

NKV-TB

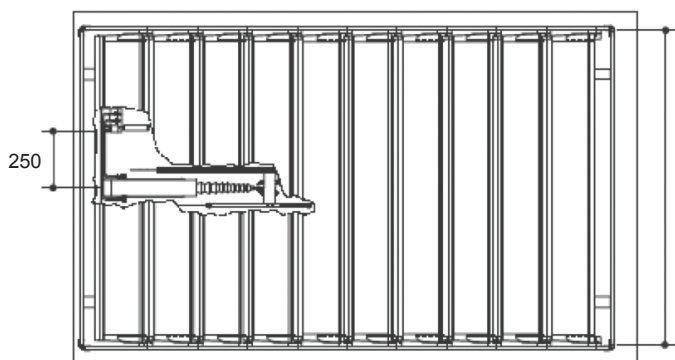
High Performance Profiled Roof Louvre According EN 12101-2



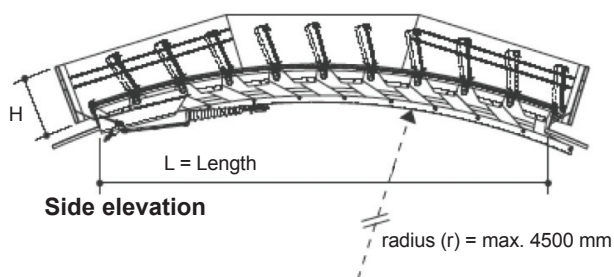
- Natural ventilation.
- Smoke ventilation (Smoke and heat exhaust).
- Designed for installation in circular section roof lights.
- Superior acoustic and air loss performance.
- Daylighting, with double glazed louvres.

NKV-TB

Intersection



Plan



Side elevation

Blade specifications



Georgian wired toughened or laminated glass, 6 mm,
5,6 W/m²K (U value), 90% light transmission



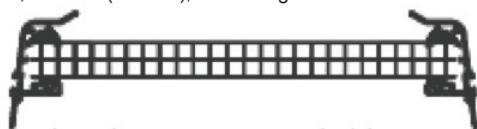
Alusandwich, with 10 mm thermal insulation,
1,9 W/m²K (U value)



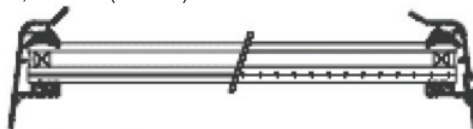
Translucent polycarbonate, clear/opal, with 10 mm thermal insulation,
3,0 W/m²K (U value), 79-50% light transmission



Alusandwich, with 16 mm thermal insulation,
1,4 W/m²K (U value)

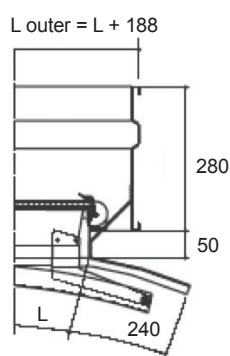
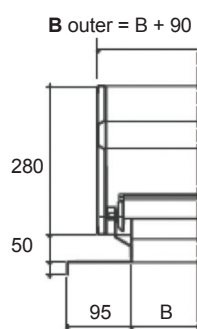
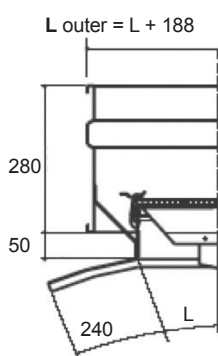


Translucent polycarbonate, with 16 mm thermal insulation, clear/opal,
2,4 W/m²K (U value), 79-50% light transmission



Double glazed, 18 mm/ 20 mm sealed glass units,
3,0 - 1,4 W/m²K (U value), 90% light transmission

Flange details

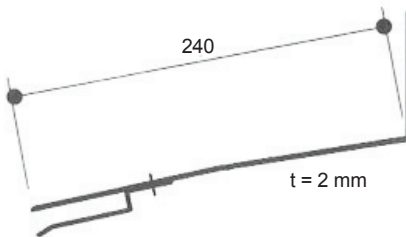


Dimensions

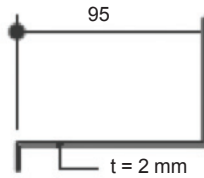
Low base - Standard design

Single skin aluminium

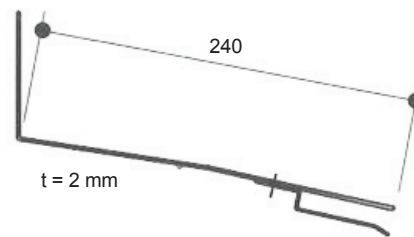
Lower profile



Side profile



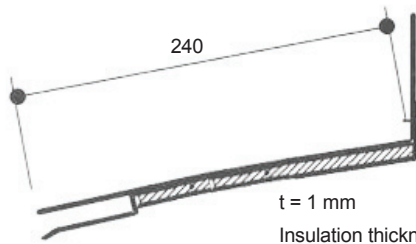
Lower profile



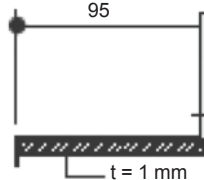
Low base - Standard design

Double insulation, double skin aluminium

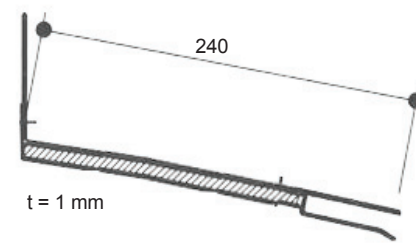
Lower profile



Side profile



Lower profile



Technical information

Type NKV-TB (low base) single skin aluminium. Geometric surface (m²) with r = 3000 mm.

Type	4	5	6	7	8	9	10	11	12	B (mm)
100	0,85	1,07	1,29	1,51	1'72	1,93	2,14	2,53	2,55	1010
130	1 '11	1,39	1,68	1,96	2,23	2,51	2.78	3,05	3,31	1310
160	1 ,36	1'71	2,06	2,40	2,75	3,08	3,42	3,75	4,07	1610
190	1,62	2,03	2,44	2,85	3,26	3,66	4,05	4, 44	4,83	1910
220	1,87	2,35	2,83	3,30	3,77	4,23	4,69	5,14	5,59	2210
L(mm)	849	1066	1282	1496	1708	1918	2125	2329	2530	

$$L \text{ (mm)} = 2 \times r \times \sin\left[\left(\frac{n \times 220}{2} - 28\right) \times \frac{28.65}{r}\right]$$

$$B \text{ (mm)} = (\text{Type} \times 10) + 10\text{mm}$$

$$A_g \text{ (m}^2\text{)} = l \text{ (m)} \times B \text{ (m)}$$

NKV-TB



Service

BOVEMA offers a comprehensive service covering the specification and installation of our products.

BOVEMA

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Subject to technical changes and misprints.

Description

The louvre ventilator is designed to provide an economic, non-powered method of ventilation, allowing the removal of large quantities of warm air and / or smoke. The NKV-TB ventilator is specifically designed for installation into continuous circular section roof lights, where the unique circular section base profile of the louvre allows the ventilators to follow the curve of the rooflight. Extruded aluminium blades ensure a product which matches the lines of the roof light construction. The construction is formed from high quality, corrosion resistant aluminium to ensure low maintenance, with various methods of operation, including pneumatic or electric, to provide for a wide range project applications.

Operating principles

Warm air in a building rises due to thermal convection. Large quantities of warm air and / or smoke can be removed from a building using this natural ventilation principle. The system consumes no electrical power to extract the air and the ventilation effect may be increased by external wind action. NKV-TB ventilators are used to provide daily ventilation and / or smoke and heat evacuation in case of fire. The operating systems may be enhanced by the addition of facilities such as rain or wind sensing systems, which ensure the building is protected even if the outside environmental conditions change. As a high performance operable ventilator, the NKV-TB blades are fitted with weather resistant EPDM seals to form an airtight unit for maximum energy efficiency. A rainwater gutter at each blade junction sheds water to either side of the louvre box, for removal by an external drainage system. This ensures a waterproof internal construction at all times and all the louvre-operating mechanisms are contained within this protected area to minimise maintenance requirements. The overall design, with extruded aluminium profiles plus high thermal or sound reduction performance makes this the ideal product for technically sensitive buildings.

Applications

Buildings with curved rooflight constructions where high performance units are required for thermal insulation, acoustic insulation or protection against condensation. Where daily ventilation or smoke extract in the event of a fire is required. Typical installations include:

- Shopping Centres
- Atria
- Sports Centres
- Offices
- Apartment Buildings
- Hotels etc.

Specifications

Lamellen:

10/ 20 mm geïsoleerd dubbelwandig aluminium

Louvres:

10/20 mm thermal insulation, double skin aluminium

10/16 mm clear or opal, twin wall polycarbonate

20 mm thermal insulation, double skin aluminium

6 mm single laminated, toughened or wired glass

18/20 mm double glazed units (various constructions)

Frame/housing:

single skin aluminium/ double skin aluminium, thermal insulation

Controls

NKV-TB louvres are normally operated from a remote control panel via:

- Pneumatic two pipe systems with actuators (with lock, in the open en closed position) - CO₂
- Elektrical control 24V DC /230V AC
- Fuse temperature: 68 - 93- 110 - 140°C

Materials

Corrosion resistant aluminium AlMg3 sheet material - AlMgSi 0,5 profiles

- Weather resistant EPDM seals - Stainless steel fasteners.

General

The NKV-TB ventilators are supplied fully assembled and tested prior to delivery, supplied in mill finished aluminum but can also be painted any RAL color. If additional items such as bird netting, sprinkler shields and open / closed position indication and CO₂ control available. The NKV-TB is specially designed for installation in curved skylights. All necessary mounting flanges are made to customer specifications and performed entirely watertight.