RENSON
INNOVATION IN VENTILATION

NATURAL VENTILATION FOR A HEALTHY LIFE

WINDOW VENTILATORS

INTRODUCTION

CONTENTS

WHY NATURAL VENTILATION ?

The design of your home, school, office or hospital requires three elements that work in harmony: heating, insulation and ventilation. Each of these elements are vitally important to the quality of the indoor environment and therefore the well being of the occupants.
To ensure this balance is maintained, the Building Regulations state the minimum levels of ventilation that is required (see Page 7).

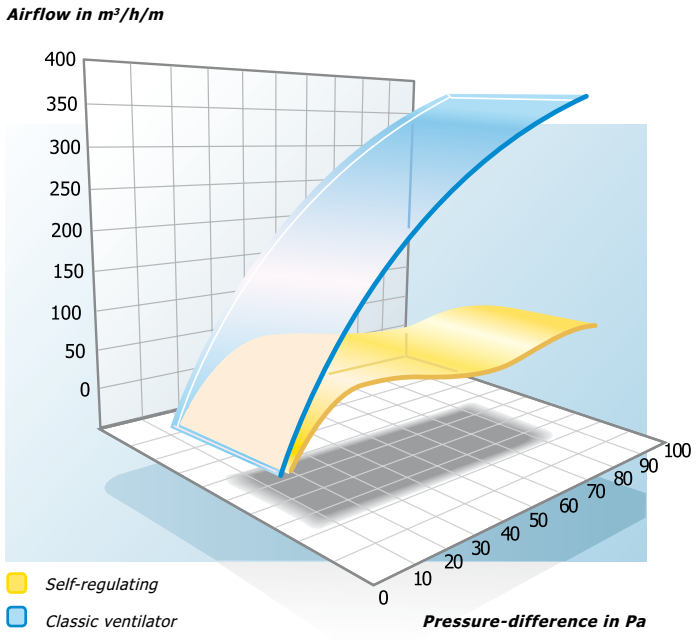
Ventilation helps to prevent the build up of fumes from products within the building plus the natural gases such as radon and methane. Permanent ventilation is essential to help prevent the build up of carbon monoxide gas which can be lethal within an enclosed area.

Ventilation within buildings is necessary for the health of the occupants and also for the life cycle of the building materials, as for instance a normal family of four produces on average 10 litres of water every day in the form of water vapour just by breathing, washing, cooking and bathing. Therefore a continuous airflow is essential to prevent condensation, to remove moisture and pollutants such as tobacco smoke.

Renson ventilators offers both effective ventilation with aesthetically pleasing slim sightlines which interface with the window and glazing thus providing a healthier climate for the occupants.

Rapid ventilation through open windows is uncontrollable and therefore wasted energy. RENSON window ventilators provide secure and controlled ventilation even when the building is not occupied preventing intrusion from insects and burglars.

"AR" SELF-REGULATING VENTILATORS



UNIQUE SELF-REGULATING VENTILATORS: INNOVATIVE AND ENERGY-EFFICIENT
(protected by patentnr. 09700224)

Self-regulating principle

A unique range of self-regulating vents all incorporating a secondary flap that closes automatically and decreases the amount of air flowing through the vent when external wind speed increase.

Self regulating qualities

The accompanying airflow compares the behavior of a selfregulating ventilator with a standard ventilator, which is totally different. The ventilator becomes self-regulating from 5 Pa, reaching a constant airflow from 13 Pa and a maximum airflow from 120 to 220 m³/h/m according to the type of ventilator.

RELATION PRESSURE AND WINDSPEEDS

Pa	Windspeed Km/h	Windspeed Mph
2	7,35	4,57
5	11,62	7,22
10	16,43	10,21
50	36,73	22,82
100	51,96	32,29
350	97,21	60,41
650	132,48	82,32

INTRODUCTION

Principle : windforce independent airflow

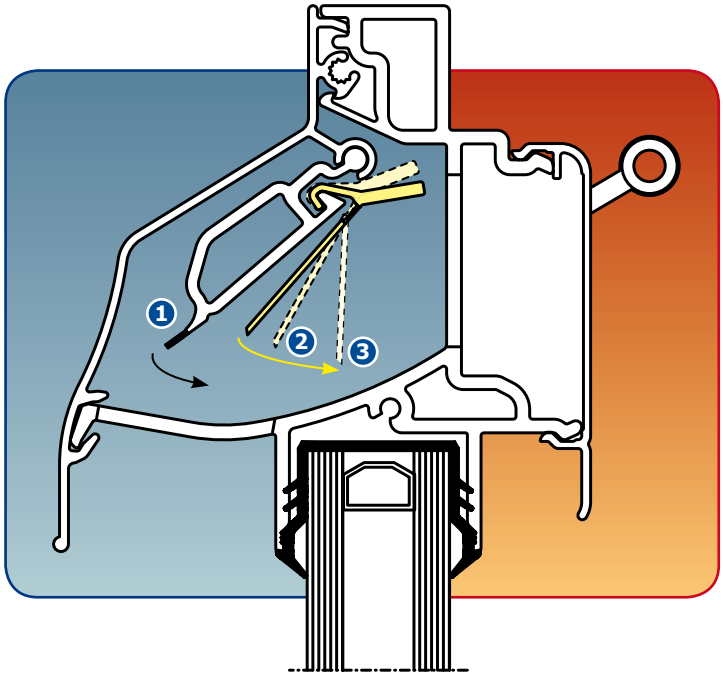
An automatically operating flap assures, while the windforce increases, a constant volume of air circulates the building.

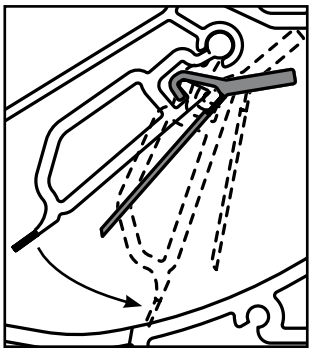
The airstream is controlled in three phases :

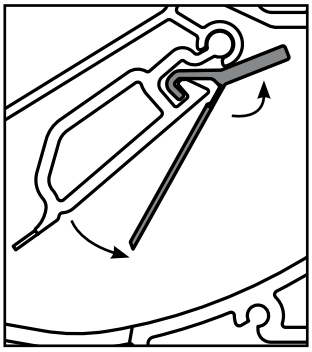
1. Manually adjustable flap : can be influenced by the occupant.
2. When a strong airpressure occurs, the automatic self-regulating flap pivots.
3. When a strong airpressure continues, the automatic self-regulating flap bends.

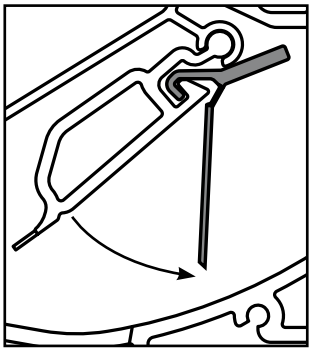
Stable operation

Because the self-regulating flap is clamped over the full length, vibration of the flap is avoided indifferent of air pressure and windspeed.









Classification of self-regulation

P0: not self-regulating
P1: weak self-regulating
P2: medium self-regulating
P3: good self-regulating
P4: excellent self-regulating

Patent N° 09700224

NEW BUILDINGS

Previously ventilation area were shown in a free area mm² whereas now it is calculated and shown as Equivalent Area (EA) per mm² as per the spreadsheet shown below based upon 2 occupants in the main bedroom and 1 in the other bedroom.

	NUMBER OF BEDROOMS				
TOTAL FLOOR AREA M²	**1**	**2**	**3**	**4**	**5**
< 50 m²	25,000	35,000	45,000	45,000	45,000
51 - 60 m²	25,000	30,000	40,000	45,000	45,000
61 - 70 m²	30,000	30,000	35,000	45,000	45,000
71 - 80 m²	35,000	35,000	35,000	45,000	45,000
81 - 90 m²	40,000	40,000	40,000	45,000	45,000
91 - 100 m²	45,000	45,000	45,000	45,000	45,000
> 100 m²	add 5,000 mm² for every additional 10 m² floor area				

The minimum equivalent area for habitable rooms is 5000mm² EA (was 8000 mm² free area) and for any wet room 2500 mm² EA (was 4000 mm² free area).
The ventilation should be equal on both sides of the building. However, where the building has only one single exposed façade, two ventilators are required: one at high level 1.7 m above FFL and one at low level at least 1 m above FFL.

Please contact Renson UK for more information regarding Basements, Habitable rooms with non opening windows, modular or portable buildings and acoustic needs for buildings.

EXISTING BUILDINGS

Where new works are being carried out to an existing building then the background ventilation should not be smaller than originally provided, but it must be at least 5000 mm² EA for habitable rooms and 2500 mm² EA for wet rooms.
Please contact Renson UK for more information regarding connecting to a conservatory, addition of a wet room or addition of a habitable room.

NEW OFFICES

10 l/s (litres per second) per person of air supply is needed.

EXISTING OFFICES

Floor area under 10m² - 2500 mm² EA
Floor area over 10m² - 250 mm²/m² EA
Kitchens - 2500 mm² EA
Bathrooms/showers/WC - 2500 mm² EA per bath, shower or WC

INTRODUCTION

ADDITIONAL INFO

Glazing gaskets :
RENSON advises the use of special designed glazing gaskets;
Nr 029, colour: black, for glass thickness 28-36 mm
Nr 034, colour: grey, for glass thickness 20-28 mm
Nr 039, colour: black, for glass thickness 20-28 mm
Nr 049, colour: black, for glass thickness 20-28 mm
Nr 104, colour: black, for glass thickness 4 mm

Controls :
Standard length is 1000 mm (cord or rod)

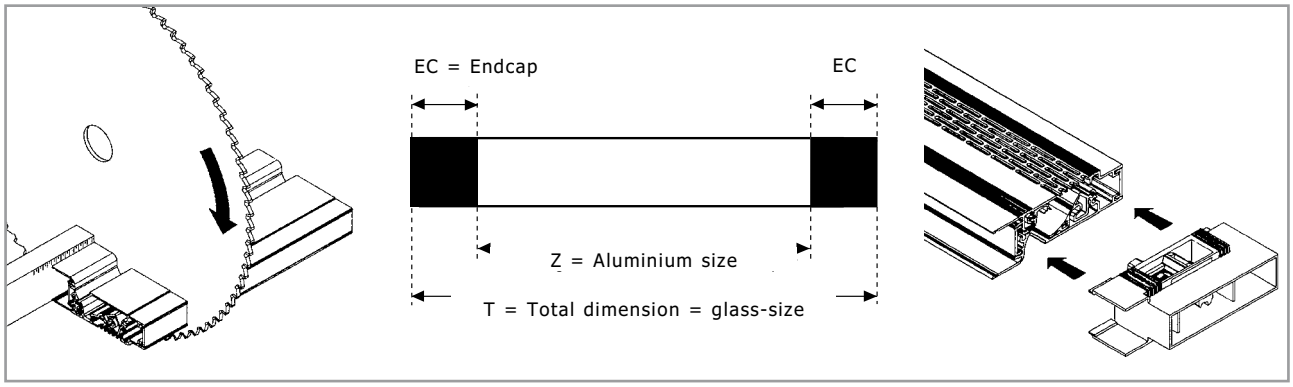
Finishing :
Most of the RENSON window vents can be powdercoated in dual colour in any RAL or Syntha Pulvin® colour possible.
Pre-anodizing is recommended when use is in an aggressive environment (like sea-sides).
Most of the endcaps can also be coated in approx. the same colour as the aluminium profile (ventilator).

Maintenance :
Almost all the RENSON window vents have a removable inner part for ease of cleaning, this can be done with a moist cloth or a vacuum cleaner with the brush.

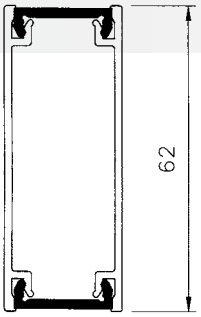
Technical Specifications :
Upon simple request we can present you official testreports of all our window vents.
Water- and windtightness is tested accordingly to BS6375 part1.
Thermal breaks are in uPVC.
RENSON preserves the right to make technical changes without prior notice.

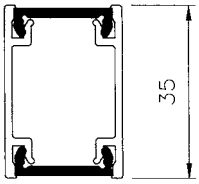
Self-assembly: to increase your flexibility :
RENSON products can be supplied in bar lengths (except where mentioned otherwise).
For colour flexibility and efficient stock control, bar lengths are available in mill finish.

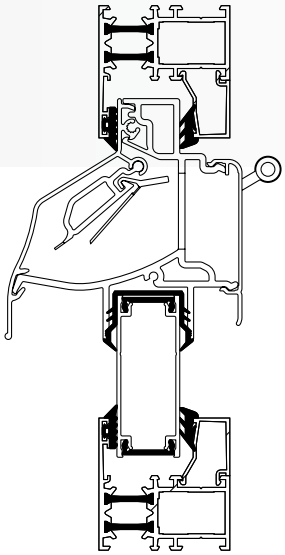
Simple: just cut the ventilator to size from bar length and fix the endcaps (1 left + 1 right).
Important: always use a cutting blade with negative teeth.



Transom profiles :
Two different transom profiles (height 35 mm or 62 mm) are available for the glazed-in ventilators.
These transom profiles are available for any desired glass thickness.
The transom profiles are developed for fabrication from bar lengths or made to measure and as finishing: satin anodised or powdercoated in any RAL or Syntha Pulvin® colour is possible.
For the TH90 and THM90 RENSON developed special types of these glazed-in ventilators which do not require transom profiles; the TH90PB/THM90PB for installation at the bottom of a window and the TH90TR/THM90TR for installation between profiles.







6 GOOD REASONS TO BECOME A RENSON CUSTOMER

1. Customer satisfaction through personal contact, professional advice, excellent service and reliable, high-performance products is the key goal of our company.
2. RENSON is a multinational company and a market leader. As well as our head office in Belgium, RENSON also has offices in Europe and the UK. These local RENSON teams helps provide international knowledge and experience whilst still offering advice that take into account the regulations that are relevant within your country.
3. RENSON offers advice and support throughout the design and installation stages with cost structures, testing, onsite co-ordination meetings that enable the comply with the main build program requirements and an after service to assist with post installation queries for your clients.
4. The production process is fully vertically integrated, which enables manufacturing to strict standards. The investment in injection-moulding machinery, anodising facilities and a fully automatic powder-coating installation ensures efficiency and accuracy. The assembly method of components and profiles requires us to meet tight tolerances.
5. Continuous research & development translates customer needs into unique solutions and innovative products.
6. RENSON specialises in all aspects of ventilation and solar shading; achieving the current goals of the design of a Healthy Building with reduced energy costs.

OVERVIEW - TECHNICAL VALUES

		Page	Airflow m³/h/m at 10 Pa	Airflow l/s/m at 10 Pa	Airflow m³/h/m at 2 Pa	Airflow l/s/m at 2 Pa	Airflow m³/h/m at 1 Pa	Airflow l/s/m at 1 Pa	Equivalent Area mm²/m	Free Area mm²/m	Sound Reduction Dn,e,w(C;Ctr) open (dB)
OVERFRAME VENTILATORS	INVISIVENT®	10	55,9	15,5	49,2	13,7	34,8	9,7	12301	9300	27 (-1;-2)
	INVISIVENT® XL	10	55,9	15,5	49,2	13,7	34,8	9,7	12301	9300	27 (-1;-2)
	INVISIVENT® XXL	10	55,9	15,5	49,2	13,7	34,8	9,7	12301	9300	27 (-1;-2)
	SCREENVENT® Small	14	48,8	13,5	54,1	15,0	40,3	11,2	8200	15000	30 (0;-1)
	SCREENVENT® Medium	14	46,9	13,0	52,0	14,4	36,7	10,2	8200	15000	30 (0;-1)
	SCREENVENT® Large	14	45,1	12,5	50,0	13,9	35,4	9,8	8200	15000	30 (0;-1)
	SCREENVENT® Mistral Small	20	48,8	13,5	54,1	15,0	40,3	11,2	8200	15000	30 (0;-1)
	SCREENVENT® Mistral Medium	20	46,9	13,0	52,0	14,4	36,7	10,2	8200	15000	30 (0;-1)
	SCREENVENT® Mistral Large	20	45,1	12,5	50,0	13,9	35,4	9,8	8200	15000	30 (0;-1)
ACOUSTIC VENTILATORS	INVISIVENT® AK39	24	74,3	20,7	33,3	9,2	23,5	6,5	8311	11500	39 (0;-2)
	INVISIVENT® AK39 XL	24	74,3	20,7	33,3	9,2	23,5	6,5	8311	11500	39 (0;-2)
	INVISIVENT® AK39 XXL	24	74,3	20,7	33,3	9,2	23,5	6,5	8311	11500	39 (0;-2)
	INVISIVENT® AK41	24	37,0	10,3	15,7	4,4	11,1	3,1	3922	8600	41 (-1;-3)
	INVISIVENT® AK41 XL	24	37,0	10,3	15,7	4,4	11,1	3,1	3922	8600	41 (-1;-3)
	INVISIVENT® AK41 XXL	24	37,0	10,3	15,7	4,4	11,1	3,1	3922	8600	41 (-1;-3)
	INVISIVENT® AK49	24	20,0	5,6	9,0	2,5	6,3	1,8	2241	2400	49 (-2;-5)
	INVISIVENT® AK49 XL	24	20,0	5,6	9,0	2,5	6,3	1,8	2241	2400	49 (-2;-5)
	INVISIVENT® AK49 XXL	24	20,0	5,6	9,0	2,5	6,3	1,8	2241	2400	49 (-2;-5)
	SONOVENT® Small 10	26	55,3	15,3	50,2	14,0	50,2	14,0	17756	10000	46 (-1;-5)
	SONOVENT® Small 15	26	92,1	25,6	83,7	23,3	83,7	23,3	29593	15000	41 (-1;-2)
	SONOVENT® Small 20	26	99,0	27,5	90,0	25,0	90,0	25,0	31813	20000	40 (-1;-3)
	SONOVENT® Small 25	26	105,1	29,2	95,6	26,6	95,6	26,6	33786	25000	37 (-1;-3)
	SONOVENT® Medium 10	26	54,5	15,1	49,5	13,8	49,5	13,8	17509	10000	48 (-2;-6)
	SONOVENT® Medium 15	26	82,5	22,9	75,0	20,8	75,0	20,8	26511	15000	45 (2;-6)
	SONOVENT® Medium 20	26	103,6	28,8	94,2	26,2	94,2	26,2	33292	20000	43 (0;-3)
	SONOVENT® Medium 25	26	105,9	29,4	96,3	26,7	96,3	26,7	34032	25000	39 (-1;-4)
	SONOVENT® Large 10	26	50,3	14,0	45,7	12,7	45,7	12,7	16153	10000	50 (-2;-6)
	SONOVENT® Large 15	26	79,4	22,1	72,2	20,1	72,2	20,1	25524	15000	49 (-2;-7)
	SONOVENT® Large 20	26	99,8	27,7	90,7	25,2	90,7	25,2	32059	20000	44 (-2;-6)
	SONOVENT® Large 25	26	104,0	28,9	94,5	26,3	94,5	26,3	33416	25000	41 (-2;-6)
	SONOVENT® Xlarge 10	26	44,9	12,5	40,8	11,3	40,8	11,3	14427	10000	56 (-2;-6)
	SONOVENT® Xlarge 15	26	67,2	18,7	61,0	17,0	61,0	17,0	21578	15000	53 (-2;-6)
	SONOVENT® Xlarge 20	26	96,7	26,9	87,9	24,4	87,9	24,4	31073	20000	46 (-2;-6)
	SONOVENT® Xlarge 25	26	101,7	28,2	92,4	25,7	92,4	25,7	32676	25000	45 (-2;-6)
	SONOVENT® V Small	30	-	-	-	-	-	-	-	-	35 (-1;-3)
	SONOVENT® D Small	31	110,5	30,7	100,8	28	100,8	28,0	33786	25000	37 (-1;-3)
	SONOVENT® D Medium	31	110,5	30,7	100,8	28	100,8	28,0	34032	25000	39 (-1;-4)
	THK90AK	32	124,3	34,5	57,9	16,1	41,7	11,6	14736	15000	29 (0;-1)
GLAZED-IN VENTILATORS	TH45	34	55,9	15,5	25,0	6,9	17,7	4,9	6256	8500	27 (0;0)
	T45	36	55,9	15,5	25,0	6,9	17,7	4,9	6256	8500	27 (0;0)
	TC45	38	93,4	25,9	41,4	11,5	29,5	8,2	10435	11333	27 (0;0)
	TC60	40	140,0	38,9	62,6	17,4	44,3	12,3	15652	15000	28 (0;0)
	THK60	42	106,2	29,5	47,5	13,2	33,5	9,3	11841	15000	27 (0;0)
	AR60	42	71,0	19,7	42,3	11,8	29,5	8,2	10427	15000	27 (0;0)
	AR75 Small	44	59,1	16,4	53,7	14,9	38,0	10,5	13419	11900	26 (-1;-1)
	AR75 Medium	44	73,8	20,5	67,1	18,6	47,2	13,1	16682	15700	26 (-1;-2)
	AR75 Large	44	85,0	23,6	77,3	21,5	54,7	15,2	19342	18900	26 (-1;-2)
	AR75 Xlarge	44	111,0	30,8	100,9	28,0	71,5	19,9	25265	21500	26 (-1;-1)
	TH90	46	109,2	30,3	48,9	13,6	34,5	9,6	12203	15000	26 (0;0)
	TH90PB	46	109,2	30,3	48,9	13,6	34,5	9,6	12203	15000	26 (0;0)
	TH90TR	46	109,2	30,3	48,9	13,6	34,5	9,6	12203	15000	26 (0;0)
	THM90	48	n.p.d.	n.p.d.	45,0	12,5	31,8	8,8	11176	15000	26 (0;0)
	THM90PB	48	n.p.d.	n.p.d.	45,0	12,5	31,8	8,8	11176	15000	26 (0;0)
	THM90TR	48	n.p.d.	n.p.d.	45,0	12,5	31,8	8,8	11176	15000	26 (0;0)
	THK90	50	124,3	34,5	57,9	16,1	41,7	11,6	14736	15000	28 (0;-1)
	AR90	50	41,0	11,4	56,2	15,6	40,3	11,2	14252	15000	30 (-1;-2)
	THR90	52	165,0	45,8	73,8	20,5	52,2	14,5	18451	16500	28 (-1;-1)
	ARH90	52	137,2	38,1	74,2	20,6	52,6	14,6	18579	16500	28 (-1;-2)
	THL100	54	150,7	41,9	67,2	18,7	47,4	13,2	16759	13900	22 (0;-1)
	THL100V	54	119,5	33,2	53,1	14,7	37,4	10,4	13219	13900	22 (0;-1)

Sound Reduction Dn,e,w(C;Ctr) closed (dB)	U-value W/m²K	Watertightness Pa closed position	Windtightness Pa closed position	Glass reduction	Depth to fit / Building height mm (without transom profile)	Glass thickness mm	Finish	Thermally broken	Insectmesh	Self-regulating
43 (-1;-2)	3,9	650	650	0	50-94	-	SAA / RAL / dual colour	yes	yes	yes
43 (-1;-2)	3,9	650	650	0	95-139	-	SAA / RAL / dual colour	yes	yes	yes
43 (-1;-2)	3,9	650	650	0	140-185	-	SAA / RAL / dual colour	yes	yes	yes
37 (-1;-3)	4,4	650	650	0	50-75	-	SAA / RAL / dual colour	yes	yes	yes
37 (-1;-3)	4,1	650	650	0	76-105	-	SAA / RAL / dual colour	yes	yes	yes
37 (-1;-3)	4,0	650	650	0	106-135	-	SAA / RAL / dual colour	yes	yes	yes
37 (-1;-3)	4,4	650	650	0	50-75	-	SAA / RAL / dual colour	yes	yes	yes
37 (-1;-3)	4,1	650	650	0	76-105	-	SAA / RAL / dual colour	yes	yes	yes
37 (-1;-3)	4,0	650	650	0	106-135	-	SAA / RAL / dual colour	yes	yes	yes
48 (0; -2)	4,5	650	650	0	50-94 + 100 mm	-	SAA / RAL / dual colour	yes	yes	no
48 (0; -2)	4,5	650	650	0	95-139 + 100 mm	-	SAA / RAL / dual colour	yes	yes	no
48 (0; -2)	4,5	650	650	0	140-185 + 100 mm	-	SAA / RAL / dual colour	yes	yes	no
46 (-1;-2)	4,5	650	650	0	50-94 + 100 mm	-	SAA / RAL / dual colour	yes	yes	no
46 (-1;-2)	4,5	650	650	0	95-139 + 100 mm	-	SAA / RAL / dual colour	yes	yes	no
46 (-1;-2)	4,5	650	650	0	140-185 + 100 mm	-	SAA / RAL / dual colour	yes	yes	no
57 (-1;-3)	4,5	650	650	0	50-94 + 100 mm	-	SAA / RAL / dual colour	yes	yes	no
57 (-1;-3)	4,5	650	650	0	95-139 + 100 mm	-	SAA / RAL / dual colour	yes	yes	no
57 (-1;-3)	4,5	650	650	0	140-185 + 100 mm	-	SAA / RAL / dual colour	yes	yes	no
n.p.d.	4,5	650	650	130/135	170	20/24/28/32	RAL / dual colour	yes	yes	yes
n.p.d.	4,5	650	650	130/135	170	20/24/28/32	RAL / dual colour	yes	yes	yes
n.p.d.	4,5	650	650	130/135	170	20/24/28/32	RAL / dual colour	yes	yes	yes
n.p.d.	4,5	650	650	130/135	170	20/24/28/32	RAL / dual colour	yes	yes	yes
n.p.d.	4,6	650	650	130/135	210	20/24/28/32	RAL / dual colour	yes	yes	yes
n.p.d.	4,6	650	650	130/135	210	20/24/28/32	RAL / dual colour	yes	yes	yes
n.p.d.	4,6	650	650	130/135	210	20/24/28/32	RAL / dual colour	yes	yes	yes
n.p.d.	4,6	650	650	130/135	210	20/24/28/32	RAL / dual colour	yes	yes	yes
n.p.d.	4,6	650	650	130/135	250	20/24/28/32	RAL / dual colour	yes	yes	yes
n.p.d.	4,6	650	650	130/135	250	20/24/28/32	RAL / dual colour	yes	yes	yes
n.p.d.	4,6	650	650	130/135	250	20/24/28/32	RAL / dual colour	yes	yes	yes
n.p.d.	4,6	650	650	130/135	250	20/24/28/32	RAL / dual colour	yes	yes	yes
n.p.d.	4,7	650	650	130/135	290	20/24/28/32	RAL / dual colour	yes	yes	yes
n.p.d.	4,7	650	650	130/135	290	20/24/28/32	RAL / dual colour	yes	yes	yes
n.p.d.	4,7	650	650	130/135	290	20/24/28/32	RAL / dual colour	yes	yes	yes
n.p.d.	4,7	650	650	130/135	290	20/24/28/32	RAL / dual colour	yes	yes	yes
n.p.d.	4,5	650	650	-	170	-	RAL / dual colour	yes	yes	-
n.p.d.	4,5	650	650	-	170	-	RAL	yes	yes	yes
n.p.d.	4,5	650	650	-	210	-	RAL	yes	yes	yes
45 (0;-2)	3,9	650	650	90	105	20/24/28	SAA / RAL / dual colour	yes	yes	no
44 (0;0)	n.p.d.	350	350	45	58	20/24/28	white	yes	yes	no
44 (0;0)	n.p.d.	350	350	45	58	4/20/24/28	SAA / RAL / dual colour	no	yes	no
37 (-1;-2)	4,1	650	650	45	60	20/24/28	SAA / RAL / dual colour	yes	yes	no
42 (0;0)	3,3	650	650	60	75	20/24/28	SAA / RAL / dual colour	yes	yes	no
44 (0;0)	4,5	650	650	60	76	20/24/28	SAA / RAL / dual colour	yes	yes	no
44 (0;0)	4,5	650	650	60	76	20/24/28	SAA / RAL / dual colour	yes	yes	yes
43 (-1;-1)	3,0	650	650	75	92	20/24/28/32	SAA / RAL / dual colour	yes	yes	yes
43 (-1;-1)	3,0	650	650	75	92	20/24/28/32	SAA / RAL / dual colour	yes	yes	yes
43 (-1;-1)	3,0	650	650	75	92	20/24/28/32	SAA / RAL / dual colour	yes	yes	yes
43 (-1;-1)	3,0	650	650	75	92	20/24/28/32	SAA / RAL / dual colour	yes	yes	yes
45 (-1;-1)	3,8	350	650	90	105	20/24/28/33	SAA / RAL / dual colour	yes	yes	no
45 (-1;-1)	3,8	350	650	90	105	20/24/28	SAA / RAL / dual colour	yes	yes	no
45 (-1;-1)	3,8	350	650	90	105	20/24	SAA / RAL / dual colour	yes	yes	no
45 (-1;-1)	3,8	350	650	90	105	20/24/28/33	SAA / RAL / dual colour	yes	yes	no
45 (-1;-1)	3,8	350	650	90	105	20/24/28	SAA / RAL / dual colour	yes	yes	no
45 (-1;-1)	3,8	350	650	90	105	20/24	SAA / RAL / dual colour	yes	yes	no
44 (0;-1)	3,9	650	650	90	105	20/24/28	SAA / RAL / dual colour	yes	yes	no
45 (-1;-3)	3,9	650	650	90	105	20/24/28	SAA / RAL / dual colour	yes	yes	yes
36 (-1;0)	3,6	650	650	90	106	16/20/24/28	SAA / RAL / dual colour	yes	yes	no
36 (-1;0)	3,6	650	650	90	106	16/20/24/28	SAA / RAL / dual colour	yes	yes	yes
32 (0;-1)	3,9	400	650	129	144	20/24/28	SAA / RAL / dual colour	yes	yes	no
32 (0;-1)	3,9	400	650	129	144	20/24/28	SAA / RAL / dual colour	yes	yes	no

n.p.d. = no performance determined

OVERFRAME VENTILATORS

INVISIVENT®

invisible self-regulating overframe ventilator

INTRODUCTION

Thermally broken, self-regulating flap ventilator for installation above an aluminium, timber or uPVC window frame. The depth of the ventilator to fit the adapted window frame can be adapted between 50 and 185 mm thanks to an ingenious slide and click-system. The perforated inner profile performs as an insect mesh and is fully removable for cleaning purposes.
The airflow can be controlled manually by means of an internal tiplever in 6 stepped settings (open/close and 4 intermediate positions). In open position, the incoming airflow is directed upwards to avoid any draughts. The internal tiplever can be closed with a positive click and thanks to the installation of a rubber strip it ensures high water and wind resistance up to 650 Pa.
The self-regulating flap is operating at the point of air inflow in the external profile and reacts automatically at wind pressure differences. The internal flap cannot be influenced by the user but is maintenance free.
The INVISIVENT® is installed above the window frame, this results in a maximum light penetration.

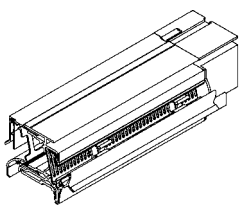
MATERIAL

Inside and outside profile: aluminium AlMgSi 0.5 (according to DIN 1748)
Finishing: satin anodised or powdercoated in any RAL or Syntha Pulvin® colour (dual colour possible)
Endcaps in ASA polymer type Luran S (colourfast, weather- and UV-resistant)
Endcaps are also available in any colour upon request (dual colour possible)

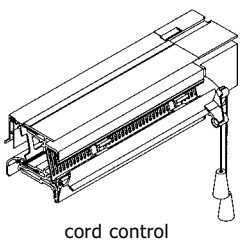
DIMENSIONS

Glass reduction : 0 mm
Overall height : 59 mm
3 types are available depending on the width of the windowframe :
INVISIVENT®: 50 – 64 mm, 65 – 79 mm, 80 – 94 mm
INVISIVENT® XL: 95 – 109 mm, 110 – 124 mm, 125 – 139 mm
INVISIVENT® XXL : 140 – 154 mm, 155 – 169 mm, 170 – 185 mm

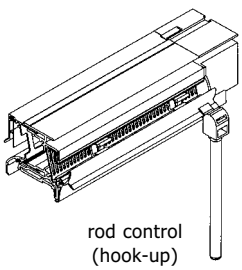
CONTROLS



manual control



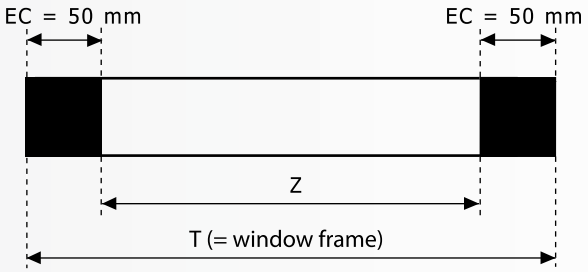
cord control



rod control
(hook-up)

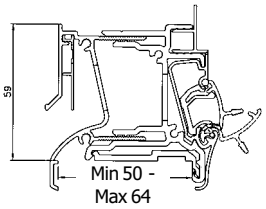
ASSEMBLY

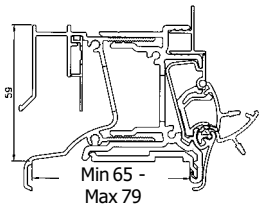
Developed for fabrication from bar lengths (6000 mm) or made to measure.
Cut (length = overall width of windowprofile) ventilator to size from a bar length, fix endcaps (1 L + 1 R)
Montage: Fix a support profile on the window frame, Clip the ventilator onto the support profile, push the inner profile into the outer profile uniformly into the window frame

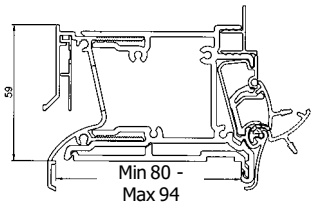


SECTION DETAILS

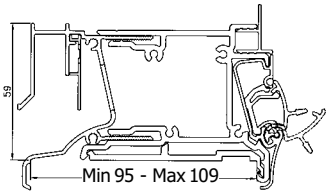
INVISIVENT®

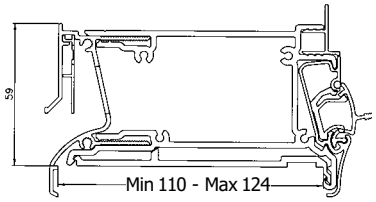


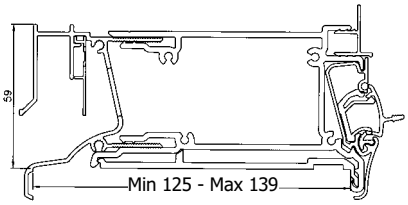




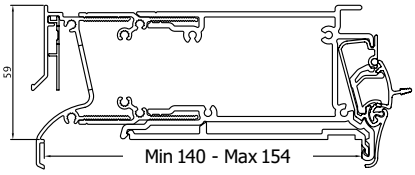
INVISIVENT® XL

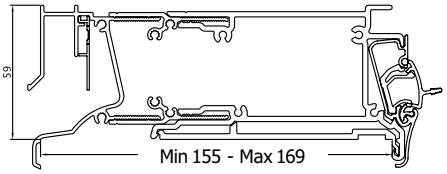


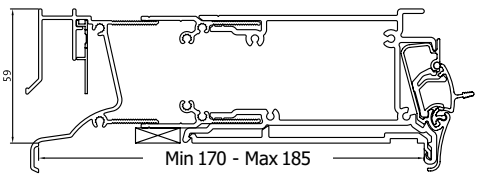




INVISIVENT® XXL

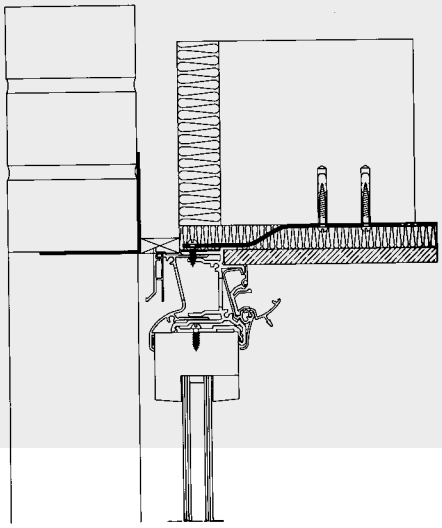




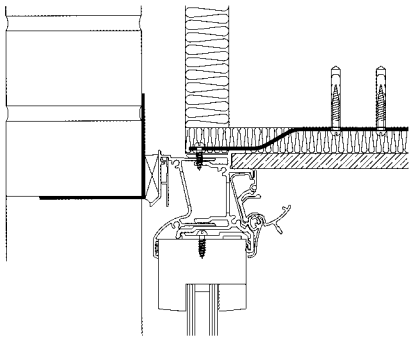


OVERFRAME VENTILATORS

INVISIVENT®



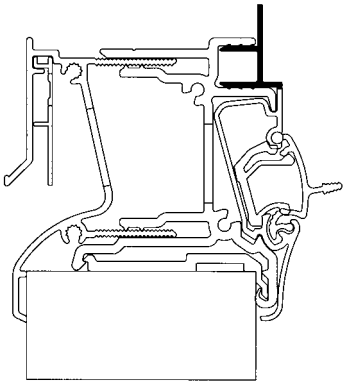
Section detail
UK window



Section detail
continental window

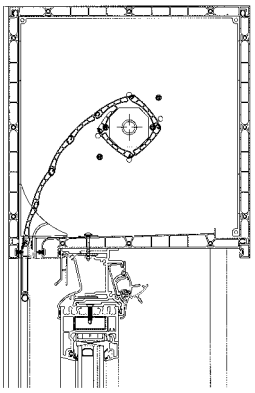
OPTIONS

- There is a slot at the inner side which enables to fit a finishing profile or a plaster board to 10 mm
- For thicker finishing profiles, plasterboards or plastering, an optional aluminium profile can be provided



TO FIX UNDER A ROLL-DOWN SHUTTER

- To fix a roll-down shutter, please contact the technical department at RENSON. They will advise you on how to fix and on the specificationof the different profile systems.



TECHNICAL SPECIFICATIONS

	INVISIVENT® / INVISIVENT® XL / INVISIVENT® XXL
AIRFLOW	
2 Pa	49,2 $m^3/h/m$
2 Pa	13,7 l/s/m
1 Pa	9,7 l/s/m
Equivalent area	12301 mm^2/m
COMFORT	
Sound reduction $D_{n,e,w}$ ($C;C_{tr}$)	(EN ISO 140-10, EN ISO 717-1)
- in open position	27 (-1;-2) dB
- in closed position	43 (-1;-2) dB
Self regulating	yes (class P3)
TECHNICAL CHARACTERISTICS	
U-value	3,9 W/m^2K
Watertightness (closed position)	650 Pa
Windtightness	650 Pa

OVERFRAME VENTILATORS

SCREENVENT® *combination of comfortable ventilation and a sun protecting screen*

INTRODUCTION

RENSON has developed the SCREENVENT® in order to improve the following aspects of the living and working comfort:

- the physical comfort: fresh and healthy air without draughts
- the thermal comfort: up to 90% reflection of solar heat
- the visual comfort: control of the light level, no reflections, the outside view is not obstructed

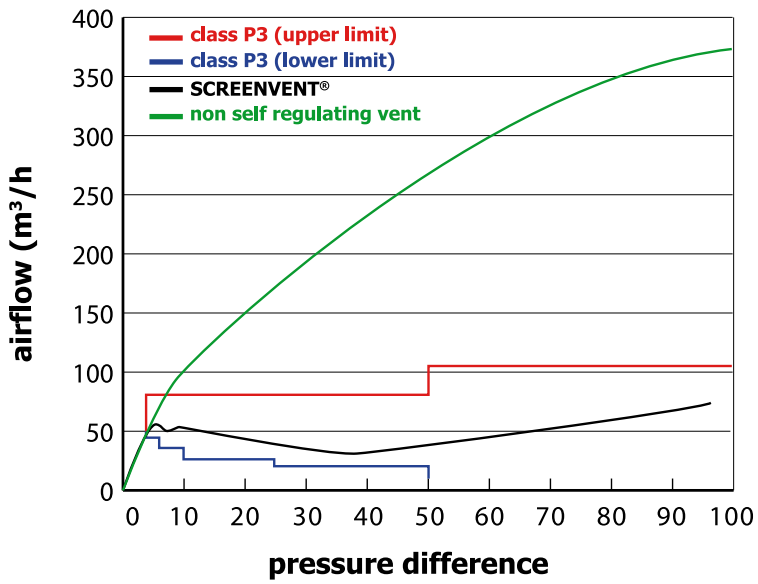
SCREENVENT® ADVANTAGES

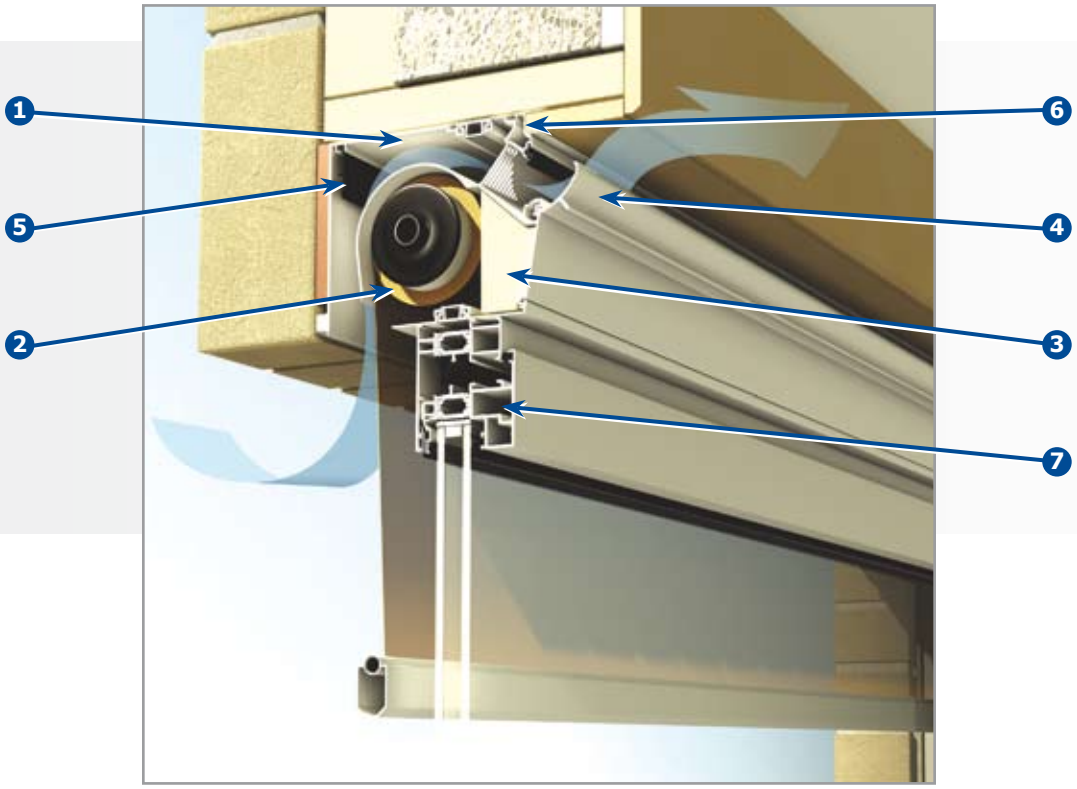
- Integrated solution for ventilation and solar shading
- Hidden installation for maximal respect of architecture
- Self-regulating ventilation (class P3) avoiding draughts and minimizing energy-losses
- Secure ventilation with closed windows; insect-, burglar- and weather proof
- Thermally insulated
- Wide range of colours (screen and box)
- Sun protection available with manual control or electrical control
- Contribute to lower energy costs
- Easy to maintain as parts are removable from the inside

A NEW STANDARD IN VENTILATION

SCREENVENT® Self-regulating class P3: the new standard in ventilation

RENSON introduces a new generation of ventilators; the SCREENVENT®
The SCREENVENT® combines the best solar shading with the most comfortable ventilation through a self-regulating flap which reduces the airflow automatically at windpressure differences.
The SCREENVENT® avoids draughts and helps to save energy





CONCEPT

1. Aluminium profile with thermal bridge installed on top of the window frame and mainly hidden by the façade
2. Easily removable screen with integrated motor system (option)
3. Removable thermally insulated inner profile for cleaning purposes and replacement of the screen
4. Ventilation control by means of 5 stepped settings
5. A self-regulating flap controls the airflow and minimises draughts
6. Inner profile can accept Gypsum board and many other internal finishes
7. window frame

APLICATIONS

- On all types of windows: aluminium, timber, PVC
- For new buildings as well as for renovation
- For residential dwellings as well as hospitals, offices, schools and many other commercial applications

OVERFRAME VENTILATORS

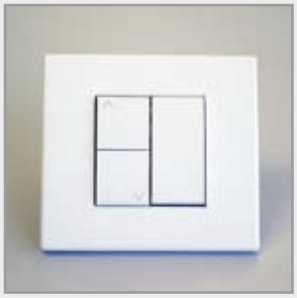
SCREENVENT®

CONTROLS - VENTILATION

① Manual

② Cord control

③ Rod control



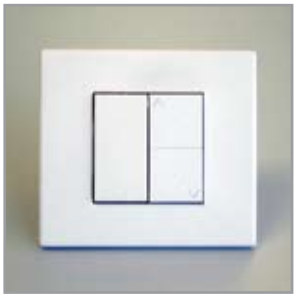
④ Motor control (switch; pushbuttons)

CONTROLS - SOLAR SHADING

⑤ Manual rod control

⑥ Removable rod control

⑦ Motor control (remote control 1 or 5 channel transmitter)



⑧ Motor control (switch; pushbuttons)

CONTROLS - COMBINATION

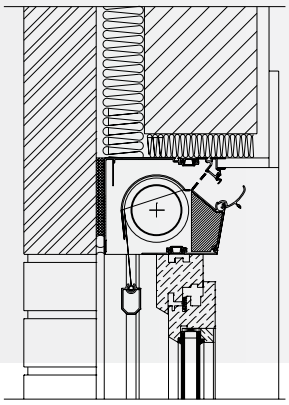
⑨ Weather station Set automatic sun/wind motor control and switch

⑩ Weather station Set automatic sun/wind motor control and remote control

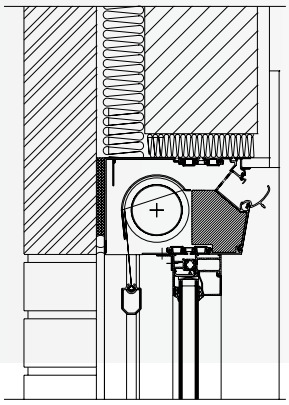
⑪ Motor control (switch; pushbuttons)

TECHNICAL SPECIFICATIONS

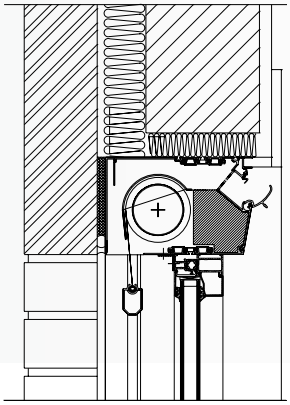
Small



Medium



Large



SCREENVENT® type (depending on the width of the windowframe)	**Small**	**Medium**	**Large**
AIRFLOW			
2 Pa	54,1 $m^3/h/m$	52,0 $m^3/h/m$	50,0 $m^3/h/m$
2 Pa	15,0 l/s/m	14,4 l/s/m	13,9 l/s/m
1 Pa	11,2 l/s/m	10,2 l/s/m	9,8 l/s/m
Equivalent area	8200 mm^2/m	8200 mm^2/m	8200 mm^2/m
COMFORT			
Sound reduction $D_{n,e,w}$ ($C;C_{tr}$)	(EN ISO 140-10, EN ISO 717-1)		
- in open position	30 (0;-1) dB		
- in closed position	37 (-1;-3) dB		
Self regulating	yes (class P3)		
TECHNICAL CHARACTERISTICS			
U-value	4,4 W/m^2K	4,1 W/m^2K	4,0 W/m^2K
Watertightness (closed position)	650 Pa		
Windtightness	650 Pa		
DIMENSIONS			
Box height	120 mm		
Box depth	140 mm	170 mm	200 mm
Fitted for windowframewidth	50-75 mm	76-105 mm	106-135 mm
Maximum length in one part (connectable)	2500 mm		
Maximum screen height	2600 mm (Glass fibre screen) • 3300 mm (Polyester Screen)		
CONTROLS (see page 16)			
Ventilation	①,②,③,④, ⑪		
Solar shading	⑤,⑥,⑦,⑧,⑨, ⑩, ⑪		

OVERFRAME VENTILATORS

SCREENVENT®

CONSTRUCTION SCREENVENT®

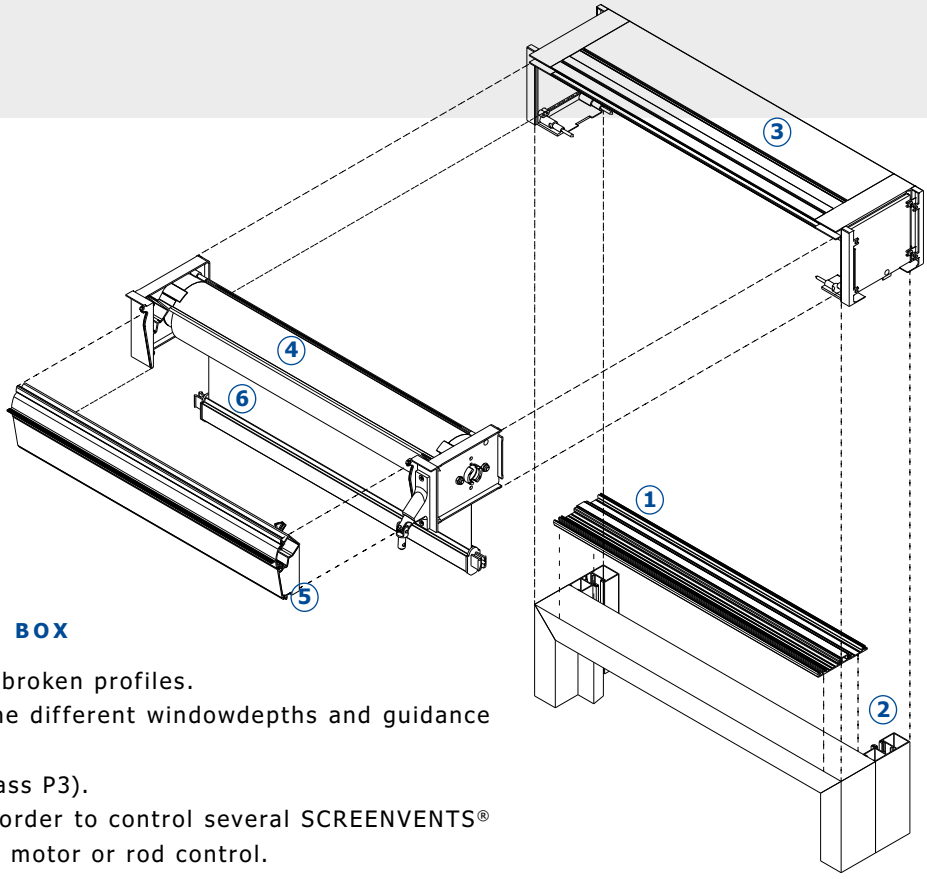
The SCREENVENT® Mistral generally exists out of 6 parts:

① THE BOTTOM RAIL

- Bottom bar with drainage-grooves, to drain the roll up water.

② THE GUIDANCE SYSTEM

- Side guides 30mm width, 65 or 85mm depth.



③ VENTILATION / COVER BOX

- Box made out of thermally broken profiles.
- 3 versions depending on the different windowdepths and guidance type.
- Self-regulating element (class P3).
- Coupling joint available in order to control several SCREENVENTS® (in line mounting) with one motor or rod control.

④ REMOVABLE INNER PART WITH SCREEN AND ROLLER TUBE

- The screen is rolled on a galvanised steel axis Ø 63 mm.
- Bar to guide the screen in the sides and to tighten the screen.

⑤ REMOVABLE COVER WITH VENTILATIONFLAP

- aluminium innerprofile with tiplever
  (different openingpositions in order to control the airflow)

⑥ SCREEN

- Extensive range of colours
- The screen is made of woven PVC coated fibre glass. A glass fibre fabric is a dimensionally stable material. Fibre glass does not stretch or shrink after exposure to extremely high or low temperatures. A glass fibre fabric is moisture resistant: glass fibre does not absorb moisture, and do not change physically or chemically when exposed to water. Glass fibre fabric is colourfast.
- Low maintenance en easy to clean
- High solar exclusion factor (depending on the colourtype) to ensure a pleasant temperature and nice solar transmission into your living rooms and work areas in the summer
- Sides reinforced with a transparant ribbon
- Upper and lowerside reinforced with a welded seam

TECHNICAL SPECIFICATIONS SCREEN

Weight	525 g/m²
Warp-threads	18
Weft-threads	14
Breaking strength (warp)	295 daN/5cm
Breaking strength (weft)	195 daN/5cm
Thickness	ca. 0,75 mm
Transmission of visible lightspectrum	5-7 %
Heat balance	11 % (single glass), 9 % (double glass)
Tear resistance	10-12 daN

MAINTENANCE

- The perforated internal louvre, serving as an insectmesh can completely be removed in order to clean by means of a hinge system
- When the interior flap is removed it is possible to take out the roller tube by means of a unique sliding system

OVERFRAME VENTILATORS

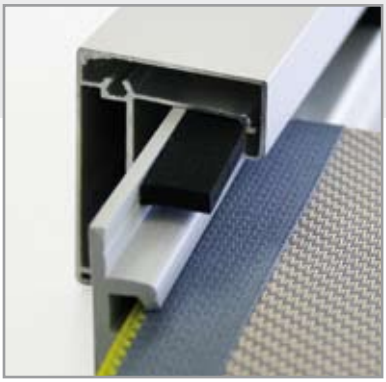
SCREENVENT® Mistral

combination of comfortable ventilation, an insectmesh and a windtight sun protecting screen

INTRODUCTION

RENSON has developed the wind resistant SCREENVENT® Mistral, this is an improved version of the SCREENVENT®.
The concept as the applications, the screen and the different controls are the same but the unique SCREENVENT® Mistral system offers 3 solutions in 1:

1. self-regulating ventilation
2. wind resistant solar shading
3. insectmesh (in closed position)



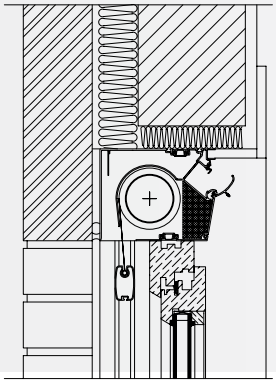
Thanks to a special sliding system the screen is securely retained in every position therefore rattling or ripped screens belong to the past. The bottom bar has a sealing strip in order to connect to the threshold. This results in a wind resistant and (in closed position) an 100% insectproof screen.

ADVANTAGES IN COMPARISON WITH THE STANDARD SCREENVENT®

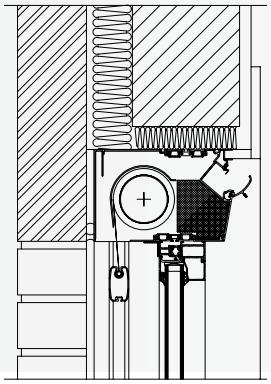
- Better wind resistance of the screen in each position, thanks to the new guide profiles.
- Insectproof, as the screen is fully integrated into the window frame using a zip and a sealing strip under the strengthening bottom bar

TECHNICAL SPECIFICATIONS

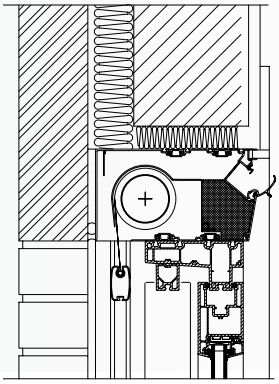
Small



Medium



Large



SCREENVENT® Mistral type (depending on the width of the windowframe)	**Small**	**Medium**	**Large**
AIRFLOW			
2 Pa	54,1 m^3/h/m	52,0 m^3/h/m	50,0 m^3/h/m
2 Pa	15,0 l/s/m	14,4 l/s/m	13,9 l/s/m
1 Pa	11,2 l/s/m	10,2 l/s/m	9,8 l/s/m
Equivalent area	8200 mm^2/m	8200 mm^2/m	8200 mm^2/m
COMFORT			
Sound reduction $D_{n,e,w}$ ($C;C_{tr}$)	(EN ISO 140-10, EN ISO 717-1)		
- in open position	30 (0;-1) dB		
- in closed position	37 (-1;-3) dB		
Self regulating	yes (class P3)		
TECHNICAL CHARACTERISTICS			
U-value	4,4 W/m^2K	4,1 W/m^2K	4,0 W/m^2K
Watertightness (closed position)	650 Pa		
Windtightness	650 Pa		
DIMENSIONS			
Box height	120 mm		
Box depth	140 mm	170 mm	200 mm
Fitted for windowframe width	50-75 mm	76-105 mm	106-135 mm
Maximum length	2500 mm		
Maximum screen height	2600 mm		
CONTROLS (see page 16)			
Ventilation	①,②,③,④, ⑪		
Solar shading	⑤,⑥,⑦,⑧,⑨, ⑩, ⑪		

SCREENVENT® Mistral

CONSTRUCTION SCREENVENT® MISTRAL

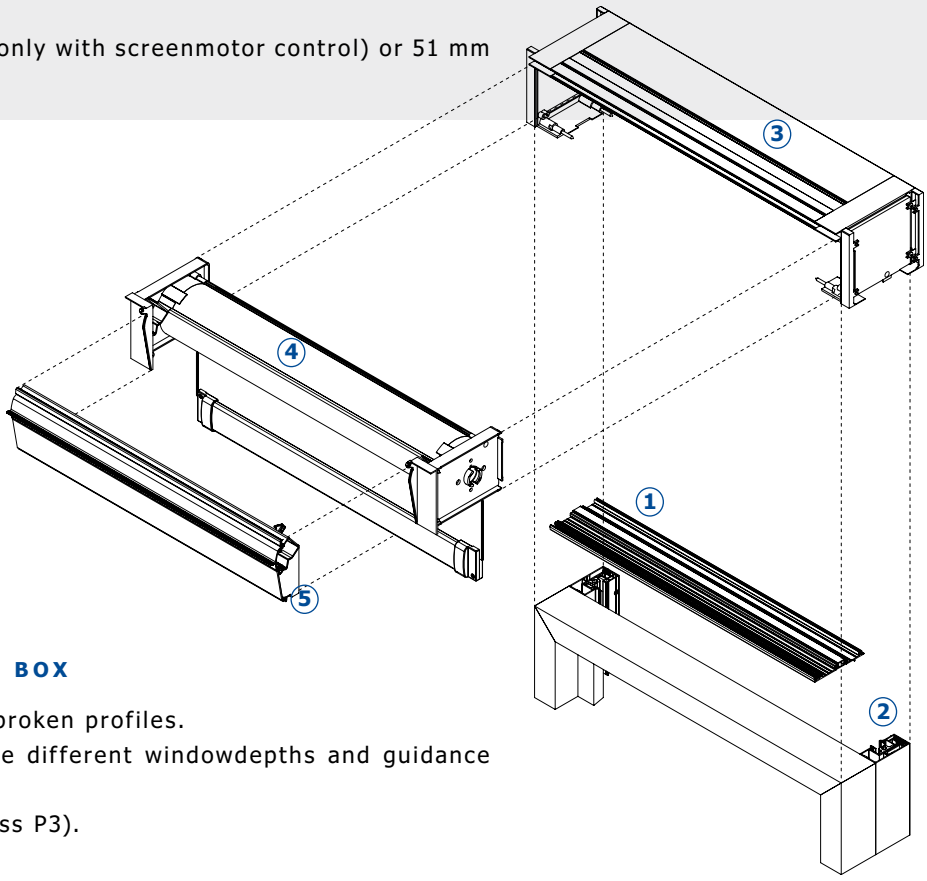
The SCREENVENT® Mistral generally exists out of 6 parts:

① THE BOTTOM RAIL

- Bottom bar with drainage-grooves, to drain the roll up water. This bottom bar has a sealing strip in order to perfectly connect to the threshold.

② THE GUIDANCE SYSTEM

- Special side guides 30 mm (only with screenmotor control) or 51 mm width, 65 mm depth.



③ VENTILATION / COVER BOX

- Box made out of thermally broken profiles.
- 3 versions depending on the different windowdepths and guidance type.
- Self-regulating element (class P3).

④ REMOVABLE INNER PART WITH SCREEN AND ROLLER TUBE

- The screen is rolled on a galvanised steel axis Ø 63 mm.
- Bar to guide the screen in the sides and to tighten the screen.

⑤ REMOVABLE COVER WITH VENTILATIONFLAP

- aluminium innerprofile with tiplever
  (different opening positions in order to control the airflow)

ACOUSTIC VENTILATORS

INTRODUCTION

The level and frequency of noise as well the level of the non recognisable background sound should be taken into account when designing a sufficient sound absorbing facade. Not only the level of the external noise may vary but also the frequency. Fast traffic sounds are different than the lower motor noise of buses and other slow driving urban traffic; the sound of airplanes and trains has yet another sound. This highlights the difficulties for low tone sound reductions when designing a facade. As a specialist in natural ventilation RENSON develops products which offer a solution for these issues.

For more RENSON products that offer aesthetic natural ventilation with a high acoustic performance ask your copy of our special catalogue 'Acoustic Ventilation Solutions'.

ACOUSTIC PERFORMANCE DEFINITIONS

$D_{n,e,w}$ = weighted element-normalized level difference, is used to characterise small elements like ventilators.
C = spectrum correction term for pink noise, is always added to Dn,e,w when the source of the noise is fast traffic.
C_{tr} = spectrum correction term for traffic noise, is always added to Dn,e,w when the source of the noise is regular citytraffic.

ACOUSTIC VENTILATORS

INVISIVENT® AK

invisible sound absorbing overframe ventilator

INTRODUCTION

To give the INVISIVENT® (see page 10) an acoustic performance, there are three different acoustic extension boxes developed. Like the regular INVISIVENT® the INVISIVENT® AK is available in 6 different types, depending on the depth of the windowframe and combined with the 3 different acoustic boxes (different airflows), the INVISIVENT® AK range exists out of 18 models.

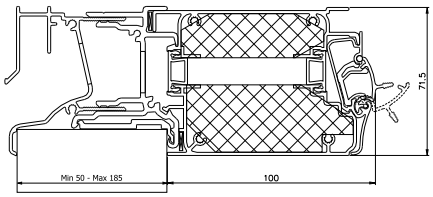
The INVISIVENT® AK is the most discrete acoustic vent worldwide.

MATERIAL

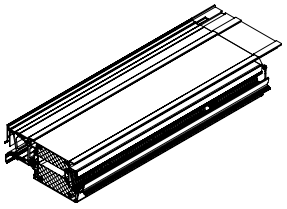
Inside and outside profile: aluminium AlMgSi 0.5 (according to DIN 1748)
finishing: satin anodised or powdercoated in any RAL or Syntha Pulvin® colour (dual colour possible)
Endcaps in ASA polymer type Luran S (colourfast, weather- and UV-resistant)
Endcaps are also available in any colour upon request (dual colour possible)

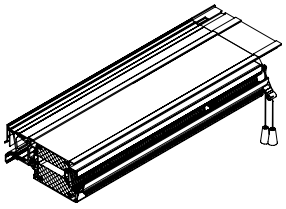
DIMENSIONS

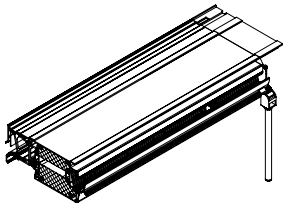
Glass reduction : 0 mm
Overall height : 59 mm
3 types are available depending on the width of the windowframe :
INVISIVENT®: 50 – 64 mm, 65 – 79 mm, 80 – 94 mm
INVISIVENT® XL: 95 – 109 mm, 110 – 124 mm, 125 – 139 mm
INVISIVENT® XXL : 140 – 154 mm, 155 – 169 mm, 170 – 185 mm



CONTROLS

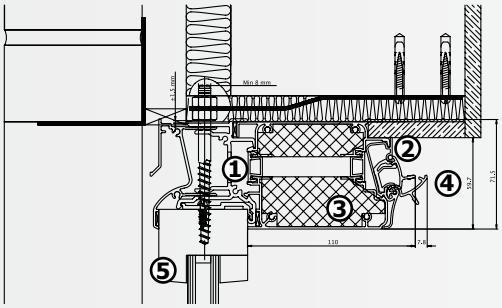

manual control


cord control

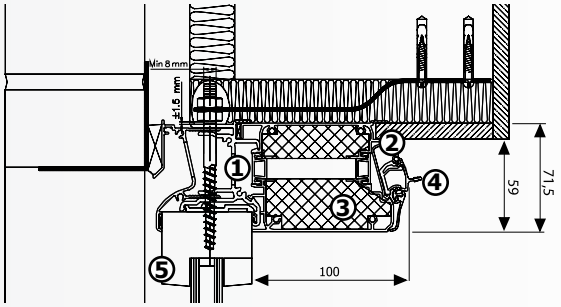

rod control
(hook-up)

AVAILABILITY

Only custom made (made to measure) INVISIVENT®AK are available.



Section detail
UK window



Section detail
continental window

SECTION DETAILS

① Aluminium box with thermal bridges
② Cleanable because of the removable inner profile
③ Sound absorbing acoustic material
④ Inner flap in order to control the ventilation level
⑤ Window profile

ADVANTAGES

Hidden installation possible for maximum respect of the architecture.
Secure ventilation with closed windows; insect-, burglar- and rainproof.
Thermally broken profiles.

OPTIONS

There is a slot at the inner side which allows a finishing profile or a plaster board to 10 mm.
For thicker finishing profiles, plasterboards or plastering, an optional aluminium profile can be provided.

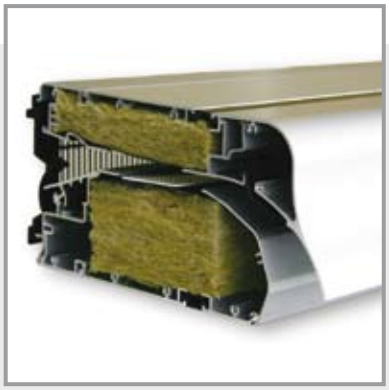
TECHNICAL SPECIFICATIONS

	INVISIVENT® AK39	INVISIVENT® AK41	INVISIVENT® AK49
AIRFLOW			
2 Pa	33,3 m^3/h/m	15,7 m^3/h/m	9,0 m^3/h/m
2 Pa	9,2 l/s/m	4,4 l/s/m	2,5 l/s/m
1 Pa	6,5 l/s/m	3,1 l/s/m	1,8 l/s/m
Equivalent area	8311 mm^2/m	3922 mm^2/m	2241 mm^2/m
COMFORT			
Sound reduction $D_{n,e,w}$ ($C;C_{tr}$)	(EN ISO 140-10, EN ISO 717-1)		
- in open position	39 (0;-2) dB	41 (-1;-3) dB	49 (-2;-5) dB
- in closed position	48 (0;-2) dB	46 (-1;-2) dB	57 (-1;-3) dB
Self regulating	no		
TECHNICAL CHARACTERISTICS			
U-value	4,5 W/m^2K		
Watertightness (closed position)	650 Pa		
Windtightness	650 Pa		

ACOUSTIC VENTILATORS

SONOVENT®

Self-regulating ventilator with a superior sound absorption

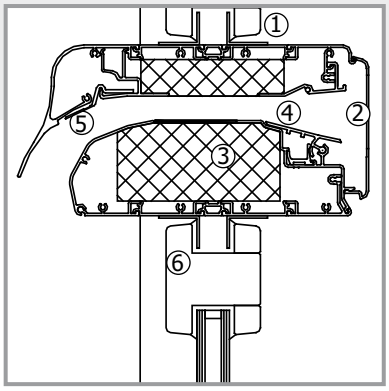


INTRODUCTION

RENSON has developed the SONOVENT®
to meet two aspects of living comfort:

Physical comfort:
fresh and healthy air without draughts

Acoustic comfort:
up to 50 dB sound reduction



SECTION DETAILS

① Aluminium ventilation box with thermal bridges
② Cleanable because of the removable inner profile
③ Acoustic elements are removable from the inside
④ Inner flap for ventilation control
⑤ Self regulating element: avoids draughts and saves energy
⑥ Frame profile

ADVANTAGES

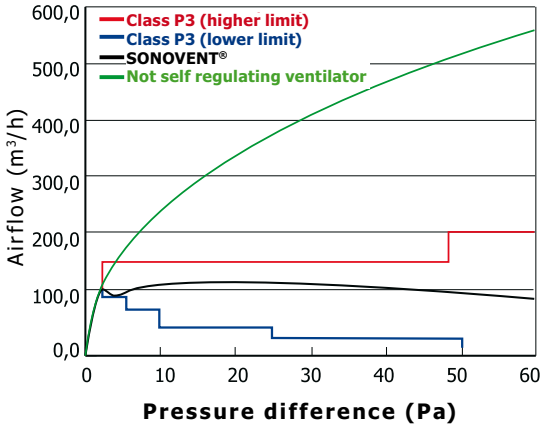
- Hidden installation possible for maximum respect for the architecture
- Self regulating ventilation (class P3) in order to avoid draughts and to minimize energy losses
- Secure ventilation with closed windows: insect-, burglar- and rainproof
- Thermally broken profiles. These thermal bridges can be positioned according to the type and installation
- Easy to maintain because of the removable parts
- Integrated solution for acoustics and ventilation
- Can be glazed into windows and curtain walling

Sonovent® XL Madejski Academy (UK)
arch.: Broadway & Malyan

A NEW STANDARD IN ACOUSTIC VENTILATION

The SONOVENT® combines the best air sound insulation with the most comfortable ventilation by means of a self regulating element which reduces the air inlet even by the smallest air pressure on the façade. According to this patented principle the SONOVENT® avoids draughts and saves energy.

Relation air flow pressure drop of RENSON SONOVENT® according to the SIGHT report PO30007-07-02.



MATERIAL

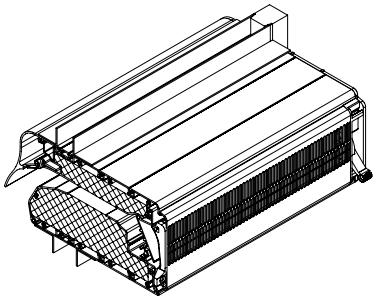
Profiles: aluminium AlMgSi 0.5 (according to DIN 1748)
Finishing: only powdercoated in any RAL or Syntha Pulvin® colour (dual colour possible)
Endcaps in ASA polymer type Luran S (colourfast, weather- and UV-resistant)

DIMENSIONS

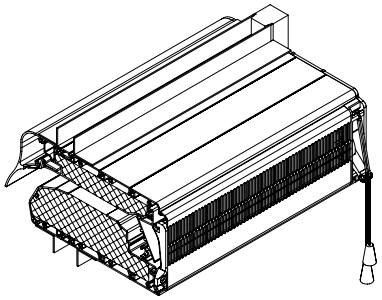
Height:	105mm
Glass reduction:	135 mm
Glass thickness:	20, 24, 28 & 32 mm as standard.

Other thicknesses available on demand.

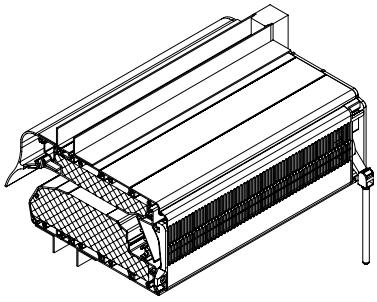
CONTROLS



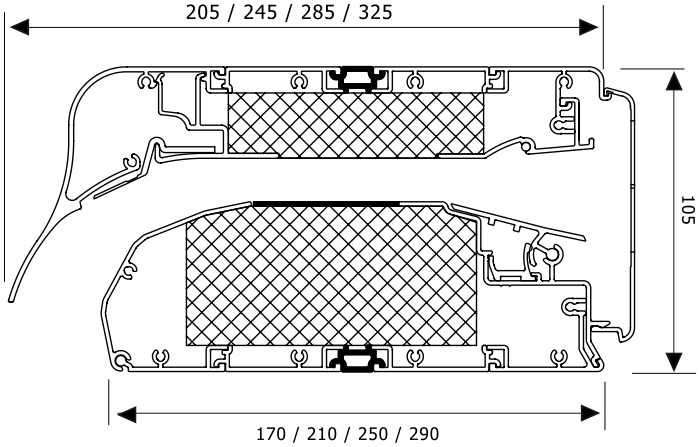
manual control



cord control



rod control
(hook-up)

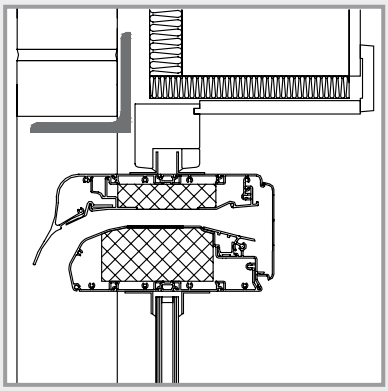


AVAILABLE MODELS

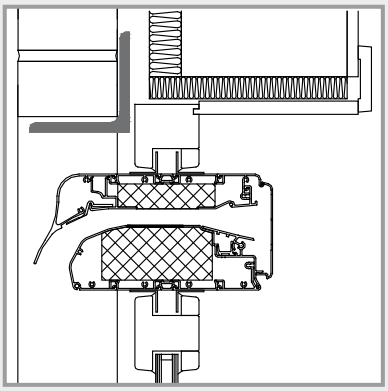
Four types of the SONOVENT® are available: Small, Medium, Large and XLarge. Each type has 4 free area possibilities (air slot: 10, 15, 20 or 25 mm). This comes up to a total of 16 alternatives in total, which means that each situation of noise nuisance can be solved.
The SONOVENT® is always made to measure with a maximum length of 2000 mm (installation on glass) or a maximum length of 2500 mm (installation at transom).

ACOUSTIC VENTILATORS

SONOVENT®



Installation on glass



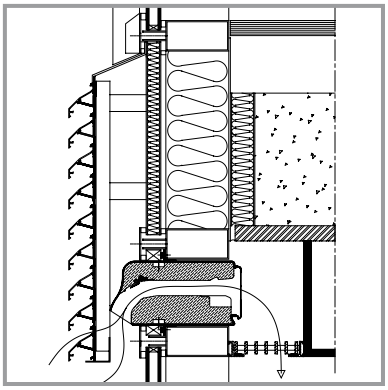
Installation between profiles

APPLICATIONS

- On all types of window frames: aluminium, timber and PVC
- Can be used for new building as well as for renovation
- For residential dwellings as well as hospitals, offices, schools and many other commercial applications
- can be installed on glass or between profiles (at transom).

SPECIAL APPLICATION FOR CURTAIN WALLING

Hidden installation in a ventilated panel of a curtain wall system. By varying the length the required air flow together with the necessary acoustic performances can be reached.



TECHNICAL SPECIFICATIONS

	Small	Medium	Large	Xlarge
AIRFLOW				
Airflow at 2 Pa				
Air slot 10 mm	50,2 $m^3/h/m$	49,5 $m^3/h/m$	45,7 $m^3/h/m$	40,8 $m^3/h/m$
15 mm	83,7 $m^3/h/m$	75,0 $m^3/h/m$	72,2 $m^3/h/m$	61,0 $m^3/h/m$
20 mm	90,0 $m^3/h/m$	94,2 $m^3/h/m$	90,7 $m^3/h/m$	87,9 $m^3/h/m$
25 mm	95,6 $m^3/h/m$	96,3 $m^3/h/m$	94,5 $m^3/h/m$	92,4 $m^3/h/m$
Airflow at 2 Pa				
Air slot 10 mm	14,0 l/s/m	13,8 l/s/m	12,7 l/s/m	11,3 l/s/m
15 mm	23,3 l/s/m	20,8 l/s/m	20,1 l/s/m	17,0 l/s/m
20 mm	25,0 l/s/m	26,2 l/s/m	25,2 l/s/m	24,4 l/s/m
25 mm	26,6 l/s/m	26,7 l/s/m	26,3 l/s/m	25,7 l/s/m
Airflow at 1 Pa				
Air slot 10 mm	14,0 l/s/m	13,8 l/s/m	12,7 l/s/m	11,3 l/s/m
15 mm	23,3 l/s/m	20,8 l/s/m	20,1 l/s/m	17,0 l/s/m
20 mm	25,0 l/s/m	26,2 l/s/m	25,2 l/s/m	24,4 l/s/m
25 mm	26,6 l/s/m	26,7 l/s/m	26,3 l/s/m	25,7 l/s/m
Equivalent area				
Air slot 10 mm	17756 mm^2/m	17509 mm^2/m	16153 mm^2/m	14427 mm^2/m
15 mm	29593 mm^2/m	26511 mm^2/m	25524 mm^2/m	21578 mm^2/m
20 mm	31813 mm^2/m	33292 mm^2/m	32059 mm^2/m	31073 mm^2/m
25 mm	33786 mm^2/m	34032 mm^2/m	33416 mm^2/m	32676 mm^2/m
COMFORT				
Sound reduction in open position $D_{n,e,w}$ ($C;C_{tr}$)		(EN ISO 140-10, EN ISO 717-1)		
Air slot 10 mm	46 (-1,-5) dB	48 (-2;-6) dB	50 (-2;-6) dB	56 (-2;-6) dB
15 mm	41 (-1;-2) dB	45 (2;-6) dB	49 (-2;-7) dB	53 (-2;-6) dB
20 mm	40 (-1;-3) dB	43 (0;-3) dB	44 (-2;-6) dB	46 (-2;-6) dB
25 mm	37 (-1;-3) dB	39 (-1;-4) dB	41 (-2;-6) dB	45 (-2;-6) dB
Sound reduction in closed position $D_{n,e,w}$ ($C;C_{tr}$)		(EN ISO 140-10, EN ISO 717-1)		
Air slot 10 mm	n.p.d.			
15 mm				
20 mm				
25 mm				
Self regulating	yes (class P3)			
TECHNICAL CHARACTERISTICS :		(EN 13141-1)		
U-value	4,5 W/m^2K	4,6 W/m^2K	4,6 W/m^2K	4,7 W/m^2K
Watertightness (closed position)	650Pa			
Windtightness	650Pa			

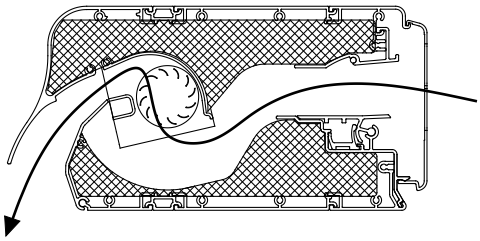
Information SONOVENT® based on Sight report PO30007-07-02
RENSON reserves the right to add technical modifications to the concerned products.

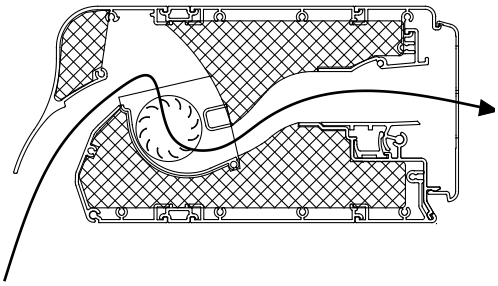
SONOVENT® V

mechanical ventilator with a superior sound absorption

MECHANICAL VENTILATOR

This mechanical ventilator, provided with an electrical motor (24V), has an air flow of maximum 220m³/h/m. The SONOVENT® V is only available as 1 type: Small and two models (one for extraction and one for supply).
The ventilator is efficient for the supply of fresh air and the extraction of consumed air (not suitable as kitchen or bathroom extractor). The ventilator starts to work automatically when opening the flap and is controllable by means of a variable speed controller. The mechanical parts and the acoustic insulation are removable from the interior.





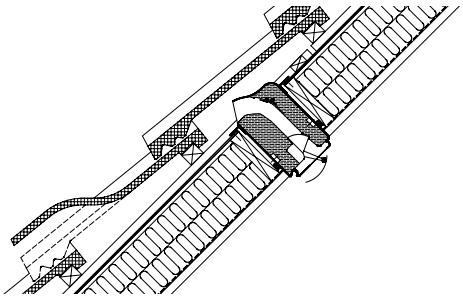
TECHNICAL SPECIFICATIONS

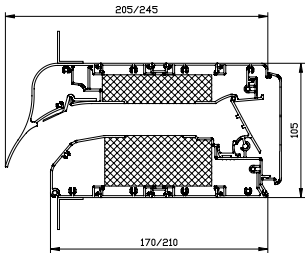
	SONOVENT® V
AIRFLOW	
Supply	220 m³/h/m
Supply	61,11 l/s/m
Extraction	220 m³/h/m
Extraction	61,11 l/s/m
COMFORT	
Sound reduction $D_{n,e,w}$ ($C;C_{tr}$)	(EN ISO 140-10, EN ISO 717-1)
- in open position	35 (-1;-3) dB
- in closed position	n.p.d.
TECHNICAL CHARACTERISTICS	
U-value	4,5 W/m²K
Watertightness (closed position)	650 Pa
Windtightness	600 Pa

SPECIAL APPLICATIONS FOR VENTILATION IN ROOMS UNDER ROOF

It is sometimes not easy to reach the ventilation standards for rooms under roof which can not be equipped of vertical windows. The ventilation slots of roof windows do not provide enough air flow and opening windows is acoustically not interesting. Extra protection for rain and insects can also be required.

This is why a SONOVENT® D is the best solution for installation in the roof segment with ventilation tiles. This hidden installation assures total watertightness in close position up to 650 pa and in open position up to 100 Pa. The SONOVENT® D is available in two types (Small, Medium) and can be installed from the inside as from the outside when building the roof.





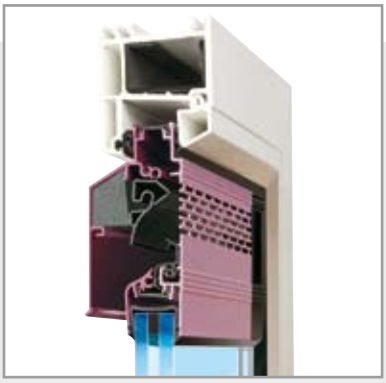
TECHNICAL SPECIFICATIONS

	Small	Medium
AIRFLOW		
2 Pa	100,8 m^3/h/m (tiles) • 86,3 m^3/h/m (slats)	
2 Pa	28,0 l/s/m (tiles) • 24,0 l/s/m (slats)	
1 Pa	28,0 l/s/m (tiles) • 24,0 l/s/m (slats)	
Equivalent area	33786 mm^2/m	34032 mm^2/m
COMFORT		
Sound reduction $D_{n,e,w}$ ($C;C_{tr}$)	(EN ISO 140-10, EN ISO 717-1)	
- in open position	37 (-1;-3) dB	39 (-1;-4) dB
- in closed position	n.p.d.	n.p.d.
Self regulating	yes (class P3)	
TECHNICAL CHARACTERISTICS		
U-value	4,5 W/m^2K	
Watertightness (closed position)	650 Pa	
Windtightness	650 Pa	

ACOUSTIC VENTILATORS

THK90AK

glazed-in flapvent with acoustic hood



INTRODUCTION

Aluminium thermally broken flapvent with an acoustic hood for all types of windows (aluminium, timber or uPVC).
The THK90AK has an external hood for excellent weather protection, installed in this hood is a sound reducing material. The THK 90 AK is aesthetically similar to the THK90 and the AR90 (see page 52).

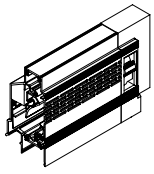
MATERIAL

Inside and outside profile: aluminium AlMgSi 0.5 (according to DIN 1748)
Finishing: satin anodised or powdercoated in any RAL or Syntha Pulvin® colour (dual colour possible)
Endcaps in ASA polymer type Luran S (colourfast, weather- and UV-resistant)
Endcaps are in black or white but also available in other colours upon request.

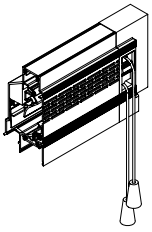
DIMENSIONS

Glass reduction:	90 mm
Height:	105 mm
Glass thickness:	20, 24 & 28 mm

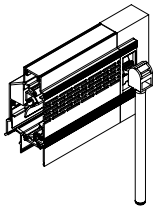
CONTROLS



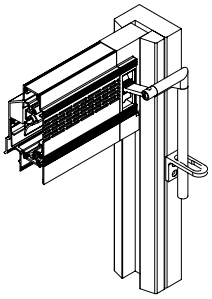
manual control



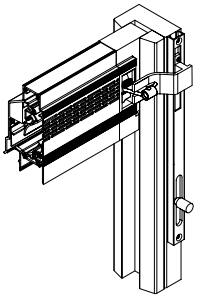
cord control



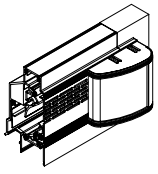
rod control (hook-up)



rod control (with transmission)



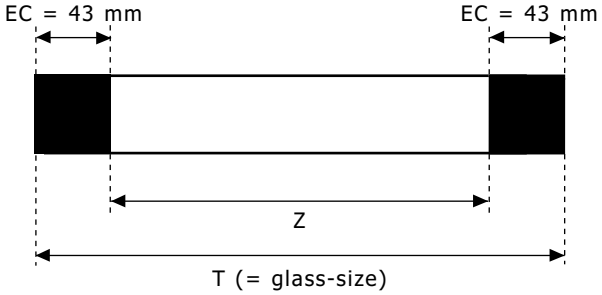
rod control (with sliding knob)



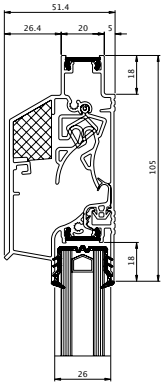
motor control

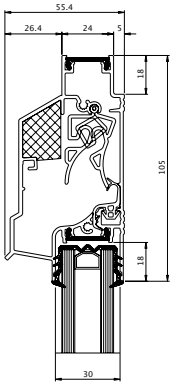
ASSEMBLY

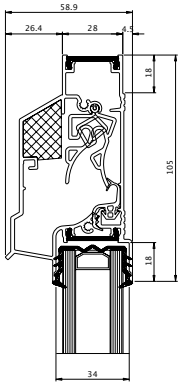
Developed for fabrication from bar lengths (6000 mm) or made to measure (max. 2500 mm)
Cut ventilator to size from a bar length, fix endcaps (1 L + 1 R)
We advise use of glazing gasket RENSON nr 039 or nr 034 (20-28 mm) for installation
Overall dimension of the ventilator (T) = extrusion length (Z) + (2x endcaps (EC))



SECTION DETAILS







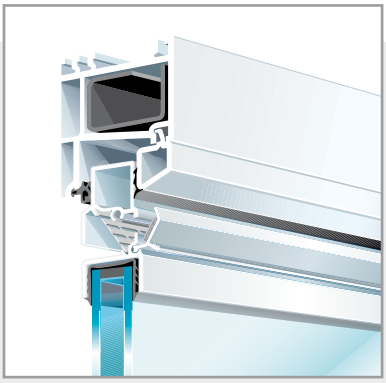
TECHNICAL SPECIFICATIONS

	THK90AK
AIRFLOW	
2 Pa	57,9 $m^3/h/m$
2 Pa	16,1 l/s/m
1 Pa	11,6 l/s/m
Equivalent area	14736 mm^2/m
COMFORT	
Sound reduction $D_{n,e,w}$ ($C;C_{tr}$)	(EN ISO 140-10, EN ISO 717-1)
- in open position	29 (0;-1) dB
- in closed position	45 (0;-2) dB
Self regulating	no
TECHNICAL CHARACTERISTICS	
U-value	3,9 W/m^2K
Watertightness (closed position)	650 Pa
Windtightness	650 Pa

GLAZED-IN VENTILATORS

TH45

low-cost uPVC slimline glazed-in ventilator



INTRODUCTION

uPVC slimline glazed-in ventilator with only a 45 mm glass reduction, especially suited for uPVC windows.
The perforated inside grille performs as an insectmesh.
The unique design of the ventilator directs the flow of incoming air upwards. To ensure increased water- and windtightness the ventilator is fitted with a restraining clip.

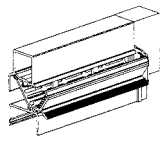
MATERIAL

Frame: white uPVC (RAL 9016)
Tip lever: aluminium AlMgSi 0.5 (according to DIN 1748)
Flyscreen: aluminium
Endcaps in white ASA polymer type Luran S (colourfast, weather- and UV-resistant)

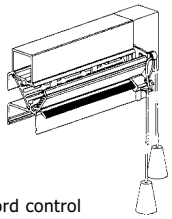
DIMENSIONS

Glass reduction:	45 mm
Height:	58 mm
Glass thickness:	20, 24 & 28 mm

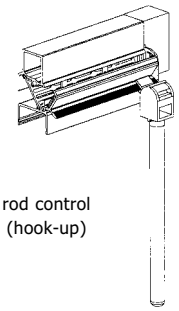
CONTROLS



manual control



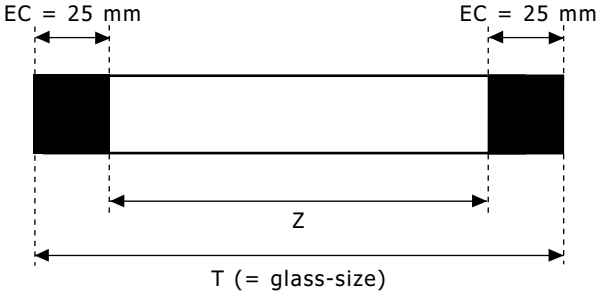
cord control



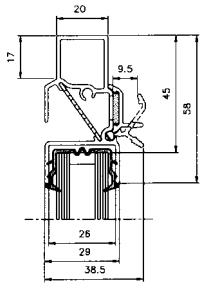
rod control (hook-up)

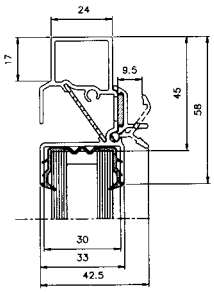
ASSEMBLY

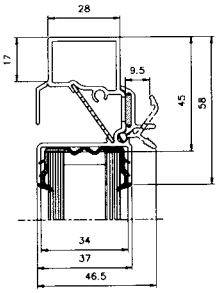
Developed for fabrication from bar lengths (3000 mm) or made to measure (maximum 750 mm)
Cut ventilator to size from a bar length + fix endcaps (1 L + 1 R)
Overall dimension of the ventilator (T) = extrusion length (Z) + (2 x endcaps (EC))
We advise the use of glazing gasket RENSON nr 049 (20-28 mm) for installation



SECTION DETAILS







TECHNICAL SPECIFICATIONS

	TH45
AIRFLOW	
2 Pa	25,0 $m^3/h/m$
2 Pa	6,9 l/s/m
1 Pa	4,9 l/s/m
Equivalent area	6256 mm^2/m
COMFORT	
Sound reduction $D_{n,e,w}$ ($C;C_{tr}$)	(EN ISO 140-10, EN ISO 717-1)
- in open position	27 (0;0) dB
- in closed position	44 (0;0) dB
Self regulating	no
TECHNICAL CHARACTERISTICS	
U-value	n.p.d.
Watertightness (closed position)	350 Pa
Windtightness	350 Pa

GLAZED-IN VENTILATORS

T45

non thermally broken aluminium slimline glazed-in ventilator

INTRODUCTION

Aluminium slimline glazed-in ventilator for application in aluminium, timber and uPVC windows. The perforated inside grille performs as an insectmesh.
The unique design of the ventilator directs the flow of incoming air upwards. To ensure increased water- and windtightness the ventilator is fitted with a restraining clip.

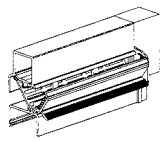
MATERIAL

Frame and tip: aluminium AlMgSi 0.5 (according to DIN 1748)
Finishing: satin anodised or powdercoated in any RAL or Syntha Pulvin® colour (dual colour possible)
Endcaps in ASA polymer type Luran S (colourfast, weather- and UV-resistant)
Endcaps are in black or white but also available in other colours upon request.

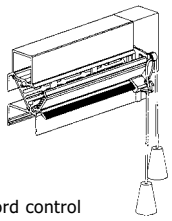
DIMENSIONS

Glass reduction:	45 mm
Height:	58 mm
Glass thickness:	4, 20, 24 & 28 mm

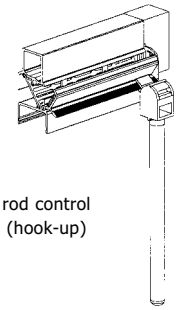
CONTROLS



manual control



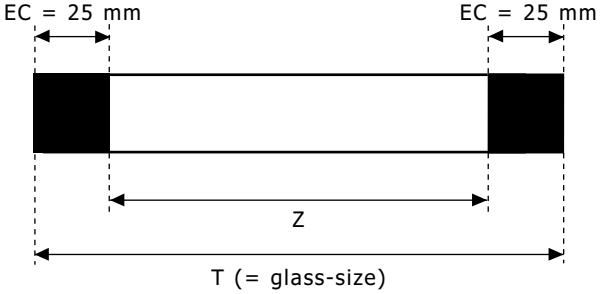
cord control

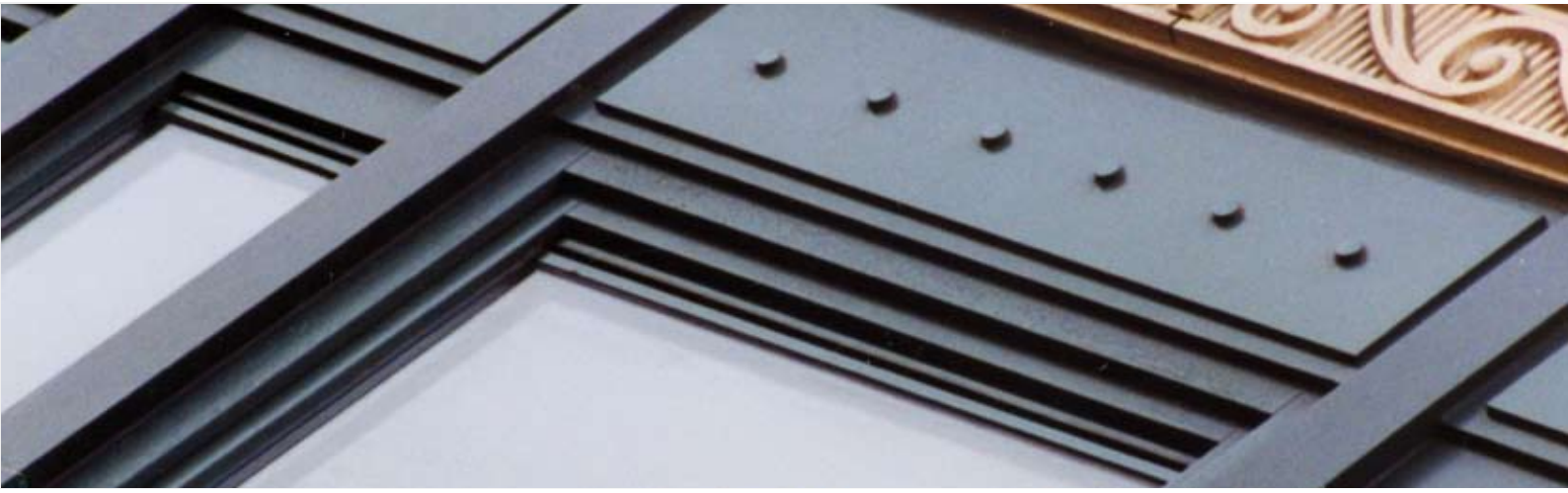


rod control
(hook-up)

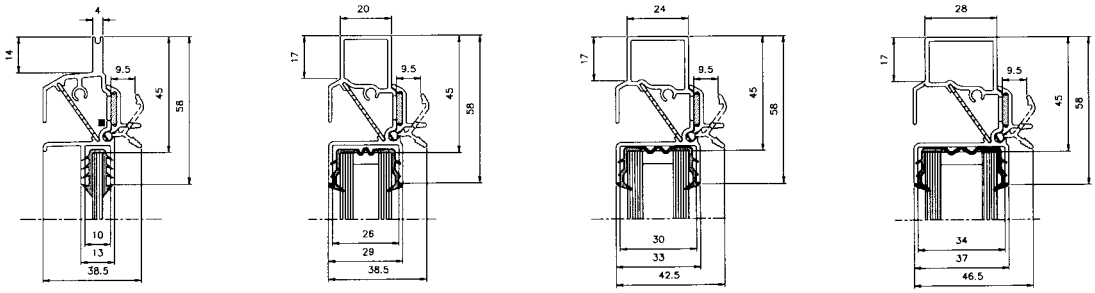
ASSEMBLY

Developed for fabrication from bar lengths (6000 mm) or made to measure (maximum 2000 mm)
Cut ventilator to size from a bar length + fix endcaps (1 L + 1 R)
Overall dimension of the ventilator (T) = extrusion length (Z) + (2 x endcaps (EC))
We advise the use of glazing gasket RENSON nr 049 (20-28 mm) or nr 104 (4 mm) for installation.





SECTION DETAILS



TECHNICAL SPECIFICATIONS

	T45
AIRFLOW	
2 Pa	25,0 $m^3/h/m$
2 Pa	6,9 l/s/m
1 Pa	4,9 l/s/m
Equivalent area	6256 mm^2/m
COMFORT	
Sound reduction $D_{n,e,w}$ ($C;C_{tr}$)	(EN ISO 140-10, EN ISO 717-1)
- in open position	27 (0;0) dB
- in closed position	44 (0;0) dB
Self regulating	no
TECHNICAL CHARACTERISTICS	
U-value	n.p.d.
Watertightness (closed position)	350 Pa
Windtightness	350 Pa

GLAZED-IN VENTILATORS

TC45

compact flapvent with an excellent price/quality ratio

INTRODUCTION

The RENSON TC45 is a compact thermally broken aluminium glazed-in window flapventilator with soft-line design outer profile. The punched inside grille acts as an insect mesh. The internal tip directs the incoming airflow upwards and can be placed in 5 positions.

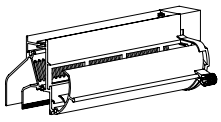
MATERIAL

Inside and outside profile: aluminium AlMgSi 0.5 (according to DIN 1748)
Finishing: satin anodised or powdercoated in any RAL or Syntha Pulvin® colour (dual colour possible)
Endcaps in ASA polymer type Luran S (colourfast, weather- and UV-resistant)
Endcaps are in black or white but also available in other colours upon request.

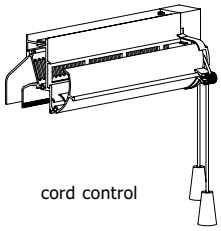
DIMENSIONS

Glass reduction:	45 mm
Height:	60 mm
Glass thickness:	20, 24 & 28 mm

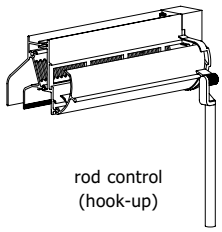
CONTROLS



manual control



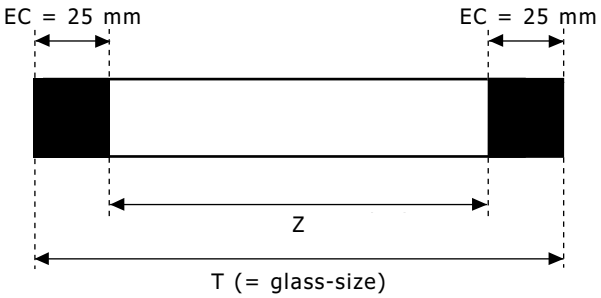
cord control



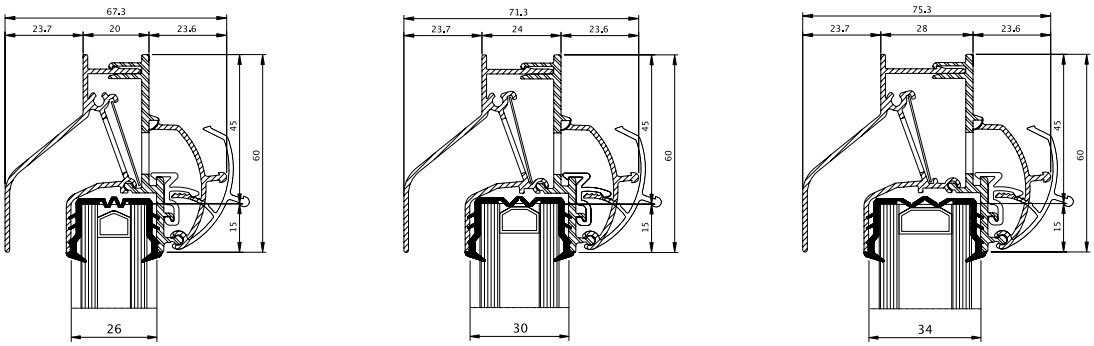
rod control
(hook-up)

ASSEMBLY

Developed for fabrication from bar lengths (6000 mm) or made to measure (maximum 2500 mm)
Cut ventilator to size from a bar length, fix endcaps (1 L + 1 R)
Overall dimension of the ventilator (T) = extrusion length (Z) + (2 x endcaps (EC))
We advise use of glazing gasket RENSON nr 049 (20-28 mm) for installation



SECTION DETAILS



TECHNICAL SPECIFICATIONS

	TC45
AIRFLOW	
2 Pa	41,4 $m^3/h/m$
2 Pa	11,5 l/s/m
1 Pa	8,2 l/s/m
Equivalent area	10435 mm^2/m
COMFORT	
Sound reduction $D_{n,e,w}$ ($C;C_{tr}$)	(EN ISO 140-10, EN ISO 717-1)
- in open position	27 (0;0)
- in closed position	37 (-1;-2)
Self regulating	no
TECHNICAL CHARACTERISTICS	
U-value	4,1 W/m^2K
Watertightness (closed position)	650 Pa
Windtightness	650 Pa

GLAZED-IN VENTILATORS

TC60

compact flapvent with an excellent price/quality ratio

INTRODUCTION

The RENSON TC60 is a thermally broken aluminium glazed-in window flapventilator with soft-line design outer profile and with only a 60 mm glass reduction. The punched inside grille acts as an inside mesh.

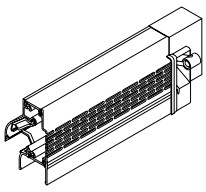
MATERIAL

Inside and outside profile: aluminium AlMgSi 0.5 (according to DIN 1748)
Finishing: satin anodised or powdercoated in any RAL or Syntha Pulvin® colour (dual colour possible)
Endcaps in ASA polymer type Luran S (colourfast, weather- and UV-resistant)
Endcaps are in black or white but also available in other colours upon request.

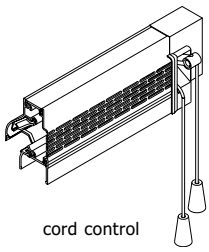
DIMENSIONS

Glass reduction:	60 mm
Height:	75 mm
Glass thickness:	20, 24 & 28 mm

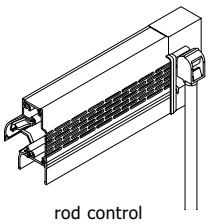
CONTROLS



manual control



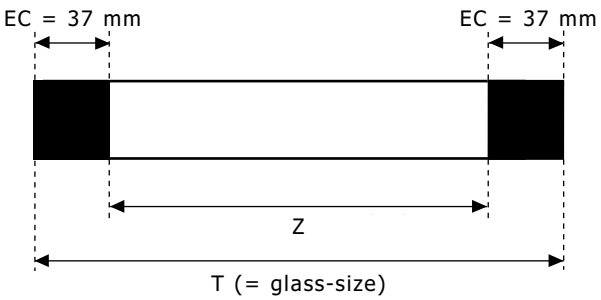
cord control



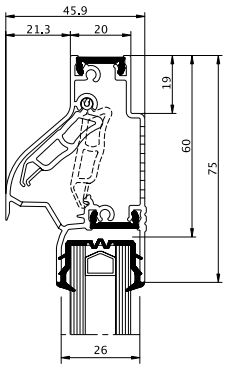
rod control
(hook-up)

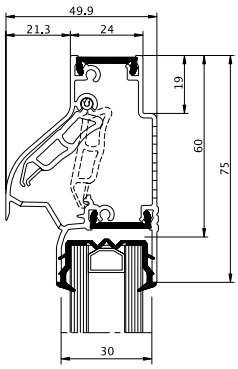
ASSEMBLY

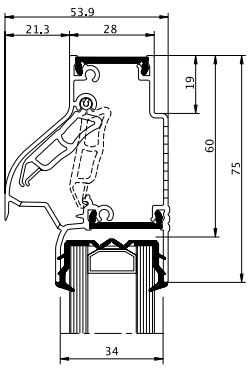
Developed for fabrication from bar lengths (6000 mm) or made to measure (maximum 2000 mm)
Cut ventilator to size from a bar length + fix endcaps (1 L + 1 R)
Overall dimension of the ventilator (T) = extrusion length (Z) + (2 x endcaps (EC))
We advise use of glazing gasket RENSON nr 039 or nr 034 (20-28 mm) for installation



SECTION DETAILS







TECHNICAL SPECIFICATIONS

	TC60
AIRFLOW	
2 Pa	62,6 $m^3/h/m$
2 Pa	17,4 l/s/m
1 Pa	12,3 l/s/m
Equivalent area	15652 mm^2/m
COMFORT	
Sound reduction $D_{n,e,w}$ ($C;C_{tr}$)	(EN ISO 140-10, EN ISO 717-1)
- in open position	28 (0;0) dB
- in closed position	42 (0;0) dB
Self regulating	no
TECHNICAL CHARACTERISTICS	
U-value	3,3 W/m^2K
Watertightness (closed position)	650 Pa
Windtightness	650 Pa

GLAZED-IN VENTILATORS

THK60 • AR60

THK60: flapvent with external hood for good weather protection
AR60: self-regulating flapvent with external hood for good weather protection

INTRODUCTION

The THK60 and AR60 are thermally broken, slimline glazed-in ventilators, for application in aluminium, timber and uPVC windows. The perforated inside grille performs as an insect mesh. The internal tip directs the flow of incoming air upwards, and can be placed in 5 positions due to a clip. This clip can be replaced if necessary to ensure the longterm life-expectancy of the ventilator. The first position allows for trickle ventilation, but can be closed with a positive closing click against a rubber strip to ensure windtightness.
The AR60 has an automatically operating flap in the ventilator maintaining a constant airflow in the living-area, independent of the windforce.

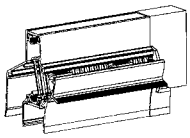
MATERIAL

Inside and outside profile: aluminium AlMgSi 0.5 (according to DIN 1748)
Finishing: satin anodised or powdercoated in any RAL or Syntha Pulvin® colour (dual colour possible)
Endcaps in ASA polymer type Luran S (colourfast, weather- and UV-resistant)
Endcaps are in black or white but also available in other colours upon request.

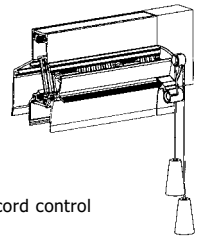
DIMENSIONS

Glass reduction:	60 mm
Height:	76 mm
Glass thickness:	20, 24 & 28 mm

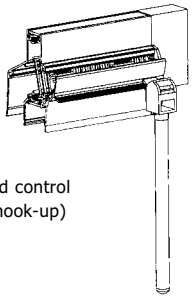
CONTROLS



manual control



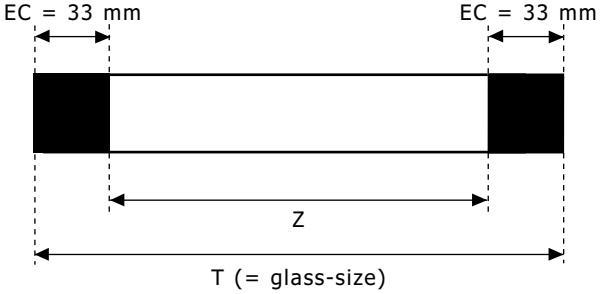
cord control



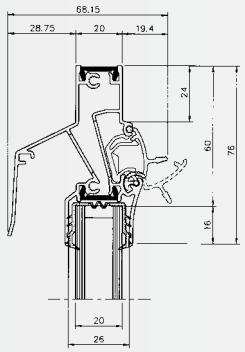
rod control (hook-up)

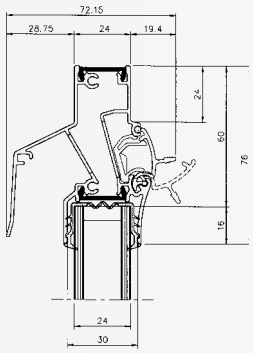
ASSEMBLY

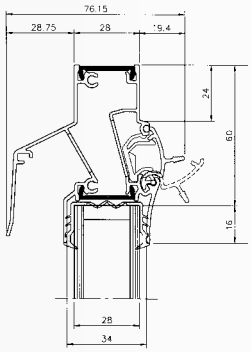
Developed for fabrication from bar lengths (6000 mm) or made to measure (maximum 2500 mm)
Cut ventilator to size from a bar length, fix endcaps (1 L + 1 R)
We advise use of glazing gasket RENSON nr 039 or nr 034 (20-28 mm) for installation
Overall dimension of the ventilator (T) = extrusion length (Z) + (2 x endcaps (EC))



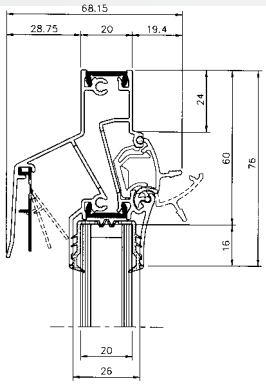
SECTION DETAILS

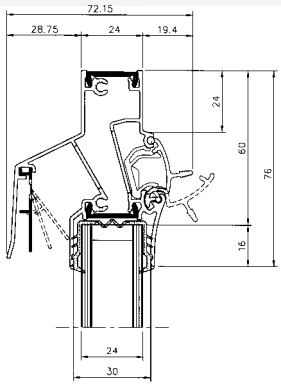


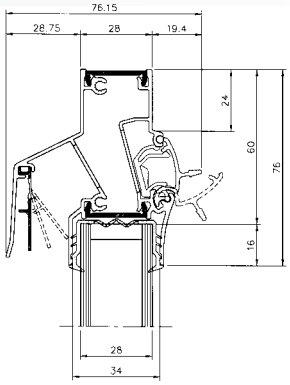




THK60







AR60

TECHNICAL SPECIFICATIONS

	THK60	AR60
AIRFLOW		
2 Pa	47,5 $m^3/h/m$	42,3 $m^3/h/m$
2 Pa	13,2 l/s/m	11,8 l/s/m
1 Pa	9,3 l/s/m	8,2 l/s/m
Equivalent area	11841 mm^2/m	10427 mm^2/m
COMFORT		
Sound reduction $D_{n,e,w}$ ($C;C_{tr}$)	(EN ISO 140-10, EN ISO 717-1)	
- in open position	27 (0;0) dB	
- in closed position	44 (0;0) dB	
Self regulating	no	yes
TECHNICAL CHARACTERISTICS		
U-value	4,5 W/m^2K	
Watertightness (closed position)	650 Pa	
Windtightness	650 Pa	

GLAZED-IN VENTILATORS

AR75

self-regulating vent allowing 4 different airflows within the same design

INTRODUCTION

Thermally broken self-regulating aluminium vent, suitable on aluminium, timber and uPVC windows. Due to its unique patented inner mechanism, 4 different airflows of 54, 67, 77 & 101 $m^3/h/m$ can be reached, while maintaining the full range of control. From aesthetical point of view different AR75 (with different airflows) can be installed in one façade while maintaining the same look.
The self-regulating flap reacts automatically to various wind pressures thus preventing draughts and saves on energy costs for the end-user.
The inner flap, which acts as an insect mesh, is easy to take off for maintenance purposes.

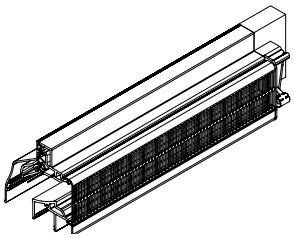
MATERIAL

Inside and outside profile: aluminium AlMgSi 0.5 (according to DIN 1748)
Finishing: satin anodised or powdercoated in any RAL or Syntha Pulvin® colour (dual colour possible)
Endcaps in ASA polymer type Luran S (colourfast, weather- and UV-resistant)
Endcaps are in black or white but also available in other colours upon request.

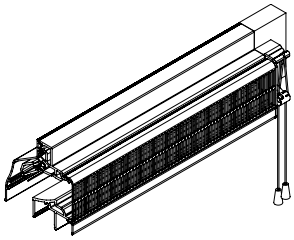
DIMENSIONS

Glass reduction:	75 mm
Height:	92 mm
Glass thickness:	20, 24, 28 & 32 mm

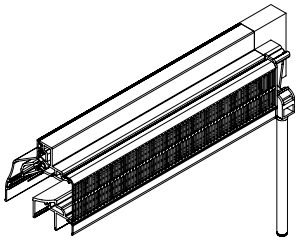
CONTROLS



manual control



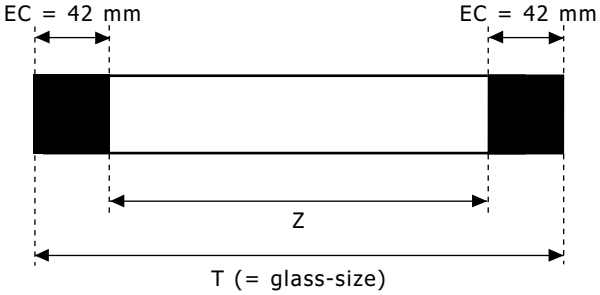
cord control



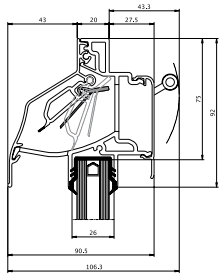
rod control
(hook-up)

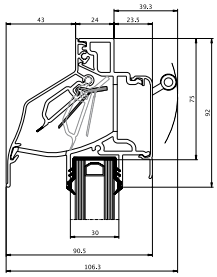
ASSEMBLY

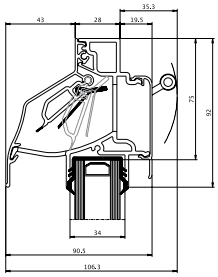
Developed for fabrication from bar lengths (6000 mm) or made to measure (maximum 2500 mm)
Cut ventilator to size from a bar length, fix endcaps (1 L + 1 R)
We advise use of glazing gasket RENSON nr 039 or nr 034 (20-28 mm) and nr 029 (28-36 mm) for installation
Overall dimension of the ventilator (T) = extrusion length (Z) + (2 x endcaps (EC))

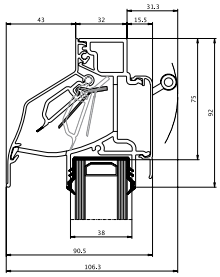


SECTION DETAILS









TECHNICAL SPECIFICATIONS

	AR75 Small	AR75 Medium	AR75 Large	AR 75 Xlarge
AIRFLOW				
2 Pa	53,7 m^3/h/m	67,1 m^3/h/m	77,3 m^3/h/m	100,9 m^3/h/m
2 Pa	14,9 l/s/m	18,6 l/s/m	21,5 l/s/m	28,0 l/s/m
1 Pa	10,5 l/s/m	13,1 l/s/m	15,2 l/s/m	19,9 l/s/m
Equivalent area	13419 mm^2/m	16682 mm^2/m	19342 mm^2/m	25265 mm^2/m
COMFORT				
Sound reduction $D_{n,e,w}$ ($C;C_{tr}$)	(EN ISO 140-10, EN ISO 717-1)			
- in open position	26 (-1;-1) dB	26 (-1;-2) dB	26 (-1;-2) dB	26 (-1;-1) dB
- in closed position	43 (-1;-2) dB	43 (-1;-2) dB	43 (-1;-2) dB	43 (-1;-2) dB
Self regulating	yes			
TECHNICAL CHARACTERISTICS				
U-value	3,0 W/m^2K			
Watertightness (closed position)	650 Pa			
Windtightness	650 Pa			

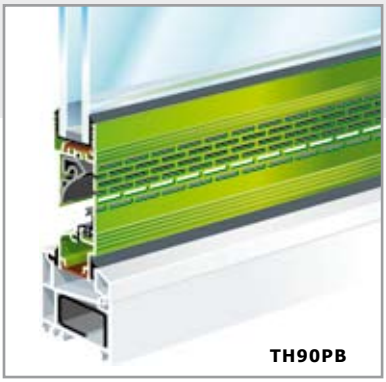
GLAZED-IN VENTILATORS

TH90 • TH90PB • TH90TR

flush vent ideal for sliding doors

INTRODUCTION

The TH90 is a flush aluminium flapvent with thermal break, for all types of windows and ideal for sliding doors. The flat punched internal profile performs as an insect screen. The internal flap can be set in 5 stepped positions (open/close + 3 intermediate).
TH90PB is the TH90 version for installation at the bottom of a window.
TH90TR is the TH90 version for installation between profiles (at transom).



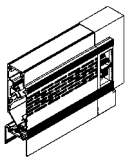
MATERIAL

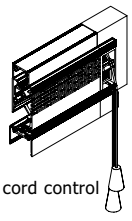
Inside and outside profile: aluminium AlMgSi 0.5 (according to DIN 1748)
Finishing: satin anodised or powdercoated in any RAL or Syntha Pulvin® colour (dual colour possible)
Endcaps in ASA polymer type Luran S (colourfast, weather- and UV-resistant)
Endcaps are in black or white but also available in other colours upon request.

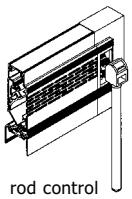
DIMENSIONS

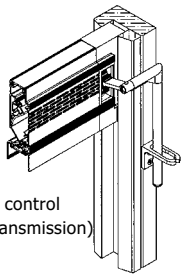
Glass reduction:	90 mm
Height:	105 mm
Glass thickness:	20, 24, 28 & 33 mm (TH90)
Glass thickness:	20, 24 & 28 mm (TH90PB)
Glass thickness:	20 & 24 mm (TH90TR)

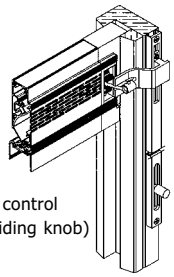
CONTROLS

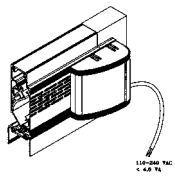

manual control


cord control


rod control (hook-up)

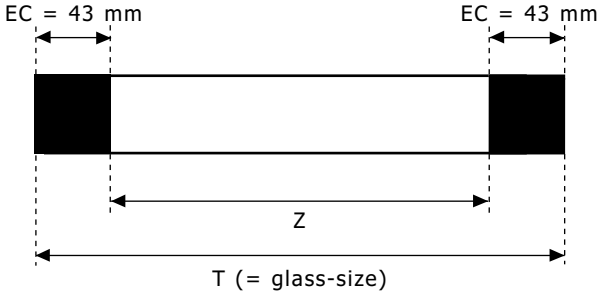

rod control (with transmission)


rod control (with sliding knob)

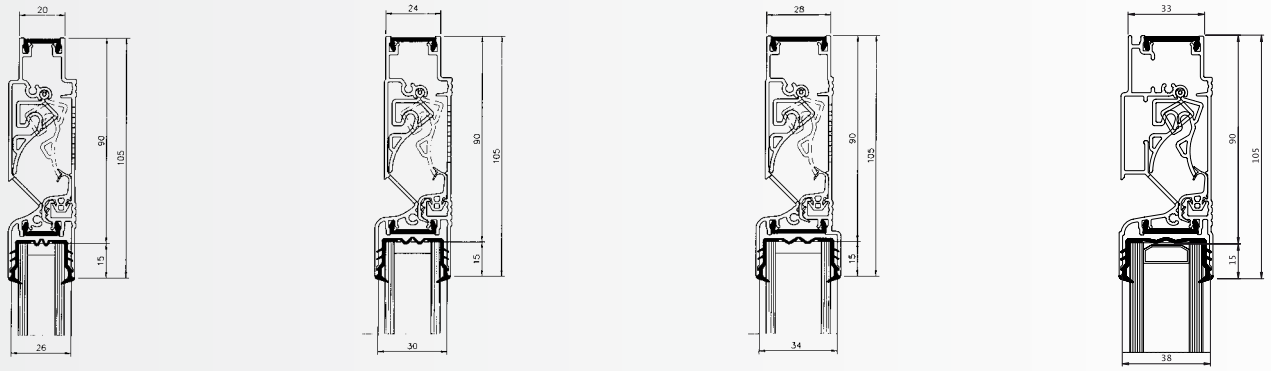

motor control

ASSEMBLY

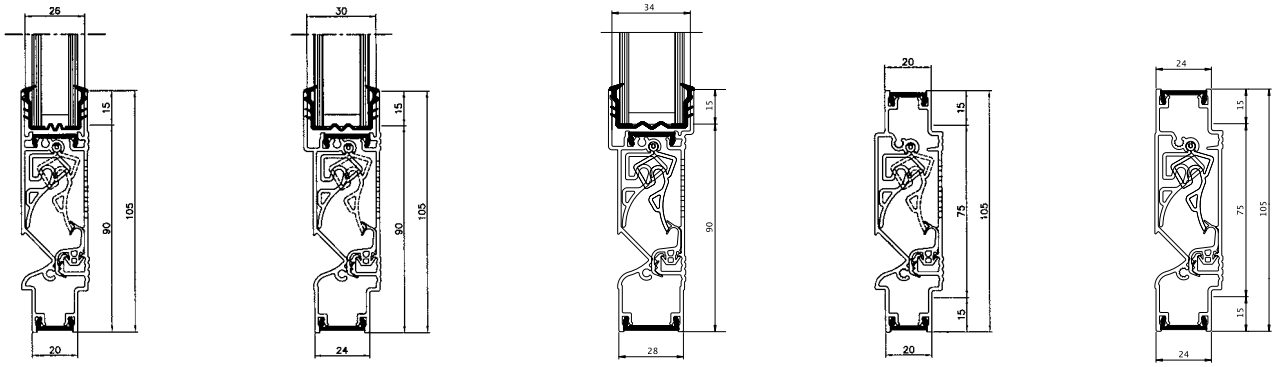
Developed for fabrication from bar lengths (6000 mm) or made to measure (max. 2500 mm)
Cut ventilator to size from a bar length, fix endcaps (1 L + 1 R)
We advise use of glazing gasket RENSON nr 039 or nr 034 (20-28 mm) and nr 029 (28-36 mm) for installation
Overall dimension of the ventilator (T) = extrusion length (Z) + (2 x endcaps (EC))



SECTION DETAILS



TH90



TH90PB **TH90TR**

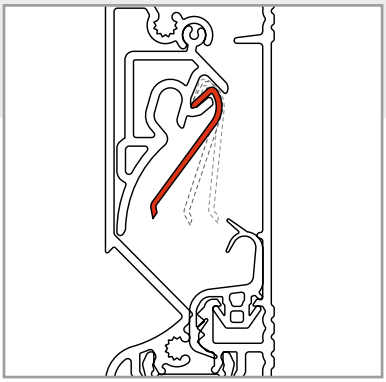
TECHNICAL SPECIFICATIONS

	TH90 / TH90PB / TH90TR
AIRFLOW	
2 Pa	48,9 $m^3/h/m$
2 Pa	13,6 l/s/m
1 Pa	9,6 l/s/m
Equivalent area	12203 mm^2/m
COMFORT	
Sound reduction $D_{n,e,w}$ ($C;C_{tr}$)	(EN ISO 140-10, EN ISO 717-1)
- in open position	26 (0;0) dB
- in closed position	45 (-1;-1) dB
Self regulating	no
TECHNICAL CHARACTERISTICS	
U-value	3,8 W/m^2K
Watertightness (closed position)	350 Pa
Windtightness	650 Pa

GLAZED-IN VENTILATORS

THM90 • THM90PB • THM90TR

flush vent ideal for sliding doors with an ***additional flap for better watertightness***



INTRODUCTION

The THM90 is a flush aluminium flapvent with thermal break, for all types of windows and ideal for sliding doors. The flat punched internal profile performs as an insect screen. The internal flap can be set in 5 stepped positions (open/close + 3 intermediate).
THM90PB is the THM90 version for installation at the bottom of a window.
THM90TR is the THM90 version for installation between profiles (at transom).
In fact the THM90 is the new and improved version of the TH90; at the inside an extra wind flap has been integrated to guarantee a higher watertightness in open position.

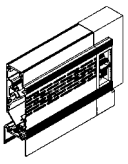
MATERIAL

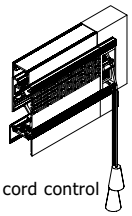
Inside and outside profile: aluminium AlMgSi 0.5 (according to DIN 1748)
Finishing: satin anodised or powdercoated in any RAL or Syntha Pulvin® colour (dual colour possible)
Endcaps in ASA polymer type Luran S (colourfast, weather- and UV-resistant)
Endcaps are in black or white but also available in other colours upon request.

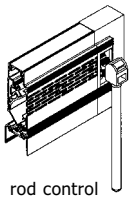
DIMENSIONS

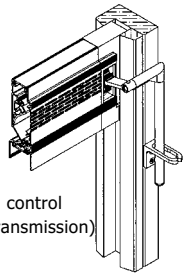
Glass reduction:	90 mm
Height:	105 mm
Glass thickness:	20, 24, 28 & 33 mm (THM90)
Glass thickness:	20, 24 & 28 mm (THM90PB)
Glass thickness:	20 & 24 mm (THM90TR)

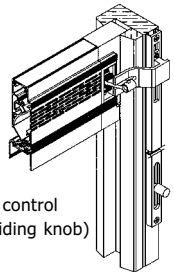
CONTROLS

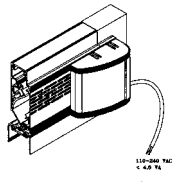

manual control


cord control


rod control (hook-up)

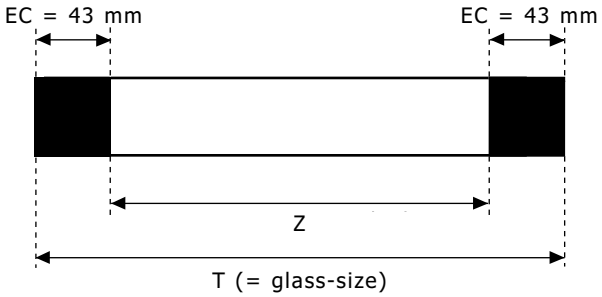

rod control (with transmission)


rod control (with sliding knob)

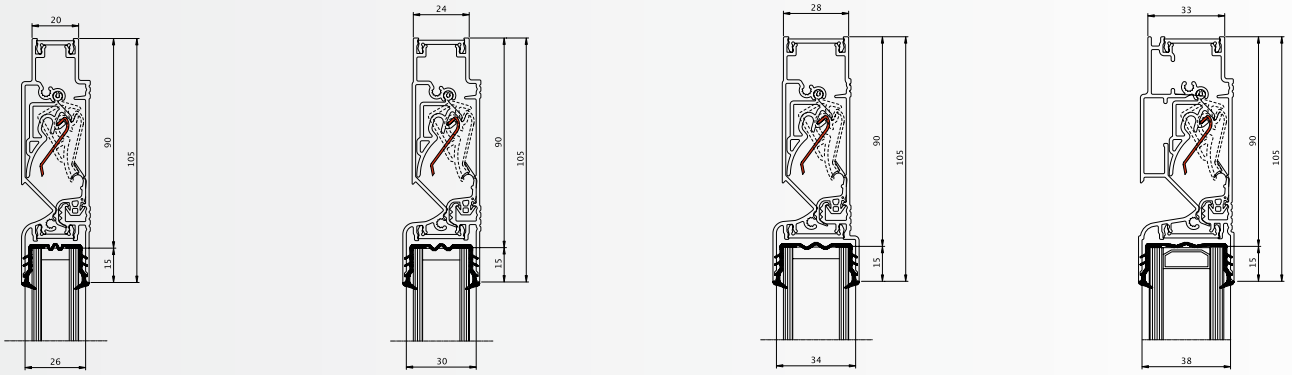

motor control

ASSEMBLY

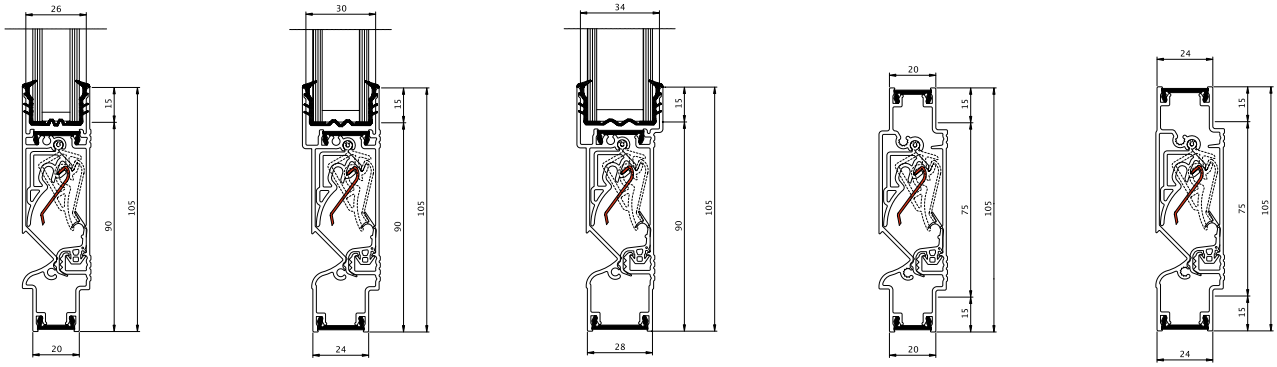
Developed for fabrication from bar lengths (6000 mm) or made to measure (max. 2500 mm)
Cut ventilator to size from a bar length, fix endcaps (1 L + 1 R)
We advise use of glazing gasket RENSON nr 039 or nr 034 (20-28 mm) and nr 029 (28-36 mm) for installation
Overall dimension of the ventilator (T) = extrusion length (Z) + (2 x endcaps (EC))



SECTION DETAILS



THM90



THM90PB

THM90TR

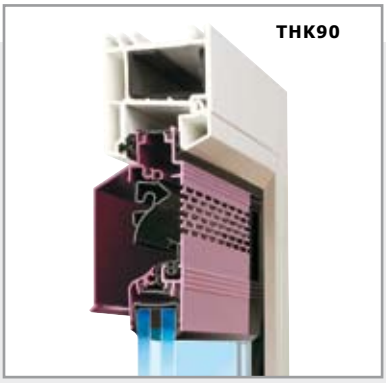
TECHNICAL SPECIFICATIONS

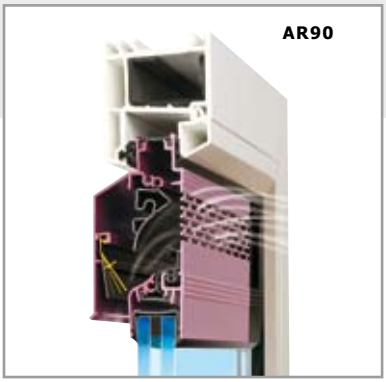
	THM90 / THM90PB / THM90TR
AIRFLOW	
2 Pa	45,0 $m^3/h/m$
2 Pa	12,5 l/s/m
1 Pa	8,8 l/s/m
Equivalent area	12203 mm^2/m
COMFORT	
Sound reduction $D_{n,e,w}$ ($C;C_{tr}$)	(EN ISO 140-10, EN ISO 717-1)
- in open position	26 (0;0) dB
- in closed position	45 (-1;-1) dB
Self regulating	no
TECHNICAL CHARACTERISTICS	
U-value	3,8 W/m^2K
Watertightness (closed position)	350 Pa
Windtightness	650 Pa

GLAZED-IN VENTILATORS

THK90: flapvent with external hood for better weather protection
AR90: self-regulating flapvent with external hood for better weather protection

THK90 • AR90





INTRODUCTION

The THK90 is an aluminium flapvent with thermal break, for all types of windows. The flat punched internal profile performs as an insect screen and is easy to clean. The internal flap can be set in 5 stepped positions.
Compared to the TH90 and THM90, the THK90 has an external hood for additional weather protection.
The AR90 is the self-regulating version of the THK90. The self-regulating flap reacts automatically to various wind pressures and can not be directed by the user himself. This self regulating principle prevents draughts and saves on energy costs for the end-user.

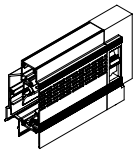
MATERIAL

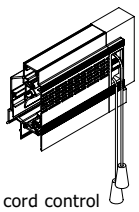
Inside and outside profile: aluminium AlMgSi 0.5 (according to DIN 1748)
Finishing: satin/bronze anodised or powdercoated in any RAL or Syntha Pulvin® colour (dual colour possible)
Endcaps in ASA polymer type Luran S (colourfast, weather- and UV-resistant) (white, black or in Ral colours)
Endcaps are in black or white but also available in other colours upon request.

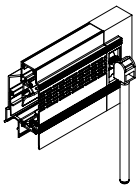
DIMENSIONS

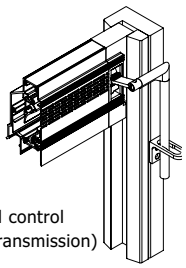
Glass reduction:	90 mm
Height:	105 mm
Glass thickness:	20, 24, 28 mm

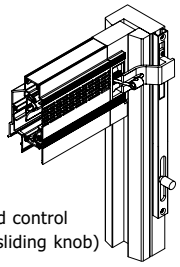
CONTROLS

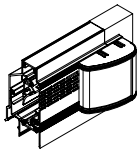

manual control


cord control


rod control (hook-up)

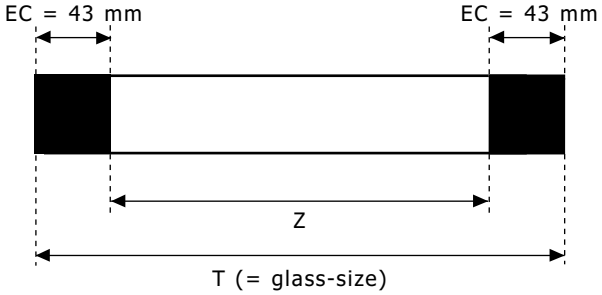

rod control (with transmission)


rod control (with sliding knob)

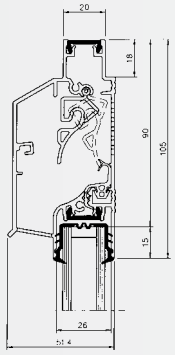

motor control

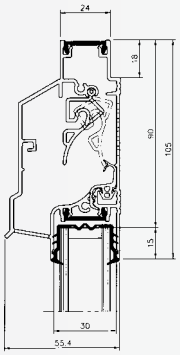
ASSEMBLY

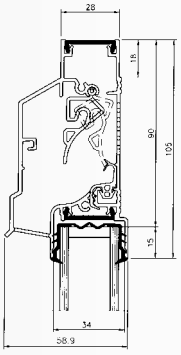
Developed for fabrication from bar lengths (6000 mm) or made to measure (maximum 2500 mm)
Cut ventilator to size from a bar length, fix endcaps (1 L + 1 R)
We advise use of glazing gasket RENSON nr 039 or nr 034 (20-28 mm) for installation.
Overall dimension of the ventilator (T) = extrusion length (Z) + (2 x endcaps (EC) 43 mm))



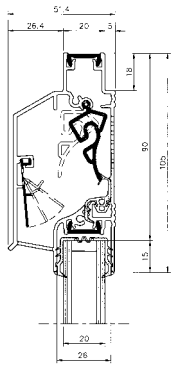
SECTION DETAILS

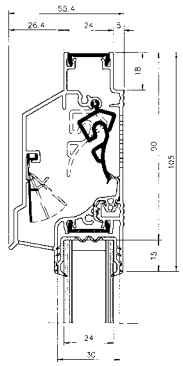


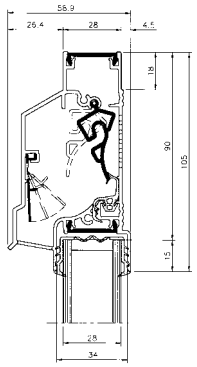




THK90







AR90

TECHNICAL SPECIFICATIONS

	THK90	AR90
AIRFLOW		
2 Pa	57,9 $m^3/h/m$	56,2 $m^3/h/m$
2 Pa	16,1 l/s/m	15,6 l/s/m
1 Pa	11,6 l/s/m	11,2 l/s/m
Equivalent area	14736 mm^2/m	14252 mm^2/m
COMFORT		
Sound reduction $D_{n,e,w}$ ($C;C_{tr}$)	(EN ISO 140-10, EN ISO 717-1)	
- in open position	28 (0;-1) dB	30 (-1;-2) dB
- in closed position	44 (0;-1) dB	45 (-1;-3) dB
Self regulating	no	yes (class P3)
TECHNICAL CHARACTERISTICS		
U-value	3,9 W/m^2K	
Watertightness (closed position)	650 Pa	
Windtightness	650 Pa	

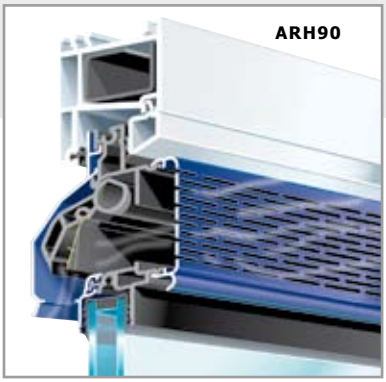
GLAZED-IN VENTILATORS

THR90 • ARH90

THR90: high performance flapvent
ARH90: high performance self-regulating flapvent

INTRODUCTION

The THR90 is a high performance aluminium flapvent with thermal break, for application in aluminium, timber and uPVC windows. The fully removable punched internal profile performs as an insect mesh. The multi-position flap consists of hard uPVC with flexible ends for a better water- and windtightness. In addition the ARH90 has an automatically operating flap in the ventilator that maintains a constant airflow in the living-area, independent of the windforce and can not be directed by the user himself. This self regulating principle prevents draughts and saves on energy costs for the end-user.



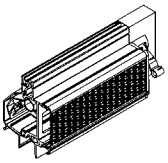
MATERIAL

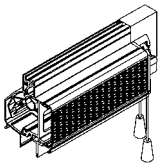
Inside and outside profile: aluminium AlMgSi 0.5
(according to DIN 1748)
Finishing: satin/bronze anodised or powdercoated in any RAL or Syntha Pulvin® colour (dual colour possible)
Endcaps in ASA polymer type Luran S (colourfast, weather- and UV-resistant)
Endcaps are in black or white but also available in other colours upon request.

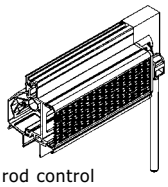
DIMENSIONS

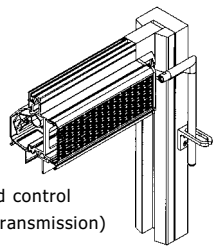
Glass reduction:	90 mm
Height:	106 mm
Glass thickness:	16, 20, 24 & 28 mm

CONTROLS


manual control

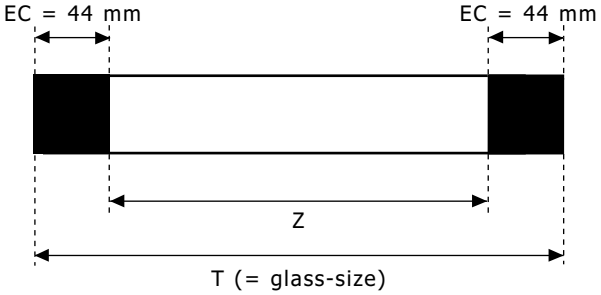

cord control


rod control
(hook-up)

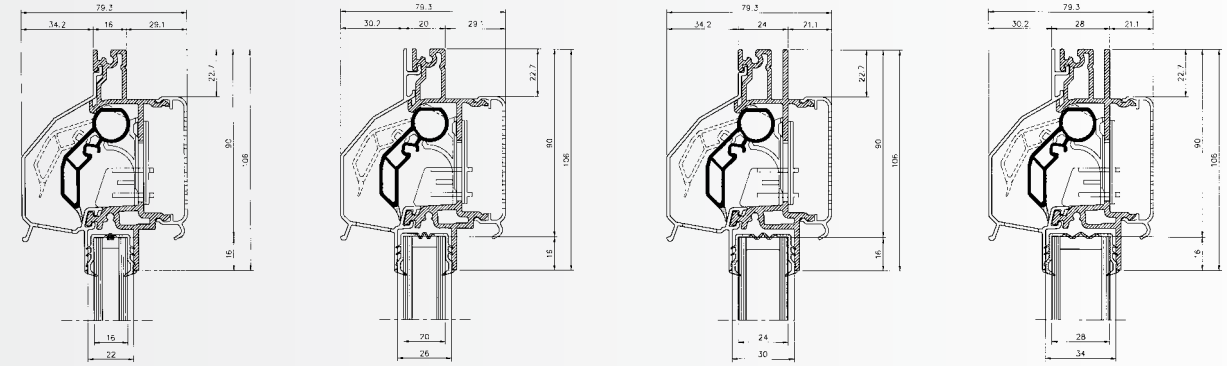

rod control
(with transmission)

ASSEMBLY

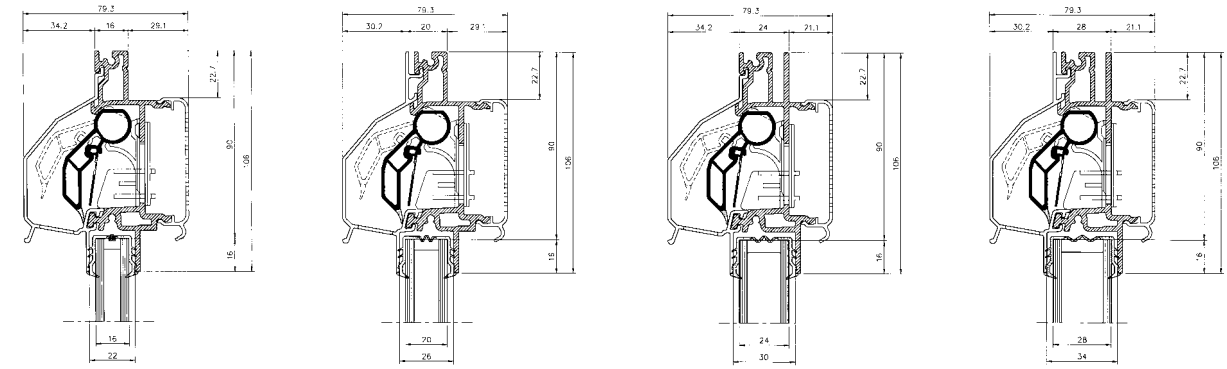
Developed for fabrication from bar lengths (6000 mm) or made to measure (maximum 2500 mm)
Cut ventilator to size from a bar length, fix endcaps (1 L + 1 R)
We advise use of glazing gasket RENSON nr 039 or nr 034 (20-28 mm) for installation
Overall dimension of the ventilator (T) = extrusion length (Z) + (2 x endcaps (EC) 43 mm)



SECTION DETAILS



THR90



ARH90

TECHNICAL SPECIFICATIONS

	THR90	ARH90
AIRFLOW		
2 Pa	73,8 $m^3/h/m$	74,2 $m^3/h/m$
2 Pa	20,5 l/s/m	20,6 l/s/m
1 Pa	14,5 l/s/m	14,6 l/s/m
Equivalent area	18451 mm^2/m	18579 mm^2/m
COMFORT		
Sound reduction $D_{n,e,w}$ ($C;C_{tr}$)	(EN ISO 140-10, EN ISO 717-1)	
- in open position	28 (-1;-1) dB	28 (-1;-2) dB
- in closed position	36 (-1;0) dB	36 (-1;0) dB
Self regulating	no	yes
TECHNICAL CHARACTERISTICS		
U-value	3,6 W/m^2K	
Watertightness (closed position)	650 Pa	
Windtightness	650 Pa	

GLAZED-IN VENTILATORS

THL100 • THL100V

THL100: horizontal sliding vent
THL100V: vertical sliding vent

INTRODUCTION

A thermally-broken louvred ventilator, made to measure, installed in a vertical (THL100V) or horizontal (THL100) position. It creates a natural air circulation. Incoming fresh air at the bottom and outgoing humid warm air at the top of the ventilator for the vertical version.
The ventilator is equipped with an aluminium and a uPVC slider which ensures good weathertightness. The thermal break separates the inner and outer slider, which results in an insulating layer of air, reducing the risk of condensation.

MATERIAL

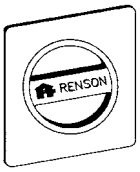
Inside and outside profile: aluminium AlMgSi 0.5
(according to DIN 1748)
Finishing: satin anodised or powdercoated in any RAL or Syntha Pulvin® colour (dual colour possible).
Black endcaps in ASA polymer type Luran S (colourfast, weather- and UV-resistant).
Flyscreen in stainless steel 2.3 mm x 2.3 mm.

DIMENSIONS

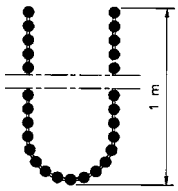
Glass reduction:	129 mm
Height:	144 mm
Glass thickness:	20, 24 & 28 mm

CONTROLS

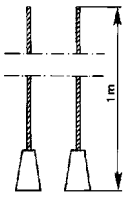
manual control
standard knob



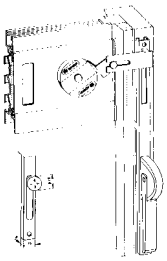
manual control
recessed knob
(for patio doors
and sliding sashes)



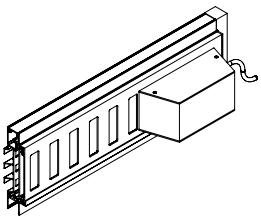
chain control



cord control



rod control (sliding knob)
(only for the THL 100)

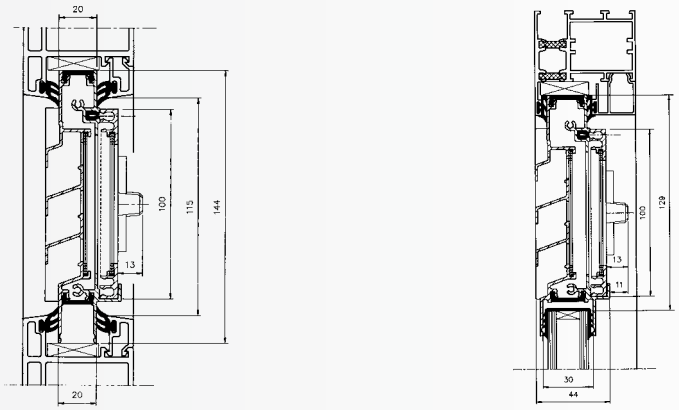


motor control

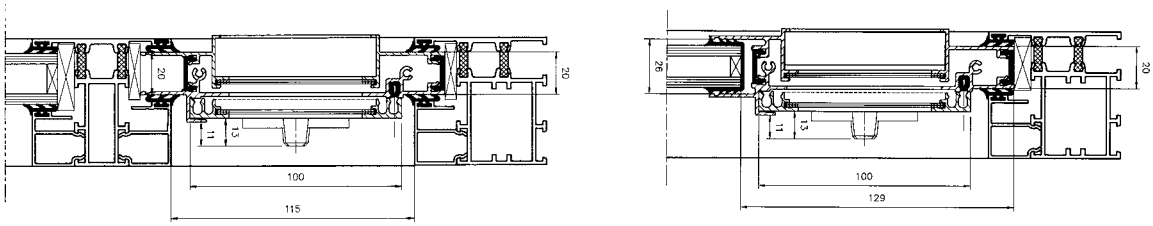
AVAILABILITY

Only custom made (made to measure) THL100 or THL100V are available
We advise use of glazing gasket RENSON nr 039 or nr 034 (20-28 mm) for installation

SECTION DETAILS



THL100



THL100V

TECHNICAL SPECIFICATIONS

	THL100	THL100V
AIRFLOW		
2 Pa	67,2 $m^3/h/m$	51,1 $m^3/h/m$
2 Pa	18,7 l/s/m	14,7 l/s/m
1 Pa	13,2 l/s/m	10,4 l/s/m
Equivalent area	16759 mm^2/m	13219 mm^2/m
COMFORT		
Sound reduction $D_{n,e,w}$ ($C;C_{tr}$)	(EN ISO 140-10, EN ISO 717-1)	
- in open position	22 (0;-1) dB	
- in closed position	32 (0;-1) dB	
Self regulating	no	
TECHNICAL CHARACTERISTICS		
U-value	3,9 W/m^2K	
Watertightness (closed position)	400 Pa	
Windtightness	650 Pa	

EPILOGUE

REFERENCES

Page 10 • *Invisivent*
Thermally broken and self-regulating invisible aluminium ventilator (controllable with 5 stepped settings which gives an upward lift to the incoming airflow to avoid draughts) to be installed above the aluminium, timber or uPVC window frame.

Page 14 • *Screenvent*
Thermally broken and self-regulating aluminium combination of comfortable ventilation (5 stepped settings) and easily removable solarshading.

Page 20 • *Screenvent Mistral*
Weatherresistant, thermally broken and self-regulating aluminium combination of comfortable ventilation (5 stepped settings) and easily removable solarshading that also acts as an insectscreen.

Page 24 • *Invisivent AK*
Thermally broken aluminium ventilator (controllable with 5 stepped settings which gives an upward lift to the incoming airflow) to be installed above the aluminium, timber or uPVC window frame combined with air sound insulation.

Page 26 • *Sonovent*
Superior sound absorbing and self-regulating ventilator available in four types which each four different airslots.

Page 30 • *Sonovent V*
Mechanical ventilator, provided with an electrical motor (24V), with an air flow of maximum 220m³/h/m that starts to work automatically when opening the flap and controllable by means of a variable speed controller.

Page 31 • *Sonovent D*
Superior sound absorbing and self-regulating ventilator for rooms under roof, available in two types (Small, Medium) and can be installed from the inside as from the outside when building the roof.

Page 32 • *THK90AK*
Aluminium thermally broken vent with an additional sound absorbing hood to give extra protection giving a weather tightness of 650 pa for all types of windows and with a punched internal profile as an insectscreen.

Page 34 • *TH45*
uPVC slimline glazed-in ventilator with only a 45 mm glass reduction.

Page 36 • *T45*
Aluminium slimline glazed-in ventilator with only a 45 mm glass reduction with a perforated grille inside that acts as an insectmesh and an unique design to direct the incoming airflow upwards.

EPILOGUE

ONE SENTENCE SPECS

Page 38 • *TC45*
Thermally broken aluminium glazed-in compact window flapventilator with soft-line design and punched inside grille that acts as an insectmesh, the internal tip directs the incoming airflow upwards and can be placed in 5 positions.

Page 40 • *TC60*
Thermally broken aluminium glazed-in compact window flapventilator with soft-line design and punched inside grille that acts as an insectmesh with only 60mm glass reduction, the internal tip directs the incoming airflow upwards and can be placed in 5 positions.

Page 42 • *THK60*
An aluminium thermally broken glazed-in vent with only 60 mm glass reduction that deflects the air upwards with stepped settings and a positive closed position giving weather thightness at 650 Pa.

Page 42 • *AR60*
Self-regulating aluminium thermally broken glazed-in vent with only 60 mm glass reduction that deflects the air upwards with stepped settings and a positive closed position giving a weather tightness at 650 Pa.

Page 44 • *AR75*
Thermally broken self-regulating aluminium vent with an unique patented innermechanism so that 4 different airflows of 54, 67, 77, 101 m^3/h/m (at 2Pa) can be reached, while maintaining the same look in one façade.

Page 46 • *TH90*
Slimline flush aluminium flapvent (5 stepped opening positions) with thermal break, for all types of windows and ideal for sliding doors, with a punched internal profile that performs as an insect screen.

Page 46 • *TH90PB*
Slimline flush aluminium flapvent (5 stepped opening positions) with thermal break, for all types of windows and ideal for sliding doors, with a punched internal profile that performs as an insect screen, specially for installation at the bottom of a window to improve the circulation of air within a room/conservatory.

Page 46 • *TH90TR*
Slimline flush aluminium flapvent (5 stepped opening positions) with thermal break, for all types of windows and ideal for sliding doors, with a punched internal profile that performs as an insect screen, specially for installation between profiles (at transom).

Page 48 • *THM90*
Slimline flush aluminium flapvent (5 stepped opening positions) with thermal break, for all types of windows and ideal for sliding doors, with a punched internal profile that performs as an insect screen and with an additional flap for improved windtightness.

Page 48 • *THM90PB*
Slimline flush aluminium flapvent (5 stepped opening positions) with thermal break, for all types of windows and ideal for sliding doors, with a punched internal profile that performs as an insect screen and with an additional flap for improved windtightness specially for installation at the bottom of a window to improve the circulation of air within a room/conservatory.

Page 48 • *THM90TR*
Slimline flush aluminium flapvent (5 stepped opening positions) with thermal break, for all types of windows and ideal for sliding doors, with a punched internal profile that performs as an insect screen and with an additional flap for improved windtightness specially for installation between profiles (at transom).

Page 50 • *THK90*
Aluminium thermally broken vent with an additional hood to give extra protection giving a weather tightness of 650 pa for all types of windows and with a punched internal profile as an insectscreen.

Page 50 • *AR90*
Self-regulating aluminium thermally broken vent with an additional hood to give extra protection giving a weather tightness of 650 pa for all types of windows and with a punched internal profile as an insectscreen.

Page 52 • *THR90*
Aluminium thermally broken vent with a weather tightness of 650 pa for all types of windows and with a punched internal profile as an insectscreen.

Page 52 • *ARH90*
Self-regulating aluminium thermally broken vent with a weather tightness of 650 pa for all types of windows and with a punched internal profile as an insectscreen.

Page 54 • *THL100*
Horizontal thermally broken louvred ventilator, equipped with an aluminium and uPVC slider which ensures good weather tightness.

Page 54 • *THL100V*
Vertical thermally broken louvred ventilator, equipped with an aluminium and uPVC slider which ensures good weather tightness.

RENSON, YOUR PARTNER IN NATURAL VENTILATION AND SOLAR SHADING

RENSON, WITH ITS RICH TRADITION IN INNOVATION AND EXPERIENCE SINCE 1909, IS PROFILING ITSELF AS AN UNDISPUTED MARKET LEADER IN NATURAL VENTILATION AND SOLAR SHADING. SINCE 2003, OUR HEAD QUARTERS HAVE BEEN LOCATED NEXT TO THE E17 KORTRIJK - GENT MOTORWAY IN WAREGEM (BELGIUM). THIS REMARKABLE BUILDING IS A REAL AND WORKING MODEL OF OUR HEALTHY BUILDING CONCEPT AND IS A PROTOTYPE EXHIBITING OUR TECHNOLOGICAL STRENGTHS.

RENSON headquarters (BE)

A HEALTHY INTERNAL CLIMATE IS RENSON'S PRIORITY AND THIS IS FAR MORE THAN JUST A TREND. WE DEVELOP AND COMMERCIALISE PRODUCTS THAT CONTRIBUTE TO LOWER ENERGY CONSUMPTION. IN THIS WAY, RENSON PROVIDES AN IMPORTANT LINK TOWARDS THE REGULATION APPLICATIONS FROM THE KYOTO CLIMATE TREATY.

RENSON headquarters (BE)

RENSON HAS IT ALL

• Our multidisciplinary R&D department is co-operating with leading European research organizations. The outcome is a complete range of innovative concepts and products.

• Our automatically powdercoating installation, anodisation unit, PVC injection installation, PVC mould construction, assembly department and warehouse facilities are spread over a surface area of 50.000 m². Thanks to its consequent vertical integration, RENSON delivers high quality products.

• RENSON's head quarters, sales and marketing department are in Belgium, but we also have plants and offices in France and the UK. RENSON also has a sales structure beyond the European borders.

• The diversity and capability from RENSON's project team are our warranty for correct solutions for each individual building project. The creation of constructive long term relationships with construction specialists is our priority.

RENSON (UK) Maidstone

Conditional technical changes • The most recent edition of the brochure can be downloaded on www.renson.eu

EDITION OCT. 2007

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