

Datasheet No. 20501042 / 16.09.2025

Item	Qty	Description
1000	1	Vertical CNC machining center FZ 15 W, machine no. 286-54 Condition: Completely refurbished machine Year of manufacture: 2014
1040	1	Grundmaschine entsprechend nachfolgend beschriebenen Umfang
1060	1	Machine base in mineral casting technology Splash guard cover with fully enclosed workspace with loading doors, electrically interlocked, including interchangeable safety windows, workspace partition with stainless steel covers, Height 2,140 mm above floor, including machine lamp Mini-control panel with start and acknowledge push buttons, for pallet organization M61/M62 Integrated workpiece swivel table IWW 0/180 degrees for optimum chip fall, with center divider made of sheet steel workpiece change time approx. 3.5 s depending on the weight, self- regulating with self-teaching speed-control table load capacity 0 - max. 250 kg per side, Prepared to integrate a rotary-table per table side. Maximum distance spindle nose - pivoting center IWW 75 mm Travel: X-axis 730 mm Y-axis 400 mm Z-axis 360 mm
1080	1	Bed flushing system
1100	1	Spindle head single-spindle for the integration of 1 spindle motor with main spindle

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| 1120 | 1 | <p>Main drive with AC-motor
 pressurized with sealing air and monitoring of the tool clamping
 17.0 kW at 100 % duty cycle
 37.0 kW at 15 % duty cycle
 spindle speed range up to 15,000 min⁻¹
 > 12,000 min⁻¹ at 20 %
 torque max. 140 Nm</p> <p>Drilling capacity dia. 42 mm
 Tapping capacity M30
 Milling capacity 500 cm³/min
 made from steel E355</p> |
| 1140 | 1 | <p>Automatic tool changer
 robust, fully enclosed pick up tool changer
 with mechanical impact protection and
 air blast taper cleaning
 and dynamic background magazine
 designed as space-saving shelf magazine
 mounted to the back of the machine, including drip pans underneath
 the toolplaces to collect dripping coolant.
 loading and unloading station for tools for the exchange of
 cutting tools at the background magazine during machining.
 The tool is transferred simultaneously from the background magazine to the
 chain magazine while the machine is moving.
 After alignment the machine has to be anchored to the floor.</p> <p>Total no. of tools 187
 Toolplaces chain magazine 45
 Toolplaces background magazine 142
 Tool shaft HSK-A 63 DIN 69893
 Max. tool dia. 75 mm - if all magazine pos. are occupied
 Max. tool dia. 125 mm if adjacent places are free
 108 places with max. tool length 250 mm
 34 places with max. tool length 300 mm
 Max. tool weight 5 kg
 Tool change time approx. 0.9 s (depends on CNC)
 With tool operating times shorter than 15 s the chip-to-chip-time may
 increase.</p> |
| 1160 | 1 | <p>Feed drive for X-, Y- and Z-axes
 digital direct drive with indirect absolute measurement system</p> |
| 1180 | 1 | <p>Direct measurement system X-axis
 overpressured</p> |
| 1200 | 1 | <p>Direct measurement system Y-axis
 overpressured</p> |
| 1220 | 1 | <p>Direct measurement system Z-axis
 overpressured</p> |
| 1240 | 1 | <p>Automatische zentrale Fettschmierung</p> |

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- 1260 2 **2 axis rotary table CHIRON CASD 280**
 installed into the integrated Workpiece swivel table IWW 0/180 degrees,
 consisting of:
- Interface for NC-axis complete,
 smallest increment 0.0001°,
 pneumatic supply regulated for sealing air,
 hydraulic supply controlled for clamping A-axis,
 pneumatic supply controlled for clamping C-axis.
- Technical description:
- Tilting axis ATU 200 as A-axis
 for hydraulic clamping, max. torque if the table is clamped 1,200 Nm,
 tilting angle: - 10 degrees / + 138 degrees,
 swing radius 285 mm,
 bridge size 700 mm,
 repetition accuracy $\pm 5''$ with
 absolute, direct measurement system.
- NC-rotary table as C-axis
 faceplate dia. 280 mm,
 with thread and locating hole grid M 16 x dia. 15H7 x 50 mm,
 repetition accuracy $\pm 5''$ with
 absolute, direct measurement system,
 digital direct drive via torque motor,
 max. transmittable torque 470 Nm,
 with pneumatic clamping system,
 max. torque if the table is clamped 1,700 Nm,
 max. transport load (workpiece weight): 150 kg,
 spindle speed 200 min⁻¹.
- Clamping surfaces to the right and left
 of the rotary table faceplate
 with thread and locating hole grid M 16 x dia. 15H7 x 50 mm.
- Counter bearing without drive.
- 1280 1 **CHIRON RemoteLine**
 for remote diagnosis and teleservice for optimization of the maintenance
 process and
 shortening of troubleshooting through faster diagnosis:
 Detailed information about the machine status is available
 to support both, internal and also optionally external
 experts, independent from time and location.
 This way a faster and more qualified support is possible.
 Possibility of remote control of the NC-control for the
 analysis of operation sequences and support with programming
 problems.
 Access to PLC for diagnosis, troubleshooting and programming.
 Notification service by text / email, e.g. at end of job or
 in the case of breakdown.
 Simple backup through use of the existing infrastructure in the internet.
 Safe access through defined user rights, access control and
 encryption of data.

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Access through Ethernet connection RJ45.

During warranty this service, based on CHIRON RemoteLine is **free of charge**. After the warranty has expired, you have the option of extending on an annual basis.

Pre-requisite:

The connection of the machine to the internet through in-house network has to be provided by customer.

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| 1300 | 1 | <p>CHIRON maintenance management on the screen
 display of the pending maintenance:
 advance warning = "prepare maintenance"
 warning = "carry out maintenance"
 machine stop = "catch up on maintenance"</p> <p>Brief instructions for the pending maintenance with graphic illustration on USB data-carrier.
 Password protected confirmation of the maintenance work carried out by the maintenance staff.</p> |
| 1320 | 2 | <p>Central rotary feedthrough for pneumatic or hydraulic supply
 6-fold, integrated into A- and C-axis
 with 6 O-ring connections in the center of the face plate
 Remarks:
 power-actuated clamping fixtures on the faceplate
 require additional connections and clamping circuits.</p> |
| 1340 | 1 | <p>Assignment working area - rotary table</p> |
| 1360 | 1 | <p>SIEMENS CNC-control 840D solution line
 (TCU / NCU 730.3)
 incl. 10.4" TFT color monitor
 standard keyboard / control panel OP010S
 operator interface Operate
 NC-memory 5 MB (max. 3 MB freely available)
 (max. 200 programs storage capacity)
 for executing part programs according to DIN 66025
 CF-card with storage capacity 8 GB (max. 3 GB freely available)
 power display, operating and piece counter on the screen
 dark switching of screen
 look ahead with dynamic pre-control
 software limit switch
 access authorization via key-operated switch for
 tool compensations, NC-program changes and machine parameters</p> <p>oriented spindle stop
 re-start into program
 subroutine technology in high-level language and parameter programming
 simultaneous programming</p> <p>cycle support
 Drilling cycles G81-G89</p> |

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Drilling and milling patterns
measuring in JOG

M and T functions
tool offsets for geometry, wear
4 programmable zero offsets G54-G57
30 zero shifts programmable via G-functions
tool radius correction with intersection computing
insert chamfers and radii
crossing radii
contour programming
scaling function
mirror function
polar coordinates
circular interpolation (360°)
3D-interpolation/helical interpolation

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

1380	1	Operating hours and piece counter on the screen
1400	1	Socket at control panel (for description see "main circuit")
1420	1	Socket for portable mini-hand wheel without EMERGENCY-STOP button, at control panel
1440	1	Electrical cabinet cooler mounted to the door
1460	1	Signal lamp for 3 signals Signal "red" = failure Signal "white" = load machine Signal "green" = machine is running
1480	1	Wash gun with 1 connection and quick coupling each in loading and working area
1500	1	Hydraulic unit for continuous operation pressure: 200 bar
1520	1	Oil-free air service unit with electric main switching-off and automatic condensate separator, pressure control of the air supply and micro filter 0.01 µm for sealing air

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1560	1	- Additional equipment for the machine -
1580	1	Coolant Package
1600	1	Chip conveyor (scraper belt) tank capacity 320 l pump capacity 110 l/min at 1.3 bar coolant purification through slotted filter box
1620	1	Coolant tank TPF 350 S / 900 (also for sludge generating materials, i.e. grey cast iron, GGG, Al with Si >= 12%) tank capacity 900 l low pressure pump capacity from 100 l/min at 2.6 bar up to 250 l/min at 2.2 bar high pressure pump 22 l/min at 20 bar up to 15 l/min at 70 bar Vario pressure relief valve for 8 programmable pressure stages pre-defined pressure stages (20, 30, 40, 50, 55, 60, 65, 70 bar) full stream purification via drum paper bond filter TPF 350 S, with coolant purification 50 µm nominal twin filter in the high pressure circuit for the protection of the machine
1640	1	Machine preparation for internally rinsing tools through spindle according to DIN 69871 Form A40 or 69893 HSK-A 63. with rotary feedthrough at the hollow shaft humidity sensor to monitor leakage dirt trap installed in the high pressure piping and flow control switch Solenoid valve, controlled via NC- program HSK-A 63 tool holders for internally rinsing tools require the use of the patented coolant tube with sieve. Advantage: Decrease the risk of clogging in the internal coolant bores.
1660	1	Fixture washing incl. coolant supply in the machining station
1680	1	Fixture washing incl. coolant supply in the loading area
1700	1	- Further additional equipment coolant -
1720	1	Work space washing with nozzles installed inside the splash guard cover

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1740	1	Recooling unit with absolute control of coolant temperature
1760	1	- Additional equipment exhaust / extinguishing -
1780	1	Suction point for extraction of the working area to be installed by customer dia. 175 mm on top of the splash guard cover and electrical preparation in the electrical cabinet
1800	1	- Additional equipment pneumatics / hydraulics -
1820	2	Parts location air sensing for rough sensing with energy-efficient pressure control by using 1 pressure switch, incl. pneumatic and electric installation Remarks: Maximum 3 nozzles per switch. Additional rotary feedthroughs may be necessary at rotary table and at standard fixture for rotary table
1840	2	Parts location air sensing for fine sensing with energy-efficient pressure control by using 1 pressure switch including pneumatic and electric installation, Remarks: Maximum 3 nozzles per switch. Pre-requisite: Processed faces or aluminum die casting (not on partition or ejector flags), no grey cast iron. Additional rotary feedthroughs may be necessary at rotary table and at standard fixture for rotary table
1860	4	Pneumatic connection controlled with A/B connection for pneumatic clamping device electrically controlled pneumatic connection for double acting clamping cylinder, 1 pressure regulator, pressure control switch by means of differential pressure switch (in case of pressure change automatic pressure sensing)
1900	1	- Additional equipment measuring / tool breakage control -
1930	1	Renishaw - probe - package RLP40Q for part measuring and automatic machine compensation, probe with radio module and tool taper suitable for machine spindle tracing pin 58 mm with ruby ball dia. 4 mm receiver RMI-Q with integrated interface bracket for radio receiver process oriented measuring software for measuring cycles and strategy program

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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.

1950	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
1960	1	- Additional equipment machine operation -
1980	1	Automatic loading door of splash guard cover opening and closing, actuation via push button at control panel
2000	1	Rotary window with electric drive
2020	1	Comfort control panel 19" TFT colour screen Full keyboard / control panel OP019
2040	1	- Additional equipment tooling -
2060	1	Loading and unloading station for tools for the exchange of cutting tools at the background magazine during machining
2100	1	- Additional equipment NC-control -
2120	1	5-axes-milling package for the machining of three-dimensional curved or tilted surfaces with 3 linear and 2 additional axes (TRAORI & CYCLE 800), incl. compressor CompCAD. 5-axes-transformation with tool tracking. 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. 5-axes-tool-length compensation The length of the tool is automatically computed and compensated in the movements of the axes.
2140	1	SIEMENS Tool lifetime monitoring with: tool place organization sister tool organization

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| 2160 | 1 | <p>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</p> |
| 2180 | 1 | <p>Measuring in JOG
 for workpiece-measurement
 (e.g. determination of the zero point during setup)
 in inching mode</p> |
| 2200 | 1 | <p>Feed per revolution
for rigid tapping</p> |
| 2220 | 1 | <p>CHIRON Kinematics Fit with measuring ball
 To ensure best milling results 4 or 5-axis-machines require calibration at regular intervals. This option provides for automatic measuring of the machine kinematics by sampling a measuring ball in the working area and subsequent adjustment of the machine-transformation parameters for rotating and tilting axes.
 Incl. option for NC control and calibrated measuring ball with holder.

 Pre-requisite: spindle probe.</p> |
| 2260 | 1 | <p>- Additional equipment automation -</p> |
| 2280 | 1 | <p>Electric interface for loader with Profibus
 for loading through automatic doors
 for automatic loading system,
 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,
 interface tested according to Chiron-description,
 incl. key-operated switch
 and indicator lamp in the control panel "with loader",
 incl. direct door switch in position "door open"</p> <p>Deviation from the standard interface and set up will be charged according to time and material used.
 Waiting periods during set up will also be charged.</p> <p>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.</p> |

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| 2900 | 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. |
| 2920 | 1 | Different paint finish
The machine bed, splash guard cover incl. operator doors
and the control panel are painted in customer color.
CHIRON standard paint remains for:
the electrical cabinet, the chip conveyor, the exhaust fan,
the travelling column and all surfaces underneath the covers. |
| 2940 | 1 | Two-components structured paint
according to the following color:
Machine paint finish RAL 7035
Operator doors RAL 5015 |
| 2960 | 1 | Miscellaneous
Experience from 286-42:
Button for interchangeable jaws in the
mini control panel,
FI for socket on the command panel,
collection tray in the background magazine,
pilot control activated,
additional flushing nozzles for surge water,
swiveling control panel,
loading area closed at the top,
hoses and cables of the cooling lubricant system
suspended on metal brackets. |
| 2980 | 1 | Laminated glass
in side window |
| 3015 | 1 | 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 |