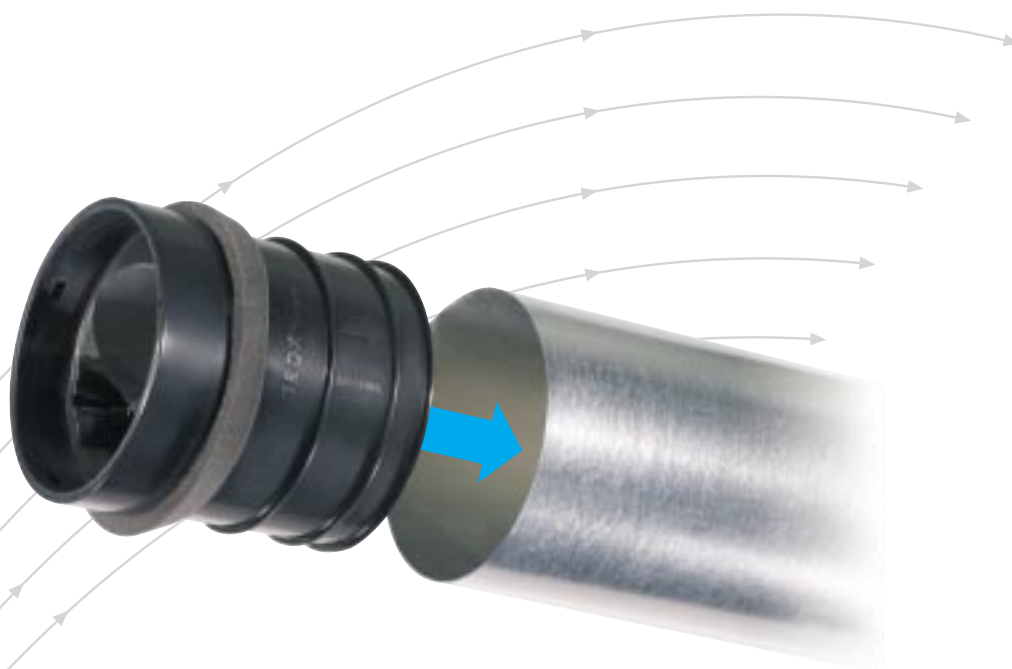


Volume Flow Limiter

- Type VFL
- for insertion into air ducts



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1 Delivery

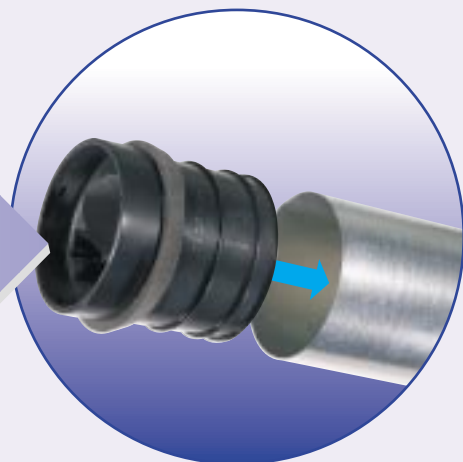


Setup

2



3 Insertion, DONE!



Description · Dimensions · Weight

Description

The VFL volume flow limiter simply deals with what is normally the tedious and expensive process of adjusting flow rates in ventilation and air conditioning systems. Easy installation and precise operation saves precious time on site. The required volume flow rate can be simply set up at the point of installation when the VFL is fitted into the duct work

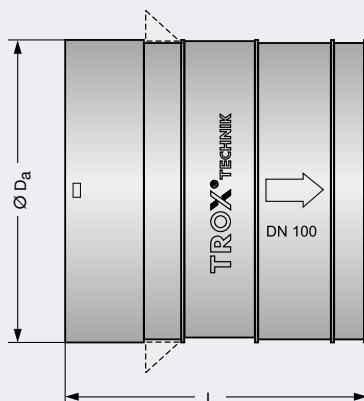
The VFL controls to the set volume flow rate keeping it constant within strict tolerances even when the upstream pressure changes.

Features

- Very good control accuracy of the set volume flow of $\pm 10\%$, relative to \dot{V}_{nom}
- Volume flow range $> 5 : 1$, adjustable in 11 increments
- Automatic mechanism
- Differential pressure range of 30 to 300 Pa
- Function is independent of orientation
- Maintenance-free
- Operating temperature 0 to 50 °C
- Storage temperature -20 to 60 °C
- Stainless steel control spring
- Frictionless damper element
- Control damper and casing made of high-quality plastic (UL 94 V2)
- Suitable for ducts as specified in DIN EN 1506 and DIN EN 13180



- 1 Control unit
- 2 Set value adjustment
- 3 Protective sleeve
- 4 Seal, self adhesive (Installation by customer, dependant on the direction of air flow)



Dimensions in mm, weight in kg

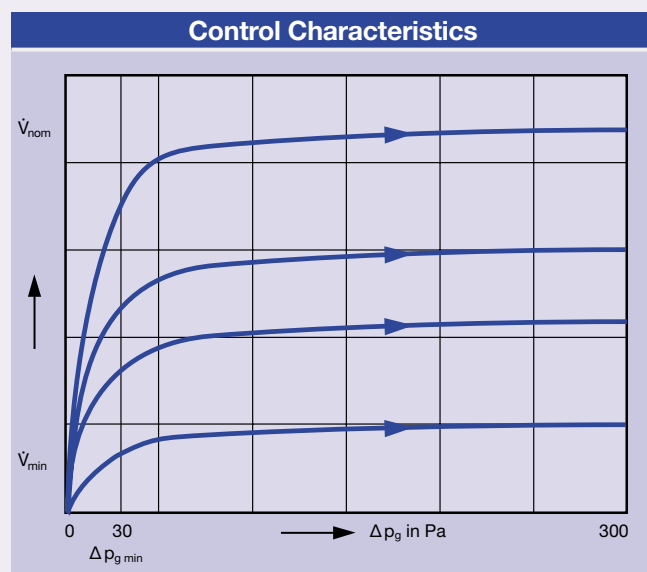
D	Ø D _a	L	Weight
100	98.5	100	0.15
125	123.5	120	0.25

Technical Data · Nomenclature · Order Details

Volume Flow Set Values													
D	\dot{V}											\dot{V}_{nom}	
100	m ³ /h	15	20	25	30	40	50	60	70	80	95	110	
	l/s	4	6	7	8	11	14	17	19	22	26	31	
125	m ³ /h	40	50	60	70	85	100	115	140	160	185	205	
	l/s	11	14	17	19	24	28	32	39	44	51	57	

Sound Pressure Level L_{pA} in dB(A), NC						
D	\dot{V}		$\Delta p_g = 50 \text{ Pa}$		$\Delta p_g = 100 \text{ Pa}$	
	m ³ /h	l/s	dB(A)	NC	dB(A)	NC
100	15	4	28	24	35	29
	30	8	31	27	36	31
	50	14	25	19	34	30
	80	22	28	24	36	32
	110	31	29	25	37	33
125	40	11	33	28	39	34
	70	19	29	24	37	31
	100	28	31	27	40	36
	160	44	32	28	40	35
	205	57	34	29	42	37

All noise levels were measured in a reverberation chamber. The sound power data was determined and corrected according to DIN EN ISO 5135, February 1999.



Nomenclature

- \dot{V} in m³/h
or l/s: Volume flow
- \dot{V}_{nom} in m³/h
or l/s: Nominal volume flow
- Δp_g in Pa: Total pressure differential
- $\Delta p_{g, min}$ in Pa: Minimum pressure differential
- L_{pA} in dB(A): A-weighted sound pressure level (re 20 μ Pa) of the flow regenerated noise in the space including duct end reflection and an 8 dB room correction
- NC : NC rating of sound pressure level including duct end reflection and an 8 dB room correction

Specification Text

Circular volume flow limiter type VFL, manufactured from high-quality plastic (UL 94 V2), for constant volume flow rate control, for use in air conditioning and ventilation systems, consisting of the controller with set value adjustment mechanism and protective sleeve.

Mechanical system powered constant volume limiter with control damper, leaf spring and frictionless control element. Very good control accuracy of $\pm 10\%$ relative to \dot{V}_{nom} in the pressure range of 30 to 300 Pa. Easy installation into circular ventilation ducts; self-adhesive sealing ring (included) provides snug fit. Functional tested and preset to a reference volume flow. Near-continuous adjustment of volume flow across range of $> 5 : 1$.

Order Code

