

Datasheet No. 20404800 / 12.07.2022

Item	Qty	Description
1000	1	<p>Vertical CNC-machining center DZ 12 W HS Machine no. 262-33</p> <p>Condition: will be partly refurbished, subject to incoming inspection Year of construction: 2013</p> <p>In accordance with the scope described below</p>
1060	1	<p>Machine base in mineral casting technology Guideways with long-time greasing</p> <p>Splash guard cover with fully enclosed workspace with loading doors, electrically interlocked, including interchangeable safety windows, workspace partition with stainless steel covers, Height 2140 mm above floor, including machine lamp</p> <p>Mini-control panel with start and acknowledge push buttons, for pallet organization M61/M62</p> <p>Machine feet prepared for installation of an integrated workpiece changing mechanism IWW</p> <p>Minimum distance spindle nose - pivoting center IWW max. 349 mm</p> <p>Travel: X-Axis 550 mm Y-Axis 400 mm Z-Axis 360 mm</p>
1140	1	<p>Integrated Workpiece swivel table IWW 0/180 degrees With gaps underneath the standard fixture for rotary table for optimum chip fall, with center divider workpiece change time approx. 2.4 s weight-dependent, self-regulating by means of self-teaching speed-control table loading capacity per side 0 - max. 160 kg, max. 100 kg weight difference between the two table sides. Integrated per table side: NC-rotary-table, type AWU 160 P with pneumatic clamping repetition accuracy $\pm 15''$, face plate dia. 160 mm, with center bore dia. 50 +0.012 mm, locating pin dia. 16 h7, 4 mounting holes M10, CHIRON standard fixture for rotary table bridge size 620 mm counter bearing with pneumatic clamping flange plate incl. connecting couplings and quick-locator, on the side of the rotary table and counter bearing 2 x 4-wire energy supply swing radius 240 mm 4th or 5th NC-axes, plug-in ready pneumatic supply without control</p>

Datasheet No. 20404800 / 12.07.2022

- | | | |
|------|---|--|
| 1160 | 1 | Spindle head two-spindle
for the integration of 2 motor spindles
Spindle distance in X-axis 250 mm |
| 1180 | 1 | Main drive with 2 AC- motors
pressurized with sealing air and monitoring of the tool clamping
24.5 kW at 100% duty cycle
40.0 kW at 25 % duty cycle
spindle speed range up to 12,000 min ⁻¹
torque max. 45 Nm
acceleration from 0 to 12,000 min ⁻¹
or deceleration in 0.6 seconds

Drilling capacity 2 x dia. 25 mm
Tapping capacity 2 x M 20
Milling capacity 2 x 120 cm ³ /min
made from steel E355 |
| 1200 | 1 | 2 x Machine preparation
for tools internally rinsed by spindle
according to DIN 69893 HSK A40:
4-fold flow divider
rotary feedthrough at the hollow shaft
Coolant leakage sensor
Dirt trap installed in the high pressure piping
and 4 flow control switches
Solenoid valve, controlled via NC-program
For tool holders we recommend the use of our
patented coolant tube with sieve.
Advantages:
Decrease clogging in the internal coolant bores.
Reduction of wear at the O-ring seal in the collet. |
| 1220 | 1 | Automatic tool changer
robust, fully enclosed pick-up tool changer
with mechanical impact protection and
air blast taper cleaning
No. of tools 2 x 24
Tool taper HSK-A 40 DIN 69893
Max. tool dia. max. 70 mm
Max. tool dia. at neighbouring place with max. 40 mm max. 100 mm
Tool length max. 250 mm
Max. tool weight max. 5 kg
Tool change time approx. 0.9 s (depends on CNC) |
| 1240 | 1 | Feed drive for X-, Y- and Z-axes
digital direct drive with indirect absolute measurement system
rapid traverse 75 - 75 - 60 m/min.
Acceleration 0,7 - 1,0 - 1,5 g |

Datasheet No. 20404800 / 12.07.2022

- 1260 1 **SIEMENS CNC-control 840D solution line**
 (PCU 50 / NCU 720.2, 6 measuring cycles, 1 channel)
 incl. 10.4" TFT color monitor /full keyboard / control panel OP010S
 operator interface Windows XP
 NC-memory 3 MB (max. 1 MB freely available)
 (max. 200 programs storage capacity)
 for executing part programs according to DIN 66025
 Hard disk with storage capacity 20 GB for free availability
 power display, operating hour 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
- oriented spindle stop
 re-start into program
 subroutine technology in high-level language and parameter
 simultaneous programming
- cycle support
 drilling cycles G81-G89
 drilling and milling patterns
- 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 degrees)
 3D and helical interpolation
- drip feed function through V24 interface
 Universal interface RS 232C (1 x V24) sideways of the control panel,
 USB-interface at control panel,
 Ethernet connection RJ45 in the control panel,
- NC-diagnosis with help function
 machine-diagnosis
- 1300 1 **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"

Datasheet No. 20404800 / 12.07.2022

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.

- | | | |
|------|---|---|
| 1320 | 1 | Operating hours and piece counter
on the screen |
| 1340 | 1 | Socket at control panel
(for description see "main circuit") |
| 1360 | 1 | Socket for portable mini-hand wheel
without EMERGENCY-STOP button, at control panel |
| 1380 | 1 | Electrical cabinet cooler
as door mounting unit |
| 1400 | 1 | Signal lamp for 3 signals
Signal "red" = failure
Signal "white" = load machine
Signal "green" = machine is running |
| 1420 | 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 |
| 1480 | 1 | Coolant Package |
| 1500 | 1 | Chip conveyor (scratch band)
tank capacity 230 l
pump capacity 110 l/min at 1.3 bar
coolant purification through slotted filter box
Chip conveyor discharge height 1500 mm
Chip conveyor discharge backwards |
| 1520 | 1 | Coolant unit HL 450 / 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 2.1 bar
until 250 l/min. at 1,8 bar

70 bar high pressure pump
high pressure pump 20 l/min at 30 bar up to 11 l/min at 70 bar
with 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 hydrostatic paper bond filter HL 450,
with coolant purification 50 µm nominal
twin filter in the high pressure circuit for the
protection of the machine |

Datasheet No. 20404800 / 12.07.2022

1540	1	Fixture washing incl. coolant supply in the working area
1560	1	Fixture washing incl. coolant supply in the loading area
1580	1	- Further additional equipment coolant -
1600	1	Wash gun placed outside of the machine's splash guard cover, incl. solenoid valve for coolant supply
1640	1	Bed flush system
1650	1	Work space washing with nozzles installed inside the splash guard cover and washing of central splash guard
1680	1	- Additional equipment exhaust / fire extinguishing -
1700	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.
1720	1	- Additional equipment pneumatics / hydraulics -
1730	4	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
1740	4	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
1780	1	Hydraulic unit for continuous operation pressure: 200 bar
1840	1	Hydraulic unit extension, second pressure stage (A) Function: high and low pressure

Datasheet No. 20404800 / 12.07.2022

1860	1	Direct measurement system X-axis overpressurized
1880	1	Direct measurement system Y-axis overpressurized
1900	1	Direct measurement system Z-axis overpressurized
1940	1	- Additional equipment machine operation -
1960	1	Automatic central oil lubrication including automatic cleaning cycle in X and Y axis, the cleaning run must be taken into account, when designing the clamping device
1980	1	Walk switch
2000	1	Automatic loading door of splash guard cover opening and closing, actuated via push button at control panel
2020	1	- Additional equipment NC-control -
2040	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. (See Intranet / technical documentation: Document with ID 11304)
2060	1	CHIRON Powersave for energy saving by reducing the air consumption and electric power consumption. 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. Definable points in time at which the machine starts automatically demand-oriented with a variable warmup program to restore the production readiness

Datasheet No. 20404800 / 12.07.2022

- 2100 1 **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"
- 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.
- 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.
- 2500 1 **Machine installation / Installation elements**
 The machine has to be installed according
 to the drawing 'Machine Installation'.
- 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 proposal for the appropriate design
 of the oil pan.
- 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.
- If the ambient temperature is below 20°C, the cooling circuit of machines
 with water cooling must be warmed up.
- 2540 1 **Machine color**
 two-component structured paint - 3 colors
 light grey acc. to NCS S1502-B
 blue acc. to NCS S2050-R80B
 grey basalt acc. to RAL 7012