

Offer I FZ 15 W no. 147-73

Pos.	Qty.	Description	Price
100	1,00 ST	<p>Completely refurbished vertical machining centre CHIRON MILL 2000 Nr. 220-85</p> <p>Year of construction: 2004, weight: 9.500 kg</p>	
200	1,00 ST	According to described below scope of delivery	
300	1,00 ST	<p>Column moving machining centre with fixed table</p> <p>Machine substructure with chip discharge left Linear guides with long-term-lubrication</p> <p>Drilling capacity in steel 60 \varnothing 36 mm (with insert drill) Tapping capacity M 24 Milling capacity in steel 60 350 cm³/min.</p>	
400	1,00 ST	<p>Travel:</p> <p>X-axis 2000 mm Y-axis 480 mm Z-axis horizontal spindle 715 mm / vertical spindle 630 mm</p>	
500	1,00 ST	<p>NC swivel head</p> <p>Motor spindle for swivel head, grease lubrication 12,5 kW at 100 % ED 34,0 kW at 10 % ED, watercooled 20 - 12.000 rpm, 140 Nm tool clamping with disk springs, hydraulic knock out, tool shaft for HSK-A 63 DIN 69893</p> <p>NC swivel axis \pm 100 ° - 30 rpm, lowest increment 0,001° - repetition accuracy \pm 10" with direct measuring system - driving torque 280 Nm - with hydraulic clamping system, max. torque through clamping 1400 Nm</p> <p>flood coolant, pump capacity 20 l/min at 11 bar</p> <p>Note: 5-axis transformation with tool orientation and tool tracking isn't included</p> <p>Hydraulic unit for continuous duty, at switch cycles less than 30 seconds pressure: 170 bar, floating rate: 11,3 ltr/min. incl. valves for supply and pressure stages for clamping of swivel head and automatic knock out of tool</p>	

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600	1,00 ST	Automatic tool changer, protected against chips No. of tools 40 Tool shaft HSK A-63 tool dia. max. 75 mm tool dia. if adjacent places are free max. 125 mm Max. tool length max. 280 mm Max. tool weight 3 kg (max. 8 kg) Tool change time approx. 1,5 s (depends on CNC) Chip-to-chip-time approx. 5,0 s (depends on CNC)	
700	1,00 ST	Fixed table with chip pan clamping surface 2600 x 550 mm ² with 3 T-slots 2 x 18 H12, 1 x 18 H8	
800	1,00 ST	AC-servo motors for x-, y- and z-axes digital direct drives with indirect absolute path measuring system (no time-consuming reference) rapid traverse in all axes 60 m/min.	
900	1,00 ST	SIEMENS CNC-control 840D (PCU 50 / NCU 572.3, 6 measuring circuits, 1 canal) incl. 10,4" TFT colour LCD screen / full keyboard OP010S incl. network card, control panel logic Windows NT hard disk. Approx. 2 GB programs storage for free disposal NC-memory 512 MB (max.200 programs 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 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 crossingradius 4 zero offsets G54-G57 30 zero shifts programmable with G-functions 3D and helical interpolation	

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Pos.	Qty.	Description	Price
		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 spindlestop drip feed function through V24 interface dimension metric or inch software limitswitch NC-diagnosis machine-diagnosis absolute indirect path measurement systems powermeter in screen rigid tapping look ahead function	
1000	1,00 ST	CMS Powersafe Software package for selective shutdown of installed consumers such as axis motors, drives, spindles, coolant-pumps and auxiliary equipment during production breaks. Definable point in time at which the machine goes demand-oriented automatically into its Power Safe mode	
1100	1,00 ST	Working hours and piece counter in the screen	
1200	1,00 ST	Socket 230 V at control panel	
1300	1,00 ST	Cabinet cooler as a door mounting unit	
1400	1,00 ST	Socket for portable mini-hand wheel without emergency stop button, at control panel	
1500	1,00 ST	Machine enclosure with loading door, electrically interlocked, suitable for loading by crane 2.500 mm high above floor, incl. machine lamp	
1600	1,00 ST	Installation elements	
1700	1,00 ST	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.	

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1800	1,00 ST	<p>Loading door of total enclosure “opening and closing” automatic incl. thrust shaft switch and 2 x two-hand push buttons for clamping OPEN-CLOSE instead of button at the control panel</p>	
1900	1,00 ST	<p>Special center divider Incl. sliding element and pneumatic cylinder for Front- and back driving.</p>	
2000	1,00 ST	<p>Production package with HP pump (HSK A63) consisting of:</p> <p>- Chip conveyor (scratch band) instead of coolant equipment with chip container discharge height 1.250 mm, discharge to the left, tank capacity 200 ltr., lift pump with 200 ltr./min. at 1,5 bar, incl. bed flushing system</p> <p>- Coolant equipment tank capacity 1.200 ltr., pump capacity 200 ltr./min. at 2,0 bar high pressure pump, pump capacity 20 ltr./min at 30 bar, coolant filtration with vacuum rotation filter VRF 250, filtration 50 µm nominal, with mud remover in clean water tank</p> <p>- Machine preparation for through tool coolant system including:</p> <ul style="list-style-type: none"> - 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 - solenoid valve, controlled via machine program <p>We recommend for tool holders the use of our patented coolant tube with sieve. Advantages:</p> <ul style="list-style-type: none"> - Decrease of the clogging in the internal coolant channel. - Reduction of the wear at the O-ring seal in the collet. 	
2100	2,00 ST	<p>Wash gun</p>	

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2200	1,00 ST	<p>NC-rotary-table package, integrated in clamping surface, complete installed consisting of:</p> <ul style="list-style-type: none"> - NC-rotary-table, type ATD 320 - 4th NC-axis, complete - Pneumatic supply without control - With coolant <p>Technical description for NC-rotary-table: Part accuracy $\pm 1''$ with absolute, direct measuring system RCN 723, face plate dia. 520 mm, with 2 parallel T-nuts 18 H12, fixture pin dia. 16h7, 4 fixtures bores M10, centre bore dia. 50 + 0,012, max. spindle rev. 100 min-1, max. axial load 20.000 N, max. transmittable torque with cooling 190 Nm, max. torque if the table is clamped 3.000 Nm, prepared for hydraulic spindle clamping</p> <p>Hydraulic or pneumatic turning supply 2-core for rotary table</p>	
2300	2,00 ST	<p>Exhaust fan air cleaner mounted on the machine exhaust capacity each 800 m³/h Smoke and gases that arise during the processing are not filtered by this units. In this case we recommend the connection to a central exhaust fan.</p>	
2400	1,00 ST	<p>Signal lamp for 3 signals Signal "red" = failure Signal "white" = machine loaded Signal "green" = machine is running mounted on machine enclosure</p>	
2500	1,00 ST	<p>Centre divider with mechanically activated door. Position closed, checked electrically. Shuttle machining Standard 2 x 750. Shuttle machining swivel head 2 x 765 (swivel head only in 0° - position) incl. machining area recognition M61/M62 and start and receipt push buttons, mounted on both sides. Quick removable because of pluggable connections and screwed bolts.</p>	

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2600	1,00 ST	Glass scales overpressured X, Y, Z = 2000 x 500 x 550 mm bei NC-Schwenkkopf Y, Z = 480 x 715 / 630 mm	
2700	1,00 ST	Laser measurement acc. VDI/DGQ 3441	
2800	2,00 ST	Pneumatic supply without control and 1 outlet coupling	
2900	2,00 ST	Hydraulic connection for 210 bar with 2 connecting couplings "A + B" and hydraulic installation up to outside of machine bed, electrical control for clamping ON - OFF via push button at control panel	
3000	1,00 ST	Extension hydraulic unit for clamping of rotary table or counter bearing with 1 second pressure stage, 1 additional clamping circuit and 1 connecting coupling with hydraulic installation up to outside of machine bed for one table side (4th axis)	
3100	1,00 ST	Extension hydraulic unit of Hydraulic unit from the NC-Tilting head package pressure: 210 bar, floating rate: 4,3 ltr/min. incl. valves for supply of 2 clamping devices and 2 pressure switches for clamping control	
3200	1,00 ST	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	
3300	1,00 ST	- Documentation -	
3400	1,00 ST	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	
3500	1,00 ST	Machine colour Two-components-structure varnish - 2 colours light grey acc. to NCS S1502-B basalt grey acc. to RAL 7012	

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3600		Main circuit total power supply 400 / 230V \pm 10 %, 50 cycles N/PE, neutral conductor, load possible, pressure supply 6 bar, \pm 1 bar at all procedures, room temperature max 40°	

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