

# meconet

Innovations are built together



## Smart metal solutions for the electrical & energy industry

Meconet delivers high-precision sheet metal components and assemblies for modern electrical devices, power distribution systems and battery technologies. By combining deep drawing, stamping, multi-slide, spring manufacturing and assembly in one manufacturing network, we help customers improve performance, reduce weight, simplify structures and secure reliable production. From individual parts to complete assemblies, we support you from design to ramp-up and efficient mass production.

# Applications & customer cases

We support key segments of the electrical and energy industry with optimized metal components. Below are examples of what we deliver and how our solutions create value in real customer projects.

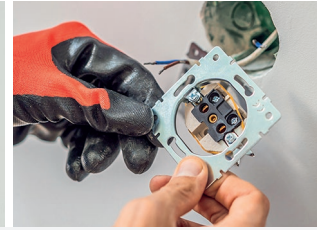
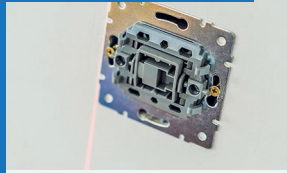
## Electrical installation & switchgear

- **Socket outlets and switches** – Precision metal parts and subassemblies for reliable and safe installations.
- **Decorative and protective covers** – Formed and stamped visible components designed for durability and high-quality.
- **Springs and wire forms** – Functional elements used in contacts, locking mechanisms and switch functions.

## Power distribution & industrial electrical components

- **LV/MV/HV switch components** – Contact parts, switching elements and housings for low, medium and highvoltage devices.
- **Fuse holders and switch parts** – Reliable components for safe and efficient electrical protection systems.
- **Busbars and conductor elements** – Stamped, formed or assembled copper and aluminum parts for power distribution.
- **Circuit breaker components** – Stamped and deepformed parts for protective devices and power control units.

### Customer example



### Optimized mounting frame

For a mounting-frame component used in socket and switch installations, we helped the customer switch from uncoated steel with post-coating to pre-coated galvanized steel. The change eliminated processing steps and reduced scrap risk, resulting in better quality, fewer rejects, and lower total cost. Thanks to the self-sealing coating, even cut edges gained long-term protection — delivering a simpler process and a more reliable final product.

### Customer example



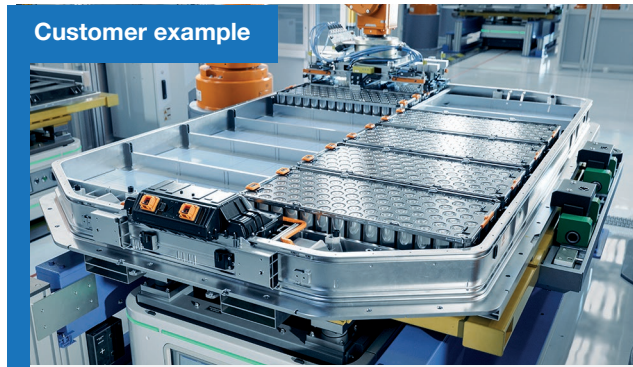
### Production transfer

We relocated 12 customer-owned assembly cells for switch components to Meconet within six months. The lines were quickly brought into stable operation, improving delivery performance by over 20% and ensuring secure long-term capacity for the customer.

## Battery modules & energy storage

- **Busbars and connectors** – Copper and aluminum components ensuring electrical conductivity.
- **Battery covers and enclosures** – Deep-drawn or stamped housings providing robust but lightweight structures.
- **Cooling components** – Sheet-metal parts supporting thermal management in battery systems.
- **Structural brackets and supports** – Lightweight yet strong elements that maintain battery module stability.
- **Battery racks** – Deep-drawn racks with integrated reinforcement, enabling material savings, lower CO<sub>2</sub> impact.

### Customer example



### Battery housing optimization

In a battery housing project, we supported the customer in redesigning the part to enable a material reduction from 2.5 mm to 1.0 mm by applying local hardening through deep drawing. This cut CO<sub>2</sub> emissions by 24 kg per box – without compromising mechanical performance.

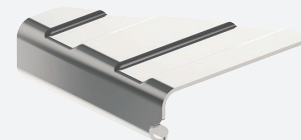
## Renewable energy & special applications

- **Coil assemblies** – Components for windenergy systems and other electromagnetic applications.
- **Formed brackets and support structures** – Stamped and deepdrawn elements used in various energy and infrastructure products.
- **Solar panel mounting system components** – Stamped components and sub-assemblies for various roof systems and materials.

### Customer example

### Bracket optimization

By reducing material thickness from 3 mm to 2 mm and using targeted embossing, we maintained stiffness while cutting material use by 33%. This saves around 4,700 kg of steel and 14,100 kg of CO<sub>2</sub> per year. Switching to stamping also improved manufacturability, precision, and long-term performance – without loss of strength.



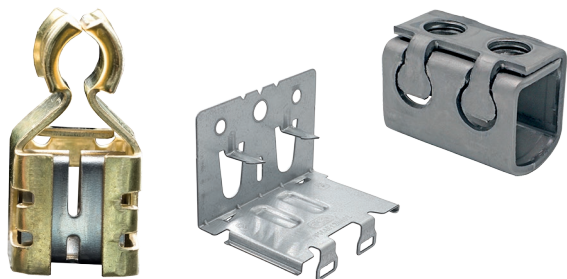
# Customer-driven contract manufacturing

## Supporting customers from the initial concept to full-scale production

- **Simulations & design support** – Early-stage collaboration with customers to optimize material use, weight reduction, and manufacturability with the help of our manufacturability simulation capabilities.
- **Prototyping** – Fast and flexible prototype production to validate designs.
- **In-house tooling** – In-house tooling department for designing and manufacturing tools.
- **High- and mid-volume manufacturing** – Scalable production with state-of-the-art stamping and versatile range of deep drawing presses combined with 2D and 3D lasers.
- **Flexible production for small volumes** – For smaller series or lower initial volumes, we offer laser-cut and press-brake-manufactured parts.
- **Assembly & sub-assemblies** – Integrating different manufacturing methods to provide fully or partially assembled components.
- **Effective logistics** – Over 200 freight routes to customers, intelligent packaging, and integrated services like surface treatments along the route for lower costs, CO<sub>2</sub>, and higher efficiency.

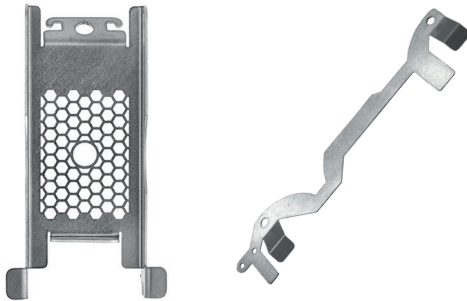
## Technologies complement each other

Stamping, multi-slide forming, deep drawing, springs and assembly enable the production of both precise small parts and large, complex structures for electrical and energy applications.



## Prototypes & small series

Traditional sheet-metal manufacturing allows fast and flexible production of prototypes and small batches. With laser cutting, bending, threading and welding, we can create precise 2D and 3D metal parts with short lead times. This makes it possible to validate designs quickly, adjust geometry efficiently and support early-stage development.



### Small series facts

- 0.1–6.0 mm sheet materials
- Production from blanks, tubes, rods and machined pieces
- Materials:
  - Uncoated and coated steel
  - Stainless steel
  - Aluminum
  - Copper
  - CuSn

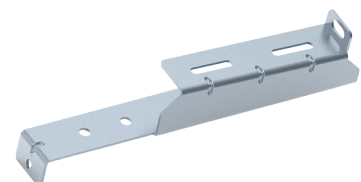
## Stamping

Different stamping technologies enable efficient and accurate production of metal components:

- **Progressive stamping** is ideal for high-volume production with fast, precise and costefficient forming.
- **Multislide technology** suits medium to large volumes and excels in small, complex and highly precise parts, easily integrating operations such as threading or welding.
- **Servo pressing** adds flexibility for medium volume needs, allowing complex and deepformed geometries with large tool sizes and short setup times.

### Stamping facts

- 0.1 mm – 6.0 mm raw material thickness
- Up to 600 mm maximum coil width
- Press power 25–400 tons
- Materials:
  - Uncoated and coated steel
  - Stainless steel
  - Aluminum
  - Copper
  - Brass
  - Tin bronze



## Deep drawing

Deep drawing forms metal into robust and high-performance 3D shapes while hardening the material. This makes it possible to create lighter, stronger parts with excellent surface finish. In many cases, the number of components and welds drops dramatically, surface quality improves as well as lifecycle emissions shrink.



### Deep drawing facts

- 0.5 mm – 6.0 mm raw material thickness
- Up to 2000 mm × 2700 mm maximum blank size
- Presses from small presses up to 1600-ton servo press for large and complex parts
- Materials:
  - Uncoated and coated steel
  - Stainless steel
  - Aluminum
  - Copper

## Springs

We manufacture custom springs and wire forms for the electrical industry, ensuring reliable performance in switches, contacts, locking mechanisms and other critical functions. Our components are designed for long life, consistent force characteristics and dependable operation in demanding electrical applications.



Compression springs



Torsion springs



Extension springs



Wire forms

We produce tailor-made compression springs from wire diameters **0.1–12.0 mm** and torsion springs and wire forms from wires **0.1–8.0 mm**.

### Wide raw material range

- Uncoated and coated spring steel
- Oil-hardened spring steel
- Stainless spring steel
- Acid-proof steel
- Heat-resistant wires
- Non-ferrous wires

### After treatment options

- Annealing
- Grinding
- Shot peening
- Pre-stressing
- Surface treatments
- Dynamic fatigue testing

# Assemblies and complementing technologies

Across our units, we provide assembly for every volume class from small, robotized subassemblies to large structural modules. Our solutions combine metal forming, welding, machining and automation to deliver complete, customer-ready assemblies.



## Automatic assembly

- Bihler Multi-Centers
- Customer-specific automatic assembly lines
- High-volume, precise and repeatable assemblies

## Manual assembly

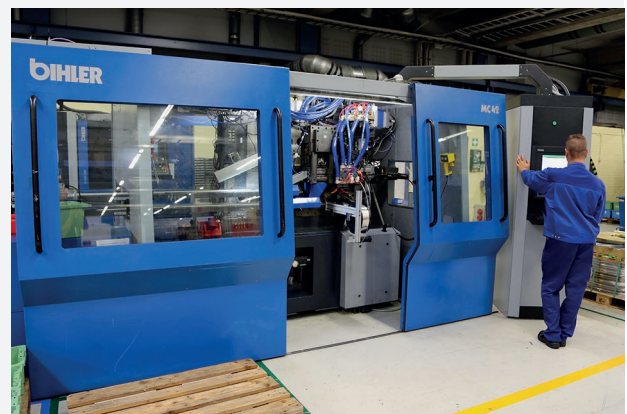
- Tailored solutions for small and medium volumes
- Capable of handling complex, multi-stage assemblies

## Large structural assemblies

- Larger visible and structural assemblies that combine forming, laser cutting, welding and surface coated finishing into durable, high-quality modules

## Complementing technologies

- 3D laser cutting for trimming, holes and final shaping
- Serial machining
- Threading
- Riveting
- Robotic welding + MIG/MAG/spot welding
- Heat treatment
- Grinding & deburring
- Washing & cleaning



# Meconet locations

- Production, Sales & Customer Care
- Sales & Customer Care



Established

**1896**



Experts & personnel

**450**



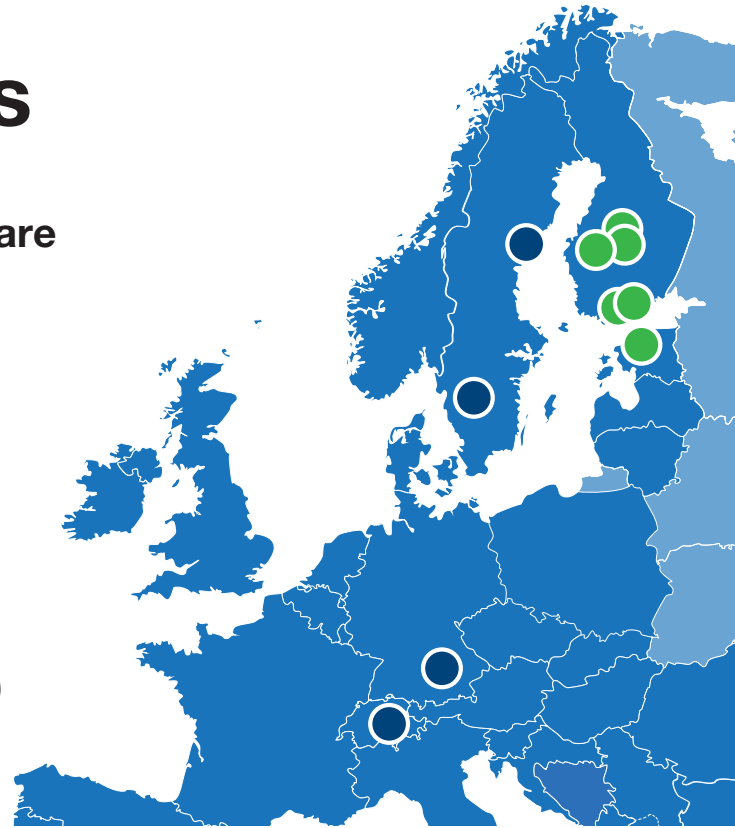
Turnover

**85M€**



Quality certified

**IATF 16949**



## Let's shape the future of electrical solutions together

Are you ready to optimize your components? Contact our expert team to learn how Meconet can support your projects with high-quality, sustainable sheet metal components.

**Protos • Springs • Stamping & assemblies • Deep drawing**

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