



BUNDLE SOLUTION

Guide to facilitate the selection of dampers and silencers

Guide - Flow range

The table shows the flow range for different combinations of a package solution including Swegon's variable-flow damper REACT V and silencer CLA-A.

Flow range					
REACT V + CLA-A		Min.		Max. *	
Duct dim.	Size:	l/s	m³/h	l/s	m³/h
100	REACT V 100 + CLA-A 100-500/1000	5	18	67	241
125	REACT V 125 + CLA-A 125-500/1000	9	32	108	389
160	REACT V 160 + CLA-A 160-500/1000	16	58	184	662
200	REACT V 200 + CLA-A 200-500/1000	25	90	292	1051
250	REACT V 250 + CLA-A 250-500/1000	40	144	470	1692
315	REACT V 315 + CLA-A 315-500/1000	63	227	747	2689

* Nominal flow (Vnom) based on 120 Pa in measurement pressure.

REACT V is available with several different actuators; see respective product sheet for more information.

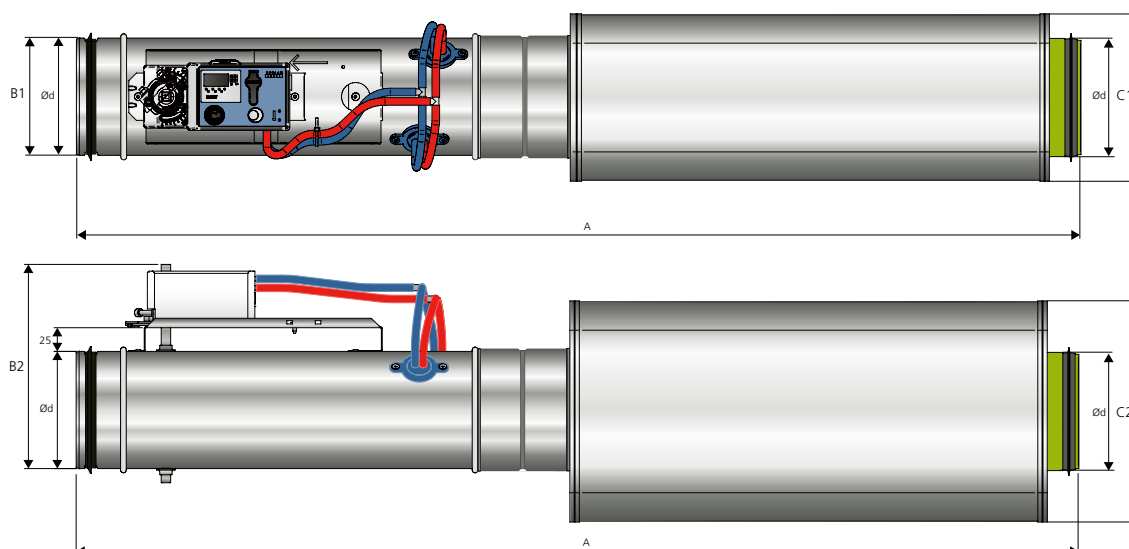
Dimensions

Bundle solution: REACT V and CLA-A

Size	A		B*		C*	
Duct dim.	CLA-A L=500	CLA-A L=1000	(B1) min.	(B2) max.	(C1) min.	(C2) max.
100	1107	1607	100	190	152	208
125	1107	1607	125	215	177	236
160	1107	1607	160	255	212	274
200	1107	1607	200	300	252	321
250	1157	1607	250	350	302	394
315	1192	1607	315	415	367	462

* B and C in the image below show the products in position with min. and max. height dimensions. In tight installation spaces, both products can be rotated, e.g., 90° to fit more easily.

REACT V is available with several different actuators; see respective product sheet for more information.



Products

The package solution consists of the following products and is included in the database for Magicad.

REACT V

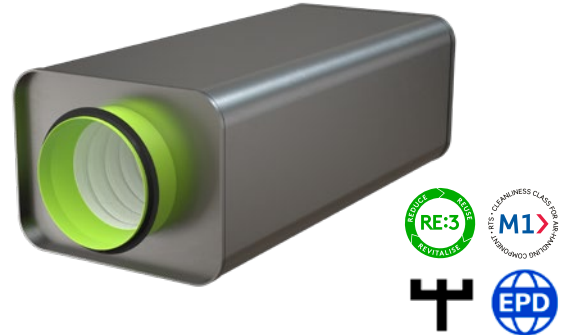


Variable flow damper

- Variable or constant flow regulation
- Can be mounted directly at bends and duct transitions/reductions (circular)
- Possible to choose Gruner, Belimo or Siemens actuator
- Possible to choose different communication protocols
- Can be easily anti-condensation insulated in the duct system
- Variants:
 - REACT V GMB - Modbus and analogue control (Gruner)
 - REACT V-SR GMB - Modbus and analogue control, spring return (Gruner)
 - REACT V BMP - Mp-Bus and analogue control (Belimo)
 - REACT V BMB - Modbus and analogue control (Belimo)
 - REACT V BBAC - BACnet and analogue control (Belimo)
 - REACT V SKNX - KNX control (Siemens)

[Click here](#), to read more about REACT V on our website swegon.com.

CLA-A



Rectangular silencer with circular connection.

- Extremely low installation height
- Very good sound attenuation
- Air tightness class D
- M1 class
- Type-approved
- Low pressure drop
- With EPD (Environmental Product Declarations)
- Built for a low CO₂ footprint
- Fire-resistance class EI30 to EI120

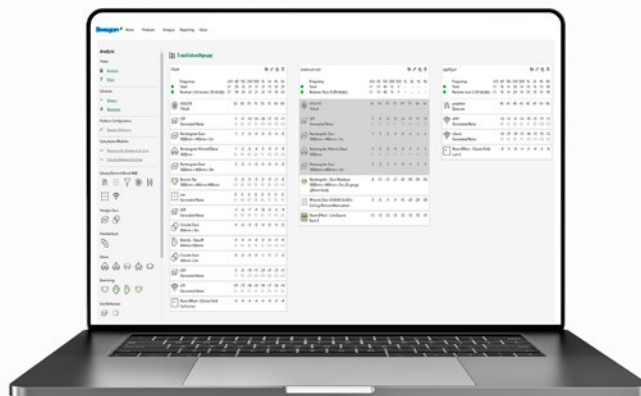
[Click here](#), to read more about CLA-A on our website swegon.com.

Planning

Refer to separate documentation "REACT Function Description & Wiring Diagram," available for download at www.swegon.com.

Software

Acoustic Design is a software to calculate and estimate noise levels and configure and select acoustic products. You can easily find Acoustic Design at swegon.com.



Acoustic design

Below are functions from Acoustic Design:

- Library of user-defined sound sources and sound attenuating building elements
- Sound attenuation in duct components through the duct system
- Sound generation from turbulent air flows for duct components such as branches and bends
- Noise radiation from the duct system to the surroundings, including suspended ceilings
- Calculations of noise levels indoors and outdoors
- Product selector for sound attenuators with selectable criteria (e.g. NC, NR, dBA, dBC)
- Pressure drop over sound attenuators, including system effects

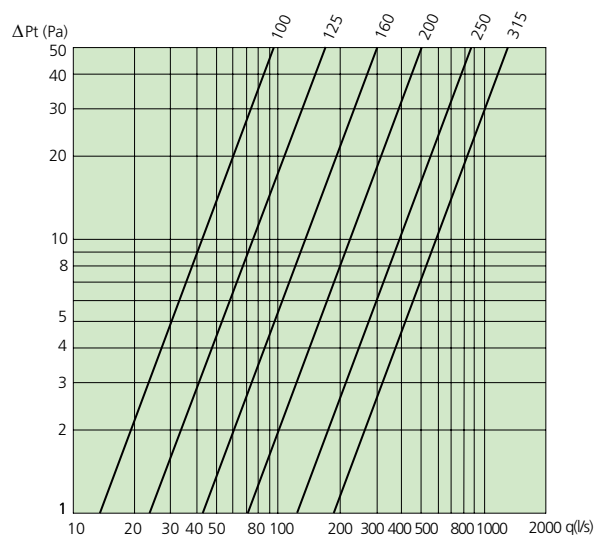
Sizing

Pressure drop

The pressure drop for the package is not summed up in diagrams on page 5 and 6. In these diagrams, the pressure drop is only for REACT V.

The pressure drop for the package is added based on the chosen size/right flow and right pressure drop in diagrams on page 4, 5 and/or 6 for the correct size/right flow.

Pressure drop - Air flow CLA-A



Sizing Diagram – Circular, all versions

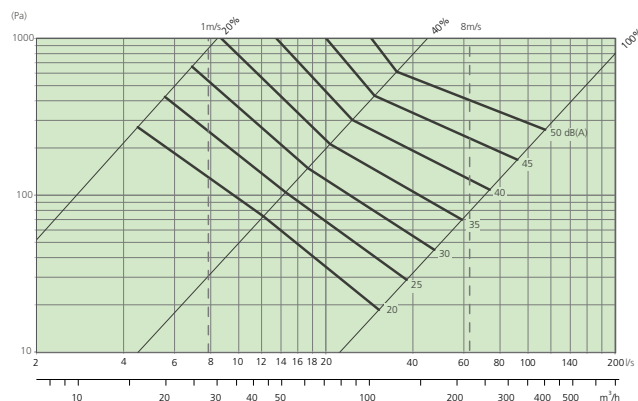
Sound Power Level

- The diagrams show the A-weighted sound power level of the package solution (L_{WA} -dB) as a function of airflow and pressure drop across the damper, including the silencer

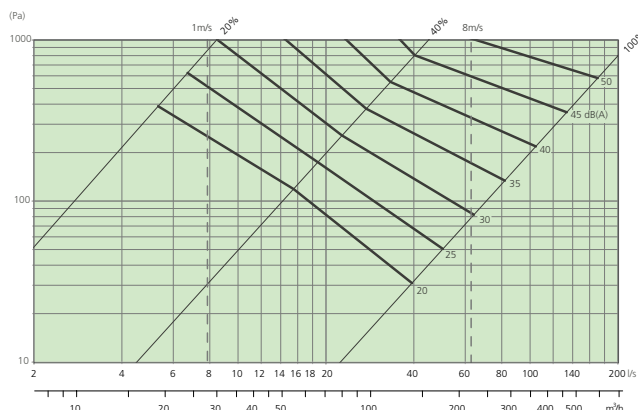
Air flow – Pressure drop – Sound level

- Specified sound levels L_{WA} : 20, 25, 30, 35, 40, 45 and 50 dB(A)
- The data is for the sound created in ducts
- 100% corresponds to the damper being fully open
- Dashed lines from 1 m/s to 8 m/s in duct velocity indicate the normal operating range for which REACT should be sized
- Sound per octave band can be obtained from Acoustic Design or separate product sheets

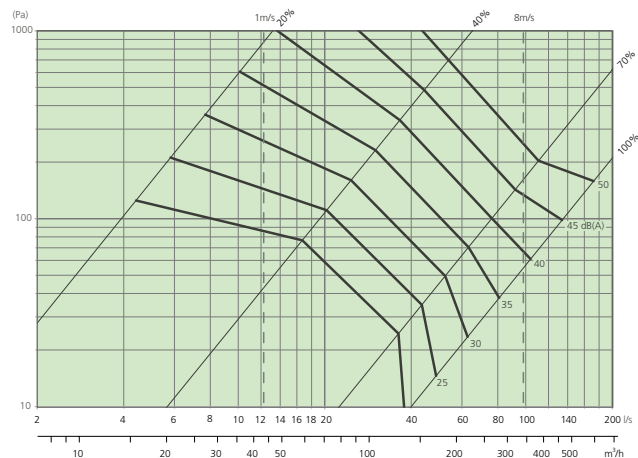
REACT V + CLA-A Ø 100 = length 500mm



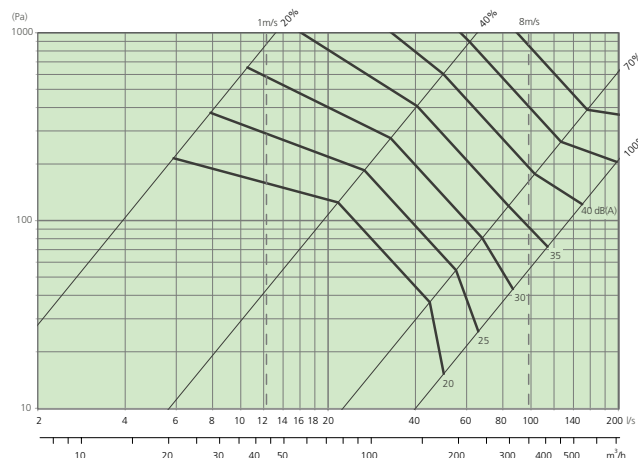
REACT V + CLA-A Ø 100 = length 1000mm



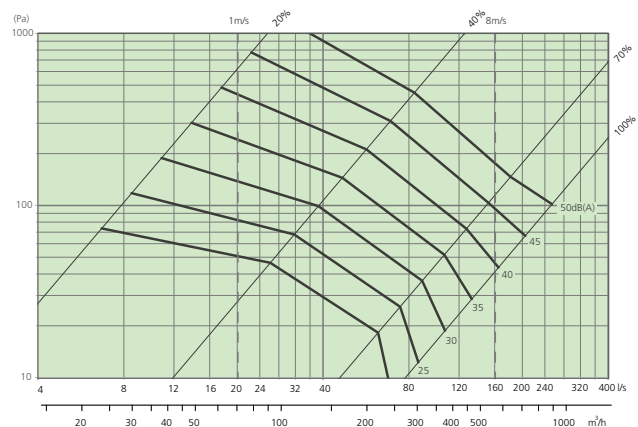
REACT V + CLA-A Ø 125 = length 500mm



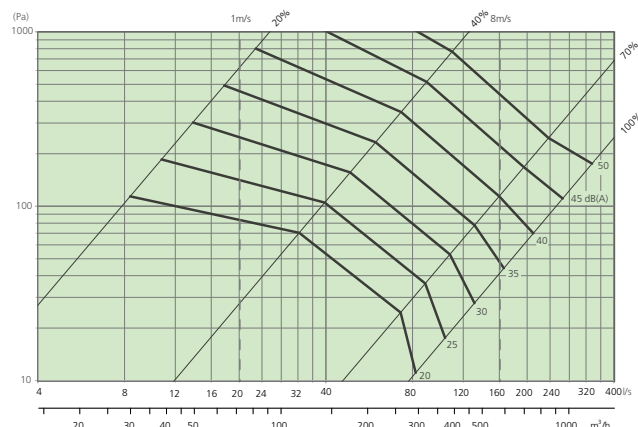
REACT V + CLA-A Ø 125 = length 1000mm



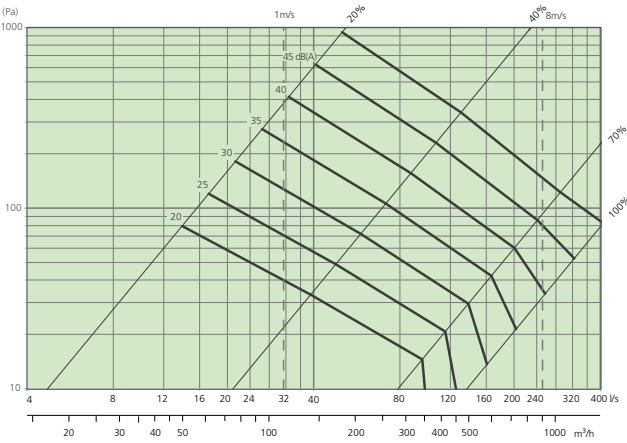
REACT V + CLA-A Ø 160 = length 500mm



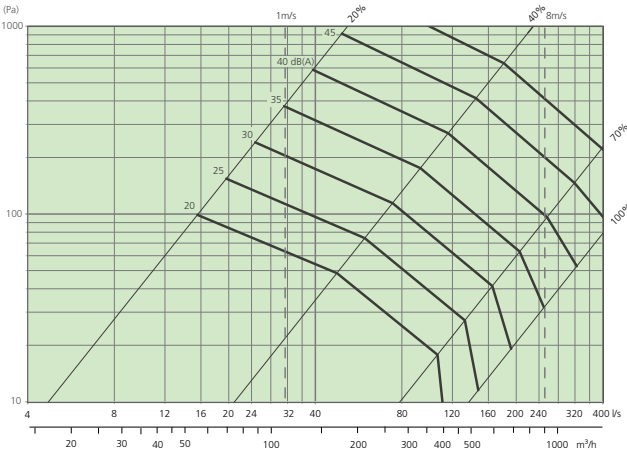
REACT V + CLA-A Ø 160 = length 1000mm



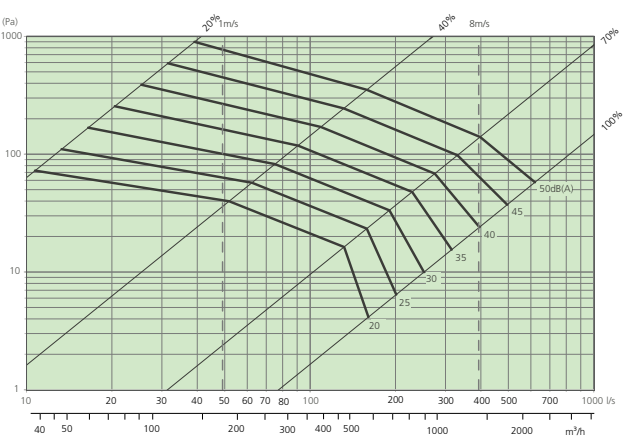
REACT V + CLA-A Ø 200 = length 500mm



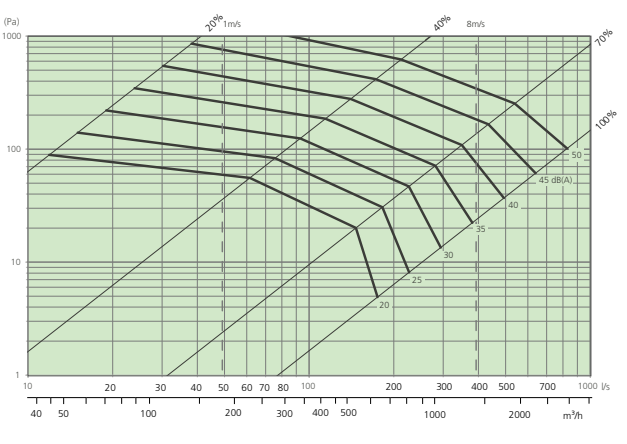
REACT V + CLA-A Ø 200 = length 1000mm



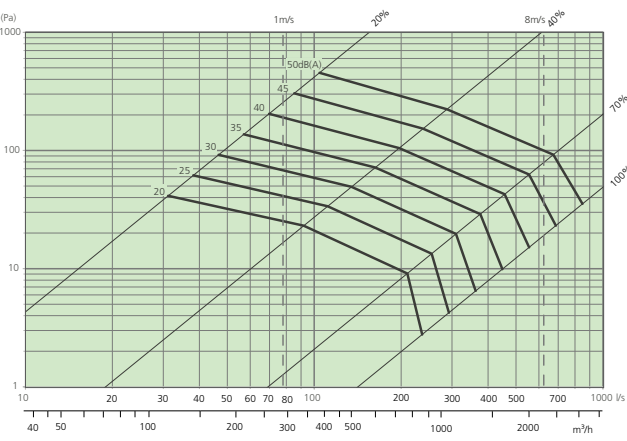
REACT V + CLA-A Ø 250 = length 500mm



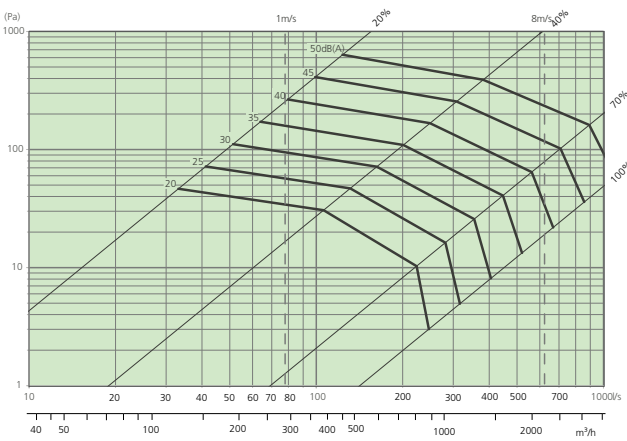
REACT V + CLA-A Ø 250 = length 1000mm



REACT V + CLA-A Ø 315 = length 500mm



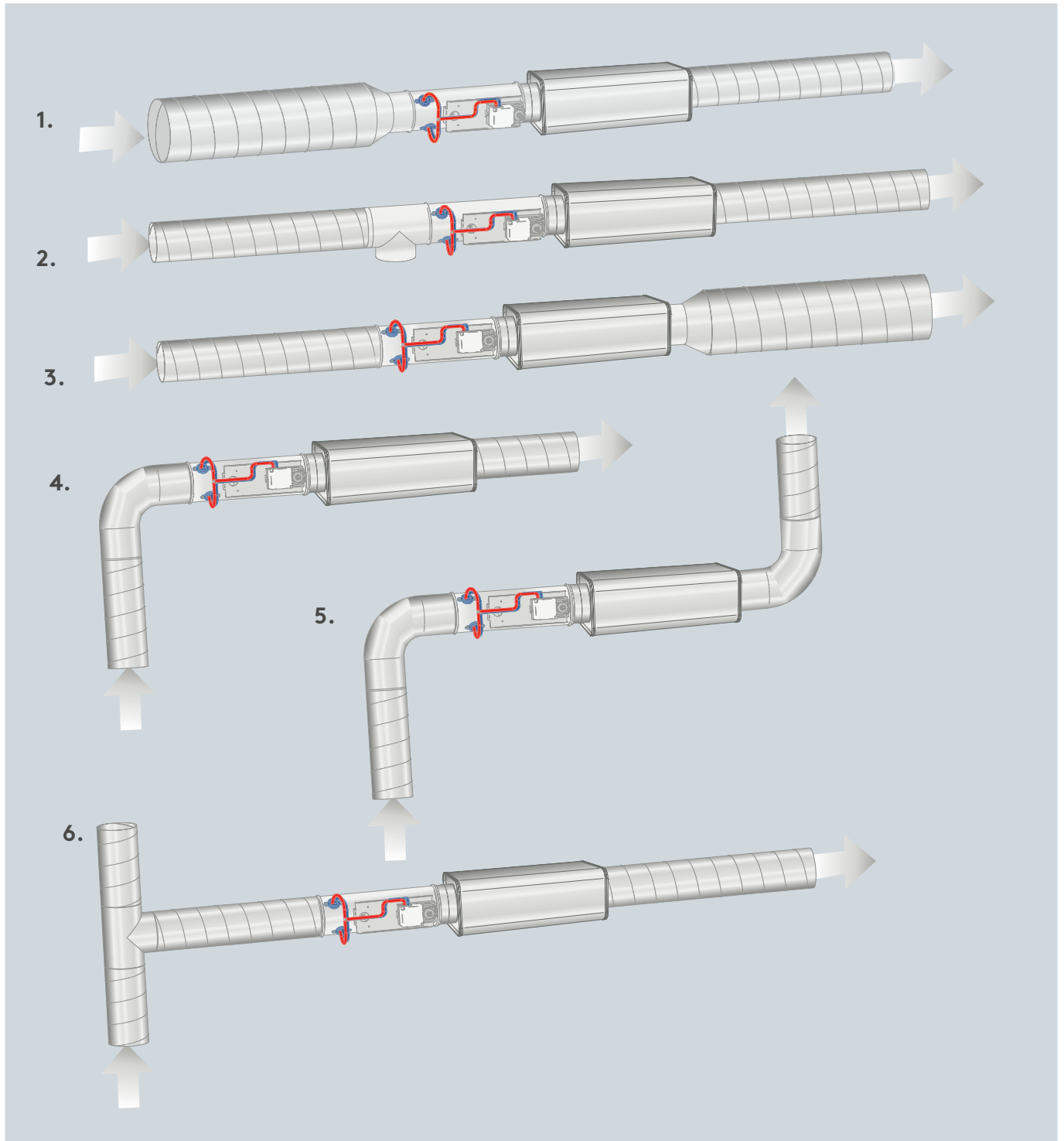
REACT V + CLA-A Ø 315 = length 1000mm



Installation

Installation - All versions

- The product's airflow measurement requires a straight section according to the installation figures
- Under unfavorable conditions or disturbances, the product's tolerances cannot be guaranteed
- The user manual is included with the product upon delivery but can also be downloaded from swegon.com
- Circular installation
- The installation is position-independent
- It can be mounted both horizontally and vertically



Requirements for straight sections in circular ducts, number of $\varnothing$ before the product:
Images 1-5 require no straight section (image 2 illustrates a T-piece with an inspection cover).
Image 6 requires a straight section before the damper equivalent to 4 times the duct diameter.

Feel good **inside**

