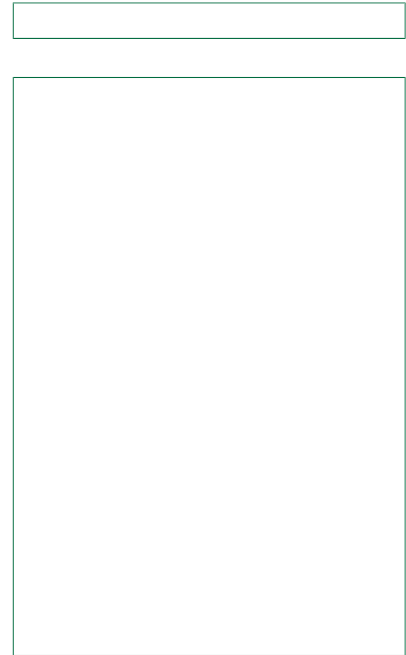
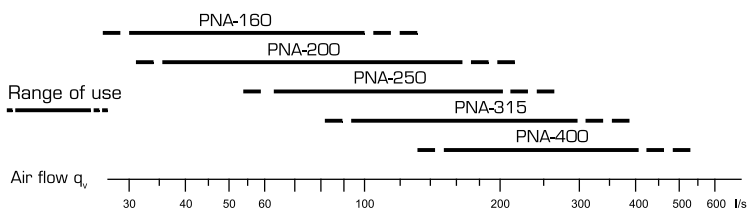


Low velocity terminal PNAA, PNAB



The PNAA/PNAB is a low velocity terminal designed for floor mounting. It is suitable for rooms where high amounts of impurities and heat are generated. The terminal is provided with a circular (Ø160 - 400) or a rectangular (1000 x 300) duct connection. The terminal has a flat air distribution surface and an all-metal, non-clogging, and demountable structure. The air flow velocities are low in the occupied zone. The terminal can be fastened to the wall.

Quick Selection



Specifications

- Uniform diffusion pattern
- High supply air volumes
- Good adjusting and measuring properties
- Air flow measurement and adjustment without removing front panel

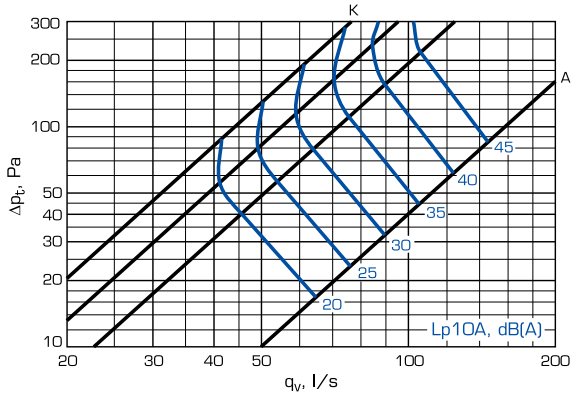
Product code example

Low velocity terminal PNAA-200-0
Base SO-200

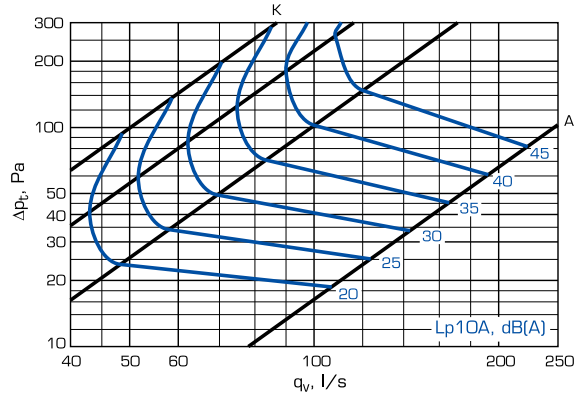
AIRTREND Ltd
Predstavništvo u Beogradu
Kumanovska 14, 11000 Beograd
Tel: 011/3836886, 3085740
Faks: 011/3444113
e-mail: gobrid@eunet.rs
web: www.airtrend.rs

Selection diagrams

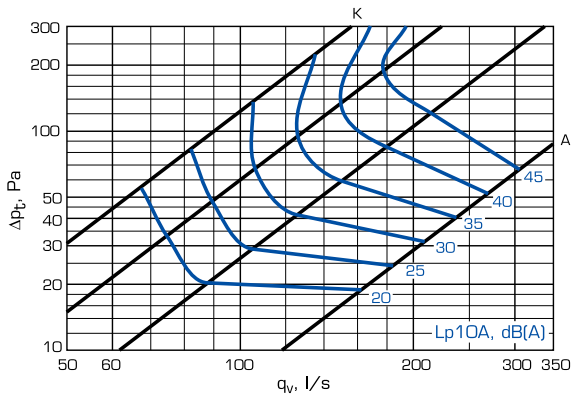
PNAA-160



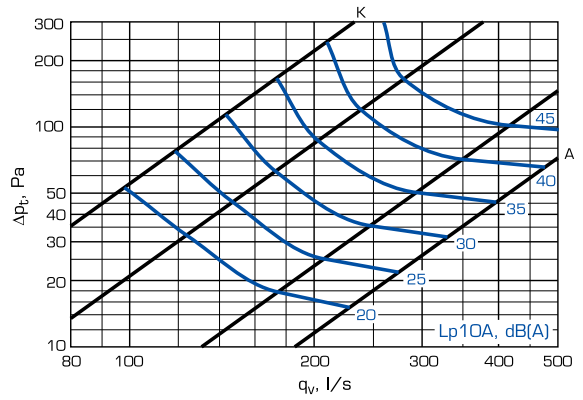
PNAA-200



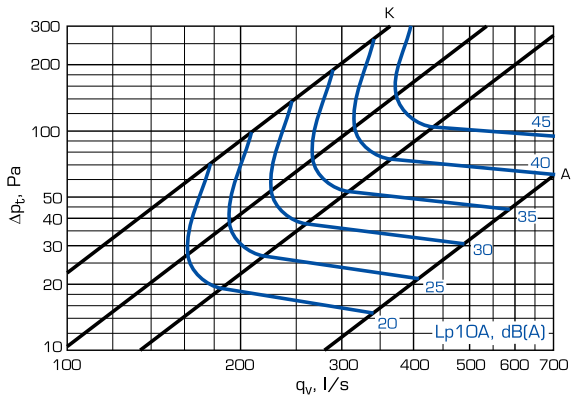
PNAA-250



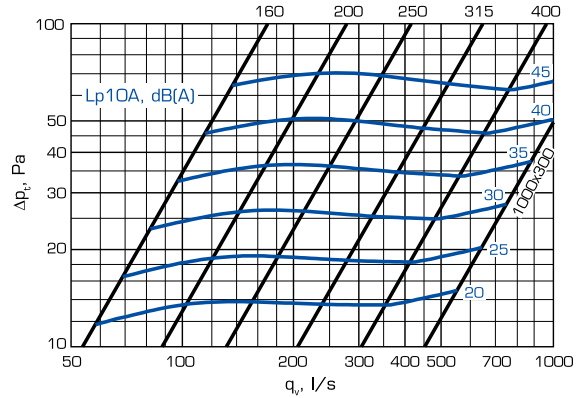
PNAA-315



PNAA-400

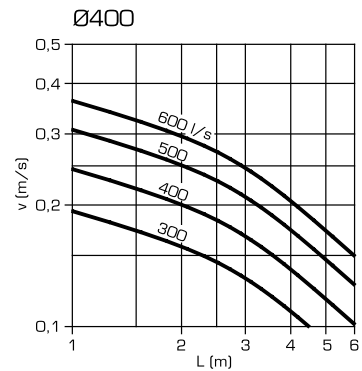
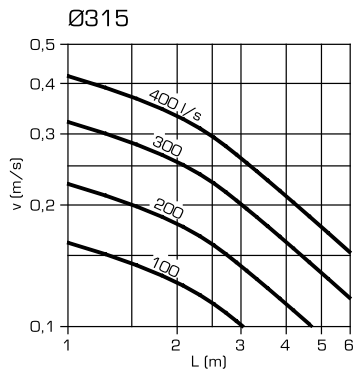
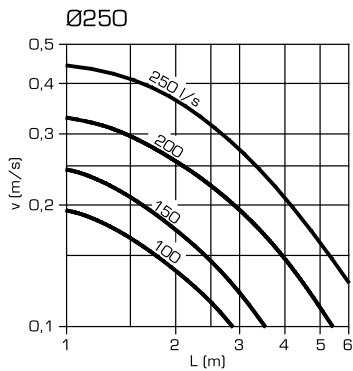
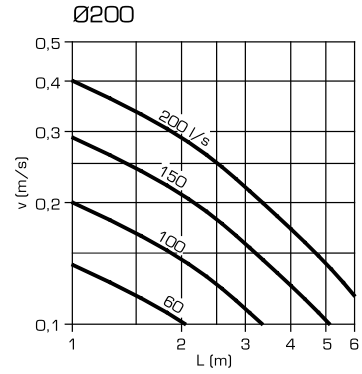
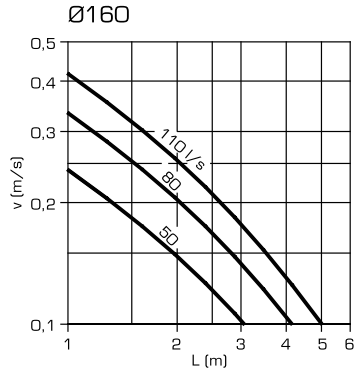
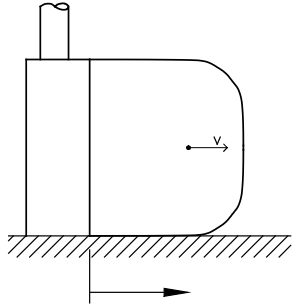


PNAB

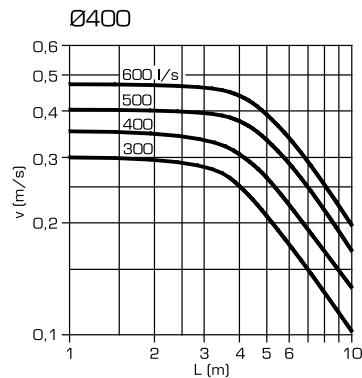
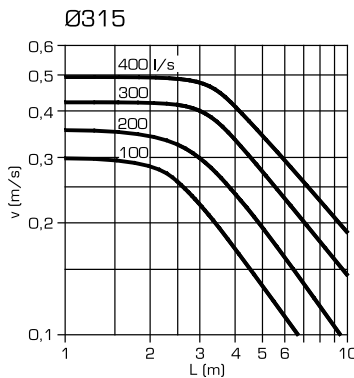
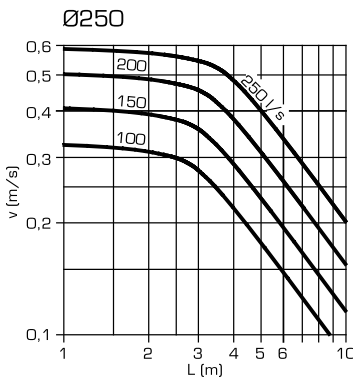
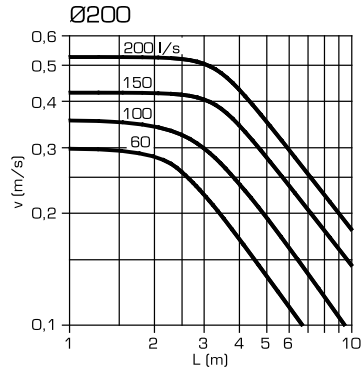
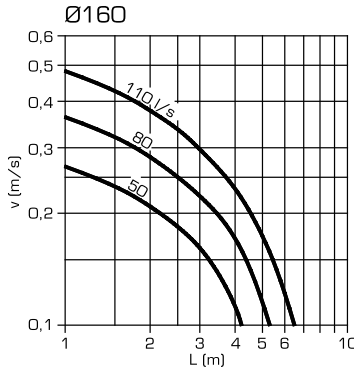
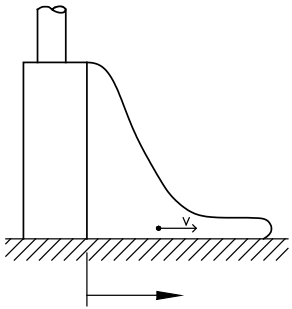


Throw PNAA and PNAB

$\Delta t = 0^\circ\text{C}$



$\Delta t = -1...-3^\circ\text{C}$



Sound power level L_w

PNAA

PNAA	Correction of sound level K (dB)					
	125	250	500	1000	2000	4000
160	8	9	1	-4	-9	-13
200	7	6	3	-3	-7	-12
250	5	5	2	-1	-7	-11
315	4	3	2	0	-7	-12
400	6	3	3	-1	-8	-13
Tolerance ±	3	2	2	2	2	2

PNAB

PNAB	Correction of sound level K (dB)					
	125	250	500	1000	2000	4000
160	2	3	5	-3	-10	-16
200	2	3	5	-3	-11	-14
250	7	5	4	-3	-11	-14
315	3	2	5	-3	-15	-15
400	6	3	5	-4	-10	-15
1000-3000	-1	3	2	-3	-10	-4
Tolerance ±	3	2	2	2	2	2

Sound power levels by octave bands are obtained by adding to total sound pressure level L_{p10A} , dB(A), the corrections K_{oct} presented in the table according to the following formula:

$$L_{woct} = L_{p10A} + K_{oct}$$

Correction K_{okt} is the average value of the range of use of PNAA/PNAB.

Sound attenuation ΔL

PNAA

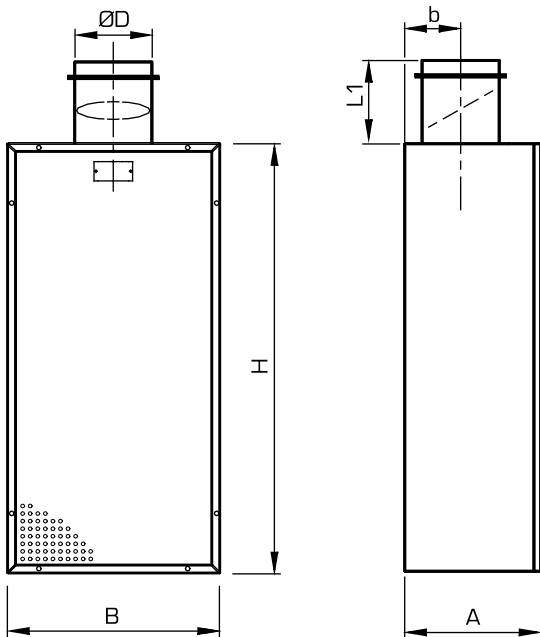
PNAA	Sound attenuation (dB)					
	125	250	500	1000	2000	4000
160	10	4	8	9	10	12
200	7	2	6	9	8	10
250	4	2	6	9	10	11
315	3	2	6	7	7	9
400	2	2	5	4	5	7
Tolerance ±	3	2	2	2	2	2

The average sound attenuation ΔL for the PNAA from duct to room, including the end reflection of the connecting duct in ceiling installation, is obtained from the above table.

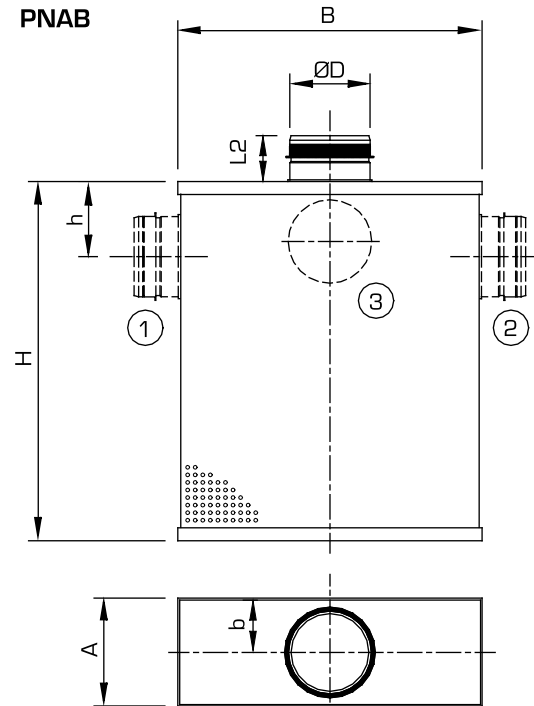
With the PNAB, sound attenuation is negligible.

Dimensions

PNAA



PNAB



Size	A mm	B *) mm	b/h mm	ØD mm	H *) mm	L1 (model A) mm	L2 (model B) mm
160	260	550	110	159.3	540	182	38
200	285	550	130	199.3	1140	217	39
250	335	660	155	249.3	1350	272	39
315	395	830	187.5	314.3	1600	372	39
400	495	980	230	399.3	2000	420	64
1000-300	395	1210		998 x 298	2000		

*) Trim strip increases dimensions B and H by

+ 44 mm (sizes 160-250)

+ 80 mm (sizes 315-400)

General

Construction

The PNAA/PNAB is a floor-mounted low velocity terminal. Besides floor mounting the terminal can be mounted to the ceiling or recessed in a wall. The terminal is provided with a circular (Ø160 - 400) or a rectangular (1000 x 300) duct connection. The terminal has a flat air distribution surface and an all-metal, non-clogging, and demountable structure. The air flow velocities are low in the occupied zone. The terminal can be fastened to the wall.

The terminal consists of a frame, demountable front plate and internal structure, and a fixed flow equalizer. The terminal can be equipped with a measuring adapter and a regulating damper (PNAA) to enable accurate measurements and adjustment.

Mounting brackets are included. The circular duct connection allows four alternative connecting directions: standard connection at the top, left side, right side, or rear.

Function

The supply air flows into the room through the front panel of the terminal. Usually, the supply air temperature is set lower than the room temperature, which makes the air flow down to the floor level and proceed at a low velocity into the occupied zone. The diffusion pattern is directed forwards of the terminal. The terminal can be recessed in a wall or installed to the ceiling, in which case the supply air is brought into the room from top to bottom.

Material and surface finish

Device is made of hot-dip galvanized steel sheet.

Front plate is powder coated and standard colour is white (RAL 9010). Other colours on request.

The attenuation material is polyester.

Product code

Low velocity terminal, circular connection PNAA-aaa-b
measuring and regulating device included

Low velocity terminal, circular connection PNAB-aaa-b
connection collar only

Size (aaa)

160-400

Connection alternative (b)

0 = normal (top)

1 = left side

2 = right side

3 = rear

Low velocity terminal, rectangular connection PNAB-aaaa-bbb
connection collar only

Size (aaaa-bbb)

1000-300

Connection alternative (b)

0 = normal (top)

1 = left side

2 = right side

3 = rear

Following marking is added to the codes if needed:

E = special colour

For example

PNAA-200-0-E (PNAA-200-0 with special colour)

Accessories

**Trim strip for ceiling
mounting**

PL-aaa

Size (aaa)

160-400

Base

SO-aaa

Size (aaa)

160-400

Cover plate

VP-aaa-b

Size (aaa)

160-400

Height, mm (b)

Following marking is added to the codes if needed:

E = special colour

For example

SO-200-E (SO-200 with special colour)