



Weight optimised bearer profiles without expansion joints, large spans despite heavy loads, construction, production and assembly costs kept to a minimum, weather-resistant material or a combination of the above – although Welser Profile doesn't supply the complete systems, it has the expertise and production capabilities to meet your precise individual requirements.

PHOTOVOLTAICS

Welser supplies profiles to the photovoltaic industry for stand-alone, roof integrated and roof mounting systems as well as tracking systems such as tracker or CPV systems.

- Longevity
- High load bearing capacity
- High pre-fabrication grade
- Low thermal expansion coefficient
- Weight saving



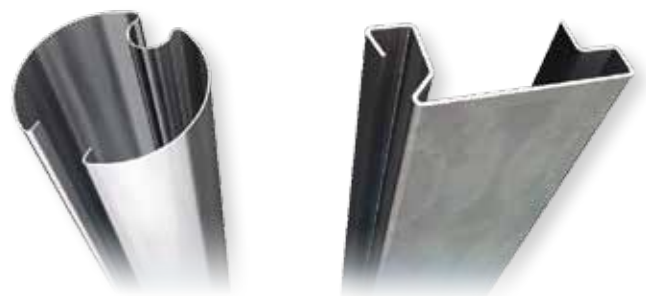
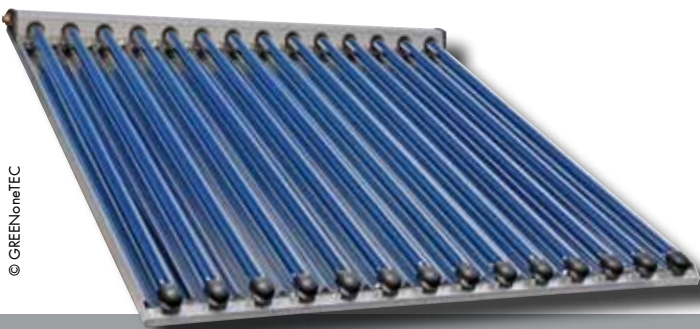
The most suitable material is selected based on key requirements such as snow load, wind load and the weight of the construction with the aim of keeping costs to a minimum whilst achieving maximum flexibility and longevity.



SOLAR THERMAL ENERGY

Welser sections are found in solar thermal collectors used in the residential sector and also in process heating systems. In hot water collectors, thin walled profiles are required for heat conduction, thermal separation or simply as collector frames. Resistance to weather conditions and moisture is particularly important here. Welser clearly demonstrates its position as a market leader in this area by forming extremely intricate thin-walled profiles.

- Weather-resistant
- Lasting value
- Diversification
- Intricate components
- Optimised value added chain





SOLAR THERMAL PLANTS – CSP (Concentrated Solar Power)

Welser sections are predominantly used in base constructions of parabolic trough, fresnel or tower power plants. The dimensions of these power plants alone clearly demonstrate the advantages of using steel.

- Easy to process
- Easy to assemble
- Available globally
- High rigidity
- High load bearing capacity



CHOICE OF MATERIAL

Steel:

- Elasticity modulus three times greater than aluminium (that means steel has lower deflection under greater loads) → larger span achievable
- Thermal expansion coefficient marginally better than glass → possible to do away with expansion joint
- Various strengths of wall thickness can be produced → material and weight saving as well as integration of additional functions

Aluminium:

- Low specific weight
- High level of corrosion protection
- Integration of additional axial functions by means of production tooling

ECONOMIC ADVANTAGES

- Possibility of manufacturing large batch quantities, particularly steel profiles for large systems
- Ease of assembly – demonstrated by the short assembly times
- Quick response and processing times as well as optimisation in the roll forming process by means of tooling manufactured in-house

SOLUTIONS

The most suitable combination of a variety of proven techniques:

- Punching
- Toning
- Clinching and pressure joining techniques

In addition we also offer new techniques:

- Adhesive bonding
- Optimisation of the strip thickness integrated into the production process (designing the profile to meet specific load requirements by reducing the strip thickness in specific areas) etc.

We offer a wide variety of processing techniques and assembly steps to meet your individual requirements.

INFO – Welser Profile

- Manufacturer of bespoke sections and tubes made from steel, stainless steel and non-ferrous materials
- Family organisation currently in its 11th generation
- More than 19,000 different profiles produced to date
- Total manufacturing area 420,000m²
- Approx. 1,750 employees
- 3 production sites
- 12 sales offices