

## Data sheet I FZ 18 WM no. 437-51

Pos.	Qty.	Description	Price
100	1,00 ST	<b>Completely refurbished vertical machining centre CHIRON FZ 18 WM Nr. 437-51</b>  Year of construction: 2000, weight: 5.500 kg	
200	1,00 ST	<b>According to described below scope of delivery</b>	
300	1,00 ST	<b>Column moving machining centre</b> with work piece changing equipment	
400	1,00 ST	<b>Machine enclosure</b> with loading door, electrically interlocked, 2600 mm high above floor, incl. machine lamp	
500	1,00 ST	<b>Mini-operating panel</b> with start and receipt push buttons, for pallet recognition M61/M62	
600	1,00 ST	<b>Workpiece swivel table 0/180</b> Clamping surface 2 x 850 x 470 mm <sup>2</sup> with thread and locating hole grids M 16 x Ø 15 H7 x 50 mm Workpiece change time approx. 4,0 s Table loading capacity per side max. 250 kg (400 kg) (with more table load until max. 2 x 400 kg, the workpiece change time extended to ca. 7,0 seconds)	
700	1,00 ST	<b>Travel:</b> X-axis 630 mm Y-axis 400 mm Z-axis 425 with adjustable tool change level	
800	1,00 ST	<b>Main spindle drive with AC-motor</b> 10 kW at 100 % 18 kW at 25 % Spindle speed range: 20 - 10.500 rpm - 140 Nm  Drilling capacity in steel 60 ø 42 mm (with insert drill) Tapping capacity M 30 Milling capacity in steel 60 300 cm <sup>3</sup> /min.	

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Pos.	Qty.	Description	Price
900	1,00 ST	<b>Automatic tool changer</b> Tool places 20 Tool shaft HSK A 63 acc. DIN 69893 Tool-Ø max. 65 mm Tool-Ø if adjacent places are free max. 180 mm Tool weight max. 4,0 kg (8,0 kg on 4 places) Tool change time approx. 0,9 s (depends on CNC) Chip-to-chip-time approx. 2,4 s (depends on CNC)	
1000	1,00 ST	<b>SIEMENS CNC-Control 840D</b> (MMC 100.2 / NCU 571.2, 6 measuring cycles, 1 canal) incl. 10,4" TFT colour screen / Full keyboard OP032S NC-memory 256 KB (free disposable for max. 200 programs) for ISO 66025 programming drilling cycles G81-G89 M- and T- functions circular interpolation (360 degrees) re-start into program Subroutines, parameter programming simultaneous programming contour train programming 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 screen switch off mirror function scaling function insert of chamfer and radius universal interface RS 232 C (V24) orientated spindlestop Discharge great CNC-programs over V24 interface dimension metric or inch software limitswitch NC-diagnosis machine-diagnosis absolute, indirect path measuring system	

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Pos.	Qty.	Description	Price
		power meter in screen rigid tapping	
1100	1,00 ST	<b>CMS Powersafe</b> 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 it's Power Safe mode	
1200	1,00 ST	<b>Working hours- and piece counter</b> in the screen	
1300	1,00 ST	<b>Automatic loading door of total enclosure</b> opening and closing, actuating to closing via two-hand push buttons	
1400	1,00 ST	<b>Installation elements</b>	
1500	1,00 ST	<b>Chip conveyor (scratch band)</b> discharge height 1050 mm with coolant equipment, tank capacity 500 l, pump capacity 200 l/min at 1,5 bar pump capacity 20 l/min at 20 - 70 bar programmable with 5 pressure stages by Varo Ventil high pressure circuit with coolant filtration via backwash filter RSF 60	
1600	1,00 ST	<b>Machine preparation</b> for through tool coolant system through spindle acc. DIN 69893	
1700	1,00 ST	<b>NC-rotary-table package, complete installed, consisting of:</b> - 2 NC-rotary-tables, type AWU 160, maker CHIRON-PEISELER - 4th and 5th NC-axis, ready for plug in - 2 adapter-plates for centre height 200 mm - pneumatic supply without control  Technical description for NC-rotary-table: centre height 165 mm, repetition accuracy $\pm 15''$ , face plate dia. 160 mm, with centre bore dia. 50 +0.012, fixture pin dia. 16 h7, 4 fixture bores M10 prepared for pneumatic clamping	
1800	2,00 ST	<b>2-wired pneumatic- and hydraulic turning supply</b> In basic fixture	

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Pos.	Qty.	Description	Price
1900	1,00 ST	<b>CHIRON-Standard-rotary table-basic picture</b> with hydraulic counter bearing clamping bridge size 620 mm consisting of: - base plate (instead of adapter plate for rotary table package) screw- on and unscrewable for work piece changing device - counter bearing with pneumatic clamping - centring flange, rotary table side - centring flange, counter bearing side - 2 x 1-wired energy supply - centre height 165 mm over base plate	
2000	1,00 ST	<b>CHIRON Tool lifetime control with:</b> - tool place organization - sister tool organization - working field organization via 4-digit program no. in the screen	
2100	1,00 ST	<b>Full enclosure</b> with connection to extraction fan, with supplementary machine lamp, servicedoors, drop channel at loading area <b>REMARK:</b> An exhaust fan is required by using a full enclosure!	
2200	1,00 ST	<b>Glass scales, maker HEIDENHAIN</b> Overpressured in all axes X, Y, Z = 630 x 400 x 425 mm	
2300		<b>Signal lamp on machine enclosure for 3 signals</b> Signal "red" = failure Signal "white" = load machine Signal "green" = machine is running	
2400	1,00 ST	<b>Pneumatic- and Hydraulic Connections</b>	
2500	1,00 ST	<b>Central pneumatic connection</b> with 2 connection couplings	
2600	1,00 ST	<b>Hydraulic unit</b> Maker: HEILMEIER & WEINLEIN pressure: 210 bar, flow rate: 6 l/min incl. valves for supply of 2 clamping devices and 2 pressure switches for clamping control	

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2700	1,00 ST	<b>Extension hydraulic unit</b> for clamping a rotary table and counter bearing with 1 second pressure stage, 1 additional clamping circuits, for both table sides (4th and 5th axis)	
2800	1,00 ST	<b>Central hydraulic and pneumatic supply</b> with 10-wired turning supply, and connection couplings, 8 connections are for hydraulic, max. 210 bar and 2 for pneumatic without control.	
2900	1,00 ST	<b>Machine colour</b> Two-components-structure varnish - 2 colours light grey acc. to NCS S1502-B basalt grey acc. to RAL 7012	
3000	1,00 ST	- Documentation -	
3100	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	
3200		<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°	