

Regel-air® PLUS for medium airflow volumes

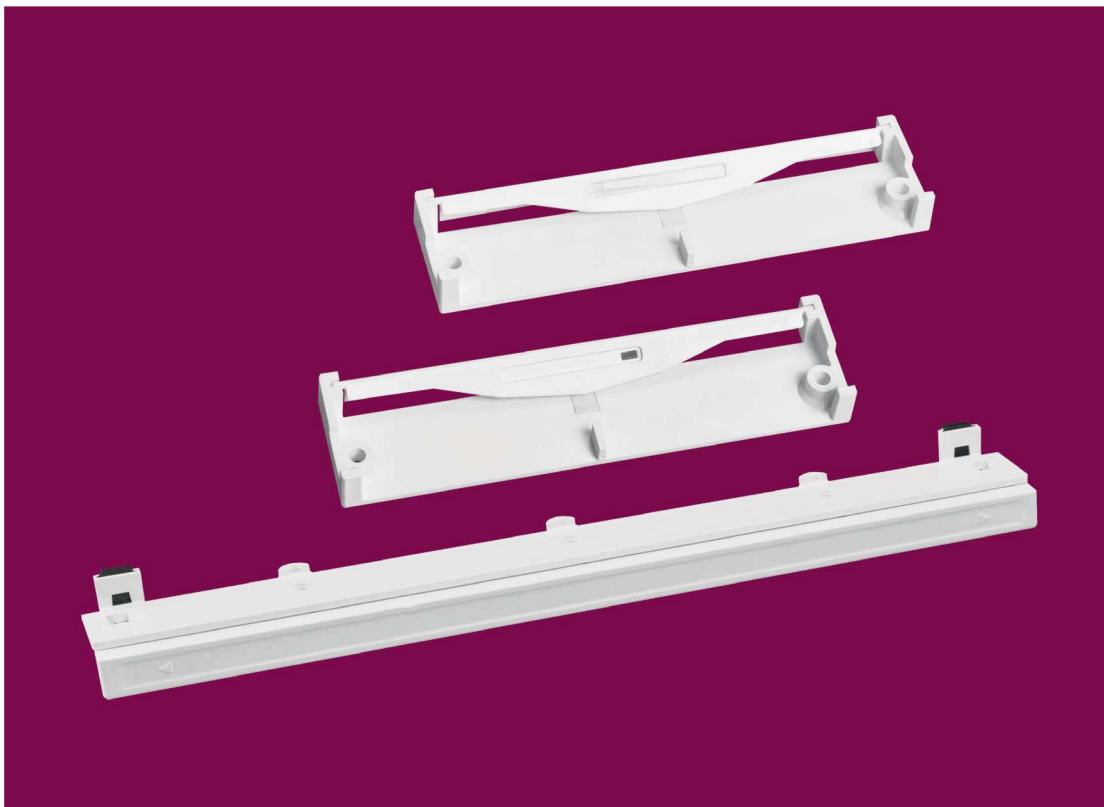
Product data sheet Regel-air® PLUS Comfort ventilation system for PVC windows

Product description

The Regel-air® PLUS ventilation system consists of self-regulating window rebate vents FFL with automatic flow volume restriction and the manual, continuously adjustable overlap vent OV.

For moisture protection ventilation and support of advanced ventilation requirements.

- Very easy operation
- No milling
- No additional energy supply required
- Performance-tested in accordance with DIN EN 13141-1
- Permitted in accordance with EnEV and DIN 1946-6



1 pair window rebate vents FFL and 1 unit overlap vent OV

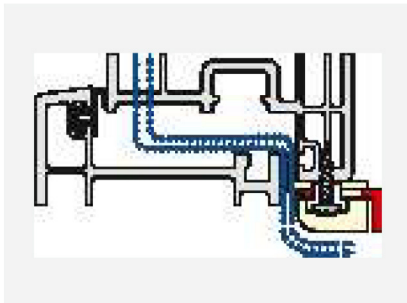


Areas of application

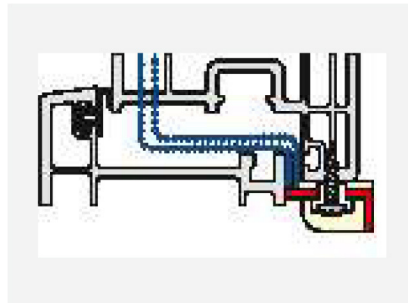
- As a comfort ventilation system for moisture protection ventilation and advanced ventilation requirements up to reduced ventilation and rated ventilation. To increase the airflow volume, 2 overlap vents can also be installed.
- For the prevention and control of the causes of moisture damage and mould.
- As external air apertures (EAA) in connection with shaft ventilation or exhaust air systems.
- For the removal of moisture as part of cross ventilation, taking into account the laws of construction physics. Suitable for factory installation as well as for retrofitting of previously installed windows.



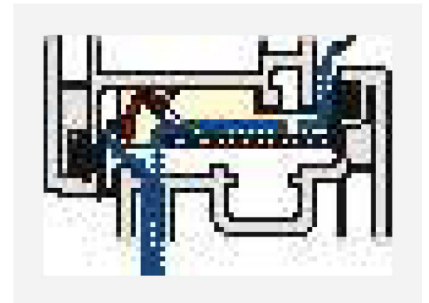
Also suitable for use in the protection of historic monuments



Overlap vent OV
open



Overlap vent OV
closed



Regel-air® FFL
Flap open

Operation and fresh air routing

The air is directed to the vent modules through lateral air inflow via the special frame gasket (SFG). The air control of the window rebate vents is automatic, with automatic interruption of the air flow by the ventilation flaps when wind speeds are stronger.

The overlap vent is controlled manually at the vent module as required.

Installation

The Regel-air® window rebate vents (FFL) are screwed into the window frame. They are invisible from the inside or outside when the window is closed. Different combinations of horizontally and vertically installed window rebate vents FFL are possible depending on the required airflow volume. Milling is not necessary. The sash gasket is replaced by a special sash gasket (SSG), the window frame gasket by a special frame gasket (SFG).

The Regel-air® overlap vent OV can also be installed without milling. It is preferably positioned at the bottom. For windows with a centre gasket, installation at the side is recommended. It is attached using 3 stainless steel V2A screws which are supplied.

A drilling and cutting template is included as an installation aid. The modules can already be installed in the window manufacturing plant. Retrofitting of previously installed windows on-site is also possible without any problems.



Regel-air® PLUS for PVC windows (medium flow volumes) Product data overview

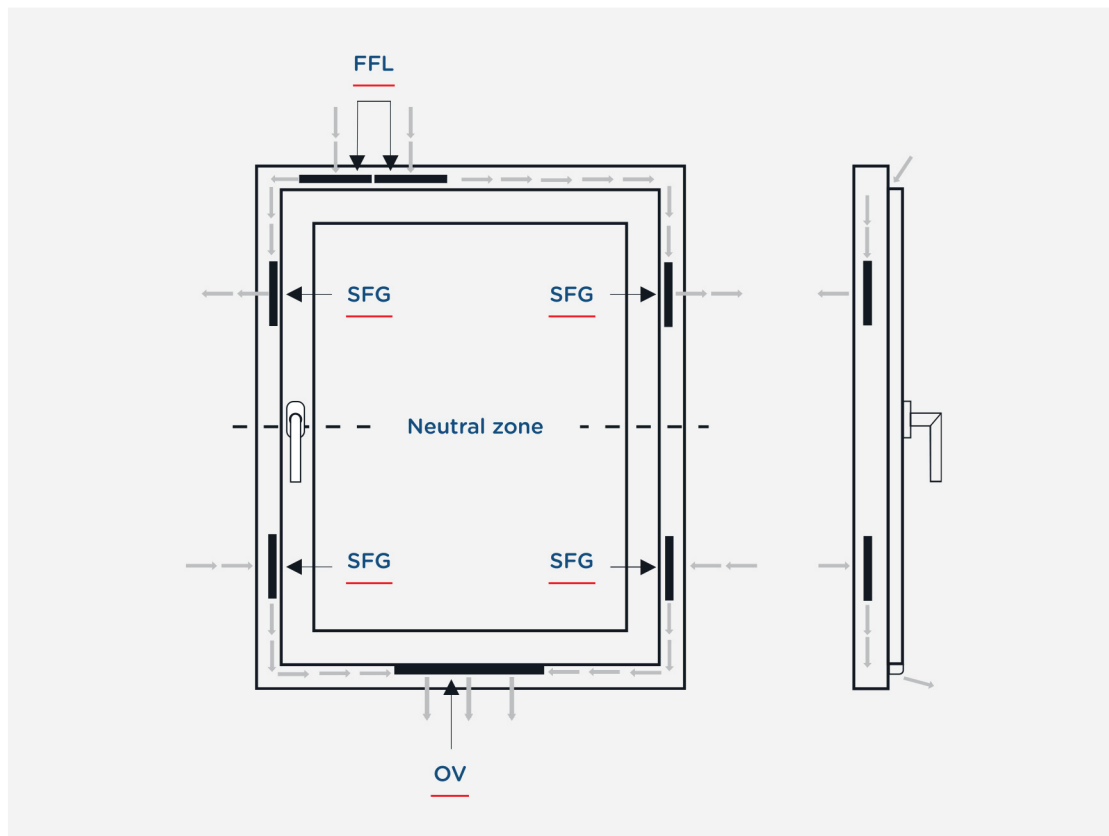
Compatibility	All PVC windows in accordance with our type list
Width 1 pair window rebate vents (2 individual vents)	250 mm (individual vent 125 mm)
Dimensions of overlap vent OV	265 x 25 x 14 mm (W x D x H outside dimension)
Air control FFL	Automatic, flow volume-dependent
Air control of overlap vent OV	Manual, continuously adjustable
Feasible airflow volumes in the range from 2 to 8 Pa	Depending on vent combination 3.0 to 16.0 m ³ /h
Classification according to DIN EN 1026 and DIN EN 12207	Class 3 (depending on vent combination)
Driving rain resistance according to DIN 12208 (closed OV)	No water ingress up to a maximum test pressure of 600 Pa
Achievable noise insulation (depending on glazing type)	Up to 40 dB when OV is open
Special instructions	If overlap vents without FFL are used, special frame gaskets are required

Values may differ slightly depending on profile and window.

Additional information for façades which are facing one way

Houses and apartments which are facing one way generally have baths located inside, in which provision is made for a ventilation system in accordance with DIN 18017-3.

If this is not the case, the Regel-air® PLUS system* variant listed here is recommended to create a user-independent air exchange.






The combination of the window rebate vents FFL installed in the upper rebate and the overlap vent OV attached to the lower sash overlap creates air circulation at the window. During the heating period, the exhaust air escapes through the window rebate vent FFL positioned at the top, while the supply air flows in through the overlap vent OV in the lower area.

During warmer months, where the risk of mould is significantly lower, the flow conditions are reversed. However, experience shows that the window is used for ventilation in summer. The position of the special frame gasket (SFG) is an important prerequisite for the proper functioning of the ventilation. On the left and right, replace 150 mm of the standard window frame gasket with the SFG, starting 100 mm from the top and bottom.

***Only for compression gasket systems**

Performance data PLUS compression gasket

Air passage values

Regel-air® PLUS – for medium air volumes										
Differential pressure in accordance with DIN 1946-6 in Pa			2	3	4	5	6	7	8	SFG
Airflow volume in m ³ /h	1 pair FFL + 1 OV		6.0	6.8	7.6	8.2	9.1	10.0	10.5	per 150 mm
	1.5 pairs FFL + 1 OV		6.5	7.6	8.6	8.8	9.9	11.0	11.5	per 150 mm
	2 pairs FFL + 1 OV		8.6	10.3	12.0	13.0	14	15.0	16.0	per 300 mm

Observe DIN EN 12207 and DIN 4108.

Values may differ slightly depending on profile and window.

Test overview noise insulation Regel-air® window vents in PVC windows (compression gasket)




Summary of the test results for noise insulation
(Tests by the Institute für Fenstertechnik – ift Rosenheim)

Noise insulation values R_w of windows with and without Regel-air® (PVC window compression gasket)									
	Rebate vent modules at the top	Rebate vent modules on left side	Rebate vent modules on right side	open overlap vents (bottom)	Test run	Pane (manufacturer specifications)	Length of SFGs (right + left on side)	Windows without Regel-air®	Windows with Regel-air®
1 pair FFL (= 2 modules) + 1 OV (open)	2	0	0	1	Z4	36 dB	per 150 mm	39 dB	37 dB
					Z16	45 dB	per 150 mm	43 dB	40 dB
	1	1	0	1	Z24	45 dB	per 150 mm	43 dB	40 dB
1.5 pairs FFL (= 3 modules) + 1 OV (open)	2	1	0	1	Z6	36 dB	per 150 mm	39 dB	37 dB
					Z37	47 dB	per 150 mm	44 dB	40 dB
	1	1	1	1	Z12	36 dB	per 150 mm	39 dB	37 dB
					Z31	45 dB	per 150 mm	43 dB	39 dB
					Z33	47 dB	per 150 mm	44 dB	40 dB
2 pairs FFL (= 4 modules) + 1 OV (open)	2	1	1	1	Z13	36 dB	per 300 mm	39 dB	35 dB

Values may differ slightly depending on profile and window.

Performance data PLUS centre gasket

Air passage values

Regel-air® PLUS – for medium air volumes										
Differential pressure in accordance with DIN 1946-6 in Pa			2	3	4	5	6	7	8	SFG
Airflow volume in m ³ /h	1 pair FFL + 1 OV		5.1	5.6	6.1	6.4	6.8	7.2	7.6	per 150 mm
	1.5 pair FFL + 1 OV		6.0	6.6	7.1	7.6	7.9	8.2	8.7	per 150 mm
	2 pairs FFL + 1 OV		6.9	7.5	8.1	8.6	9.1	9.5	11.0	per 300 mm

Centre gasket in front of ventilation elements removed.
Observe DIN EN 12207 and DIN 4108-2.

Values may differ slightly depending on profile and window.

Test overview noise insulation

Regel-air® window vents in PVC windows (centre gasket)

Summary of test results for noise insulation

(Tests by the Institute für Fenstertechnik – ift Rosenheim)

Noise insulation values R_w of windows with and without Regel-air® (PVC window centre gasket)									
	Rebate vent modules at the top	Rebate vent modules on left side	Rebate vent modules on right side	open overlap vents (bottom)	Test run	Pane (manufacturer specifications)	Length of SFGs (right + left on side)	Windows without Regel-air®	Windows with Regel-air®
1 pair FFL (= 2 modules) + 1 OV (open)	2	0	0	1	Z49	36 dB	per 150 mm	39 dB	37 dB
					Z69	45 dB	per 150 mm	44 dB	39 dB
1.5 pairs FFL (= 3 modules) + 1 OV (open)	2	1	0	1	Z53	36 dB	per 130 mm	39 dB	37 dB
					Z72	45 dB	per 150 mm	44 dB	38 dB
					Z73	47 dB	per 150 mm	45 dB	39 dB
	1	1	1	1	Z57	36 dB	per 150 mm	39 dB	36 dB
					Z64	42 dB	per 150 mm	42 dB	37 dB
2 pairs FFL (= 4 modules) + 1 OV (open)	2	1	1	1	Z79	36 dB	per 300 mm	39 dB	34 dB

Values may differ slightly depending on profile and window.