

Daylight systems



**Heliobus**®  
Let the sun shine in

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Three mirror shafts integrated into modern architecture



Accessible reinforced glass in the ventilation frame



# Helio**bus**<sup>®</sup> Mirror shafts draws...

... daylight into the basement

The Helio**bus**<sup>®</sup> mirror shaft converts your dark basement rooms into living or working areas.

An ingenious principle.

An all-sided mirror module draws natural daylight and sunlight into the basement.

A mirror module is installed in the cellar wall and covered on the outside with accessible reinforced glass.

The ventilation frame surrounding the reinforced glass guarantees a supply of fresh air into the basement room.

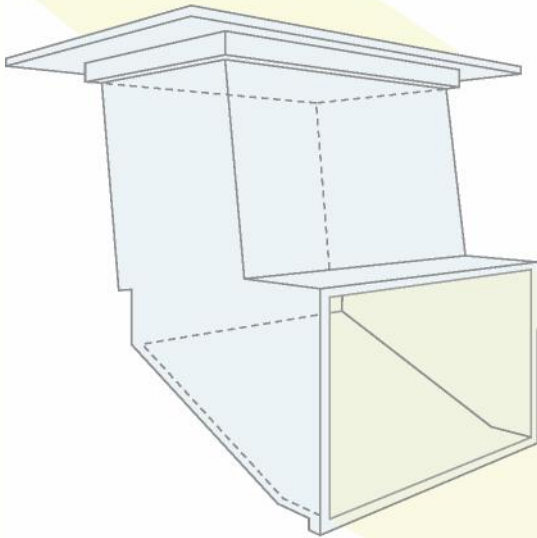
The Helio**bus** mirror module makes basement rooms lighter and it can also provide views of the outside world, the sky, clouds, plants.

A completely new, daylight atmosphere unfolds in the air-flooded basement.



# ...Daylight into the basement

Heliobus® mirror shafts allow more efficient use of basement rooms.



## The benefits to you:

- > Naturally lit basement
- > Link to the outside world
- > Extra living space
- > Fresh air
- > Improved burglary prevention
- > Existing light shafts can be upgraded
- > Enhanced property value

Request a quotation without charge or obligation: [info@limitless.uk.com](mailto:info@limitless.uk.com)  
Or Tel: 01373831497

We look forward to hearing from you!



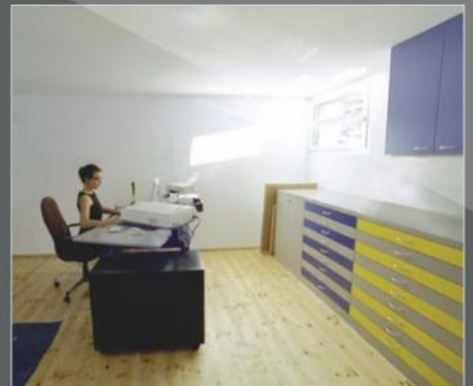
View through the mirror shaft



Fresh air supply through the open window



Sunlight into the basement



A workplace with quality of life



Grand Casino St. Gallen



Lac of Constance SG



Wollerau SZ



Küsnacht ZH







Casinotheater Winterthur



Zug ZG

Wittenbach SG

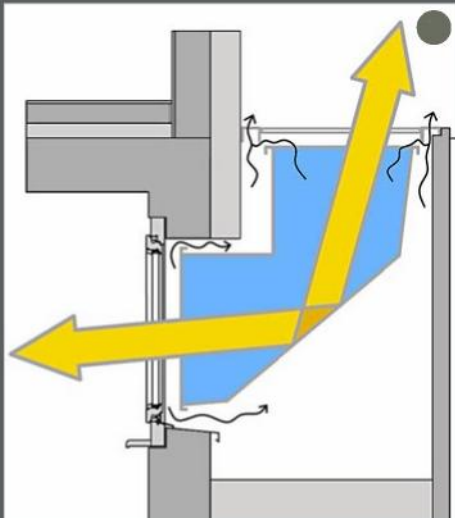


Rüschliko ZH



Greenwich Connecticut USA





### Art. Description

1100

**HSS, LUX version**  
The perfect solution for basement light:

#### Helio**bus**<sup>®</sup> mirror module

- Aluminium construction fully lined with glass mirrors
- Ventilation through and around the mirror module
- "Tailored" geometry for optimised lighting conditions
- Distortion-free reflection (view, Fig. 3)
- Easy-clean mirror surfaces

#### Helio**bus**<sup>®</sup> shaft cover

- Laminated reinforced safety glass in external panel  
Standard: accessible in internal panel
- Steel frame with ventilation openings, (Fig 2)
- Passivated, powder-coated corrosion protection  
Standard: RAL 9006 white aluminium

Price – contact Limitless Ltd for a no-obligation quotation

### Options

For the shaft cover:

- Anti-slip material
- Visual protection (matt glass)
- Heatable laminated safety glass (guaranteed condensate-free, for thawing snow and ice)
- Chromium steel design
- Choice of frame colours
- Active ventilation
- Insect grating
- Hose opening
- Accessible
- continue

To mirror module:

- Extra white glass mirror (reduced green cast)

Service

- Service Agreement

For details, see HSS options

## Heliobus® mirror shaft (HSS), LIGHT version

Art.	Description
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1200	<p><b>HSS, LIGHT</b> version The inexpensive alternative to the LUX version comprises:</p>
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**Heliobus® mirror module**

- Aluminium construction from 1mm reflective aluminium plate, highly-polished, anodised
- Ventilation through and around the mirror module
- "Tailored" geometry for optimised lighting conditions

**Heliobus® shaft cover**

- Laminated safety glass "reinforced glass"  
Standard: accessible in the private area
- Steel frame with ventilation openings (Fig 2)
- Passivated, powder-coated corrosion protection  
Standard: RAL 9006 white aluminium

Price – contact Limitless Ltd for a no-obligation quotation

**Options**

For the shaft cover:

- Anti-slip material
- Visual protection (matt glass)
- Heatable laminated safety glass (guaranteed condensate-free, for thawing snow and ice)
- Chromium steel design
- Choice of frame colours
- Active ventilation
- Insect grating
- Hose opening
- Accessible
- continue

To mirror module:

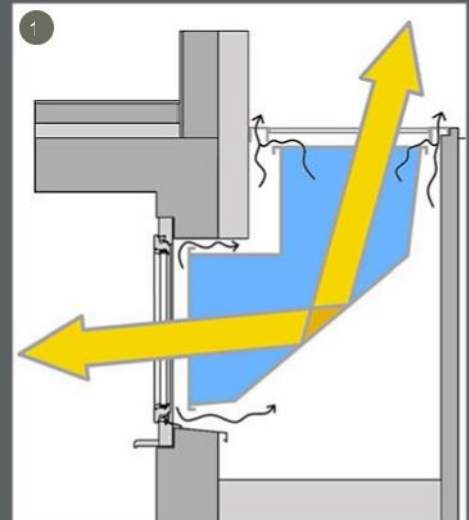
- Module can be supplied without cover, mirror module protected by Plexiglass cover below grating.  
Special criteria for existing grating and light shaft proportions

Service

- Service Agreement

For details, see HSS options

Tel 01373831497

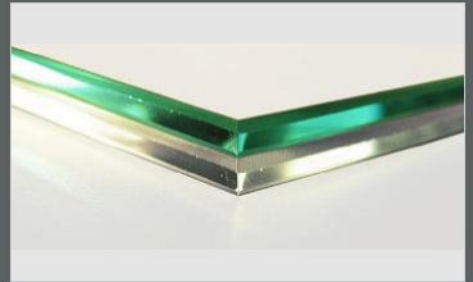




Art.	Description
4100	<p><b>HSS shaft cover</b></p> <p>Can be supplied individually</p> <ul style="list-style-type: none"> <li>• Laminated reinforced safety glass in external panel Standard: accessible in internal panel</li> <li>• Steel frame with ventilation opening (Fig 2)</li> <li>• Passivated, powder-coated corrosion protection Standard: RAL 9006 white aluminium</li> <li>• Fewer bugs, fewer small animals</li> </ul> <p>Price – contact Limitless Ltd for a no-obligation quotation</p>
4200	<p><b>Metal shaft cover</b></p> <p>HSS vent cover</p> <ul style="list-style-type: none"> <li>• Mass-produced shaft cover with vent slot for inserting into the rebate of the existing concrete light shaft or steel frame</li> <li>• Passivated and powder-coated corrosion protection Standard: RAL 9006 white aluminium</li> </ul> <p>Options: Chromium steel design, choice of colours, insect grating, hose opening, intruder alarm</p> <p>Price – contact Limitless Ltd for a no-obligation quotation</p>
7100	<p><b>HSS Service Agreement</b></p> <p>Maintenance / cleaning of the Heliobus® daylight system</p> <p>Services: Annual cleaning and inspection of the Heliobus® installation by Heliobus® specialists The price includes one call-out per year, including detergents</p> <p>Ask for a quotation</p>

## Heliobus® mirror shaft (HSS) options

Art.	Description
1150	<p><b>Extra white glass mirrors</b></p> <p>Extra white quality mirrors in place of standard glass mirrors, for optimised, sunfast daylight reflection Fig: Top pane: standard glass mirrors Bottom pane: extra white glass mirrors</p> <p>Price – contact Limitless Ltd for a no-obligation quotation</p>
2110	<p><b>Anti-slip material</b></p> <p>An anti-slip material is required in areas near paths, building entrances etc.</p> <p>Price – contact Limitless Ltd for a no-obligation quotation</p>
2120	<p><b>Visual protection</b></p> <p>Matt glass provides visual protection</p> <p>Price – contact Limitless Ltd for a no-obligation quotation</p>
2150	<p><b>Heatable laminated safety glass</b></p> <p>For guaranteed condensate-free glass and/or for thawing snow and ice Heated glass with barely visible heating elements</p> <ul style="list-style-type: none"> <li>• incl. manual control</li> <li>• Customer provision: 220 V power supply into the light shaft, switch</li> </ul> <p>Price – contact Limitless Ltd for a no-obligation quotation</p>





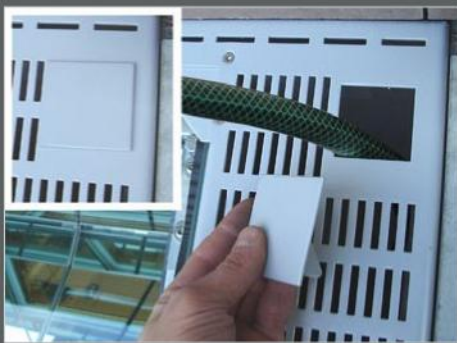
Art.	Description
2210	<p><b>Chromium steel design</b></p> <p>Chromium steel HSS shaft cover, smoothed surface</p> <p>Price – contact Limitless Ltd for a no-obligation quotation</p>



2220	<p><b>Choice of colour for HSS</b> shaft cover</p> <p>Colour frame to Heliobus RAL colour chart, freely selectable</p> <p>Price – contact Limitless Ltd for a no-obligation quotation</p>
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2310	<p><b>Insect grating</b></p> <p>Vent slots with additional insect grating This reduces the vent cross section!</p> <p>Price – contact Limitless Ltd for a no-obligation quotation</p>
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2320	<p><b>Hose opening</b></p> <ul style="list-style-type: none"> <li>• for flushing drain pipes located in the light shaft</li> <li>• for power cable penetration, e.g. exterior lighting</li> </ul> <p>Price – contact Limitless Ltd for a no-obligation quotation</p>
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2330	<p><b>Accessible private area</b></p> <p>Accessible HSS shaft cover for cars in the private area</p> <p>Price – contact Limitless Ltd for a no-obligation quotation</p>
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## Helio**bus**<sup>®</sup> brings light into darkness



Occupants of multi-family dwellings can enjoy their extra room that was originally designed only as storage space.

## Living and working in a healthy daylight environment

### Natural daylight

In a time when artificial light appears to be preferred over the natural cycle of day and night, workplaces with little or no daylight have practically become the norm and we spend more than 22 hours a day indoors, our awareness of the importance and quality of natural light is taking on a new meaning.

As human beings, we have always been accompanied and shaped by the spectrum of beautiful natural light, varying brightness levels caused by the switch between day and night; the constantly changing weather conditions and the seasonal sunlight with its cyclical patterns of nature.

We are woken and innervated by the growing intensity of the morning light, the midday sun lends strength to nature and organisms, the shadows of the afternoon light evokes emotion and the colours of a sunset create dreams and longing. The often grandiose drama in the canopy of the sky combines with the earth's natural forces to create the basis and backdrop of our existence. That's why the diverse phenomena of natural cycles are omnipresent and well documented. Daylight is vital to life on our planet. Artificial light is no substitute. Heliobus<sup>®</sup> brings daylight into your house too!

### Daylight and health

Daylight acts as a message for the sense of sight and influences a human being's activity and motivation. It improves concentration, enhances motivation and counteracts fatigue. We humans suffer from a prolonged lack of sunlight. Our sleep and wake patterns shift and our body's rhythm is sent out of synch, diminishing the quality of our sleep.

It is in the winter months that we experience a lack of vitality, caused mainly by low light levels. The importance of daylight to health is being lent increasing credence by the medical profession due to the increasing deficiency syndromes.

### Daylight in architecture

Architecture is playing more of a key role. The design of our buildings, their orientation towards the sky, the facade formation and the type of sun protection must be geared towards letting in the optimum amount of light. Creating summertime thermal protection, as well as facilitating outside views and letting in the

optimum amount of daylight pose particular challenges. In rooms with little or no daylight, where people dwell for longer, Heliobus<sup>®</sup> daylight systems offer numerous benefits: higher comfort level for the users, health benefits, improved efficiency, optimised use of the basement and rooms without windows creating significant cost savings, reduced energy consumption for lighting and heating.

## Guidance and information

### Architecture and planning

The following are available for architects, general planners and craftsmen:

- Brochure entitled "Architecture and Planning" with dimensional data and room concept
- DXF facade detail view M1:20
- FAQ Architects

Please do not hesitate to contact us if you have any questions. We will be happy to advise you and send you further details. [www.limitless.uk.com](http://www.limitless.uk.com) or telephone 01373831497.

### Recommendation for builders

In our experience, planning a Heliobus® Installation early can bring twice as much daylight into a building as the use of standard basement shafts. We recommend the brochure entitled, "Architecture & Planning".



Architecture and Planning

### Legals

Our General Terms and Conditions apply. The data on our products, their accessories and technical specifications are correct at the time of going to print; they are not binding.

Patents: USA, Switzerland, Europe.

### Impressum

© by Heliobus® AG Switzerland Feb. 2008  
Realisation / Graphic / Photos: Ken Tompkins  
Illustration Front: Sabina Schütz

Limitless Ltd – Tel 01373831497

# Heliobus®

Heliobus® lets the sun shine underground !



Show home



Show home interior view

[www.limitless.uk.com](http://www.limitless.uk.com)

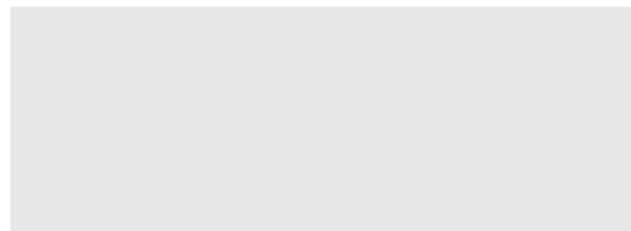
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