We offer a one stop shop service for small and medium size steel products manufacturing.

- Sheet and tube laser and waterjet cutting
- Bending, pressing and forming
- Turning and milling
- Welding - stainless, alluminium and mild steel
- Packaging
- Assembly
- Quality control
- Surface treatment: blasting, phosphating, powder coating, acid pickling and polishing

www.klematcz.cz
Established in 1991, KLEMAT CZ s.r.o. has grown into a successful subcontract provider specializing in small and medium size steel products manufacturing. We are dedicated to provide high quality parts and components to suit all our customer’s needs and engineering demands.

Our goal is to offer a one-stop-shop service through continuous investment in new technologies. The in house manufacturing service portfolio therefore covers wide range of processes: 1. CNC technologies – laser tube and sheet cutting, punching, water jet cutting, sheet and tube bending, milling and turning. 2. Welding of mild and stainless steel, as well as aluminum alloys, robotic welding. 3. Surface treatment – blasting, acid pickling, electrochemical polishing, phosphating and powder coating. 4. Assembly and packaging.

We have the experience and capability of manufacturing a wide variety of products in volumes from prototypes to full production batches. Our production covers a whole range of sectors such as food, electronics, lighting, chemical, agriculture, construction, water treatment, car, etc.

The company works mainly on the European market with the aim to produce high quality parts with short delivery terms at competitive costs. In order to improve the organizational performance and its ability to always supply the goods and services at the highest standards we have implemented and are certified with both ISO 9001-14001 TUV SUD.

WE OFFER A COMPLEX SCALE OF SERVICES

» Laser cutting, waterjet cutting, shearing, bending
» CNC bending, pressing, welding steel, aluminum, stainless steel
» CNC turning and milling
» Surface treatment - sand blasting, phosphating, powder coating
» Packaging, assembly, installation and transportation
For laser cutting we use three technologies
BALLIU, LT 9 Combo a LC5 ADIGE-SYS

We laser cut the following range of materials:
- steel up to 20 mm
- stainless steel up to 8 mm
- aluminum 6 mm
- highly reflective materials such as copper, brass and bronze

SHEET METAL

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Advantages of laser cut tubes and profiles are:

» high precision on the cuts without burrs
» minimum material waste
» possibility to cut tubes with a diameter of up to 222mm, square, rectangular and other profiles with maximum dimensions up to 160/200 mm
» open profiles C, U, L types
» maximum length of the profile is 6500 mm

<table>
<thead>
<tr>
<th>Sizes</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Round tubes (diameter)</td>
<td>16 mm</td>
<td>225 mm</td>
</tr>
<tr>
<td>Square</td>
<td>16x16 mm</td>
<td>160x160 mm</td>
</tr>
<tr>
<td>Rectangular</td>
<td>16x16 mm</td>
<td>200x100 mm</td>
</tr>
</tbody>
</table>
We have the newest and most innovative 3D technology for waterjet cutting, which precisely cuts soft, hard, highly resistant and problematic materials.

The technology Flow Dynamic Waterjet XD is a 3D technology for waterjet cutting. This technology provides high precision for the parts, faster cutting and zero compensation. The cutting head allows division of parts of up to 60 degrees while at the same time compensates for the thickness.

Benefits:
» Cut parts 25-400% faster than conventional flat stock waterjet cutting machines
» Improve cut part tolerances and geometry at significantly higher speeds
» Virtually eliminate taper; taper is < 1 degree in straight-line geometry
» Reduce part cost
Another step forward! With our new **SafanDarley H-Brake Hybrid** press brake, we are able to meet the demanding requirements of our customers and bend metal sheets up to a maximum length of 4m and a tonnage of 170 tonnes! The positioning of the upper beam is very precise, with a deviation of 0.005mm it ranks among the top systems in the market.

### TURNING and MILLING

**CNC PUMA 2600 LY turning center**

<table>
<thead>
<tr>
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<th>mm (inch)</th>
<th>mm (inch)</th>
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</thead>
<tbody>
<tr>
<td>Max. Turning Diameter</td>
<td>480 (18.9)</td>
<td>376 (14.8)</td>
</tr>
<tr>
<td>Max. Turning Length</td>
<td>760 (29.9)</td>
<td>760 (29.9)</td>
</tr>
</tbody>
</table>

In 2014 we expanded our production capability thanks to a new **CNC 4 axis vertical milling machine DOOSAN DNM 750** with the following parameters:

» though design for high-speed machining
» the DNM 750L is equipped with a powerful spindle motor providing superior performance in any type of Long Parts manufacturing environment
» optical linear measuring system
» Table clamping surface - 2100 × 750 mm

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» Welding using the MIG, MAG, and TIG methods. Some of the materials most frequently welded by us, you can find structural steel, stainless steel, possibly aluminum alloys.

» Robotic welding – 6 axis ABB robot with 2 five axis tables. Maximum dimensions 200 x 100 x 120 cm. Maximum load 600 kg.
In 2016, we acquired a new machine – a CNC roll bender, which is supposed to extend our own production and portfolio of offered commercial services. Out of all the machines available on the market, the four-roll bender is the most precise, fastest and most operator-friendly way to form sheet metal into circular arcs.

Advantages of four-roll benders:

A four-roll bender is usually 50 – 80% faster and more productive than any three-roll bender.

Due to the geometry of the machine, rolls and the related horizontal pre-bending, we achieve very short and flat ends at the end of the bended sheet metal, which enables variability and flexibility when bending a large spectrum of products.

High capacity and reliability – in comparison to electromechanical machines.

Fully hydraulic cylinder motion

Independent hydraulic motors make it possible to insert thicker metal sheets without any damage to their surface.

Automatic circumferential speed compensation
In 2015 we have bought a new technology for powder coating, degreasing and final colour finish. Our company offers a curing oven of unique dimensions for coating parts of sizes up to:

- 550cm x 110cm x 170 cm
- 640cm x 190cm x 295cm.

Surface treatments before powder coating
In this area we can offer:

- Degreasing and phosphating
- Acid pickling and passivation of stainless and aluminum alloys
- Electro-chemical polishing of stainless steel
- Blasting of stainless steel, black steel and aluminum alloys

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The technology requires an application booth for the wet varnishing process, including a programmable drying and hardening process directly in the cabin to maintain the highest possible quality of the surface treatment. The drying process runs through a waste heat exchanger with the aid of a cogeneration unit, which is part of the equipment.

The booth offers varnishing and drying.

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Varnishing temperature</td>
<td>20-25°</td>
</tr>
<tr>
<td>Drying temperature</td>
<td>60-80°</td>
</tr>
<tr>
<td>Length</td>
<td>8500 mm</td>
</tr>
<tr>
<td>Width</td>
<td>4500 mm</td>
</tr>
<tr>
<td>Height</td>
<td>3000 mm</td>
</tr>
<tr>
<td>Flow rate</td>
<td>44000 m³/h</td>
</tr>
</tbody>
</table>

Heating for drying booth – through exchanger and cogeneration unit
Acid pickling and passivation increases the anti-corrosion qualities of the products. Without this surface treatment there can be rots in the places where the parts are welded. During this process the material is also cleaned up from the previous paint remains, markings and signs.
The company KLEMAT CZ is making its best effort to provide to its customers quality products and services in the area of metal processing. Main company strategy is to minimalize all negative impacts on the environment and therefore we have introduced the EN ISO 9001:2009 and EN ISO 14001:2005 management systems in our processes.
Innovation and quality improvement 2013
During 2013 we have bought a combined CNC center LT 9 Combo from ADIGE-SYS, which is the newest technology for cutting tubes and profiles – square, round, open profiles and sheets. We have also expanded our surface treatment technologies to grinding of edges and surfaces. The maximum width of the grinding machine is 1300mm. Moreover, we have bought a new pickling link for stainless steel and aluminum.

Innovation and quality improvement 2014
In 2014 we have acquired a FIBRA laser technology IPG - YLS 3000, with power 3000 W and a CNC milling machine a CNC turning lathe technology DOOSAN with Y axis.

Innovation and quality improvement 2015
In 2015 we have expanded our technology park with a third Adige sheet and tube laser, CNC tube and profile bending machine, a new powder coating line, 3D measuring arm with a laser scanner, a welding robot, electrochemical polishing technology and a further sand blasting machine.
Innovation and quality improvement 2016
During 2016 we have to our laser technologies a new modular CNC laser Adige-SYSL55 Fibra with the possibility of extending it as a tube lase. A huge advantage of this technology is its automated system for cutting sheets as well as tubes and profiles. Further we have acquired CNC four cylinder rolling machine, which is currently the most precise, fastest and easiest to work with. As a logical completion of the surface treatment processes we offer, was the acquisition of a wet coating line including the dryer. This kind of coating perfectly adjusts to the powder coating lines of 7m and 5,5m we have.

Innovation and quality improvement 2017
With our new press brake, we are able to meet the demanding requirements of our customers and bend metal sheets up to a maximum length of 4m and a tonnage of 170 tonnes!

We are also able to arrange for a complete delivery of the parts and assemblies for our customers, including the installation and delivery of fasteners and fittings.

We have extended our range of services and a business vehicle fleet. With our new DAF LF 45.220 trucks, we are much more flexible in our deliveries! We can offer our customers a commercial goods transportation services now!