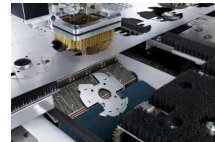
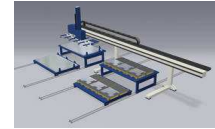


CNC laser and punching processing

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 insertionquality with minimal insertiontimes -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 	Trumpf
1	Highspeed-bending cell TruBend Cell 7000	<ul style="list-style-type: none"> -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 	Trumpf



1	TruBend 5170 with ToolMaster	<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"> -press force 1700 kN -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 -16 tons. 	Weinbrenner
1	CNC sheet-metal bender	<ul style="list-style-type: none"> -edge length up to 550 mm -up to 5 mm thickness 	Kärcher
1	Folding press	<ul style="list-style-type: none"> -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 -roundroller-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 center	<ul style="list-style-type: none"> -vertical milling center in traveling column design with automatic swivel head 	Mazak
1	DMU 75 monoBLOCK	<ul style="list-style-type: none"> -max. /Y/Z-axis: 750 mm / 650 mm / 560 mm -table load up to 650 kg 	DMG Mori
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 PL 63 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 Kuhlmeyer 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 single working processes -system for preparation 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 preparation -max. part diemnsion 6000x1000x600 mm	Wagner
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NEW Powder coating plant
January 2017

- 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

The new coating arrangement contains an aluminium-step of treatment. Therefore the pretreatment arrangement and the complete coating arrangement is thereby multiusable 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

