

Data sheet No. 20487407 / 07.01.2025

Item	Qty	Description	Price
1000	1	Vertical CNC-machining center MILL 2000 no. 283-41 Year of construction: 2008 Condition: will be completely refurbished	
1040	1	Drilling capacity in steel 60 ø 42 mm (with insert drill) Tapping capacity M 30 Milling capacity in steel 60 600 cm ³ /min. COLUMN MOVING MACHINING CENTRE with fixed table Linear-guideways with long-term-grease lubrication	
1060	1	AC-motor 17, 0 kW at 100 % 47, 2 kW at 5 % for main spindle Spindle speed range: 20 - 12.000 rpm - 180 Nm	
1080	1	Travel: X-axis 2000 mm Y-axis 500 mm Z-axis 550 mm (plus distance from spindle nose to table surface, according to data sheet)	
1100	1	Automatic tool changer, protected against chips No. of tools 40 Tool shaft SK 40 DIN 69871 + 72 Max. tool dia. 75 mm - if all magazine pos. are occupied Max. tool dia. 160 mm - if adjacent places are free Max. tool length 320 mm Max. tool weight 4,0 kg Tool change time approx. 1,5 s (depends on CNC) Chip-to-chip-time approx. 5,0 s (depends on CNC)	
1120	1	Fixed table with chip pan clamping surface 2600 mm x 550 mm with 3 T-slots 2 x 18 H12, 1 x 18 H 8	
1140	1	AC-servo motors for x-, y- and z-axes digital direct drives with indirect absolute path measuring system rapid traverse in all axes 40 m/min.	
1160	1	SIEMENS CNC-control 840D (PCU 50 / NCU 572.5) incl. 10,4" TFT colour LCD screen / full keyboard OP010S control panel logic Windows XP NC-memory 256 KB (max.200 programmes storage capacity) for ISO 66025 programming hard disk with approx. 2 GB for free disposal drilling cycles G81-G89 drilling and milling cycles	

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M- and T- functions
 circular interpolation (360 degrees)
 re-start into program
 Subroutines, parameter programming
 simultaneous programming
 contour programming with cycle support
 support through cycles
 polar coordinates
 tool offsets for geometry, wear
 tool radius correction for intersection computing
 crossing radius
 4 zero offsets G54-G57
 30 zero shifts programmable with G-functions
 3D and helical interpolation
 screen switch off
 mirror function
 scaling function
 insert of chamfer and radius
 Universal interface RS 232C (2 x V24) at control panel
 Ethernet connection RJ45 in control panel
 orientated spindle stop
 drip feed function through V24 interface
 dimension metric or inch
 software limit switch
 NC-diagnosis
 machine-diagnosis
 absolute indirect path measurement systems
 power meter in screen
 rigid tapping
 look ahead function

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| 1180 | 1 | <p>CHIRON Maintenance Management in the screen
 display of the pending maintenance:
 - advance warning = "prepare maintenance"
 - warning = "carry out maintenance"
 - machine stop = "catch up on maintenance"
 Abridged instructions for the pending maintenance with graphic illustration on CD-ROM.
 Password protected confirmation of the performed maintenance through the maintenance staff.</p> |
| 1200 | 1 | <p>Working hours and piece counter
 in the screen</p> |
| 1220 | 1 | <p>Socket 230 V
 at control panel</p> |
| 1240 | 1 | <p>Socket for portable mini-hand wheel
 without emergency stop button,
 at control panel</p> |
| 1260 | 1 | <p>Cabinet cooler as a door mounting unit</p> |

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| 1280 | 1 | <p>Signal lamp on control panel for 3 signals
 Signal "red" = failure
 Signal "white" = machine loaded
 Signal "green" = machine is running</p> |
| 1300 | 1 | <p>Machine enclosure
 bolted on, with loading door, electrically interlocked,
 2.500 mm high above floor, incl. machine lamp</p> |
| 1320 | 1 | <p>Coolant equipment
 with side discharge, discharge height 400 mm,
 tank capacity 200 l
 pump capacity max. 80 l/min. at 1,5 bar</p> |
| 1340 | 1 | <p>Installation elements</p> |
| 1360 | 1 | <p>Production package with high pressure pump PF 50 / FKA 900
 consisting of:</p> <ul style="list-style-type: none"> - Chip conveyor (scratch band)
 instead of coolant equipment with chip container
 discharge height 1.050 mm, discharge to the left,
 tank capacity 150 l, lift pump with 300 l/min. at 1,3 bar, - Coolant equipment PF 50 / KFA 900
 (for cast iron slurry, Al with Si >= 12%)
 tank capacity 900 l,
 pump capacity from 100 l/min at 2,1 bar
 up to 250 l/min at 1,8 bar
 high pressure pump capacity 20 l/min at 30 bar
 high pressure circuit with filtration via paper bond filter,
 filtration 50 µm nominal.
 twin filter in the high pressure circuit for the protection of the machine.
 incl. bed flushing system (with Y480 mm or 500 mm)
 (This filtration method will not eliminate increasing
 cast iron slurry from the coolant equipment.) - Machine preparation
 for through tool coolant system including:
 sealing system in the DIN 69893 HSK A63* collet
 coolant distributor installed at the main spindle drive
 coolant leakage sensor
 implemented mud flap in the high pressure piping
 and flow control switch
 solenoid valve, controlled via machine program <p>* At HSK we recommend for tool holders
 the use of our patented coolant tube with sieve.
 Advantage: Decrease of the clogging in the internal
 coolant channel.</p> |
| 1380 | 1 | <p>2 x Wash gun</p> |
| 1400 | 1 | <p>Automatic central grease lubrication</p> |

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- 1420 1 **NC-rotary-table package, complete installed consisting of:**
- NC-rotary-table, type AWU 160 P
 - 4th NC-axis, complete
 - adapter-plate for centre height 220 mm
 - pneumatic supply without control

Technical description for NC-rotary-table:
 centre height 165 mm, repetition accuracy $\pm 15''$,
 load moment of inertia (without turning supply) 1,9 kgm²
 face plate dia. 160 mm, with centre bore dia. 50 +0.012,
 fixture pin dia. 16 h7, 4 fixture bores M10,
 incl. pneumatic clamping

- 1440 1 **Exhaust openings**
 right and left, diameter 150 mm,
 electrical preparation for exhaust units

- 1460 1 **Probe for automatic measuring in the machine
 Renishaw - probe - package OMP 40**
 for part measuring and
 automatic machine compensation,
- probe with optical contact modul and
 tool taper suitable for machine spindle
 - tracing pin 58 mm with ruby ball dia. 4 mm
 - Interface MI12
 - support arm with infrared receiver OMM-C
 - infrared sensor OMI-2C
 - process oriented measuring
 - software for measuring cycles
 and strategy program

Remark:

For the carrying out of machine compensations with probe
 a suitable reference surface at the machine or at the fixture or
 an optional gauge block (VCS12100800) are necessary.

- 1480 1 **Centre divider**
 with mechanically activated door. Position closed, checked electrically.
 Shuttle machining Standard 2 x 750.
 Shuttle machining swivel head 2 x 765 (swivel head only in 0 ° - position)
 incl. machining area recognition M61/M62
 and start and receipt push buttons, mounted on both sides.
 Quick removable because of pluggable connections and screwed bolts.

- 1500 1 **MCIS DNC**
 Option to send and receive NC-programs in a network.
 The client-software (e. g. UNIX, Novell, Windows NT)
 and the wiring to the network is not included.

Precondition: PCU 50

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| 1520 | 1 | Cutting tools
The cutting tools have to be balanced according to DIN ISO 1940, class G 2,5, in two levels, with max. operating speed |
| 1540 | 1 | Machine color
two-component structured paint - 2 colors
light grey acc. to NCS S 1502-B
grey basalt acc. to RAL 7012 |