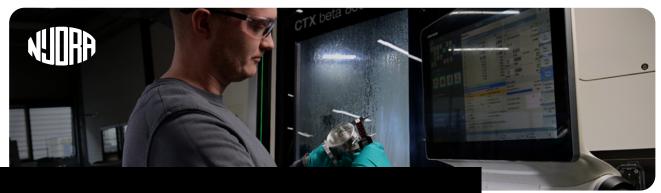


Technical **Data**





Okuma LU15M	Max. workpiece length: 600mm Max. workpiece diameter: Ø 240mm Driven tools, C-axis	1x
Okuma LU300M	Turning length approx. 500mm. Bar feed max. Ø 65mm Upper- and lower turret Driven tools, C-axis	1x
Hyundai-Kia SKT 180TTSY	Bar feed max. Ø 65mm Double turret, both with driven tools, one of which has Y-Axis Main- and subspindle both with C-axis and Y-axis	1x
Nakamura Super NTJ	9-axis machine with subspindle, dual turret Y-axis. Swivelling upper turret with driven tools. Bar magazine max. Ø 65mm	1x
Hyundai-Kia SKT 250 Equipped with Robojob TURN-ASSIST 250	Max. Ø 250mm Robot gripper max. weight 35kg Subspindle, short bar magazine, driven tools and C-axis Chuck / Collet; max. Ø 65mm For small and medium-sized series Driven table for highest capacity in the smallest area For workpieces up to Ø 250mm	1x
Hyundai-Kia SKT 21LM	Max. Ø 215mm Driven tools Controllable centre support	1x



CNC Turning-Milling combination

DMG CTX beta 1250 TC Equipped with BMO Infinity Robot Loading	120 Nm and 200 mm Y-axis Max, Ø 500 mm 6-side machining, 5-axis machine, Subspindle Automated tool magazine with 80 tools. Max Ø250 mm	1x
DMG CTX beta 800 TC	120 Nm and 200 mm Y-axis Max, Ø 500 mm 6-side machining, 5-axis machine, Subspindle Automated tool magazine with 80 tools. LNS bar magazine pass-through Ø80 mm	1x
DMG CTX beta 800 TC	120 Nm and 200 mm Y-axis Max, Ø 500 mm 6-side machining, 5-axis machine, Subspindle Automated tool magazine with 80 tools. LNS bar magazine pass-through Ø100 mm	1x
DMG CLX 450 TC	90 Nm and 200 mm Y-axis Max, Ø 400 mm 6-side machining, 5-axis machine, Subspindle Automated tool magazine with 60 tools. Bar magazine pass-through Ø80 mm	1x

CNC Swiss-type lathes

Citizen M32Y	Max. Ø 32mm 13-axis machine Subspindle with C-axis behind Subspindle see below Including Y-axis Automated material magazine	1x
Citizen M32	Max. Ø 32mm 13-axis machine Subspindle with C-axis Automated material magazine	1x



DMG DMU80p DuoBlock	Thermally stable machines for both horizontal and vertical or angled machining, full 5-axis simultaneous operations Tool changer 287 tools per machine. Machining range 1050 x 850 x 850mm HSK-A63 Spindle taper cone cleaning using rotating brushes	
Equipped with added BMO Titanium 180	Extra high docking for 600mm on top of pallet Double loading station with turntable 38 pallets 400 x 400 x 600 (lxwxh) Product loading outside the block also round material 7 drawers of 300kg each Various additions of servo grippers single and double	2x
DMG DMU 65 monoBLOCK Equipped with BMO Platinum Pt50F	Vertical 5-axis machining centre Tool changer for 120 tools Workpieces of Ø 850mm and 1.000kg (3-axis: 1.800kg) Machining range: 650 x 650 x 560mm For small, medium-sized and large series Handling weight up to 50kg 7x robust product drawers	2x
DMG DMU 70 DECKEL MAHO	Refilling during operations possible Variable product height freely dividable drawer system. Protomachine 5-axis machining centre Workpieces of Ø 800mm and 350 kg Machining range: 750 x 600 x 520mm	1x
DMG DMU 50 3d generation Linked to BMO Platinum 50	5-axis machining centre Machining range: 650 x 520 x 475mm	1x

DMG CMX 600 V Linked to BMO Platinum 50	Vertical machining centre Machining range: 600 x 560 x510mm With HSK 63 and 60 tools For small andd medium sized series Products up to 274mm Without intermediate cost operator 7x robust product drawers	1x
Hermle C30	Vertical 5-axis machining centre equipped with an automatic pallet changer, magazine for 50 pallets and 175 tools. Robot loading of pallets, maximum weight of 60kg Machining range: 650 x 600 x 500mm	1x
Fanuc Alpha T21	Vertical machining centre with 21 tools Table area: 600 x 350 x 400mm	1x
Okuma MA-400HA	Horizontal machining centre equipped with automatic pallet changer Tool changer for 60 tools Machining range: 460 x 460 x 560mm	1x
DMG DMU 70 Ecoline	Protomachine 5-axis machining centre Workpieces of Ø 800mm andd 350 kg Machining range: 750 x 600 x 520mm	1x
DMG DMU 50 Ecoline	Protomachine 5-axis machining centre Workpieces of Ø 630mm and 200kg Machining range: 500 x 450 x 400mm	1x
Hyundai-Kia VX500	Vertical machining centre with 30 tools Range: 1060 x 510 x 635mm	1x





Studer S40	CNC Profile cylindrical grinder, external and internal Marposs measuring system Ø 350mm x 1600mm length	1x
Studer S33	CNC Profile cylindrical grinder, external and internal Rotating turret Ø 350mm x 1000mm length	1x
Kellenberger 1000 U	Cylindrical grinder, Ø 350mm	1x
Jung 630 E	CNC Profile surface grinder Table plate 600 x 250mm	1x
Jung JA600 CNC-A	CNC Profile surface grinder Table plate 600 x 300mm	1x
Herminghausen	Centreless grinder up to max. Ø 40mm	1x
Sunnen	Honing machine, semi-automatic From Ø 1,5mm to Ø 96mm Conventional up to Ø 165mm	1x
Pemaamo AR-340	Honing machine From Ø 1,5mm to Ø 70mm	1x
Heninger ZS150	Centre hole grinder From Ø 2mm to Ø 110mm	1x



Mitutoyo	Measuring machine Crysta Apex V9168 Anti-vibration, extra change rack, Probe cleaning Styli Cleaner	1,7 Мµ
Mitutoyo	Measuring machine Crysta Apex 7106 Anti-vibration, extra change rack, Probe cleaning Styli Cleaner	1,7 Мµ
Mitutoyo	Measuring machine Crysta Apex C 544	1,9 Mµ
Mitutoyo	Measuring machine Euro Crysta 7106 Premier	2,5 Μμ
Mitutoyo	Measuring machine Crysta Apex 7106	2,5 Μμ
Mitutoyo	Measuring machine Euro Apex C-A-544 (2x)	2,9 Μμ
Mahr / Mitutoyo	Altimeter, multiple	2 Μμ
Ulm	Length measuring bench	1 Μμ
Mitutoyo	Profile Projector	5 Μμ
Mitutoyo	Roundness gauge RA2200AH	0,07 Μμ
Mahr	Air measurement	1 Μμ
Mahr	Roughness measurement	1 Μμ
Mitutoyo	Hardness tester	3 HRC
T&S	Contouromatic CV120	1,5 Mµ
T&S	Contouromatic CV120 granite	1,5 Mµ



Distributed across our 3 locations:

Ultrasonic system	AMA cleaning plant CS 300V
3D printer	Ultimaker, range 200mm x 200mm x 200mm Material type PLA / ABS
Laser engraving machine	Tastelaser Taaste FB20-V2
Helium leak tester	Adixen ASM 142
Cleanroom	ISO class 7, including Flowbench ISO class 6

Software

MICAT	CAD Measurement program
ESPIRIT	CAD CAM Turning-milling combiations
CAM software	Hypermill up to 5-axis simultaneous
CAD Software	SolidWorks, Solid Modeling, reads IGES, STEP and DXF-files SolidWorks Inspection



Co-engineering | Production | Assembly