

**Data sheet No. 20385222 / 14.09.2022**

Item	Qty	Description	Price
1000	1	<b>CNC-machining center FZ 08 S Magnum</b> Year of construction: 2007	
1040	1	<b>Condition:</b> Partly refurbished <b>Year of construction:</b> 2007  <b>Scope of delivery:</b>	
1060	1	Drilling capacity in steel 60      Ø 12 mm Tapping capacity                    M 8 Milling capacity in steel 60      30 cm <sup>3</sup> /min.	
<hr/> <p><b>COLUMN MOVING MACHINING CENTRE</b> with fixed table Guideways with long-term grease lubrication</p>			
1080	1	<b>Digital main drive with spindle</b> 7,0 kW at 100 % 9,0 kW at 25 % - 11 Nm watercooled Spindle speed range up to 30.000 rpm Acceleration and deceleration 0 - 30.000 rpm ca. 1,9 sec. each	
1100	1	<b>Travel:</b> X-axis 450 mm Y-axis 270 mm Z-axis 310 mm	
1120	1	Automatic tool changer by robust, full encased Pick up Chain magazine, with mechanic drive protection and cone cleaning above blow out air No. of tools 40 Tool shaft HSK-A 40 DIN 69893 Max. tool dia. max. 47 mm Max. tool dia. max. 100 mm if adjacent places are free Tool length max. 160 mm Max. tool weight max. 1,2 kg Tool change time appr. 0,8 s (depends on control) Chip-to-chip-time appr. 1,9 s (depends on control)	
1140	1	<b>Fixed table with chip pan</b> clamping surface                    770 mm x 290 mm with thread and locating hole grids      M16 x Ø 15 H7 x 50 mm table loading capacity      max. 500 kg	

**Data sheet No. 20385222 / 14.09.2022**

- 1160 1 **Digital feed drives for X-, Y- and Z-axis**  
 with digital direct drives and indirect absolut path measuring system  
 rapid traverse in X-, Y-axes and Z-axis 75 m/min,  
 acceleration: 1,0 g in X-axis  
 1,5 g in Y-axis  
 2,0 g in Z-axis
- Remark:  
 With normal conditions the machine does not have to be anchored to the floor. (For slippery floors we recommend anchoring.)
- 1180 1 **SIEMENS CNC-control 840D**  
 (PCU 50 / NCU 573.5, till 12 measuring cycles for free form milling, 1 canal)  
 incl. 10,4" TFT colour LCD screen / full keyboard OP010S  
 control panel logic Windows NT/XP  
 NC-memory 3 MB (expandable till 6 MB)  
 (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  
 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  
 Working hours and piece counter in the screen  
 rigid tapping  
 look ahead function

**Data sheet No. 20385222 / 14.09.2022**

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|------|---|--|
| 1190 | 1 | <p><b>Selectable operator Level (3 steps)</b><br/>with different keys</p>  |
| 1195 | 1 | <p><b>CHIRON Powersave</b><br/>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.</p> <p>Definable points in time at which the machine starts demand-oriented automatically with a variable warmup program to recovery the production readiness.</p> |
| 1200 | 1 | <p><b>CHIRON Maintenance Management in the screen</b><br/>display of the pending maintenance:<br/>- advance warning = "prepare maintenance"<br/>- warning = "carry out maintenance"<br/>- machine stop = "catch up on maintenance"<br/>Abridged instructions for the pending maintenance with graphic illustration on CD-ROM.<br/>Password protected confirmation of the performed maintenance through the maintenance staff.</p>    |
| 1280 | 1 | <p><b>Working hours and piece counter</b><br/>in the screen</p>  |
| 1300 | 1 | <p><b>Socket 230 V</b><br/>at control panel</p>  |
| 1320 | 1 | <p><b>Socket for portable mini-hand wheel</b><br/>without emergency stop button,<br/>at control panel</p>  |
| 1340 | 1 | <p><b>Machine enclosure with full enclosed workspace</b><br/>with loading doors, electrically interlocked,<br/>including replaceable safety windows,<br/>workspace enclosure with stainless steel covers,<br/>2070 mm high above floor, including machine lamp</p>   |
| 1360 | 1 | <p><b>Signal lamp on machine enclosure for 3 signals</b><br/>Signal "red" = failure<br/>Signal "white" = load machine<br/>Signal "green" = machine is running</p>  |
| 1380 | 1 | <p><b>Chip conveyor (scratch band)</b><br/>discharge height 490 mm with coolant equipment<br/>tank capacity 100 l,<br/>pump capacity 110 l/min at 1,3 bar<br/>coolant cleaning through slot filter box</p>   |
| 1400 | 1 | <p><b>Cabinet cooler</b><br/>as a door mounting unit</p>   |

**Data sheet No. 20385222 / 14.09.2022**

- 1420 1 **Oil-free air service unit**  
with automatic condensate separator,  
pressure control of the air supply  
and micro filter 0,01 µm for air purge
  
- 1440 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.
  
- 1460 1 **Wash gun**
  
- 1560 1 **Machine preparation**  
for through tool coolant system including
  - Sealing system in the HSK collet
  - coolant distributor installed at the main spindle drive
  - Implemented mud flap in the high pressure piping  
and flow control switch
  - Solenoid valve, controlled via machine program  
(retrofitting not possible)
  
- 1580 1 **Chip conveyor (scratch band)**  
instead of standard coolant equipment  
discharge height 490 mm  
tank capacity 100 l,  
pump capacity 110 l/min at 1,3 bar  
coolant cleaning through slot filter box
  
- 1600 1 **Fixture washing**  
incl. coolant supply  
(for S-Machines)
  
- 1620 1 **Automatic loading door of total enclosure**  
opening and closing, actuating via push button  
at control panel
  
- 1640 1 **Walk switch**
  
- 1660 1 **Automatic central grease lubrication**
  
- 1680 1 **2-axes NC rotary table with direct drive**  
completely installed, consisting of:
  - NC 2-axes rotary table, type ZASD 160  
with digital direct drives through water-cooled torque-motor
  - 4th and 5th NC-axis, complete  
4th axis lowest increment 0,001°  
5th axis lowest increment 0,001°
  - base plate to mount on machine table
  - pneumatic supply, without control

4th NC-axis +/- 180°, indexing accuracy ± 12"  
with direct absolut path measuring system,  
spindle speed 250 rpm,

**Data sheet No. 20385222 / 14.09.2022**

5th NC-axis 360°, indexing accuracy  $\pm 12''$ ,  
 with direct absolut path measuring system,  
 spindle speed 250 rpm,  
 center height 220 mm, face plate dia 100 mm,  
 with center bore dia 30+0,012,  
 location pin dia 10h7, 4 bolt holes M8  
 with air purge  
 with water cooling unit

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|------|---|---|
| 1700 | 1 | <p><b>Vorbereitung für Nullpunktspannsystem</b><br/>         System 3R</p>  |
| 1780 | 1 | <p><b>Glass scales</b><br/>         overpressured in all axes<br/>         X, Y, Z = 450 x 270 x 310 mm<br/>         (Thermodrive in Basic machine is cancelled)</p>  |
| 1800 | 1 | <p><b>Mechanical loading interface</b><br/>         Opening in the right sidewall<br/>         With pneumatic lifting door,<br/>         Locked electrical</p>  |
| 1820 | 1 | <p><b>Direct Switch</b><br/>         for automatic loading doors,<br/>         in position 'door open'<br/>         (for automatic loading)</p>   |
| 1840 | 1 | <p><b>Electric interface for loader with "Profibus" - Siemens<br/>         on S- machines for loading through side wall of machine</b><br/>         (mechanical feasibility must be checked for respective machine series)<br/>         for automatic loading system,<br/>         with DP/DP-coupler (slave) in the electrical cabinet,<br/>         according to documentation of CHIRON loader interface,<br/>         consisting of: circuit diagram, signal description and<br/>         functional diagram,<br/>         interface tested according to Chiron-description,<br/>         incl. key-operated switch and indicator lamp in the control panel "with<br/>         loader",</p> |

Deviation from the standard interface and set up will be charged according to effort.  
 Waiting periods during set up will also be charged.

- Recommended options:
- Modification of side wall
  - tool life control
  - tool breakage control
  - fixture washing
  - chip conveyor, if not included in basic machine
  - air sensing
  - automatic central lubrication

Note:  
 The machine has to be anchored with robot loading or linkage. Anchoring the machine to the ground can be made

**Data sheet No. 20385222 / 14.09.2022**

by Chiron if wanted. This outlay will be charged according to effort.

- 1860 1 **Parts location air sensing**  
with 1 switch, completely installed,  
including energy-efficient shutdown during machining.  
Remark: Maximum 3 nozzles per switch.  
Precondition:  
Processed faces or aluminium die casting (not on partition  
or ejector flags), no grey cast iron.  
At rotary table and standard fixture for rotary table  
are additional turning supplies necessary.
  
- 1880 1 **Suction point**  
for customer specific installation  
Ø 200 mm on top of the machine enclosure  
and electrical preparation in cabinet
  
- 1960 1 **Pneumatic and Hydraulic Connections**
  
- 1980 1 **Machine colour**  
two-components-structure varnish - 3 colours  
window grey acc. to RAL 7040  
grey white acc. to RAL 9002  
basalt grey acc. to RAL 7012
  
- 2000 1 **Pneumatic connection**  
for pneumatic clamping device  
electrically controlled pneumatic connection,  
for double acting; pressure control;  
pressure control switch with automatic pressure regulation.  
(in case of pressure change automatic pressure sensing)  
per connection
  
- 2020 1 **Pneumatic connection controlled**  
Single acting for pneumatic clamping device
  
- 2040 1 **Clamping force monitoring**  
2-6 bar adjustable
  
- 2060 1 **Options of SIEMENS 840D**
  
- 2120 1 **Machining of tilted working planes (CYCLE 800)**  
with 3 linear and 2 additional axes.  
- 5-axis-transformation  
The machining task is programmed completely  
in Cartesian coordinates with Cartesian  
position. The movements of  
all 5 axes resultant from that are computed  
internally.  
(for Siemens 840 D)

## Data sheet No. 20385222 / 14.09.2022

- 2140 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
- 2160 1 **CHIRON Tool lifetime control with:**  
- tool place organization  
- sister tool organization  
- tool data check for geometric values  
- work field organisation via 4-digit program no. in the screen
- 2240 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
- 2250 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