



Product manual

Constant volume dampers

RKP-C

Airflow regulation

Version 1.0.4
Date: 16.08.2022

RKP-C

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, damper blade made of anodized aluminium sheet
- Dimensions range: d100 - d400 [mm]
- Versions also available with electric 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
- Casing airtightness Class C



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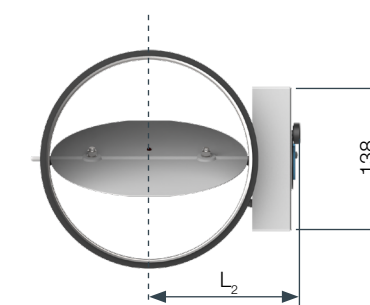
 PRODUCT OVERVIEW

AIRFLOW REGULATION

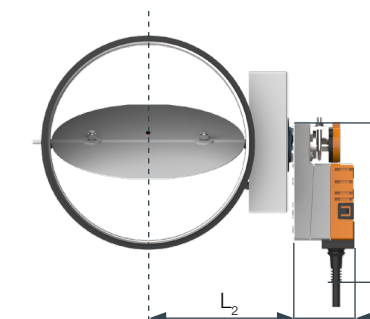
DIMENSIONS

Dn [mm]	Vmin [m³/h]	Vmax [m³/h]	øD [mm]	L [mm]	L ₂ [mm]	m [kg]
100	100	330	98	300	98	1,7
125	160	575	123	300	110,5	1,9
160	250	800	158	300	128	2,3
200	330	1300	198	300	148	2,8
250	450	1950	248	400	173	3,2
315	700	2900	313	400	205,5	4,6
400	1600	4800	398	400	248	5,3

RKP-C



RKP-C-M





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

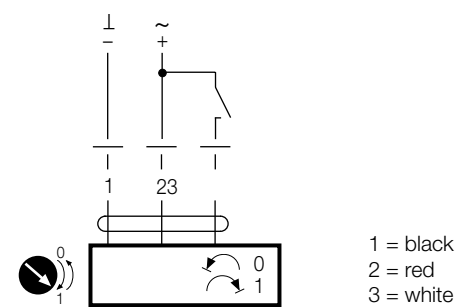
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 ACTUATORS

Wiring diagram

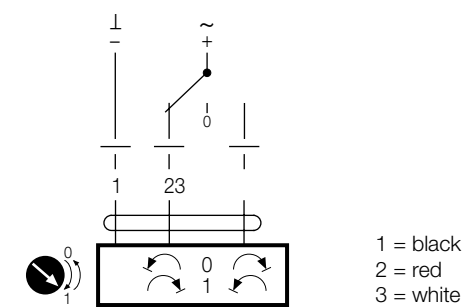
OZ -open/close

AC/DC 24 V, open/close

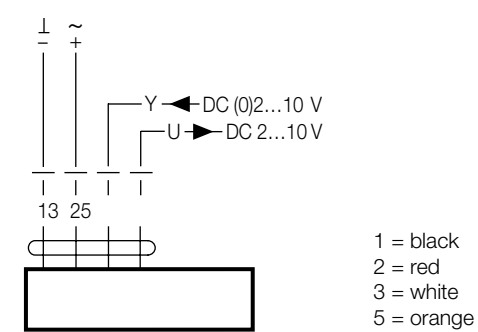


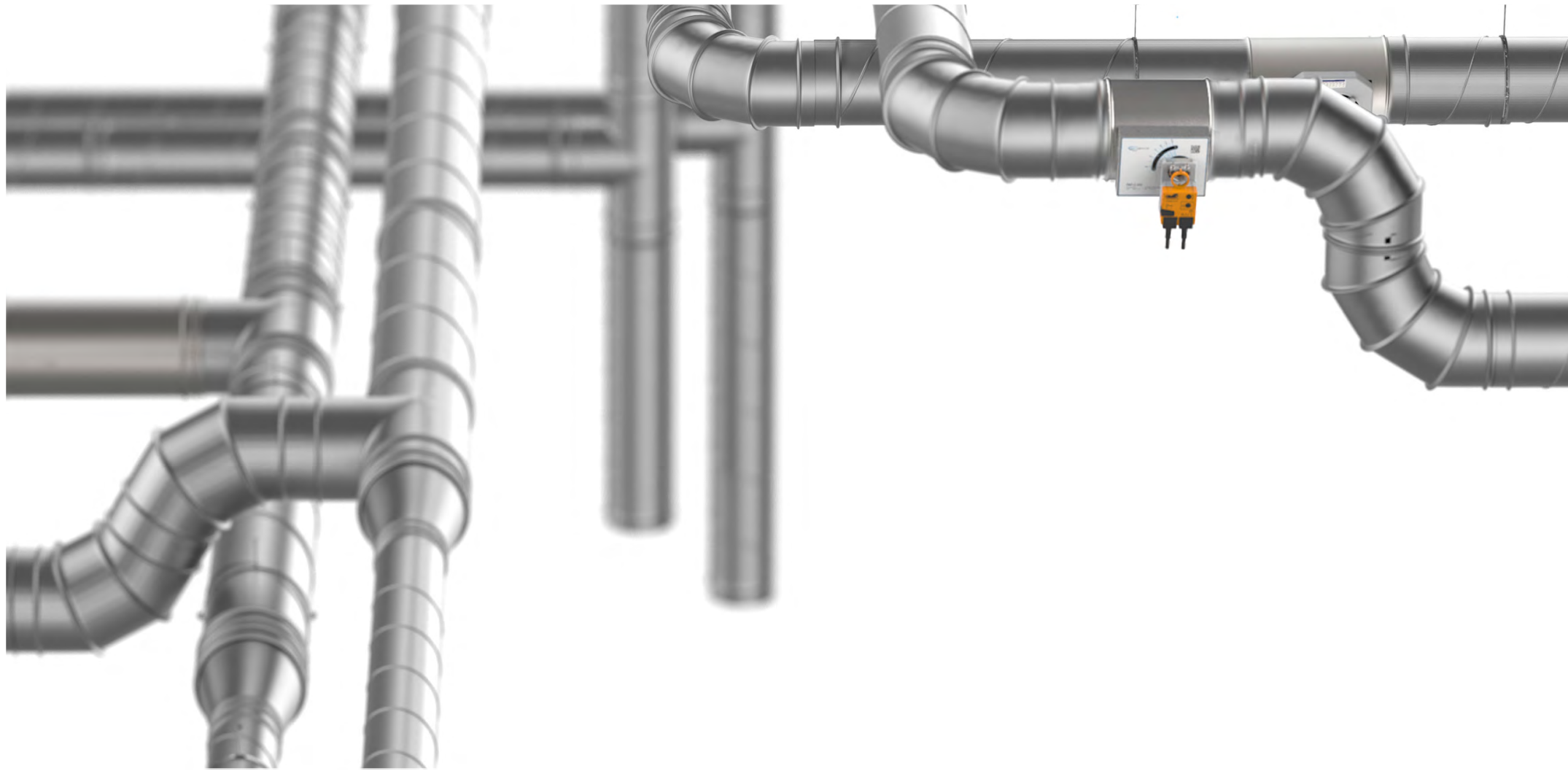
K -continuous

AC/DC 24 V, 3-point



AC/DC 24 V, modulating





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 ORDERING KEY

AIRFLOW REGULATION

ORDERING KEY

(1) Constant volume damper

(2) Dimensions

(3) Actuator

RKP-C - Ød - R

(1) **RKP-C**

(2) **Ød** - dimensions

(3) **R** - manual drive

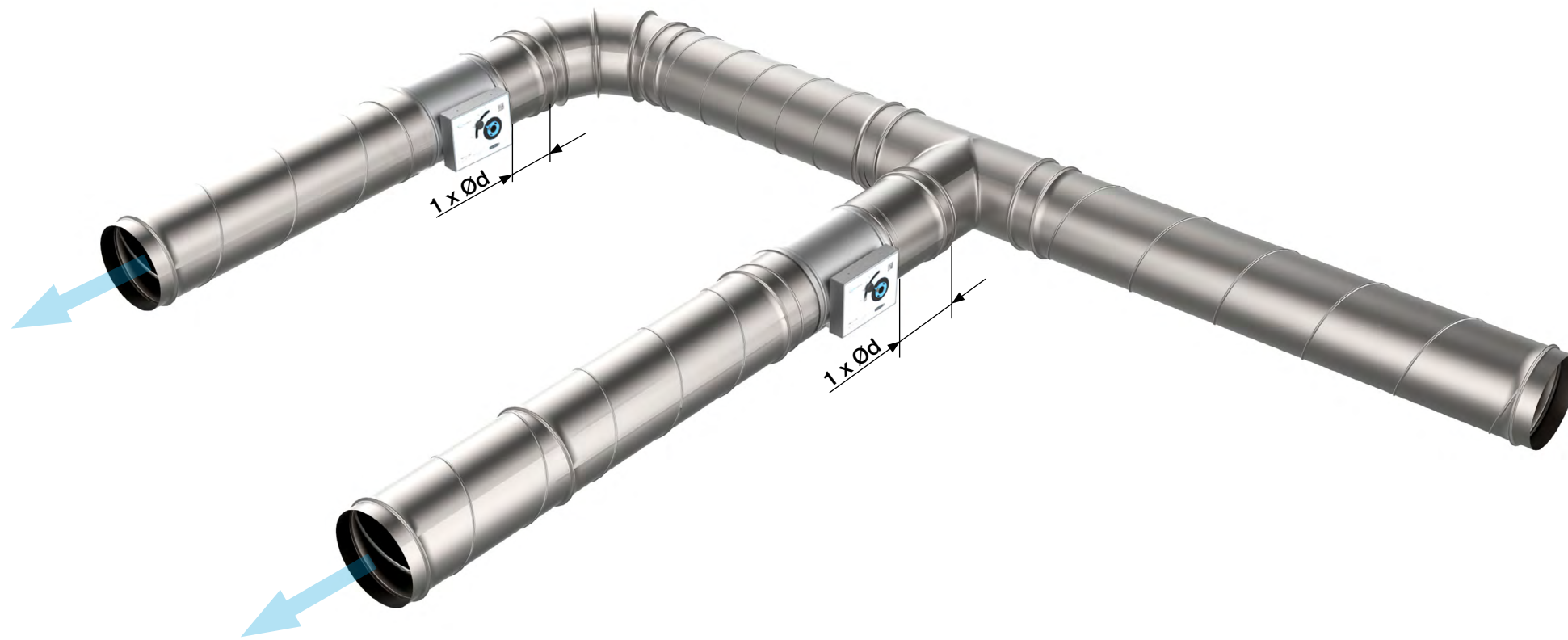
M24-K - motor drive - continuous regulation

M24-OZ - motor drive - two-position regulation

M230-K - motor drive - continuous regulation

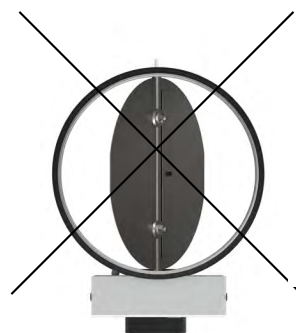
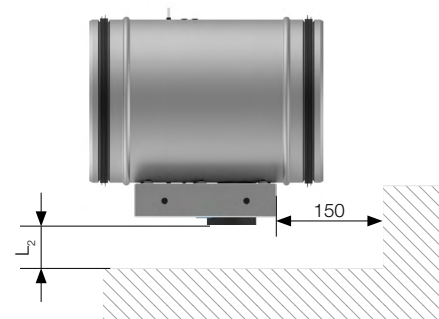
M230-OZ - motor drive - two-position regulation

Installation process



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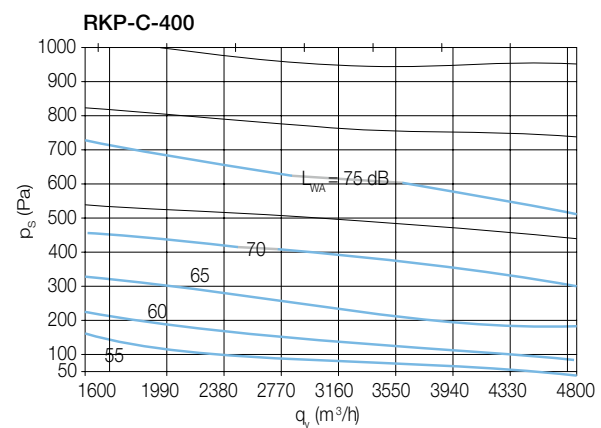
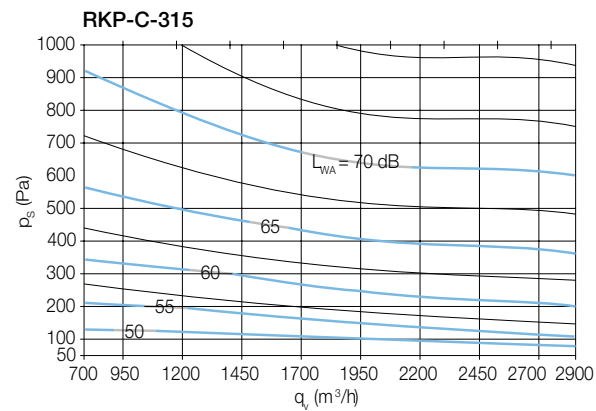
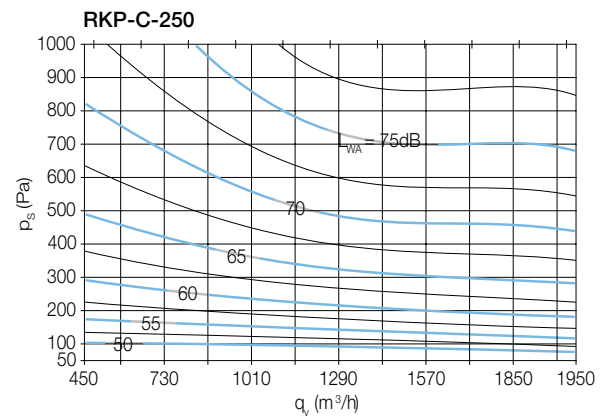
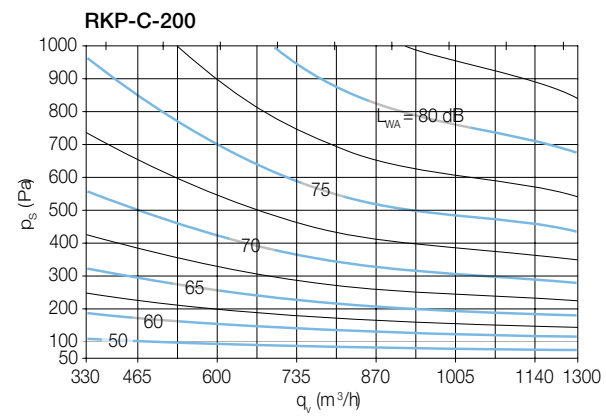
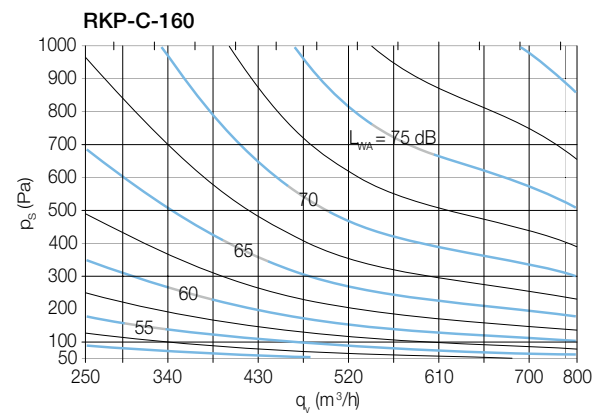
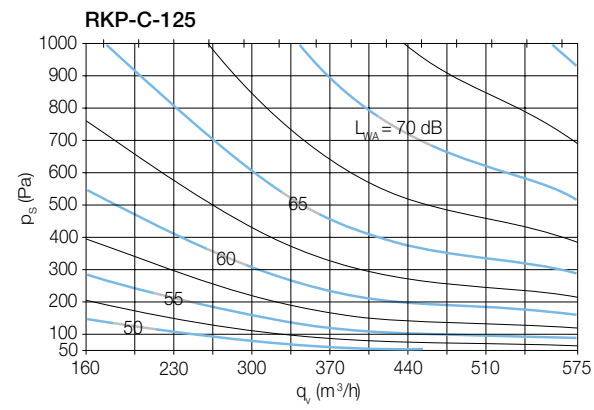
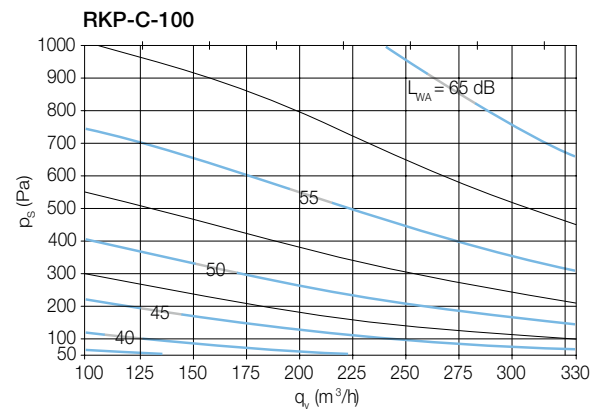
INSTALLATION



Installation in horizontal, angled or vertical duct so that rotation axis is always in horizontal position.

- Required length of straight section before regulator is $L > 1d$.
- If $L < 1d$, a 10% error in regulation occurs so that kind of installation is not advisable.
- Pay attention to airflow direction marking on the regulator. If not correctly installed, regulator will not work.
- Maintenance is not required.

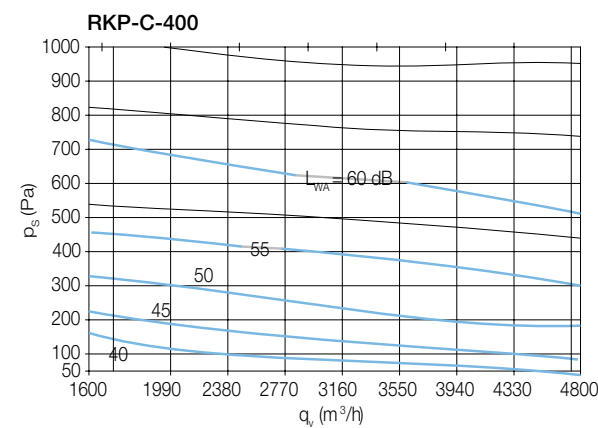
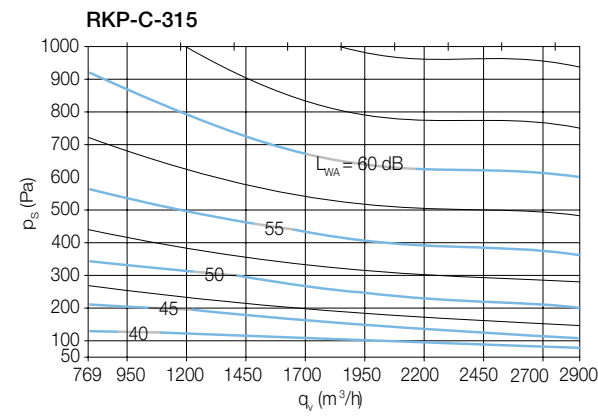
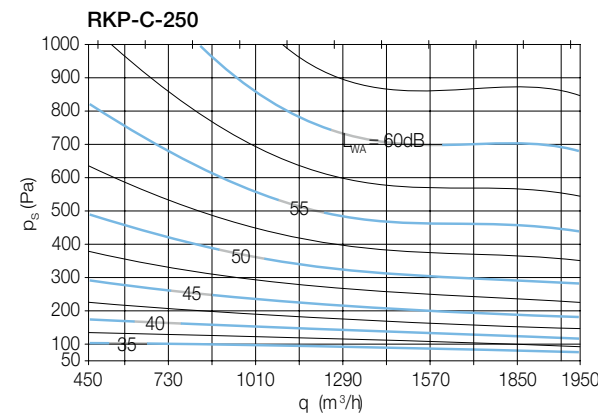
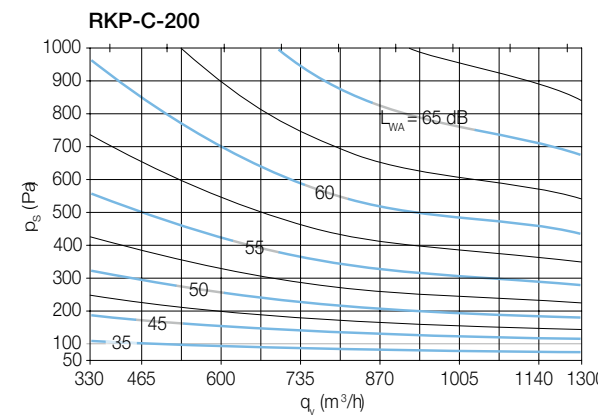
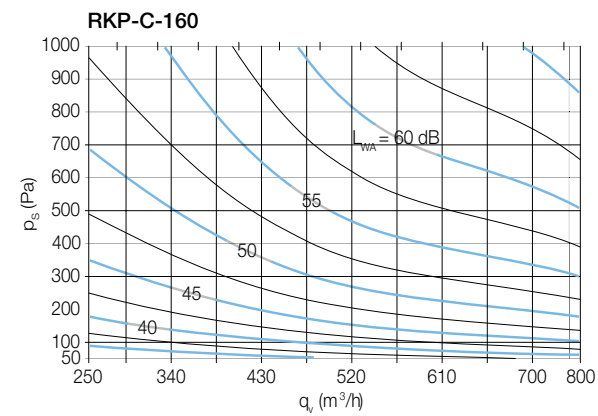
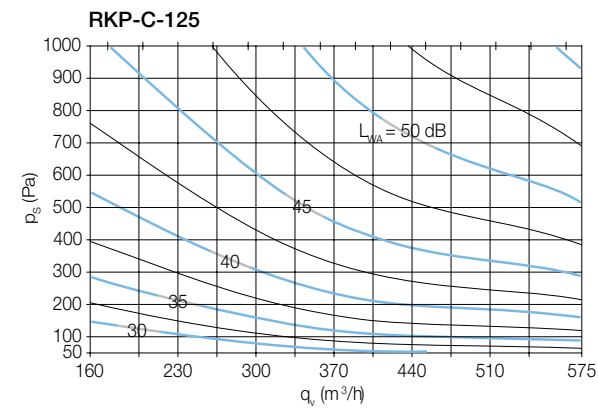
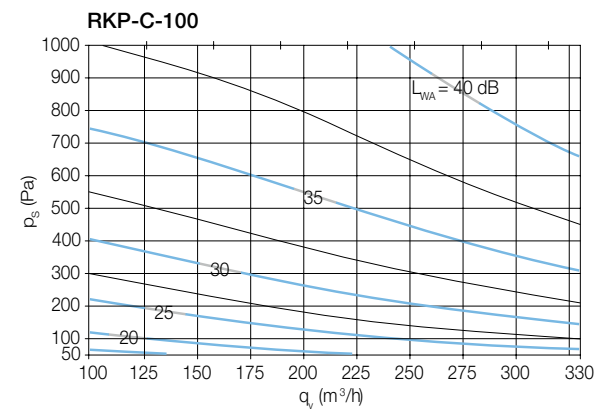
Sound power levels L_{WA} [dB(A)]
Air regenerated noise



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



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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



AIRFLOW REGULATION

Projektiranje, proizvodnja i održavanje opreme za klimatizaciju, ventilaciju i čiste prostore.
Design, production and service of Ventilation, Air-Conditioning and Cleanroom equipment.

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