

CNC MACHINING CENTRES	Type	Equipment	X / Y / Z axis travel	A axis – Table tilting	C axis – Table rotation	Max. load
Doosan DNM 650 II	3-axis vertical	4th axis – rotational table	1270 / 670 / 625 mm		360°	1000 kg
Doosan DNM 6700	3-axis vertical	Mag. clamping plate 600 x 400 mm	1300 / 670 / 625 mm			1300 kg
Doosan VC 630/5AX	5-axis vertical		650 / 765 / 520 mm	+30°, -120°	360°	500 kg
Doosan VC 630/5AX	5-axis vertical		650 / 765 / 520 mm	+30°, -120°	360°	500 kg

CNC LATHES	Type	Equipment	Swing over bed	Max. turning diameter	Max. turning length	Max. bar turning diameter
Doosan PUMA SMX 2600S	7-axis Multi-function Mill Turn Center	2 turning + 1 milling spindles, 80 tools	660 mm	660 mm	1540 mm	81 mm
Doosan PUMA 3100 XLY	With live tools and Y axis		850 mm	420 mm	2125 mm	102 mm
Doosan PUMA GT 3100L			720 mm	481 mm	1275 mm	102 mm
Doosan LYNX 220 LSYC	With live tools, Y axis and counter spindle	Bar feeder with magazine (1 m)	600 mm	200 mm	450 mm	60 mm
Takisawa TC 35 L10	With tool change		490 mm	460 mm	1010 mm	
Masturn MT70			700 mm	700 mm	2000 mm	

CONVENTIONAL MACHINING	Max. clamping dimensions	Max. stroke (X / Y / Z)	Max. turning diameter	Max. turning length	Magnetic clamping plates with diameter
Classic milling machines (2 ea.)	1800 / 630 mm	1400 / 670 / 500 mm			
Classic lathes (6 ea.)			900 mm	3000 mm	300 a 400 mm

JIG BORING	Equipment	Number of working spindles	Table dimensions	X / Y / Z axis travel	Rotary table diameter	Tilting table diameter
MAS WKV 100 Jig boring machine	Rotary and tilting table	2	1000 x 1600 mm	1000 / 1400 / 960 mm	800 mm	500 mm
MAS WKV 63	Rotary and tilting table	1	630 x 900 mm	550 / 850 / 750 mm	500 mm	310 mm
HILLE 5BA Jig boring machine	Tilting table	1	760 x 1100 mm	600 / 1050 / 800 mm		500 mm

HOLE GRINDING	Hole diameter	Max. grinding length	Swing diameter	Max. workpiece length in (steady) rest	Magnet diameter
CNC grinding machine KELLENBERGER / UR 1-2-3 225	10 - 320 mm	250 mm	450 mm	1000 mm	400 mm
ČZM BDU250A Grinding machine	10 - 250 mm	250 mm	400 mm	600 mm	300 mm
ČZM BDU250A Grinding machine	10 - 360 mm	250 mm	400 mm	600 mm	500 mm
ČZM BDU250 Grinding machine	10 - 250 mm	250 mm	400 mm	600 mm	400 mm
Kameníček 3HS Grinding machine	6 - 120 mm	200 mm	400 mm		200 mm

FLAT GRINDING – LONGITUDINAL FEED	Max. grinding length / width / height
NC grinding machine Geibel & Hotz FS 640 SC	600 / 400 / 575 mm
CNC grinding machine Ziersch Starline 1000	1000 / 500 / 300 mm
VOJUS LINEATEC 40 – 150 Flat-surface horizontal grinding machine	1500 / 410 / 500 mm
VOJUS BRH 32.03F Flat-surface horizontal grinding machine	600 / 300 / 400 mm
BPH 20 NA Flat-surface horizontal grinding machine	630 / 200 / 150 mm

FLAT GRINDING – CIRCULAR FEED	Rotary table diameter / max. diameter / max. grinding height
ELB SWR 40 Flat grinding machine with rotary table	400 / 420 / 350 mm
CHURCHILL 350 Flat grinding machine with rotary table	350 / 390 / 140 mm
WOTAN SWR 630 Flat grinding machine with rotary table	630 / 670 / 300 mm
SAFAG 21 Flat grinding machine with rotary table ∇ 0.005	315 / 340 / 100 mm

OUTER ROUND GRINDING	Swing diameter	Distance between centres	Magnet diameter
CNC grinding machine KELLENBERGER / UR 1-2-3	450 mm	1500 mm	400 mm
STUDER RHU 650 Grinding machine	350 mm	650 mm	
TOS Hostivař BUB 50A/1500 Grinding machine	500 mm	1500 mm	
TOS Hostivař BHU 50A/1000 Grinding machine	500 mm	1000 mm	300 mm
TOS Hostivař BU 28/1000 Grinding machine	295 mm	1000 mm	
TOS Hostivař BUB 40/1000 Grinding machine	400 mm	1000 mm	250 mm
TOS Hostivař BUB 50/1500 Grinding machine	500 mm	1500 mm	
TOS Hostivař BUT 63/2000 Grinding machine	500 mm	1500 mm	
STUDER RHU 500 Grinding machine	200 mm	330 mm	

GEARING, WORM GEARS, THREADS, GROOVES	Max. working diameter	Max. working width	Module	Max. angle of the lead of tooth	Pitch of thread	Distance between centres
Reishauer RZ 300E Gear grinding machine	300 mm	180 mm	1.5 - 6	± 45°		
NILES ZSWZ 315x6 Gear grinding machine	315 mm	100 mm	1.5 - 6	± 45°		
NILES ZSTZ 500x10 Gear grinding machine	500 mm	150 mm	2 - 10	± 45°		
TOS OFA 16A Gear milling machine	160 mm	150 mm	1 - 4	± 45°		
TOS OFA 32A Gear milling machine	320 mm	200 mm	1 - 10	± 45°		
PFAUTER RS 1/2 Gear milling machine	500 mm	200 mm	1 - 5			
PFAUTER RS 10 Gear milling machine	150 mm	300 mm	0.3 - 4	± 45°		
TOS FO 6 Gear and worm gear milling machine	600 mm	200 mm	1 - 6	± 45°		
TOS FO 10 Gear and worm gear milling machine	1250 mm	300 mm	2 - 10	± 45°		
WMW ZAFS 800x8 Gear rounding and chamfering machine	800 mm	250 mm	1 - 8			
MAAG SH 45 Gear shaping machine	450 mm	120 mm	1 - 10	± 45°		
WMW ZSTWZ 1000x10 Gear shaping machine	1000 mm	100 mm	0.5 - 10			
PFAUTER RS 9 Gear and 6groove milling machine with hollow spindle (Ø 95)	200 mm	500 mm	1 - 8			
HILLE FL1 Worm gear and thread milling machine	150 mm	800 mm	1 - 8			
LINDNER GUS/B LINDNER GUS/B Thread and worm gear grinding machine	250 mm	500 mm	1 - 8		0.2 - 60 mm	800 mm
Stanko 5822 B3 Thread and worm gear grinding machine	150 mm	1360 mm	1 - 8		1.5 - 24 mm	1360 mm
Stanko 3451 B Outer spline grinding machine	150 mm	1360 mm				1500 mm

GEARING, WORM GEARS, THREADS, GROOVES	Min. hole diameter	Max. workpiece diameter	Face grooves	Groove width	Max. groove / workpiece length
SN 180 Inner groove grinding machine	40 mm	320 mm	max ø130 mm	6 - 30 mm	250 / 1800 mm
UFS 180 Vertical shaping machine	20 mm	400 mm			160 / 180 mm
SCHUTTE Horizontal broaching machine	12 mm	400 mm		4 - 14 mm	125 / 1250 mm

DYNAMIC BALANCING

SCHENCK Balancing machine (2 ea.)	Max. diameter 1200 mm		Max. length 1800 mm		Max. weight 250 kg
Run in machine with temperature control	Max. speed 9000 min ⁻¹		Max. length 900 mm		Max. weight 250 kg
SCHENCK SmartBalancer Mobile balancing machine					

TECHNICAL INSPECTION	Measurement range	Measurement error
DEA Global Classic 3D measuring device	700 x 1000 x 500 mm	(2.5+L/300) µm
MAHR MMQ 40 Roundness Gage	max. ø420 mm, Z 490 mm	(0.07+Z/1000) µm
TRIMOS V3-400 Digital height meter	0 - 508 mm	max. 7 µm
Mitutoyo Linear Height 600 Digital height meter	0 - 972 mm	(1.1+0.6L/600) µm
SIP 305M Length meter	0 - 300 mm	0.4 µm
Zeiss ULM 100 Length meter (2 ea.)	0 - 100 mm	(0.5+2L) µm
Zeiss UMM 200 Universal microscope	100 x 200 mm	
Mitutoyo SJ-201P Portable roughness tester		
LEEB DHT-100 Portable hardness tester		

AUXILIARY MACHINES

- HYDRAUMA FL 10 Hydraulic press
- Rausch GRATOMAT 300 H Deburring machine
- FD G1L Engraving machine
- Sandblasting Cabinet

