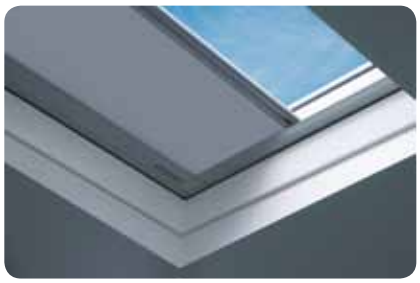
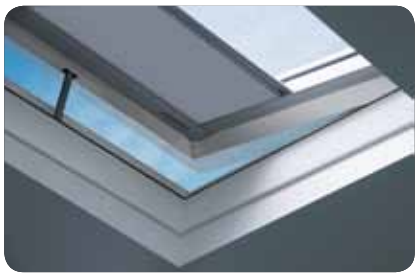
FAKRO®

FLAT
ROOF WINDOWS
2013 >

invite the **light** inside





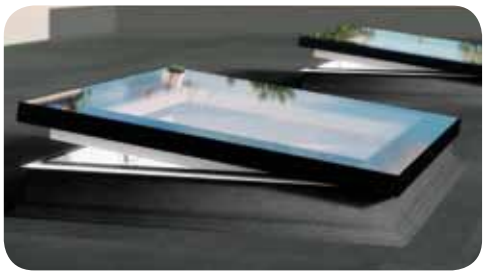
FLAT
ROOF WINDOWS

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

FAKRO flat roof windows illuminate interiors with natural light, provide room ventilation and combine high functionality with perfect thermal insulation parameters. Now every room under the flat roof can be warm and full of natural light.

WINDOW STRUCTURE

The frame of the flat roof window is manufactured with multi-chamber PVC profiles.
The internal surface of the frame is white (RAL 9010). The material from which profiles are made have a high resistance against acids and very low moisture absorption, therefore the window can be installed in every room. Profiles are filled inside with insulating material, thus additionally improving the energy saving parameters of the product. The specially profiled covering material under the frame drip cap facilitates the finishing of the window connection with the roofing material.



Window type F (with innovative glazing unit)

Window type C (with a dome)

The type F flat roof window is equipped with an innovative glazing unit featuring excellent thermal insulation parameters and modern design. The window can be manufactured in any size. The type C window is equipped with a glazing unit and a polycarbonate dome. Flat roof windows are available in three versions:

DEF - electrically opened
DMF - manually opened
DXF - non-opening

DEC - electrically opened
DMC - manually opened
DXC - non-opening

The servo-motor in electrically opened windows is positioned in the sash and is protected against adverse weather conditions such as rain and snow. This ensures trouble free operation of the servo-motor and all control elements.

The electrically operated windows (type F and type C) have a built-in sensor that automatically activates the sash closing function when it rains.

MAIN ADVANTAGES OF FLAT ROOF WINDOWS

High energy-efficiency

Window type C

The special structure of FAKRO flat roof windows provides excellent thermal insulation parameters. The DEC U8 window with a passive, quadruple U8 glazing unit is characterised by a heat transmittance co-efficient for the whole window of **U=0.55** W/m^{2}K (to EN1873). This result is for a 120x120cm window including frame with a sash and a dome.

Window type F

The type F window is available with a quadruple DU8 glazing unit. The heat transmittance co-efficient for the whole window is **U=0.76** W/m^{2}K (to EN 12567-2) and makes the window suitable for use in energy-efficient and passive buildings.

Available in any size

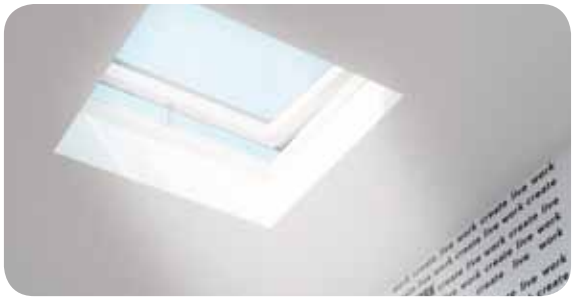
In addition to standard sizes, the type F window can be manufactured in any size. The thermal insulation standards of buildings have been significantly increased and old skylights in flat roofs do not meet current requirements. The specification of the type F window allows for the easy and accurate replacement of existing often non-standard size skylights. This provides an improvement of the thermal insulation properties for the whole building.

Installation in green roofs

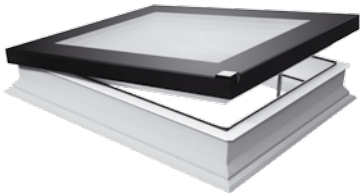
The flat roof window can be also mounted on an additional XRD base with a height of 15cm, which raises the window and allows its installation in green or living roofs.

Ample natural light

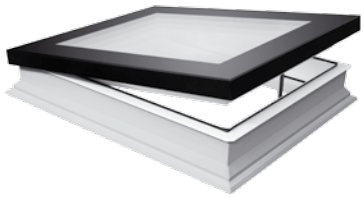
The specially designed shapes of the flat roof window profiles gives a glazing area that is up to 16% greater when compared with other manufacturer's windows of a similar size.



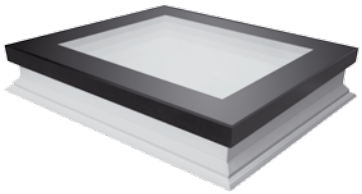
FLAT ROOF WINDOW TYPE F



DEF
electrically opened
with wireless Z-Wave system



DMF
manually opened



DXF
non-opening

WINDOW STRUCTURE

The type F flat roof window features a sleek modern look, characterised by excellent thermal insulation parameters. The structure of the frame is the same as for flat roof windows with a dome however the main difference lies in the glazing unit which is bonded using modern manufacturing technologies to produce a highly aesthetic and innovative design.

GLAZING UNITS

The type F is equipped with an energy-efficient, triple DU6 glazing unit. The external glass 6mm thick is toughened while the internal glass is laminated and anti-burglary P2A class. Should the pane crack, shards of glass do not pose a danger but remain on the laminate film. Heat transmittance co-efficient for the whole window is **U=0.88** W/m^{2}K (to EN 12567-2).
The window is also available to order with a quadruple U8 glazing unit. Heat transmittance co-efficient for the whole D_F DU8 window is **U=0.76** W/m^{2}K (to EN 12567-2). Such excellent parameters make the window suitable for use in energy-efficient and passive buildings.

ACCESSORIES

The structure of the window enables installation of internal as well as external accessories.
The external awning blind protects against room overheating while internal accessories protect from intensive sun light and provide a decorative element.

INSTALLATION RANGE

The type F flat roof window is suitable for roof pitches between 2 and 15 degrees.

AVAILABLE SIZES

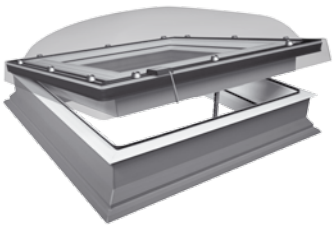
In addition to standard sizes, the **D_F windows can be manufactured in any size (in the range of 60x60 - 120x220cm)**. It allows for easy replacement of existing skylights, often in non-standard sizes that do not meet current thermal insulation requirements.

Size symbol	01K	02K	03K	04K	05K	06K	07K	10K	08K	09K	11K
Window size [cm]	60x60	60x90	70x70	80x80	90x90	90x120	100x100	100x150	120x120	140x140	120x220
Opening size in the roof [cm]	60x60	60x90	70x70	80x80	90x90	90x120	100x100	100x150	120x120	140x140	120x220
DXF DU6 **U=0.88** W/m^{2}K* non-opening	+	+	+	+	+	+	+	+	+	+	+
DMF DU6 **U=0.88** W/m^{2}K * manually opened	+	+	+	+	+	+	+	+	+	+	+
DEF DU6 **U=0.88** W/m^{2}K * electrically opened	+	+	+	+	+	+	+	+	+	+	+

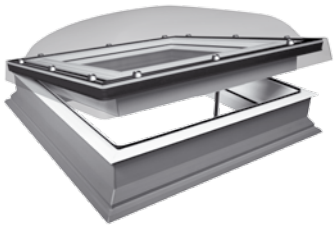
* to EN 12567-2

Order processing time is 15 working days Availability - 2014

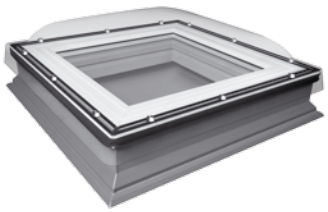
FLAT ROOF WINDOW TYPE C



DEC
electrically opened
with wireless Z-Wave system



DMC
manually opened



DXC
non-opening

Available with a transparent dome D_C-C or with an opaque dome D_C-M

WINDOW STRUCTURE

The type C flat roof window is equipped with a double glazed unit with laminated internal glass which is anti-burglary P2A class as standard. Should the pane crack, shards of glass do not pose a danger but remain on the laminate film. The P2 glazing unit has an innovative and patent-pending dome installation system which increases its anti-burglary resistance. The dome is made of durable polycarbonate. It is characterised by high resistance to impacts and adverse weather conditions such as rain or hail. Special coatings on the outer and inner surface of the dome protect it against UV radiation.

GLAZING UNITS

The heat transmittance co-efficient for the whole window is U=1.2 W/m^{2}K (to EN 12567-2) which is as much as 14% better result than compared with other manufacturer's windows of a similar size. The product range also includes a quadruple U8 glazing unit. Heat transmittance co-efficient for the whole D_C U8 window is **U=0.72** W/m^{2}K (to EN 12567-2) (**U=0.55** W/m^{2}K to EN 1873) and makes the window suitable for energy-efficient and passive buildings.

ACCESSORIES

The structure of the window enables installation of internal as well as external accessories.
A patent-pending system of profiles enables the installation of the awning blind under the dome of the flat roof window, thus protecting the blind against damage as a result of strong winds etc.

INSTALLATION RANGE

The type C flat roof window is suitable for roof pitches between 2 and 15 degrees.

AVAILABLE SIZES

The wide range of sizes available has been matched to standard skylights, enabling the quick and easy replacement of an existing skylight for a new window.

Size symbol		01K	02K	03K	04K	05K	06K	07K	10K	08K	09K	11K
Window size [cm]		60x60	60x90	70x70	80x80	90x90	90x120	100x100	100x150	120x120	140x140	120x220
Opening size in the roof [cm]		60x60	60x90	70x70	80x80	90x90	90x120	100x100	100x150	120x120	140x140	120x220
DXC-C P2 non-opening	**U=1.2** W/m^{2}K*	+	+	+	+	+	+	+	+	+	+	+
DMC-C P2 manually opened	**U=1.2** W/m^{2}K*	+	+	+	+	+	+	+	+	+	+	+
DEC-C P2 electrically opened	**U=1.2** W/m^{2}K*	+	+	+	+	+	+	+	+	+	+	+
DEC-C U8(VSG) electrically opened	**U=0.72** W/m^{2}K* **U=0.55** W/m^{2}K**	+	+	+	+	+	+	+	+	+	+	+

* to EN 12567-2
** to EN 1873

Order processing time is 15 working days Available – III quarter 2013, Available - 2014.

FAKRO®

www.**fakro.com**

FPD/8-/GB/05.2013G035