CRP

Commissioning damper, Ductwork Leakage Class 0

QUICK FACTS

- Perforated damper blade for better damper characteristic
- Manually adjustable blade (standard)
- Provision for motorised regulation
- Quick connection enables simple access for cleaning (accessory)
- Air tightness class 0

Swegon

Technical description

Design

Circular commissioning damper consisting of a duct section with a damper, duct connections fitted with a rubber seal ring.

The damper has a damper knob shelf and a lockable damper knob with stamped indicating text for open to closed damper position.

Inside the damper, there is a perforated damper blade; the smallest aperture diameter of the CRP damper is Ø 10 mm.

If motorised control is selected, the damper knob shelf is replaced by a larger actuator support shelf.

The motorised regulation requires an actuating torque specified in the dimensions and weights table on page 5.

As standard, the supporting shelves are 80 mm high to be flush with the outer surface of any possible duct insulation.

Max. permissible ambient temperature: 60°C.

Tightness Classification according to EN 1751 and VVS AMA Pressure Class A with 1000 Pa as the highest pressure difference over damper blade in closed position. Tightness class C on the housing and tightness class 0 for closed damper.

Materials and finish

The entire damper is made of galvanised sheet steel.

Customizing

The damper can be made of other materials, such as stainless or epoxy-coated sheet steel.

Contact your nearest sales office for information.

Accessories

Actuator:
Sauter ASM115SK005, 24V AC is the standard actuator and kept in stock.

Other actuators must be ordered; see the actuator selection table on page 5.

Wiring diagrams can be found in the relevant MIS instructions (Installation – Commissioning - Maintenance) available from www.swegon.com.

Knob:
CRTT-1 for manual control.

Quick connection:
FSR. Clamp with quick-acting lock.

Installation

Insert the damper into the connecting duct and fix it in position with blind rivets or by means of an FSR clamp. See Figure 1.

Commissioning

The damper has no measurement function of its own. Turn the damper blade at the desired position and lock it.

Maintenance

Clean the damper whenever needed by means of a vacuum-cleaner and brush nozzle or by wiping surfaces with a cloth.

Environment

The Building Materials Declaration is available from www.swegon.com.

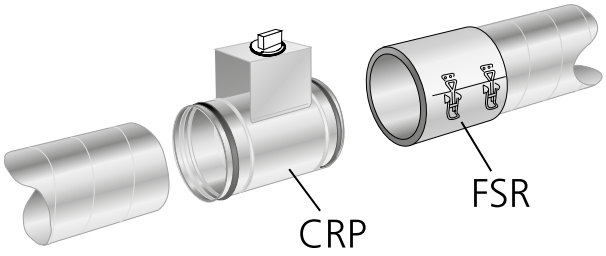


Figure 1. Installation.

Sizing

Sound power level

The diagrams for the various sizes show the total generated sound power (L_{wtot} dB), as a function of the airflow and pressure drop across the damper. By correcting L_{Wtot} with the correction factors from Table 1, the sound power level for each octave band ($L_W = L_{wtot} + K_{ok}$)can be obtained.

Acoustic data

Sound power level
Correction factor, K_{ok}

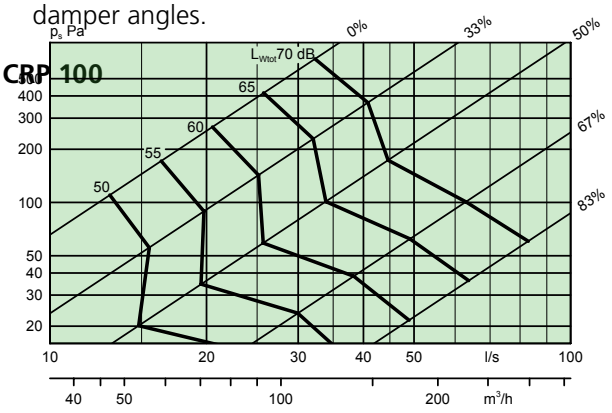
Size	Mid-frequency (Octave band) Hz							
	63	125	250	500	1000	2000	4000	8000
100	0	-1	-6	-13	-17	-25	-32	-38
125	1	-1	-7	-14	-18	-25	-32	-38
160	1	-1	-7	-13	-16	-21	-28	-35
200	1	-1	-7	-12	-14	-18	-25	-32
250	0	-1	-7	-12	-14	-18	-25	-33
315	2	-2	-8	-14	-15	-19	-26	-33
400	2	-3	-8	-12	-13	-18	-26	-32
500	2	-2	-9	-12	-14	-18	-26	-31
630	1	-4	-8	-8	-9	-13	-20	-28
Tol. ±	2	2	2	2	2	2	2	2

Sizing diagram

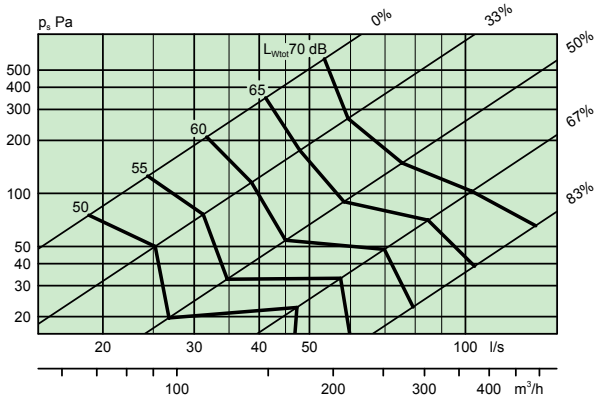
Airflow – Pressure drop – Sound level

- The diagrams should not be used for commissioning.
- The diagrams show pressure and flow lines at various damper angles.

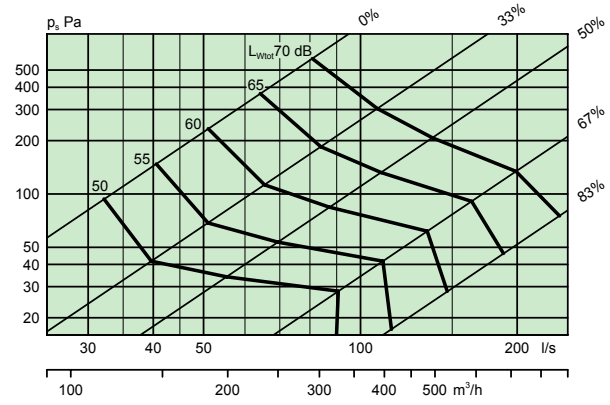
CRP 100



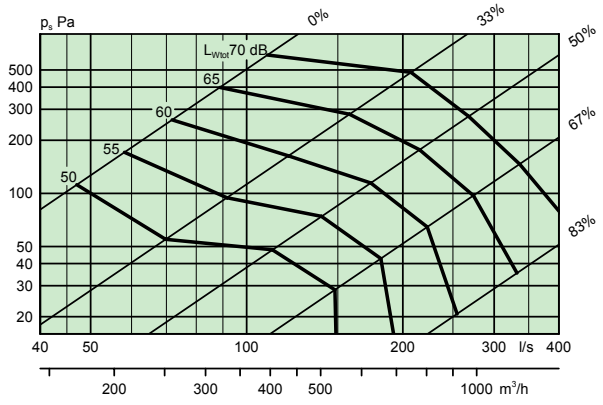
CRP 125



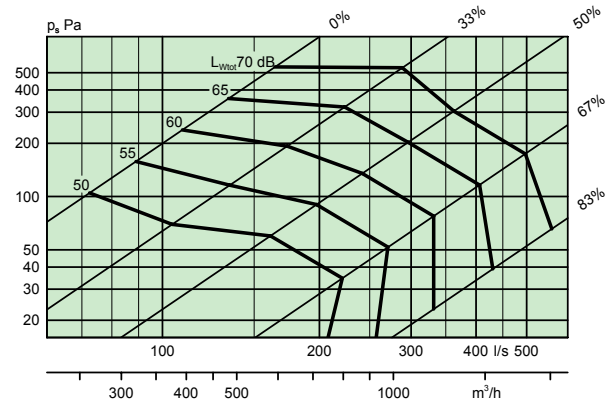
CRP 160



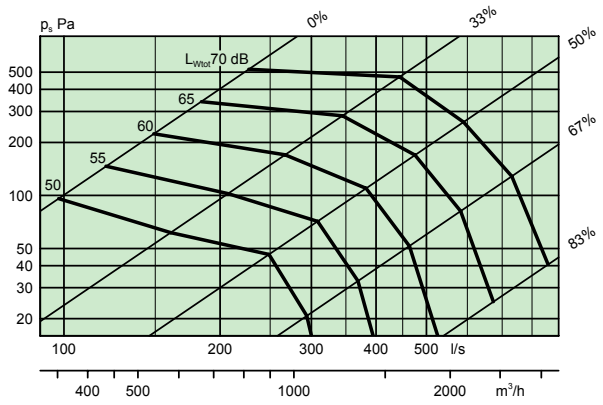
CRP 200



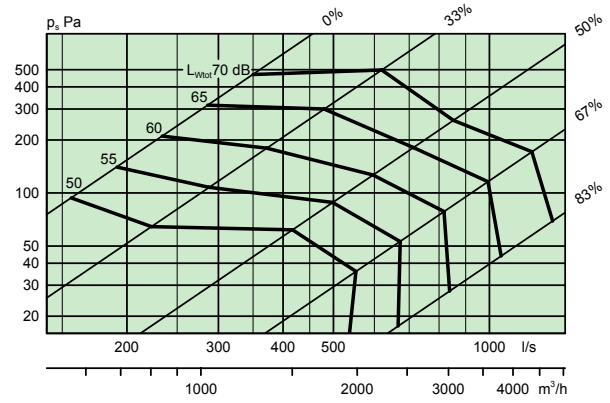
CRP 250



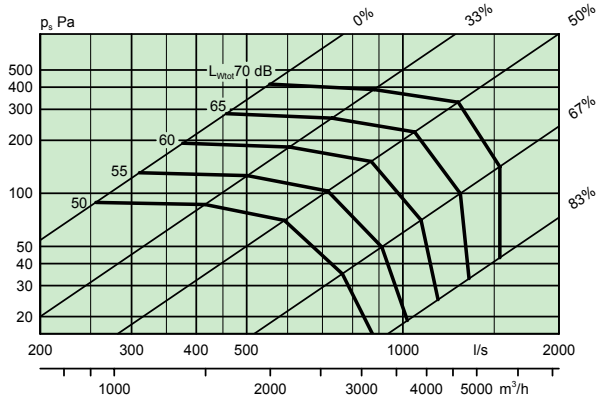
CRP 315



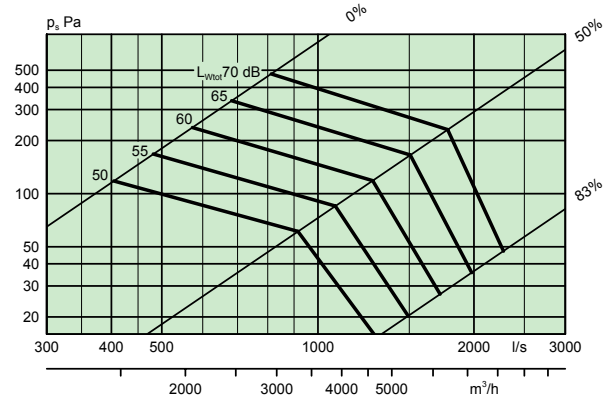
CRP 400



CRP 500



CRP 630



Dimensions and Weights

Size ØD (mm)	Dimensions (mm) A	H	Weight (Kg)	Torque*) (Nm)
100	210	70	0.7	<3
125	210	70	0.8	<3
160	210	75	0.9	<3
200	210	75	1.0	<3
250	210	75	1.2	<4
315	210	75	1.5	<4
400	255	80	2.6	<4
500	255	80	4.2	<8
630	255	80	6.0	<8

*) The torque refers to the recommended force necessary for secure control.

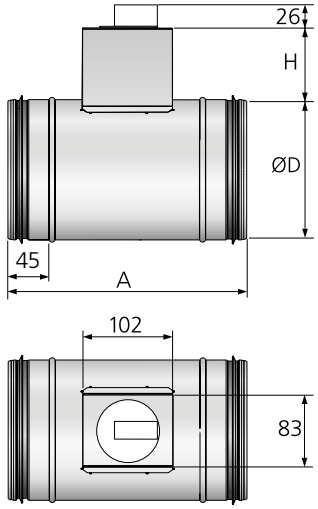


Figure 2. CRP-xxx-1, dimensions (mm).

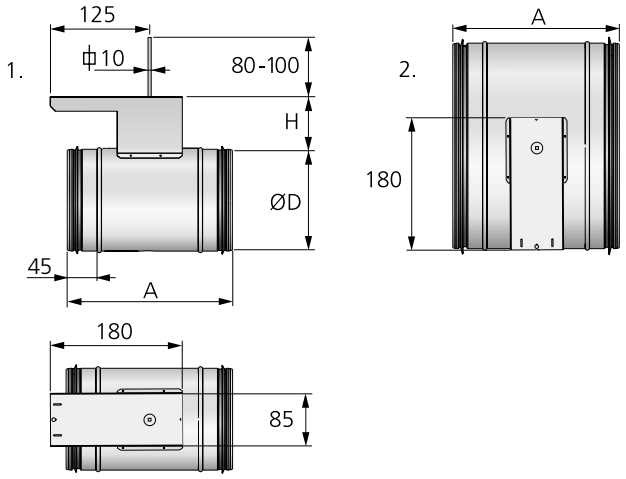


Figure 3. CRP, dimensions (mm).
1. CRP-(100-400)-4
2. CRP-(500-630)-4

Actuator tables

- Actuator Sauter 24 V AC, ASM115SK005 / ASM124SK002 are standard and kept in stock.
- All other actuators are order items.

2 or 3 point regulation – 24 V AC

Size	Torque	Designation Sauter	Belimo
100-315	5 Nm	ASM115SK005	LM24A
400-630	10 Nm	ASM115SK005	NM24A

2 or 3 point regulation – 230 V AC

Size	Torque	Designation Sauter	Belimo
100-315	5 Nm	ASM115K003	LM230A
400-630	10 Nm	ASM115K003	NM230A

0-10 V stepless/modulating regulation – 24 V AC

Size	Torque	Designation Sauter	Belimo
100-315	5 Nm	ASM115SK005	LM24A-SR
400-630	10 Nm	ASM115SK005	NM24A-SR

Electrical data

Actuators – Supply voltage 24 V AC

Make / Model	Ambient temp.	Power Consumption
Sauter ASM115SK005	-20...+55°C	8.7 VA
Belimo LM24A / -SR	-30...+55°C	2.0 VA
Belimo NM24A / -SR	-30...+55°C	3.5 VA

Actuators – Supply voltage 230 V AC

Make / Model	Ambient temp.	Power Consumption
Sauter ASM115K003	-20...+55°C	4.0 VA
Belimo LM230A	-30...+55°C	4.0 VA
Belimo NM230A	-30...+55°C	6.0 VA

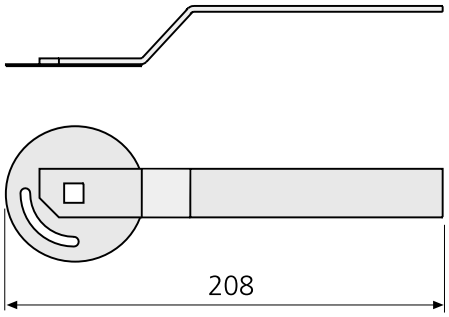


Figure 4. CRTT-1 knob, dimensions (mm).

Ordering key

Product

Commissioning damper, Class 0	CRP	c	-aaa	-b
Version:				
Dimension: 100, 125, 160, 200, 250, 315, 400, 500, 630				
Control version: 1 = Manual damper knob (stocked item) 2 = Mounted actuator (incl. standard actuator) 4 = With provision for installing a actuator				

Accessories

If a non-standard actuator is to be fitted, the actuator designation must be specified in plain text.

N.B: The type of actuator varies with the size.
See actuator selection table on page 5.

Knob	CRTT-1

Quick connection	FSR	c	-aaa
Version:			
Size: Nominal duct size			

Specification text

Swegon's type CRP circular commissioning damper with the following functions:

- Ductwork leakage Class 0, to VVS AMA 98
- Perforated damper blade
- Lockable damper knob with damper blade position indicator
- Non-fouling design
- Manual control

Size:	CRPc - aaa - b	xx items