Helios has a long tradition of experience in designing and manufacturing accessories to complete the fan range. This enabled Helios approximately 50 years ago to develop the world's first polymer shutter range.

Designed to suit today's architectural requirements, the latest techniques combined with practical installation are characteristic advantages of the Helios shutters, louvres, rain repellent grilles, backdraught shutters (page 371) as well as wall and roof terminations.

Sound insulation and air volume elements SVE (page 372) combine the air flow adjustment and the sound level reduction in a cost-effective and space saving way. SVE are installed simply in the ducting and they can be adjusted in series, one after another for further noise reduction.

The automatic air flow volume stabiliser VKH (page 372) is a low cost solution to provide a constant air flow volume in ducting as well as in air inlet and outlets.
Made of flame retardant polymer, class B1 DIN 4102-1.

Accessory components that simplify system design.

VK 200 – 900

RVK

EVK 200 – 710

Special characteristics

- Made of non-corrosive, weather proof, long life and ultra-violet stable polymers, colour light grey (VK 160 in white).
- Resists most harmful atmospheres.
- External building cladding stays clean longer as air flow channelled straight through the shutter.
- Easy and quick installation.
- Flat design.
- Attractive appearance.

Automatic

Air stream operated louvres in a compact flat design to cover exhaust air openings in walls.

- Automatic operation; opens and closes when the fan is switched on and off.
- Fixed to wall by means of four concealed holes in corners.
- Supplied in individual boxes including mounting materials.
- Maximum air flow velocity = 8 m/s.
- Sizes 630 and 710 have an additional centre mullion to increase overall stability and sizes 800 and 900 have two mullions resulting in several louvre panels.

Manually adjustable

To cover intake and exhaust air openings in external walls. Compact flat design. Suitable for reversible axial fans (intake and extract) as air flow in either direction is possible.

- Rattle-free and tight insulated, as the louvres are closed by spring force via mullions.
- Manual operation by means of pull cord via guide roller.
- Supplied with pull cord protection, guide roller, fixing hook and mounting materials.
- Frames, louvres with axis and adjusting parts made of UV resistant, impact resistant polymer in light grey.
- Up to nominal size 500 the louvre has one centre mullion. For larger sizes (see “custom sizes“) the models have an additional centre mullion to increase overall stability and result in several louvre panels. Each part has a separate pull cord.

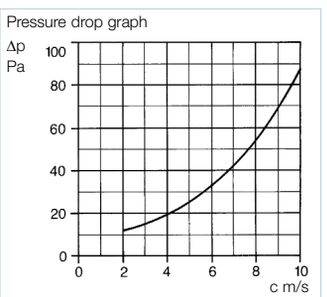
Electrically adjustable

External shutters to cover intake and exhaust air openings.

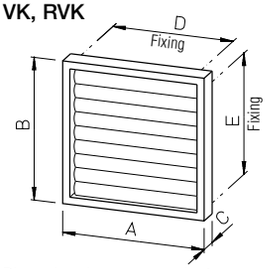
- Automatic operation linked with fan controller. It can be wired so that the fan start is delayed until the shutter is fully opened.
- Control of fan and shutter via remote switch to be installed on site. The limit switch in servo motor connects the fan circuit when the shutter is fully opened. Max. current 1 A (ind.). With higher currents or 3 phase fans an auxiliary relay is required (contactor, Ref.-No. 99611).
- If the fan is operated by a speed controller the shutter must be controlled via a relay installed on site.
- Ready for installation with a lead (5 x 1,5 mm², approx.1,5 m long). Connection according to wiring diagram-No. SS-39 and 73.
- Water proof motor housing, protected to IP 55, made of polymer; includes maintenance free gear box motor 230 V~, 50 Hz.
- Made of light grey polymer, rattle free operation and tight closing.

Pressure drop

When selecting a fan the pressure drop of all components of the system like ducting and shutters must be considered. The diagram shows the resistance subject to air velocity.

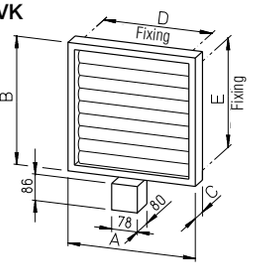


VK, RVK



Dimensions in mm – see chart

EVK



Dimensions in mm – see chart

Model ranges

Automatic Type	Ref. No.	Manually adjustable Type	Ref. No.	Electric control Type	Ref. No.	Fits fan nominal size mm	Dimensions A mm	B mm	C mm	D mm	E mm
VK 160 [1]	0892	–	–	[1]	[1]	150/160	190	190	25	131	131
VK 200	0758	**RVK 200**	0766	**EVK 200**	0774	180/200	240	240	28	193	167
VK 250	0759	**RVK 250**	0767	**EVK 250**	0775	225/250	290	290	28	243	217
VK 315	0760	**RVK 315**	0768	**EVK 315**	0776	280/315	340	340	28	293	267
VK 355	0761	**RVK 355**	0769	**EVK 355**	0777	355	390	390	28	343	317
VK 400	0762	**RVK 400**	0770	**EVK 400**	0778	400	440	440	28	393	367
VK 450	0763	**RVK 450**	0771	**EVK 450**	0779	450	490	490	30	443	417
VK 500	0764	**RVK 500**	0772	**EVK 500**	0780	500	540	540	30	493	467
VK 630	0836			**EVK 630**	0781	560/630	686	690	40	520	630
VK 710	0838			**EVK 710**	0784	710	785	785	40	771	685
VK 800	0839					800	876	885	40	862	785
VK 900	0841					900	1026	985	40	1012	885

Larger sizes are available on request, also see custom models.

[1] For specification, design and dimensions of smaller shutters see following page.

Accessories

Adapter F.. allows installation of these shutters (up to nominal diameter 710) on circular ducting. For selection and specification see page 370.

VK 100, 125, 160

Small automatic shutters made of polymer for ø 100, 125 and 160 mm

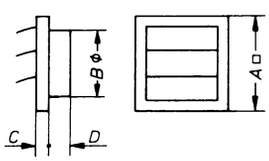
Airstream operated louvres to cover exhaust air openings.

- ☐ Suitable as extract outlet of small fans, cooker hoods, tumble dryers and others.
- ☐ Made of UV-resistant and impact resistant polymer.
- ☐ Fixing via spigot or masonary plugs. Sealing foam strip included in contents.

Model range

Type	Ref. No.	Colour	Spigot ø mm	Qty
VK 100	0757	white	100	1
VK 100 B	0765	brown	100	1
VK 100 VE*	0885	white	100	24
VK 125	0857	white	125	1
VK 125 B	0705	brown	125	1
VK 160	0892	white	150/160	1

* low price quantity pack



Dimensions in mm – see chart

Type	Dimensions in mm A	ø B	C	D
VK 100	140	98	15	28
VK 125	160	120-125	20	30
VK 160	190	145	25	35

EVK 100, 150

Small electric shutter

To cover intake and exhaust air openings in all types of rooms.

- ☐ Attractive design blends into any decor. The view into the duct is obscured even when the shutter is open.
- ☐ Maximum air flow velocity approx. 6 m/s.
- ☐ Noise free operation with a 60 second opening delay.
- ☐ Control via on/off switch, wired in parallel by preference.

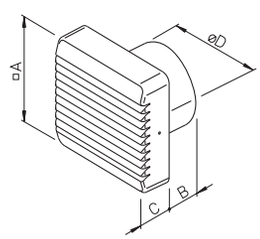
Model range

Type	Ref. No.	Spigot ø mm	Weight kg
EVK 100	0453	100	0.26
EVK 150	0251	150	0.44

Impact resistant polymer, alpine-white.
Connection to wiring diagram-No. SS-479
Voltage/Frequency 230 V~, 50/60 Hz
Power consumption approx. 6 W

Information

Operation temperature EVK 100, EVK 150: 0 to +40 °C, for all other polymer shutters: –30 to +60 °C.



Dimensions in mm – see chart

Type	□ A	B	C	ø D
EVK 100	140	58	38,5	97
EVK 150	190	62	43	145

VK rectangular

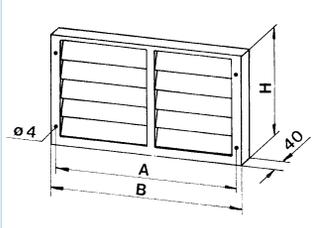
Rectangular shutter

In landscape format, to cover exhaust air openings in external walls.

- ☐ Dimensions fit Helios rectangular fan range.
- ☐ Automatic operation.
- ☐ All parts made of high quality, light grey polymer.
- ☐ Fixing via dowels.
- ☐ Maximum air flow velocity = 10 m/s.

Model range

Type	Ref. No.	Duct nominal size cm
VK 30/15	0735	30 x 15
VK 40/20	0874	40 x 20
VK 50/25	0875	50 x 25
VK 50/30	0876	50 x 30
VK 60/30	0877	60 x 30
VK 60/35	0878	60 x 35
VK 70/40	0879	70 x 40
VK 80/50	0880	80 x 50
VK 100/50	0881	100 x 50



Dimensions in mm – see chart

Type	Dimensions in mm A	B	H	Weight kg
VK 30/15	381	395	235	1.0
VK 40/20	473	485	285	1.3
VK 50/25	574	585	335	2.0
VK 50/30	574	585	385	2.2
VK 60/30	674	685	385	2.4
VK 60/35	674	685	435	2.6
VK 70/40	774	785	485	3.1
VK 80/50	864	876	585	4.4
VK 100/50	1162	1176	585	5.5

Custom sizes

Custom sizes

The shutter ranges

- automatic (airstream operated)
- manually adjustable
- electrical control

are available in project specific custom sizes.

- ☐ The dimensions can be varied within steps of 50 mm. Any rectangular portrait, landscape or square dimensions are available.
  The shutters are manufactured to order and are non exchangable or returnable. Therefore the dimensions must be defined accurately.
- ☐ For more stability, an additional vertical centre mullion is fitted over 40 cm louvre length and a horizontal centre mullion over 100 cm louvre length.
  Large shutters are supplied in segments for stability and transport reasons and have to be assembled on frames.
- ☐ The maximum air flow velocity for standard models is 10 m/s.
- ☐ All parts (frames, shutters and their stocks) made of light grey, high quality, UV resistant polymer.

RVE

RSK

RVS

RVM

■ Air tight in-duct backdraught shutter RVE

Designed to prevent the spread of cold smoke in ducted systems also ideal as a back draught damper.
In-duct mounted, ideal for retro-fit installation.

- ☐ Polymer ring with surrounding double lip seal and tight adjacent rubber membrane, which opens at low and high pressure.
- ☐ Supplied with two membranes for air flow velocity up to approx. 3.5 m/s or 6 m/s.
- ☐ At horizontal air flow the rotation axis must be in vertical position.
- ☐ Temperature range –20 to +90 °C.

■ Backdraught shutters RSK

Automatic shutters for in-duct installation.

- ☐ Prevents back draughts (extract of warm air or intake of cold air) when the fan is switched off.
- ☐ Automatic operation at low and high pressure (rotatable mounting position) through spring blades. At horizontal air flow the rotation axis must be in vertical position. If installed vertically it only operates with rising air flow. To cover further requests and severe conditions use RVS or RVM.

Automatic backdraught shutter with spring release

For all horizontal ducting and vertical with the air flow upwards i.e. blades opening upwards. Blades open in air flow direction automaticly by the airflow (fan operation). The spring mechanism is outside the air flow. Closing force, fan power and installation position can be adjusted. Blades and casing made of galvanised steel, at dia. 225 – 560 mm blades are made of aluminium. Flanged on both ends. Fixing holes DIN 24155, Pt. 2.

Ambient temperature	–30 to +100 °C

Motorised backdraught shutter[1)]

As RVS, but with built-on spring release motor (outside the air flow), can be installed horizontally and vertically in any direction. Electrical control wired in parallel with the fan; for installation supplied with a 0.9 m long lead.

Ambient temperature	–30 to +60 °C
Protection to	IP 54
Voltage/Frequency	230 V AC, 50/60 Hz
Power consumption	
– to Ø 560	14 W
– from Ø 630	8.5 W
Opening time of flaps, approx.	
– to Ø 560	75 sec.
– from Ø 630	150 sec.
Wiring diagram-No.	SS-380.1

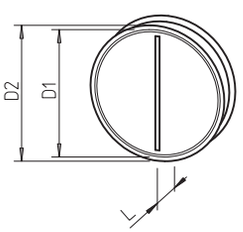
Type	Ref. No.	Dimensions in mm ø D1	ø D2	L	Weight kg
RVE 80	2584	75	83	20	0.1
RVE 100	2587	95	103	20	0.1
RVE 125	2588	120	128	20	0.1
RVE 160	2589	155	163	20	0.2
RVE 200	2618	195	203	20	0.2

Type	Ref. No.	Dimensions in mm ø D	L	S	Weight kg
RSKK 100*	5106	97	57	2.0	0.1
RSKK 125*	5107	121	57	2.0	0.1
RSK 150	5073	149	100	1.25	0.5
RSK 160	5669	159	100	1.25	0.5
RSK 180	5662	170	70	0.5	0.3
RSK 200	5074	199	140	1.25	1.0
RSK 250	5673	248,5	140	1.25	1.2
RSK 315	5674	312,5	140	1.25	1.5
RSK 355	5650	352	160	0.75	1.3
RSK 400	5651	397	160	0.75	1.4

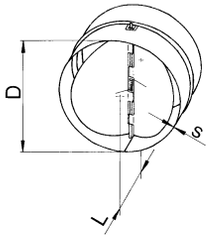
* made of polymer (temp. max. +70 °C).
Remaining models made of galvanised steel, flaps made of aluminium and springs made of stainless steel.

Automatic		Motorised[1)]		Dimensions in mm						Weight
Type	Ref. No.	Type	Ref. No.	ø D i.L.	A	B	C	L	ø LK	kg
RVS 225	2591	**RVM 225**	2575	225	–	95	130	300	259	3.3
RVS 250	2592	**RVM 250**	2576	250	–	95	130	300	286	3.7
RVS 280	2593	**RVM 280**	2577	280	–	95	130	300	322	4.2
RVS 315	2594	**RVM 315**	2578	315	–	95	130	300	356	4.6
RVS 355	2595	**RVM 355**	2579	355	–	95	130	300	395	5.3
RVS 400	2596	**RVM 400**	2580	400	–	95	130	330	438	7.5
RVS 450	2597	**RVM 450**	2581	454	15	95	130	330	487	10.7
RVS 500	2598	**RVM 500**	2582	504	40	95	130	330	541	12.0
RVS 560	2599	**RVM 560**	2583	560	65	95	130	330	605	16.4
RVS 630	2600	**RVM 630**	2609	630	115	150	225	400	674	21.0
RVS 710	2601	**RVM 710**	2610	710	155	150	225	400	751	28.0
RVS 800	2602	**RVM 800**	2614	800	200	150	225	420	837	37.8
RVS 900	2603	**RVM 900**	2615	900	250	150	225	420	934	42.3
RVS 1000	2604	**RVM 1000***	2616	1000	300	150	225	420	1043	47.8

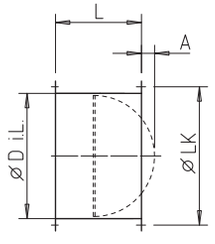
[1)] RVM.. not suitable for exlosion proof areas. * RVM 1000 only for horizontal through flow.



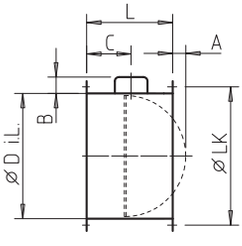
Dimensions in mm – see chart



Dimensions in mm – see chart

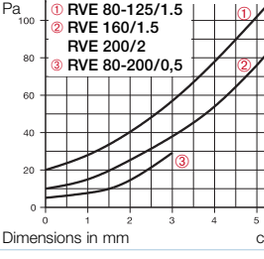


Dimensions in mm – see chart

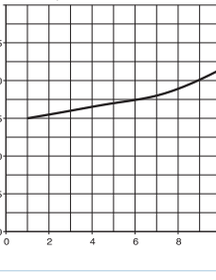


Dimensions in mm – see chart

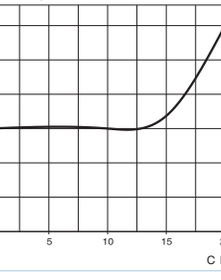
Pressure drop RVE



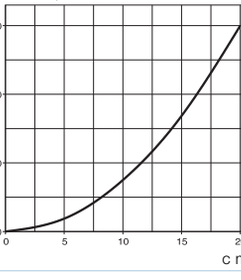
Pressure drop RSK



Pressure drop RVS



Pressure drop RVM



RAG

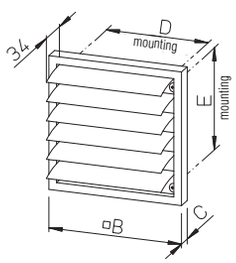
WSG

■ **Rain repellent grille RAG**
To cover intake and exhaust air openings in facades, made of polymer.
☐ Attractive, corrosion and weather resistant finish in light grey colour prevents rain, snow and insects from entering the system.
☐ Frame with louvres made of UV-resistant, impact resistant polymer. Mesh guard made of galvanised steel and coated with polymer. Mesh size 8 mm.
☐ Simple (also available as surface mounted or integrated in cladding) installation via dowels (mounting materials included). With adapter F.. (accessory see on product page 386) also suitable for circular ducting.

■ **Weather proof grille WSG**
In square or rectangular landscape format; to cover intake or exhaust air openings in facades.
☐ Attractive finish protecting against rain, snow and vermin from entering the ducting. Suitable for square, rectangular and circular ducts.
☐ Solid construction made of aluminium extrusion profile, natural colour, anodised.
☐ Installation: Flush mounted or integrated in cladding.
☐ Fixed louvres with a pitch of 65 mm and mesh guard behind made of galvanised steel. Mesh size: 16 mm.

■ **The rectangular models**
fit the Helios rectangular fan range and therefore can be fitted to rectangular ducting.

Type	Ref. No.	to fan nominal size mm	Dimensions in mm B	C	D	E	Weight kg
RAG 200	0750	180/200	240	28	193	167	0.35
RAG 250	0751	225/250	290	28	243	217	0.45
RAG 315	0752	280/315	340	28	293	267	0.60
RAG 355	0753	355	390	28	343	317	0.75
RAG 400	0754	400	440	28	393	367	1.00
RAG 450	0755	450	490	30	443	417	1.35
RAG 500	0756	500	540	30	493	467	1.60

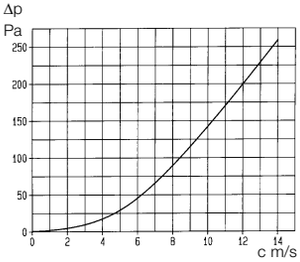


Dimensions in mm – see chart

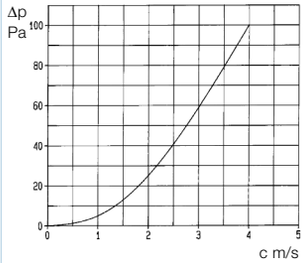
Type	Ref. No.	Fits to fan nom. size	Fits to spigot in mm	Dimensions in mm ☐ b	☐ B	Weight kg
WSG 200	0117	180/200	☐ 200	195	271	0.8
WSG 250	0118	225/250	☐ 250	245	321	1.0
WSG 315	0119	280/315	☐ 315	310	386	1.5
WSG 355	0120	355	☐ 355	350	426	2.0
WSG 400	0121	400	☐ 400	395	471	2.5
WSG 450	0122	450	☐ 450	445	521	3.0
WSG 500	0123	500	☐ 500	495	571	3.5
WSG 630	0124	600/630	☐ 630	625	701	4.0
WSG 710	0125	710	☐ 710	705	781	4.5

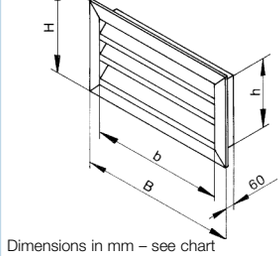
Type	Ref. No.	Fits to nominal size duct in mm	Dimensions in mm b	B	h	H	Weight kg
WSG 30/15	0108	300 x 150	296	370	146	220	0.9
WSG 40/20	0109	400 x 200	396	470	196	270	1.2
WSG 50/25	0110	500 x 250	496	570	246	320	1.9
WSG 50/30	0111	500 x 300	496	570	296	370	2.0
WSG 60/30	0112	600 x 300	596	670	296	370	2.2
WSG 60/35	0113	600 x 350	596	670	346	420	2.4
WSG 70/40	0114	700 x 400	696	770	396	470	2.9
WSG 80/50	0115	800 x 500	796	870	496	570	4.0
WSG 100/50	0116	1000 x 500	996	1070	496	570	5.0

Pressure drop RAG



Pressure drop WSG





Dimensions in mm – see chart

Accessories

LGR

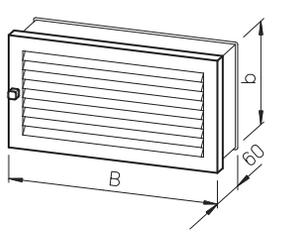
Grilles LGR

Rectangular with adjustable louvres.

- To cover rectangular intake or exhaust air openings especially for flat ducting.
- Centrally adjustable louvres allow the adjustment of air flow volume.
- Corrosion resistant design made of galvanised steel in a white epoxy finish.
- Includes mounting frame which allows universal installation. When installing in thin walled ducts it must be fixed with 4 screws.

Model range

Type	Ref. No.	Fits nominal duct openings in mm
LGR 250/150	0927	228 x 128
LGR 450/150	0928	428 x 128
LGR 350/230	0929	328 x 208
LGR 450/230	0930	428 x 208



Dimensions in mm – see chart

Type	Free cross section cm²	Size in mm B	b	Wt. kg
LGR 250/150	160	250	150	0.6
LGR 450/150	320	450	150	1.0
LGR 350/230	430	350	230	1.2
LGR 450/230	575	450	230	1.5

QVK

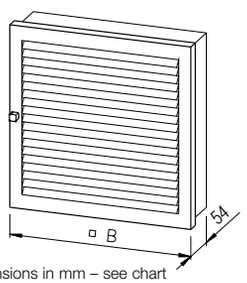
Grilles QVK

Square, with adjustable louvres.

- To cover intake or exhaust air openings with a square cross section.
- Centrally adjustable louvres allow the adjustment of air flow volume.
- Corrosion resistant design made of galvanised steel in a white epoxy finish.
- Includes mounting frame. Thereby suitable for flush mounted wall installation and without frame suitable for fixing via screws.

Model range

Type	Ref. No.	Fits up to fan nominal size mm
QVK 200	0791	200
QVK 250	0792	250
QVK 315	0793	315
QVK 355	0794	355
QVK 400	0795	400



Dimensions in mm – see chart

Type	Free cross section cm²	Size in mm B	Weight kg
QVK 200	320	□ 250	0.8
QVK 250	490	□ 300	1.0
QVK 315	680	□ 350	1.3
QVK 355	920	□ 400	1.8
QVK 400	1190	□ 450	3.2

G 200 – 500

Grilles G fixed

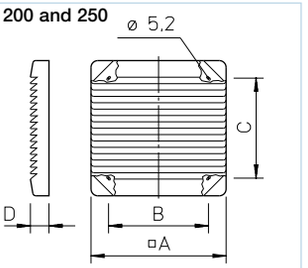
To cover vents on walls and ceilings.

- Made of high quality, UV-resistant and impact resistant polymer.
- Compact flat design. Simple fixing via mounting materials which are included.
- Some models obscure view into ducting when installed.

Model range

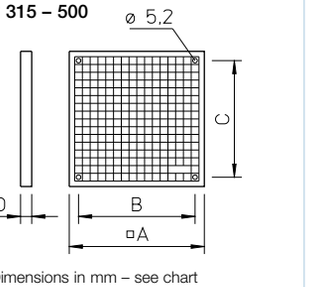
Type	Ref. No.	Colour	Fits to fan size in mm
G 200	0255	white	200
G 250	0256	white	250/280
G 315	0798	white	315
G 355	0799	white	355
G 400	0800	white	400
G 500	0801	grey	450/500

G 200 and 250



Dimensions in mm – see chart

G 315 – 500



Dimensions in mm – see chart

Type	Dimensions in mm □A	B	C	D	ø	Weight kg
G 200	287	210	210	39	5.2	0.7
G 250	337	240	240	39	5.2	0.9
G 315	340	300	300	22	5.2	0.4
G 355	390	350	350	22	5.2	0.4
G 400	440	400	400	22	5.2	0.6
G 500	540	490	465	30	5.2	1.8

G 100, 160

Grilles G fixed

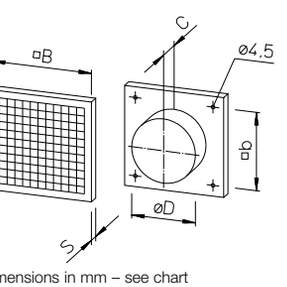
To cover and insert in circular vent openings.

- Made of high quality and impact resistant polymer. Corrosion resistant and therefore suitable for indoor and outdoor applications.
- Simple installation using rear connecting sockets with conical shape. Foam strip for air tight connection is included. Fixed installation is ensured via four corner holes. Egg grille inserts can easily be removed for cleaning even when fixed.

Model range

Type	Ref. No.	Nom. size in mm	Colour	Qty
G 100	0796	90/100	white	1
G 100 B	0782	90/100	brown	1
G 100 VE*	0828	90/100	white	12
G 160	0893	150/160	white	1

* low cost quantity pack



Dimensions in mm – see chart

Type	Dimensions in mm □b	□B	C	S	ø D	Weight kg
G 100	90	140	28	15	100	0.8
G 160	130	190	40	24	150	0.3

LG..

LTG

Supply/extract air grilles LG..

With pitched louvres to cover circular vent openings of ø 80, 100, 125 and 160 mm.

- ☐ High quality and attractively designed cover.
- ☐ Pitched louvres obscure the view into ducting when installed.
- ☐ Made of corrosion resistant die casting aluminium, powder coated. Colour: white.
  LGK 80 made of high quality and impact resistant polymer, Colour: white.
- ☐ Simple installation in ducting using rear spigots fixing springs and sealing tape.

Door grilles LTG

Fixed air transfer grilles for installation into door leaves.

- ☐ Attractive and unobstrusive design, made of high quality and impact resistant polymer in light grey or brown.
- ☐ With wide surroundings and pitched louvres to obscure view. Only 3 mm visible thickness.
- ☐ Two telescopic parts.
  Installation: One element of the grille to be pushed in from either side of the door. Pulled together and tightened by the fixing screws.

Model range

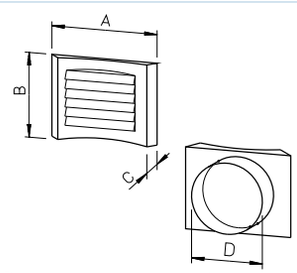
Type	Ref. No.	Weight in gram
LGK 80*	0259	120
LGM 100	0254	300
LGM 125	0258	450
LGM 160	0261	750

* made of polymer

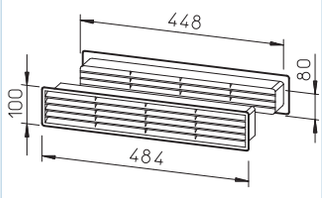
Type	Dimensions in mm			
	A	B	C	D
LGK 80*	135	105	14	80
LGM 100	155	127	16	95
LGM 125	195	150	25	120
LGM 160	252	190	25	155

Model range

Type	Ref. No.	Colour
LTGW	0246	white
LTGB	0247	brown

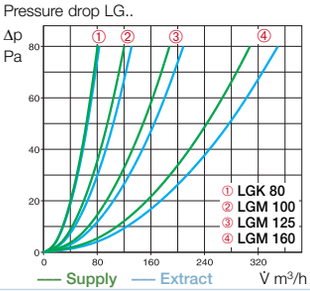


Dimensions in mm – see chart

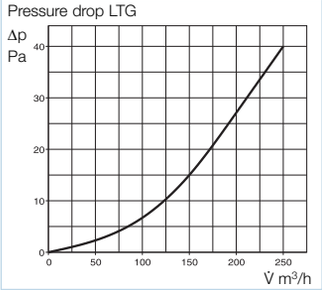


Dim. in mm Door leave depth min. 30 mm

Pressure drop LG..

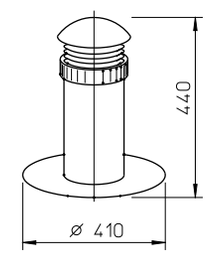


Pressure drop LTG



Roof appliances

FDH



Dimensions in mm

Roof outlet DH with roof pantiles FDP, UDP and connector STV

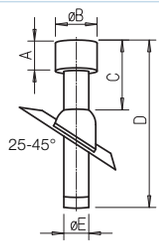
Roof outlet DH with duct

Connector STV

Pitched roof pantile UDP

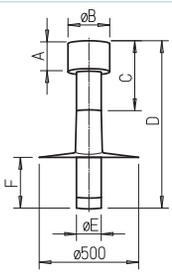
Flat roof pantile FDP

DH+UDP

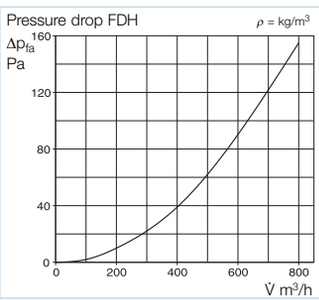


Dimensions in mm – see chart

DH+FDP



Dimensions in mm – see chart



FDH Ref. No. 1477

Flat roof outlet

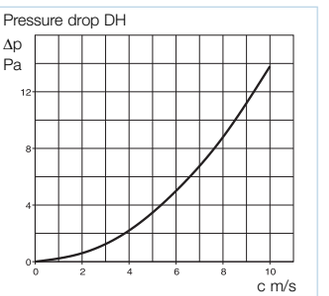
For connection of vent openings, up to 160 mm diameter, via the roof. Made of weather resistant polymer with a wide frame for fixing. Cold and heat resistant up to +200 °C. Cowl can be removed by insertion of a supplied ladder strip or insulation material (on site) to prevent the occurrence of condensation.

Roof outlet DH

The ideal solution for ventilation system, without static pressure drop. Made of weather resistant polypropylene, removable exhaust outlet with protection against driving rain. Connection with ducting by means of the connector STV (accessory), which obstructs the escape of condensation at the juncture. For the Installation of the roof outlet, the following roof pantiles should be used:

– **Roof pantile UDP,** fits almost to every brick model, in black or brick-red. For roofs with inclinations of 25–45°.

– **Flat roof pantile FDP** made of aluminium for flat roofs.



Model range: Outlet, pantile, connector to be ordered separately.

ND mm	Roof outlet*		Roof pantile*, lead		Roof pantile for flat roof, alu.		Connector	
Mains	**Type**	Ref. No.	**Type**	Ref. No.	**Type**	Ref. No.	**Type**	Ref. No.
100	**DH 100 R**	2014	**UDP 100 R**	2020	**FDP 100**	2024	**STV 100**	2026
	DH 100 S	2015	**UDP 100 S**	2021				
125	**DH 125 R**	2016	**UDP 125 R**	2020	**FDP 125**	2013	**STV 125**	2027
	DH 125 S	2017	**UDP 125 S**	2021				
160	**DH 160 S**	2019	**UDP 160 S**	2023	**FDP 160**	2025	**STV 160**	2028

* R = Brick-red, S = Black

Dimensions: Roof outlet DH with roof pantile UDP or FDP

ND mm	Dimensions in mm					
Mains	A	ø B	C	D	ø E	F
100	120	170	320	785	100	225
125	140	210	335	825	125	255
160	180	265	365	1113	160	345

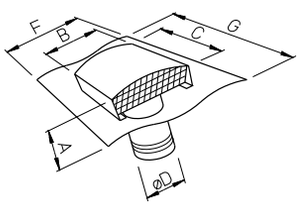
Roof and wall appliances

DDF

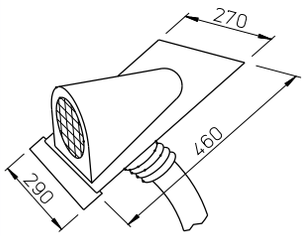
SDH

TMK

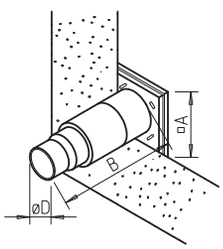
Universal roof appliances
For air inlet/outlet or for connection to ducting of ø 125–400 mm.
Cowl brick-red or slate grey as optional.
A large leaded sheet allows adaptation to all tile profiles on pitched roofs. Also suitable for flat roofs.
Carrier plate for fixing. All remaining parts made of galvanised steel.



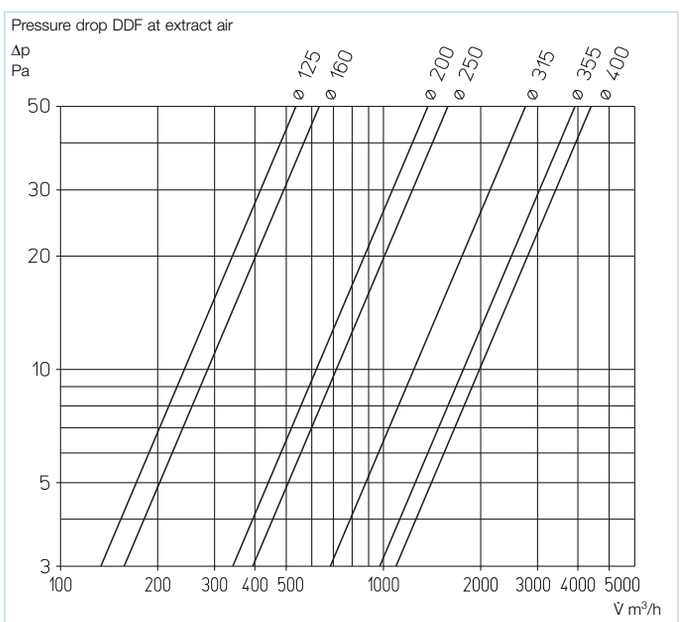
Dimensions in mm – see chart



Dimensions in mm – see chart



Dimensions in mm – see chart



SDH Ref. No. 1476

Pitched roof outlet
Universal design, suitable for most tile profiles. The large leaded sheet allows adaptation to different tile profiles. Cowl and mounting plate made of galvanised steel.
Flexible polymer tube with stepped spigot for connection of all duct diameters from 70 – 115 mm.
Duct fixing via supplied hose clamp.

Telescopic wall sleeve
For wall applications of supply and extract air ducting. Two telescopic polymer sleeves can be adapted to suit the wall thickness with air stream operated outdoor shutter or grille. Internal spigot suitable for connection of ducting.
TMK 125/150 with stepped spigot in ø 125, 150 and 160 mm.
TMK 100 for duct ø 100 mm.

Model range and dimensions

Type	TMK 100	TMK 125 / 150
Ref. No.	0844	0845
Dim. A mm	140 □	190 □
B max.	500	500
ø D	100	125/150/160

Model range and dimensions DDF

Type[1]	Ref. No.	Type[2]	Ref. No.	Dimensions in mm A	B	C	ø D	F	G	Weight kg
DDF 125	1964	**DDF 125 G**	1848	124	200	328	125	500	400	4
DDF 160	1965	**DDF 160 G**	1849	135	248	396	160	500	400	4
DDF 200	1966	**DDF 200 G**	1850	185	333	495	200	600	600	8
DDF 250	1967	**DDF 250 G**	1851	185	333	495	250	600	600	8
DDF 315	1968	**DDF 315 G**	1852	197	420	666	315	600	600	9
DDF 355	1969	**DDF 355 G**	1853	350	550	900	355	900	750	17
DDF 400	1970	**DDF 400 G**	1854	350	550	900	400	900	750	17

[1] Outlet brick-red painted (RAL 8012)
[2] Outlet slate grey painted (RAL 7024)

TS

T-pieces
made of galvanised steel.

Type	Ref. No.	Nominal ø mm
TS 100	1479	100
TS 125	5720	125
TS 160	5805	160

RVB

Duct connector
made of galvanised steel.

Type	Ref. No.	Nominal ø mm
RVB 80	5993	80
RVB 100	5994	100
RVB 125	5995	125
RVB 160	5987	160
RVB 200	5997	200
RVB 250	5998	250
RVB 315	5999	315
RVB 355	5991	355
RVB 400	5992	400

RZ

Reducers
made of galvanised steel or polymer.*

Type	Ref. No.	Nominal ø mm	Reduced ø mm
RZ 100/80*	5223	100	80
RZ 125/100*	5222	125	100
RZ 160/125	5729	160	125
RZ 160/150*	7684	160	150
RZ 200/160	5710	200	160

SCH

Hose clamps
A steel band with a snap on tension lock. Supplied in quantities of 10 pieces.

Type	Ref. No.	Nominal ø mm
SCH 80/100	5722	80 – 115
SCH 125/160	5723	115 – 165
SCH 200	5724	165 – 215
SCH 250	5725	215 – 265
SCH 315/355	5727	265 – 375
SCH 400	5728	375 – 425

Helioflex ALF

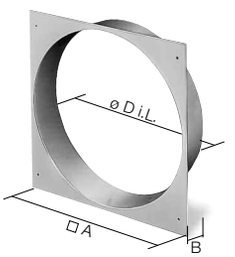
Flexible ducting for universal use in the most industrial, commercial and domestic applications such as general ventilation and air-conditioning technology, outlets of cooker hoods and tumble dryers etc.

Special characteristics
- ☐ Avoids storage, transportation and capacity issues.
- ☐ A carton of approx. 60 cm length incorporates 10 m ducting.
- ☐ Optimal in handling and finish.
- ☐ Forming almost any bend.
- ☐ Super elastic, can be bent repeatedly with no fatigue of material or leakage.
- ☐ Self extinguishing in the event of fire.

Specification
- ☐ Two layers of polyester foil, aluminium coated.
- ☐ Incorporated spring steel spiral for rigidity.
- ☐ No toxic fumes in event of fire.
- ☐ Temperature range from –20 to +100 °C.
- ☐ Maximum pressure: 2500 Pa
- ☐ Maximum allowed air flow speed: 20 m/s.

Type	Ref. No.	Nominal ø mm	Inner ø mm	Weight for 10 m	Contents per unit
ALF 80	5711	80	80	1.2	10 m
ALF 100	5712	100	102	1.4	10 m
ALF 125	5713	125	127	1.9	10 m
ALF 160	5757	160	160	2.5	10 m
ALF 200	5715	200	203	4.8	10 m
ALF 250	5716	250	254	5.3	10 m
ALF 315	5717	315	315	9.3	10 m
ALF 355	5758	355	356	9.7	10 m
ALF 400	5759	400	406	11.2	10 m

Adaption plate F



Adaption plate F to square shutters for circular ducting/fans.
- ☐ Use: By using this adaptor, the shutter ranges VK, RVK, EVK and RAG can be mounted directly to circular ducting or fan spigots (HQ../HW..).
- ☐ Installation: The four holes in the corners match the fixing points of the shutters. The circular spigot fits over the fan's casing and is fixed with screws.
- ☐ Material: Made of galvanised steel.

Model range

Type	Ref. No	Shutter size cm	Dimensions in mm □A	B	ØD
F 200	0804	20	240	55	210
F 250	0805	25	290	55	259
F 315	0807	30	340	55	324
F 355	0808	35	390	55	364
F 400	0809	40	440	55	409
F 450	0810	45	490	55	460
F 500	0811	50	540	55	510
F 560/630	0257	63	685	55	570
F 630[1)]	0813	63	685	55	640
F 630[2)]	0826	63	685	55	630
F 710[1)]	0824	71	785	55	717
F 710[3)]	0825	71	785	55	710

[1)] For HQ [2)] For HW [3)] For AVD DK

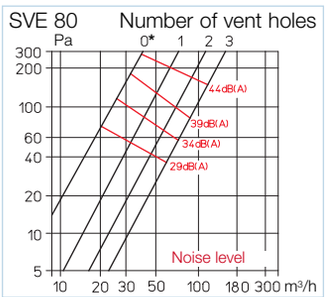
AS

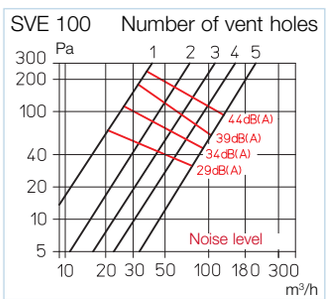
AS 100 Ref. No. 5224
Connection spigot
square flange plate with circular spigots, made of polymer.
To connect ducting (ND 100 mm) on flat surfaces.

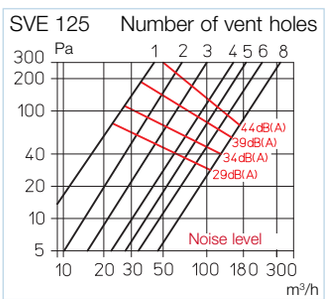
The innovative SVE elements have low cost solutions for:
- **Air flow volume adjustment and optimised distribution in ducting system of centralised ventilation units.**
- **Sound level reduction through absorbtion of air flow and fan noises.**

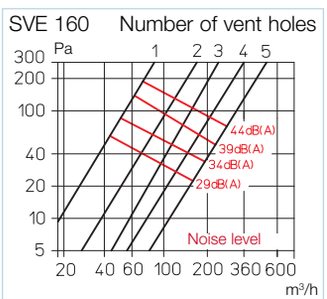
In order to increase the sound level reduction, several elements can be mounted in series, one after the other. Two elements virtually doubling the insertion loss.

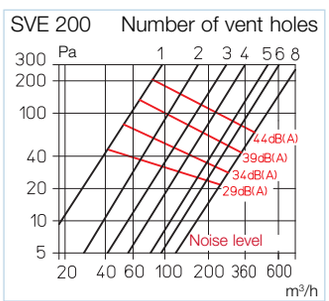
SVE

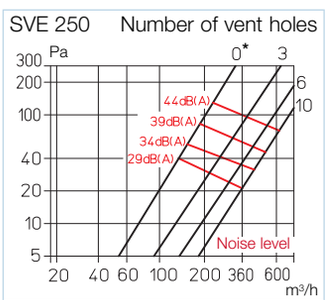


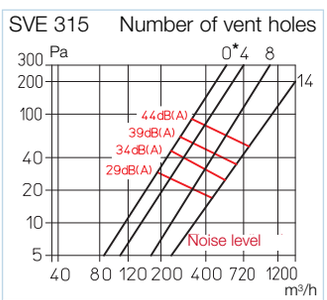












Performance figures and insulation standards

The diagrams give an overview about air flow volumes and pressure levels according to the number of vent holes. The red lines and dB(A) values show the noise levels of elements (L_{WA}). The sound power levels for the related frequency (noise level of SVE elements) are available as sum levels in the installation manuals and operating instructions. The values on the table give the insulation standard D_e for the corresponding frequency.

Material

- ☐ Fire retardant foam material with protection against mould.
- ☐ Meets the requirements of the emission category M1.
- ☐ No harmful toxic fumes in event of fire.
- ☐ Complies with fire class B.

Advantages

- ☐ Cost effective solution for prevention of noise transfer in ventilation ducting systems.
- ☐ Simple installation through insertion into the ducting.
- ☐ Simple adjustment thanks to pre-punched holes.
- ☐ Minimises the system costs by using low cost ducting.
- ☐ Can be used with all types of dampers,grilles and valves.
- ☐ Can be easily cleaned by a vacuum cleaner.

Delivery

Each element is delivered in a separate poly-bag.

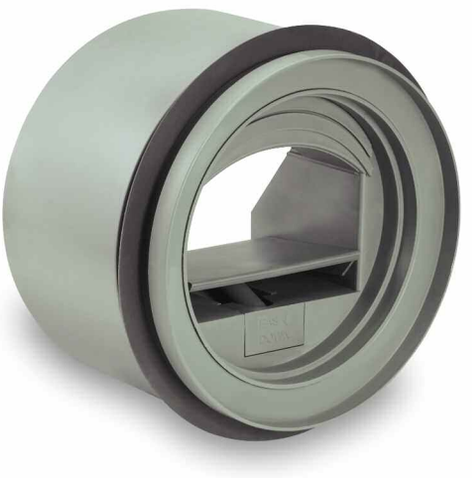
Installation

SVE to be inserted into the ducting and a valve grille or exhaust element can be used as wall termination. By removing the elliptical plugs, the air flow can be adjusted to the desired volume in accordance with the diagrams above.

Ordering data						Insulation standard D_e dB in Hz						
Type	Ref. No.	for NW (mm)	Thick. in mm	Weight in g	Vent holes	125	250	500	1000	2000	4000	8000
SVE 80	8309	80	50	32	0	9.0	5.0	11.5	14.5	18.0	20.0	24.0
					1	4.5	3.5	7.5	11.5	10.5	17.5	21.0
					3	4.5	2.5	5.0	8.0	9.5	13.0	15.5
SVE 100	8310	100	50	60	1	7.0	4.0	9.5	12.5	16.0	17.5	22.0
					3	3.5	2.5	5.5	8.5	8.5	14.5	19.0
					5	2.5	1.5	3.5	6.0	6.5	12.0	16.5
SVE 125	8311	125	50	70	2	6.0	5.0	5.0	12.0	12.5	19.0	21.0
					5	2.0	2.5	3.0	8.5	8.0	13.5	19.0
					8	1.5	1.5	2.5	6.0	5.0	11.0	17.5
SVE 160	8312	160	50	140	1	7.0	4.0	9.5	12.5	16.0	17.5	22.0
					3	3.5	2.5	5.5	8.5	8.5	14.5	19.5
					5	2.5	1.5	3.5	6.0	6.0	12.0	16.5
SVE 200	8313	200	50	190	2	6.5	2.5	5.5	13.0	14.0	18.0	15.5
					5	3.0	1.5	2.5	9.5	8.5	14.0	14.5
					8	2.0	1.0	1.5	7.0	7.0	13.0	13.5
SVE 250	8314	250	75	480	0*	4.0	3.0	7.0	13.0	18.0	18.0	17.0
					5	2.0	2.0	5.0	9.0	13.0	15.0	15.0
					10	2.0	1.0	3.0	7.0	11.0	14.0	13.0
SVE 315	8315	315	75	690	0*	5.0	3.0	6.0	12.0	15.0	16.0	18.0
					8	3.0	2.0	3.0	8.0	12.0	13.0	15.0
					14	1.0	1.0	2.0	7.0	8.0	10.0	13.0

* Minimum air flow volume ensured by lateral recesses

VKH



Automatically achieving constant air flow volume the VKH is an easy and low cost solution that ensures a constant air flow volume desired for a wide range of pressures.

Operation

Simply insert the automatic volume stabiliser in the duct or duct components, either supply or extract. The VKH gives the preset air volume over a differential pressure range of approx. 50 – 200 Pa.

Advantages

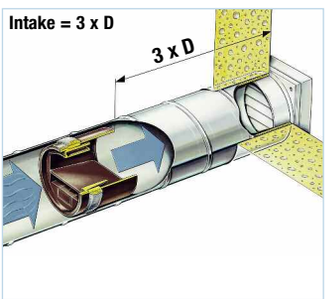
- ☐ Measuring and balancing on building site omitted; thereby the system can be commisioned faster.
- ☐ Secure and simple design.
- ☐ Ensuring a constant air flow volume, even at low counter pressure.
- ☐ Easy change of air flow volume for each diameter of VKH. Thereby the other system inlets and outlets are not affected.
- ☐ Automatic adjustment to give constant air flow volume over a wide pressure range.
- ☐ Quick installation.
- ☐ Made of flame retardant polymer, class B1 DIN 4102-1.

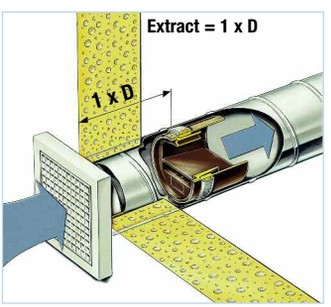
Function

- ☐ With an increasing pressure level the air flow velocity increases. The pressure against the butterfly valve decreases the opening cross section and keeps the air flow volume constant.
- ☐ At the minimum static pressure level the butterfly valve opens the cross section completely.
- ☐ The guiding cylinder is responsible for an equal movement of flaps and controls therefore the relation between pressure and air flow volume.

Installation

- ☐ Simple insertion in vertical or horizontal ducts, matching nominal duct diameter.
- ☐ The direction shown for the air flow must be considered.
- ☐ Perfect fitting and tightness is ensured due to textile sealing strip.

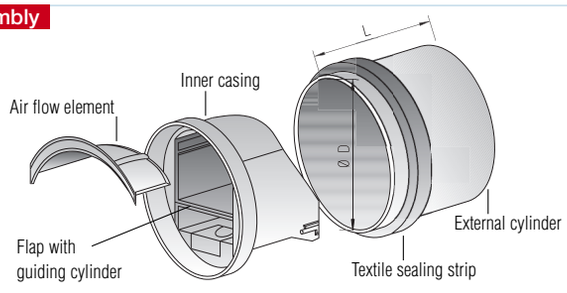




Model range –	Dimensions in mm			Air flow range
Type	ø nom. duct	ø D	L	m³/h
VKH 80/..	80	76	60	15 – 45
VKH 100/..	100	96	60	15 – 90
VKH 125/..	125	120	60*	15 – 120
VKH 160/..	160	155	120	120 – 300
VKH 200/..	200	195	120	210 – 500

*VKH 125/120: 90 mm

Assembly



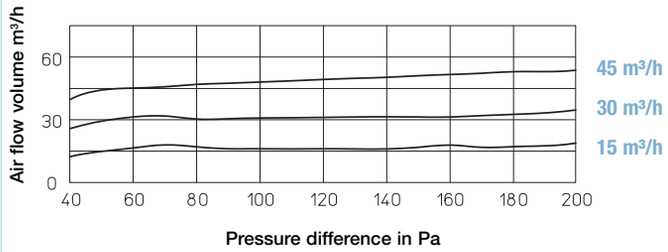
Selection chart – VKH models					
Air flow vol. m³/h	Duct diameter mm 80	100	125	160	200
15	VKH 80/15	VKH 100/15	VKH 125/15		
30	VKH 80/30	VKH 100/30	VKH 125/30		
45	VKH 80/45	VKH 100/45	VKH 125/45		
60		VKH 100/60	VKH 125/60		
75		VKH 100/75	VKH 125/75		
90		VKH 100/90	VKH 125/90		
120			VKH 125/120	VKH 160/120	
150				VKH 160/150	
180				VKH 160/180	
210				VKH 160/210	VKH 200/210
240				VKH 160/240	VKH 200/240
270				VKH 160/270	VKH 200/270
300				VKH 160/300	VKH 200/300
350					VKH 200/350
400					VKH 200/400
450					VKH 200/450
500					VKH 200/500

ø 80 mm nominal duct diameter

Ref. No.	Type	Air flow volume*	Noise level L_w in dB(A)			
		m³/h	50 Pa	100 Pa	150 Pa	200 Pa
2060	**VKH 80/15**	15	25	29	32	35
2061	**VKH 80/30**	30	26	31	35	38
2062	**VKH 80/45**	45	27	33	36	39

* Tolerance range (50–200 Pa) for nominal air flow volume +/– 10 %.

VKH 80/..

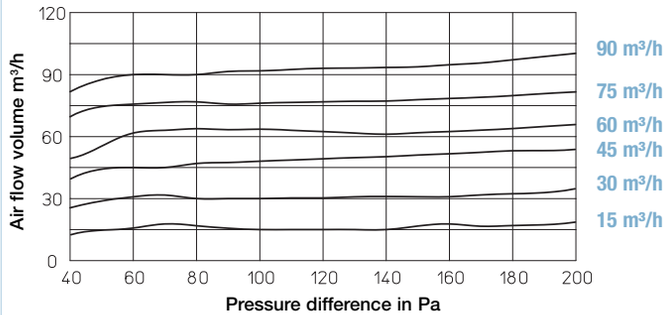


ø 100 mm nominal duct diameter

Ref. No.	Type	Air flow volume*	Noise level L_w in dB(A)			
		m³/h	50 Pa	100 Pa	150 Pa	200 Pa
2063	**VKH 100/15**	15	25	29	32	35
2064	**VKH 100/30**	30	26	31	35	38
2065	**VKH 100/45**	45	27	33	36	39
2066	**VKH 100/60**	60	32	37	39	42
2067	**VKH 100/75**	75	32	37	40	42
2068	**VKH 100/90**	90	32	38	41	44

* Tolerance range (50–200 Pa) for nominal air flow volume +/– 10 %.

VKH 100/..

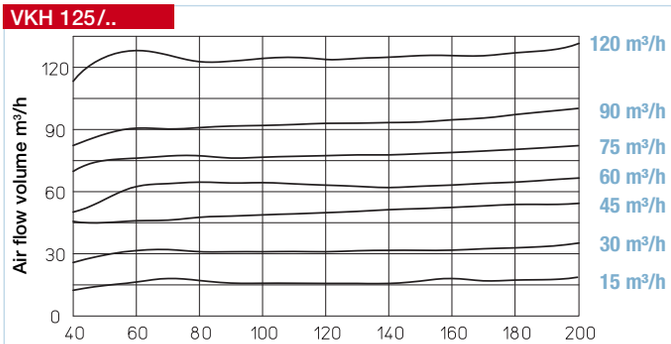


ø 125 mm nominal duct diameter

Ref. No.	Type	Air flow volume*	Noise level L_w in dB(A)			
		m³/h	50 Pa	100 Pa	150 Pa	200 Pa
2069	**VKH 125/15**	15	25	29	32	35
2070	**VKH 125/30**	30	26	31	35	38
2071	**VKH 125/45**	45	27	33	36	39
2072	**VKH 125/60**	60	32	37	39	42
2073	**VKH 125/75**	75	32	37	40	42
2074	**VKH 125/90**	90	32	38	41	44
2075	**VKH 125/120**	120	30	34	39	42

* Tolerance range (50–200 Pa) for nominal air flow volume +/– 10 %.

VKH 125/..

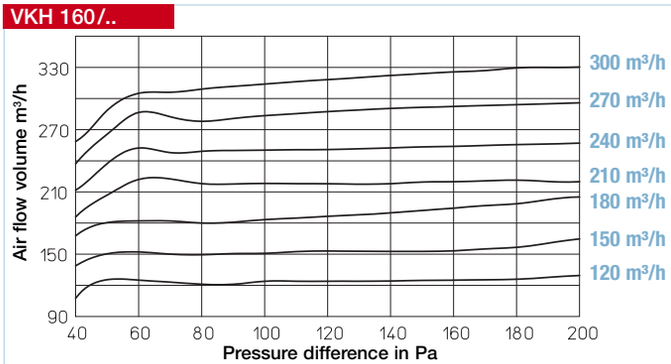


ø 160 mm nominal duct diameter

Ref. No.	Type	Air flow volume*	Noise level L_w in dB(A)			
		m³/h	50 Pa	100 Pa	150 Pa	200 Pa
2078	**VKH 160/120**	120	30	34	39	42
2079	**VKH 160/150**	150	33	37	41	45
2080	**VKH 160/180**	180	34	40	44	47
2081	**VKH 160/210**	210	34	40	42	44
2082	**VKH 160/240**	240	35	41	44	47
2083	**VKH 160/270**	270	37	43	45	49
2084	**VKH 160/300**	300	38	45	48	51

* Tolerance range (50–200 Pa) for nominal air flow volume +/– 10 %.

VKH 160/..

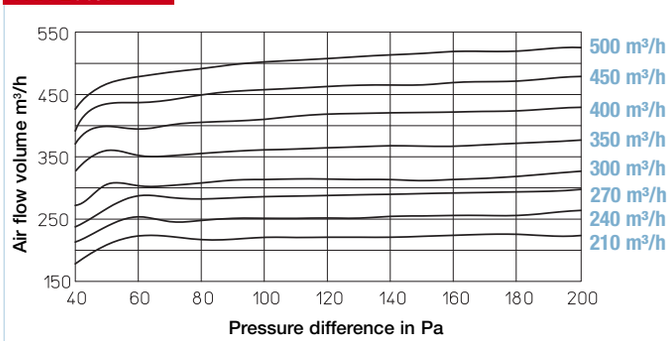


ø 200 mm nominal duct diameter

Ref. No.	Type	Air flow volume*	Noise level L_w in dB(A)			
		m³/h	50 Pa	100 Pa	150 Pa	200 Pa
2085	**VKH 200/210**	210	34	40	42	44
2086	**VKH 200/240**	240	35	41	44	47
2087	**VKH 200/270**	270	37	43	45	49
2088	**VKH 200/300**	300	33	37	42	45
2089	**VKH 200/350**	350	35	40	44	47
2090	**VKH 200/400**	400	37	42	45	50
2091	**VKH 200/450**	450	38	44	46	51
2092	**VKH 200/500**	500	39	46	48	53

* Tolerance range (50–200 Pa) for nominal air flow volume +/– 10 %.

VKH 200/..



Extract air elements have an important position in modern central ventilation systems. Together with the fan they create the base for operation of the extraction system. The new generation of the innovative Helios extract elements AE meet this need with variable air flow volumes or with time, motion and humidity control. Page 375 on

Filter elements collect grease and dust deposits on extract air elements and valves as well as in ducting. Simple and cost effective. Page 378

The ETS attenuators reduce the sound transmission of ducting and can be used as cross talk attenuators. Page 379

Conventional extract and supply valves are suitable for simple commercial and industrial applications. Page 380

Outside air flow elements
The controlled input of outside air is vital for ventilation systems, that comply with the energy conservation regulations (EnEV) or DIN 18017-3.

An ideal air extract system termination outside the building can be acheived effectively using the outside air elements (page 384). The quantity of elements, their size and the position may be specified to suit the required air flow volume without backdraught. In accordance with DIN 1946-6, the size of the outside air elements must be such that the pressure difference level between the room and outside air must not be less than 8 Pa.

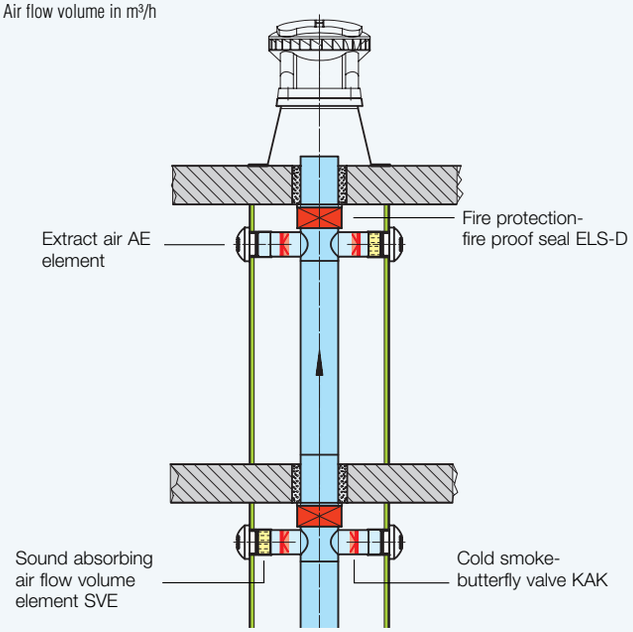
Perfectly suited for all types of installation in any room.

Selection

Use the chart below to select the correct extract element where the selection depends on volume and application. There is a choice of element designs, with constant air flow volume with and without on demand ventilation, with timer, motion or humidity controlled operation.

Bathroom		WC		Kitchen	
Type	**Ref. No.**	**Type**	**Ref. No.**	**Type**	**Ref. No.**
Constant air flow volume controller, self adjusting					
AE 45*	2031	**AE 30***	2030	**AE 75***	2033
Two air flow volumes (trickle and boost ventilation), constant air flow control, self adjusting					
AE GB 20/75*	2036	**AE GB 15/30***	2035	**AE GB 45/120***	2038
Two air flow volumes with electrical timer (without constant air flow volume control)					
AE GBE 30/60*	2047	**AE GBE 15/30***	2044	**AE GBE 45/120***	2048
Two air flow volumes with electrical timer and motion sensor, page 377					
		AE B 15/30*	2055	(without constant air flow control)	
Humidity controlled with variable, limited air flow volume, page 377					
AE Hygro 10/45*	2049				
Humidity controlled with electrically controlled on demand ventilation, page 377					
AE Hygro GBE 5/40/75*	2053			**AE Hygro GBE 10/45/120***	2054
With filter and air flow volume adjustment					
AE FV 125	9478			**AE FV 125**	9478

* Air flow volume in m³/h



Acoustic data for extract air elements of models AE..

Following sound levels are relevant for the extract air elements:
- Sound levels by continuous air flow (L_w in dB (A))
- Sound absorbtion between ducting system and ventilated room ($D_{n,e}$ in dB (A)).

This sound data is given in the model chart. Measured according to the regulation EN 13141.
Sound absorbtion can be increased by using attenuators “AESD” or “AESE” (accessory). To be positioned and simply inserted behind the extract air element.
Cross talk attenuators are available for further noise reduction (page 379).

Operation

Extract air elements with self adjusting constant air flow volume controller are the ideal components for extraction of kitchen, bathroom and toilet for central ventilation systems in houses.

Advantages

- ☐ Constant air flow volume between 40 and 160 Pa.
- ☐ No need for adjustment or balancing of the system.
- ☐ Attractive design.
- ☐ High quality construction in an aerodynamic shape with low sound levels.
- ☐ The cover and optimised height of the inlet nozzle offer an airtight seal against the wall.
- ☐ Easy cleaning without a risk of air flow volume change.

Design

Extract air element with mounting ring, ready to install, made of white polymer to be inserted in ducts with a nominal diameter of 125 mm. A rubber seal on the mounting ring to avoid leakage. As a result, the discolouration of decor is minimised.

Function

Effects constant air flow volume under different pressure conditions between 40 and 160 Pa.

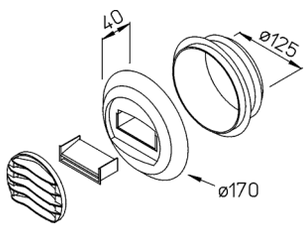
Delivery

Supplied as one element incl. mounting ring in separate Polybag.

Accessory

- ☐ Attenuator AESD to be inserted behind the element. (No. 2059)
- ☐ Filter element VFE 70 (No. 2552).

AE

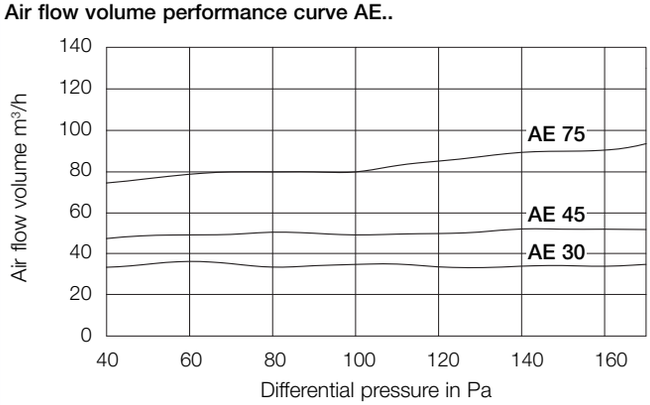


Dimensions in mm

Installation

Suitable for wall and ceiling installation. The mounting ring, to be fixed via screws on duct or wall openings and the extract air element to be inserted.
For an equal inlet and outlet air flow a straight duct of at least 300 mm is required.

Air flow volume performance curve AE..



Ordering data		Sound level L_w in dB (A)			Attenuation $D_{n,e}$ in dB (A)	
Type	**Ref. No.**	**100 Pa**	**130 Pa**	**160 Pa**	**without AESD**	**with AESD**
AE 30*	2030	30	33	36	60	64[1)]
AE 45*	2031	33	34	37	56	63[1)]
AE 75*	2033	35	36	39	57	64[1)]

[1)] Equipped with attenuator AESD (accessory) * Air flow volume in m³/h

Extract air elements
with two air flow volumes AE GB and AE GBE

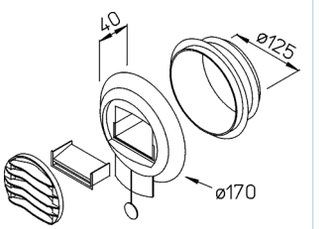
Operation
Extract air elements with two air flow volumes (trickle and boost) with self adjusting constant air flow volume controller are the ideal components for extraction of kitchen, bathroom and toilet for central ventilation systems in houses.

Advantages
- ☐ Two air flow volumes for trickle- and boost ventilation.
- ☐ Constant air flow volume between 40 and 160 Pa.
- ☐ Adjusting and balancing of the system is not necessary.
- ☐ Attractive design.
- ☐ High quality construction in an aerodynamic shape with low sound levels.
- ☐ The cover and optimised height of the inlet nozzle offer an airtight seal against the wall.
- ☐ Easy cleaning without a risk of air flow volume change.

Function AE GB
The self adjusting air flow volume limiter keeps the adjusted nominal air flow volume (between 40 and 160 Pa) constant (see performance curve).
Two control steps allow for trickle and boost ventilation.
On/off switching of high air flow volumes manually via pull cord.

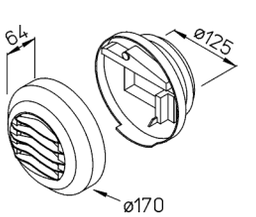
Design (AE GB, AE GBE)
Extract air element with mounting ring, ready to install, made of white polymer to be inserted in ducts with nominal diameter of 125 mm. The rubber seal on the mounting ring avoids leakage of air. As a result, dis-colouration of the decor is minimised.

AE GB



Dimensions in mm

AE GBE



Dimensions in mm

Installation (AE GB, AE GBE)
AE GB for wall, AE GBE also suitable for ceiling installation.
The mounting ring, to be fixed via screws on duct or wall openings and the extract air element to be inserted.
For an equal inlet and outlet air flow a straight duct of at least 300 mm is required.

Accessory
- ☐ Attenuator:
  AE GB: AESD, Ref. No. 2059
  AE GBE: AESE, Ref. No. 2058
- ☐ Filter element
  AE GBE: VFE 90, Ref. No. 2553
  obstructs grease and dust deposits on extract air elements and in ducting.

Operation
Extract air device with electric timer for two air flows (trickle and boost ventilation). Ideal for extraction of kitchen, bathroom and toilet for central ventilation systems in houses.

Advantages
- ☐ Two air flow volumes for trickle and boost ventilation e.g. via on site switch.
- ☐ Adjusting and balancing of the system is not necessary.
- ☐ Attractive design.
- ☐ High quality construction in an aerodynamic shape with low sound levels.
- ☐ The cover and optimised height of the inlet nozzle offer an airtight seal against the wall.
- ☐ Easy cleaning without a risk of air flow volume change.

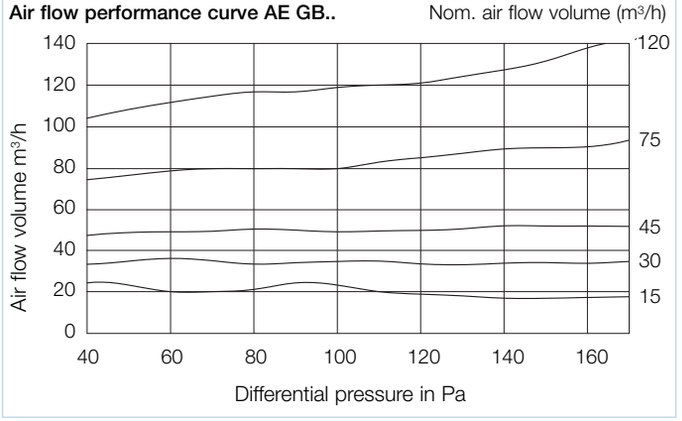
Function AE GBE
The trickle air flow is increased to the higher level of air flow via a switch on-site (by others).
After 30 minutes – regardless of the position of the switch on-site - it automatically returns to "trickle ventilation".
230 V, AC 0,5 / 3 W, IP X1 ⧈

Delivery
Supplied as one element incl. mounting ring in separate Polybag.

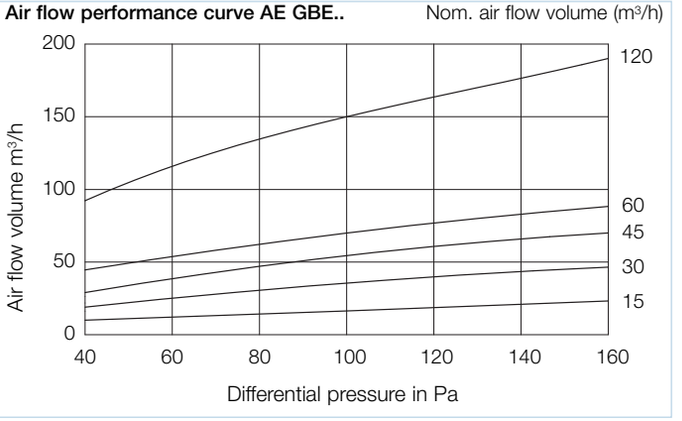
On request

Type AE FV 125
Extract air element filter and air flow volume adjustment
Ref. No. 9478

Air flow performance curve AE GB.. Nom. air flow volume (m³/h)



Air flow performance curve AE GBE.. Nom. air flow volume (m³/h)



Ordering data		Sound level[2] L_w in dB (A)			Attenuation $D_{n,e}$ in dB (A)	
Type	Ref. No.	100 Pa	130 Pa	160 Pa	without AESD	with AESD
AE GB 15/30*	2035	27	31	34	60	64[1]
AE GB 20/75*	2036	27	30	33	57	64[1]
AE GB 45/120*	2038	33	34	37	56	63[1]

[1] Equipped with attenuator AESD (accessory) [2] Values are valid for trickle ventilation
* Air flow volume in m³/h

Ordering data		Sound level[2] L_w in dB (A)			Attenuation $D_{n,e}$ in dB (A)	
Type	Ref. No.	100 Pa	130 Pa	160 Pa	without AESE	with AESE
AE GBE 15/30*	2044	30	33	36	60	64[1]
AE GBE 30/60*	2047	27	30	33	57	64[1]
AE GBE 45/120*	2048	29	32	35	57	62[1]

[1] Equipped with attenuator AESE (accessory) [2] Values are valid for trickle ventilation

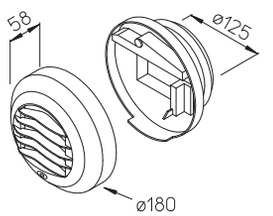
Operation
Extract air device with motion sensor and timer for two air flows (trickle and boost ventilation). Ideal for extraction of kitchen, bathroom and toilet for central ventilation systems in houses.

Advantages
- ☐ Two air flow volumes for trickle and boost ventilation via integrated motion sensor.
- ☐ Adjusting and balancing of the system is not necessary.
- ☐ Attractive design.
- ☐ High quality construction in an aerodynamic shape with low sound levels.
- ☐ The cover and optimised height of the inlet nozzle offer an airtight seal against the wall.
- ☐ Easy cleaning without a risk of air flow volume change.

Design
Extract air element with mounting ring, ready to install, made of white polymer to be inserted in ducts with nominal diameter of 125 mm. The rubber seal on the mounting ring avoids air leakage . As a result, discolouration of the decor is minimised.

Function AE B
The trickle air flow is to be increased to on demand air flow via an integrated motion sensor. After 30 minutes it automatically returns to “trickle ventilation”. Electrical supply through three batteries (on site, model LR 03, 1,5 V, operational life span approx. 18 months).

AE B – with motion sensor

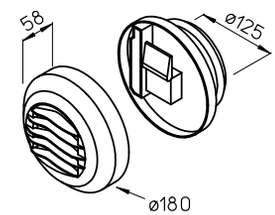


Dimensions in mm

Delivery and installation
See the specification of model AE GB...

Accessory
- ☐ Attenuator AESE to be inserted behind the element (Ref. No. 2058).

AE Hygro..– humidity controlled



Dimensions in mm

Design, delivery, installation
See the specification of model AE GB...

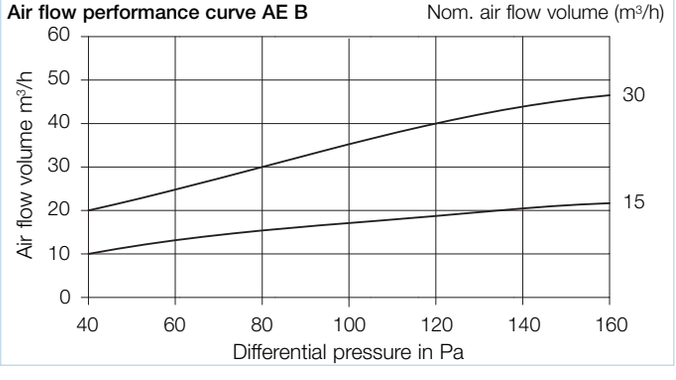
Accessory
- ☐ Attenuator AESE to be inserted behind the element (Ref. No. 2058).
- ☐ Filter element VFE 90 for installation in front of the element (Ref. No. 2553).

Operation
The humidity controlled extract air elements allow a variable air flow volume depending on the relative humidity. They are suitable for the operation control of extract air volumes in bathroom and kitchen for ventilation systems in houses.

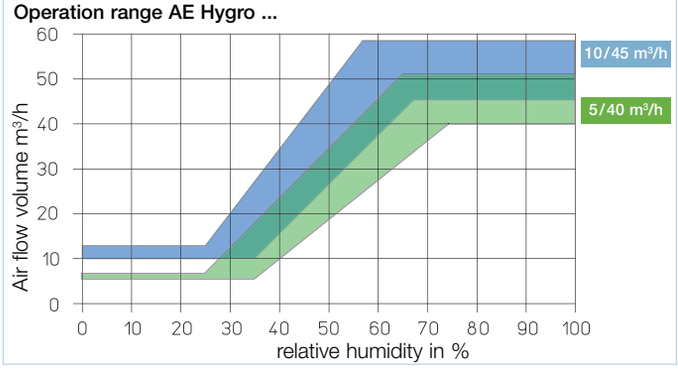
Advantages
- ☐ Automatically controlled air flow volume depending on the relative humidity between minimum and maximum limits.
- ☐ No need for adjustment or balancing of the system.
- ☐ Attractive design.
- ☐ High quality construction in an aerodynamic shape with low sound levels.
- ☐ The cover and optimised height of the inlet nozzle offer an airtight seal against the wall.
- ☐ Easy cleaning without a risk of air flow volume change.

Function AE Hygro
The air flow volume is automatically controlled depending on the relative humidity between minimum and maximum limits. Achieving the defined trickle air flow at Δp of 80 Pa depending on the relative humidity. No need for electric connection.
- ☐ **Additional function AE Hygro GBE**
  The trickle air flow is increased to the higher level of air flow via a switch on-site (by others). After 30 minutes – regardless of the position of the switch on-site - it automatically returns to “trickle ventilation”.
  230 V, AC 0,5 / 3 W, IP X1 ⧈

Air flow performance curve AE B



Operation range AE Hygro ...



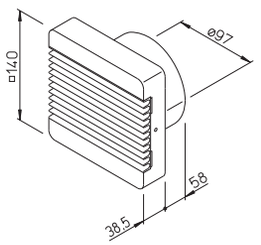
Ordering data		Sound level[2] L_w in dB (A)			Attenuation $D_{n,e}$ in dB (A)	
Type	**Ref. No.**	**100 Pa**	**130 Pa**	**160 Pa**	**without AESE**	**with AESE**
AE B 15/30*	2055	20	25	28	60	64[1]

[1] Equipped with attenuator AESE (accessory) [2] Values are valid for trickle ventilation

Ordering data		Sound level[2] L_w in dB (A)			Attenuation $D_{n,e}$ in dB (A)	
Type	**Ref. No.**	**100 Pa**	**130 Pa**	**160 Pa**	**without AESE**	**with AESE**
AE Hygro 10/45*	2049	29	32	35	57	61[1]
AE Hygro GBE 5/40/75[3]*	2053	28	31	34	56	64[1]
AE Hygro GBE 10/45/120[3]*	2054	29	32	35	56	62[1]

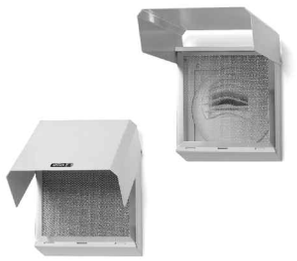
[1] Equipped with attenuator AESE (accessory) [2] Values for trickle ventilation
[3] For the performance curve of on demand ventilation see AE GBE left page * Air flow volume in m³/h

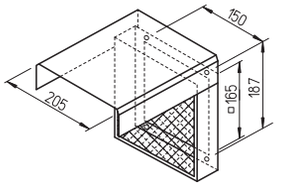
ABV 100

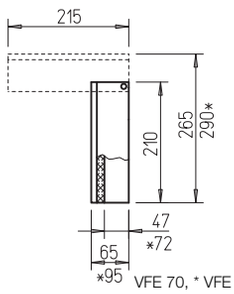


Dimensions in mm

VFE







Dimensions in mm
VFE 70, * VFE 90

AbluVent ABV 100

Can be used in central ventilation systems in accordance with DIN 18017-3 with variable air flow volumes. On demand ventilation, e.g. for bathrooms and toilets without window. All elements in the system must have the same design. Made of high quality polymer, colour: white.

Function

AbluVent is operated via a light switch. The louvres open when the room is in use. Trickle ventilation is provided when the room is not in use, a low air flow is extracted when the louvres are closed.

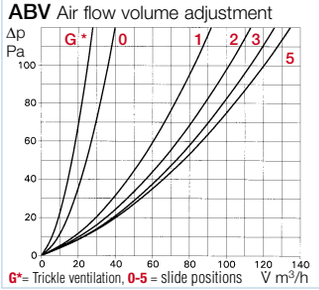
Advantages

- ☐ Energy saving.
- ☐ Low cost.
- ☐ Quick installation.
- ☐ Is always an optimum solution.
- ☐ Delayed operation on closure of 5 minutes.
- ☐ Stepless adjustment of air flow volume.
- ☐ Noiseless operation.
- ☐ Changeable filter to keep duct system clean.

Air flow volume

The opening pitch of the louvres can be set stepless between 15 – 80 degrees (covered, inside facia panel).

ABV Air flow volume adjustment



G*= Trickle ventilation, 0-5 = slide positions

The diagram above shows the air flow in relation to the setting (under pressure).

Technical data – connection

The unit is operated by a standard on/off switch, ideally combined with a light switch. Supply voltage: 1 ph. 220/240 V, 3 W. Double insulated, radio suppressed, protected to IP 44. Casing: polymer, alpine-white. The thermal metal shutter works with a short delay opening (approx. 30 sec.) and closing of (approx. 5 min.).

ABV 100	Ref. No. 0452

Accessory

ELF/ABV	Ref. No. 6906

Spare filter mats
contents = 5 pieces

Filter element VFE

Simple and cost effective solution for filtering greasy, contaminated room air. To be installed in front of extract air elements or poppet valves.

Operation

Filter element to cover air vents and prevent dirt deposits from poppet valves, extract air elements and connected ducting. Ideal to use in the kitchen with a central ventilation system in line with DIN 18017.

Advantages

- ☐ Prevents grease and dust deposits from extract air elements or poppet valves and connected ducting.
- ☐ Easy filter replacement without tool kit.
- ☐ The permanent filter can easily be cleaned e.g. in a dishwasher.
- ☐ Discreet design in pleasant white.
- ☐ Simple installation via four screws.
- ☐ Hinders possible contamination areas.
- ☐ Less maintenance cost of ducting through longer cleaning periods.

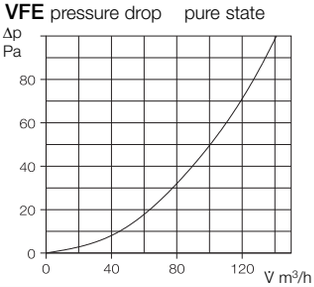
Casing

Robust casing made of galvanised steel, white, powder coated polymer. The fascia panel that is pivotable at 90° avoids the view to the filter and contamination area.

Filter

Dimensionally stable aluminium filter fabric with 324 cm² free filter area and aluminium frame.

VFE pressure drop pure state



Installation

Suitable for wall and ceiling installation. Simply fixed with four screws. Elongated slot-fixing holes ensure easy positioning. To be fixed directly over the installed extract air element (max. outer ø 175 mm). Fascia panel is hinged at 90°; for easy filter removal and a space between the upper edge of the casing and the ceiling (see drawing) is necessary.

Delivery

Each element including installation accessories are packed separately.

Model range

VFE 70	Ref. No. 2552

Suitable for extract air elements with max. 70 mm installation depth such as AE, MTVA, KTVA, BTV, BTK.

VFE 90	Ref. No. 2553

Suitable for extract air elements with max. 90 mm installation depth such as e.g. AE GBE, AE Hygro.

Accessory

ELF/VFE	Ref. No. 2554

Spare air filter, suitable for the models VFE 70 and VFE 90.
Contents = 2 pieces.

ETS

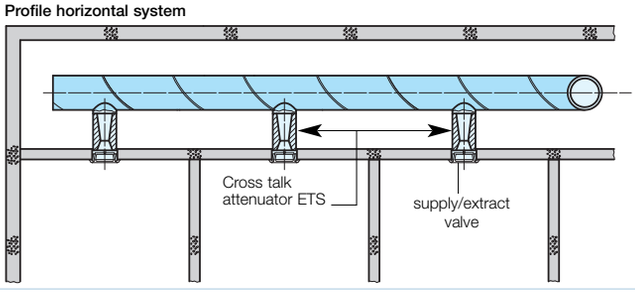
Insulation sample cross talk attenuator ETS (shown inserted in ducting with valve)

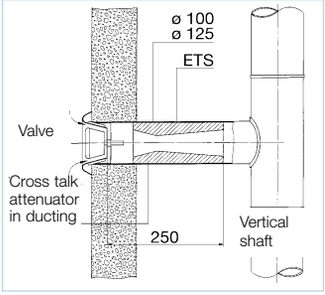
Surprisingly simple and cost effective solution to reduce noise transmission in central ventilation systems.
Easy installation direct into ducting behind the air valve.

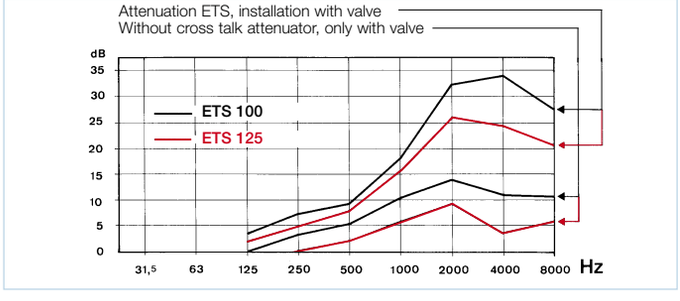
Advantages

- ☐ Optimum solution for prevention of noise transmission in ducting.
- ☐ Excellent attenuation figures (see diagram).
- ☐ Simple installation by inserting in to duct behind the air valve.
- ☐ Virtually no additional resistance to the system, as the resistance value is below the setting value of the valve.
- ☐ Minimising system costs by using cost effective ducting.
- ☐ Can be used with any brand of valves.

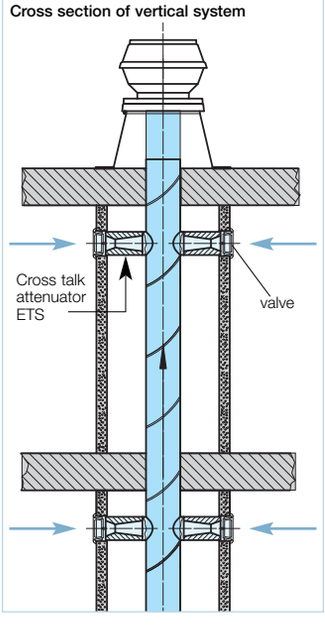
Profile horizontal system







Cross section of vertical system



Model range

ETS 100 Ref. No. 4521
Nominal duct ø 100 mm

ETS 125 Ref. No 4522
Nominal duct ø 125 mm

Attenuation figure

The attenuation figure can be doubled if you have two facing rooms where both have an ETS attenuator in the ducting.

Material

Flexible polyurethane foam with improved reaction in case of fire, complies with DIN 4102, class B1, UL-94-HF 1, MVSS 302 and others.

MTVA

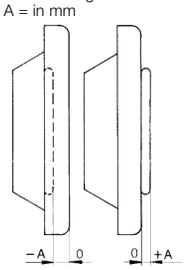
Operation
For air extract in any room especially where ventilation system components of non flammable materials are required.
Suitable for low and high air flow speed.
Low noise characteristic.

Advantages
- ☐ Technically advanced design, aerodynamically shaped for low noise level.
- ☐ Large cover with optimised height of the inlet ring avoids marking of decor.
- ☐ Quick mounting in ceiling and wall without tools.
- ☐ Spring mounting clamp offers a direct insertion in ducts or walls up to approx. 20 mm size without an additional mounting ring.

Specification
Metal construction protected against corrosion by a high quality epoxy paint in white. The foam strip fitted arround the valve provides an air tight connection avoiding air leakage and dis-colouration around the valve.

Delivery
Each valve is separately supplied in poly bag.

Air flow volume setting
Distance A = in mm

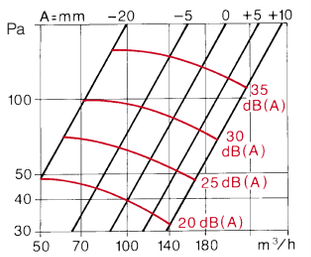


Accessory
For installation in ducting, walls or thin panels a mounting ring may be required (see table).

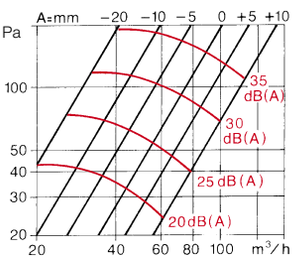
Installation
Set valve to required air flow volume according to the diagram. The distance ‘A’ is given in mm from the 0 point. Then simply press valve into wall or ducting.

Air data-extract
These diagrams show the relationship between air flow volumes, resistances and noise levels at various adjustments of the distance “A“ in mm.

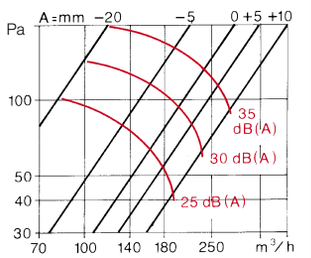
MTVA 125



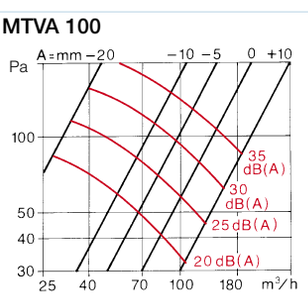
MTVA 75/80



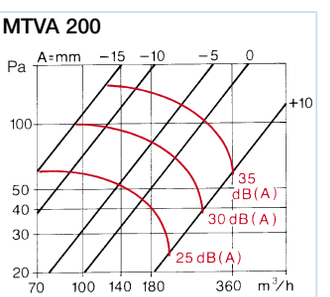
MTVA 160



MTVA 100

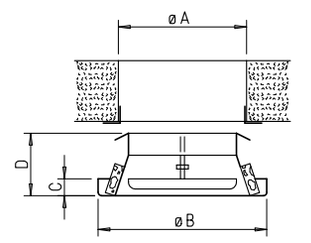


MTVA 200



Technical data					
Type	**MTVA 75/80**	**MTVA 100**	**MTVA 125**	**MTVA 160**	**MTVA 200**
Ref. No.	8868	8869	8870	8871	8872
Dimensions in mm					
ø A	73 – 85	95 – 105	120 – 130	150 – 165	195 – 205
ø B	108	135	160	195	230
C	15	15	15	15	18
D	58	59	60	58	63
Weight in g	150	190	255	340	450
Mounting ring					
Type	**EBR 75/80**	**EBR 100**	**EBR 125**	**EBR 160**	**EBR 200**
Ref. No.	0952	0953	0954	0955	0956
for NW (mm)	75/80	100	125	150/160	200

Dimensions in mm see table



KTVA

Operation
For air extract with high and low air flow speeds or resistances. For all rooms without special fire protection requirements.

Advantages
- ☐ Installation without tools in seconds.
- ☐ High noise attenuation through built-in attenuator in centre pod.
- ☐ High quality anti static polymers suitable for temperature to + 100 °C.
- ☐ Using a mounting ring avoids dis-colouration of surrounding decor.
- ☐ Spring fit connector allows direct installation in ducting or wall with a minimum thickness of approx. 20 mm without an additional mounting ring.

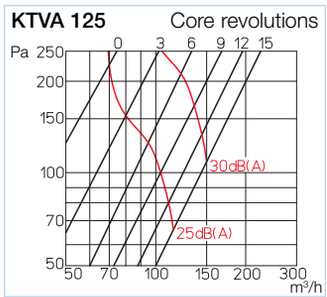
Specification
Aerodynamically shaped made from impact resistant white polymers. Adjustable air flow via rotating centre pod (see diagrams).

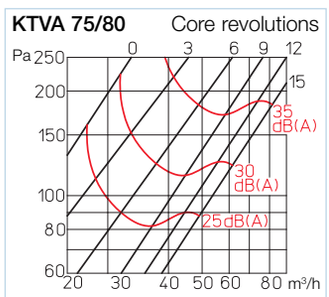
Delivery
Each valve is individualy supplied in poly bag.

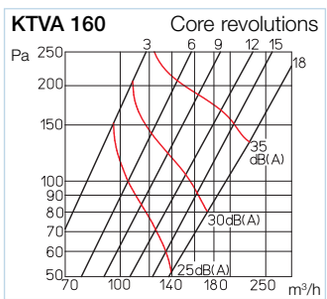
Accessory
For installation in ducting, walls or thin panels a mounting ring may be required (see table).

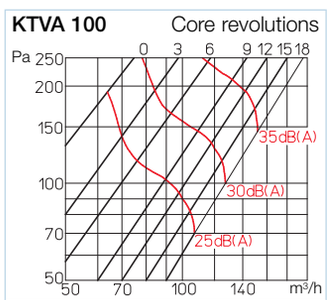
Installation
Set valve to required air flow volume according to the diagram through core revolutions then simply press valve into wall or ducting.

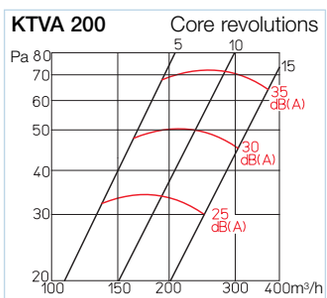
Air data-extract
These diagrams show the relationship between air flow volumes, resistances and noise levels at various core openings.





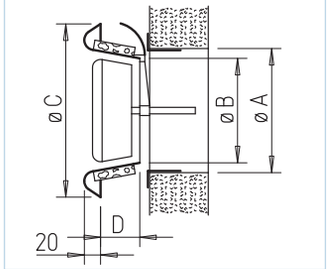






Technical data					
Type	**KTVA 75/80**	**KTVA 100**	**KTVA 125**	**KTVA 160**	**KTVA 200**
Ref. No.	0940	0941	0942	0943	0944
Dimensions in mm					
ø A	73 – 85	95 – 105	120 – 130	150 – 165	195 – 210
ø B	45	70	85	95	163
ø C	115	138	165	190	240
D	38	35	35	37	35
Weight in g	90	115	150	200	340
Mounting ring					
Type	**EBR 75/80**	**EBR 100**	**EBR 125**	**EBR 160**	**EBR 200**
Ref. No.	0952	0953	0954	0955	0956
for NW (mm)	75/80	100	125	150/160	200

Dimensions in mm see table



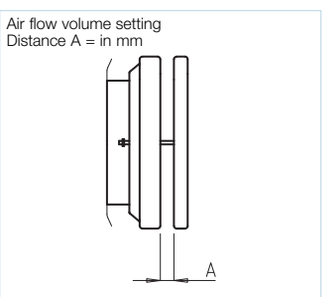
MTVZ

Operation
For air supply to any room especially where ventilation system components of non flammable materials are required.
Suitable for low and high air flow speed.
Low noise characteristic.

Advantages
- ☐ Installation without tools in seconds.
- ☐ High noise attenuation through built-in attenuator in centre pod.
- ☐ Using a mounting ring avoids dis-colouration of surrounding decor.
- ☐ Spring fit connector allows direct installation in ducting or wall with a minimum thickness of approx. 20 mm without an additional mounting ring.

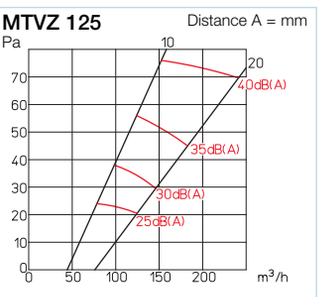
Specification
Metal construction protected against corrosion by a high quality epoxy paint in white.
The foam strip fitted arround the valve provides an air tight connection and avoids air leakage and dis-colouration around the valve.

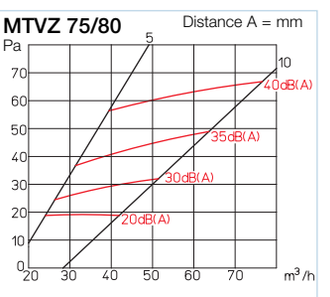
Delivery
Each valve is separately supplied in a poly bag.

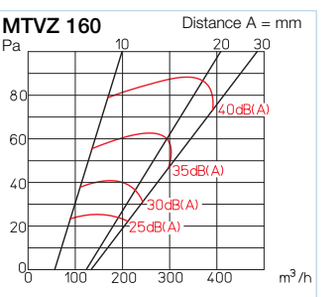


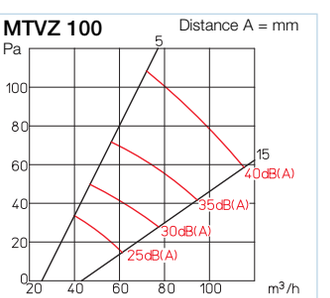
Accessory
For installation in ducting, walls or thin panels a mounting ring may be required (see table).

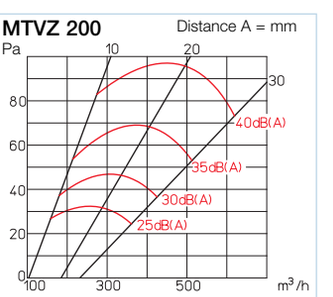
Installation
Set valve to required air flow volume according to the diagram. The distance ‘A’ is given in mm from the 0 point. Then simply press valve into wall or ducting.
For an even air flow a straight duct of approximately 300 mm is required.





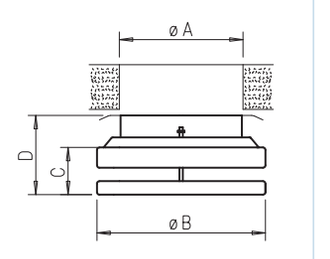






Air data-extract
These diagrams show the relationship between air flow volumes, resistances and noise levels at various adjustments of the distance “A“ in mm.

Technical data					
Type	**MTVZ 75/80**	**MTVZ 100**	**MTVZ 125**	**MTVZ 160**	**MTVZ 200**
Ref. No.	9603	9604	9605	9606	9607
Dimensions in mm					
ø A	73 – 85	95 – 105	120 – 130	150 – 165	195 – 210
ø B	108	135	160	195	230
C	26 – 56	26 – 56	26 – 56	26 – 56	26 – 56
D	68	70	70	68	73
Weight in g	190	240	300	390	480
Mounting ring					
Type	**EBR 75/80**	**EBR 100**	**EBR 125**	**EBR 160**	**EBR 200**
Ref. No.	0952	0953	0954	0955	0956
for NW (mm)	75/80	100	125	160	200



Dim. in mm see table

KTVZ

(Figure.: KTVZ 100-200)

Operation
For air extract with high and low air flow speeds or resistances. In all rooms without special fire protection requirements.

Advantages
- ☐ Installation without tools in seconds.
- ☐ High noise attenuation through built-in attenuator in centre pod.
- ☐ High quality anti static polymers suitable for temperature to + 100 °C.
- ☐ Using a mounting ring avoids dis-colouration of surrounding decor.
- ☐ Spring fit connector allows direct installation in ducting or wall with a minimum thickness of approx. 20 mm without an additional mounting ring.

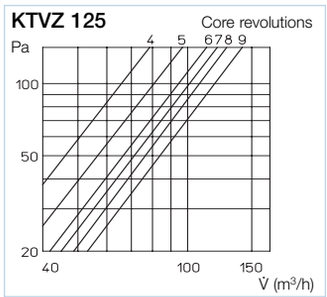
Specification
Made from impact resistant white polymers and aerodynamically shaped. Adjustable air flow via rotating centre pod (see diagrams).

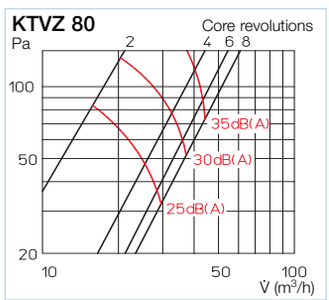
Delivery
Every valve is supplied separately in poly bag.

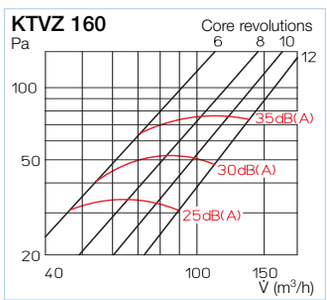
Accessory
For installation in ducting, walls or thin panels a mounting ring may be required (see table).

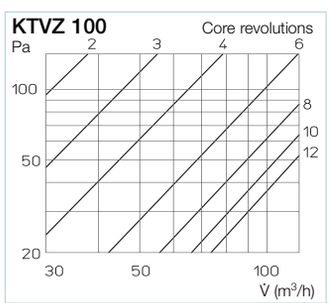
Installation
Set valve to required air flow volume according to the diagram. The distance 'A' is given in mm from the 0 point. Then simply press valve into wall or ducting.
For an even air flow a straight duct of approximately 300 mm is required.

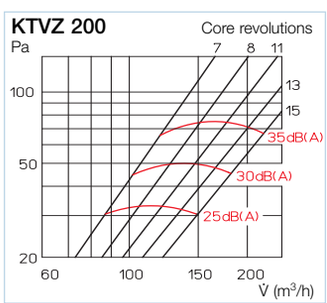
Air data-extract
These diagrams show the relationship between air flow volumes, resistances and noise levels at various core openings



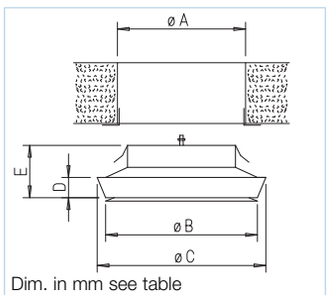






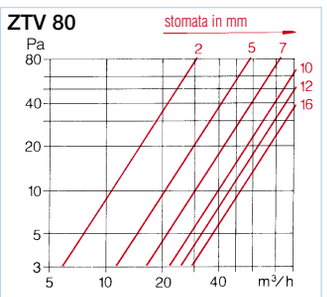


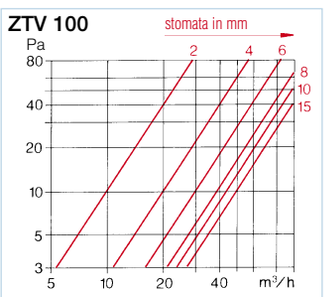
Technical data					
Type	**KTVZ 80**	**KTVZ 100**	**KTVZ 125**	**KTVZ 160**	**KTVZ 200**
Ref. No.	2762	2736	2737	2738	2739
Dimensions in mm					
ø A	70 – 80	95 – 105	120 – 130	145 – 160	195 – 210
ø B	80	138	170	195	235
ø C	119	148	180	205	245
D	19.5	17	21	23	22
E	52	47	47	51	56
Weight in g	90	100	260	370	600
Mounting ring					
Type	**EBR 75/80**	**EBR 100**	**EBR 125**	**EBR 160**	**EBR 200**
Ref. No.	0952	0953	0954	0955	0956
for NW (mm)	75/80	100	125	150/160	200

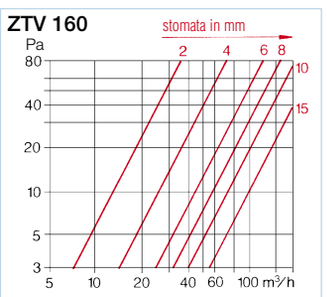


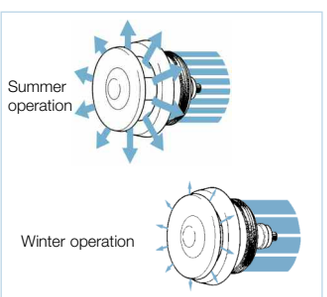
Dim. in mm see table

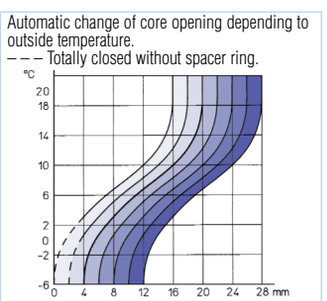
ZTV











Special features – Operation

Innovative thermostatic supply air valve for automatic temperature controlled replacement air. Efficiently combines energy savings and permanent ventilation. Permanent control of supply air flow volume with adjustable core for any type of room. Suitable for natural (thermic) and mechanical ventilation as supply air element.

Advantages

- ☐ Fully automatic, on demand air flow control.
- ☐ Maintenance free, no running cost.
- ☐ Individual air flow volume adjustment by rotating the centre pod.
- ☐ High noise absorbtion from the built-in attenuator.
- ☐ Attractive, functional design.
- ☐ Wide intake ring reduces wall discolouration.
- ☐ Quick and easy installation.

Design

The Helios supply air thermostat valves are made of impact resistant, white polymer. Aerodynamically shaped and an attractive design. Insulated coating on inner side of the valve plate to prevent condensation.

Installation

ZTV valves can be easily installed in existing supply air openings. They are fixed to ducting by push fit (with rubber gasket) or by three concealed fixing holes in the frame supplied with fixing screws.

Function

The thermostat operates automatically within a temperature range of –6 °C to +20 °C. Within this range air flow volumes between 0 and 30 m³/h are achieved conforming to DIN guidelines. See performance diagrams on the right. In its standard setting the valve closes completely at outside air temperature of approx. –4 °C. A minimum supply air rate is allowed by the 4 mm wide distance clip. The initial setting of the valve can be changed manually by rotating the centre core. One full rotation equals to a variance of 4 mm gap (see blue marked areas in diagram).

Number of units

The number of supply air elements necessary is to be defined according to DIN 1946, T.6 in dependence to the apartment size and wind force (see chart on the right).

Number of units with mechanical on demand ventilation

Apartment size m²			Number of ZLA / ZLE		Fans
			Extract air (8 Pa)*	Supply air (4 Pa)*	Number/Unit
Hotel room		25 m²	2	–	1
Apartment		25 m²	2 (3) **	–	1
Flat	I	50 m²	2	3 – 4	2
	II	> 50, < 80 m²	3	4	2
	III	> 80 m²	4	5	3
House to		120 m²	4	5	3

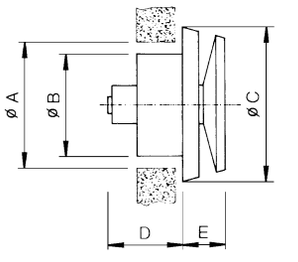
* according to DIN 1946, T.6 Tab. 10

** if a kitchenette is also to be extracted

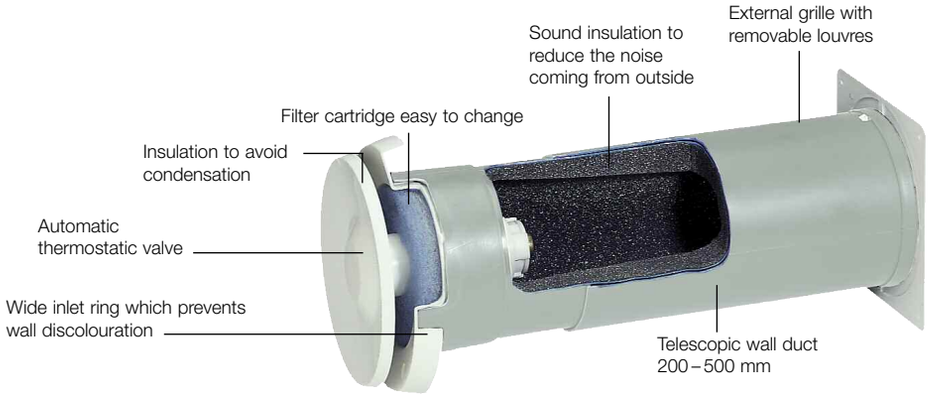
Ordering data

Type	ZTV 80	ZTV 100	ZTV 160
Ref. No.	0078	0073	0074
Dimensions in mm			
ø A = Duct nominal size	80	100	160
ø B	77	95	156
ø C	147	147	207
D	77	77	77
E	49	49	50
Weight approx. g	230	240	370

Dimensions in mm see chart



ZLA



Special features – Operation

Universally adaptable temperature controlled supply air unit. The energy saving, thermostatic supply valve provides a continuous air exchange at highest efficiency. The supply air volume is controlled depending on the outside air temperature, without any electrical connection. The supply air is evenly distributed, filtered (class G 3) and attenuated.

Advantages

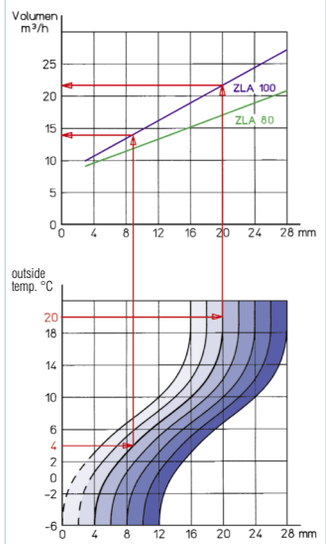
- ☐ Fully automatic, on demand air flow control.
- ☐ Maintenance free, no running cost.
- ☐ Individual air flow volume adjustment by rotating the central core.
- ☐ Telescopic wall duct, made of polymer for wall thicknesses between 200 to 500 mm.
- ☐ High noise absorbtion via the built-in attenuator.
- ☐ Easily removable filter.
- ☐ No electrical supply required.
- ☐ Quick and easy installation.

Function

The thermostat operates automatically within a temperature range of – 6 °C to + 20 °C. Within this range air flow volumes between 0 and 30 m³/h are achieved conforming to DIN guidelines. See performance diagrams on the right. In its standard setting the valve closes completely at an outside air temperature of approx. – 4 °C. A minimum supply air rate is set by the 4 mm wide distance clip. The initial setting of the valve can be changed manually by rotating the central core. One full rotation equals to a variance of 4 mm gap (see blue marked areas in diagram).

Installation

Suitable for wall or ceiling openings. Telescopic duct should be inserted from outside and the cover grille should be screwed on. Duct to be cleaned and the valve to be inserted from inside.

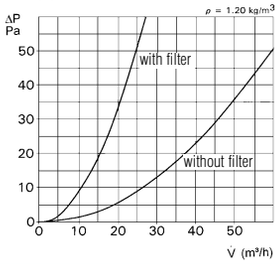


Automatic change of core opening depending to outside temperature.
– – – Totally closed without spacer ring.

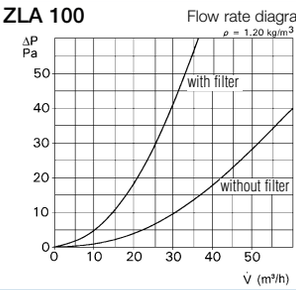
Information

The number of supply air units is to be defined according to DIN 1946, T.6 (see chart on the left page).

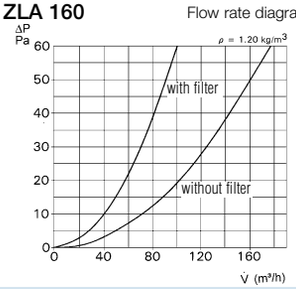
ZLA 80 Flow rate diagram



ZLA 100 Flow rate diagram



ZLA 160 Flow rate diagram



Performance figures

The air flow volume depending on pressure difference is determined by the opening gap of the valve plate. The performance values can be seen from the diagrams above.

Accessories

Spare filters class G 3
Contents: 10 pieces.

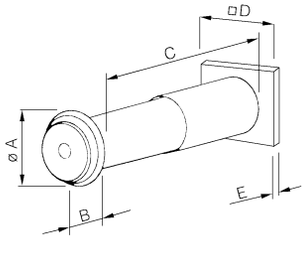
ELFZ 80	Ref. No. 0339
ELFZ 100	Ref. No. 0340
ELFZ 160	Ref. No. 0341

Ordering data

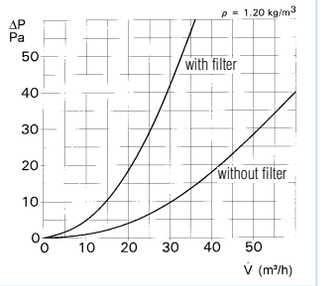
Type	ZLA 80	ZLA 100	ZLA 160
Ref. No.	0214	0215	0216
Air flow volume max. with filter m³/h	25	35	100
Duct nominal size (mm)	80	100	160
Wall penetration ø mm	96	115	175
ø A mm	147	147	207
B mm	49	49	50
C mm	200 – 500	200 – 500	200 – 500
D mm	107	140	190
E mm	3	15	24
Weight approx. kg	0.7	0.8	1.6

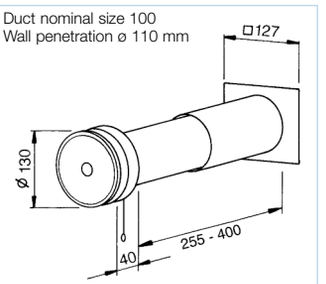
Noise insulation rate R_w 30 to 35 dB (dependent from installation or wall thickness; equals to an insulation glazing to VDI 2719 protection class 2 or 3).

Dimensions in mm see chart



ZLE





Special features – Operation

Manually operated supply air element for any kind of room. The air flow volume can be adjusted through a four step ratchet mechanism using a pull cord. The supply air is evenly distributed, filtered (class G 3) and attenuated.

Advantages

- ☐ Permanent intake air avoiding drafts.
- ☐ Adjustable air volume controlled by adjusting the valve plate.
- ☐ Simple control via pull cord.
- ☐ No electrical supply required.
- ☐ Wide intake ring reduces wall discolouration.
- ☐ Telescopic wall duct, made of polymer for wall thicknesses between 255 to 400 mm.
- ☐ High noise absorbtion with the built-in attenuator.
- ☐ Easily removable filter.
- ☐ Quick and easy installation.

Installation

Simple installation in wall openings. Insert the telescopic duct from outside, adjust to thickness of wall and render. Push in rain repellent grille from outside, snap lock fixing or can be screwed with masonary plugs. Insert valve from inside. If placed near radiators the supply air is preheated during the cooler periods. Ensure that valve is accessible for filter change.

Specification

ZLE comes as a complete unit including:

☐ **Valve**
Attractive, unobstrusive design made of high quality white polymer. Incorporating a pull cord for three core positions. Insulated coat on inner valve to prevent condensation.

☐ **Telescopic wall duct**
Two liners, made of impact resistant polymer.

☐ **Attenuator**
To reduce air noise levels from outside.

☐ **Air filter**
For clean and dust free air supply (class G 3), replaceable.

☐ **Outside wall grille**
Fixed, rain repellent, made of UV-stable polymer in white.

Filter change

Easy, without any tool kit. Can be maintained by removing the valve.

Performance figures

The air flow volume depending on pressure difference is determined by the opening gap of the valve plate. The performance figures are shown in the diagram above. Noise insulation rate: R_w: 30 – 35 dB (depending on installation and wall thickness; comparable with double glazing class 2 or 3).

Number of units

The number of required supply air elements is to be defined according to DIN 1946, T.6 independant to the apartment size and wind force (see the following chart).

ZLE 100 Ref. No. 0079

Accessories

Spare filter class G 3
ELF/ZLE 100 Ref. No. 0338
Contents = 10 pieces.

Number of units with mechanical on demand ventilation

Apartment size m²			Number of ZLA / ZLE		Fans
			Extract air (8 Pa)*	Supply air (4 Pa)*	Number/Unit
Hotel room		25 m²	2	–	1
Apartment		25 m²	2 (3) **	–	1
Flat	I	50 m²	2	3 – 4	2
	II	> 50, < 80 m²	3	4	2
	III	> 80 m²	4	5	3
House to		120 m²	4	5	3

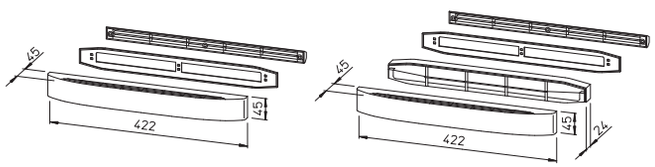
* according to DIN 1946, T.6 Tab. 10

** if a kitchenette is also to be extracted

ALEF..

ALEF.. Hygro – humidity controlled

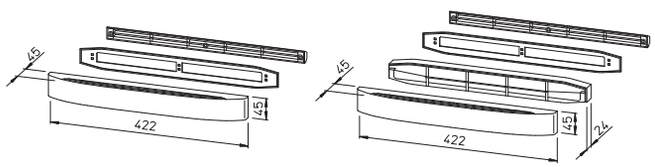
Dimensions in mm



ALEF

ALEFS
increased sound insulation

Dimensions in mm



ALEF Hygro

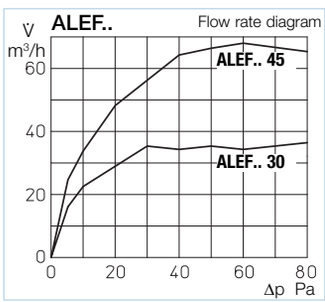
ALEFS Hygro
increased sound insulation

Air flow volume elements ALEF.. with air flow volume control/ limitation, to install in window frames / casements.

Operation
The window element flow is directly related to the differential pressure and supplies the outside air to living rooms and bedrooms. Simple installation, is also suitable for retro-fitting.

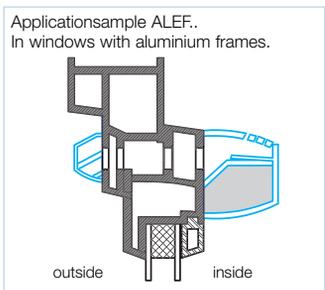
Specification
Ready-to-install unit, contains inner facade with an automatic air flow volume delimiter, installation plate and cover strip. All parts are made of high quality, white polymer.
The models ALEFS have an acoustic element for an increased sound insulation.

Function
Due to the negative pressure of extract air in the kitchen, bathroom and toilet, the element allows a certain amount of air flow volume to enter in the living/bed rooms from outside (see diagram).



Installation
In wooden, polymer and metal window frames. Openings by means of milling groups or holes in the upper frame. Simply screw the cover strip to the installation plate and clip the inner facade on.

Applicationsample ALEF..
In windows with aluminium frames.

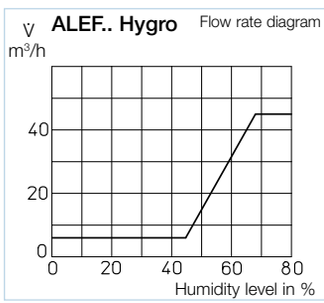


Humidity controlled air flow volume elements ALEF.. Hygro with air flow volume control/ limitation to install in window frames/casements.

Operation
Window elements that allow a controlled air flow volume, dependent on the humidity level in the room, to enter in the living /bed rooms.
Ideal in combination with humidity controlled extract fans.
Simple installation, is also suitable for retro-fitting.

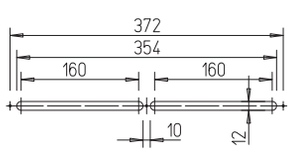
Specification
Ready-to-install unit, contains inner facade with an automatic air flow volume delimiter, installation plate and cover strip. All parts are made of high quality, white polymer.
The models ALEFS Hygro have an acoustic element for an increased sound insulation.

Function
Due to the negative pressure of extract air in the kitchen, bathroom and toilet, the element allows a certain amount of air flow volume, which depends on the humidity level in the room, to enter in the living/bed rooms from outside (see diagram).



Installation
In wooden, polymer and metal window frames. Openings by means of milling groups or holes in the upper frame. Simply screw the cover strip to the installation plate and clip the inner facade on.

Dimension opening and
fixing in mm



Ordering data	Air flow volume elements to install in window frames			
	ALEF with air flow volume control and limits		**ALEFS** Similar to ALEF, extra attenuation	
Type	**ALEF 30**	**ALEF 45**	**ALEFS 30**	**ALEFS 45**
Ref. No.	2100	2101	2102	2103
Air flow vol. m³/h	30	45	30	45
Sound level D_{ne}, dB (A)	39	37	41	39
Weight approx. g	190	190	210	210

Ordering data	Air flow volume elements to install in window frames	
	ALEF Hygro – with humidity control with air flow volume control and limits	**ALEFS Hygro** Similar to ALEF with extra attenuatoion
Type	**ALEF 6/45 Hygro**	**ALEFS 6/45 Hygro**
Ref. No.	2056	2057
Air flow vol. m³/h	6/45	6/45
Sound level D_{ne}, dB (A)	37	39
Weight approx. g	200	220