

## Datasheet No. 20492645 / 24.07.2026

| Item | Qty | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|------|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1000 | 1   | <b>Vertical CNC machining center Mill FX 1250 no. 439-43</b><br><br><b>Condition: completely refurbished</b><br><b>Year of manufacture: 2014</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 1040 | 1   | <b>Traveling column machine</b><br>as described below                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 1060 | 1   | <b>Machine base</b><br><br><b>Splash guard cover</b> with fully enclosed workspace<br>workspace partition with stainless steel covers<br>with loading door, electrically interlocked, suitable for crane loading<br>Height 2,500 mm above floor, incl. machine lamp<br><b>pivoting control panel</b> with additional side window,<br>electrically interlocked for high visibility into the working area during<br>setup<br><br><b>Fixed table</b> with chip pan<br>divided version for free chip fall<br>prepared for installation of a 2-axis rotary table<br><br><b>minimum distance</b> spindle nose - face plate 210 mm<br><br><b>Travel:</b><br>X-axis 1250 mm<br>Y-axis 840 mm<br>Z-axis 550 mm |
| 1080 | 1   | <b>Spindle head single-spindle</b><br>for the integration of 1 spindle motor with main spindle                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 1100 | 1   | <b>Main spindle drive</b><br>7.5 kW at 100 % duty cycle<br>22.5 kW at 10 % duty cycle<br>spindle speed range up to 12,000 min <sup>-1</sup><br>torque max. 140 Nm<br><br>Drilling capacity dia. 42 mm (with insert drill)<br>Tapping capacity M30<br>Milling capacity 600 cm <sup>3</sup> /min<br>made from steel E355                                                                                                                                                                                                                                                                                                                                                                                |
| 1120 | 1   | <b>Automatic tool changer</b><br>No. of tools 24<br>Tool shaft HSK-A 63 DIN 69893<br>Max. tool dia. 75 mm - if all magazine pos. are occupied<br>Max. tool dia. 160 mm - if adjacent places are free<br>Max. tool length <b>370 mm</b><br>Max. tool weight 8 kg (max. magazine loading 100 kg)<br>Tool change time approx. 1.5 s (depends on CNC)                                                                                                                                                                                                                                                                                                                                                     |

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| 1140 | 1 | <b>Feed drive for X-, Y- and Z-axes</b><br>digital direct drive<br>with indirect absolute measurement system<br>(no reference point return)<br>rapid traverse 60 m/min<br>Axis acceleration 0.5 s                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 1160 | 1 | <b>Direct measurement system X-axis</b><br>overpressurized                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 1180 | 1 | <b>Direct measurement system Y-axis</b><br>overpressurized                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 1200 | 1 | <b>Direct measurement system Z-axis</b><br>overpressurized                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 1220 | 1 | <b>SIEMENS CNC-control 840D solution line</b><br>(TCU / NCU 720.3), 1 channel<br>incl. <b>10.4" TFT color monitor</b><br>standard keyboard / control panel OP010S<br>operator interface Operate<br>NC-memory 3 MB (max. 1 MB freely available)<br>(max. 200 programs storage capacity)<br>for executing part programs according to DIN 66025<br>CF-card with storage capacity 8 GB (max. 3 GB freely available)<br>power display, operating hour and piece counter on the screen<br>dark switching of screen<br>look ahead with dynamic pre-control<br>Software limit switch<br>access authorization via key-operated switch for<br>tool compensations, NC-program changes and machine parameters<br><br>oriented spindle stop<br>re-start into program<br>subroutine technology in high-level language and parameter<br>simultaneous programming<br><br>cycle support<br>drilling cycles G81-G89<br>drilling and milling patterns<br>measuring in JOG<br><br>M and T functions<br>tool offsets for geometry, wear<br>4 programmable zero offsets G54-G57<br>30 zero shifts programmable via G-functions<br>tool radius correction with intersection computing<br>insert chamfers and radii<br>crossing radii<br>contour programming<br>scaling function<br>mirror function<br>polar coordinates<br>circular interpolation (360 degrees)<br>3D and helical interpolation |

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USB-interface at control panel,

sending and receiving CNC-programs in networked operating by the connection with logical drives, for example a network, the wiring to the network is not included,

NC-diagnosis with help function  
machine-diagnosis

- |      |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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| 1240 | 1 | <p><b>CHIRON RemoteLine</b><br/>for remote diagnosis and teleservice for optimization of the maintenance process and shortening of troubleshooting through faster diagnosis:<br/>Detailed information about the machine status is available to support both, internal and also optionally external experts, independent from time and location.<br/>This way a faster and more qualified support is possible.<br/>Possibility of remote control of the NC-control for the analysis of operation sequences and support with programming problems.<br/>Access to PLC for diagnosis, troubleshooting and programming.<br/>Notification service by text / email, e.g. at end of job or in the case of breakdown.<br/>Simple backup through use of the existing infrastructure in the internet.<br/>Safe access through defined user rights, access control and encryption of data.<br/>Access through Ethernet connection RJ45.</p> <p>Pre-requisite:<br/>The connection of the machine to the internet through in-house network must be provided by customer.</p> |
| 1260 | 1 | <p><b>CHIRON maintenance management on 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"</p> <p>Brief instructions for the pending maintenance with graphic illustration on USB data-carrier.<br/>Password protected confirmation of the maintenance work carried out by the maintenance staff.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 1280 | 1 | <p><b>5-axes-milling package</b><br/>for the machining of three-dimensional curved or tilted surfaces with 3 linear and 2 additional axes (TRAORI &amp; CYCLE 800), incl. compressor CompCAD.<br/>5-axes-transformation with tool tracking.<br/>The machining task is programmed completely in Cartesian coordinates with Cartesian position and orientation. The resulting movements of all 5 axes are calculated internally with the 5-axes-transformation.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

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5-axes-tool-length compensation  
The length of the tool is automatically computed  
and compensated in the movements of the axes.

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| 1300 | 1 | <p><b>2 axis rotary table</b><br/>consisting of:</p> <p>NC-axis<br/>plug-in ready<br/>pneumatic supply unregulated for sealing air<br/>hydraulic supply controlled for clamping</p> <p>Technical description:<br/>bridge size 1,390 mm<br/>NC-swivel axis as A-axis<br/>swivel angle: <math>\pm 120^\circ</math><br/>max speed 25 min<sup>-1</sup><br/>repetition accuracy <math>\pm 6''</math> with absolute, direct measurement system<br/>max. transmittable torque 3,000 Nm<br/>max. tangential forces at clamped face plate 6,000 Nm</p> <p>NC-rotary table as C-axis<br/>faceplate dia. 630 mm with centering<br/>max speed 37.5 min<sup>-1</sup><br/>repetition accuracy <math>\pm 6''</math> with absolute, direct measurement system<br/>max. transmittable torque 880 Nm<br/>max. tangential forces at clamped face plate 3,800 Nm<br/>max. transport load 1,000 kg</p> <p>Counter bearing incl. hydraulic clamping system with drive</p> <p>rotary feedthrough 6-times (5 x for hydraulic/pneumatic supply, 1 x for pneumatic supply)</p> <p>Remarks:<br/>power-actuated clamping fixtures on the faceplate<br/>require additional connections and clamping circuits</p> |
| 1320 | 1 | <p><b>Hydraulic unit</b><br/>for continuous operation<br/>pressure: 200 bar</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 1340 | 1 | <p><b>Operating hours and piece counter</b><br/>on the screen</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 1360 | 1 | <p><b>Socket at control panel</b><br/>(for description see "main circuit")</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 1380 | 1 | <p><b>Socket for portable mini-hand wheel</b><br/>without EMERGENCY-STOP button, at control panel</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 1400 | 1 | <p><b>Electric cabinet cooler as door mounting unit</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

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| 1420 | 1 | <b>Signal lamp for 3 signals</b><br>Signal "red" = failure<br>Signal "white" = load machine<br>Signal "green" = machine is running                                                                                                                                                                                                                                                                                                                                                                                                           |
| 1460 | 1 | <b>- Additional equipment for the machine -</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 1480 | 1 | <b>Coolant Package</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 1500 | 1 | <b>Chip conveyor (scraper belt)</b><br>tank capacity 350 l<br>lift pump capacity max. 300 l/min at 1.3 bar<br>Ejection height: 1050 mm                                                                                                                                                                                                                                                                                                                                                                                                       |
| 1520 | 1 | <b>Coolant tank TPF 350 S / 900</b><br>(also for sludge generating materials, i.e. grey cast iron, GGG, Al with Si $\geq$ 12%)<br>tank capacity 900 l<br><br>low pressure pump capacity from 100 l/min at 2.2 bar<br>up to 250 l/min at 2.2 bar<br>high pressure pump capacity 22 l/min at <b>30 bar</b><br><br>Full stream purification via drum paper bond filter TPF 350 S,<br>with coolant purification 50 $\mu$ m nominal<br>twin filter in the high-pressure circuit for the<br>protection of the machine                              |
| 1540 | 1 | <b>Machine preparation</b><br>for internally rinsed tools through spindle,<br>according to DIN 69871 Form A40 or DIN 69893 HSK A63*<br>with rotary feedthrough at the hollow shaft,<br>humidity sensor to monitor leakage<br>dirt trap installed into the high-pressure piping<br>and flow control switch<br>solenoid valve, programmable via NC-program<br><br>* At HSK we recommend the use of the patented coolant tube with sieve for<br>the tool holders.<br>Advantage: Decrease the risk of clogging in the internal<br>coolant bores. |
| 1560 | 1 | <b>Fixture washing</b> incl. coolant supply                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 1580 | 1 | <b>- Further additional equipment coolant -</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 1600 | 1 | <b>Wash gun</b><br>placed outside of the machine's splash guard cover,<br>incl. solenoid valve for coolant supply                                                                                                                                                                                                                                                                                                                                                                                                                            |

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- 1630 1 **Minimal lubrication system**  
Chiron Micro-Mist programmable in 15 stages,  
designed for 0 - 10 bar, with 1 self-sufficient mixture feed:  
through the spindle(s),  
but without machine preparation.  
The feed, oil pressure, aerosol pressure,  
additional compressed air, and bypass are programmed for each tool.  
Oil flow monitoring.  
5 l volume supply with filling and storage tank,  
level monitoring and reserve notification.
- 1650 1 **Erweiterung für Minimalmengen-Schmierung**  
durch die Spindel  
inkl. Erweiterung der Drehdurchführung an der Motorhohlwelle,  
inkl. Magnetventil zur Umschaltung von Kühlmittel auf Minimalmenge,  
programmierbar über NC-Programm.
- 1660 1 - **Additional equipment suction / fire extinguishing -**
- 1680 1 **2 Exhaust systems as air cleaner**  
air cleaner mounted to the machine  
exhaust capacity each 800 m³/h  
  
Fumes and gases that arise during the  
processing are not filtered by these units.  
In this case we recommend the connection  
to a central exhaust system.
- 1700 1 - **Additional equipment rotary tables / basic fixtures –**
- 1730 1 **Special faceplate for the ZAS400**  
Fixtures designed for a CASD 280  
must be able to be mounted.  
(same drilling pattern and media transfer)
- 1740 1 - **Additional equipment pneumatics / hydraulics -**
- 1760 3 **Hydraulic connection for 200 bar**  
with 1 connecting coupling  
and hydraulic installation up to outside of machine bed,  
incl. valve to control 1 single acting clamping circuit  
with pressure switch for electrical clamping control and  
electrical control for clamping OPEN-CLOSED
- 1780 1 **Hydraulic connection for 200 bar**  
with 2 connecting couplings A+B and  
hydraulic installation up to outside of machine bed,  
incl. valve to control 1 double acting clamping circuit  
with pressure switch for electrical clamping control and  
electrical control for clamping OPEN-CLOSED
- 1800 1 **Parts location air sensing**  
with energy-efficient pressure control by using 1 pressure switch, incl.  
pneumatic and electric installation  
Remarks: Maximum 3 nozzles per switch.

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Prerequisite:

Processed faces or aluminum die casting (not on partition or ejector flags), no grey cast iron.

Additional rotary feedthroughs are necessary for rotary table and standard fixtures.

1820 1 - **Additional equipment measuring / tool breakage control -**

1840 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 module 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

Remarks:

In order to carry out machine compensations with probe a suitable reference surface at the machine or at the fixture or an optional gauge block are necessary.

1860 1 - **Additional equipment machine operation –**

1880 1 **Automatic central grease lubrication**

including automatic cleaning cycle in X and Y axis,

the cleaning run must be taken into account,

when designing the clamping device

1900 1 **Automatic loading door of splash guard cover**

opening and closing, two-handed startup to actuate "closing"

1920 1 - **Additional equipment electrical cabinet -**

1940 1 **Socket inside electrical cabinet**

1960 1 **Indoor lighting of the electrical cabinet with electrical socket**

connected before the main switch

(only for power supply with loadable neutral conductor)

1980 1 - **Additional equipment NC-control -**

2000 1 **Selectable operator levels (3 steps)**

with 3 different keys

2020 1 **Variable clamping logic CHIRON**

For the definition of different locking and unlocking sequences,

for max. 10 functions with max. 8 steps.

In consideration of time delay and monitoring of clamping circuits e.g. through pressure switches or airsensing.

Storing and reloading the configuration provides for fast changeover.

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| 2040 | 1 | <b>CHIRON Powersave</b><br>for energy saving by reducing the air consumption and electric power consumption.<br>Software package for selective shutdown of installed consumers such as axis motors, drive, spindles, sealing air, airsensing and ancillary equipment during production breaks or during programmable points in time using a shift calendar.<br><br>Definable points in time at which the machine starts automatically demand-oriented with a variable warmup program to restore the production readiness                                                                                                                                                                                                                                                                                                                                                                         |
| 2060 | 1 | <b>SIEMENS Tool lifetime monitoring with:</b><br>tool place organization<br>sister tool organization                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 2080 | 1 | <b>Feed per revolution for rigid tapping</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 2100 | 1 | <b>- Additional equipment automation -</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 2120 | 1 | <b>Electric interface for loader with Profibus</b><br>for loading through automatic doors<br>for automatic loading system,<br>with DP/DP-coupler (slave) in the electrical cabinet, according to documentation of CHIRON loader interface, consisting of: circuit diagram, signal description and functional diagram,<br>interface tested according to Chiron-description, incl. key-operated switch<br>and indicator lamp in the control panel "with loader", incl. direct door switch in position "door open"<br><br>Deviation from the standard interface and set up will be charged according to time and material used.<br>Waiting periods during set up will also be charged.<br><br>Note: The machine has to be anchored for robot loading or linkage. Anchoring the machine to the floor can be carried out by Chiron and will be invoiced according to the extent of the work involved. |
| 2240 | 1 | <b>- Execution of documentation -</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 2250 | 1 | <b>Documentation</b><br>1 x safety regulations in a folder in English<br>1 x complete documentation on a USB as PDF<br>Language of the operating manuals and safety in English                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 2340 | 1 | <b>- Execution others -</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

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- 2440 1 **Machine installation / installation elements**  
The machine is anchored to the floor and is prepared for installation in an oil pan.
- When installing in an oil pan, the installation directly on the sheet steel is not permitted. Any resulting problems are not covered by the warranty. The machine documents for approval contain a recommendation for the appropriate design of the oil pan.
- Before the delivery of the machine the customer has to perform the following services:  
measure the hall floor, drill anchor holes, grout the anchors and screw on the base plates.
- 2520 1 **Main circuit / Environmental conditions**  
pressure supply 6 bar +1 bar / -0.5 bar for all procedures  
relative humidity: max. 75 % at 20 degrees Celsius  
ambient temperature: 15 up to max 40 degrees Celsius  
The machine has been designed to achieve the best positioning accuracy at an ambient temperature of 23 +/- 1 degrees Celsius.  
The specified performance data are valid up to a height of 1, 000 m above sea level.
- 2540 1 **Machine color**  
two-component structured paint - 2 colors  
light grey acc. to NCS S1502-B  
grey basalt acc. to RAL 7012
- 2600 1 **Walk switch**
- 2800 1 **CHIRON Lasercontrol Single F1000**  
for tool breakage control,  
min. tool dia. > 1 mm,  
distance from transmitter to receiver > 1.000 and <= 2.000 mm,  
incl. test mandrel with tool holder,  
transmitter and receiver,  
shutter and closure
- 2900 1 **Comfort cycle loading and unloading**  
Rotating of NC-rotary table(s) during the washing cycle  
(if options NC-rotary table(s) and device flushing are installed)  
Adjustment of ergonomic unloading positions  
Automatic cleaning of empty device before part loading is possible (if option device flushing is installed)  
Individual procedures may be selected for different machining operations or work pieces