



**PRODUCT  
CATALOG**  
SKYLIGHTS & ACCESSORIES  
2020/2021

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# 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.

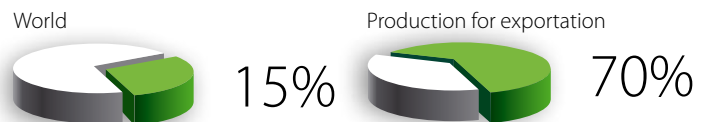
- ▶ In 1994 first FAKRO windows are delivered to customers in Poland
- ▶ In 1996 first windows manufactured by FAKRO are sold to a customer outside of Poland
- ▶ In 2000 FAKRO introduced to the market
- ▶ The FAKRO Group consists of 12 manufacturing plants
- ▶ The FAKRO Group includes 16 distribution 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 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.





# skylights roof windows egress roof windows attic ladders

**SLT, SRT  
Light Tunnels**

**FXC – Fixed  
FVC – Manually Vented  
FVS-C – Solar Vented  
Curb Mounted Skylights**

**FPP-V preSelect  
Roof Window**

**FGH-V P2  
Balcony Window**

**LST Scissor, Insulated  
Attic Ladder**

**DXF – Fixed  
DMF – Manually Vented  
DEF – Electrically Vented  
DXW – Walkable Skylight  
DRF – Flat Roof Access Skylight**

**VMZ Solar**  
Awning Blind for Vertical Windows



**FX** – Fixed  
**FV** – Manually Vented  
**FVS** - Solar Vented  
**Deck Mounted Skylights**

**FWU-L/R Egress  
Roof Window**

**SRL-L, SFL-L  
Non-Domed  
Light Tunnels**

**LWF Fire-Rated,  
Insulated Attic Ladder  
+ more models**



ASTM E119

**FIRE-RATED**

# RANGE OF FAKRO PRODUCTS

# 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 outside during the summer and inside during the winter. It gives energy savings with air conditioning in the summer, and heat in the winter.



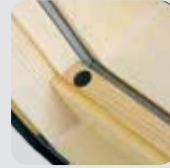
Many windows use metallic spacers to separate panes and these can encourage condensation to form by forming a cold 'bridge' between them. By contrast, FAKRO uses warm spacers in order to ensure that this otherwise common problem does not affect our products.



A thick, wooden skylight frame is the best insulator between the inside of the building and 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.



Another feature increasing the insulation properties of FAKRO skylights is the additional perimeter gasket underneath the frame which insulates the skylight's frame and roof decking.



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.



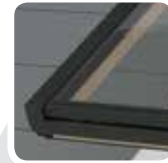
All wooden elements are factory lacquered before final assembly.



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.

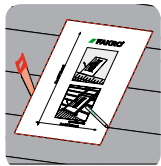


External cladding covered with UV resistant paint.



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.

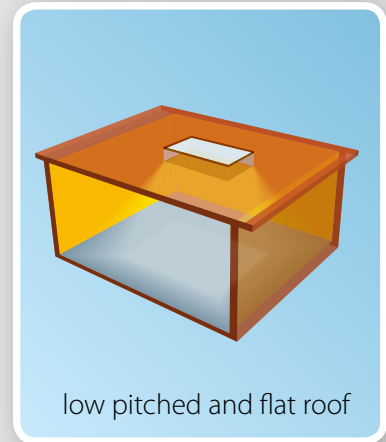
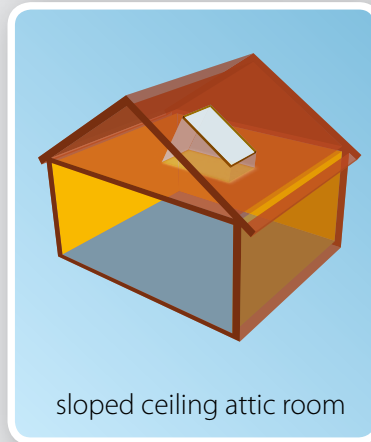
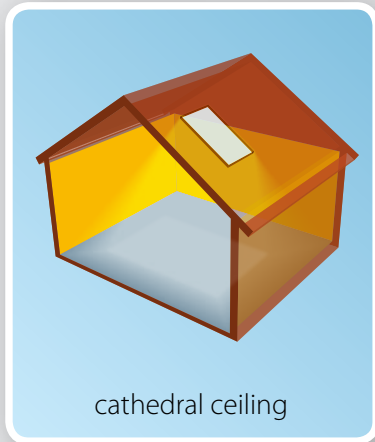
**SAFETY –  
products compliance with building codes and regulations.**



Tested and compliant with CSA requirements.

# HOW TO CHOOSE THE BEST SKYLIGHTS 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

Cathedral ceiling and sloped ceiling attic room				Sloped ceiling attic room		
DECK MOUNTED			CURB MOUNTED	DECK MOUNTED		
Electric/Solar	Manual	Fixed	Fixed	Roof access	Balcony window	Top-hung and pivot window
<b>FVE, FVS</b> – deck mounted electric/solar venting skylights are recommended for out of reach applications, where skylight operation with a rod would be uncomfortable.	<b>FV</b> – deck mounted manual venting skylights. Deck manual venting skylights are good for installation in out of reach places, but still have easy access to operate with a control rod.	<b>FX</b> – fixed skylights are a great solution to provide natural light where a venting option is not important.	<b>FXC</b> – curb mounted fixed skylight premium model with infinity glass and internal PVC frame.  <b>FXR</b> – curb mounted skylight basic model	<b>FWU</b> – roof access windows provide easy and safe access to the roof.	<b>FGH-V balcony</b> windows, when opened create a balcony in the loft.	<b>FPP-V top-hung and pivot</b> windows open in two distinct ways: outward from the top and via a center pivot.

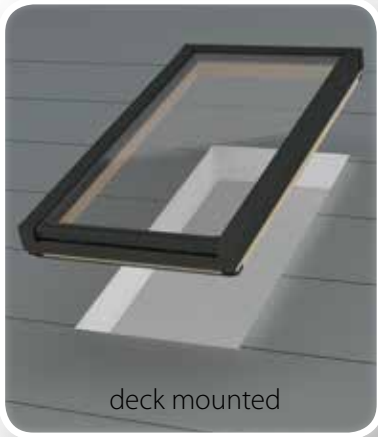
## STEP 4: CHOOSE A SIZE OF SKYLIGHT OR ROOF WINDOW

Please review available standard sizes listed further in this catalog



# OR ROOF WINDOWS

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



### Low pitched and flat roof

		Deck mounted					Curb mounted
Pivot window	Thermo window	Electric	Manual	Fixed	Manual	Fixed	
<b>FTP-V</b> center pivot windows with a 180-degree rotating sash.	<b>FTT U6, FTT U8</b> Thermo – windows are dedicated for (passive) buildings requiring products with very high insulating properties	<b>DEF</b> – electric venting, highly insulating roof windows for low pitched roof.	<b>DMF</b> – manual venting, highly insulating roof windows for low pitched roof.	<b>DXF</b> – fixed, highly insulating roof windows for low pitched roof.	<b>DRF</b> – insulated, glazed flat roof access skylights.	<b>FXC</b> – curb mounted fixed skylight premium model with infinity glass and internal PVC frame  <b>FXR</b> – curb mounted skylight basic model	

## 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

**FVS** — solar powered  
**FVE** — electric

**\$ TAX Credit Available**



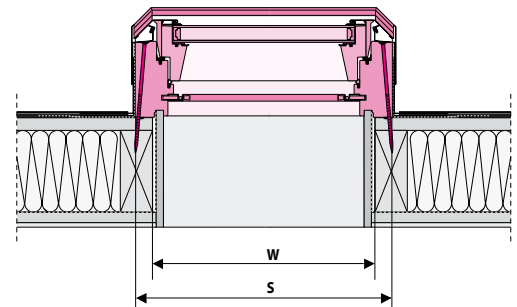
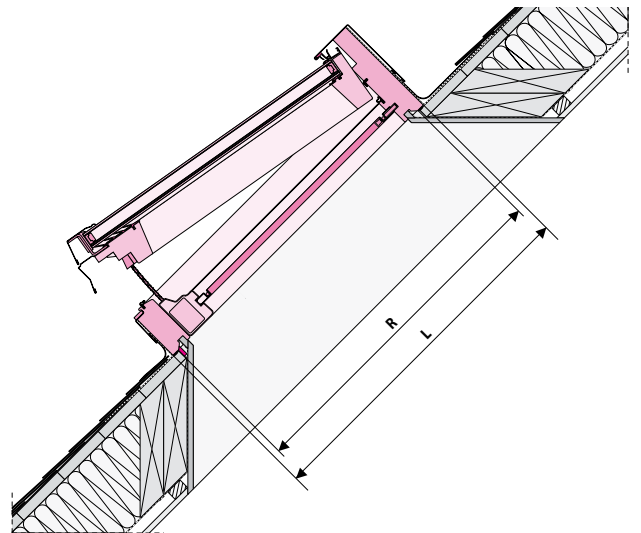
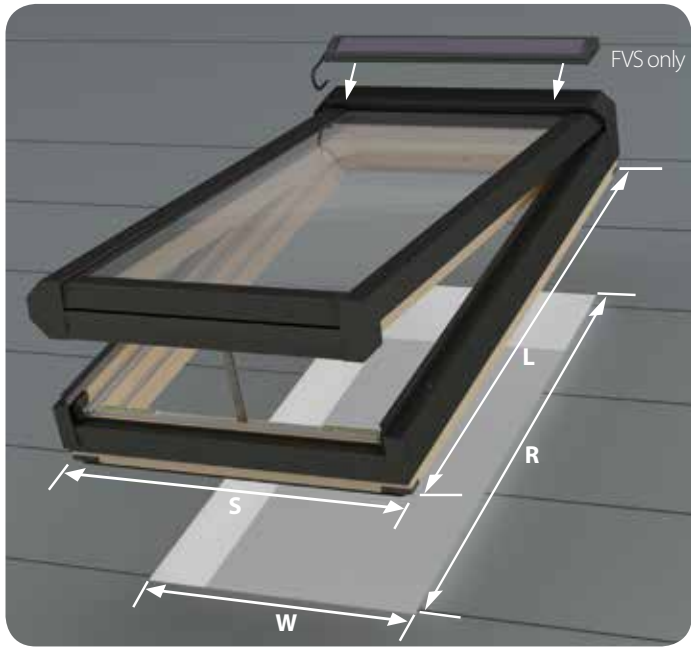
**Your smart home solution**

## ➤ 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 can enjoy the 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
  - warm spacer increases condensation resistance
  - perimeter gasket underneath the frame
  - 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 included
  - range of internal and external accessories
  - integrated solar panel (FVS)
  - FVS skylight qualifies for up to 30% Federal TAX Credit
  - equipped with a Z-wave radio control system, allowing for smart home system integration

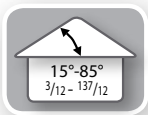




FVE/FVS	
Glazing unit	G31 tempered-laminated
SHGC	0.19
U-factor [BTU/h ft²F]	0.41
VT Visible Transmittance	0.36
CR condensation resistance	53
Air infiltration [cfm/ft²]	0.04
Water penetration [Pa]	730
Uniform Load Deflection	35 psf
Uniform Load Structural	+110 psf / - 60 psf



**2019 30%** Federal Tax Credit  
**2020 26%** Federal Tax Credit  
**2021 22%** Federal Tax Credit ] for FVS model



**FAKRO FVE, FVS SKYLIGHT DIMENSIONS**

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.	22½ x 26½	22½ x 37½	22½ x 45½	22½ x 54	22½ x 70	30½ x 37½	30½ x 45½	30½ x 54	46½ x 26½	46½ x 45½
Outside frame (SxL)	in.	24½ x 27½	24½ x 38½	24½ x 46¾	24½ x 55	24½ x 70¾	32½ x 38½	32½ x 46¾	32½ x 55	48½ x 27½	48½ x 46¾
Daylight area (glass)	sq. ft.	2.58	3.98	4.95	6.03	7.97	5.70	7.10	8.61	5.92	11.41
	m²	0.24	0.37	0.46	0.56	0.74	0.53	0.66	0.80	0.55	1.06

See recommended flashings on page 16.





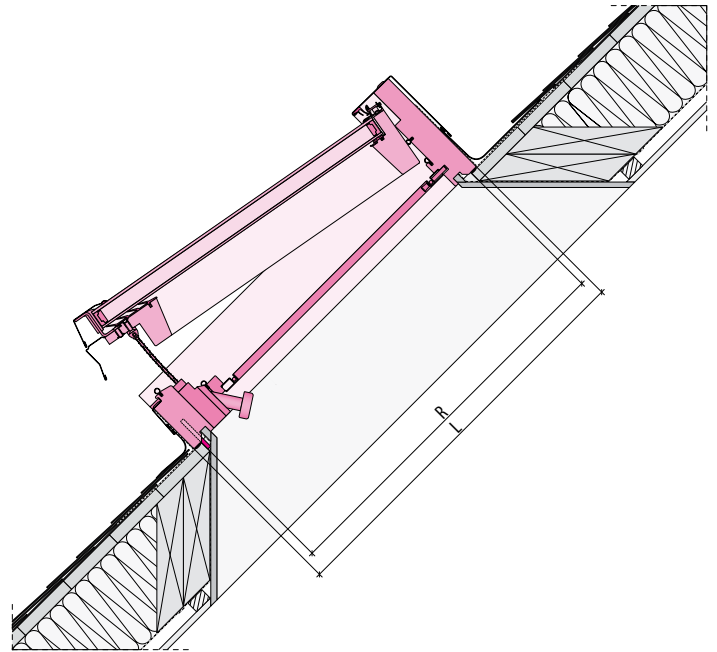
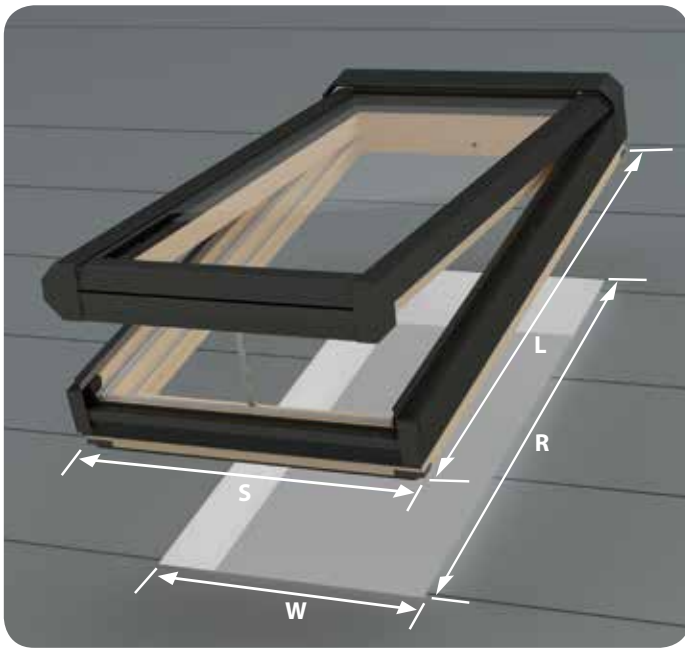
**A breath  
of fresh air**

## DECK MOUNTED MANUAL VENTING SKYLIGHT

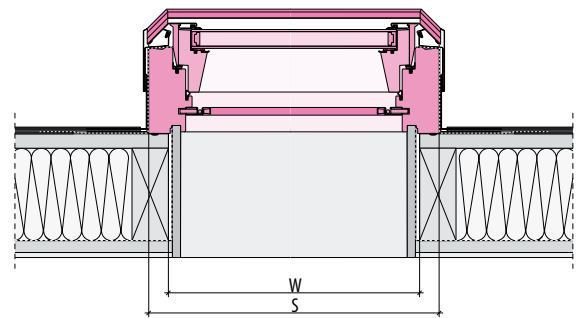
FV manual venting skylights provide light and fresh air. They are recommended for installation where the skylights will be fairly easy to reach and operate with a window crank or control rod.

- Features:**
- suitable for roof pitches between 15-85 degrees
  - low-emission and heat-reflecting double glazed glass
  - warm spacer increases condensation resistance
  - perimeter gasket underneath the frame
  - 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 possible condensation water to the outside





<b>FV</b>	
Glazing unit	G31 tempered-laminated
SHGC	0.19
U-factor [BTU/h ft²F]	0.41
VT visible transmittance	0.36
CR condensation resistance	53
Air infiltration [cfm/ft²]	0.06
Water penetration [Pa]	730
Uniform Load Deflection	52.2 psf
Uniform Load Structural	+156.6 psf/-156.6 psf



**FAKRO FV SKYLIGHT DIMENSIONS**

Size		<b>301</b> (24/27)	<b>304</b> (24/38)	<b>306</b> (24/46)	<b>308</b> (24/55)	<b>312</b> (24/70)	<b>504</b> (32/38)	<b>506</b> (32/46)	<b>508</b> (32/55)	<b>801</b> (48/27)	<b>806</b> (48/46)
<b>Rough opening (WxR)</b>	in.	22½ x 26½	22½ x 37½	22½ x 45½	22½ x 54	22½ x 70	30½ x 37½	30½ x 45½	30½ x 54	46½ x 26½	46½ x 45½
<b>Outside frame (SxL)</b>	in.	24½ x 27½	24½ x 38½	24½ x 46¾	24½ x 55	24½ x 70¾	32½ x 38½	32½ x 46¾	32½ x 55	48½ x 27½	48½ x 46¾
<b>Daylight area (glass)</b>	sq. ft.	2.58	3.98	4.95	6.03	7.97	5.70	7.10	8.61	5.92	11.41
	m²	0.24	0.37	0.46	0.56	0.74	0.53	0.66	0.80	0.55	1.06

See recommended flashings on page 16.

**FX** — fixed



**Lots of  
natural light**

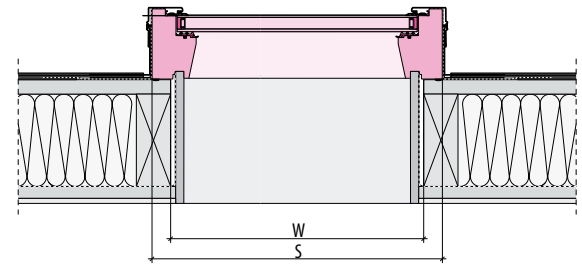
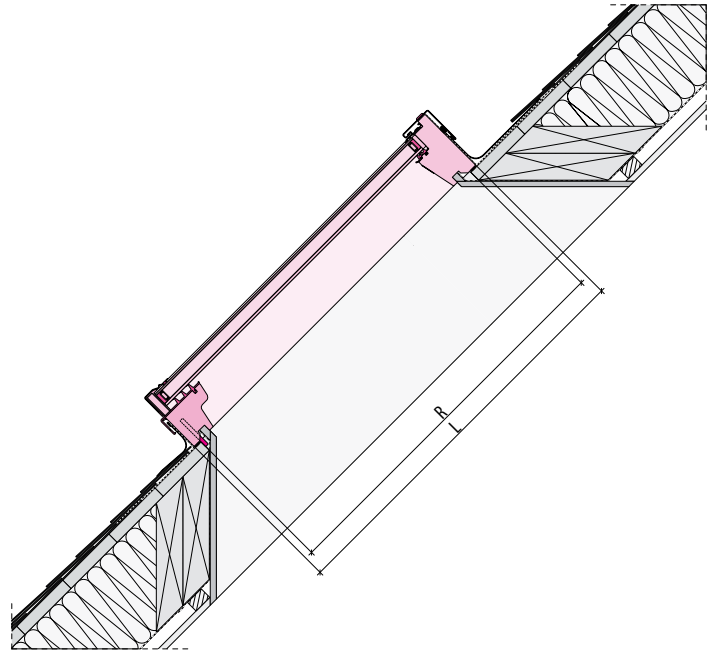
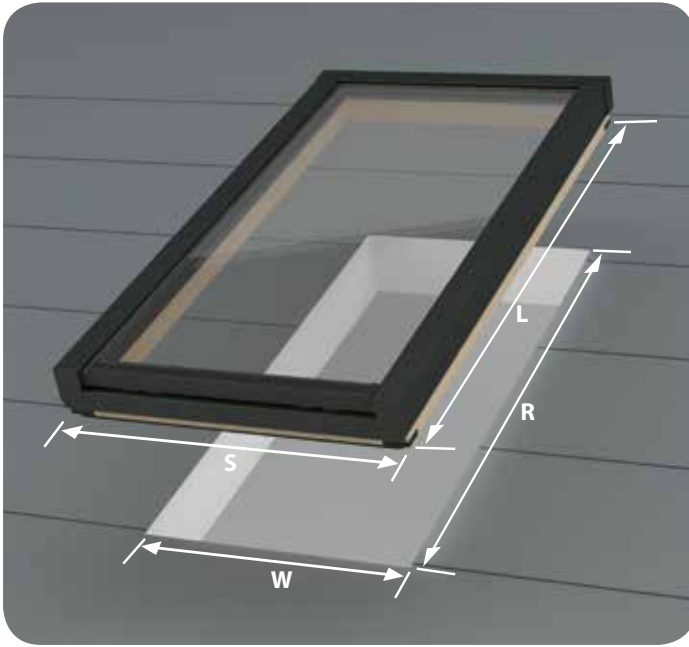
## DECK MOUNTED FIXED SKYLIGHT

The main purpose of the fixed skylight is to take advantage of natural light. Natural light in a home 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
  - warm spacer increases condensation resistance
  - perimeter gasket underneath the frame
  - range of internal and external accessories available
  - internal gasket system to collect and drain any possible condensation water to the outside







FX		
Glazing unit	G3 tempered-tempered	G31 tempered-laminated
SHGC		0.21
U-factor [BTU/h ft²F]		0.39
VT visible transmittance	0.41	0.40
CR condensation resistance		54
Air infiltration [cfm/ft²]		0.03
Water penetration [Pa]		730
Uniform Load Deflection	35 psf	62.7 psf
Uniform Load Structural	+150 psf / -110 psf	+188 psf / -188 psf



**FAKRO FX SKYLIGHT DIMENSIONS**

NEW INSTALLATION LINE *												
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.	14½ x 45½	22½ x 26½	22½ x 37½	22½ x 45½	22½ x 54	22½ x 70	30½ x 37½	30½ x 45½	30½ x 54	46½ x 26½	46½ x 45½
Outside frame (SxL)	in.	16½ x 46⅞	24½ x 27½	24½ x 38½	24½ x 46⅞	24½ x 55	24½ x 70¾	32½ x 38½	32½ x 46⅞	32½ x 55	48½ x 27½	48½ x 46⅞
Daylight area(glass)	sq. ft. m²	3.34 0.31	3.12 0.29	4.63 0.43	5.70 0.53	6.78 0.63	8.93 0.83	6.46 0.60	7.97 0.74	9.58 0.89	6.89 0.64	12.59 1.17
REPLACEMENT LINE**												
			301R	304R	306R	308R	312R				801R	806R
Rough opening (WxR)	in.	—	20⅞ x 27⅞	20⅞ x 38⅞	20⅞ x 46	20⅞ x 54⅞	20⅞ x 70⅞	—	—	—	44⅞ x 27⅞	44⅞ x 46
Outside frame (SxL)	in.	—	23⅞ x 28	23⅞ x 39	23⅞ x 46⅞	23⅞ x 55½	23⅞ x 71⅞	—	—	—	47⅞ x 28	47⅞ x 46⅞

\* Perfect fit between standard rafter distance to maximize daylight area  
 \*\* Designed to fit common sizes needed for replacement projects

See recommended flashings on page 16.



## FLASHINGS FOR DECK MOUNTED SKYLIGHTS



### EL

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  $\frac{5}{16}$ ""). 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 only.

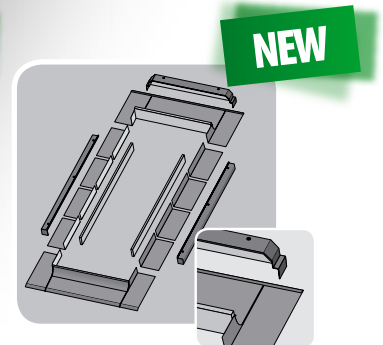
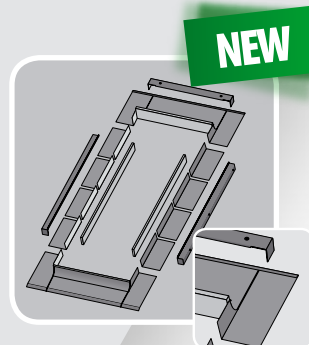
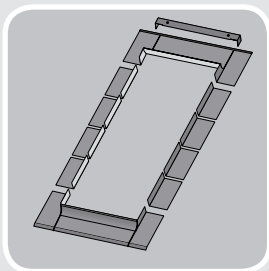


### EL-T THERMO, ELA-T THERMO

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.



\* Increase R-value by up to 10% with Thermo Flashing. 

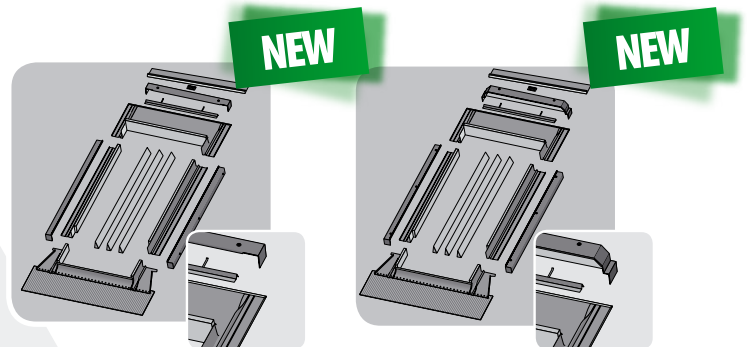
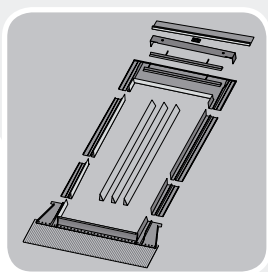



**➤ EH-A**

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 ¼" to 3 ½"). 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 minimizes 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.



\* Increase R-value by up to 10% with Thermo Flashing. 



**FXC** — fixed

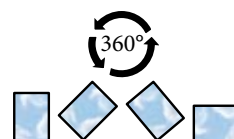


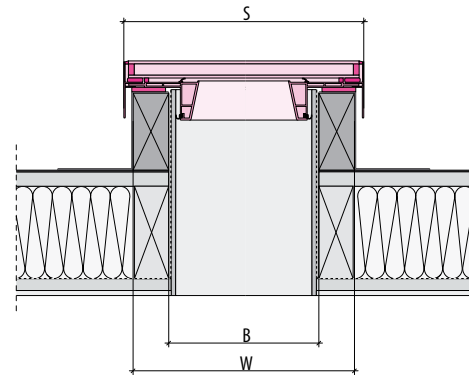
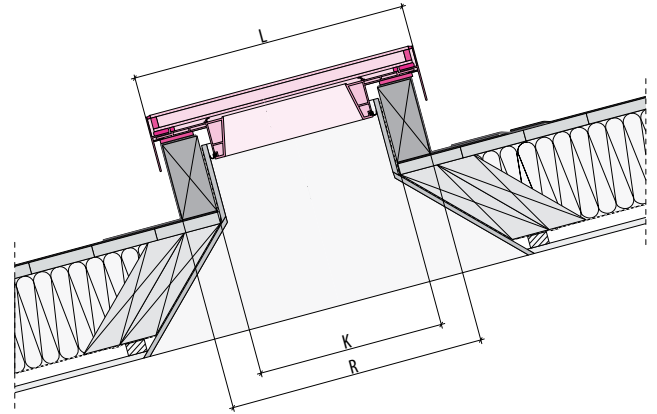
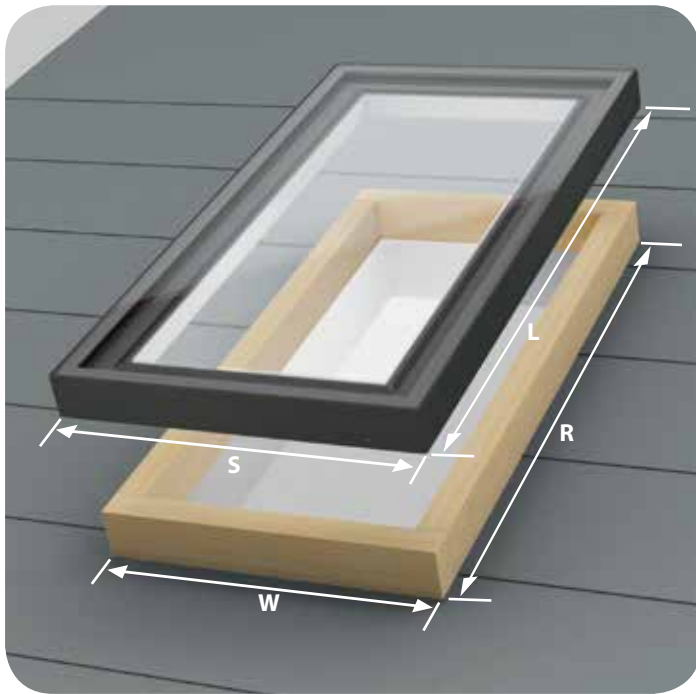
**Most elegant  
light**

## PREMIUM 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 skylights with a 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 „infinity glass“ design
  - low-emission and heat-reflecting double glazed glass
  - warm spacer increases condensation resistance
  - white PVC frame allows installation of internal blinds
  - internal gasket system protects from condensation
  - range of internal and external accessories
  - 360° turn-around installation



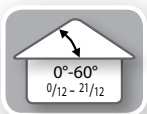


FXC	
Glazing unit	G33 tempered-laminated
SHGC	0.22
U-factor [BTU/h ft²F]	0.46
VT visible transmittance	0.42
CR condensation resistance	62
Air infiltration [cfm/ft²]	0.06
Water penetration [Pa]	720
Uniform Load Deflection	+95.24 psf/-125.10 psf
Uniform Load Structural	+190.48 psf/-187.66 psf

A wide range of colors is available to match the skylight's finish with the existing roof design.



Integrated PVC frame allows for quick and clean shaft finish.



**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.	17½ x 33½	17½ x 49½	25½ x 25½	25½ x 33½	25½ x 37½	25½ x 49½	25½ x 73½	33½ x 33½	33½ x 49½	37½ x 37½	37½ x 49½	49½ x 49½
Daylight area (glass)	sq. ft.	3.12	4.63	2.45	3.49	4.01	5.58	8.71	4.98	7.95	6.57	9.13	12.70
	m²	0.29	0.43	0.23	0.32	0.37	0.52	0.81	0.46	0.74	0.61	0.85	1.18

Custom sizes available.  
EL-C or EH-C curb flashing is recommended for installation on a roof with slope between 15°-60°.



**FXR** — fixed



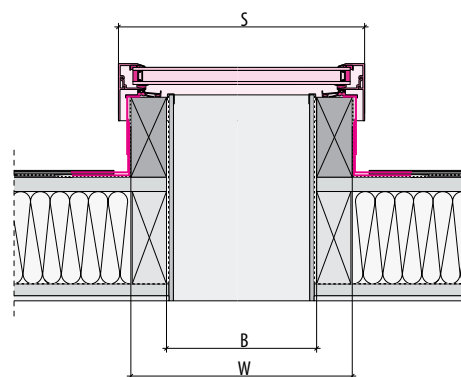
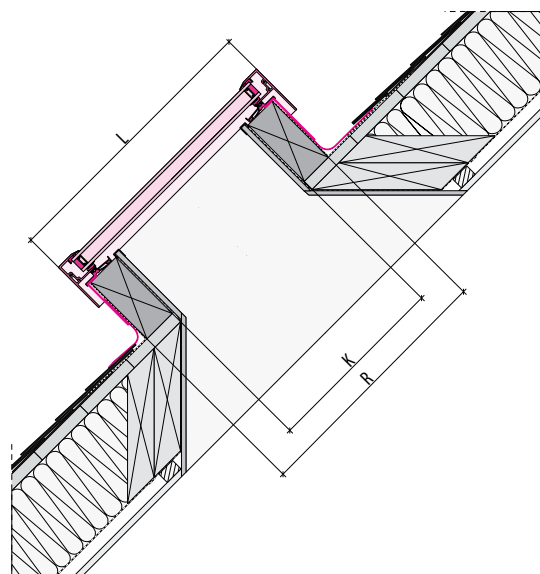
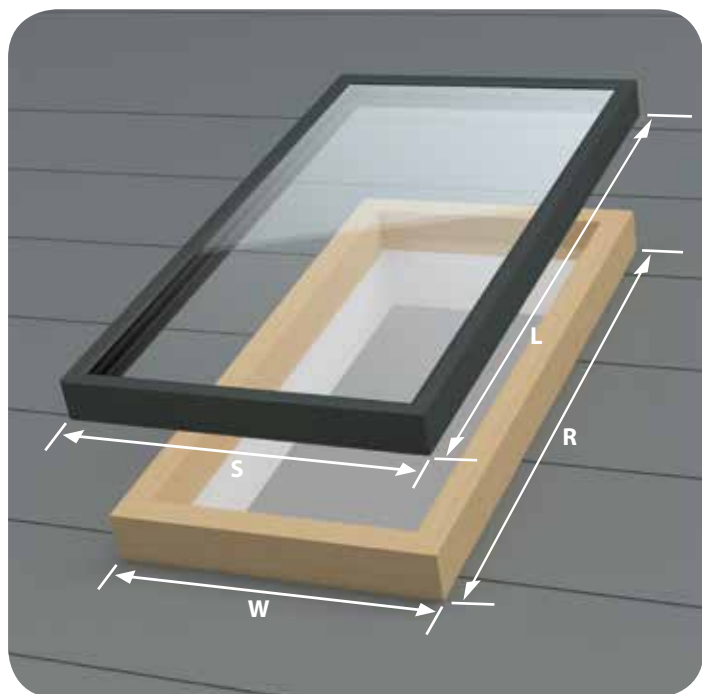
**Light and  
simplicity**

## STANDARD CURB MOUNTED FIXED SKYLIGHT

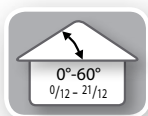
FAKRO FXR is an easy and affordable way to add natural light to any interior. It is simple but versatile frame design makes it a perfect fit for a new and any retrofit project.

- Features:**
- easy and simple installation
  - suitable for roof pitches between 0-60 degrees
  - low-emission and heat-reflecting double glazing with Argon gas
  - warm spacer increases condensation resistance
  - 360° turn-around installation
  - available with EL-C or EL-H flashing
  - a channel built into the inner frame of the skylight collects moisture and drains it to the outside
  - suitable for curb made of 2"x4", 2"x6" or 2"x8"
  - no internal accessories available





FXR	
Glazing unit	G31 tempered-laminated
SHGC	0.26
U-factor [BTU/h ft²F]	0.49
VT visible transmittance	0.51



**FAKRO FXR SKYLIGHT DIMENSIONS**

Size	14/30	14/46	22/22	22/30	22/34	22/46	22/55	22/70	30/30	30/46	34/34	34/46	34/59	34/76	46/46	50/76
Outside curb dimensions in.	17½ x 33½	17½ x 49½	25½ x 25½	25½ x 33½	25½ x 37½	25½ x 49½	25½ x 58½	25½ x 73½	33½ x 33½	33½ x 49½	37½ x 37½	37½ x 49½	33½ x 57¾	33½ x 75¼	49½ x 49½	49½ x 75¼
Daylight area sq. ft. (glass)	3.06	4.67	3.52	4.77	5.39	7.27	8.68	11.02	6.46	9.85	8.25	11.13	11.60	15.27	15.01	23.32
	0.29	0.43	0.33	0.44	0.50	0.68	0.81	1.02	0.60	0.92	0.77	1.03	1.08	1.42	1.39	2.17

EL-C or EL-H curb flashing is recommended for installation on a roof with slope between 15°-60°.



## FWU Egress



Safe and  
easy access

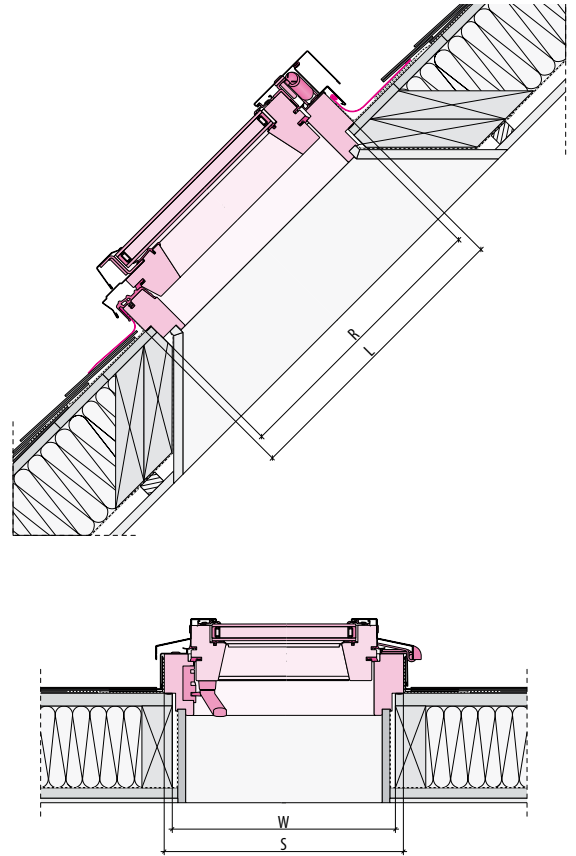
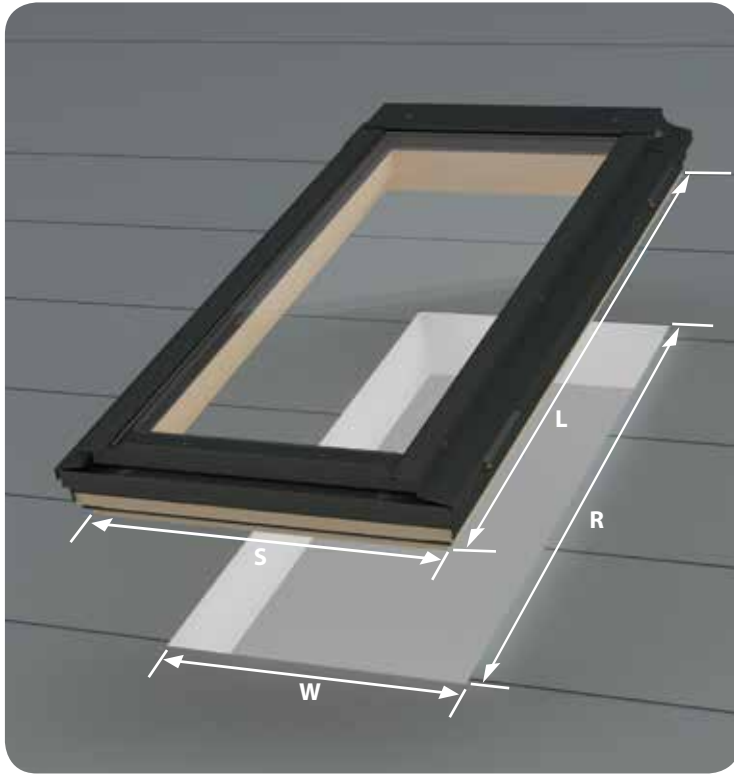
### ▶ DECK MOUNTED ROOF ACCESS WINDOW

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 opening
  - internal gasket system to collect and drain any possible condensation water to the outside
  - skylight's frame adopted for internal blinds installation
  - required special flashing ELW or EHW-A

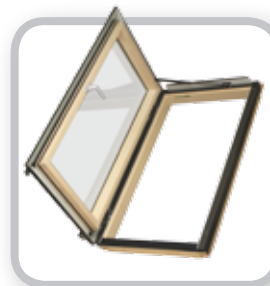


FWU	
Glazing unit	G3 tempered-tempered
SHGC	0.20
U-factor [BTU/h ft²F]	0.41
VT visible transmittance	0.39
CR condensation resistance	54
Air infiltration [cfm/ft²]	0.18
Water penetration [Pa]	730
Uniform Load Deflection	20.1 psf/-20.1 psf
Uniform Load Structural	60 psf/-60 psf

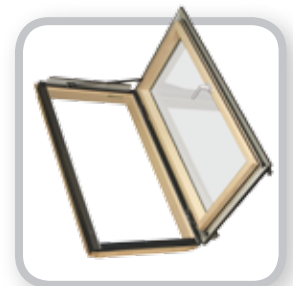


**FAKRO SIDE HUNG WINDOW FWU DIMENSIONS**

Size	24/38	24/46	37/46*
Rough opening (WxR) in.	22 1/4 x 37 1/8	22 1/4 x 45 1/4	38 1/2 x 47 3/4
Outside frame (SxL) in.	23 1/2 x 38 1/8	23 1/2 x 46 1/4	36 7/8 x 46 1/4
Daylight area (glass)	sq. ft. 3.55 m² 0.33	4.52 0.42	10 0.93



FWU-L (left)



FWU-R (right)

\* Size available to order - installs with mounting brackets. See recommended flashings on page 16.



## DECK MOUNTED BALCONY WINDOW

### FGH-V Galeria

FGH-V Galeria is an innovative large window where the sash, when opened, creates 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 determined individually.

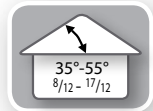


When closing the lower sash, the balcony barriers are hidden below the window profiles and are not visible above the roof, so that they do not get dirty and do not spoil aesthetics of the roof.

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
Rough opening (WxR)	in. 31 <sup>1</sup> / <sub>2</sub> - 32 <sup>1</sup> / <sub>2</sub> x 101	38 <sup>3</sup> / <sub>4</sub> - 39 x 101
Outside frame (SxL)	in. 30 <sup>5</sup> / <sub>8</sub> x 100 <sup>1</sup> / <sub>8</sub>	36 <sup>7</sup> / <sub>8</sub> x 100 <sup>1</sup> / <sub>8</sub>
Daylight area (glass)	sq. ft. 14.21 m <sup>2</sup> 1.32	17.98 1.67







# DECK MOUNTED TOP HUNG AND PIVOT ROOF WINDOW

## FPP-V preSelect

The FPP-V P2 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.

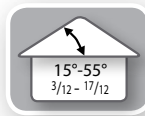


### Features:

- the window is double-glazed as standard and by using a single chambered construction with energy saving panes. Each glazed unit achieves a pane  $U_{\text{value}} = 0,18 \text{ BTU/hft}^2\text{F}$
- manufactured using pine wood, vacuum pressure 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

### TOP HUNG AND PIVOT WINDOW FPP-V P2 DIMENSIONS

Size	30/46	30/55
Rough opening (WxR) in.	32 <sup>1</sup> / <sub>4</sub> x 48	32 <sup>1</sup> / <sub>4</sub> x 56 <sup>1</sup> / <sub>2</sub>
Outside frame (SxL) in.	30 <sup>1</sup> / <sub>4</sub> x 46 <sup>1</sup> / <sub>2</sub>	30 <sup>1</sup> / <sub>4</sub> x 55
Daylight area (glass)	sq. ft. 6.35 m <sup>2</sup> 0.59	7.75 0.72



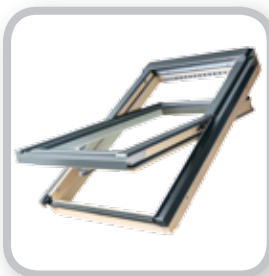




## ▶ DECK MOUNTED PIVOT WINDOW

### FTP-V P2

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 = 0,19 BTU/hft<sup>2</sup>F
- 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

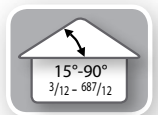


#### Automatic V40P air inlet used in FAKRO windows is of unique design:

- 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 P2 DIMENSIONS



Size	30/46	30/55
Rough opening (WxR) in.	32 <sup>1</sup> / <sub>4</sub> x 48	32 <sup>1</sup> / <sub>4</sub> x 56 <sup>1</sup> / <sub>2</sub>
Outside frame (SxL) in.	30 x 46 <sup>1</sup> / <sub>2</sub>	30 <sup>1</sup> / <sub>4</sub> x 55
Daylight area (glass)	sq. ft. 6.35 m <sup>2</sup> 0.59	7.75 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 = 0.10 BTU/h ft<sup>2</sup>F, 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 U<sub>w</sub>=0.14 BTU/h ft<sup>2</sup>F.

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



U-value 0.14

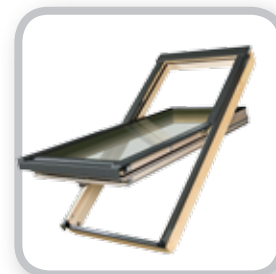
Highly energy efficient glazing unit U6.

### FTT U8 Thermo



U-value 0.10

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

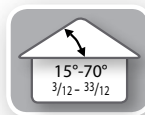


#### Features:

- 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

#### FAKRO PIVOT WINDOWS FTT U6, FTT U8 THERMO DIMENSIONS

Size	22/38	30/46	30/55
Rough opening (WxR) in.	22½ x 39½	32¼ x 48	32¼ x 56½
Outside frame (SxL) in.	21½ x 38⅝	30¼ x 46½	30¼ x 55
Daylight area (glass)	sq. ft. 3.12 m <sup>2</sup> 0.29	6.35 0.59	7.75 0.72





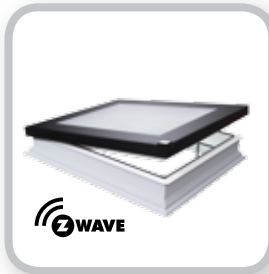
## DECK MOUNTED SKYLIGHT FOR A FLAT ROOF

### D\_F

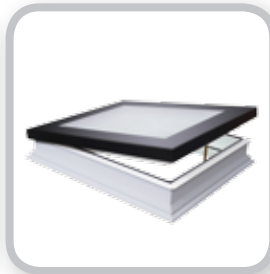
The benefits of natural illumination of the building are unquestionable but it happens that in interiors with flat roofs it is not always possible to install standard vertical windows. Every room should provide a source of natural light for a person to feel comfortable. The ideal solution in such cases 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.

**0.12**  
U-value  
for U8, triple chamber

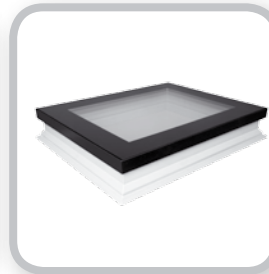
Flat roof windows are available in three versions:



**DEF** electric venting with wireless radio system.



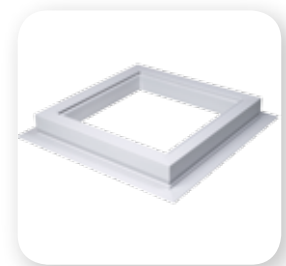
**DMF** manual venting.



**DXF** fixed.



Rain sensor.



Installation base XRD.

#### 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



#### 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 x 22	22 x 30	22 x 46	30 x 30	46 x 46
Outside frame (SxL) in.	30 <sup>5</sup> / <sub>8</sub> x 30 <sup>5</sup> / <sub>8</sub>	30 <sup>5</sup> / <sub>8</sub> x 38 <sup>5</sup> / <sub>8</sub>	30 <sup>5</sup> / <sub>8</sub> x 54 <sup>5</sup> / <sub>8</sub>	38 <sup>5</sup> / <sub>8</sub> x 38 <sup>5</sup> / <sub>8</sub>	54 <sup>5</sup> / <sub>8</sub> x 54 <sup>5</sup> / <sub>8</sub>
Daylight area (glass)	sq. ft. 2.15 m <sup>2</sup> 0.2	3.12 0.29	5.06 0.47	4.52 0.42	12.06 1.12

Custom sizes available per customer specification. Minimum width and length: 23<sup>1</sup>/<sub>2</sub>" x 23<sup>1</sup>/<sub>2</sub>", maximum width and length: 47" x 86<sup>1</sup>/<sub>2</sub>".



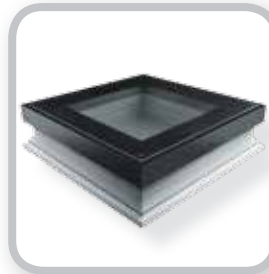
# WALKABLE SKYLIGHT

## DXW

The DXW walkable skylight is another head turning FAKRO product, designed for useable flat roofs to create a fully walkable surface above while the once dark room below becomes infused with light. Its modern design and quality finish are sure to stand out in any room with subtle lighting and remain unobtrusive on the roofs floor.



FAKRO has been given the prestigious award "ICONIC AWARDS 2018: Innovative Architecture - Best of Best" for its innovative DXW "walkable" flat roof window.



### Features:

- enhanced load capacity of 1100 pounds /sq.ft.
- special non-slip coating to ensure complete safety when walking across
- quick and easy installation with profiles that clamp the covering material and facilitate the finish of the window connection with the roofing material included as standard
- frame is constructed of multi-chamber PVC profiles filled with insulation material and window comes with passive, double-chamber glazing unit with a U-value of 0.12 Btu/h ft<sup>2</sup> F
- suitable for roof pitches 0 to 15 degrees



### WALKABLE SKYLIGHT DXW DIMENSIONS

Size	22/22	22/30	22/46	30/30	36/36	36/48	48/48
Rough opening (WxR) in.	22 x 22	22 x 30	22 x 46	30 x 30	36 x 36	36 x 48	48 x 48
Outside frame (SxL) in.	31 1/8 x 31 1/8	31 1/8 x 39 1/8	31 1/8 x 55 1/8	39 1/8 x 39 1/8	44 1/8 x 44 1/8	44 1/8 x 55 1/8	55 1/8 x 55 1/8
Daylight area (glass)	sq. ft. 2.15 m <sup>2</sup> 0.2	3.12 0.29	5.06 0.47	4.52 0.42	6.46 0.6	8.93 0.83	12.49 1.16





## ▶ FLAT ROOF ACCESS SKYLIGHT

### DRF

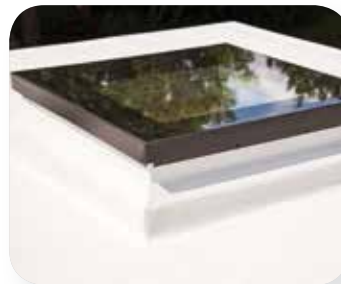
The DRF insulated roof access skylight is a new product which expands the range of FAKRO solutions for flat roofs. In addition to serving as a skylight, they have an extra utility feature providing safe and convenient access to the flat roof. Special hinges and a functional opening system used in the 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.



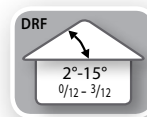
#### Features:

- 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 P2A anti-burglary inner pane (EN14351-1:2006+A2:2016) and a whole window U-value = 0.13 BTU/h ft² F R-value = 7.7
- windows can be also mounted on an additional XRD base with a height of 5 7/8" (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

#### DRF



Flat roof access skylight.



#### FLAT ROOF ACCESS SKYLIGHT DRF DIMENSIONS

Size		30/30	30/36	36/36	36/48	48/48
Rough opening (WxR)	in.	29 7/8 x 29 7/8	29 7/8 x 34 7/8	34 7/8 x 34 7/8	34 7/8 x 46 5/8	46 5/8 x 46 5/8
Outside frame (SxL)	in.	39 1/8 x 39 1/8	39 1/8 x 44 1/8	44 1/8 x 44 1/8	44 1/8 x 55 7/8	55 7/8 x 55 7/8

# FLAT ROOF ACCESS DOOR

## DRL

The DRL roof access door is an innovative product that provides safe and comfortable access to the flat roof. DRL 27x59 can be combined with specially designed FAKRO LML ladder.

**8.3**  
R-value  
for US, triple chamber



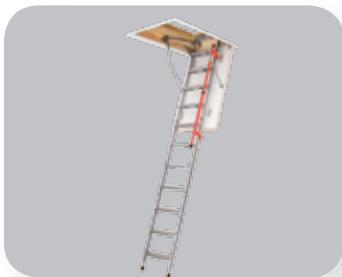
### DRL



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



### LML



- 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 80°. 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
- 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	30/30	30/36	36/36	27 1/2 x 51 1/8
DRL	+	+	+	+

Room height in inches	7'8" - 9'2"		8'5" - 10'3"
Attic ladder size in inches	24 x 47	28 x 47	28 x 51

LML + + +



## SRF/ARF INTERNAL BLACKOUT BLIND

### 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 aluminum runners covering the fabric edge, a special seal in the lower aluminum slat, and the material covering the outer face of the fabric (reflecting the sun's rays) block out incoming light completely. These components additionally reduce incoming heat in the summer and prevent heat loss in winter. The fabric also protects against harmful UV radiation.

#### 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

#### 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

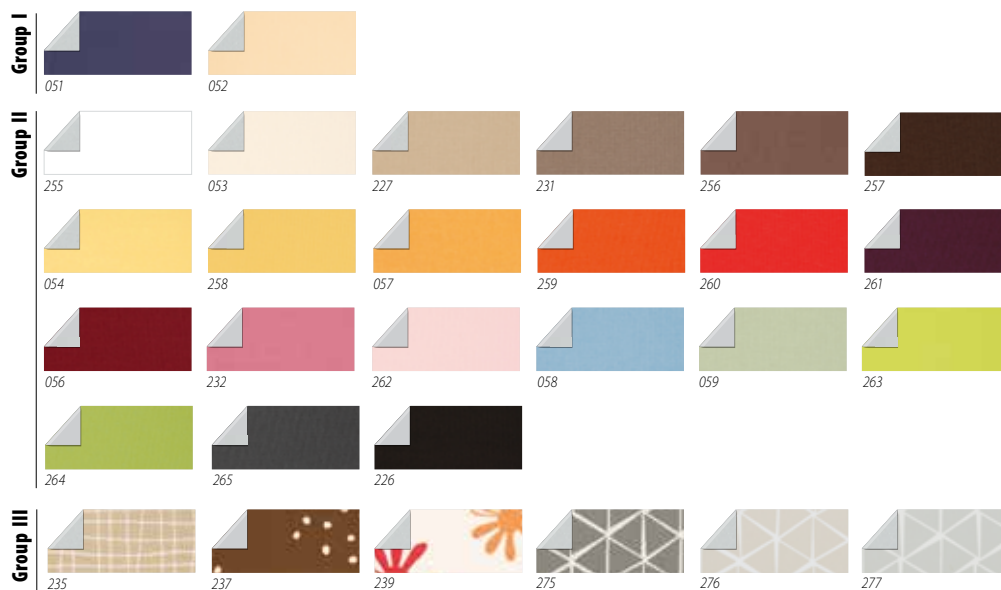
**ARF-E** – electric blackout blind for pivot roof windows

#### 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 INTERNAL LIGHT REDUCING BLIND

## 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 light reducing blinds for skylights:

**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

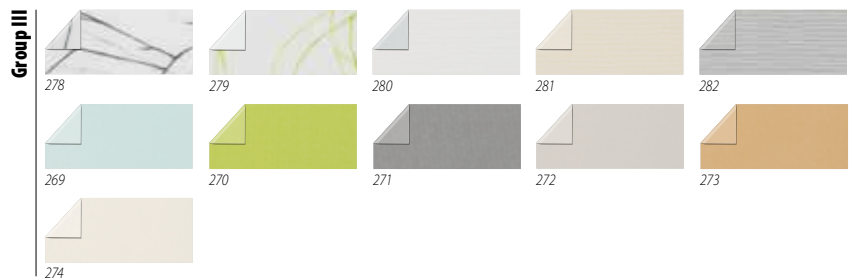
**SRP-MV** – manual light-reducing blind for FV skylights

**ARP** manual light-reducing blind for roof windows

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

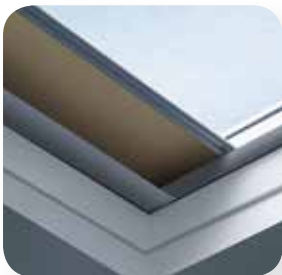
Light-reducing blinds are not available for flat roof windows.

### COLORS OF LIGHT-REDUCING BLINDS



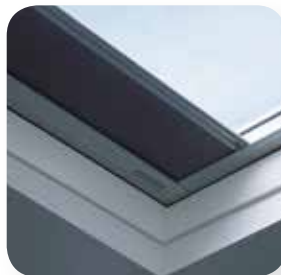
Group III

## ACCESSORIES FOR FLAT ROOF SKYLIGHTS



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

- ARF/D features:**
- gradual reduction of the incoming sunlight up to black out
  - partial protection against heat from the sun
  - ability to lock 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 electrical opened in wireless radio system



**Blackout blind ARF/D radio**  
electrically operated with remote control or wall switch (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 closed
  - easy to operate in wireless radio system



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

### telescopic control rod **ZSD**



The telescopic control rod **ZSD** is for operating flat roof windows and internal roller blinds. Standard rod length is 46<sup>3</sup>/<sub>4</sub>" (119 cm), maximum length is 10' 10" (330cm).

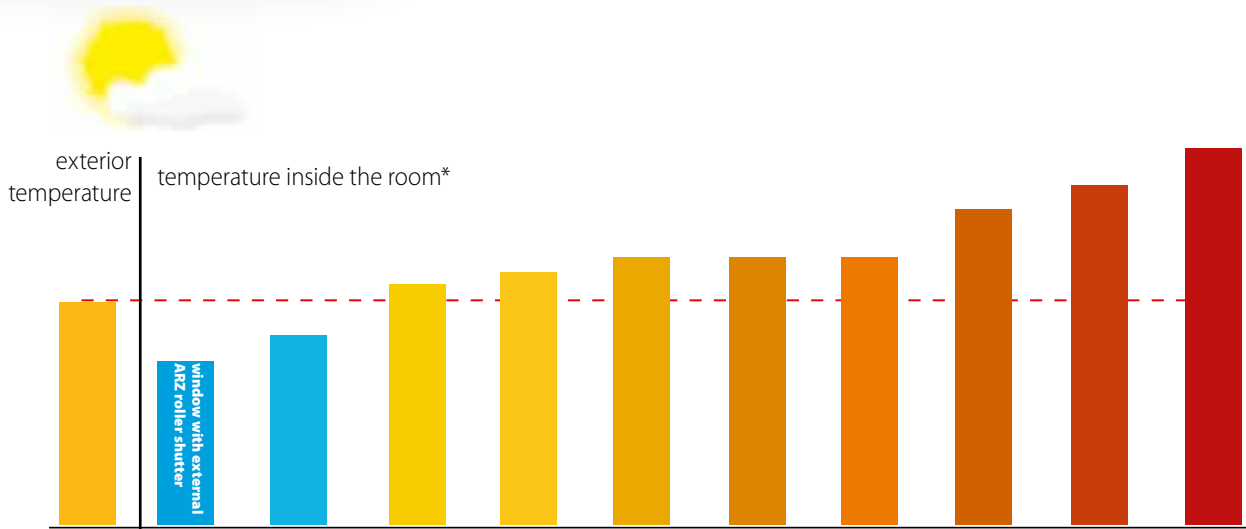




## EXTERNAL AWNING BLIND FOR SKYLIGHTS AND ROOF WINDOWS

FAKRO analyzed the efficiency of protection from over heating with the use of different accessories in order to improve product sensitivity to the user's comfort. To this end, eight similar test boxes have been made using the same type of window and are then exposed to the influence of the sun's rays. The study was completed with the windows closed, and the temperature was taken three feet above the floor in a few different places.

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 prevent the inside of the home from overheating on hot and sunny days.



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

**8 times more effective**

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



# SMZ/ AMZ AWNING SOLAR BLIND

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 provides 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:

- effectively reduces heat from the sun
- installed on the exterior 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
- reduces noise of 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 10% and 1% fabric transparency



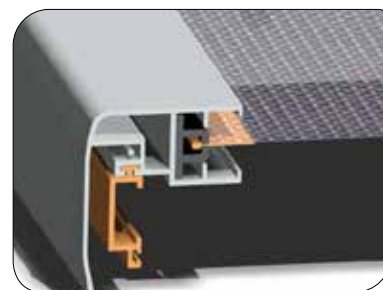
Fabric with 10% relative open area, awning blinds from group I and II.



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).



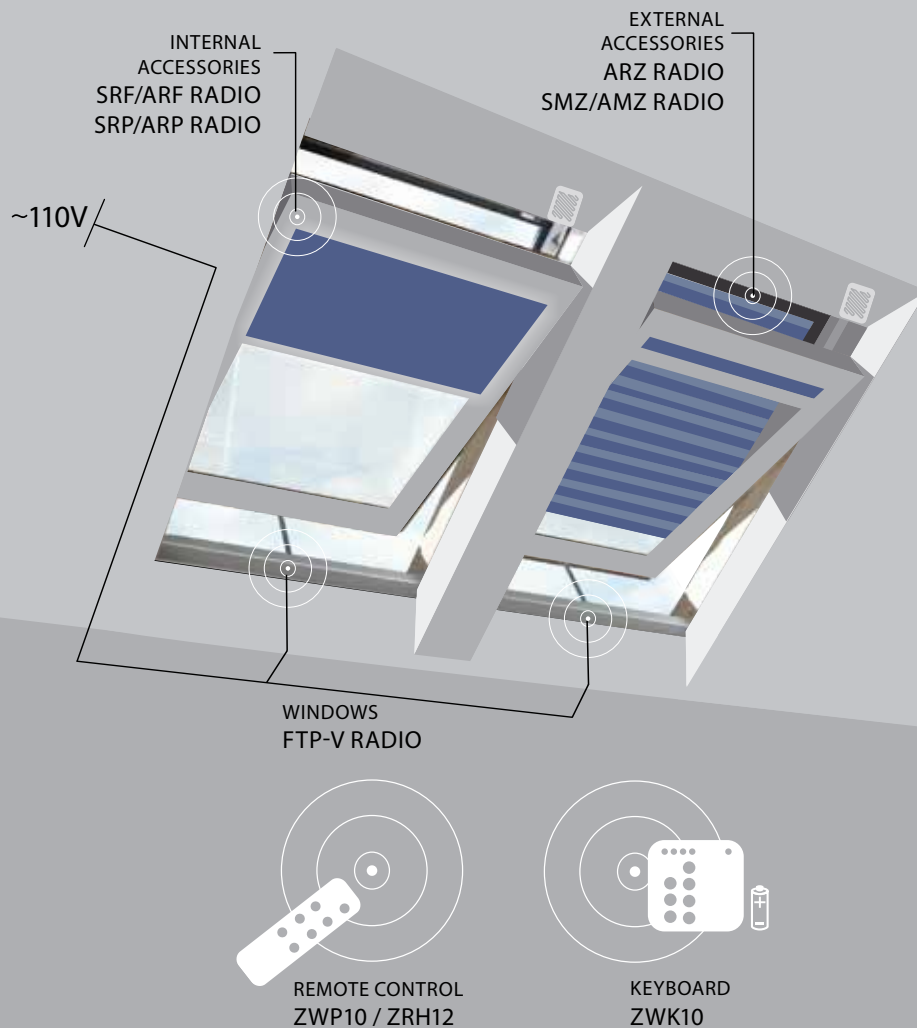


## RADIO CONTROL SYSTEM

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 compatible devices into a single network. Electric devices such 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 ACCESSORIES

### Control ROD SZS

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\_

### Hexball adaptor

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



- Hexball adaptor  
for FV skylight

### Remote control

**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.



**ZRH 12** - Radio remote control for use with FAKRO electric or solar powered skylights and blinds. The remote can create 12 separate groups of devices and control up to 12 receivers per each group.



### Wall switch

**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.



**ZWG US** - a multi-channel touch keyboard enables control of electrical devices compatible with the Z-wave system. It can operate up to 3 accessories separately or up to 231 accessories in groups.





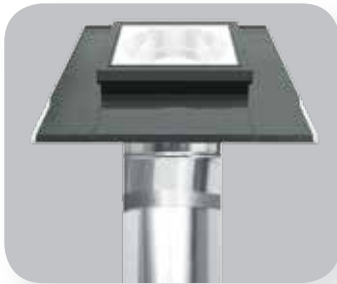
## ▶ LIGHT TUNNELS

### SR\_-L, SF\_-L

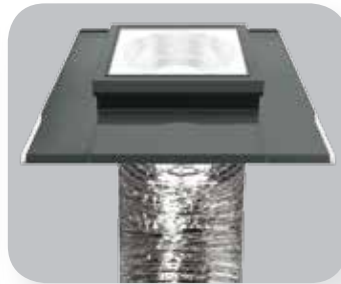
FAKRO light tunnels are designed to bring natural light to every part of a building. The light tunnel makes it possible to illuminate all rooms in the building, even those which cannot be fitted with roof windows or vertical windows. Dimly lit interiors such as bathrooms, dressing rooms, corridors, staircases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



**SR\_-L** with rigid tube



**SF\_-L** with flexible tube



**SFH-L** - flat light tunnel with flexible tube and integrated flashing for high profiled roofing material like tiles or standing seam

**SRH-L** - flat light tunnel with rigid tube and integrated flashing for high profiled roofing materials like tiles and standing seam

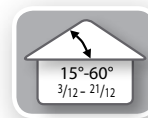


**SFL-L** - flat light tunnel with flexible tube and integrated flashing for flat roofing materials like shingles

**SRL-L** - flat light tunnel with rigid tube and integrated flashing for flat roofing material like shingles

#### 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
- the rigid light-transmitting tube is made of aluminum, which is covered with a highly reflective silver based layer. It is characterized by a high-efficiency 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\_ersion), diffuser and ceiling frame



Size	250mm 10"	350mm 14"	550mm 22"
<b>SR_-L</b>	+	+	+
<b>SF_-L</b>	-	+	+



## ACCESSORIES FOR SF\_-L FLEXIBLE LIGHT TUNNEL

**SF\_-L:** 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). The maximum length is 210cm.



**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\_-L:** 3x rigid light - transmitting tube elements (24" long), 1x 0-65 degrees elbow, roof section with integrated 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.



## QUALITY SYSTEM AND CODE COMPLIANCE

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)*

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

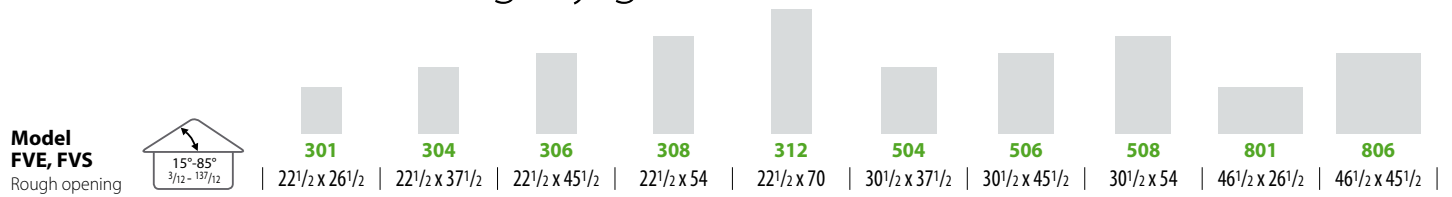
With the use of highly selective solar glass in our glazing units, FAKRO skylights are NFRC and ENERGY STAR® qualified for use in the USA and Canada (Zone 1 and 2 with the use of thermo flashing). FAKRO skylights also meet the requirements of IGCC (Insulating Glass Certification Council) and IGMA (Insulating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

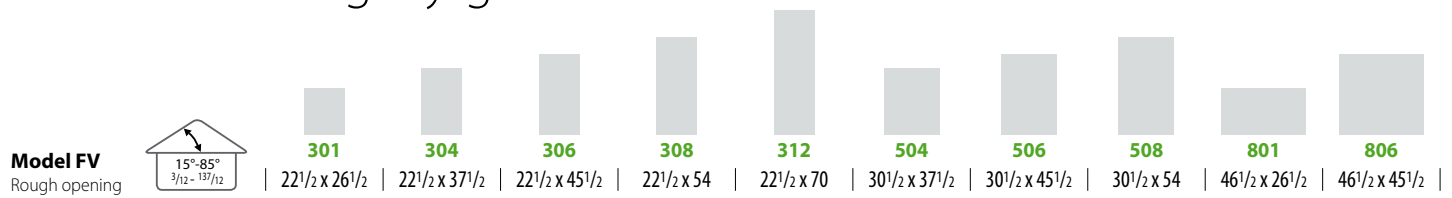
Certificate available at: [www.fakrousa.com](http://www.fakrousa.com) or [www.fakro.ca](http://www.fakro.ca).



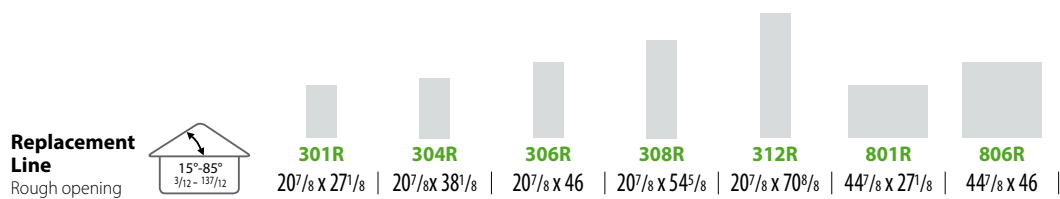
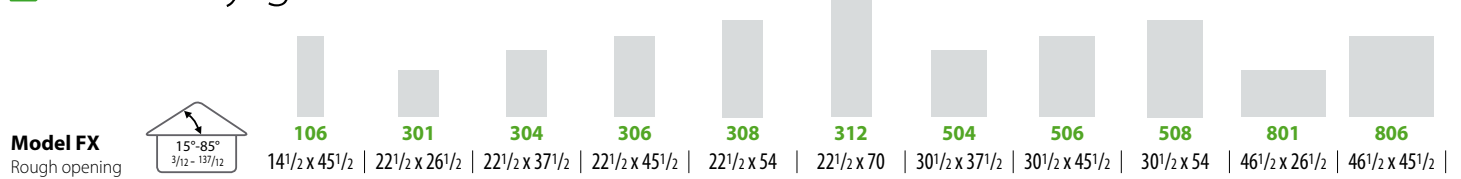
## Electric or Solar Venting Skylight Sizes



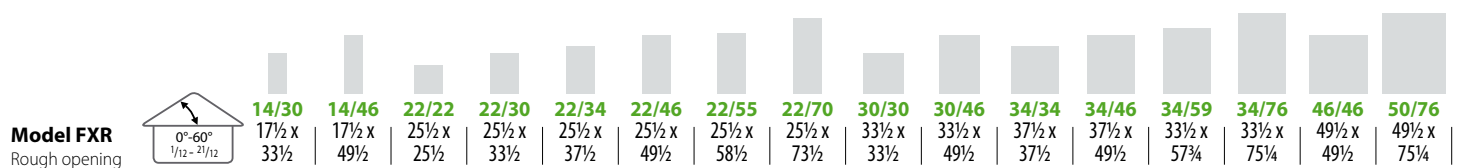
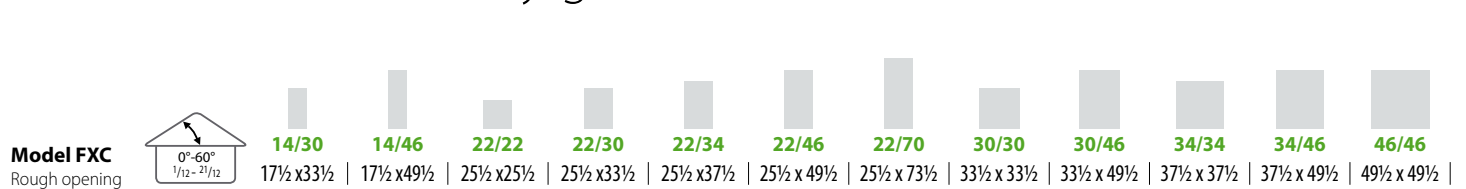
## Manual Venting Skylight Sizes



## Fixed Skylight Sizes



## Curb Mounted Fixed Skylights Sizes







NOTES

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