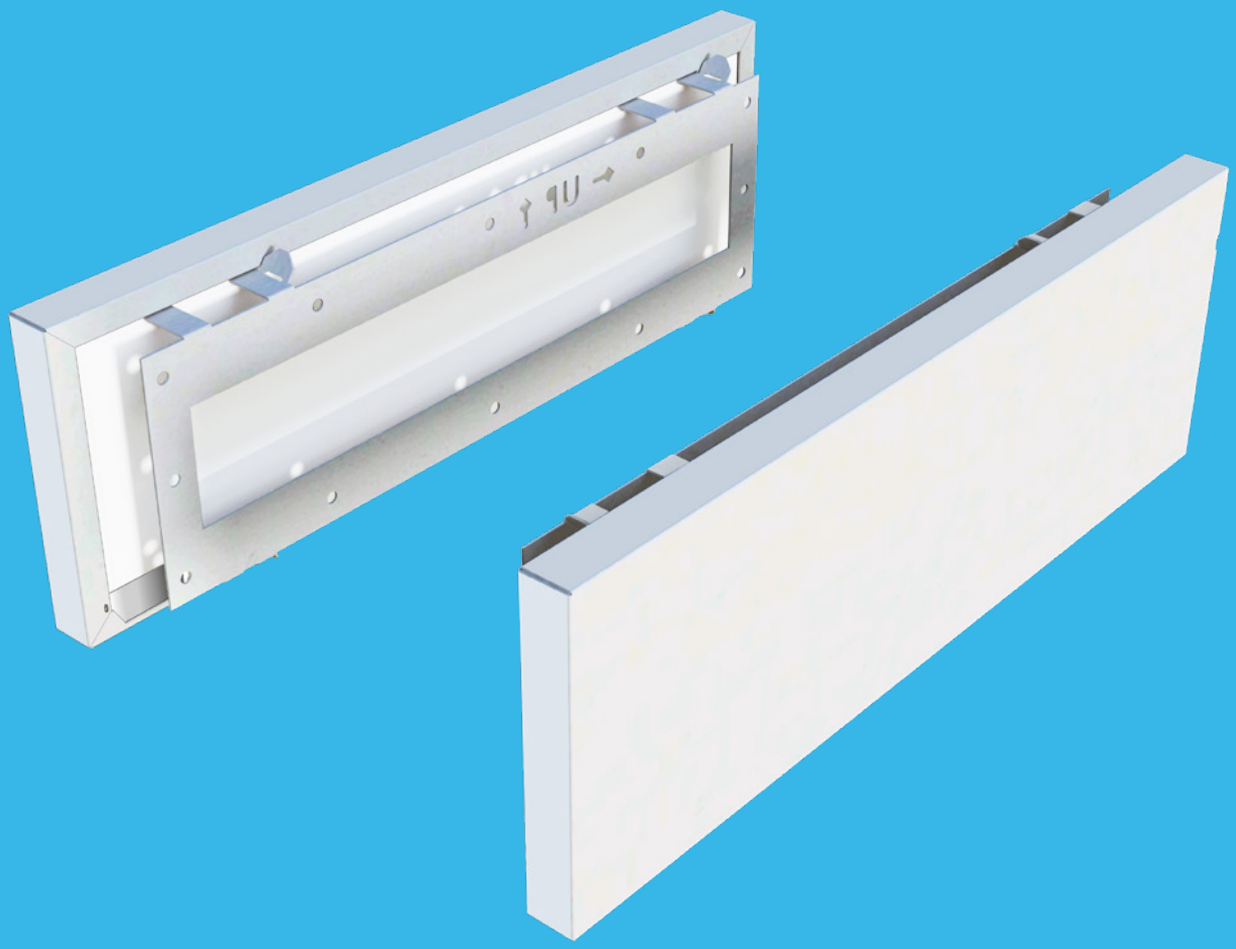


Lindab **OLR**

Overflow unit

Overflow unit

OLR

Description

OLR is a rectangular overflow unit for installation directly onto a wall. OLR consists of two sound-attenuating baffles, which are mounted on either side of the wall.
OLR can be connected by means of the accessory OLRZ which is a perforated telescope wall sleeve, which ensures excellent noise reduction. The OLRZ must be ordered seperately.

- High capacity
- Sound-attenuating baffles
- Horizontal or vertical installation
- Optional perforated telescope wall sleeve

Maintenance

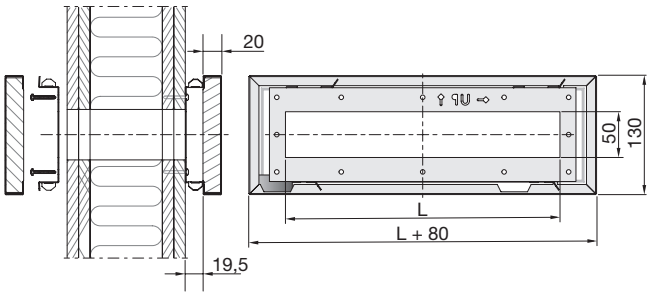
The sound attenuation baffles on both sides of the wall can be removed to enable cleaning of internal parts. The visible parts of the unit can be wiped with a damp cloth.

Order Code

Product	OLR	aaa
Type OLR		
Size 300, 500, 700, 850		

Example: OLR-300

Dimensions



OLR Size	L mm	*m kg
300	300	1.5
500	500	2.3
700	700	3.0
850	850	3.6

* The given weight is valid for two sound-attenuation baffles.

Cutout dimension in wall = L + 5 mm x 55 mm.

Quick selection

OLR Size	Δp_t = 10 Pa l/s	Δp_t = 10 Pa m³/h	Δp_t = 15 Pa l/s	Δp_t = 15 Pa m³/h	Δp_t = 20 Pa l/s	Δp_t = 20 Pa m³/h	*$D_{n,e,w}$ dB
300	29	104	35	126	41	148	45
500	46	166	56	202	65	234	42
700	63	227	77	277	89	320	40
850	77	277	94	338	109	392	40

* $D_{n,e,w}$ values valid for cavity wall with 95 mm insulation.

Materials and finish

Installation bracket:	Galvanised steel
Front plate:	Galvanised steel
Standard finish:	Powder-coated
Standard colour:	RAL 9010 or 9003, Gloss 30

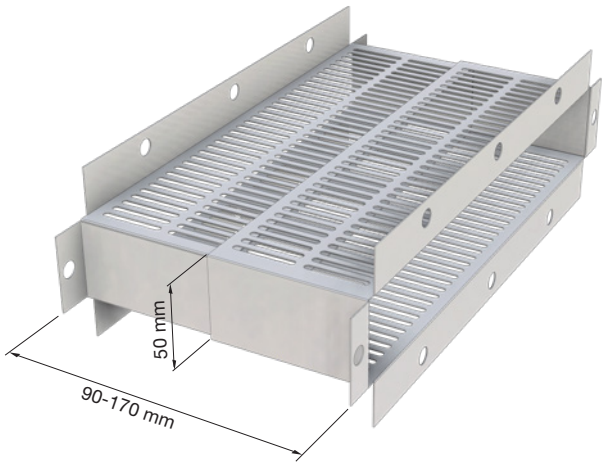
The OLR is available in other colours. Please contact Lindab's sales department for further information.

Overflow unit

OLR

Accessories

OLRZ
Perforated telescope wall sleeve



Order Code

Product **OLRZ** **aaa**

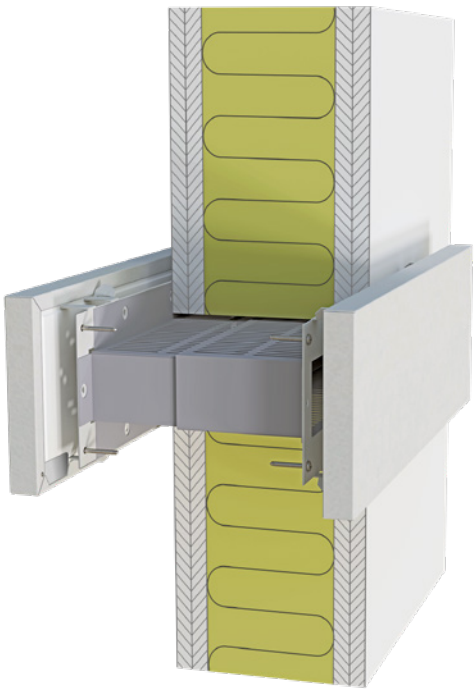
Type
OLRZ

Size
300, 500, 700, 850

Example: OLRZ-300

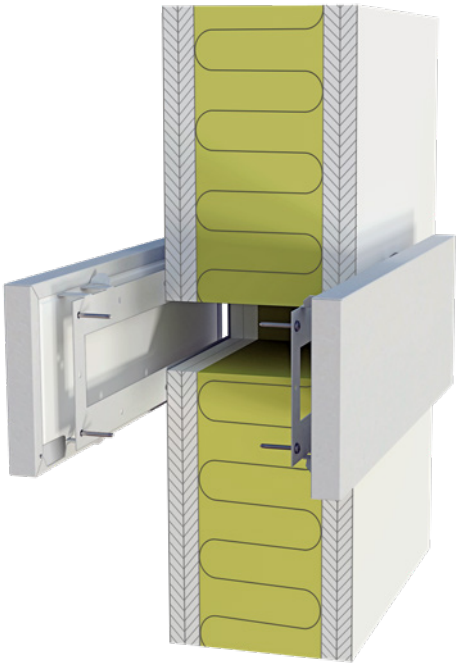
OLR with OLRZ installed in wall

OLRZ is an optional accessory. Horizontal installation shown below.



OLR installed in wall

Horizontal installation.



OLR installed in wall

Vertical installation.

For further information, see OLR installation instruction.

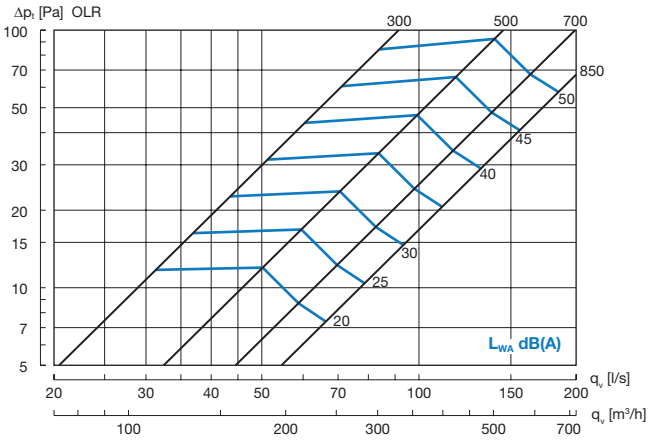
Overflow unit OLR

Technical data

Capacity

Air flow rate q_v [l/s] and [m³/h], total pressure loss Δp_t [Pa] and sound power level L_{WA} [dB(A)] are specified for a OLR unit on both sides of the wall.

Dimensioning diagram



Element-normalised reduction figure $D_{n,e}$

Weighted value ($D_{n,e,w}$) evaluated according to EN ISO 717-1.

Cavity wall with 95 mm insulation

OLR	Centre frequency Hz					
Size	125	250	500	1K	2K	R_w*=$D_{n,e,w}$
300	31	39	41	42	53	45
500	27	35	38	39	50	42
700	26	33	36	38	48	40
850	26	33	36	37	47	40

Cavity wall with 70 mm insulation

OLR	Centre frequency Hz					
Size	125	250	500	1K	2K	R_w*=$D_{n,e,w}$
300	31	38	39	38	50	42
500	28	34	35	36	47	39
700	26	33	34	35	46	38
850	25	32	33	34	45	37

Solid wall without insulation

OLR	Centre frequency Hz					
Size	125	250	500	1K	2K	R_w*=$D_{n,e,w}$
300	31	37	30	32	41	35
500	31	35	30	31	38	34
700	31	32	26	28	36	31
850	30	32	26	28	35	31

* Reference area 10 m²

Overflow unit OLR

Technical data

Sample calculation

When dimensioning an overflow diffuser, calculate the decrease in the wall's noise-reducing properties.

For these calculations, the area of the wall and sound reduction figure R must be known.

This is adjusted in relation to the unit's $D_{n,e}$ value. $D_{n,e}$ is the unit's R value given at a transmission area of 10 m², as specified in EN ISO 10140-12021.

The $D_{n,e}$ value can be converted into the R value for other transmission areas using the table below.

Area m²	10	2	1
Correction dB	0	-7	-10

The diagram below indicates the decrease of the sound reduction index of the wall, for a given octave band value ($D_{n,e}$) or weighted value ($D_{n,e,w}$).

As a rough estimate the calculation can be performed directly using the wall´s R_w value and the weighted elementnormalized level difference $D_{n,e,w}$ of the unit.

Example:

(See diagram below):

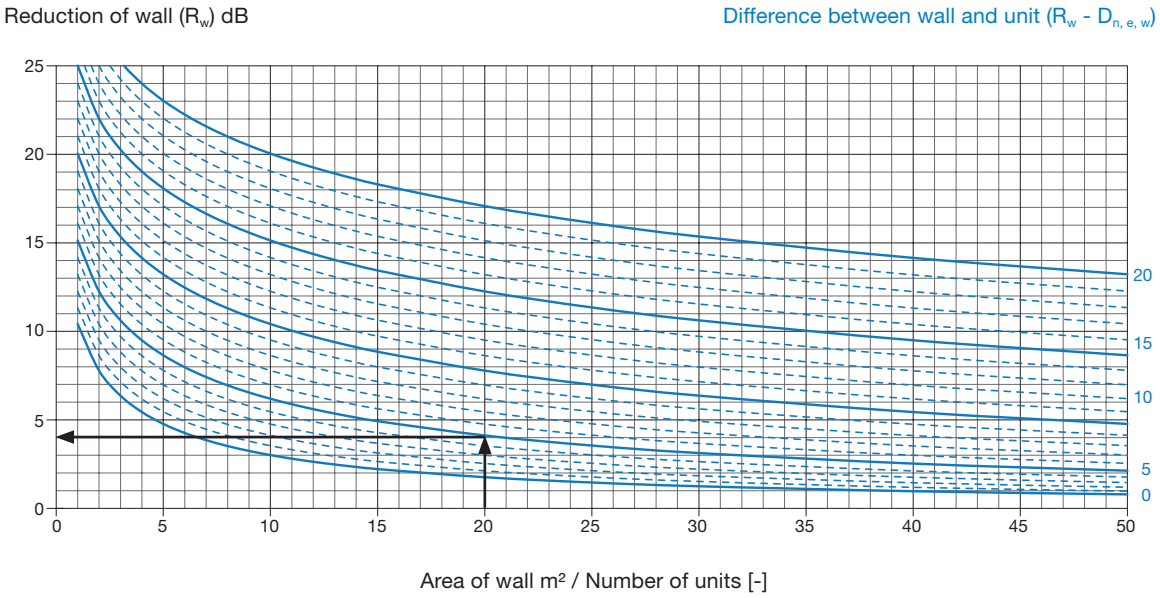
R_w (wall):	50 dB		
$D_{n,e,w}$ (diffuser):	45 dB	R_w - $D_{n,e,w}$	= 5 dB
Area of wall:	20 m²		
Number of Units:	1	20 m²/1	= 20 m²
Indicated reduction of R_w (wall):	4 dB		
R_w value for wall with unit:	~50 - 4		= 46 dB

The calculation can also be performed using the following formula:

$$R_{res} = 10 \cdot \text{Log} \frac{S_{wall}}{(10m^2 \cdot 10^{-0,1 \cdot Dn,e}) + (S_{wall} \cdot 10^{-0,1 \cdot Rwall})}$$

where:

- R_{res} is the resulting reduction figure for wall and diffuser.
- S is wall area.
- $D_{n,e,w}$ is the unit's $D_{n,e,w}$ value taken from the table "Cavity wall with 95 mm insulation" on page 4, (OLR size 300 selected).
- R_{wall} is the wall's R value without unit.



Most of us spend the majority of our time indoors. Indoor climate is crucial to how we feel, how productive we are and if we stay healthy.

We at Lindab have therefore made it our most important objective to contribute to an indoor climate that improves people's lives. We do this by developing energy-efficient ventilation solutions and durable building products. We also aim to contribute to a better climate for our planet by working in a way that is sustainable for both people and the environment.

Lindab | For a better climate