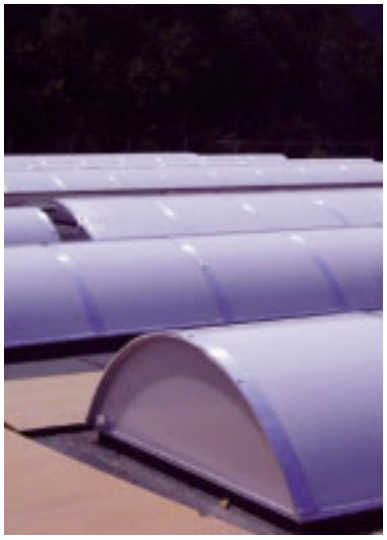
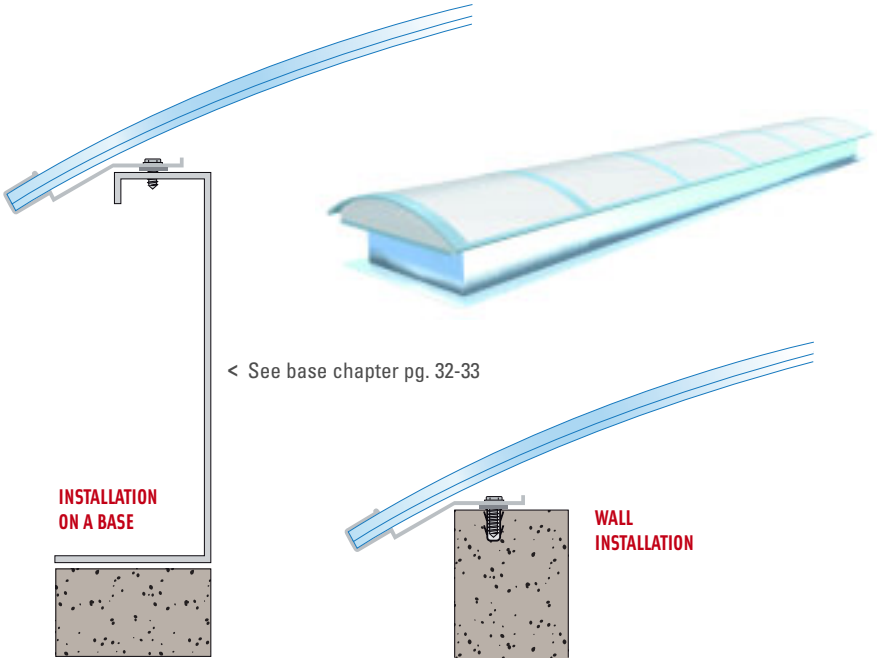
ACL SKYLIGHTS FIXED

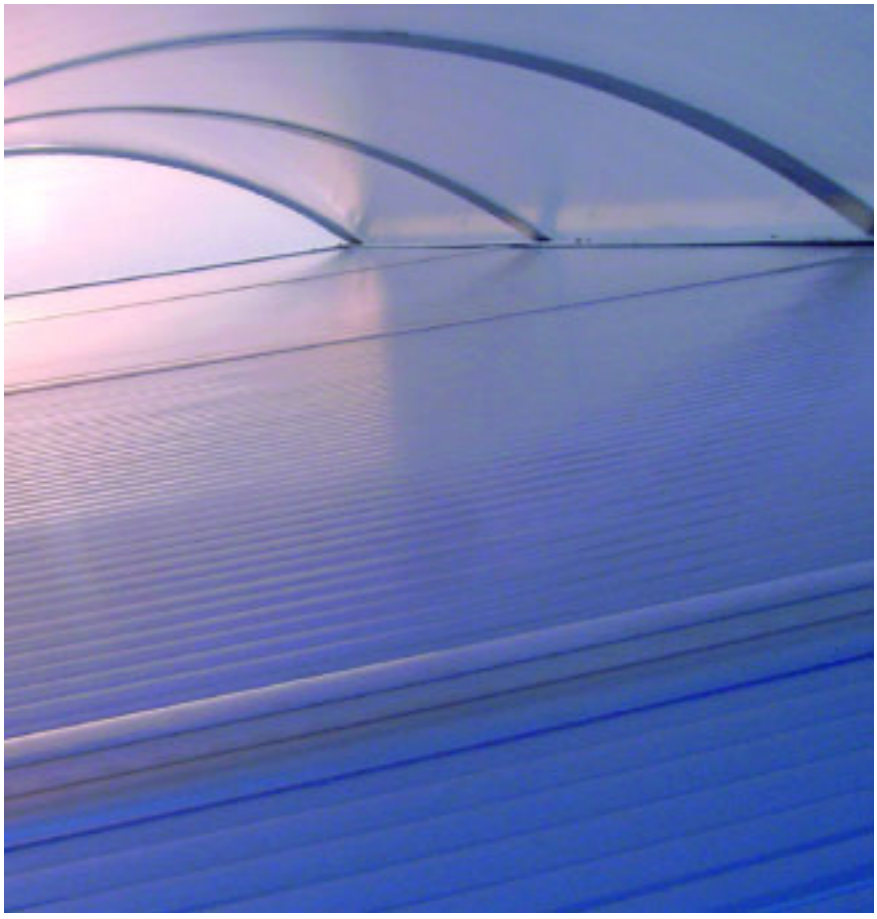
FOR WELL-LIT ENVIRONMENTS

ACL Skylights are also available in a fixed version, used when an environment needs light over a greater space.
In areas needing ventilation it is possible to use the mixed ACL system (see pg.44), guaranteeing optimum light and air flow.





< See base chapter pg. 32-33



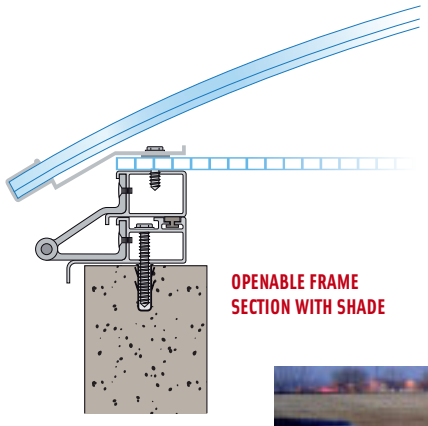
ACL SKYLIGHTS INSULATED

THERMAL INSULATION IN A WORKING ENVIRONMENT

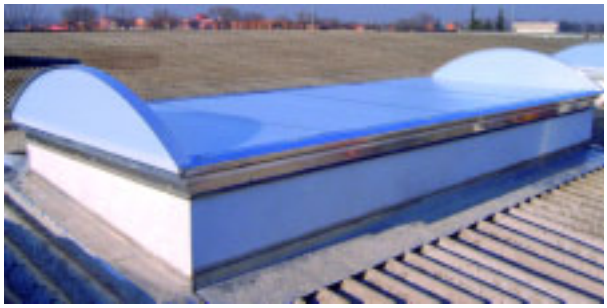
To guarantee a constant temperature in the working environment (e.g. needed for the food sector) it is possible to insulate the skylight by installing shades of various thicknesses, positioned between the cover and the opening frame. Basso Lucernari can offer assistance in the planning phase to find and create the solution according to clients needs.

SAFETY NET (ANTI-FALL)

All skylights can be fitted with an anti-fall safety net, mosquito net, bird net and anti-break-in net.

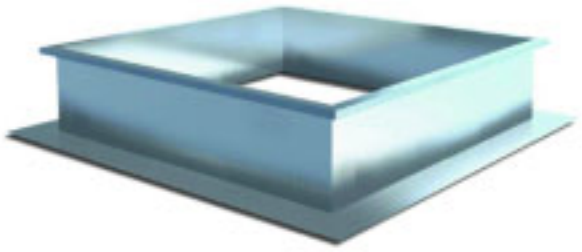


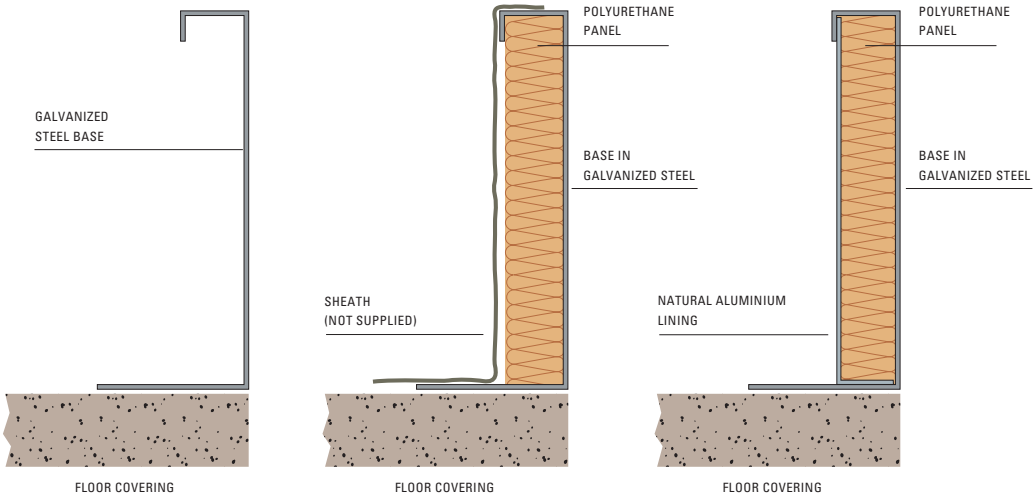
OPENABLE FRAME
SECTION WITH SHADE

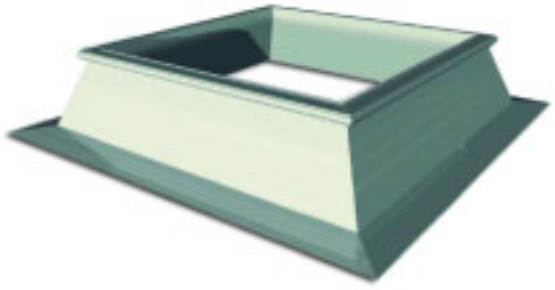


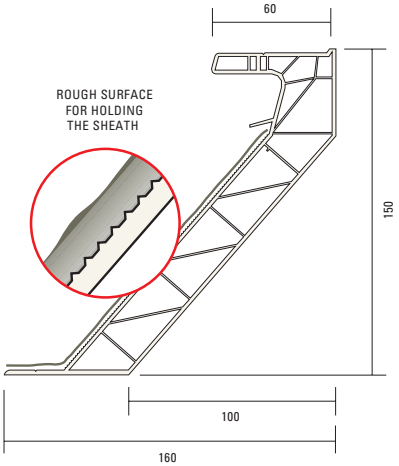
GALVANIZED STEEL BASES

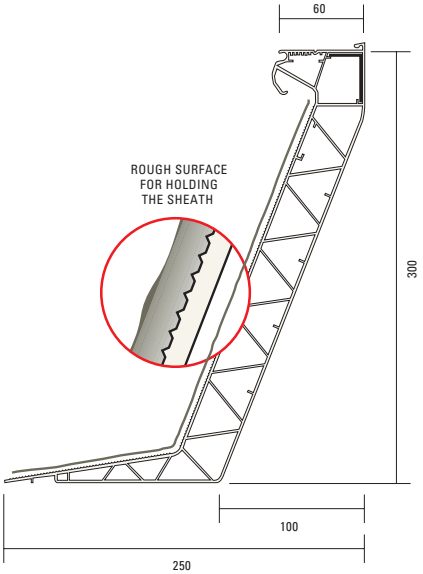
To guarantee suitable insulation, the bases are insulated with auto-extinguishing expanded polyurethane panels with a thickness of 3-4 cm. Assembly and positioning is fast and easy: each base comes provided with all metal anchoring devices and positioning instruction manual.





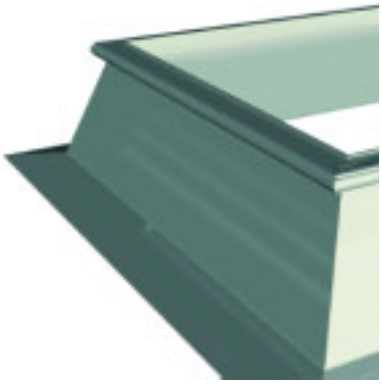






PVC BASE

The shape of the base is reamed to allow better diffusion of light. The metallic bases, in galvanized sheet or other chosen metal, can have vertical or reamed sides and be opportunely shaped to guarantee a perfect anchoring and support base for the whole skylight.



AN APPROPRIATE BASE FOR EACH SKYLIGHT

BASES
(FOR SKYLIGHTS)

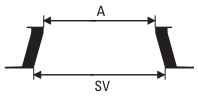
Different bases are available for each type of skylight, varying in shape and material.
The choice is aimed at the best installation and performance of the product.
Basso Lucernari has a warehouse with a wide choice of bases: in steel, PVC and with square or rectangular base.

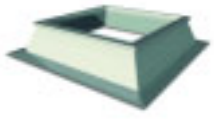
BASES
(FOR VENTILATION)

The metallic base for natural ventilation consists of extruded aluminium modular slats of 15 cm, 30 cm, and 45 cm height.
The particular shape of the slats allows suitable ventilation, preventing the entrance of water via the base.

BASE DIMENSIONS

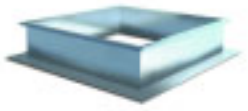
PVC





H:15cm SV 10+10	H:30cm SV 10+10
Square base: **A:** from 60 cm to 200 cm	**Square base:** **A:** from 60 cm to 200 cm
Rectangular base: **A:** from 60x90 cm to 160x280 cm	**Rectangular base:** **A:** from 60x90 cm to 160x280 cm

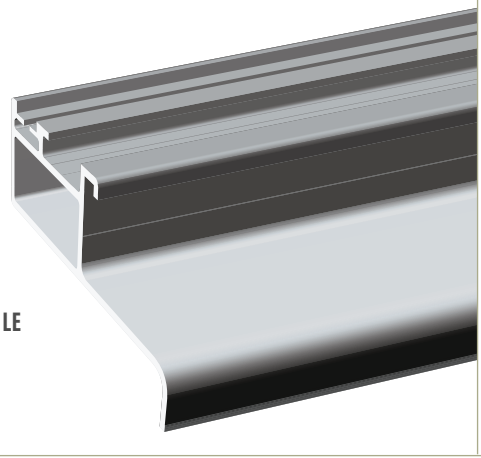
GALVANIZED STEEL



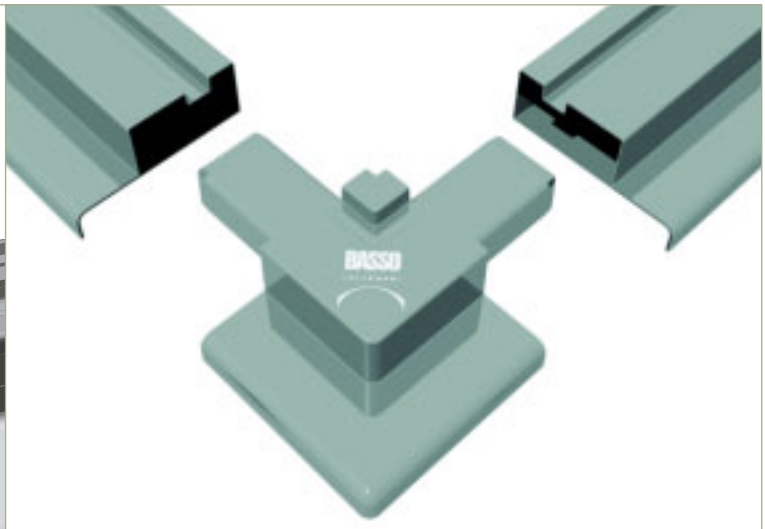
Galvanized sheet bases can be made to measure.

OUR PROFILES

BASSO LUCERNARI have planned a wide range of profiles in natural or anodized aluminium, with designed sections which vary depending on the type of skylight.



PROFILE



ANGULAR

To avoid welding the frames BASSO LUCERNARI have patented graft pressure-cast corners with the aim of avoiding caulking which can result from infiltrated water.

EXTERNAL DIMENSIONS PANE THICKNESS

The table on the right shows the external dimensions of the skylight related to the thickness of the polycarbonate panes.

ADR

ACL

PANE THICKNESS	EXTERNAL SUPPORT (meters)									
	0,6	0,8	1	1,2	1,3	1,5	1,7	2	2,5	2,75
6mm										
8mm										
10mm										
10mm REINFORCED										
16mm										
8+2mm										

COVERING MATERIALS

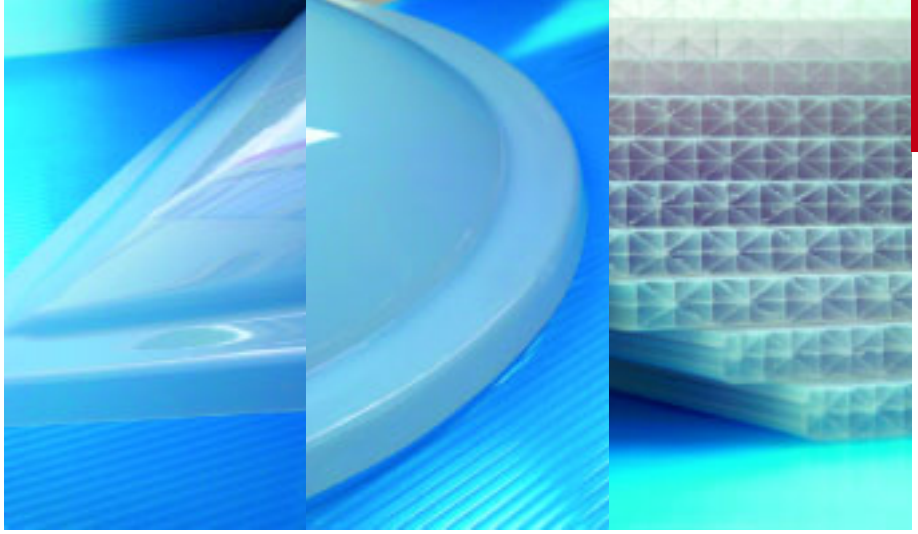
Auto-extinguishing alveolar polycarbonate panes Euro class B, external protection from UV rays.

PANE SECTIONS IN ALVEOLAR POLYCARBONATE

Thickness 6mm 1.3kg/mq		Thickness 10mm Reinforced 3.1kg/mq	
Thickness 8mm 1.5kg/mq		Thickness 16mm 2.7kg/mq	
Thickness 10mm 1.7kg/mq		Thickness 8+2mm 3.9kg/mq	

Compact polycarbonate

Alveolar polycarbonate



MATERIAL TECHNICAL CHARACTERISTICS

METHACRYLATE PMMA

Compact methacrylate (PMMA) flat panes guaranteed synthesis original, as the material is of the highest quality, exempt from recovery monomers. The optical and physical-mechanic properties typical of pure polymer are guaranteed to be unchangeable; normally exposed to the outside for ten years with total protection from UV rays, with the following technical characteristics.

TECHNICAL CHARACTERISTICS	REFERENCE REGULATION	METHACRYLATE PMMA
Apparent specific weight	DIN 53479	GR/cm² 1.19
Resistance to bending	ISO 178	N/mm² 105
Resistance to knocks with Charpy intaglio	ISO 180/1A	Kj/m² 1.6
Temperature of softening	ISO 306	°C 102
Coefficient of linear extension	VDE 0304/1	mm/m °C 0.07
Transmission of light Trans.+Trans.	DIN 5036	90%
Transmission of light Trans.+Opal	DIN 5036	73%
Transmission of light Opal+Opal	DIN 5036	62%
Reaction to fire	DIN 4102	Class B2

COMPACT POLYCARBONATE PC

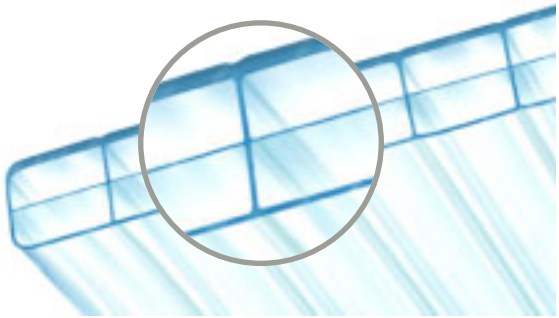
Compact polycarbonate (PC) flat panes are guaranteed auto-extinguishing with certification of proof "Class 1A" of reaction to fire and synthesis original as the material is of the highest quality and is exempt from recovery monomers. Anti-breaking and the optical and physical-mechanic properties typical of pure polymer are guaranteed to be unchangeable; normally exposed to the outside for ten years with total protection from UV rays, with the following technical characteristics.

TECHNICAL CHARACTERISTICS	REFERENCE REGULATION	METHACRYLATE PCC
Apparent specific weight	DIN 53479	GR/cm² 1.20
Resistance to bending	ISO 178	N/mm² 90
Resistance to knocks with Charpy intaglio	ISO 180/1A	Kj/m² 10
Temperature of softening	ISO 306	°C 145
Coefficient of linear extension	VDE 0304/1	mm/m °C 0.07
Transmission of light Trans.+Trans	DIN 5036	84%
Transmission of light Trans.+Opal	DIN 5036	67%
Transmission of light Opal+Opal	DIN 5036	56%
Reaction to fire	DIN 4102	Class B1

REINFORCED ALVEOLAR POLYCARBONATE

Double chamber 10mm panes, which combine the resistance of the compact pane to the insulation properties of the alveolar pane. The higher external side has a reinforced thickness of 1.5 mm. and offers excellent protection against hail (resistance 11 times higher than that of normal alveolar polycarbonate).

TECHNICAL CHARACTERISTICS	
Thickness	DIN 53479
Ext. reinforcement	ISO 178
Weight	ISO 180/1A



STAGES OF INSTALLATION

The sequence of photos shows the ascending moments of installation of skylights on the roofing of industrial warehouses: from mounting the frame to the roof to the final application of silicon to the skylights.

Photo 1: *Lorry equipped with basket for safer and quicker access to the roofing.*

Photo 2: *Lorry equipped with tow and crane, with an arm of 27mt for raising the material.*

photo. 1

photo. 2

INSTALLATION

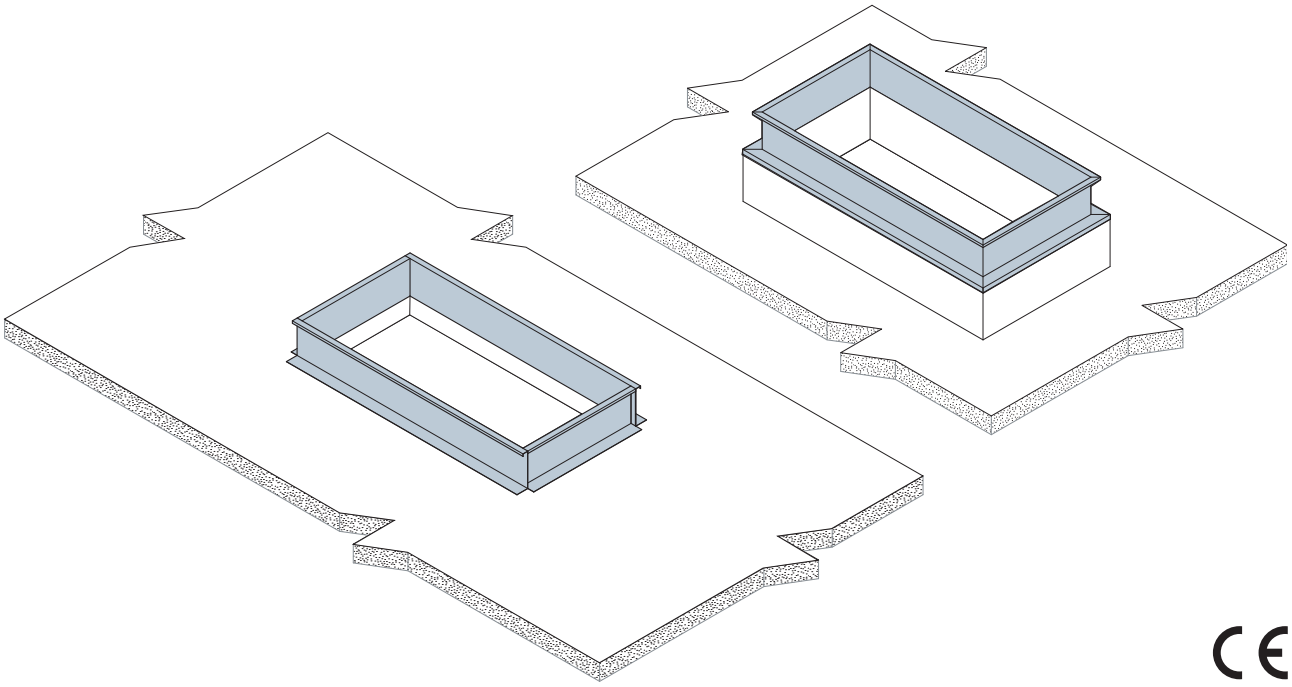
A TEAM JOB FOR ACCURATE INSTALLATION

Basso Lucernari places a lot of attention on the most delicate stage of delivery: installation. They have various assembly teams in the company, well-prepared people who are able to carry out each stage of installation according to active regulations.

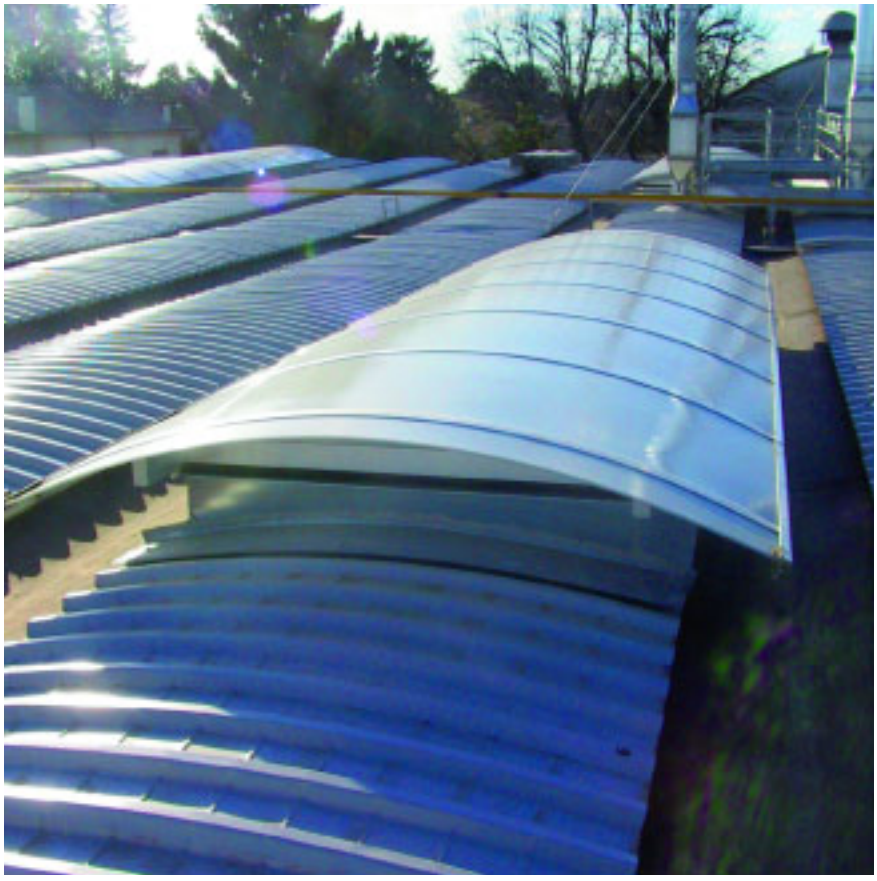
- INSTALLATION ON ROOF DECK
- INSTALLATION ON ROOFING WITH A "Y" BEAM
- INSTALLATION ON CURVED ROOFING
- INSTALLATION ON SLOPED SURFACE
- INSTALLATION ON THE ROOF TOP

INSTALLATION ON ROOF DECK

The base has an inferior edge for attachment to the roof deck, with vertical sides for the possible insertion of insulation.

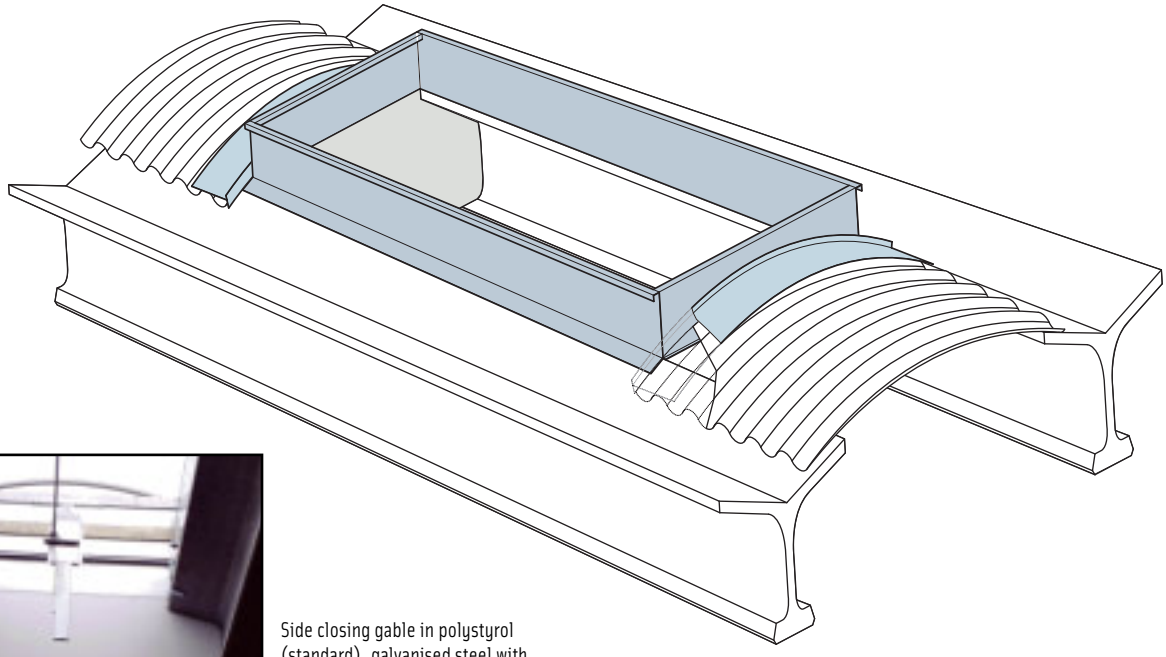


CE



INSTALLATION ON ROOFING WITH A "Y" BEAM

A valley gutter is fixed and applied with silicon at the contact point between the base and the roofing mantle (to the sides of the base). The space between the false ceiling and the base is closed with a moulded panel in the form of a beam. The fixing of the base to the beam is carried out using steel brackets.

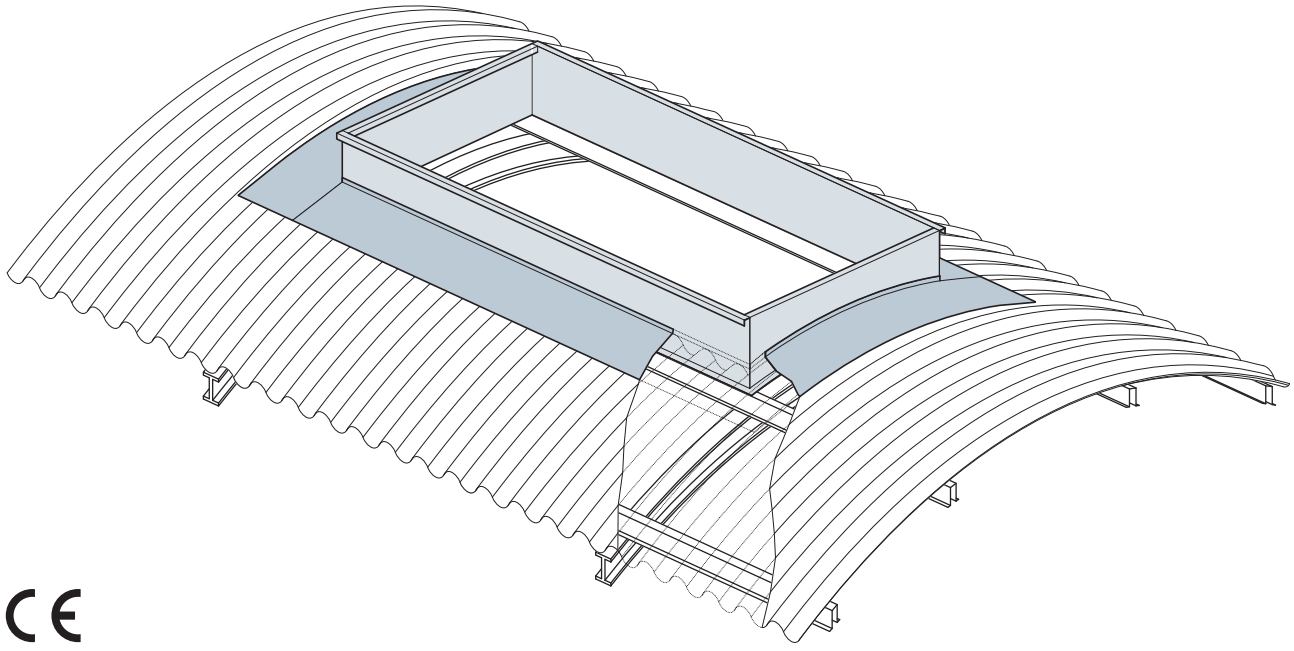


Side closing gable in polystyrol (standard), galvanised steel with white grey finishing, stainless steel, and aluminium.

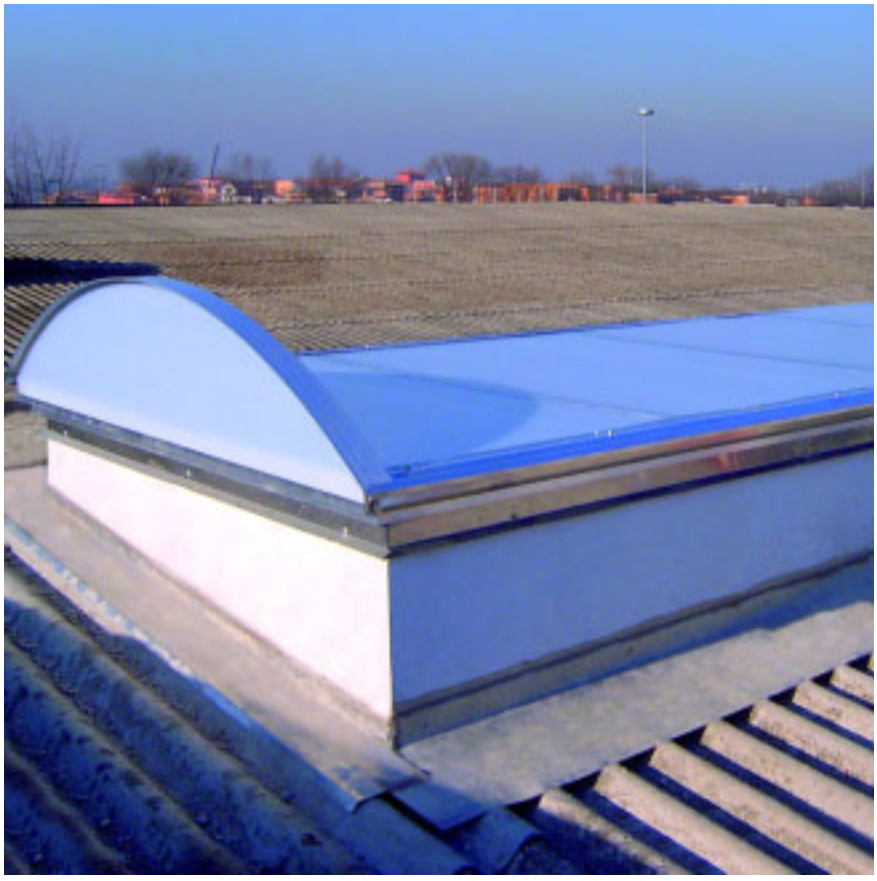
CE

INSTALLATION ON CURVED ROOFING

A galvanized steel valley gutter is fixed and applied with silicon at the contact point between the base and the roofing mantel of the building. The longer sides have an edge for the support and fixing of the base to the purlins.

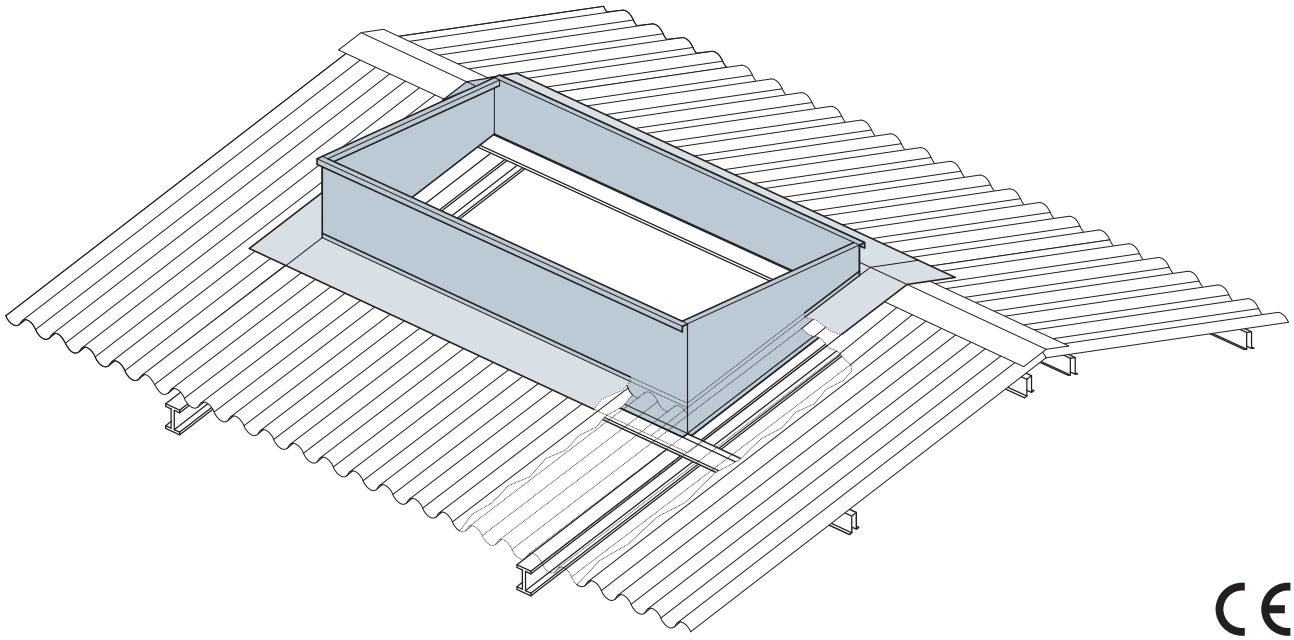


CE



INSTALLATION ON SLOPED SURFACE

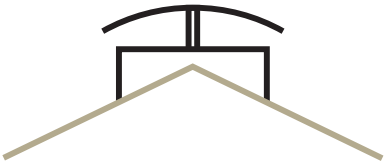
The base is made in counter slope and has a channel for the collection of water carried in the roofing.

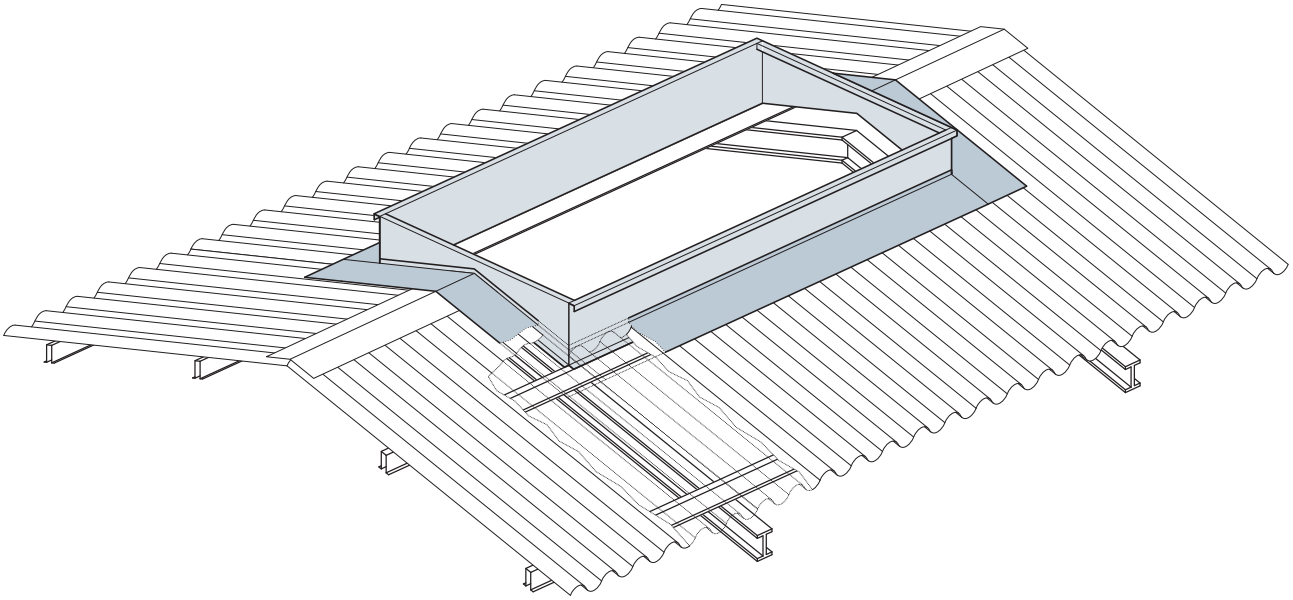


CE

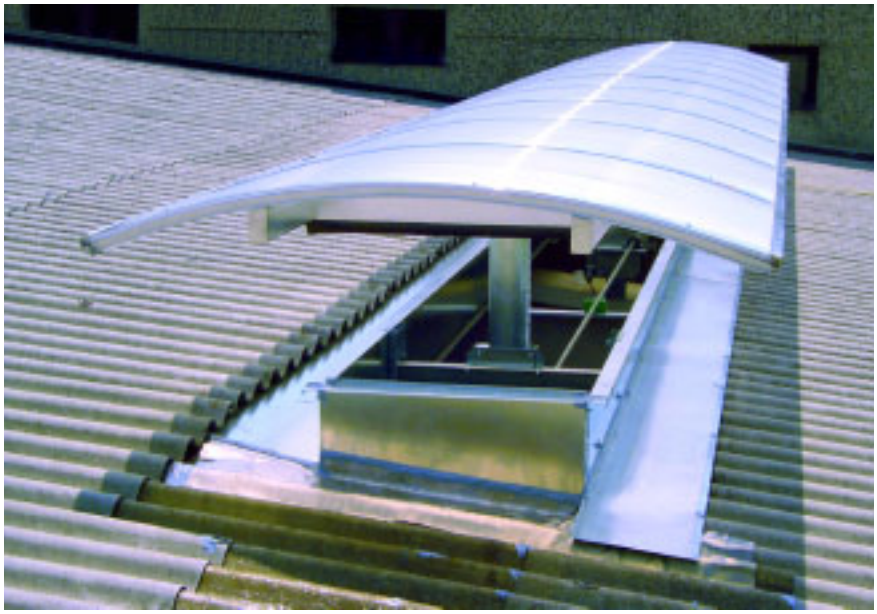
INSTALLATION ON THE ROOF TOP

A galvanized steel valley gutter is fixed and applied with silicon at the contact point between the basement and the roofing mantel of the building along the whole perimeter.
The longer sides have an edge for the support and fixing of the base to the purlins.



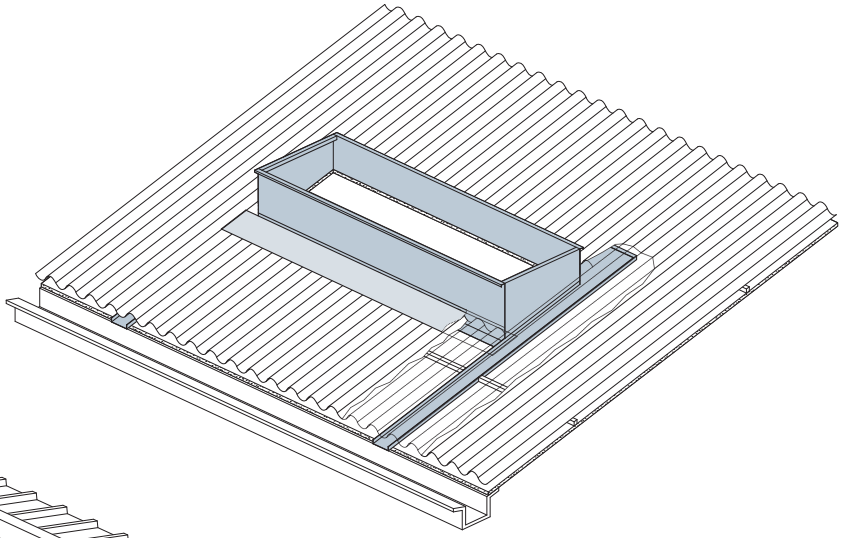


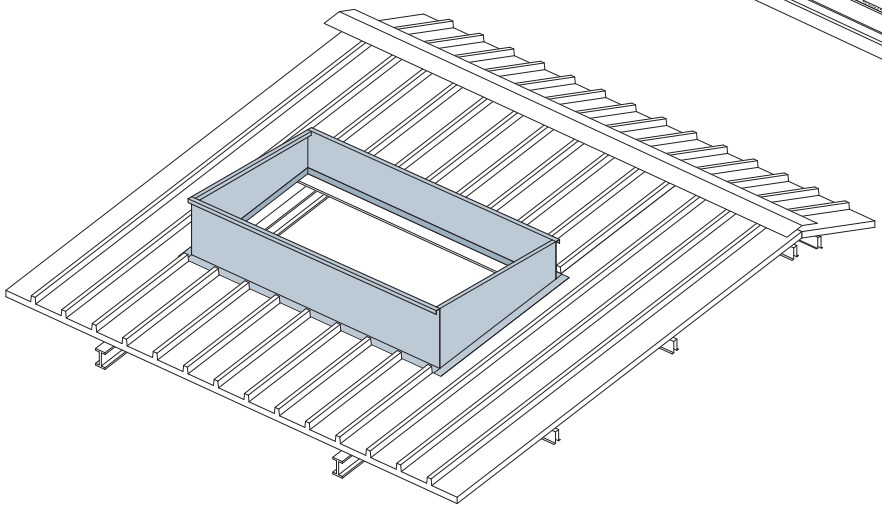
CE



INSTALLATION ON SLOPED SURFACE

The base is made in counter slope and has a channel for the collection of water carried to the gutter.





CE