





CONTENTS

- 3: FAKRO facts
- 4: Range of FAKRO products
- 6: Product features: Things you should know about FAKRO products
- 8: How to choose the best skylight or roof window for your project
- 10: FVS/FVE deck mounted electric venting skylights
- 12: FV deck mounted manual venting skylights
- 14: FX deck mounted fixed skylights
- 16: Flashings for deck mounted skylights
- 18: FXC curb mounted fixed skylights
- 20: FWU deck mounted roof access windows
- 22: FGH-V deck mounted balcony windows
- 23: FPP-V deck mounted pivot and top-hung windows
- 24: FTP-V, deck mounted pivot windows
- 25: FTT U6, FTT U8 Thermo deck mounted pivot windows
- 26: DEF, DMF, DXF flat roof thermo skylights
- 28: DRF flat roof access skylight
- 29: DRL flat roof access door
- 30: SRF/ARF internal black out blinds
- 31: SRP/ARP internal light reducing blinds
- 32: AMZ, SMZ Solar external awning blinds
- 34: Radio control system
- 35: Control accessories
- 36: Light tunnels
- 38: Quality system and code compliance
- 39: Skylights test results

FAKRO facts:

FAKRO started out in the early nineties (1991) in Nowy Sacz Poland where the idea to manufacture skylights and roof windows was adopted by the company's founder.

- In 1994 first FAKRO windows are delivered to customers in Poland
- In 1996 first windows manufactured by FAKRO are sold to a customer outside of Poland
- In 2000 FAKRO introduced to the market first attic ladder
- The FAKRO Group comprises of 12 manufacturing plants
- The FAKRO Group includes 16 distribution companies scattered around the globe
- FAKRO products are available in over 50 countries worldwide
- The FAKRO Group employs over 3300 people
- The production area is over 2 150 000 sq.ft.
- To date FAKRO has sold over 7 500 000 windows
- Currently export sales account for 70% of total FAKRO production and sales
- FAKRO holds the the position of world's second highest company in sales of roof windows which is approximately 15% of the global market
- FAKRO's product range consists of more than 1000 standard products
- FAKRO is one of the largest attic ladder manufacturers in the world
- FAKRO's product range consists of more than 1000 standard products
- FAKRO holds over 100 patent applications
- FAKRO holds over 20 certificates issued by the most prestigious international institutes



Our 25 year history and our hard work have allowed us to earn a reputation of being a class-leading company in quality, workmanship, durability of products, and high aesthetic values.

During this period FAKRO has put its main focus on becoming one of the most innovative companies in the industry.

All of our efforts are driven by the relentless quest for perfecting our products and creating state-of-the-art solutions incorporated in them.











PRODUCT FEATURES

THINGS YOU SHOULD KNOW ABOUT FAKRO PRODUCTS

FAKRO skylights and roof windows are designed to provide a focal point for any room, whether you use them individually or in combinations. Their stylish appearance is matched by the highest standard of manufacturing and finishing which means you can rest assured they will go on looking good for years to come. Our skylights offer a perfect combination of style, sustainability, security and long-design life. To achieve such high performance involves ongoing refinement and improvement to every skylight and roof window that we design.



THERMAL INSULATION -

lower utility bills



One of the most important things during the design process of skylights is energy-saving. Use of Energy Star compliant glass keeps the heat oustide during the summer and inside during the winter. It gives energy savings with air conditioning in the summer, and heat in the winter.



Many windows use metallic spacers to separate panes and these can encourage condensation to form by forming a cold 'bridge' between them. By contrast, FAKRO uses warm spacers in order to ensure that this otherwise common problem does not affect our products.



A thick, wooden skylight frame is the best insulator between the inside of the building the outside. Installation screws hidden inside the frame do not increase the phenomenon of thermal bridges that might be caused by metal flanges attached around the frame.



A perimeter gasket underneath the frame insulates additionally the joint between the skylight's frame and the roof decking. Another feature increasing the insulation properties of FAKRO skylights.



Additional double gasket system seals the gap between the sash and the frame of the skylight. The gap must be very well protected against any undesired air flow.



Optional thermal flashing increases the R-value of the skylight by up to 10%.





DURABILITY trouble free performance



Thick wooden frame made of selected narrow grain pine, seasoned and vacuum pressure treated.



All wooden elements are factory lacquered before final assembly.



Frame corners additionally sealed against any moisture penetration.



Heat and UV reducing glazing unit with internal gasket system that collects and drains any condensation to the outside.



External cladding covered with UV resistant paint.



LIFETIME and leak proof warranty.



EASY INSTALLATION time and cost saving



Dedicated skylight template for fast and easy marking of rough opening.



4 to 6 screws drill through the frame and secure the skylight to the roof deck. Perfect for new builds and retrofits.



Metal pins hold the skylight in place during installation. No sliding down effect, allows for one man installation.



INDIVIDUALITY make your room cozy and unique



FAKRO skylights can be manufactured in any color from the RAL classic palette. That's over 200 colors customers can specify to special order for their chosen projects.



SAFETY -

products compliance with building codes and regulations.







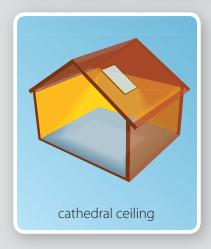




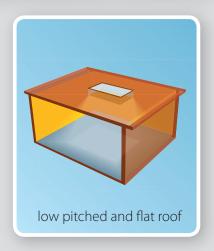
Tested and compliant with CSA requirements.

HOW TO CHOOSE THE BEST SKYLIC FOR YOUR PROJECT

STEP 1: IDENTIFY YOUR ROOF TYPE WHERE THE SKYLIGHT OR ROOF WINDOW WILL BE INSTALLED







STEP 3: SELECT THE RIGHT VERSION OF SKYLIGHT OR ROOF WINDOW

	Cathedr	al ceiling	Sloped ceiling attic room				
	DECK MOUNTED		CURB MOUNTED			DECK MOUNTED	
Electric/Solar	Manual	Fixed	Fixed	Balcony window	Top-hung and pivot window	Pivot window	
FVE, FVS – deck mounted electric/so- lar venting skylights are recommended for out of reach applications, where skylight operation with a rod would be uncomfortable.	FV – deck mounted manual venting skylights. Deck manual venting skylights are good for installation in out of reach places, but still with easy access to operate with a control rod.	FX – fixed skylights are a great solution to provide natural light where a venting option is not important.	FXC – curb mounted fixed skylights are installed to provide natural light inside the room.	FGH-V balcony windows, when opened create a balcony in the loft.	FPP-V top-hung and pivot windows open in two distinct ways: outward from the top and via a center pivot.	FTP-V center pivot windows with a 180-degree rotating sash.	

STEP 4: CHOOSE A SIZE OF SKYLIGHT OR ROOF WINDOW

Please review available standard sizes listed further in this catalog

HT OR ROOF WINDOWS



STEP 2: CHOOSE THE INSTALLATION METHOD OF THE SKYLIGHT OR ROOF WINDOW





			Low pitched and flat roof							
			Deck mounted							
Roof access	Thermo window	Electric	Manual	Fixed	Manual	Fixed				
WU – roof access vindows provide asy and safe ac- ess to the roof.	FTT U6, FTT U8 Thermo – windows are dedicated for (passive) buildings requiring products with very high insulating proper- ties	DEF – electric venting, highly insulating roof windows for low pitched roof.	DMF – manual venting, highly insulating roof windows for low pitched roof.	DXF – fixed, highly insulating roof windows for low pitched roof.	DRF – insulated, glazed flat roof access skylights.	FXC – curb mounted fixed skylights.				

- STEP 5: CHECK YOUR ROOF FINISH MATERIAL AND SELECT THE APPROPRIATE FLASHING NECESSARY TO COMPLETE SKYLIGHT OR ROOF WINDOW INSTALLATION
- STEP 6: SELECT INTERNAL OR EXTERNAL (IF APPLICABLE) BLINDS FOR YOUR SKYLIGHT OR ROOF WINDOW



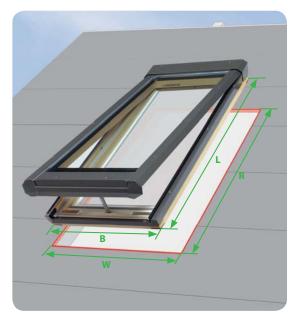


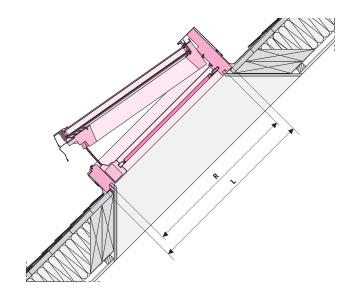
DECK MOUNTED ELECTRIC OR SOLAR VENTING SKYLIGHT

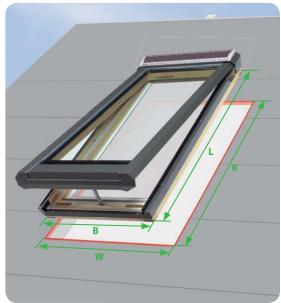
Electric and solar powered deck mounted skylights are ideal solutions for out of reach applications, where besides the natural light, you would like to enjoy fresh air as well. FVE and FVS skylights are equipped with a radio communication system, allowing for easy remote operation without the need of pointing the remote towards the skylights. FVS skylights are powered by the integrated solar panel, so connection to a power source is not required.

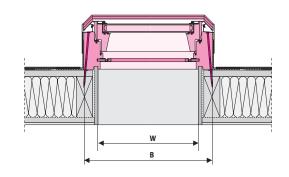
- **Features:** suitable for roof pitches between 15-85 degrees
 - low-emission and heat-reflecting double glazed glass
 - perimeter gasket underneath the frame
 - easy "bracket-free" installation
 - double seals between the frame and the sash
 - internal gasket system to collect and drain any condensation water to the outside
- mosquito screen included
- integrated rain sensors
- remote control operated
- range of internal and external accessories
- integrated solar panel (FVS)













FAKRO FVE, FVS SKYLIGHT DIMENSIONS											
			п				п				
Size		301 (24/27)	304 (24/38)	306 (24/46)	308 (24/55)	312 (24/70)	504 (32/38)	506 (32/46)	508 (32/55)	801 (48/27)	806 (48/46)
Rough opening (WxR)	in. mm	22 ¹ / ₂ x 26 ¹ / ₂ 568 x 678	22 ¹ / ₂ x 37 ¹ / ₂ 568 x 957	22 ¹ / ₂ x 45 ¹ / ₂ 568 x 1157	22 ¹ / ₂ x 54 568 x 1376	22 ¹ / ₂ x 70 568 x 1776	30 ¹ / ₂ x 37 ¹ / ₂ 771 x 957	30 ¹ / ₂ x 45 ¹ / ₂ 771 x 1157	30 ¹ / ₂ x 54 771 x 1376	46 ¹ / ₂ x 26 ¹ / ₂ 1177 x 678	46 ¹ / ₂ x 45 ¹ / ₂ 1177 x 1157
Outside frame (BxL)	in. mm	24 ¹ / ₂ x 27 ¹ / ₂ 623 x 699	24 ¹ / ₂ x 38 ¹ / ₂ 623 x 978	24 ¹ / ₂ x 46 ³ / ₈ 623 x 1178	24 ¹ / ₂ x 55 623 x 1397	24 ¹ / ₂ x 70 ³ / ₄ 623 x 1797	32 ¹ / ₂ x 38 ¹ / ₂ 826 x 978	32 ¹ / ₂ x 46 ³ / ₈ 826 x 1178	32 ¹ / ₂ x 55 826 x 1397	48 ¹ / ₂ x 27 ¹ / ₂ 1232 x 699	48 ¹ / ₂ x 46 ³ / ₈ 1232 x 1178
Daylight area (glass)	sq. ft. m²	2.50 0.23	3.86 0.36	4.84 0.45	5.91 0.55	7.87 0.73	5.58 0.52	7.00 0.65	8.55 0.79	5.84 0.54	11.32 1.05





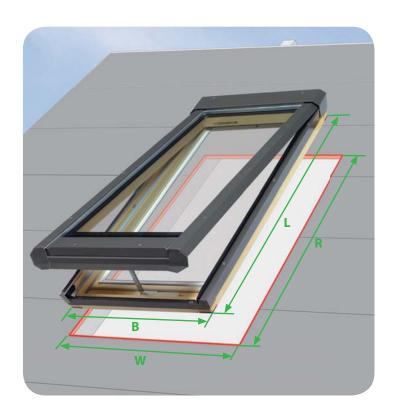
DECK MOUNTED MANUAL VENTING SKYLIGHT

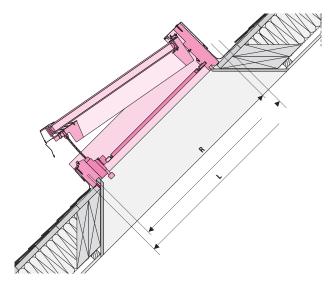
Manual venting skylights FV deliver light and fresh air and are recommended for installation where the skylights will be fairly easy to reach and operate with a control rod.

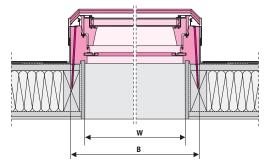
- **Features:** suitable for roof pitches between 15-85 degrees
 - low-emission and heat-reflecting double glazed glass
 - perimeter gasket underneath the frameeasy "bracket-free" installation

 - double seals between the frame and the sash
- mosquito screen included
- operated with a crank or a control rod
- range of internal and external accessories available
- internal gasket system to collect and drain any condensation water to the outside

FAKRO°









FAKRO FV SKYL	IGHT DI	MENSIONS									
						п					
							п			_	
Size		301 (24/27)	304 (24/38)	306 (24/46)	308 (24/55)	312 (24/70)	504 (32/38)	506 (32/46)	508 (32/55)	801 (48/27)	806 (48/46)
Rough opening (WxR)	in. mm	22 ¹ / ₂ x 26 ¹ / ₂ 568 x 678	22 ¹ / ₂ x 37 ¹ / ₂ 568 x 957	22 ¹ / ₂ x 45 ¹ / ₂ 568 x 1157	22 ¹ / ₂ x 54 568 x 1376	22 ¹ / ₂ x 70 568 x 1776	30 ¹ /2 x 37 ¹ /2 771 x 957	30 ¹ / ₂ x 45 ¹ / ₂ 771 x 1157	30 ¹ / ₂ x 54 771 x 1376	46 ¹ / ₂ x 26 ¹ / ₂ 1177 x 678	46 ¹ / ₂ x 45 ¹ / ₂ 1177 x 1157
Outside frame (BxL)	in. mm	24 ¹ / ₂ x 27 ¹ / ₂ 623 x 699	24 ¹ / ₂ x 38 ¹ / ₂ 623 x 978	24 ¹ / ₂ x 46 ³ / ₈ 623 x 1178	24 ¹ / ₂ x 55 623 x 1397	24 ¹ / ₂ x 70 ³ / ₄ 623 x 1797	32 ¹ / ₂ x 38 ¹ / ₂ 826 x 978	32 ¹ / ₂ x 46 ³ / ₈ 826 x 1178	32 ¹ / ₂ x 55 826 x 1397	48 ¹ / ₂ x 27 ¹ / ₂ 1232 x 699	48 ¹ / ₂ x 46 ³ / ₈ 1232 x 1178
Daylight area (glass)	sq. ft. m²	2.50 0.23	3.86 0.36	4.84 0.45	5.91 0.55	7.87 0.73	5.58 0.52	7.00 0.65	8.55 0.79	5.84 0.54	11.32 1.05



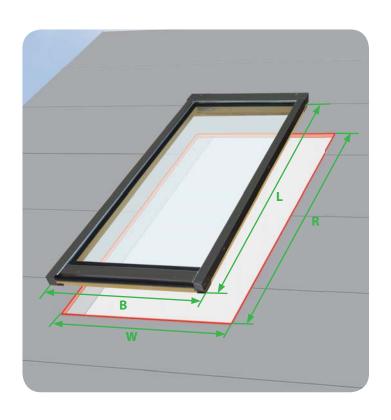


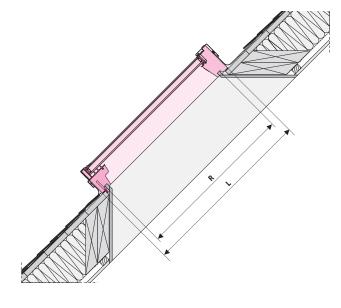
DECK MOUNTED FIXED SKYLIGHT

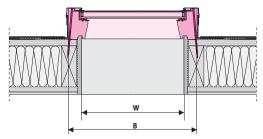
The main purpose of the fixed skylight is to take advantage of natural light. Natural light in homes increases the comfort of living and positively influences health.

- **Features:** suitable for roof pitches between 15-85 degrees
 - low-emission and heat-reflecting double glazed glass
 - perimeter gasket underneath the frame
 - easy "bracket-free" installation
 - range of internal and external accessories available
 - internal gasket system to collect and drain any condensation water to the outside

FAKRO°









FAKRO FX SKYLI	GHT I	DIMENSION	IS									
					м	п				П		
			п									
Size		106 (16/46)	301 (24/27)	304 (24/38)	306 (24/46)	308 (24/55)	312 (24/70)	504 (32/38)	506 (32/46)	508 (32/55)	801 (48/27)	806 (48/46)
Rough opening (WxR)	in. mm	14 ¹ / ₂ x 45 ¹ / ₂ 364 x 1157	22 ¹ / ₂ x 26 ¹ / ₂ 568 x 678	22 ¹ / ₂ x 37 ¹ / ₂ 568 x 957	22 ¹ / ₂ x 45 ¹ / ₂ 568 x 1157	22 ¹ / ₂ x 54 568 x 1376	22 ¹ / ₂ x 70 568 x 1776	30 ¹ / ₂ x 37 ¹ / ₂ 771 x 957	30 ¹ / ₂ x 45 ¹ / ₂ 771 x 1157	30 ¹ / ₂ x 54 771 x 1376	46 ¹ / ₂ x 26 ¹ / ₂ 1177 x 678	46 ¹ / ₂ x 45 ¹ / ₂ 1177 x 1157
Outside frame (BxL)	in. mm	16 ¹ / ₂ x 46 ³ / ₈ 419 x 1178	24 ¹ / ₂ x 27 ¹ / ₂ 623 x 699	24 ¹ / ₂ x 38 ¹ / ₂ 623 x 978	24 ¹ / ₂ x 46 ³ / ₈ 623 x 1178	24 ¹ / ₂ x 55 623 x 1397	24 ¹ / ₂ x 70 ³ / ₄ 623 x 1797	32 ¹ / ₂ x 38 ¹ / ₂ 826 x 978	32 ¹ / ₂ x 46 ³ / ₈ 826 x 1178	32 ¹ / ₂ x 55 826 x 1397	48 ¹ / ₂ x 27 ¹ / ₂ 1232 x 699	48 ¹ / ₂ x 46 ³ / ₈ 1232 x 1178
Daylight area (glass)	sq. ft. m²	3.24 0.30	3.04 0.28	4.51 0.42	5.56 0.52	6.72 0.62	8.82 0.82	6.38 0.59	7.87 0.73	9.50 0.88	6.82 0.63	12.48 1.16



FLASHINGS FOR DECK MOUNTED SKYLIGHTS







EL flashing is suitable for skylights installed with flat roofing materials such as shingles, plain-tile, double-lap roofing and slates. The side elements of the flashing are laid alternately with the roofing material (maximum roofing material thickness 5/16"). The bottom section of the flashing is equipped with a butyl strip to protect against wind driven rain in stormy conditions. EL – flashing for use with FX, FV, FVE, FVS deck-mounted



EL-T THERMO, ELA-T THERMO

EL-T Thermo and ELA-T Thermo flashings are a new product in the FAKRO range that combine especially well with an insulated roof. These flashings help eliminate "cool areas" that sometimes occur between roof deck and skylight causing condensation on the interior drywall. The underside of the Thermo flashing has flexible insulating material, creating a barrier by tightly sealing the skylight frame. FAKRO's Thermo flashing works well in combination with insulated roofs and is especially recommended in cold regions*.

EL-T – flashing for use with FX skylights only ELA-T – flashing for use with FV, FVE, FVS skylights only.











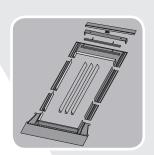


EH-A

The flashing for profiled and high-profiled corrugated materials joins the skylight with roofing materials such as tiles, corrugated and standing seam metal sheets. A wider and longer lower section allows a tighter joint with the high profiled roofing material (the height of the profile 1 1/4 "to 3 1/2"). A butyl strip holds down the bottom section of flashing. EH-A – flashing for use with FX, FV, FVE, FVS deck mounted skylights only.

EH-AT THERMO, EH/A-AT THERMO

EH-AT Thermo and EH/A-AT Thermo flashings are new products in FAKRO's range. The purpose of the flashing is to better insulate the connection point of the skylight frame and roof decking. Additionally, it minimises thermal bridges and condensation effect. The underside of the Thermo flashing has flexible insulating material, creating a barrier by tightly sealing the skylight frame. FAKRO's Thermo flashing works well in combination with insulated roofs and is especially recommended in cold regions*. EH-AT – flashing for use with FX skylights only EH/A-AT – flashing for use with FV, FVE, FVS skylights only.









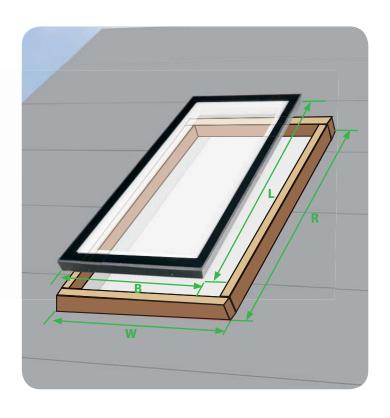
CURB MOUNTED FIXED SKYLIGHT

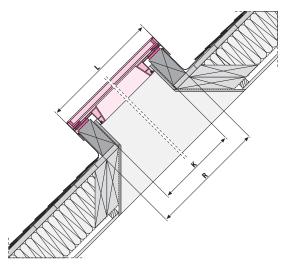
The newly developed curb mounted fixed skylight incorporates simple installation, long trouble-free use and the beauty of a modern design. Following world design trends of electronic devices, FAKRO has developed curb mounted skyligth with completely (smartphone like) flat surface, allowing installation on any type of roofs in any direction you wish.

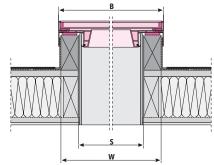
- **Features:** suitable for roof pitches between 0-60 degrees
 - unique modern design
 - low-emission and heat-reflecting double glazed glass
 - white PVC frame allows installation of internal blinds.
- frame made from mutliple chamber PVC profile
- range of internal and external accessories
- 360° turn-around installation









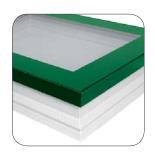




The innovative curb mounted skylight FXC allows you to match the colour of the skylight finish with the existing roof design.

A wide range of colors in ac-

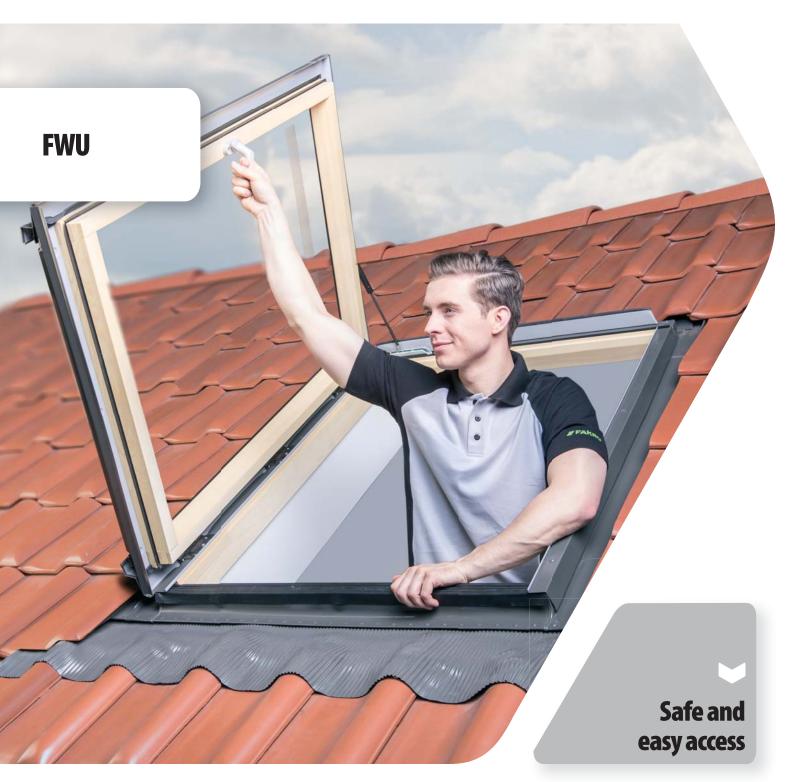
cordance with the RAL Classic Palette.



Flange-free glass installation to provide free water flow off the glass.



FAKRO FXC SKYLIGHT DIMENSIONS													
Size		14/30	14/46	22/22	22/30	22/34	22/46	22/70	30/30	30/46	34/34	34/46	46/46
Outside curb dimensions	in.	17 ¹ /2 x 33 ¹ /2	17 ¹ /2 x 49 ¹ /2	25 ¹ /2 x 25 ¹ /2	25 ¹ /2 x 33 ¹ /2	25 ¹ /2 x 37 ¹ /2	25 ¹ /2 x 49 ¹ /2	25 ¹ /2 x 73 ¹ /2	33 ¹ /2 x 33 ¹ /2	33 ¹ /2 x 49 ¹ /2	37 ¹ /2 x 37 1/2	37 ¹ /2x 49 ¹ /2	49 ¹ /2 x 49 ¹ /2
	mm	445x851	445x1257	648x648	648x851	648x952	648x1257	648x1867	851x851	851x1257	952x952	952x1257	1257x1257
Daylight area	sq. ft.	2.00	3.19	2.45	3.49	4.01	5.58	8.71	4.98	7.95	6.57	9.13	12.70
(glass)	m²	0.19	0.30	0.23	0.32	0.37	0.52	0.81	0.46	0.74	0.61	0.85	1.18



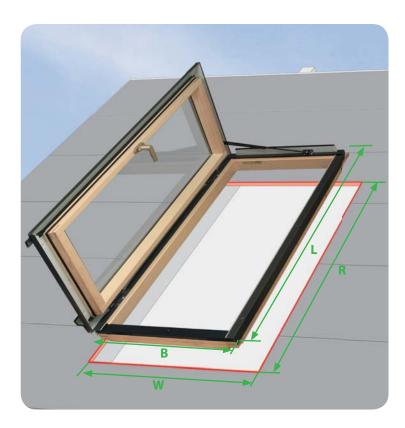
DECK MOUNTED ROOF ACCESS WINDOW

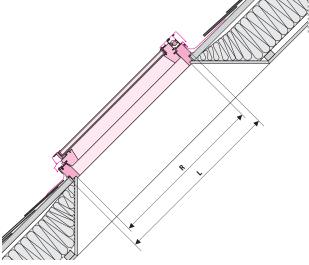
FAKRO FWU egress windows will not only light up a room, but they also provide an easy access to the roof, or a way of escape in case of emergency. FWU roof access windows are designed for rooms where building codes require two methods of escape. We recommend that you install FAKRO roof access windows for use as an egress roof window for safety and building code approval. The roof access window is available in two versions: right opening FWU-R or left opening FWU-L (pictured). FWU size 24/46 windows are officially recognized as a certified Fire Exit roof window (Egress window*) and can help save lives in case of emergencies such as a fire or flood.

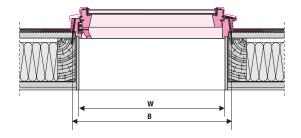
* model FWU 24/46 tested in accordance with IRC section R 310.1.1, R 310.1.2, R 310.1.3, R 310.1.4

- **Features:** suitable for roof pitches between 15-55 degrees
 - low-emission and heat-reflecting double glazed glass
 - factory finished frame
 - handle positioned halfway up the sash for ease of
- internal gasket system to collect and drain any condensation water to the outside
- skylight's frame adopted for internal blinds installation
- required special flashing ELW or EHW-A

FAKRO®













FWR-R (right)



FAKRO SIDE HUNG WINDOW FWU DIMENSIONS

Size		22/38	24/46	37/46*
Rough opening (WxR)	in.	22 ¹ / ₄ x 37 ¹ / ₃	22 ¹ / ₄ x 45 ¹ / ₄	38 ¹ / ₂ x 47 ³ / ₄
	mm	564 x 948	564 x 1148	977x1215
Outside frame (BxL)	in.	23 ¹ / ₂ x 38 ¹ / ₈	23 ¹ / ₂ x 46 ¹ / ₄	36 ⁷ / ₈ x 46 ¹ / ₄
	mm	597 x 975	597 x 1175	937x1175
Daylight area	sq. ft.	3.55	0.41	10
(glass)	m²	0.33		0.93

 $^{^{\}star}$ Size available to order - installs with mounting brackets.





FGH-V Galeria

FGH-V Galeria is an innovative large window which sashes, when opened, create a balcony in the loft. The upper top hung sash opens upwards, whereas the lower sash can be tilted forwards, allowing easy access to the balcony recess. The sash when rotated through 0° to 45° is supported by an innovative auxiliary mechanism which allows leaving the open sash in any position within this range. The upper sash can be opened anywhere along the opening range, up to 45°. Side barriers are integrated into the bottom sash and slide out during opening. When closing the lower sash, the balcony barriers are hidden in the window thus they are not visible above the roof. Concealed under the window flashing elements, they do not collect dirt or spoil the aesthetics of the roof.



Features:

- suitable for roof pitches between 35-55 degrees
- low-emission and heat-reflecting double glazed glass
- factory finished frame
- system of reinforced window structure topSafe
- the line for easy operation should not be on a new line but continue after sash
- opening restrictor
- wide range of accessories



The upper sash can be raised smoothly up to an angle of 45°. Side safety barriers are integrated into the bottom sash and they tilt forward during the sash opening.

Installation of balcony windows can only be performed by qualified personnel. Cost of installation services is

Cost of installation services is determined individually.



When closing the lower sash, the balcony barriers are hidden below the window profiles and are not visible above the roof, so that they do not get dirty and do not spoil aesthetics of the roof.

FGH-V balcony windows require special flashings: ELV/G for shingles and EHN/G for profiled roofing materials (tiles).

BALCONY WINDOW FGH-V DIMENSIONS



Size		CD 30/100	DD 37/100
Size		78x255 [cm]	94x255 [cm]
Rough opening (WxR)	in.	31 ¹ / ₂ - 32 ¹ / ₂ " x 101"	3 ³ /4 - 39" x 101"
	mm	800-830 x 2570	960-990 x 2570
Outside frame (BxL)	in.	30 ⁵ /8 x 100 ¹ /8	36 ⁷ /8 x 100 ¹ /8
	mm	777/2545	937/2545
Daylight area (glass)	sq. ft.	14.21	17.98
	m²	1.32	1.67



DECK MOUNTED TOP HUNG AND PIVOT ROOF WINDOW

FPP-VL3

The FPP-V L3 top hung and pivot windows open in two distinct ways: outwards from the top as well as from a center pivot. The outward opening function enables the sash to be opened in any position from 0° to 35°, while the pivot function allows the sash to be rotated through 180°. The newly patented fitting system guarantees complete sash stability, both in the top hung and pivot positions. To add to the window's visual appearance the external profile covering the window is roll formed, improving the visual design.





FPP-V roof windows require special flashings ELV for shingles and EHN-A for profiled roofing materials (tiles).

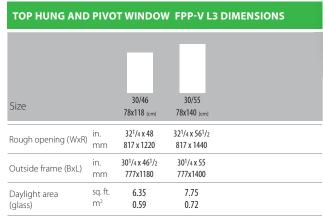


preSelect switch to convert the window from top-hung to centre pivot for cleaning.



Features:

- the window is double-glazed as standard and by using a single chambered construction with energy saving panes.
 Each glazed unit achieves a pane Uvalue = 1.0 W/m²K, (R-value 5.7)
- manufactured using pine wood, vacuum impregnated and finished with two coats of acrylic lacquer
- air inlet V40P
- operated by a handle positioned on the lower part of the sash. Opening method can be switched using the preSelect sliding switch in the frame, accessible when the window is open
- suitable for roofs with pitches between 15 and 55 degrees
- wide selection of accessories available, identical to those for pivot windows







DECK MOUNTED PIVOT WINDOW

FTP-VL3

The FTP-V center pivot window is the most popular type of Fakro roof window sold in Europe.

The well-designed center pivot allows the sash to open in a range of positions, thus increasing the amount of fresh air which can be drawn into the room. The sash can also be rotated 180° and locked, allowing easy and safe cleaning of the outer pane. Such pivot windows are operated using a two-part hinge. Once the window is closed, fresh air can still enter the room through the automatic air inlet V40P located on the top of the window's frame. When opened, the inlet will automatically adjust the size of the air flow channel to provide an optimum amount of air into the room ensuring a healthy micro-climate in the attic room and energy savings.



Features:

- the window is double-glazed as standard and by using a single chambered construction with energy saving panes. Each glazed unit achieves a pane Uvalue = 1.0 W/m²K, (R-value 5.7)
- manufactured using pine wood, impregnated and finished with two coats of acrylic lacquer
- manufactured from pine wood; vacuum treated and coated with acrylic lacquer
- handle positioned on the lower part of the sash for ease of use
- two open positions can be secured to allow air circulation
- suitable for roofs with pitches between 15 and 90 degrees
- wide range of accessories available



Automatic V40P air inlet used in FAKRO windows is of unique design:

 the air inlet channel is made in such a way that hot air avoids cold elements of the aluminium.
 As a result there is no presence of water vapour condensation (such situations may occur when the normal gravitational ventilation is not working properly and air inlet works as air outlet).



- the air inlet construction provides proper thermal and acoustic features
- the air inlet has good filtration characteristics which means that dust cannot get into the room.

FAKRO PIVOT WINDOW FTP-V L3 DIMENSIONS



		П	п
ize		30/46 78x118 [cm]	30/55 78x140 [cm]
ough opening (WxR)	in.	32 ¹ / ₄ x 48	32 ¹ / ₄ x 56 ¹ / ₂
	mm	817 x 1220	817 x 1440
utside frame (BxL)	in.	30 x 46 ¹ / ₂	30 ¹ / ₄ x 55
	mm	777x1180	777x1400
aylight area	sq. ft.	6.35	7.75
lass)	m²	0.59	0.72

DECK MOUNTED THERMO WINDOW

FTT U6, FTT U8 Thermo

The innovative FTT roof window offers very good overall heat-transfer coefficient for the whole window, guaranteeing significant energy savings. They can be widely installed in energy efficient construction such as Passive Houses. FTT windows are available in two versions:

FTT U8 Thermo window, equipped with a triple-chamber U8 glazing unit, supplied and installed with EHV-AT Thermo flashing.
 FTT U8 Thermo windows are characterized by the best
 U-value Uw = 0.58 W/m²K (R-Value 9.8), making it the most energy-efficient roof window on the market.

FTT U6 is equipped with a double-chamber glazing unit U6.
 The window can be installed with any type of FAKRO flashing.
 The U-value for the entire FTT U6 window is Uw= 0.80 W/m²K (R-Value 7.0).

The glazing of the FTT window is set in a specially designed wooden frame with a wider profile when compared to standard windows. This feature minimizes thermal bridges and improves the window's thermal insulation.

The FTT is a center pivot window with a raised axis of rotation. This creates space and makes standing under the open window more comfortable.

FTT U6



R-Value 7.0

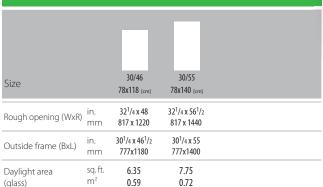
Highly energy efficient glazing unit U6.

FTT U8 Thermo



Passive U8 glazing unit
The most efficient roof window available
on the market. Supplied and installed
with flashing EHV-AT Thermo.

FAKRO PIVOT WINDOWS FTT U6, FTT U8 THERMO DIMENSIONS







Features:

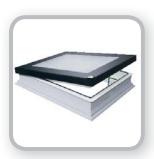
- the sash frame is thicker in comparison with a standard window and significantly increases durability and the thermo-insulating properties of the whole product
- outstanding energy savings, two chamber glazing unit "warm" TGI spacing frames; the combination of two materials, plastic and metal, along with a proper TGI frame shape, guarantees a tight barrier and low heat permeation
- quintuple sealing system; all seals are made of the highest quality materials (thanks to their high flexibility and elasticity, they adhere better to the glass pane further reducing heat loss or heat gain)
- innovative mechanism for closing the sash without a conventional locking mechanism (when the handle is turned, the sash is locked at both sides of the frame)
- effective protection against noise infiltration
- installed on roof pitches between 15° and 70°
- wide range of accessories available
- the sash stops in the open position in the range from 0° to 45° because it is assisted by an innovative supporting mechanism.
 Large window sizes allow ample light into the room while a raised axis of rotation allows unobstructed access to the open window



DECK MOUNTED SKYLIGHT FOR A FLAT ROOF

D_F

The benefits of natural illumination of the building are unquestionable but it happens that in interiors with flat roofs it is not always possible to install standard vertical windows. Every room should provide a source of natural light for a dweller to feel comfortable. The ideal solution in such cases is the installation of specially designed flat roof windows. FAKRO flat roof skylights illuminate interiors with natural light, provide room ventilation, and combine high functionality with perfect thermal insulation parameters. Now every room under the flat roof can be warm and full of natural light. A specially profiled covering material under the drip cap of the frame facilitates the finishing of the skylight connection with the roofing material. The flat roof skylight can also be mounted on an additional installation base XRD with a height of 57/8", which raises the skylight and allows its installation e.g. in green or living roofs.

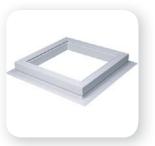


Features:

- suitable for roofs with pitches between 2 and 15 degrees
- innovative glazing unit featuring modern design
- perfect solution for passive houses
- available with two glazing units: DU6 (triple-glazed) and DU8 (quadruple-glazed)
- excellent thermal insulation parameters for the entire quadruple glazed (DU8) skylight with an R-value of 8.9. Triple-glazed (DU6) skylight has an R-value of 8.1.
- sound value: 34 dB for DU6 and 33 dB for DU8
- up to 16% greater glazing area when compared with the solution of competitive options
- can be used with roofing products as TPO, PVC, EPDM single ply or torched down membranes







Installation base XRD.



FAKRO FLAT ROOF DECK MOUNTED SKYLIGHT D_F DIMENSIONS

Size		22/22	22/30	22/46	30/30	46/46
Rough opening (WxR)	in.	22 ½ x 22 ½	22 ½ x 30 ½	22 ½ x 46 ½	30 ½ x 30 ½	46 ½ x 46 ½
	mm	572 x 572	572 x 775	572 x 1181	775 x 775	1181 x 1181
Outside frame (BxL)	in.	31 ¹ / ₄ x 31 ¹ / ₄	31 ¹ / ₄ x x39 ¹ / ₄	31 ¹ / ₄ x 55 ¹ / ₄	39 ¹ / ₄ x 39 ¹ / ₄	41 ³ / ₄ x 41 ³ / ₄
	mm	792x792	792x995	792x1401	995x995	1401x1401
Daylight area	sq. ft.	2.15	3.12	5.06	4.52	12.06
(glass)	m²	0.2	0.29	0.47	0.42	1.12

Custom sizes available per customer specification. Minimum width and length: $23^{1}/2^{n} \times 23^{1}/2^{n}$, maximum width and length: $47^{n} \times 86^{1}/2^{n}$.

Flat roof windows are available in three versions:

DEF – electric venting with wireless radio system, **DMF** – manual venting with the use of a control rod, and **DXF** – fixed



DEF electric venting with wireless radio system.



DMF manual venting.



DXF fixed.



ACCESSORIES FOR FLAT ROOF SKYLIGHTS



Blackout blind ARF/D manually operated with **ZSD** rod.



Blackout blind ARF/D radio electrically operated with remote control or wall switch (wireless radio system).



Awning blind AMZ/F Solar solar-powered and controlled by remote control.

ARF/D features:

- gradual reduction of the incoming sunlight up to black out
- partial protection against heat from the sun
- possibility of locking the blind in any position along the window
- reduction of heat loss in the room in winter
- protection against UV radiation
- available in two versions manual and electrically opened in wireless radio system

AMZ/F features:

- absorbs solar radiation before it reaches the glazing
- protection against UV radiation
- protection against light reflection on screens
- reduces sound of falling rain when drawn close
- easy to operate in wireless radio system



telescopic control rod **ZSD**

The telescopic control rod ZSD is for operating flat roof windows and internal roller blinds. Standard rod length is 46³/₄" (119 cm), maximum length is 10' 10" (330cm).



FLAT ROOF ACCESS SKYLIGHT

DRF

The insulated roof access skylight DRF are new products, expanding the range of FAKRO solutions for flat roofs. In addition to serving as a skylight, they have an extra utility feature providing safe and convenient access to the flat roof. Special hinges and a functional opening system used in the access roof light ensure easy sash opening up to 80°. Gas springs the operation of the sash and keep it stable in the open position, thus protecting against accidental closing. What is more, roof access skylights feature increased safety of use thanks to the application of anti-slip covers on their profiles.

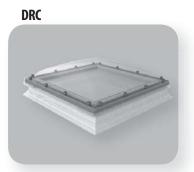


Features:

- the frame of the flat roof skylight is constructed of multi-chamber PVC profiles filled with insulation material. In the DRF roof access skylight, the upper part of the window comes with an innovative flat glazing unit
- the DRF roof access skylight is an energy-efficient, DU6 glazing unit with a Class P4A anti-burglary inner pane (EN 12567-2) and a whole window U-value of 0.74 W/m²K (EN 14351-1:2006+A1:2010). R-value = 7.7
- windows can be also mounted on an additional XRD base with a height of 5 ⁷/s" (15cm), for installation in green or living roofs
- DRF access roof skylight is designed for pitches between 2° and 15°
- the structure of the access roof skylight enables installation of internal as well as external accessories. Use of an external awning blind protects the room from overheating, while internal accessories provide protection from intense sunlight and enhance interior design



Flat roof access skylight.



Flat roof access skylight with a dome.





FLAT ROOF ACCESS SKYLIGHT DRF DIMENSIONS											
Size		35/35 90x90 _[cm]	35/47 90x120 _[cm]	39/39 100x100 [cm]	47/47 120x120 [cm]						
Rough opening	in.	35 ¹ /2"-37 ¹ /2" x 35"-37 ¹ /2"	35 ¹ /2"-37 ¹ /2"x47 ¹ /4"-59 ¹ /8"	39 ¹ /2"-41" x 39 ¹ /2"-41"	47 ¹ / ₄ "-59"-47 ¹ / ₄ "-59 ¹ / ₈ "						
(WxR)	mm	900-950x900-950	900-950x1200-1250	1000-1050x1000-1050	1200-1250 x 1200-1250						
Outside frame	in.	44/44	44/56	48/48	56/56						
(BxL)	mm	1120x1120	1120x1420	1220x1220	1420x1420						
Daylight area	sq. ft.	6.5	8.94	8.29	12.5						
(glass)	m²	0.6	0.83	0.77	1.16						

> FLAT ROOF ACCESS DOOR

DRL

The DRL roof access door is an innovative product providing safe and comfortable access to the flat roof. Its structural durability and range of sizes provide the perfect combination with an attic ladder.





- mounted on the roof surface
- the whole structure is insulated





- can be installed in the opening under the DRL roof access door
- gas piston supports unfolding and folding the ladder
- additional upper tread for safe step-up
- wide 5" (13cm) anti-slip treads

Features:

- fully assembled product
- the frame is constructed of multi-chamber PVC profiles filled with insulation material
- insulated sash equipped with a rubber seal ensures perfect thermal insulation performance
- opens up to 60°. Gas springs facilitate opening and closing, and the sash can be left open
- anti-slip tape on the base ensures safe access to the flat roof
- sizes of the roof access door are adjusted according to the size of attic ladders (attic ladders sold separately). DRL access doors come only in European (metric) sizes, and can be installed only with LML ladders, also in metric sizes
- can be mounted on an additional XRD base with a height of 6" (15 cm) for installation in green and living roofs
- option to install an additional ZBR lock which protects against accidental closure of the sash
- suitable for roof pitches between 0° and 5°



FLAT ROOF ACCESS DOOR DRL DIMENSIONS											
Size	24/47 60x120	28/47 70x120	28/51 70x130	28/55 70x140	34/51 86x130	36/51 92x130					
DRL	+	+	+	+	+	+					

Doors beight in inches (one)	9′ 2 ³/4″ 280					10′305					
Room height in inches (cm)	24/47	28/47	28/51	28/55	34/51	36/51	24/51	28/51	28/55	34/51	36/51
Attic ladder size in inches (cm)	60x120	70x120	70x130	70x140	86x130	92x130	60x130	70x130	70x140	86x130	92x130
IMI											
LML	+	+	+	+	+	+	+	+	+	+	+

ACCESSORIES FOR SKYLIGHTS ACCESSORIES FOR SKYLIGHTS

Features:

- gradual reduction of incoming sunlight up to blackout
- partial protection against heat from the sun
- possibility of locking blind in any position
- reduction of heat loss in the room during winter
- protection against UV radiation
- provides complete privacy
- suitable for cleaning
- comes in manual or electric version



SRF/ARF

The SRF/ARF blackout blind is a stylish, decorative blind with runners at the sides to allow the blind to be positioned anywhere along the window. It also prevents daylight entering at the sides, thus providing a complete blackout. The aluminium runners which cover the fabric edge, the special seal in the lower aluminium slat, and the material covering the outer face of the fabric (reflecting the sun's rays) block out incoming light completely, reduce incoming heat in summer and prevent heat loss in winter. The fabric also protects against harmful UV radiation.

Blackout blinds for skylights

SRF-EX – electric blackout blind for FX skylights **SRF-EV** – electric blackout blind for FV, FVE skylights **SRF-MX** – manual blackout blind for FX skylights **SRF-MV** – manual blackout blind for FV skylights

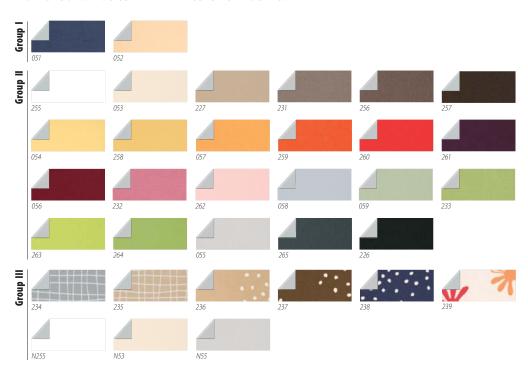
Blackout blinds for roof windows

ARF- manual blackout blind for pivot roof windows **ARF-E** -electric blackout blind for pivot roof windows

Blackout blinds for flat roof windows

ARF/D- manual blackout blind for flat roof windows **ARF/D** radio -electric blackout blind for flat roof windows

BLACK OUT BLINDS COME IN THREE COLOR CATEGORIES:

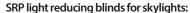




SRP/ARP

The light reducing SRP/ARP roller blind provides protection against sunlight, pleasantly shading the interior during sunny days. A wide range of colors and designs to choose from will enhance the looks of the room and enable the customer to match the material sympathetically with the interior design.

The aluminium runners cover the material edges and make it possible to lock the blind in any position.



SRP-EX – electric light-reducing blind for FX skylights **SRP-EV** – electric light-reducing blind for FV, FVE skylights

SRP-MX – manual light-reducing blind for FX skylights

SRP-MV – manual light-reducing blind for FV skylights

ARP manual light-reducing blind for roof windows **ARP-E**-electric light-reducing blind for pivot roof windows

Light-reducing blinds are not available for flat roof windows.

LIGHT-REDUCING BLINDS COME IN THREE COLOR CATEGORIES:

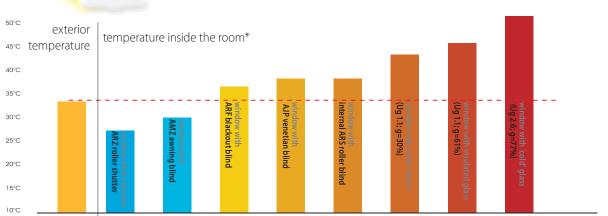




EXTERNAL AWNING BLIND FOR SKYLIGHTS AND ROOF WINDOWS

FAKRO analyses the efficiency of protection from overheating with the use of different accessories, in order to improve the products, to be sensitive to the user's comfort. To this end, eight similar investigation boxes have been made using the same type of window and are then exposed to the influence of the sun's rays. The investigation was completed with the windows closed, and the temperature was taken one metre above the floor in a few different places. These windows then had accessories installed. The results are shown in the diagram below.

The investigation results below show clearly that external accessories (awning blind and roller blind) provide the best protection from outside heat. The external accessories keep the sun's rays outside the pane, reduce the heat flow and help prevent the room from overheating.



* Presented results and diagram are for illustrative purposes only-they relate to specific weather conditions during the test.

External accessories are the best protection from high temperatures. They also absorb UV radiation while keeping warm air out and preventing the interior of the home overheating on hot, sunny days.



The external awning blind protects up to 8 times more efficiently against sun heat radiation than the internal blind.



Solar-powered external awning blinds are simple to install and can be programed to respond to the intensity of the sun by closing and opening automatically.



The awning solar blind is an appropriate combination of effective protection from heat and comfort of use. Due to the fact that the awning blind absorbs solar radiation before it reaches the glazing and emits the heat to the outside of the room, it constitutes much better protection from tiresome heat in the sunny days than internal accessories. At the same time, it allows the ingress of natural light and ensures visual contact with the environment.

Features:

- effective reduction of heat from the sun
- installed on the outside of the window
- protection from excessive brightness, while maintaining good overall levels of natural light
- protection from harmful UV radiation
- protection from harmful light reflection, especially important when working with computers
- positioned outside, it does not reduce the glazing surface
- effective shading of the interior even when the window is ajar
- when used in rainy weather, reduces noise of hailstones and rainfall

SMZ Solar – solar-powered electric awning blind for skylights **AMZ Solar** – solar-powered electric awning blind for roof windows **AMZ/F Solar** – solar-powered electric awning blind for flat roof windows

Awning blinds come with relative fabrics transparency of 10% and 1%



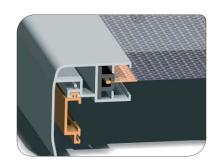
Fabric with 10% relative open area, awning blinds from group I and I



Fabric with 1% relative open area, awning blinds from group III.



The awning blind is made of durable, weather-resistant fiberglass fabric. The fabric is roller-mounted with a motor fitted inside an aluminium casing, which is installed at the top of the window. In the cloth's edges there is a special tape that maintains appropriate fabric tension between the guides, preventing the fabric from falling out of the guides. Joining the fabric and profiles this way increases its resistance to wind. This solution withstands wind gusts of up to 75 miles/h (120 km/h) and side wind speeds of up to 137 miles/h (220km/h).



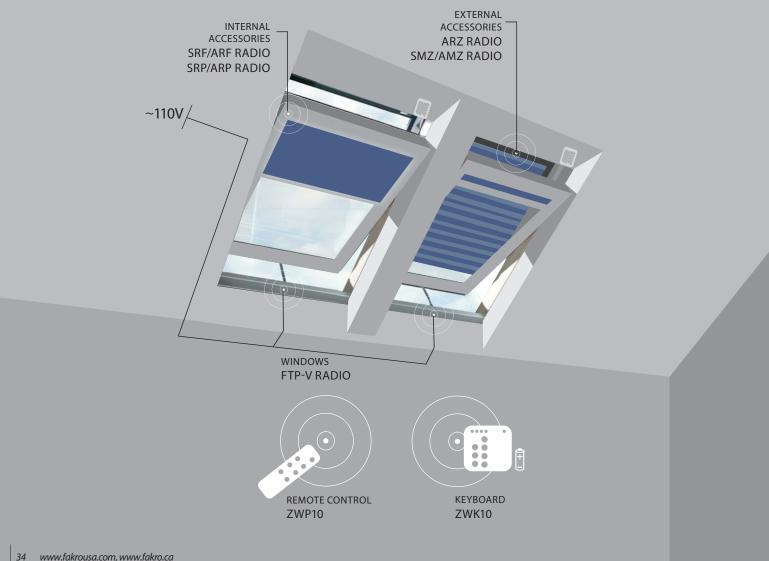




FAKRO has equipped its products with a revolutionary radio communication system, a wireless protocol used for communication between household appliances. It serves the purpose of combining into a single network such electric devices as: lighting, thermostats, alarms, computers, telephones, air conditioning and electric windows and blinds.

The radio system is easy to install, expand, and manage at every stage of use. Installation of the system saves on cost and time and maximizes the usage comfort, as it does not require any control units or fitting wires between electronic devices. It is intended for buildings under construction as well as already existing structures.

For radio waves sent from a controlling device (e.g. remote control) there is a set route in which the command reaches the correct device and performs the function that was sent. Confirmation and reception of the command is required in order for this to work.







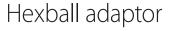
Control ROD S7S

The telescopic SZS Control Rod consists of three sections. The minimum length of the rod is 5', and the maximum length is 10'. The last section is equipped with a metal ball for operating the manual opening mechanism of the FV skylight, manual blackout blinds (SRF-M) and light reducing (SRP-M) blinds.





- FV skylight - SRF-M_ - SRP-M_



The SZK crank on FV skylights installed out ot reach can be replaced by a hexball adaptor to allow operation with SZS control rod.



- Hexball adaptor for FV skylight



Remote control

ZRC US - remote control for use with FVE infrared-electric skylights. Operates up to 8 devices.

ZWP10 US - the ZWP10 remote control enables radio control of electrical devices which are compatible with the radio communication system. The remote control can be used to operate up to 10 receivers individually and up to 231 receivers in groups.



Wall switch

ZKC US - wall switch is dedicated for use with FVE infrared-electric skylights. The wall switch is installed on a wall as an alternative to using a remote control.



ZWK 10 US - the ZWK10 multi-channel keyboard remotely controls radio-electrical skylights and blinds. The keyboard can operate up to 10 receivers separately or 231 accessories in groups.



Control unit

ZTCi US - allows to control the work of a single 24VDC motors (internal electric blinds). ZTCi US control unit can co-operate with infra-red ZRC US remote control.





LIGTH TUNNELS

SR_-L, SF_-L

FAKRO light tunnels are designed to bring natural light to every part of a building. The light tunnel makes it possible to illuminate all rooms in the building, even those which cannot be fitted with roof windows or vertical windows. Dimly lit interiors such as bathrooms, dressing rooms, corridors, staircases or basements can be particularly uncomfortable to use. The light tunnel enhances the user's comfort and saves energy.

SR_-L











Features:

- flat roofing element consists of an aluminum frame with 4mm thick, tempered glass on the outside
- roofing element includes special glass inside for additional illumination of the attic (SR_-L and SF_-L only)
- integrated flashing for flat or profiled roofing materials
- the entire structure is finished in grey-brown RAL 7022 matching perfectly all standard colors of roof covering materials
- **SRL-L** flat light tunnel with rigid tube and integrated flashing for flat roofing materials like shingles **SRH-L** flat light tunnel with rigid tube and integrated
- flashing for high profiled roofing materials like tiles
- **SFL-L** flat light tunnel with flexible tube and integrated flashing for flat roofing materials like shingles **SRH-L** flat light tunnel with flexible tube and integrated

flashing for profiled roofing materials like tiles

- the rigid light-transmitting tube is made of aluminum, which is covered
 with a highly reflective silver based layer. It is characterized by a highefficiency light-reflective factor of over 98% light. The transmitting
 flexible tube is made of metallised polyester, additionally reinforced
 with metal wire (ideal for installation over short distances in rooms with
 structural obstacles that have to be bypassed)
- ceiling frame is made of organic glass and is equipped with a built-in light-diffusing element
- the light tunnel consists of light-collecting element, flashing, rigid or flexible light transmitting tube, elbow (in SR_ version), diffuser and ceiling frame







Size	250mm 10"	350mm 14"	550mm 22″
SRL	+	+	+
SFL	-	+	+



ACCESSORIES FOR SF_-L FLEXIBLE LIGHT TUNNEL



SF_-F: flexible light transmitting tube (6' 10 1/2" long), roof section with integrated flashing, diffuser and ceiling frame. Comes with an installation kit.



SLM Light Transmitting Tube Extension Kit. The kit for flexible reflective tubing (SLT), consists of: connecting ring, light transmitting tube 47" (120cm), adhesive tape. The light - transmitting tube has other lengths available to order, calculated as multiples of 1' (30cm) e. g. 2', 3', 4' (60cm, 90cm, 120cm).



SLC hanger. Used when an overall light transmitting tube is longer than 16.4′ (5m). The hangers are used in order to support part of the tube's weight. Applying the SLC hanger eliminates the need to use the extension kit SLM. Only part of the light - transmitting tube has to be purchased.



SLO light kit is applied as an alternative source of illumination at nightfall. The light kit is installed inside the SLT or SRT light tunnel.

>

ACCESSORIES FOR SR_-L RIGID LIGHT TUNNEL

SR_-F: 3x rigid light - transmitting tube elements (24" long), 1x 0-65 degrees elbow, roof section with intergated flashing, diffuser and ceiling frame. Comes with an installation kit.



SRM Rigid Tube single extension element 24" (61cm) long, is made of aluminum.



SRK Changing Angle Elbow for the SRT light tunnel. The elbow changes the angle of the light - transmitting tube anywhere between 0° and 65°.



SRC Suspension Kit for Light-Transmitting Rigid Tube. Is used when the light - transmitting tube is longer than 13' (4 m). It supports part of the tube's weight.



SLO light kit is applied as an alternative source of illumination at nightfall. Light kit is installed inside the SLT or SRT light tunnel.





Innovative technologies, use of effective methods of production management, uniform procedures for operation, continuous improvements to manufacturing and working conditions, all ensure the constant, high quality of our products. Quality control is an inseparable part of our production process. Each product's quality is verified on all production stages. Furthermore, 70 different control and measurement tests are performed in our laboratories, which allow current monitoring of offered products. Research is conducted on all incoming products, components in production process and eventually, final products. All quality systems at FAKRO aim to provide quality and repeatability of manufactured products, which increases trust and our customers' satisfaction.

In order to provide products that are safe for our customers, skylights are tested for code compliance by accredited laboratories. After the products pass the tests and meet the requirements of applicable codes, they become certified products and the certificates are given by authorized bodies.

Standard FAKRO skylights comply with the applicable requirements of the:

International Building Code (IBC)
International Residential Code (IRC)
International Energy Conservation Code (IECC)

As a confirmation of the compliance with the above codes, FAKRO products has been awarded with the IAPMO UES # 0268.

FAKRO deck mounted skylights are tested according to Canadian Standards Association (CSA) requirements.

With the use of highly selective solar glass in our glazing units, FAKRO skylights are NFRC and ENERGY STAR® qualified for use in the USA and Canada (Zone 1 and 2 with the use of thermo flashing). FAKRO skylights also meet the requirements of IGCC (Insulating Glass Certification Council) and IGMA (Insulating Glass Manufacturers Alliance), requirements for initial and post gas fill weathering certification.

FAKRO's (egress) access roof window FWU 24/46 tested in accordance with IRC section R 310.1.1, R 310.1.2 and is officially recognized as a certified Fire Exit roof window (Egress window).

Certificate available at: www.fakrousa.com or www.fakro.ca.















	FX			
Glass	G3	G31		
SHGC	0.23	0.23		
U-factor	0.42	0.42		
U-factor with thermo flashing	0.39	0.39		
VT	0.44	0.42		
UV protection	84%	97%		
CR condensation resistance	54	55		
CR condensation resistance with thermo flashing	55	55		
Air infiltration	0.03 cfm/ft2 @ 1.6 psf			
Water resistance	No water infiltration at minimum tests pressure for classes R, LC, CA, AW and optional test pressure at 12psf (580 Pa) and 15psf (730 Pa).			
Unform Load Deflection	Below allowed net deflection at -30/+30psf (1440 Pa) and -125/+125 psf (5990 Pa)			
Uniform Load Structural	0.00"@-45psf (2160 Pa) 0.00"@+60.0psf (2880 Pa)			
Distributed Load Test	Passed @ 6.2psf (300Pa)			

FV/FVE				
Glass	G3	G31		
SHGC	0.21	0.21		
U-factor	0.45	0.45		
U-factor with thermo flashing	0.41	0.41		
VT	0.40	0.38		
UV protection	0.84	0.97		
CR condensation resistance	53	53		
CR condensation resistance with thermo flashing	54	54		
Air infiltration	0.04 cfm/ft2 @ 1.6 psf			
Water resistance	No water infiltration at minimum tests pressure for classes R. LC. CA. AW and optional test pressure at 12psf (580 Pa) and 15psf (730 Pa).			
Unform Load Deflection	Below allowed net deflection at -30/+30psf (1440 Pa) and -45/+45 psf (2160Pa)			
Uniform Load Structural	0.00"@-45psf (2160 Pa) 0.01"@+60.0psf (2880 Pa)			
Distributed Load Test	Passed @ 6.2psf (300Pa)			

	FWU		
Glass	G3	G31	
SHGC	0.20	0.210	
U-factor	0.41	0.41	
U-factor with thermo flashing	-	-	
VT	0.39	0.37	
UV protection	84%	97%	
CR condensation resistance	53	54	
Air infiltration	0.09 cfm/ft2 @ 1.6 psf		
Water resistance	No water infiltration at minimum tests pressure for classes R. LC. CA. AW and optional test pressure at 12psf (580 Pa) and 15psf (730 Pa).		
Unform Load Deflection	Below allowed net deflection at -30/+30psf (1440 Pa) and -80/+80 psf (5990 Pa)		
Uniform Load Structural	0.00"@-60psf (2880 Pa) 0.00"@+160.0psf (7680 Pa)		
Distributed Load Test	Passed @ 5psf (240Pa)		

G3 glass: tempered over tempered

G31 glass: tempered over laminated (0,090" interlayer)

Testing data

Deck mounted skylights FX, FV, FVE size 49x47", FWU size 24x47" tested in accordance with: AAMA/WDMA/CSA101/I.S.2/A440-08(NAFS-08)&A440S1-09 and AAMA/WDMA/CSA101/I.S.2/A440-11(NAFS2011). Various ASTM methods apply. SHGC, U-factor, VT and CR are measured according to NFRC requirements





■ FAKRO®



FAKRO AMERICA, LLC
39 WEST FACTORY ROAD
ADDISON IL, 60101
tel: (630) 543 1010 fax: (630) 543 1011
www.fakrousa.com
e-mail: sales@fakrousa.com

SKYWIN - FAKRO
77 WOODLAND AVE.
CHATHAM, ONT. N7L 2S5
tel: (519) 352-6587 fax: (519) 352-3233
www.fakro.ca
e-mail: sales@fakro.ca

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