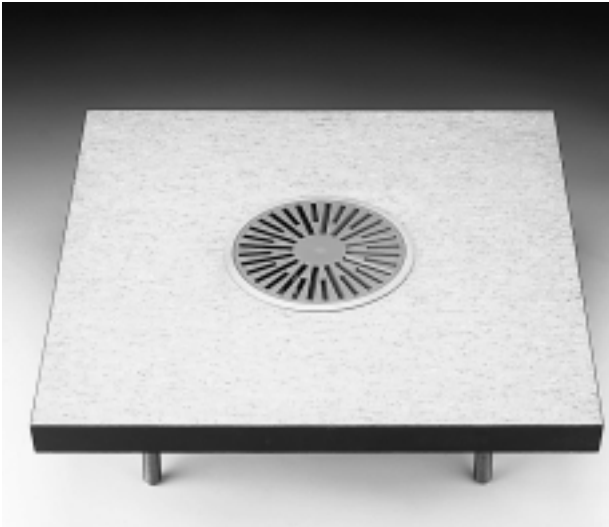


PW1 FLOOR -SWIRL DIFFUSER



GENERAL INFORMATION

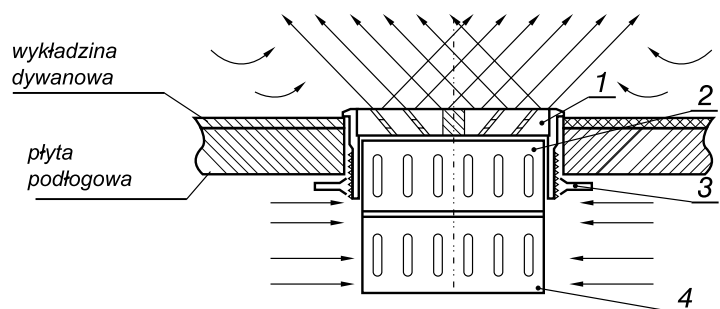


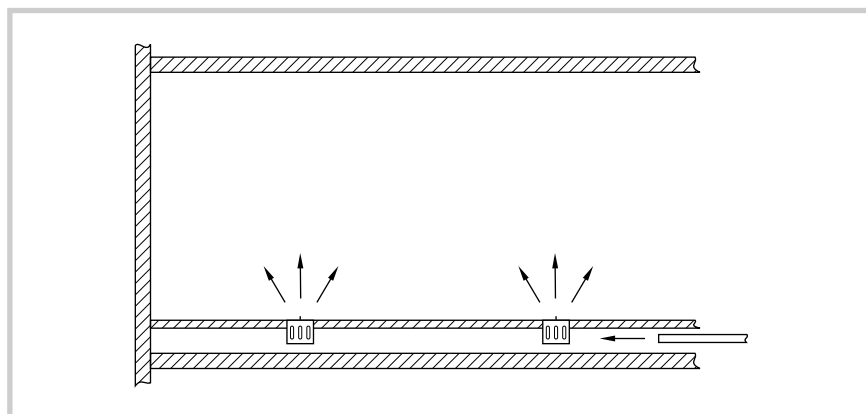
Floor diffusers are suitable for premises used in telecommunication, computer centers etc., generally -in premises where good ventilation must cover lower zones. These diffusers have strong ability for inducting the air from the premise and that results in quick temperature settlement in the flow pattern. PW1 diffusers prove themselves good in chilling electronic and other types of devices placed on the floor. In recent years the number of premises with double floor increases. Under that solution it is easy to place various installations in the space between two floors.

Second floor is formed of standardized in size plates made of mechanically and thermally resistive materials. Diffusers are mounted in floor plates and are supplied with air straight from the space between floors, or using flexible ducts - directly from ventilation system. Diffusers are made of mechanically resistive plastic, which allows using the floor as the whole (without weak places). Material, of which diffusers are made is non-flammable and meets fire protection requirements. As standard, diffusers are made in gray color, which can be changed on request.

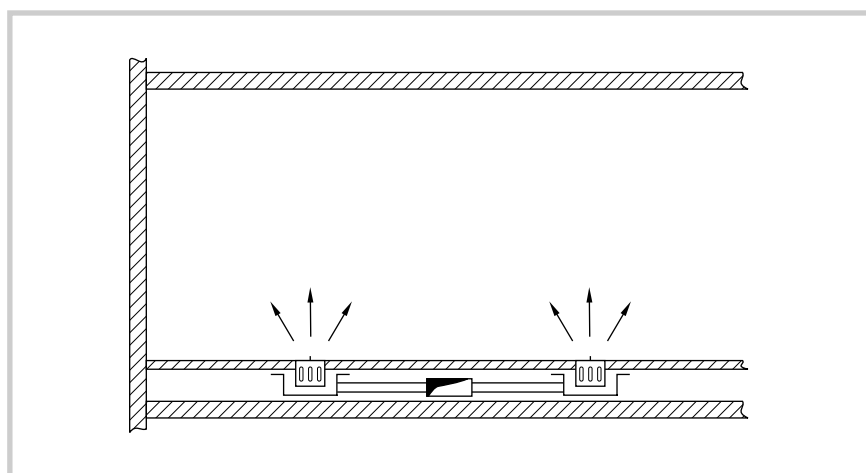
Diffuser's set consists of:

1. Diffuser
2. Fixing cylinder
3. Clamping ring
4. Basket





Diffusers connected to supply duct via plenum boxes.



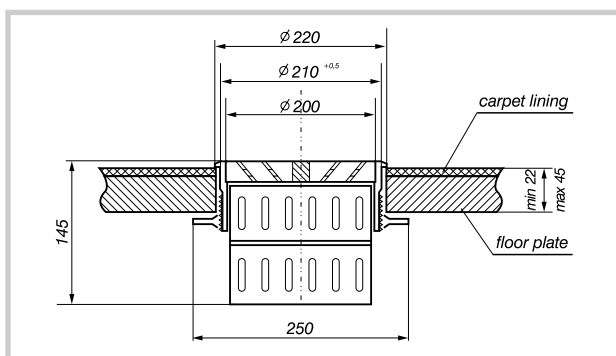
Air is entered into the space between floors, supply is caused by static pressure.

Nominal diameter	Maximal air flow	Minimal air flow	Supply temperature range	Maximal temperature difference supply-exhaust	Maximal mechanical load
ØDN [mm]	V[m ³ /h]	V[m ³ /h]	[°C]	[K]	[kg]
200	175*	55	17÷31	±10	550

In premises, where many people constantly reside, the maximal air flow is $V = 120 \text{ m}^3 / \text{h}$.

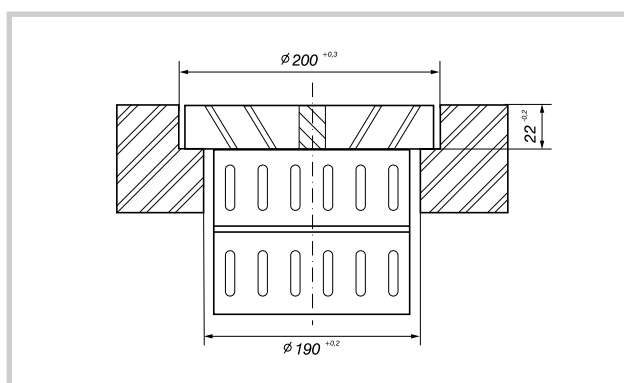
WAYS OF DIFFUSER INSTALLATION

z wykładziną
dywanową

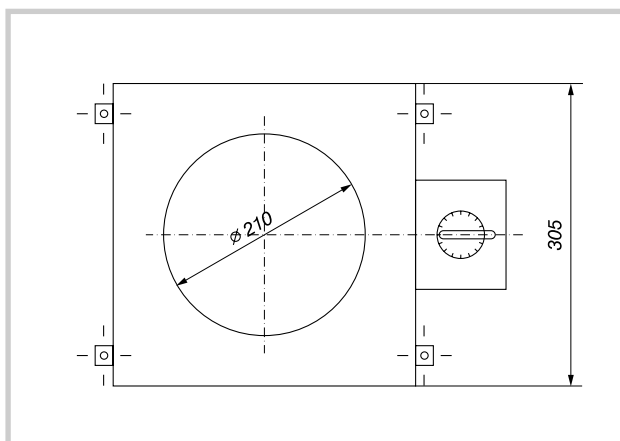
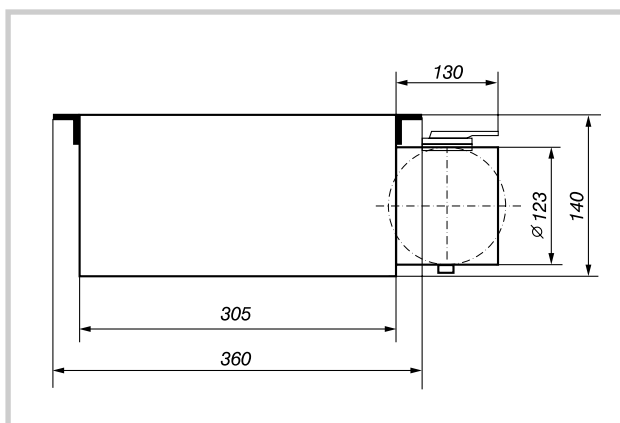


Note! Required hole in floor plate $\phi 210^{+0.5}$

w twardej
podłodze



PLENUM BOX



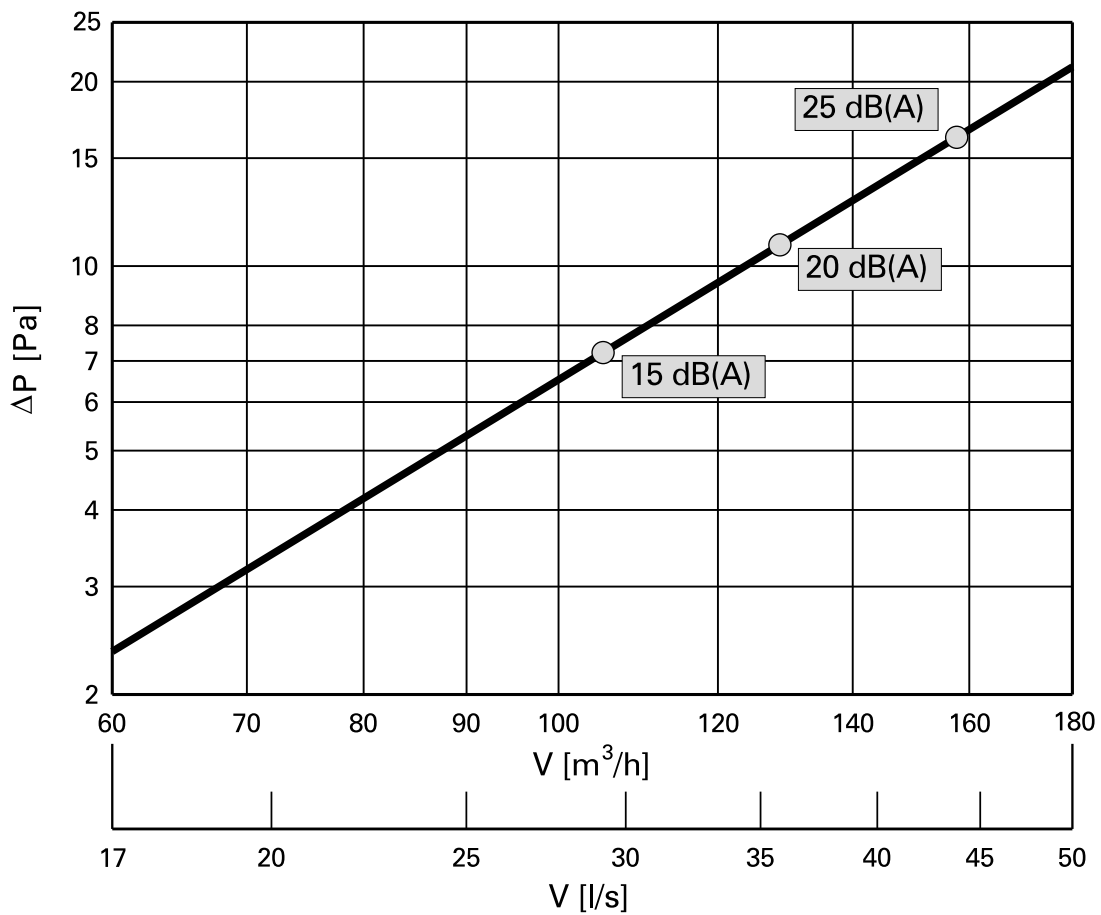


Diagram shows sound pressure level L_{P10} (A) at 4dB room attenuation and 10m² sab absorption area.

Sound power level L_w

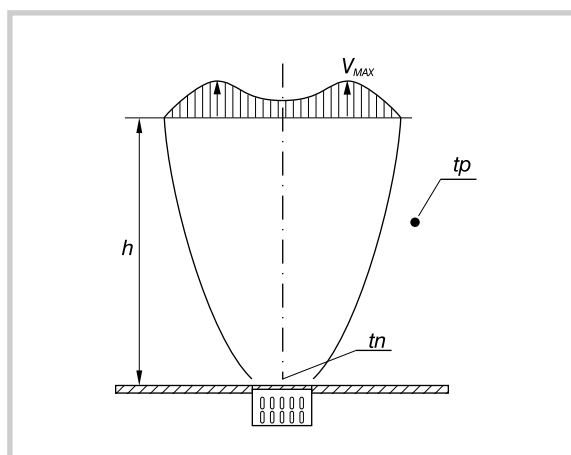
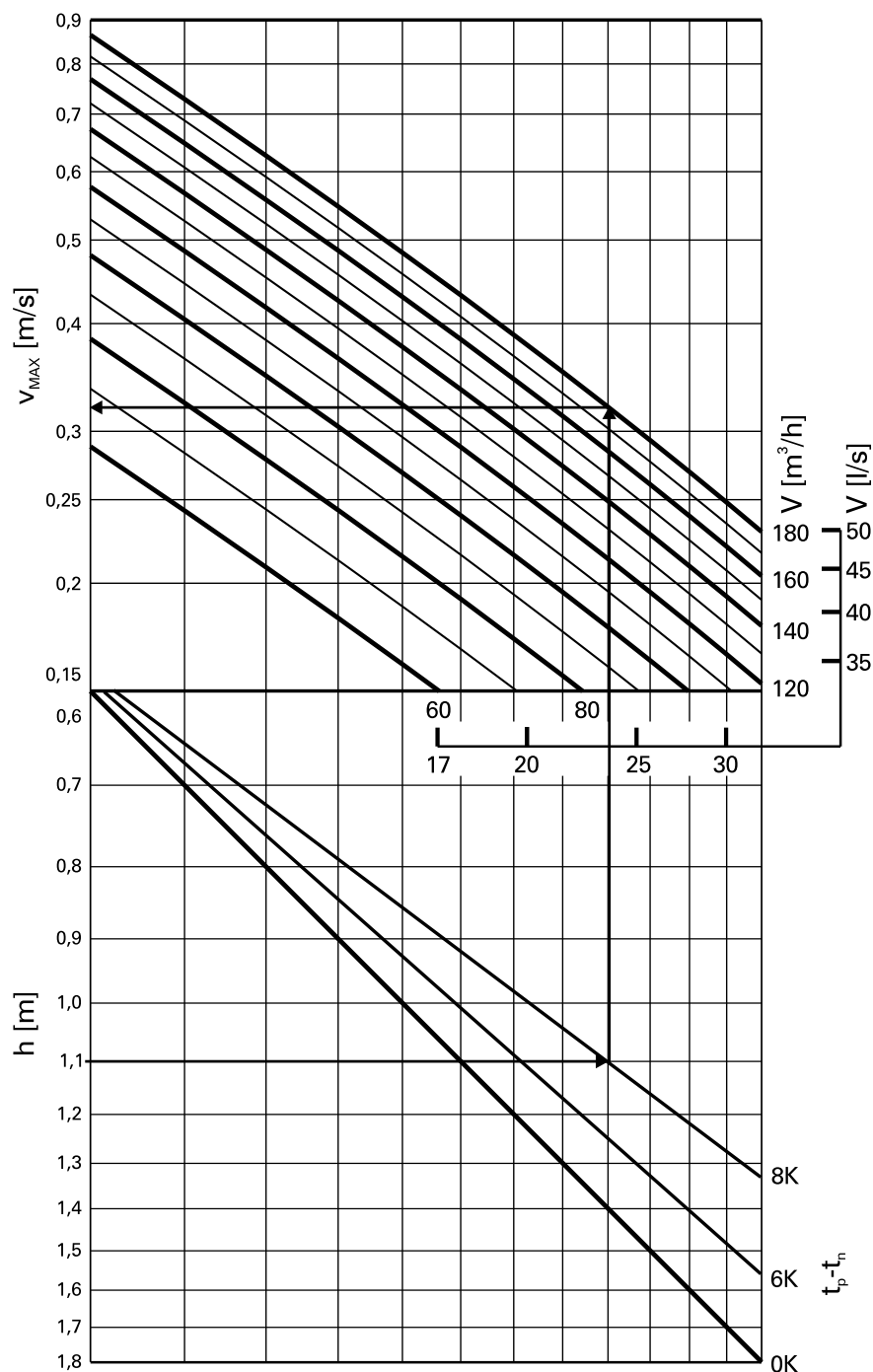
PW1 DN200	Frequency [Hz]							
	63	125	250	500	1K	2K	4K	8K
Correction K	14	9	8	2	-3	-10	-16	-27

Tłumienie dźwięku [dB(A)]

PW1 DN200	Frequency [Hz]							
	63	125	250	500	1K	2K	4K	8K
Sound attenuation	14	8	6	4	3	4	4	6

At maximal air flow the difference between supply air temperature t_n and premise air temperature t_p , in the range of 1,1 to 1,7 m, while chilling, does not exceed 1 °C. It means, that the flow at its beginning stage of development strongly inducts surrounding air and after mixing, its temperature gradually equalizes premise air temperature. In order to achieve cleaner air removable filtering cartridges can be placed into diffusers baskets.

Pressure drop is increased then and it must be taken into account when designing the air handling unit.



- V max - velocity at distance x, [m/s]
- h - flow range, [m]
- t n - supply temperature, [°C]
- t p - premise temperature, [°C]

DIFFUSER OPERATION VISUALIZATION

For the purpose of visualization of flow shape and duty, picture has been taken during the test.



Presented diffuser PW1 manufactured by ABB Bivent is a modern device supplying air directly to the bottom of premise. Its technical parameters, characteristics and quality of execution represent the highest degree among these kind of devices.

ORDERING FORM

Technical data											
Floor swirl diffuser	PW1	-	C	-	P	-	K	/	8	-	RAL7048
Elements of fittings											
With fixing cylinder											
Without fixing cylinder -0											
With clamping ring											
Without clamping ring											
With basket											
Without basket -0											
Execution											
With plenum box											
With regulating damper											
Without regulating damper -0											
With plenum box											
Without plenum box -0											
Plenum box with isolation											
Plenum box without isolation -0											
Color											
Standard gray RAL 7040											
Quantity		pcs.									

We reserve the right to make technical changes without prior notice.



Edition 10.2002

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