

## Offer I DZ 12 KW no. 328-03

Pos.	Qty.	Description	Price
100	1,00 ST	<p><b>Partly refurbished vertical machining centre CHIRON DZ 12 KW Nr. 328-03</b></p> <p><b>Year of construction: 2012, weight: 7.700 kg</b></p>	
200	1,00 ST	<p><b>According to described below scope of delivery</b></p>	
300	1,00 ST	<p><b>Column moving machining centre with machine bed in mineral cast technics</b> and workpiece swivel table Guideways with long-term-grease lubrication</p> <p><b>Machine enclosure with full enclosed workspace</b> with loading doors, electrically interlocked, including replaceable safety windows, workspace enclosure with stainless steel covers. 2140 mm high above floor, including machine lamp</p> <p><b>Mini-operating panel</b> with start and receipt push buttons, for pallet recognition M61/M62</p> <p><b>Integrated Workpiece swivel table IWW 0/180 degrees</b> With gaps underneath the trunnion fixture for optimal chip drop, with center divider workpiece swivel time appr. 2,4 s weight-dependent, self-regulating through self-learning speed-control table loading capacity per side 0 - max. 160 kg, max. 100 kg weight difference between the two table sides. Per table side integrates: - NC-rotary-table, type AWU 160 P with pneumatic clamping repetition accuracy <math>\pm 15''</math>, face plate dia. 160 mm, with center bore dia. 50 +0.012 mm, fixture pin dia. 16 h7, 4 fixture bores 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 side of the rotary table flange plate incl. connecting couplings and quick-locator, on side of the counter bearing 2 x 4-core energy supply pneumatic or hydraulic swing radius 240 mm - 4th or 5th NC-axes, complete - pneumatic supply without control</p>	



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		<p><b>Travel:</b>            X-axis 550 mm            Y-axis 400 mm            Z-axis 360 mm</p> <p><b>Spindle dist. X-Axis</b> 250 mm</p>	
400	1,00 ST	<p><b>Main Spindle drive with 2 AC-motors</b>            blocking air admitted, with monitoring of the tool clamping            7,5 kW at 100%            11,0 kW at 10%            Spindle speed till 12.000 min<sup>-1</sup> – 45 Nm            Spindle speed acceleration from 0 – 12.000 – min<sup>-1</sup>            or deceleration in 0,6 seconds</p> <p>Drilling capacity in pc. 60 2 x Ø 25 mm (with insert drill)            Tapping capacity 2 x M 20            Milling capacity in pc. 60 2 x 150 cm<sup>3</sup>/ min.</p>	
500	1,00 ST	<p><b>Automatic tool changer</b>            by robust, full encased Pick-up chain magazine            with mechanical drift cover and cone cleaning, via air blow</p> <p>Tool places 2 x 16            Tool shaft HSK-A 63 DIN 69893            Tool-Ø max. 85 mm            Max. tool length 240 mm            Tool weight max.53 kg            Tool change time approx. 0,9 s (depends on CNC)            Chip-to-chip-time approx. 2,4 s (depends on CNC)</p>	
600	1,00 ST	<p><b>Digital direct drive for y-, x- and z-axes</b>            with indirect absolut path measuring system,            rapid traverse in X, Y-axes 40m/min and Z-axis <b>75 m/min</b>            Acceleration X- and Y-axes 1,0 g, Z-axis 75 m/min.</p>	
		<p>Remark:            With normal conditions the machine does not have to be anchored to the floor. (For slippery floors we recommend anchoring.)</p>	
700	1,00 ST	<p><b>FANUC 31i A5 - 5-axes continuous path control</b>            10,4" color screen            memory capacity 512 KB (free available max. 1000 programs)            drilling cycles G73-G89            absolute path measuring system            M- and T-functions</p>	



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		circular interpolation (360 degrees) re-start into program makro B sub-routines look ahead simultaneous programming automatic corner override 999 tool offsets cutter radius - contour compensation 54 zero shifts G54-G59, G54.1 P1 - P48 metric/inch switch 3 D-interpolation/helical interpolation S-analogue orientated spindle stop Slot for PCMCIA memory card Interface RS 232C on the side at the control panel Ethernet connection RJ45 in control panel software-limit switch NC-diagnosis machine diagnosis high-speed skip and macro common variables	
800	1,00 ST	<b>CHIRON Maintenance Management in the screen</b> display of the pending maintenance: - advance warning = "prepare maintenance" - warning = "carry out maintenance" - machine stop = "catch up on maintenance" Abridged instructions for the pending maintenance with graphic illustration on CD-ROM. Password protected confirmation of the performed maintenance through the maintenance staff.	
900	1,00 ST	<b>Thermodrive</b> with indirect path measuring system	
1000	1,00 ST	<b>Working hours and piece counter</b> in the screen	
1100	1,00 ST	<b>Socket 230 V</b> at control panel	
1200	1,00 ST	<b>Socket for portable mini-hand wheel</b> without emergency stop button, at control panel	
1300	1,00 ST	<b>Cabinet cooler as a door mounting unit</b>	



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1400	1,00 ST	<p><b>Signal lamp on machine enclosure for 3 signals</b>            Signal "red" = failure            Signal "white" = load machine            Signal "green" = machine is running</p>	
1500	1,00 ST	<p><b>Coolant equipment with chip conveyor (scratch band)</b>            discharge height 1050 mm            tank capacity 230 l, discharge backwards            pump capacity 110 l/min. at 1,3 bar</p>	
1600	1,00 ST	<p><b>Coolant equipment KF 150 / KFA 500</b>            (for cast iron slurry, Al with Si <math>\geq</math> 12%)            tank capacity 500 l,            pump capacity from 80 l/min at 3,0 bar            up to 100 l/min at 1,8 bar            high pressure pump capacity 20 l/min at 30 bar            coolant filtration for high pressure and flood coolant            with compact paper bond filter KF 150,            filtration 50 <math>\mu</math>m nominal.            twin filter in the high pressure circuit for the protection of the machine.            incl.            Fixture washing            with nozzles installed at the swivel centre divider            controlled with m-functions            for washing the working area</p>	
1700	1,00 ST	<p><b>Oil-free air service unit</b>            with automatic condensate separator,            pressure control of the air supply            and micro filter 0,01 <math>\mu</math>m for air purge</p>	
1800	1,00 ST	<p><b>Installation elements</b>            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.</p>	
1900	2,00 ST	<p><b>Machine preparation</b>            for through tool coolant system including:            - Sealing system in the DIN 69893 HSK A63* collet            - coolant distributor installed at the main spindle drive            - Coolant leakage sensor            - Implemented mud flap in the high pressure piping            and 2 flow control switches            - Solenoid valve, controlled via machine program</p>	



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		<p>* At HSK A63 we recommend for tool holders the use of our patented coolant tube with sieve.  Advantages: Decrease of the clogging in the internal coolant channel.  (Subject: required high pressure equipment)</p>	
2000	1,00 ST	<b>Automatic loading door of total enclosure</b> opening and closing, actuating to closing via two-hand push buttons	
2100	1,00 ST	<b>Automatic central grease lubrication</b>	
2200	1,00 ST	<b>Exhaust fan with air cleaner</b> exhaust capacity 800 m <sup>3</sup> /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.	
2300	1,00 ST	<b>CHIRON Lasercontrol Single F500</b> for tool breakage control, distance from transmitter to receiver <= 1000 mm, min. tool Ø > 1mm, incl. test mandrel with tool holder, transmitter and receiver, gland and shutter	
2400	1,00 ST	<b>Electric interface for loader with "Profibus" - Fanuc</b> on W-machines for loading through manual or automatic loading door 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 effort.

Waiting periods during set up will also be charged.

### Recommended options:



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		<ul style="list-style-type: none"> <li>- automatic doors, if necessary</li> <li>- tool life control</li> <li>- tool breakage control</li> <li>- fixture washing</li> <li>- chip conveyor, if not included in basic machine</li> <li>- air sensing</li> <li>- automatic central lubrication</li> </ul> <p>Note: The machine has to be anchored with robot loading or linkage. Anchoring the machine to the ground can be made by Chiron if wanted. This outlay will be charged according to effort.</p>	
2500	1,00 ST	<b>Pneumatic- and Hydraulic Connections</b>	
2600	1,00 ST	<b>Hydraulic unit</b> continuous duty pressure: 200 bar incl. valves for supply of 2 clamping devices and 2 pressure switches for clamping control	
2700	1,00 ST	<b>Central hydraulic and pneumatic supply</b> prepared for max. 20 connections, 6 connections are installed including connecting couplings, 4 for hydraulic, max. 200 bar and 2 for pneumatic without control. Installation up to the outside of machine bed, with electrical control for clamping ON - OFF via push button at control panel	
2800	4,00 ST	<b>Extension hydraulic unit</b> for further clamping circuits 1 additional clamping circuit, double acting	
2900	8,00 ST	<b>Further hydraulic connection(s)</b> including 1 connecting coupling, max. 200 bar, addition to central hydraulic and pneumatic supply (a total of max. 20 connections is possible)	
3000	2,00 ST	<b>Parts location air sensing</b> 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.	



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		At rotary table and standard fixture for rotary table are additional turning supplies necessary.	
3100	2,00 ST	<b>4 + 4-core pneumatic- or hydraulic turning supply</b> for CHIRON standard fixture 4 x through rotary table and 4 x through counter bearing	
3200	1,00 ST	<b>FANUC Tool lifetime control with:</b> - Tool place organization - Sister tool organization	
3300	1,00 ST	<b>Cutting tools</b> The cutting tools have to be balanced according to DIN 69 888, class G 6,3, in two levels, with max. operating speed	
3400	1,00 ST	- <b>Documentation</b> -	
3500	1,00 ST	<b>Documentation acc. to CE of the first delivery into market</b> 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	
3600	1,00 ST	<b>Machine colour</b> Two-components-structure varnish - 3 colours light grey acc. to NCS S1502-B blue acc. to NCS S2050-R80B basalt grey acc. to RAL 7012	
3700		<b>Main circuit</b> total power supply 400 / 230V ± 10 %, 50 cycles N/PE, neutral conductor, load possible, pressure supply 6 bar, ± 1 bar at all procedures, room temperature max 40°	
3800		<b>Information Export</b> We point out that the CNC-machining centres are subject to controls. For the export from the European Union an export license is necessary.	



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3900		<p><b>Information Machine safety</b></p> <p>The machine is designed and built in accordance with the European machine guideline, according placing the product on the first time onto the market.</p> <p>Other safety features due to special company rules and specifications can be considered. The actual cost will be invoiced.</p>	
4000		<p><b>Information Coolant lubrication</b></p> <p>The machine is designed for standard water soluble coolant and fully enclosed at the standard version. The machine must be equipped with fume extraction.</p> <p>The machine contents different plastics, varnish, resin and glue, which are selected carefully for using coolant and cutting oil.</p> <p>The use of aggressive coolant and additive could cause major damages and machine stops.</p> <p>Contact in any case your coolant supplier before machine set-up and installation.</p>	

