2.5 | Roof hatches with steel straight base – type C/E

2.5.1 | Technical description of standard

» roof hatches conforming to EN 1873,
» roof hatches type C (square) and E (rectangular) designed for flat and pitched roofs (up to 15°), covered with roofing paper, or PVC membrane,
» **dimensional range of roof hatches:**
– roof hatches type C (square): 800 x 800 mm ÷ 1300 x 1300 mm,
– roof hatches type type E (rectangular): 800 x 900 mm ÷ 1200 x 1300 mm,
» straight base made of 1.25 mm thick galvanized steel sheet with a total height with frame of 300 mm or 500 mm,
» bottom part of the base fitted with a 50 mm wide circumferential flange for mounting the vent on the roof structure,
» white PVC frame in the upper part of the base ensures tightness, thermal insulation and drainage of condensation outside,
» base adapted for the installation of thermal insulation with a thickness of 50 mm and a thermal conductivity coefficient not exceeding λ=0.039 W/mK,
» **leaf glazing:** multi-chamber polycarbonate panel, acrylic dome, solid polycarbonate dome, multi-chamber polycarbonate panel with a 1- or 2-layer acrylic or solid polycarbonate dome, ALU sandwich panel (see chapter 4 – page 52 for details),
» leaf frame made of white, multi-chamber, PVC profile system provides rigidity, strength and high thermal parameters,
» hinges fixing the leaf to the base mounted on the longer side of the vent,
» mechanical opening system equipped with two gas springs supporting the hatch opening and maintaining the hatch leaf in open position **at an angle:** of 85°÷ 90°.

2.5.2 | Roof hatch design

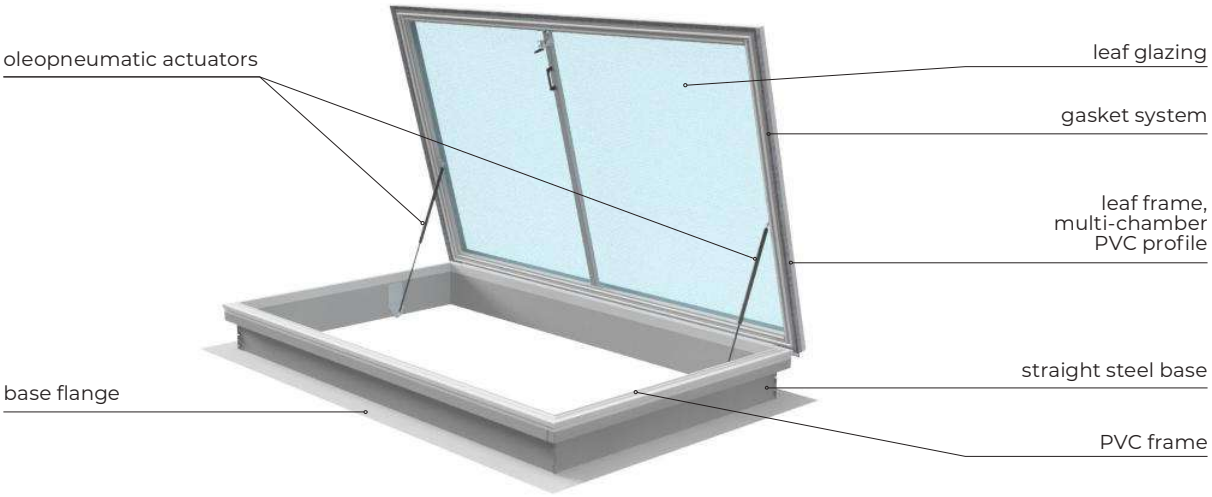

Fig. 28 *Design of mcr ULTRA THERM E roof hatch*

2.5.3 | Roof hatch options

» base made of aluminium sheet,
» custom steel and aluminium base height with frame in the range 250 ÷ 700 mm,
» painting of hatch elements in any RAL color,
» change of base sheet thickness,
» custom width of circumferential base flange in the range of 50 ÷ 100 mm.

2.5.4 | Technical drawings of roof hatch

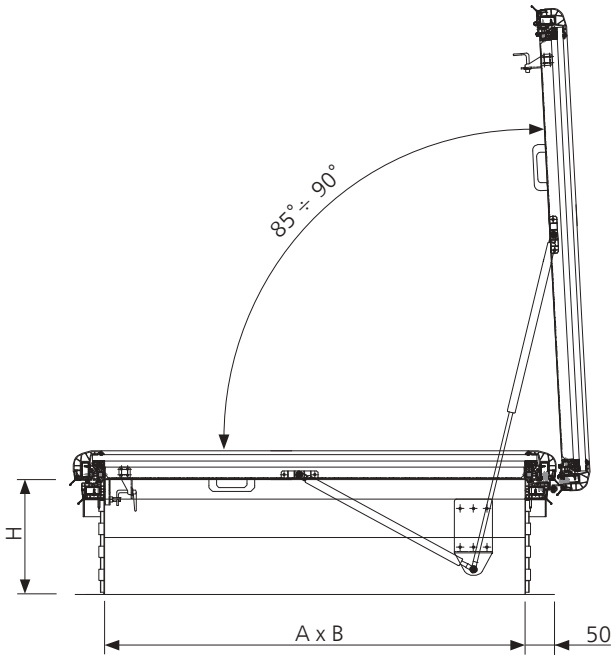

Fig. 29 *Section* **B-B** *through mcr ULTRA THERM C roof hatch in open position, dimensions in mm*

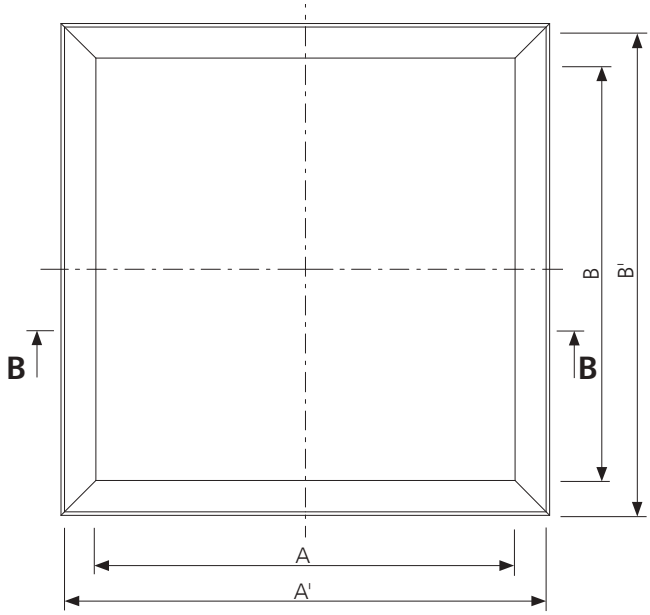

Fig. 30 *Top view of mcr ULTRA THERM C roof hatch in closed position*

A, B – nominal dimension [mm], clear opening of roof hatch
A', B' – total dimension of roof hatch leaf without drip cap [mm] A'=A+162 mm, B'=B+162 mm
H – roof hatch base height [mm]

2.5.5 | Technical specification

HATCH TYPE	NOMINAL DIMENSIONS A x B [mm]	APPROXIMATE MASS [kg]
C 80	800 x 800	52
C 90	900 x 900	58
C 100	1000 x 1000	64
C 110	1100 x 1100	70
C 120	1200 x 1200	77
C 130	1300 x 1300	83
E 80/90	800 x 900	56
E 80/100	800 x 1000	59
E 80/110	800 x 1100	62
E 80/120	800 x 1200	65
E 80/130	800 x 1300	68
E 90/100	900 x 1000	61
E 90/110	900 x 1100	65
E 90/120	900 x 1200	68
E 90/130	900 x 1300	71
E 100/110	1000 x 1100	68
E 100/120	1000 x 1200	71
E 100/130	1000 x 1300	74
E 110/120	1100 x 1200	74
E 110/130	1100 x 1300	77
E 120/130	1200 x 1300	80

2.6 | Roof hatches with PVC skew base – type NG-A

2.6.1 | Technical description of standard

» roof hatches according to EN 1873,
» NG-A roof hatches (square and rectangular) designed for flat and pitched roofs (up to 15°), covered with roofing paper or PVC membrane,
» **dimensional range of roof hatches:** 900 x 900 mm ÷ 1400 x 1400 mm,
» skew base with total height with frame 300 mm or 500 mm, made of:
  – multi-chamber PVC profiles in white with high thermal insulation properties, not requiring additional insulation or
  – 1.25 mm thick galvanized steel sheet suitable for mounting thermal insulation of thickness 50 mm and a thermal conductivity coefficient not exceeding λ=0.039 W/mK,
» mounting groove in the lower part of the PVC base; a 50 mm wide circumferential flange in the steel base, for mounting the vent on the roof structure,
» white PVC frame in the upper part of the base ensures tightness, thermal insulation and drainage of condensation outside,
» **leaf glazing:** multi-chamber polycarbonate panel, acrylic dome, solid polycarbonate dome, multi-chamber polycarbonate panel with 1- or 2-layer acrylic or solid polycarbonate dome, ALU sandwich panel (see chapter 4 – page 52 for details),
» leaf frame made of white, multi-chamber, PVC profile system provides rigidity, strength and high thermal parameters,
» mechanical opening system equipped with two gas springs supporting the hatch opening and maintaining the hatch leaf in open position **at an angle:** of 85°÷ 90°.

2.6.2 | Roof hatch design

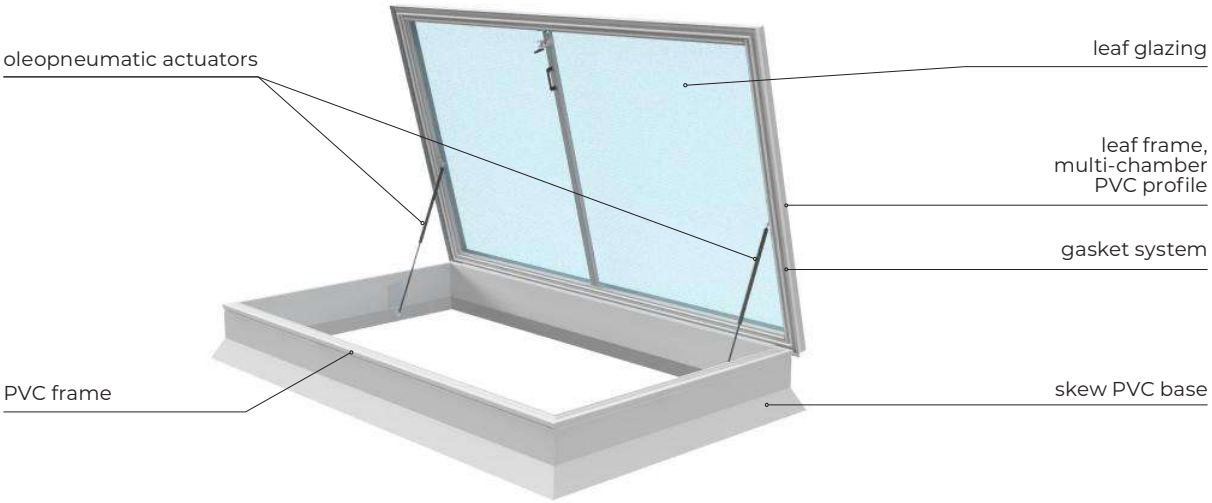

Fig. 31 *Design of mcr ULTRA THERM NG-A roof hatch*

2.6.3 | Roof hatch options

» base made of aluminium sheet,
» custom total height of base with frame in the range of 250 ÷ 700 mm,
» painting of vent elements (metal base) in any RAL color,
» change of steel or aluminium base sheet thickness,
» custom width of circumferential steel base flange in the range of 50 ÷ 100 mm.

2.6.4 | Technical drawings of roof hatch

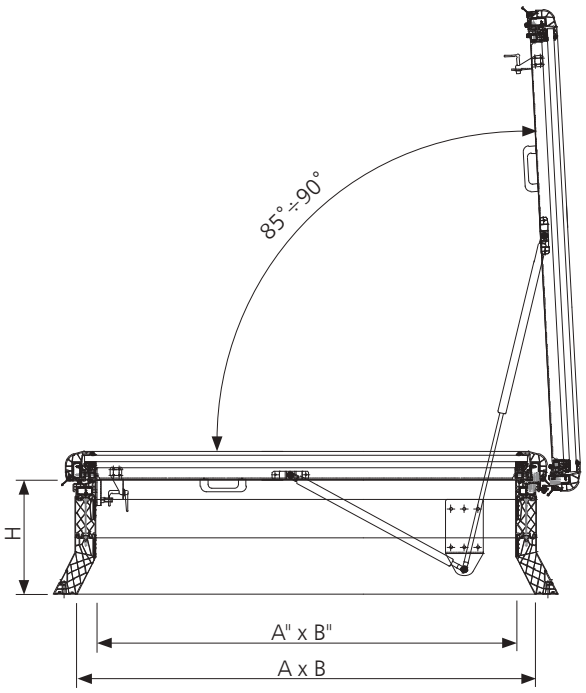

Fig. 32 *Section* **B-B** *through mcr ULTRA THERM NG-A hatch in open position*

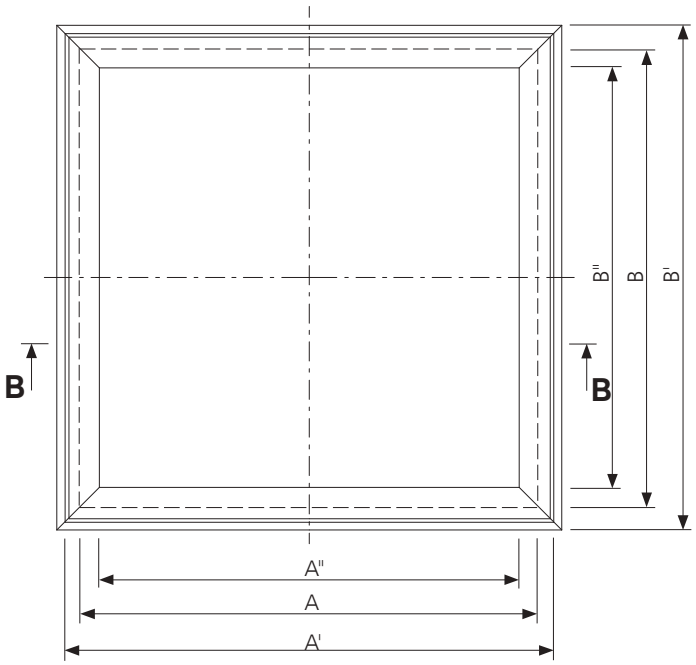

Fig. 33 *Top view of mcr ULTRA THERM NG-A hatch in closed position*

A, B – nominal dimension [mm], clear opening of roof hatch
A', B' – total dimension of roof hatch[mm] A'=A"+162 mm, B'=B"+162 mm
A", B" – clear upper opening dimension of roof hatch [mm] A"=A-100 mm, B"=B-100 mm
H – smoke vent base height [mm]

2.6.5 | Technical specification

HATCH TYPE	NOMINAL DIMENSIONS A x B [mm]	APPROXIMATE MASS OF SKYLIGHT WITH PVC BASE [kg]	APPROXIMATE MASS OF SKYLIGHT WITH STEEL BASE [kg]
NG-A 90/90	900 x 900	50	52
NG-A 90/100	900 x 1000	53	56
NG-A 90/110	900 x 1100	56	59
NG-A 90/120	900 x 1200	58	62
NG-A 90/130	900 x 1300	61	65
NG-A 90/140	900 x 1400	63	68
NG-A 100/100	1000 x 1000	56	58
NG-A 100/110	1000 x 1100	59	61
NG-A 100/120	1000 x 1200	61	65
NG-A 100/130	1000 x 1300	64	68
NG-A 100/140	1000 x 1400	67	71
NG-A 110/110	1100 x 1100	62	64
NG-A 110/120	1100 x 1200	65	68
NG-A 110/130	1100 x 1300	67	71
NG-A 110/140	1100 x 1400	70	74
NG-A 120/120	1200 x 1200	68	70
NG-A 120/130	1200 x 1300	71	74
NG-A 120/140	1200 x 1400	73	77
NG-A 130/130	1300 x 1300	74	77
NG-A 130/140	1300 x 1400	77	80
NG-A 140/140	1400 x 1400	80	83