VARIO-NORM

VELUX®
Commercial

The top-selling continuous rooflight system for new buildings, European Technical Approval (ETA)

VARIO-NORM

Threefold benefit
- light: room illumination with daylight
- air: ventilation and exhaust, fresh air in the workplace
- natural smoke exhaust: fire prevention

With optional accessories for fall-through protection
- e.g. LB-DSL: permanent and collective fall-through protection acc. to GS-BAU-18, up to 6.2 m continuous rooflight order width

In many glazing variants
- tension-free placement of the glazing

Simple and fast assembling
- due to a high industrial prefabrication level

Circumferential on the head piece welded eave profile
- reliable drainage
- very good appearance

SHEV and ventilation system
- optimal SHEV and/or ventilation flap system for every continuous rooflight order width
- melting out, therefore permitted as heat exhaust surface according to DIN 18230

European Technical Approval (ETA)
- construction tested and approved by all European building authorities
- legally secure proof of placing on the market throughout Europe

Deutsches Institut für Bautechnik DIBt
Europäische Technische Zulassung für „Lichtband JET VARIO-NORM“
CE ETA-16/0710

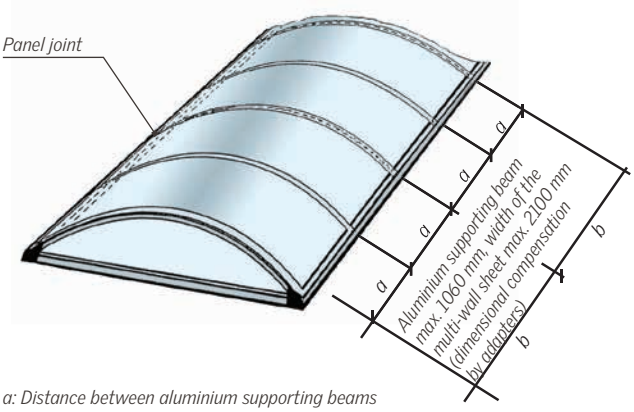
- 1.20 up to 11.34 m continuous rooflight order width and a 1/6 rise of the continuous rooflight width, precision finished, continuous rooflight length as desired
- general type approval no. Z-10.19-739

VARIO-NORM continuous rooflight with smoke exhaust flap system VARIO-FIREJET® 130 J

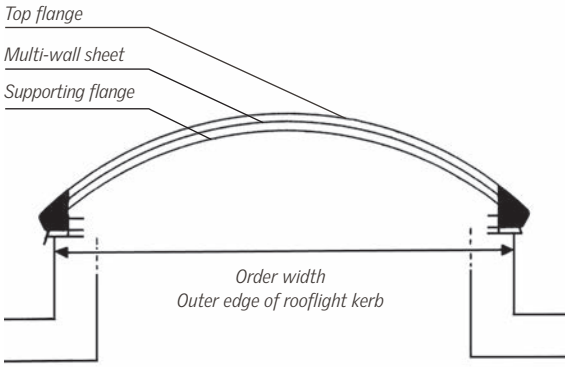
VARIO-NORM continuous rooflight with daylight, optimal room illumination and energy cost conservation

2.1.1 VARIO-THERM
2.3.2 VARIO-PROTECT
2.4.3 Continuous rooflight fall-through protection type LB-DSL and LB-SR
4.1.2 GRILLODUR® barrel vault rooflights

The most important technical information



a: Distance between aluminium supporting beams
b: Width of the multi-wall sheet



Technical data

Dimensions	Order width from 120 up to 1134 cm order length: no limitation
Material	Polycarbonate multi-wall sheets, opal/clear
Light transmission	Between 80 and 15 % depending on materials and colouring
U-value of the glazing	2.57 up to 1.16 W/m²K (see table with glazing variants)
Reaction to fire (depending on the glazing)	B-s1,d0 (low flammability) B-s2,d0 (low flammability) E (normal flammability)
	Optional resistance against flying sparks and radiating heat (according to DIN 4102, Part 7 or DIN EN 13501-5) Hard roofing (according to DIN 4102, Part 7): B_{Roof} (t1) according to DIN EN 13501-5

European Technical Estimation (ETA)	ETA-16/0710
Smoke and heat exhaust	Tested according to DIN EN 12101-2
Surface weight	0.12 kN/m²
Profile configuration	Border and connection profiles made of aluminium
Opening devices	Electric- or spindle opener, pneumatic cylinder and special smoke and heat exhaust devices for fire prevention
Ventilation possibilities	Forced ventilation and exhaust by fans, ventilation by the use of ventilation flaps and surface ventilators
Kerb systems for attaching the continuous rooflight	The kerb system with several kerb systems, also with roof sheeting connection system, are available according to project needs and roof construction. Solution by customer optional.

Customised daylight through the roof level

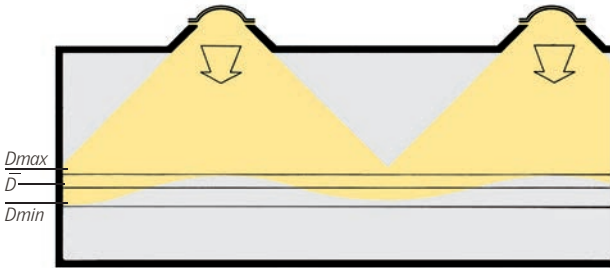
- better room illumination than through side windows
- accurate dimensioning possible

Rules of thumb for dimensioning

- continuous rooflight width < half of the height of the hall
- distance between the continuous rooflights from each other: at least twice of the continuous rooflight width
- 1/6 of the floor area as light area in the roof can be taken into account for rough planning

Note:
Upon request we will perform a standardized light calculation for your project.

Customised daylight through the roof level for example: VARIO-NORM continuous rooflights



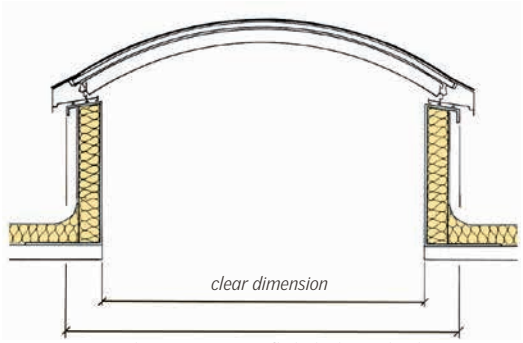
Uniform room illumination by the use of continuous rooflight elements

Secure connection technology with the kerb systems[1] or customer solutions

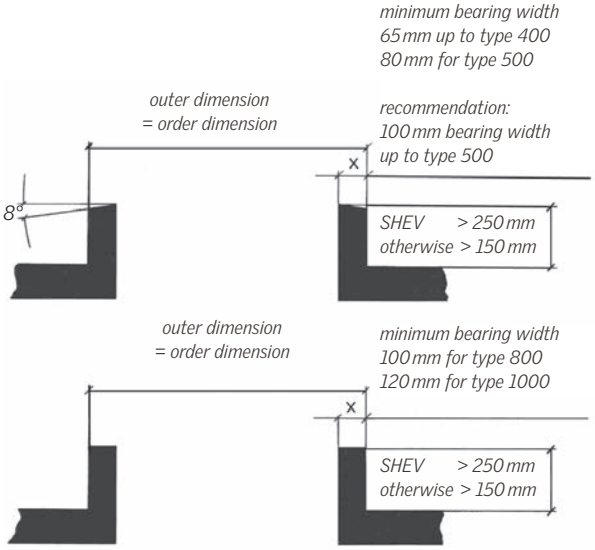
In case of continuous rooflight kerbs please provide clear dimensions. In case of kerbs provided by the customer or upturns please inform us about clear opening and exterior dimensions and dimension "x" (bearing width)!

Please request special detailed drawings of aluminium profile constructions, bearings and glazing alternatives.

Continuous rooflight kerbs[1]



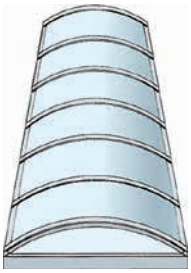
Rooflight kerbs provided by customer[2]



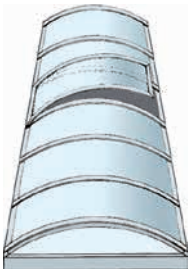
Note:
1) Refers separate product information kerb system
2) For max. allowable dimension deviations, please request the tolerance table

VARIO-NORM – the systematic continuous rooflight

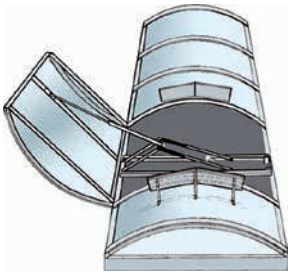
Fixed continuous rooflight



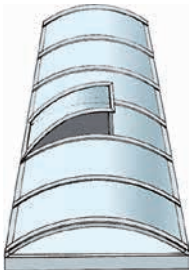
Continuous rooflight with full flap (for ventilation and SHEV)



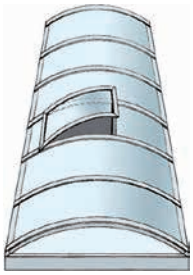
Continuous rooflight with full flap (illustration with SHEV device and wind baffles)



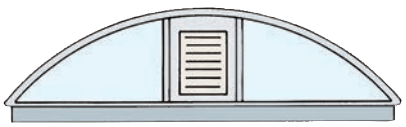
Continuous rooflight with side flap (for ventilation and SHEV)



Continuous rooflight with beam flap (for ventilation and SHEV)



High-performance fans can be built into the front of the continuous rooflight.



Technical data for glazing variants

Description	U_g value of the glazing [W/m²K]	Special features
PC 10/4	2.57	Optional as variant IR control
PC 16/7	1.82	Optional as variant IR control
PC 20/7	1.61	Optional as variant IR control green
PC 16/7 + PC 3	1.58	Hail protection: HW 5 in all categories Sound insulation: 26 dB
PC 10/4 + GFK + PC 10/4	1.54	Hard roofing: B_{Roof} (t1) Sound insulation: 27 dB
PC 10/4 + PC 10/4	1.50	Fire behaviour: B-s2.d0 Sound insulation: 24 dB
PC 10/4 + non-woven fabric + PC 10/4	1.50	Hard roofing: B_{Roof} (t1) Melting area according to DIN 18230-1
PC 10/4 + PC 10/4 DI	1.31	Sound insulation: 24 dB
PC 10/4 + GFK + PC 10/4 DI	1.20	Hard roofing: B_{Roof} (t1) Sound insulation: 27 dB
PC 10/4 + PC 4/2 + PC 10/4 DI	1.16	Sound insulation: 24 dB
PC 16/7 + GFK DI	1.33	Hard roofing: B_{Roof} (t1) meltable area according to DIN 18230-1