MECHANICAL PRODUCTION UNIT

Contract production for your company

Mechanical production for components, assemblies and systems

OUR MACHINES WORK FOR YOU

KOLBUS
MACHINING

JOB ORDER PRODUCTION AT KOLBUS

Our Machining Shop offers added-value services for components to your design specifications.

Advantages and capabilities for your company
in the following fields:

CNC MILLING/DRILLING
CNC TURNING
CNC GRINDING
SHEET METAL PROCESSING

- Fast quotes and order processing
- Resolve your order bottlenecks without investing in extra capacity
- Get assembly-ready components (from intermediates to finished part) or custom machining
- Call on KOLBUS capacity and resources as and when you need them
- Lower manufacturing costs through optimized manufacturing
- We also offer non-company manufacturing processes
- Avoid tying up capital and incurring fixed costs for production machinery

We can provide any type of surface treatment thanks to long-term relationships with partners across the region.

We will produce batch sizes from one to medium-volume production runs.

The highly trained employees in our Mechanical Production unit are committed to assuring highly reproducible, cost competitive processing for your projects.

Decades of experience in metal processing – boring, milling, turning and sheet metal forming – make KOLBUS a strong and reliable partner. Benefit from our know-how by outsourcing your casting to our foundry for subsequent machining by our Mechanical Production unit. This will reduce the number of interfaces and order lead times in your procurement process.

CNC MILLING, DRILLING

	Large part machining centres		Table size in mm	Travel in mm	Tool magazine	Part size max. in mm
1 x	**Droop & Rein – TFS** Gantry design	5-axis BAZ with fork-type milling head (B- and C-axis)	X = 5,000 Y= 1,800	X = 6,000 Y = 3,000 Z = 1,100	370 Stations	
1 x	**Soraluce – TR 45** Bed-type, milling and drilling machine	5-axis BAZ with 45° milling head (stepless deviding)	X = 4,860 Y = 1,200	X = 4,500 Y = 1,500 Z = 2,100	80 Stations	
1 x	**Unisign – Univers 6000** 2 work areas (shuttle operation)	3-axis BAZ with replaceable angle head	X = 4,000 Y = 1,000	X = 4,500 Y = 1,000 Z = 550	160 Stations	X = 3,960 Y = 940 Z = 400
	Vertical machining centres					
1 x	**Unisign – Unipro 5L** 2 work areas (shuttle operation)	4-axis BAZ with swivel table (A-axis)	X = 2,150 Y = 400	X = 2,160 Y = 600 Z = 500	188 Stations	X = 2,000 Y = 400 Z = 280
2 x	**Unisign – Unipro 5P** 2 work areas (shuttle operation)	5-axis BAZ with rotary/swivel table (B- and C-axis)	X = 630 Y = 630	X = 1,000 Y = 800 Z = 500	163 Stations	X = 630 Y = 630 Z = 350
5 x	**DMG – DMC 1450V**	3-axis BAZ	X = 1,760 Y = 750	X = 1,450 Y = 700 Z = 550	40 Stations	
2 x	**DMG – DMC 1150V**	3-axis BAZ	X = 1,400 Y = 750	X = 1,150 Y = 700 Z = 550	60 Stations	
1 x	**Anayak – Performer 2500**	3-axis BAZ with manual swivel head (B- and C-axis)	X = 2,700 Y = 840	X = 2,500 Y = 1,000 Z = 1,100		
4 x	**Anayak – VH 1800**	3-axis BAZ with manual swivel head (B- and C-axis)	X = 1,800 Y = 750	X = 1,600 Y = 800 Z = 800		
	Horizontal machining centres (flexible manufacturing system)					
3 x	**Makino – A 99e** Machines linked using Fastems pallet storage – 46 machine pallets – 88 material pallets	4-axis BAZ with NC rotary table (B-axis)	X = 800 Y = 800 (pallet)	X = 1,250 Y = 1,100 Z = 1,250	244 Stations per machine	
3 x	**Makino – A 77e** Machines linked using Fastems pallet storage – 48 machine pallets – 78 material pallets	4-axis BAZ with NC rotary table (B-axis)	X = 500 Y = 500 (pallet)	X = 730 Y = 730 Z = 800	243 Stations per machine	



MILLING, BORING

	Machines for long workpieces		Table size in mm	Travel in mm
1 x	**Reichle & Knödler** Including planing faciltiy			X = 4,000 Y = 1,500 Z = 1,000
	Boring system			
1 x	**Scharmann – FB 90 Opticut**	Spindle diameter: 110 mm Deep-hole drilling: up to 500 mm	X = 800 Y = 1,000	X = 1,000 Y = 1,200 Z = 950

CNC TURNING

	Turn-mill centre		Main spindle/ Max. Ø clamping chuck in mm	Max. turning diameter in mm	Max. turning length in mm
1 x	**Boehringer – VDF 32 M** 2 turrets, tool stations per turret: 12 (6 max. driven)	Main spindle, C-axis, Y-axis, Tailstock (programmable), steady rest (Ø 20-220 mm, programmable)	500	440	1,900
	Turning and milling centre				
1 x	**Index – G250** 1 turret, 1 multifunction head (milling spindle and turret) Tool stations per turret: 12 (all driven)	Main and counter spindle (2 x clamping chuck), External magazine with 64 tool stations Automatic workpiece transfer, tool carrier travel Z = 1,400 mm X = 300 mm	250	250	350
1x	**DMG CTX beta 800**	Main spindle, C-axis, Y-axis tailstock (programmable)	410	410	850
1 x	**Boehringer – VDF 250-2/2T** 2 turrets, tool stations per torret: 12 (all driven)	Main spindle, C-axis, Y-axis tailstock (programmable), steady rest (Ø 12 – 152 mm, programmable)	215	215	1,000
	Production turning machines		Bar feeder in mm	Max. bar diameter in mm	Max. turning length in mm
1 x	**Index – C42** 3 turrets, tool stations per turret: 12 (all driven)	Main and counter spindle (2 x clamping chuck), C-axis, Y-axis, Automatic workpiece transfer and removal	bis 1,000	42	150
1x	**Index – C200** 3 turrets, tool stationsn per turret: 14 (all driven)	Main and counter spindle (2 x clamping chuck), C-axis, Y-axis, Automatic workpiece transfer and removal	bis 1,000	65	300



TURNING

			Main spindle/ Max. Ø clamping chuck in mm	Max. turning diameter in mm	Max. turning length in mm
	Turning lathe				
1 x	**Voest Alpine Steinel – E50** Cycle-controlled	Main spindle, Follow rest (Ø 12 – 125 mm), Steady rest (Ø 20 – 280 mm), Tailstock	450	550	2,000
5 x	**Weiler – E50** 4 tool clamping stations (manual) Cycle-controlled	Follow rest (Ø 12 – 125 mm), Steady rest (Ø 20 – 280 mm), Tailstock	250	330	1,000
	Vertical turning lathe				
1 x	**Dörries – SD 80**			1,000	400

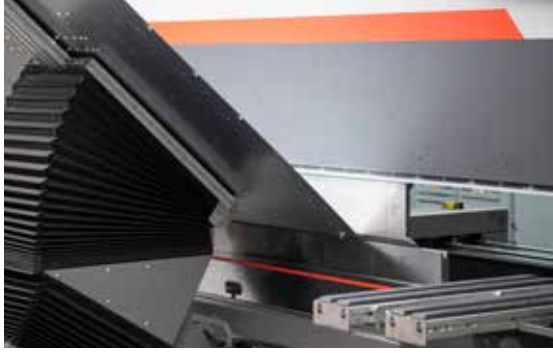
GRINDING

			Max. grinding diameter in mm	Max. grinding length in mm
	CNC cylindrical grinding machine			
1 x	**Kellenberger – Kel-Varia UR** Internal grinding attachment	Arobotech Lünette	349	1,500
	Cylindrical grinding machine			
1 x	**TOS – 2Ud 750**		150	700

		Travel in mm
	Surface grinding machine	
1 x	**Hauni/Blom – HF 512**	X = 1,200 Y = 500 Z = 480

KOLBUS MACHINING





SHEET METAL FORMING

	Laser centre		Sheet size in mm	Sheet thickness in mm
1 x	**Trumpf – TruLaser 5030 classic** High-performance laser cutting system (6 kW)	Automatic loading via warehouse connectivity (ByCell 3015) with 56 sites	3,000 x 1,500	Max. 20 (mild steel) Max. 14 (aluminium) Max. 15 (stainl. steel)

	CNC press brakes		Working length in mm	Sheet thickness in mm
1 x	**Bystronic – Beyeler Expert 200**	Pressing force: 200 t	4,100	Max. 6
1 x	**Bystronic – Xpert 200/3100**	Pressing force: 200 t	3,100	Max. 6
1 x	**SafanDarley E-Brake 35-1250**	Pressing force: 35 t	1,250	Max. 6

	Guillotine shears			
1 x	**LVD – HST 31/6**		3,100	Max. 6.35 mm (St37)

	Sheet folding machine			
1 x	**Fasti – 212/10**		3,000	Max. 4

	Brush sanding machine		Sheet size in mm	Sheet thickness in mm
1 x	**Fladder – Gyro 300**		3,000 x 1,500	> 3 mm (descaling)

	Welding stations, various
	MIG
	MAG
	Stud welding
	Spot welding

OTHER

			Witdh in mm	Length in mm
	Broaching machine			
1 x	**Wewag**		Min. 3 Max. 32 (only GG)	Max. ca. 150
	Marking laser		Labelling field in mm	
1 x	**TFT – LSM 1500**	– Dividing head – various labelling procedures	110 x 110	
	Marking machine (vertical)			
2 x	**JR Richter – Unigrav GM 300**	– Depth engraving – Scale engraving – Pattern engraving	300 x 200	

QUALITY ASSURANCE

			Measuring range in mm	Measuring accuracy in µ per metre measuring path
	3D-CNC-Measuring machine			
1 x	**DEA – Global Advantage**	Probe: Renishaw Svival rotary probe	X = 1,500 Y = 2,600 Z = 1,350	3.50 + 4.00
1 x	**Hexagon Global S**	Probe: Renishaw Svival rotary probe	X = 900 Y = 1,500 Z = 800	
	Measuring machine			
1 x	**Tesa – Micro – MS 454**	Hand-held 3D-coordinate machine	X = 500 Y = 500 Z = 300	
1 x	**Hexagon – Absolute Arm 8525**	3D measuring arm / tactile measuring and contactless scanning	Measuring volume 2,500 mm	
	Surface testing			
1 x	**Mitutoyo Surftest SV-500**	Stationary surface roughness measuring device		
	Hardness tests			
1 x	Testing procedures in accordance with Vickers, Rockwell and Brinell			

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