

MX Prototyping

We rely on quality. Uncompromising.

Precision from prototype to
small series

State-of-art production and
measurement technology

Large production depth –
best quality

Company presentation

March 2023

Motivated employees – satisfied customers

Founded in 1989, MX Prototyping is a medium-sized company in prototyping and combines craft and industry. Highest quality and customer satisfaction are our motivation.

Our approx. 40 employees are our greatest asset. Therefore we maintain a corporate culture that is characterized by openness, flat hierarchies and a personal and respectful relationship with each other.

We encourage motivation and commitment of our employees and we do everything that they feel well in our company. In this way we are able to meet the challenges of our customers in a team.

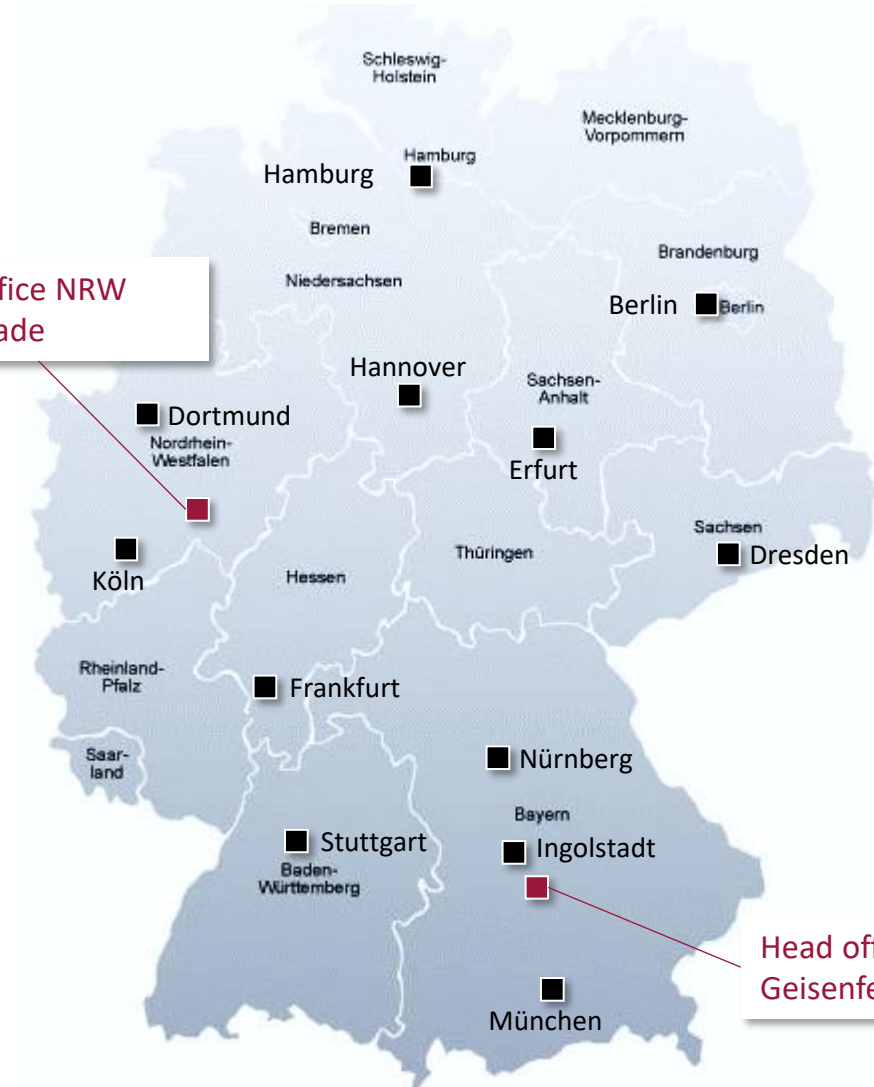


Our Company

Centrally located between Munich and Nuremberg



Sales office NRW
Neuenrade



Head office
Geisenfeld

Our quality mangement

Humans and technology – a perfekt team



CERTIFICATE

International Certification Management GmbH



MX Prototyping GmbH

Königsstr. 11
85290 Geisenfeld

Standard: ISO 9001:2015

Scope:
Manufacturing of prototypes, small batch sheetmetal
components, assemblies and welded structures

With this certificate it is confirmed, that
MX Prototyping GmbH applies a quality management system which
meets the requirements of ISO 9001:2015.


Certification Body, February 23, 2021



ZERTIFIKAT
CERTIFICATE
CERTIFICAT
CERTIFICATO
CERTIFICADO

International
Certification
Management



Certificate No.
A2102301
Issue date
March 22, 2021
Valid until
March 21, 2024

International Certification
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CERTIFICATE

International Certification Management GmbH



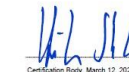
MX Prototyping GmbH

Königsstr. 11
85290 Geisenfeld

Standard: ISO 14001:2015

Scope:
Manufacturing of prototypes, small batch sheetmetal
components, assemblies and welded structures

With this certificate it is confirmed, that the
MX Prototyping GmbH applies an environmental management system
which meets the requirements of ISO 14001:2015.


Certification Body, March 12, 2022



ZERTIFIKAT
CERTIFICATE
CERTIFICAT
CERTIFICATO
CERTIFICADO

International
Certification
Management



Certificate No.
A2203312
Issue date
April 08, 2022
Valid until
April 07, 2025

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Strict quality management and the perfect interaction between man and technology are the guarantee for our high production and product quality - and for unrestricted customer satisfaction.

Using state-of-the-art manufacturing and measuring technology, all our products are "Made in Germany".

We employ only well educated and trained professionals who can fully implement our high quality standards. Short reaction times and a comprehensive service are further quality features of our work.

The effectiveness of our quality and environmental management system is confirmed by the certifications to ISO 9001: 2015 and ISO 14001: 2015.

From prototype to small series

MX Prototyping produces prototype and small series sheet metal parts, forming tools, laser boards and laser edge parts, mainly in the automotive and mechanical engineering sectors.

We offer a vertical range of manufacture and accompany the entire production process from the initial design to the final product. For this purpose we use modern production and measuring technology. In combination with our extensive experience and expertise consistent product quality is guaranteed.

Precision Work on behalf of customers

- forming of steel, aluminum or magnesium components
- prototypes in steel, aluminum or magnesium
- small series parts made of steel or aluminum
- production of complex assemblies
- forming of high-strength steels



Design and forming simulation

Leading software in use

Design

- Catia V5
- Spinfire Viewer
(all workstations)

Useable data formats

- STEP
- IGES
- CATPART
- SLDPRT

Data exchange

- OFTP 2
- OS4X-Webinterface



Toolroom



MX Prototyping has two 5-axis CNC machining centers. This enables us to offer our customers tailor-made solutions with high efficiency and punctuality.

Hermle C50 dynamic

- extremely stable and reliable
- X 1100 mm, Y 1000 mm, Z 750 mm
- electronic probe
- cooling on the milling tool
- chip conveyor
- 50-fold tool changer



Hermle C42 dynamic

- X 800mm, Y 800mm, Z 550mm
- interference area 800mm, 1400kg loading
- electronic probe
- cooling on the milling tool (IKZ)
- chip conveyor
- 42-fold tool changer

MX Prototyping is able to produce prototype parts, small batches and series in the field of presses through its extensive machine park.

With our presses of 60 to 615 tons of pressure and table sizes up to 1200 x 1200 mm, we can respond individually and flexibly to every customer request

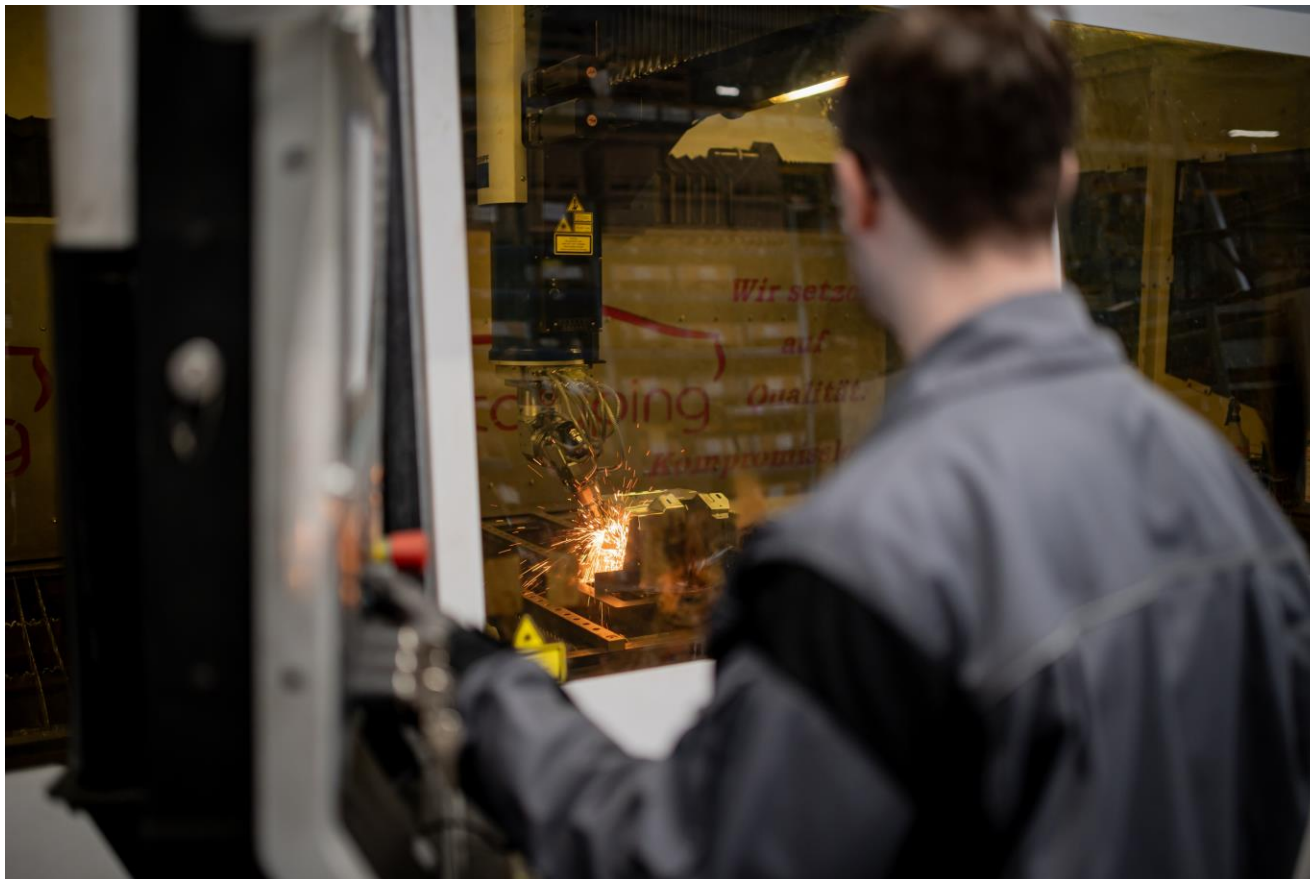


An overview of our hydraulic presses:

Type	Manufacturer	Pressure (t)	Table size (mm)
PYE 63	WEMA	60	630 x 500
PY 63S1	WEMA	60	740 x 560
100 SS	WEMA	100	742 x 702
PY 250 SS	WEMA	250	1250 x 900
PY 250 N	WEMA	250	1250 x 900
Duramatic	Mossini	300	1105 x 820
H-615	HiDROLiKSAN	615	1200 x 1200
ZHS 630-30.2.1	Müller Weingarten	630	2500 x 1500

3D laser technology

At MX Prototyping we work with a modern and variable 3D system. With laser technology we can cut components of all kinds from simple to complex geometries.

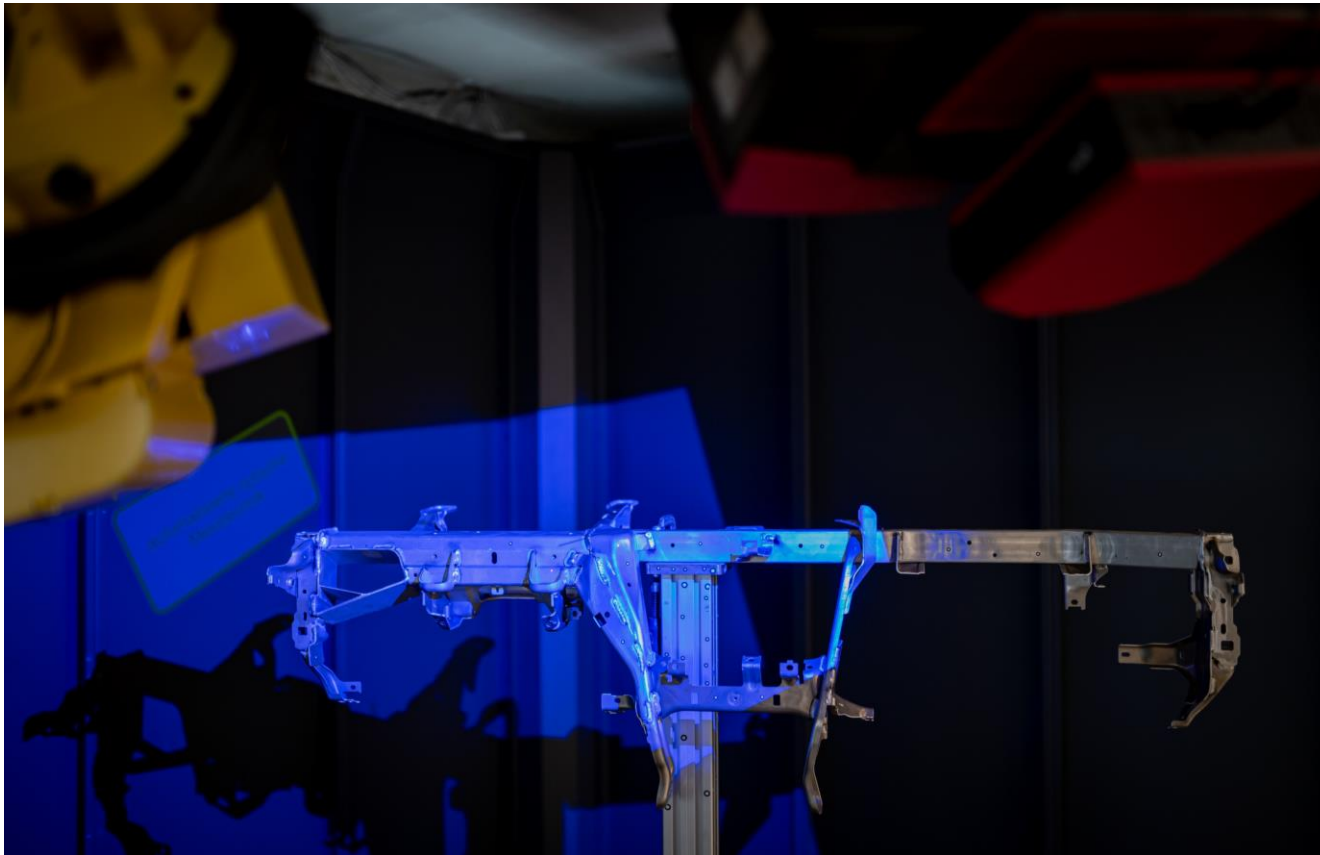


6-axis laser system Trumpf TruLaser Cell 7040

- Beam power 4 kilowatts, CO2 laser
- Traverse path X 4.000mm, Y 1.500mm, Z 750mm
- X 1100 mm, Y 1000 mm, Z 750 mm
- 2 stations - mode for in-cycle setup and cutting
- Heat recovery to reduce energy costs Owls reduction of CO2 - emissions
- Highest precision and cutting speed

3D measurement

For all components produced by us, the first part is released by measuring the shape and trimming. On customer request, a measurement protocol is created according to specification.



Our measuring tools

- Romer Infinite 3D Measuring Arm
- Zeiss Comet 6 High end 3D Sensor
- GOM Athos Scanbox
- GOM Inspect - Software

Welding technology

We can process the materials magnesium, aluminum, steel and stainless steel by welding. The examination of the welds by ground inspection takes place in our house. We employ only trained and certified welders.



The following welding processes are:

- CMT robot welding with rotary-tilt individual positioner
- MIG, MAG and TIG welding with state-of-the-art computer-controlled systems from Fronius and EWM
- Arc stud welding with Nelson system
- Spot welding

Production of welding assemblies

Assembly

Division into different subassemblies to optimize the tolerance chain as well as the production processes



Checking fixture

100 percent control. All interfaces to the vehicle are checked.

Hot forming

Müller Weingarten Hydraulikpresse 630 Tonnen

- table size 2500mm x 1500mm
- pneumatically supported handling-system
- Universal cooling system
- no need for expensive tooling with integrated cooling system
- suitable for prototypes and small series production



Furnace „Nabertherm“

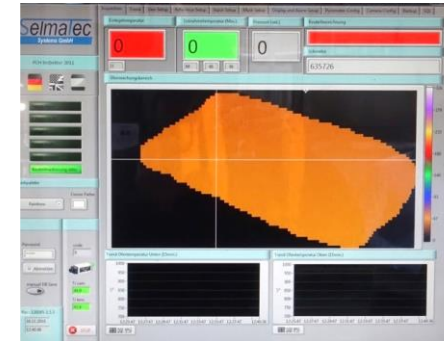
- table size B 2200, T 1600, H 500 mm
- computer controlled
- core temperature monitoring including documentation

Hot forming

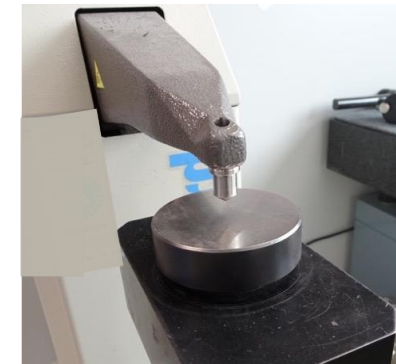
- Parts for
 - armored vehicles
 - military vehicles
 - special security vehicles
- wear protection
- lightweight design with steel



- Infrared temperature control „SELMATEC“
 - infrared camera
 - connected to the press-control
 - each part can be monitored
 - automatic stop when scales are detected

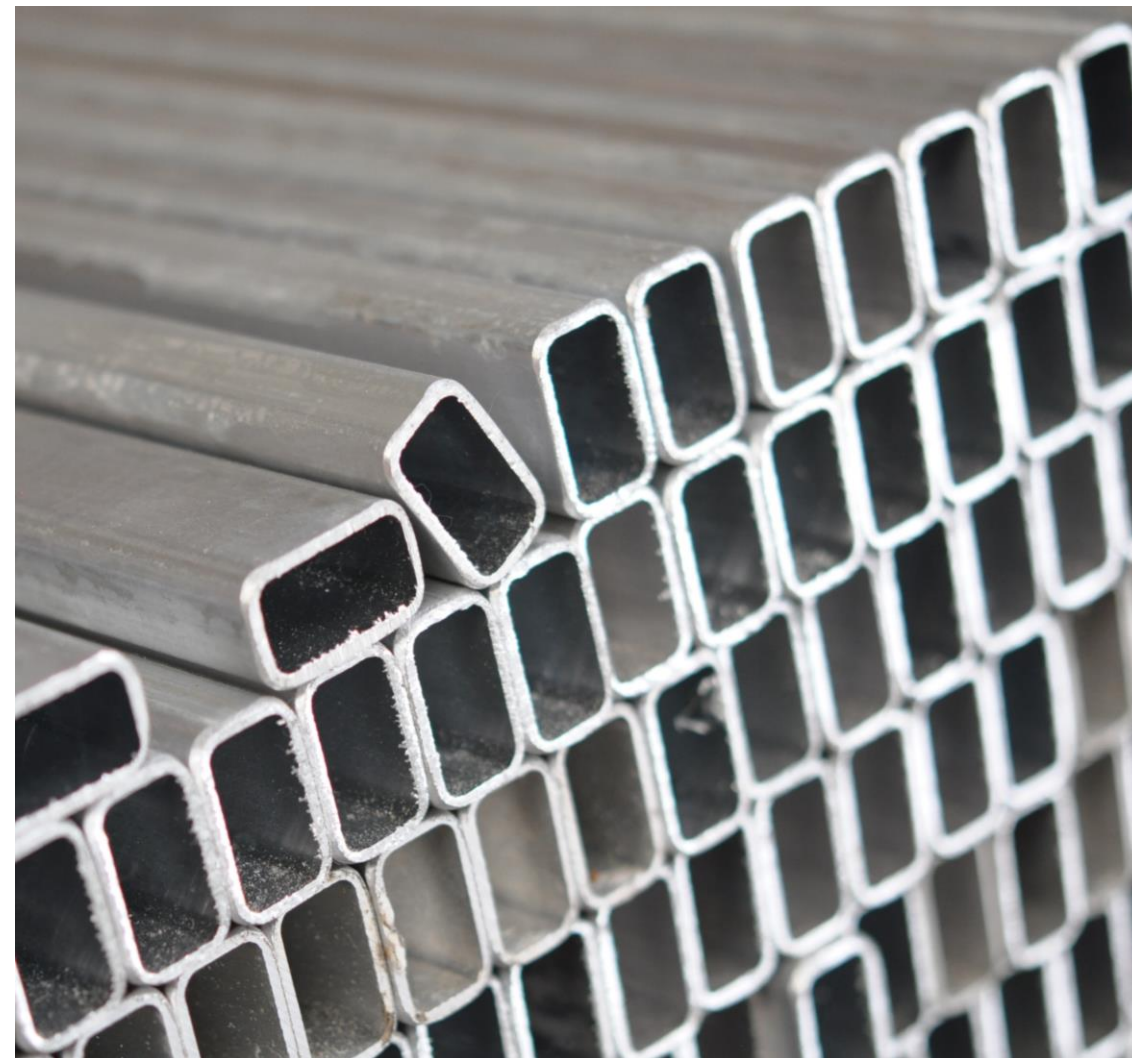
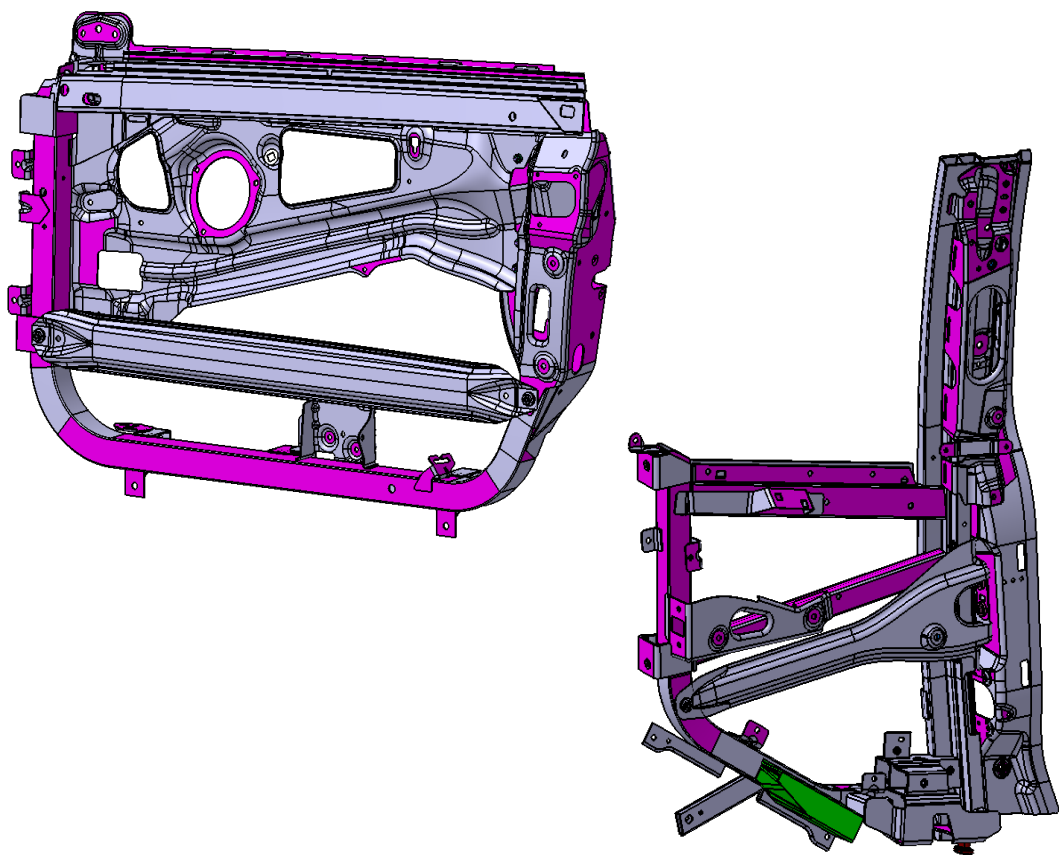


- Hardness tester „Mitutoyo wiZhard“



Door structure

MX Prototyping offers professional development support, prototypes and pre-series made of high-strength aluminum in the field of door structures.



Production and testing of cockpit carriers (prototypes)

In addition to the production of cockpit carrier prototypes with our modern equipment of testing devices we are also able to offer our customers the testing of natural frequency, vibration measurement and torsional behavior of the highest quality.

Jean Wirtz

- Metallography grinding wheel

Carl Zeiss

- Measuring microscope
- macroscope

MX Prototyping GmbH

- Checking fixture eigenfrequency (construction from Stolfig)



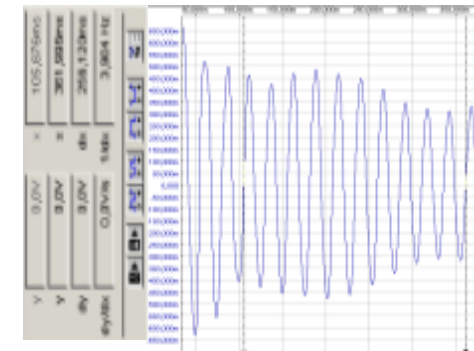
Checking fixture



Assembly



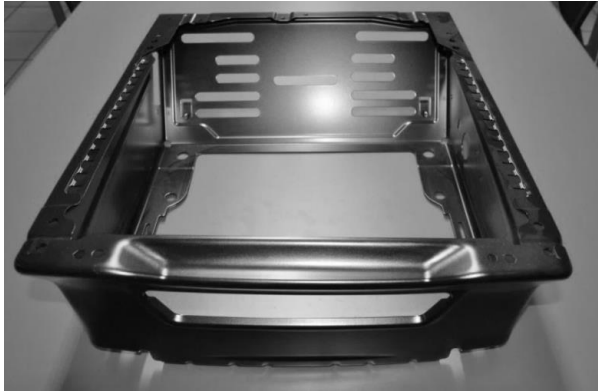
Checking fixture cockpit carriers



Module carrier frequency

Seat structures

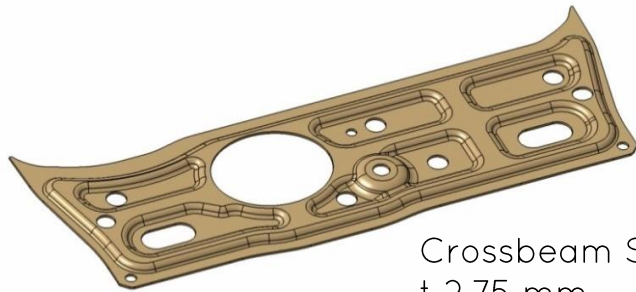
Production of seat structure prototypes made of steel, aluminum and magnesium



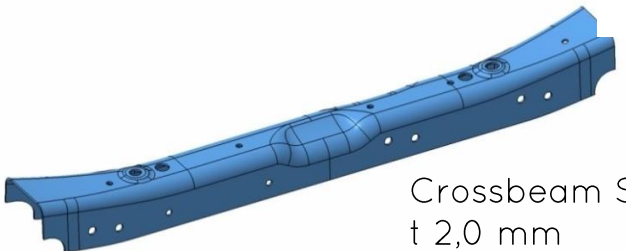
High-strength steel chassis components



Crossbeam S420 MC
t 3,0 mm



Crossbeam S420 MC
t 2,75 mm



Crossbeam S420 MC
t 2,0 mm



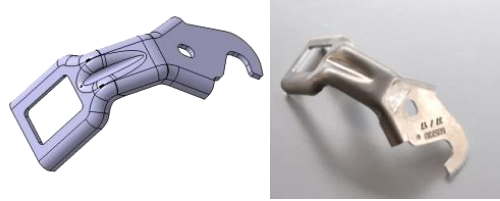
Various components for small series

MX Prototyping is a specialist in the production of individual components such as

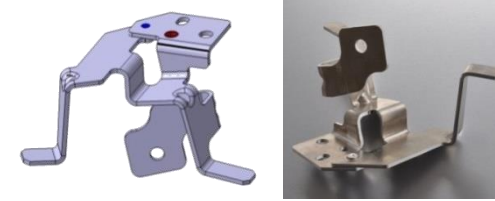
- Cockpit carriers
- Heat protection
- Milling components
- Various brackets
- Heat shield components
- Seat components



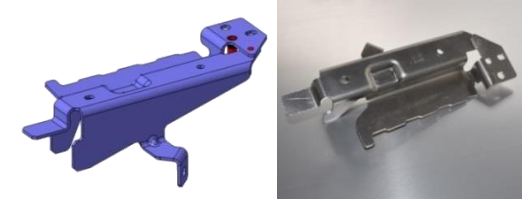
Protection plate - stainless steel



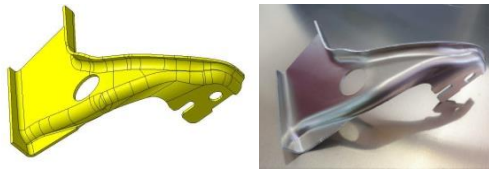
Bracket air conditioner - aluminum



Bracket dashboard - aluminum



Bracket dashboard - aluminum



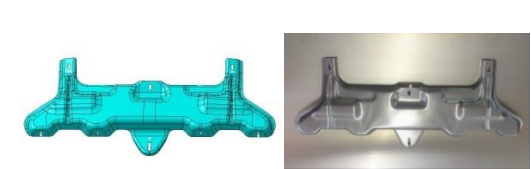
Angle bracket - aluminum



Bracket - steel



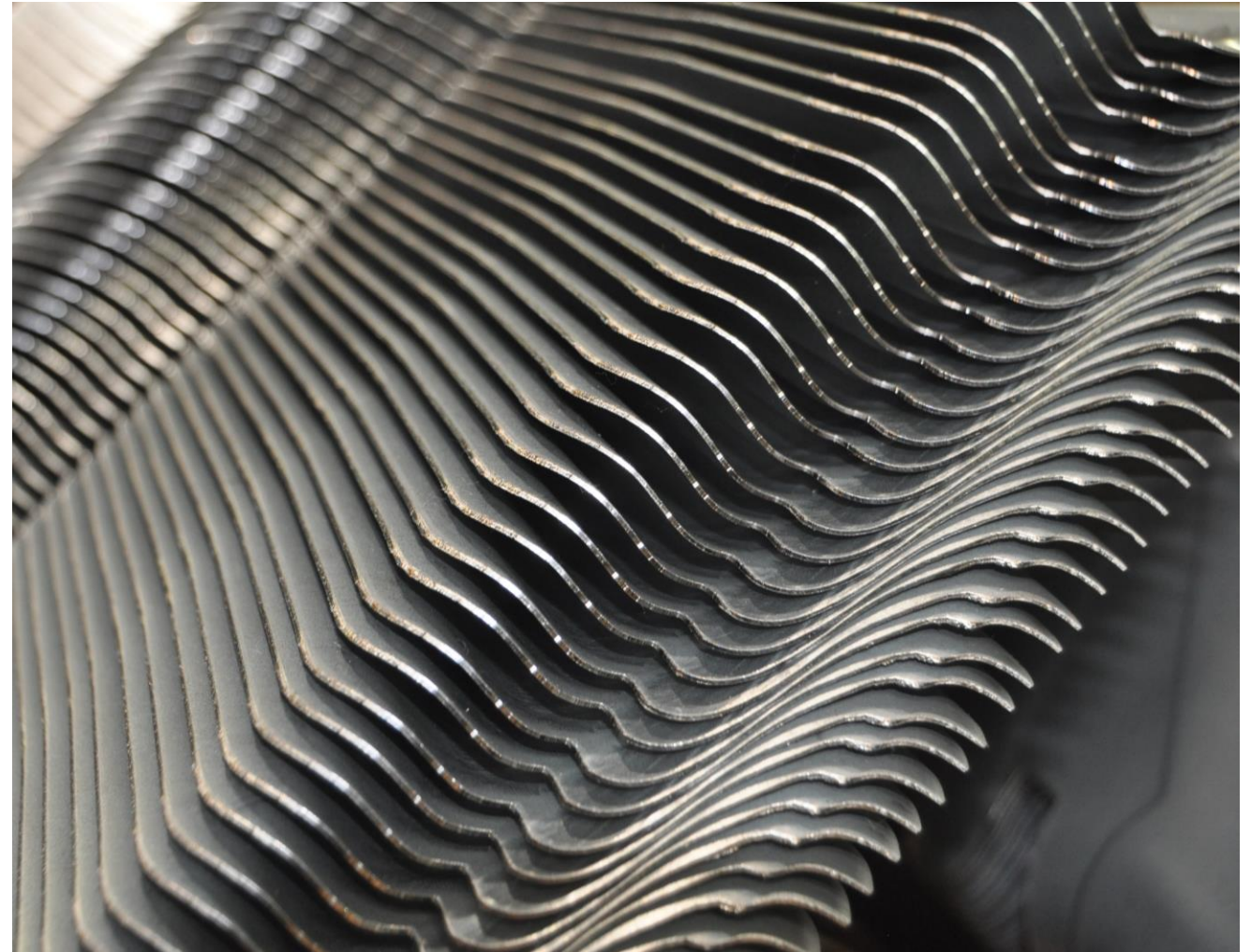
Cable clip - brass



Stern timber - aluminum

Side impact beams

MX Prototyping manufactures side impact beams from high-strength steels



Crash management systems

MX Prototyping produces crash management systems from high-strength steels



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