

Ref. no.: 228

Ref. no.: 9228

Throttle valve

*The generation for easy assembling
with lip sealing system*



**Push-fit ends with lip sealing
airtight according to DIN EN 12237 class D
Laser welded housing**

Particularly suitable for piping systems with visible mounting.



**AEROTECHNIK
SIEGWART**

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Throttle valve manual - electronic - pneumatic

Throttle valve - with airtight axle bearing

Advantages and construction details:

Housing: The housing is made from galvanized or stainless steel. It is laser-welded without any intruding fold. The male couplings are press-calibrated according to DIN 24147 part 1 and consequently they are dimensionally stable and fit accurately.

The shaft feedthrough of the bearing is located in a maintenance-free and airtight screwing.

Adjustment: The standard throttle valves are equipped with manual adjustment device which locks automatically (there are no tools necessary for adjustment and regulation). They can be used for electric remote regulation, too.

Insulation: On request, the throttle valve is available with insulation in depths of 25 or 50 mm.

Installation: According to DIN 1946 class 4, there must exist an accessibility to the duct system and the damper in order to actuate and maintain the latter.

Range of temperature: The throttle valves operate within a temperature range from -15°C to +100°C.

Sealing system of the

male coupling: The push-fit ends with lip sealing are airtight according to DIN EN 12237 class D.

Robustness: In general the lip sealing is insensitive to damages in case of slightly canted or badly trimmed ducts.

Exchange: If the lip sealing should be damaged or lost, it is only necessary to put on a new loose sealing ring.

Dismounting: Because of the conception of the sealing, the components can easily be separated from each other again.

Visible

installation: Because no additional sealing components (tape e.g.) are required, the sealing conception with lip sealing system is especially suitable for visible installation. Attractive, architectural design which is up-to-date.

Hygiene: The smooth surface of the laser-welded housing prevents the accumulating of dirt and dust particles.

Stability: Non-ageing lip sealing made of EPDM - a material which is resistant to slightly aggressive vapours and chemical products.



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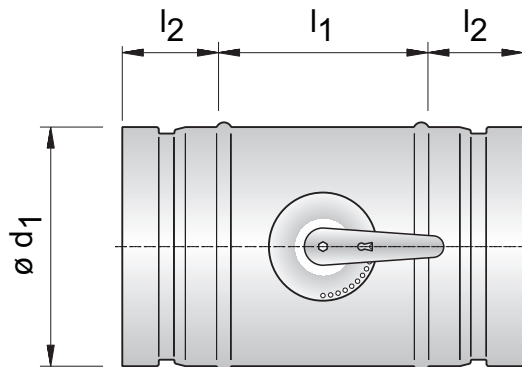
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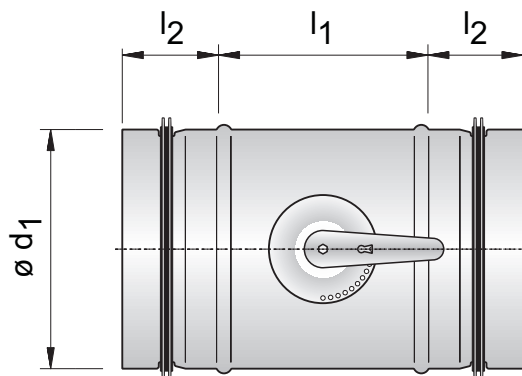
Throttle valve

Connection for lip sealing or with lip sealing

The throttle valves are available in two executions.

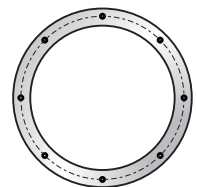


Ref. no. 228
with connection
for lip sealing



Ref. no. 9228
with lip sealing

Execution with screwless flange system



or with rim available



on demand.



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Throttle valve manual adjustment device (DKH)

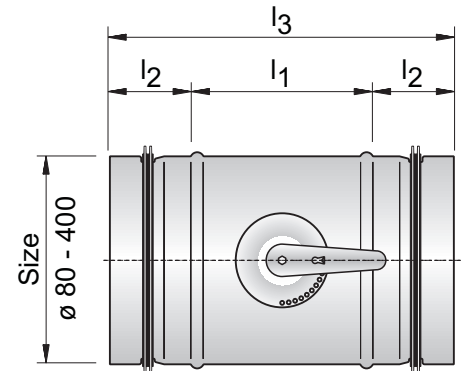
Version 1:

Size 80 - 400:

- throttle valve with tight male coupling (only fitting dimension)
- adjustment and intermediate lock due to ratchet disc and lever
- airtight and maintenance-free shaft feedthrough of the bearing
- throttle valve can be converted into motor adjustment at any time
- **no complex installation required** (see version 2)

l_1 = fitting dimension

l_3 = overall length = $l_1 + (2 \times l_2)$

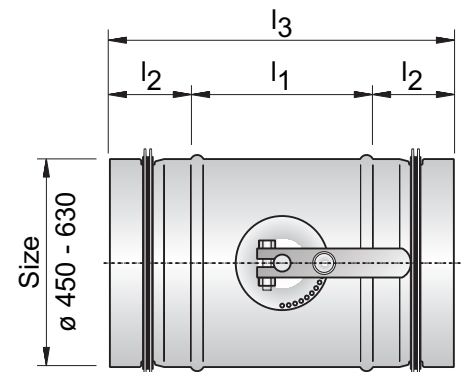


Size 450 - 630:

- reinforced throttle disc (1,25 mm) with reinforced shaft extension and adjustment without steps due to lever

l_1 = fitting dimension

l_3 = overall length = $l_1 + (2 \times l_2)$



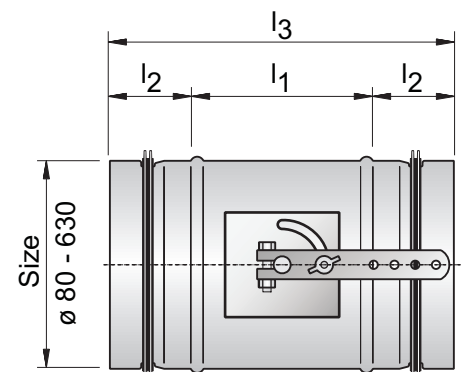
Version 1 as (special variant) sv 1:

Size 80 - 630:

- partly reinforced throttle discs (up to 2.0 mm) with solid through shaft ø12 mm and stepless manual adjustment with adjusting lever
- Additional transverse stiffening of the throttle disc

l_1 = fitting dimension

l_3 = overall length = $l_1 + (2 \times l_2)$



Version 1 as SV 2 up to 180 °C:

Size 80 - 630:

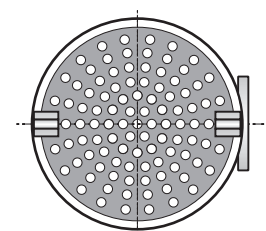
- as SV 1
- Temperature range up to 180 °C

Version 1 as SV 3:

Size 80 - 630:

- with perforated throttle disc
- Damper blade with approx. 30% free cross-section in closed condition

Schematic representation SV 3



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Throttle valve motor adjustment (DKM)

Version 2:

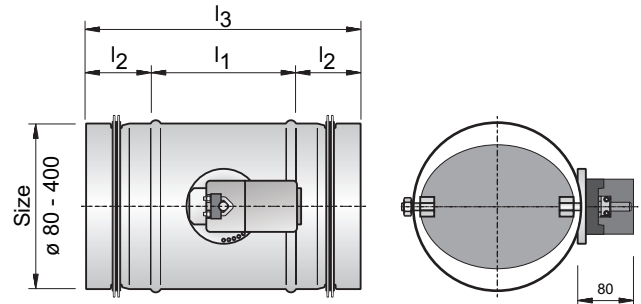
Depending on the mounting situation or indication made by the customer, the bracket can be arranged lengthwise as well as crosswise to the housing (actuator is not included in the scope of delivery)

Size 80 - 400:

- throttle valve with tight male coupling (only fitting dimension)
- airtight and maintenance-free shaft feedthrough of the bearing
- bracket for electric actuator can also be used for other makes

l_1 = fitting dimension

l_3 = overall length = $l_1 + (2 \times l_2)$

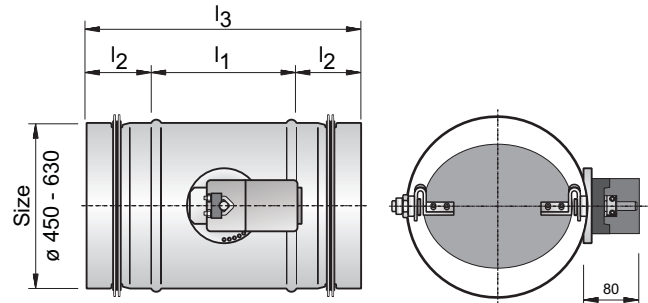


Size 450 - 630:

- reinforced throttle disc (1,5 - 2,0 mm) with reinforced shaft extension

l_1 = fitting dimension

l_3 = overall length = $l_1 + (2 \times l_2)$



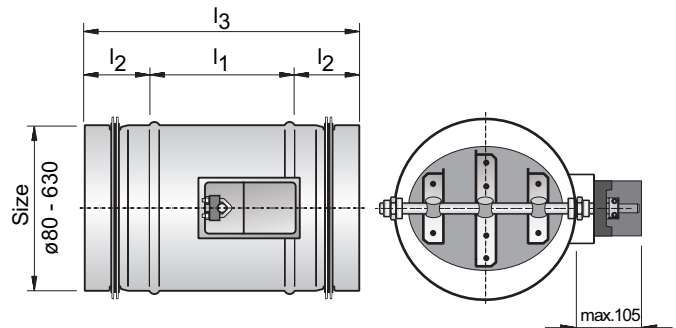
Version 2 as (special variant) SV 1:

Size 450 - 630:

- partly reinforced throttle discs (up to 2.0 mm) with solid through shaft $\varnothing 12$ mm and stepless manual adjustment with adjusting lever
- Additional transverse stiffening of the throttle disc

l_1 = fitting dimension

l_3 = overall length = $l_1 + (2 \times l_2)$



Version 2 as SV 2 up to 180 °C:

Size 80 - 630:

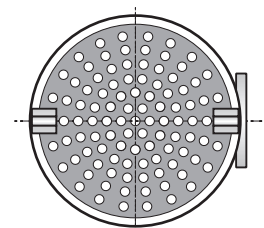
- as SV 1
- Temperature range up to 180 °C

Version 2 as SV 3:

Size 80 - 630:

- with perforated throttle disc
- Damper blade with approx. 30% free cross-section in closed condition

Schematic representation SV 3

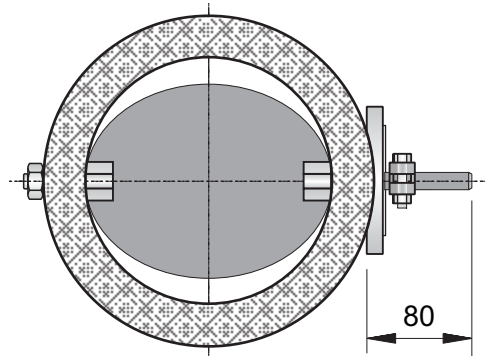
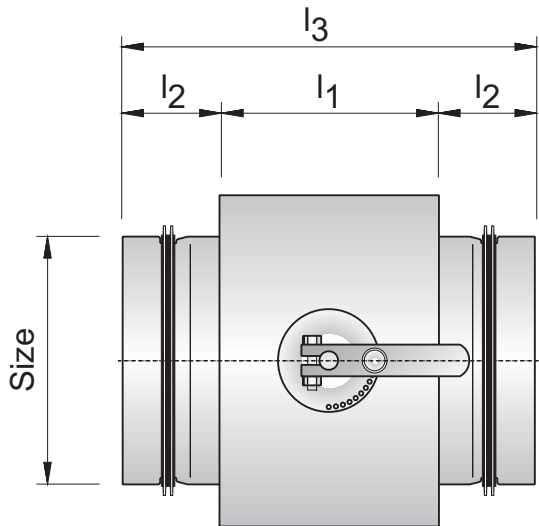


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Throttle valve – insulated manual - electronic

Execution as before, thickness of insulation: 25 mm or 50 mm

- l_1 = fitting dimension
- l_3 = overall length = $l_1 + (2 \times l_2)$
- size = diameter in mm



NW	Dimensions			Weight
	l_1 [mm]	l_2 [mm]	l_3 [mm]	
80	115	40	195	0,5 kg
100	115	40	195	0,6 kg
125	115	40	195	0,7 kg
140	115	40	195	0,8 kg
150	115	40	195	0,9 kg
160	115	40	195	0,9 kg
180	115	40	195	1,0 kg
200	135	40	215	1,2 kg
224	135	40	215	1,3 kg
250	135	40	245	1,5 kg
280	125	60	245	2,3 kg
300	125	60	245	2,5 kg
315	125	60	245	2,6 kg
355	125	60	245	3,8 kg
400	125	60	245	4,2 kg
450	125	60	245	6,5 kg
500	265	60	385	11,0 kg
560	265	60	385	12,5 kg
600	465	60	585	15,0 kg
630	465	60	585	15,5 kg

Manufacturing tolerance for the length dimensions ± 5 mm



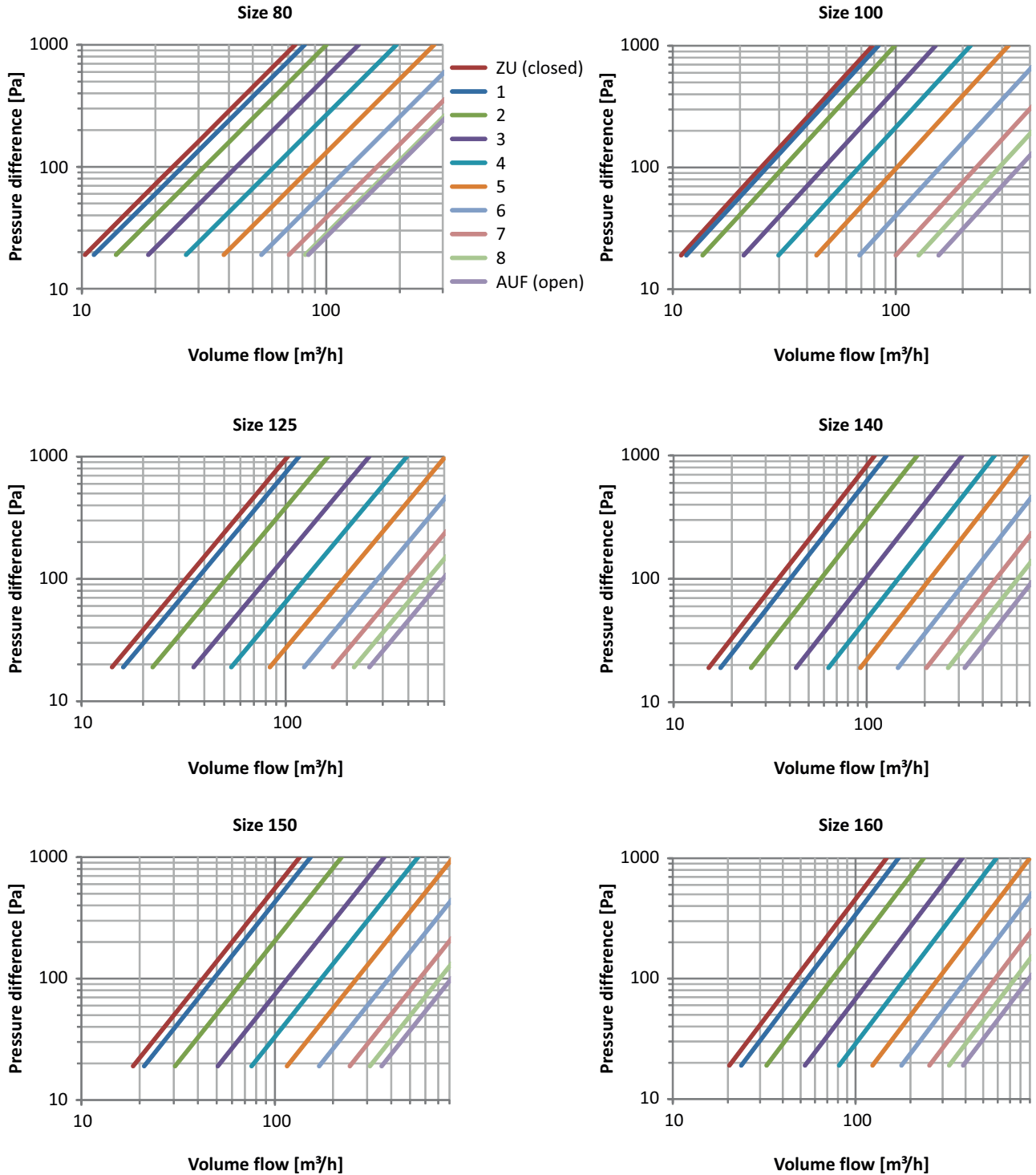
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Adjustment diagrams for throttle valve DKH

The flap position for the desired flow rate at a given pressure difference can be easily read from the corresponding adjustment diagrams.

The values shown are only valid as reference values (the slightest deviations of the flap position result in high volume flow changes).



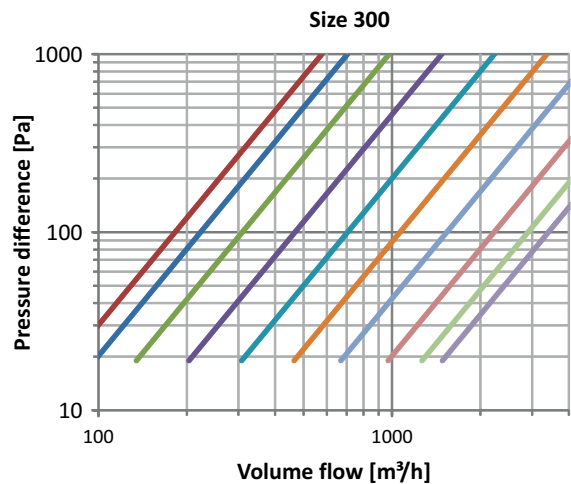
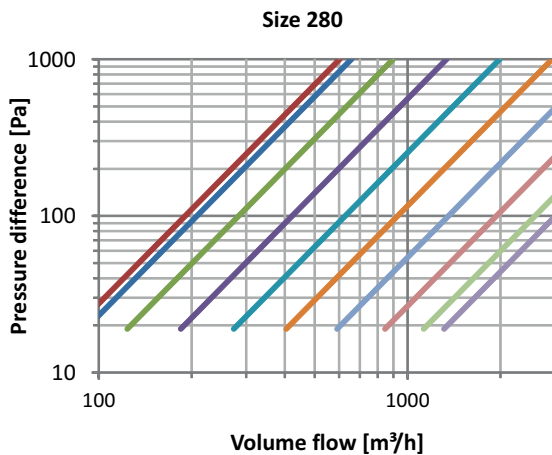
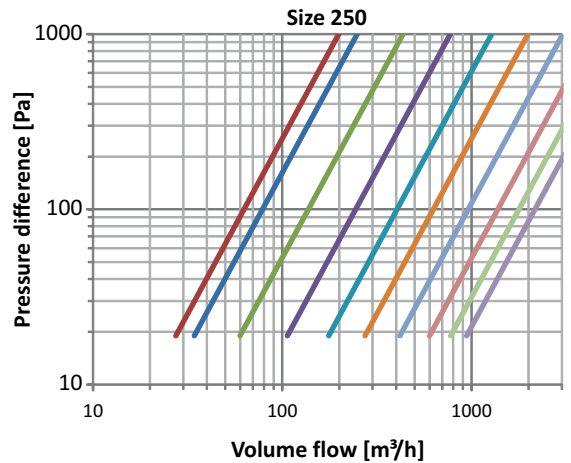
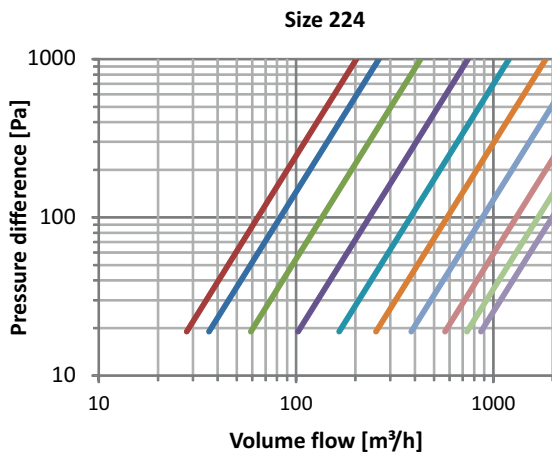
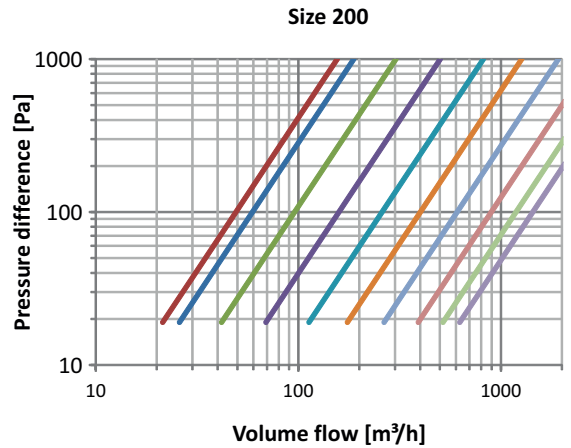
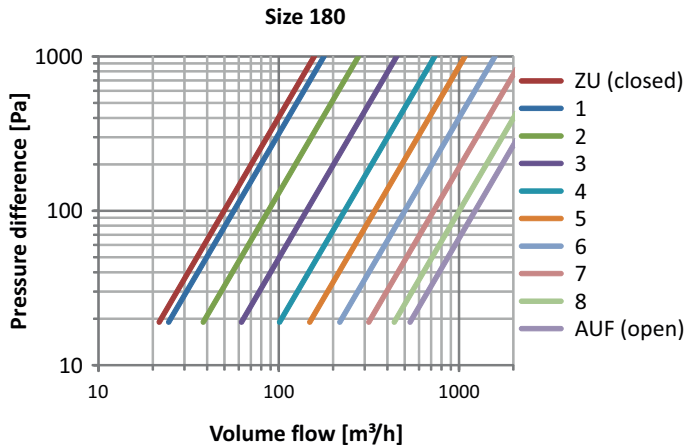
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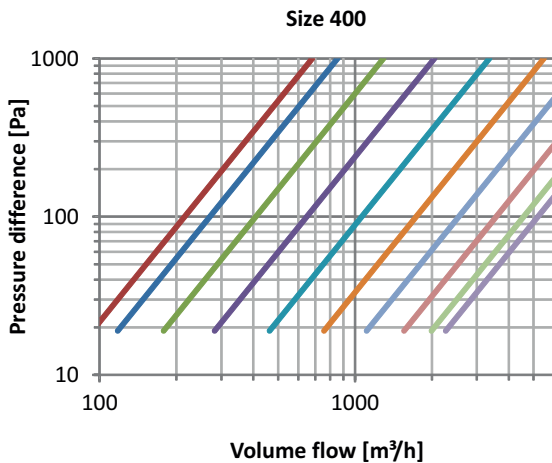
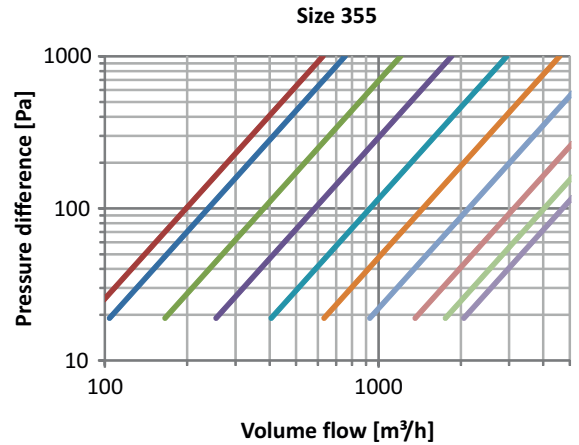
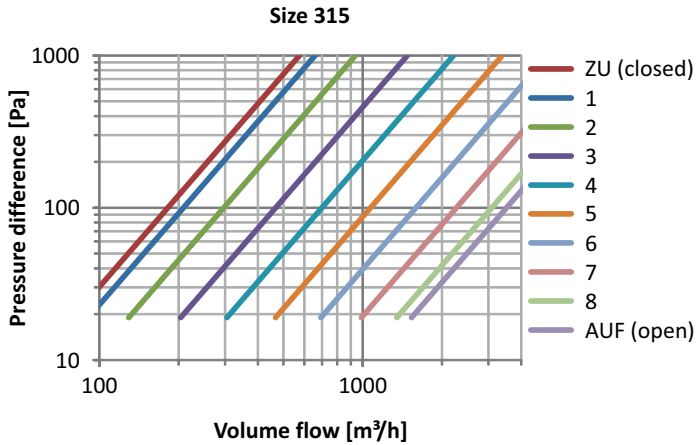
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**Electronically or pneumatically regulating volume flow controller
circular, type VRM**

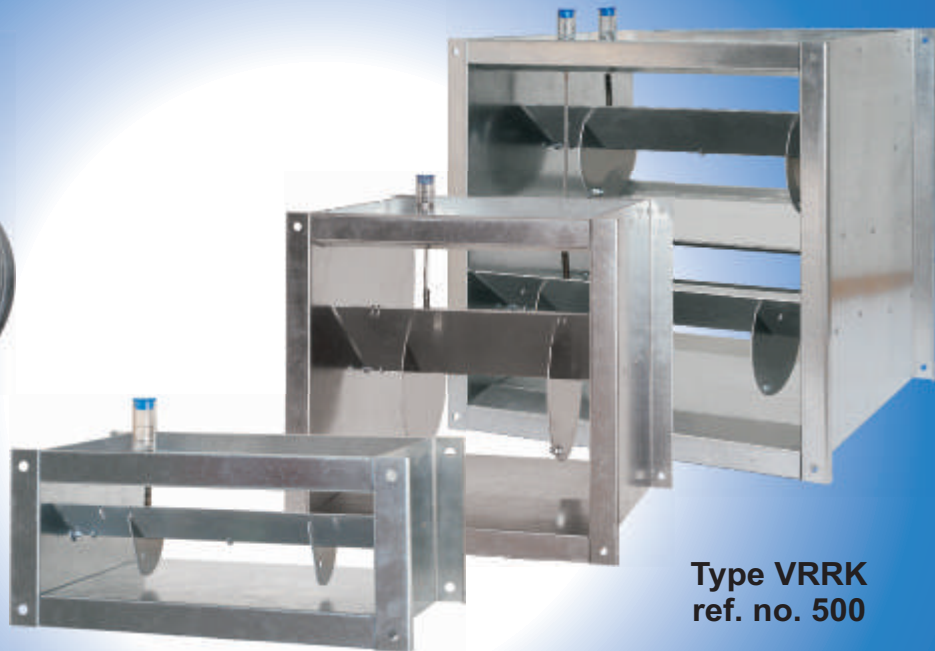


**Type VRME
ref. no. 300 - 332**

**Constant volume flow controller
circular and rectangular, self-regulating**



**Type VRK
ref. no. 233**



**Type VRRK
ref. no. 500**



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