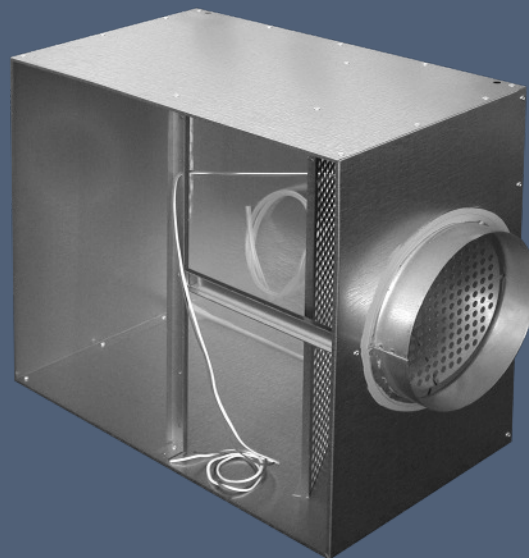


# MANDÍK<sup>®</sup>

## PLENUM BOX FOR FRONT PANELS

### EKOBOX



These specifications determine a series of sizes available for the economic version of plenum boxes which may be used with VVM, VVPM and ALCM outlets. The specifications apply to manufacture, design, ordering, delivery, assembly, and operation.

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## I. GENERAL

### 1. Description

1.1. The economic version of plenum boxes is designed for connection of VVM, VVPM & ALCM square head plates. It is mainly suitable to supply air to ventilated areas. It may also be used for air outlet connections but higher pressure loss must be expected than for standard outlet terminal boxes.

1.2. The vents are intended for environment protected against weather impacts with the classification of climatic conditions class 3K5, without condensation, frost, ice formation, and without water even from other sources than rain according to EN 60 72133, change A2.

Air flow must have a temperature between -20 to +50 °C.

Vents are suitable for systems without abrasive, chemical and adhesive particles.

1.3. If is not noticed other way, all dimensions and weight are in millimetres and kilograms.

### 2. Design

2.1. The economic version of plenum boxes are made in square design with horizontal and vertical connection for square and circular front panel.

2.2. For the characteristic dimensions of the plenum boxes 600 and 625 can be supplied control dampers controlled by means of ropes and with pressure probe.

2.3. Plenum box has got on the regulation the fixed wires.

It is possible to change the position of regulation damper by interlacing through the front panel in inlet socket of the box to adjust the volume airflow through the front panel.

To open the regulation damper, there is the green wire, to close, there is the white wire.

In the box there is prepared the plastic hose, which is connected to the pressure probe.

It is possible to determine the volume airflow from the corresponding chart 6.1.1 and 6.1.2 from the measured pressure (or suction).

Fig. 1 Plenum box without control - air supply

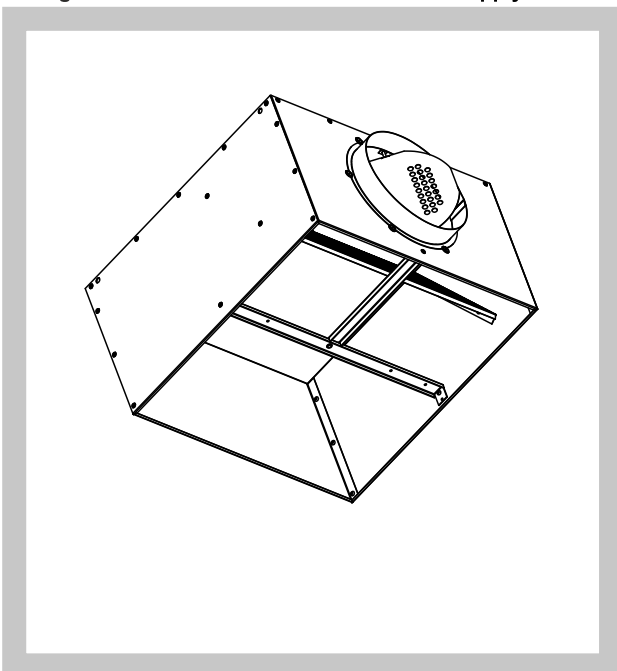
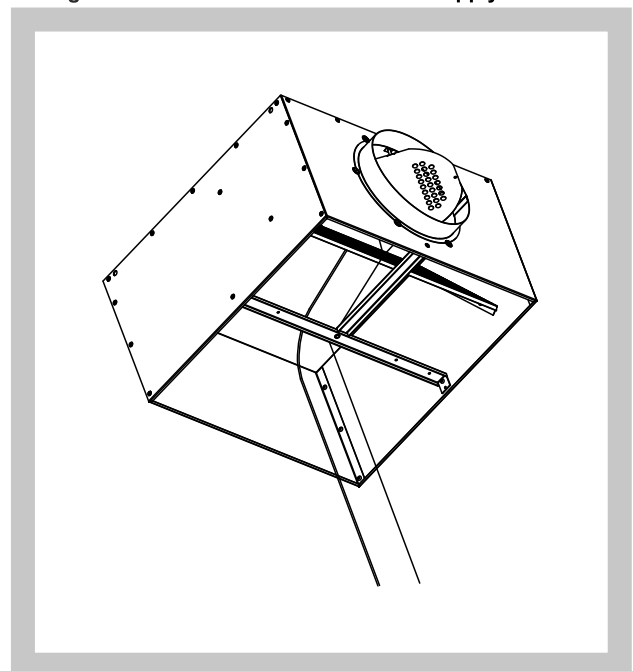


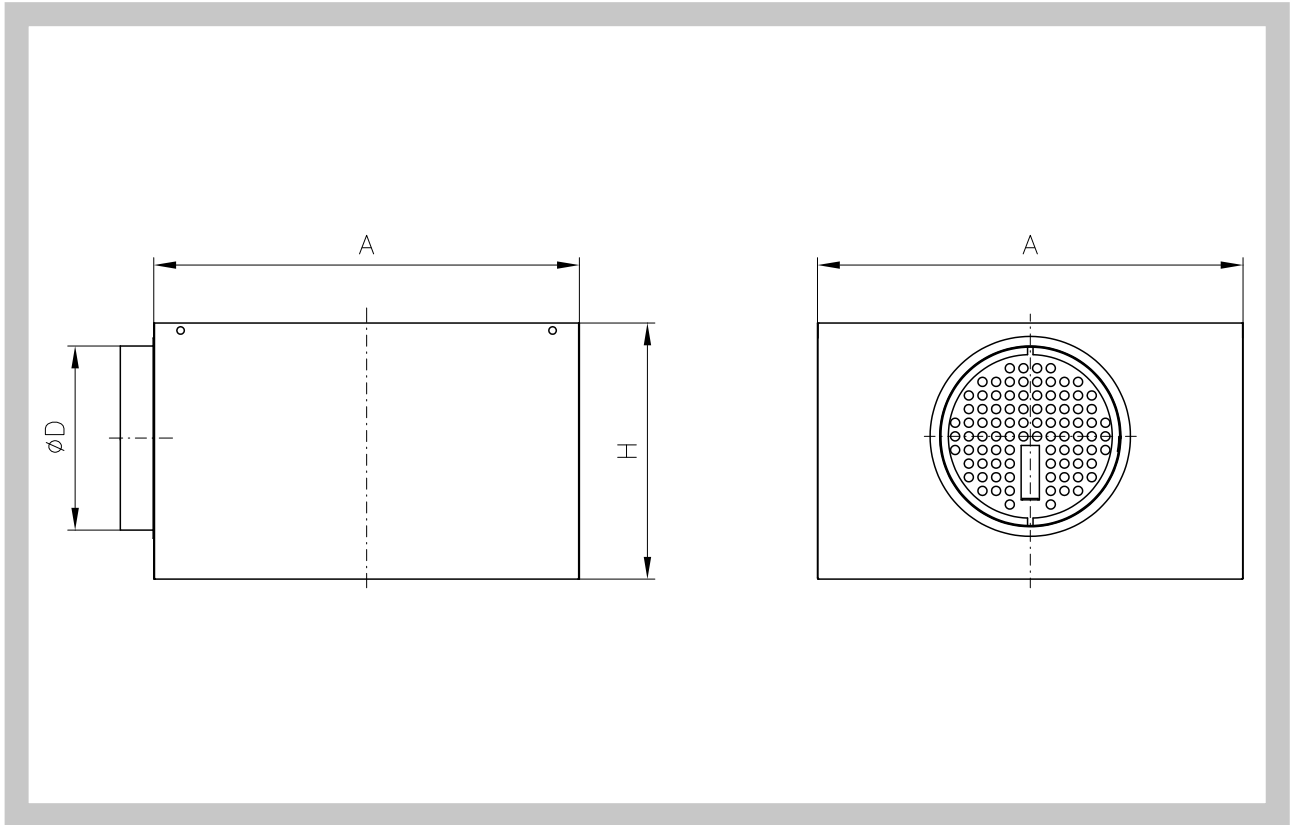
Fig. 2 Plenum box with control - air supply



**3. Dimensions and weights**

**3.1. Economic version of plenum box for horizontal connection and the square front panels**

**Fig. 3 Horizontal connection, square front panel**

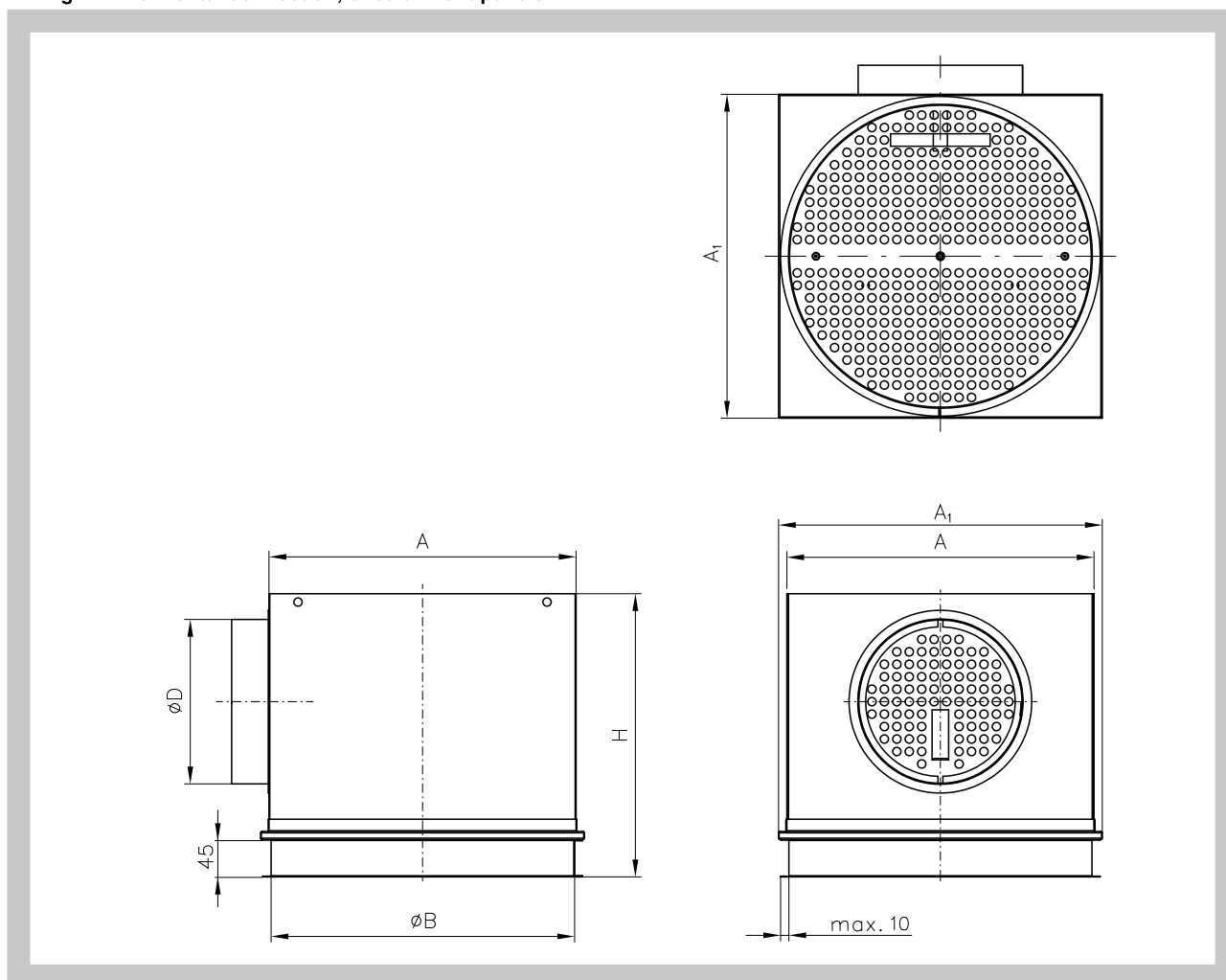


**Tab. 3.1.1. Horizontal connection, square front panel – dimensions, weights**

size	A	H	D	weight
250	220	255	158	1,8
300	270	255	158	2,2
400	370	295	198	3,5
500	470	295	198	4,6
600	572	345	248	6,4
625	600	345	248	6,8
825	812	395	313	11,3

## 3.2. Economic version of plenum box for horizontal connection and the circular front panels

Fig. 4 Horizontal connection, circular front panels

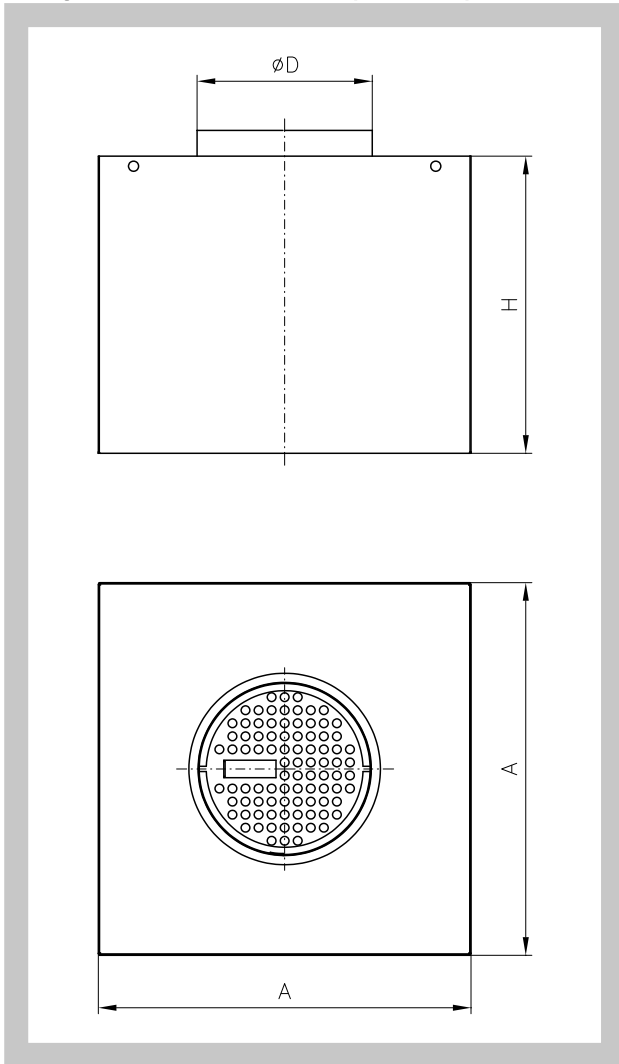


Tab. 3.2.1. Horizontal connection, circular front panel – dimensions, weights

size	A	A <sub>1</sub>	B	H	D	weight
250	220	247	215	300	158	2,1
300	270	297	275	300	158	2,8
400	370	390	365	340	198	4,3
500	470	490	465	340	198	5,7
600	572	592	570	390	248	7,9
625	600	620	595	372	248	8,4
825	812	832	790	440	313	13,3

3.3. Economic version of plenum box for vertical connection and the square front panels

Fig. 5 Vertical connection, square front panel

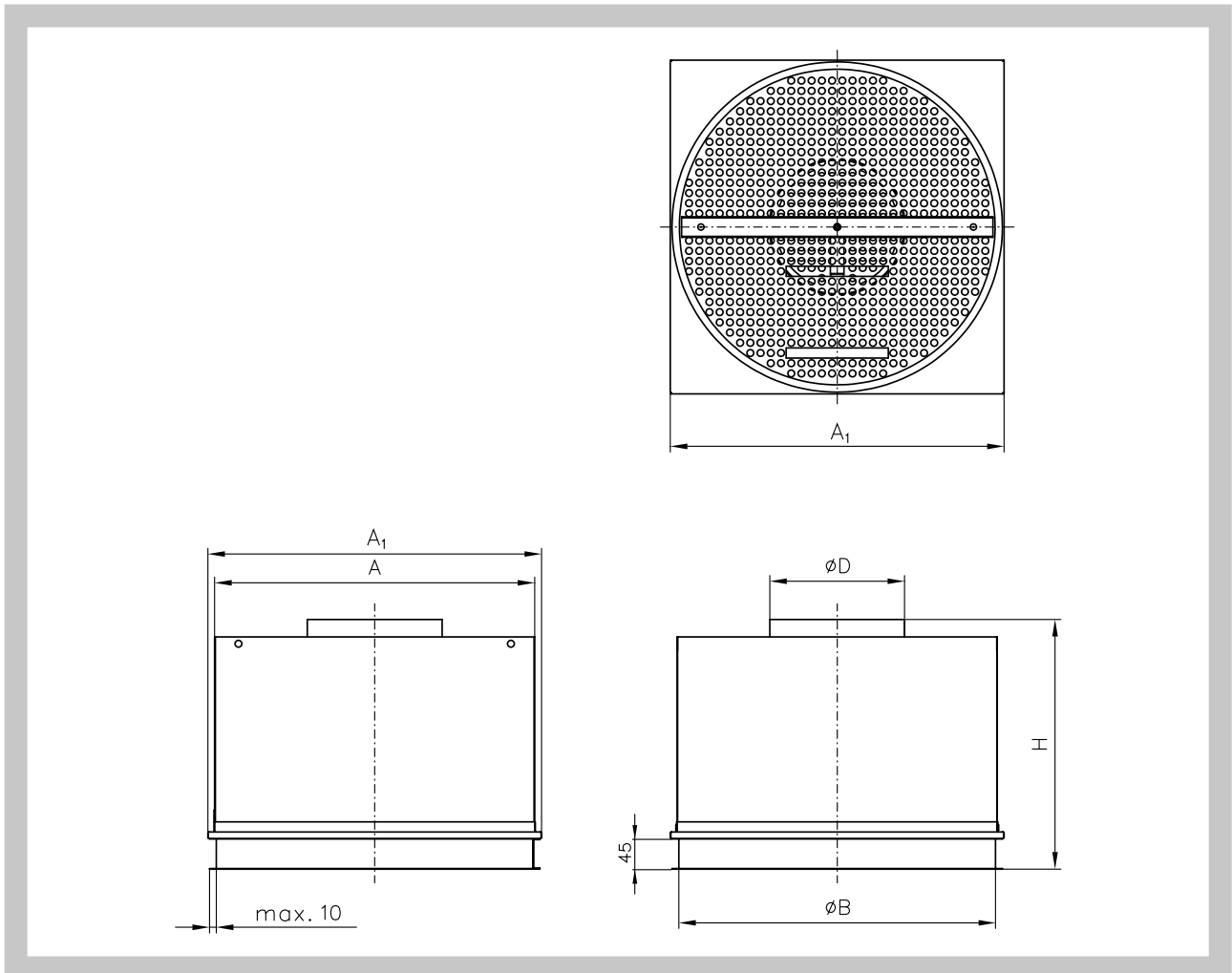


Tab. 3.3.1. Vertical connection, square front panel – dimensions, weights

size	A	H	D	weight
250	220	255	158	1,9
300	270	255	158	2,3
400	370	295	198	3,6
500	470	295	198	4,8
600	572	345	248	6,8
625	600	345	248	7,2
825	812	395	313	12,5

3.4. Economic version of plenum box for vertical connection and the circular front panels

Fig. 6 Vertical connection, circular front panel



Tab. 3.4.1. Vertical connection, circular front panel – dimensions, weights

size	A	A <sub>1</sub>	B	H	D	weight
250	220	247	215	300	158	2,1
300	270	297	275	300	158	2,8
400	370	390	365	340	198	4,3
500	470	490	465	340	198	5,7
600	572	592	570	390	248	7,9
625	600	620	595	372	248	8,4
825	812	832	790	440	313	13,3

3.5. Economic version of plenum box in version with the regulation dampers are controlled by means of ropes and with pressure probe.

The dimensions correspond to the data referred to in paragraph 3.1.

Fig. 7 plenum box with the regulation dampers control by means of ropes and with pressure probe - supply

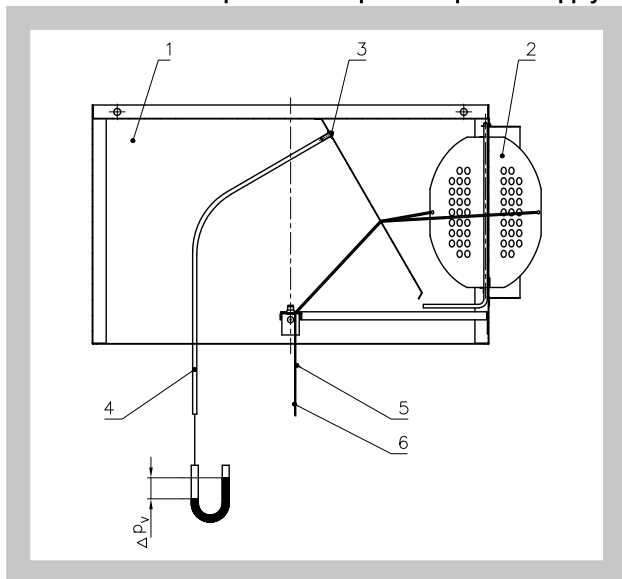
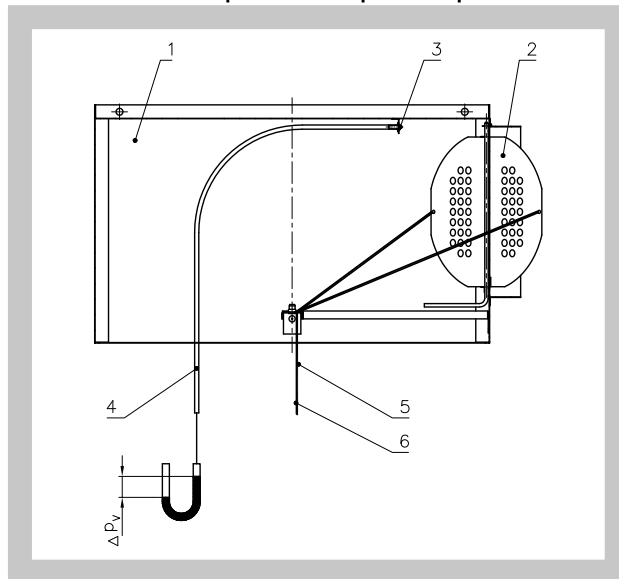


Fig. 8 plenum box with the regulation dampers control by means of ropes and with pressure probe - outlet



**Position:**

- 1. Plenum box
- 2. Regulation damper
- 3. Pressure probe
- 4. hose for pressure measurement
- 5. Green rope (opening flap)
- 6. White rope (closing flap)

**4. Types and sizes of front panels**

4.1. VVM, VVPM & ALCM outlet and diffusor front panel types and sizes associated with plenum box sizes of the economic version:

Tab. 4.1.1. Associated types and sizes of front panels

Plenum box	Front panel			Plenum box	Front panel		
	VVM	VVPM	ALCM		VVM	VVPM	ALKM
250 C	-	-	250	250 K	-	-	250
300 C	300 C/8	300 C	300	300 K	300 K/8	300 K	300
400 C	400 C/16	400 C	400	400 K	400 K/16	400 K	400
	500 C/16				500 K/16		
	600 C/16				600 K/16		
	625 C/16				625 K/16		
500 C	500 C/24	500 C	500	500 K	500 K/24	500 K	500
600 C	600 C/24	600 C 625 C	600 625	600 K	600 K/24	600 K 625 K	600 625
	600 C/48				600 K/48		
	625 C/24				625 K/24		
	625 C/48				625 K/48		
625 C	625 C/54	-	-	625 K	625 K/54	-	-
825 C	825 C/72	-	-	825 K	825 K/72	-	-

**II. TECHNICAL DATA**

**5. Deviation from TPM**

5.1. When using the economic version of plenum boxes are not guaranteed parameters for outlets VVM, VVPM, ALCM and ALKM given in technical specifications.

**6. Dependence volumetric air flow on pressure in plenum box with regulation**

Chart 6.1.1. Chart dependence volumetric air flow on pressure - supply (VVM 600/24, VVM 600/48, VVM 625/54, VVPM 600, ALCM 600,625) - supply

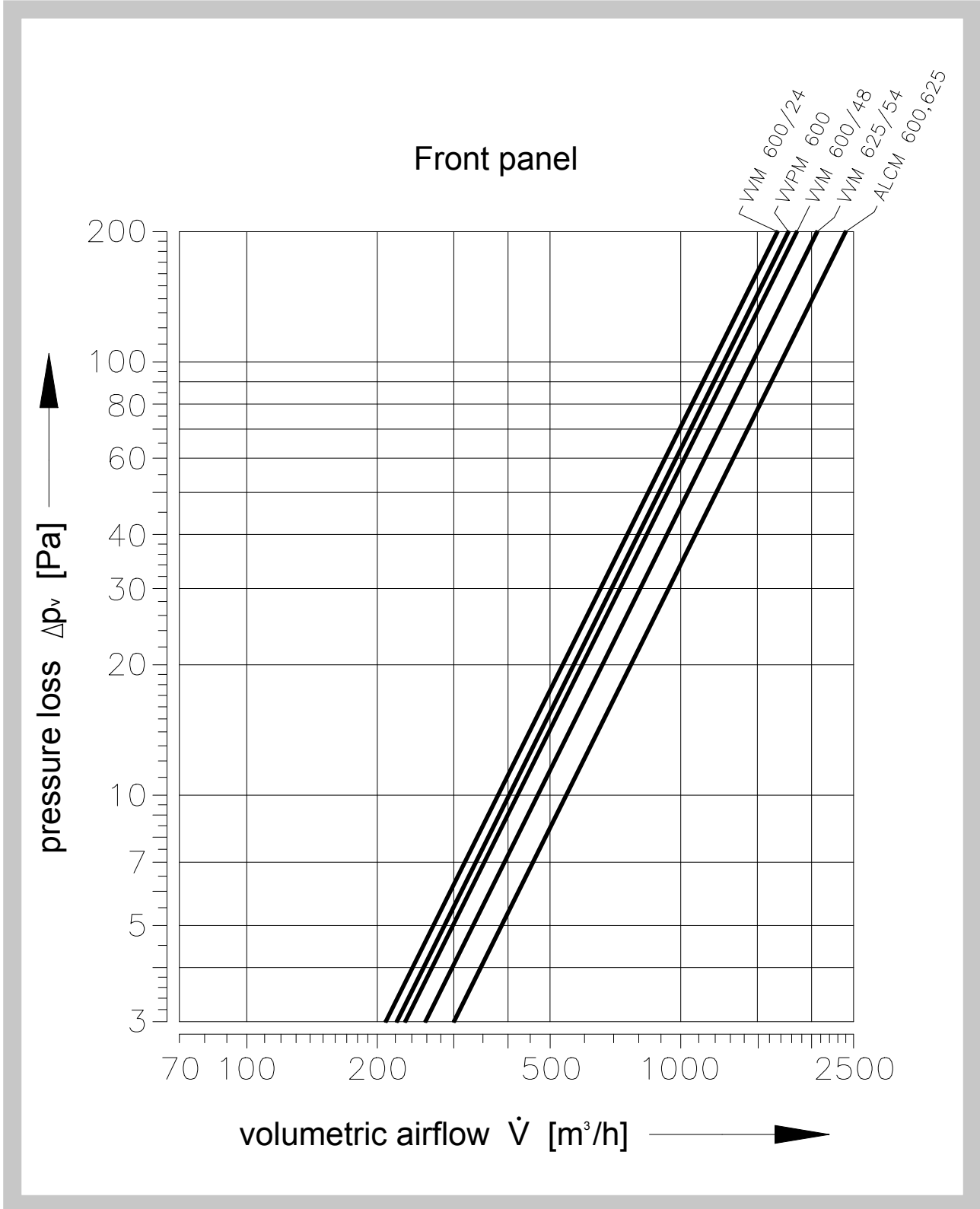
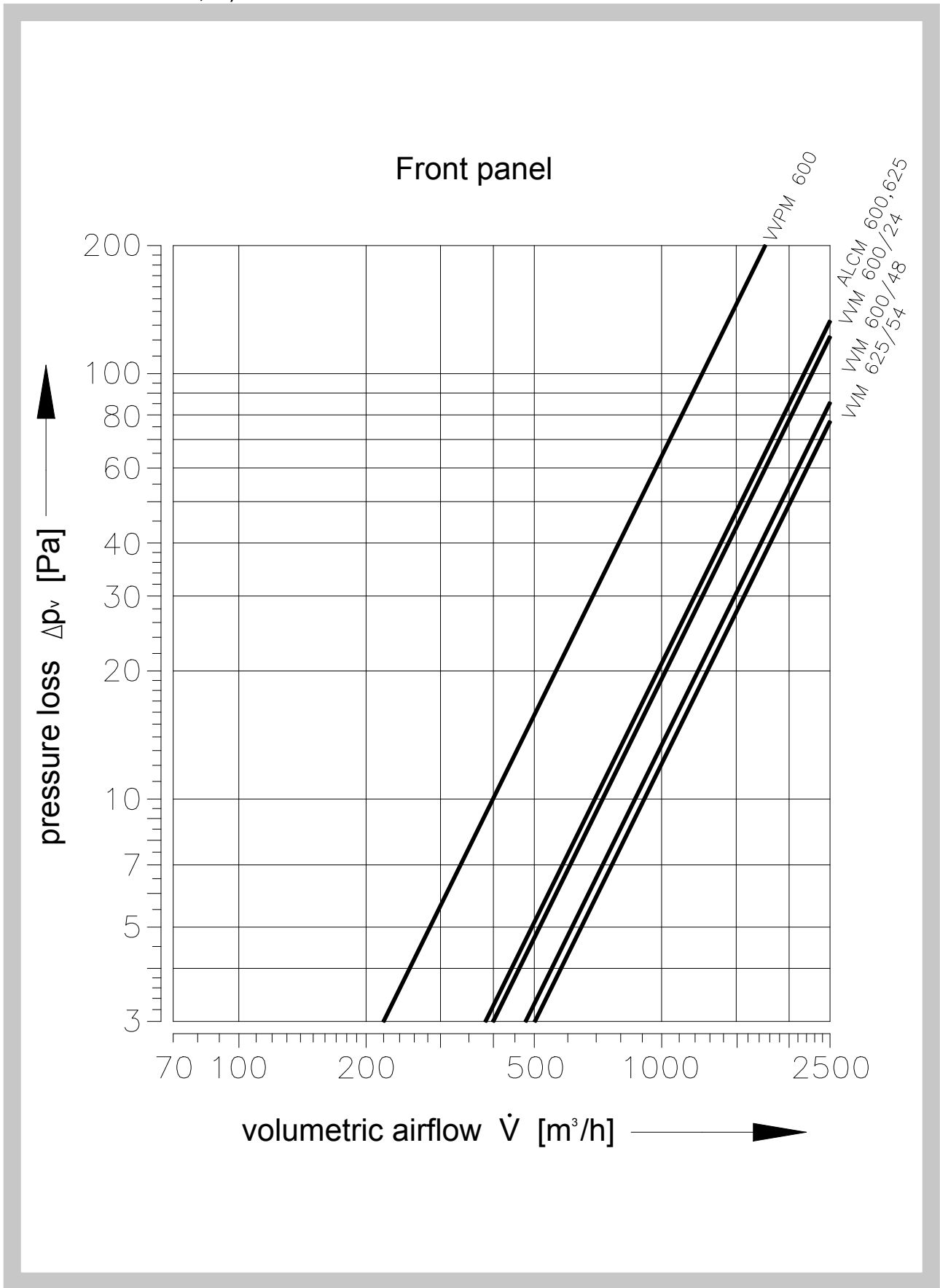


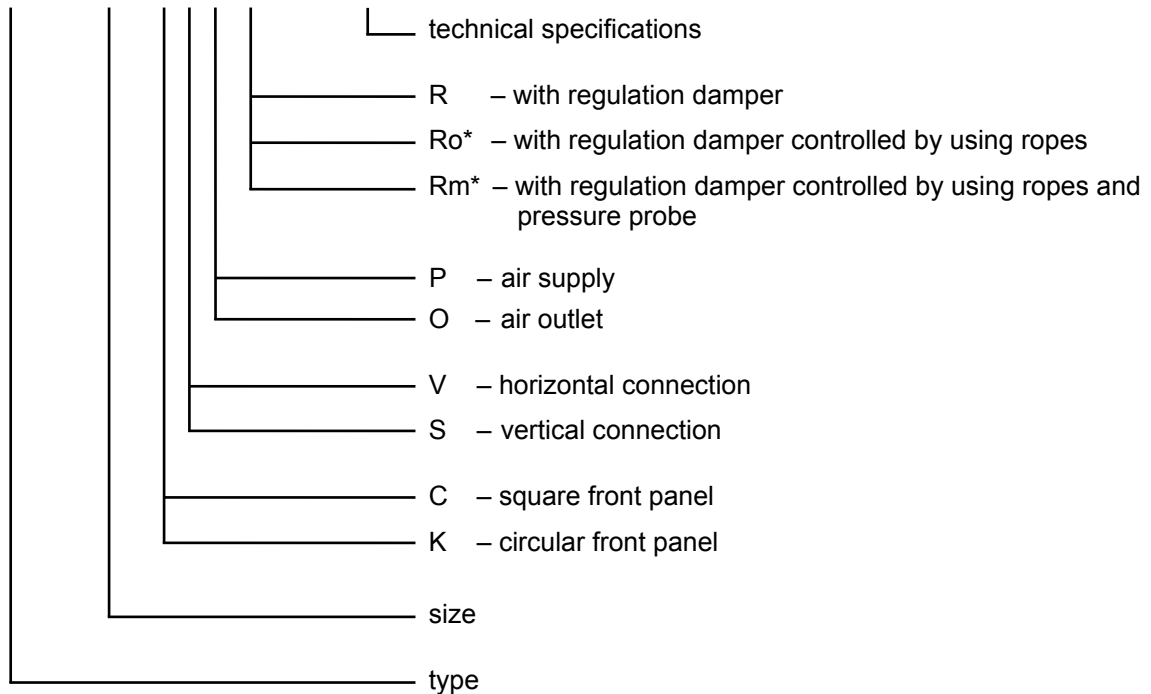
Chart 6.1.2. Chart dependence volumetric air flow on pressure - outlet (VVM 600/24, VVM 600/48, VVM 625/54, VVPM 600, ALCM 600,625) - outlet



## IV. ORDERING INFORMATION

### 7. Ordering key

**Ekobox 250 C/V/P/Ro TPM 037/04**



**\* for horizontal connection, square front panel**

## V. MATERIAL, FINISHING

### 8. Material

- 8.1.** Terminal boxes are made of galvanized sheet steel. Other material design of the connection box in economical design should be discussed with the manufacturer.

## VI. PACKAGING, TRANSPORT AND STORAGE

### 9. Logistical data

- 9.1.** Plenum boxes are packed individually using cardboard containers. Transportation is provided using closed trucks. If agreed with the customer, the boxes may be transported using pallets. For handling during transport and storage, the boxes must be protected against mechanical damage.
- 9.2.** If the purchase order does not specify a method of receiving inspection, the turnover of boxes to the forwarder will be considered as acceptance.
- 9.3.** The plenum boxes must be stored in the indoor environment without any aggressive vapours, gases or dust. Indoor temperature must be in the range from -5 °C to +40 °C and maximum relative humidity 80%. Plenum boxes must be protected against mechanic damages when transported and manipulated.

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