

AL

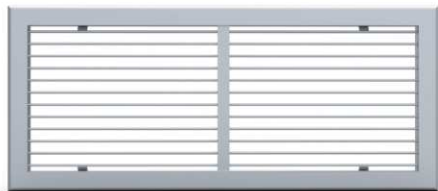
VENTILATION GRILLES WITH MOVABLE VANES



SMA

Characteristics:

A rectangular air supply or exhaust ventilation grille made of aluminium, with movable vanes.



Intended use

The AL ventilation grilles are designed for low- and medium-pressure ventilation systems. A wide range of grille design options makes it possible to direct the supply air flow in an optimal way or to use the grilles as exhaust elements.

Design

The frame and vanes are made of aluminium that is painted in RAL9010 (as standard) or aluminium anodised to a natural colour. In the painted version, the vanes have limited movement due to the paint layer.

Additional supports are used when:

- $C > 530$ mm for the ALW-L, ALWS-L and ALSW-L grilles
- $D > 530$ mm for the ALS-L, ALWS-L and ALSW-L grilles

AL grille versions

ALW-L



a single row of movable, horizontal vanes

ALS-L



a single row of movable, vertical vanes

ALWS-L



two rows of movable vanes, the external row is horizontal

ALSW-L



two rows of movable vanes, the external row is vertical

Net surface area

Approximate net surface area of the AL grilles:

$$A = 80\% \times [(C-20) \times (D-20)]$$



The technical data of the grilles, including pressure loss, noise level and stream ranges, is available at smay.eu, in the document titled "Flow Characteristics for Grilles and Diffusers"

Dimensions

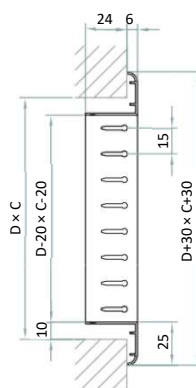


Figure 1. ALW-L grille dimensions

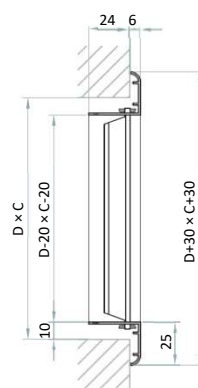


Figure 2. ALS-L grille dimensions

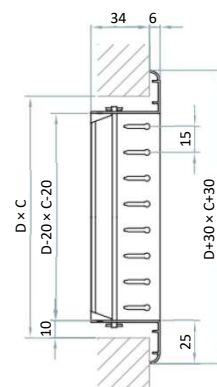


Figure 3. ALWS-L grille dimensions

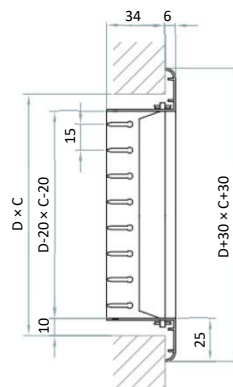


Figure 4. ALSW-L grille dimensions

Standard dimensions of the AL grilles:

- width $C = 75-1225$ mm
- height $D = 75-625$ mm

We can make custom-sized grilles or a set of multiple grilles upon request.

Installation

The grilles can be installed:

- with screws through the holes in the frame (recommended for ceiling installation)
- with latches invisible from outside (an assembling frame or a plenum box required)

AIR FLOW CONTROL AND DISTRIBUTION



AL – Ventilation grilles with movable vanes

When ordering, please provide information according to the following pattern:

<TYPE> – <C>x<D> – <M> – <P><RAL> / <ADD>

Where:

TYPE	ALW-L, ALS-L, ALWS-L, ALSW-L
C	mounting hole width in mm
D	mounting hole height in mm
M	installation method*
	none – with screws
	Z – with an invisible latch
	R – with an invisible latch and lock screws
P	finish*
	AA – anodised aluminium (AL grilles)
	AL – painted aluminium (AL grilles)
RAL	colour as per RAL (for AL finishing)*
ADD	specify additional accessories here, as below**

Accessories:

GA	opposed blades damper made of aluminium
GP	opposed blade damper made of galvanised steel
GC	reclining damper made of galvanised steel
GM	arched damper made of galvanised steel and aluminium
GT	slot damper made of galvanised steel
RM	assembling frame made of galvanised or stainless steel
RM-F	assembling frame made of galvanised or stainless steel, with a filter
L01	screen deflector with a clearance equal to 40%, made of galvanised steel
L02	a screen deflector with a clearance equal to 58%, made of galvanised steel
NDS<S>	an NDS connection pipe for round ducts (in the <S> field provide requested diameter of the connection pipe in mm)



Blocks for REVIT software,

- selection programme,
- Certificates,
- available at www.smay.pl.

Plenum box as per the configuration below:

<SR> <I> – <H> – <K><D><R><P>

Where:

I	insulation*
	none – no insulation
	t – insulated
H	plenum box height in mm*
K	connection pipe position*:
	b – side
	g – top
D	connection pipe diameter in mm*
R	damper in a connection pipe*
	none – no damper
	P – damper adjusted from outside the box
	Pc – damper adjusted from inside the box with a tie rod
	Pd – damper adjusted from inside the box with a lever
P	design*
	SO – galvanised steel
	– stainless steel, quality 1.4301
SN	{304 according to AISI, 0H18N9 according to PN}
	– stainless steel, quality 1.4404
SM	{316L according to AISI, 0H17N14M2 according to PN}

* optional values – if not specified, default values will be used

** for more information on accessories, see the accessories sheet Order example:

ALSWL – 1025x225 – Z – AL9010 / GA, SRt – 270 – b160