# 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.



**Premium Close Grained Redwood Timber** 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.



**Exceptional Security** 

FAKRO's TopSafe® system gives confidence and peace of mind that our roof windows offer exceptional burglary resistance. TopSafe provides additional hinge and lock reinforcement to prevent the sash from being forced.





C Lifetime glazing unit hail resistance warranty

#### 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.





#### **Choice of Internal Finish**

FAKRO offers two types of roof windows for rooms in which high levels of humidity are created. You have the choice of either white polyurethanecoated pine or PVC in white, golden oak and pine finishes.



#### thermoPro technology HIGH ENERGY SAVINGS

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, guadruple glazed FTT U8 Thermo has a single glazing unit area and a U-value of 0.58W/m<sup>2</sup>K which leads the market.



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 acrylic, PU coated and PVC roof windows can be received from stock within three days.





**Automatic Controlled Ventilation** 

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.



**Ease of Installation** Our easy to use "bracket fix" installation system enables windows to be fitted either to rafters or battens and sarking.



# CERTIFICATES



**NS**SPlus

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/m<sup>2</sup>K 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 and top 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 FAKRO 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<sup>®</sup> 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

> them 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.

# BETTER THERMAL INSULATION OF 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 the window's energy-efficiency performance

# **GREATER WOOD DURABILITY** THANKS TO WATER DRAINAGE CHANNELS

Special water drainage channels are introduced in the lower corners of the frame to discharge water from condensation and potential leakage caused by, e.g. damaged external aluminium profiles. Wooden profiles are less exposed to the moisture, which adds to their durability.



# GREATER WINDOW TIGHTNESS IN TERMS OF AIR PERMEABILITY

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





# EASIER INSTALLATION GREATER COMFORT OF WORK

New brackets facilitate installation work and increase the ability to adjust roof windows during their installation. In addition, the use of **Torx screws** streamlines installation process of roof windows.



INCREASED SECURITY

System topSafe

> Roof windows have to ensure safety of use and protect against unauthorised access to the room from the roof. The special system of the window structure reinforcement **topSafe significantly improves resistance of roof windows to break-in attempts and protects against the sash opening under foot pressure if inadvertently stepped on.** The topSafe system consists of:

tops

# **INNOVATIVE** INSTALLATION SYSTEM OF SPECIALLY SHAPED HINGES



METAL ELEMENT STRENGTHENING THE LOCKING SYSTEM



METAL STEEL BAR, MAKING IT DIFFICULT TO BREAK THE WINDOW USING TOOLS



**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 acrylic, white PU-coated pine and PVC is available.

#### Top hung and pivot dual function roof

windows provide 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, white acrylic 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 enables more head space. 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 2.55 metres.

# **STANDARD ROOF WINDOWS**

type		TOP	HUNG AND I	PIVOT WINDO	)WS					CE	NTRE PIVOT					
			RUS E							130 cm						
material		wood			PVC				wood				PVC		wood	
natural pine	FPP-V P2 preSelect	FPP-V 02 preSelect	FPP-V P5 preSelect	-	-	-	FTP-V U3	FTP-V P2	FTP-V 02	FTP-V P5	FTP R1	-	-	-	FTP-V P2 Z-Wave	
white acrylic	FPW-V P2 preSelect	FPW-V 02 preSelect	FPW-V P5 preSelect	-	-	-	-	FTW-V P2	FTW-V 02	FTW-V P5	-	-	-	-	FTW-V P2 Z-Wave	
white polyurethane	FPU-V P2 preSelect	FPU-V 02 preSelect	FPU-V P5 preSelect	-	-	-	-	FTU-V P2	FTU-V 02	FTU-V P5	FTU R1	-	-	-	FTU-V P2 Z-Wave	
white PVC	-	-	-	PPP-V P2 preSelect	PPP-V O2 preSelect	PPP-V P5 preSelect	-	-	-	-	-	PTP-V P2	PTP-V 02	PTP-V P5	-	
conservation version:	+	+	+	+	+	+	+	+	+	+	+	+		+	+	
view		1			1				Ø	2			8			7
air inlet		<u>V40P</u>	<u>V4@P</u>		V35					<u>V4@P</u>	non-vented		V35			
air inlet air flow		up to 49 m³/h	1		up to 41 m³/h			up to 4	9 m³/h		-		up to 41 m³/h		up to 49 m	1³/h
glazing	double	double	triple	double	double	triple	double	double	double	triple	double	double	double	triple	double	
Ug (EN 673)	1,0 W/m <sup>2</sup> K	1,0 W/m²K	0,5 W/m²K	1,0 W/m <sup>2</sup> K	1,0 W/m <sup>2</sup> K	0,5 W/m <sup>2</sup> K	1,0 W/m <sup>2</sup> K	1,0 W/m <sup>2</sup> K	1,0 W/m²K	0,5 W/m²K	1,0 W/m <sup>2</sup> K	1,0 W/m <sup>2</sup> K	1,0 W/m <sup>2</sup> K	0,5 W/m²K	1,0 W/m <sup>2</sup> K	
Uw	1,3 W/m²K	1,3 W/m²K	0,97 W/m <sup>2</sup> K	1,3 W/m <sup>2</sup> K	1,3 W/m <sup>2</sup> K	1,1 W/m²K	1,3 W/m <sup>2</sup> K	1,3 W/m <sup>2</sup> K	1,3 W/m²K	0,97 W/m <sup>2</sup> K	1,3 W/m²K	1,3 W/m <sup>2</sup> K	1,3 W/m <sup>2</sup> K	1,1 W/m <sup>2</sup> K	1,3 W/m <sup>2</sup> K	
topSafe system		+			+				+				+		+	
acoustic insulation	35 dB	35 dB	35 dB	33 dB	35 dB	36 dB	32 dB	35 dB	35 dB	35 dB	39 dB	33 dB	33 dB	36 dB	35 dB	
handle		elegant			elegant white	!			elegant				elegant white	!	elegant	t
seals		4			4				4				4		4	
installation pitch		15-55°			15-55°				15-90°				15-90°		15-90°	2

# **GLAZING UNIT**

GLAZING UNIT	U3	P2	P5	U6	U8	R1
GLAZING STRUCTURE	4H-16-4T	4H-15-33.2T	4HS-10-4HT-8-33.2T	6H-18-4HT-18-33.2T	4H-12-4HT-12-4HT-12-4HT	6H-12-33.2SIT
TECHNICAL SPECIFICATION	ENERGY SAVING	<b>ANTI BURGLARY</b>	SAFE	HIGHLY ENERGY EFFICIENT	PASSIVE GLAZING	SOUND REDUCING
GLAZING	DOUBLE	DOUBLE	TRIPLE	TRIPLE	QUADRUPLE	DOUBLE
INNER LAMINATED GLASS		(CLASS P2A)	(CLASS P2A)	(CLASS P2A)		(CLASS P2A)

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.

			CENTRE	PIVOT					HIGH PIV	T	BALC	ONY	L-SH	APED	SIDE HUNG
		•	Bocm					,	1	The second secon	, I	ľ			100 m en
۷	vood	P١	/C	wood		wood		WO	bod	wood	WC	od	WC	od	wood
	FTP-V P5 Z-Wave	-	-	FTP-V P2 Secure	FTT U8 Thermo	FTT U6	FTT R3	FYP-V P2 proSky	FYP-V P5 proSky	FDY-V P2 Duet proSky	FGH-V P2 Galeria	FGH-V P5 Galeria	BD_P2, BVP P2, BXP P2	BD_P5, BVP P5, BXP P5	FWRP2/FWLP2
	FTW-V P5 Z-Wave	-	-	FTW-V P2 Secure	FTT/WU8 Thermo	FTT/W U6	FTT/W R3	-	-	-	-	-	BD_/WP2, BVWP2,BXWP2	BD_/WP5, BVWP5,BXWP5	-
	FTU-V P5 Z-Wave	-	-	FTU-V P2 Secure	FTT/U U8 Thermo	FTT/U U6	FTT/U R3	FYU-V P2 proSky	FYU-V P5 proSky	FDY-V/U P2 Duet proSky	FGH-V/U P2 Galeria	FGH-V/U P5 Galeria	BD_/UP2, BVUP2,BXUP2	BD_/UP5, BVUP5,BXUP5	FWR/UP2 FWL/UP2
	-	PTP-V P2 Z-Wave	PTP-V P5 Z-Wave	-	-	-	-	-	-	-	-	-	-	-	-
	+	+	+		+	+	+	+	+	+	-	-	-	-	+
NA.	9	A	7	A		Ð		Z	7	1		7			
	<u>V4@P</u>	VE	35	<u>V4@P</u>		non-vented		<u>V4</u>	<u>69</u>	<u>V4@P</u>	<u>V4</u>	<u>98</u>	-	_	—
up	to 49 m³/h	up to 4	1 m³/h	up to 49 m³/h		-		up to 4	19 m³/h	up to 49 m <sup>3</sup> /h	up to 4	9 m³/h	-	-	
	triple	double	triple	double	qadruple	triple	triple	double	triple	double	double	triple	double	triple	double
	0,5 W/m <sup>2</sup> K	1,0 W/m²K	0,5 W/m²K	1,0 W/m <sup>2</sup> K	0,3 W/m <sup>2</sup> K	0,5 W/m <sup>2</sup> K	0,5 W/m <sup>2</sup> K	1,0 W/m <sup>2</sup> K	0,5 W/m²K	1,1 W/m²K	1,1 W/m²K	0,5 W/m <sup>2</sup> K	1,1 W/m²K	0,5 W/m <sup>2</sup> K	1,1 W/m²K
	0,97 W/m <sup>2</sup> K	1,3 W/m²K	1,1 W/m²K	1,3 W/m²K	0,58 W/m <sup>2</sup> K	0,80 W/m <sup>2</sup> K	0,81 W/m²K	1,3 W/m²K	0,97 W/m²K	1,3 W/m <sup>2</sup> K	1,5 W/m²K	1,1 W/m²K	1,3 W/m <sup>2</sup> K	0,88 W/m <sup>2</sup> K	1,4 W/m <sup>2</sup> K
	+	+	F	+		+		-	+	+	4	-	-	-	—
	35 dB	33dB	36 dB	35 dB	36 dB	38 dB	42 dB	35 dB	33 dB	35 dB	35 dB	34 dB	37 dB	38 dB	—
	elegant	elegant	t white	elegant		elegant		eleg	gant	elegant	eleg	ant	eleç	jant	standaard
	4	4	1	4		5			4	4	4	ļ		2	2
	15-90°	15-	90°	15-90°		15-70°		20-	·65°	25-65°	35-55°	45-55°	9	)°	15-55°

R3	G6	02
8H-16-4HT-18-33.2SIT	6HST-12-33.1T	4H0-14-33.1T
SOUND REDUCING	SOLAR CONTROL	OBSCURE
TRIPLE	DOUBLE	DOUBLE
(CLASS P2A)	$\checkmark$	$\checkmark$

# HOW TO SELECT A ROOF WINDOW



#### 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.

#### HOW MUCH DAYLIGHT DO YOU NEED?

WHICH GLAZING UNIT TO CHOOSE?

- The higher the windows are fitted within the roof, the more natural light floods the room.
- It is recommended that the glass area should be at least 15-20% of the total floor area for best results.

• For windows above head height you should use a laminated glass. If the glass shatters a plastic

• Energy-efficient triple glazed units ensure exceptional thermal efficiency and can almost eliminate



# $15^{\circ} \leftrightarrow 90^{\circ}$



#### WHAT IS YOUR ROOF PITCH?

heat loss altogether.

- 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.

Other glazing choices include; tinted, obscure, reflective and self-cleaning glass.

• 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.

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

membrane between the two sheets of glass retain the shards.

- 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.

#### MANUAL OR ELECTRIC CONTROL?

• Electric control using wireless technology is available to operate your roof windows – supplied as standard with a factory fitted motor, remote control and a rain sensor. Allows multiple windows and accessories to be operated form one controller. The use of the Z-Wave protocol permits communication with other smart home devices.



#### 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.



# SELECTING THE CORRECT FLASHING KIT

Flashing kits are necessary to provide a neat and waterproof connection to the roof, therefore choosing the correct kit is an essential requirement in the selection process.

FAKRO roof window flashings are categorised according to the roof material and application.

- Enables roof windows to be installed with any type of roof covering.
- 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 be positioned lower in the roof.

# **FLASHING KIT TYPE**

	Ту	pe of roofing material		Flashing type	Fitting depth	Maximum profile depth of roof material	<b>Roof pitch</b>
ES	1	1	Flat roof coverings such as: – roofing felt	ESV	<b>V</b> (0)	10mm	15° - 90°
ES			- bitumen - flat sheet metal	ESJ	<b>J</b> (—3 cm)	10mm	20°-90°
EL		Ch	Flat roof coverings such as: – bitumen	ELV	<b>V</b> (0)	up to 10mm	20° – 90°
EL			- slate	ELJ	<b>J</b> (-3 cm)	up to romin	20 - 90
EP		ANI	Plain tile roof coverings non	EPV	<b>V</b> (0)	un to 10 mm	25° – 90°
EF			interlocking (Peg Tiles)	EPJ	<b>J</b> (—3 cm)	up to 16mm	25 - 90
				EZN-A	<b>N</b> (+3 cm)	up to 45mm	15° - 90°
EZ		an	- roof tiles	EZV-A	<b>V</b> (0)	up to 45mm	15° - 90°
		4	– corrugated metal sheeting	EZJ-A	<b>J</b> (—3 cm)	up to 45mm	20°-90°
EH		1111	Profiled roof coverings such as: - roof tiles - corrugated metal sheeting High profile roof coverings such as: - roof tiles - corrugated metal sheets	EHN-A	<b>N</b> (+3 cm)	up to 90mm	15° – 90°
EH -AT	E	Im	High profile roof coverings such as: – roof tiles	EHV-AT Thermo	<b>V</b> (0)	up to 90mm	15° - 90°
Thermo		-40	- corrugated metal sheeting	EHN-AT Thermo	<b>N</b> (+3 cm)	up to 120mm	15° - 90°
		111	Flat roof coverings such as:	EEV	<b>V</b> (0)	-	15° - 90°
EE			- flat sheet metal - standing seam zinc etc	EEJ	<b>J</b> (—3 cm)		20°-90°
			Flat roof coverings such as: - roofing felt - bitumen - corrugated metal sheeting	ESA		10mm	10° – 75°
E_A		1111	Profiled roof coverings such as: – roof tiles – corrugated metal sheeting	EZA-A		up to 45mm	10° – 75°
		1111	High profile roof coverings such as: – roof tiles – corrugated metal sheeting	EHA-A		up to 90mm	10° – 75°



#### **CENTRE PIVOT WINDOWS**

#### IN NATURAL PINE AND WHITE ACRYLIC FINISH

- 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.
- Suitable for retro-fitting of electronic operation.
- Suitable for pitches from 15-90°.



- High quality close-grain vacuum impregnated pine guaranteed to be knot-free, finished with natural acrylic lacquer.
- V40P automatic air vent to prevent unnecessary heat loss.



- High quality close-grain vacuum impregnated pine guaranteed to be knot-free, finished with white acrylic paint.
- V40P automatic air vent to prevent unnecessary heat loss.

WINNER

	<b>CENTRE PIVOT WINDOW</b>	VS IN N	ATURA	L PINE A		HITE AC	RYLIC F	INISH								
	windows external dimensions [cm]	55x78	55x98	55x118	66x98	66x118	78x98	78x118	78x140	78x160	94x118	94x140	114x118	114x140	134x98	94x160
	effective glazing area [m²] size symbol	0.21 01	0.29 02	<sup>0.37</sup> 16	0.38 03	<sup>0.47</sup> 04	<sup>0.47</sup>	0.59 06	0.72 07	0.82	0.75 08	0.92 09	<sup>0.95</sup> 10	1.16 11	0.92 12	0.75
	FTP-V P2 P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.3	£244	£259	£270	£282	£301	£281	£318	£351	£437	£396	£410	£422	£459	£405	£433
AL PINE	FTP-V O2 02 - OBSCURE double glazed unit. U-value of window 1.3	£321	£338	£373	£355	£380	£373	£413	£449	£546	£494	£520	£531	£580	£527	£584
NATURAL	FTP R1 R1 - Sound reducing glazed unit, Rw 39 dB non vented, U-value of window 1.3	£326	£337	£353	£359	£390	£367	£404	£463	£541	£479	£525	£536	£551	£520	£597
	<b>FTP-V U3</b> U3 - Energy saving double glazed unit. Toughened outer pane. U-value of window 1.3	£242	£257	£268	£280	£299	£279	£316	£349	£435	£394	£408	£420	£457	£403	£431
White Acrylic	FTW-V P2 P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.3	£244	£259	£270	£282	£301	£281	£318	£351	£437	£396	£410	£422	£459	£405	£433
ACF	<b>FTW-V O2</b> 02 - OBSCURE double glazed unit. U-value of window 1.3	£349	£361	£380	£391	£412	£391	£435	£483	£567	£520	£525	£551	£590	£546	£578

STANDARD FLASHING K	<b>LITS FO</b> F	R CENT	RE PIVOT	ROOF	WINDO	WS									
windows external dimensions [cm] size symbol	<b>55x78</b> 01	<b>55x98</b> 02	<b>55x118</b> 16	<b>66x98</b> 03	<b>66x118</b> 04	<b>78x98</b> 05	<b>78x118</b> 06	<b>78x140</b> 07	<b>78x160</b> 13	<b>94x118</b> 08	<b>94x140</b> 09	<b>114x118</b> 10	<b>114x140</b> 11	<b>134x98</b> 12	<b>94x160</b> 80
<b>EZV-A</b> for interlocking tiles up to 45mm profile	£55	£56	£64	£63	£66	£66	£68	£71	£88	£76	£79	£78	£88	£83	£86
ELV for non-interlocking slate up to 10mm thick	£55	£56	£64	£63	£66	£66	£68	£71	£88	£76	£79	£78	£88	£83	£86
<b>EPV</b> for plain tiles up to 16mm thick	£55	£56	£64	£63	£66	£66	£68	£71	£88	£76	£79	£78	£88	£83	£86
EHN-A for interlocking tiles up to 90mm profile	£65	£66	£70	£75	£75	£75	£78	£83	£93	£88	£92	£92	£101	£98	£96

FULL FLASHING KIT SELECTION page 32-35

BLINDS & ACCESSORIES pages 40-45

\* ALL WINDOWS AVAILABLE IN NON VENTED ON REQUEST



## **CENTRE PIVOT WINDOWS**

#### IN WHITE POLYURETHANE AND PVC FINISH

- Traditional centre pivot operation.
- Ideal for bathrooms, wetrooms, kitchens and environments with increased humidity.
- Windows turn through 180° to clean outer pane within the room.
- Operating handle in the base of the sash for ease of use.
- Suitable for retro-fitting of electronic operation.
- Suitable for pitches from 15-90°.



- High quality close-grain vacuum impregnated pine guaranteed to be knot-free, finished with white polyure-thane paint.
- V40P automatic air vent to prevent unnecessary heat loss.



- PVC profile with steel reinforcement for a smooth, wipe clean finish.
- Available in white, golden oak or natural pine veneer finishes. Golden oak and pine POA.
- V35 air inlet.

	<b>CENTRE PIVOT WINDOW</b>	NS IN W	HITE P	OLYURE	THAN	E AND P	VC FIN	ISH								
	windows external dimensions [cm]	55x78	55x98	55x118	66x98	66x118	78x98	78x118	78x140	78x160	94x118	94x140	114x118	114x140	134x98	94x160
	effective glazing area [m²] size symbol	0.21 01	0.29 02	<sup>0.37</sup> 16	<sup>0.38</sup> 03	<sup>0.47</sup> 04	<sup>0.47</sup> 05	0.59 06	0.72 07	0.82	0.75 08	0.92 09	0.95 10	1.16 11	<sup>0.92</sup> 12	0.75 80
ANE	FTU-V P2 P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.3	£306	£323	£337	£362	£376	£351	£397	£439	£544	£483	£513	£527	£582	£506	£541
POLYÜRETHANE	FTU-V O2 02 - OBSCURE double glazed unit. U-value of window 1.3	£356	£374	£387	£405	£427	£402	£449	£492	£592	£544	£568	£583	£613	£561	£596
POL	FTU R1 R1 - Sound reducing glazed unit, Rw 39 dB non vented, U-value of window 1.3	£392	£410	£423	£453	£462	£437	£483	£525	£684	£578	£598	£612	£686	£591	£626
۲۷C	PTP-V P2 P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.3	£265	£282	£294	£298	£326	£306	£347	£383	£461	£418	£449	£459	£485	£441	£472
ā.	PTP-V O2 02 - OBSCURE double glazed unit. U-value of window 1.3	£344	£365	£378	£384	£395	£396	£436	£499	£570	£503	£528	£563	£607	£565	£673

STANDARD FLASHING	<b>KITS FOF</b>	R CENT	<b>RE PIVO</b>	ROOF	WINDO	WS									
windows external dimensions [cm] size symbol	<b>55x78</b> 01	<b>55x98</b> 02	<b>55x118</b> 16	<b>66x98</b> 03	<b>66x118</b> 04	<b>78x98</b> 05	<b>78x118</b> 06	<b>78x140</b> 07	<b>78x160</b> 13	<b>94x118</b> 08	<b>94x140</b> 09	<b>114x118</b> 10	<b>114x140</b> 11	<b>134x98</b> 12	<b>94x160</b> 80
<b>EZV-A</b> for interlocking tiles up to 45mm profile	£55	£56	£64	£63	£66	£66	£68	£71	£88	£76	£79	£78	£88	£83	£86
ELV for non-interlocking slate up to 10mm thick	£55	£56	£64	£63	£66	£66	£68	£71	£88	£76	£79	£78	£88	£83	£86
<b>EPV</b> for plain tiles up to 16mm thick	£55	£56	£64	£63	£66	£66	£68	£71	£88	£76	£79	£78	£88	£83	£86
EHN-A for interlocking tiles up to 90mm profile	£65	£66	£70	£75	£75	£75	£78	£83	£93	£88	£92	£92	£101	£98	£96

WINNER

CENTRE PIVOT WINDOWS





#### TOP HUNG AND PIVOT DUAL FUNCTION - preSelect

#### IN NATURAL PINE AND WHITE ACRYLIC FINISH



- Top hung and pivot windows come with two independent opening mechanisms.
- The sash can be opened outwards from the top and via centre pivot.
- Innovatory hardware system guarantees complete sash stability in both opening functions.
- Opening method can be switched using preSelect sliding switch placed in the side part of the frame which is accessible after opening the window.
- Windows turn through 180° to clean outer pane within the room.
- Suitable for pitches from 15° 55° (or non-standard option for opening from 55° 85°).



- High guality close-grain vacuum impregnated pine guaranteed to be knot-free, finished with natural acrylic lacquer.
- V40P automatic air vent to prevent unnecessary heat loss.



- High guality close-grain vacuum impregnated pine guaranteed to be knot-free, finished with white acrylic paint.
- V40P automatic air vent to prevent unnecessary heat loss.

	TOP HUNG ROOF WIND	OWS IN		RAL PIN	E AND	WHITE	ACRYLI	C FINIS	н				
	windows external dimensions [cm]	55x98	66x98	66x118	78x98	78x118	78x140	78x160	94x118	94x140	114x118	114x140	134x98
	effective glazing area [m²] size symbol	0.29 02	0.38 03	0.47 04	<sup>0.47</sup>	0.59 06	0.72 07	0.82	0.75 08	0.92 09	<sup>0.95</sup>	1.16 11	0.92 12
PINE	FPP-V P2 preSelect P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.3	£398	£408	£416	£416	£439	£486	£602	£535	£568	£584	£631	£560
Ы	FPP-V O2 preSelect 02 - OBSCURE double glazed unit. U-value of window 1.3	£494	£500	£517	£511	£541	£581	£667	£595	£639	£647	£698	£651
RYLIC	FPW-V P2 preSelect P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.3	£398	£408	£416	£416	£439	£486	£602	£535	£568	£584	£631	£560
ACR	FPW-V O2 preSelect 02 - OBSCURE double glazed unit. U-value of window 1.3	£494	£500	£517	£511	£541	£581	£667	£593	£639	£647	£698	£651



NATURAL

WHITE

A unique, innovatory hinge system

STANDARD FLASHING	<b>KITS FOF</b>	R USE W	ИТН ТОР	HUNG	ROOF	VINDOV	VS					
windows external dimensions [cm] size symbol	<b>55x98</b> 02	<b>66x98</b> 03	<b>66x118</b> 04	<b>78x98</b> 05	<b>78x118</b> 06	<b>78x140</b> 07	<b>78x160</b> 13	<b>94x118</b> 08	<b>94x140</b> 09	<b>114x118</b> 10	<b>114x140</b> 11	<b>134x98</b> 12
<b>EZV-A</b> for interlocking tiles up to 45mm profile	£56	£63	£66	£66	£68	£71	£88	£76	£79	£78	£88	£83
<b>ELV</b> for non-interlocking slate up to 10mm thick	£56	£63	£66	£66	£68	£71	£88	£76	£79	£78	£88	£83
<b>EPV</b> for plain tiles up to 16mm thick	£56	£63	£66	£66	£68	£71	£88	£76	£79	£78	£88	£83
EHN-A for interlocking tiles up to 90mm profile	£66	£75	£75	£75	£78	£83	£93	£88	£92	£92	£101	£98



& ACCESSORIES pages 40-45

\* ALL WINDOWS AVAILABLE IN NON VENTED ON REQUEST



#### > TOP HUNG AND PIVOT DUAL FUNCTION - preSelect



- Top hung and pivot windows come with two independent opening mechanisms.
- The sash can be opened outwards from the top and via centre pivot.
- Innovatory hardware system guarantees complete sash stability in both opening functions.
- Opening method can be switched using preSelect sliding switch placed in the side part of the frame which is accessible after opening the window.
- Windows turn through 180° to clean outer pane within the room.
- Suitable for pitches from 15° 55° (or non-standard option for opening from 15° 85°)



- High quality close-grain vacuum impregnated pine guaranteed to be knot-free, finished with white polyure-thane paint.
- V40P automatic air vent to prevent unnecessary heat loss



- PVC profile with steel reinforcement for a smooth, wipe clean finish.
- Available in White, Golden Oak or Natural Pine veneer finishes
- V35 air inlet

	TOP HUNG ROOF WIND	OWS IN	WHITE	E POLYU	RETHA		<b>PVC F</b>	INISH					
	windows external dimensions [cm]	55x98	66x98	66x118	78x98	78x118	78x140	78x160	94x118	94x140	114x118	114x140	134x98
					-								
	effective glazing area [m <sup>2</sup> ]	0.29	0.38	0.47	0.47	0.59	0.72	0.82	0.75	0.92	0.95	1.16	0.92
	size symbol	02	03	04	05	06	07	13	08	09	10	11	12
WHITE POLYURETHANE	FPU-V P2 preSelect P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.3	£447	£469	£488	£473	£514	£569	£696	£577	£665	£683	£722	£689
POLYUR	<b>FPU-V O2 preSelect</b> 02 - 0BSCURE double glazed unit. U-value of window 1.3	£525	£530	£546	£541	£560	£616	£723	£602	£713	£731	£752	£716
PVC	PPP-V P2 preSelect P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.3	£507	£513	£535	£535	£576	£623		£646	£674	£692	£767	-
đ	<b>PPP-V O2 preSelect</b> 02 - OBSCURE double glazed unit. U-value of window 1.3	£660	£660	£715	£715	£770	£825	-	£858	£913	£913	£1029	
		Aunique	2										



A unique, innovatory hinge system

STANDARD FLASHING	<b>KITS FOF</b>	R USE W	<b>ITH TOP</b>	HUNG		VINDO\	NS					
windows external dimensions [cm] size symbol	<b>55x98</b> 02	<b>66x98</b> 03	<b>66x118</b> 04	<b>78x98</b> 05	<b>78x118</b> 06	<b>78x140</b> 07	<b>78x160</b> 13	<b>94x118</b> 08	<b>94x140</b> 09	<b>114x118</b> 10	<b>114x140</b> 11	<b>134x98</b> 12
<b>EZV-A</b> for interlocking tiles up to 45mm profile	£56	£63	£66	£66	£68	£71	£88	£76	£79	£78	£88	£83
<b>ELV</b> for non-interlocking slate up to 10mm thick	£56	£63	£66	£66	£68	£71	£88	£76	£79	£78	£88	£83
<b>EPV</b> for plain tiles up to 16mm thick	£56	£63	£66	£66	£68	£71	£88	£76	£79	£78	£88	£83
EHN-A for interlocking tiles up to 90mm profile	£66	£75	£75	£75	£78	£83	£93	£88	£92	£92	£101	£98

FULL FLASHING KIT SELECTION page 32-35 BLINDS & ACCESSORIES pages 40-45

\* ALL WINDOWS AVAILABLE IN NON VENTED ON REQUEST



#### WINDOWS WITH HIGHLY ENERGY-EFFICIENT TRIPLE GLAZING

IN NATURAL PINE AND WHITE ACRYLIC FINISH

- Top hung and pivot windows come with two independent opening mechanisms.
- The sash can be opened outwards from the top and via centre pivot.
- Traditional centre pivot operation.
- Windows equipped with highly energy-efficient double chamber glazing unit and internal glass laminated, anti-burglary class P2A. The window is particularly recommended for buildings where special emphasis is put on thermal energy savings.



- High quality close-grain vacuum impregnated pine guaranteed to be knot-free, finished with natural acrylic lacquer.
- V40P automatic air vent to prevent unnecessary heat loss.



- High quality close-grain vacuum impregnated pine guaranteed to be knot-free, finished with white acrylic paint.
- V40P automatic air vent to prevent unnecessary heat loss.

	WINDOWS WITH HIGHL	Y ENER	GY-EFF	ICIENT	TRIPLE	GLAZIN	IG IN N	ATURA	L PINE							
	windows external dimensions [cm]	55x78	55x98	55x118	66x98	66x118	78x98	78x118	78x140	78x160	94x118	94x140	114x118	114x140	134x98	94x160
	effective glazing area [m²] size symbol	0.21 01	0.29 02	<sup>0.37</sup> 16	0.38 03	<sup>0.47</sup> 04	<sup>0.47</sup>	0.59 06	0.72 07	0.82	0.75 08	<sup>0.92</sup>	<sup>0.95</sup>	1.16 11	0.92 12	0.75 80
NATURAL	FPP-V P5 preSelect P5 - Anti-burglary triple glazed unit. Class P2A U-value of window 0.97	-	£659	-	£659	£675	£675	£714	£763	-	£789	£855	-	-	-	-
NATI	FTP-V P5 P5 - Anti-burglary triple glazed unit. Class P2A U-value of window 0.97	£409	£424	£435	£458	£466	£446	£483	£516	POA	£577	£575	£587	£671	£570	£598
HITE	FPW-V P5 preSelect P5 - Anti-burglary triple glazed unit. Class P2A U-value of window 0.97		£652		£652	£669	£669	£707	£755	POA	£782	£846				
WHITE	FTW-V P5 P5 - Anti-burglary triple glazed unit. Class P2A U-value of window 0.97	£409	£424	£435	£454	£466	£446	£483	£516	£677	£572	£575	£587	£665	£570	£598

STANDARD FLASHING	<b>KITS FO</b> F	R USE W	ITH TRIP	PLE GL/	AZED WI	NDOW	S								
windows external dimensions [cm] size symbol	<b>55x78</b> 01	<b>55x98</b> 02	<b>55x118</b> 16	<b>66x98</b> 03	<b>66x118</b> 04	<b>78x98</b> 05	<b>78x118</b> 06	<b>78x140</b> 07	<b>78x160</b> 13	<b>94x118</b> 08	<b>94x140</b> 09	<b>114x118</b> 10	<b>114x140</b> 11	<b>134x98</b> 12	<b>94x160</b> 80
<b>EZV-A</b> for interlocking tiles up to 45mm profile	£55	£56	£64	£63	£66	£66	£68	£71	£88	£76	£79	£78	£88	£83	£86
<b>ELV</b> for non-interlocking slate up to 10mm thick	£55	£56	£64	£63	£66	£66	£68	£71	£88	£76	£79	£78	£88	£83	£86
<b>EPV</b> for plain tiles up to 16mm thick	£55	£56	£64	£63	£66	£66	£68	£71	£88	£76	£79	£78	£88	£83	£86
<b>EHN-A</b> for interlocking tiles up to 90mm profile	£65	£66	£70	£75	£75	£75	£78	£83	£93	£88	£92	£92	£101	£98	£96

**FULL FLASHING KIT** SELECTION page 32-35



#### WINDOWS WITH HIGHLY ENERGY-EFFICIENT TRIPLE GLAZING

IN WHITE POLYURETHANE AND PVC FINISH

- Top hung and pivot windows come with two independent opening mechanisms.
- The sash can be opened outwards from the top and via centre pivot.
- Traditional centre pivot operation.
- Windows equipped with highly energy-efficient double chamber glazing unit and internal glass laminated, anti-burglary class P2A. The window is particularly recommended for buildings where special emphasis is put on thermal energy savings.
- 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 polyurethane paint.
- V40P automatic air vent to prevent unnecessary heat loss.



- PVC profile with steel reinforcement for a smooth, wipe clean finish.
- Available in white, golden oak or natural pine veneer finishes.
- V35 air inlet.

WINDOW	S WITH HIGHI	LY ENER	GY-EFF	ICIENT	TRIPLE	GLAZIN	IG IN N	ATURA	L PINE I	N WHIT	E POLY	URETH		ID PVC	FINISH	
windows externa	l dimensions [cm]	55x78	55x98	55x118	66x98	66x118	78x98	78x118	78x140	78x160	94x118	94x140	114x118	114x140	134x98	94x160
effective glazing size symbol	area [m²]	0.21 01	0.29 02	<sup>0.37</sup> 16	<sup>0.38</sup>	0.47 04	0.47 05	0.59 06	0.72 07	0.82	0.75 08	0.92 09	0.95	1.16 11	0.92 12	<sup>0.75</sup>
FPU-V P5 pr P5 - Anti-burglary tri U-value of window 0 FTU-V P5 P5 - Anti-burglary tri U-value of window 0	ole glazed unit. Class P2A	-	£719	-	£719	£745	£745	£780	£836	-	£871	£923	-	-	-	
FTU-V P5 P5 - Anti-burglary tri U-value of window 0	ole glazed unit. Class P2A 97	£471	£488	£502	£525	£541	£516	£562	£604	£768	£672	£678	£692	£806	£671	£706
PPP-V P5 pr P5 - Anti-burglary tri U-value of window 1	ole glazed unit. Class P2A	-	£794	-	£794	£843	£843	£910	£977	-	-	-	-	-		-
<b>PTP-V P5</b> P5 - Anti-burglary tr U-value of window 1	ple glazed unit. Class P2A 1	£494	£530	£550	£550	£592	£592	£638	£720		£730	£760		-	-	-

STANDARD FLASHING	KITS FOF	R USE W	<b>ITH TRI</b>	PLE GL/	AZED WI	NDOW	S								
windows external dimensions [cm] size symbol	<b>55x78</b> 01	<b>55x98</b> 02	<b>55x118</b> 16	<b>66x98</b> 03	<b>66x118</b> 04	<b>78x98</b> 05	<b>78x118</b> 06	<b>78x140</b> 07	<b>78x160</b> 13	<b>94x118</b> 08	<b>94x140</b> 09	<b>114x118</b> 10	<b>114x140</b> 11	<b>134x98</b> 12	<b>94x160</b> 80
<b>EZV-A</b> for interlocking tiles up to 45mm profile	£55	£56	£64	£63	£66	£66	£68	£71	£88	£76	£79	£78	£88	£83	£86
<b>ELV</b> for non-interlocking slate up to 10mm thick	£55	£56	£64	£63	£66	£66	£68	£71	£88	£76	£79	£78	£88	£83	£86
<b>EPV</b> for plain tiles up to 16mm thick	£55	£56	£64	£63	£66	£66	£68	£71	£88	£76	£79	£78	£88	£83	£86
EHN-A for interlocking tiles up to 90mm profile	£65	£66	£70	£75	£75	£75	£78	£83	£93	£88	£92	£92	£101	£98	£96

BLINDS & ACCESSORIES pages 40-45



#### WINDOWS WITH ELECTRIC Z-WAVE CONTROL

#### IN NATURAL PINE AND WHITE ACRYLIC FINISH

- Traditional centre pivot operation.
- Electrically operated pivot roof windows equipped with the Z-Wave system as standard.
- Integrated window control mechanism (actuator and power supply) is situated under an aesthetic aluminium cover fitted in the lower part of the frame.
- Actuator with a reach of 24 cm makes it possible to open and close the sash.
- Built-in ZRD rain sensor automatically initiates the sash closing function when the first rain drops appear.
- Suitable for pitches from 15-90°.



NATURAL

WHITE

- High quality close-grain vacuum impregnated pine guaranteed to be knot-free, finished with natural acrylic lacquer.
- V40P automatic air vent to prevent unnecessary heat loss.



- High quality close-grain vacuum impregnated pine guaranteed to be knot-free, finished with white acrylic paint.
- V40P automatic air vent to prevent unnecessary heat loss.

	WINDOWS WITH ELECT	RIC Z-W	AVE CO	ONTROL	. IN NA	TURAL F	PINE AN	ND WHI	TE ACR	<b>YLIC FIN</b>	IISH					
	windows external dimensions [cm]	55x78	55x98	55x118	66x98	66x118	78x98	78x118	78x140	78x160	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	0.82	0.75	0.92	0.95	1.16	0.92	0.75
	size symbol	01	02	16	03	04	05	06	07	13	08	09	10	11	12	80
PINE	FTP-V P2 Z-Wave P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.3	£554	£569	£580	£601	£611	£591	£628	£661	£784	£714	£720	£732	£792	£715	£743
Ы	FTP-V P5 Z-Wave P5 - Anti-burglary triple glazed unit. Class P2A U-value of window 0.97	£719	£734	£745	£763	£776	£756	£793	£826	-	£878	£885	-	-	-	-
ACRYLIC	FTW-V P2 Z-Wave P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.3	£554	£569	£580	£607	£611	£591	£628	£661	£792	£721	£720	£732	£800	£715	£743
ACF	FTW-V P5 Z-Wave P5 - Anti-burglary triple glazed unit. Class P2A U-value of window 0.97	£719	£734	£745	£763	£776	£756	£793	£826	-	£878	£885	-	-	-	-

STANDARD FLASHING K	<b>ITS FOF</b>	R USE W	ITH Z-W	AVE EL	ECTRIC	WINDO	WS								
windows external dimensions [cm] size symbol	<b>55x78</b> 01	<b>55x98</b> 02	<b>55x118</b> 16	<b>66x98</b> 03	<b>66x118</b> 04	<b>78x98</b> 05	<b>78x118</b> 06	<b>78x140</b> 07	<b>78x160</b> 13	<b>94x118</b> 08	<b>94x140</b> 09	<b>114x118</b> 10	<b>114x140</b> 11	<b>134x98</b> 12	<b>94x160</b> 80
<b>EZV-A</b> for interlocking tiles up to 45mm profile	£55	£56	£64	£63	£66	£66	£68	£71	£88	£76	£79	£78	£88	£83	£86
<b>ELV</b> for non-interlocking slate up to 10mm thick	£55	£56	£64	£63	£66	£66	£68	£71	£88	£76	£79	£78	£88	£83	£86
<b>EPV</b> for plain tiles up to 16mm thick	£55	£56	£64	£63	£66	£66	£68	£71	£88	£76	£79	£78	£88	£83	£86
EHN-A for interlocking tiles up to 90mm profile	£65	£66	£70	£75	£75	£75	£78	£83	£93	£88	£92	£92	£101	£98	£96

FULL FLASHING KIT SELECTION page 32-35 BLINDS & ACCESSORIES pages 40-45

\* ALL WINDOWS AVAILABLE IN NON VENTED ON REQUEST



### WINDOWS WITH ELECTRIC Z-WAVE CONTROL

#### IN WHITE POLYURETHANE AND PVC FINISH

- Traditional centre pivot operation.
- Electrically operated pivot roof windows equipped with the Z-Wave system as standard.
- Integrated window control mechanism (actuator and power supply) is situated under an aesthetic aluminium cover fitted in the lower part of the frame.
- Actuator with a reach of 24 cm makes it possible to open and close the sash.
- Built-in ZRD rain sensor automatically initiates the sash closing function when the first rain drops appear.
- Suitable for pitches from 15-90°.



- High quality close-grain vacuum impregnated pine guaranteed to be knot-free, finished with white polyure-thane paint.
- V40P automatic air vent to prevent unnecessary heat loss.



- PVC profile with steel reinforcement for a smooth, wipe clean finish.
- Available in white, golden oak or natural pine veneer finishes.
- V35 air inlet.

	WINDOWS WITH ELECT	RIC Z-W	AVE CO	ONTROL	. IN WH	ITE POL	YURET	HANE A	ND PV	<b>C FINIS</b>	н					
	windows external dimensions [cm]	55x78	55x98	55x118	66x98	66x118	78x98	78x118	78x140	78x160	94x118	94x140	114x118	114x140	134x98	94x160
	effective glazing area [m²] size symbol	0.21 01	0.29 02	<sup>0.37</sup> 16	0.38 03	0.47 04	<sup>0.47</sup>	0.59 06	<sup>0.72</sup>	<sup>0.82</sup>	0.75 08	0.92 09	0.95 10	1.16 11	0.92 12	0.75 80
itte ethane	FTU-V P2 Z-Wave P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.3	£616	£633	£647	£670	£686	£661	£707	£749	855,00	£804	£823	£837	£866	£816	£851
POLYURETH/	FTU-V P5 Z-Wave P5 - Anti-burglary triple glazed unit. Class P2A U-value of window 0.97	£781	£798	£812	£835	£851	£826	£872	£914	-	£969	£988	-	-	-	-
PVC	PTP-V P2 Z-Wave P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.3	£659	£675	£685	£690	£700	£700	£726	£773	£814	£778	£958	£973	£994	£963	£865
Ā	PTP-V P5 Z-Wave P5 - Anti-burglary triple glazed unit. Class P2A U-value of window 1.1	£857	£878	£891	£898	£932	£932	£973	-	-	-	-	-	-	-	-

STANDARD FLASHING	<b>KITS FOF</b>	R USE W	ITH Z-W	AVE EL	ECTRIC	WINDO	WS								
windows external dimensions [cm] size symbol	<b>55x78</b> 01	<b>55x98</b> 02	<b>55x118</b> 16	<b>66x98</b> 03	<b>66x118</b> 04	<b>78x98</b> 05	<b>78x118</b> 06	<b>78x140</b> 07	<b>78x160</b> 13	<b>94x118</b> 08	<b>94x140</b> 09	<b>114x118</b> 10	<b>114x140</b> 11	<b>134x98</b> 12	<b>94x160</b> 80
<b>EZV-A</b> for interlocking tiles up to 45mm profile	£55	£56	£64	£63	£66	£66	£68	£71	£88	£76	£79	£78	£88	£83	£86
ELV for non-interlocking slate up to 10mm thick	£55	£56	£64	£63	£66	£66	£68	£71	£88	£76	£79	£78	£88	£83	£86
<b>EPV</b> for plain tiles up to 16mm thick	£55	£56	£64	£63	£66	£66	£68	£71	£88	£76	£79	£78	£88	£83	£86
<b>EHN-A</b> for interlocking tiles up to 90mm profile	£65	£66	£70	£75	£75	£75	£78	£83	£93	£88	£92	£92	£101	£98	£96

BLINDS & ACCESSORIES pages 40-45

#### \* ALL WINDOWS AVAILABLE IN NON VENTED ON REQUEST



#### **Z-WAVE ELECTRICAL CONTROL ELEMENTS**

Z-Wave - radio control - each window comes complete with a ZRH12 remote control and rain sensor a allows the operation of both internal and external accessories. A weather module can also be fitted to the system if required. The Z-Wave window is compatible with similar z-wave products and ca be linked to a home intelligence system.

A bridge module allows the user to operate roof windows and both internal and external accessories by means of another control system. The range of Z-Wave products also includes external accessories the solar version which are excellent solution to be applied in places where providing power supply is problematic.



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



• Z-Wave wall keyboard control can operate up to 12 of FAKRO Z-Wave devices in each of the seven groups.



• Designed for all FAKRO Z-Wave devices, also in the SOLAR version. This can control up to 12 devices in 12 groups using an ergonomic joystick.



• Button and radio module installed in flush mounted box, used for remote control of single Z-Wave receiver or in groups.



• Button and radio module installed in flush mounted box, used for remote control of two Z-Wave receiver or two groups of FAKRO Z-Wave devices.





# 22 60 22 60Н £104 £104 22 60 22 60H £104 £104 22 60 22 60H

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



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



SAMPLE USE OF FAKRO Z-WAVE PRODUCTS

a remote control and wall switch.

windows in cooperation with a bridge module.

The Z-Wave roof windows are connected to 230V AC. A remote control with an ergonomic joystick operates windows individually or simultaneously. Wall keyboards and radio switches act as additional controllers. Detectors close windows when it starts raining. Weather module in cooperation with wind and smoke detectors are responsible for the safety of the building. Internal and external accessories are connected to Z-Wave windows that are factory equipped with electrical wiring. Shutters are assigned to

An advanced controller with a display triggers scenes. Another system (eg emergency) manages

• 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).



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



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

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



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



#### HIGH ENERGY-EFFICIENT PIVOT WINDOWS

#### IN NATURAL PINE

- Pivot windows featuring a specialist and innovatory design.
- Windows turn through 180° to clean outer pane within the room.
- Operating handle in the base of the sash for ease of use.
- Suitable for pitches from 15° 70°.



- High quality close-grain vacuum impregnated pine guaranteed to be knot-free, finished with natural acrylic lacquer.
- · Quadruple glazed and fivefold seal airtight construction.
- Supplied complete with thermal flashing and XDK insulation kit.

NATURAL

SELECTION page 32-35



- High quality close-grain vacuum impregnated pine guaranteed to be knot-free, finished with natural acrylic lacquer.
- Triple glazed and fivefold seals.



- High quality close-grain vacuum impregnated pine guaranteed to be knot-free, finished with natural acrylic lacquer.
- Triple glazed and fivefold seals.
- Sound reduction glazing unit (Rw =42dB).

HIGHLY ENERGY - EFF				VENITE	D - NAT										
windows external dimensions [cm]	55x78	55x98	55x118	66x98	66x118	78x98	78x118	78x140	78x160	94x118	94x140	114x118	114x140	134x98	94x160
effective glazing area [m²]	0.21	0.29	<sup>0.37</sup>	0.38	0.47	0.47	0.59	0.72	0.82	0.75	0.92	0.95	1.16	0.92	0.75
size symbol	01	02	16	03	04	05	06	07	13	08	09	10	11	12	80
FTT U8 Thermo U8 - Passive quadruple glazed unit. U-value of window 0.58*	-	£1016	£1067	£1081	£1134	£1142	£1271	£1406	£1634	£1464	£1510	£1524	£1712	£1552	£1852
FTT U6 U6 - High energy efficient triple glazed unit. U-value of window 0.80	-	£588	£614	£614	£651	£651	£736	£814	£945	£852	£875	£879	£983	£930	£1073
FTT R3 R3 - Sound reducing triple glazed unit. U-value of window 0.81	-	£616	£648	£648	£688	£684	£775	£860	£999	£902	£926	£932	£1052	£950	£1138

\*WINDOW U-VALUE WHEN INSTALLED WITH THERMAL FLASHING. PRICES AVAILABLE ON REQUEST FOR THERMAL FLASHINGS.

NOTE - WHEN ORDERING THE FTT U8 WINDOW PLEASE STATE THE FLASHING KIT TYPE REQUIRED AS THEY ARE INCLUSIVE WITH THIS WINDOW.

STANDARD FLASHING	KITS FOF	R USE W	ITH FTT	U6 & F	TT R3 W	INDOV	/S								
windows external dimensions [cm] size symbol	<b>55x78</b> 01	<b>55x98</b> 02	<b>55x118</b> 16	<b>66x98</b> 03	<b>66x118</b> 04	<b>78x98</b> 05	<b>78x118</b> 06	<b>78x140</b> 07	<b>78x160</b> 13	<b>94x118</b> 08	<b>94x140</b> 09	<b>114x118</b> 10	<b>114x140</b> 11	<b>134x98</b> 12	<b>94x160</b> 80
<b>EZV-A</b> for interlocking tiles up to 45mm profile	£55	£56	£64	£63	£66	£66	£68	£71	£88	£76	£79	£78	£88	£83	£86
<b>ELV</b> for non-interlocking slate up to 10mm thick	£55	£56	£64	£63	£66	£66	£68	£71	£88	£76	£79	£78	£88	£83	£86
<b>EPV</b> for plain tiles up to 16mm thick	£55	£56	£64	£63	£66	£66	£68	£71	£88	£76	£79	£78	£88	£83	£86
EHN-A for interlocking tiles up to 90mm profile	£65	£66	£70	£75	£75	£75	£78	£83	£93	£88	£92	£92	£101	£98	£96
FULL FLASHING KIT															



ASHING KITS ARE AVAILABLE FOR USE WITH THE FTT U6 & R3 WINDOWS. **SEE PAGE 32-33 FOR DETAILS** 



#### **HIGH ENERGY EFFICIENT PIVOT WINDOWS**

- IN WHITE ACRYLIC AND WHITE POLYURETHANE FINISH
- Pivot windows featuring a specialist and innovatory design.
- Windows turn through 180° to clean outer pane within the room.
- Operating handle in the base of the sash for ease of use.
- Suitable for pitches from 15° 70°.



- High quality close-grain vacuum impregnated pine guaranteed to be knot-free, finished with white acrylic paint or white polyurethane varnish.
- Quadruple glazed and fivefold seal airtight construction.
- Supplied complete with thermal flashing and XDK insulation kit.

WHITE

WHITE



- High guality close-grain vacuum impregnated pine guaranteed to be knot-free, finished with white acrylic paint or white polyurethane varnish.
- Triple glazed and fivefold seals.



- FTT/U R3
- High quality close-grain vacuum impregnated pine guaranteed to be knot-free, finished with white acrylic paint or white polyurethane varnish.
- Triple glazed and fivefold seals. • Sound reduction glazing unit (Rw =42dB).

	HIGHLY ENERGY - EFFIC	CIENTW	INDOV	<b>VS NON</b>	VENTE	D - WHI	TE ACR	YLIC AN	ID WHI.	TE POL	URETH	IANE FI	NISH			
	windows external dimensions [cm]	55x78	55x98	55x118	66x98	66x118	78x98	78x118	78x140	78x160	94x118	94x140	114x118	114x140	134x98	94x160
	effective glazing area [m²] size symbol	0.21 01	0.29 02	<sup>0.37</sup> 16	0.38 03	0.47 04	0.47 05	0.59 06	0.72 07	0.82	0.75 08	0.92 09	0.95 10	1.16 11	0.92 12	0.75 80
	FTT/W U8 Thermo U8 - Passive quadruple glazed unit. U-value of window 0.58*	-	£1049	£1102	£1114	£1169	£1178	£1310	£1448	£1685	£1510	£1556	£1569	£1763	£1595	£1907
ACRYLIC	FTT/W U6 U6 - High energy efficient triple glazed unit. U-value of window 0.80	-	£588	£614	£614	£651	£651	£736	£814	£945	£852	£875	£879	£983	£930	£1073
	FTT/W R3 R3 - Sound reducing triple glazed unit. U-value of window 0.81	-	£616	£648	£648	£688	£684	£775	£860	£999	£902	£926	£932	£1052	£950	£1138
ANE	FTT/U U8 Thermo U8 - Passive quadruple glazed unit. U-value of window 0.58*	-	£1089	£1151	£1157	£1220	£1226	£1365	£1512	£1748	£1576	£1627	£1644	£1835	£1668	£1985
	<b>FTT/U U6</b> U6 - High energy efficient triple glazed unit. U-value of window 0.80	-	£645	£673	£673	£712	£712	£810	£893	£1038	£933	£961	£967	£1093	£989	£1181
POLYUF	FTT/U R3 R3 - Sound reducing triple glazed unit. U-value of window 0.81	-	£680	£712	£712	£756	£756	£852	£960	£1099	£991	£1018	£1025	£1158	£1045	£1252

\*WINDOW U-VALUE WHEN INSTALLED WITH THERMAL FLASHING. PRICES AVAILABLE ON REQUEST FOR THERMAL FLASHINGS.

NOTE - WHEN ORDERING THE FTT US WINDOW PLEASE STATE THE FLASHING KIT TYPE REQUIRED AS THEY ARE INCLUSIVE WITH THIS WINDOW.

STANDARD FLASHING KITS FOR USE WITH FTT U6 & FTT R3 WINDOWS															
windows external dimensions [cm] size symbol	<b>55x78</b> 01	<b>55x98</b> 02	<b>55x118</b> 16	<b>66x98</b> 03	<b>66x118</b> 04	<b>78x98</b> 05	<b>78x118</b> 06	<b>78x140</b> 07	<b>78x160</b> 13	<b>94x118</b> 08	<b>94x140</b> 09	<b>114x118</b> 10	<b>114x140</b> 11	<b>134x98</b> 12	<b>94x160</b> 80
<b>EZV-A</b> for interlocking tiles up to 45mm profile	£55	£56	£64	£63	£66	£66	£68	£71	£88	£76	£79	£78	£88	£83	£86
<b>ELV</b> for non-interlocking slate up to 10mm thick	£55	£56	£64	£63	£66	£66	£68	£71	£88	£76	£79	£78	£88	£83	£86
<b>EPV</b> for plain tiles up to 16mm thick	£55	£56	£64	£63	£66	£66	£68	£71	£88	£76	£79	£78	£88	£83	£86
EHN-A for interlocking tiles up to 90mm profile	£65	£66	£70	£75	£75	£75	£78	£83	£93	£88	£92	£92	£101	£98	£96

THERMO INSUALTED FLASHING KITS ARE AVAILABLE FOR USE WITH THE FTT U6 & R3 WINDOWS. **SEE PAGE 32-33 FOR DETAILS** 



# WINDOWS WITH RAISED AXIS OF ROTATION – HIGH PIVOT proSky

IN NATURAL PINE, WHITE POLYURETHANE AND PVC FINISH

- Richly equipped pivot window with axis of rotation situated above the centre of the window, this gives more head space.
- The sash can be rotated through 160° and locked allowing safe and easy cleaning of the outer pane.
- Suitable for pitches from 20° 65°.



- High quality close-grain vacuum impregnated pine guaranteed to be knot-free, finished with natural acrylic lacquer.
- V40P automatic air vent to prevent unnecessary heat loss.



- High quality close-grain vacuum impregnated pine guaranteed to be knot-free, finished with white acrylic paint other white polyurethane paint.
- V40P automatic air vent to prevent unnecessary heat loss.

	WINDOWS WITH RAISE	D AXIS O	F ROTAT	ION - HIG	<b>SH PIVOT</b>	<sup>•</sup> proSky	
	windows external dimensions [cm]	78x160	78x180	78x206	94x160	94x180	94x206
		п	п				
	effective glazing area [m <sup>2</sup> ]	0.85	0.92	1.19	1.07	1.22	1.46
	size symbol	13	40	42	80	41	43
AL PINE	FYP-V P2 proSky P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.3	£630	£689	£756	£714	£777	£842
NATURAL	<b>FYP-V P5 proSky</b> P5 - Anti-burglary triple glazed unit. Class P2A U-value of window 0.97	£943	£1040	£1126	-	£1178	-
WHITE ACRYLIC	FYW-V P2 proSky P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.3	£697	£772	£835	£781	£878	£964
ACF	FYW-V P5 proSky P5 - Anti-burglary triple glazed unit. Class P2A U-value of window 0.97	£985	£1114	£1222	-	£1265	-
WHITE POLYURETHANE	FYU-V P2 proSky P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.3	£718	£781	£851	£809	£905	£991
POLYURE	<b>FYU-V P5 proSky</b> P5 - Anti-burglary triple glazed unit. Class P2A U-value of window 0.97	£1019	£1136	£1243	-	£1285	-

FOR USE WITH HIGH PIVOT proSky WINDOWS												
windows external dimensions [cm] size symbol	<b>78x160</b> 13	<b>78x180</b> 40	<b>78x206</b> 42	<b>94x160</b> 80	<b>94x180</b> 41	<b>94x206</b> 43						
<b>EZV-A</b> for interlocking tiles up to 45mm profile	£74	£78	£77	£82	£86	£130						
<b>ELV</b> for non-interlocking slate up to 10mm thick	£74	£78	£77	£82	£86	£130						
<b>EPV</b> for plain tiles up to 16mm thick	£74	£78	£77	£82	£86	£130						
EHN-A for interlocking tiles up to 90mm profile	£95	£118	£134	£97	£137	£150						

FULL FLASHING KIT SELECTION page 32-35 BLINDS & ACCESSORIES pages 40-45



# WINDOWS WITH RAISED AXIS OF ROTATION – HIGH PIVOT Duet proSky

IN NATURAL PINE AND WHITE POLYURETHANE FINISH

- The upper sash is opened like a pivot window but its axis of rotation is situated above the centre of the window, this gives more head space.
- A duet proSky window eliminates the need for traditional vertical combinations, hence offering a greater illumination area.
- The sash can be rotated through 160° and locked allowing safe and easy cleaning of the outer pane.
- Suitable for pitches from 25° 65°.



- High quality close-grain vacuum impregnated pine guaranteed to be knot-free, finished with natural acrylic lacquer.
- V40P automatic air vent to prevent unnecessary heat loss.



- High quality close-grain vacuum impregnated pine guaranteed to be knot-free, finished with white acrylic paint or white polyurethane varnish.
- V40P automatic air vent to prevent unnecessary heat loss.

WINDOWS WITH RAISE	D AXIS O	F ROTATI	ON – HIC	SH PIVOT	Duet pr	oSky
windows external dimensions [cm]	78x206	78x235*	78x255	94x206	94x235	94x255
top sash dimensions [cm]	78x160	78x160	78x160	94x160	94x160	94x160
bottom sash dimensions [cm]	78x50	78x78	78x98	94x50	94x78	94x98
size symbol	CB	CC	CD	DB	DC	DD
FDY-V P2 Duet proSky P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.3	£887	£1031	1077,3	£956	£1098	£1147
FDY-V/U P2 Duet proSky P2-Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.3	£995	£1157	1199	£1050	£1210	£1264

FOR USE WITH Duet proSky WINDOWS												
windows external dimensions [cm] size symbol	78x206 CB	<b>78x235</b> * CC	78x255 CD	<b>94x206</b> DB	<b>94x235</b> DC	94x255 DD						
<b>EZV-A</b> for interlocking tiles up to 45mm profile	£124	£137	£139	£139	£153	£166						
<b>ELV</b> for non-interlocking slate up to 10mm thick	£124	£137	£139	£139	£153	£166						
EPV for plain tiles up to 16mm thick	£124	£137	£139	£139	£153	£166						
EHN-A for interlocking tiles up to 90mm profile	£137	£147	149,1	£155	£172	£187						

FULL FLASHING KIT SELECTION page 32-35

& ACCESSORIES pages 40-45

\* ALL WINDOWS AVAILABLE IN NON VENTED ON REQUEST



### L-SHAPED COMBINATION WINDOWS

#### IN NATURAL PINE

- Designed for installation in a vertical wall within the loft space (dwarf wall) to extend the roof window into the wall.
- Improved illumination of the room and enhanced field of view.
- Can be combined with roof windows of any design.
- The internal as well as external L-shaped windows' profiles match perfectly with the rest of FAKRO roof windows, creating the same decorative pattern.
- Wide range of additional accessories.
- Suitable for pitches from 15° 55°.



BDR (right) BDL (left)

- High quality close-grain vacuum impregnated pine guaranteed to be knot-free, finished with natural acrylic lacquer.
- Can be opened in tilt and turn. The sash can be tilted up to 11cm and opened up to 90°. Both opening methods are performed using one handle situated on the side of the sash. This window type comes with a lock as standard.



- High quality close-grain vacuum impregnated pine guaranteed to be knot-free, finished with natural acrylic lacquer.
- In tilt opening function. The sash can be tilted up to 11cm. Handle with a lock placed in the top part of the sash.



- High quality close-grain vacuum impregnated pine guaranteed to be knot-free, finished with natural acrylic lacquer.
- Is non-opening.

L-SHAPED COMBINATION WINDOWS IN NATURAL PINE												
windows external dimensions [cm]	78x60	78x75	78x95	78x115	78x137	94x75	94x95	114x75	114x95			
effective glazing area [m²] size symbol	0.25 33	<sup>0.33</sup>	<sup>0.45</sup> 82	<sup>0.57</sup>	<sup>0.71</sup>	<sup>0.42</sup> 85	0.58 86	0.53 89	0.73 90			
- DOUBLE GLAZED												
BDL P2, BDR P2 P2-Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.3	£503	£558	£604	£672	£743	£596	£662		£715			
BVP P2 P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.3	£362	£380	£402	£452	£497	£422	£448	£449	£467			
BXP P2 P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.3	£295	£307	£319	£356	£386	£331	£347	£402	£444			
- TRIPLE GLAZED												
BDL P5, BDR P5 P5 - Anti-burglary triple glazed unit. Class P2A U-value of window 0.88	£712	£773	£844	£934	£1030	£836	£924		£995			
BVP P5 PS - Anti-burglary triple glazed unit. Class P2A U-value of window 0.88	£596	£626	£657	£747	£808	£697	£727	£737	£758			
<b>BXP P5</b> P5 - Anti-burglary triple glazed unit. Class P2A U-value of window 0.88	£520	£545	£566	£636	£692	£596	£626	£687	£737			

STANDARD FLASHING KITS FOR L-SHAPED COMBINATION												
windows external dimensions [cm] size symbol	<b>78x98</b> 05	<b>78x118</b> 06	<b>78x140</b> 07	<b>94x118</b> 08	<b>94x140</b> 09	<b>114x118</b> 10	<b>114x140</b> 11	<b>134x98</b> 12				
EUV-L/B for slate	£174	£184	£197	£193	£195	£195	£204	£202				
EUV/B for tiles	£145	£152	£160	£160	£160	£160	£163	£162				



#### L-SHAPED COMBINATION WINDOWS

#### IN WHITE ACRYLIC AND WHITE POLYURETHANE FINISH

- Designed for installation in a vertical wall within the loft space (dwarf wall) to extend the roof window into the wall.
- Improved illumination of the room and enhanced field of view.
- Can be combined with roof windows of any design.
- The internal as well as external L-shaped windows' profiles match perfectly with the rest of FAKRO roof windows, creating the same decorative pattern.
- Wide range of additional accessories.
- Suitable for pitches from 15° 55°.



• High quality close-grain vacuum - impregnated pine guaranteed to be knot-free, finished with white acrylic paint or white polyurethane varnish.

• Can be opened in tilt and turn. The sash can be tilted up to 11cm and opened up to 90°. Both opening methods are performed using one handle situated on the side of the sash. This window type comes with a lock as standard.

NOLVI DET LAN



- High quality close-grain vacuum impregnated pine guaranteed to be knot-free, finished with white acrylic paint or white polyurethane varnish.
- In tilt opening function. The sash can be tilted up to 11cm. Handle with a lock placed in the top part of the sash.



 High quality close-grain vacuum - impregnated pine guaranteed to be knot-free, finished with white acrylic paint or white polyurethane varnish.

• Is non-opening.

	L-SHAPED COMBINATIO	ON WINE	DOWS IN	WHITE	ACRYLI		<b>WHITE P</b>	OLYURI	THANE	FINISH			
	windows external dimensions [cm]	78x60	78x75	78x95	78x115	78x137	94x75	94x95	114x75	114x95			
	effective glazing area [m <sup>2</sup> ] size symbol	0.25 33	0.33 81	<sup>0.45</sup>	<sup>0.57</sup>	<sup>0.71</sup>	<sup>0.42</sup> 85	<sup>0.58</sup>	<sup>0.53</sup>	0.73 90			
	- DOUBLE GLAZED												
	BDL/W P2, BDR/W P2 P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.3	£533	£586	£636	£711	£780	£624	£692		£747			
	<b>BVW P2</b> P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.3	£415	£426	£449	£503	£551	£471	£497	£497	£513			
RYLIC	BXW P2 P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.3	£333	£348	£364	£409	£439	£379	£392	£455	£500			
EAC	- TRIPLE GLAZED												
WHITE ACRYLIC	BDL/W P5, BDR/W P5 P5 - Anti-burglarytriple glazed unit. Class P2A U-value of window 0.88	£731	-	£855	£966	£1054	£855	£932	-				
	<b>BVW P5</b> P5 - Anti-burglary triple glazed unit. Class P2A U-value of window 0.88	£636	£662	£707	£788	£869	£737	£788	£778	£808			
	<b>BXW P5</b> P5 - Anti-burglary triple glazed unit. Class P2A U-value of window 0.88	£556	£586	£616	£687	£747	£636	£667	£737	£788			
	- DOUBLE GLAZED												
	BDL/U P2, BDR/U P2 P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.3	£570	£601	£580	£725	£803	£642	£717	-	£773			
ш	<b>BVU P2</b> P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.3	£412	£434	£459	£517	£570	£485	£513	£513	£529			
RETHAN	<b>BXU P2</b> P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.3	£359	£373	£390	£435	£475	£404	£426	£488	£539			
DLYU	- TRIPLE GLAZED												
white polyurethane	BDL/U P5, BDR/U P5 P5 - Anti-burglary triple glazed unit. Class P2A U-value of window 0.88	£759	£790	£780	£1003	£1100	£889	£986		£990			
Ś	<b>BVU P5</b> P5 - Anti-burglary triple glazed unit. Class P2A U-value of window 0.88	£646	£687	£727	£818	£899	£758	£808	£808	£828			
	<b>BXU P5</b> P5 - Anti-burglary triple glazed unit. Class P2A U-value of window 0.88	£576	£606	£612	£707	£773	£657	£697	£758	£818			



#### BALCONY WINDOW

#### IN NATURAL PINE AND WHITE POLYURETHANE FINISH

- The contemporary alternative to a dormer a far lower cost. The 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.
- Suitable for pitches: 35° 55° FGH-V P2, 40° 55° FGH-V P5.





• V40P automatic air vent to prevent unnecessary heat loss.



- High quality close-grain vacuum impregnated pine guaranteed to be knot-free, finished with white acrylic paint.
- V40P automatic air vent to prevent unnecessary heat loss.



- High quality close-grain vacuum impregnated pine guaranteed to be knot-free, finished with white polyurethane varnish.
- V40P automatic air vent to prevent unnecessary heat loss.

	BALCONY WINDOW			
	windows external dimensions [cm] top sash dimensions [cm] bottom sash dimensions [cm]	<b>78x255</b> 78x160 78x98	<b>94x255</b> 94x160 94x98	<b>114x255</b> 114x160 114x98
	size symbol	CD	DD	ED
NATURAL PINE	FGH-V P2 Galeria P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.5	£2300	£2300	£2450
NATUR	FGH-V P5 Galeria P5 - Anti-burglary triple glazed unit. Class P2A U-value of window 1.1	£2750	£2750	-
	FGH-V/W P2 Galeria P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.5	£2438	£2438	£2700
ACR	FGH-V/W P5 Galeria P5 - Anti-burglary triple glazed unit. Class P2A U-value of window 1.1	£2872	£2872	
IITE Ethane	FGH-V/U P2 Galeria P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.5	£2448	£2448	£2900
POLYUR	FGH-V/U P5 Galeria P5 - Anti-burglary triple glazed unit. Class P2A U-value of window 1.1	£2882	£2882	-

THE PRICE SHOWN FOR THE BALCONY WINDOW INCLUDES SINGLE FLASHING KIT — PLEASE CHOOSE WHICH KIT IS REQUIRED AT THE TIME OF ORDER FROM THE TABLE IN RIGHT.

FLASHINGS FOR BALCONY WINDOW												
windows external dimensions [cm] size symbol	78x255 CD	94x255 DD	114x255 ED									
EZV-A/G for interlocking tiles up to 45mm profile	$\checkmark$	$\checkmark$	$\checkmark$									
ELV/G for non-interlocking slate up to 10mm thick	~	$\checkmark$	$\checkmark$									
<b>EPV/G</b> for plain tiles up to 16mm thick	~	$\checkmark$	$\checkmark$									
EHN-A/G for interlocking tiles up to 90mm profile	$\checkmark$	$\checkmark$	$\checkmark$									



- Flashings E\_\_ / G are designed for balcony windows FGH-V Galeria. Flashings ensure a tight connection for the roof window in the roof slope. They are additionally marked with the letter G.
- Style flashing kits available:
- ESV/G\* for flat roof coverings up to 10mm thickness (2 x5mm): roofing felt, shingles.
- EHN-AT/G Thermo\* universal flashing with an additional thermal insulation designed for the majority of roof coverings up to 90mm profile depth.
- Conservation style flashing kits are available.



NATURAL PINE

WHITE ACRYLIC

WHITE POLYURETHANE

PVC

#### CONSERVATION STYLE WINDOWS

IN NATURAL PINE, WHITE ACRYLIC AND WHITE POLYURETHANE FINISH

- The FAKRO window with a mullion bar is designed for historic or stylised buildings. Its characteristic feature is black vertical mullion bar in the middle of the glazing, cladding and flashing (colour RAL 9005) which suits traditional construction.
- By using FAKRO windows with a mullion bar we can keep the unique, historic character of the building from the outside and create a comfortable and modern interior. Windows with a mullion bar feature all advantages of FAKRO roof windows. They are available in standard sizes in the following versions: pivot windows, top hung and pivot windows and roof access windows.
- Kits include window, flashing & undercollar felt.

	windows external dimensions [cm]	55x78	55x98	55x118	66x98	66x118	78x98	78x118	78x140	78x160	94x118	94x140	114x118	114x140	134x98	94x160
	effective glazing area [m <sup>2</sup> ]	0.21	029	0.37	0.38	0.47	0.47	0.59	0.72	0.82	0.75	0.92	0.95	1.16	0.92	0.75
	size symbol	01	02	16	03	04	05	06	07	13	08	09	10	11	12	80
	CENTRE PIVOT ROOF WINDO	WS														
	FTP-V/C P2 (V* Kit) P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.3	£414	£426	£442	£473	£491	£497	£517	£558	£699	£618	£640	£654	£717	£652	£776
	FTP-V/C P2 (J* Kit) P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.3	£436	£484	£502	£507	£555	£545	£584	£629	£742	£654	£699	£727	£768	£732	£850
	FTP-V/C P2 P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.3	£339	£364	£369	£388	£402	£406	£455	£493	£561	£507	£523	£539	£588	£598	£632
	FTP-V/C P5 P5 - Anti-burglary triple glazed unit. Class P2A U-value of window 0.97	£562	£606	£636	£638	£673	£675	£752	£850		£865	£901	£934	£1020	£919	•
	FTP-V/C P2 Z-Wave P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.3	£729	£770	£808	£810	£871	£883	£944	£974	£1008	£995	£1022	£1032	£1079	£1032	£1069
	FTP-V/C P5 Z-Wave P5 - Anti-burglary triple glazed unit. Class P2A U-value of window 0.97	£818	£859	£907	£911	£960	£972	£1058	£1115	-	£1141	-	-	-	-	•
	CENTRE PIVOT ROOF WINDO	WS														
	FTW-V/C P2 (V*Kit) P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.3	£418	£426	£442	£477	£491	£500	£517	£572	£705	£624	£644	£661	£719	£652	£776
,	FTW-V/C P2 (J*Kit) P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.3	£453	£483	£501	£525	£554	£566	£583	£628	£763	£677	£722	£745	£785	£731	£873
	FTW-V/C P2 P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.3	£342	£368	£372	£392	£406	£410	£460	£498	£566	£512	£528	£544	£594	£604	£638
	FTW-V/C P5 P5 - Anti-burglary triple glazed unit. Class P2A U-value of window 0.97	£525	£556	£594	£596	£628	£630	£702	£795	-	£808	£842	£842	£952	£858	-
	FTW-V/C P2 Z-Wave P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.3	£735	£778	£814	£816	£880	£890	£954	£984	£1018	£1005	£1032	£1044	£1090	£1044	£1082
	FTW-V/C P5 Z-Wave P5 - Anti-burglary triple glazed unit. Class P2A U-value of window 0.97	£912	£962	£1012	£1018	£1072	£1084	£1182	£1244		£1274	-		•		•
	CENTRE PIVOT ROOF WINDO	WS														
INE	FTU-V/C P2 P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.3	£424	£460	£488	£488	£495	£502	£550	£638	£714	£655	£682	£704	£746	£690	£826
	FTU-V/C P5 P5 - Anti-burglary triple glazed unit. Class P2A U-value of window 0.97	£612	£666	£690	£698	£714	£736	£806	£930	-	£946	£990	£1020	£1092	£998	
PULY	FTU-V/C P2 Z-Wave P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.3	£782	£820	£874	£874	£916	£922	£1005	£1048	£1094	£1070	£1108	£1110	£1165	£1110	£1158
	FTU-V/C P5 Z-Wave P5 - Anti-burglary triple glazed unit. Class P2A U-value of window 0.97	£860	£910	£970	£975	£1020	£1030	£1120	£1200	-	£1220	-	-	-	-	
	CENTRE PIVOT ROOF WINDO	OWS														
	PTP-V/C P2 P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.3	£435	£468	£475	£488	£504	£504	£556	£640	£720	£646	£678	£714	£784	£720	£856

\* V-line - standard depth and ideal for tiles such as Double Roman.

J-line - 3cm deeper than standard depth - ideal for fitting window lower into the roof line.

BALCONY WINDOW

FULL FLASHING KIT SELECTION page 32-35

BLINDS & ACCESSORIES pages 40-45

# **CONSERVATION STYLE WINDOWS**



	windows external dimensions [cm]	55x98	66x98	66x118	78x98	78x118	78x140	78x160	94x118	94x140	114x118	114x140	134x98
	effective glazing area [m²] size symbol	0.29 02	0.38 03	0.47 04	0.47 05	0.59	0.72 07	0.32 13	0.75 08	0.92 09	0.95 10	1.16 11	<sup>0.92</sup> 12
ш	TOP HUNG ROOF WINDOWS												
NATURAL PINE	FPP-V/C P2 preSelect P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.3	£558	£568	£598	£578	£626	£656	£782	£690	£744	£744	£814	£760
NATU	FPP-V/C P5 preSelect P5 - Anti-burglary triple glazed unit. Class P2A U-value of window 0.97	£810	£842	£865	£842	£906	£980	-	£1004	£1080	-	-	-
<u>v</u>	TOP HUNG ROOF WINDOWS												
WHITE ACRYLIC	FPW-V/C P2 preSelect P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.3	£558	£568	£598	£578	£626	£656	£782	£690	£744	£744	£814	£760
WHITI	FPW-V/C P5 preSelect P5 - Anti-burglary triple glazed unit. Class P2A U-value of window 0.97	£848	£888	£908	£882	£950	£1028	-	£1054	£1132	-	-	-
ш.	TOP HUNG ROOF WINDOWS												
WHITE	FPU-V/C P2 preSelect P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.3	£630	£636	£652	£652	£682	£730	£910	£752	£810	£816	£890	£832
	TOP HUNG ROOF WINDOWS												
PVC	PPP-V/C P2 preSelect P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.3	£785	£794	£840	£840	£898	£976	£1070	£1044	£1114	£1114	£1256	-
Р	PPP-V/C P5 preSelect P5 - Anti-burglary triple glazed unit. Class P2A U-value of window 1.1	£1032	£1032	£1092	£1092	£1192	£1278	-	-	-	-	-	-

	windows external dimensions [cm]	55x78	55x98	55x118	66x98	66x118	78x98	78x118	78x140	78x160	94x118	94x140	114x118	114x140	134x98	94x160
	effective glazing area [m²] size symbol	0.21 01	0.29 02	0.37 16	0.318 03	<sup>0.47</sup>	<sup>0.47</sup>	0.59 06	0.72 07	<sup>0.82</sup>	0.75 08	0.92 09	0.95 10	1.16 11	0.92 12	0.75 80
	<b>HIGHLY ENERGY - EFFICIENT</b>	WINDOV	VS NON-	VENTED												
NATURAL	FTT/C U6 U6 - High energy-efficient triple glazed unit. U-value of window 0.80		£702	£730	£730	£775	£783	£879	£967	£1126	£1014	£1042	£1051	£1183	£1073	£1273
NATI PI	FTT/C U8 Thermo U8 - Passive quadruple glazed unit. U-value of window 0.58*	-	£1197	£1265	£1269	£1353	£1360	£1504	£1660	£1945	£1739	£1782	£1792	£2027	£1850	£2204
WHITE POLYURETHANE	FTT/U/C U6 U6 - High energy-efficient triple glazed unit. U-value of window 0.80	-	£775	£818	£818	£863	£867	£976	£1082	£1263	£1137	£1152	£1180	£1343	£1203	£1447
POLYUR	FTT/U/C U8 Thermo U8 - Passive quadruple glazed unit. U-value of window 0.58*		£1426	£1504	£1504	£1582	£1582	£1782	£1982	£2285	£2062	£2116	£2116	£2383	£2173	£2585

\*WINDOW U-VALUE WHEN INSTALLED WITH THERMAL FLASHING CONSERVATION WINDOWS FTT U6 & U8 DO NOT INCLUDE THE FLASHING KIT - PLEASE SELECT A SUITABLE FLASHING KIT

FULL FLASHING KIT SELECTION page 32-35

BLINDS & ACCESSORIES pages 40-45

\* ALL WINDOWS AVAILABLE IN NON VENTED ON REQUEST



### VERTICAL COMBINATION WINDOWS IN CONSERVATION STYLE

	windows external dimensions [cm] effective glazing area [m <sup>2</sup> ] size symbol	0.85 13	0.92 40	<b>78x206</b> 1.19 42	94x160	94x180	<b>94x206</b> 1,46 43
¶.	WINDOWS WITH RAISED AX	(IS OF ROT	ATION - H	IIGH PIVO	T proSky		
NATURAL	FYP-V/C P2 proSky P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.3	£704	£764	£832	£798	£870	£948
WHITE	FYW-V/C P2 proSky P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.3	£720	£790	£860	£820	£900	£980
WHITE POL.	FYU-V/C P2 proSky P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.3	£750	£810	£890	£860	£930	£1020

	windows external dimensions [cm]	78x206	78x235*	78x255	94x206	94x235	94x255
	top sash dimensions [cm]	78x160	78x160	78x160	94x160	94x160	94x160
	bottom sash dimensions [cm]	78x50	78x78	78x98	94x50	94x78	94x98
	size symbol	CB	CC	CD	DB	DC	DD
JL.	WINDOWS WITH RAISED AX	(IS OF ROT	ration – H	IIGH PIVO	T Duet pro	Sky	
SZ	FDY-V/C P2 Duet proSky						
NAT	P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.3	£972	£1060	£1188	£1050	£1205	£1252
Ē	FDY-V/U/C P2 Duet proSky	£1066	£116 <i>4</i>	£1305	£115 <i>1</i>	£137A	£1376
우오 문	pane. Laminated inner pane. U-value of window 1.3	21000	21104	21505	21134	21324	21370
WHITE NATURAL POL. PINE	FDY-V/C P2 Duet proSky P2-Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.3 FDY-V/U/C P2 Duet proSky P2-Safety double glazed unit. Toughened outer	£972 £1066	£1060 £1164	£1188 £1305	£1050 £1154	£1205 £1324	

windows external dimensions [cm]	78x60	78x75	78x95	78x115	78x137	94x75	94x95	114x75	114x95
effective glazing area [m²] size symbol	0.25 33	0.33 81	0.45 82	0.57 83	0.71 84	0.42 85	0.58 86	0.53 89	0.73 90
BDL/C P2, BDR/C P2 P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.3	£574	£624	£676	£754	£826	£672	£738	-	£800
BVP/C P2 P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.3	£470	£495	£522	£585	£645	£550	£580	£580	£600
BXP/C P2 P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.3	£402	£420	£440	£490	£535	£460	£480	£535	£585

NATURAL PINE

NOTE- TRIPLE GLAZED (P5) AVAILABLE TO ORDER – PLEASE CONTACT FAKRO SALES OFFICE FOR FURTHER DETAILS

BLINDS & ACCESSORIES pages 40-45



### > STANDARD FLASHINGS

- Correct choice and installation of the roof window flashing is essential. FAKRO not only supply flashings to allow roof windows to be installed with any type of roof covering but enables windows to be fitted at three key depths.
- The basic colour of FAKRO flashings is grey/brown RAL 7022 but conservation flashings are black (RAL 9005), to match the cladding and mullion bars.
- You can install a FAKRO roof window at any of three depths:
- ${\bf V}$  This is the standard depth and ideal for tiles such as the Double Roman.
- ${\bf N}$  3cm higher than the standard depth, for high profile tiles such as the Bold Roll.
- J 3cm deeper than the standard depth ideal for fitting the window lower into the roof line.





• For profiled roof coverings up to 45mm depth.



• For deeply profiled roof coverings up to 90mm depth.



up to 10mm thickness.

EHV-AT Thermo

• Provides thermal insulation above the surface of the battens.

• For flat roof coverings such as bitumen shingles



• For natural and man-made, non-interlocking slates up to 10mm thickness.



• For flat roofing materials and metal roofs.



EPV, EPV-T

• For non-interlocking plain tiles up to 16mm thick (clay peg tiles etc).



• A unique solution for low pitch roofs. Contact FAKRO sales office for further details.



• Enables tight connection of a roof window with the roofing material such as steel panel sheet – with prefabricated (system) joints.



Kingspan Header + EKB Profile Set





- L-SHAPED Combinations only.
- EUV/B & EUV/B universal flashing for various types of roofing materials.
- EUV-L/B for slate roofing coverings up to 10mm thickness.

FLASHINGS FOR CENTR	E PIVOT	WINDO	OW, TOP	HUNG	AND PI\	/OT WI	NDOWS								
windows external dimensions [cm] size symbol	<b>55x78</b> 01	<b>55x98</b> 02	<b>55x118</b> 16	<b>66x98</b> 03	<b>66x118</b> 04	<b>78x98</b> 05	<b>78x118</b> 06	<b>78x140</b> 07	<b>78x160</b> 13	<b>94x118</b> 08	<b>94x140</b> 09	<b>114x118</b> 10	<b>114x140</b> 11	<b>134x98</b> 12	<b>94x160</b> 80
<b>EZV-A</b> for interlocking tiles up to 45mm profile	£55	£56	£64	£63	£66	£66	£68	£71	£88	£76	£79	£78	£88	£83	£86
EZJ-A Recessed Style for interlocking tiles up to 45mm profile	£82	£84	£88	£90	£95	£95	£99	£106	£123	£110	£118	£117	£132	£125	£122
<b>ELV</b> for non-interlocking slate up to 10mm thick	£55	£56	£64	£63	£66	£66	£68	£71	£88	£76	£79	£78	£88	£83	£86
ELJ Recessed Style for non-interlocking slate up to 10mm thick	£82	£84	£88	£90	£95	£95	£99	£106	£123	£110	£118	£117	£132	£125	£122
<b>EPV</b> for plain tiles up to 16mm thick	£55	£56	£64	£63	£66	£66	£68	£71	£88	£76	£79	£78	£88	£83	£86
<b>EPJ</b> Recessed Style for plain tiles up to 16mm thick	£82	£84	£88	£90	£95	£95	£99	£106	£123	£110	£118	£117	£132	£125	£122
<b>EHN-A</b> for interlocking tiles up to 90mm profile	£65	£66	£70	£75	£75	£75	£78	£83	£93	£88	£92	£92	£101	£98	£96
ELV-T Thermo universal for non-interlocking slate up to 10mm thick	£106	£119	£125	£125	£127	£127	£134	£142	£161	£146	£155	£155	£161	£155	£182
<b>EPV-T Thermo</b> for plain tiles up to 16mm thick	£96	£106	£112	£112	£114	£114	£120	£124	£141	£131	£135	£137	£141	£138	£163
EHN-AT Thermo for interlocking tiles up to 90mm profile	£96	£106	£112	£112	£114	£114	£120	£124	£141	£131	£135	£137	£141	£138	£163
EHV-AT Thermo for interlocking tiles up to 90mm profile	£96	£106	£112	£112	£114	£114	£120	£124	£141	£131	£135	£137	£141	£138	£163
EZA ESA & EHA Lifts windows out of the roofline by 10 degrees	£257	£265	£280	£280	£294	£291	£304	£317	£377	£325	£346	£346	£377	£346	£393
<b>EKB &amp; Kingspan Kit</b> A set of profiles covering the sides of the frame	£61	£69	£75	£69	£75	£69	£75	£81	£86	£75	£81	£81	£86	£75	£86
EBV Flashing for Steel Panel Sheet	£92	£96	£98	£100	£112	£112	£114	£116	£134	£118	£120	£124	£134	£128	£136

#### STANDARD FLASHING KITS FOR proSky WINDOWS

windows external dimensions [cm]	78x160	78x180	78x206	94x160	94x180	94x206
size symbol	13	40	42	80	41	43
<b>EZV-A</b> for interlocking tiles up to 45mm profile	£74	£78	£77	£82	£86	£130
ELV	674	(70	(777			(120
for non-interlocking slate up to 10mm thick	£74	£78	£77	£82	£86	£130
EPV	674	(70	(777	600		(120
for plain tiles up to 16mm thick	£74	£78	£77	£82	£86	£130
EHN-A	605	6440	(1) (	607	(1)7	
for interlocking tiles up to 90mm profile	£95	£118	£134	£97	£137	£150

#### STANDARD FLASHING KITS FOR Duet proSky WINDOWS 78x235 78x255 94x206 94x255 windows external dimensions [cm] 78x206 94x235 size symbol CB CC CD DB DC DD **EZV-A** for interlocking tiles up to 45mm profile £124 £137 £139 £139 £153 £166 **ELV** for non-interlocking slate up to 10mm thick £124 £137 £139 £139 £153 £166 EPV for plain tiles up to 16mm thick £124 £137 £139 £139 £153 £166 EHN-A for interlocking tiles up to 90mm profile £147 £149 £155 £172 £187 £137

FLASHING FOR L-SHAP	ED COMB			WS				
windows external dimensions [cm] size symbol	<b>78x98</b> 05	<b>78x118</b> 06	<b>78x140</b> 07	<b>94x118</b> 08	<b>94x140</b> 09	<b>114x118</b> 10	<b>114x140</b> 11	<b>134x98</b> 12
EUV-L/B for slate	£174	£184	£197	£193	£195	£195	£204	£202
EUV/B for tiles	£145	£152	£160	£160	£160	£160	£163	£162



#### **CONSERVATION STYLE FLASHING KITS**

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

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 10mm thick.
- EPJ/C plain tiles (clay, non-interlocking tiles).
- ESJ/C shingles e.g. cedar, asphalt, felts etc.
- EZJ/C profiled roof coverings up to 45mm in depth e.g. Double Pantile.

#### FLASHINGS FOR CENTRE PIVOT WINDOW, TOP HUNG AND PIVOT WINDOWS

			,			••••									
windows external dimensions [cm] size symbol	<b>55x78</b> 01	<b>55x98</b> 02	<b>55x118</b> 16	<b>66x98</b> 03	<b>66x118</b> 04	<b>78x98</b> 05	<b>78x118</b> 06	<b>78x140</b> 07	<b>78x160</b> 13	<b>94x118</b> 08	<b>94x140</b> 09	114x118 10	<b>114x140</b> 11	<b>134x98</b> 12	<b>94x160</b> 80
EZV-A/C for interlocking tiles up to 45mm profile	£77	£83	£91	£91	£93	£93	£95	£95	£115	£99	£105	£111	£115	£113	£121
EZJ-A/C Recessed Style for interlocking tiles up to 45mm profile	£101	£109	£115	£115	£121	£121	£123	£123	£149	£133	£139	£145	£149	£156	£162
ELV/C for non-interlocking slate up to 10mm thick	£77	£83	£91	£91	£93	£93	£95	£95	£115	£99	£105	£111	£115	£113	£121
ELJ/C Recessed Style for non-interlocking slate up to 10mm thick	£101	£109	£115	£115	£121	£121	£123	£123	£149	£133	£139	£145	£149	£156	£162
<b>EPV/C</b> for plain tiles up to 16mm thick	£77	£83	£91	£91	£93	£93	£95	£95	£115	£99	£105	£111	£115	£113	£121
EPJ/C Recessed Style for plain tiles up to 16mm thick	£101	£109	£115	£115	£121	£121	£123	£123	£149	£133	£139	£145	£149	£156	£162
EHN-A/C Recessed Style for interlocking tiles up to 90mm profile	£93	£98	£101	£101	£106	£103	£111	£111	£131	£113	£117	£123	£131	£127	£133

FLASHINGS FOR proSky	WINDO	WS								
windows external dimensions [cm] size symbol	<b>78x160</b> 13	<b>78x180</b> 40	<b>78x206</b> CB	<b>78x235</b> CC	78x255 CD	<b>94x160</b> 80	<b>94x180</b> 41	94x206 DB	94x235 DC	94x255 DD
<b>EZV-A/C</b> for interlocking tiles up to 45mm profile	£115	£139	£157	£176	£194	£121	£160	£180	£198	£212
<b>ELV/C</b> for non-interlocking slate up to 10mm thick	£115	£139	£157	£176	£194	£121	£160	£180	£198	£212
EPV/C Recessed Style for plain tiles up to 16mm thick	£115	£139	£157	£176	£194	£121	£160	£180	£198	£212
EHN-A/C Recessed Style for interlocking tiles up to 90mm profile	£131	£152	£174	£186	£206	£133	£174	£198	£214	£232

FLASHING FOR L-SHAP	ED COM	BINATIC		ows				
windows external dimensions [cm] size symbol	<b>78x98</b> 05	<b>78x118</b> 06	<b>78x140</b> 07	<b>94x118</b> 08	<b>94x140</b> 09	<b>114x118</b> 10	<b>114x140</b> 11	<b>134x98</b> 12
EUV-L/B/C for slate	£217	£234	£250	£247	£253	£253	£265	£261
EUV/B/C for tiles	£180	£190	£198	£194	£198	£198	£208	£202



#### **FLASHING FOR JOINING WINDOWS IN COMBINATIONS**

- The combination flashing are ready made flashing systems for joining windows in groups: horizontally, vertically and in a block.
- 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.
- FAKRO combination system enables to install all types of windows, top hung and pivot windows as well as centre pivot.
- There are seven modules in the FAKRO combination system, to cater for any layout you may require. The "Module" is a single and properly marked element of the flashing and assigned to its specific place in combination.



**B2/1** 



Vertical combination



Block combination

	A SELECTION OF THE M	OST PO	PULAR	COMBIN	ATION	FLASHI		S ARE SH	IOWN E	BELOW -	OTHER	S AVAII	LABLE C	N REQU	JEST.	
	windows external dimensions [cm] size symbol	<b>55x78</b> 01	<b>55x98</b> 02	<b>55x118</b> 16	<b>66x98</b> 03	<b>66x118</b> 04	<b>78x98</b> 05	<b>78x118</b> 06	<b>78x140</b> 07	<b>78x160</b> 13	<b>94x118</b> 08	<b>94x140</b> 09	<b>114x118</b> 10	<b>114x140</b> 11	<b>134x98</b> 12	<b>94x160</b> 80
ROFILE	2 Piece Combinations B2/1, B1/2 EZV-A, ELV, EPV	£138	£140	£160	£158	£165	£165	£170	£178	£220	£190	£198	£195	£220	£208	£215
45mm PROFILE	2 Piece Combinations B2/1, B1/2 EZV-A/C, ELV/C, EPV/C	£192	£207	£227	£227	£232	£232	£237	£237	£288	£247	£263	£278	£288	£283	£303
UP TO 4	3 Piece Combinations B3/1, B1/3 EZV-A, ELV, EPV	£206	£210	£240	£236	£248	£248	£255	£266	£330	£285	£296	£293	£330	£311	£323
TILES	3 Piece Combinations B3/1, B1/3 EZV-A/C, ELV/C, EPV/C	£288	£311	£341	£341	£348	£348	£356	£356	£432	£371	£394	£417	£432	£424	£455
& INTERLOCKING	4 Piece Combinations B2/2 EZV-A, ELV, EPV	£275	£280	£320	£315	£330	£330	£340	£355	£440	£380	£395	£390	£440	£415	£430
NTERLO	4 Piece Combinations B2/2 EZV-A/C, ELV/C, EPV/C	£384	£414	£455	£455	£465	£465	£475	£475	£576	£495	£525	£556	£576	£566	£606
	6 Piece Combinations B3/2, B2/3 EZV-A, ELV, EPV	£413	£420	£480	£473	£495	£495	£510	£533	£660	£570	£593	£585	£660	£623	£645
FOR SLATE	6 Piece Combinations B3/2, B2/3 EZV-A/C, ELV/C, EPV/C	£576	£621	£682	£682	£697	£697	£712	£712	£864	£742	£788	£833	£864	£848	£909

**B1/2** 

A SELECTION OF THE M	OST PO	PULAR	COMBIN	ATION	FLASHI		S ARE SH	HOWN E	BELOW ·	OTHER	S AVAI	LABLE C	ON REQU	JEST.	
windows external dimensions [cm] size symbol	<b>55x78</b> 01	<b>55x98</b> 02	<b>55x118</b> 16	<b>66x98</b> 03	<b>66x118</b> 04	<b>78x98</b> 05	<b>78x118</b> 06	<b>78x140</b> 07	<b>78x160</b> 13	<b>94x118</b> 08	<b>94x140</b> 09	<b>114x118</b> 10	<b>114x140</b> 11	<b>134x98</b> 12	<b>94x160</b> 80
2 Piece Combinations B2/1, B1/2 EHN-A	£163	£165	£175	£186	£186	£186	£194	£207	£234	£221	£231	£231	£252	£244	£221
2 Piece Combinations B2/1, B1/2 EHN-A/C	£232	£245	£253	£253	£265	£258	£278	£278	£328	£283	£293	£308	£328	£318	£283
3 Piece Combinations B3/1, B1/3 EHN-A	£244	£248	£263	£280	£280	£280	£291	£311	£350	£331	£347	£347	£378	£366	£331
3 Piece Combinations B3/1, B1/3 EHN-A/C	£348	£367	£379	£379	£398	£386	£417	£417	£492	£424	£439	£462	£492	£477	£424
4 Piece Combinations B2/2 EHN-A	£326	£331	£350	£373	£373	£373	£389	£415	£467	£441	£462	£462	£504	£488	£478
4 Piece Combinations B2/2 EHN-A/C	£465	£490	£505	£505	£530	£515	£556	£556	£657	£566	£586	£616	£657	£636	£667
6 Piece Combinations B3/2, B2/3 EHN-A	£488	£496	£525	£559	£559	£559	£583	£622	£701	£662	£693	£693	£756	£732	£717
6 Piece Combinations B3/2, B2/3 EHN-A/C	£697	£735	£758	£758	£795	£773	£833	£833	£985	£848	£879	£924	£985	£954	£1000

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.

THE STANDARD DISTANCE BETWEEN WINDOWS POSITIONED SIDE BY SIDE IS 10CM - THE OPTION OF 18MM/40MM AND 50MM GUTTER CHANNELS ARE AVAILABLE IN CERTAIN CIRCUMSTANCES - PLEASE CONTACT THE FAKRO SALES OFFICE FOR FURTHER DETAILS



#### SIDE HUNG ESCAPE WINDOW

IN NATURAL PINE AND WHITE POLYURETHANE FINISH

- The universal escape windows is side hung and therefore side-opening. Once unlocked, the sash can be opened to 90°.
- Gas piston fitted in the top part of the window makes opening easier, holds the sash stable when opened and prevents against accidental closure.
- The universal design of side hung escape windows. Before proceeding to installation it is possible to change the opening side. Windows are delivered with factory pre-fixed right opening side. It is possible to order the FWP model left.
- Suitable for pitches from 15° 55°.
- Available in conservation style.



NATURAL

WHITE

- The same flashings as for roof windows are used in the installation process. This enables side hung escape windows to be fitted in one combination with roof windows.
- High quality close-grain vacuum impregnated pine guaranteed to be knot-free, finished with natural acrylic lacquer.



- The same flashings as for roof windows are used in the installation process. This enables side hung escape windows to be fitted in one combination with roof windows.
- High quality close-grain vacuum impregnated pine guaranteed to be knot-free, finished with white acrylic paint.



- The same flashings as for roof windows are used in the installation process. This enables side hung escape windows to be fitted in one combination with roof windows.
- High quality close-grain vacuum impregnated pine guaranteed to be knot-free, finished with white polyurethane varnish.

	SIDE HUNG ESCAPE WI	NDOW					
	windows external dimensions [cm]	55x98	66x78	66x98	66x118	78x98	78x118
	effective glazing area [m²] size symbol	0.29 02	<sup>0.28</sup>	0.38 03	<sup>0.47</sup> 04	0.47 05	0.59 06
E E	FWP P2 P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.4	£410	£410	£410	£428	£525	£577
PIL	FWP P5 P5 - Anti-burglary triple glazed unit. Class P2A U-value of window 0.97	£630	£625	£660	£710	£705	£770
	FWU P2 P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.4	£492	£478	£520	£558	£550	£605
effective gl size symbo size symbo PS-Safety do pane. Laminatu FWP P5 P5-Anti-burg U-value of win FWU P2 P2- Safety do pane. Laminatu FWU P5 P5-Anti-burg	FWU P5 P5 - Anti-burglary triple glazed unit. Class P2A U-value of window 0.97	£680	£672	£708	£762	£750	£840

SIDE HUNG ESCAPE WI	NDOW-		ERVATI	ΟΝ STY	'LE	
windows external dimensions [cm]	55x98	66x78	66x98	66x118	78x98	78x118
effective glazing area [m <sup>2</sup> ]	0.29	0.28	0.38	0.47	0.47	0.59
size symbol	02	22	03	04	05	06
FWP/C P2 P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.4	£620	£606	£635	£665	£670	£715
<b>FWP/C P5</b> P5 - Anti-burglary triple glazed unit. Class P2A U-value of window 0.97	£810	£802	£838	£888	£895	£960
FWU/C P2 P2 - Safety double glazed unit. Toughened outer pane. Laminated inner pane. U-value of window 1.4	£670	£666	£695	£735	£740	£795
FWU/C P5 P5 - Anti-burglary triple glazed unit. Class P2A U-value of window 0.97	£860	£852	£903	£955	£960	£1026

SIDE HUNG ESCAPE WINDOW FWW AVAILABLE ON REQUEST

FLASHINGS FOR SIDE	IUNG E	SCAPE	WIND	WC		
windows external dimensions [cm] size symbol	<b>55x98</b> 02	<b>66x78</b> 22	<b>66x98</b> 03	<b>66x118</b> 04	<b>78x98</b> 05	<b>78x118</b> 06
<b>EZV-A</b> for interlocking tiles up to 45mm profile	£56	£61	£63	£66	£66	£68
<b>ELV</b> for non-interlocking slate up to 10mm thick	£56	£61	£63	£66	£66	£68
<b>EPV</b> for plain tiles up to 16mm thick	£56	£61	£63	£66	£66	£68
EHN-A for interlocking tiles up to 90mm profile	£66	£72	£75	£75	£75	£78



## ACCESS ROOF LIGHTS

- Designed solely for uninhabited lofts with the interior temperature similar to the outdoor temperature.
- It enables easy access to the roof as well as provides illumination of the interior with natural daylight.
- Integrated with universal flashing.
- U-value 1.7



- The WG\_access roof light has a top hung design and the sash opens outwards.
- Specially rounded locking bolts eliminate the risk of injuries.
- Available in two versions:
- WGT with single toughened glass 4H.
- —WGI with glazing unit 4H-9-4H.
- Conservation style available.
- Universal flashing.
- Suitable for pitches of 15°-60°.

	ACCESS ROOF LIGHTS			
	dimensions [cm]	46x55	46x75	55x72
_			_	
	WGT	£110	£119	
NATURAL	WGI	£131	£140	£226
2	WGI/C	£172	£184	£292



- WLI is a side hung window. It can be installed in left or right opening version.
- It comes complete with a turn limiter to hold the sash stable and prevent accidental closure.
- The lower part of the access roof light comes with a specially shaped profile which covers the frame and prevents slipping while getting onto the roof.
- Conservation style available.
- Universal flashing.
- Suitable for pitches of 15°-70°.

	ACCESS ROOF LIGHTS			
	dimensions [cm]	54x83	54x98	86x87
NATURAL	WLI	£203	£222	£233
NATU	WLI/C	£260	£260	£310



#### SMOKE VENTILATION SYSTEMS FOR PITCHED ROOFS

Smoke along with fire pose a serious threat to human life and health.

Contrary to popular belief, 90% of fire-related deaths are a result of smoke inhalation, and not high temperatures or burning. Smoke also causes considerable damage to property. Applying appropriate smoke and heat escape systems can provide a significant help in preventing dangers caused by high concentrations of smoke and heat. Together with smoke sensors and smoke vent alarm buttons, the FSR window forms the so called gravitational system for smoke and heat extraction. The system is applied in public utility buildings (especially in stairwells, multi-family buildings, hotels, etc.).



CENTRE PIVOT SMOKE VENT WINDOW

• High quality close-grain vacuum - impregnated pine guaranteed to be knot-free, finished with with natural lacquer.





CENTRE PIVOT SMOKE VENT WINDOW

• High quality close-grain vacuum - impregnated pine guaranteed to be knot-free, finished with white polyurethane - white acrylic available to order.

	<b>SMOKE V</b>	ENTILATION SYSTEMS FOR PITCHED ROOFS					
	<b>FSR P1</b> 10 (114 x 118cm)	Single centre pivot window with electrics pack and flashing kit giving 1.0m <sup>2</sup> of ventilation. 1no FSR P1 10 114 x 118cm + fitted chain actuator 1no Flashing Kit 1no R2V A503-T Control Unit 1no 12v 3.2amp battery back up pack 1no RY45 break glass alarm 1no SD-0-371 smoke detector	£1666	ANE	<b>FSR/U P1</b> 10 (114 x 118cm)	Single centre pivot window with electrics pack and flashing kit giving 1.0m <sup>2</sup> of ventilation. 1no FSR/U P1 10 114 x 118cm + fitted chain actuator 1no Fashing Kit 1no RZN 4503-T Control Unit 1no 12v 3.2amp battery back up pack 1no RT45 break glass alarm 1no SD-0-371 smoke detector	£1666
NATURAL PINE	<b>FSR-2 P1</b> 2 x 07 (78 x 140cm)	2no centre pivot windows with electrics pack and flashing kit giving 1.5m <sup>2</sup> of ventilation. 2no FSR P1 07 78 x 140cm + fitted chain actuator 1no B2/1 Combination Flashing Kit (100mm gutter) 1no R2/1 V4503-T Control Unit 1no 12v 3.2amp battery back up pack 1no RT45 break glass alarm 1no SD-0-371 smoke detector	£2710	WHITE POLYURETHANE	<b>FSR/U-2 P1</b> 2 x 07 (78 x 140cm)	2no centre pivot windows with electrics pack and flashing kit giving 1.5m <sup>2</sup> of ventilation. 2no FSR/U P1 07 78 x 140cm + fitted chain actuator 1no B2/1 Combination Flashing Kit (100mm gutter) 1no R2M x4503-T Control Unit 1no 12v 3.2amp battery back up pack 1no R145 break glass alarm 1no SD-O-371 smoke detector	£2710
	<b>FSR P1</b> 17 (134 x 140cm)	Single centre pivot window with electrics pack and flashing kit giving 1.5m <sup>2</sup> of ventilation. 1no FSR P1 17 134 x 140cm + fitted chain actuator 1no Flashing Kit 1no R2N 4503-T Control Unit 1no 12v 3.2amp battery back up pack 1no R45 break glass alarm 1no SD-0-371 smoke detector	£1765	W	<b>FSR/U P1</b> 17 (134 x 140cm)	Single centre pivot window with electrics pack and flashing kit giving 1.5m <sup>2</sup> of ventilation. 1no FSR/U P1 17 134 x 140cm + fitted chain actuator 1no Flashing Kit 1no R4S brak Jack Long 1no 12v 3.2amp battery back up pack 1no R14S break glass alarm 1no SD-O-371 smoke detector	£1765

ADDITIONAL SMOKE SENSORS AND BREAKGLASS CAN BE ORDERED IF REQUIRED – CONTACT FAKRO SALES OFFICE FOR FURTHER DETAILS. ALL KITS ARE SUPPLIED FOR ON SITE INSTALLATION & COMMISSIONING BY OTHERS. ROOF WINDOWS SUPPLIED BY FAKRO ARE FULLY TESTED AND CERTIFIED TO EN 12101-2:2003

PLEASE ADVISE FLASHING KIT TYPE REQUIRED AT THE TIME OF ORDER.

# FSR P1 SMOKE VENTILATION CENTRE PIVOT ROOF WINDOWS (EN 12101-2:2003)



# FSR P1



VRS10FAK	£200
DEFAK021	£118
DEFAK022	£160
LT84-U	£110

# **FSR ELECTRICS**

FSR WINDOWS COME WITH THE ACTUATOR FACTORY FITTED - ALL OTHER ELEMENTS ARE SUPPLIED LOOSE FOR ON SITE INSTALLATION BY OTHERS.

NOTE - AVAILABLE IN CONSERVATION ON REQUEST.





CENTRE PIVOT SMOKE VENT WINDOW

- High quality close-grain vacuum impregnated pine guaranteed to be knot-free, finished with with natural lacquer.
- Flat roof system makes it possible to install windows on flat or very low-pitched roofs.



CENTRE PIVOT SMOKE VENT WINDOW

- · High quality close-grain vacuum impregnated pine guaranteed to be knot-free, finished with white polyurethane - white acrylic available to order.
- Flat roof system makes it possible to install windows on flat or very low-pitched roofs.

	<b>SMOKE V</b>	ENTILATION SYSTEMS FOR PITCHED ROOFS					
AL PINE	<b>FSR P1</b> + <b>EFW</b> 10 (114 x 118cm)	Single centre pivot window with electrics pack and flashing kit giving 1.0m <sup>2</sup> of ventilation. Ino FSRP1 10 114 x 118cm + fitted chain actuator Ino Flashing Kit* Ino RIAS Va503-T Control Unit Ino 12v 3.2amp battery back up pack Ino RIAS break glass alarm Ino SD-O-371 smoke detector	£2000	<b>YURETHANE</b>	<b>FSR/U P1</b> + <b>EFW</b> 10 (114 x 118cm)	Single centre pivot window with electrics pack and flashing kit giving 1.0m <sup>2</sup> of ventilation. Ino FSR/U P1 10 114 x 118cm + fitted chain actuator Ino Flashing Kit* Ino RASN 4503-T Control Unit Ino 12v 3.2amp battery back up pack Ino RT4S break glass alarm Ino SD-O-371 smoke detector	£2000
NATURAL	<b>FSR P1</b> + <b>EFW</b> 17 (134 x 140cm)	Single centre pivot window with electrics pack and flashing kit giving 1.5m <sup>2</sup> of ventilation. 1no FSR P1 17 134 x 140cm + fitted chain actuator 1no Flashing Kit* 1no R2N 4503-T Control Unit 1no 12v 3.2amp battery back up pack 1no R145 break glass alarm 1no SD-O-371 smoke detector	£2150	WHITE POLYU	<b>FSR/U P1</b> + <b>EFW</b> 17 (134 x 140cm)	Single centre pivot window with electrics pack and flashing kit giving 1.5m <sup>2</sup> of ventilation. Ino FSR/U P1 17 134 x 140cm + fitted chain actuator Ino Flashing Kit* Ino RX 4503-T Control Unit Ino 12v 3.2amp battery back up pack Ino R145 break glass alarm Ino SD-O-371 smoke detector	£2150

ADDITIONAL SMOKE SENSORS AND BREAKGLASS CAN BE ORDERED IF REQUIRED – CONTACT FAKRO SALES OFFICE FOR FURTHER DETAILS. ALL KITS ARE SUPPLIED FOR ON SITE INSTALLATION & COMMISSIONING BY OTHERS. ROOF WINDOWS SUPPLIED BY FAKRO ARE FULLY TESTED AND CERTIFIED TO EN 12101-2:2003

\*PLEASE ADVISE FLASHING KIT TYPE REQUIRED AT THE TIME OF ORDER. THIS KIT CAN INCLUDE EFW, ESA, EZA OR EHA.

# FSR P1 SMOKE VENTILATION CENTRE PIVOT ROOF WINDOWS (EN 12101-2:2003)



# FSR P1+ EFW\*



# **FSR ELECTRICS**

VRS10FAK	£200
DEFAK021	£118
DEFAK022	£160
LT84-U	£110

FSR WINDOWS COME WITH THE ACTUATOR FACTORY FITTED - ALL OTHER ELEMENTS ARE SUPPLIED LOOSE FOR ON SITE INSTALLATION BY OTHERS. NOTE - AVAILABLE IN CONSERVATION ON REQUEST.



# **INSTALLATION ACCESSORIES**

FAKRO installation accessories provide an enhanced connection between the roof window and the roof construction. Using the under felt collar with thermo-insulation and air-tight flashing ensures the complete protection of a fitted roof window. Accessories manufactured by FAKRO will prolong the life of the window. The installation accessories reduce the risk of thermal bridging and guarantee the proper draining of any moisture around the FAKRO window. The fast finishing around the window from inside can be made thanks to the FAKRO original linings.

The shaping and forming of the window reveals (horizontal at the top and vertical at the bottom) is an important design consideration as it allows the maximum amount of natural daylight into the room and an efficient circulation of air around the window.



• The insulating set is designed to enable fast thermal, air-permeable and air tight insulation around the roof window.



• XDP insulating set is designed to enable fast and tight air-permeable and thermal insulation around the window to be installed. The set consists of air-permeable membrane and thermoinsulating material made of natural wool.



• Air-tight flashing should be secured internally to form a barrier against warm and humid air as any moisture on the surface of the insulation greatly reduces its thermal insulation properties.



• The internal lining is designed to ensure a secure finish around the window from the inside of the room.



- The XWT insulation is a polyethylene tape with a self-adhesive backing.
- XWT insulation makes an effective insulation of FAKRO windows easy and reduces the possibility of thermal bridging.



- Installed from the inside of the room.
- Made of a high quality pine in natural colour XSP on white XSW.

INSTALLATION ACCESSORIES															
windows external dimensions [cm] size symbol	<b>55x78</b> 01	<b>55x98</b> 02	<b>55x118</b> 16	<b>66x98</b> 03	<b>66x118</b> 04	<b>78x98</b> 05	<b>78x118</b> 06	<b>78x140</b> 07	<b>78x160</b> 13	<b>94x118</b> 08	<b>94x140</b> 09	<b>114x118</b> 10	114x140 11	<b>134x98</b> 12	<b>94x160</b> 80
XDK	£58	£58	£58	£58	£58	£58	£58	£63	£68	£63	£63	£63	£63	£63	£68
XDP	£33	£34	£36	£36	£37	£37	£38	£40	£41	£40	£41	£43	£44	£43	£44
XDS	£34	£34	£34	£34	£34	£34	£34	£37	£39	£37	£37	£37	£37	£37	£39
XLC-F 40 & XLC-P 40	£317	£342	£348	£348	£370	£370	£386	£408	£455	£408	£420	£420	£442	£442	£469
XLC-F 30 & XLC-P 30	£245	£255	£260	£260	£275	£275	£290	£300	£340	£300	£315	£315	£330	£330	£355
хwт	£39	£39	£39	£39	£39	£39	£39	£45	£47	£45	£45	£45	£45	£45	£47
XSP,XSW	£23	£23	£23	£23	£23	£27	£27	£27	£27	£30	£30	£32	£32	£34	£30



#### **ROOF WINDOW EXTERNAL 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. In addition, you can order a colour swatch or speak to a member of the Sales Office on 01283 554755 about our blinds.



- Eight times more efficient against the room overheating. effective shading of the interior while providing visibility.
- It is convenient and the awning blind can cover the window for the whole summer without the need to roll it up and down every day.
- Awning blinds are available in versions: AMZ standard, AMZ Z-Wave and AMZ Solar.



- Effective protection against burdensome heat.
- Reducing heat loss in winter.
- Darkening the room.
- Makes break-in attempts more difficult.



	ROOF WINDOW EXTERN	IAL ACC	ESSORI	ES												
	windows external dimensions [cm] size symbol	<b>55x78</b> 01	<b>55x98</b> 02	<b>55x118</b> 16	<b>66x98</b> 03	<b>66x118</b> 04	<b>78x98</b> 05	<b>78x118</b> 06	<b>78x140</b> 07	<b>78x160</b> 13	<b>94x118</b> 08	<b>94x140</b> 09	<b>114x118</b> 10	<b>114x140</b> 11	<b>134x98</b> 12	<b>94x160</b> 80
	AMZ I NEW LINE	£71	£71	£74	£74	£84	£87	£87	£89	£121	£96	£105	£107	£116	£114	£128
S	AMZ II NEW LINE	£95	£95	£104	£104	£115	£118	£118	£129	£165	£137	£143	£154	£162	£157	£182
<b>AWNING BLINDS</b>	AMZ Z-Wave I	£354	£354	£372	£372	£380	£385	£395	£405	£420	£410	£420	£430	£440	£430	£460
	AMZ Z-Wave II	£382	£382	£402	£402	£410	£415	£426	£438	£454	£442	£454	£464	£475	£464	£496
	AMZ Solar I	£500	£505	£514	£514	£525	£525	£530	£538	£548	£538	£548	£550	£560	£552	£566
	AMZ Solar II	£525	£530	£540	£540	£552	£552	£556	£565	£575	£565	£575	£578	£588	£580	£594
L I'TER	ARZ-H	£304	£310	£318	£318	£330	£326	£340	£340	£365	£354	£368	£372	£385	£376	£392
EXTERNAL ROLLER SHUTTER	ARZ Z-Wave * (No Switch)	£340	£348	£356	£356	£372	£366	£385	£395	£412	£402	£415	£418	£432	£422	£438
	ARZ Solar *	£613	£624	£634	£634	£650	£650	£660	£674	-	£682	£692	£698	£716	£698	-

\* RETAINING 20 CM DISTANCE BETWEEN THE WINDOWS IN VERTICAL POSITION

ALL EXTERNAL ACCESSORIES ARE TO SPECIAL ORDER

NOTE - THE MATERIAL SAMPLE COLOURS PRINTED CAN DIFFER IN COLOUR TO THE ACTUAL PRODUCT DUE TO PHOTGRAPHIC PROCESSES - SAMPLE SWATCHES ARE AVAILABLE UPON REQUEST TO THE SALES OFFICE





- Ability to control the amount of incoming light to the room.
- Control the direction of light entering by changing the angle of the slats.



- en franz linkt
- Protection from light.
- Can position the blind in three different positions.



- Dimming roller blinds
- Protection against sunlight during sunny days.
- Possibility to lock the blind in any position.







# **NOOF WINDOW INTERNAL ACCESSORIES**





- Very good protection from sunlight.
- The possibility of darkening the room.
- Possibility to lock the blind in any position.
- Partial protection from solar heat.





Blackout blinds ARF DreamWorks

A child's room is a special place in every home which deserves a particular attention. It should not only be functional, but above all friendly to the youngest. Blackout blinds ensure harmony with the décor of any room and protect it from overheating, while your kids can enjoy comfortable conditions both for playing and learning. Having children in mind, we have created a unique collection of DreamWorks & FAKRO blinds. Characters from such movies as 'Trolls', 'How to Train Your Dragon', 'Kung Fu Panda' or 'Penguins of Madagascar' will allow your children to invite their favourite heroes into their room.

DreamWorks Dragons © 2019 DreamWorks Animation LLC. All Rights Reserved. DreamWorks Kung FL Panda © 2019 DreamWorks Animation LLC. All Rights Reserved. DreamWorks Kung FL Panda 3 © 2019 DreamWorks Animation LLC. All Rights Reserved. DreamWorks Penguins of Madagascar © 2019 DreamWorks Animation LLC. All Rights Reserved. DreamWorks Trolls © 2019 DreamWorks Animation LLC. All Rights Reserved.









\*POPULAR STOCK LINES. ALL OTHERS SUBJECT TO ORDER.



#### **ROOF WINDOW INTERNAL ACCESSORIES**



- · 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.





- 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.





- Protection against insects
- Minimum shading of the room
- Can be installed with other internal and external accessories



\*POPULAR STOCK LINES. ALL OTHERS SUBJECT TO ORDER.

NOTE - THE MATERIAL SAMPLE COLOURS PRINTED CAN DIFFER IN COLOUR TO THE ACTUAL PRODUCT DUE TO PHOTGRAPHIC PROCESSES - SAMPLE SWATCHES ARE AVAILABLE UPON REQUEST TO THE SALES OFFICE.

### **ACCESSORIES FOR OPENING WINDOWS**



ZBH



Handle with lock.





Window lock.







Telescopic control rod enables the user to operate ARS, ARF,

AJP, AMS. It also enables easy

opening and closing of windows.

ZBH ZBB ZST ZSP ZSZ ZBL £41 £37 £39 £31 £37 £37 £43

Window restrictor.

ZSD

	<b>ROOF WINDOW INTERN</b>	IAL ACCI	ESSORI	ES												
	windows external dimensions [cm] size symbol	<b>55x78</b> 01	<b>55x98</b> 02	<b>55x118</b> 16	<b>66x98</b> 03	<b>66x118</b> 04	<b>78x98</b> 05	<b>78x118</b> 06	<b>78x140</b> 07	<b>78x160</b> 13	<b>94x118</b> 08	<b>94x140</b> 09	114x118 10	<b>114x140</b> 11	<b>134x98</b> 12	<b>94x160</b> 80
	AJP I	£68	£70	£74	£74	£78	£76	£80	£86	£88	£87	£90	£94	£98	£90	£126
VENETIAN BLIND	AJP II	£76	£84	£88	£88	£92	£88	£92	£98	£106	£104	£110	£110	£128	£110	£132
VENE BLI	AJP Z-Wave I	-	-	-	£280	£284	£284	£285	£288	£294	£290	£294	£296	£300	£294	£300
	AJP Z-Wave II		-	-	£290	£294	£294	£294	£300	£304	£300	£306	£306	£318	£304	£312
BLIND	ARS I	£44	£44	£47	£47	£48	£50	£51	£52	£54	£53	£54	£61	£63	£61	£63
ROLLER BLIND STANDARD	ARS II	£68	£69	£81	£82	£83	£85	£86	£87	£93	£91	£93	£97	£99	£95	£97
	ARP I	£66	£66	£79	£79	£79	£82	£82	£82	-	£90	£90	£97	£102	£97	
DIMMING ROLLER BLINDS	ARP II	£92	£92	£111	£111	£111	£114	£114	£114	-	£126	£126	£137	£147	£137	
DIMN	ARP Z-Wave I	£207	£210	£212	£212	£218	£218	£222	£226		£228	£230	£232	£238	£232	
	ARP Z-Wave II	£220	£222	£225	£225	£228	£228	£232	£235	-	£235	£244	£244	£248	£244	-
	ARF I	£72	£73	£88	£88	£88	£90	£93	£96	£105	£105	£105	£108	£122	£108	£122
LINDS	ARF II	£108	£108	£124	£124	£124	£127	£131	£137	£147	£147	£151	£155	£172	£155	£172
BLACKOUT BLINDS	ARF DreamWorks	£100	£103	£120	£120	£120	£124	£126	£133	£149	£144	£149	£154	£171	£154	
BLACI	ARF Z-Wave I	£210	£212	£215	£215	£220	£220	£224	£228	£232	£230	£232	£235	£242	£234	£244
	ARF Z-Wave II	£216	£218	£222	£222	£225	£225	£228	£232	£242	£232	£238	£242	£245	£242	£250
S	APS I	£66	£70	£74	£74	£78	£76	£80	£87	£95	£90	£95	£101	£110	£105	£114
BLIND	APS II	£96	£101	£107	£107	£112	£109	£114	£122	£133	£127	£133	£140	£152	£146	£169
PLEATED BLINDS	APF I	£97	£97	£119	£119	£119	£122	£126	£134	£142	£142	£142	£147	£164	£147	£164
4	APF II	£128	£128	£152	£152	£152	£158	£163	£170	£188	£182	£188	£192	£216	£192	£216
EN T	AMS 200	£105	£108	£110	£110	£110	£118	£118	£118	£118	£124	£124	£124	£124	£128	£124
INSECT	AMS 240		-	-	£112	£112	£120	£120	£120	£120	£127	£127	£142	£142	£144	£127

\*non-standard sizes can be manufactured as a special order - please contact FAKRO GB for more information NOTE - THE MATERIAL SAMPLE COLOURS PRINTED CAN DIFFER IN COLOUR TO THE ACTUAL PRODUCT DUE TO PHOTGRAPHIC PROCESSES - SAMPLE SWATCHES ARE AVAILABLE UPON REQUEST TO THE SALES OFFICE.



NOTE - IN ORDER TO SELECT THE ACCESSORIES FOR FAKRO ROOF WINDOWS CORRECTLY, IT IS NECESSARY TO SPECIFY THE TYPE AND SIZE OF THE WINDOW. THIS INFORMATION CAN BE FOUND ON THE DATA PLATE LOCATED IN THE UPPER RIGHT CORNER OF THE SASH. TO READ THE DATA FOR ACCESSORIES MOUNTED ON THE SASH JUST ROTATE THE SASH IN POSITION FOR WASHING.