

More than 25 years of experience and intensive development in the field created a modern company. KOVOP, spol. s r.o. is a Czech manufacturing company. We place high demands on quality and constantly develop production technologies. Our automated machines feature state-of-the-art technologies. We offer cost-effective and high-quality solutions. We manufacture components for industry, engineering and construction. We supply renowned companies with European and global activity. Production takes place in five production halls covering a total area of over 6000 m<sup>2</sup>.



## What characterizes us?

✓ We behave responsibly and ethically.

✓ We have many years of experience and extensive knowledge.

 $\checkmark$  With our distinctive approach, we are more reliable, faster and more flexible.

 ✓ Our production capacity and productivity exceed the ability of the competition to meet demanding time requirements of customers.





## **Ethics and compliance**

- Customers, employees and suppliers trust us, because they know that we do business honestly and in accordance with the law.
- ✓ We behave responsibly and ethically. We have established processes that allow us to conduct our day-to-day operations in accordance with applicable laws and company policies.
- We are constantly improving our procedures and setting new standards.
- ✓ We value our business partners.
- Our goal is to build a long-term relationship based on a responsible and sustainable approach to partners, which is the key to our common success.
- ✓ We respect human rights, dignity and various contributions of each individual.



## **Carbon** footprint



The carbon footprint indicates the amount of greenhouse gases released into the air. KOVOP is actively reducing its carbon footprint.





In 2019, with the support of the EU, we reduced the overall energy requirements of the operation by replacing our lighting with LED sources.



We are preparing a clean energy project, which we would like to implement in 2024.



KOVOP will work towards the reduction of annual greenhouse gas emissions and will maintain climate responsibility. This will help improve the company's carbon footprint.



KOVOP will continue looking for solutions leading to meaningful investments that will result in a reduction in greenhouse gas emissions.





KOMPONENTY PRO PRŮMYSL, STROJÍRENSTVÍ

Our main products

- Frames for housing, office and sanitary containers
- Parts and components for housing containers

- Industrial staircases
- ✓ Elevator parts and components
- Parts and components for shelving systems



#### We offer sheet metal processing

- Laser cutting of tubes, profiles and bars
- 2D laser cutting
- Punching, forming and threading of sheet metal parts
- Manual bending of short parts
- Manual bending of long parts
- Automated bending
- Large-area automated bending
- ✓ Welding
- Robotised welding
- Assembly of products and parts





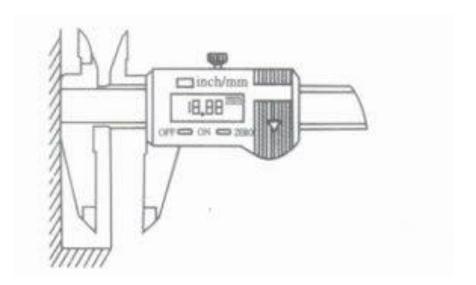
## **Quality management**

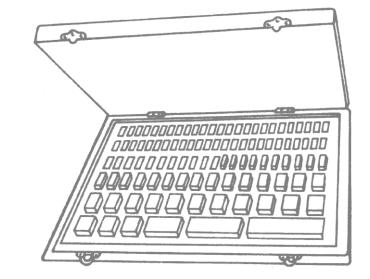
- Quality is the basis of everything we do from planning and preparation to purchasing, implementation and delivery to the destination. We place constant and maximum emphasis on quality
- All products are provided with identification using a bar code system
- ✓ Our processes meet the following standards:
  - EN ISO 9001 Quality management systems
  - EN ISO 3834-2 Quality requirements for fusion welding
  - EN 1090-2 Execution of steel structures, production of steel doors, components for industry, engineering and construction
  - For the production of welded parts, the company has its own welding supervision according to EN ISO 14731



# Verification of product compliance

- EN ISO 17637 Non-destructive testing of welds
- EN ISO 5817 Welding Welded joints Quality levels for imperfections
- EN ISO 3452-1 Non-destructive testing Penetrant testing
- ISO 2768-1 General tolerances Tolerances for linear and angular dimensions without individual tolerance indications
- EN ISO 13920 General tolerances for welded constructions







## Our products meet the CE mark

- ✓ Dimensions are inspected based on prescribed requirements for the drawing documentation or on the basis of standards prescribed by the customer in accordance with the standards and regulations for the given country.
- ✓ If the requirements for limit deviations are unchanged, we perform inspections according to ČSN ISO 2768-1 and according to ČSN EN ISO 13920 for welded steel structures.
- ✓ The current quality of KOVOP products is proven by internationally recognized certificates from TÜV NORD Czech, s.r.o. Prague and TÜV NORD CERT GmbH, Hamburg, Germany
- EN ISO 9001 Quality management systems
- EN ISO 3834-2 Quality requirements for fusion welding
- EN 1090-2 Execution of steel structures, production of steel doors, components for industry, engineering and construction





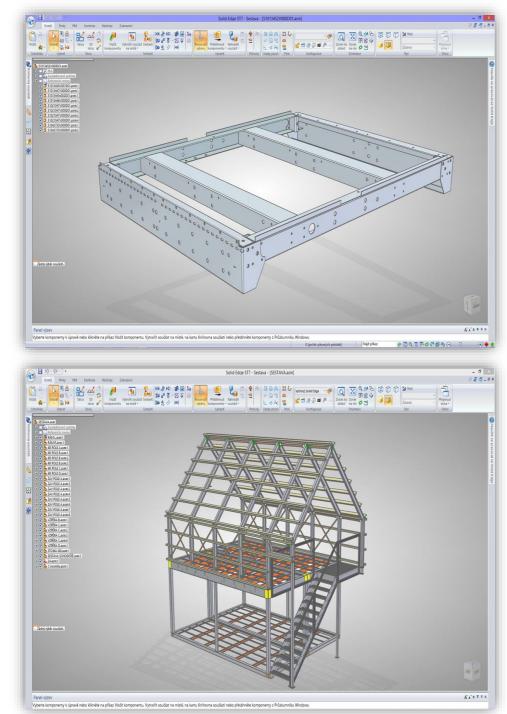
## Technical preparation of production

 $\checkmark$  We have our own team of designers and technicians.

✓ Over 25 years of experience in the design of welded steel structures, forged steel sections, jigs, etc.

 $\checkmark$  For designing, we use the 2D and 3D program Solid Edge.

 ✓ Technological processing of production and all material flows take place in the environment of TruTrops programs – Boost, Fab and the QAD information system.





#### Laser cutting of tubes, profiles and bars

Laser cutting of pipes, tubes, sections and bar material.

Solid-state tube cutter with a workpiece size up to 254 mm in diameter and with wall thicknesses up to 14 mm.

- ✓ Maximum productivity up to XXL size
- ✓ High-quality angled cuts
- ✓ High precision of parts
- ✓ Fast, flexible and comfortable processing
- ✓ Highly efficient production of large quantities
- Additional machining such as thermal drilling, thread cutting, thread forming and spiral drilling, countersinking and more
- <u>Application</u>
- Pipes up to 254 mm diameter
- Square tubes up to 180x180 mm
- Rectangular tubes up to approx. 220 mm (H section height)
- Open sections U, L, C up to approx. 220 mm (H section height)
- Bars of I, U, H, T, L cross-section up to 220 mm (circumference circle 254 mm)





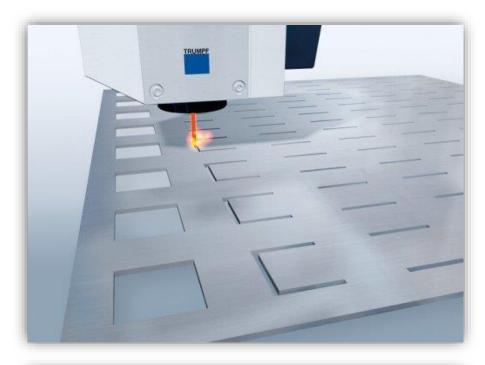


## 2D laser cutting

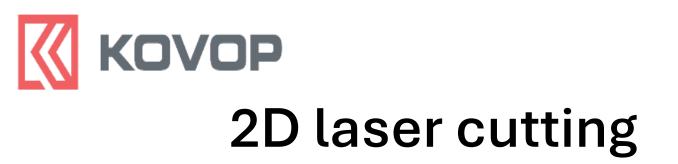
✓ Extremely fast solid-state laser cutting

✓ Highest quality of parts, including edges

- ✓ Splitting including protective film
- ✓ High productivity in the area of thin and thick sheet metal
- ✓ We also create small contours in thick structural steel
- ✓ We process prototype, single as well as series components







✓ Working range: 2500x6000 mm

✓ Max. plate thickness: 25 mm

✓ Min. plate thickness: 0.1 mm

✓ Repeated and positional cutting accuracy: ± 0.05 mm

✓ Cutting speed up to 60 metres per minute

✓ What do we cut?

steel, stainless steel, brass, aluminium, copper, metal alloys

We have a capacity of 1000 hours/month
Machinery: TruLaser 3060 fiber, TruLaser 3040 fiber





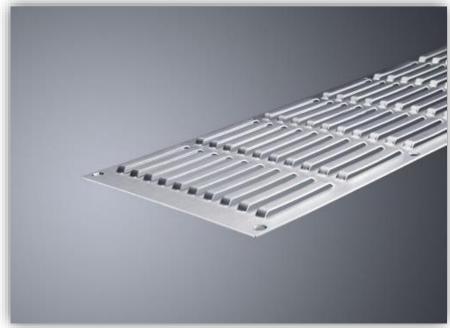


## Automated punching, forming and threading of sheet metal parts

 $\checkmark$  Automated punching at KOVOP has a long tradition.

- ✓ In addition to punching, we offer sheet metal forming and thread cutting of the highest quality.
- ✓ Extremely fast forming
- ✓ High-end machine
- ✓ Highest quality of parts







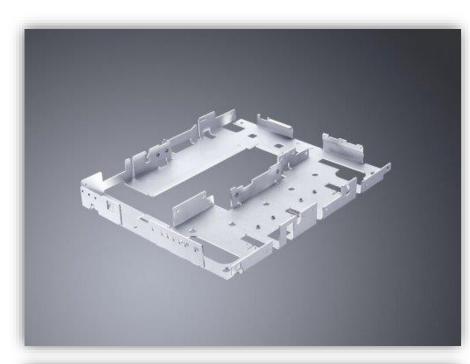
## Automated punching, forming and threading of sheet metal parts

✓ Working range: 1600x3150 mm

- ✓ Max. plate thickness: 4 mm
- ✓ Min. plate thickness: 0.3 mm
- ✓ Repeated and positional accuracy: ± 0.05 mm

✓ We have a capacity of **1000 hours/month** 

✓ Machinery: Trupunch 5000, Trupunch 5000 with automation

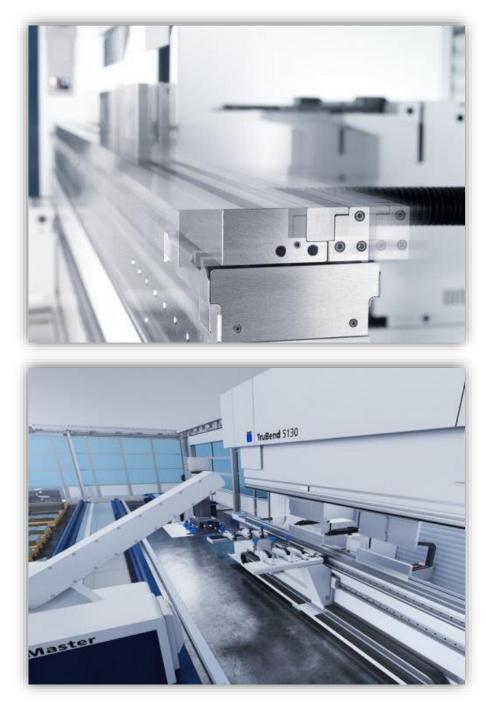






#### **Automated bending**

- ✓ Max. bend length: 4250 mm
- ✓ Max. dimensions of input material: 2000x4250 mm
- ✓ Max. product weight: 120 kg
- ✓ Max. thickness: 6 mm
- ✓ Min. thickness: 0.4 mm
- ✓ Repeated and positional bending accuracy: ± 0.3 mm
- ✓ Angle accuracy: ± 0.5°
- ✓ Automation solutions for bending increase production quality and efficiency.
- ✓ Because our automated bending has high repeatability, we can produce premium products guaranteeing high quality.
- ✓ We have a capacity of 500 hours/month
- ✓ Machinery: TruBend Cell 5000





#### Manual bending of short parts

✓ Bending at KOVOP is based on rich experience and a wide portfolio including a wide variety of machines for countersink and bending.

- ✓ We produce precise, inexpensive, simple as well as complex parts.
- ✓ Our modern bending machines save energy, are easy to operate and guarantee precise production.







### Manual bending of short parts

- Max. bend length: 3100 mm
- Max. thickness: 6 mm
- Min. thickness: 0.3 mm
- Repeated and positional bending accuracy: ± 0.3 mm
- Angle accuracy: ± 0.5°
- We have a capacity of 2,000 hours/month
- Machinery: Trubend 7036, Trubend 5170

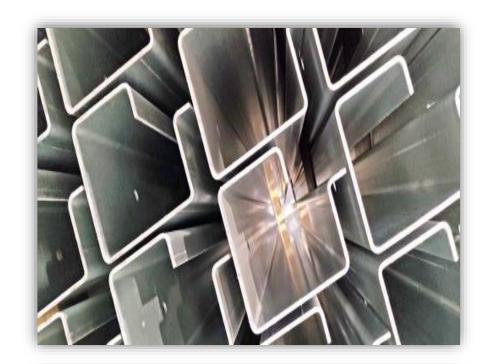






## Manual bending of long parts

- ✓ We produce precise custom open steel sections. We offer variable design of holes, grooves, cut-outs. We manufacture various dimensions and shapes in a serial or single-part scope.
- ✓ Our machinery enables the production of sections made of hot and cold rolled structural steels with a smooth or galvanized surface.
- ✓ Thin-walled open sections are widely used in many industries and in construction.
- ✓ They are especially suitable for steel structures, racks, beams, stands, columns, etc.





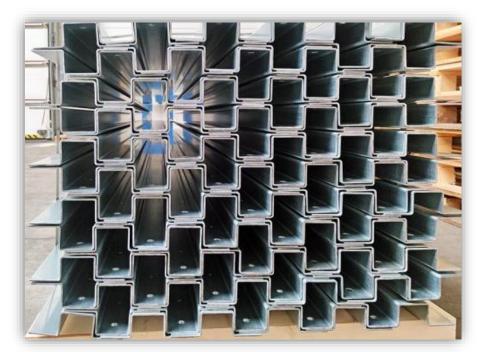


## Manual bending of long parts

#### Main production programme

- ✓ Open steel beams
- Standard and atypical open steel sections
- ✓ Special sections
- Max. bend length: 6100 mm
- Max. thickness: 15 mm
- Min. thickness: 1.0 mm
- ✓ Repeated and positional bending accuracy: ± 0.5 mm

- ✓ We have a capacity of 500 hours/month
- ✓ Machinery: VarioPress 500, TruBend 5320







- ✓ Welding at KOVOP has a long tradition.
- ✓ We perform welding in a protective atmosphere using the MAG method according to EN ISO 1090-2 EXC3 and EN ISO 3834-2.
- ✓ To increase the efficiency and quality of our welding processes, we use fully robotic workstations.

What do we offer?

- ✓ Maximum productivity
- ✓ Highest weld quality and accuracy
- ✓ Professional solution

What do we produce?

- ✓ Steel structures
- ✓ Structural and building parts
- ✓ Components for industry, engineering and construction





### **Robotic welding**

- ✓ Working range: **1100x3250 mm**
- ✓ Max. thickness of input material: 25 mm
- ✓ Min. thickness of input material: 1.5 mm
- ✓ Max. weldment weight: 900 kg
- ✓ Base material: **structural steel**
- ✓ 2 independent positioners

## Manual welding

- ✓ Working range: 4000x12000 mm
- ✓ Max. thickness of input material: 25 mm
- ✓ Min. thickness of input material: **1.5 mm**
- ✓ Max. weldment weight: 5000 kg
- ✓ Base material: structural and galvanized steel
- ✓ For the production of welded parts, the company has its own welding supervision according to EN ISO 14731.
- ✓ Our products meet the **CE mark.**



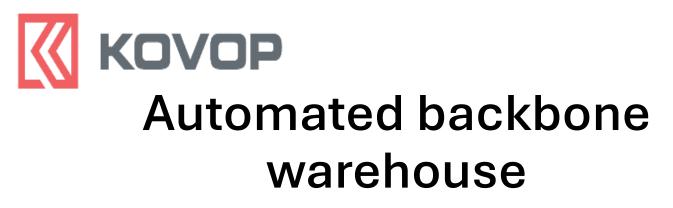


#### Assembly of products and parts

- We assemble various units of a given product or join lower structural parts into a higher unit.
- ✓ We join parts into components, components into subassemblies, subassemblies into assemblies and into complete products.
- Each assembly depends on the initial precision of the production itself, e.g. machine precision, compliance with the dimensions and correct technological procedures.
- We perform single-stage and multi-phase assembly for single-part as well as series production according to design drawings, e.g. preassembly of components, assembly of bodies, final assembly of the product, cleaning, inspection, packaging.







- ✓ An automatic solution for increasing efficiency and productivity in the warehouse and in production is provided by an automated backbone warehouse with an integrated scale for weighing stored material.
- ✓ The warehouse features automatic transfer of material stacks to the desired workplace by means of an automatic forklift.
- ✓ The control system of the warehouse provides 100% communication between the warehouse and machines, which enables unattended operation.
- ✓ Our automatic storage system saves us space, reduces picking errors, reduces picking time and provides 100% identification and traceability.





- ✓ Warehouse length: 39 m
- ✓ Warehouse capacity: 1800 tonnes
- ✓ Number of pallets: 600
- ✓ Max. sheet metal size: 1500x3000 mm
- ✓ Max. package weight: 3000 kg
- ✓ Number of storage spaces: 600



## **KOVOP** Range of materials in stock for orders

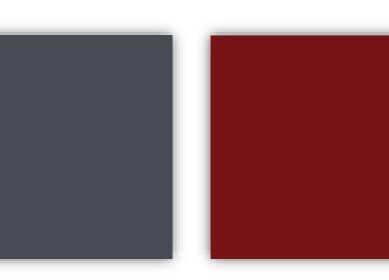
- ✓ We have a large stock of sheet metal for orders of standard widths and a length of up to 6000 mm
- ✓ Low-alloy structural steel S235JRC+N, S355J2+N, thickness: 2.5– 25 mm
- ✓ Low-alloy steel, thermomechanically rolled S355MC, thickness: 2.5– 25 mm
- ✓ Cold-rolled steel for forming DC01, thickness: 0.5–3 mm
- ✓ Hot-dip galvanized steel DX51D+Z100-275MAC, thickness: 0.5– 4 mm
- ✓ Hot-dip galvanized structural steel S250GD+Z100-275MAC, S350GD+Z100-275MAC, thickness: 0.5−4 mm
- ✓ Cold-rolled galvanized steel for forming DC01+ZE25/25-APC, thickness:
   0.5− 3 mm





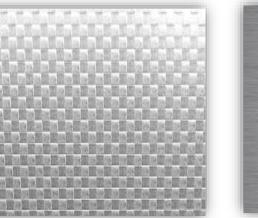
#### Range of materials in our suppliers' stock for orders

- ✓ Structural steel with higher strength up to S700MC
- ✓ Hot-dip galvanized structural steel with higher strength up to HX420LAD+Z
- ✓ Painted sheet metal
- ✓ Galvanized painted sheet metal
- ✓ Aluminium sheets
- ✓ Stainless steel 1.4016 primarily for food equipment
- ✓ Austenitic chromium-nickel stainless steel 1.4301 with excellent weldability, ductility and good corrosion resistance
- ✓ Stainless steel 1.4404 for the chemical and pharmaceutical industry, pools
- ✓ Stainless steel 1.4541, 1.4571 a 1.4462 for demanding applications in the chemical industry













## Thank you for your attention

**General questions** 

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