

Pos.	Qty.	Article Description	Price / €
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Complete machine description | FZ 18 S no. 267-61

- | | | | |
|---|---|---|--|
| 1 | 1 | Partly refurbished
vertical CNC-machining centre model CHIRON FZ 18 S
Year of construction: 2010, weight: 6.500 kg | |
|---|---|---|--|

Machine-No. 267-61



Machine image similar.
The equipment of the sample photo isn't binding.

GB | Data sheet | ref 267-61.docx

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26.05.2020

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Steuer-Nr. 21101/01726, Ust.-Id.-Nr. DE 812948040
IBAN : DE42653700750220814800
SWIFT : DEUTDESS653



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Scope of delivery:

100	1	Column moving machining centre with fixed table Suitable for dry-machining with optimal chip-drop	
		Drilling capacity	Ø 50 mm
		Tapping capacity	M 36
		Milling capacity	700 cm ³ /min
200	1	High speed spindle 13,0 kW at 100% 26,0 kW at 25% Spindle speed range: 20 – 10.500 rpm –300 Nm	
300	1	Travel: X-axis 800 mm Y-axis 520 mm Z-axis 630 mm with variable tool changing level	
400	1	Automatic tool changer, protected against chips Tool places 20 Tool shaft HSK-A 63 DIN 69893 Tool-Ø max. 65 mm Tool-Ø at free neighbour placed max. 180 mm Tool weight max. 5,0 kg (8,0 kg on 4 places) Tool change time approx. 0,9 s (depends on CNC) Chip-to-chip-time approx. 2,1 s (depends on CNC)	
500	1	Fixed table with chip pan clamping surface 1400 x 570 mm ² with grid 2 x 18 H12,1 x 18 H8 1 fixing socket Ø 15 H7 table loading capacity max. 1200 kg	
600	1	AC-servo-motors feed drives for X-, Y- and Z-axes with direct drives, indirect absolut path measuring system rapid traverse 60 m/min in all axes acceleration 0,5 g in the X and Y axis 0,7 g in the Z-axis	



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|-----|---|--|--|
| 700 | 1 | <p>SIEMENS CNC-control 840D
 (PCU 50 / NCU 572.5, 6 measuring circuits, 1 canal)
 incl. 10,4" TFT colour LCD screen / full keyboard OP010S
 Windows XP
 NC-memory 256 MB
 (max.200 programmes storage capacity)
 for ISO 66025 programming
 hard disk with approx. 20 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
 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 (1 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 with dynamic feed forward</p> | |
| 800 | 1 | <p>CHIRON Powersafe
 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.
 Definable point in time at which the machine starts demand-
 oriented automatically with a variable warmup programm to
 recovery the production readiness.</p> | |



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900	1	CHIRON Maintenance Management in the screen 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.	
1000	1	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.	
1200	1	Socket for portable mini-hand wheel without emergency stop button, incl. 900 mm connection cable (so you can reach the emergency stop button in the control panel every time)	
1250	1	Operating hours and piece counter on the screen	
1270	1	Socket 230 V at control panel	
1300	1	Cabinet cooler as a door mounting unit	
1400	1	Signal lamp on machine enclosure for 3 signals Signal "red" = failure Signal "white" = load machine Signal "green" = machine is running	
1500	1	Machine enclosure with full enclosed workspace with loading doors, electrically interlocked, including replaceable safety windows, workspace enclosure with stainless steel covers. 2400 mm high above floor, including machine lamp	
1600	1	Chip conveyor (scratch band) with lateral discharge, discharge height 1050 mm tank capacity 150 l, pump capacity 300 l/min at 1,3 bar	

(At steel machining or long chipped materials, we recommend the use of a Screw conveyor)



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1700 1 **Installation elements**

1800 1 **Wash gun**

1900 1 **Glass scales**
maker HEIDENHAIN, overpressured in all axes
X, Y, Z = 800 x 520 x 630 mm

2000 1 **Coolant tank TPF 350 S / FKA 900**
(also for sludge generating materials, i.e. grey cast iron, GGG, Al
with Si >= 12%)
tank capacity 900 l

low pressure pump capacity from 200 l/min at 2.4 bar
up to 300 l/min at 2.0 bar
high pressure pump capacity 22 l/min at 30 bar

Full stream purification via drum paper bond filter TPF 350 S,
with coolant purification 50 µm nominal
twin filter in the high pressure circuit for the
protection of the machine
incl. bed flushing system and

Fixture washing
with nozzles controlled with m-functions
for washing the working area

2100 1 **Through tool coolant package with air cleaner
consisting of:**

Machine preparation

- for through tool coolant system including:
- sealing system in the DIN 69871 Form A40
or 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 flow control switch
 - solenoid valve, controlled via machine program

* HSK A63 tool holders for through tool coolant require
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: requires high pressure equipment)



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Fully enclosed workspace

Exhaust fan with air cleaner

exhaust capacity 800 m³/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.

Tool lifetime control with:

- tool place organization
- sister tool organization
- working area organization by 4-figure program no. in the display (only at machines with several working areas)
- geometrie monitoring at tool selection

2200 1 **5-axes-machining (TRAORI)**

for the machining of three-dimensional curved surfaces with 3 linear and 2 additional axes.

- 5-axes-transformation with tool orientation and tool center point management.

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.

- 5-axes-tool-offset.

The length of the tool is automatically computed and compensated in the movements of the axes.

- Oriented tool withdrawal.

With the interruption of machining (e. g. tool breakage), the tool can be withdrawn orientated and defined.



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2300 1 **Probe for automatic measuring in the machine
Renishaw - probe - package OMP 40-2LS**

for part measuring and automatic machine compensation,
 - probe with optical contact modul and tool taper suitable for machine spindle
 - tracing pin 58 mm with ruby ball dia. 4 mm
 - receiver OMI with integrated interface
 - bracket for receiver
 - process oriented measuring
 - software for measuring cycles and strategy program

Remark:

For the carrying out of machine compensations with probe a suitable reference surface at the machine or at the fixture or an optional gauge block (VCS12100800) are necessary.

2400 1 **Screw conveyor**

implemented in machine base for swarf extraction instead of coolant flushing system.
 (In case of steel machining and other materials with long chips we recommend the use of a screw conveyor)

2500 1 **NC-rotary-table package, complete installed consisting of:**

- NC-rotary-table, type AWU 160 P
- 4th NC-axis, complete
- adapter-plate for centre height 220 mm
- pneumatic supply without control

Technical description for NC-rotary-table:
 centre height 165 mm, repetition accuracy $\pm 15''$,
 load moment of inertia (without turning supply) 1,9 kgm²
 face plate dia. 160 mm, with centre bore dia. 50 +0.012,
 fixture pin dia. 16 h7, 4 fixture bores M10,
 incl. pneumatic clamping

Mounted on grid plate



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2600	1	<p>CHIRON standard fixture for rotary table with pneumatic actuated counter bearing bridge size 720 mm existing of:</p> <ul style="list-style-type: none"> - counter bearing with pneumatic clamping - flange plate incl. connecting coupling and quick-locator, on side of the rotary table - flange plate incl. connecting coupling and quick-locator, on side of the counter bearing - 2 x 2-core energy supply pneumatic or hydraulic - center height 240 mm below the base plate 	
2700	1	Pneumatic- and hydraulic connections	
2800	1	<p>Pneumatic supply without control and 1 outlet coupling</p>	
2900	1	<p>Pneumatic connection (A+B) for pneumatic clamping device electrically controlled pneumatic connection, for double acting; pressure control; pressure control switch with automatic pressure regulation. (in case of pressure change automatic pressure sensing)</p>	
3000	1	<p>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</p>	
3100	1	<p>Hydraulic unit continuous duty pressure: 210 bar incl. valves for supply of 2 clamping devices and 2 pressure switches for clamping control</p>	
3200	1	<p>CHIRON Variable Clamping Logic For the definition of different clamping and releasing sequences, for a maximum of 10 functions with a maximum of 8 steps. Considering of time delay and monitoring of clamping circuits e.g. through pressure switches or airsensing. The storing of the configuration and reloading, allows fast changeover.</p>	



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Machine colour

Two-components-structure varnish - 3 colours

window grey acc. to RAL 7040

grey white acc. to RAL 9002

basalt grey acc. to RAL 7012

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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