

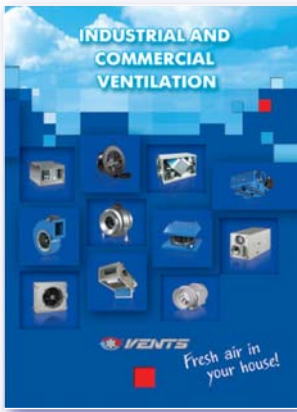
# METAL GRILLES

## FOR HVAC



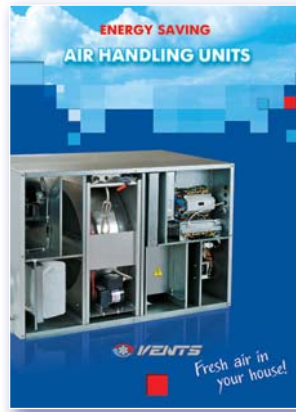
2014

Fresh air in  
your house!



**Industrial and commercial ventilation**  
(Catalogue no. 1)

Industrial and commercial ventilation components - fans for round and rectangular ducts, sound-insulated, axial and roof fans, air handling units with heat recovery, air heating units, accessories.



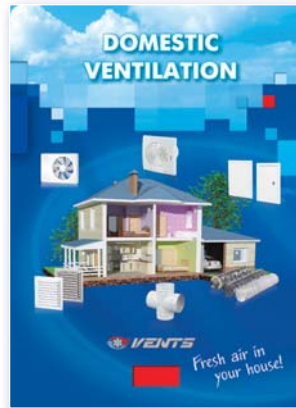
**Energy saving ventilation**  
Air handling units  
(Catalogue no. 2)

Energy saving supply and exhaust units and air handling units with heat recovery with air capacity up to 6500 m<sup>3</sup>/h.



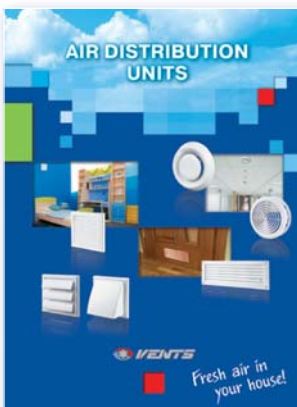
**Fire and smoke damper KPDU**  
(Catalogue no. 5)

Fire dampers KPDU for smoke protection systems of buildings and premises.



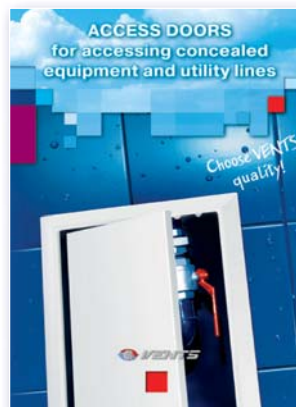
**Domestic ventilation**  
(Catalogue no. 6)

Domestic ventilation: fans, mono-pipe exhaust kitchen and bathroom fans, air distribution units, air ducts and fittings, access doors, ventilation kits.



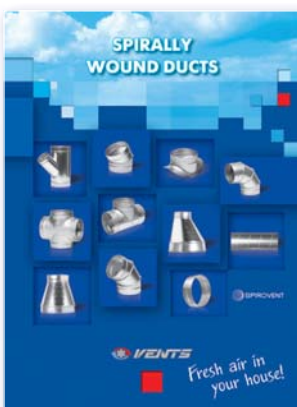
**Air distribution units**  
(Catalogue no. 9)

Plastic and metal air distribution products (grilles, disk valves, diffusers, etc.) for ventilation, air conditioning and heating.



**Access doors**  
(Catalogue no. 10)

Plastic and metal access doors for accessing concealed equipment and utility lines. Special offers for ceramic tiles.



**Spiral seam air ducts**  
(Catalogue no. 13)

SPIROVENT spiral seam vent ducts and fittings of 100 to 1600 mm diameter.



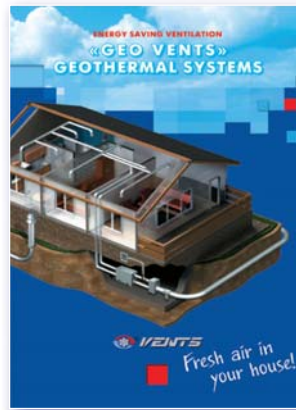
**Flexible ducts and fittings for ventilation, air conditioning and heating**  
(Catalogue no. 14)

Flexible and semi-flexible air ducts made of polymeric materials, aluminium, galvanized or stainless steel, metal fittings for ventilation, air conditioning, heating, gas handling and abrasive particles aspiration.



**Air handling units  
AIRVENTS  
(Catalogue no. 3)**

Energy saving air handling units with air capacity up to 40 000 m<sup>3</sup>/h, for use in large residential, industrial and commercial objects.



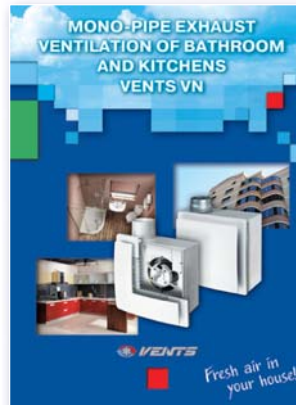
**Energy saving ventilation  
Geothermal systems  
GEO VENTS  
(Catalogue no. 4)**

Energy saving system GEO VENTS with use of the earth's surface layers heat. High ventilation system energy efficiency and low operating costs.



**Domestic fans  
(Catalogue no. 7)**

Domestic fans with air capacity up to 365 m<sup>3</sup>/h with extra functions: timer, humidity sensor, motion sensor, etc. Applied for premises up to 30 m<sup>2</sup>.



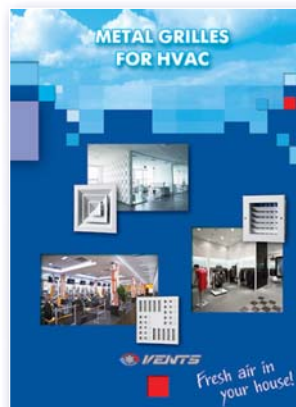
**VENTS VN  
Mono-pipe exhaust  
ventilation  
(Catalogue no. 8)**

Exhaust ventilation in houses with mono-pipe ventilation system based on VENTS VN fans.



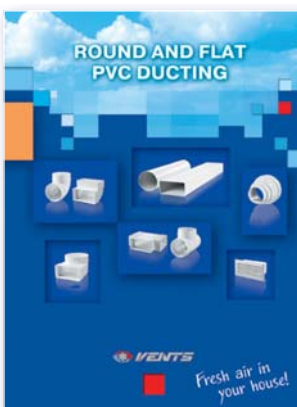
**Plastic grilles for ventilation  
and air conditioning  
(Catalogue no. 11)**

PROFIPLAST extruded plastic grilles for ventilation and air conditioning.



**Metal grilles for ventilation,  
air conditioning and heating  
(Catalogue no. 12)**

Metal grilles made of extruded metal profile for ventilation and air conditioning.



**Flat and round PVC  
air ducts  
(Catalogue no. 15)**







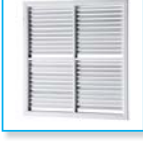

Flat and round PVC ducts PLASTIVENT for ventilation of residential, office and commercial premises and connection of exhaust ventilation equipment (kitchen extractors, hoods, exhaust boxes, etc). Wide product range of fittings.



**Energy saving ventilation.  
Single room energy  
recovery ventilators.  
(Catalogue no. 16)**

Single room reverse ventilators with energy regeneration for efficient ventilation and lowest investments in ready-built and brand new premises.

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# WELCOME TO THE VENTS WORLD!



VENTS company was founded in the nineties of the XXth century.

Dynamic development of the enterprise and ongoing study of the consumer demand enabled rapid international leadership of the company in the ventilation industry.

VENTS is a powerful research and development enterprise with 2500 professionals working as a single team to ensure a full production cycle from idea to end product. The production base of the company is located at more than 60 000 m<sup>2</sup> area. It includes 16 workshops equipped under the latest international standards and each of them is comparable to a separate plant.

Modern equipment, active implementation of advanced technologies and highly automated production are the characteristic features of VENTS company.

The company undergoes rapid dynamic development; fundamental researches and effective designs in climatic equipment industry are in the focus of the company's business strategy.

The joint cooperation of the corporate design department, test laboratories and production workshops let us introduce high quality products to the market.

Special attention is paid to the manufacturing of the goods during all manufacturing stages including monitoring of the technological conditions. Technical characteristics of supplied raw materials are thoroughly checked. Quality control system which meets international standard requirements

ISO 9001:2000 was implemented at the enterprise.

Environmental protection is one of the basic components of the corporate development. The technological process at the enterprise is arranged in such a way as to exclude any negative impact to the environment. To solve the global energy saving problem we develop a special climatic equipment that provides comfortable conditions for people and reduces the energy demand significantly.

Perfect quality, competitive prices, high production potential, technical capabilities and the wide product range stimulate long-term partnership and product promotion all over the world.

The VENTS ventilation products are exported to more than 90 countries and are sold through the distribution network of 120 companies worldwide. Share of the VENTS products globally is above 10%.

VENTS is a member of high-rank international organizations, the leading HVAC experts.

Since 2008 VENTS has been a fully-featured member of HARDI Association (Heating, Air-conditioning and Refrigeration Distributors International, USA).

Since 2010 VENTS has been a participant of AMCA Association (the Air Movement and Control Association (AMCA) International, Inc.). In 2011 VENTS successfully passed tests for compliance with AMCA standards and the VENTS products were certified for the USA market.

In 2011 VENTS joined HVI (Home Ventilation Institute, USA) Association.





Metal processing workshop



Spiral air ducts workshop



Flexible air ducts workshop



Aluminium grilles and diffusers workshop



Powder coating workshop



Wet coating workshop



Extrusion workshop



Injection moulding workshop



Residential fans workshop



Ventilation grilles workshop



Electric motors workshop



Industrial fans workshop



Air handling units workshop



AirVents air handling unit workshop



Electrical accessories workshop



Extruded grilles workshop

Powerful production facilities, high automation level, active implementation of innovative technologies in the production process made VENTS a worldwide ventilation leader.

We manufacture our products with respect to unique geographical, climatic, technical features of each country and do our best to fulfill the client's wishes anywhere anytime.



**Get benefit from cooperation with VENTS™ and enjoy the maximum range of products of the top quality from one manufacturer.**

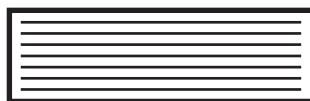
## Series ONG / ONV



Single-row ventilation grille with fixed vanes



**ONV** - vertical vane location

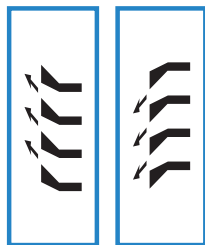


**ONG** - horizontal vane location

### Air flow distribution options



**straight (0°)**  
ONG1, ONV1



**single-sided (15°)**  
ONG2, ONV2



**double-sided (2 x 15°)**  
ONG3, ONV3

### Standard size [mm] and air pass [m<sup>2</sup>]

Height H [mm]	Length L [mm]																		
	100	150	200	250	300	350	400	450*	500*	550*	600*	650*	700*	750*	800*	850*	900*	950*	1000*
100	0,004	0,007	0,010	0,012	0,015	0,018	0,021	0,024	0,027	0,03	0,033	0,036	0,039	0,042	0,045	0,048	0,051	0,054	0,057
150	0,007	0,010	0,015	0,018	0,023	0,027	0,031	0,035	0,039	0,043	0,047	0,051	0,055	0,06	0,064	0,068	0,072	0,076	0,08
200	0,010	0,015	0,021	0,026	0,033	0,038	0,045	0,051	0,058	0,064	0,07	0,076	0,081	0,087	0,093	0,099	0,105	0,11	0,115
250	0,012	0,018	0,026	0,032	0,041	0,047	0,055	0,062	0,07	0,077	0,084	0,091	0,098	0,102	0,106	0,11	0,113	0,121	0,128
300	0,015	0,023	0,033	0,041	0,051	0,059	0,069	0,077	0,086	0,091	0,096	0,106	0,115	0,124	0,132	0,141	0,149	0,159	0,168
350	0,017	0,026	0,038	0,047	0,059	0,068	0,080	0,09	0,099	0,105	0,111	0,122	0,132	0,142	0,151	0,161	0,17	0,182	0,193
400	0,020	0,030	0,044	0,054	0,069	0,079	0,093	0,103	0,117	0,13	0,142	0,154	0,166	0,178	0,189	0,201	0,212	0,225	0,237
450**	0,023	0,035	0,051	0,062	0,080	0,090	0,107	0,117	0,131	0,146	0,16	0,173	0,186	0,2	0,214	0,226	0,239	0,252	0,265
500**	0,026	0,039	0,056	0,070	0,089	0,100	0,119	0,13	0,145	0,162	0,178	0,192	0,206	0,222	0,238	0,252	0,265	0,279	0,293
600**	0,031	0,047	0,067	0,084	0,105	0,121	0,142	0,158	0,173	0,194	0,214	0,23	0,246	0,267	0,287	0,303	0,318	0,334	0,349
700**	0,036	0,055	0,078	0,094	0,124	0,145	0,170	0,184	0,203	0,227	0,251	0,27	0,288	0,312	0,336	0,354	0,372	0,39	0,408
800**	0,042	0,063	0,090	0,112	0,141	0,163	0,190	0,211	0,232	0,26	0,288	0,309	0,33	0,358	0,385	0,406	0,426	0,447	0,467
900**	0,048	0,072	0,103	0,129	0,160	0,185	0,228	0,238	0,262	0,293	0,325	0,348	0,372	0,403	0,435	0,458	0,481	0,504	0,527
1000**	0,053	0,079	0,113	0,141	0,177	0,204	0,239	0,266	0,292	0,327	0,361	0,388	0,414	0,449	0,484	0,51	0,536	0,561	0,587

\* The grilles are equipped with a vertical partition (applicable only for ONG)  
\*\* The grilles are equipped with a horizontal partition (applicable only for ONV)

#### Application

- Supply and exhaust ventilation, heating and air conditioning networks in industrial, commercial and domestic premises.

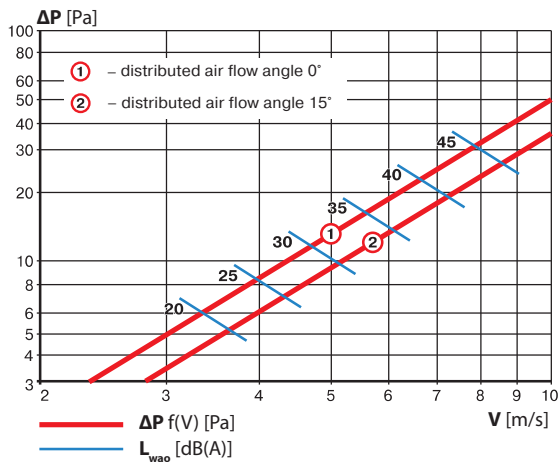
#### Design

- Made of high-quality extruded aluminium.
- Polymer or anodized grille coating ensures weather-resistant properties.
- Non-standard sizes may be ordered.
- ONH grilles with the length exceeding 450 mm are fitted with a centrally positioned vertical partition for extra rigidity.
- ONV grilles with the length exceeding 450 mm are fitted with a centrally positioned horizontal partition for extra rigidity.

#### Modifications

- Available modifications with an air flow regulator (R) and an adapter (A) for connection to air ducts, page 42.
- Available modifications with versatile fixing (u) or with special springs (p) for fast mounting, page 44.

## Pressure loss and sound power level



Calculation formula	Correction factor K							
	$S_{ap}$ [m <sup>2</sup> ]	0,005	0,01	0,02	0,03	0,05	0,07	0,1
$L_{WA} = L_{WAO} \times K$	K [dB(A)]	-13	-9	-6	-4,5	-3	-1,5	0

### Designation:

- $\Delta P$  – pressure loss [Pa]
- $L_{WA}$  – sound power level [dB(A)]
- $L_{WAO}$  – sound power level for air pass 0.1 m<sup>2</sup> [dB(A)]
- K – correction factor for sound power level calculation depending on air pass [dB(A)]
- $S_{ap}$  – air pass [m<sup>2</sup>]
- V – rated speed [m/s]

## Order code



**Grille type:** \_\_\_\_\_  
 ONG (ONV) - single-row unregulated grille with horizontal (vertical) vanes

**Vane position:** \_\_\_\_\_  
 1 – direct (deflection angle 0°)  
 2 – single-sided (deflection angle 15°)  
 3 – double-sided (deflection angle 15°)

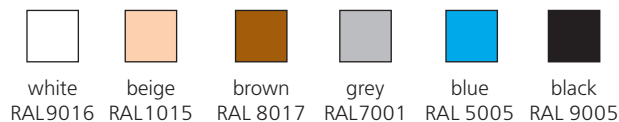
**Grille size:** \_\_\_\_\_  
 L – length [mm]  
 H – height [mm]

**Grille coating:** \_\_\_\_\_  
 "\_\_\_\_" – colour\* (white by default)  
 "Anodized"

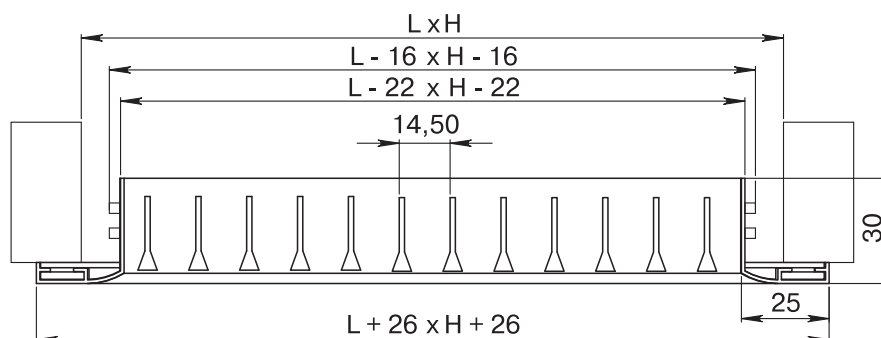
**Accessories:** \_\_\_\_\_ no  
 R – air flow regulator  
 A – adapter

**Grille fixation:** \_\_\_\_\_  
 u – versatile  
 p – spring

### \* Standard polymer coating colours:



## Overall and mounting dimensions





## Series ONL



Single-row linear horizontal ventilation grille with fixed vanes

### Application

- Supply and exhaust ventilation, heating and air conditioning networks in industrial, commercial and domestic premises.

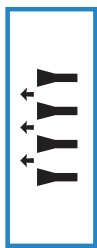
### Design

- Made of high-quality extruded aluminium.
- Polymer or anodized grille coating ensures weather-resistant properties.
- Non-standard sizes may be ordered.

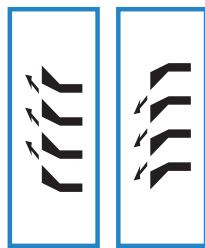
### Modifications

- Available modifications with an air flow regulator (R) and an adapter (A) for connection to air ducts, page 42.
- Available modifications with versatile fixing (u) or with special springs (p) for fast mounting, page 44.

## Air flow distribution options



straight (0°)  
ONL1



single-sided (15°)  
ONL2

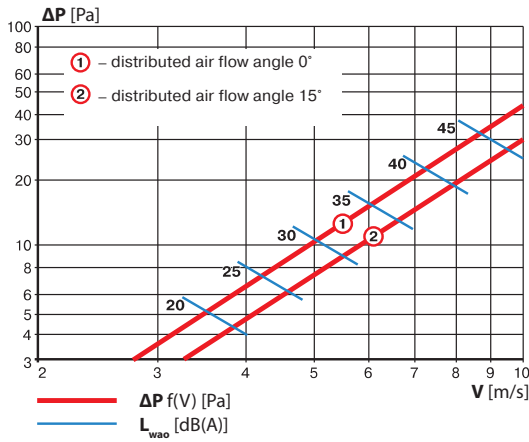


double-sided (2 x 15°)  
ONL3

## Standard size [mm] and air pass [m<sup>2</sup>]

Height H [mm]	Length L [mm]												
	400	450	500	550	600	650	700	750	800	850	900	950	1000
100	0,003	0,024	0,027	0,030	0,033	0,036	0,039	0,042	0,045	0,048	0,051	0,054	0,057
150	0,004	0,035	0,039	0,043	0,047	0,051	0,055	0,060	0,064	0,068	0,072	0,076	0,080
200	0,007	0,051	0,058	0,064	0,070	0,076	0,081	0,087	0,093	0,099	0,105	0,110	0,115
250	0,008	0,062	0,070	0,077	0,084	0,091	0,098	0,102	0,106	0,110	0,113	0,121	0,128
300	0,009	0,077	0,086	0,091	0,096	0,106	0,115	0,124	0,132	0,141	0,149	0,159	0,168
350	0,009	0,090	0,099	0,105	0,111	0,122	0,132	0,142	0,151	0,161	0,170	0,182	0,193
400	0,105	0,112	0,119	0,126	0,133	0,140	0,147	0,166	0,184	0,196	0,208	0,220	0,232
450	0,119	0,127	0,135	0,142	0,150	0,158	0,166	0,187	0,208	0,222	0,236	0,249	0,263
500	0,133	0,142	0,150	0,159	0,168	0,177	0,186	0,209	0,233	0,248	0,263	0,278	0,294
550	0,147	0,156	0,166	0,175	0,185	0,195	0,205	0,231	0,257	0,274	0,291	0,307	0,324
600	0,161	0,171	0,181	0,192	0,202	0,213	0,224	0,253	0,281	0,300	0,318	0,337	0,355
650	0,175	0,186	0,197	0,208	0,219	0,231	0,243	0,274	0,305	0,325	0,346	0,366	0,386
700	0,188	0,200	0,212	0,224	0,237	0,250	0,263	0,296	0,330	0,351	0,373	0,395	0,417
750	0,202	0,215	0,228	0,241	0,254	0,268	0,282	0,318	0,354	0,377	0,401	0,424	0,447
800	0,215	0,229	0,243	0,257	0,271	0,286	0,301	0,340	0,378	0,403	0,428	0,453	0,478
850	0,229	0,244	0,259	0,273	0,288	0,304	0,320	0,361	0,402	0,429	0,455	0,482	0,509
900	0,243	0,258	0,274	0,290	0,306	0,322	0,339	0,383	0,427	0,455	0,483	0,511	0,539
950	0,256	0,273	0,290	0,306	0,323	0,340	0,358	0,404	0,451	0,480	0,510	0,540	0,570
1000	0,270	0,288	0,305	0,323	0,340	0,359	0,377	0,426	0,475	0,506	0,537	0,569	0,600

## Pressure loss and sound power level



Calculation formula
$L_{WA} = L_{WAO} \times K$

Correction factor K						
$S_p$ [m <sup>2</sup> ]	0,01	0,02	0,05	0,1	0,2	0,4
K [dB(A)]	-9	-6	-3	0	+3	+6

### Designation:

- $\Delta P$  – pressure loss [Pa]
- $L_{WA}$  – sound power level [dB(A)]
- $L_{WAO}$  – sound power level for air pass 0.1 m<sup>2</sup> [dB(A)]
- K – correction factor for sound power level calculation depending on air pass [dB(A)]
- $S_{ap}$  – air pass [m<sup>2</sup>]
- V – rated speed [m/s]

## Order code



**Grille type:** \_\_\_\_\_  
ONL – single-row linear ventilation grille with fixed vanes

**Vane position:** \_\_\_\_\_  
1 – direct (deflection angle 0°)  
2 – single-sided (deflection angle 15°)  
3 – double-sided (deflection angle 15°)

**Grille size:** \_\_\_\_\_  
L – length [mm]  
H – height [mm]

**Grille coating:** \_\_\_\_\_  
"\_\_\_" – colour\* (white by default)  
"Anodized"

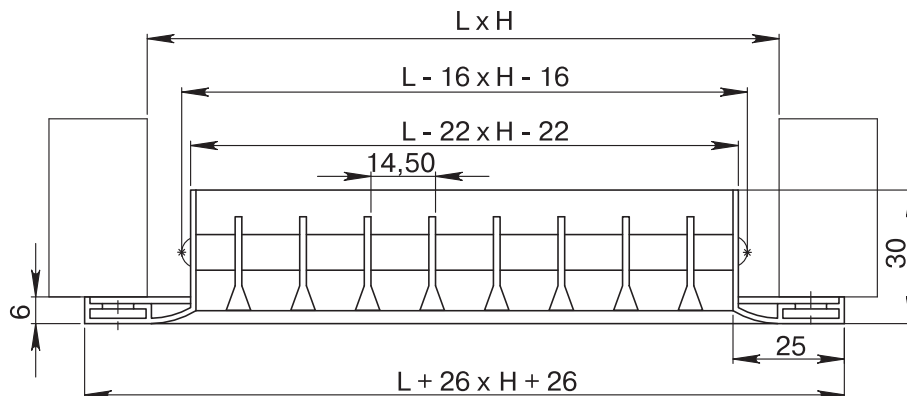
**Accessories:** \_\_\_\_\_  
\_\_\_ – no  
R – air flow regulator  
A – adapter

**Grille fixation:** \_\_\_\_\_  
u – versatile  
p – spring

### \* Standard polymer coating colours:



## Overall and mounting dimensions



## Series ONF/ONFS



Single-row horizontal ventilation grille with fixed vanes

### Application

- Supply and exhaust ventilation, heating and air conditioning networks in industrial, commercial and domestic premises.

### Design

- Made of high-quality extruded aluminium.
- Polymer or anodized grille coating ensures weather-resistant properties.
- Non-standard sizes may be ordered.
- Grilles above 450 mm are equipped with a partition for extra rigidity (ONFS series).

### Modifications

- Available modifications with an adapter (A) for connection to air ducts, page 42.
- Available modifications with versatile fixing (u) or with special springs (p) for fast mounting, page 44.

## Air flow distribution

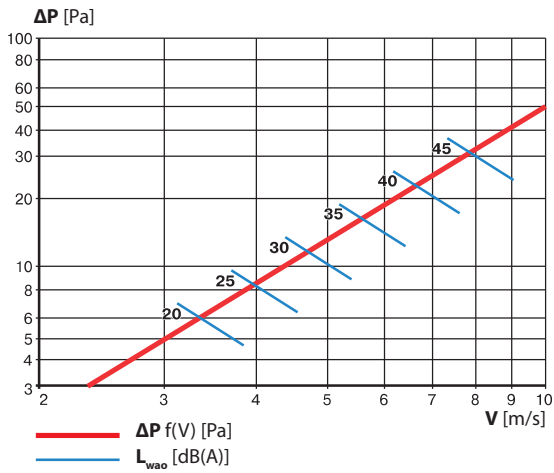


vane deflection  
angle - 45°

## Standard size [mm] and air pass [m<sup>2</sup>]

Height H [mm]	Length L [mm]													
	100	150	200	250	300	350	400	450	500	600	700	800	900	1000
100	0,004	0,007	0,010	0,012	0,015	0,018	0,021	0,024	0,027	0,033	0,039	0,045	0,051	0,057
150	0,007	0,010	0,015	0,018	0,023	0,027	0,031	0,035	0,039	0,047	0,055	0,064	0,072	0,080
200	0,010	0,015	0,021	0,026	0,033	0,038	0,045	0,051	0,058	0,070	0,081	0,093	0,105	0,115
250	0,012	0,018	0,026	0,032	0,041	0,047	0,055	0,062	0,070	0,084	0,098	0,106	0,113	0,128
300	0,015	0,023	0,033	0,041	0,051	0,059	0,069	0,077	0,086	0,096	0,115	0,132	0,149	0,168
350	0,017	0,026	0,038	0,047	0,059	0,068	0,080	0,090	0,099	0,111	0,132	0,151	0,170	0,193
400	0,020	0,030	0,044	0,054	0,069	0,079	0,093	0,103	0,117	0,142	0,166	0,189	0,212	0,237
450	0,023	0,035	0,051	0,062	0,080	0,090	0,107	0,117	0,131	0,160	0,186	0,214	0,239	0,265
500	0,026	0,039	0,056	0,070	0,089	0,100	0,119	0,130	0,145	0,178	0,206	0,238	0,265	0,293
600	0,031	0,047	0,067	0,084	0,105	0,121	0,142	0,158	0,173	0,214	0,246	0,287	0,318	0,349
700	0,036	0,055	0,078	0,094	0,124	0,145	0,170	0,184	0,203	0,251	0,288	0,336	0,372	0,408
800	0,042	0,063	0,090	0,112	0,141	0,163	0,190	0,211	0,232	0,288	0,330	0,385	0,426	0,467
900	0,048	0,072	0,103	0,129	0,160	0,185	0,228	0,238	0,262	0,325	0,372	0,435	0,481	0,527
1000	0,053	0,079	0,113	0,141	0,177	0,204	0,239	0,266	0,292	0,361	0,414	0,484	0,536	0,587

### Pressure loss and sound power level



Calculation formula
$L_{WA} = L_{WAO} \times K$

	Correction factor K						
$S_{ap}$ [m <sup>2</sup> ]	0,005	0,01	0,02	0,03	0,05	0,07	1
K [dB(A)]	-13	-9	-6	-4,5	-3	-1,5	0

**Designation:**

- $\Delta P$  – pressure loss [Pa]
- $L_{WA}$  – sound power level [dB(A)]
- $L_{WAO}$  – sound power level for air pass 0.1 m<sup>2</sup> [dB(A)]
- K – correction factor for sound power level calculation depending on air pass [dB(A)]
- $S_{ap}$  – air pass [m<sup>2</sup>]
- V – rated speed [m/s]

### Order code



**Grille type:**

ONF / ONFS – single-row unregulated grille with horizontal (vertical) vanes fixed at 45°

**Grille size:**

L – length [mm]  
H – height [mm]

**Grille coating:**

"\_\_\_" – colour\* (white by default)  
"Anodized"

**Accessories:**

\_\_\_ – no  
A – adapter

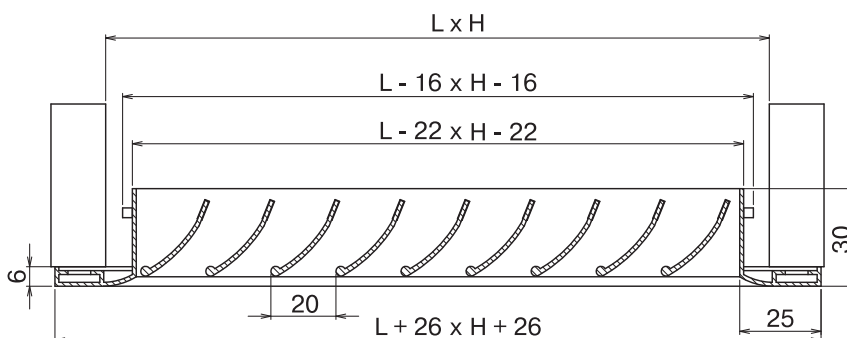
**Grille fixation:**

u – versatile  
p – spring

\* Standard polymer coating colours:



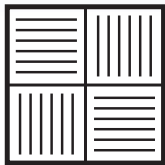
### Overall and mounting dimensions



## Series ONK



Single-row sectional ventilation grille with fixed vanes



ONK2 – pair-wise and perpendicular vane position

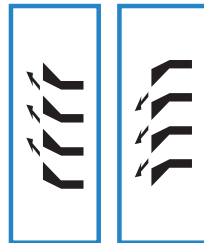


ONK1, ONK3 – horizontal vane position

### Air flow distribution options



straight (0°)  
ONK1, ONK2



single-sided (15°)  
ONK3

### Standard size [mm] and air pass [m<sup>2</sup>]

Height H [mm]	Length L [mm]											
	450	500	550	600	650	700	750	800	850	900	950	1000
450	0,117	0,131	0,146	0,160	0,173	0,186	0,200	0,214	0,226	0,239	0,252	0,265
500	0,130	0,145	0,162	0,178	0,192	0,206	0,222	0,238	0,252	0,265	0,279	0,293
550	0,144	0,159	0,178	0,196	0,211	0,226	0,244	0,263	0,277	0,292	0,306	0,321
600	0,158	0,173	0,194	0,214	0,230	0,246	0,267	0,287	0,303	0,318	0,334	0,349
650	0,171	0,188	0,210	0,233	0,250	0,267	0,289	0,312	0,328	0,345	0,362	0,379
700	0,184	0,203	0,227	0,251	0,270	0,288	0,312	0,336	0,354	0,372	0,390	0,408
750	0,198	0,217	0,243	0,270	0,289	0,309	0,335	0,361	0,380	0,399	0,418	0,438
800	0,211	0,232	0,260	0,288	0,309	0,330	0,358	0,385	0,406	0,426	0,447	0,467
850	0,225	0,247	0,277	0,306	0,329	0,351	0,380	0,410	0,432	0,453	0,475	0,497
900	0,238	0,262	0,293	0,325	0,348	0,372	0,403	0,435	0,458	0,481	0,504	0,527
950	0,252	0,277	0,310	0,343	0,368	0,393	0,426	0,459	0,484	0,508	0,533	0,557
1000	0,266	0,292	0,327	0,361	0,388	0,414	0,449	0,484	0,510	0,536	0,561	0,587

#### Application

- Supply and exhaust ventilation, heating and air conditioning networks in industrial, commercial and domestic premises.

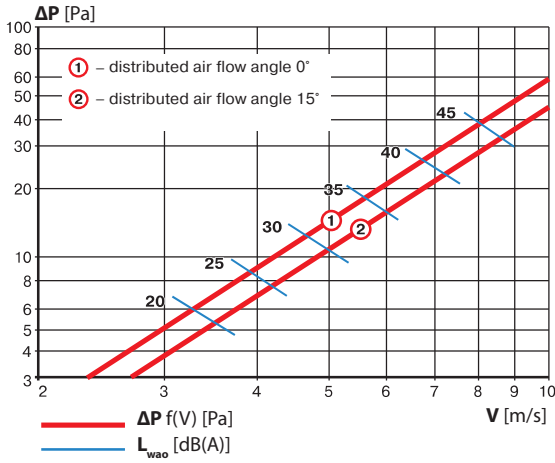
#### Design

- Made of high-quality extruded aluminium.
- Equipped with a central cross-type partition for extra rigidity.
- Polymer or anodized grille coating ensures weather-resistant properties.
- Non-standard sizes may be ordered.

#### Modifications

- Available modifications with an air flow regulator ( R ) and an adapter ( A ) for connection to air ducts, page 42.
- Available modifications with versatile fixing ( u ) for fast mounting, page 44.

### Pressure loss and sound power level



Calculation formula	Correction factor K					
	$S_{ap}$ [m <sup>2</sup> ]	0,01	0,15	0,2	0,3	0,4
$L_{WA} = L_{WAO} \times K$	K [dB(A)]	0	+1,5	+3	+4,5	+6

**Designation:**

- $\Delta P$  – pressure loss [Pa]
- $L_{WA}$  – sound power level [dB(A)]
- $L_{WAO}$  – sound power level for air pass 0.1 m<sup>2</sup> [dB(A)]
- K – correction factor for sound power level calculation depending on air pass [dB(A)]
- $S_{ap}$  – air pass [m<sup>2</sup>]
- V – rated speed [m/s]

### Order code



**Grille type:** \_\_\_\_\_  
 ONK – single-row sectional grille with fixed vanes

**Vane position:** \_\_\_\_\_  
 1 – direct (deflection angle 0°)  
 2 – single-sided (deflection angle 15°)  
 3 – double-sided (deflection angle 15°)

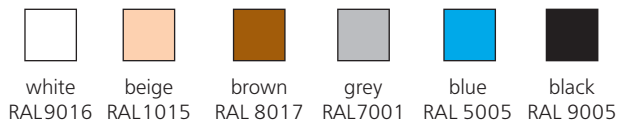
**Grille size:** \_\_\_\_\_  
 L – length [mm]  
 H – height [mm]

**Grille coating:**  
 "\_\_\_" – colour\* (white by default)  
 "Anodized"

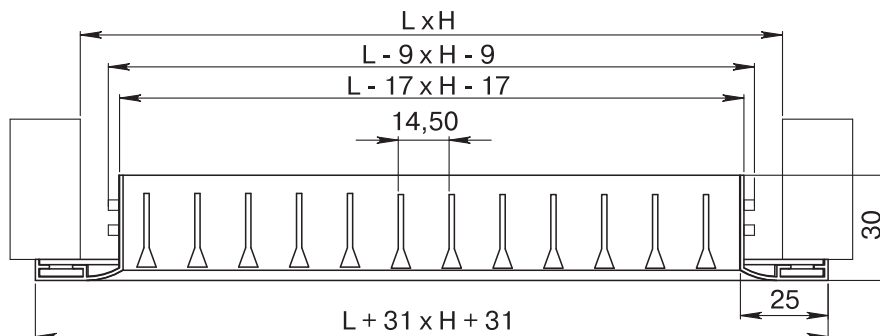
**Accessories:**  
 \_\_\_ – no  
 R – air flow regulator  
 A – adapter

**Grille fixation:**  
 u - versatile

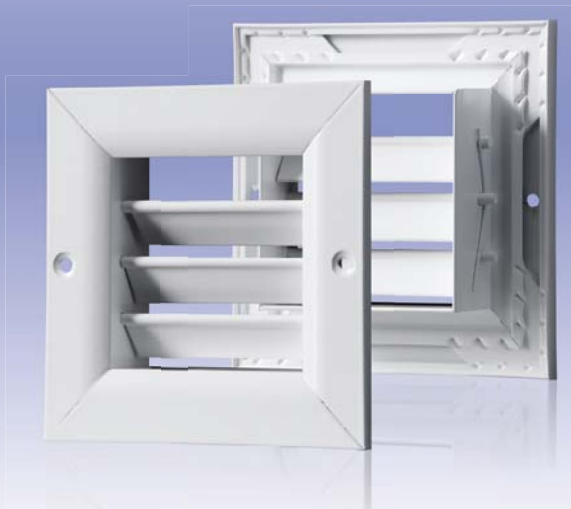
**\* Standard polymer coating colours:**



### Overall and mounting dimensions



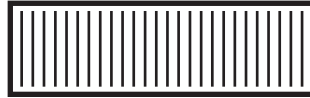
## Series ORG / ORV



Single-row ventilation grille  
with adjustable louvres



ORG – horizontal position  
of louvres



ORV – vertical position  
of louvres

### Application

- Supply and exhaust ventilation, heating and air conditioning networks in industrial, commercial and domestic premises.

### Design

- Made of high-quality extruded aluminium.
- Polymer or anodized grille coating ensures weather-resistant properties.
- Non-standard sizes may be ordered.
- ORG grilles with the length exceeding 450 mm are fitted with a centrally positioned vertical partition for extra rigidity.
- ORV grilles with the length exceeding 450 mm are fitted with a centrally positioned horizontal partition for extra rigidity.

### Modifications

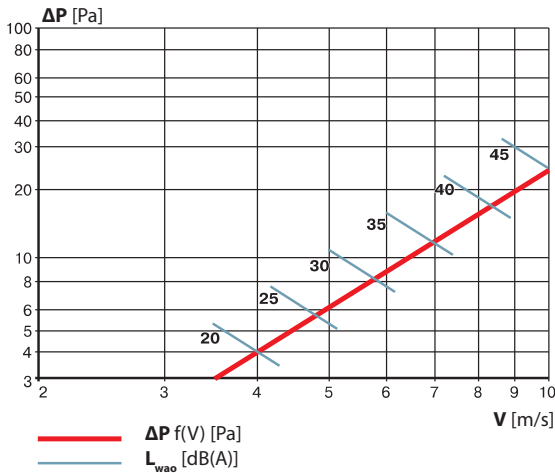
- Available modifications with an air flow regulator ( R ) and an adapter ( A ) for connection to air ducts, page 42.
- Available modifications with versatile fixing ( u ) or with special springs ( p ) for fast mounting, page 44.

## Standard size [mm] and air pass [m<sup>2</sup>]

Height H [mm]	Length L [mm]																		
	100	150	200	250	300	350	400	450*	500*	550*	600*	650*	700*	750*	800*	850*	900*	950*	1000*
100	0,002	0,008	0,014	0,018	0,023	0,027	0,033	0,03	0,044	0,046	0,049	0,055	0,061	0,067	0,072	0,076	0,08	0,084	0,088
150	0,005	0,011	0,017	0,021	0,026	0,030	0,036	0,041	0,047	0,049	0,052	0,058	0,064	0,07	0,075	0,079	0,083	0,087	0,091
200	0,008	0,018	0,025	0,031	0,040	0,045	0,054	0,062	0,072	0,077	0,082	0,089	0,096	0,104	0,112	0,118	0,124	0,13	0,136
250	0,010	0,021	0,032	0,038	0,048	0,055	0,066	0,075	0,087	0,093	0,101	0,11	0,118	0,128	0,138	0,146	0,153	0,161	0,168
300	0,013	0,027	0,041	0,051	0,062	0,071	0,084	0,096	0,113	0,121	0,129	0,14	0,15	0,163	0,175	0,185	0,194	0,204	0,213
350	0,016	0,031	0,046	0,057	0,073	0,081	0,096	0,11	0,13	0,14	0,15	0,161	0,171	0,186	0,2	0,211	0,222	0,232	0,243
400	0,019	0,037	0,055	0,068	0,087	0,100	0,114	0,131	0,155	0,167	0,179	0,191	0,203	0,221	0,238	0,251	0,264	0,276	0,289
450**	0,022	0,042	0,062	0,077	0,098	0,112	0,132	0,148	0,171	0,182	0,194	0,212	0,23	0,25	0,269	0,284	0,298	0,313	0,327
500**	0,024	0,047	0,069	0,085	0,109	0,125	0,144	0,166	0,187	0,197	0,208	0,232	0,257	0,279	0,301	0,317	0,333	0,349	0,365
600**	0,029	0,056	0,083	0,102	0,131	0,149	0,175	0,2	0,219	0,228	0,237	0,274	0,31	0,337	0,363	0,383	0,402	0,422	0,441
700**	0,034	0,066	0,098	0,120	0,154	0,175	0,205	0,235	0,269	0,286	0,303	0,333	0,364	0,395	0,426	0,445	0,463	0,482	0,5
800**	0,038	0,075	0,112	0,138	0,177	0,201	0,235	0,269	0,319	0,343	0,368	0,393	0,417	0,453	0,489	0,507	0,524	0,542	0,559
900**	0,043	0,085	0,127	0,156	0,20	0,227	0,266	0,304	0,359	0,387	0,415	0,443	0,471	0,511	0,552	0,577	0,602	0,627	0,653
1000**	0,047	0,094	0,141	0,173	0,22	0,253	0,296	0,338	0,4	0,431	0,462	0,493	0,524	0,569	0,614	0,647	0,68	0,713	0,746

\* The grilles are equipped with a vertical partition (applicable only for ORG)  
 \*\* The grilles are equipped with a horizontal partition (applicable only for ORV)

## Pressure loss and sound power level



Calculation formula	Correction factor $K_p$		
	0°	22°	45°
$\Delta P_p = \Delta P \times K_p$	1	1,25	1,5

Calculation formula	Correction factor K						
	$S_{ap}$ [m <sup>2</sup> ]	0,01	0,02	0,05	0,1	0,2	0,4
$L_{wa} = L_{wao} \times K$	K [dB(A)]	-9	-6	-3	0	+3	+6

### Designation:

$\Delta P_p$  – pressure loss at various vane positions [Pa]

$\Delta P$  – pressure loss [Pa]

$K_p$  – correction factor for pressure loss calculation depending on louvre deflection angle

$L_{wa}$  – sound power level [dB(A)]

$L_{wao}$  – sound power level for air pass 0.1 m<sup>2</sup> [dB(A)]

$K$  – correction factor for sound power level calculation depending on air pass [dB(A)]

$S_{ap}$  – air pass [m<sup>2</sup>]

$V$  – rated speed [m/s]

## Order code



### Grille type:

ORG – single-row grille with individually adjustable horizontal louvres

ORV – single-row grille with individually adjustable vertical louvres

### Grille size:

L – length [mm]

H – height [mm]

### Grille coating:

"\_\_\_" – colour\* (white by default)

"Anodized"

### Accessories:

\_\_\_ – no

R – air flow regulator

A – adapter

### Grille fixation:

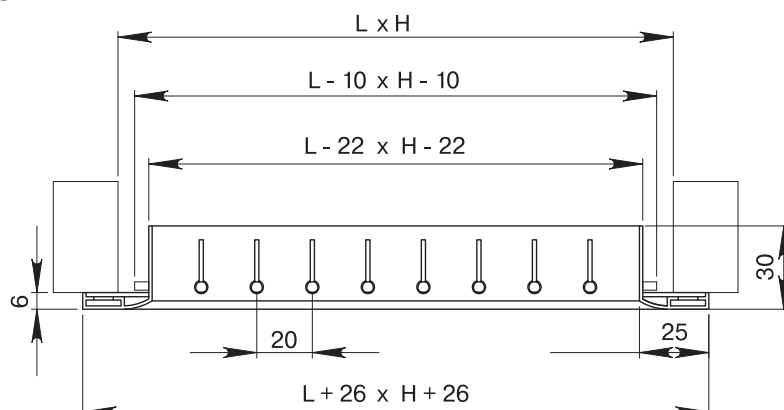
u – versatile

p – spring

### \* Standard polymer coating colours:



## Overall and mounting dimensions

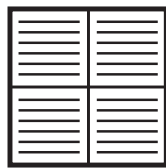




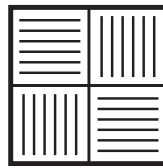
## Series ORK



Single-row sectional ventilation grille with adjustable louvers



ORK1 – parallel louvre position



ORK2 – pairwise perpendicular louvre position

### Application

- Supply and exhaust ventilation, heating and air conditioning networks in industrial, commercial and domestic premises.

### Design

- Made of high-quality extruded aluminium.
- Air flow direction control.
- Cross-flow partition provides extra rigidity.
- Polymer or anodized grille coating ensures weather-resistant properties.
- Non-standard sizes may be ordered.

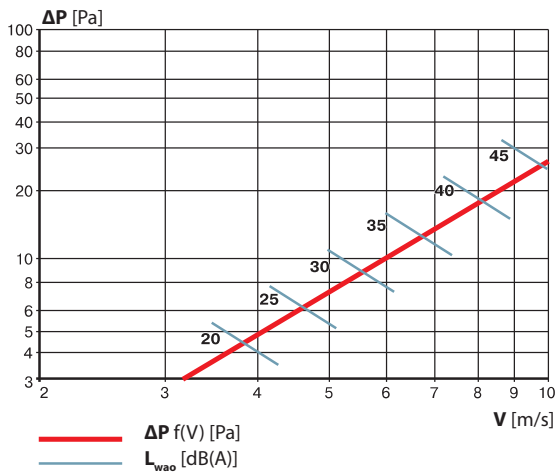
### Modifications

- Available modifications with an air flow regulator (R) and an adapter (A) for connection to air ducts, page 42.
- Available modifications with versatile fixing (u) for fast mounting, page 44.

## Standard size [mm] and air pass [m<sup>2</sup>]

Height H [mm]	Length L [mm]											
	450	500	550	600	650	700	750	800	850	900	950	1000
450	0,148	0,171	0,182	0,194	0,212	0,230	0,250	0,269	0,284	0,298	0,313	0,327
500	0,166	0,187	0,197	0,208	0,232	0,257	0,279	0,301	0,317	0,333	0,349	0,365
550	0,183	0,203	0,213	0,223	0,253	0,283	0,308	0,332	0,350	0,367	0,385	0,403
600	0,2	0,219	0,228	0,237	0,274	0,31	0,337	0,363	0,383	0,402	0,422	0,441
650	0,217	0,244	0,257	0,270	0,303	0,337	0,366	0,395	0,414	0,433	0,452	0,471
700	0,235	0,269	0,286	0,303	0,333	0,364	0,395	0,426	0,445	0,463	0,482	0,500
750	0,252	0,294	0,314	0,335	0,363	0,390	0,424	0,458	0,476	0,494	0,512	0,530
800	0,269	0,319	0,343	0,368	0,393	0,417	0,453	0,489	0,507	0,524	0,542	0,559
850	0,286	0,339	0,365	0,392	0,418	0,444	0,482	0,520	0,542	0,563	0,585	0,606
900	0,304	0,359	0,387	0,415	0,443	0,471	0,511	0,552	0,577	0,602	0,627	0,653
950	0,321	0,380	0,409	0,439	0,468	0,497	0,540	0,583	0,612	0,641	0,670	0,699
1000	0,338	0,4	0,431	0,462	0,493	0,524	0,569	0,614	0,647	0,68	0,713	0,746

## Pressure loss and sound power level



### Calculation formula

$$\Delta P_p = \Delta P \times K_p$$

### Calculation formula

$$L_{wa} = L_{wao} \times K$$

### Correction factor $K_p$

	0°	22°	45°
$K_p$	1	1,25	1,5

### Correction factor $K$

	0,01	0,02	0,05	0,07	0,1	0,2
$S_{ap}$ [m <sup>2</sup> ]						
$K$ [dB(A)]	-9	-6	-3	-1,5	0	+3

### Designation:

$\Delta P_p$  – pressure loss at various vane positions [Pa]

$\Delta P$  – pressure loss [Pa]

$K_p$  – correction factor for pressure loss calculation depending on louvre deflection angle

$L_{wa}$  – sound power level [dB(A)]

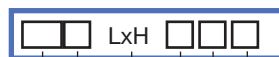
$L_{wao}$  – sound power level for air pass 0.1 m<sup>2</sup> [dB(A)]

$K$  – correction factor for sound power level calculation depending on air pass [dB(A)]

$S_{ap}$  – air pass [m<sup>2</sup>]

$V$  – rated speed [m/s]

## Order code



**Grille type:** \_\_\_\_\_  
 ORK – single-row sectional grille with individually adjustable louvres

**Vane position:** \_\_\_\_\_  
 1 – parallel (deflection angle 0°)  
 2 – pairwise perpendicular (deflection angle 15°)

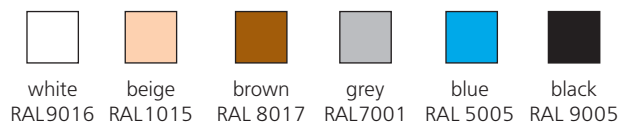
**Grille size:** \_\_\_\_\_  
 L – length [mm]  
 H – height [mm]

**Grille coating:** \_\_\_\_\_  
 "\_\_\_" – colour\* (white by default)  
 "Anodized"

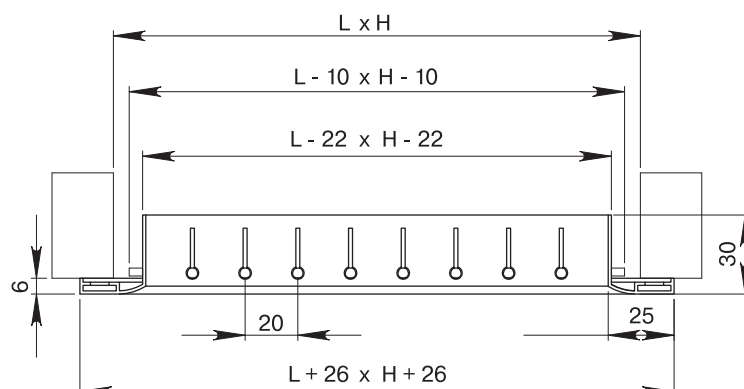
**Accessories:** \_\_\_\_\_ no  
 R – air flow regulator  
 A – adapter

**Grille fixation:** \_\_\_\_\_  
 u – versatile

### \* Standard polymer coating colours:



## Overall and mounting dimensions



## Series DR



Double-row ventilation grille with adjustable louvers

### Application

- Supply and exhaust ventilation, heating and air conditioning networks in industrial, commercial and domestic premises.

### Design

- Made of high-quality extruded aluminium.
- Two louvre rows provide smooth air flow distribution.
- Smooth air direction adjustment (360°).
- Polymer or anodized grille coating ensures weather-resistant properties.
- Non-standard sizes may be ordered.

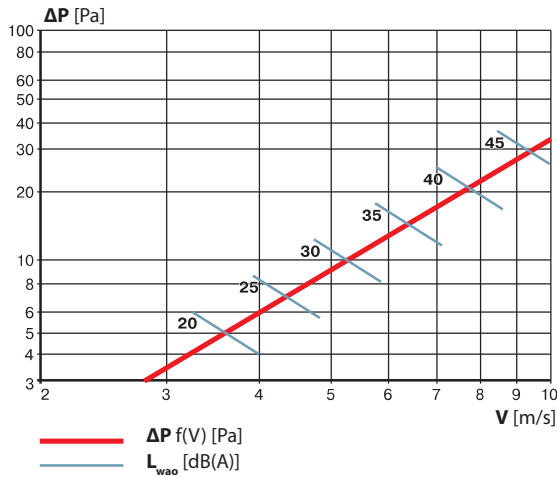
### Modifications

- Available modifications with an air flow regulator ( R ) and an adapter ( A ) for connection to air ducts, page 42.
- Available modifications with versatile fixing ( u ) for fast mounting, page 44.

## Standard size [mm] and air pass [m<sup>2</sup>]

Height H [mm]	Length L [mm]																		
	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
100	0,004	0,008	0,014	0,018	0,023	0,027	0,033	0,038	0,044	0,046	0,049	0,055	0,061	0,067	0,072	0,076	0,080	0,084	0,088
150		0,015	0,020	0,026	0,031	0,037	0,042	0,044	0,047	0,049	0,052	0,058	0,064	0,070	0,075	0,079	0,083	0,087	0,091
200			0,025	0,034	0,040	0,048	0,054	0,063	0,072	0,077	0,082	0,089	0,096	0,104	0,112	0,118	0,124	0,130	0,136
250				0,045	0,053	0,064	0,072	0,082	0,093	0,099	0,105	0,112	0,118	0,128	0,138	0,146	0,153	0,161	0,168
300					0,062	0,075	0,084	0,098	0,113	0,121	0,129	0,140	0,150	0,163	0,175	0,185	0,194	0,204	0,213
350						0,091	0,102	0,116	0,130	0,140	0,150	0,161	0,171	0,186	0,200	0,211	0,222	0,232	0,243
400							0,118	0,137	0,155	0,167	0,179	0,191	0,203	0,221	0,238	0,251	0,264	0,276	0,289
450								0,148	0,171	0,182	0,194	0,212	0,230	0,250	0,269	0,284	0,298	0,313	0,327
500									0,187	0,197	0,208	0,232	0,257	0,279	0,301	0,317	0,333	0,349	0,365
550										0,099	0,223	0,253	0,283	0,308	0,332	0,350	0,367	0,385	0,403
600											0,237	0,274	0,310	0,337	0,363	0,383	0,402	0,422	0,441
650												0,137	0,233	0,314	0,395	0,414	0,433	0,452	0,471
700													0,155	0,291	0,426	0,445	0,463	0,482	0,500
750														0,145	0,458	0,476	0,494	0,512	0,530
800															0,489	0,507	0,524	0,542	0,559
850																0,253	0,393	0,500	0,606
900																	0,262	0,457	0,653
950																		0,229	0,699
1000																			0,746

## Pressure loss and sound power level



Calculation formula	Correction factor $K_p$		
	0°	22°	45°
$\Delta P_p = \Delta P \times K_p$	1	1,25	1,5

Calculation formula	Correction factor K						
	$S_{ap}$ [m²]	0,01	0,02	0,05	0,07	1	2
$L_{wa} = L_{wao} \times K$	K [dB(A)]	-9	-6	-3	-1,5	0	+3

### Designation:

$\Delta P_p$  – pressure loss at various vane positions [Pa]

$\Delta P$  – pressure loss [Pa]

$K_p$  – correction factor for pressure loss calculation depending on louvre deflection angle

$L_{wa}$  – sound power level [dB(A)]

$L_{wao}$  – sound power level for air pass 0.1 m² [dB(A)]

K – correction factor for sound power level calculation depending on air pass [dB(A)]

$S_{ap}$  – air pass [m²]

V – rated speed [m/s]

## Order code



**Grille type:** \_\_\_\_\_  
DR – double-row grille with individually adjustable louvres

**Grille size:** \_\_\_\_\_  
L – length [mm]  
H – height [mm]

**Grille coating:** \_\_\_\_\_  
"\_\_\_\_" – colour\* (white by default)  
"Anodized"

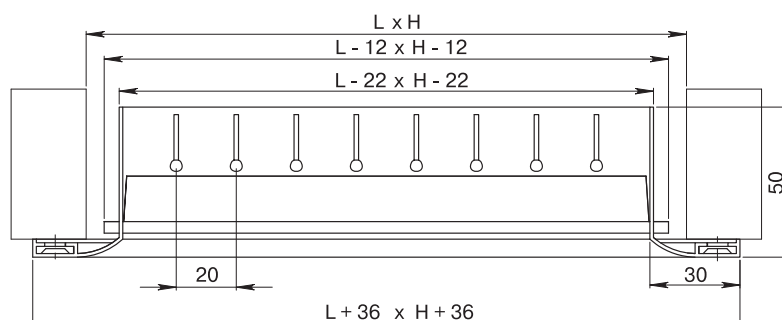
**Accessories:** \_\_\_\_\_  
\_\_\_\_ – no  
R – air flow regulator  
A – adapter

**Grille fixation:** \_\_\_\_\_  
u – versatile

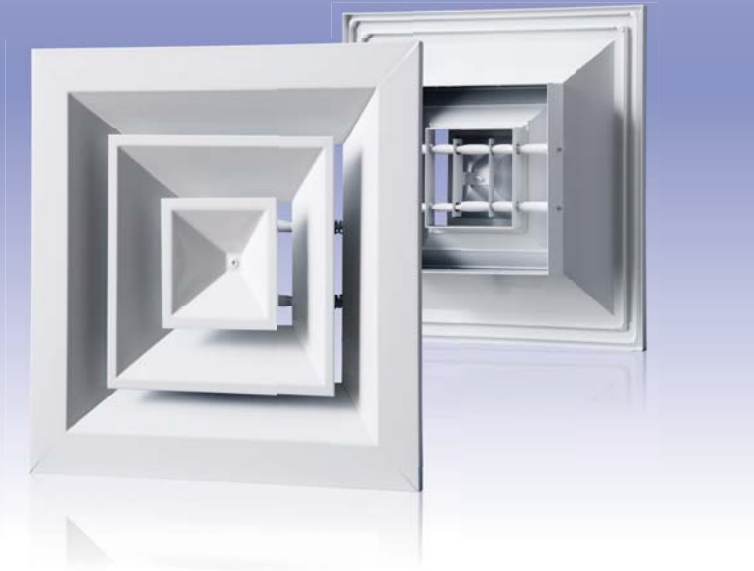
\* Standard polymer coating colours:



## Overall and mounting dimensions



## Series DP



Ceiling diffuser with fixed vanes

### Application

- Supply and exhaust ventilation, heating and air conditioning networks in industrial, commercial and domestic premises.

### Design

- Made of high-quality extruded aluminium.
- Four-sided uniform air flow distribution.
- Ideal solution for installation into the Armstrong suspended ceilings.
- Polymer or anodized grille coating ensures weather-resistant properties.
- Non-standard sizes may be ordered.

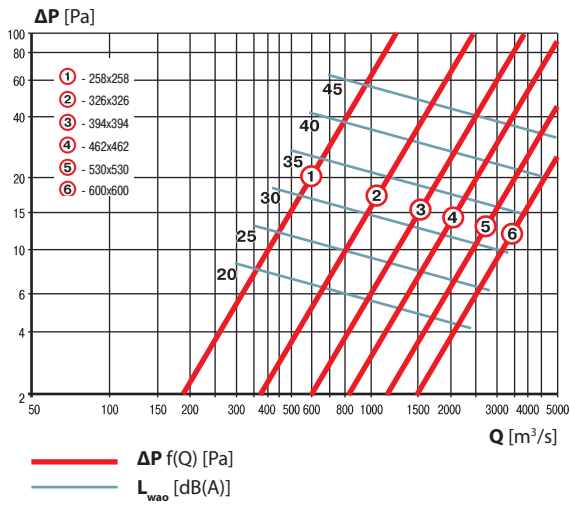
### Modifications

- Available modifications with an air flow regulator (R) and an adapter (A) for connection to air ducts, page 42.

## Standard size [mm] and air pass [m<sup>2</sup>]

		Length L [mm]						
		L	258	326	394	462	530	600
Height H [mm]	H	h	146	213	282	349	418	488
	258	146	0,015	0,020	0,024	0,029	0,034	0,038
	326	213		0,030	0,037	0,044	0,051	0,058
	394	282			0,049	0,058	0,068	0,077
	462	349				0,073	0,085	0,096
	530	418					0,101	0,115
	600	488						0,134

### Pressure loss and sound power level



**Designation:**

- $\Delta P$  – pressure loss [Pa]
- $Q$  – air capacity [ $m^3/h$ ]
- $L_{WA}$  – sound power level [dB(A)]

### Order code



**Grille type:** \_\_\_\_\_  
 DP – ceiling diffuser

**Grille size:** \_\_\_\_\_  
 L – length [mm]  
 H – height [mm]

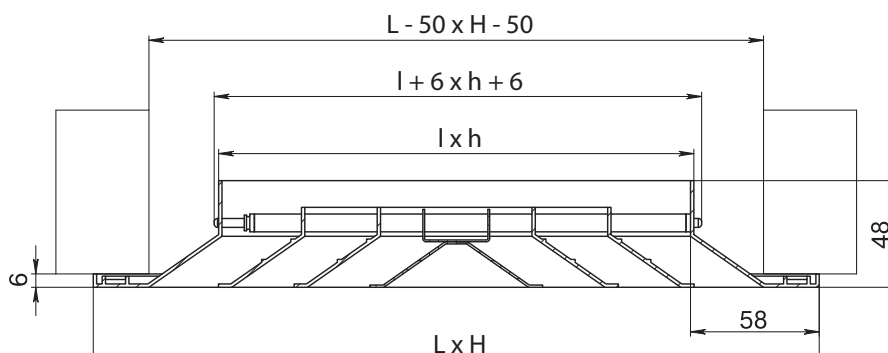
**Grille coating:** \_\_\_\_\_  
 "\_\_\_\_" – colour\* (white by default)  
 "Anodized"

**Accessories:** \_\_\_\_\_ no  
 R – air flow regulator  
 A – adapter

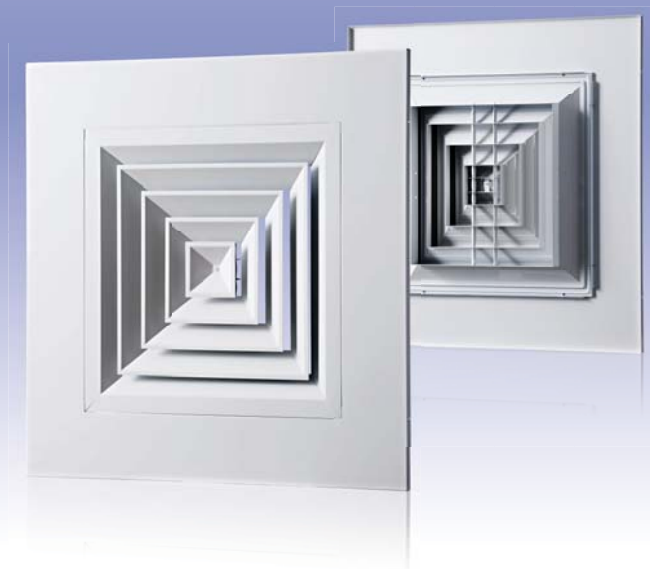
**\* Standard polymer coating colours:**



### Overall and mounting dimensions



## Series DPp



Ceiling diffuser with fixed vanes

### Application

- Supply and exhaust ventilation, heating and air conditioning networks in industrial, commercial and domestic premises.

### Design

- Made of high-quality extruded aluminium.
- Four-sided uniform air flow distribution.
- Ideal solution for installation into the Armstrong suspended ceilings.
- Polymer or anodized grille coating ensures weather-resistant properties.
- Non-standard sizes may be ordered.

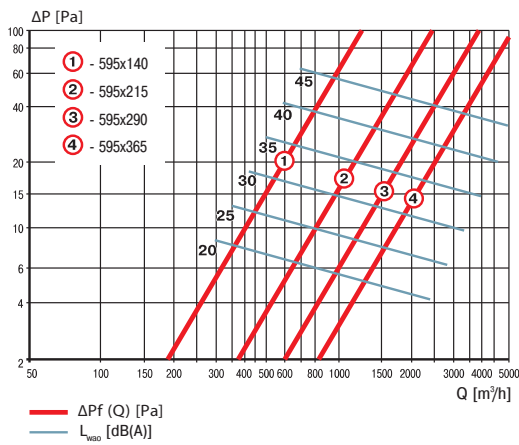
### Modifications

- Available modifications with an air flow regulator ( R ) and an adapter ( A ) for connection to air ducts, page 42.

## Standard size [mm] and air pass [m<sup>2</sup>]

A	B	Air pass [m <sup>2</sup> ]			
595	140	0,014			
595	215	0,034			
595	290	0,053			
595	365	0,084			

## Pressure loss and sound power level



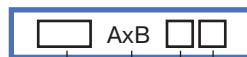
### Designation:

$\Delta P$  – pressure loss [Pa]

$Q$  – air capacity [m<sup>3</sup>/h]

$L_{WA}$  – sound power level [dB(A)]

## Order code



### Grille type:

DPP – ceiling diffuser

### Grille size:

A – outer size [mm]

V – cross section size [mm]

### Grille coating:

"\_\_\_" – colour\* (white by default)

"Anodized"

### Accessories:

\_\_\_ – no

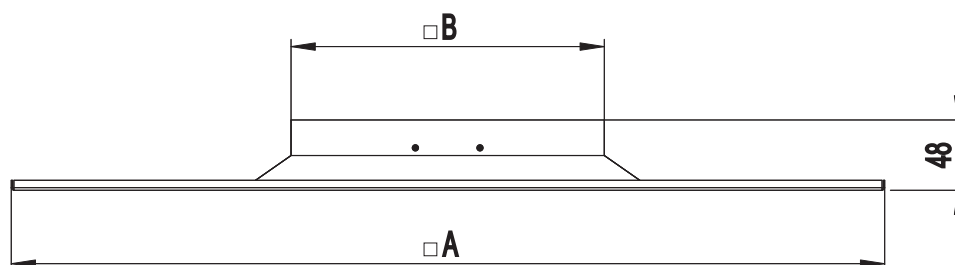
R – air flow regulator

A – adapter

### \* Standard polymer coating colours:



## Overall and mounting dimensions





## Series DS



Slit diffuser

### Application

- Supply and exhaust ventilation, heating and air conditioning networks in industrial, commercial and domestic premises.

### Design

- Made of high-quality extruded aluminium.
- Focused air flow distribution.
- Air flow direction control.
- Polymer or anodized grille coating ensures weather-resistant properties.
- Non-standard sizes may be ordered.

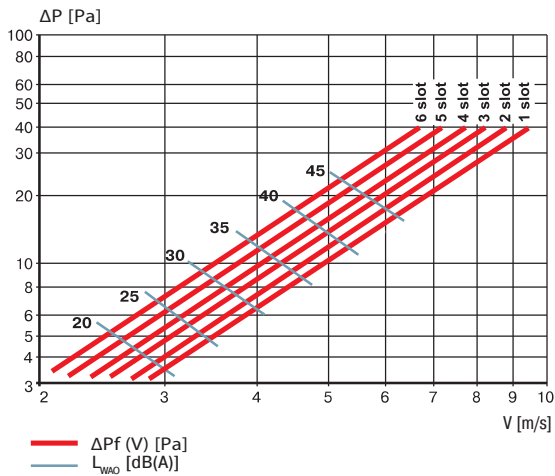
### Modifications

- Available modifications with an adapter (A) for connection to air ducts, page 42.
- Available modifications with versatile fixing (u) or with special springs (p) for fast mounting, page 44.

## Standard size [mm] and air pass [m<sup>2</sup>]

Height H [mm]		Length L [mm]														
Number of slits	H, mm	200	300	400	500	600	700	800	900	1000	1200	1400	1500	1600	1800	2000
1	62	0,0043	0,0067	0,009	0,0114	0,0138	0,0162	0,0186	0,0209	0,0233	0,0281	0,0328	0,0352	0,0376	0,0423	0,0471
2	106	0,0086	0,0134	0,0180	0,0228	0,0276	0,0324	0,0372	0,0418	0,0466	0,0562	0,0656	0,0704	0,0752	0,0846	0,0942
3	151	0,0129	0,0201	0,0270	0,0342	0,0414	0,0486	0,0558	0,0627	0,0699	0,0843	0,0984	0,1056	0,1128	0,1269	0,1413
4	195	0,0172	0,0268	0,0360	0,0456	0,0552	0,0648	0,0744	0,0836	0,0932	0,1124	0,1312	0,1408	0,1504	0,1692	0,1884
5	239	0,0215	0,0335	0,0450	0,0570	0,0690	0,0810	0,0930	0,1045	0,1165	0,1405	0,1640	0,1760	0,1880	0,2115	0,2355
6	283	0,0258	0,0402	0,0540	0,0684	0,0828	0,0972	0,1116	0,1254	0,1398	0,1686	0,1968	0,2112	0,2256	0,2538	0,2826

### Pressure loss and sound power level



Calculation formula	Correction factor $K_p$	
	0°	45°
$\Delta P_p = \Delta P \times K_p$	$K_p$	1, 1,5

Calculation formula	Correction factor $K$						
	$S_{ap}$ [m <sup>2</sup> ]	0,01	0,02	0,05	0,1	0,2	0,4
$L_{WA} = L_{WA0} \times K$	$K$ [dB(A)]	-9	-6	-3	0	+3	+6

**Designation:**

- $\Delta P_p$  – pressure loss at various vane positions [Pa]
- $\Delta P$  – pressure loss [Pa]
- $K_p$  – correction factor for pressure loss calculation depending on louvre deflection angle
- $L_{WA}$  – sound power level [dB(A)]
- $L_{WA0}$  – sound power level for air pass 0.1 m<sup>2</sup> [dB(A)]
- $K$  – correction factor for sound power level calculation depending on air pass [dB(A)]
- $S_{ap}$  – air pass [m<sup>2</sup>]
- $V$  – rated speed [m/s]

### Order code



**Grille type:**

DS – slit diffuser

**Number of slits:**

1, 2, 3, 4, 5, 6

**Grille size:**

L – length [mm]  
H – height [mm]

**Grille coating:**

"\_\_\_" – colour\* (white by default)  
"Anodized"

**Accessories:**

\_\_\_ – no  
A – adapter

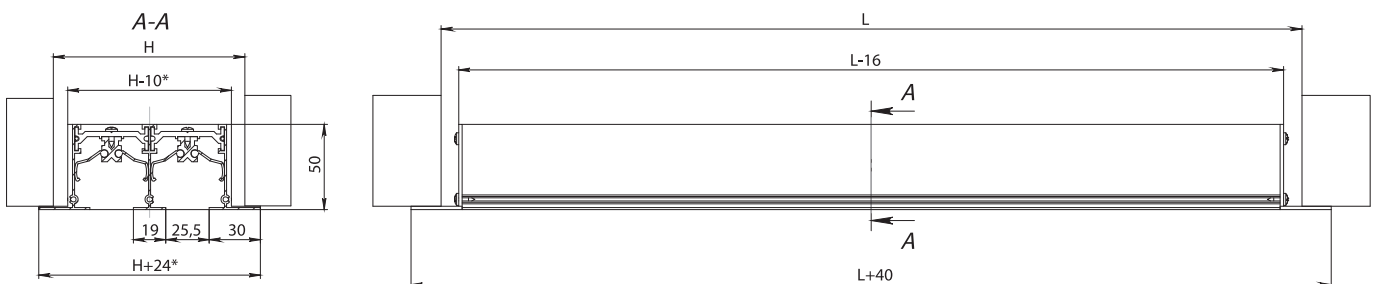
**Grille fixation:**

u – versatile  
p – spring

**\* Standard polymer coating colours:**



### Overall and mounting dimensions



## Series RP



Exhaust ventilation grille with a mesh insert



RP1 – expanded metal insert



RP2 –perforated insert with round holes

### Application

- Supply and exhaust ventilation, heating and air conditioning networks in industrial, commercial and domestic premises.

### Design

- Made of high-quality extruded aluminium shape and an insert piece of perforated steel or expanded mesh.
- Polymer or anodized grille coating ensures weather-resistant properties.
- Non-standard sizes may be ordered.

### Modifications

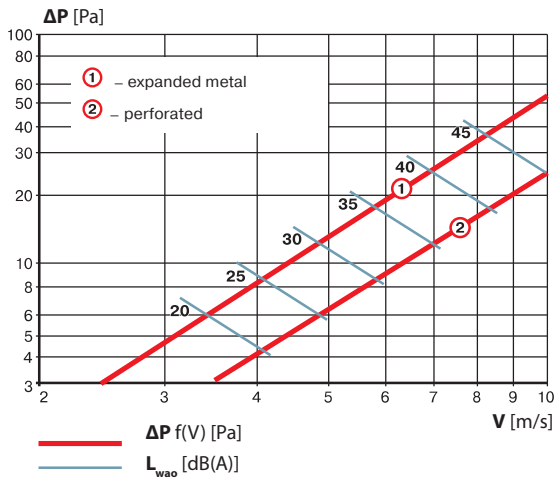
- Available modifications with an adapter (A) for connection to air ducts, page 42.
- Available modifications with versatile fixing (u) or with special springs (p) for fast mounting, page 44.

## Standard size [mm] and air pass [m<sup>2</sup>]

	Height H [mm]	Length L [mm]													
		100	150	200	250	300	350	400	450	500	600	700	800	900	1000
Expanded metal sheet	100	0,006	0,008	0,010	0,012	0,016	0,018	0,020	0,023	0,026	0,033	0,037	0,043	0,047	0,050
	150		0,010	0,015	0,019	0,024	0,027	0,030	0,041	0,046	0,051	0,059	0,068	0,075	0,082
	200			0,022	0,028	0,036	0,040	0,044	0,054	0,062	0,076	0,087	0,102	0,113	0,124
	250				0,038	0,042	0,048	0,054	0,073	0,083	0,103	0,118	0,138	0,153	0,168
	300					0,058	0,065	0,071	0,099	0,112	0,139	0,159	0,176	0,199	0,221
	350						0,067	0,087	0,110	0,123	0,153	0,175	0,211	0,231	0,252
	400							0,102	0,120	0,134	0,166	0,190	0,245	0,264	0,282
	450								0,143	0,162	0,201	0,230	0,269	0,299	0,328
	500									0,184	0,228	0,261	0,305	0,338	0,371
	600										0,283	0,324	0,378	0,419	0,460
700											0,370	0,433	0,480	0,527	
800												0,505	0,561	0,616	
900													0,628	0,684	
1000														0,751	

	Height H [mm]	Length L [mm]													
		100	150	200	250	300	350	400	450	500	600	700	800	900	1000
Perforated sheet	100	0,003	0,005	0,007	0,009	0,011	0,013	0,015	0,017	0,019	0,024	0,026	0,032	0,035	0,038
	150		0,008	0,012	0,014	0,017	0,021	0,024	0,027	0,031	0,039	0,043	0,052	0,058	0,063
	200			0,017	0,021	0,026	0,031	0,035	0,040	0,046	0,057	0,063	0,076	0,084	0,092
	250				0,026	0,032	0,038	0,044	0,050	0,057	0,071	0,078	0,094	0,104	0,114
	300					0,041	0,049	0,056	0,063	0,071	0,088	0,101	0,118	0,131	0,143
	350						0,059	0,066	0,074	0,083	0,104	0,119	0,139	0,154	0,169
	400							0,076	0,085	0,095	0,120	0,137	0,160	0,177	0,194
	450								0,096	0,109	0,135	0,149	0,180	0,198	0,216
	500									0,123	0,138	0,153	0,170	0,204	0,246
	600										0,154	0,171	0,190	0,228	0,274
700											0,189	0,210	0,253	0,304	
800												0,233	0,281	0,338	
900													0,338	0,407	
1000														0,489	

## Pressure loss and sound power level



Calculation formula
$L_{WA} = L_{WAO} + K$

Correction factor K								
	$S_{ap}$ [m <sup>2</sup> ]	0,001	0,01	0,02	0,05	0,1	0,2	0,4
K [dB(A)]	-	-	-	-	0	+3	+6	

### Designation:

- $\Delta P$  – pressure loss [Pa]
- $L_{WA}$  – sound power level [dB(A)]
- $L_{WAO}$  – sound power level for air pass 0.1 m<sup>2</sup> [dB(A)]
- K – correction factor for sound power level calculation depending on air pass [dB(A)]
- $S_{ap}$  – air pass [m<sup>2</sup>]
- V – rated speed [m/s]

## Order code



**Grille type:** \_\_\_\_\_  
RP – grille with a mesh insert

**Тип вставки:** \_\_\_\_\_  
1 – expanded metal  
2 – perforated with round holes

**Grille size:** \_\_\_\_\_  
L – length [mm]  
H – height [mm]

**Grille coating:** \_\_\_\_\_  
"\_\_\_\_" – colour\* (white by default)  
"Anodized"

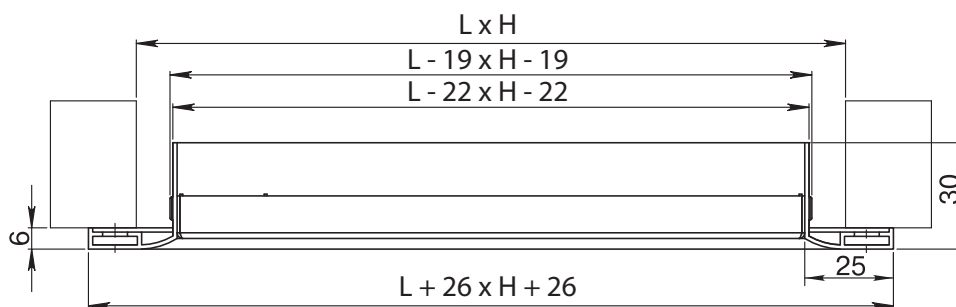
**Accessories:** \_\_\_\_\_  
\_\_\_\_ – no  
A – adapter

**Grille fixation:** \_\_\_\_\_  
u – versatile  
p – spring

### \* Standard polymer coating colours:



## Overall and mounting dimensions



## Series RN



Supply and exhaust ventilation grille  
with fixed vanes

### Application

- Supply and exhaust ventilation, heating and air conditioning networks in industrial, commercial and domestic premises.

### Design

- Made of high-quality extruded aluminium shape and an insert piece of perforated steel or expanded mesh.
- Reinforced frame design provides 100% grille rigidity.
- Special vane design prevents water ingress into a ventilation system.
- A built-in protecting mesh prevents ingress of foreign objects into a ventilation system.
- Polymer or anodized grille coating ensures weather-resistant properties.
- Non-standard sizes may be ordered.

### Modifications

- Available modifications with an adapter (A) for connection to air ducts, page 42.
- Available modifications with versatile fixing (u) for fast mounting, page 44.

## Air flow distributions

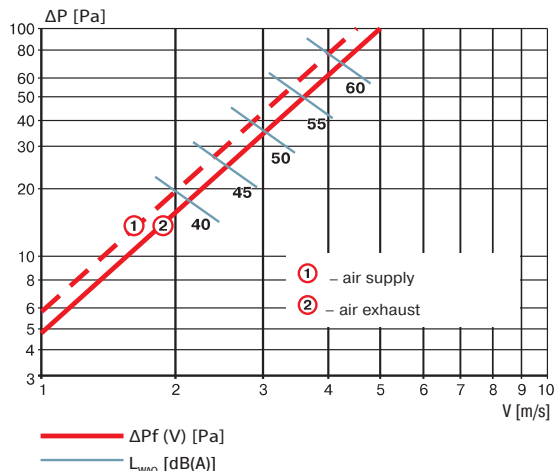


fixed (45°)

## Standard size [mm] and air pass [m<sup>2</sup>]

Height H [mm]	Length L [mm]									
	300	350	400	450	500	600	700	800	900	1000
300	0,039	0,047	0,054	0,061	0,067	0,079	0,087	0,099	0,115	0,127
350		0,059	0,066	0,074	0,082	0,096	0,106	0,121	0,140	0,155
400			0,078	0,087	0,096	0,112	0,125	0,143	0,164	0,182
450				0,102	0,111	0,131	0,144	0,165	0,189	0,210
500					0,125	0,150	0,163	0,187	0,213	0,237
600						0,168	0,201	0,231	0,262	0,292
700							0,239	0,275	0,311	0,347
800								0,318	0,360	0,401
900									0,409	0,456
1000										0,511

## Pressure loss and sound power level



Calculation formula
$L_{wa} = L_{wao} + K$

Correction factor K								
$S_{ap}$ [m <sup>2</sup> ]	0,03	0,05	0,07	0,10	0,15	0,2	0,3	0,4
K [dB(A)]	4,5	3	1,5	0	+1,5	+3	+4,5	+6

### Designation:

- $\Delta P$  – pressure loss [Pa]
- $L_{wa}$  – sound power level [dB(A)]
- $L_{wao}$  – sound power level for air pass 0.1 m<sup>2</sup> [dB(A)]
- K** – correction factor for sound power level calculation depending on air pass [dB(A)]
- $S_{ap}$  – air pass [m<sup>2</sup>]
- V** – rated speed [m/s]

## Order code



### Grille type:

RN – outer grille

### Grille size:

L – length [mm]

H – height [mm]

### Grille coating:

"\_\_\_" – colour\* (white by default)

"Anodized"

### Accessories:

\_\_\_ – no

A – adapter

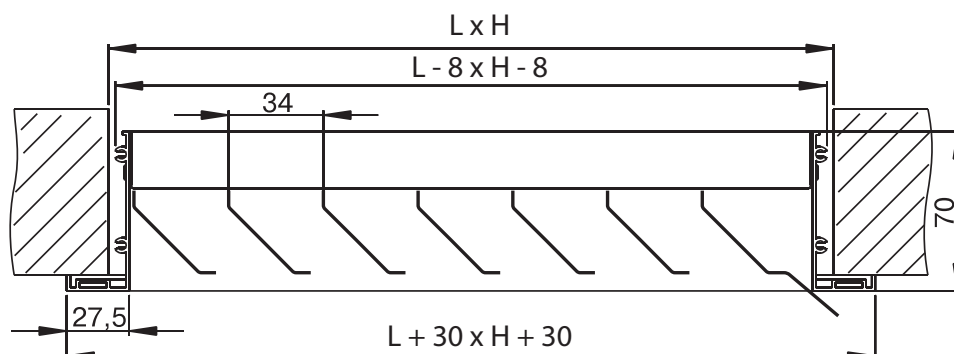
### Grille fixation:

u – versatile

### \* Standard polymer coating colours:



## Overall and mounting dimensions



## Series RG



Ventilation grille with gravity shutters

### ■ Application

- Exhaust ventilation, heating and air conditioning networks in industrial, commercial and domestic premises.

### ■ Design

- Made of high-quality extruded aluminium shape and an insert piece of perforated steel or expanded mesh.
- Polymer or anodized grille coating ensures weather-resistant properties.
- Non-standard sizes may be ordered.

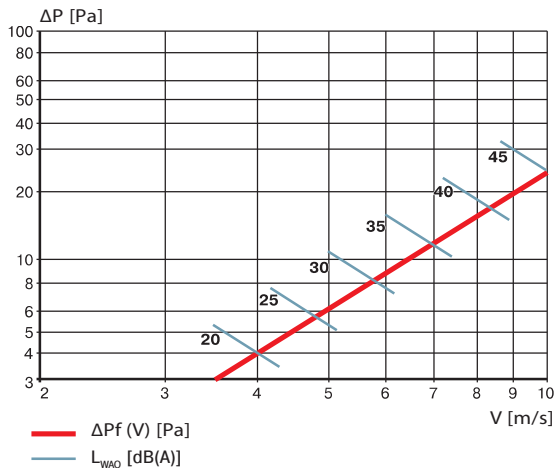
### ■ Modifications

- Available modifications with an adapter (A) for connection to air ducts, page 42.
- Available modifications with versatile fixing (u) for fast mounting, page 44.

## Standard size [mm] and air pass [m<sup>2</sup>]

Height H [mm]	Length L [mm]								
	100	150	200	250	300	350	400	450	500
100	0,002	0,008	0,014	0,018	0,023	0,027	0,033	0,038	0,044
150	0,005	0,011	0,017	0,021	0,026	0,030	0,036	0,041	0,047
200	0,008	0,018	0,025	0,031	0,040	0,045	0,054	0,062	0,072
250	0,010	0,021	0,032	0,038	0,048	0,055	0,066	0,076	0,043
300	0,013	0,027	0,041	0,051	0,062	0,071	0,084	0,096	0,113
350	0,016	0,031	0,046	0,057	0,073	0,081	0,096	0,11	0,13
400	0,019	0,037	0,055	0,068	0,087	0,100	0,114	0,131	0,155
450	0,022	0,042	0,062	0,077	0,098	0,112	0,132	0,148	0,171
500	0,024	0,047	0,069	0,085	0,109	0,125	0,144	0,166	0,187

## Pressure loss and sound power level



Calculation formula	Correction factor $K_p$			
	0°	22°	45°	
$\Delta P_p = \Delta P \times K_p$	$K_p$	1	1,25	1,5

Calculation formula	Correction factor K						
	$S_{ap}$ [m <sup>2</sup> ]	0,01	0,02	0,05	0,1	0,2	0,4
$L_{WA} = L_{WAO} \times K$	K [dB(A)]	-9	-6	-3	0	+3	+6

### Designation:

$\Delta P_p$  – pressure loss at various vane positions [Pa]

$\Delta P$  – pressure loss [Pa]

$K_p$  – correction factor for pressure loss calculation depending on louvre deflection angle

$L_{WA}$  – sound power level [dB(A)]

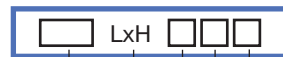
$L_{WAO}$  – sound power level for air pass 0.1 m<sup>2</sup> [dB(A)]

K – correction factor for sound power level calculation depending on air pass [dB(A)]

$S_{ap}$  – air pass [m<sup>2</sup>]

V – rated speed [m/s]

## Order code



### Grille type:

RG – gravity grille

### Grille size:

L – length [mm]

H – height [mm]

### Grille coating:

"\_\_\_" – colour\* (white by default)

"Anodized"

### Accessories:

\_\_\_ – no

A – adapter

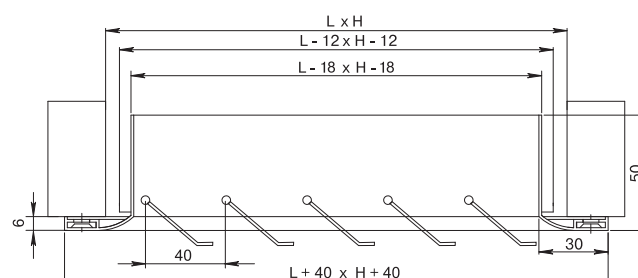
### Grille fixation:

u – versatile

### \* Standard polymer coating colours:



## Overall and mounting dimensions





## Series RGS



Sectional ventilation grille with gravity shutters

### Application

- Exhaust ventilation, heating and air conditioning networks in industrial, commercial and domestic premises.

### Design

- Made of high-quality extruded aluminium shape and an insert piece of perforated steel or expanded mesh.
- Polymer or anodized grille coating ensures weather-resistant properties.
- Non-standard sizes may be ordered.

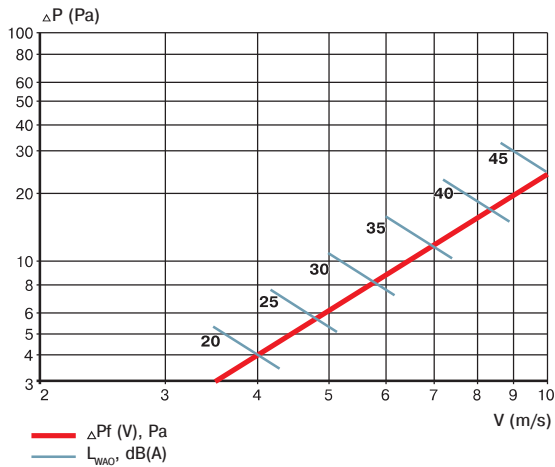
### Modifications

- Available modifications with an adapter (A) for connection to air ducts, page 42.
- Available modifications with versatile fixing (u) or with special springs (p) for fast mounting, page 44.

## Standard size [mm] and air pass [m<sup>2</sup>]

Height H [mm]	Length L [mm]																						
	100	140	180	220	260	300	340	380	420	460	500	540	580	620	660	700	740	780	820	860	900	940	980
100	-	-	-	-	-	-	-	-	-	-	-	0,045	0,048	0,053	0,058	0,061	0,066	0,07	0,074	0,078	0,08	0,083	0,087
140	-	-	-	-	-	-	-	-	-	-	-	0,064	0,068	0,075	0,083	0,086	0,093	0,1	0,106	0,111	0,115	0,119	0,123
180	-	-	-	-	-	-	-	-	-	-	-	0,083	0,088	0,097	0,108	0,111	0,12	0,13	0,138	0,144	0,15	0,155	0,159
220	-	-	-	-	-	-	-	-	-	-	-	0,102	0,108	0,119	0,133	0,136	0,147	0,16	0,17	0,177	0,185	0,191	0,195
260	-	-	-	-	-	-	-	-	-	-	-	0,121	0,128	0,141	0,158	0,161	0,174	0,19	0,202	0,21	0,22	0,227	0,231
300	-	-	-	-	-	-	-	-	-	-	-	0,14	0,148	0,163	0,183	0,186	0,201	0,22	0,234	0,243	0,255	0,263	0,267
340	-	-	-	-	-	-	-	-	-	-	-	0,159	0,168	0,185	0,208	0,211	0,228	0,25	0,266	0,276	0,29	0,299	0,303
380	-	-	-	-	-	-	-	-	-	-	-	0,178	0,188	0,207	0,233	0,236	0,255	0,28	0,298	0,309	0,325	0,335	0,339
420	-	-	-	-	-	-	-	-	-	-	-	0,197	0,208	0,229	0,258	0,261	0,282	0,31	0,33	0,342	0,36	0,371	0,375
460	-	-	-	-	-	-	-	-	-	-	-	0,216	0,228	0,251	0,283	0,286	0,309	0,34	0,362	0,375	0,395	0,407	0,411
500	-	-	-	-	-	-	-	-	-	-	-	0,235	0,248	0,273	0,308	0,311	0,336	0,37	0,394	0,408	0,43	0,443	0,447
540	0,024	0,04	0,078	0,104	0,118	0,1	0,125	0,14	0,145	0,172	0,231	0,254	0,268	0,295	0,333	0,336	0,363	0,4	0,426	0,441	0,465	0,479	0,483
580	0,026	0,043	0,084	0,112	0,127	0,107	0,134	0,15	0,155	0,184	0,248	0,273	0,288	0,317	0,358	0,361	0,39	0,43	0,458	0,474	0,5	0,515	0,519
620	0,028	0,046	0,09	0,12	0,136	0,114	0,143	0,16	0,165	0,196	0,265	0,292	0,308	0,339	0,383	0,386	0,417	0,46	0,49	0,507	0,535	0,551	0,555
660	0,03	0,049	0,096	0,128	0,145	0,121	0,152	0,17	0,175	0,208	0,282	0,311	0,328	0,361	0,408	0,411	0,444	0,49	0,522	0,54	0,57	0,587	0,591
700	0,032	0,052	0,102	0,136	0,154	0,128	0,161	0,18	0,185	0,22	0,299	0,33	0,348	0,383	0,433	0,436	0,471	0,52	0,554	0,573	0,605	0,623	0,627
740	0,034	0,055	0,108	0,144	0,163	0,135	0,17	0,19	0,195	0,232	0,316	0,349	0,368	0,405	0,458	0,461	0,498	0,55	0,586	0,606	0,64	0,659	0,663
780	0,036	0,058	0,114	0,152	0,172	0,142	0,179	0,2	0,205	0,244	0,333	0,368	0,388	0,427	0,483	0,486	0,525	0,58	0,618	0,639	0,675	0,695	0,699
820	0,038	0,061	0,12	0,16	0,181	0,149	0,188	0,21	0,215	0,256	0,35	0,387	0,408	0,449	0,508	0,511	0,552	0,61	0,65	0,672	0,71	0,731	0,735
860	0,04	0,064	0,126	0,168	0,19	0,156	0,197	0,22	0,225	0,268	0,367	0,406	0,428	0,471	0,533	0,536	0,579	0,64	0,682	0,705	0,745	0,767	0,771
900	0,042	0,067	0,132	0,176	0,199	0,163	0,206	0,23	0,235	0,28	0,384	0,425	0,448	0,493	0,558	0,561	0,606	0,67	0,714	0,738	0,78	0,803	0,807
940	0,044	0,07	0,138	0,184	0,208	0,17	0,215	0,24	0,245	0,292	0,401	0,444	0,468	0,515	0,583	0,586	0,633	0,7	0,746	0,771	0,815	0,839	0,843
980	0,046	0,073	0,144	0,192	0,217	0,177	0,224	0,25	0,255	0,304	0,418	0,463	0,488	0,537	0,608	0,611	0,66	0,73	0,778	0,804	0,85	0,875	0,879

## Pressure loss and sound power level



Calculation formula	
$\Delta P_p = \Delta P \times K_p$	
Calculation formula	
$L_{WA} = L_{WAO} \times K$	

Correction factor $K_p$						
	0°	22°	45°			
$K_p$	1	1,25	1,5			
Correction factor $K$						
$S_{ap}$ [m <sup>2</sup> ]	0,01	0,02	0,05	0,1	0,2	0,4
$K$ [dB(A)]	-9	-6	-3	0	+3	+6

### Designation:

$\Delta P_p$  – pressure loss at various vane positions [Pa]

$\Delta P$  – pressure loss [Pa]

$K_p$  – correction factor for pressure loss calculation depending on louvre deflection angle

$L_{WA}$  – sound power level [dB(A)]

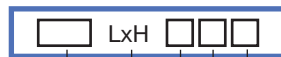
$L_{WAO}$  – sound power level for air pass 0.1 m<sup>2</sup> [dB(A)]

$K$  – correction factor for sound power level calculation depending on air pass [dB(A)]

$S_{ap}$  – air pass [m<sup>2</sup>]

$V$  – rated speed [m/s]

## Order code



**Grille type:**  
RGS – gravity grille

**Grille size:**  
L – length [mm]  
H – height [mm]

**Grille coating:**  
"\_\_\_" – colour\* (white by default)  
"Anodized"

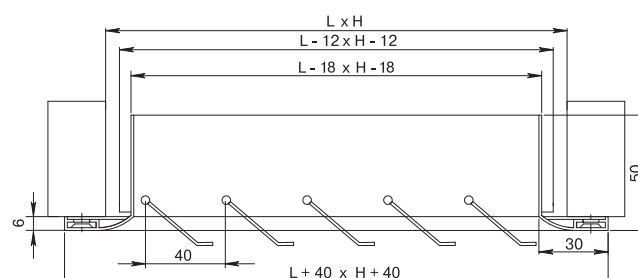
**Accessories:**  
\_\_\_ – no  
A – adapter

**Grille fixation:**  
u – versatile  
p – spring

\* Standard polymer coating colours:



## Overall and mounting dimensions



## Series GRM



Ventilation grille with gravity shutters

### Application

- Exhaust ventilation, heating and air conditioning networks in industrial, commercial and domestic premises.

### Design

- Made of high-quality metal shape with polymer coating
- Polymer or anodized grille coating ensures weather-resistant properties.
- Shutters are made of PVC plastic.
- Non-standard sizes may be ordered.

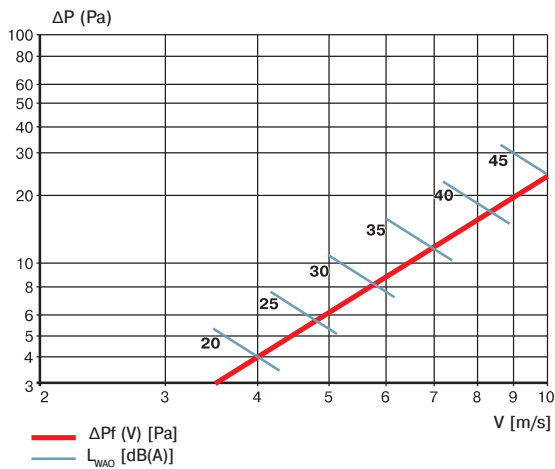
### Modifications

- Available modifications with an adapter (A) for connection to air ducts, page 42.
- Available modifications with versatile fixing (u) or with special springs (p) for fast mounting, page 44.

## Standard size [mm]

Model	Inner cross section size	L	L1	L2	e
GRM 200	116x116	200	150	136	-
GRM 250	166x166	250	200	186	-
GRM 285	200x200	284	234	220	-
GRM 300	216x216	300	250	236	-
GRM 335	250x250	334	284	270	-
GRM 350	266x266	350	300	286	-
GRM 385	300x300	384	334	320	-
GRM 400	316x316	400	350	336	-
GRM 435	350x350	434	384	370	-
GRM 450	366x366	450	400	386	-
GRM 485	400x400	484	434	420	-
GRM 535	450x450	534	484	470	-
GRM 550	466x466	550	500	486	-
GRM 585	500x500	584	534	520	257,0
GRM 635	550x550	634	584	570	282,0
GRM 655	571x571	655	605	591	292,5
GRM 685	601x601	685	635	621	307,5
GRM 715	630x630	714	664	650	322,0
GRM 725	641x641	725	675	661	327,5
GRM 805	721x721	805	755	741	367,5
GRM 835	751x751	835	785	771	382,5

## Pressure loss and sound power level



Calculation formula	Correction factor $K_p$			
	0°	22°	45°	
$\Delta P_p = \Delta P \times K_p$	$K_p$	1	1,25	1,5

Calculation formula	Correction factor $K$						
	$S_{ap}$ [m <sup>2</sup> ]	0,01	0,02	0,05	0,1	0,2	0,4
$L_{WA} = L_{WA0} \times K$	$K$ [dB(A)]	-9	-6	-3	0	+3	+6

### Designation:

$\Delta P_p$  – pressure loss at various vane positions [Pa]

$\Delta P$  – pressure loss [Pa]

$K_p$  – correction factor for pressure loss calculation depending on louvre deflection angle

$L_{WA}$  – sound power level [dB(A)]

$L_{WA0}$  – sound power level for air pass 0.1 m<sup>2</sup> [dB(A)]

$K$  – correction factor for sound power level calculation depending on air pass [dB(A)]

$S_{ap}$  – air pass [m<sup>2</sup>]

$V$  – rated speed [m/s]

## Order code



### Grille type:

GRM – gravity grille

### Grille size:

L – outer size [mm]

### Grille coating:

"\_\_\_" – colour\* (white by default)

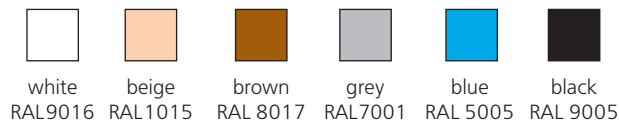
### Accessories:

\_\_\_ – no  
A – adapter

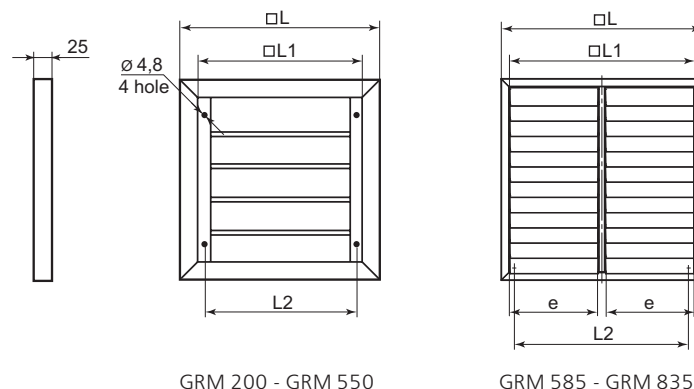
### Grille fixation:

u – versatile  
p – springs

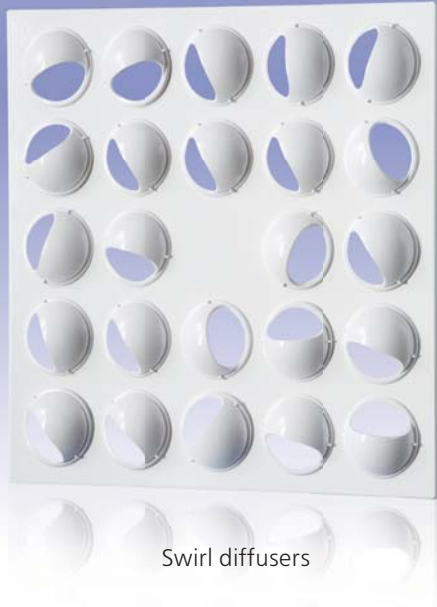
### \* Standard polymer coating colours:



## Overall and mounting dimensions



## Series DVK



### Application

- Supply and exhaust ventilation, heating and air conditioning networks in industrial, commercial and domestic premises.

### Design

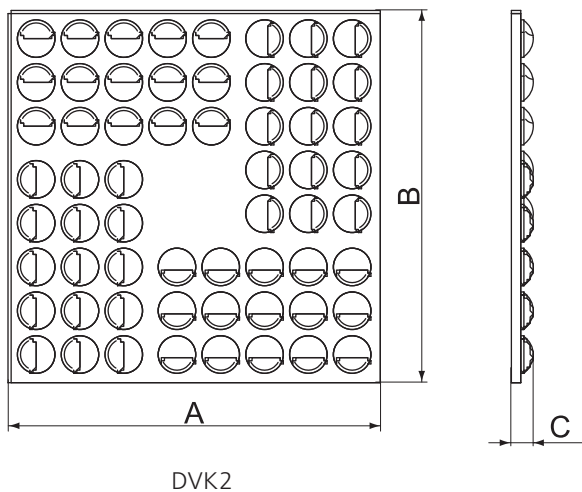
- The base made of high-quality polymer coated steel, the plastic inserts.
- Non-standard sizes may be ordered.

### Modifications

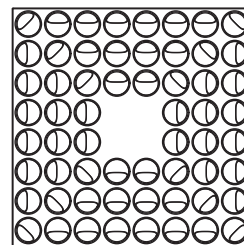
- Suspended ceiling mounting.
- Air flow direction adjustment.

### Overall and mounting dimensions [mm]

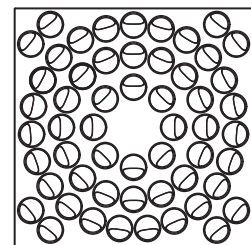
Type	A	B	C	Air pass [m <sup>2</sup> ]
DVK 295	295	295	25	0,010
DVK 305	305	305	25	0,010
DVK 395	395	395	25	0,018
DVK 445	445	445	25	0,026
DVK 495	495	495	25	0,029
DVK 595	595	595	25	0,044
DVK 620	620	620	25	0,044
DVK 695	695	695	25	0,046
DVK 795	795	795	25	0,073



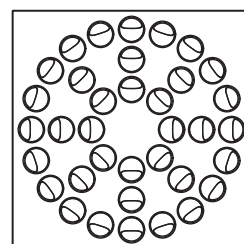
DVK2



DVK1



DVK3



DVK4

## Series DVP



Swirl diffusers

### Application

- Supply and exhaust ventilation, heating and air conditioning networks in industrial, commercial and domestic premises.

### Design

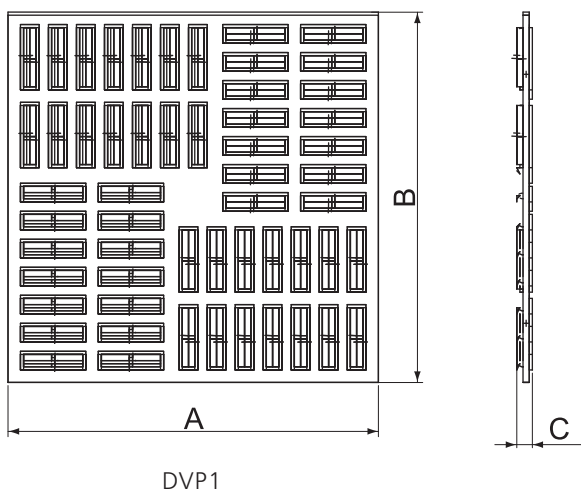
- The base made of high-quality polymer coated steel, the plastic inserts.
- Non-standard sizes may be ordered.

### Modifications

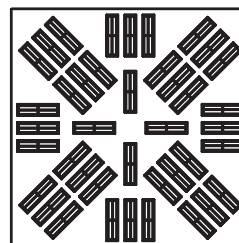
- Suspended ceiling mounting.
- Air flow direction adjustment

## Overall and mounting dimensions [mm]

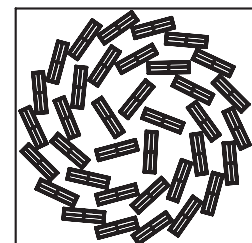
Type	A	B	C	Air pass [m <sup>2</sup> ]	Number of inserts
DVP 295	295	295	25	0,010	8
DVP 305	305	305	25	0,010	8
DVP 395	395	395	25	0,018	15
DVP 445	445	445	25	0,026	21
DVP 495	495	495	25	0,029	24
DVP 595	595	595	25	0,044	36
DVP 620	620	620	25	0,044	36
DVP 695	695	695	25	0,046	38
DVP 795	795	795	25	0,073	60



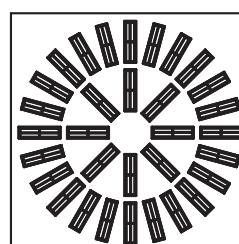
DVP1



DVP2

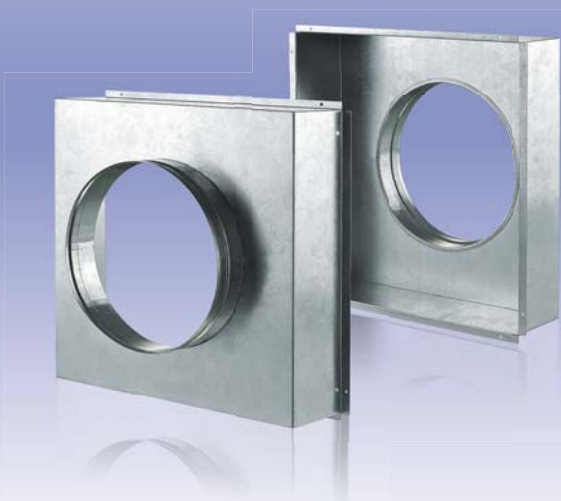


DVP3



DVP4

Adapter



Application

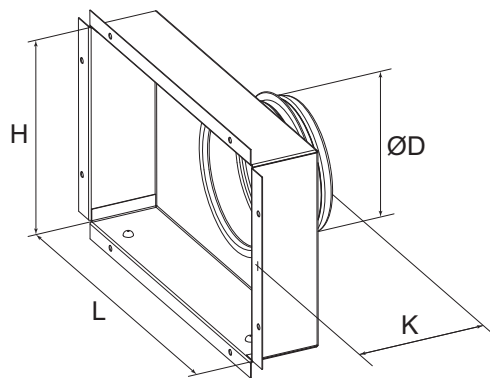
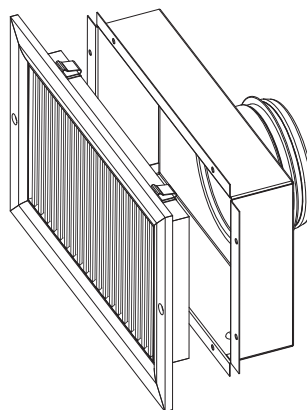
- For connection of the DP, ORH, ORV, ONH, ONV, ORK, ONL, ONS ventilation grilles with round air ducts.

Design

- Made of galvanized steel.
- Equipped with a sealing ring for tight connection to air ducts.

Overall and mounting dimensions [mm]

Order code (grille size [mm])	L [mm]	H [mm]	øD [mm]	K [mm]	Weight [kg]		
A (100x100)	86,4	96,4	80	100	0,053		
A (100x150)	86,4	146,4			0,081		
A (100x200)	86,4	196,4			0,108		
A (100x250)	86,4	246,4			0,136		
A (100x300)	86,4	296,4			0,164		
A (100x350)	86,4	346,4			0,191		
A (100x400)	86,4	396,4			0,219		
A (100x450)	86,4	446,4			0,246		
A (100x500)	86,4	496,4			0,274		
A (150x150)	136,4	146,4			125	100	0,128
A (150x200)	136,4	196,4	0,171				
A (150x250)	136,4	246,4	0,215				
A (150x300)	136,4	296,4	0,258				
A (150x350)	136,4	346,4	0,302				
A (150x400)	136,4	396,4	0,345				
A (150x450)	136,4	446,4	0,389				
A (150x500)	136,4	496,4	0,432				
A (150x600)	136,4	596,4	0,519				
A (200x200)	186,4	196,4	150	100			0,234
A (200x250)	186,4	246,4			0,293		
A (200x300)	186,4	296,4			0,353		
A (200x350)	186,4	346,4			0,412		
A (200x400)	186,4	396,4			0,472		
A (200x450)	186,4	446,4			0,531		
A (200x500)	186,4	496,4			0,591		
A (200x600)	186,4	596,4			0,710		
A (250x250)	236,4	246,4			200	150	0,372
A (250x300)	236,4	296,4					0,447
A (250x350)	236,4	346,4	0,523				
A (250x400)	236,4	396,4	0,598				
A (250x450)	236,4	446,4	0,674				
A (250x500)	236,4	496,4	0,749				
A (300x300)	236,4	296,4	0,542				
A (300x350)	236,4	346,4	0,634				
A (300x400)	236,4	396,4	0,725				
A (300x450)	236,4	446,4	0,816				
A (300x500)	236,4	496,4	0,908				
A (300x600)	236,4	596,4	1,091				
A (350x350)	336,4	346,4	315	150	0,744		
A (350x400)	336,4	396,4			0,852		
A (350x450)	336,4	446,4			0,959		
A (350x500)	336,4	496,4			1,066		
A (400x400)	386,4	396,4	350	150	0,978		
A (400x450)	386,4	446,4			1,102		
A (400x500)	386,4	496,4	400	150	1,225		
A (450x450)	436,4	446,4			1,244		
A (450x500)	436,4	496,4			1,383		
A (500x500)	486,4	496,4			1,542		



## Air flow regulator



### Application

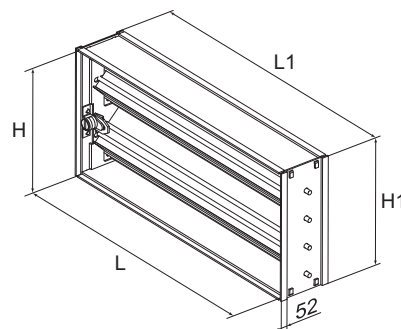
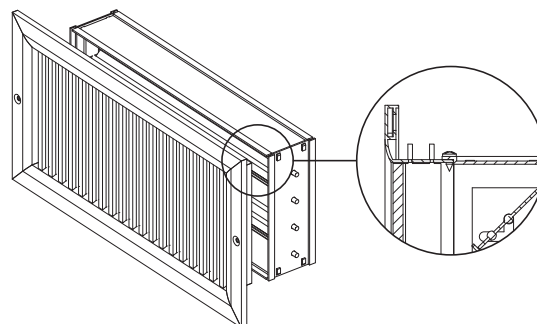
- Multi-vane air flow regulator with counter-rotated vanes is designed for air flow regulation of the DP, ORH, ORV, ONV, ORK, ONL, ONS ventilation grilles.

### Design

- Made of galvanized steel. The aluminium rotating vanes are turned due to plastic gears.
- Equipped with a limit position stopper regulated by a butterfly bolt.

## Overall and mounting dimensions [mm]

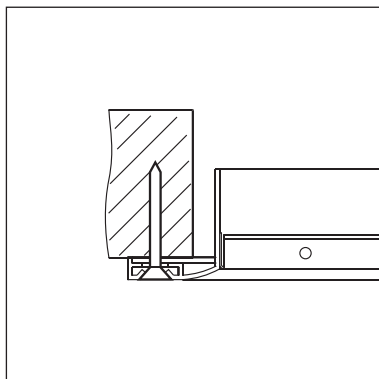
Order code (grille size [mm])	L [mm]	H [mm]	L1 [mm]	H1 [mm]	Weight [kg]				
R (100x100)	79	79	86	81,8	0,125				
R (100x150)	129		136		0,168				
R (100x200)	179		186		0,21				
R (100x250)	229		236		0,253				
R (100x300)	279		286		0,295				
R (100x350)	329		336		0,343				
R (100x400)	379		386		0,38				
R (100x450)	429		436		0,425				
R (100x500)	479		486		0,465				
R (150x150)	129		129		136	131,8	0,235		
R (150x200)	176	186		0,295					
R (150x250)	226	236		0,355					
R (150x300)	279	286		0,415					
R (150x350)	329	336		0,475					
R (150x400)	379	386		0,535					
R (150x450)	429	436		0,295					
R (150x500)	476	486		0,655					
R (150x600)	579	586		0,775					
R (200x200)	179	179		186	181,8		0,406		
R (200x250)	229		236	0,477					
R (200x300)	279		286	0,548					
R (200x350)	329		336	0,619					
R (200x400)	379		386	0,69					
R (200x450)	429		436	0,761					
R (200x500)	476		486	0,832					
R (200x600)	579		586	1,0					
R (250x250)	229		229	236		231,8	0,63		
R (250x300)	279			286			0,7		
R (250x350)	329	336		0,77					
R (250x400)	379	386		0,84					
R (250x450)	429	436		0,91					
R (250x500)	479	486		0,98					
R (300x300)	279	279		286	281,8		0,75		
R (300x350)	329			336			0,855		
R (300x400)	379			386			0,96		
R (300x450)	429			436			1,065		
R (300x500)	479		486	1,175					
R (300x600)	579		586	1,39					
R (350x350)	329		319	336		321,8	0,9		
R (350x400)	379			386			1,13		
R (350x450)	429			436			1,36		
R (350x500)	479			486			1,59		
R (400x400)	379	379		386	381,8		1,2		
R (400x450)	429			436			1,43		
R (400x500)	479			486			1,66		
R (450x450)	429			429			436	431,8	1,52
R (450x500)	479						486		1,77
R (500x500)	479						486		481,8





## Standard fixing

Fixing with a mounting pair (not included into the delivery set)

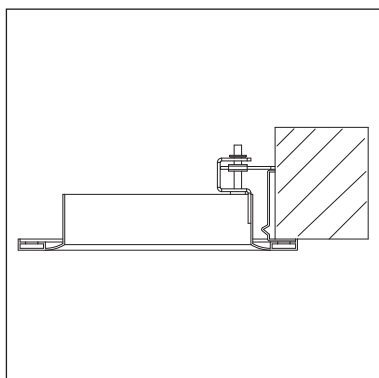


### Features:

- mounting pair: versatile screw 3.5x35 mm; nylon dowel 6x40 mm;
- used for grille fixation into concrete or brick walls;
- the screw head has the grille colour;
- cross-shaped slot.

## Versatile fixing

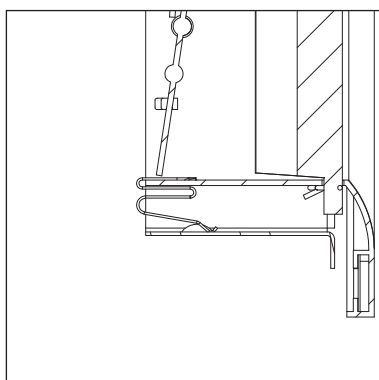
Fixing with a versatile lock fixed on the grille



### Features:

- versatile lock enables mounting into walls and ceilings
- easy mounting with a screw-driver
- concealed fixing.

## Spring fixation

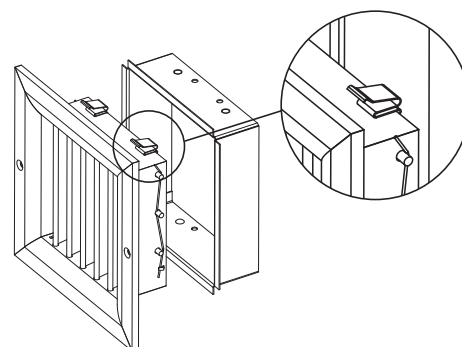


### Features:

- mounting into walls (no ceiling mounting);
- concealed fixing.

The mounting kit delivery set includes:

- flange for fixation of the grille into the wall opening;
- set of springs.



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metal grilles for hvac

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