LINTECH®

COMPANY PROFILE

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Company History

Lintech, spol. s r.o., was established in 1993 with the purpose of development and production of components for laser technologies and automation. Later, the company started to engage in the construction of special purpose machines and custom manufacturing, especially in the field of industrial marking.

Since mid-2003, the company offers manufacture of dies, identification and serial plates and the manufacture of control panels. At the turn of 2003 and 2004, Lintech extended the portfolio of the offered services by the assembly of electrical parts for the automotive industry.

In 2009, the company became a partner to the NTC institution "New Technologies - Research Centre“ at the University of West Bohemia in Pilsen. This centre applies research and development in the field of laser technologies in the industry.

To meet the challenging customer needs there is a team ready of highly qualified professionals with years of experience in the field of laser technology in the automotive sector, in mechanical and electrical engineering. In the area of laser technologies and automation we take pride in a number of successful and very interesting projects.

More than 25 years on the Czech market and 16 years of being active in a challenging market in Germany, is a guarantee of quality and the readiness to solve technical problems of customers with real enthusiasm and corresponding performance.

The company currently employs about 100 employees. These people are the capital that we intend to invest in the development and growth of the company in the coming years.

Since 2004 we are holders of the quality certificate according to EN ISO 9001.

Since 2011, we are the founding members of the Cluster Mechatronics Platform.

Milestones

1993 - Establishment of the company at the Domazlice Square

1995 - Purchase of a farm in Chrastavice and the start of reconstruction

1999 - Completion of the reconstruction of the farm

2003 - Expansion of the manufacturing by assembly of parts in Chrastavice

2013 - Lintech expands and opens an office in Domazlice in a so-called „Farmyard”

2015 - Reconstruction and modernisation of the premises in Domazlice

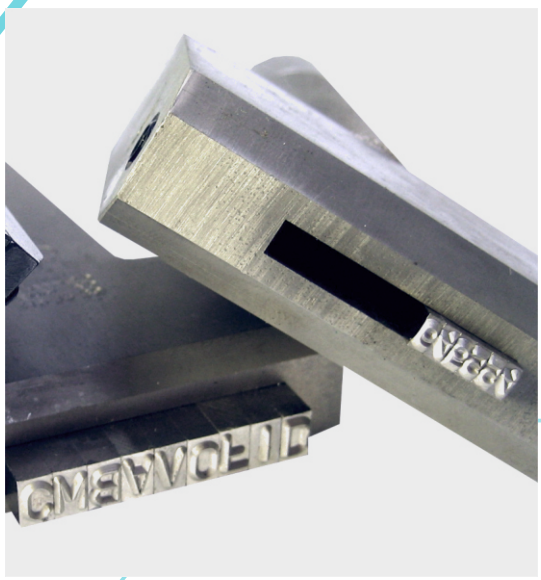
2015 - Extension by an application laboratory for testing and development, particularly laser applications

2018 - Expansion of machinery

MANUFACTURE, SALE AND SERVICE OF SINGLE-PURPOSE MACHINES

Punches and Stamping Die Sets

Choose from several options and sizes of our machine punches designed to fit into the holder for automatic or manual stamping, or choose from several types of hand stamping dies that you can use to mark individual arbitrarily large letters and numbers. Our stamping dies and punches are made of first-class Sheffield steel, which guarantees a high level of quality. We offer punches both standard and custom-made.



- Machine and hand punches
- Conical punches
- Standard holders for stamping dies and numbering heads

Columbia Marking Impact Units

The bestsellers among the stamping units are the US units of the Columbia Marking series. Due to the large customer base, Lintech has an exclusive CMT representation throughout Europe.

The impact unit offers eighteen times the power of the air cylinder with the same diameter. Its compact design allows installation of that tool even in confined spaces. Standard marking requires lubricated air. Our equipment however offers an NL (No-Lubricated) variant.

- Securing the punch against rotation
- 2 different sizes of the cylinder striker stroke
- Integrated position sensor, various types of stamping dies

Microdot Marking Machines

Microdot marking operates on the principle of oscillating a tip of cemented carbide or diamond, which in turn creates individual points using fast strokes to the material surface. Individual points will then compose resulting markings, such as alphanumeric characters, graphic logos or Datamatrix code. Oscillating the tip is provided by pneumatically (compressed air) or using the electromagnetic principle (coil with a movable core). The stylus moves on the X and Y axes of the marked field by two stepping motors. The microdot technology provides a variable and durable marking visible even after surface treatment of the material.

Benefits of microdots:

- Rapid and profound marking
- Permanent and flexible marking with a small device
- Low initial investment, long life

Single Purpose Machines

Many years of experience provide Lintech specialists with adequate background for the responsible selection of the marking method and technology so that our customer can get the maximum benefit for a reasonable price. In the event that our customers are happy with rather a universal solution, they can choose from a range of machines that we manufacture in series and that can be delivered at more favourable conditions.

Single-purpose machines for:

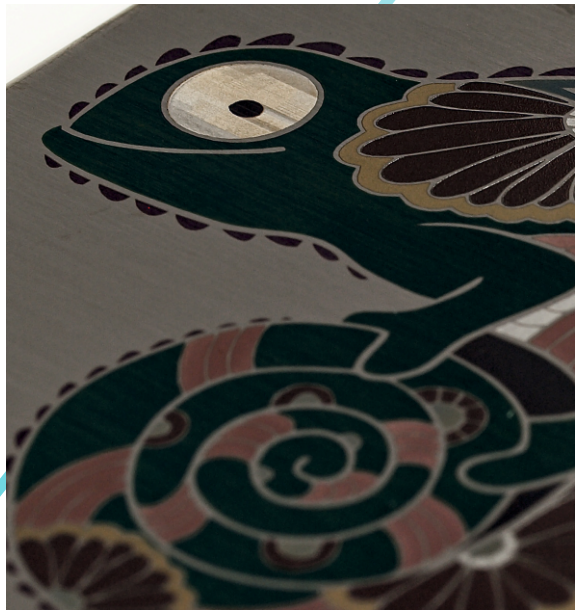
- Marking, engraving, cutting, welding, drilling, cleaning, ablation and activating of material with laser

They may include:

- Manipulators, conveyors, feeders, pneumatic cylinders, etc.
- Readers, cameras and other machine visualization
- Magazines, basket collectors, shelves
- Safety features - barriers, protective glasses, etc.
- Fibre lasers, crystal lasers, green lasers, CO2 lasers, etc.

Laser Marking

Laser marking technology is used to create nearly **indelible graphic** or other motif on the surface of the marked article.



This motif is created by thermal effect due to acting of laser beam, which removes material layer of certain thickness, or changes its structure and thereby the visual effect is created.

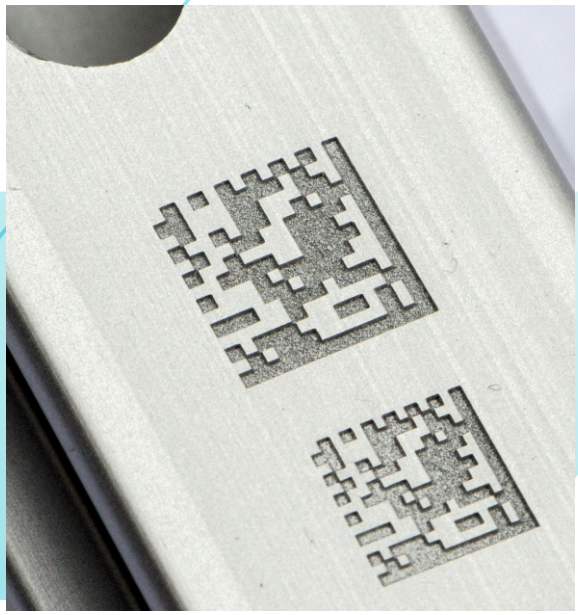
Benefits of laser marking:

- Top quality, precision and speed
- Stability and high durability of the marking
- Contactless and clean result
- Can be applied on almost any material
- Possibility of marking uneven surface
- Visually appealing

All kinds of materials can be marked: aluminium, wood, glass, ceramics, plastic, titanium, steel, brass, precious metals, copper, anodized aluminium, etc.

Laser Engraving

Result of laser engraving is the creation of embossed patterns at different depths in order to achieve increased resistance of the marking. The achieved engraving depths are used to preserve readability even after the material is subsequently coated (painted, anodized, galvanized, etc.). Thus engraving is different from conventional surface markings.



Unlike conventional engraving methods, in engraving one can process even materials with high hardness without problems (e.g. hardened materials).

Benefits of laser engraving:

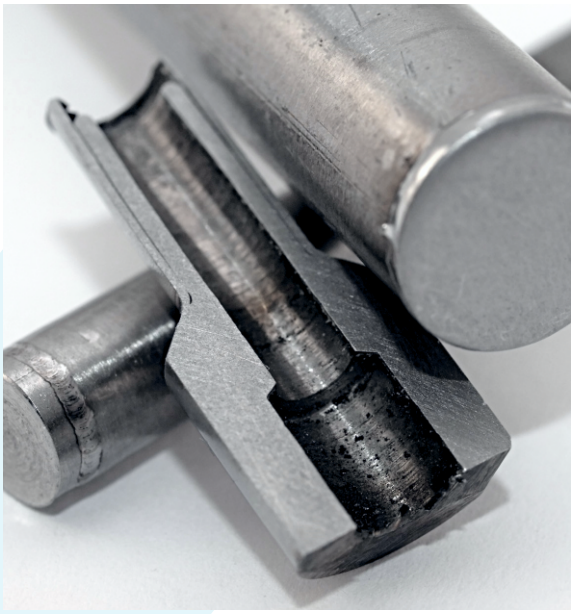
- Indelibility permanence and durability
- Possibility to process very hard materials
- Precision
- Detailed workmanship
- Contactless method

Laser engraving found applications e.g. in the areas of the arms, plastic or iron and steel industry.

Laser Welding

Laser welding is among those **modern technologies that create undemountable joining** of parts.

Laser welds are characterised by high quality, reliability and good design. Laser welding is particularly suitable for bonding metal and plastic materials.



Main advantages of laser welding versus arc welding:

- Process speed and accuracy
- Low thermal effect on the materials being joined
- Greater economy of the process
- Possibility of welding even in areas with limited access to the welding point
- Easy automation and precise control of the welding process

Laser Cutting

Laser cutting technology allow dividing materials **very accurately**, even those fragile or easily deformable ones. With the ability to control the laser beam **very complex shapes** can be created with a high quality cut.

Benefits of laser cutting:

- Small cross section of the material
- Precision and quality of the cut
- Small size of the thermally affected zone
- Possibility of cutting intricate shapes
- Efficiency of small batches
- Possibility of very precise energy metering
- Cutting materials of 0.025 - 2 mm

Cut can be a broad range of materials, such as metals, plastics, wood and other materials.

Laser cutting technology is most commonly used in the automotive, mechanical and electrical engineering industries.

Laser Drilling

Laser drilling is based on the evaporation of the material from the borehole. There are **several different methods** how to perform laser drilling with regard to the technical specification of the application.

Benefits of laser drilling:

- Creating very small openings with a diameter from tens µm
- Precision holes
- Speed
- Possibility of drilling in hard-to-reach places
- Contactless method
- Ability to process very hard materials
- Stability

Drilled can be a **wide range of materials**, especially metals.

With laser drilling we can create openings from **0.01 mm** into various materials. Laser drilling can be useful of in the **automotive industry and electrical engineering**.

Laser Cleaning

The most common use of laser cleaning is in removing unwanted layers, e.g. of oxides, grease and other contaminants. **Moulds, tools** or containers are cleaned very often.

Removing these layers has to be carried out gently enough to avoid damage to the original surface of the material.

Benefits of laser cleaning:

- Application without chemicals and consumables
- Easy delimitation of the area to be cleaned
- Contactless method
- Versatility of application

Laser cleaning can be applied to all materials that have good absorption properties to laser radiation.

Laser Ablation

General interpretation of ablation is evaporation of material. It is used for the processing of composite materials where the layers tend to have a different composition and purpose. The purpose of laser is to only evaporate a certain layer or group of layers so as not to affect the other layers.

Laser **removes e.g. these types of surfaces:**

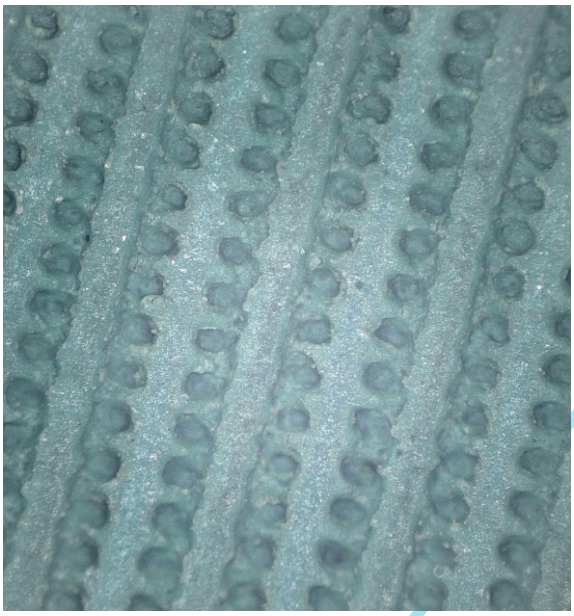
- Layers of paints and varnishes
- Nickel plated, chromium plated and anodized surfaces
- Surfaces after electroplating and other coating

With the help of a suitable laser adjustment, detailed **day & night laser marking** can be created very effectively and in top quality. The marking is usually placed on backlit buttons and LEDs of electronic systems.

This gives rise to an ornament or symbol in affected areas that remains in reduced light conditions due to **backlight** intense and therefore easily visible for the human eye.

Activating Material with Laser

Activating material means roughening or corrugating of the surface which is to increase its adhesion. This helps to achieve firm bonding of the activated material to an additional component (foam, glue, etc.).



Roughened are most often plastic, metal and rubber materials.

Compared with the conventional methods, the process of activation by laser is **easily controllable** material and therefore different results can be achieved according to the current needs.

Benefits of material activation:

- Gentle to the material, effective
- Contactless
- Accurate

This principle is used e.g. in the automotive industry for joining plastic parts with a sealant.

CUSTOM CNC AND LASER MANUFACTURE

Making of Punches and Stamping Dies

In our toolroom we can make for you various punches, stamping dies, embossing dies or press marking tools. We have a **complete machine park** for 3-axis milling, turning, HSK milling, wire cutting, grinding and heat treatment.

Embossing die is engraved using special single-point tools. In conjunction with 3D CAM software and HSK milling cutter we are able to create a motif that **customer desires**. We make punches of all sizes, shapes and configurations.

We also make:

- Angular segments
- Rotary punches
- Replaceable punch blocks
- Printing plates
- Firing dies etc.

Our customers from Europe, the U.S. and Russia rely on quality supplied by us since 1993.

Making of Front Panels

Using modern CAD and CAM software in conjunction with a **3D CNC machine**, we are able to suit you demand and make panels from duralumin, anodized duralumin, laminated plastics, brass, stainless steel, and others.

We make front panels and precision parts of light alloys for a wide spectrum of industries.

Thanks to our super precise and multifunctional machine we will satisfy all your requirements for:

- CNC machining
- Milling and cutting
- Engraving

You can place order with us in **different sized series, or lump orders.**

Laser Welding and Surfacing

We offer custom repairs and adjustments to tools by laser surfacing, which gives you an opportunity to **reduce your manufacturing costs.**

Thanks to the precision of laser beam radiation on the repaired item very fine details can be surfaced, such as edges and shapes that **cannot be repaired by another technology.**

Solving the repair process is done through syncing:

- Of laser beam pulses
- Of additive material
- By feed rate

Surfaced additive materials are selected from the leading manufacturers and suppliers = high quality and durability of the repair.

We also provide custom welding of metal components in mechanical engineering, electrical engineering and automotive.

Manufacture of Identification Plates

We take pride in our extensive experience with the making of identification plates, which are an integral part of each product.

This plate makes the product marking **durable, clear and indelible.**

We can produce plates according to graphic materials you supply, and once the dimensions are specified, we can make plates of the following materials:

- Metals (aluminium, stainless steel, anodized metal, ferrous metals, brass, etc.)
- Plastics
- Self adhesive films

We will make plates including holes, bends and, upon your requirements, those can be completed with the **required values by laser** and shipped to you.

Laser Marking and Engraving

If you desire so, we will mark **piece series, as well as any large series** for you. In contact with surface material layer laser beam changes the properties of the material which leads to creation of contrast marking.

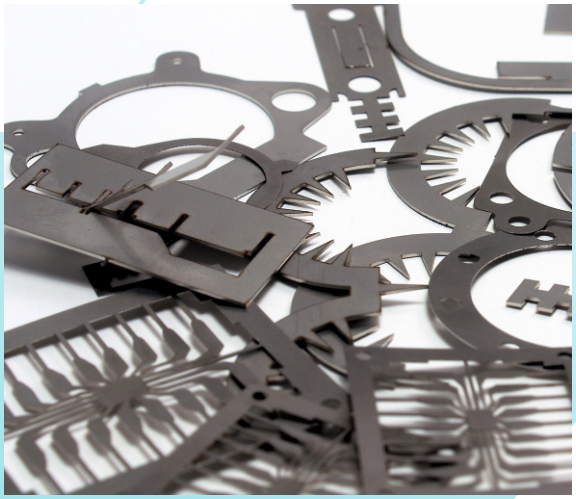
Engraving using laser technology is the **ultimate refinement of the engraved lettering** or graphics, both technically and aesthetically. Using laser as an engraving tool has an indisputable advantage: that the "working" or the material on a part, workpiece or an already finished product is done with **no contact whatsoever.**

Laser engraving can be applied in all areas of industry:

- Toolrooms
- Mechanical production
- Engraving of injection and compression moulds
- Engraving of sparking-out copper and graphite electrodes for EDM machining
- Cliché engraving
- Engraving of finished products

Precision Laser Cutting

We offer a service of precision and **high precision laser cutting**. This is a process where precise cut can be performed on even the thinnest materials.



Our technology is capable of making the most complex shapes and products made from various materials. We are able to cut metal foils, perforating plotters and sheets in thicknesses from **0.025 mm to 2 mm**. Repeatable and position cutting accuracy is up to 0.01 mm. We process materials such as stainless steel, brass, Al, copper, metal alloys, gold, silver and other precious and non-ferrous metals.

Applications in the following areas:

- Electrical and mechanical engineering, automotive and medical industries, power engineering and nuclear industry, arms and watch industry
- Telecommunications
- Modelling
- Jewellery making
- Manufacturing of design elements

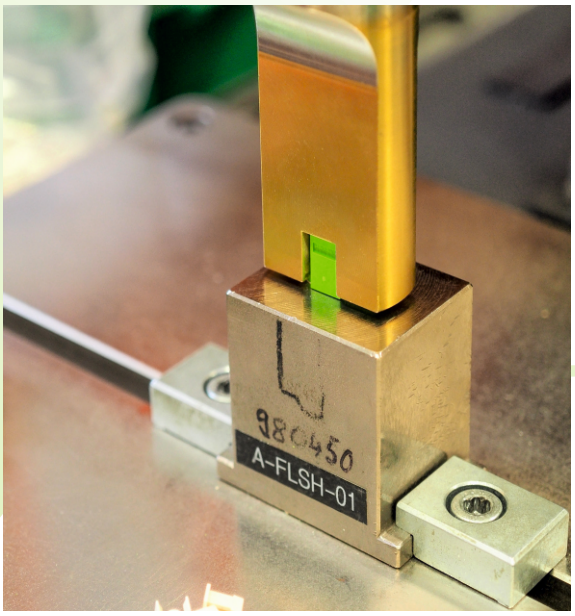
CUSTOM ASSEMBLIES

Offer of Services

We provide assemblies of precision components in the field of mechanics and electronics, for example assemblies of high-frequency connectors, connectors for optic cables, and the like. The greatest emphasis is placed on the quality and reliability, our precision has been corroborated by long-term cooperation with foreign partners. Fifteen years of our operation on the challenging market in Switzerland, Germany or Austria, and more than twenty years on the Czech market, is a guarantee of quality and readiness to solve technical problems of our customers.

We have the ISO 9001:2015 quality management system in place.

We are able to provide you with the necessary staff and create adequate space tailored to your requirements.



ISO 9001: 2015 Standard

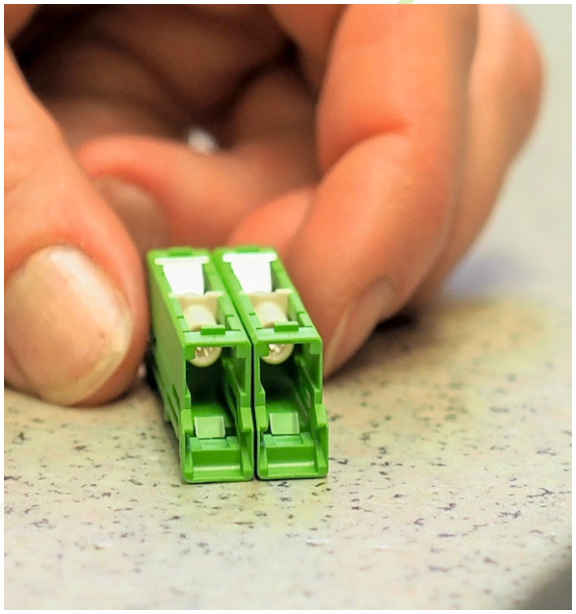
We place the greatest emphasis on the quality and reliability. We are holders of the **ISO 9001: 2015 certificate**. Our strengths include the fact that most of the staff are able to communicate in German and have practical experience from projects the company had to solve in German-speaking countries.

We are no stranger to international cooperation. Not only the custom assembly centre, but also other Lintech centres operate and provide their services, products and equipment on the demanding international market and comply with standards not only in the automotive but also in electrical and mechanical engineering. So far, Lintech has cooperated with more than 11 countries around the world.

Our main goal is maximum customer satisfaction with our services!

Connectors for optical cables

Lintech offers, among others, assemblies of connectors for optic fibres and high-frequency connectors for the automotive industry. We have a team of workers who are able to flexibly make order of tens or hundreds of thousands of pieces a week. This team works under the supervision of technically qualified and at the same time responsible leaders, who guarantee the highest possible quality of work. It is not a problem for us to strengthen the team if needed. The entire process takes place under the strict in-process and final inspection.



- High-frequency connectors
- Connectors for optical cables
- Parts for automotive etc.

Qualified Staff, Premises and Warehouses

Due to the long practice since 2004, we take pride in extensive experience in the area of manual installation and skilled workers, foremen and technicians in the field.

Over the years, the portfolio of assemblies has become very varied, ranging from telecommunications equipment to components of the automotive sector. With the diversity of works we are able to cover almost any technically-oriented handiwork. Although our work follows strict standards of the automotive industry, yet we manage to keep the flexibility and timeliness of deliveries.

These common aspects of custom manufacturing can be utilised not only in technical installations, but also in other handiworks that are able to cover. The works range from soldering to gluing or folding materials.

For these purposes we have specially trained workers, suitable rooms, assembly halls and material warehouses.

We mainly build on the following pillars:

- Timely deliveries
- Flexibility of deliveries
- Precision work

SELECTED REFERENCES

ASMO Czech s.r.o.

BUZULUK a.s.

Continental Automotive s.r.o.

DONALDSON CZECH REPUBLIC s.r.o.

FRANKLIN ELECTRIC, spol. s r.o.

GCE Trade s.r.o.

GÜHRING s.r.o.

HC electronics, s.r.o.

INA SKALICA spol. s r.o.

KIEKERT-CS, s.r.o.

Panasonic AVC Networks s.r.o.

Rieter CZ s.r.o.

SCHÄFER – SUDEX s.r.o.

Siemens, s.r.o.

ŠKODA AUTO a.s.

ŠKODA JS a.s.

ŠKODA TRANSPORTATION a.s.

TRW Automotive Czech s.r.o.

Valeo Compressor Europe s.r.o.

Varroc Lighting Systems, s.r.o.

ZF Staňkov s.r.o.

ZKL Klášterec nad Ohří a.s.

MAJOR PARTNERS

NTC – Nové technologie - výzkumné centrum - Západočeská univerzita v Plzni

Östling Marking Systems GmbH

CMT - Columbia Marking Tools Inc.

SCANLAB GmbH

BERMA Macchine S.r.l.

SCAPS GmbH

SPI Lasers UK Ltd

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