHAKO type **AUDIX®-ÜSG-...-A2**

- with cover frame on one side / cover grille on one side

Cover grille with: -FQ=43% (**AB43**)

-FQ=46% (**AB46**)

-FQ=70% (**AB70**)

- with cover grille on both sides

Cover grille with: -FQ=43% (**AA43**)

-FQ=46% (**AA46**)

-FQ=70% (**AA70**)

Accessories

- Cover (ÖA) to prevent soiling or damage during assembly, made of galvanised sheet steel with spring connection.
- Box neck extension (-KHV) for wall thicknesses >100 mm (-LV) or > 125 mm (-LG) up to max. 260 mm
- Mounting bracket