

Data sheet No. 20427651 / 15.10.2024

CHIRON Group SE

Item	Qty	Description
1000	1	Vertical CNC-machining center MILL 800 220-62
1040	1	Condition: partly refurbished Year of construction: 2006 According to described below scope of delivery
1060	1	Vertical CNC-machining center model MILL 800 five axis 24 Tools Drilling capacity in steel 60 \varnothing 42 mm (with insert drill) Tapping capacity M 30 Milling capacity in steel 60 600 cm ³ /min.
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COLUMN MOVING MACHINING CENTRE with swing setup Linear-guideways with long-term-grease lubrication		
1080	1	AC-motor 7,5 kW at 100 % 22,5 kW at 10 % for main spindle Spindle speed range: 20 - 9.000 rpm - 140 Nm
1100	1	Travel: X-axis 800 mm Y-axis 500 mm Z-axis 550 mm (plus distance from spindle nose to table surface, according to data sheet)
1120	1	Automatic tool changer, protected against chips No. of tools 24 Tool shaft SK 40 DIN 69871 + 72 Max. tool dia. 75 mm - if all magazine pos. are occupied Max. tool dia. 125 mm - if adjacent places are free Max. tool length 280 mm Max. tool weight 4,0 kg Tool change time appr. 1,5 s (depends on CNC) Chip-to-chip-time appr. 5,0 s (depends on CNC)
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.

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- 1160 1 **2 axis rotary table type ZAS 280**
 consisting of:
 Interface for 4th and 5th axis
 smallest increment 0,0001°
- Tilting axis
 Tilting angle: $\pm 110^\circ$
 Repetition accuracy $\pm 6''$ with
 absolute, direct path measuring system RCN 220
 via worm drive system
 incl. hydraulic clamping system
 max. transmittable torque 1.100 Nm
 max. torque if the table is clamped 3.800 Nm
 max spindle rev. 30 rpm
- rotary table faceplate dia 280 mm
 with thread and locating hole grid M 16 x \varnothing 15H7 x 50 mm
 incl. hydraulic clamping system
 Repetition accuracy $\pm 6''$ with
 absolute, direct path measuring system RCN 220
 max. transport weight (workpiece weight): 320 kg
 via worm drive system
 max. transmittable torque 700 Nm
 max. torque if the table is clamped 2.800 Nm
 Max spindle rev. 45 rpm (depends on CNC)
- clamping surfaces to the right and left
 of the rotary table faceplate
 with thread and locating hole grid M 16 x \varnothing 15H7 x 50 mm
- Counter bearing incl. hydraulic clamping system
 without drive
 max. torque via clamping system 3.800 Nm
- Hydraulic unit**
 for permanent operations
 pressure: 210 bar
 incl. valves for supply and clamping circuit
 for clamping of faceplate and counter bearing
 complete with hydraulic connection
- Central Pneumatic or Hydraulic Turning Supply**
 4-fold, integrated in A- and B-axis,
 with 4 O-ring connections in the center of the face plate
 Remark:
 power-actuated clamping fixtures on the faceplate
 require additional connections and clamping circuits.
- 1180 1 **Turnable control panel**
 with additional sliding door at the
 machine enclosure, electrically interlocked,
 for good view into the working area during setup

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- 1200 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. 20 GB for free disposal
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 (1 x V24) at control panel
USB-interface 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
- 1210 1 **CHIRON Powersave**
software package for selective shutdown of installed
consumers like axis motors, drives, spindles,
seal air, airsensing and ancillary equipment in production
breaks or during programmable points in time using a shift calendar.
- Definable points in time at which the machine starts demand-oriented
automatically with a variable warmup program
to recovery the production readiness.

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| 1220 | 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> |
| 1260 | 1 | <p>5-axes-machining
 for machining spatially curved or swivelled surfaces with 3 linear axes and 2 additional axes (TRAORI & CYCLE 800),
 - 5-axes-transformation with 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.</p> |
| 1280 | 1 | <p>Working hours and piece counter
 in the screen</p> |
| 1300 | 1 | <p>Socket 230 V
 at control panel</p> |
| 1310 | 1 | <p>Socket for portable mini-hand wheel
 without emergency stop button,
 at control panel</p> |
| 1320 | 1 | <p>Schaltschrankkühler als Türaufbaugerät</p> |
| 1340 | 1 | <p>Signal lamp on control panel for 3 signals
 Signal "red" = failure
 Signal "white" = machine loaded
 Signal "green" = machine is running</p> |
| 1360 | 1 | <p>Machine enclosure
 bolted on, with loading door, electrically interlocked,
 2.500 mm high above floor, incl. machine lamp</p> |
| 1400 | 1 | <p>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.</p> |

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- 1420 1 **High speed package**
 consisting of:
- rapid traverse **60 m/min** in x-, y- and z-axes.
 - Spindle speed range: **20 - 12.000 rpm**
 - Chip-to-chip-time appr. **4,0 s**
 - Thermdrive with indirect path measuring system
- Remark:
 With normal conditions the machine does not have to be anchored to the floor.
 (For slippery floors we recommend anchoring.)
- 1440 1 **Stationary 3D Probe System**
 type TS 27 R, maker RENISHAW,
 with adapter plate and
 air blow for the measuring stylus,
 for tool breakage control (in one working area),
 for automatic tool length measurement (at FZ),
 for automatic temperature compensation,
 including process-orientated measuring,
 software for measuring cycles,
 strategy program and tool holder with ball dia. 12 mm.
- 1460 1 **Produktionspaket ohne HD-Pumpe**
 bestehend aus:
- **Späneförderer (Kratzband)**
 anstelle Kühlmittelanlage mit Spänebehälter
 Auswurfhöhe 1050 mm, Auswurf nach links,
 Behälterinhalt 150 l, Hebepumpe mit max. 300 l/min bei 1,3 bar,
 - **Kühlmittelanlage FKA 350**
 Behälterinhalt 350 l,
 mit ND-Pumpe 100 l/min bei 2,1 bar,
 bis 200 l/min bei 1,9 bar
 inkl. Wannenspülung (bei Y480 mm bzw. 500 mm)
 Auswurf links
 Anbringung der Kühlmittelanlage über dem Späneförderer
- 1480 1 **Wash gun**
- 1500 1 **Automatic loading door of total enclosure**
 opening and closing, actuating to closing via
 two-hand push buttons
- 1520 1 **Direkte Türabfrage**
 für automatische Beladetür,
 in Position 'geöffnet'
 (bei automatischer Beladung)

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- 1540 1 **Automatisations-Paket mit Profibus - Siemens an S-Maschine bei Beladung durch Seitenwand**
 (mechanische Machbarkeit muss für die jeweilige Baureihe geprüft werden)
 Elektrische Laderschnittstelle für automatisches Ladesystem mit DP/DP-Koppler (Slave) im Schaltschrank, gemäß Dokumentation CHIRON-Laderschnittstelle, Schnittstelle geprüft nach CW-Beschreibung V03.01, bestehend aus:
- Schaltbild, Signalbeschreibung und Funktionsdiagramm, inkl. Schlüsselschalter und Kontrolleuchte im Kommandopult "mit Lader".
 - Stückzähler
 - Betriebsstundenzähler zählt, wenn Hauptspindel läuft
 - ohne Inbetriebnahme

Vom Standard abweichende Ausführung der Schnittstelle, sowie Inbetriebnahme erfolgen gegen Berechnung nach Aufwand. Wartezeiten bei der Inbetriebnahme werden abgerechnet.

Empfohlene Ausbaustufen der Maschine:

- Modifikation der Seitenwand
- Signallampe, wenn nicht bereits in Grundmaschine
- Werkzeugbruchkontrolle
- Vorrichtungsspülung
- Werkstückauflagenkontrolle / Airsensing
- Automatische Zentralschmierung

- 1560 1 **Exhaust fan with air cleaner**
 exhaust capacity 800 m³/h

Smoke and gases that arise during the processing are not filtered by this unit. In this case we recommend the connection to a central exhaust fan.

- 1580 1 **Probe for automatic measuring in the machine Renishaw - probe - package OMP 40-2LS**
 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
 - 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.

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| 1620 | 1 | Pneumatic- and Hydraulic Connections |
| 1640 | 1 | Hydraulic connection for 210 bar
with 2 hoses and hydraulic installation
from the central turning supply of ZAS / CASD
up to outside of machine bed,
electrical control for clamping
ON - OFF via push button at control panel |
| 1660 | 1 | Extension hydraulic unit
Additional pressure regulator and pressure switch
in the release line (B-line) |
| 1680 | 1 | Pneumatic supply 0,6 bar |
| 1700 | 1 | Options of SIEMENS 840D |
| 1720 | 1 | CHIRON Tool lifetime control with:
- tool place organization
- sister tool organization
- - Work area organisation via 4-digit programme number on the screen
(only for machines with several work fields)
- tool data check for geometric values

(not possible in conjunction with Shopmill)
(not applicable for turning tools) |
| 1740 | 1 | Machine colour
two-components-structure varnish - 3 colours
window grey acc. to RAL 7040
blue acc. to RAL 5023
basalt grey acc. to RAL 7012 |
| 1760 | 1 | 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 |
| 1780 | 1 | Documentation acc. to CE of the first delivery into market
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 |