


CNC laser and punching processing

2	CNC sheet metal centres (TruMatic 7000)	<p>lasers and cuts of</p> <ul style="list-style-type: none"> -sheet metal up to 8 mm -sheet formats up to 1500x3000 mm <p>by using special tools, the introduction of reductions, threads, hinges, lamellas and smaller cuts is possible</p> <ul style="list-style-type: none"> -solid state laser TruDisk 2001 extends the material variety by copper and brass and offers increased productiveness in thin metal -a laser for two uses in the LaserNetwork: also with low utilisation economically -an especially easy operation -minimal non-productive time by maintenance-free fiber ray guidance -the draft of the flying optics guarantees a treatment poor in scratch and with it minimal rejects 	Trumpf	
1	TruLaser 1030 fiber	<ul style="list-style-type: none"> -max. work piece weight 720 kg -max. metal-thick with TruDisk 2001 ->mild steel 16 mm ->high-grade steel 8 mm ->aluminium 6 mm ->copper 3 mm ->brass 3 mm 	Trumpf	
1	TruLaser 5030 fiber	<ul style="list-style-type: none"> -high productivity and quality in thin metal -non-productive time minimized -the best energy efficiency -enlarged material variety productiveness -encourage up to a triple with the solid state-laser TruDisk -high dynamism of the machine by direct impulses -shorter positioning times by simultaneous guts head positioning -intuitive operating draught -scratch arms treatment and with it minimum rejects -excellent insertion quality with minimal insertion times -an universal guts unity with two-stage collision protection -automatic nozzle changer -cutting of copper and brass with TRUMPF guts data -trouble-free treatment of filmed tins without previous evaporation -high-speed cutting with up to 40 m / min. 	Trumpf	
1	CNC flatbed laser cutting system (TruLaser 5030)	<p>lasers of</p> <ul style="list-style-type: none"> -structural and stainless steel -sheets up to 25 mm thickness -panel sizes up to 1500x3000 mm 	Trumpf	

Conventional punching and bending

1	Hydr. Double stand press	<ul style="list-style-type: none"> -pressing force 315 tons. -table surface 1600x1000 mm -installation height 800 mm, stroke 600 mm -drawing cushion 1200x650 mm, stroke 350 mm, press force 80 tons. 	Oevermann	
1	Eccentric press 63 tons. with band supply		Ebu	
1	Eccentric press 80 tons.		Kieserling	
1	Eccentric press 125 tons.		Müller	
1	Eccentric press 50 tons.		Berenberg	

Bend

1	CNC-controlled bending cell Trumpf BendMaster	<ul style="list-style-type: none"> -max. load 60 kg -max. blank weight 40 kg -max. parts dimension 2000 mm x 1000 mm -min. sheet thickness 0.7 mm -max. working range / length of the floor lane 4000 mm / max. 14000 mm -max. metal thickness 8 mm -max. board format 500 mm x 400 mm -max. board weight 3 kg -max. load 15 kg -pressing force 360 kN -max. operating speed 50 mm / s -installation area 5500 mm x 3870 mm 	Trumpf	
1	Highspeed-bending cell TruBend Cell 7000		Trumpf	

1	TruBend 5170 with Tool Master	<ul style="list-style-type: none"> -press force 1700 kN -bending length 3230 mm -bending length for enlarged implementation (option) 4250 mm -installation height 615 mm -discharge 420 mm -express speed 220 mm / s -max. operating speed 10 - 15 mm / s -control TASC 6000, 3D Grafik, Touch Screen -automatic tool changer 	Trumpf
1	CNC 6-axle rear-axle system sheet-metal bender	<ul style="list-style-type: none"> -4-cylinder technology -> double precision by constant pressure spreading -edge length of 3230 mm with an installation height up to 615 mm -material thickness up to 12 mm -> structural steel (S235) -material thickness up to 10 mm -> stainless steel 	Trumpf
1	CNC high-speed sheet-metal bender Trumpf TruBend 7036	<ul style="list-style-type: none"> -press capacity 180 - 360 kN -edge length 510 mm - 1020 mm with an installation height up to 300 mm -edge length 2700 	Trumpf
1	CNC-controlled sheet-metal bender TruBend 5085	<ul style="list-style-type: none"> -5-axle rear-axle system, 85 tons. -> 4-cylinder technology -material thickness up to 6 mm -double precision by constant pressure distribution -250 tons. 	Trumpf
1	CNC hydraulic sheet-metal bender	<ul style="list-style-type: none"> -edge length up to 3500 mm -material thickness up to 10 mm 	Weinbrenner
1	CNC sheet-metal bender	<ul style="list-style-type: none"> -16 tons. -edge length to 550 mm 	Kärcher
1	Folding press	<ul style="list-style-type: none"> -up to 5 mm thickness -2600 mm length -press force 2300 kN 	Lotze
1	CNC 5-axle rear-axle system sheet-metal bender TruBend 8230	<ul style="list-style-type: none"> -edge length of 5100 mm with an installation height up to 1020 mm -side length 1000 mm -material thickness up to 12 mm 	Trumpf / EHT



Conventional cutting

2	Plate scissors	<ul style="list-style-type: none"> -material thickness up to 4 mm -length up to 3000 mm 	Fasti
1	Plate scissors	<ul style="list-style-type: none"> -material thickness up to 10 mm -length up to 3000 mm 	Fasti

CNC roll bending

1	DAVI MCA 2017 - CNC 4 rolling machine	<ul style="list-style-type: none"> -MCA 2017 -metal width 2050 mm -round roller-material strength 6 mm -bend-material strength 5 mm -diameter upper role 170 mm -diameter under role 160 mm -fast -precise -easy operation -the most technological machine at the market 	DAVI
1	Three-roll bending machine	<ul style="list-style-type: none"> -4 mm thickness -2000 mm length 	Fasti
1	Three-roll bending machine	<ul style="list-style-type: none"> -1.5 mm thickness -2000 mm length 	Fasti



Profile processing

1	CNC-3-levels tube bending machine -up to 42 mm		Herber
1	CNC-2-levels profile bending machine Profimax 25		Indumasch
1	Circular saw machine with automatic material supplying		Kaltenbach
3	Metal circular saws	-up to 110 mm saw diameter	Kaltenbach
1	Bandsaw machine	-saw cross section 300x200 mm	Fasti
1	Fusion cut tape machine	-sawing at the melting section 6 mm	Pehaka

CNC milling and turning

1	VTC 800/30 SR - 5-axle milling centre	<ul style="list-style-type: none"> -vertical milling center in traveling column design with automatic swivel head 	Mazak
1	CNC 3-axle milling machine	<ul style="list-style-type: none"> -expandable up to 5 axis -clamping 1600x890 mm -processing height 760 mm 	Hurco
1	Milling machine 300x1100x350 mm		imatec
diverse	Drill	- with drill up to 50 mm	diverse manuf.
diverse	Thread cutting machine	-cutting capacity up to M 30	diverse manuf.



Welding



1	Welding robots with 9 programmable, synchronous robot axes with turn positioners	-for machine components up to 3000 mm length and a diameter of 1400 mm by a weight up to 10 000 N	Cloos
diverse	Gas shielded welding equipment	-capacity up to 400 Amp.	diverse manuf.
diverse	TIG Welding machine 250 Amp.		diverse manuf.
1	Welding robot 5 axes	-parts size approx 1000x800x800 mm	Cloos
1	Autom. Circular welding machine	-up to 800 mm diameter	Home-made
2	Hand spot welding tongs 3 + 3 mm		Dalex
2	Stud Welding Machines		Soyer
2	Spot welding Machines	-capacity up to 200 kVA	Zinser
1	Spot Welding Machine		
	Dalex PL63 EHK SO (Y. o. m. 2009)		Dalex

Pressing

2	Window Touch insertion machines	-pressing bolts, bushings -two automatic suppliers -suitable for clinching, riveting and cutriveting	Haeger 824
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Quality control



1	Plane table	-non-contact 3D scanning function -detailed measurements of surface shapes of all kinds	
1	Hightech measurement arm 3D Faroarm - Edge	-portable -7-axes -spherical working volume from 1,8 m up to 3,7 m -repeatability from 0,024 mm up to 0,064 mm	Faro
1	2D Measuring for circuit boards VQC22- 20	-max. height from blanking through 2000x1200 -max. strength 20 mm -reference file in dxf. format needed	

Surface finish

1	Timesavers-Grindingmaster 42-serie- 1350- WRBW	-number of the heads: 1-4 -head types: rotation brush, roller -size of the sharp brush: 350 mm -number of the brushes: 8 -quickchange system for brushes -0 - 100 mm bed -0,6 - 8 m / min. of feed speed, 2. 6 kW -up to 11 kW of main impulse engine -180 mm of adaptable contact roller diameters -frequency-controlled feed speed 0,5 - 8 m / min. -min. part size 50x50 mm	TIMESAVERS
1	Belt sanig machine Kuhlmeier ZBS- dual	-for universal grinding of each formed workpieces -handling device with vacuum power	diverse manuf.
2	Belt sanding machines	-grinding length 750x1500 mm	diverse manuf.
2	Edge sanding machines		diverse manuf.
1	Grinding machine	-600x300 mm grinding surface (for the area maintenance)	Okamoto
diverse	Belt grinders	-contact plate width 100 mm	diverse manuf.
diverse	Bench grinders		diverse manuf.



1	Powder coating plant	-conveyor -> automatic piece transport to the different working processes -system for preperation with degreasing, iron phosphating, two spray zones, end spray wreath with demineralized water -recirculated air - dryer for cling water -coating zone with plastic booth for quick color changes -coating with two lifting devices -> each equipped with 4 automatic coating spray guns -> controlled by automatic piece recognition -two manual coating working stations after automatic engine -ID transfer booth for automatic or manual mode for smaller quantities and special colours -recirculating curing oven for coatings -vacuum distillation plant for environmentally friendly processing of the water from the preperation -max. part diemnsion 6000x1000x600 mm	Wagner
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*-kind of the system: pretreatment and powder coating system with
cycled automatically transport of the work pieces
-conveyor technology: Rippert Vario-transport system
-work pieces metal parts of steel
-pendant dimensions
->max. length 4,000 mm
->max. width 1,200 mm
->max. height 1,420 mm
-weight per carriage train max. 400 kg*

1 NEW Powder coating plant
January 2017

*The new coating arrangement contains an aluminium-step of treatment.
Therefore the pretreatment arrangement and the complete coating
arrangement is thereby multi-table of metal. An immense progress for us
and a big advantage for our customers.*

*While the available automatic-powder cabin coats big loads actually and
at a reasonable price, the special components by loose size from 1 - 5 or
complicated sweat constructions can be coated in a parallel arranged
hand-powder cabin by hand.*

*By stacking the components should be respected they only close the gap,
if the automatic-powder cabin is reequipped just to another colour.*

*Through this these components are "inoculated" purposeful and the
effectiveness of the whole arrangement increases very good.*

*To avoid to slow down the system owing to a 2-fold coating (primer plus
top coat) and damage the whole capacity, there exist a additional Bypass
for the like waterdryer. These components deliver the warmth after the
primer again to the components which are just in the like water dryer for
the drying.*

Rippert

