



B&P Engineering

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Shot peening - Glass blasting



Milling



Turning



Metal sheet cutting and bending



Electropolishing



Laser and plasma cutting



Erection and programming of control cabinets



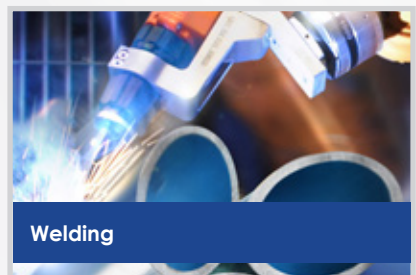
Tank fabrication



Automatic grinding, polishing of tanks and end caps



Design of machinery and equipment as well as visualisation of manufacturing processes



Welding

B&P ENGINEERING



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 lathing.

Horizontal CNC lathes

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



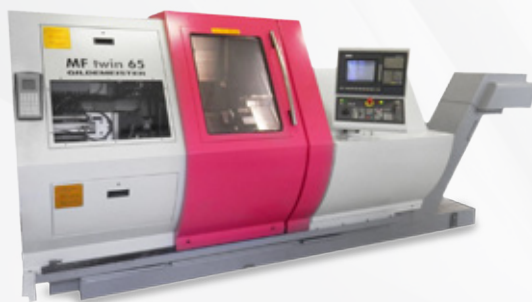
Colchester Tornado T10



TBI FT650/200



Gildemeister NEF 520



Gildemeister MF twin 65



DMG CTX 510 eco

Carousel lathe

Name	Number of axes	Maximum dimensions of a workpiece - vertical (mm)
YOU JI YV-1600 ATC+C	3	2000 x 1200

Conventional lathes

Name	Number of axes	Maximum dimensions of a workpiece - horizontal (mm)
Poręba TR-100	2	630 x 6000
Hanseat 640	2	380 x 2000

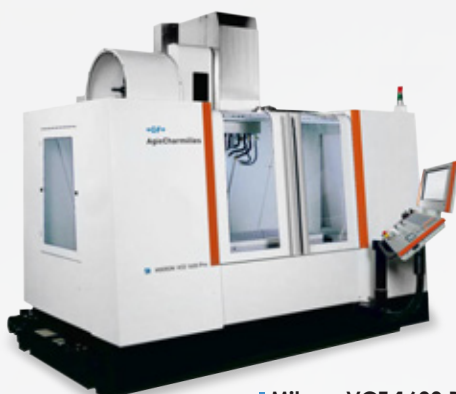


YOU JI YV-1600 ATC+C

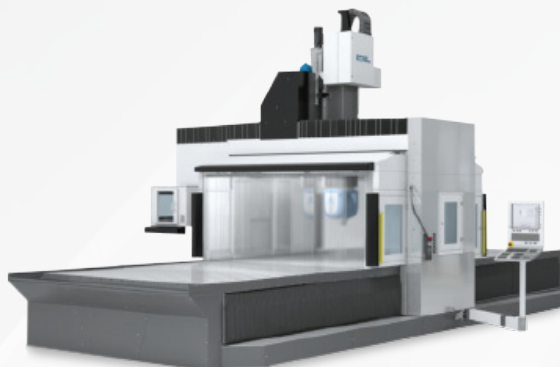
Workpiece type: stainless steel, carbon steel, aluminium, plastics.

CNC MACHINING: Milling

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



Mikron VCE 1600 Pro



Edel XL3020



Haas VF4SS



Hermle C600U

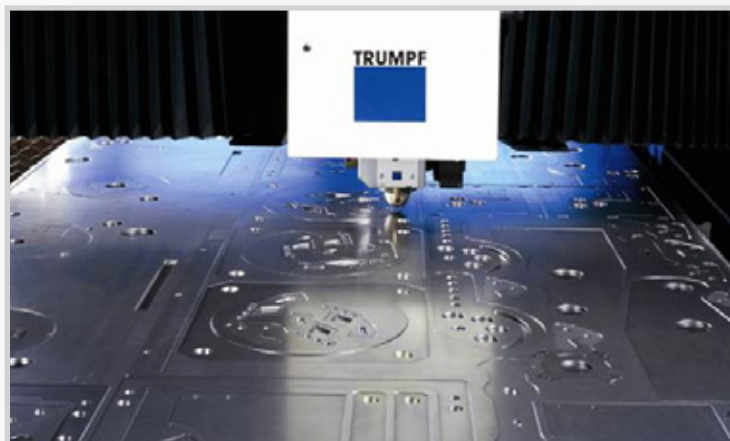
Name	Milling machine type	Number of axes	Maximum dimensions of a workpiece - vertical (mm)
Mikron VCE 1600 Pro	Vertical CNC machine	4	1625 x 860 x 760
Edel XL3020	Gate CNC machine	3	3000 x 2000 x 700
CME FS-2	Vertical / horizontal	3	2000 x 1000 x 1000
Hermle C600U	Vertical CNC machine	5	600 x 450 x 450
Haas VF4SS	Vertical CNC machine	3	1270 x 508 x 635



LASER AND PLASMA CUTTING:

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.



The TRUMPF TLF 6000 laser cutting machine	
Maximum dimensions of a workpiece - horizontal (mm)	4000 x 2000
Cutting thickness (mm)	from 0,5 to 25

Stigal Vxstandard burner with 2D/3D rotating head	
Maximum dimensions of a workpiece - horizontal (mm)	6000 x 2000
Cutting thickness (mm)	between 1 and 5 (with plasma burner) between 50 and 150 (with gas burner)

CNC VXstandard burner is used for plasma cutting.



VXstandard



■ Metal sheet cutting and bending



■ EHT VarioPress 300



Metal sheet cutting

Operating range (length x thickness) 3000 mm x 12 mm

Type of workpiece AISI 304, 316L, 316Ti



EHT VarioPress 300 press brake

Cutting length

mm

3000

Maximum pressure

kN

3000

Maximum bending shelf (depending on metal sheet thickness)

mm

10



Automatic grinding, polishing of tanks and end caps

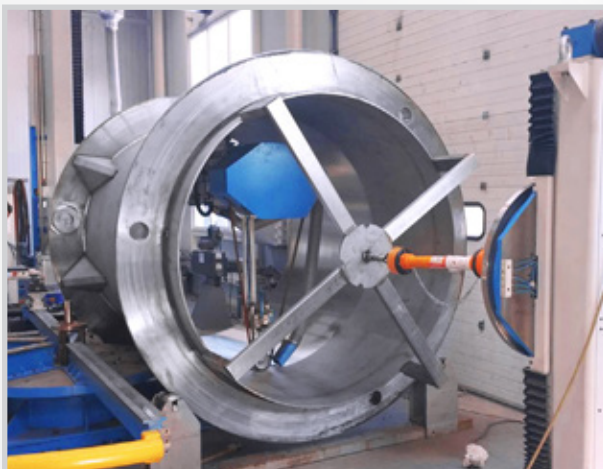


GRINDING
POLISHING

Dimensions of workpieces subject to grinding and polishing

cones, end caps, jackets	between 500 and 4000 mm
maximum jacket height	2000 mm

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.

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.



■ Cloos QRC350

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:

Length	9 m*
Width	3,5 m
Height	4 m
Weight	20 t

*) 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:	IIlc, 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

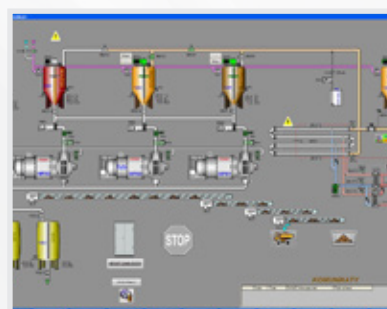
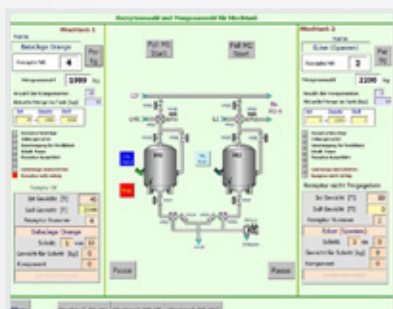


Design of machinery and equipment as well as visualisation of manufacturing processes

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

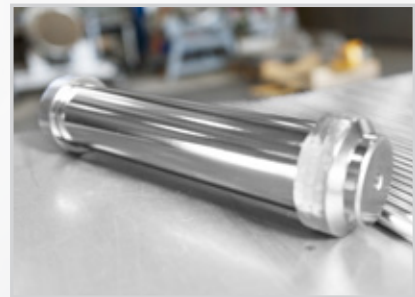


Electropolishing

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 can perform the electropolishing for pieces with the maximum dimensions as shown in the table below:

Length	2,3 m
Width	1,5 m
Height	1,6 m
Weight	5 t



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.



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