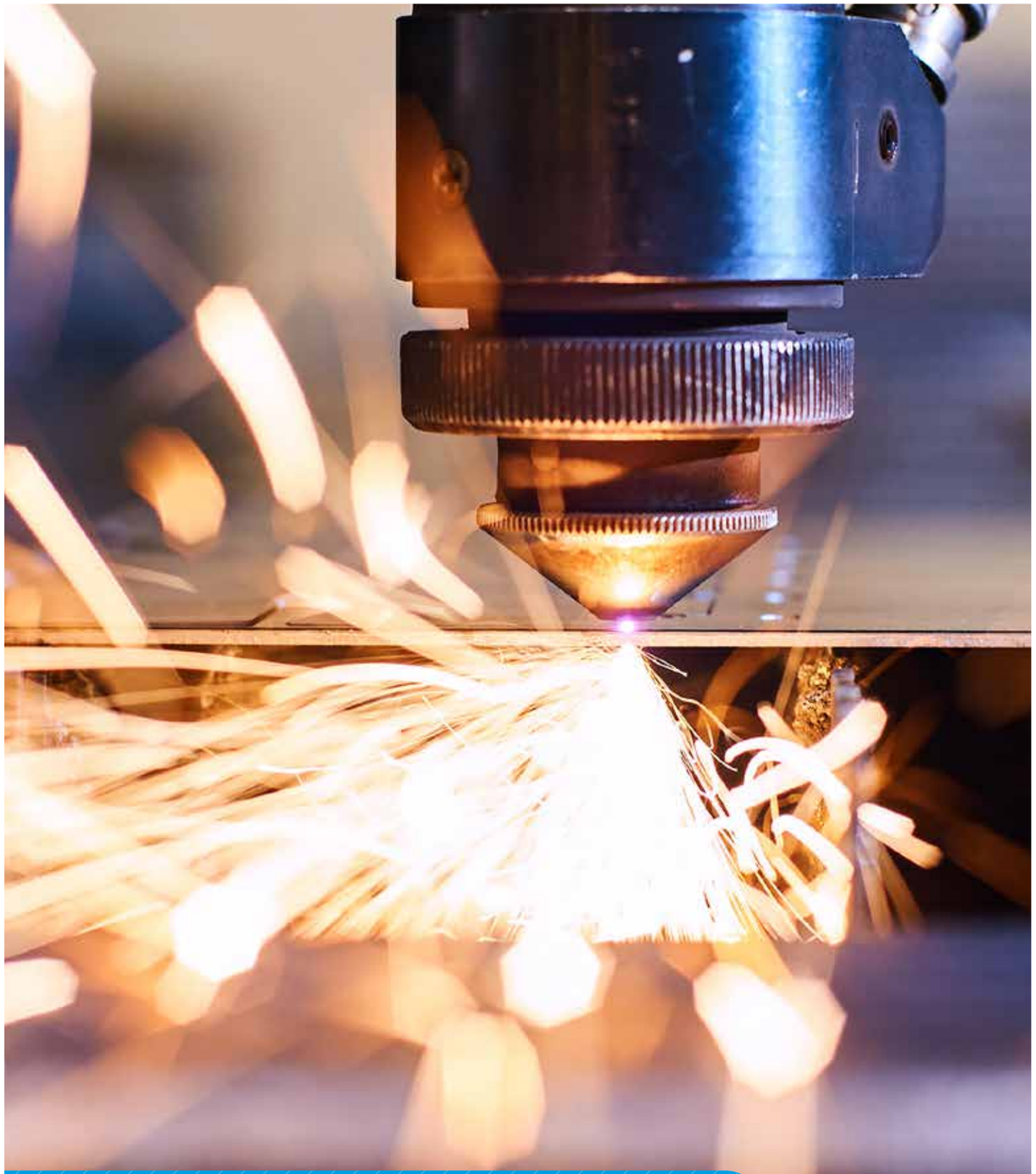

MECHANICS

SHEET METAL PARTS AND ASSEMBLY GROUPS,
PROFILE AND CASTING PARTS

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PRODUCTS & SERVICES

The POLYRACK TECH-GROUP is your professional partner for mechanical manufacturing. From designed components to highly complex, development-intensive assemblies.

19" RACKMOUNT / DESKTOP CASE FOR PLUG-IN UNITS

For mounting plug-in modules or individual assemblies. Cases from the FrameTEC, FreeTEC, Magic and Space series can be used as desktop cases or 19" rackmount cases.

DESKTOP CASE FOR PLUG-IN UNITS

For the mounting of plug-in modules or individual assemblies.

19" DESKTOP CASE

Our product portfolio of desktop cases offers many solutions for the mounting of 19" subracks.

SMALL EQUIPMENT CASE

For mounting plug-in modules, non-standard card formats or individual assemblies. In addition, there are series available for special requirements such as mounting support rails or enhanced IP protection.

FRONT PANELS

For all common plug-in assemblies in 19" technology and individual applications. Different shielding concepts and individual processing are available.

MECHANICAL COMPONENTS

Such as insertion and removal handles, card guides, PCB holders, 19“ blanking plates, mounting material, etc.

DIE-CAST SOLUTIONS

Individual die-cast solutions made of aluminum, magnesium and zinc with high dimensional accuracy and surface quality. In particular, electrical conductivity, high thermal conductivity, and corrosion as well as weather resistance are guarantees for products in rough environmental conditions.

EXTRUDED ALUMINUM PROFILES

Modern sawing centers and deburring technologies make it possible to process extruded aluminum profiles quite simply. Individual systems with loading stations distinguish themselves by the complexity of the single-step processing.

RACKMOUNT / DESKTOP CASE
FREETEC

SMALL EQUIPMENT CASE
EMBEDTEC

CASSETTES

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MANUFACTURING TECHNOLOGIES

A cutting-edge machine park is the result of our competence across all mechanical production areas.

PUNCHING- / NIBBLING TECHNOLOGY

State-of-the-art, highly automated processing centers guarantee the processing of complex, precise-fit parts dimensions and three-dimensional sheet-metal parts with integrated deformations and threads in small, medium and large format.

LASER CUTTING

The high precision, speed and versatility of the laser are the major benefits in this manufacturing process for flexible contours and individual cuts.

BENDING

Precision-controlled bending technologies bring components into shape. Angle sensor technology provides for precise-fit edges, ensuring subsequent application.

WELDING / RIVETTING / SPOT WELDING

Combine components inseparably and with the highest precision with exacting, distortion-free welding seams and create stable connections between workpieces and typical studs using MIG/MAG spot welding, laser welding, resistance welding or CNC stud welding.

MACHINING / CNC MILLING

Modern machinery with high-performance control system and CAD/CAM networking is the basis for processing all established materials for challenging dimensions.

PRESS-IN TECHNOLOGY

Press-in and press-fit are joining processes based on elastic deformation. By means of frictional locking, these processes prevent unintentional loosening.

TOOL-BASED MANUFACTURING

Punched and bent parts are produced in an individual tool or a progressive tool, taking economic considerations into account.

OTHER MECHANICAL PROCESSING

Mechanical processing of counterbores, threads or fastening elements.

BONDING TECHNOLOGY & SEALS

Volumetric metering devices enable the use of all sorts of binding and sealing agents in a large variety of forms. The technology is process-reliable and reproducible for each specific application.

PRESSING

Pressing works with linear relative motion of the tools and is known as non-cutting shaping. Typical applications include joining, forming, deep drawing and flanging.

SURFACE TREATMENT

Sandblasting / vibratory finishing (barrel finishing) and grinding of surfaces.

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MATERIALS

The handling of the most common materials is guaranteed.

MATERIALS

- Aluminum
- Steel with various surfaces

DIMENSIONS & GRADES

- Raw material (thin metal sheet): 0.5 – 6.0 mm
- Case solutions: max. 1000 x 1000 mm
- Mechanical components: max. 500 x 2000 mm

TYPICAL SHEET METAL QUALITIES

- AlMg3
- AlMg1
- AlMgSi1
- StBl. A2 1.4016
- StBl. A2 1.4301
- StBl. 1.4404
- StBl. A4 1.4571
- StBl. FEP03 galvanized
- StBl. Zincor St12
- StBl. Galvalume (aluzinc)
- StBl. St12
- StBl. St13
- StBl. St37
- Spring band steel soft
- Spring band steel hard
- CuBl.
- Bl. CuZn 37
- Cu-ETP

OTHER MATERIALS

- AlMgSi 0,5 F22 EN AW-6060-T66
- EN AW-2007
- EN AW-5083
- EN AW-6061-T651
- EN AW-6082-T5
- CuZn 39 Pb 3 ZH
- ST48
- ST88
- StBl. 1.4305
- AISI 300
- AISI 416
- GD-ZnAl 4 Cu 1
- GD-AlSi12
- AZ91
- Acrylic glas, scratch-resistant
- Makrolon ®
- Hard paper
- SikaBlock M945
- Vetronit EGS 619
- Foam rubber
- NBR8090
- PU foam 59910 black
- PE foam 59951 white
- Ethafoam
- PE foil

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MACHINERY

A modern machine park is the result of our competence in all mechanical production areas.
In the following you will find an overview of some of our technology and machining centres.

PUNCHING / NIBBLING / LASER TECHNOLOGY

- 1 x TRUMPF TRUPUNCH 1000 / 2000R / 5000
- 1 x TRUMPF TRUMATIC 3000 / 6000 FMC; Autom.
- 2 x TRUMPF TRUMATIC 7000
- 1 x TRUMPF TRULASER 1030 / 5030 Fiber
- 1 x BOSCHERT CNC Punching machine
- 1 x AMADA rotary jars 2500 mm plate shear

WELDING

- WIG, MIG, MAG-welding
- Analog and high speed
- 2 x Stud welding machine, operating range (2000 x 700mm)
- Gun for stud welding
- 2 x Laser welding Alpha Laser 300W
- Laser welding robot TRUMPF TruLaserRobot 5020
- Grinding and satin finishing machine Kuhlmeyer (flat and 3D)

DEBURRING

- SCHMID oscillating deburring and cleaning station
- RASAMAT brush deburring machine
- TIMESAVERS 1300 mm grind and deburring facility
- Barrel finishing machine OTEC 50L
- Sand blasting cabin IEPCO
- Bütfering Stell Master Prima – wide-belt sanding machine
- Trowal vibratory grinding machine
- Deburring RSA

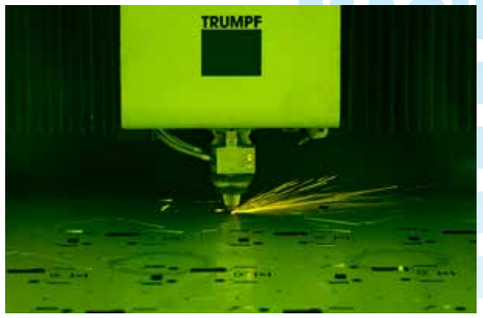
STRAIGHTENING

- Straightening machine ARKU (EcoMaster30)

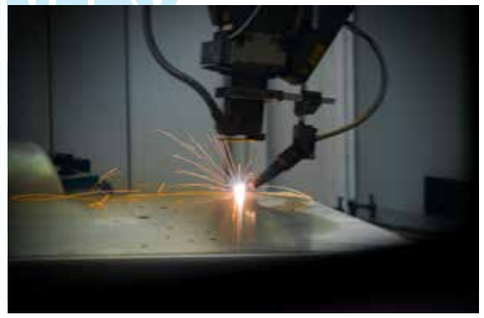
CNC DISPENSER

- Datron PRXL 1000-2C

MACHINERY



LASER



ROBOT WELDING

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MACHINERY

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EXTRUSION PROCESSING

- Schön press 40 t / 60 t / 100 t
- EXNER press 25 t

INSERTING / STAKING

- 3x Semiautomatic insert press PEM SERTER 2000
- 1x Semiautomatic insert press PEM SERTER 3000 press / 3000 press-multibowl
- 1x Häger insert press
- 1x Toggle press for manual mounting
- PEM SERTER 2000 Automat / PEM SERTER PS4

BENDING

- 1x TRUMPF TRUBEND V85s with angle sensor technology, 2720 mm
- 3x TRUMPF TRUBEND 5085S with angle sensor technology, 2720 mm
- 2x TRUMPF TRUBEND 5130 with angle sensor technology, 3200 mm
- 2x TRUMPF TRUBEND 7036 with angle sensor technology, 1020 mm
- 1x TRUMPF TRUBEND 5170S with Toolmaster angle sensor technology, 4200 mm
-

EXTRUSION PROCESSING

- BAP extrusion process center
- KALTENBACH sawing machine
- EISELE sawing machine

MILLING

- 2x DATRON M8 2 kW-spindle with 60000 U/min
- 4x DATRON M10 pro 3 kW-spindle with 40000 U/min
- 1x DATRON ML Cube 4 kW-spindle with 40000 U/min
- 1x DATRON NEO 2 kW-spindle with 40000 U/min
- 1x DATRON M8 Cube 3 kW-spindle with 40000 U/min
- 1x CHIRON F12 17 kW-spindle 10000 U/min
- 1x Milling centre Hyundai WIA F500 PLUS 15 kW spindle with 12000 U/min

MACHINERY

PUNCHING / LASER

BENDING