

**DESIGN**

**Software** SolidWorks, 3DQuickPress, Catia FEM Simulation, Siemens NX, Visi 21 with FEM Simulation and board detection data exchange (DWG, DXF, STEP, IGES, Pro E, Odette, PRT)

**FORMING TECHNOLOGY**

**Punching and bending** 1 x Punching machine ebu STA 400/2500 PSR, 400 t Servo - Eccentric press with roller feed and straightening machine, strip width max. 500 mm and material thickness max. 6 mm, table top max. 2.500 x 1.500  
1 x Punching machine ebu, 320, table top max. 1.600 x 1.300  
2 x Eccentric presses ebu, 200 t, table top max. 1.200 x 800  
4 x Eccentric presses ebu, 160 t, table top max. 1.200 x 670  
3 x Eccentric presses ebu, 125 t, table top max. 1.200 x 650  
2 x Eccentric presses ebu, 50 t, table top max. 650 x 510  
1 x Punching machine ebu, 40 t, table top max. 700 x 450

**Test press** Hydraulic presses from 30 t bis 250 t

**Laser cutting** TRUMPF 2D TruLaser 1030 with 2 KW power, workspace 1500 x 3000

**Welding** Resistance welding machines  
WIG/MAG welding

**TOOLMAKING, FIXTURE AND PROTOTYPE CONSTRUCTION**

**Milling** 5-ohs-Simultan DMU 50  
5-ohs-Simultan DMU 50 eco Mill 3+2 on,  
5-ohs-DMU 50 NEW DMG 3+2 on  
Cover MAHO DMC 100V hi-dyn  
3D- machining center Depo MCFV 1060 with 24-times tool changer and measuring switch,  
workspace 1.000 x 600 x 600

**Turning** Mori Seiki CLX 350, max. workpiece Ø 700, max. turning length 1.290

**Flat grinding** Ziersch ZT 510 with Z-Control Controller  
Ziersch ZT48  
Jung JF 415

**Round grinding** Studer S20  
Studer S40

**Wire eroding** Fanuc alpha - 1 iD with wire threading, workspace 600 x 400 x 310  
Fanuc alpha 0 iA with wire threading, workspace 320 x 220 x 180  
Fanuc alpha - C600 iA with wire threading, workspace 600 x 400 x 310

**Start hole drilling machine** River 3, workspace 300 x 200 x 200

**Sink eroding** Pronto 5030 (conv.)

**MACHINING TECHNOLOGY**

**Turn-mill center** Mori Seiki NT4200 DCG, max. workpiece Ø 600, max. turning length to 1000

**Horizontal milling** Mori Seiki NHX 5000, max. workpiece Ø 1000, max. workpiece height 1000  
Mori Seiki MH 630/50, max. workpiece Ø 1000, max. workpiece height 1000  
Mori Seiki NH 5000/40 DCG, max. workpiece Ø 800, max. workpiece height 1000  
Mori Seiki NH 5000/40, max. workpiece Ø 730, max. workpiece height 900  
Mori Seiki NH 5000/40 POOL, 5 pool-places, tool magazine with 150 places

**Vertical milling** Mori Seiki NV 4000/40 DCG, table size 700 x 450, max. table weight 350 kg  
Mori Seiki SV 50/50, table size 1320 x 600, max. table weight 1200 kg

**Multi-axes-milling** Mori Seiki ZT 2500 Y, max. workpiece Ø 360, bar loader up to Ø 72  
Mori Seiki ZT 1500Y, max. workpiece Ø 190, max. turning length 450  
Mori Seiki ZT 1500YB, max. workpiece Ø 190, max. turning length 680  
Traub TNC 65EGY, max. workpiece Ø 184, max. turning length 450

**CONTINUATION OF MACHINING TECHNOLOGY**

<b>Turning</b>	2x INDEX C200 with FANUC-controler, max. workpiece Ø 140, max. turning length 700 2x INDEX ABC with FANUC-controler, max. workpiece Ø 140, max. turning length 80 Maier ML 32E long lathes Maier MLK32 Hybrid long and short lathes Cycle-controlled lath Weiler E80, Weiler E35 Mori Seiki CL 200 AM Mori Seiki CL 20 B, Mori Seiki DL 151 MC Manurhin KMX16 long lathe
<b>Washing</b>	Washing machine Dürr Ecoclean Universal 81 W

**QUALITY MANAGEMENT**

<b>Measuring technique</b>	3D-measuring machine Mitutoyo CRYSTA-Apex S574, workspace 505 x 705 x 405 Profile projector Mitutoyo, workspace 150 x 50 x 70 3D-coordinate measuring machine Mitutoyo Euro C 776 incl. Software MCosmos Contour measuring machine Mitutoyo Contracer CV 3000 incl. Software Formpak Surface measuring instrument Mitutoyo Surftest SJ 401
<b>Certification</b>	IATF 16949:2016, DIN EN ISO 9001:2015 und ISO 14001:2004