

Data sheet No. 20494017 / 25.06.2026

Item	Qty	Description
1000	1	<p>Vertical CNC-machining center MILL 2000 220-23</p> <p>Condition: Completely refurbished Year of construction: 2002</p>
1040	1	<p>According to described below scope of delivery</p>
1055	1	<p>NC swivel head package - 12.000 rpm Motor spindle for swivel head, grease lubrication 12,5 kW at 100 % ED 34,0 kW at 10 % ED, watercooled 20 - 12.000 rpm, 140 Nm acceleration and deceleration 0 - 12.000 rpm 0,9 sec. each tool clamping with disk springs, hydraulic knock out, tool shaft for HSK-A 63 DIN 69893 tool magazine prepared for tool holders according to HSK-A 63 DIN 69893 Drilling capacity Ø 42 mm (with insert drill), Tapping capacity M 30, Milling capacity 600 cm³/min in steel.</p> <p>NC swivel axis ± 100 ° - 30 rpm, lowest increment 0,001° - repetition accuracy ± 10" with direct measuring system - driving torque 280 Nm - with hydraulic clamping system, max. torque through clamping 1400 Nm</p> <p>hydraulic unit for continuous duty pressure: 210 bar incl. valves for supply and pressure stage for clamping of swivel head and automatic knock out of tool</p> <p>flood coolant, pump capacity 20 l/min at 4 bar</p> <p>5-axes-machining for the machining of three-dimensional curved or tilted surfaces with 3 linear and 2 additional axes (TRAORI & CYCLE 800). - 5-axes-transformation with tool orientation and tool center point management. The machining task is programmed completely in Cartesian coordinates with Cartesian position and orientation. The movements of all 5 axes resultant from that are computed internally with the 5-axes-transformation. - 5-axes-tool-offset. The length of the tool is automatically computed and compensated in the movements of the axes. - Oriented tool withdrawal. With the interruption of Machining (e. g. tool breakage), the tool can be withdrawn orientated and defined.</p> <p>Glass scales, overpressured X, Y, Z = 2000 x 480 (or 610/820 with option Y 630/840) x 715/630 mm</p>

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Travel
 Y-axis 480 mm (or 610/820 mm with option Y 630/840 mm)
 Z-axis horizontal spindle 715 mm / vertical spindle 630 mm

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| 1060 | 1 | <p>40 toolplaces instead of 24</p> |
| 1070 | 1 | <p>Travel
 X-axis 2000 mm
 Y-axis 480 mm
 Z-axis 550 mm
 (plus distance from spindle nose to table surface, according to data sheet)</p> |
| 1085 | 1 | <p>Fixed table with chip pan
 clamping surface 2600 mm x 550 mm²
 with 2 T-slots 1 x 18 H12, 1 x 18 H8</p> |
| 1090 | 1 | <p>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.</p> |
| 1105 | 1 | <p>SIEMENS CNC-control 840D
 (PCU 50 / NCU 572.5)
 incl. 10,4" TFT colour LCD screen / full keyboard OP010S
 NC-memory 256 KB
 (max.200 programmes storage capacity)
 for ISO 66025 programming
 drilling cycles G81-G89
 drilling and milling cycles
 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</p> |

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		machine-diagnosis absolute indirect path measurement systems power meter in screen
1150	1	Working hours and piece counter in the screen
1160	1	Socket 230 V at control panel
1170	1	Socket for portable mini-hand wheel without emergency stop button, at control panel
1180	1	Cabinet cooler as a door mounting unit
1190	1	Signal lamp on control panel for 3 signals Signal "red" = failure Signal "white" = machine loaded Signal "green" = machine is running
1200	1	Machine enclosure bolted on, with loading door, electrically interlocked, 2.500 mm high above floor, incl. machine lamp
1250	1	Installation elements For installation in an oil pan the installation directly on the sheet metal is not allowed. For out of it resulting problems there is no warranty. The machine documents for approval contain a proposal for the appropriate execution of the oil pan.
1260	2	Wash gun
1310	1	Production package with high pressure pump TPF 350 / FKA 900 consisting of: - 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 TPF 350 / KFA 900 (for cast iron slurry, Al with Si \geq 12%) tank capacity 900 l, pump capacity from 100 l/min at 2,4 bar up to 250 l/min at 2,3 bar external cooling of tool 20 l/min at 4.0 bar high pressure pump capacity 30 l/min at 30 bar high pressure circuit with filtration via paper bond filter TPF 350, filtration 50 μ m nominal. twin filter in the high pressure circuit for the protection of the machine.

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- 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

* 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.

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| 1350 | 1 | <p>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.</p> |
| 1400 | 1 | <p>Information Machine safety
 The machine is designed and built in accordance with the European
 machine guideline.</p> <p>Other safety features due to special company rules and specifications can
 be considered. The actual cost will be invoiced.</p> |
| 1600 | 1 | <p>Cutting tools
 The cutting tools have to be balanced
 according to DIN 69 888, class G 6, 3,
 in two levels, with max. operating speed</p> |
| 1710 | 1 | <p>Machine color
 two-component structured paint - 2 colors
 light grey acc. to NCS S 1502-B
 grey basalt acc. to RAL 7012</p> |
| 1900 | 1 | <p>Documentation
 1 x safety regulations in a folder in English
 1 x complete documentation on a USB as PDF
 Language of the operating manuals and safety in English</p> |