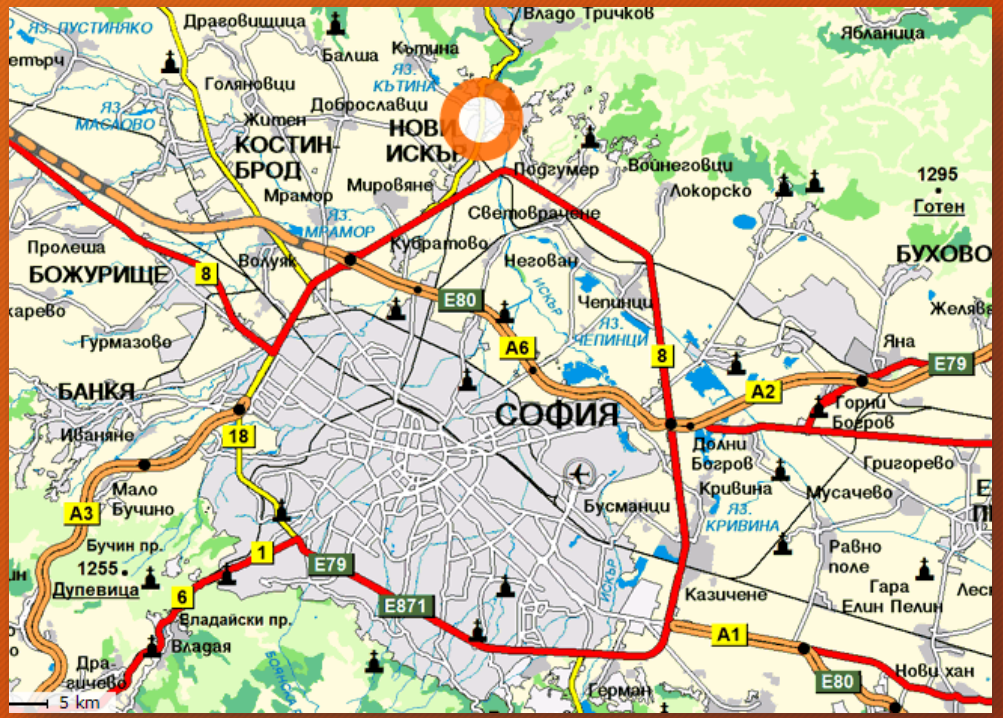
BULMAC

Precision. Quality. Excellence.

PRESENTATION

- Location: Novi Iskar City, Sofia City, Bulgaria

Established in 2020



What about us

- **Bulmac Engineering** is a private company, founded in 2020 in Sofia, Bulgaria. In the beginning of our business we used to manufacture small metal parts and technical plastic parts. We mostly specialize in producing injection molds for plastic companies in Bulgaria.
- In a short lifetime, we specialize in metal parts made from aluminum and alloy steel, and have produced over 50+ metal parts for more than 20 happy customers. Your company can be one of them.
- Today, we also offer **injection molding parts manufacturing**, delivering high-quality plastic components in both low and medium series. This makes us a reliable partner for companies looking for full-cycle support – from mold design and production to finished plastic parts

Scope of Activities

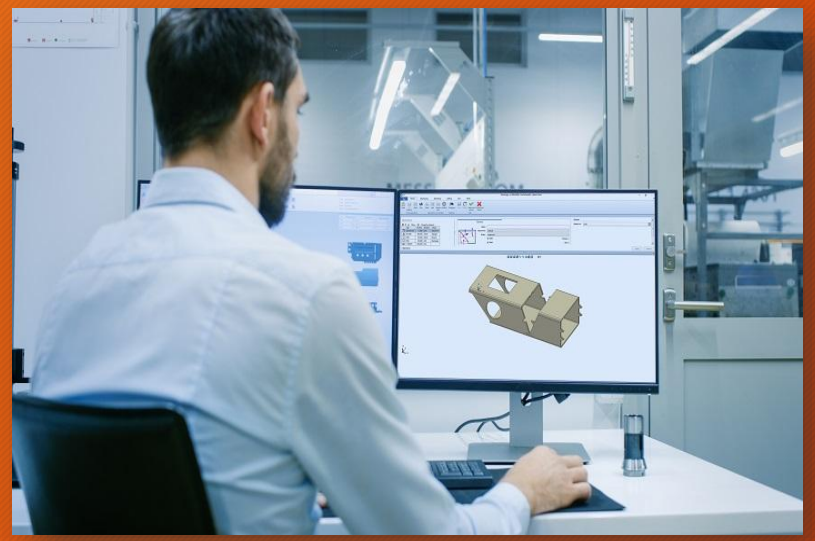
CAD Parts Design

CAD Molds Design

CNC Milling Producing Molds

Mold Testing, Adjustments and creates samples

Send finished Parts to the customer



How every metal part will be made

CNC milling is a process for creating metal parts using computer-controlled cutting tools. Here's a condensed overview:

1. Design the part in CAD software. *3d Model was created on this stage.*
2. Create CNC program (G-code). *CNC program is used into the machine.*
3. Select material and secure it to the machine. *Prepare the metal on the machine.*
4. Set up the CNC machine and zero the axes. *Set coordinates XYZ.*
5. Machine the part according to the program. *Start the magic..*
6. Monitor and perform quality control. *Test, measure, adjust…*
7. Optionally, perform finishing operations. *Polish, deburr and more…*
8. Inspect the finished part for accuracy. Check measurements, send the part

Our Values and Strengths

Technologies and Equipment

Machine Type	3 - Axis CNC Milling
Brand	MICRON - HAAS
Model	VCE 750 (HAAS VF2)
Year of Manufacture	1998
Computer Control	HAAS (FANUC)
Spindle Rotations	7500 RPM
Tool Capacity	20
Table Dimensions	900 x 350 mm
X – Y – Z	750 x 400 x 500 mm

What is Plastic Injection Molding Process

- Injection molding is a manufacturing process used to produce parts by injecting molten material into a mold cavity. It's one of the most common methods for mass-producing plastic parts and products. Here's how the process typically works:
- **Mold Design**: The first step in injection molding is designing the mold. The mold is usually made of metal (often steel or aluminum) and consists of two halves, the cavity and the core, which together form the shape of the desired part.
- **Material Selection**: The material used for injection molding is usually thermoplastic or thermosetting polymers, although other materials like elastomers can also be used. The material is chosen based on the desired properties of the final part.
- **Melting**: Pellets or granules of the chosen material are fed into a hopper and then heated until they melt to a viscous liquid state. This molten material is then injected into the mold under high pressure.
- **Injection**: The molten material is injected into the mold cavity through a nozzle and runner system. The pressure applied ensures that the material completely fills the mold and takes on the shape of the cavity.
- **Cooling**: Once the mold cavity is filled, the molten material is allowed to cool and solidify inside the mold. Cooling can be accelerated by circulating coolant through channels within the mold.
- **Ejection**: After the material has cooled and solidified, the mold opens, and the finished part is ejected from the mold cavity using ejector pins or other mechanisms.
- **Finishing**: Depending on the part's design and requirements, additional finishing processes such as trimming, machining, or surface treatment may be performed to achieve the desired final product.
- Injection molding offers several advantages, including high production rates, repeatable and precise part dimensions, complex part geometries, and the ability to use a wide range of materials. However, it also requires significant initial investment in tooling and equipment, making it more suitable for high-volume production runs.

Our Values and Strengths

Technologies and Equipment

Machine Type	Plastic Injection Molding
Brand	ENGEL
Model	VICTORY 330 / 80 HL
Year of Manufacture	2004
Computer Control	CC 200
Screw Diameter	35 mm
Max Shot Weight	140 grams
Max Injection Pressure	2400 bar
Dimensions Between Bars	N/A

Technologies and Equipment

Machine Type	Plastic Injection Molding
Brand	ENGEL
Model	330 / 65 HL
Year of Manufacture	1997
Computer Control	CC 100
Screw Diameter	40 mm
Max Shot Weight	160 grams
Max Injection Pressure	1600 bar
Dimen. Between Bars	N/A

Technologies and Equipment

Machine Type	Plastic Injection Molding
Brand	ENGEL
Model	200 / 50 HL
Year of Manufacture	1991
Computer Control	EC 88
Screw Diameter	30 mm
Max Shot Weight	100 grams
Clamping Force	50 T
Dimensions Between Bars	N/A

Technologies and Equipment

Machine Type	Plastic Injection Molding
Brand	ENGEL
Model	200 / 50 HL
Year of Manufacture	1990
Computer Control	EC 88
Screw Diameter	35 mm
Max Shot Weight	130 grams
Clamping Force	50 T
Dimen. Between Bars	N/A

Technologies and Equipment

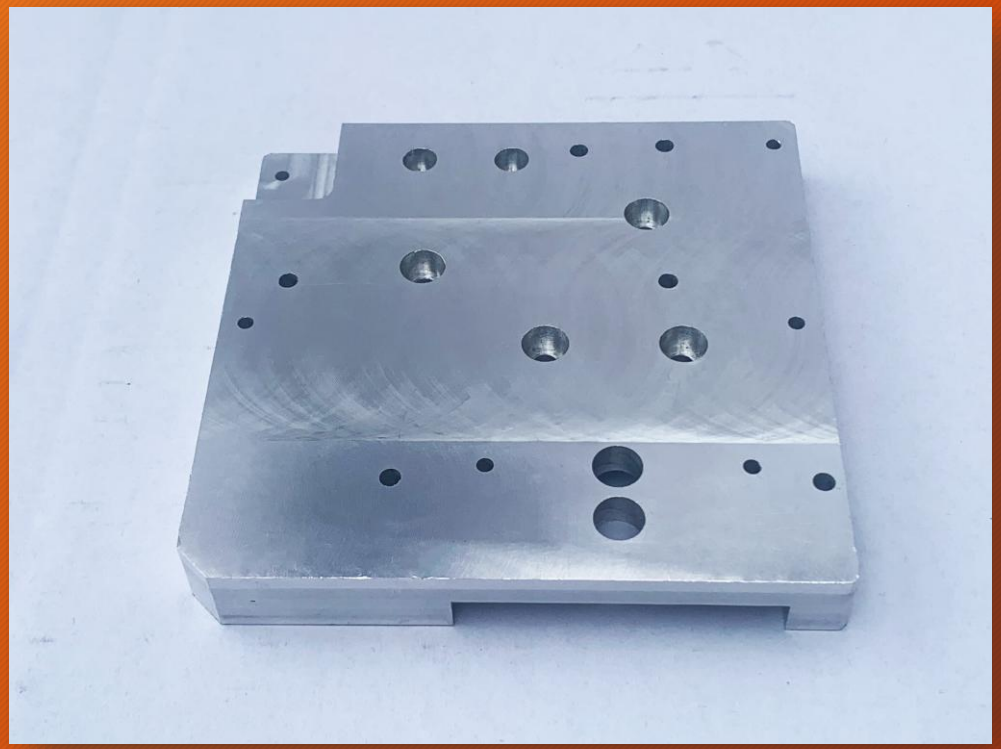
Machine Type	Plastic Injection Molding
Brand	ENGEL
Model	200 / 50 HL
Year of Manufacture	1997
Computer Control	CC 100
Screw Diameter	35 mm
Max Shot Weight	100 grams
Clamping Force	50 T
Dimensions Between Bars	N/A

Technologies and Equipment

Machine Type	Plastic Injection Molding
Brand	ARBURG
Model	Allrounder 270S 250 - 60
Year of Manufacture	2004
Computer Control	SELOGICA
Screw Diameter	25 mm
Max Shot Weight	40 grams
Clamping Force	25 T
Dimen. Between Bars	270 / 270 mm

Already produced metal parts for customers

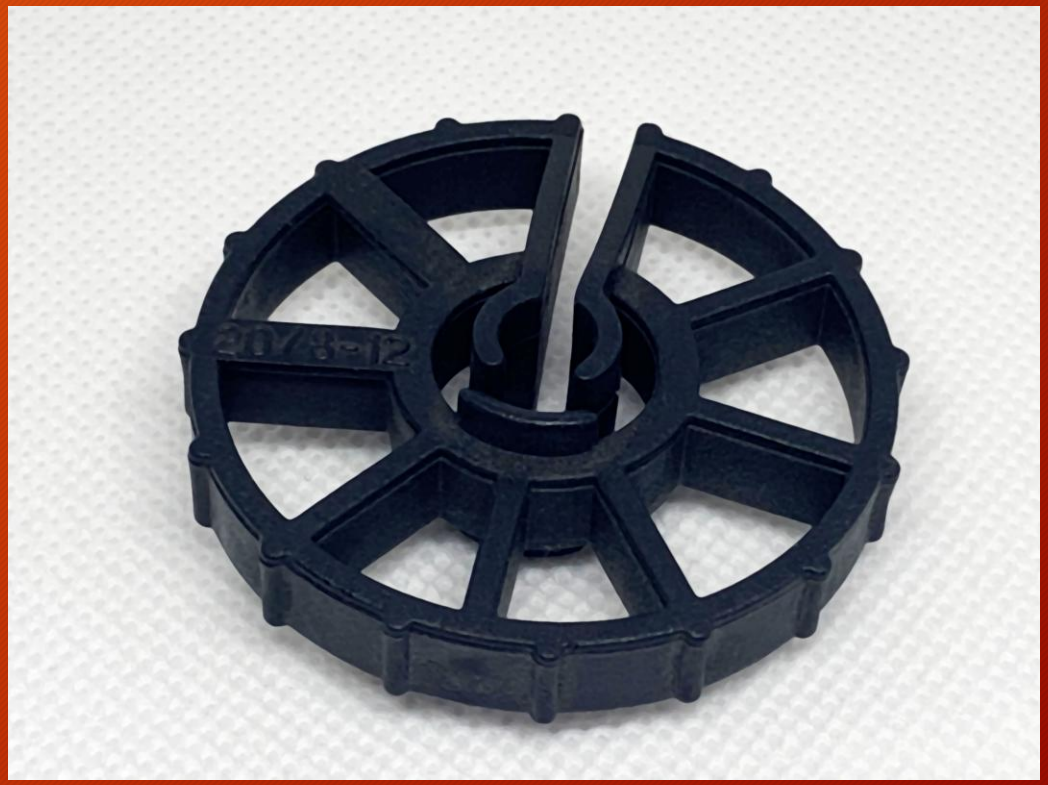
Already produced metal parts for customers



Already produced metal parts for customers

Plastic parts for customers

Plastic parts for customers

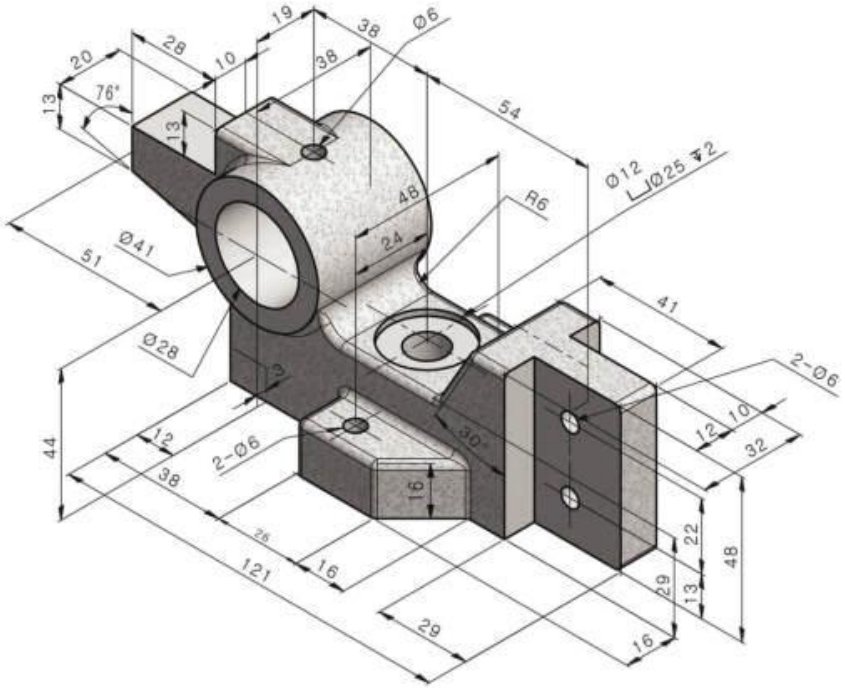


Plastic parts for customers

Plastic parts for customers

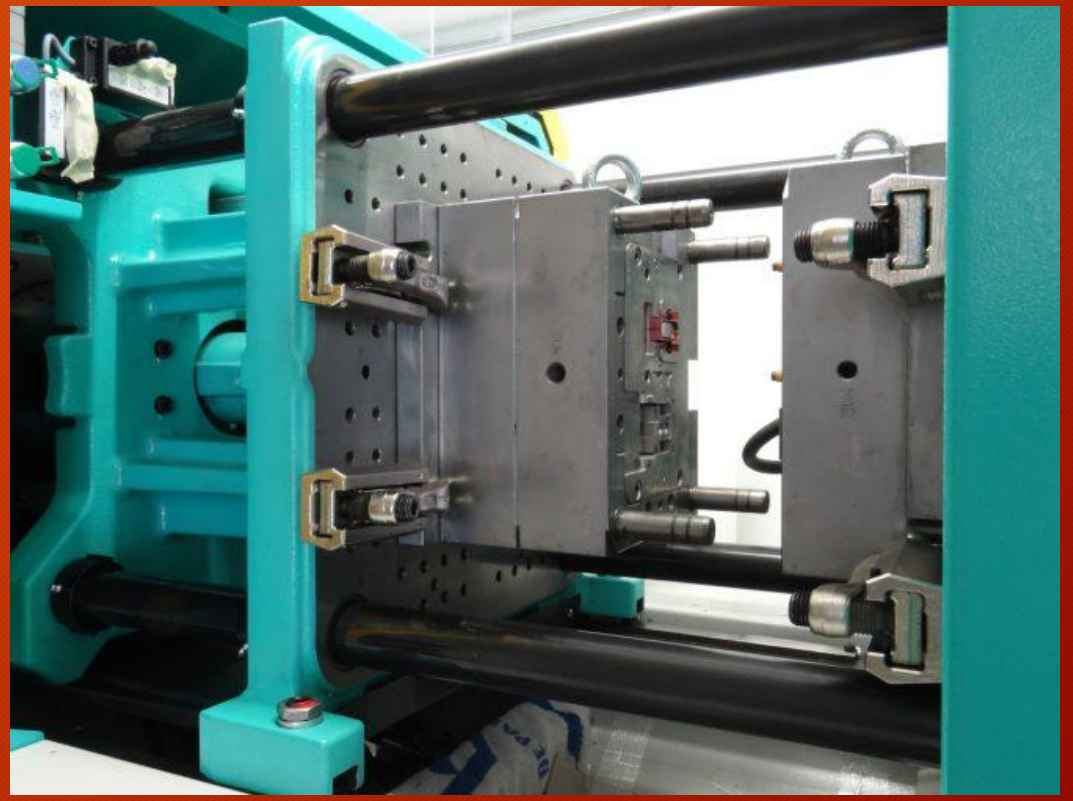
How we’re making metal components

1. Customer sends drawings or 3d model via email
2. In case of drawings – We make 3d model of the part
3. Making CNC related program
4. Manufacture it via CNC Machines
5. Test and Check tolerances
6. Measure the dimensions
7. If it needed – adjust and correct
8. Deburr and finished the part
9. Ready for export to logistics



How we’re making plastic components

1. Customer sends drawings or 3d model via email
2. In case of drawings – We make 3d model of the part
3. Making CAD Mold Design
4. Test and Check plastic samples
5. Measure the dimensions checking
6. If it needed – adjust and correct the mold
7. Manufacture required part quantities.
8. Ready for export to logistics



Contact us if you need:

1. IF you are about to introduce a new product in the market and you need a prototype of metal part
2. IF you are importing metal parts from China and now you prefer to be produce it in Bulgaria to minimize transporting costs IF you need a large/huge amount of metal components and need to be all exactly the same in terms of dimensions and weight requirements.
3. IF you need a trusted subcontractor or outsourcing company
4. IF you are tired of contractors, who are unserious, do not meet your deadlines, gives you bad produced parts, etc.
5. We operate in these industries successfully:

Automotive	Defense & Military	Aerospace
Electronics	Machinery	Tools & Molds
Energy	Medical	Your Industry

THANK YOU

- “Your work is going to fill a large part of your life, and the only way to be truly satisfied is to love what you do.”
  - Steve Jobs.
- “The hands of a manufacturer are not just tools; they are instruments of transformation, shaping dreams into reality with every touch.”

THANK YOU

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