

Pos.	Qty.	Article Description	Price / €
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Complete machine description

- 1 1 **Vertical CNC-machining centre model FZ 08 KS**
Partly refurbished pre-owned machine
Year of construction: 2001, weight: 2.000 kg

Machine-No. 462-84

Scope of delivery:

Column moving machining centre with fixed table

**AC-motor
with High speed spindle**

2,2 kW at 100%
 7,2 kW at 25%
 Spindle speed range: 20 – 15.000 rpm – 23 Nm

Drilling capacity Ø 16 mm
 Tapping capacity M 12
 Milling capacity 20 cm³/min

Travel:

X-axis 300 mm
 Y-axis 250 mm
 Z-axis 250 mm

Automatic tool changer

Tool places 23
 Tool shaft HSK-A 32 DIN 69893
 Tool-Ø max. 40 mm
 Tool-Ø if adjacent places are free 50 mm
 Tool weight max. 0,7 kg (average 0,5 kg)
 Tool change time approx. 0,6 s (depends on CNC)
 Chip-to-chip-time approx. 1,9 s (depends on CNC)

Fixed table with chip pan

clamping surface 620 x 270 mm²
 with grid M16 x Ø 15 H7 x 50 mm
 table loading capacity max. 150 kg



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AC-servo-motors

Feed drives for X-, Y- and Z-axis
indirect absolute path measuring system
rapid traverse in X- and Y-axis: 40 m/min
rapid traverse in Z-axis: 60 m/min

Siemens CNC-control 840 D

(MMC 100.2 / NCU 571.3, 6 measuring circuits, 1 channel)
incl. 10,4" TFT colour LCD screen / full keyboard OP032S
NC-memory 256 KB
(max. 200 programmes storage capacity)
for ISO 66025 programming
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
screen switch off
mirror function
scaling function
insert of chamfer and radius
Universal interface RS 232C (2 x V24)
orientated spindlestop
drip feed function through V24 interface
dimension metric or inch
software-limitswitch
NC-diagnosis
machine-diagnosis
absolute indirect path measurement systems
rigid tapping



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CMS Powersafe

Software package for selective shutdown of installed consumers such as axis motors, divers, 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.

Socket 230 V

on the control console

Machine enclosure

bolted on, with loading door, electrically interlocked, 2.000 mm high above floor, incl. machine lamp

Cabinet cooler

as a door-mounted unit

Installation elements

Wash gun

Oil package for machining with cutting oil

Machine preparation

for inside flushing tools by the spindle, with hollow shaft, sealing in the HSK-A 32 collet, rotary joint to spindle drive, moisture sensor for monitoring of leakage, high pressure supply with built-in dirt collector magnetic valve programmed via NC program

Chip conveyor (scratch band)

discharge height 495 mm with coolant unit, tank capacity 150 l, pump capacity 100 l/min. at 1,3 bar

High pressure coolant unit

in connection to the standard coolant unit or chip conveyor as an Inline pump

pump pressure	max. 150 bar
pump capacity	max. 6 l/ min.
vario valve	20, 30, 50, 70, 90, 110, 130, 150 bar
partial flow cleaning	about 60µm duplex filter
flow switch	



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Coolant temperature stabilisation

a plate heat exchanger

Automatic loading door of total enclosure

opening and closing

Safety light barrier

for automatic door

Walk switch

Preparation of the flow monitor in the exhausting fan

Signal light on control console for 3 signals

Signal "red" = fault
Signal "white" = load machine
Signal "green" = machine running

Coolant connection device for fixture flushing

Measure package

Marker HEIDENHAIN, over pressured in all axes
X, Y, Z = 300 x 250 x 250 mm
note: zero point approach required

Rotary table package completely installed consisting of:

- NC rotary table, type AWU P 100
mounted to the fixed table grid
- interface 4th NC-axis
lowest increment 0,001°
- pneumatic supply, without control

Technical description NC rotary table
indexing accuracy ± 5 sec. **with direct measuring system**

max. spindle speed 80 rpm

Spindle with pneumatic clamping, centre height 125 mm,

Faceplate-Ø 100 mm, with centre hole Ø 50 + 0,012,

Through bore 35 mm, fixing pin Ø 10H7,

4 mounting holes M8



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Chiron standard fixture for rotary table

with:

- base plate for AWU P 100 and counter bearing
- counter bearing with pneumatic clamping
- centring flange, on side of the rotary table
- centring flange, on side of the counter bearing
- counter bearing shaft
- 4-wire power supply on the counter bearing
- 2 x hydraulic
- 2 x pneumatic
- centre height 160 mm
- bridge size 250 mm

Airsensoring

with separate valves for 2 clamping stations

Electrical main switching off

in the pneumatic supply

Pneumatic and hydraulic connections

Pneumatic supply (A + B)

for pneumatic clamping device
electrically controlled pneumatic connection,
for double acting clamping cylinder; 1 pressure controller;
pressure control with automatic pressure regulation.
(in case of pressure change automatic pressure sensing)

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.

CMS variable clamping logic

To define of various clamping and releasing consequences
per tableside max. 5 clamping circuits and max. 5 clamping or
unclamping steps, taking account of delay times and clamping
circuit monitoring such as pressure switches.

Hydraulic unit

pressure: 210 bar, supply capacity: 1,7 l/min
with electrical control
incl. valves for supply of 1 clamping device
incl. 1 pressure switch for clamping control



Extension levels of the Siemens 840 D

CHIRON Tool endurance monitoring:

- sister-tool organisation
- tool place organisation
- working field organisation via 4-digit program-number in the screen
- geometry control at tool call

Documentation

Operating manuals, programming and operating manuals 1-fold on CD-ROM.

Please refer to the manufacturer's instructions for each component.

Machine colour

Two-components-structure varnish
light grey acc. to NCS S1502-B

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°

Information Export

We point out that the CHIRON CNC-machining centres are subject to controls. For the export from the European Union an export license is necessary.

Information Machine safety

The machine is designed and built in accordance with the European machine guideline.

Other safety features due to special company rules and specifications can be considered. The actual cost will be invoiced.

Information Coolant lubrication

The machine is designed for standard water soluble coolant and fully enclosed at the standard version.
The machine must be equipped with fume extraction.

The machine contents different plastics, varnish, resin and glue, which are selected carefully for using coolant and cutting oil.

The use of aggressive coolant and additive could cause major damages and machine stops.

Contact in any case your coolant supplier before machine set-up and installation.

