



[Product manual](#)

[**Round CAV Constant volume controller**](#)

[Volume controls](#)

Round CAV Con- stant volume controller

- For maintaining constant air volume in ventilation systems, without additional power supply. New valve design with high control accuracy +/- 10%.
- Made of galvanized steel sheet
 - Dimensions range: d100 - d400 [mm] - Elec-
tric drive: continuous or two-position
regulation
 - Recommended airflow velocity from 3 to 8
m/s, at pressure difference $\Delta p > 50$ Pa
 - Adjusting required constant amount is done
by turning of working screw on the right side
of the cover
 - Working temperature -20...80 °C
 - Relative humidity 5...80% rh
 - Constant flow $\pm 10\%$ set value
 - Maximum pressure 1000 Pa - Casing air-
tightness Class C
 - Casing insulation 32 mm,

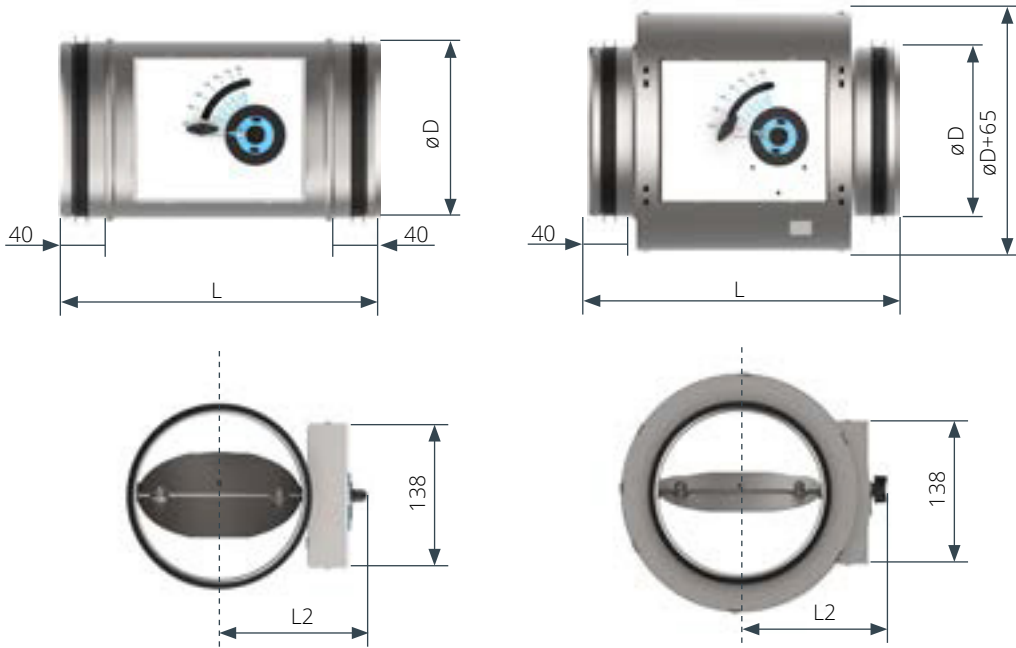


PRODUCT OVERVIEW

AIR FLOW CONTROL

DIMENSIONS

Dn [mm]	Vmin [m³/h]	Vmax [m³/h]	øD [mm]	L [mm]	L ₂ [mm]	m [kg]
100	100	400	98	300	98	1,7
125	160	550	123	300	110	1,9
160	250	830	158	300	128	2,3
200	330	1250	198	300	148	2,8
250	500	2000	248	400	173	3,2
315	850	3600	313	400	205	4,6
400	1300	4800	398	400	248	5,3





Belimo motor drive

- motor drives - Belimo (open/close, continuous)
- power supply - AC 230V - DC 24V
- IP54 degree of protection

Voltage AC/DC	Type	Control	Torque	Energy consumption	Wire sizing	Weight [kg] approx.	Dimension (F x E)
DC24V	LM24A	3-point	5 Nm	1 W	1.5 VA	0.46	160 x 90
	LM24A-SR	continuous	5 Nm	1 W	2VA	0.40	160 x 90
AC 230V	LM230A	3-point	5 Nm	1,5 W	3,5 VA	0.46	160 x 90
	LM230A-SR	continuous	5 Nm	2 W	4 VA	0.50	180 x 90

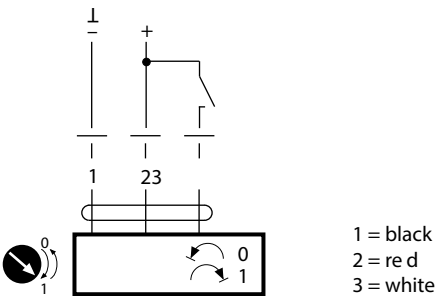


ACTUATORS

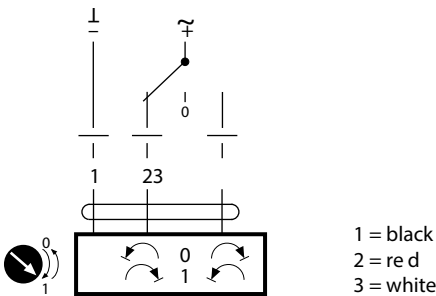
Wiring diagram

OZ -open/close

AC/DC 24 V, open/close

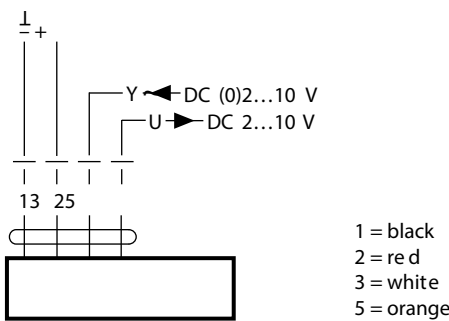


AC/DC 24 V, 3-point

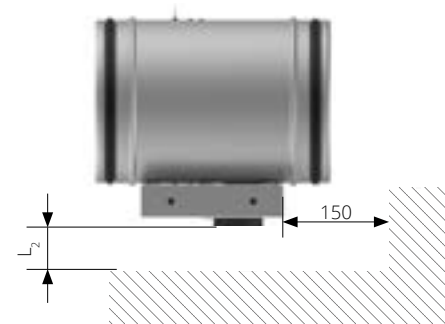
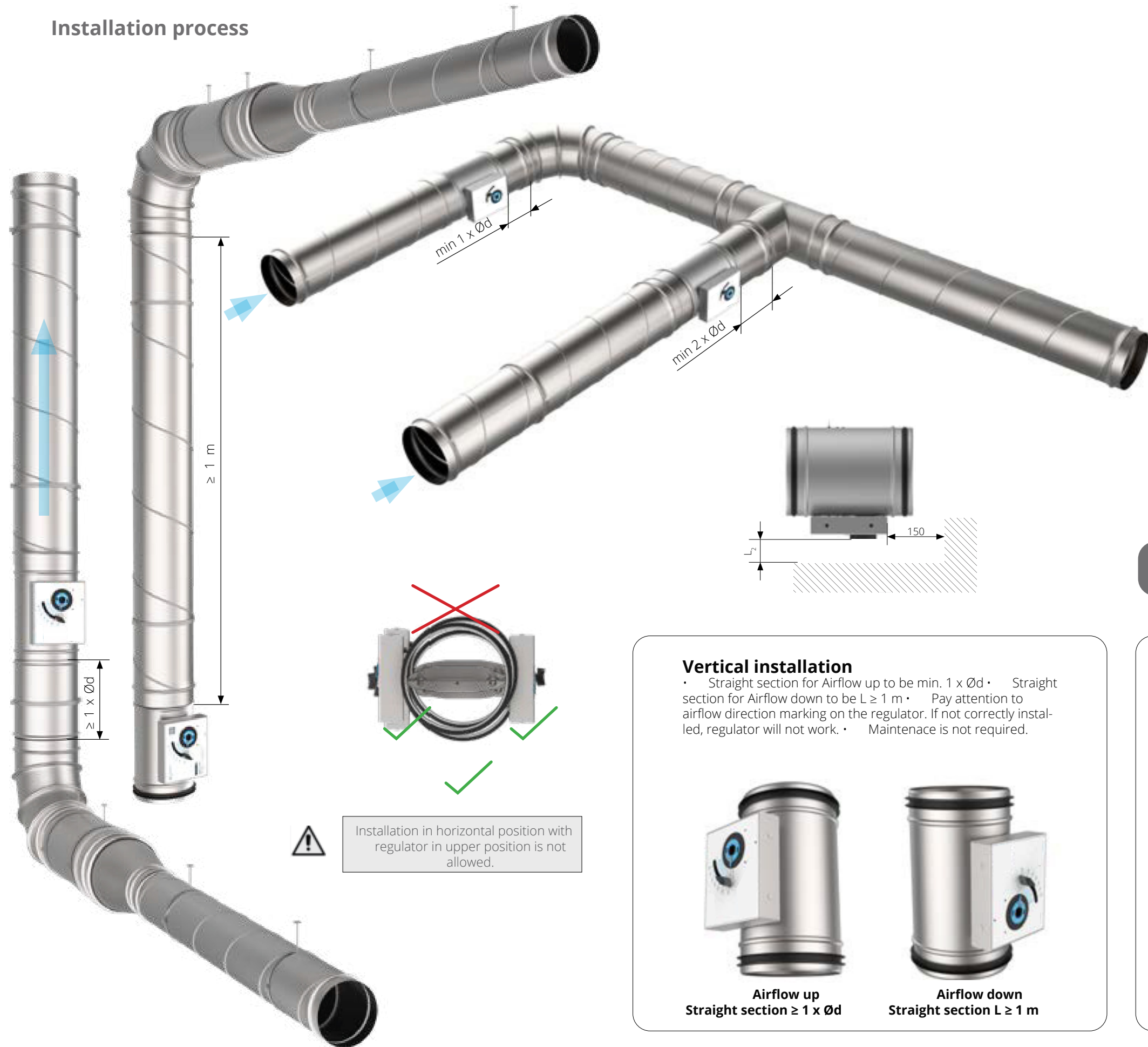


K -continuous

AC/DC 24 V, modulatin g



Installation process



INSTALLATION

Vertical installation

- Straight section for Airflow up to be min. $1 \times \text{Ød}$ • Straight section for Airflow down to be $L \geq 1 \text{ m}$ • Pay attention to airflow direction marking on the regulator. If not correctly installed, regulator will not work. • Maintenance is not required.



Airflow up
Straight section $\geq 1 \times \text{Ød}$



Airflow down
Straight section $L \geq 1 \text{ m}$

Horizontal installation

- Required length of straight section before regulator is min $L \geq 1 \text{ Ød}$
- Pay attention to airflow direction marking on the regulator. If not correctly installed, regulator will not work.
- Maintenance is not required.



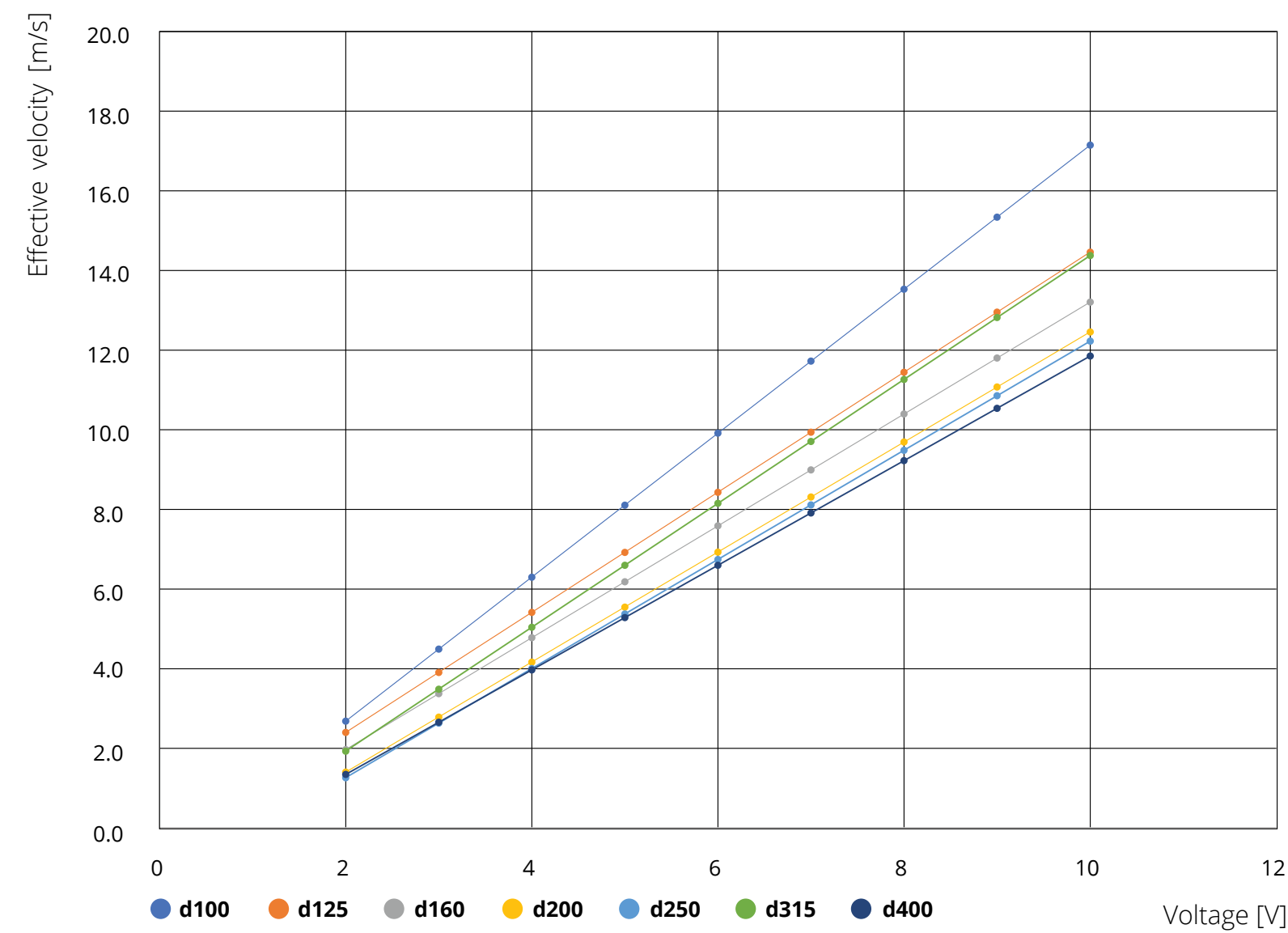
Installation process
Air flow/ Voltage



D100		D125		D160		D200		D250		D315		D400	
Air flow [m3/h]	Voltage [V]	Air flow [m3/h]	Voltage [V]	Air flow [m3/h]	Voltage [V]	Air flow [m3/h]	Voltage [V]	Air flow [m3/h]	Voltage [V]	Air flow [m3/h]	Voltage [V]	Air flow [m3/h]	Voltage [V]
100	0,07	160	0,77	250	2,84	330	2,82	500	2,82	850	2,01	1300	2,77
115	2,81	180	2,96	300	3,49	400	3,42	600	3,44	900	2,61	1500	3,38
150	3,47	200	3,38	350	4,11	500	4,24	800	4,5	1200	3,41	2000	4,61
200	4,43	250	4,25	400	4,6	600	4,99	1000	5,44	1250	4,02	2500	5,5
250	5,34	300	5,02	450	5,12	700	5,72	1200	6,35	1600	4,59	3000	6,31
300	6,32	350	5,82	500	5,61	800	6,36	1400	7,1	1650	5,04	3500	7,03
350	7,37	400	6,44	550	6,1	900	6,94	1600	7,8	2000	5,49	4000	7,7
400	8,41	450	7,16	600	6,56	1000	7,42	1800	8,38	2050	5,97	4500	8,34
		500	7,85	650	7,05	1100	7,83	2000	8,9	2400	6,37	4800	8,77
		550	8,63	700	7,49	1200	8,31			2450	6,77		
				750	7,92					2800	7,1		
				800	8,38					2850	7,42		
				830	8,66					3200	7,69		
										3250	8,02		
						3600	8,36						

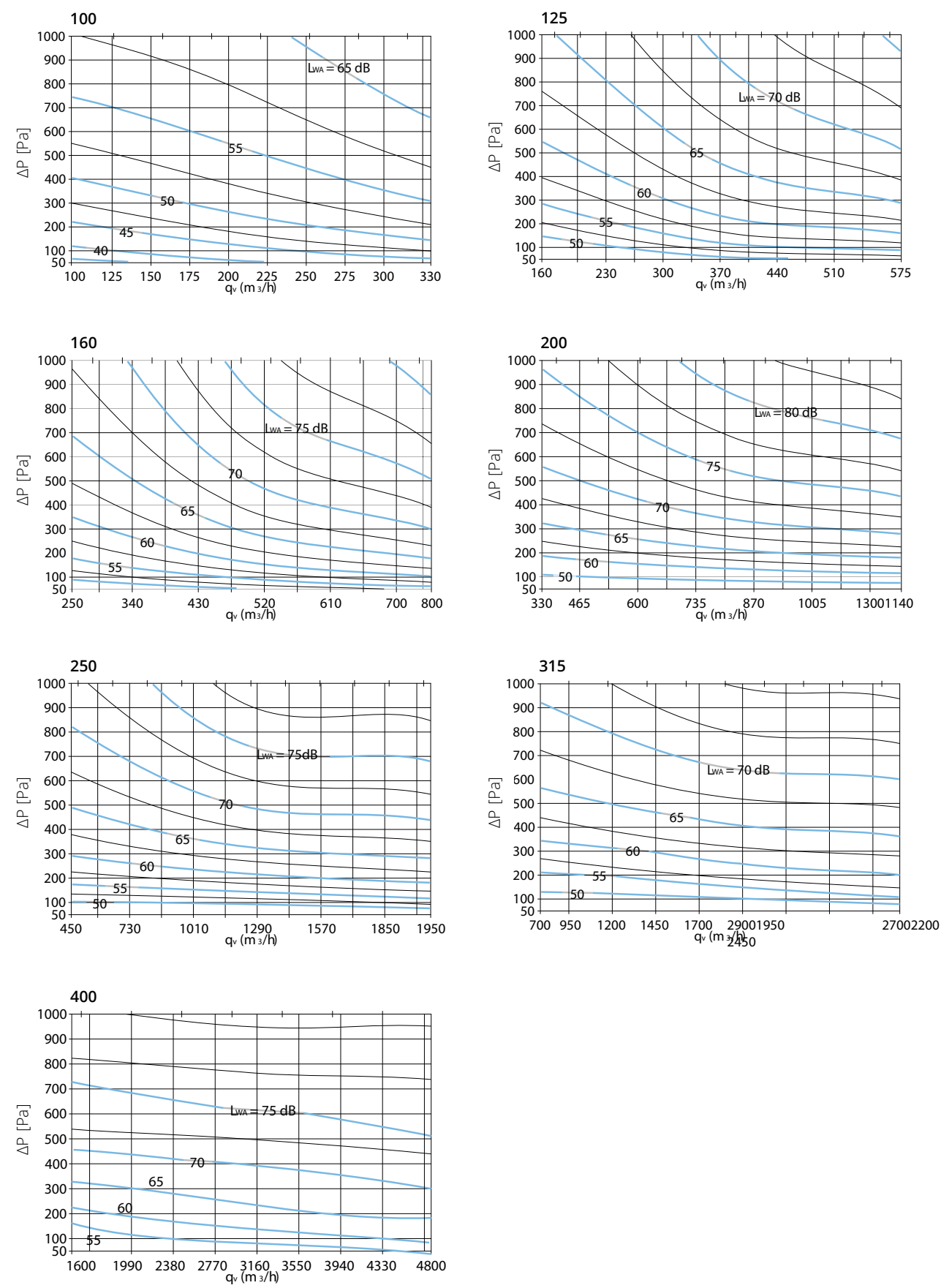
Installation process Effective
air velocity/ Voltage

Voltage [V]	d100	d125	d160	d200	d250	d315	d400
	[m/s]						
2	2,7	2,4	2,0	1,40	1,3	1,9	1,3
3	4,5	3,9	3,4	2,79	2,6	3,5	2,7
4	6,3	5,4	4,8	4,17	4,0	5,0	4,0
5	8,1	6,9	6,2	5,55	5,4	6,6	5,3
6	9,9	8,4	7,6	6,93	6,7	8,2	6,6
7	11,7	9,9	9,0	8,31	8,1	9,7	7,9
8	13,5	11,4	10,4	9,69	9,5	11,3	9,2
9	15,3	13,0	11,8	11,08	10,9	12,8	10,5
10	17,1	14,5	13,2	12,46	12,2	14,4	11,9

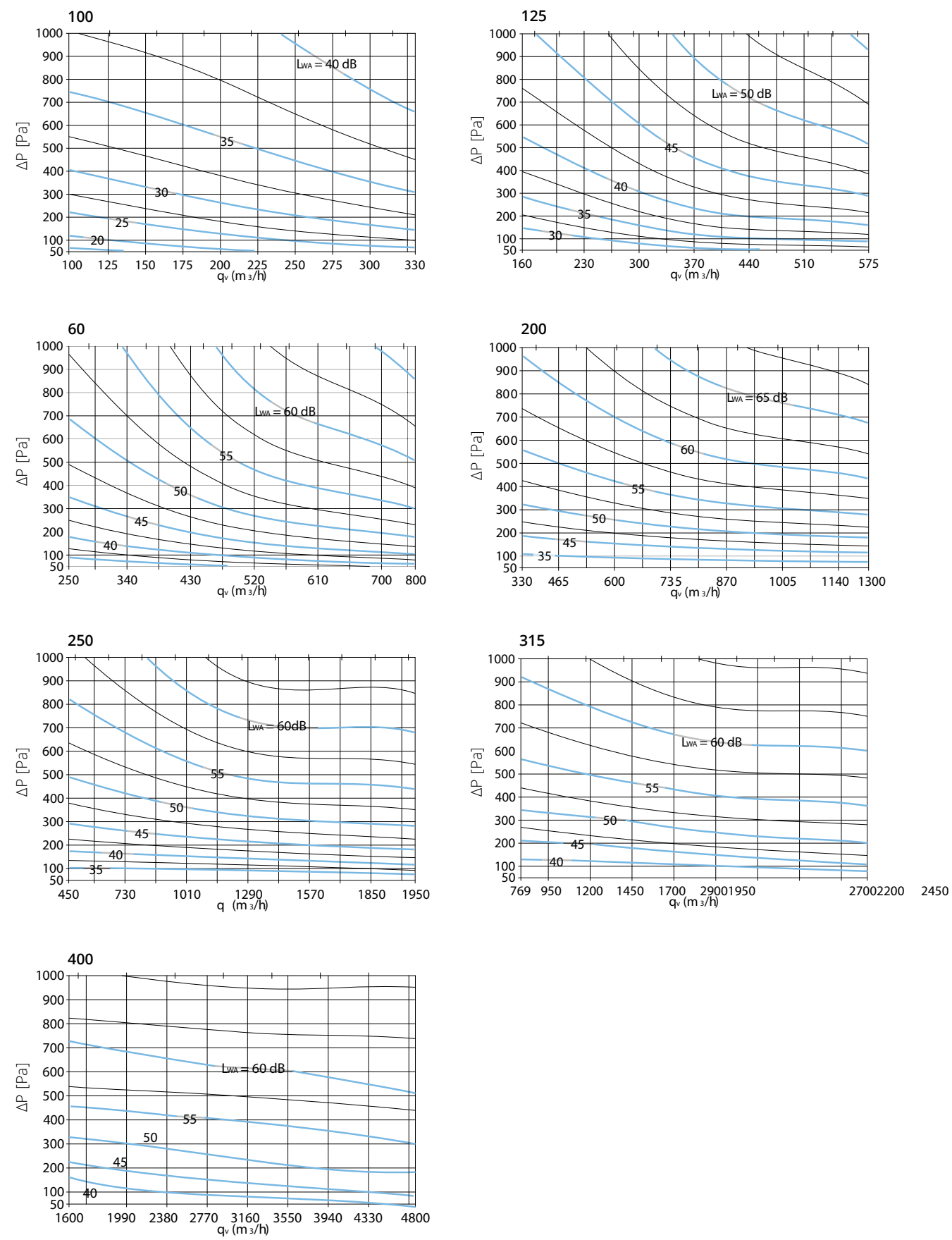


INSTALLATION

Sound power levels L_{WA} [dB(A)]
Air regenerated noise



Sound power levels L_{WA} [dB(A)]
Case radiated noise





MAINTENANCE



AIR FLOW CONTROL

TRANSPORT

After arrival, check the damper for transport damage and shortcomings. In case of any damage or shortcomings, immediately contact your supplier.

STORAGE

If the damper is not installed immediately:

- Remove any wrapping.
- Protect damper from dust and contamination.
- Do not expose the CAV damper to the effects of weather - store the damper in a dry place.
- Do not store the unit below -20 °C or above 50 °C.

Please properly dispose of packaging material!

MAINTENANCE AND OPERATION

Constant volume dampers are designed with fully enclosed drive mechanism outside of the duct and as such do not require cleaning and regular maintenance.

However, activation mechanism should be inspected for proper operation on regular basis.

- Provide at least one annual check of the damper
- After each intervention, provide a systematic cleaning of dust.
- Cleaning instruction: clean with a sponge, with water or a mild detergent
- Disinfection instruction: spray disinfectant (disinfectant may contain alcohol which is flammable, take precaution to avoid ignition)

It is not permitted to alter the products in any way nor perform any changes to their structure (except for the service procedures described in this manual) without the manufacturer's consent. Provide at least one annual check of the damper.

The functional test must be carried out in compliance with the basic maintenance principles of the European norms.

COMMISSIONING

- Carefully unpack damper - be careful of sharp edges and do not use excessive force for unpacking
- Inspect the product - check the volume flow damper for damage-
- Before commissioning: check the product functions

ECONOX

AIRFLOW REGULATION

Images are for informational purposes only and may differ from the actual product.
Follow the latest versions of the catalog on the website.
