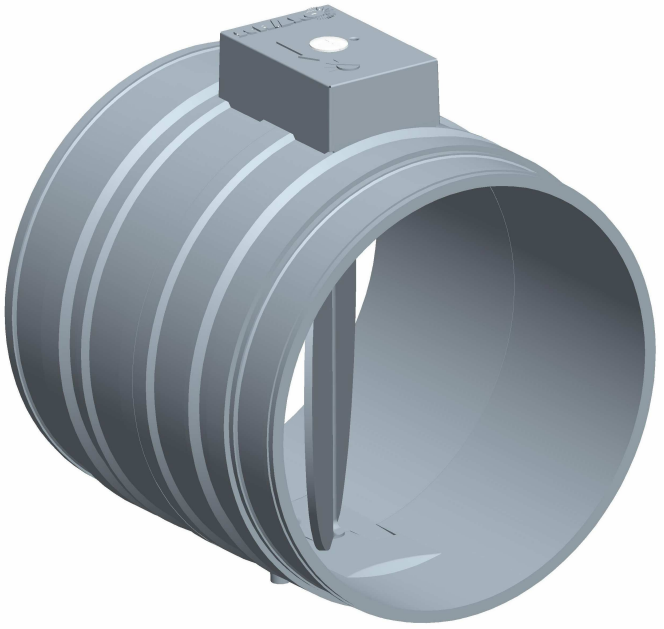
Volumetric Flow Limiter

VOLKOM



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Volumetric Flow Limiter Model VOLKOM

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Volumetric Flow Limiter Model VOLKOM

Description VOLKOM

The volumetric flow limiter VOLKOM **works independently without requiring additional auxiliary power**. The centrally supported damper is moved by the air flow. The control unit with control cam, spring and damper is attached to the outside of the housing. The required volumetric flow is set at the installation site. The control unit is protected with a cover. The controller can be installed in any installation position. The VOLKOM controls the set volumetric flow and keeps it constant. The VOLKOM unit is built into the air duct and allows the volumetric flow to be adjusted subsequently, due to unrestricted access to the control mechanics. An inflow area and an outflow area of at least 1xD must be provided.
Housing tightness, class B, to DIN EN 1751

Control accuracy:	±10 %, relative to the volume V_{max}
Operating temperature:	10-50 °C
Differential pressure range:	50-300 Pa
Max. permissible duct pressure:	300 Pa
Storage temperature:	-20 up to 60 °C

For subsequent adjustment of the air volume, inspection openings must be provided on-site in sufficient number and size.

Advantages:

1. Simple adjustment and control of air diffusers
2. can be fitted position-independently
3. Continuous volumetric flow setpoint adjustment from outside possible on the VOLKOM
4. Control unit and damping element are placed outside the air flow, making the VOLKOM less susceptible to dirt.
5. Maintenance-free operation
6. Building material class B2 to DIN 4102

Field of application

- for supply and return air systems
- suitable for regulating a constant volumetric flow

Attention:
The VOLKOM is a controller working by the mechanism of action principle. Tampering with the controller, whether manually or mechanically, are prohibited. When a high volumetric flow setting has been selected, the damper leaf must never be closed manually. Otherwise, the control mechanism will be changed, resulting in a loss of control accuracy.
The field of application must always be complied with.
If the VOLKOM is used beyond its allowed field of application, this will result in mechanical overload and thus in a loss of control accuracy.
If a higher amount of air is set on-site on the VOLKOM when the system is running, the control mechanism must be reset by switching the system off for a short period and by switching it on again. After the reset, the adjusted amount of air is set.

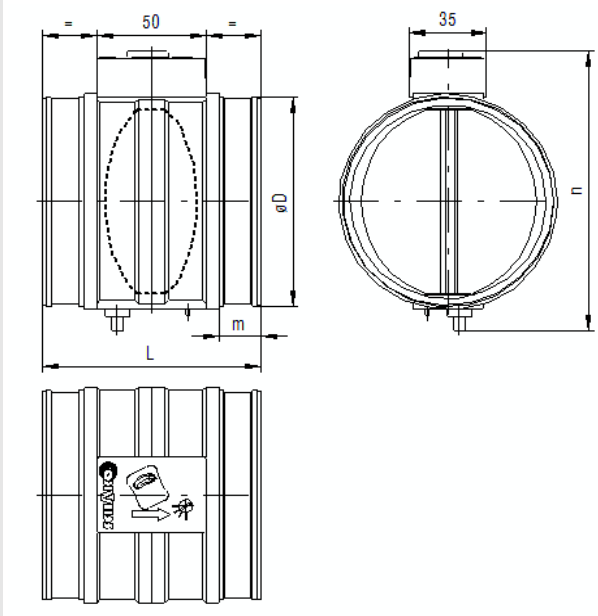
A reduction of the amount of air is possible without reset even if the system is running.
No mechanical load must be applied to the VOLKOM.

Construction

- Housing, control damper and control housing
  - Plastic (polystyrene PS, impact-resistant), building material class B2 to DIN 4102
- Rubber lip seal
  - on both sides, special rubber

Dimensions

VOLKOM



Available sizes

NW	øD	L	m	n
080	77	90	16	109
100	97	100	19	129
125	122	120	19	154
150	147	140	30	179
160	157	150	30	189
200	197	175	30	229
250	247	220	30	279

Volumetric Flow Limiter Model VOLKOM

Technical data

Volumetric flow setpoints

NW	V	Controller setting			
		1	2	3*	4
080	m³/h	23	35	49	60
	l/s	6,4	9,7	13,6	16,7
100	m³/h	38	64	74	94
	l/s	10,6	17,8	20,6	26,1
125	m³/h	51	115	142	171
	l/s	14,2	31,9	39,4	47,5
150	m³/h	80	164	228	275
	l/s	22,2	45,6	63,3	76,4
160	m³/h	87	194	243	291
	l/s	24,2	53,9	67,5	80,8
200	m³/h	115	275	415	495
	l/s	31,9	76,4	115,3	137,5
250	m³/h	195	405	570	740
	l/s	54,2	112,5	158,3	205,6

* Preset upon delivery (standard)

For the parameter setting of the control components, an air density of 1.2 kg/m³ has been taken into account.

Sound power level

NW	V		L_{WA} in dB(A)	
	m³/h	l/s	Δp = 50 Pa	Δp = 100 Pa
080	23	6,4	32	35
	35	9,7	33	41
	49	13,6	33	43
	60	16,7	34	44
100	38	10,6	35	38
	64	17,8	36	45
	74	20,6	39	46
	94	26,1	42	49
125	51	14,2	34	42
	115	31,9	36	44
	142	39,4	38	46
	171	47,5	40	47
150	80	22,2	35	45
	164	45,6	40	47
	228	63,3	42	50
	275	76,4	43	51
160	87	24,2	37	46
	194	53,9	41	49
	243	67,5	45	51
	291	80,8	46	51
200	115	31,9	34	43
	275	76,4	38	47
	415	115,3	45	50
	495	137,5	47	54
250	195	54,2	34	44
	405	112,5	39	45
	570	158,3	43	49
	750	208,3	45	53

Volumetric Flow Limiter Model VOLKOM

Mounting and operating instructions

The volumetric flow limiter VOLKOM is used for the previously time- and cost-intensive adjustment of volumetric flows in ventilation and air-conditioning installations. Its easy handling and perfect functioning allow you to save valuable working time on site.
You simply set the desired volumetric flow at the installation site. The VOLKOM controls the set volumetric flow and keeps it constant within narrow limits during changes in pressure. The required equipotential bonding is enclosed and must be carried out on site according to the VDE regulations. An inflow area and an outflow area of at least 1xD must be provided.

For further information, see volumetric flow limiter model VOLKOM installation and mounting instructions.

Legend

V	(m³/h) [l/s]	=	Volumetric flow
L_{WA}	[dB(A)]	=	Sound power level
Δp	(Pa)	=	Pressure difference
NW	(mm)	=	Nominal width

Volumetric Flow Limiter Model VOLKOM

VOLKOM order code

01	02	03
Type	Size	Controller setting
Example		
VOLKOM	-080	-2

All fields must be filled when ordering

Sample
VOLKOM-080-2
Volumetric flow stabiliser type VOLKOM, round design | NW 80 mm | Controller setting 2

Order details

01 - Type

VOLKOM = Volumetric flow stabiliser type VOLKOM, round design

02 - Nominal width

080 = NW 80 mm
100 = NW 100 mm
125 = NW 125 mm
150 = NW 150 mm
160 = NW 160 mm
200 = NW 200 mm
250 = NW 250 mm

03 - Controller setting

1 = Controller setting 1
2 = Controller setting 2
3 = Controller setting 3 (standard)
4 = Controller setting 4

Attention!
The volumetric flow setpoints for the controller settings can be found on page 4 under "Volumetric flow setpoints"!

Specification texts

Volumetric flow limiter model VOLKOM in round design, maintenance-free, position-independent installation, for keeping the volumetric flow constant in ventilation and air-condtioning installations in a pressure range from 50 to 300 Pa. Mechanical control principle, indenpendent with control damper, controller spring and damping element. The volumetric flow deviation is ±10 %, relative to the maximum volumetric flow. Installed in ductwork. For on-site adjustment of the preset volumetric flow, the control housing remains accessible from the outside.
Housing, control damper and control housing made of plastic (polystyrene PS, impact-resistant), building material class B2 to DIN 4102, rubber lip seal made of special rubber. Housing tightness, class B, to DIN EN 1751

Product: SCHAKO **type VOLKOM**