We make high quality our standard!
Do you care about the timely execution and high quality?

Write to us, attach a drawing of the detail along with an inquiry and you will receive our price quote and delivery date.
B&P Engineering boasts state-of-the-art machinery and qualified staff. Our resource management is always optimised and we will guarantee professional and timely execution of the tasks assigned to us, at any stage of cooperation.

We provide subcontracting services to leading domestic and overseas industrial customers. Our specialists are here for you and they will gladly address all your queries.

When performing the services outsourced to us, we follow the ISO, OHSAS and ASME standards.
CNC MACHINING: Turning

We have machine tools of various types, thus we are able to implement even the most sophisticated workpiece lathe.

### Horizontal CNC lathes

<table>
<thead>
<tr>
<th>Name</th>
<th>Number of axes</th>
<th>Maximum dimensions of a workpiece - vertical (mm)</th>
<th>Number of pieces</th>
</tr>
</thead>
<tbody>
<tr>
<td>DMG CTX 510 eco</td>
<td>3</td>
<td>465 x 1014</td>
<td>2</td>
</tr>
<tr>
<td>Gildemeister MF twin 65</td>
<td>4</td>
<td>200 x 555</td>
<td>1</td>
</tr>
<tr>
<td>Gildemeister NEF 520</td>
<td>2</td>
<td>290 x 1000</td>
<td>2</td>
</tr>
<tr>
<td>TBI FT650/200</td>
<td>3</td>
<td>650 x 2000</td>
<td>1</td>
</tr>
<tr>
<td>Colchester Tornado T10</td>
<td>2</td>
<td>360 x 550</td>
<td>1</td>
</tr>
<tr>
<td>Pilatus T20</td>
<td>2</td>
<td>250 x 300</td>
<td>1</td>
</tr>
<tr>
<td>Colchester 4000</td>
<td>2</td>
<td>380 x 2000</td>
<td>1</td>
</tr>
</tbody>
</table>

### Carousel lathe

<table>
<thead>
<tr>
<th>Name</th>
<th>Number of axes</th>
<th>Maximum dimensions of a workpiece - vertical (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>YOU JI YV-1600 ATC+C</td>
<td>3</td>
<td>2000 x 1200</td>
</tr>
</tbody>
</table>

### Conventional lathes

<table>
<thead>
<tr>
<th>Name</th>
<th>Number of axes</th>
<th>Maximum dimensions of a workpiece - horizontal (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poręba TR-100</td>
<td>2</td>
<td>630 x 6000</td>
</tr>
<tr>
<td>Hanseat 640</td>
<td>2</td>
<td>380 x 2000</td>
</tr>
</tbody>
</table>

Workpiece type: stainless steel, carbon steel, aluminium, plastics.
CNC MACHINING: Milling

Milling services are performed using three-, four-, and five- axis milling machines, operated by experienced personnel.

<table>
<thead>
<tr>
<th>Name</th>
<th>Milling machine type</th>
<th>Number of axes</th>
<th>Maximum dimensions of a workpiece - vertical (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mikron VCE 1600 Pro</td>
<td>Vertical CNC machine</td>
<td>4</td>
<td>1625 x 860 x 760</td>
</tr>
<tr>
<td>Edel XL3020</td>
<td>Gate CNC machine</td>
<td>3</td>
<td>3000 x 2000 x 700</td>
</tr>
<tr>
<td>CME FS-2</td>
<td>Vertical / horizontal</td>
<td>3</td>
<td>2000 x 1000 x 1000</td>
</tr>
<tr>
<td>Hermle C600U</td>
<td>Vertical CNC machine</td>
<td>5</td>
<td>600 x 450 x 450</td>
</tr>
<tr>
<td>Haas VF4SS</td>
<td>Vertical CNC machine</td>
<td>3</td>
<td>1270 x 508 x 635</td>
</tr>
</tbody>
</table>
B&P Engineering offers industrial cutting services.

The TRUMPF laser cutting machine featuring a 6000 W resonator is capable of cutting stainless steel as thick as 25 mm with 0,1 mm accuracy.

CNC VXstandard burner is used for plasma cutting.
Metal sheet cutting and bending

EHT VarioPress 300 press brake

<table>
<thead>
<tr>
<th>Feature</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cutting length</td>
<td>mm</td>
</tr>
<tr>
<td>Maximum pressure</td>
<td>kN</td>
</tr>
<tr>
<td>Maximum bending shelf (depending on metal sheet thickness)</td>
<td>mm</td>
</tr>
</tbody>
</table>

EHT VarioPress 300

Metal sheet cutting

- Operating range (length x thickness): 3000 mm x 12 mm
- Type of workpiece: AISI 304, 316L, 316Ti

Metal sheet cutting and bending

Phone: +48 16 649 00 98, office@subcontracting-bp.com
Automatic grinding, polishing of tanks and end caps

The device is capable of finishing an internal and external part of a jacket in tanks installed on rotating rollers.

Automated grinding and polishing process ensures repeatable results and constant high process quality.

Dimensions of workpieces subject to grinding and polishing

<p>| | |</p>
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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>cones, end caps, jackets</td>
<td>between 500 and 4000 mm</td>
</tr>
<tr>
<td>maximum jacket height</td>
<td>2000 mm</td>
</tr>
</tbody>
</table>
Welding

B&P Engineering is a specialist agent when it comes to group 8.1 stainless steel and acid-proof steel welding in accordance with PN-CR-ISO 15608. Our production capacity is based on long-term experience, state-of-the-art machinery and skilled technical personnel.

We offer:
- manual and automatic TIG (141) welding (orbital welding of perforated bottom and peripheral welding with TIG torch)
- manual and automatic TIG HW welding in perfect quality for a wide range of materials, in particular stainless steel
- MIG welding (131) both manual as well as on CLOOS automated welding station capable of welding workpieces of up to 6.5 m in length and 2.4 m in diameter with maximum weight of 6 tons

We have an extensive base of Welding Procedure Specifications approved by a notifying unit of the Office of Technical Inspection.

Our technical staff includes qualified welding supervision personnel and welders certified according to PN-EN 287-1 and PN-EN ISO 9606, holding certificates issued by the Office of Technical Inspection and Polish Welding Centre of Excellence in the field of welded joints in pressure equipment conforming with Directive 97/23/EC.

We offer a comprehensive range of welding works:
- Complete process installations
- Tanks
- Reactors
- Equipment and machinery for food processing, pharmaceutical, and cosmetic industry
- Foodstuffs pipelines
- Steel structures
- Platforms

We use equipment from reputable manufacturers, such as: EWM, POLYSUDE, FRONIUS, ORBIMATIC or LORCH.
Shot peening - Glass blasting

In its shot peening works B&P Engineering uses microbeads with a grain size of 100 and 200 microns.

Microbeads of a suitable granulation used in the process, directed at the appropriate pressure, ensure a nice appearance of the treated surface. This process can also be used to remove post-welding discolorations or as a surface grounding coating. Beads are used for processing workpieces of different shapes, such as elements of industrial equipment and steel structures.

Shot peening is a cheaper alternative to grinding, it is a proven method when the process is required to produce workpieces with an agreeable appearance, since the processed elements become “velvety” light evenly over their entire surface.

We offer shot peening for workpieces with the following maximum dimensions:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>9 m*</td>
</tr>
<tr>
<td>Width</td>
<td>3.5 m</td>
</tr>
<tr>
<td>Height</td>
<td>4 m</td>
</tr>
<tr>
<td>Weight</td>
<td>20 t</td>
</tr>
</tbody>
</table>

*) at a special request we will offer shot peening of workpieces featuring larger dimensions.
Erection and programming of control cabinets

Our services also involve design, manufacture and programming of various control systems for industrial machinery and equipment. The range of these services includes both small and fairly simple systems with limited inputs and outputs as well as large complex systems including distributed control systems with multiple drives.

Depending on customer’s needs and the type of applications, control systems are equipped with different types of operator panels (from simple text panels to large, full colour touchscreens) or computer workstations for control, supervision and visualization of processes.

Our applications feature mainly Siemens S7 controllers of 300 series in varying configurations as well as Protool, WinCC and WinCC-flexible software for control visualisation. If necessary, we will handle an expansion, modification, upgrade, and alteration of existing control systems or entire facilities.
Tank fabrication

B&P Engineering offers a large assortment of tanks for food, chemical, pharmaceutical, and cosmetic industry.

Our offer includes of:

- buffer tanks
- mixing tanks
- equalization tanks
- aseptic tanks
- storage tanks
- fermentation tankers
- tanks for products subject to excise duty
- non-pressure and low pressure tanks for corrosive or toxic materials
- vacuum-pressure reactors
- shell and tube heat exchangers
- silo tankers
- CIP fix and mobile stations
- evaporators

With our experience we are able to design a wide range of customised, special tanks.

Depending on customer’s needs, the tanks we offer meet the following standards and certificates: PED 97/23/WE, ASME VIII-1, AD 2000, ATEX, CODAP.

B&P Engineering is approved for fabrication of pressure equipment in accordance with pressure Directive 97/23/EC as well as ASME Boiler and Pressure Vessel Code VIII-1, stamp U. Our production facility employs personnel specialised in VT and PT non-destructive testing, level 1 and 2.
The use of state-of-the-art technology for fabrication ensures the high quality of our products.

**Design options:**

- Ellipsoidal, conical, deep pressed, basket, flat boiler ends
- Tank insulation (e.g., mineral wool, polystyrene, thermofex)
- Side or top agitators of different design (counter rotating, anchor, propeller, magnetic, cage)
- Heating or cooling jacket (pillow plate, double jacket, triple jacket, channel jacket, electric jacket)
- Manual, automatic control

**Technical specifications:**

- **Material:** 1.4301, 1.4404 or other as per customer requirements
- **Surface:** IIIc, IIId, etched, sanded, polished, electropolished, glass blasted
- **Capacity:** up to 150,000 litres as standard - at production facility, larger dimensions available as per customer needs and requirements - performed at the customer’s premises
- **Diameter:** up to 4200 mm or larger at special request
- **Layout:** vertical or horizontal
- **Insulation sheathing:** coated, trapezoidal, stainless, smooth hermetically welded metal sheet
B&P Engineering Design Office employs a team of qualified engineers, eager to offer the highest quality of service. We can offer many years of experience gained through cooperation with reputable companies. We approach each project individually.

Scope of activities:

- Designing of machinery and equipment
- Drafting technical documentation
- 3D visualisations
- Drafting machinery operating manuals
Electropolishing

Electropolishing (electrolytic polishing) is an electrochemical process by which surface material is removed by anodic dissolution.

Electropolishing provides clean and smooth surface. Micro-peaks and valleys are levelled.

The electropolishing process of stainless steel is performed in large tubs with 4.3 m³ capacity each. Thanks to the specially designed “racks” and one additional electrode we are able to electropolish various parts of complex external and internal shape. For all our electropolishing processes we use demineralised water only. We also take advantage of specific chemicals and ecological solutions, that is why the whole surface treatment process is carried out safely and lets you save your money.

Description of the electropolishing process:

To some extent, sharp peaks of surface irregularities will be smoothed out. This reduces the roughness of the surface and among other things has a positive influence over the decrease of the coefficient of friction, gives the surface more shine and makes the cleaning process of electropolished parts easy. Nowadays, the most commonly electropolished industrial parts made of stainless steel are various types of tanks, components of technological systems for food, pharmaceutical, cosmetic and chemical industry as well as some medical instruments. There are still some industry-specific applications for products which must undergo the electropolishing treatment. These parts are for example components and small parts for aerospace industry or bodies of vacuum pumps.
We look forward to working with you!

B&P Engineering offers comprehensive services to its customers. We will handle material procurement, processing and dispatch of ready-made workpieces or devices to their destination.