CIRCULAR VOLUME CONTROL DAMPER

RCO

DESCRIPTION

RCO damper is a circular volume control damper. RCO is designed to adjust the volume of air flow in ventilation networks for commercial HVAC applications.

CODIFICATION

RC Range – Circular Damp

RC X

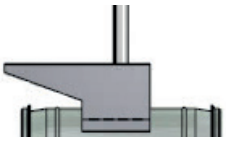
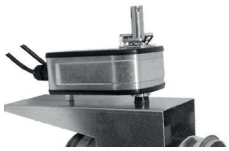
0 – Non classified

CONSTRUCTION

CASING
Galvanized steel *Option: Stainless steel AISI 304*
Seals ensuring good airtightness with the ductwork
Casing's airtightness class C according to EN 1751

BLADE
Circular plate in galvanized steel *Option: Perforated steel sheet (RCP type)*

CONTROL

Manual control Ø≤315 mm	Manual control Ø>315 mm	Damper to be motorized	Motorized damper
			
Position control knob Blocking screw	Position control handle Blocking screw	Smooth shaft Ø16 length 110 mm	Actuator sized according required torque

CONSTRUCTION

	RCO
Downstream airtightness (EN 1751)	No Classified
Frame's airtightness (EN 1751)	Class C
Acceptable pressure	500 Pa
Acceptable velocity	12 m/s

ISO 9001 14001 Certified

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F2A Manufacturer Air handling components

CIRCULAR VOLUME CONTROL DAMPER
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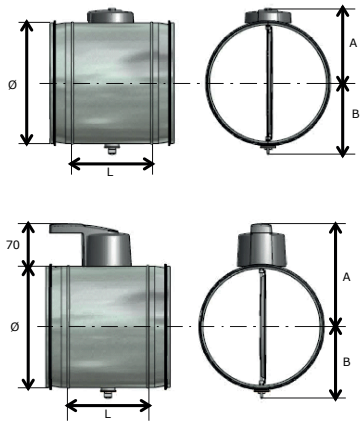
DIMENSIONS AND RECOMMENDED TORQUES



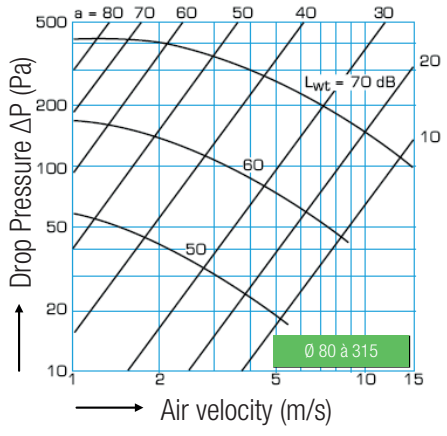
Ø (mm)	L (mm)	A (mm)	B (mm)	Weight (kg)	Torque (Nm)
80	135	65	40	0,30	**2**
100	135	75	50	0,34	**2**
125	135	85	65	0,42	**2**
160	135	105	100	0,46	**2**
200	135	125	120	0,82	**2**
250	125	150	145	1,2	**2**
315	125	180	175	1,5	**4**
355	160	250	200	2,5	**4**
400	160	270	220	2,7	**5**
450	160	295	245	3,3	**5**
500	160	320	270	3,9	**6**
630	160	385	335	5,2	**10**

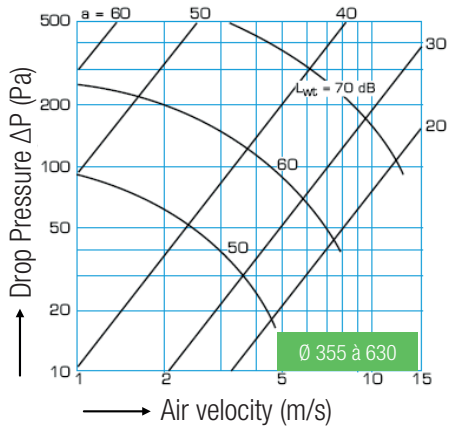
PRESSURE LOSS AND NOISE LEVEL

a = opening angle of the blade (°)
Lw = noise power (dB) level per frequency.

$$Lw = Lwt + K1 + K2$$

Pressure loss and acoustic power level Lwt can be read on the hereunder curves according to the opening angle, diameter of the damper and air flow velocity (max velocity= 12 m/s).





K1 to be read on the hereunder table. It depends on the damper diameter.

Dia-meter (mm)	80	100	125	160	200	250	315	355	400	450	500	630
K1 (dB)	-2	-2	-1	0	+1	+2	+3	+3	+4	+5	+5	+6

K2 per frequency, can be read on the hereunder table.
It depends on the damper diameter and of the opening of angle.

Ø (mm)	Opening angle (°)	K2 (dB) per frequency (Hz)						
		125	250	500	1000	2000	4000	8000
Ø 80 ... Ø 315	20	-1	-10	-16	-18	-22	-26	-31
	30	0	-9	-15	-17	-20	-24	-30
	40	-1	-8	-13	-14	-13	-14	-21
	50	-3	-6	-11	-12	-10	-11	-17
	60	-5	-4	-8	-10	-13	-14	-19
	70	-4	-5	-8	-10	-13	-15	-21
	80	-4	-5	-9	-11	-14	-17	-23
	90	-3	-6	-9	-11	-14	-18	-25
Ø 355 ... Ø 630	20	0	-15	-19	-21	-25	-29	-33
	30	0	-15	-19	-21	-24	-28	-32
	40	-4	-14	-16	-15	-18	-21	-25
	50	-7	-13	-14	-11	-11	-14	-18
	60	-11	-12	-11	-6	-5	-8	-11
	70	-14	-13	-12	-6	-5	-8	-12
	80	-17	-15	-12	-5	-5	-8	-12