

## Data sheet I CHIRON DZ 18 W no. 212-38

| Pos. | Qty.    | Description  | Price |
|------|---------|--|-------|
| 100  | 1,00 ST | <b>Completely refurbished vertical machining centre CHIRON DZ 18 W no. 212-38</b><br><br><b>Year of construction: 2004, weight: 8.000 kg</b>   |       |
| 200  | 1,00 ST | <b>According to described below scope of delivery</b>  |       |
| 300  | 1,00 ST | <b>Column moving machining centre workpiece swivel table</b><br>Suitable for dry-machining with optimized chip drop<br>Guideways with long-term-grease lubrication   |       |
| 400  | 1,00 ST | <b>Machine enclosure with full enclosed workspace</b><br>with sliding doors, electrically interlocked,<br>2400 mm high above floor, incl. machine lamp<br>service friendly with removable side walls<br>vertical bellows   |       |
| 500  | 1,00 ST | <b>Workpiece swivel table 0/180 degrees</b><br>with centre divider made of stainless steel<br>clamping surface 2 x 940 mm x 470 mm<br>with thread and locating hole grid M16 x ø 15 H7 x 50 mm<br>workpiece swivel time appr. 3,7 s weight-dependent, self-regulating<br>through self-learning speed-control<br>table loading capacity per side 0 - max. 400 kg<br>max. 120 kg difference in weight between both table sides |       |
| 600  | 1,00 ST | <b>Mini-operating panel</b><br>with start and receipt push buttons, for pallet recognition M61/M62   |       |
| 700  | 1,00 ST | <b>Travel:</b><br>X-axis            400 mm<br>Y-axis            400 mm<br>Z-axis            630 mm with variable tool change level<br>Spindle distance in X-axis 320 mm  |       |
| 800  | 1,00 ST | <b>Main spindle drive with 2 AC-motors</b><br>12,0 kW at 100 %<br>28,0 kW at 15 %<br>Spindle speed range: 20 - 12.000 min <sup>-1</sup> - 180 Nm<br><br>Drilling capacity in steel            2 x Ø 36 mm (with insert drill)<br>Tapping capacity                      2 x M 24<br>Milling capacity in steel              2 x 150 cm <sup>3</sup> /min   |       |

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| 900  | 1,00 ST | <b>Automatic tool changer, protected against chips</b><br>No. of tools 2 x 12<br>Tool shaft SK A 40 DIN 69871 + 72<br>Max. tool dia. 65 mm<br>Max. tool dia. 180 mm if adjacent places are free<br>Max. tool weight 4,0 kg (8 kg on 2 places per spindle)<br>Tool changing time approx. 0,9 s (depends on CNC)<br>Chip-to-chip-time approx. 2,1 s (depends on CNC)  |       |
| 1000 | 1,00 ST | <b>AC-servo motors for x-, y- and z-axes</b><br>digital direct drives with indirect absolut path measuring system<br>rapid traverse in all axes 60 m/min.<br>acceleration: 0,5 g in X and Yaxis<br>0,7 g in Z axis<br><br>Remark:<br>With normal conditions the machine does not have to be anchored to the floor. (For slippery floors we recommend anchoring.)  |       |
| 1100 | 1,00 ST | <b>SIEMENS CNC-control 840D</b><br>(PCU 50 / NCU 572.5, 6 measuring circuit, 1 channel)<br>incl. 10,4" TFT colour LCD screen / full keyboard OP010S<br>Windows XP<br>NC-memory 256 KB<br>(max. 200 programmes storage capacity)<br>for ISO 66025 programming<br>hard disk with approx.. 20 GB for free disposal<br>drilling cycles G81-G89<br>drilling and milling cycles<br>M- and T- functions<br>circular interpolation (360 degrees)<br>re-start into program<br>subroutines, parameter programming<br>simultaneous programming<br>contour programming with cycle support<br>support through cycles<br>polar coordinates<br>tool offsets for geometry, wear<br>tool radius correction for intersection computing<br>crossing radius<br>4 zero offsets G54-G57<br>30 zero shifts programmable with G-functions<br>3D and helical interpolation<br>screen switch off<br>mirror function |       |

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|      |         | <p>scaling function</p> <p>insert of chamfer and radius</p> <p>Universal interface RS 232C (2 x V24)</p> <p>USB-interface at control panel</p> <p>Ethernet connection RJ45 in control panel</p> <p>orientated spindle stop</p> <p>drip feed function through V24 interface</p> <p>dimension metric or inch</p> <p>software limit switch, NC-diagnosis</p> <p>machine-diagnosis, absolute indirect path measurement systems</p> <p>power meter in screen</p> <p>rigid taping</p> |       |
| 1200 | 1,00 ST | <p><b>CHIRON Powersafe</b></p> <p>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 point in time at which the machine starts demand-oriented automatically with a variable warmup programm to recovery the production readiness.</p>   |       |
| 1300 | 1,00 ST | <p><b>Wash gun</b></p> <p>with 1 connection and quick coupling each in loading- and working area</p>  |       |
| 1400 | 1,00 ST | <p><b>Working hours and piece counter</b></p> <p>in the screen</p>  |       |
| 1500 | 1,00 ST | <p><b>Socket 230 V</b></p> <p>at control panel</p>  |       |
| 1600 | 1,00 ST | <p><b>Socket for portable mini-hand wheel</b></p> <p>without EMERGENCY-STOP button, at control panel</p>  |       |
| 1700 | 1,00 ST | <p><b>Cabinet cooler as a door mounting unit</b></p>  |       |
| 1800 | 1,00 ST | <p><b>Electrical cabinet cooler mounted to the door</b></p>   |       |
| 1900 | 1,00 ST | <p><b>Installation elements</b></p>   |       |
| 2000 | 1,00 ST | <p><b>Chip conveyor (scratch band) small version</b></p> <p>with lateral discharge, discharge height 1.050 mm, tank capacity 400 l, pump capacity max. 150 l/min. at 2,0 bar incl. tub flushing</p>   |       |

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| 2100 | 1,00 ST | <p><b>For machining with high chip volume or additional flushing options</b><br/>and the resultant big coolant flow<br/>we recommend, to calm down the coolant and to decrease the cleaning cycles at the chip conveyor and the coolant pipes, coolant equipment with a tank capacity of 900 l.</p>   |       |
| 2200 | 1,00 ST | <p><b>Fully enclosed working area</b></p>   |       |
| 2300 | 1,00 ST | <p><b>Coolant equipment</b><br/>tank capacity 900 l,<br/>pump capacity 200 l/min. at 2,0 bar<br/>(the pump in the chip conveyor becomes the lift pump)<br/>pump capacity 35 l/min. at 30 bar<br/>high pressure circuit with coolant filtration 60 µm nominal<br/>incl. bed flushing system<br/>(This filtration method will not eliminate increasing cast iron slurry from the coolant equipment.)</p>  |       |
| 2400 | 2,00 ST | <p><b>Machine preparation</b><br/>for through tool coolant system including:<br/>- Sealing system in the DIN 69871 Form A40 collet<br/>- coolant distributor installed at the main spindle drive<br/>- Coolant leakage sensor<br/>- Implemented mud flap in the high pressure piping<br/>- Solenoid valve, controlled via machine program<br/>(Subject: required high pressure equipment)</p>   |       |
| 2500 | 1,00 ST | <p><b>Automatic central grease lubrication</b></p>  |       |
| 2600 | 1,00 ST | <p><b>Fixture washing</b><br/>with nozzles installed on the swivel centre divider<br/>separate controlled with m-functions for washing the working area and the loading station</p>   |       |
| 2700 | 2,00 ST | <p><b>NC-rotary-table package complete installed consisting of:</b><br/>- NC-rotary-table, type AWU 160 P<br/>- 4th and 5th NC-axes, complete<br/>- 2 adapter-plates for center height 200 mm<br/>- central pneumatic supply without control<br/>Technical description for NC-rotary-table:<br/>center height 165 mm, indexing accuracy <math>\pm 15''</math>,<br/>load moment of inertia (without turning supply) 1,9 kgm<sup>2</sup><br/>face plate dia. 160 mm, with center bore dia. 50 +0.012,<br/>fixture pin dia. 16 h7, 4 fixture bores M10,<br/>incl. pneumatic clamping</p> |       |

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| 2800 | 1,00 ST | <p><b>CHIRON standard fixture for rotary table</b><br/>with pneumatic actuated counter bearing<br/>bridge size 620 mm<br/>existing of:</p> <ul style="list-style-type: none"> <li>- base plate (instead of the adaptor plate from the rotary table package)<br/>detachable to workpiece changer</li> <li>- counter bearing with pneumatic clamping</li> <li>- 2 x 4-core hydraulic turning supply, rotary table side</li> <li>- 2 x 4-core hydraulic turning supply, counter bearing side</li> <li>- 2 chucks with 4 hydraulic-supply, rotary table side</li> <li>- 2 chucks with 4 hydraulic-supply, counter bearing side</li> <li>- 2 x center height 210 mm over the base plate</li> </ul> |       |
| 2900 | 1,00 ST | <b>Adaption of the Center divider to center height 210 mm</b>   |       |
| 3000 | 1,00 ST | <b>Fully enclosed working area</b>  |       |
| 3100 | 1,00 ST | <p><b>Automatic loading door of total enclosure</b><br/>opening and closing,<br/>incl. walk switch</p>  |       |
| 3200 | 1,00 ST | <p><b>Mechanical and electrical preparation</b><br/>for the installation of a suction unit (by the customer)<br/>with connection <math>\varnothing</math> 200 mm on the top of the machine.</p>   |       |
| 3300 | 1,00 ST | <b>Pneumatic- and Hydraulic Connections</b>   |       |
| 3400 | 1,00 ST | <p><b>Central hydraulic and pneumatic supply</b><br/>prepared for max. 20 connections,<br/>6 connections are installed including connecting couplings,<br/>4 for hydraulic, max. 210 bar and<br/>2 for pneumatic without control.<br/>Installation up to the outside of machine bed, with electrical control<br/>for clamping ON - OFF via push button at control panel</p>   |       |
| 3500 | 1,00 ST | <p><b>Hydraulic unit</b><br/>for continues duty<br/>pressure: 210 bar<br/>supply capacity: 6 l/min.<br/>incl. valves for supply of 2 clamping devices<br/>and 2 pressure switches for clamping control</p>  |       |
| 3600 | 8,00 ST | <p><b>Hydraulic unit – extension</b><br/>for further clamping cycles<br/>1 additional clamping cycle (double acting)</p>  |       |

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| 3700 | 4,00 ST | <b>Further hydraulic connection</b><br>inclusive connection couplings, max. 210 bar,<br>for central hydraulic- and pneumatic connection<br>(there are max. 20 lines hydraulic/pneumatic in sum possible)   |       |
| 3800 | 1,00 ST | <b>Lager memory at the hydraulic unit</b>  |       |
| 3900 | 1,00 ST | <b>CHIRON Variable Clamping Logic</b><br>For the definition of different clamping and releasing sequences,<br>for a maximum of 10 functions with a maximum of 8 steps.<br>Considering of time delay and monitoring of clamping circuits<br>e.g. through pressure switches or airsensing.<br>The storing of the configuration and reloading,<br>allows fast changeover. |       |
| 4000 | 1,00 ST | <b>- Documentation -</b>   |       |
| 4100 | 1,00 ST | <b>Documentation acc. to CE of the first delivery into market</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  |       |
| 4200 | 1,00 ST | <b>Machine colour</b><br>Two-components-structure varnish - 2 colours<br>light grey acc. to NCS S1502-B<br>basalt grey acc. to RAL 7012<br><br><b>Main circuit</b><br>total power supply 400 / 230V ± 10 %, 50 cycles N/PE,<br>neutral conductor, load possible, pressure supply<br>6 bar, ± 1 bar at all procedures,<br>room temperature max 40°                      |       |