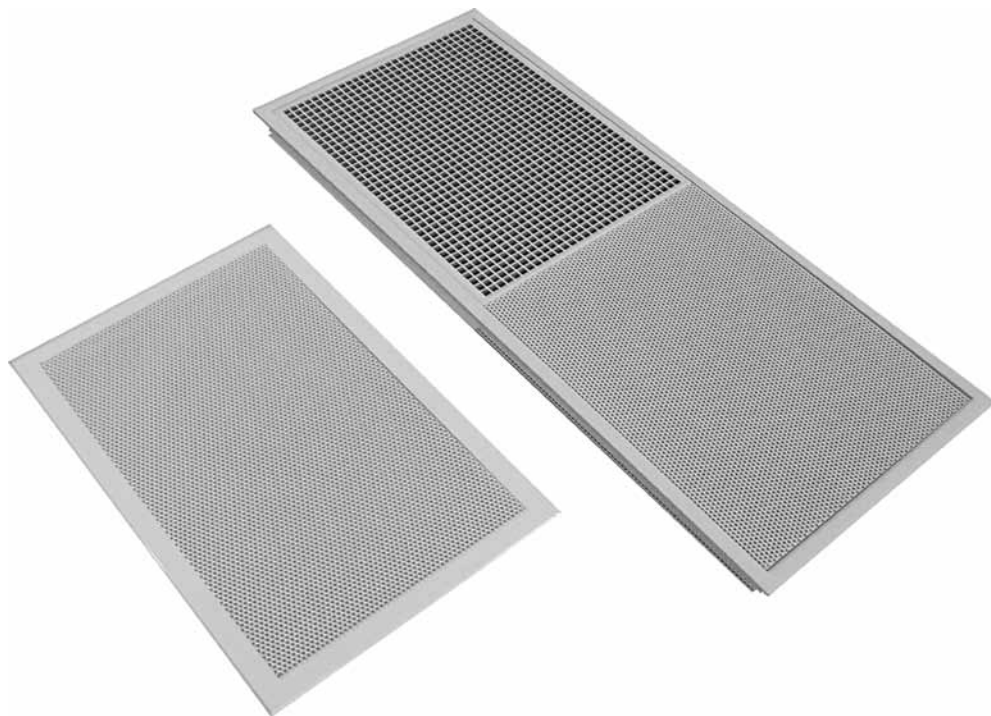


PERF – PERFORATED VENTILATION DIFFUSERS

RG – REVISORY VENTILATION DIFFUSERS



PERF – perforated diffusers

Description

- Designed for uniform air supply in the ventilation and air-conditioning installations.

Construction

- Diffusers consist of a frame from extruded aluminium profiles with incorporated panel made of perforated metal sheet. Dimension of the slots - Ø4.
- Standard colour RAL 9010, upon customer's request painting in all RAL colours is possible.

Installation

- Diffusers are mounted to the air duct system with plenum box and flexible duct.

Accessories

- Plenum box (+K)
- Regulation damper (+D)
- Internal insulation (+li) or external insulation (+le) of the plenum box.

RG – revisory diffusers

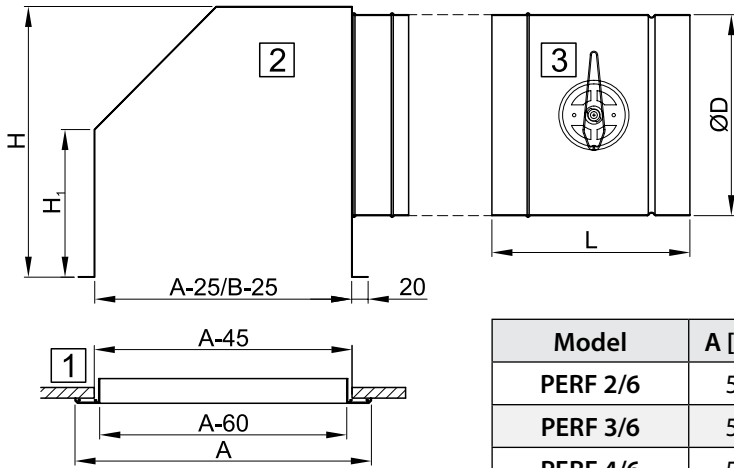
Description

- Designed for air intake in the ventilation and air-conditioning installation.
- They are suitable for exhaust diffusers for fan coil units for hidden ceiling installation

Construction

- Diffusers consist of a frame from extruded aluminium profiles with incorporated panel made of perforated metal sheet.
- Standard dimension of the panel slots - Ø4. (Possible dimensions 10/10 – upon customer's request).
- Panel lies freely on the frame and can be easily dismantled ensuring this way access for repair and revision of the equipment installed above the diffuser.
- Standard colour RAL 9010, upon customer's request painting in all RAL colours is possible.
- Incorporation of regenerative filter class G2 (+F) – possible upon customer's request.

Overall and joined dimensions



1. Ventilation diffusers
2. Standard plenum box
3. Regulation damper

Model	A [mm]	B [mm]	H [mm]	H ₁ [mm]	L [mm]	ØD [mm]
PERF 2/6	595	200	230	120	140	145
PERF 3/6	595	300	280	150	190	195
PERF 4/6	595	400	330	180	240	245
PERF 6/6	595	595	330	180	240	245

PERF – initial velocity in the diffuser W_0 [m/s] pressure drop ΔP [Pa]

Model		V [m ³ /h]	200	300	400	600	800	1000	1200
		PERF 2/6	W_0 [m/s]	0.69	1.04	1.39	2.08	-	-
	ΔP [Pa]	1	13	23	52	-	-	-	
PERF 3/6	W_0 [m/s]	-	0.64	0.85	1.28	1.71	-	-	
	ΔP [Pa]	-	5	9	20	35	-	-	
PERF 4/6	W_0 [m/s]	-	-	0.62	0.92	1.23	1.54	-	
	ΔP [Pa]	-	-	5	10	18	28	-	
PERF 6/6	W_0 [m/s]	-	-	-	0.57	0.77	0.96	1.15	
	ΔP [Pa]	-	-	-	5	8	11	16	

PERF – velocity W_x [m/s] at distance X [m] from the diffuser (isothermal jet)

$$W_x = W_0 \cdot k$$

k – correction coefficient = $f(\text{model}, X)$:

Model		X [m]	1.0	1.5	2.0	2.5	3.0
		PERF 2/6		0.75	0.61	0.53	0.47
PERF 3/6		0.98	0.80	0.69	0.62	0.56	
PERF 4/6		1.00	0.95	0.82	0.74	0.67	
PERF 6/6		1.00	1.00	1.00	0.93	0.85	

EXAMPLE:

Air flow through diffuser – 800 m³/h

Distance to the working zone – 2 m

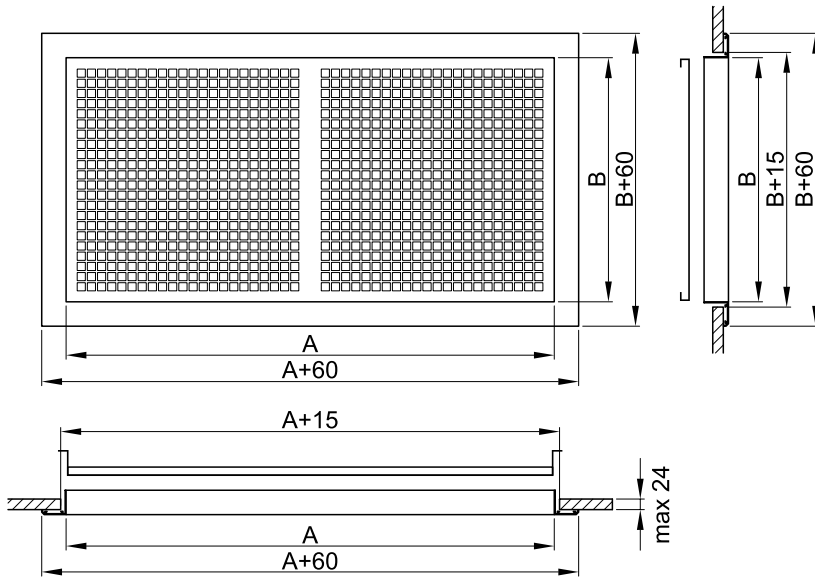
We choose PERF 600/400 reading from table:

- Initial velocity – 1.23 m/s
- Pressure drop – 18 Pa
- Coefficient of correction – 0.82

Calculate in formula:

$W_x = W_0 \cdot k = 1.23 \times 0.82 = 1.01$ m/s – calculated velocity at 2 m distance from diffuser.

RG – overall and joined dimensions



Note:

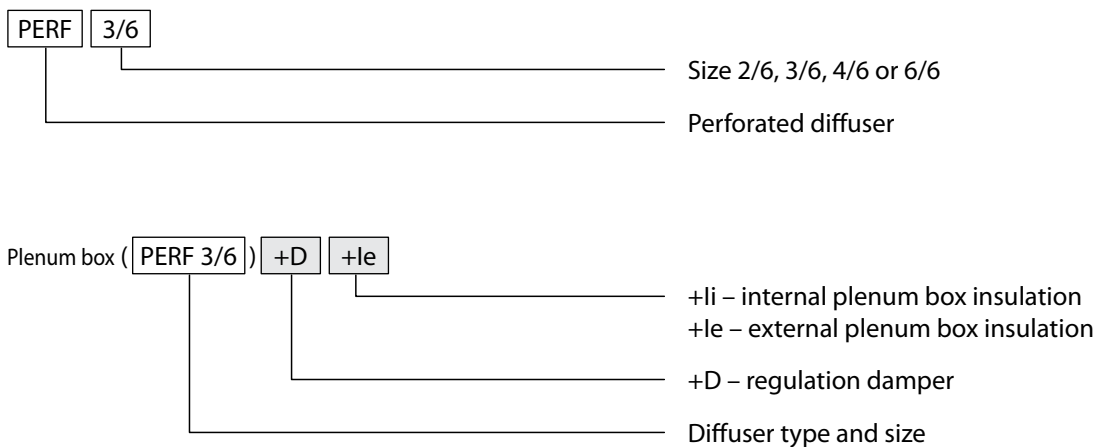
At building element thickness higher than 24 mm, the joined dimension is $A+25/B+25$.

Pressure drop [Pa]

ΔP [Pa] \ W_0 [m/s]	0.5	1.0	1.5	2.0	2.5
without filter	7	11	15	21	32
with filter	8	16	25	39	55

W_0 [m/s] – velocity, related to section $A \times B$

Order designation



- Main parameters
- Optional parameters