# MODERN. QUICK. SAFE. We strive to be a leader in sheet metal and profile processing

# Let us introduce ourselves

#### MRB Sazovice, spol. s r.o. - a purely Czech manufacturing company

1990 Founded as a locksmith and tinsmith company.

1994 The company started developing, manufacturing and selling fireproof safety doors.

1996 The company fundamentally changed its area of activities to focus on sheet metal processing services – laser cutting, punching, bending, welding, etc.

The company extended its scope of metal processing services with laser cutting of pipes and profiles (both open and closed) and laser cutting of non-metallic flat materials. In June 2004, the company's quality system was successfully certified according to ČSN EN ISO 9001:2001.

2005 A new, hi-tech powder coating facility was commissioned.

A new automatic bender was added and a new subsidiary was established in Kroměříž, specialising in pipes, profiles and 3D laser cutting of profiled parts.

The company's equipment was upgraded with new fibre lasers suitable for cutting stainless steel, aluminium and its alloys, brass, copper, etc.

**2017** The company installed a combined machine for die cutting and laser burning. The new machine can process complex shapes as well as parts containing multiple holes or threads.

The company purchased new equipment for laser cutting of pipes and profiles. We can now process large parts with a maximum diagonal of up to 406 mm.

Acquired new technology for plasma cutting of pipes and profiles which is suitable for large parts with up to 600 mm diagonal.

# Why choose us

- We use high-capacity 2D lasers and are able to burn metal sheets of up to  $3,000 \times 1,500$  mm with a thickness of up to 30 mm.
- Flat products with a large number of holes, threads and dimples can be processed with our punching dies or with our 2D laser cutters combined with punching dies.
- · We have four tube laser cutters and we can process input lengths of up to 12.5 m with diagonals of 10 mm 600 mm.
- We can use tube lasers to burn closed and open profiles (pipes, square tubes, L-, U-, H-, and I-profiles, etc.).
- · We have two 3D laser cutters for laser cutting of profiled parts (pressings).
- · We can also cut non-conductive and thick-walled materials using a water jet (up to a thickness of 120 mm).
- We can also bend 2D burnouts using one of our 11 press brakes (depending on your order type) or use our highaccuracy automatic bender, which is suitable for medium to large product series.
- We can weld simple parts as well as complex assemblies in both single-part and serial production using welding robots.
- We also offer operations such as sheet metal straightening up to a thickness of 23 mm, rolling, stamping, welding of nuts, bolts etc., drilling, grinding, assembly operations and many more.
- $\cdot$  Our own powder coating line can provide surface treatment of parts up to 3 000 × 300 × 1800 mm.

#### LASER CUTTING OF FLAT MATERIAL

We use cutting-edge TRUMPF and BYSTRONIC machines, which have recently undergone a complete overhaul and modernisation.

We currently own four machines. One of them is based on CO<sup>2</sup> laser technology and the remaining three use fibre lasers. We are thus able to offer you the best suitable processing technology in order to achieve high-quality cutting at high speeds.

#### Basic data:

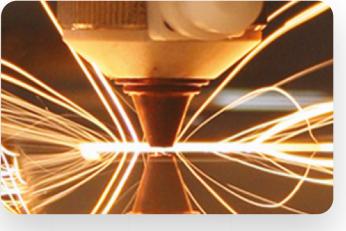
**Technology:** CO2 lasers or fibre lasers **Max. sheet dimensions:** 1500 × 3 000 mm

**Dimensional and geometrical accuracy of shapes:** up to 0,2 mm

#### Max. material thickness:

**Steel:** 0,5 to 25 mm

**Stainless material:** 0,5 to 30 mm **Aluminium alloys:** 0,5 to 30 mm **Brass, copper:** 0,5 to 12 mm



More information



## LASER AND PLASMA CUTTING OF PIPES AND PROFILES

We use cutting-edge TRUMPF, ADIGE, BYSTRONIC and WARCOM machines, which have recently undergone a complete overhaul and modernisation.

Our machines are based on CO<sup>2</sup> laser technology or are equipped with fibre lasers. We are thus able to offer you the best suitable processing technology in order to achieve high-quality cutting at high speeds.

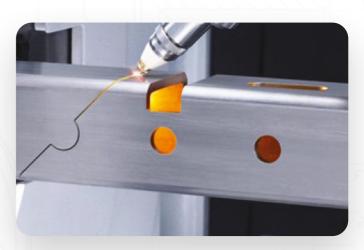
Our newest machines also include a second machining head with a turret magazine for six tools, which enables us to make threads, calibrated holes, flowdrill, etc. on a single machine without unclamping the part. This saves production costs as we can leave out steps such as cutting, drilling, milling, die cutting and interoperational handling.

#### Basic data:

Technology: CO<sup>2</sup> lasers or fibre lasers and plasma Max. length of profile to be processed: 12 500 mm Max. length of finished part: 12 500 mm Max. pipe or profile diagonal: 600 mm Dimensional and geometrical accuracy of shapes: up to 0,2 mm Profiles that can be processed: pipes, square tubes, U-profiles, L-profiles, H-profiles, I-profiles...

#### Max. material thickness:

Steel: 30 mm Stainless material: 20 mm Aluminium alloys: 5 mm



More information



# LASER CUTTING OF PRESSINGS (3D)

We cut 3D profiled parts (pressings) using TRUMPF and PRIMA POWER LASEDYNE machines.

We offer spatial cutting into pressed parts, big or small weldments, profiled steel, etc. To perform these tasks, we have two machines with one and two operating areas. This allows us to work very efficiently: a part can be replaced in one area while burning is in process in the other.

#### The machines are able to cut any shapes into:

- Pressings (exhaust pipes, covers, sinks, trapezoidal sheets, etc.)
- Weldments (crates, covers, doors, tanks, etc.)
- Metallurgical profiles (pipes, square tubes, L-, T-,

**Max. part dimensions:**  $4\,000 \times 1\,500 \times 750 \text{ mm}$ **Dimensional and geometrical accuracy of shapes:** up to 0,2 mm



Steel: 12 mm

Stainless material: 5 mm Aluminium alloys: 4 mm







# SHEET METAL HOLE PUNCHING

We punch metal sheets using modern TRUMPF machines.

We currently operate three automatic punching (nibbling) machines. One of them is a hole puncher combined with laser cutting, which is of advantage for sheet metal products with multiple holes and threads.

#### Further technological capabilities of the machine:

- Cutting of M3-M8 threads
- Shape skimming (e.g. for conical screw heads)
- Shearing & skimming (ventilation holes in machine or engine cover guards)
- Short bends w × h (90 × 25 mm) up to 90°
- Marking
- Inscribina

#### **Basic data:**

Max. sheet dimensions:  $1500 \times 3000 \text{ mm}$ 

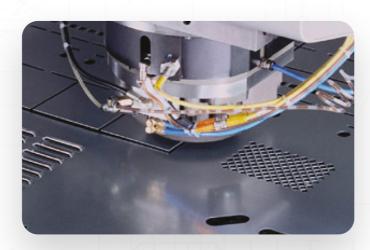
**Dimensional and geometrical accuracy of shapes:** up to 0,2 mm Revolving head: 1

Number of tools: 21

#### Max. material thickness for automatic punchers:

**Steel:** 0,5 to 3 mm

Stainless material: 0,5 to 1,5 mm **Aluminium alloys:** 0,5 to 3 mm



#### Max. material thickness for combined machine:

Steel: 0.5 to 4 mm

Stainless material: 0,5 to 2 mm Aluminium alloys: 0,5 to 4 mm

More information



## SHEET METAL BENDING

We bend metal sheets using state-of-the-art bending machines made by TRUMPF, BYSTRONIC and SAFAN.

Our production capacities include eleven press brakes. This allows us to produce a wide variety of bends and ensure high quality and production efficiency while processing different order types.

#### **Basic data:**

Max. bend length: 3100 mm (depending on material thickness)

Max. material thickness: up to 12 mm (depending on bend length)

Max. pressing force: up to 1700 kN

Max. stroke: 365 mm





## **AUTOMATIC BENDER**

This type of sheet metal bending is performed using a SALVAGNINI automatic CNC bender.

We can thus achieve several times higher speeds compared to commonly used press brakes. The machine can perform sequential bending (gradual bending) - large radius bends (with a min. radius of 5 mm and a max. radius of 100 mm). Especially suitable for products with multiple bends.

#### **Basic data:**

Max. bend length: 2500 mm

Max. unfolded dimensions: approx. 2500 × 1500 mm

Max. single bend height: 203 mm

Pushing home: 180°

#### **Material thickness:**

Steel: 0.5 mm to 2.5 mm

Stainless material: 0,5 mm to 2 mm **Aluminium alloys:** 0,5 mm to 3 mm



More information





# WATER JET CUTTING

A PTV machine is used for water jet cutting. This technology is particularly suitable for materials which cannot be cut by laser (non-conductive and thick-walled materials).

The cut is performed in a "cold" state, meaning that the material is not thermally strained at the cutting point.

High cutting quality can be achieved in particular for aluminium alloys, glass and ceramic plates.

#### Materials that can be processed:

- · Ceramics, granite, marble, etc.
- Glass
- · Plastics, laminates, rubber, polyurethane
- All types of steel including tool steel
- Coloured metals and their alloys

#### **Basic data:**

Max. dimensions of the material to be processed: 3500 × 2000 mm Max. thickness of material to be cut: up to 100 mm (depending on material type; in some cases, even a thickness of 120 mm is possible) Dimensional and geometrical accuracy of shapes: up to 0,2–0,5 mm correction of slanted cuts



More information



# **ROBOTIC WELDING**

We offer wide welding capacities in the form of three industrial robotic welding workstations. One workstation comes with a collaborative robot and two laser welding workstations come with the TRUMF and PRIMA POWER LASEDYNE machines.

These welding capacities are suitable for medium and large batches. For the small or prototype batches we use manual welding workstation with preparation tables.

#### **Welding methods:**

MIG-MAG, PLASMA TIG, MICRO MIG and LASER WELDING.



More information



## SUPPLEMENTARY AND ASSEMBLY OPERATIONS

#### We perform the following operations:

- Manual MIG, MAG and TIG welding on clamping tables
- Welding of steel, stainless steel and aluminium materials
- · Condenser welding of bolts, threaded pins, nuts, etc.
- Pressing of bolts (both manual and robotic)
- Eccentric pressing
- Point welding
- Metal sheet rolling

Max. metal sheet thickness: 3 mm Max. metal sheet width: 950 mm Min. rolling diameter: 95 mm

- Sheet metal straightening:
  - Max. metal sheet thickness: 23 mm
  - Max. metal sheet width: 1200 mm
- Hydraulic presses
- Upright drills (drilling, threads, flowdrill, etc.)
- · Grinding of visible surfaces (both manual and robotic)
- Production line assembly operations



More information



# POWDER COATING SHOP

We offer cooperation in product finalization. We operate an automatic painting line and offer the possibility of product surface treatments using a powder coating plant. We can paint products made of steel, galvanized and aluminum material for both interior and exterior uses.

#### Basic data:

Max. part weight: 100 kg for filling up to 50 kg/m Max. product dimensions:  $3000 \times 300 \times 1800$  mm or  $2600 \times 800 \times 1800$  mm

Conveyor speed: 1,2 m/min

#### We can provide:

- Powder coating
- Blasting and plastering
- Hot-dip galvanizing and electroplating



More information





# **DESIGN**

We can make the journey from your initial idea to the final product really easy. An employee from our design office will discuss your request, idea or design with you. Our designer will then create a 3D computer model of the product and demonstrate it to you.

After clarifying all the model details, we will quote you an exact price for the complete product including any surface treatments, packaging and delivery.

#### This is what our cooperation can look like:

- · Initial meeting defining your needs and requirements
- Creating a computer model
- Adjusting and approving the model
- Price quotation for a sample or serial production
- Making a sample
- · Adding equipment to the sample if necessary
- Fine tuning the sample
- Making a verification series (3–10 units)
- Initiating serial production

We use AutoCAD construction software and INVENTOR 3D-modelling software.







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#### Sazovice plant:

MRB Sazovice, spol. s r.o. Sazovice 191 763 01



#### Sales department:

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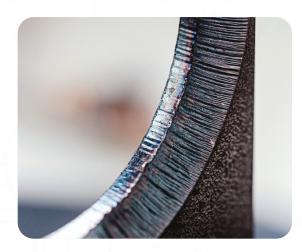
#### Kroměříž plant:

MRB Sazovice, spol. s r.o. areál Magneton a.s. Hulínská 1799/1 767 53 Kroměříž



# References





















# References



