



**STAIRCASE GRILLES
PERFORATED, CIRCULAR, HIGH INDUCTION**

VPR TYPE



Staircase grilles

perforated, circular, high induction

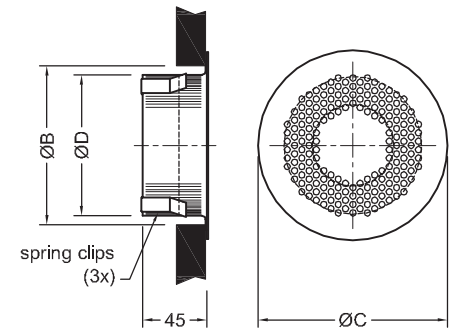
✓ Supply



Model 0204



Model 0105



Type VPRVOO8, model 0204

Applications

- The circular, perforated VPROOO8 high-induction air grille is ideally suited to the supply of cold or warm air with a max ΔT of <6K temperature difference from the average room temperature. The grille is used in applications including theatres, auditoriums, concert halls and cinemas, etc.

Technical information

Properties:

- Flat, radial air discharge pattern.
- High induction.
- Suitable for installation in structural openings with a diameter of $\varnothing 110$ mm (model 0204) or $\varnothing 135$ mm (model 0105).
- Model 0204 is intended for vertical installations (for example, underneath theatre seats).
- Model 0105 is intended for horizontal installation in floors or treads (not suitable for intensive pedestrian traffic).

Finish:

- The grille is made from galvanised sheet steel.
- The standard grille is finished in matt black RAL 9008.
- Other finishes available on request.

Fittings:

- Complete met self-locking spring clips.

Installation:

- The grille is fitted with spring clips for quick and simple installation.

Standard types

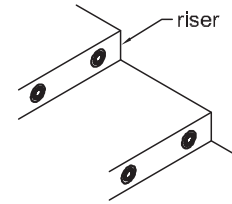
- VPROOO8: Grille complete with spring clips.
- VPRVOO8: Same, incl. volume control damper / dust collection basket.

Specifications

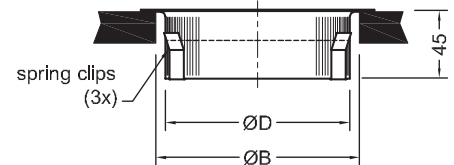
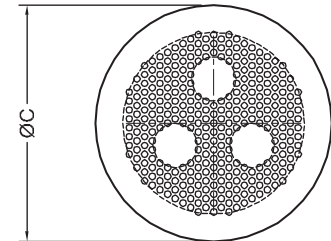
Example:

High induction, perforated circular grilles for the supply of air at low air velocities. Finished in matt black RAL 9008.

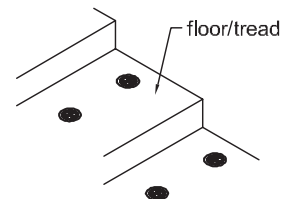
Barcol-Air type VPROOO8-0204.



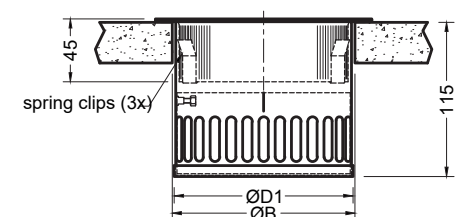
Model 0204: vertical installation



Type VPROOO8, model 0105



Model 0105: horizontal installation



Type VPRVOO8

Dimensions

Model	Ø B	Ø C	Ø D	Ø D1
0204-0000 (standard)	110	135	100	105
0204-0125	135	160	125	130
0105-0000	135	160	125	130

Notes on dimensions:

1. Dimensions in millimetres.
2. B is the recommended diameter of the provision.

Selection table type VPRO008 model 0204-0000 (data at Q = 35 m³/h)

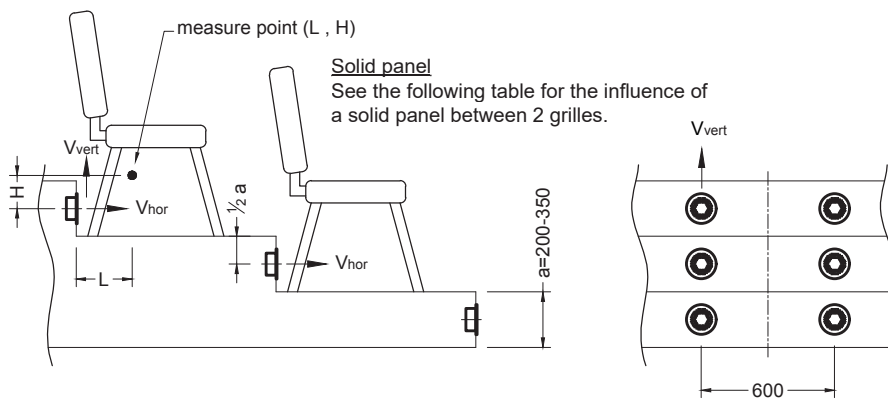
Direction	L (mm)	200	300	400	500	600	700	800
	Height (mm) from centre grill	velocity cm/s						
V vert.	free air flow	35	15	8	-	-	-	-
V hor.	10	35	9	-	-	-	-	-
	50	12	10	8	-	-	-	-
	100	17	12	-	-	-	-	-

1. The air throw data are based on the supply of cold air at $\Delta T - 4 K$ from the room air temperature.

2. V vert. = Vertical air velocity at distance L from the centre of the grille; free air flow.

V hor. = Horizontal air velocity at distance L from the centre of the grille; contiguous air flow.

3. For non-standard applications and/or selections please contact our technical staff.



VPRO008, model 0204, supply air directions

Selection table pressure drop and sound pressure level type VPRO008 model 0204-0000

Air Volume Q [m³/h]	Pressure drop Δp_s [Pa]	Sound pressure level Lw in dB/Oct. (re 1 pW)							Lw [dB(A)]
		125	250	500	1000	2000	4000	8000	
20	8	20	25	26	-	-	-	-	24
25	14	26	29	33	26	-	-	-	32
30	20	29	31	35	31	24	-	-	35
35	29	32	33	37	36	30	21	-	39
40	38	35	35	39	40	36	29	-	43
45	47	38	37	40	43	40	34	20	46
50	58	40	40	41	45	43	38	25	49

1. The sound pressure levels are based on one grill only.

2. Sound pressure levels less than NC 20 are indicated by "--"

3. For exact calculations of the sound pressure levels we recommend to call in the help of an acoustic expert.

Staircase grills

perforated, circular, high induction

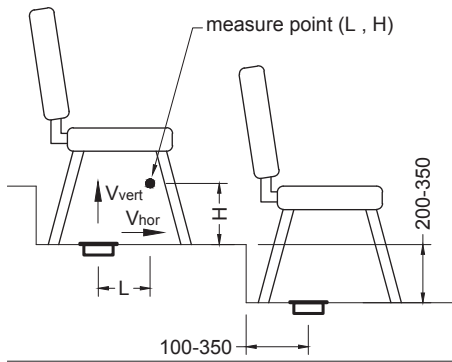
✓ Supply

Selection table type VPRO008 model 0105-0000 (data at $Q = 35 \text{ m}^3/\text{h}$)

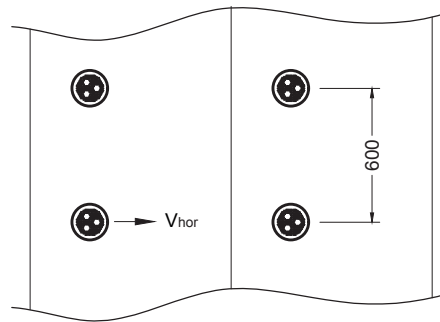
Direction	L (mm)	200	300	400	500	600	700	800
	Height (mm) from centre grill	velocity cm/s						
V vert.	0	65	55	45	40	30	25	20
	100	45	35	25	20	20	20	15
	200	7	12	12	12	10	10	7
	400	-	-	-	-	-	-	-
V hor.	100	7	-	-	-	-	-	-
	500	7	-	-	-	-	-	-
	1000	-	-	-	-	-	-	-

- The air throw data are based on the supply of cold air at $\Delta T = 4 \text{ K}$ from the room air temperature.
- V vert. = Vertical air velocity at distance L from the centre of the grille; free air flow.

- V hor. = Horizontal air velocity at distance L from the centre of the grille; contiguous air flow..
- For non standard applications and/or selections please contact our technical staff.



VPRO008, model 0105, supply air directions



Selection table pressure drop and sound pressure level type VPRO008 model 0105-0000

Air Volume $Q \text{ [m}^3/\text{h]}$	Pressure drop $\Delta p_s \text{ [Pa]}$	sound pressure level L_w in dB/Oct. (re 1 pW)							L_w [dB(A)]
		125	250	500	1000	2000	4000	8000	
20	8	22	28	29	-	-	-	-	27
25	12	26	30	34	26	-	-	-	33
30	19	30	32	36	32	25	-	-	36
35	25	33	34	38	37	31	22	-	40
40	34	36	36	40	41	36	29	-	44
45	42	39	38	41	44	41	35	21	47
50	52	41	40	42	46	44	39	25	50

- The sound pressure levels are based on one grill only.
- Sound pressure levels less than NC 20 are indicated by "..."

- For exact calculations of the sound pressure levels we recommend to call in the help of an acoustic expert.



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