

List of machines

CNC-Turning: Mori Seiki high performance-CNC-turning machine NL 2000 MC
C-Axis, Y-Axis, powered tools, bar capacity Ø 65
Chuck Ø 225, Hainbuch collet chucks
Short rod rack
Ø 260 x L 500

Mori Seiki high performance-CNC-turning machine NLX 2500 Y / 700
C-Axis, Y-Axis, powered tools, bar capacity Ø 80
Chuck Ø 275
Ø 360 x L 705

Mori Seiki high performance-CNC-turning machine NL 3000 MC / 700
C-Axis, powered tools, bar capacity Ø 90
Chuck Ø 312
Ø 420 x L 713

Turning: VDF Boehringer DUE 500
Colchester Triumph 2000
Colchester Master 2500
Colchester Master 2500
Weiler Condor VC plus
Weiler LZ 280
Weiler lever turning machine
Ø 480 x L 1500
Ø 380 x L 1200
Ø 330 x L 700
Ø 330 x L 700
Ø 360 x L 800
Ø 280 x L 700
Ø 260 x L 500

All turning machines with digital read out unit.
Extensive accessories, e.g. bezels up to D 270, surface plates,
four-jaw chucks und collet chucks, eccentric chuck

CNC-Milling: Hermle high performance- CNC- machining centre C 40 U dynamic
5 Axis, 38 tools
Heidenhain-control iTNC 530, spindle 28 000 1/min
Panning rotary table Ø 800
Laser measurement
80 bar internal coolant supply
lengthwise X 850
across Y 700
vertical Z 500

Hermle high performance- CNC- machining centre C 30 U dynamic
5 Axis, 32 tools
Heidenhain-control iTNC 530, spindle 18 000 1/min
Panning rotary table Ø 280 side clamping plates
Infrared- 3D tactile- and measuring meter
Laser measurement
80 bar internal coolant supply
lengthwise X 650
across Y 600
vertical Z 500

CNC-Milling:	Hermle high performance- CNC- machining centre C 30 U 5 Axis, 75 tools Heidenhain-control iTNC 530, spindle 18 000 1/min Panning rotary table Ø 630 Infrared- 3D - tactile- and measuring meter Laser measurement 80 bar internal coolant supply	lengthwise X 650 across Y 600 vertical Z 500
	Hermle high performance- CNC- machining centre C 30 U 5 Axis, 75 tools Heidenhain-control iTNC 530, spindle 18 000 1/min Panning rotary table Ø 630 Infrared- 3D - tactile- and measuring meter Laser measurement Minimal quantity lubrication 80 bar internal coolant supply	lengthwise X 650 across Y 600 vertical Z 500
	Mikron high performance- CNC- machining centre UCP 600 5 Axis, 30 tools Heidenhain-control iTNC 530, spindle 20 000 1/min Panning rotary table Ø 400 Infrared- 3D tactile- and measuring meter	lengthwise X 530 across Y 450 vertical Z 450
2x DMG vertical machining centre DMC1150V	60 tools Heidenhain-control iTNC 640, spindle 14 000 1/min Stationary table 1460 x 750 mm, load up to 1500 kg Infrared- 3D tactile- and measuring meter Laser measurement	lengthwise X 1150 across Y 700 vertical Z 550
	Mikron high performance- CNC- machining centre VCE 600 Pro 4 Axis, 24 tools Heidenhain-control iTNC 530, Infrared- 3D tactile- and measuring meter 4. Axis Spirsin - Rotary table	lengthwise X 600 across Y 500 vertical Z 540 Chuck Ø 200
	Deckel FP4 MA Control Contour 2 Universal panning rotary table	lengthwise X 485 across Y 385 vertical Z 380
Milling:	5 Machines Deckel FP1 / FP 2 / FP 4 M Extensive accessories, e.g. prism calmping systems Header and boring tools. NC - dividing head by Walter All milling machines with digital read out unit.	lengthwise X 500 across Y 400 vertical Z 400

Electrical discharge machining:	Agie Agicut Excellence 3 Conical machining up to 30° Finish up to Ra = 0,2	lengthwise X 300 across Y 350 vertical Z 256
	Agie Agiedrill EDM drill	lengthwise X 300 across Y 200 vertical Z 300
Grinding:	Kellenberger universal cylindrical grinder 1000U Inside, outside and planar grinding	Ø 350 x L 1000
	Geibel + Hotz surface grinder, table size:	lengthwise 600 across 400
	Flaring cup wheel grinding machine	
Honing:	Nagel Handhonmachine HHM 40	
Drilling:	Arboga arm drill Alzmetall pillar drill Multiple Solid table and pillar drill	up to Ø 50 up to Ø 30
	Drills are equipped with threading automatic accessories: cross table and quick release mechanisms	
Welding:	Various MIG-MAG welders	
Sawing:	Amada bandsaw HA250W Heller circular saw K 315 Eisele miter box saw Hema vertical band saw Elu miter box circular saw bench Klaeger ABS 265	up to Ø 250 up to Ø 100
Deburring:	Trowal slide grinding machine Uron slide grinding machine for small parts Various table belt grinding machines Various beveling machines Reishauer deburring and beveling machine	capacitiy capacitiy 250 ltr. 5 ltr.

Brushing and polishing: Metabo grinding and polishing machine

Blasting: Auer blasting plant
MST micro blasting plant
We are blasting with glass bead!!

Measuring: Conditioned measuring room
Zeiss 3D-scanning platform Contura G2 RDS Measuring area 700 x 1000 x 600

Tesa Micro-Hite 600 electronical height measuring device

All common measuring and testing tools
e.g. calipers up to 2000mm, flank micrometers up to Ø 150,
Outside micrometers up to Ø 400, inside micrometers up to Ø 200, Subito up to Ø 250
Roughness measuring device Mahr Marsurf PS1

Marking: Laser marking device with dividing head
For marking of part numbers, scales, logos, QR-codes and many more
Importing of common file formats is possible (dxf, plt, bmp, jpg and many more)

Pin marker
Electric marker

Cleaning: Sonoswiss SW60 ultrasonic cleaning unit capacitiy 60 ltr.
Multi-frequency ultrasound for coarse and fine cleaning

Sonoswiss SW12H ultrasonic cleaning unit capacitiy 12 ltr.

CAD/CAM-System: 4 workplaces for programming - suitable for turning, milling and EDM cutting
Licom AlphaCAM

Amongst others, we are able to process the following 2D- and 3D- data: DXF, DWG,
IGES, STEP, CATPART, Siemens NX (.prt)

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