

HOUSE FULL OF SUNSHINE





INTRODUCTION

A source of natural daylight should be available in any living space. It often happens that there are interiors in which the use of vertical or even roof windows is not feasible.



To ensure illumination in such places, installing a light tunnel will channel natural light to the centre.



They can also be used in the evenings and at night when equipped with light fitting which acts as a lamp.



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

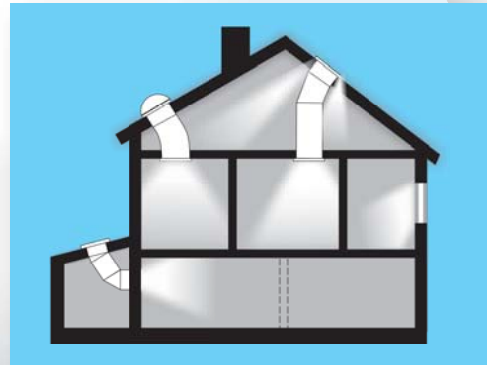


The light tunnel, enhancing the user's comfort and saves energy.

SUNLIGHT

A source of natural light should be available in any living space. Unfortunately, there are interiors in which the use of vertical or roof windows is not feasible. Rooms devoid of daylight are dark and uncomfortable. To ensure illumination in such places, installing a light tunnel will channel natural light to the centre. Light tunnels can constitute the main or additional light source in any room.

The light tunnel carries daylight via the light transmitting tube. Sunlight is reflected from the walls of the highly reflective tube and is directed downwards to the diffuser. The diffuser which is fitted in the ceiling evenly distributes natural light, illuminating the room.



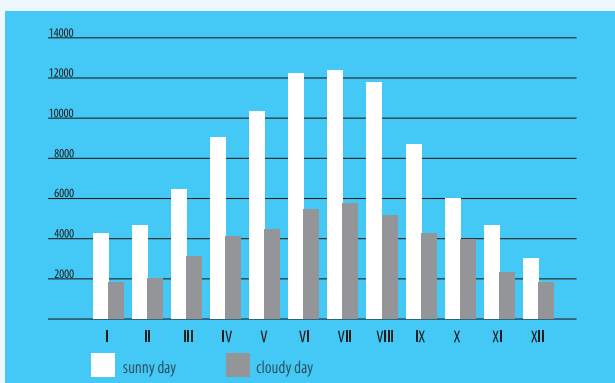
Depending on the user's requirements, colour of walls (possible diffusion and reflection of the light) and furniture placement - this is a basic scheme for light tunnel location in a room with a window. With two different sources of daylight, corner areas are not of great importance in this configuration and are pretty well illuminated. The placement of a light tunnel too close to a wall opposite to a window may diminish the overall light in the middle zone.



The same room without windows and with an asymmetrical light tunnel placement can only be justified in order to secure better illumination of a particular zone (e.g. a computer desk). In other instances this positioning of the light tunnel is disadvantageous.



A simplified light distribution below the light tunnel's diffuser in the middle of the room without windows.



The amount of light which enters the room through the light tunnels depends on the light intensity outside the building. The more light that illuminates the dome of the light tunnel, the more light is conveyed into the building interior.

The diagram illustrates the full amount of daylight (lm) depending on the month and cloudiness measured at the light tunnel dome.

The amount of light entering the room is dependent on the location of the dome.

When planning the installation of the light tunnel, the following elements should be taken into account:

- Place the dome on a south facing roof which is the most illuminated part of the roof and avoid shady places.
- Locate the light transmitting tube in such a way that it travels the shortest possible distance between roof and ceiling.
- Install the light tunnel to ensure the best possible tension (light tunnel with flexible tube).



LIGHT TUNNELS

SYMBOL	SR_	SR_-L	SF_	SF_-L	SRT	SLT	SRF	SFF
TYPE	FLAT	FLAT WITH ILLUMINATION	FLAT	FLAT WITH ILLUMINATION	WITH THE DOME	WITH THE DOME	WITH THE DOME	WITH THE DOME
LIGHT TRANSMITTING TUBE	RIGID	RIGID	FLEXIBLE	FLEXIBLE	RIGID	FLEXIBLE	RIGID	FLEXIBLE
FLASHING	INTEGRATED	INTEGRATED	INTEGRATED	INTEGRATED	NOT INTEGRATED*	NOT INTEGRATED*	—	—
BASE	—	—	—	—	—	—	INTEGRATED	INTEGRATED
LIGHT KIT (OPTION)	—	—	—	—	YES	YES	—	—

1. Flat light tunnels:

Flat light tunnels have elements which are mounted low in the roof and do not protrude beyond its structure and go perfectly well with a uniform roof surface:

SR_ light tunnel – with rigid light transmitting tube and integrated flashing.

It is also available in SR_- L version which illuminates with natural light the space directly below the installation of light tunnel's outer element e.g. attic or loft.

SF_ light tunnel – with flexible light transmitting tube and integrated flashing. It is also available in SF_- L version with illumination of the space directly below the installation of light tunnel's outer element e.g. attic or loft.

2. Light tunnels with dome:

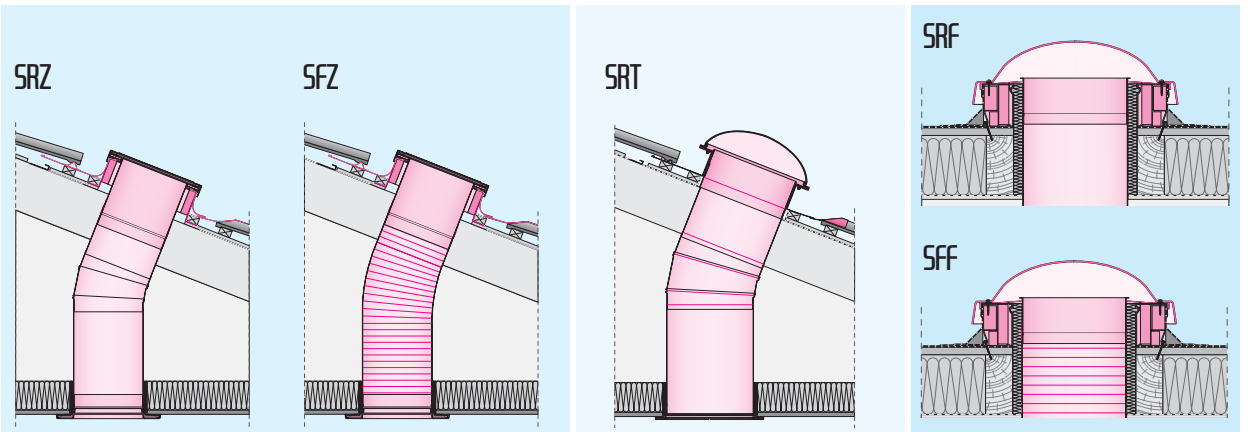
The SRT light tunnel with dome and rigid light transmitting tube. An appropriate flashing must be chosen for the light tunnel. It is also possible to install the SLO light kit.

The SLT light tunnel with the dome and flexible light transmitting tube. An appropriate flashing must be chosen for the light tunnel. It is also possible to install the SLO light kit.

3. Light tunnels with dome:

The SRF light tunnel with dome and rigid light transmitting tube. The light tunnel consists of base: installation frame and specially profiled aluminium cover.

The SFF light tunnel with the dome and flexible light transmitting tube. The light tunnel consists of base: installation frame and specially profiled aluminium cover.



* purchased separately

SLT
SF_
SF_-L



▶ LIGHT TUNNELS WITH FLEXIBLE TUBE

- The light tunnel enables illumination of all rooms in the building, even those which cannot be fitted with roof windows or vertical windows.
- Using light tunnels in rooms devoid of daylight lets natural light inside for better illumination. In other rooms, the light tunnel can constitute an additional light source, enhancing the user's comfort and saving energy.
- It carries daylight via the light transmitting tube. Sunlight is reflected from the walls of the flexible, reflective tube and is directed downwards to the diffuser. The diffuser which is fitted in the ceiling evenly distributes natural light, illuminating the room.
- The light tunnel consists of light collecting element, flashing, light transmitting tube, diffuser and ceiling frame.
- The flexible light transmitting tube is ideal for installation in rooms with structural obstacles that have to be bypassed, thus significantly reducing installation costs and time.
- The advised maximum flexible tube length is 400cm for the 350mm diameter and 600cm for the 550mm diameter tube (for the lengths over 500cm hangers must be applied).
- Suitable for pitches from 15° – 60° and flat roofs.



SLT

- The dome is made of a polycarbonate material which has a high co-efficient of light transmittance and is robust to resist mechanical damage. The shape of the dome allows for easy cleaning. The low electrostatic activity of the dome's surface ensures dust adheres lightly to its surface only and consequently rain quickly washes the dirt away. The dome's shape also assists in the easy removal of fresh and heavy snow.
 - An appropriate flashing must be chosen for the light tunnel.
 - Special flashings ensure tightness and ease of installation.
 - Three types of flashings are available: for flat, corrugated and high profile roof coverings.
 - It is also possible to install the SLO light kit.
- The SLT light tunnel can also be used in the evenings and at night thanks to a light kit fitted inside which acts as a lamp.

SLT (with dome)

light tunnel diameter [mm]	350	550
tube length [cm]	210	210
		

SLT



code	65046	65047
	+	+



SF_

- This consists of an aluminium frame into which 4mm thick toughened glass is bonded. The light transmitting tube is fitted to the inside profile of the frame. The roofing element is made of aluminium sheet metal.
- The entire structure is finished in grey-brown RAL 7022 which matches perfectly all standard colours of roof covering materials.
- Equipped with integrated flashing.
- Three types of flashings are available: for flat, corrugated and high profile roof coverings.

SF_ (flat)

light tunnel diameter [mm]	350	550
tube length [cm]	210	210
		

SFS for flat roof coverings

code	80DA25	80DA33
	+	+

SFZ for corrugated roof coverings

code	80DA27	80DA35
	+	+

SFH for high profile roof coverings

code	80DA29	80DA37
	+	+

SFL for slate roof coverings

	80DA31	80DA39
	+	+



SF_-L

- This consists of an aluminium frame into which 4mm thick toughened glass is bonded. The light transmitting tube is fitted to the inside profile of the frame. The roofing element is made of special organic glass.
- Illuminates natural light the space directly below the installation of light tunnel's outer element e.g. attic or loft.
- The entire structure is finished in grey-brown RAL 7022 which matches perfectly all standard colours of roof covering materials.
- Equipped with integrated flashing.
- Three types of flashings are available: for flat, corrugated and high profile roof coverings.

SF_-L (flat with illumination function)

light tunnel diameter [mm]	350	550
tube length [cm]	210	210
		

SFS-L for flat roof coverings

code	80DA26	80DA34
	+	+

SFZ-L for corrugated roof coverings

code	80DA28	80DA36
	+	+

SFH-L for high profile roof coverings

code	80DA30	80DA38
	+	+

SFL-L for slate roof coverings

	80DA32	80DA40
	+	+

SRT
SR_
SR_-L



▶ LIGHT TUNNELS WITH RIGID TUBE

- The light tunnel enables illumination of all rooms in the building, even those which cannot be fitted with roof windows or vertical windows.
- It comes with rigid light transmitting tube which is made of aluminium, covered with a reflective silver based layer reflecting light in 98% (the interior of the tube looks like a mirror). This design lets much more natural light inside the room.
- The light tunnel consists of light collecting element, flashing, rigid light transmitting tube, elbow, diffuser and ceiling frame.
- Reflective layer (using pure silver) applied in the production of elements of the light transmitting tube is characterized by one of the highest light reflective factors of over 98%.
- The advised maximum light transmitting tube length is 1200cm (for the lengths over 400cm hangers must be applied).
- Suitable for pitches from 15° – 60° and flat roofs.



SRT

- The dome is made of a polycarbonate material which has a high co-efficient of light transmittance and is robust to resist mechanical damage. The shape of the dome allows for easy cleaning. The low electrostatic activity of the dome's surface ensures dust adheres lightly to its surface only and consequently rain quickly washes the dirt away. The dome's shape also assists in the easy removal of fresh and heavy snow.
 - An appropriate flashing must be chosen for the light tunnel.
 - Special flashings ensure tightness and ease of installation.
 - Three types of flashings are available: for flat, corrugated and high profile roof coverings.
 - It is also possible to install the SLO light kit.
- The SRT light tunnel can also be used in the evenings and at night thanks to a light kit fitted inside which acts as a lamp.

SRT (with dome)

light tunnel diameter [mm]	250	350	550*
tube length [cm]	210	210	180
	●	●	●

SRT

code	65050	65051	65052
	+	+	+



SR_

- This consists of an aluminium frame into which 4mm thick toughened glass is bonded. The light transmitting tube is fitted to the inside profile of the frame. The roofing element is made of aluminium sheet metal.
- The entire structure is finished in grey-brown RAL 7022 which matches perfectly all standard colours of roof covering materials.
- Equipped with integrated flashing.
- Three types of flashings are available: for flat, corrugated and high profile roof coverings.

SR_ (flat)

light tunnel diameter [mm]	250	350	550
tube length [cm]	210	210	210
	●	●	●

SRS for flat roof coverings

code	80DA01	80DA09	80DA17
	+	+	+

SRZ for corrugated roof coverings

code	80DA03	80DA11	80DA19
	+	+	+

SRH for high profile roof coverings

code	80DA05	80DA13	80DA21
	+	+	+

SRL for slate roof coverings

code	80DA07	80DA15	80DA23
	+	+	+



SR_-L

- This consists of an aluminium frame into which 4mm thick toughened glass is bonded. The light transmitting tube is fitted to the inside profile of the frame. The roofing element is made of special organic glass.
- Illuminates natural light the space directly below the installation of light tunnel's outer element e.g. attic or loft.
- The entire structure is finished in grey-brown RAL 7022 which matches perfectly all standard colours of roof covering materials.
- Equipped with integrated flashing.
- Three types of flashings are available: for flat, corrugated and high profile roof coverings.

SR_-L (flat with illumination function)

light tunnel diameter [mm]	250	350	550
tube length [cm]	210	210	210
	●	●	●

SRS-L for flat roof coverings

code	80DA02	80DA10	80DA18
	+	+	+

SRZ-L for corrugated roof coverings

code	80DA04	80DA12	80DA20
	+	+	+

SRH-L for high profile roof coverings

code	80DA06	80DA14	80DA22
	+	+	+

SRL-L for slate roof coverings

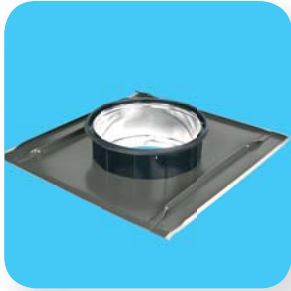
code	80DA08	80DA16	80DA24
	+	+	+



FLASHINGS FOR LIGHT TUNNELS WITH DOME

Flashings enable proper installation of light tunnels in the roof surface. They ensure durable and tight connection between light tunnels and roof covering. Three types of flashings are available which allow installation of light tunnels in most roof coverings.

▶ FLASHINGS



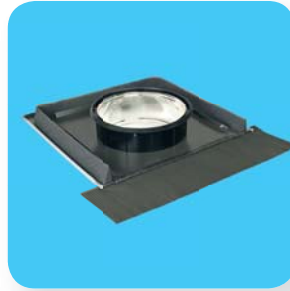
SLS

- flashing designed for use with flat roof coverings with a thickness up to 10mm (2 layers, each of 5mm) such as roofing felt, shingles, slates.

light tunnel diameter [mm]	250	350	550
tube length [cm]	210	210	210

SLS

code	65058	65059	65060
	+	+	+



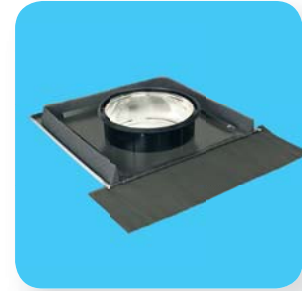
SLZ

- flashing designed for use with roof coverings with a profile height up to 45mm such as tile, profiled metal sheet.

light tunnel diameter [mm]	250	350	550
tube length [cm]	210	210	210

SLZ

code	65061	65063	65064
	+	+	+



SLH

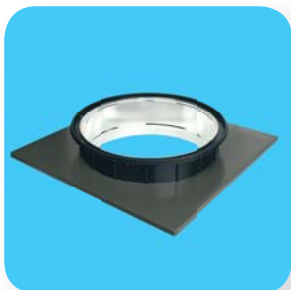
- flashing designed for use with roof coverings with a profile height up to 90mm such as tile, high profile metal sheet.

light tunnel diameter [mm]	250	350	550
tube length [cm]	210	210	210

SLH

code	65065	65066	65067
	+	+	+

▶ FLAT ROOF SYSTEM

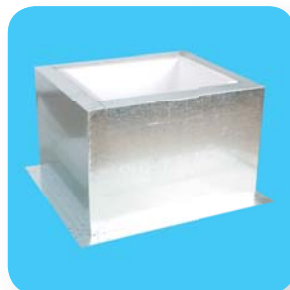


SLP

- Light tunnels can be used in buildings with flat roofs. It often happens that there are interiors in which the use of vertical or roof windows is not feasible. The ideal solution in such cases is the installation of specially designed flat roof system.

- For their proper installation, the set containing the SFP insulated base and SLP flashing should be used.

- The SFP base is made of galvanized steel and insulated inside with styrofoam.



SFP

light tunnel diameter [mm]	250	350	550
tube length [cm]	210	210	210

SLP

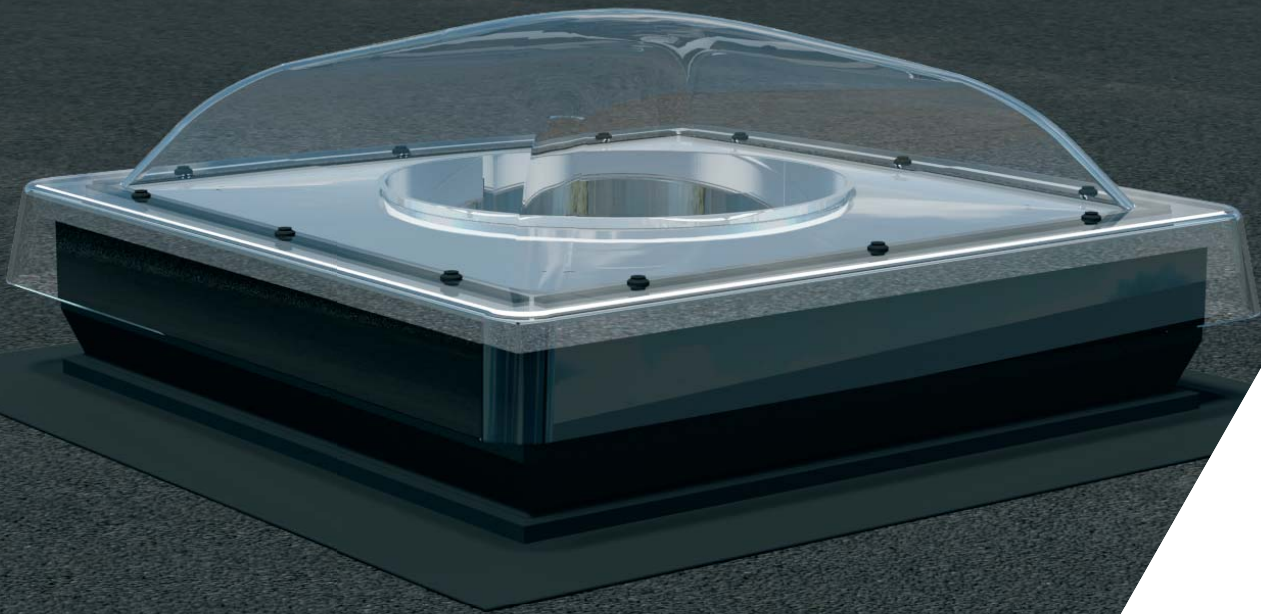
code	65071	65072	65073
	+	+	+

light tunnel diameter [mm]	250	350	550
tube length [cm]	210	210	210

SFP

code	65039	65040	65041
	+	+	+

**SFF,
SRF**



FLAT ROOF LIGHT TUNNEL

- Flat roof light tunnels make it possible to illuminate with natural light all rooms under flat roofs.
- Solution based on proven design of the type C flat roof window with a dome to ensure high durability and tightness.
- Application of light tunnels allows daylight to rooms under flat roofs. In other rooms light tunnels can constitute an additional light source, enhancing the user's comfort and saving energy.
- Base of the light tunnel is filled inside with insulation material to secure excellent thermal insulation performance.
- The base is made of recycled material, therefore the product is eco-friendly.
- The light tunnel carries daylight via the light transmitting tube. Sunlight is reflected from the walls of the tube and is directed downwards to the diffuser. The diffuser which is fitted in the ceiling evenly distributes natural light, illuminating the room.
- The light tunnel consists of installation frame, specially profiled aluminium cover and dome made of stabilized polycarbonate.
- Light tunnels are suitable for roofs with pitches from 0° – 15°.



SFF

- The light tunnel with flexible light transmitting tube which allows to bypass potential structural obstacles.
- The tube length is 210cm.



SRF

- The light tunnel with rigid light transmitting tube.
- The tube length is 61cm.
- The tube can be extended using a special SRM extension kit.

light tunnel diameter [mm]	350	550
tube length [cm]	210	180
		

SFF with flexible light transmitting tube 2.1m long

code	80DA44	80DA45
	+	+

* SRF 350 and SRF 550 sets do not come with elbow - available as an option.

light tunnel diameter [mm]	350	550
tube length [cm]	210	180
		

SRF with rigid light transmitting tube 0.61m long

code	80DA41	80DA42
	+	+

* SRF 350 and SRF 550 sets do not come with elbow - available as an option.



➤ ACCESSORIES FOR LIGHT TUNNELS

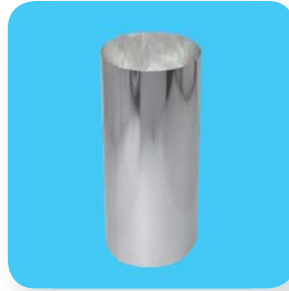


SLM

Flexible light transmitting tube extension kit

The kit includes connecting ring, light transmitting tube - 120cm section, adhesive tape. It is possible to order the light transmitting tube in other lengths, but they have to be calculated as units of 30cm (e.g. 60cm, 90cm, 150cm).

light tunnel diameter [mm]	250	350	550
SLM			
code	-	65094	65095
	-	+	+



SRM

Rigid light transmitting tube extension element

Made of aluminium (single element length - 61cm), covered with a highly silver based layer. The SRT light tunnel can be extended up to 12m.

light tunnel diameter [mm]	250	350	550
SRM			
code	65087	65088	65089
	+	+	+



SRK

Elbow

It changes the angle of light transmitting tube in the range of 0 - 65°. For all SR_550 and SRF light tunnels, the SRK elbow is only available as an option.

light tunnel diameter [mm]	250	350	550
SRK			
code	65090	65091	65092
	+	+	+



SLC

Hanger

Used when an overall light transmitting tube is longer than 5m. Hangers are applied in order to take part of the tube's weight and to prevent it from tearing away from the light tunnel flashing.

light tunnel diameter [mm]	250	350	550
SLC			
code	-	65096	65097
	-	+	+



SRC

Hanger

Used when rigid light transmitting tube length exceeds 4m. It takes part of the tube's weight.

light tunnel diameter [mm]	250	350	550
SRC			
code	65093	65093	65093
	+	+	+



SLO

Light Kit

The light kit is designed exclusively for the SLT and SRT light tunnels and is applied as an alternative source of illumination at night. The kit is fitted inside the light tunnel. Light bulb wattage: max 40W (E27).

light tunnel diameter [mm]	250	350	550
SLO			
code	65086	65098	65099
	+	+	+



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