















# Changing Your View

The part which roof windows play in attic rooms has massively influenced the way we look at interior design. Whether for a home or a commercial project, our huge choice of roof windows can be used in a range of different ways. Our close-grain pine will look sensational for years while our sleek, stylish frames provide a bigger glazing area to let in more light. With all these benefits and more it's not hard to see why FAKRO roof windows become a focal point in their own right and prompt such consistently positive comment.

For those of you looking to achieve the highest levels of performance in relation to the Code for Sustainable Homes, BREEAM, Passive House or 'EnerPHit' our triple and quadruple-glazed non-vented FTT range offers an exceptional standard of performance. At the heart of all our products FAKRO provide a high level of security, highly resilient hinges and seals, and a standard of timber treatment which we believe is second to none. FAKRO uses responsibly sourced timber and as well as natural pine, you can opt for white PU-coated

pine or PVC products, all of which are available in conservation style. BBA and FSC® certified products together with warranties of 10 years for windows and 20 years for glazing give you peace of mind that the name FAKRO is synonymous with quality.

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# What makes a FAKRO roof window better?

FAKRO 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 windows offer a perfect combination of style, sustainability, security and long design life. To achieve such high performance involves ongoing refinement and improvement to every roof window that we design.

# 1

# **Ample natural light**

The design of FAKRO roof windows provides appropriate illumination of the room within the loft space. Specially shaped profiles of the frame and sash as well as an air inlet location in the upper part of the frame allows for the influx of high quantities of natural light.

2

# **Timber quality**

The pine we use offers the clearest visual evidence of our roof window quality. Not only does its close grain look stylish, we obtain timber from FSC® certified sources. Our double vacuum process using water-borne preservatives provides lasting dimensional stability and all windows are finished with two coats of environmentally friendly lacquer. Compare this with another leading manufacturer which states - "The timber has received basic treatment and a finished coating at the factory. It must receive further treatment at least every four years and whenever required. Windows exposed to strong heat, strong sunlight and/or high levels of humidity (e.g. in kitchens or bathrooms) must however receive treatment at least every two years". We therefore actively encourage customers to compare our window finishing with that of other manufacturers.

3

# Windows for bathrooms, wetrooms and kitchens

FAKRO offers two types of roof window for rooms in which high levels of humidity are created. You have the choice of either white polyurethane-coated pine or PVC in white, golden oak and pine finishes. So, whether you want to match existing windows and doors or have a smooth timber finish in white, FAKRO has the perfect solution. FAKRO PVC veneers also achieve the highest level of measurable performance - Class A - EN12608.

4

# Automatic air ventilation in all windows

Many manufacturers use a standard manually operated vent which is inefficient, causing unnecessary heat loss. The FAKRO V40P automatic vent which is installed in FAKRO pine roof windows is activated by changes in atmospheric pressure. It provides the optimum balance of fresh air regardless of weather conditions.

5

# **Exceptional security**

FAKRO's TopSafe® system provides peace of mind that our roof windows offer exceptional burglary resistance. In contrast to products which break simply by applying foot pressure, TopSafe provides additional hinge and lock reinforcement to prevent the sash from being forced. A European Standard (EN13049) now means you can compare roof window security and all FAKRO products achieve a minimum of Class 3. FAKRO also manufactures a standard centre pivot window, the FTP-V P2 Secure, which has security glazing.

6

# The highest level of energy saving performance

What really sets FAKRO windows apart is their low level of heat loss. Unlike some manufacturers who provide U-values just for glazing units, FAKRO provides information for the whole window. When comparing our performance with other products you will see how our non-vented, quadruple glazed FTT U8 Thermo, with a single glazing unit area a U-value of 0.58 W/m²K, leads the market. Our standard FTP-V centre pivot windows also offer a level of performance which competing windows invariably fail to match.

7

# Warm glazing spacers

Many roof 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 only warm spacers in order to ensure that this otherwise common problem does not affect our products.

8

## **Ease of installation**

Our easy to use "bracket fix" installation system enables windows to be fitted either to rafters or battens. Windows can also be fitted onto sarking.

9

## **Performance Guarantees**

Whether buying natural pine, PU-coated pine or PVC FAKRO offers a 10-year warranty for all windows and a 20 year warranty on glazing units. We also offer a no quibble lifetime warranty against damage by hail stones.





Lifetime glazing unit hail resistance warranty



# We don't just do white.

FAKRO roof windows can be manufactured in any colour from the RAL classic palette. That's over 200 colours customers can specify to special order for their chosen projects. Our standard natural pine, white or pine PVC and white PU coated roof windows from stock in just 3 days.







# Certificates



One of the key factors differentiating manufacturers from one another is certification of products. At FAKRO we continually look for ways to innovate and improve our designs, not just with new roof windows but existing ones. In 2012 this yet again enabled us to set an industry standard as we achieved Passive House certification of our industry leading quadruple-glazed FTT U8 Thermo. The FTT U8 offers an amazing U-value of 0.58 W/m²K and provides the ideal solution for airtight designs.



NBS Plus - FAKRO specification clauses are available via NBS Plus. This enables concise, technically accurate and up-to-date information in relation to our extensive range of roof windows and roofing accessories to be copied and pasted.



In the same way, we led the market by becoming the first roof window manufacturer to secure BBA certification - as long ago as 2002. Today, many more of our products are accredited including our popular ranges of centre pivot, top hung and pivot and side hung windows. This includes products in conservation style and the highly thermally efficient FTT U6 triple-glazed window while, for specifiers and buyers in Ireland we also have Irish Agrément Board (IAB) certification.



The NHBC accepts the use of Fakro Roof Windows, when installed and used in accordance with BBA certificates in relation to NHBC Standards.



Our roof windows offer scope for you to buy or specify products using timber from sustainable sources; indeed we are the only such manufacturer to offer FSC® certification for the higher quality, close-grain pine which we use. We also design all windows to be stripped down for recycling of all parts which, combined with the use of sustainable timber, shows the extent of our commitment to environmental issues.



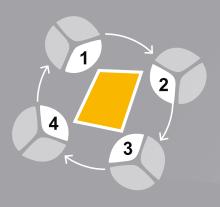
TÜV SÜD accreditation is currently less well known in the UK but in 2011 UKAS appointed it as a Notified Organisation for construction products. TÜV SÜD partners manufacturers of all kinds of building materials to ensure that quality, safety and environmental sustainability requirements are met. By securing accreditation, FAKRO has once again been among the first to confirm its commitment to key quality standards.



CE marking provides a passport that enables a construction product, irrespective of its origin, to be legally placed on the market of all EU member states. Unlike some manufacturers, FAKRO declares full details of performance for all points which make up a CE mark, yet more evidence that our products exceed minimum standards for health, safety and economy of energy.

# NEW DIMENSION OF INNOVATION Pro Technology

PROFI and LUX class roof windows are manufactured using **thermoPro** technology. The solutions introduced ensure improved quality and parameters of windows. **ThermoPro** technology increases energy-efficiency performance, provides greater durability, ensures excellent tightness and facilitates the installation process of roof windows.





- Reduced heat loss and lower heating bills
- New version of low emission coating on the glass
- Introduction of insulation inserts in the bottom corners of the sash aimed at enhancing window's energy-efficiency performance





Windows manufactured using **thermoPro** technology feature 3<sup>rd</sup> and 4<sup>th</sup> tightness class according to EN12207, thus reducing the amount of air penetrating into the room. It is particularly important for mechanical ventilation.



Centre pivot roof windows are still the most popular design, with a wide variety of options including highly energy-efficient windows suited to airtight construction, burglar-resistant windows (particularly suited to low pitch roofs and multi-occupancy buildings). All can be rotated through 180° to clean the outer pane from within the room. A choice of natural pine, white PU-coated pine and PVC is available.

Top hung and pivot dual function roof windows provides total flexibility of use. When open, the top hung function provides an unrestricted field of view at a lower height than a centre pivot window while centre pivot operation enables the sash to be rotated through 180° to clean the outer pane from within the room. A choice of natural pine, white PU-coated pine and PVC is available.

High pivot roof windows function in the same way as a centre pivot window but with the axis of rotation slightly higher in the frame to enable even taller people to walk up to the open window. This enables a greater glazing height to be achieved without adding to the window's width. With scope also to choose a twin sash window in a single frame (the FDY-V proSky Duet window), this can extend up to 2.35 metres.

# STANDARD ROOF WINDOWS

SIMINDAIN	J ROOF W	VINDOWS													
									ROOF WINDOWS						
type					CENTRE PIVOT										
					14 wa	1									
symbol:	FTP-V U3	FTP-VUS FTU-VU3 PTP-VU3 PTP U3 FTP-VU3 FTU-VU3 FTT U6 FTT U8 Thermo													
view <sub>4</sub>	4	4	4	4	4	4	4	#							
material	wood	wood	wood (white)	PVC	PVC	wood	wood	wood	wood						
airinlet	V40P	V40P	V40P	V35	non-vented	V40P	V40P	non-vented	non-vented						
air inlet air flow	up to 49 m <sup>3</sup> /h	up to 49 m <sup>3</sup> /h	up to 49 m <sup>3</sup> /h	up to 41 m³/h	_	up to 49 m <sup>3</sup> /h	up to 49 m <sup>3</sup> /h	_	_						
glazing	double	triple	double	double	double	double	double	triple	qadruple						
Ug (wg EN 673)	1.0W/m <sup>2</sup> K	0.5 W/m <sup>2</sup> K	1.0 W/m <sup>2</sup> K	1.0W/m <sup>2</sup> K	1.0 W/m <sup>2</sup> K	1.0W/m <sup>2</sup> K	1.0 W/m <sup>2</sup> K	0.5 W/m <sup>2</sup> K	0.3 W/m <sup>2</sup> K						
Uw	1.2W/m <sup>2</sup> K	0.97 W/m <sup>2</sup> K	1.2W/m <sup>2</sup> K	1.2W/m <sup>2</sup> K	1.2W/m <sup>2</sup> K	1.2W/m <sup>2</sup> K	1.2 W/m <sup>2</sup> K	0.8 W/m <sup>2</sup> K	0.58 W/m <sup>2</sup> K						
acoustic insulation	32dB	33dB	32dB	31 dB	33 dB	32dB	32dB	38dB	36dB						
seals	4	4	4	4	4	4	4	5	5						
installation pitch	15-90°	15-90°	15-90°	15-90°	15-90°	15-90°	15-90°	15-70°	15-70°						

# **GLAZING UNIT**





The Balcony window is the ultimate, modern twin sash window. With the top sash opening as a top hung window, the bottom sash with laminated internal glazing opens from the bottom to reveal built-in balustrades.

L-shaped windows provide scope to take any of Fakro's standard roof windows into a vertical wall. This gives a much extended field of view and a bigger glazing area which maximises the use of natural daylight. Conservation roof windows are designed to meet planning requirements in conservation areas or for the sensitive development of older buildings. In addition to all our standard windows being available in conservation style, bespoke commissions are routinely undertaken.

	TOPI	HUNG AND PIVOT WIND	OWS	HIGH	PIVOT	BALCONY	L-SHAPED	SIDE HUNG
FTP-V P2 Secure	FPP-V U3 preSelect	FPU-V U3 preSelect	PPP-V U3 preSelect	FYP-V U3 proSky	FDY-V U3 Duet proSky	FGH-V P2 Galeria	BDL P2 BDR P2 BVP P2	FWR U3 FWL U3
4	1	1		1	1			
wood	wood	wood (white)	PVC	wood	wood	wood	wood	wood
V40P	V40P	V40P	V35	V40P	V40P	V40P	non-vented	non-vented
up to 49 m <sup>3</sup> /h	up to 49 m <sup>3</sup> /h	up to 49 m <sup>3</sup> /h	up to 41 m <sup>3</sup> /h	up to 49 m <sup>3</sup> /h	up to 28 m <sup>3</sup> /h	up to 28 m <sup>3</sup> /h	_	_
double	double							
1.0 W/m <sup>2</sup> K	1.1 W/m <sup>2</sup> K	1.0 W/m <sup>2</sup> K	1.1 W/m <sup>2</sup> K					
1.2 W/m <sup>2</sup> K	1.2W/m <sup>2</sup> K	1.5 W/m <sup>2</sup> K	1.3 W/m <sup>2</sup> K	1.4W/m <sup>2</sup> K				
35 dB	32dB	32dB	32dB	32 dB	32 dB	35dB	37 dB	34 dB
4	4	4	4	4	4	4	2	2
15-90°	15-55° (85°)	15-55° (85°)	15-55° (85°)	20-65°	25-65°	35-55°	roofwindow15-55°	15-55°
						A no	on-vented option can also b	e ordered for all windows

A non-vented option can also be ordered for all windows

2	P5	R1	R3	P2	G6	02
E	SAFE	SOUND REDUCING	SOUND REDUCING	ANTI-BURGLARY	SOLAR CONTROL	OBSCURE
BLE	TRIPLE	DOUBLE	TRIPLE	DOUBLE	DOUBLE	DOUBLE
	✓	✓	✓	✓(Class P2A)		

# 10 TIPS HOW TO SELECT A ROOF WINDOW

# 1

# HOW WILL YOU MAKE A HOME?

- Choose the correct type of window to suit your environment.
- Classic centre pivot windows make the windows easy to clean as the sash will swivel to allow cleaning of the outside on the inside!
- Top hung and pivot windows give an unrestricted view at a lower height than a standard centre pivot window.



# 2

# HOW MUCH **DAYLIGHT** DO YOU NEED?

- The higher from the floor a roof window is fitted will provide optimal illumination of the room.
- The German standard DIN 5034-1, 4.2.2a states "the upper edge of the window (or windows) transparent surface shall be positioned at least 220cm from the floor level".



# 3

## WHICH GLAZING UNITTO CHOOSE?

- For windows above head height you should use a laminated glass. If the glass shatters a plastic membrane between the two sheets of glass retain the shards.
- Energy efficient triple-glazed units ensure exceptional thermal efficiency and can almost eliminate heat loss altogether.
- Other glazing choices include; tinted, obscure, reflective and self-cleaning glass.



 $Ug = 1.0 \text{ W/m}^2\text{K}$  $Uw = 1.2 \text{ W/m}^2\text{K}$ 



 $Ug = 0.5 \text{ W/m}^2\text{K}$  $Uw = 0.81 \text{ W/m}^2\text{K}$ 

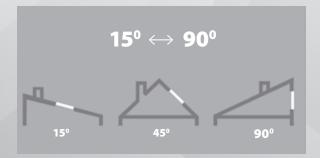


 $Ug = 0.3 \text{ W/m}^2\text{K}$  $Uw = 0.58 \text{ W/m}^2\text{K}$ 

# 4

# WHAT IS YOUR ROOF PITCH?

- Most roof windows are well suited for a roof pitch of between 15 and 90 degrees. However, the installation pitch range may differ for certain types of windows.
- For flat roofs you can choose between standard domed or non-domed designs.
- To ensure the flow of water from the glass surface of non-domed windows, the window should be installed with a pitch of at least 2 degrees.



# 5

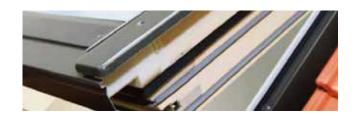
# CORRECT CHOICE OF FLASHING

- Enables roof windows to be installed with any type of roof covering
- Can be fitted at 3 key depths:
- Standard depth and ideal for tiles such as the Double Roman
- 3cm higher than the standard depth, for high profile tiles such as the Bold Roll
- 3cm deeper than the standard depth, for where a recessed style is required.
- Ideal for conservation roof windows which invariably need to sit low within the roof line.



# SUPER SAVINGS WITH HIGHLY **ENERGY-EFFICIENT WINDOWS**

- A well-insulated roof can be let down by a poorly insulated window which will cause heat loss.
- Standard double glazed windows with a thermally insulated glazing unit and flashing may suffice.
- For increased performance you should consider a highly energy-efficient roof window specially designed and supplied with insulating flashing.



# WILL YOUR ROOF WINDOW BE FITTED IN ROOMS WITH **ELEVATED** HUMIDITY?

- · Wooden windows can look very attractive but there is a degree of maintenance required to retain their ultimate appearance, one solution is to specify windows that have a double coat of white polyurethane.
- PVC profile windows with steel reinforcement are a practical solution for bathrooms and places where regular maintenance is difficult. PVC finishes include White, Golden Oak and Pine.



# MANUAL OR **ELECTRIC** CONTROL?

- Wireless technology is available to operate your roof windows.
- Z-Wave is a wireless protocol for communication between household appliances. It combines into a single network electric devices such as: lighting, thermostats, alarms, computers, telephones, air conditioning, electric windows and blinds.



# ENHANCED ANTI-BURGLARY RESISTANCE?

- Easily accessible roof windows, especially when the garage is adjacent to the house, should be protected from burglary.
- You should always fit reinforced windows with toughened external glass in these situations.
- The FAKRO TopSafe system provides the ultimate in safety and helps prevent break-ins.



# HOW TO PROTECT AGAINST HEAT AND SUNLIGHT?

- Contemporary awning blinds can be up to eight times more efficient than internal blinds in terms of passive heat reduction while still allowing light through.
- As well as heat absorption, solar powered awnings open automatically in cloudy weather to increase the available light. In winter they reduce noise from rain and hail and protect the window from an accumulation of snow and leaves.







# CENTRE PIVOT WINDOW - POPULAR OPTIONS IN WHITE & NATURAL PINE

		windows external dimensions [cm]	55x78	55x98	55x118	66x98	66x118	78x98	78x118	78x140	94x118	94x140	114x118	114x140	134x98	94x160
		effective glazing area [m²]	0.21	0.29	0.37	0.38	0.47	0.47	0.59	0.72	0.75	0.92	0.95	1.16	0.92	0.75
			01	02	16	03	04	05	06	07	08	09	10	11	12	80
	WHITE															
J	FTW-V P2 (White Acrylic)	P2 – Safety double glazed unit. Toughened outerpane. Laminated innerpane. U value of window 1.2	£220	£232	£242	£245	£270	£252	£284	£316	£345	£368	£378	£400	£362	£388
	PTP-V P2 (White PVC)	P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U value of window 1.2	£220	£232	£242	£245	£270	£252	£284	£316	£345	£368	£378	£400	£362	£388
	FTU-V P2 (White PU Coated Pine)	P2 – Safety double glazed unit. Toughened outer pane. Laminated inner pane. U value of window 1.2	£268	£282	£296	£300	£328	£308	£348	£384	£400	£448	£462	£485	£442	£474
	NATURAL															
	FTP-V U3	U3 – Energy saving double glazed unit. Toughened outer pane. U value of window 1.2	£216	£228	£238	£240	£266	£248	£280	£310	£335	£362	£372	£390	£358	£382
	FTP-V P2	P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U value of window 1.2	£220	£232	£242	£245	£270	£252	£284	£316	£345	£368	£378	£400	£362	£388
	OTHER GL	AZING OPTIONS														
	FTU-V O2 (White PU Coated Pine)	02 - Obscure double glazed unit. U value of window 1.2	£308	£322	£336	£350	£368	£348	£388	£424	£470	£488	£502	£530	£482	£514
	FTP-V O2	02 - Obscure double glazed unit. U value of window 1.2	£280	£294	£308	£310	£333	£324	£361	£393	£431	£453	£464	£506	£460	£510
	FTP-V/ FTP R1	R1 – Sound reducing double glazed unit.	£282	£300	£320	£325	£352	£334	£366	£420	£435	£476	£486	£500	£472	£540
	FTP-V P5	P5 – Safety triple glazed unit. Toughened outer pane. Laminated inner pane. U value of window 0.97	£370	£382	£392	£405	£420	£402	£434	£466	£495	£518	£528	£580	£512	-

All windows available vented or non-vented (price on application).



# FTP-V

- High quality close-grain vacuum
- impregnated pine guaranteed to be knot-free
- Suitable for any room



# FTW-V

- High quality close-grain vacuum
- impregnated pine guaranteed to be knot-free, finished with white acrylic paint. Range of RAL colours to special order.
- Suitable for any room

























- Traditional centre pivot operation
- Windows turn through 180° to clean outer pane within the room
- Operating handle in the base of the sash for ease of use
- V40P automatic air vent to prevent unnecessary heat loss
- Topsafe® system of burglary protection as standard
- Suitable for retro-fitting of electronic operation
- Suitable for pitches from 15-90°
- Available in conservation style

FLASHINGS

QUICK REF page 67 IN DETAIL pages 52-55





# CENTRE PIVOT WINDOW - WHITE ACRYLIC/WHITE PU-COATED PINE

	windows external dimensions [cm]	55x78	55x98	55x118	66x98	66x118	78x98	78x118	78x140	94x118	94x140	114x118	114x140	134x98	94x160
	effective glazing area [m²]	0.21	0.29	0.37	0.38	0.47	0.47	0.59	0.72	0.75	0.92	0.95	1.16	0.92	0.75
	size symbol	01	02	16	03	04	05	06	07	08	09	10	11	12	80
FTU-V	P2 – Safety double glazed unit. TP2 Toughened outer pane. Laminated inner pane. U value of window 1.2	£268	£282	£296	£300	£328	£308	£348	£384	£400	£448	£462	£485	£442	£474
FTU-V	P5 – Safety triple glazed unit. Toughened outer pane. Laminated inner pane. U value of window 0.97	£418	£432	£446	£460	£478	£458	£498	£534	£580	£598	£612	£700	£592	-
FTU-V	02 - Obscure double glazed unit. U value of window 1.2	£308	£322	£336	£350	£368	£348	£388	£424	£470	£488	£502	£530	£482	£514
FTU-V Secur	Inuighanad nutar nana	£394	£410	£440	£445	£456	£436	£474	£510	£570	£582	£594	£670	£590	£622
FTW-\	P2 – Safety double glazed unit. V P2 loughened outer pane. Laminated inner pane. U value of window 1.2	£220	£232	£242	£245	£270	£252	£284	£316	£345	£368	£378	£400	£362	£388
FTW-\	P5 – Safety triple glazed unit. Toughened outer pane. Laminated inner pane. U value of window 0.97	£370	£382	£392	£405	£420	£402	£434	£466	£495	£518	£528	£580	£512	-
FTW-\ Secur	Inuighened outer name	£352	£364	£383	£390	£404	£388	£420	£448	£480	£512	£522	£560	£506	£536

All windows available vented or non-vented (price on application).



ACCESSORIES pages 56 - 62



- High quality, close grain vacuum impregnated pine with a triple coating of white polyurethane for a smooth, wipe clean finish
- Ideal for bathrooms, wetrooms, kitchens and environments with increased humidity



- High quality close-grain vacuum
- impregnated pine guaranteed to be knot-free, finished with white acrylic paint. Range of RAL colours to special order.
- Suitable for any room























- Traditional centre pivot operation
- Windows turn through 180° to clean outer pane within the room
- Operating handle in the base of the sash for ease of use
- V40P automatic air vent to prevent unnecessary heat loss
- Topsafe® system of burglary protection as standard
- Suitable for retro-fitting of electronic operation
- Suitable for pitches from 15-90°
- Available in conservation style





# CENTRE PIVOT WINDOWS - PVC

	windows external dimensions [cm]	55x78	55x98	55x118	66x98	66x118	78x98	78x118	78x140	94x118	94x140	114x118	114x140	134x98	94x160
	effective glazing area [m²]	0.21	0.29	0.37	0.38	0.47	0.47	0.59	0.72	0.75	0.92	0.95	1.16	0.92	0.75
		01	02	16	03	04	05	06	07	08	09	10	11	12	80
PTP-V P2	P2 – Safety double glazed unit. Ioughened outer pane. Laminated inner pane. U value of window 1.2	£220	£232	£242	£245	£270	£252	£284	£316	£345	£368	£378	£400	£362	£388
PTP P2	P2 – Safety double glazed unit. Toughened outer pane. Laminated inner pane. U value of window 1.2	£220	£232	£242	£245	£270	£252	£284	£316	£345	£368	£378	£400	£362	£388
PTP O2	02 – Obscure double glazed unit. U value of window 1.2	£282	£300	£305	£315	£326	£326	£358	£410	£415	£435	£465	£500	£465	£555
PTP-V O2	02 - Obscure double glazed unit. U value of window 1.2	£282	£300	£305	£315	£326	£326	£358	£410	£415	£435	£465	£500	£465	£555

All windows available vented or non-vented (price on application).

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PTP-V

■ V35 air inlet

■ Suitable for every room including bathrooms and wet rooms



PTF

■ Vent-free

■ Suitable for every room including bathrooms and wet rooms





















- Traditional centre pivot operation. Ideal for bathrooms, wetrooms, kitchens and environments with increased humidity
- Windows turn through 180° to clean outer pane from within the room
- Operating handle in the base of the sash for ease of use
- Topsafe® system of burglary protection as standard
- PVC profile with steel reinforcement for a smooth, wipe clean finish. Available in White, Golden Oak or Natural Pine veneer finishes
- Suitable for pitches from 15° 90°
- Available in conservation style





# WINDOWS WITH ELECTRIC Z WAVE CONTROL NATURAL PINE / WHITE PU-COATED PINE

	windows external dimensions [cm]	55x78	55x98	55x118	66x98	66x118	78x98	78x118	78x140	94x118	94x140	114x118	114x140	134x98	94x160
	effective glazing area [m²]	0.21	0.29	0.37	0.38	0.47	0.47	0.59	0.72	0.75	0.92	0.95	1.16	0.92	0.75
		01	02	16	03	04	05	06	07	08	09	10	11	12	80
FTP-V P2 Z-Wave	P2 – Safety double glazed unit. Toughened outer pane. Laminated inner pane. U value of window 1.2	£520	£532	£542	£554	£570	£552	£584	£616	£650	£668	£678	£730	£662	£688
FTW-V P2 Z-Wave	P2 – Safety double glazed unit. Toughened outer pane. Laminated inner pane. U value of window 1.2	£520	£532	£542	£554	£570	£552	£584	£616	£650	£668	£678	£730	£662	£688
FTU-V P2 Z-Wave	P2 – Safety double glazed unit. Toughened outer pane. Laminated inner pane. U value of window 1.2	£568	£582	£596	£602	£628	£608	£648	£684	£740	£748	£762	£800	£742	£774
FTP-V P5 Z-Wave	P5 – Safety triple glazed unit. Toughened outer pane. Laminated inner pane. U value of window 0.97	£670	£682	£692	£700	£720	£702	£734	£766	£800	-	-	-	-	-
FTW-V P5 Z-Wave	P5 - Safety triple glazed unit. Toughened outer pane. Laminated inner pane. U value of window 0.97	£670	£682	£692	£700	£720	£702	£734	£766	£800	-	-	-	-	-
FTU-V P5 Z-Wave	P5 – Safety triple glazed unit. Toughened outer pane. Laminated inner pane. U value of window 0.97	£718	£732	£746	£750	£778	£758	£798	£834	£880	-	-	-	-	-

All windows available vented or non-vented (price on application).





# FTP-V Z-Wave

■ High quality, close-grain vacuum impregnated pine in a natural finish





# FTU-V Z-Wave

■ High quality, close-grain vacuum impregnated pine with a triple-coating of white polyurethane for a smooth, wipe-clean finish













- Traditional centre pivot operation complete with Z-Wave system. Z-Wave uses low power radio waves to operate a range of devices including lighting, air conditioning and roof windows. Electrical accessories such as blackout, roller and Venetian blinds as well as external roller shutters can be operated with ease.
- Windows turn through 180° to clean outer pane from within the room
- V40P automatic air vent to prevent unnecessary heat loss
- Topsafe® system of burglary protection as standard
- Suitable for pitches from 15° 90°
- Available in conservation style





FTW-V Z-Wave

■ High quality close-grain vacuum - impregnated pine guaranteed to be knot-free, finished with white acrylic paint. Range of RAL colours to special order.

Suitable for any room

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ACCESSORIES pages 56 - 62

# DISCONTINUED CENTRE PIVOT WINDOWS – ELECTRONICALLY OPERATED PLEASE ASK FOR DETAILS

SIZE	55x78	55x98	55x118	66x98	66x118	78x98	78x118	78x140	94x118	94x140	114x118	114x140	134x98	134x140
	01	02	16	03	04	05	06	07	08	09	10	11	12	17
FTP-V/C U3 Electro	YES	YES	No	No	No	YES	No	No	No	No	No	No	No	No
FTP-V U3 Electro	YES	No	No	YES	YES	No	No	YES	No	No	No	No	YES	No
FTU-V U3 Electro	No	No	No	YES	No	No	No	No	No	No	No	No	YES	No
FTP-V P2 Electro	No	No	No	YES	No	YES	No	YES	No	YES	No	No	No	No
FTU-V P2 Electro	No	No	No	YES	YES	No	No	No	No	YES	YES	No	YES	YES
FTP-V/C P2 Electro	No	No	No	No	YES	No	No	No	No	No	No	No	No	No
FTU-V/C U3 Electro	No	No	No	No	No	YES	No	No	No	YES	No	No	No	No
FTP-V/C U5 Electro	No	No	No	No	No	No	No	No	No	No	No	No	YES	No
FTU/C U5 Electro	YES	No	No	No	No	No	No	No	No	No	No	No	YES	No





# ANTI-BURGLARY CENTRE PIVOT WINDOW - SECURE IN WHITE & PINE

		windows external dimensions [cm]	55x78	55x98	55x118	66x98	66x118	78x98	78x118	78x140	94x118	94x140	114x118	114x140	134x98	94x160
		effective glazing area [m²]	0.21	0.29	0.37	0.38	0.47	0.47	0.59	0.72	0.75	0.92	0.95	1.16	0.92	0.75
			01	02	16	03	04	05	06	07	08	09	10	11	12	80
	FTP-V P2 Secure (Natural Pine)	P2-Safety double glazed unit. Toughened outer pane. Laminated inner pane. U value of window 1.2	£352	£364	£383	£390	£404	£388	£420	£448	£480	£512	£522	£560	£506	£536
J	FTW-V P2 Secure (White Acrylic)	P2 – Safety double glazed unit. Toughened outer pane. Laminated inner pane. U value of window 1.2	£352	£364	£383	£390	£404	£388	£420	£448	£480	£512	£522	£560	£506	£536
	FTU-V P2 Secure (White PU Coated Pine)	P2 – Safety double glazed unit. Toughened outer pane. Laminated inner pane. U value of window 1.2	£394	£410	£440	£445	£456	£436	£474	£510	£570	£582	£594	£670	£590	£622

All windows available vented or non-vented (price on application). FTP-V P2 is certified to EN 1627 class 2.

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# **FTP-V Secure**

- Laminated and anti-burglary interior glass Class P2A
- Protection against window impact, levering and glazing removal
- Handle with lock

■ The FTP-V P2 Secure window is compliant with European anti-burglary 2 class RC 2 N as per EN 1627.

















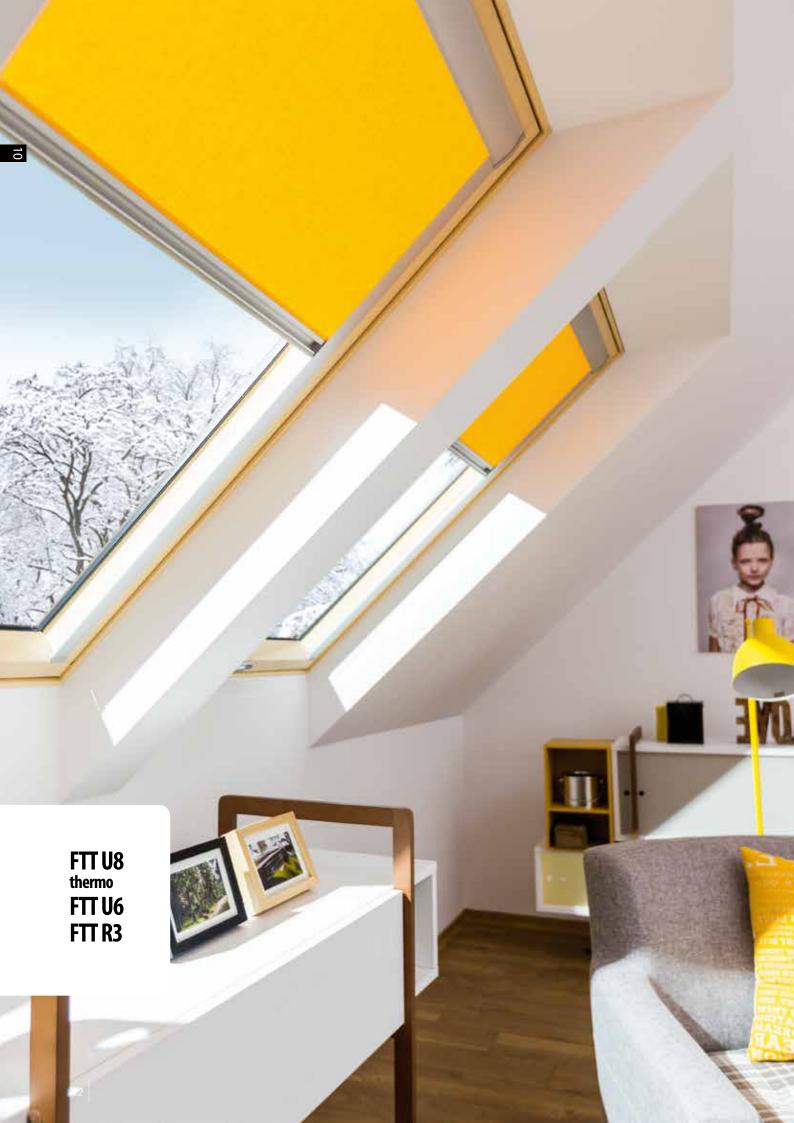








- Traditional centre pivot operation.
- Combination of topSafe hinge and lock reinforcement, Class P2A laminated anti-burglary glazing, system preventing glass removal and safety lock
- Windows turn through 180° to clean outer pane from within the room
- Operating handle in the base of the sash for ease of use
- V40P automatic air vent to prevent unnecessary heat loss
- Topsafe® system of burglary protection as standard
- High quality close-grain vacuum impregnated pine guaranteed to be knot-free
- Suitable for pitches from 15° 90°
- Available in conservation style





# HIGHLY ENERGY - EFFICIENT ROOF WINDOWS

	windows external dimensions [cm]	55x78	55x98	55x118	66x98	66x118	78x98	78x118	78x140	94x118	94x140	114x118	114x140	134x98	94x160
	effective glazing area [m²]	0.21	0.29	0.37	0.38	0.47	0.47	0.59	0.72	0.75	0.92	0.95	1.16	0.92	0.75
	size symbol	01	02	16	03	04	05	06	07	80	09	10	11	12	80
FTT U8 Thermo	U8 - Passive quadruple glazed unit. U value of window 0.58*	-	£865	£908	£920	£965	£972	£1 080	£1 195	£1 245	£1 282	£1295	£1 455	£1320	£1 575
FTT U6	U6 – High energy efficient triple glazed unit. U value of window 0.80	-	£475	£496	£496	£526	£526	£596	£658	£688	£708	£712	£804	£728	£870
FTT R3	R3 – Sound reducing triple glazed unit. U value of window 0.81	-	£510	£535	£535	£568	£565	£640	£710	£745	£765	£770	£870	£785	£940
FTT/U U8 Thermo	U8 - Passive quadruple glazed unit. U value of window 0.58*	-	£935	£987	£992	£1 047	£1052	£1 172	£1296	£1352	£1396	£1 410	£1 575	£1 430	£1704
FTT/U U6	U6 – High energy efficient triple glazed unit. U value of window 0.80	-	£522	£545	£545	£578	£578	£655	£723	£756	£778	£783	£884	£800	£957
FTT/U R3	R3 – Sound reducing triple glazed unit. U value of window 0.81	-	£561	£588	£588	£624	£621	£704	£781	£819	£841	£847	£957	£863	£1034
FTT/W U8 Thermo	U8 – Passive quadruple glazed unit. U value of window 0.58*	-	£865	£908	£920	£965	£972	£1 080	£1 195	£1 245	£1282	£1295	£1 455	£1320	£1 575
FTT/W U6	U6 – High energy efficient triple glazed unit. U value of window 0.80	-	£475	£496	£496	£526	£526	£596	£658	£688	£708	£712	£804	£728	£870
FTT/W R3	R3 – Sound reducing triple glazed unit. U value of window 0.81	-	£510	£535	£535	£568	£565	£640	£710	£745	<b>£765</b> *win	<b>£770</b> dow U value	<b>£870</b> when install	<b>£785</b> ed with therr	<b>£940</b> nal flashing





# FTT U8 Thermo

- Quadruple glazed and fivefold seal airtight construction
- Supplied complete with thermal flashing and XDK insulation kit



### FTT U6

■ Triple glazed and quadruple seal



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### FTT R3

- Triple glazed and quadruple seal
- Sound reduction glazing unit (Rw =40dB)























- Traditional pivot operation with raised axis to enable even tall people to stand in an open window. Counterbalanced pivot mechanism
- Ideal for airtight construction
- Windows turn through 180° to clean outer pane from within the room
- Operating handle in base of the sash for ease of user
- Topsafe® system of burglary protection as standard
- High quality close grain vacuum impregnated pine guaranteed to be knot free
- Suitable for pitches from 15° 70°
- Available in conservation style





# TOP HUNG AND PIVOT DUAL FUNCTION WINDOWS - NATURAL PINE

windows external dimensions [cm]	55x78	55x98	55x118	66x98	66x118	78x98	78x118	78x140	94x118	94x140	114x118	114x140	134x98	94x160
effective glazing area [m²]	0.21	0.29	0.37	0.38	0.47	0.47	0.59	0.72	0.75	0.92	0.95	1.16	0.92	0.75
size symbol	01	02	16	03	04	05	06	07	08	09	10	11	12	80

FPP-V P2 P2-Safety double glazed unit. Toughened outer pane. Laminated inner pane. Uvalue of window 1.2

- £344 £356 £365 £372 £372 £392 £434 £480 £508 £522 £565 £500 £536

All windows available vented or non-vented (price on application). Sizes: 06 to 80 meet fire escape regulations

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# **FPP-V P2 preSelect**

- Topsafe® system of burglary protection as standard
- Energy saving P2 glazing units (U-value of window 1.2 W/m²K)

# DISCONTINUED TOP HUNG & PIVOT WINDOWS – NATURAL PINE PLEASE ASK FOR DETAILS

SIZE	55x78	55x98	55x118	66x98	66x118	78x98	78x118	78x140	94x118	94x140	114x118	114x140	134x98
	01	02	16	03	04	05	06	07	08	09	10	11	12
FHP-V U3	No	No	No	No	YES	No	No	YES	YES	YES	No	No	No
FHP-V P2	No	No	No	No	No	No	No	YES	No	No	No	No	No
FHP-V/C U3	No	YES	No	No	No	No	YES	YES	No	No	No	No	No
FHP-V O1	No	No	No	No	No	No	No	No	No	No	No	No	No





















- Change windows from top hung to centre pivot operation at the flick of a switch
- Windows turn through 180° to clean outer pane from within the room
- Operating handle in the base of the sash for ease of use
- V40P automatic air vent to prevent unnecessary heat loss
- High quality close-grain vacuum impregnated pine guaranteed to be knot-free. Range of RAL colours to special order.
- Suitable for pitches from 15° 55° (or non-standard option for opening from 15° 85°)
- Available in conservation style





# TOP HUNG AND PIVOT DUAL FUNCTION WINDOWS WHITE ACRYLIC - WHITE PU - COATED PINE

		windows external dimensions [cm]	55x78	55x98	55x118	66x98	66x118	78x98	78x118	78x140	94x118	94x140	114x118	114x140	134x98	94x160	
		effective glazing area [m²]	0.21	0.29	0.37	0.38	0.47	0.47	0.59	0.72	0.75	0.92	0.95	1.16	0.92	0.75	
			01	02	16	03	04	05	06	07	08	09	10	11	12	80	
J	FPW-V P2 preSelect (White Acrylic)	P2 – Safety double glazed unit. Toughened outer pane. Laminated inner pane. U value of window 1.2	-	£344	£356	£365	£372	£372	£392	£434	£480	£508	£522	£565	£500	£536	
	FPU-V P2 preSelect	P2 – Safety double glazed unit. Toughened outer pane. Laminated inner pane. U value of window 1.2	-	£390	£400	£410	£432	£404	£456	£504	£520	£588	£604	£650	£620	£620	

All windows available vented or non-vented (price on application).

NEW

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High quality close-grain vacuum - impregnated pine guaranteed to be knot-free, finished with white acrylic paint. Range of RAL colours to special order.
 Suitable for any room

# FTW-V P2 preSelect

# **FPU-V P2 preSelect**

- Topsafe® system of burglary protection as standard
- Energy saving glazing units including P2 (U-value of window 1.2 W/m²K)
- High quality, close-grain vacuum impregnated pine with a triple-coating of white polyurethane for a smooth, wipe-clean finish
- Ideal for bathrooms, wetrooms, kitchens and environments with increased humidity

# DISCONTINUED TOP HUNG & PIVOT WINDOWS – WHITE FINISH PLEASE ASK FOR DETAILS

SIZE	55x78	55x98	55x118	66x98	66x118	78x98	78x118	78x140	94x118	94x140	114x118	114x140	134x98
	01	02	16	03	04	05	06	07	08	09	10	11	12
FHU-V U3	No	No	No	YES	YES	YES	YES	No	YES	No	No	No	No
FHU-V P2	No	No	No	No	No	YES	No	No	No	No	No	No	No



















- Change windows from top hung to centre pivot operation at the flick of a switch
- Windows turn through 180° to clean outer pane from within the room
- Operating handle in the base of the sash for ease of use
- V40P automatic air vent to prevent unnecessary heat loss
- Suitable for pitches from 15° 55° (or non-standard option for opening from 15° 85°)
- Available in conservation style





# TOP HUNG AND PIVOT DUAL FUNCTION WINDOWS - PVC

PPP-V P2 preSelect	P2 – Safety double glazed unit. Toughened outer pane. Laminated inner pane. U value of window 1.2	-	£425	£430	£430	£450	£450	£490	£530	£550	£590	£590	£650	-	-
	size symbol	01	02	16	03	04	05	06	07	08	09	10	11	12	80
	effective glazing area [m²]	0.21	0.29	0.37	0.38	0.47	0.47	0.59	0.72	0.75	0.92	0.95	1.16	0.92	0.75
	windows external dimensions [cm]	55x78	55x98	55x118	66x98	66x118	78x98	78x118	78x140	94x118	94x140	114x118	114x140	134x98	94x160

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# **PPP-V preSelect**

- PVC profile with steel reinforcement for a smooth, wipe clean finish Available in White, Golden Oak or Natural Pine veneer finishes
- Ideal for bathrooms, wetrooms, kitchens and environments with increased humidity





















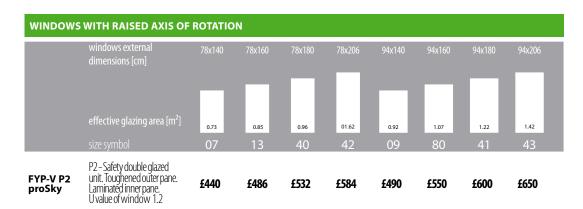


- Change windows from top hung to centre pivot operation at the flick of a switch
- Windows turn through 180° to clean outer pane from within the room
- Operating handle in the base of the sash for ease of use
- V35 air inlet
- Topsafe® system of burglary protection as standard
- PVC profile with steel reinforcement for a smooth, wipe clean finish. Available in White, Golden Oak or Natural Pine veneer finishes
- Suitable for pitches from 15° 55° (or non-standard option for opening from 15° 85°)
- Available in conservation style





# ROOF WINDOWS WITH RAISED AXIS OF ROTATION



WITH LOWER TRANSOM 0.91 1.03 1.20 1.15 1.52 1.30 CA CB P2 – Safety double glazed unit. Toughened outer pane. Laminated inner pane. FDY-V P2 £650 Duet proSky £710 £780 £700 £765 £860 Uvalue of window 1.2

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# **FYP-V proSky**

- One sash window
- Install at pitches from 20-65°



# **FDY-V Duet proSky**

- Twin sash window in a single frame
- Install at pitches from 25-65°























- Traditional pivot operation with raised axis to enable even tall people to stand in an open window. Counterbalanced pivot mechanism
- Increased window height using traditional widths
- Windows turn through 160° to clean outer pane from within the room
- Operating handle in the base of the sash for ease of use
- V40P automatic air vent to prevent unnecessary heat loss
- Topsafe® system of burglary protection as standard
- High quality close-grain vacuum impregnated pine guaranteed to be knot-free. Range of RAL colours to special order
- Available in conservation style





# **BALCONY WINDOW**

# windows external dimensions [cm] effective glazing area [m²] 0.92 1.67 size symbol CA CB FGH-V P2 Galeria P2 Anti-burglary double glazed unit. U value of window 1.5

Please note that the FGH-V Balcony Window is supplied complete with flashing BUT PLEASE ENSURE you stipulate the type of roof covering





# **FGH-V Galeria**

- The contemporary alternative to a dormer at far lower cost. Twin sash design has a lower element which opens to reveal built-in balustrades and an upper element which opens through 45° as a top hung window
- When closed, balustrades are hidden below the window, the profile of which is undistinguishable from a standard Duet window. With no element above the roofline there is no risk of dirt accumulating
- Use in combination with other roof windows using the K\_/G flashing
- Also available in white, please ask for details

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- Twin sash balcony window
- Windows turn through 180° to clean outer pane from within the room
- Operating handle in the base of the upper sash for ease of use
- V40P automatic air vent to prevent unnecessary heat loss
- Topsafe® system of burglary protection as standard
- High quality close-grain vacuum impregnated pine guaranteed to be knot-free
- White finish also available please ask for details
- Suitable for pitches from 35° 55°
- Available in conservation style





# L-SHAPE COMBINATION WINDOWS

L-SHAPED	WINDOW														
	windows external dimensions [cm]	78x60	78x75	78x95	78x115	78x137	94x60	94x75	94x95	94x115	114x60	114x75	114x95	114x115	134x60
	effectivę glazing area [m²]	0,25	0,33	0,45	0,57	0,71	0,31	0,42	0,58	0,33	0,40	0,53	0,73	0,92	0,61
	size symbol	33	81	82	83	84	34	85	86	87	35	89	90	91	36
BDL P2/ BDR P2	P2 – Safety double glazed unit. Toughened outer pane. Laminated inner pane. U value of window 1.2	£525	£580	£630	£700	£775	-	£620	£690	£750	-	-	£745	£820	-
BVP P2	P2 – Safety double glazed unit. Toughened outer pane. Laminated inner pane. U value of window 1.2	£338	£355	£375	£422	£465	£375	£395	£418	£460	£392	£420	£435	£480	£425
BXP P2	P2 – Safety double glazed unit. Toughened outer pane. Laminated inner pane. U value of window 1.2	£275	£286	£298	£332	£360	£298	£310	£324	£352	£348	£376	£415	£455	£395
BDL/W P2/BDR/W P2	P2 – Safety double glazed unit. Toughened outer pane. Laminated inner pane. U value of window 1.2	£538	£592	£642	£718	£788	-	£630	£700	£770	-	-	£755	£835	-
BVW P2	P2 – Safety double glazed unit. Toughened outer pane. Laminated inner pane. U value of window 1.2	£350	£368	£388	£435	£478	£388	£408	£430	£472	£405	£430	£445	£490	£438
BXW P2	P2 – Safety double glazed unit. Toughened outer pane. Laminated inner pane. U value of window 1.2	£285	£298	£308	£344	£372	£308	£320	£335	£364	£358	£388	£428	£470	£408
BDL/U P2/ BDR/U P2	P2 – Safety double glazed unit. Toughened outer pane. Laminated inner pane. U value of window 1.2	£578	£638	£694	£770	£852	-	£682	£760	£825	-	-	£820	£902	-
BVU P2	P2 – Safety double glazed unit. Toughened outer pane. Laminated inner pane. U value of window 1.2	£372	£392	£414	£464	£512	£414	£435	£460	£506	£432	£462	£500	£560	£480
BXU P2	P2 – Safety double glazed unit. Toughened outer pane. Laminated inner pane. U value of window 1.2	£330	£344	£358	£398	£432	£358	£372	£388	£422	£418	£451	£498	£546	£474

FLASHING	FOR L-SHAPED WIN	IDOW							
	windows external dimensions [cm]	78x98	78x118	78x140	94x118	94x140	114x118	114x140	134x98
		05	06	07	08	09	10	11	12
EUV-L/B	for Slate	£152	£162	£173	£170	£172	£172	£179	£177
EUV/B	for Tiles	£129	£134	£139	£137	£139	£139	£144	£142

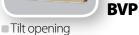
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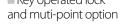


- Tilt and turn opening window
- Side handle operation
- Key operated lock
- and muti-point locking fittings
- Left and right hand opening options





- Top handle operation
- Key operated lock





■ Non-opening option















- Nigh quality close-grain vacuum impregnated pine guaranteed to be knot-free
- Join with roof windows with a pitch from 15° - 55°
- White finish also available please ask for details





# MEANS OF ESCAPE and ACCESS ROOF LIGHTS

SIDE HUNG ESCAPE \	VINDOW							
	windows external dimensions [cm]	66x78	66x98	66x118	78x98	78x118	94x98	94x118
	size symbol	22	03	04	05	06	15	08
FWL P2 & FWR P2	Natural Pine. P2 Energy saving double glazed	£345	£345	£360	£435	£472	£522	£552
FWL/U P2 & FWR/U P2	White PU Coated Pine. P2 Energy saving double glazed	£405	£405	£425	£520	£565	£625	£655
FWL/C P2 & FWR/C P2	Natural Pine. P2 Energy saving double glazed. Conservation style	£446	£449	£492	£577	£654	£679	£717
FWL/W P2 & FWR/W P2	White Acrylic. P2 Energy saving double glazed	£345	£345	£360	£435	£472	£522	£552

FLASHING FOR SIDE HUNG ESCAPE WINDOW							
<b>ELW</b> Flashing for slate up to 8mm thick	£71	£72	£74	£75	£79	£84	£84
<b>EZW-A</b> Flashing for tile profiles up to 45mm	£71	£72	£74	£75	£79	£84	£84
<b>EHW-A</b> Flashing for tile profiles up to 90mm	£81	£81	£84	£84	£89	£95	£95
<b>ESW</b> Flashing for flat roofing materials	£62	£62	£64	£65	£70	£74	£74
<b>EPW</b> Flashing for plain tiles up to 15mm	£74	£75	£76	£76	£82	£87	£87
<b>ELW/C</b> Conservation flashing for slate up to 8mm thick	£90	£90	£94	£94	£100	£107	£107
<b>EZW-A/C</b> Conservation flashing for tile profiles up to 45mm	£90	£90	£94	£94	£100	£107	£107
<b>EHW-A/C</b> Conservation flashing for tile profiles up to 90mm	£103	£103	£107	£107	£113	£121	£121
<b>ESW/C</b> Conservation flashing for flat roofing materials	£76	£76	£80	£80	£88	£94	£94
<b>EPW/C</b> Conservation flashing for plain tiles up to 15mm	£94	£94	£97	£97	£103	£110	£110



**FWL**-left



FWR-right

FW\_

- Right and left opening\*
- Open to 90°
- Gas piston to assist opening and to prevent slamming
- 5 flashing options to suit specific roof covering\*\*
- Conservation style available
- 32dB acoustic performance
- Suitable for pitches of 15°-55°

#### loto.

- \* When ordering note to choose side hung opening option when viewed from the outside
- $\ensuremath{^{**}}$  Order flashings specific to these windows do not use standard flashings

#### STANDARD ACCESS ROOF LIGHTS

external dimensions [cm] size symbol	46x55 <b>01</b>	46x75 02	46x61 16	external dimensions [cm] size symbol	54x98 <b>O</b> 1
WGT	£110	£119	-	WLI	£222
WGI	£131	£140	_	WLI/C	£260
WGI/C	£172	£184	£252		



WG

- Top hung opening
- Choice of glazing options
- WGT version with single toughened glass 4H,
- WGI version with integrated toughened glass 4H-10-4H. Equipped with
- sash turn limiter which holds the sash stable when opened and prevents it slamming shut accidentally
- Conservation style available
- Universal flashing
- Suitable for pitches of 15°-60°.



WLI

- Right and left opening
- Conservation style available
- Universal flashing
- Suitable for pitches of 15°-70°
- 5 year warranty





#### SMOKE VENTILATION WINDOW SYSTEMS

#### **FAKSV1 FAKSV2 FSP**

Smoke Ventilation Roof Windows (EN121012:2003) are electronically operated and activated by a smoke sensor built into the control unit. A signal from the sensor triggers automatic operation of the motor, while the window sash protects the roof opening against the effects of a strong lateral wind. The most commonly used Smoke Ventilation Roof Windows are of Centre Pivot operation with laminated glazing. The FSP is an aerodynamic smoke vent system with hinges in the base of the frame.









**ELECTRICAL COMPONENTS** 

**FSP** 

FAKSV17

<b>FSP</b> Smoke Ventila	ation Windo	∕V to EN121012:20	03		
Window external dimensions (cm)	78x140	94x140	114x118	114x140	134x98
effective glazing area (m²) size symbol	07	09	10	11	12
FSP KIT	£2750	£2820	£2820	£3 050	£3 000
FSU KIT	£2770	£2840	£2840	£3 070	£3 020
U value of window $= 1.1$					

**FAKSV** 

Includes FSP window, actuators, control unit, smoke sensor, smoke alarm and flashing

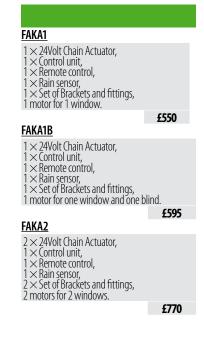
Flashing for **FSP** Smoke Ventilation Windows

**ELS** Flashing for slate roof coverings

EZS-A Flashing for tile and metal sheeting roof coverings
EHS-A Flashing for high profile roof coverings
Note: Specify which tiles or slates the window is being installed with to ensure the correct flashing is supplied.

FAKWRS1 FAKWRS2 Solar powered remote control wireless unit for effortless operation of the window. Wireless unit is quick and easy to install during window installation or retrospectively. FAKWRS2 includes wireless rain sensor which will close the window automatically.

### FAKS1 $1 \times 24$ Volt Chain Actuator, 1× Transformer Switch and back box, $1 \times$ Set of Brackets and fittings, 1 motor for 1 window. £250 FAKS1B $1 \times 24$ Volt Chain Actuator, 2 × Selector Switches and back boxes, 1 × Control unit, 1× Set of Brackets and fittings, 1 motor for 1 window and 1 blind. £320 FAKWRS1 1 x 24Volt Chain Actuator (Solar powered), 1 × Remote control unit, $1 \times$ Set of Brackets and fittings, £525 FAKWRS2 1 x 24Volt Chain Actuator (Solar powered), 1 × Remote control unit, $1 \times$ Wireless rain sensor $1 \times$ Set of Brackets and fittings. £800



Smoke Ventilation	
Centre Pivot <u>FAKSV1</u>	
1 × CDC200/600 Chain Actuator, 1 × Ventilator switch, 1 × Control unit with Break Glass, 1 × Smoke sensor, 1 × Break Glass, Emergency Power Back Up (B 1 × FTP-V P2 size 10 Roof Window, 1 × Flashing.	lattery),
3	£1395
Centre Pivot <u>FAKSV2*</u>	
2 × CDC200/600 Chain Actuator, 1 × Ventilator switch, 1 × Control unit with Break Glass, 1 × Smoke sensor, 1 × Break Glass, Emergency Power Back Up (B 2 × FTP-V P2 size 7 Roof Window, 1 × B2/1 Flashing.	lattery),
C . Di . FANCIAT	£1980
Centre Pivot <u>FAKSV17</u>	
1 × CDC200/600 Chain Actuator, 1 × Ventilator switch, 1 × Control unit with Break Glass, 1 × Smoke sensor, 1 × Break Glass, Emergency Power Back Up (B 1 × FTP-V P2 size 17 Roof Window, 1 × Flashing.	attery),

\*Note: The FAKSV 2 system utilises 2/78/140cm FTP-V P2 windows placed side by side in a B2/1 combination with a 100mm gap between them.

£1425





## DOMED FLAT ROOF WINDOWS

SIZES OF FLAT	roof window									
	dimensions [cm] Minimum roof opening [cm] Maximum roof openng [cm]	60x60 60x60 65x65	60x90 60x90 65x95	70x70 70x70 75x75	80x80 80x80 85x85	90x90 90x90 95x95	90x120 90x120 95x125	100x100 100x100 105x105	100x150 100x150 105x155	120x120 120x120 125x125
	Effective glazed area [m²]	0,23	0,37	0,33	0,46	0,6	0,83	0,77	1,21	1,16
DXC-C P2	Non-opening P2 – Anti-burglary double glazed unit. U value of window 1.2	£436	£467	£474	£492	£567	£650	£615	£786	£749
DXC-C P4 Secure*	Non-opening P4 – Anti-burglary double glazed unit. U value of window 1.2	£540	£600	£615	£615	£710	£790	£770	£980	£950
DMC-C P2	Manually opening P2 – Anti–burglary double glazed unit. U value of window 1.2	£610	£675	£695	£698	£798	£890	£865	£1 110	£1 075
DMC-C P4 Secure*	Manually opening P4 – Anti–burglary double glazed unit. U value of window 1.2	£672	£745	£770	£770	£880	£980	£955	£1 225	£1 180
DEC-C P2	Electrically opening P2 – Anti–burglary double glazed unit. U value of window 1.2	£826	£857	£875	£882	£957	£1 040	£1 005	£1 176	£1 139
DEC-C U8 (VSG)	U8 - Passive quadruple glazed unit. U value of window 0.72	£1300	£1360	£1 400	£1 410	£1 550	£1700	£1 650	£1 950	£1 900

<sup>\*</sup> P4 Secure window offers increased levels of security and achieves anti-burglary RC2 class II as per EN1627 (Document Q)

The domed flat roof window is available in the following versions:







Manually opened

DXC

■ Non-opening

DEC ■ Electrically opened

■ Rain sensor













**DMC** 



High energy-efficiency. Perfect thermal insulation parameters. The DEC-C U8 window with passive U8 glazing unit is characterized by heat transmittance co-efficient for the whole window of U=0.55 W/m<sup>2</sup>K according to EN1873 standard (for the size 120x120cm).

Standard P2 glazing unit features coefficient U=1.2 W/m<sup>2</sup>K

- Provides a large amount of natural light
- Wide range of sizes
- Window design allows for the installation of internal and external accessories
- The domed flat roof window is intended for installation in a roof

with a pitch of 0°-15° The flat roof window can be also mounted on an additional base with a height of 15cm, which raises the window and allows its installation, e.g. in green or living roofs

ZSD universal telescopic rod available for opening and closing flat roof windows and internal blinds, see page 58





## NON DOMED FLAT ROOF WINDOWS

SIZES OF FLAT R	OOF WINDOW									
	dimensions [cm] Minimum roof opening [cm] Maximum roof openng [cm]	60x60 60x60 65x65	60x90 60x90 65x95	70x70 70x70 75x75	80x80 80x80 85x85	90x90 90x90 95x95	90x120 90x120 95x125	100x100 100x100 105x105	100x150 100x150 105x155	120x120 120x120 125x125
	Effective glazed area [m²]	0,23	0,37	0,33	0,46	0,6	0,83	0,77	1,21	1,16
DXF-D U6	Non opening. U6 – High energy efficient triple glazed unit. U value of window 0.88	£858	£926	£952	£956	£1072	£1 190	£1 156	£1 428	£1385
DXF-D U6 Secure*	Non opening. U6 – High energy efficient triple glazed unit. U value of window 0.88	£946	£1 018	£1 046	£1 050	£1 175	£1 298	£1 275	£1 555	£1 514
DMF-D U6	Manually opening. U6 – High energy efficient triple glazed unit. U value of window 0.88	£960	£1 038	£1 072	£1 080	£1 208	£1326	£1 292	£1 606	£1548
DMF-D U6 Secure*	Manually opening. U6 - High energy efficient triple glazed unit. U value of window 0.88	£1054	£1 135	£1 178	£1 182	£1 318	£1 454	£1 412	£1752	£1700
DEF-D U6	Electrically opening. U6 – High energy efficient triple glazed unit. U value of window 0.88	£1 190	£1258	£1 285	£1292	£1428	£1 548	£1 514	£1785	£1 742
DXF-D U8	Non opening. U8 – Passive quadruple glazed unit. U value of window 0.55	£1 122	£1208	£1 235	£1 248	£1 395	£1 530	£1 504	£1854	£1 785
DMF-D U8	Manually opening. U8 - Passive quadruple glazed unit. U value of window 0.55	£1 198	£1300	£1344	£1352	£1 514	£1 658	£1 615	£1 998	£1 955
DEF-D U8	Electrically opening. U8 – Passive quadruple glazed unit. U value of window 0.55	£1445	£1 514	£1 564	£1 576	£1 700	£1 870	£1828	£2168	£2 108
DXW-DW6 Walkon window	Passive quadruple glazed unit. U value of window 0.5	£1 350	£1 450	£1 500	£1 520	£1 680	£1 850	£1800	-	£2 180

<sup>\*</sup> P4 Secure window offers increased levels of security and achieves anti-burglary RC2 class II as per EN1627 (Document Q)





Manually opened





D\_F ColourLine

colour from RAL

Classic palette.

are available in any



NEW





- Electrically opened wireless Z-Wave system
- Rain sensor









**DMF** 





**DXF** 

■ Non-opening

- The D\_F non-domed flat roof window is characterized by exceptional thermal insulation qualities and innovative design
- Modern window bonding technology gives a highly aesthetic and innovative design. Provides a large amount of natural light
- The D\_F window can be manufactured in a wide range of sizes and is
- an ideal replacement for old skylights that do not meet current thermal insulation parameters
- To ensure the flow of water from the glass surface of D\_F non domed windows, the window should be installed with a pitch of at least 2°. Flat roofs generally have a pitch of 3-4°. The flat roof window can be also mounted on an additional base with a height of 15cm, which raises the

window and allows its installation, e.g. in green or living roofs

- Window design allows for the installation of internal and external accessories
- ZSD universal telescopic rod available for opening and closing flat roof windows and internal blinds, see page 58





## FLAT ROOF ACCESS WINDOWS

SIZES OF FLAT	ROOF WINDOWS				
	dimensions [cm] Minimum roof opening [cm] Maximum roof openng [cm]	90x90 90x90 95x95	90x120 90x120 95x125	100x100 100x100 105x105	120x120 120x120 125x125
	Effective glazed area [m²]	0,6	0,83	0,77	1,16
DRF DU6	Flat access roof light without the dome. U6 – High energy efficient triple glazed unit. U value of window 0.74*	£1400	£1 550	£1 500	£1 800
DRC-C P2	Flat access roof light with the dome. P2 – Anti–burglary double glazed unit. U value of window 0.88**	£980	£1 080	£1 060	£1320

<sup>\*</sup> according to EN14351-1:2006+A1:2010





**DRF**Flat access roof light without dome



**DRC**■ Flat access roof light with dome

■ The dome can be transparent DRC-C or opaque DRC-M.













- Provide safe and convenient access to the flat roof. Special hinges and functional opening system used in the access roof light ensure easy sash opening up to 80°. Gas springs facilitate operation of the sash and keep it stable in the open position, thus protecting against accidental closing. What is more, access roof lights feature increased safety of use thanks to the application of anti-slip covers on their profiles.window and allows its installation, e.g. in green or living roofs
- The frame of the flat roof window is manufactured from multi-chamber PVC profiles filled inside with insulation material. In the DRF access roof light, the upper part of the window is equipped with innovative flat glazing unit and DRC has a dome made of durable polycarbonate.
- The type C flat access roof light is intended for roofs with pitches between 0° and 15°, while the type F flat access roof light is designed for installation in roofs
- with pitches between 2° and 15°. Window can be mounted on an additional 15cm high base (XRD), e.g. for installation on a green roof.
- The window design allows installation of both internal and external accessories. External awning blind protects the room from overheating, while internal accessories provide protection from intense sunlight and enhance interior design.

<sup>\*\*</sup> according to EN1873:2014





CENTRE PI	VOT - NATURAL PINE	& WHIT	TE ACRY	LIC, MAN	IUAL OP	PERATIO	V								
	windows external dimensions [cm]	55x78	55x98	55x118	66x98	66x118	78x98	78x118	78x140	94x118	94x140	114x118	114x140	134x98	94x160
	effective glazing area [m²]	0.21	0.29	0.37	0.38	0.47	0.47	0.59	0.72	0.75	0.92	0.95	1,16	0.92	1.07
		01	02	16	03	04	05	06	07	08	09	10	11	12	80
FTP-V/C P2 (V) Kit Natural Pin	P2 – Safety double glazed unit. Toughened outerpane. Laminated inner pane. • U value of window 1.2	£375	£393	£409	£430	£446	£451	£505	£545	£560	£580	£595	£650	£661	£700
FTP-V/C P2 (J) Kit Natural Pin	P2-Safety double glazed unit. Toughened outerpane. Laminated inner pane. U value of window 1.2	£400	£426	£443	£465	£483	£500	£544	£587	£600	£640	£665	£702	£709	£780
FTW-V/C P2 (V) Kit Whit Acrylic	• P2-Safety double glazed • unit. Toughened outerpane. • Laminated innerpane. • U value of window 1.2	£375	£393	£409	£430	£446	£451	£505	£545	£560	£580	£595	£650	£661	£700
FTW-V/C P2 (J) Kit White Acrylic	P2-Safety double glazed unit. Toughened outerpane. Laminated innerpane. U value of window 1.2	£400	£426	£443	£465	£483	£500	£544	£587	£600	£640	£665	£702	£709	£780
FTP-V/C G6 Natural Pin	P2-Safety double glazed unit. Toughened outerpane. e Laminated innerpane. U value of window 1.2	£464	£482	£543	£550	£568	£551	£585	£625	£662	£684	£746	£779	£736	-
FTP-V/C R1 Natural Pin	R1 – Sound reducing <b>e</b> double glazed unit.	£376	£408	£424	£429	£440	£450	£498	£572	£583	£610	£630	£668	£612	£737
FTP-V P2 Secure	P2 - Safety double glazed unit. Toughened outerpane. Laminated innerpane. U value of window 1.2	£440	£480	£510	£510	£540	£540	£610	£670	£670	£720	£805	£820	£740	£875

<sup>\*</sup> Includes FTP-V/C U3, conservation flashing (standard depth) and XDP insulation set
\*\*Includes FTP-V/C U3, conservation flashing (3cm deeper than standard depth) and XDP insulation set P2 and P5 glazing units have an easy maintenance external pane. Also available in white PU coated pine

CENTRE PI	VOT – ELECTRONICA	LLY OP	ERATED	NATUR	AL PINE	& WHIT	E ACRYL	.IC							
FTP-V/C P2 Z-Wave Natural Pin	P2 - Safety double glazed unit. Toughened outerpane. Laminated inner pane. • U value of window 1.2	£667	£705	£739	£741	£799	£808	£865	£893	£912	£936	£946	£988	£946	£980
FTP-V/C P5 Z-Wave	P5 – Safety triple glazed unit. Toughened outer pane. Laminated inner pane. <b>e</b> U value of window 0.97	£750	£790	£830	£835	£880	£890	£970	£1 020	£1 045	£1 080	£1 090	£1 150	£1 085	£1 160
FTW-V/C P2 Z-Wave White Acrylic	P2 – Safety double glazed unit. Toughened outerpane. Laminated innerpane. U value of window 1.2	£667	£705	£739	£741	£799	£808	£865	£893	£912	£936	£946	£988	£946	£980
FTW-V/C P5 Z-Wave White Acrylic	P5-Safety triple glazed unit. Toughened outer pane. Laminated inner pane. Uvalue of window 0.97	£750	£790	£830	£835	£880	£890	£970	£1 020	£1 045	£1080	£1 090	£1 150	£1 085	£1 160

FAKRO has an extensive range of conservation roof windows and also routinely manufactures products to bespoke design requirements. The characteristic features of such windows are their black vertical mullion bar, cladding and flashing (to RAL9005) but from a user's perspective they offer all of our standard features and contemporary interior styling. As such, we offer a choice of natural pine, white acrylic, white PU-coated pine and PVC windows.

Whether for a listed building or a traditional barn conversion, FAKRO conservation style roof windows offer the critical facility to install them low within the roof line. Three depth options are available to suit all coverings:

Standard depth (denoted by the last letter 'V' e.g. EZV) Installation 3cm higher than standard depth (denoted by the last letter 'N')

Installation 3cm lower than standard depth (denoted by the letter 'J')

For conservation roof windows 'J' flashings are most commonly used to provide the required low profile. Flashings available are as follows:

**EEJ/C** - sheet metal roof coverings e.g. zinc, copper, stainless steel

**ELJ/C** - natural and man-made slates, etc. up to 8mm thick

**EPJ/C** - plain tiles (clay and concrete)

**ESJ/C** - shingles e.g. cedar, asphalt, felts etc.

**EZJ/C** - profiled roof coverings up to 45mm in depth e.g. Double Pantile.

CENTRE PIV	/OT - PVC (AVAILABI	LE IN WH	HITE, PIN	IE OR GO	OLDEN C	DAK)									
	windows external dimensions [cm]	55x78	55x98	55x118	66x98	66x118	78x98	78x118	78x140	94x118	94x140	114x118	114x140	134x98	94x160
	effective glazing area [m²]	0.21	0.29	0.37	0.38	0.47	0.47	0.59	0.72	0.75	0.92	0.95	1.16	0.92	1.07
	size symbol	01	02	16	03	04	05	06	07	08	09	10	11	12	80
PTP-V/C P2	P2 – Safety double glazed unit. U value of window 1.2	£377	£403	£410	£422	£435	£435	£481	£553	£559	£585	£618	£676	£624	£741
PTP-V/C O1*	01 – Obscure double glazed unit. U value of window 1.2	£365	£390	£400	£410	£425	£425	£470	£535	£540	£565	£600	£650	£600	£720

#### \*window with the obscure glass



Conservation windows in L-shape, Anglesey, Wales



Conservation windows in L-shape, Anglesey, Wales



Pioneers Museum, Rochdale, Lancashire



TOP HUNG	AND PIVOT WINDO	WS - NA	TURAL F	PINE											
	windows external dimensions [cm]	55x78	55x98	55x118	66x98	66x118	78x98	78x118	78x140	94x118	94x140	114x118	114x140	134x98	94x160
	effective glazing area [m²]	0.21	0.29	0.37	0.38	0.47	0.47	0.59	0.72	0.75	0.92	0.95	1.16	0.92	1.07
		01	02	16	03	04	05	06	07	08	09	10	11	12	80
FPP-V/C P2 preSelect	P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U value of window 1.2	-	£520	£530	£530	£558	£540	£585	£630	£645	£695	£695	£760	£710	£795
FPP-V/C P5 preSelect	P5 – Safety triple glazed unit. Toughened outer pane. Laminated inner pane. U value of window 0.97	-	£720	£730	£750	£770	£748	£805	£870	£895	£960	-	-	-	-
PPP-V/C P2 preSelect	P2 – Safety double glazed unit. Tough- ened outer pane. Laminated inner pane. U value of window 1.2	_	£691	£698	£698	£740	£740	£790	£860	£920	£980	£980	£1 100	-	-
FPU-V/C P2 preSelect	P2 – Safety double glazed unit. Tough- ened outer pane. Laminated inner pane. U value of window 1.2	_	£560	£565	£565	£580	£580	£605	£650	£670	£720	£725	£790	£740	£825

THERMAL	LY EFFICIENT ROOF WI	INDOW	S - NATU	IRAL PIN	IE										
	windows external dimensions [cm]	55x78	55x98	55x118	66x98	66x118	78x98	78x118	78x140	94x118	94x140	114x118	114x140	134x98	94x160
	effective glazing area [m²]	0.21	0.29	0.37	0.38	0.47	0.47	0.59	0.72	0.75	0.92	0.95	1.16	0.92	1.07
	size symbol	01	02	16	03	04	05	06	07	08	09	10	11	12	80
FTT/C U6	U6 – High energy efficient triple glazed unit. U value of window 0.80	-	£611	£637	£637	£676	£682	£767	£845	£884	£910	£916	£1033	£936	£1 110
FTT/C U8 Thermo	U8 – Passive quadruple glazed unit. U value of window 0.58*	-	£1 075	£1 135	£1 140	£1 215	£1 220	£1 350	£1490	£1 560	£1600	£1 610	£1820	£1 660	£1 980

<sup>\*</sup>window U value when installed with thermal flashing

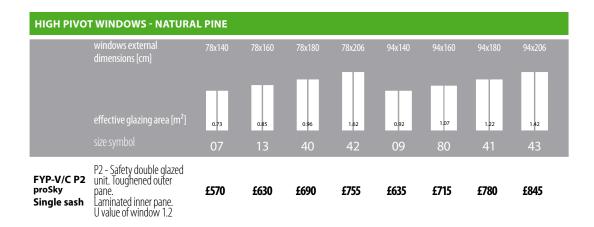
THERMALL	Y EFFICIENT ROOF W	INDOW	S - WHIT	E PU-CO	ATED PI	NE									
	windows external dimensions [cm]	55x78	55x98	55x118	66x98	66x118	78x98	78x118	78x140	94x118	94x140	114x118	114x140	134x98	94x160
	effective glazing area [m²]	0.21	0.29	0.37	0.38	0.47	0.47	0.59	0.72	0.75	0.92	0.95	1,16	0.92	1.07
	size symbol	01	02	16	03	04	05	06	07	08	09	10	11	12	80
FTT/U/C U6	U6 – High energy efficient triple glazed unit. U value of window 0.80	-	£670	£705	£705	£745	£750	£845	£935	£980	£995	£1 020	£1 160	£1040	£1 250
FTT/U/C U8 Thermo	U8 – Passive quadruple glazed unit. U value of window 0.58*	_	£1 150	£1 220	£1 230	£1 300	£1 305	£1 450	£1 600	£1 680	£1735	£1 745	£1950	£1770	£2 120

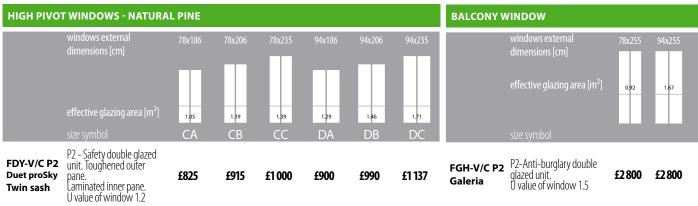
<sup>\*</sup>window U value when installed with thermal flashing



Barn conversion, Baschurch, Shropshire







Please note that the FGH-V Balcony window is supplied complete with flashing BUT PLEASE ENSURE you stipulate the type of roof covering

L-SHAPED	COMBINATION WIND	ow													
	windows external dimensions [cm]	78x60	78x75	78x95	78x115	78x137	94x60	94x75	94x95	94x115	114x60	114x75	114x95	114x115	134x60
	effective glazing area [m²] size symbol	0.25	0,33	0.45	0.57	o.71 84	0.31 34	0.42 85	0.58 86	o.73 87	0.40	0.53	0.73 90	0.92 91	0.48
BDL/C P2 BDR/C P2 Tilt and turn opening	P2 - Safety double glazed unit. U value of window 1.2	£700	£760	£825	£918	£1007	-	£818	£899	£987	-	-	£975	£1 066	-
BVP/C P2 Tilt opening	P2 – Safety double glazed unit. U value of window 1.2	£470	£495	£522	£585	£645	£522	£550	£580	£638	£545	£580	£600	£600	£588
BXP/C P2 Non-opening	P2 - Safety double glazed unit. U value of window 1.2	£402	£420	£440	£490	£535	£440	£460	£480	£525	£500	£535	£585	£630	£560

#### FLASHINGS

Correct choice and installation of the roof window flashing is essential. FAKRO not only supplies flashings to enable roof windows to be installed with any type of roof covering but enables windows to be fitted at 3 key depths. This is particularly valuable with the installation of conservation roof windows which invariably need to sit low within the roof line.

The basic colour of FAKRO flashings is grey/brown RAL 7022 but conservation flashings are black, to match the cladding and mullion bars.

You can install a FAKRO roof window at any of 3 depths

- V-This is the standard depth and ideal for tiles such as the Double Roman
- N 3cm higher than the standard depth, for high profile tiles such as the Bold Roll
- J-3cm deeper than the standard depth ideal for flush fitting of the window in the roof line

No other roof tile manufacturer offers a choice of 3 depths





## STANDARD FLASHINGS ALLOW TO INSTALL WINDOWS IN THE MOST POPUL ARTYPES OF ROOFING MATERIAL

FLASHINGS FOR CE	ENTRE P	IVOT WI	NDOW, 1	OP HUN	NG AND	PIVOT W	INDOW:	S						
windows dimensions [cm]	55x78	55x98	55x118	66x98	66x118	78x98	78x118	78x140	94x118	94x140	114x118	114x140	134x98	94x160
size symbol	01	02	16	03	04	05	06	07	08	09	10	11	12	80
EZV-A, ELV, EPV	£50	£51	£53	£55	£57	£57	£60	£64	£68	£71	£71	£79	£75	£74
EHN-A	£57	£58	£60	£65	£65	£65	£68	£73	£77	£81	£81	£88	£86	£84
EZJ-A*, ELJ*	£67	£69	£72	£75	£78	£78	£81	£87	£90	£97	£96	£110	£102	£100
EZV-A/C, ELV/C, EPV/C	£70	£76	£82	£82	£84	£84	£86	£87	£90	£96	£102	£105	£104	£112
EHN-A/C	£84	£90	£94	£94	£97	£95	£101	£101	£104	£108	£114	£120	£117	£123
EZJ-A/C*, ELJ/C*	£93	£99	£105	£105	£111	£111	£113	£113	£122	£129	£134	£138	£142	£148
EFW (Kerb)	£260	£262	£270	£273	£275	£279	£306	£319	£319	£330	£334	£356	£370	£400
EHV-AT**, EPV-T ***	£86	£97	£102	£102	£104	£104	£109	£114	£118	£123	£123	£129	£124	£147
ELV-T***, ESV-T***	£80	£90	£95	£95	£97	£97	£102	£107	£110	£116	£116	£122	£116	£138

<sup>\*</sup> Remember flashings are used only where the roof window is to be positioned lower (up to 30mm) in the roof line
\*\* flashing for flat, profiled and high profiled roof coverings (up to 90mm profile depth)
\*\*\* available to individual order



**ESV-T** For flat roof coverings such as bitumen shingles up to 10mm thickness



**ELV, ELJ, ELV-T** For natural and man-made slates up to 10mm thickness



**EFW** For flat roof window system. Includes flashing and up-stand. It can be fitted to roofs with a pitch of up to 15°



EZV-A, EZJ-A For profiled roof coverings up to 45mm depth



**EPV, EPV-T** For slates and concrete / slate plain tiles up to 16mm thickness



EHN-A For deeply profiled roof coverings up to 90mm depth



For flat roofing materials and metal roofs



Kingspan header section for membrane roofs. Price on application



**EHV-AT** Thermo Provides thermal insulation above the surface of the battens



EZV-A/C, ELV/C, EPV/C, EHN-A/C, EZJ-A/C, ELJ/C

Conservation flashings are available for each of the preceding roof covering types.





FLASHINGS FOR WIN	DOWS WIT	H RAISED AX	(IS OF ROTAT	TION (PROSK	(Y)			
windows dimensions [cm]	78x140	78x160	78x180	78x206	94x140	94x160	94x180	94x206
size symbol	07	13	40	42	09	80	41	43
ELV EZV-A	£64	£74	£95	£107	£71	£74	£110	£122
EHN-A	£73	£82	£105	£118	£81	£84	£120	£134
ELV/C* EZV-A/C*	£87	£105	£122	£138	£96	£112	£142	£158
EHN-A/C*	£101	£120	£134	£152	£108	£123	£154	£174

FLASHINGS FOR WIN	DOWS WIT	H RAISED AX	IS OF ROTAT	ION (DUET P	ROSKY)	
windows dimensions [cm]	78x186	78x206	78x235	94x186	94x206	94x235
size symbol	CA	СВ	CC	DA	DB	DC _
ELV EZV-A	£97	£109	£120	£115	£123	£136
EHN-A	£109	£120	£131	£126	£137	£150
ELV/C* EZV-A/C*	£125	£140	£154	£148	£160	£176
EHN-A/C*	£137	£154	£166	£160	£177	£192

 $\hbox{$^*$Conservation style.}$ 



# FLASHING FOR JOINING WINDOWS IN COMBINATIONS

THE MOST POPULAR-FL	ASHING	COMBIN	ATIONS I	FOR PRO	FILED RO	OOF COV	ERINGS*							
windows dimensions [cm]	55x78	55x98	55x118	66x98	66x118	78x98	78x118	78x140	94x118	94x140	114x118	114x140	134x98	94x160
size symbol	01	02	16	03	04	05	06	07	08	09	10	11	12	80
2 Piece Combinations <u>B2/1. B1/2</u> <b>EZV-A. ELV. EPV</b>	£125	£128	£133	£138	£143	£143	£150	£160	£170	£178	£178	£198	£188	£185
EZV-A/C. ELV/C. EPV/C	£175	£190	£205	£205	£210	£210	£215	£218	£225	£240	£255	£263	£260	£280
3 Piece Combinations B3/1. B1/3 <b>EZV-A. ELV. EPV</b>	£188	£191	£199	£206	£214	£214	£225	£240	£255	£266	£266	£296	£281	£278
EZV-A/C. ELV/C. EPV/C	£263	£285	£308	£308	£315	£315	£323	£326	£338	£360	£383	£394	£390	£420
4 Piece Combinations <u>B2/2</u> <b>EZV-A. ELV. EPV</b>	£250	£255	£265	£275	£285	£285	£300	£320	£340	£355	£355	£395	£375	£370
EZV-A/C. ELV/C. EPV/C	£350	£380	£410	£410	£420	£420	£430	£435	£450	£480	£510	£525	£520	£560
6 Piece Combinations <u>B3/2. B2/3</u> <b>EZV-A. ELV. EPV</b>	£375	£383	£398	£413	£428	£428	£450	£480	£510	£533	£533	£593	£563	£555
EZV-A/C. ELV/C. EPV/C	£525	£570	£615	£615	£630	£630	£645	£653	£675	£720	£765	£788	£780	£840

COMBINATION SYSTEM	/I FLASHI	NG FOR	HIGH PR	OFILED	ROOF CO	OVERING	UP TO 9	о мм						
windows dimensions [cm]	55x78	55x98	55x118	66x98	66x118	78x98	78x118	78x140	94x118	94x140	114x118	114x140	134x98	94x160
size symbol	01	02	16	03	04	05	06	07	08	09	10	11	12	80
2 Piece Combinations <u>B2/1. B1/2</u> <b>EHN-A</b>	£143	£145	£150	£163	£163	£163	£170	£183	£193	£203	£203	£220	£215	£210
EHN-A/C	£205	£218	£228	£228	£235	£230	£245	£245	£253	£263	£278	£293	£285	£298
3 Piece Combinations <u>B3/1, B1/3</u> <b>EHN-A</b>	£214	£218	£225	£244	£244	£244	£255	£274	£289	£304	£304	£330	£323	£315
EHN-A/C	£308	£327	£342	£342	£353	£345	£368	£368	£379	£394	£417	£439	£428	£447
4 Piece Combinations <u>B2/2</u> <b>EHN-A</b>	£285	£290	£300	£325	£325	£325	£340	£365	£385	£405	£405	£440	£430	£420
EHN-A/C	£410	£435	£455	£455	£470	£460	£490	£490	£505	£525	£555	£585	£570	£595
6 Piece Combinations <u>B3/2, B2/3</u> <b>EHN-A</b>	£428	£435	£450	£488	£488	£488	£510	£548	£578	£608	£608	£660	£645	£630
EHN-A/C	£615	£653	£683	£683	£705	£690	£735	£735	£758	£788	£833	£878	£855	£893

<sup>\*</sup>ELV, ELV/C - slate and flat tiles in conservation style.
EZV-A, EZV-A/C - profiled tiles and metal roof up to 45 mm depth.
EPV, EPV/C - plain tiles, shingles.
Note: The distance between windows joined horizontally and vertically is normally 10cm. If external shutters are installed on windows installed vertically, a gap of at least 20cm is required. Other sized gaps can be manufactured for further information please contact Customer Services or email.



**B2/1** horizontal combination



**B1/2** vertical combination



**B2/2** block combination

Flashing systems are ready made flashing combinations for joining windows in the groups: horizontally, vertically, and in

a block. The distance between the windows joined horizontally and vertically is normally 10cm. There are seven modules in the FAKRO combination system to cater for any layout you may require.

## **ROOF WINDOW ACCESSORIES**

FAKRO roof window accessories combine quality, choice of design and ease of fitting with lasting performance. A wide range of styles and colours ensure that you can select blinds to suit any interior décor. Venetian, pleated, blackout and ARP roller blinds are supplied in aluminium cassettes that fit within the window sash to provide an effective light screen. Material swatches can be seen in greater detail in the FAKRO Roof Window Accessories brochure which can be downloaded from **www.fakro.co.uk**. In addition, you can request a colour swatch by phoning our Sales Office on 01283 554755 and order using our online shop.



Venetian blind AJP

- ability to control the amount of incoming light to the room
- control the direction of light entering by changing the angle of the slats



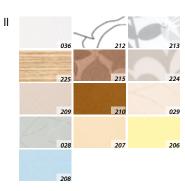
Roller blind standard **ARS** 

- protection from light
- can position the blind in three different positions









2



You will see 3 price groups: Price Group I consists predominantly of plain colours while those in Groups II and III offer a wide range of patterns. With external awning blinds, Group II products are also made using a closer density fabric which greatly reduces the amount of light which can pass through it.

Note: When looking at blinds on any website other than www.fakro.co.uk we recommend that you check with us as some show our logo but DO NOT sell genuine FAKRO products.



Dimming roller blinds **ARP** 

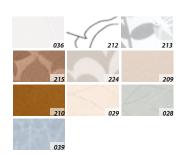
- protection against sunlight during sunny days
- possibility to lock the blind in any position



Blackout blinds **ARF Sunset** 

- very good protection from sunlight
- the possibility of darkening the room
- possibility to lock the blind in any position
- partial protection from solar heat
- Also available for flat roof windows type C and F. With manual control (ARF/D) and wireless Z wave electric control (ARF/D Z-Wave). See page 60.



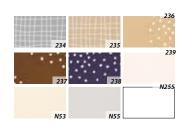




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Ш





patterns N53, N55 and N255 are fire retardant fabric

Pleated blinds **APS** 

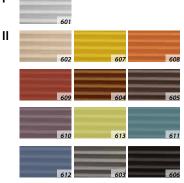
- softness and diffusion of light
- possibility to lock the blind in any position
- top-down system- ease of operation by the use of the upper and lower bar





Pleated blinds **APF** 

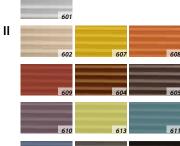
- softness and diffusion of light
- possibility to lock the blind in any
- top-down system- ease of opera tion by the use of the upper and lower bar





Insect screen **AMS** 

- protection against insects
- minimum shading of the room
- can be installed with other internal and external accessories



**EXTERNAL ACCESSORIES** 



External roller shutter **ARZ** 

- effective protection against burdensome heat
- reducing heat loss in winter
- darkening the room
- makes break-in attempts more difficult



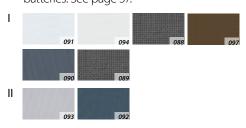








- optimal protection against room overheating
- effective shading of the interior while providing visibility
- convenient, the awning blind can cover the window for a whole summer without the need to roll it up and down every day
- Also available for flat roof windows type C with Z wave control (AMZ/C Z-Wave) and type F (AMZ/F Solar) powered by solar batteries. See page 57.







### INTERNAL ACCESSORIES

windows external dimensions [cm]	55x78	55x98	55x118	66x98	66x118	78x98	78x118	78x140	94x118	94x140	114x118	114x140	134x98	94x160
size symbol	01	02	16	03	04	05	06	07	08	09	10	11	12	80
AJP-Z-Wave I Venetian	_	_	£272	£272	£275	£275	£277	£280	£282	£285	£288	£292	£285	£292
AJP-Z-Wave II Venetian  Group II (Electric)	_	_	£282	£282	£285	£285	£285	£292	£292	£297	£297	£308	£295	£303
AJP I Venetian	£64	£66	£69	£69	£74	£71	£76	£81	£82	£86	£89	£94	£86	£120
AJP II Venetian	£72	£80	£83	£83	£88	£83	£88	£93	£99	£104	£104	£122	£104	£127
ARS I Roller	£40	£40	£43	£43	£44	£46	£47	£48	£49	£50	£57	£59	£57	£59
ARS II Roller	£64	£65	£77	£78	£79	£81	£82	£83	£87	£89	£93	£95	£91	£93
ARP I Roller														133
Group I ARP II Roller	£62	£62	£75	£75	£75	£78	£78	£78	£86	£86	£93	£98	£93	-
Group II ARP-Z-Wave I Roller	£67	£67	£81	£81	£81	£84	£84	£84	£93	£93	£101	£109	£101	-
Group I (Electric)  ARP-Z-Wave II Roller	£201	£204	£206	£206	£211	£211	£216	£219	£221	£224	£226	£232	£226	-
Group II (Electric)	£213	£216	£218	£218	£221	£221	£226	£228	£228	£236	£236	£241	£236	
ARF-Z-Wave I Blackout Group I (Electric)	£203	£205	£208	£208	£213	£213	£218	£221	£223	£226	£228	£234	£228	-
ARF-Z-Wave II Blackout Group II (Electric)	£203	£205	£208	£208	£213	£213	£218	£221	£223	£226	£228	£233	£228	-
ARF-Z-Wave III Blackout Group III (Electric)	£218	£221	£223	£223	£226	£226	£234	£236	£236	£241	£244	£246	£244	_
ARF I Blackout  Group I	£70	£71	£86	£86	£86	£88	£91	£94	£103	£103	£106	£120	£106	£120
ARF II Blackout	£81	£81	£93	£93	£93	£96	£99	£103	£111	£114	£117	£130	£117	£130
ARF III Blackout	£86	£86	£101	£101	£101	£103	£106	£112	£120	£125	£127	£142	£127	£142
APS I Pleated	£57	£59	£63	£63	£65	£68	£70	£75	£78	£81	£83	£88	£86	£109
APS II Pleated Group II	£62	£65	£70	£70	£73	£76	£78	£86	£91	£96	£99	£104	£101	£128
APF I Pleated	£95	£95	£117	£117	£117	£120	£124	£132	£140	£140	£145	£162	£145	£162
APF II Pleated	£105	£105	£125	£125	£125	£130	£134	£140	£150	£155	£158	£178	£158	£178
AMS 200 Insect screen	£100	£102	£105	£105	£105	£112	£112	£112	£118	£118	£118	£118	£123	
AMS 250 Insect screen	_	-	-	£107	£107	£115	£115	£115	£121	£121	£136	£136	_	£121

Note: Only internal accessories available for FYP, FDY roof windows. More information available upon request. Electric blinds need an electrical kit purchased as well on a manual window. Not all internal and external blinds for FTT U6 and FTTU8 windows are available more information upon request. Note: Blinds for FTT U5 roof windows must be ordered specifically for those windows as standard blinds will not fit.

#### EXTERNAL ACCESSORIES

AWNING BLINDS FOR E	PIVOT WINDOW	/S (FT, PT) A	ND TOP HU	NG AND PI	VOT WINDO	OWS (FP, PP	preSelect®)							
windows external dimensions [cm]	55x78	55x98	55x118	66x98	66x118	78x98	78x118	78x140	94x118	94x140	114x118	114x140	134x98	94x160
size symbol	01	02	16	03	04	05	06	07	08	09	10	11	12	80
AMZ I Group I	£57	£57	£60	£60	£68	£70	£70	£73	£78	£86	£88	£96	£94	£104
AMZ II Group II	£62	£62	£67	£67	£75	£78	£78	£86	£91	£96	£102	£109	£104	£120

EXTERNAL ROLLER S	HUTTER: ARZ	-H FOR PIV	OT WINDOV	WS (FT), ARZ	-E FOR PIV	OT WINDO	VS (FT, PT) A	ND TOP HU	ING AND PI	VOT WIND	OWS (FP, PP	preSelect®)		
windows external dimensions [cm]	55x78	55x98	55x118	66x98	66x118	78x98	78x118	78x140	94x118	94x140	114x118	114x140	134x98	94x160
size symbol	01	02	16	03	04	05	06	07	08	09	10	11	12	80
ARZ-H	£294	£300	£308	£308	£321	£317	£331	£331	£344	£358	£361	£374	£365	£380
*ARZ Z-Wave (No Switch)	£331	£338	£346	£346	£362	£356	£374	£384	£390	£403	£406	£420	£410	£425

 $<sup>\</sup>ensuremath{^*}$  retaining 20 cm distance between the windows in vertical position

# ACCESSORIES FOR FLAT ROOF WINDOWS

#### **INTERNAL - BLINDS**

- roller blind protects against harsh sunlight and provides a decorative element.
- Provides a pleasant shaded interior on even the sunniest day.
- With the use of guides, the blind can be positioned at any point giving gradual reduction of incoming light, until the blackout.
- Available in two versions of control:



## **ARF/D**

Control: - manual.



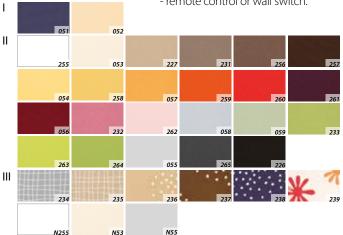
MANANE

# **ARF/DZ-Wave**

- in wireless Z-Wave system,
- powered for the mains.

#### Control:

- remote control or wall switch.



£318

£325

£335

The material samples printed can differ in colour from the actual product.

### EXTERNAL- AWNING BLINDS

- Awning blind absorbs solar radiation before it reaches the glass and emits heat outside, thus on sunny days protects interior against burdensome heat.
- Awning blind- up to 8 times more effective protection against heat when compared with blackout blind.



# **AMZ/F Solar**

- for roof windows type F,
- comfortable use, automatic operation of the awning blind (the photovoltaic panel works as a sensor, which reacts to solar radiation In bright sunlight the awning blind unrolls automatically and rolls up during the cloudy weather),
- powered by solar batteries. Control:
- automatic operation or remote control.



NEW

# AMZ/CZ-Wave

- for roof windows type C,
- in wireless Z-Wave system,
- an innovative system enables installation of the awning blind below the window's dome,
- powered for the mains.

#### Control:

- remote control or wall switch.

£680

£720

£795



The material samples printed can differ in colour from the actual product.

#### ARF/D I £70 £70 £75 £80 £86 £94 £94 £96 £115 £102 ARF/D II £78 £78 £83 £88 £94 £105 £105 £107 £118 £107 ARF/D III £88 £88 £96 £104 £106 £120 £120 £124 £136 £124

EXTERNAL ROLLER SHUTTER: ARZ-H FOR PIVOT WINDOWS (FT), ARZ-E FOR PIVOT WINDOWS (FT, PT) AND TOP HUNG AND PIVOT WINDOWS (FP, PP preSelect\*)

ARF/D I Z-Wave £305 £262 £262 £268 £270 £278 £282 £282 ARF/D II Z-Wave £270 £270 £275 £278 £285 £290 £290 £312 ARF/D III Z-Wave £275 £275 £284 £286 £294 £295 £295 £320 AMZ/F I Solar Flat Roof £625 £590 £590 £610 £610 £635 £625 £650 £820 £760 £965 Group I AMZ/F II Solar Flat Roof Group II £620 £620 £640 £640 £660 £670 £660 £685 £865 £805 £1020 . AMZ/C I Z-Wave Flat Roof Group I Electric £320 £650 £302 £310 £315 £336 £615 £345 £660 £685 £760 AMZ/C II Z-Wave Flat Roof

£355

£645

£338

£690

£365

Group II Electric



# Z-WAVE ELECTRICAL CONTROL ELEMENTS



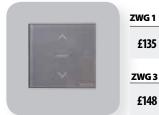


**ZWS 12** £240

ZWS 230 £265

#### **ZWS 12 / ZWS 230**

Z-Wave motor used for operating windows (controller and ZZ60 power supply have to be bought separately).



ZWG 1 £135

£148

#### **ZWG** 1 ZWG3

Z-Wave touch keyboard can operate one receiver separately or in groups. Available in triple version.



£124

#### **ZWMA 1**

a Z-Wave daptation module used to control one receiver separately or in groups by use of wall button or other control system (230V AC).



#### **ZRD**

sensor in co-operation with ZWMP module, in case of rainfall ensures automatic closing of Z-Wave windows.



#### **ZWK 10**

Z-Wave wall keyboard control can operate several receivers separately.



button and radio module installed in flush mounted box, used for remote control of single Z-Wave receiver or in groups. Available in double and triple version.

£75

£156



#### **ZWMA**

Z-Wave adaptation module used to control up to four receivers separately or in groups by the use of wall button or other control system (230V AC).



#### **ZWD**

sensor in co-operation with ZWMP module, in case of strong gusts of wind automatically closes Z-Wave windows.



#### **ZWP 10**

Z-Wave remote control, can operate several receivers separately or in groups.



#### **ZZ 60 ZZ 60H**

impulse power supply 15VDC to power electric receivers (available in hermetic casing ZZ60h)



### **ZWMP**

weather module used to control Z-Wave receivers by the use of rain sensor ZRD, wind sensor ZWD or smoke sensor ZFD.



#### **ZFD**

sensor in co-operation with ZWMP module, in case of detecting visible smoke, automatically opens Z--Wave windows.

# ACCESSORIES FOR OPENING WINDOWS













**ZBH** handle with lock

£32

£35

**ZBB** window restrictor

ZSP

£27

£32

**ACCESSORIES FOR OPENING WINDOWS** 

£37

**ZBL** window lock

ZBL

£32

£40

**ZSZ** control rod for operating awning blinds, length 150cm

telescopic control rod enables the user to operate ARS, ARF, AJP, AMS. It also enables easy opening and closing of windows universal telescopic rod for opening DMC, DMF flat roof windows as well as internal blinds intended for these windows

# INSTALLATION ACCESSORIES

FAKRO installation accessories guarantee quick and easy connection between the roof window and the roof construction. Using XDP insulating set and XDS air-tight flashing ensures the complete protection of a fitted roof window. The installation accessories reduce the risk of thermal bridging and guarantee the proper draining of any moisture around the FAKRO window. Using original installation accessories will allow the proper use of the windows for many years.



XDK (XDP+XDS) XDP set of insulating collars insulation set



**XDS** air tight collar



**XLW** lining



**XWT** insulation band



XSP, XSW duet slats

#### INSTALLATION ACCESSORIES

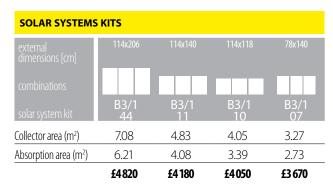
windows external dimensions [cm]	55x78	55x98	55x118	66x98	66x118	78x98	78x118	78x140	94x118	94x140	114x118	114x140	134x98	94x160
size symbol	01	02	16	03	04	05	06	07	08	09	10	11	12	80
XDK	£52	£52	£52	£52	£52	£52	£52	£57	£57	£57	£57	£57	£57	£62
XDP	£30	£30	£30	£30	£30	£30	£30	£33	£33	£33	£33	£33	£33	£35
XDS	£31	£31	£31	£31	£31	£31	£31	£34	£34	£34	£34	£34	£34	£36
XLW-F 40 & XLW-P 40	£106	£113	£115	£115	£123	£123	£128	£135	£135	£140	£140	£145	£145	£155
XLW-F 30 & XLW-P 30	£90	£93	£95	£95	£100	£100	£105	£110	£110	£115	£115	£120	£120	£130
хwт	£32	£32	£32	£32	£32	£32	£32	£37	£37	£37	£37	£37	£37	£40
XSP, XSW (Horizontal)	£16	£16	£16	£16	£16	£19	£19	£19	£21	£21	£24	£24	£26	£21



# OTHER PRODUCTS

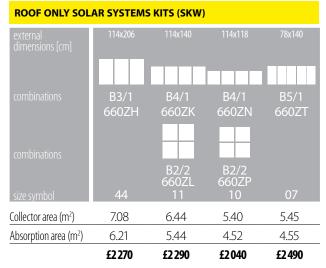
#### **SOLAR PANELS**

FAKRO solar panels can be installed either independently or together with FAKRO roof windows in visually appealing combinations using standard flashings. Solar panels are becoming increasingly popular as an eco-friendly way of harnessing the sun's energy to heat water.



Includes: collectors, flashing, seals, cylinder, pump, control unit, expansion tank, glycol, mixing valve, flow & return pipes (10m), collector connector

Other solar systems available



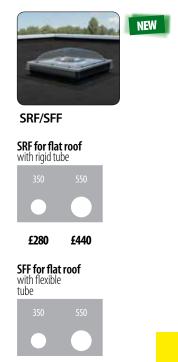
Includes: collectors, flashing, seals, flow & return pipes (1.8m), collector connector Possible installation range  $30^\circ$  -  $90^\circ$  Other roof only solar systems available

### LIGHTTUNNELS

In order to supply interior with natural light where there are no opportunities to install roof or vertical windows, an effective solution can be a light tunnel. Dimly lit interiors without access to the natural light can become light and comfortable to use. There are two types of light tunnels available: SRT with rigid light transmitting tube and SLT with flexible light transmitting tube. Flashings enable installation of light tunnels in nearly every roof covering and even in flat roofs.

Note: SLT Plus Light tunnel includes 300cm of tubing, flashing and a light, bulb not included. Please specify which flashing (slate or tile) when ordering. SRT Plus Light tunnel includes the tunnel, flashing and a light, bulb not included. Please specify which flashing (slate or tile) when ordering.





£380

£230

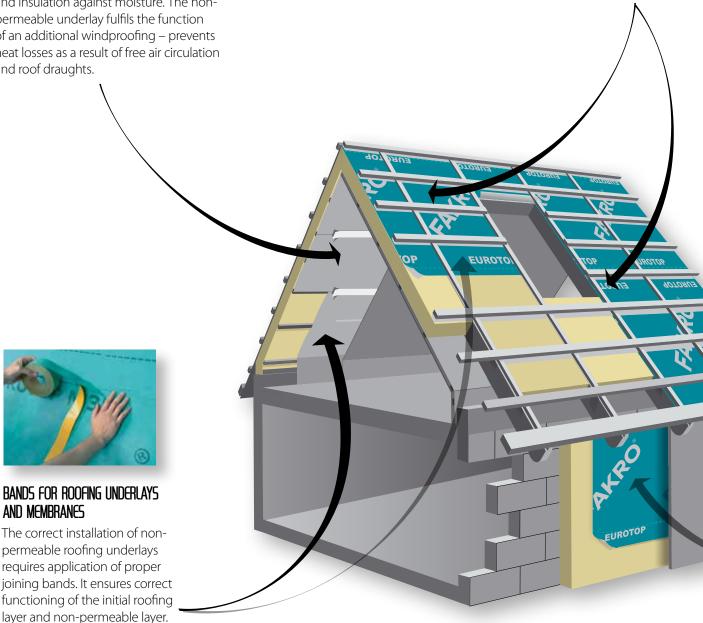
## EUROTOP ROOFING UNDERLAYS AND MEMBRANES

### NON-PERMEABLE UNDERLAY

The non-permeable roofing underlay is a material shielding insulation and roof structure from water vapour penetration from habitable spaces. It is laid between insulation and finishing elements – most often gypsum cardboards. It constitutes a barrier for water vapour forming inside the building, protecting, at the same time, wooden elements of the roof structure and insulation against moisture. The non-permeable underlay fulfils the function of an additional windproofing – prevents heat losses as a result of free air circulation and roof draughts.

### HIGH VAPOUR PERMEABLE MEMBRANES

The EUROTOP membrane is a primary roofing layer which improves roofing tightness. It solves the problems related to condensation water accumulating in insulation and roof structure. The EUROTOP membranes can be used as initial roofing of sloping roofs – in case of both habitable and non-habitable loft spaces, and in external walls as windproofing.



bands.

Any sealing work and damage repair in membranes or

underlays should be performed with the use of purpose-built



## EUROTOP ROOFING UNDERLAYS AND MEMBRANES

	weight [g/m²]	roll dimensions [m]				
MEMBRANES WITH HIGH VAPOUR PERMEABILITY						
EUROTOP L2	90	1.5 x 50				
EUROTOP P2	95	1.5 x 50				
EUROTOP N15	115	1.5 x 50				
EUROTOP N35	135	1.5 x 50				
EUROTOP S65	165	1.5 x 50				
EUROTOP S4	155	1.5 x 50				
EUROTOP T150	150	1.5 x 50				
EUROTOP T180	180	1.5 x 50				
LOW VAPOUR PERMEABILITY MEMBRANES						
KF96 SILVER	98	1.5 x 50				
KF10 STANDARD 1	10	1.5 x 50				
NON-PERMEABLE ROOFING UNDERLAYS						
TERMOFOL 90	90	1.5 x 50				

We supply a wide range of roofing underlays and membranes. Please see our brochure for details



#### BANDS FOR ROOFING MEMBRANES AND UNDERLAYS

EUROTOP ACTIV V110 110

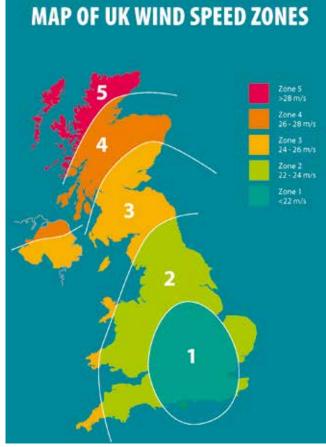
EUROBAND W One sided adhesive on polyproplene cloth 60mm x 25m
EUROBAND P One sided adhesive on polyproplene foam 40mm x 30m
BUTYLBAND Two sided adhesive butyl 10mm x 20m
EUROBAND One sided adhesive butyl/aluminium film 50mm x 10m
ALUFIX BOPP film aluminium coated 75mm x 50m

1.5 x 50

LOW VAPOUR PERMEABILITY MEMBRANES

EL JOTOR

The low vapour permeability membranes are products used as initial roofing in sloping roofs. Their basic task as an initial roofing layer is to seal the primary roofing and protect insulation fitted in the roof structure from moisture. Application of the low vapour permeable membrane as an initial roofing in case of buildings with habitable loft spaces necessitates the use of lower ventilation gaps between the membrane and insulating material in the roof structure.



Underlay name	345mm batten guage Battened Jap	250mm batten guage Battened lap	345mm batten guage Taped lap
Eurotop N15	7one 1 to 3	June 1 to 5	Zone 1 to 5
Eurotop N35	Zone 1 to 4	Zone T to 5	Zone I to 5"
Eurotop S4	Zone 1 to 3	Zone 1 to	7one 1 to 5*3
Eurotop S65	Zone 1 to 5	Zone 1 to 5*	Zone 1 to 5*

## **LOFT LADDERS**

FAKRO 3 and 4-part folding loft ladders have been designed to combine exceptional quality and value with ease of installation and use. Timber ladders are made exclusively using the same close-grain, pine as that used for FAKRO roof windows and supplied either with an integral 36mm insulated hatch (U-value of 1.1 W/m²K) or, with the **LTK Thermo**, a 60mm hatch (U-value 0.76W/m²K). Pine ladders have an edge-sealed pine frame and an adjustable spring mechanism which makes opening and closing easy and locks the ladder in position when open.

Hatches are of white or beige HDF while treads, which have grooves cut into them for added safety, are fitted to the legs using dovetail joints. Up to 13 standard hatch options are available, with non-standard sizes available for the **LWS Smart** and **LWK Komfort**.

The **LMF** folding metal loft ladder offers an exceptional fire rating of 120 minutes. Specially designed hinges and springs ensure that it can be opened and closed quickly while providing a load bearing capability of up to 200kg. Installed in the same manner as our pine ladders, the **LMF** is fitted with a steel supporting frame and fully adjustable legs. 13cm wide antislip treads offer improved safety while an additional step at the top provides greater convenience when exiting the loft.





Range of optional accessories available. See our loft ladder brochure for details



Loft balustrade LXB-U



Upper hatch LXW



L-shaped combination door DWK



Finishing lining slats LXL











WIDTH in cm

54

WLI/C

46

WGI/C

HEIGHT in cm 55

61

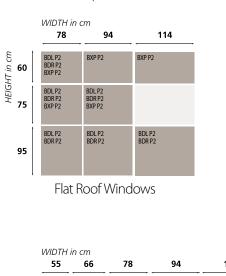
75

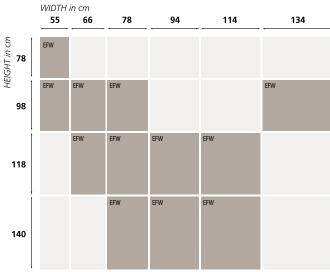
98

# WINDOW SIZE GUIDE

Simply check the height and width dimensions for your chosen window, and see the choice of products available based on the U3 glazing unit.

	<i>WIDTH</i>	in cm <b>66</b>	78	94	114	134
HEIGHT in cm			FNP U3*	FNP U3*	FNP U3*	FNP U3*
78 <b>78</b>	FTP-V U3 PTP U3	FWR U3 FWL U3 FTP-V U3 PTP-V U3 PTP U3	FNP/D U3* FTP-V U3 PTP-U3	FNP/D U3* FTP-V U3 PTP-V U3 PTP U3	FNP/D U3* FTP-V U3 PTP-V U3 PTP U3	FNP/D U3* FTP-V U3 PTP-V U3 PTP U3
98	FTP-V U3 FPP-V U3 PTP U3 PPP-V U3	FTP-V U3 FPP-V U3 PTP U3 PPP-V U3 FWR U3 FWL U3	FTP-V U3 FPP-V U3 PTP U3 PPP-V U3 FWR U3 FWL U3	FWL U3	FTP-VU3 PTP-VU3 PTP U3	FTP-VU3 FPP-VU3
118	FTP-V U3 FPP-V U3 PTP U3 PPP-V U3	FTP-V U3 FPP-V U3 PTP U3 PPP-V U3 FWR U3 FWL U3	FTP-V U3 FPP-V U3 PTP U3 PPP-V U3 FWR U3 FWL U3	FTP-V U3 FPP-V U3 PTP U3 PPP-V U3 FWR U3 FWL U3	FTP-V U3 FPP-V U3 PTP U3 FSP FWR U3 FWL U3	FTP-V U3 PTP-V U3 PTP U3
140	FTP-V U3 FPP-V U3 PTP U3 PPP-V U3	FTP-V U3 FPP-V U3 PTP U3 PPP-V U3	FTP-V U3 FPP-V U3 PTP U3 PPP-V U3 FVP-V U3 FHP FWR U3 FWL U3	FTP-V U3 FPP-V U3 PTP U3 PPP-V U3 FYP-V U3 FHP FWR U3 FWL U3	FTP-V U3 FPP-V U3 PPP-V U3 FSP	
160			FYP-V U3 FTP-V U3 PTP-V U3 PTP U3	FYP-V U3 FTP-V U3** PTP-V U3** PTP U3**		
180			FYP-V U3	FYP-V U3		
186			FDY-V U3	FDY-V U3		
206			FDY-V U3 FYP-V U3	FDY-V U3 FYP-V U3		
235			FDY-V U3***	FDY-V U3***		
255			FDY-V U3***	FDY-V U3*** FGH-V P2		





#### Fakro Light Tunnels

FAKRO Light Tunnels are available with either flexible or rigid ducting. Either product may also be purchased with an abutment accessory for fitting on flat roofs.



#### Conservation Roof Windows

FAKRO supplies the widest range of products and sizes in conservation style. See each section in the price list for full details.





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