

Offer I CHIRON FZ 12 WM no. 260-66

Pos.	Qty.	Description	Price
100	1,00 ST	Completely refurbished vertical machining centre CHIRON FZ 12 KS no. 264-28 Year of construction: 2008, weight: 6.800 kg	
200	1,00 ST	According to described below scope of delivery	
300	1,00 ST	Type 12 Processing medium cooling lubricant	
400	1,00 ST	Column moving machining centre with fixed table and machine bed in mineral cast technique Guideways with long-term-grease lubrication	
500	1,00 ST	Travel: X-axis 550 mm Y-axis 320 mm Z-axis 360 mm	
600	1,00 ST	Digital main drive with water-cooled motor spindle with air purge and monitoring of the tool clamping 24 kW at 100 % 36 kW at 25 % spindle speed range up to 24.000 rpm; 29 Nm acceleration from 0 to 24.000 rpm or deceleration in 0,7 seconds Drilling capacity in steel Ø 18 mm Tapping capacity M 16 Milling capacity in steel 80 cm ³ /min	
700	1,00 ST	NC swivel head swivel range -10° / +100° rapid traverse 52 rpm lowest increment 0,001° with direct measuring system ± 5"	
800	1,00 ST	Fixed table with chip pan clamping surface 820 mm x 440 mm with 3 T-slots 2 x 18 H12, 1 x 18 H 8 table loading capacity max. 500 kg	



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900	1,00 ST	Automatic tool change through robust, full enclosed pick up tool changer, with mechanical impact protection an cleaning of the tool taper through air blow No. of tools 48 Tool taper HSK-A 50 DIN 69893 Max. tool dia. max. 60 mm Max. tool dia. for adjacent place with max. dia 40 mm max. 100 mm Max. tool dia. for adjacent place with max. dia 20 mm max. 125 mm Tool length max. 250 mm Max. tool weight max. 5 kg Tool change time appr. 0,9 s (depends on CNC) Chip-to-chip-time appr. 2,4 s (depends on CNC)	
1000	1,00 ST	AC-servo-motors feed drives for X-, Y- and Z-axes, digital direct drives with direct absolute path measuring system (glass scales) overpressured in all axes rapid traverse in X-, Y- and Z-axes 75 m/min, acceleration X-axis 1 g, Y-axis 1,2 g, Z-axis 1,5 g Remark: With normal conditions the machine does not have to be anchored to the floor. (For slippery floors we recommend anchoring.)	
1100	1,00 ST	SIEMENS CNC-control 840D (PCU 50 / NCU 573.5, till 12 measuring cycles, for free form milling, 1 channel) incl. 10,4" TFT colour LCD screen / full keyboard OP010S control panel logic Windows XP NC-memory 3 MB (till max. 6 MB extendible) (max.200 programmes storage capacity) for ISO 66025 programming hard disk with approx. 2 GB for free disposal drilling cycles G81-G89 drilling and milling cycles M- and T- functions circular interpolation (360 degrees) re-start into program	



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Pos.	Qty.	Description	Price
		<p>Subroutines, parameter programming simultaneous programming contour programming with cycle support support through cycles polar coordinates tool offsets for geometry, wear tool radius correction for intersection computing crossing radius 4 zero offsets G54-G57 30 zero shifts programmable with G-functions 3D and helical interpolation screen switch off mirror function scaling function insert of chamfer and radius Universal interface RS 232C (2 x V24) at control panel Ethernet connection RJ45 in control panel orientated spindle stop drip feed function through V24 interface dimension metric or inch software limit switch NC-diagnosis machine-diagnosis absolute indirect path measurement systems power meter in screen rigid tapping look ahead function</p> <p>MCIS DNC Option to send and receive NC-programs in a network. The client-software (e. g. UNIX, Novell, Windows NT) and the wiring to the network is not included.</p> <p>3 operator stages with 3 keys</p> <p>Tool lifetime control with:</p> <ul style="list-style-type: none"> - tool place organization - sister tool organization - working area organization by 4-figure program no. in the display (only at machines wiht several working areas) 	



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1200	1,00 ST	<p>CHIRON Powersafe</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>CHIRON Maintenance Management in the screen</p> <p>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. Confirmation of the performed maintenance through the maintenance staff by password.</p>	
1400	1,00 ST	<p>5-axes-machining</p> <p>for the machining of three-dimensional curved surfaces with 3 linear and 2 additional axes.</p> <ul style="list-style-type: none"> - 5-axes-transformation with tool orientation and tool center point management. <p>The machining task is programmed completely in Cartesian coordinates with Cartesian position and orientation. The movements of all 5 axes resultant from that are computed internally with the 5-axes-transformation.</p> <ul style="list-style-type: none"> - 5-axes-tool-offset. <p>The length of the tool is automatically computed and compensated in the movements of the axes.</p> <ul style="list-style-type: none"> - Oriented tool withdrawal. <p>With the interruption of machining (e. g. tool breakage), the tool can be withdrawn orientated and defined.</p>	
1500	1,00 ST	<p>Working hours and piece counter</p> <p>in the screen</p>	
1600	1,00 ST	<p>Socket 230 V</p> <p>at control panel</p>	
1700	1,00 ST	<p>Socket for portable mini-hand wheel</p> <p>without emergency stop button, at control panel</p>	



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1800	1,00 ST	Cabinet cooler as a door mounting unit	
1900	1,00 ST	Signal lamp on machine enclosure for 3 signals Signal "red" = failure Signal "white" = load machine Signal "green" = machine is running Extension of the signal lamp of approx. 50 cm.	
2000	1,00 ST	Machine enclosure with full enclosed workspace with loading doors, electrically interlocked, including replaceable safety windows, workspace enclosure with stainless steel covers. 2140 mm high above floor, including machine lamp	
2100	1,00 ST	Oil-free air service unit with automatic condensate separator, pressure control of the air supply and micro filter 0,01 µm for air purge	
2200	1,00 ST	Installation elements	
2300	1,00 ST	Wash gun mounted on the right side	
2400	1,00 ST	Tool place for max. tool dia. up to 125 mm instead of max. tool dia 60 mm, for every large tool place the total number decreases at 1, tool dia. up to 100 for adjacent place with max. dia 40 mm tool dia. up to 125 for adjacent place with max. dia 25 mm in compliance with interference outline in the tool magazine. Max. tool weight max. 5 kg (for option of 48 and 64 tool places)	
2500	1,00 ST	Chip conveyor (scratch band) instead of standard coolant equipment discharge height 1050 mm tank capacity 230 l, pump capacity 110 l/min at 1,3 bar coolant cleaning through slot filter box	



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2600	1,00 ST	<p>Coolant equipment KF 150 / KFA 500 (for cast iron slurry, Al with Si \geq 12%) tank capacity 500 l pump capacity from 40 l/min at 3,2 bar up to 120 l/min at 3,2 bar energy-efficient and frequency high pressure pump capacity 43 l/min at 20 bar till 37 l/min at 70 bar Vario-pressure regulation valve 8 programmable pressure steps with 20, 30, 40, 50, 55, 60, 65, 70 bar coolant filtration for high pressure and flood coolant with compact paper bond filter KF 150, filtration 50 μm nominal. twin filter in the high pressure circuit for the protection of the machine.</p>	
2700	1,00 ST	<p>Machine preparation for through tool coolant system including: - Sealing system in the DIN 69893 HSK A50 collet - coolant distributor installed at the main spindle drive - Coolant leakage sensor - Implemented mud flap in the high pressure piping - Solenoid valve, controlled via machine program We recommend for tool holders the use of our patented coolant tube with sieve. Advantages: - Decrease of the clogging in the internal coolant channel. - Reduction of the wear at the O-ring seal in the collet. (Subject: required high pressure equipment)</p>	
2800	1,00 ST	<p>Flow control switch for flood coolant</p>	
2900	1,00 ST	<p>Flow control switch for coolant through tool</p>	
3000	1,00 ST	<p>Flow control switch for fixture washing</p>	
3100	1,00 ST	<p>Automatic grease lubrication</p>	
3200	1,00 ST	<p>Suction point for customer specific installation Ø 200 mm on top of the machine enclosure and electrical preparation in cabinet</p>	



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Pos.	Qty.	Description	Price
3300	1,00 ST	<p>Electric interface for loader with "Profibus" - Siemens on S- machines for loading through side wall of machine (mechanical feasibility must be checked for respective machine series) 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",</p> <p>Deviation from the standard interface and set up will be charged according to effort. Waiting periods during set up will also be charged.</p> <p>Recommended options: - Modification of side wall - tool life control - tool breakage control - fixture washing - chip conveyor, if not included in basic machine - air sensing - automatic central lubrication</p> <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>	
3400	1,00 ST	<p>Window variants as safety combine glass plates</p>	



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Pos.	Qty.	Description	Price
3500	1,00 ST	<p>Technology package for turning from bar Ø 65</p> <p>Lathe spindle water-cooled motor spindle, installed horizontal, with hollow shaft as opening for bars up to Ø 65 mm 14,1 kW at 100 %, 42,5 kW at 5 % spindle speed range 15 - 4.500 rpm - 90 Nm with direct measuring system and hydraulic clamping 800 Nm collet chuck with integrated hydraulic actuation extension hydraulic unit for clamping collet chuck and clamping spindle incl. hydraulic connection incl. Dual Check Safety or Safety Integrated</p> <p>NC-feeding unit as bar feeder rapid traverse 60 m/min, stroke max. 440 mm, depending on fixture</p> <p>NC-turning unit with rolling application installed on NC-feeding unit, for support of work piece clamping Technical description of NC-turning unit: indexing accuracy ±30", max. spindle speed 80 rpm with pneumatic clamping</p> <p>Hydraulic unit for permanent operations pressure: 100 bar, flow rate: 4,3 l/min.</p> <p>Machine table with 2 mounting surfaces instead of fixed table</p> <p>CHIRON Lasercontrol Single F500 min. tool Ø > 1 mm, for tool breakage control, incl. test mandrel with tool holder incl. transmitter and receiver, gland and shutter</p> <p>Bar feeding from left side</p>	



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		<p>Remark: After alignment the machine has to be anchored to the floor. At bar lengths > 800 mm a bar loader (option) with hydrodynamic bearing is necessary.</p> <p>Additionally necessary: fixture washing, removal of the finished part</p> <p>Fixture washing with nozzles controlled with m-functions (Subject: Additional coolant tank)</p> <p>Preparation for probe OMP 40</p> <p>CHIRON Kinematics Fit without measuring ball To ensure best milling results 5-axis-machines need calibration from time to time. This option provides automatic measuring of the machine kinematics by sampling a measuring ball in the working area and subsequent adjustment of the machine-transformation parameters for rotation and swivel axes. For machines with 2 axis rotary table or swivel head with rotary table. Incl. option for NC control. Precondition: spindle probe, measuring ball and 5-axes-machining at machines with Siemens or Fanuc control</p> <p>Function Home Button pro - Home after tool changing disruption - Home after work piece disruption - Retreat from thread - Home after work disruption in the process</p> <p>Cutting tools The cutting tools have to be balanced according to DIN ISO 1940, class G 2,5, in two levels, with max. operating speed</p> <p>- Documentation -</p> <p>Documentation acc. to CE of the first delivery into market 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</p>	
3600	1,00 ST		
3700	1,00 ST		
3800	1,00 ST		
3900	1,00 ST		
4000	1,00 ST		
4100	1,00 ST		



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Pos.	Qty.	Description	Price
4200	1,00 ST	<p>Machine colour</p> <p>Two-components-structure varnish - 2 colours light grey acc. to NCS S1502-B basalt grey acc. to RAL 7012</p>	
4300		<p>Main circuit</p> <p>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°</p>	
4400		<p>Information Export</p> <p>We point out that the CNC-machining centres are subject to controls. For the export from the European Union an export license is necessary.</p>	
4500		<p>Information Machine safety</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. Other safety features due to special company rules and specifications can be considered. The actual cost will be invoiced.</p>	
4600		<p>Information Coolant lubrication</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>	

