

Construction principle

The filigree loadbearing stainless steel construction (CNS) on the inside is surrounded by the frameless glazing. The insulating glazing panels are not held with glazing bars (> conventional glazing method), but with the specially developed and patented "SYSTEM GLASHAUS STEBLER" structural glazing (SG) method.

The roof surface, with its electrically retractable overlapping glazing, makes it possible to discharge the air which has been heated by solar irradiation in an even and direct way. When the overlapping glazing is open, there is no draft to the interior – the air change takes place slowly and evenly. The glass panels can be cleaned both on the inside and on the outside.

In the vertical elements the insulating glazing is held fixed with CNS glass holding brackets. The overlapping glazing is fitted with movable special glass holding brackets in CNS and can be opened electrically. The system is leak-proof as a result of its stepped overlapping elements (scale principle). The system has been tested by the IFT Rosenheim.

The vertical support structure on the inside of the outer glass skin consists of clear anodised aluminium glass holding profiles, CNS glass holding brackets and round CNS tubes as supports with dimensions of 33.7 × 3.25 mm, 48 × 3 mm or 60 × 4 mm. The basic construction of the loadbearing round tube supports consists of an insulated special extruded profile and a surrounding hot galvanised steel tube frame – providing a perfect connection detail for floor finishes.

The support structure on the inside of the sloping roof consists of special glass holding brackets in CNS, drive components and stainless steel lattice girders. Depending on their height/length, the girders are reinforced with 33.7 × 3.25 mm top chords, 16 mm bottom chords and 8 mm bracing members (lattice girder). The detail of the construction depends on the size of the building and its structural forces.

The connections to the existing building consist of insulated aluminium profiles all around.

Glazing

Silverstar EN+ with black ACS edge bonding, U-value 1.1W/m²K

- Vertical: double glazing: 2 × 5 mm float glass, 16 mm gap
- Roof: double glazing: 2 × 5 mm toughened safety glass, 16 mm gap

Opening angle of overlapping glazing: continuous adjustment from 0–75° approx.

Shading option for roof and walls

Internal shading is available for manual or motorised operation. Free selection of design and manufacturer.

Glazing panels can be cleaned on both sides by opening the glass 'scales'.

Glazing options

- Laminated safety glazing in the roof and in the front to protect against accidents.
- Silverstar Sunstop T50 neutral solar control glass, G = 34% LT = 42%, with black edge strip.
- recommended for conservatories facing south and west.
- Silverstar EN+ U-value 0.7W/m²K thermal insulation glazing or triple glazing up to 0.5 W/m²K

Electrical window control systems

(can be combined with building control systems)

Electrical control system for conservatory

- SCU controls + connection box for Magdrive motor with 150 lift.
- Motor control unit, AP 360 × 140 × 90 mm and connection box, AP 180 × 120 × 90 mm incl. ventilation function when raining.
- Rain sensor / power pack / wind sensor / manual switch.
- Schematic and system design / adjustment of controls and inspection of wiring installations by others.

Doors

STEBLER 35 insulated side-hung aluminium door, opening outwards, with narrow-faced insulated frame with clear anodised finish. Aluminium frame bonded to the inside, all-glass outside, 5 mm float glass with rounded edges, with cut-out for door furniture and cylinder, rubber seal all around.

Fittings:

- Aluminium system hinges (3 No.)
- CNS mortice lock with housing
- CNS levers, 5054
- Secondary leaf with locking bolts
- 85 mm cylinder on one side
- + 20 mm extension to be provided by others

Single leaf door 800 × 2000 mm (w × h)

Double door 1200 × 2000 mm (w × h)

Double door 160 × 2000 mm (w × h)

