

# meconet

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## Tips for product design

Servo pressing  
and stamped products



# Sheet metal presswork and servo press

Stamping is a machining method that includes the cutting, perforation and bending of sheet metal. With presswork, it is possible to manufacture high-quality sheet metal products at a low cost. A product-specific tool is always required for stamping, which is why the production quantity has to be sufficient.



Compared to a traditional eccentric press, the structure of a servo press is different: for example, the motor, the clutch and the flywheel have been replaced with a servo motor. The operating system of a servo press is very versatile, as it has to control even the smallest movements of the servo motors. These are some of the great advantages servo presses, compared to an eccentric press.



# The advantages of servo pressing

## **Manufacturing speed**

Servo pressing can increase manufacturing speed by up to 30–50 %, by speeding up the movement of the ram outside of the moulding work stage. Servo technology enables to adjust the speed and impact length of the press steplessly.

## **Quality**

Ability to control the power and steer the speed throughout the pressing process is safeguarding the quality.

## **Adjustability**

The servo press has a stepless adjustment of impact length and clamping height, and the ram's movement can be programmed freely. This enables us to control the bending process more precisely and guarantee exact bending angles.

## **Tool durability**

The servo press can optimise the machining speed at any work stage. This enables to reduce the counterforces and vibrations of the stamping process, thus improving the tool's maintenance interval and durability.

## **Tool testing and settings**

The servo press ram can be manually operated very slowly and with great precision, while still having full compression force. Among other things, this results in a considerable reduction of tool breakage during the first tests.

# Sample applications

- Shaped casing structures
- Round cup-shape forms
- Precision bending
- Reinforcement structures







# A team of specialists at your service

## **Product design**

We support your design work, utilising our long-term experience with choosing the right manufacturing method.

## **Simulation and manufacturability analysis**

We analyse the products, and optimise the manufacturing process, based on the 3D models. This enables us to ensure the high quality of the products.

## **Tool design and manufacturing**

We design and manufacture tools customised for every product.

## **Manufacturing pressed products**

Our wide range of presses enables us to provide flexible product manufacturing, from small items to large moulded segments, also at a great manufacturing speed.

## **Quality assurance**

Product shapes and dimensions are checked with 3D or 2D measuring equipment.

We build innovations in co-operation  
with our customers to achieve competitive  
and sustainable solutions.

## Meconet offices

- Pihtipudas, Finland
- Vantaa, Finland
- Äänekoski, Finland
- Bern, Switzerland
- Munich, Germany
- Tallinn, Estonia
- Stockholm, Sweden



Meconet is a North European manufacturer of spring, wire, stamped, and deep drawn products. We design and produce accurate metal components and carry out demanding assembly works to meet our customers' needs.

**[www.meconet.net](http://www.meconet.net)**

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