

PROTEC
METALLTECHNIK GMBH



Stamping-, Forming &
Joining Technology

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**BMW
GROUP**



Rolls-Royce
Motor Cars Limited



EDAG
WERKZEUG + KAROSSERIE

MAUCHER
INNOVATION IN WERKZEUG UND KUNSTSTOFF

LEONI

WELCOME

We are a system supplier to the automotive & metal industry and have 25 years of experience in the production of series, in prototype and tool design. We manufacture structural components, assemblies and prototypes for motorsport, for special vehicles and vehicles from the premium segment and for the metal industry.

As a system supplier, our various sheet metal processing methods enable us to manufacture complex components and assemble them into assemblies. As a result, we reduce manufacturing costs by unnecessary logistics costs and can offer a good price / performance ratio.



JINHONG AUTOPARTS GROUP

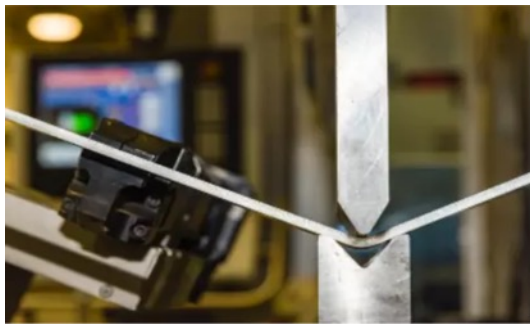
ProTec Metalltechnik GmbH has been part of the Jinhong Autoparts Group production network since September 2019.

The Jinhong Autoparts Group was founded in Jilin City in 2005 and today more than 900 employees are working at 7 locations in China. The core competencies of the group include the design of stamping and forming tools and the production of structural body parts, the production of injection molded parts and electronic components for the automotive industry.



SERIES PRODUCTION PROTOTYPING TOOLMAKING

BENDING

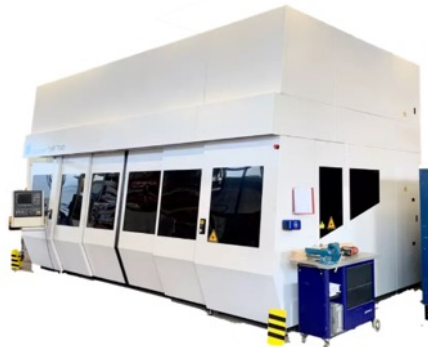


With the TruBend Cell 7000, we have one of the fastest bending robots in the world. In particular, we can manufacture parts up to 500 x 380 mm very efficiently with the dynamic drive concept, the automatic set-up of the tools and the automatic loading of blanks.



SERIES PRODUCTION PROTOTYPING TOOLMAKING

3D LASER CUTTING



We are perfectly equipped with our TruLaser Cell 7040 - regardless of whether we process two- or three-dimensional components for you. The modular structure of the machine and the possibility of individual adaptation allow us to adapt to a changing production environment and to react flexibly to your requirements.

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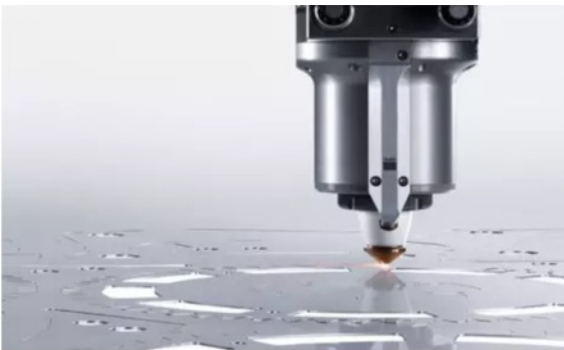


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LASER- PUNCH COMBINATION

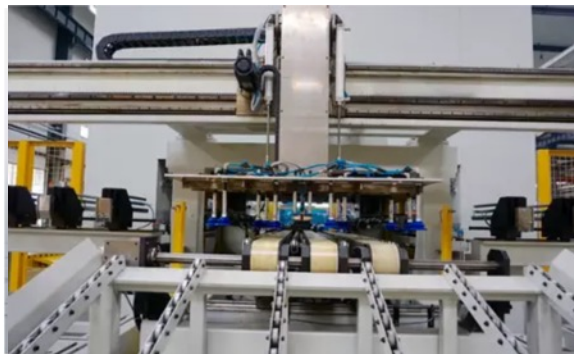


Our TruMatic combines the punching and laser processing of your components and offers a wide range of processing for components with complex geometries. Standard contours, deformations and threads are produced with the punching head and filigree outer and inner contours with the laser.



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PRESSING / DEEP DRAWING

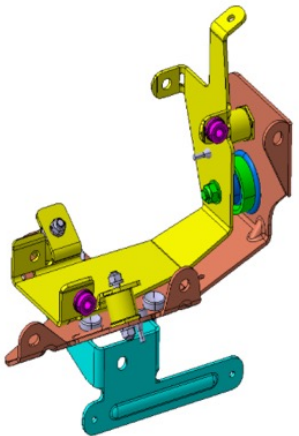


For the production of prototypes and small series, we have deep drawing presses from 100 to 300 tons. We ensure the production of large series in one of our pressing plants in China. Here we have transfer presses and presses with decoiling systems from 100 to 1,280 tons.



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MECHANICAL JOINING



The joining technology includes elements that allow the workpiece to be fixed in the assembly. We press the necessary components for this, from nuts and bolts to pins. Our processes range from dotting to pressing in to riveting components. You receive a ready-to-assemble product that fits seamlessly into your production chain.

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Welding



In our assembly area, we weld assemblies using different processes such as MIG, MAG and TIG. Our employees are well trained for this. As a certified company, we meet all the requirements for welding steel and aluminum components.

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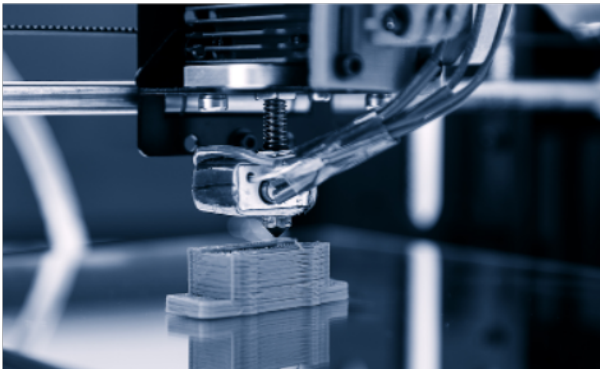


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3D PRINTING



For 3D printing in prototype construction and in small series, we use the Inkject technology from Keyence so that you get the best possible result. This process enables high flexibility with low wall thickness, stable components due to high strength and long durability and dimensional stability.



SERIES PRODUCTION PROTOTYPING TOOLMAKING

COMPONENTS (EXAMPLES)





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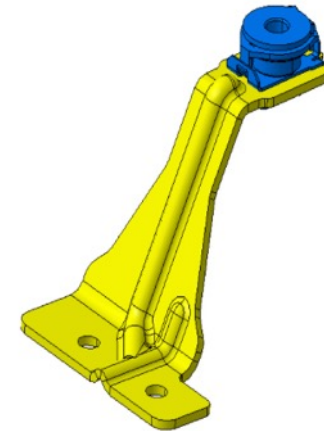
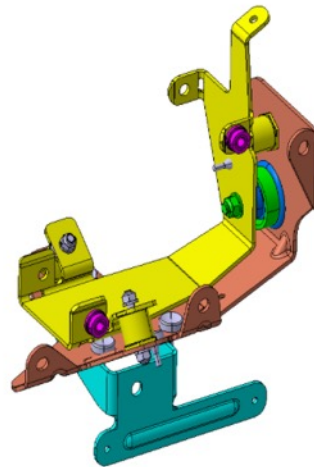
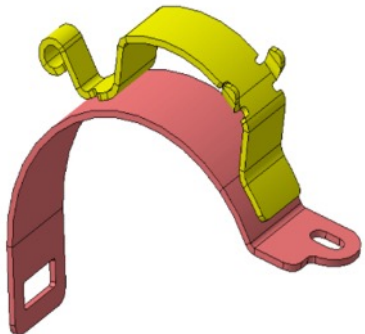
COMPONENTS (EXAMPLES)





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COMPONENTS (EXAMPLES)



MACHINE POOL

machine type	3D laser cutting	Punch	Laser/Punch
manufacturer	Trumpf	Trumpf	Trumpf
power	6 KW		2,7 KW
table size (mm)	4.000 x 2.000 x 1.000	2.500 x 1.250	2.500 x 1.250
process technology	CO2		

MACHINE POOL

machine type	Press	Press	Press
manufacturer	Schön	Müller	Müller
pressing force	300 To.	100 To.	100 To.
table size (mm)	1.200 x 1.200	800 x 700	
press type	hydraulically	hydraulically	hydraulically

MACHINE POOL

machine type

Bending machine

Bending machine

Bending machine

Bending robot

manufacturer

Trumpf

Trumpf

Trumpf

Trumpf

pressing force

50 to.

85 to.

130 to.

36 to.

bending length (mm)

1.300

2.400

3.100

500

press type

hydraulically

hydraulically

hydraulically

electric

automation

no

no

no

fully automatic

MACHINE POOL

machine type	Press-fit machine	Press-fit machine
manufacturer	Häger	Häger
press type	electric	electric
automation	no	fully automatic

MACHINE POOL

machine type	Welding machine	Welding machine
manufacturer	Fronius	Fronius
amperage	320 A	210 A
welding type	MIG / MAG	WIG

MACHINE POOL

machine type

3D printer

manufacturer

Keyance

space (mm)

297 x 210 x 200

layer thickness

15 μm

material

AR-M2, AR-H1, AR-G1

MACHINE POOL (Quality Control)

machine type

3D Messmaschine

manufacturer

Wenzel

Accuracy (mm)

1.000 x 800 x 700

Typ

Taktil LH 8

Software

Metromec

MACHINE POOL (Quality Control)

machine type

3D Scanner

manufacturer

AMETEC

accuracy (mm)

0,020 + 0.040

Typ

HandyScan 3DSeries

Software

VXelements



IATF 16949 & DIN EN ISO 9001

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QUALITY

The value of a component is not only created through its manufacture. Checking whether all specifications are within the defined tolerance range is an essential part of its quality. To ensure this, all parts are checked and monitored in our QA department using a 3D measuring machine, measuring equipment or test gauges.






Serienfertigung Prototypenbau Werkzeugbau


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