

Complete machine description

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| 1 | 1 | Completely refurbished
vertical CNC-machining centre model FZ 08 KWM
Year of construction: 2005, weight: 3.600 kg | |
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Machine-No. 230-62

Scope of delivery:

Column moving machining centre with workpiece swivel table
 Guideways with long-term lubrication

Main Spindle drive with AC-motor

with air purge and monitoring of the tool clamping

2,2 KW at 100 %

7,4 KW at 25 %

Spindle speed range: 20 - 15.000 rpm - max.23 Nm

Drilling capacity in 60 pc.	Ø 16 mm
Tapping capacity	M 12
Milling capacity in steel in 60 pc.	60 cm ³ /min

Travel:

X-axis	450 mm
Y-axis	270 mm
Z-axis	310 mm

Automatic tool changer

through robust, full enclosed pick up tool changer,
 with mechanical impact protection and cleaning
 of the tool taper through air blow

Tool places	24
Tool shaft	HSK-A 40 DIN 69893
Max Tool-Ø	max. 47 mm
Max Tool-Ø if next places are free	100 mm
Tool length	160 mm
Max. tool weight	max. 1,2 kg
Tool change time	approx. 0,8 s (depends on CNC)
Chip-to-chip-time	approx. 1,9 s (depends on CNC)



Pos.	Qty.	Article Description	Price / €
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Workpiece swivel table 0/180 degrees

with centre divider made of sheet metal
clamping surface 2 x 550 mm x 300 mm
with thread and locating hole grid M16 x ø 15 H7 x 50 mm
workpiece swivel time appr. 2,0 s weight-dependent, self-regulating
through self-learning speed-control
table loading capacity per side 200 kg,
max. 50 kg weight difference between the two table sides

AC-servo-motors

feed drives for X-, Y- and Z-axes,
indirect absolute path measuring system
rapid traverse in X-, Y-, and Z-axes 75 m/min
acceleration:

- 1,0 g in X-axis
- 1,5 g in Y-axis
- 2,0 g in Z-axis

SIEMENS CNC-control 840D

(PCU 50 / NCU 572.3, 6 Messkreise, 1 Kanal)
incl. 10,4" TFT colour LCD screen / full keyboard OP010S
control panel logic Windows NT
NC-memory 256 KB
(max.200 programmes storage capacity)
for ISO 66025 programming
hard disk with approx. 2 GB for free disposal
power meter in screen
screen switch off
look ahead function
Bellshape-acceleration ramp
software limit switch
access authorization over key switch
for tool correction, NC-program changes
and machine parameters
orientated spindle stop
rigid tapping
re-start into program
Subroutines, parameter programming
simultaneous programming
support through cycles

drilling cycles G81-G89
drilling and milling cycles
M- and T- functions
tool offsets for geometry, wear



Pos.	Qty.	Article Description	Price / €
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4 zero offsets G54-G57
30 zero shifts programmable with G-functions
tool radius correction for
intersection computing
crossing radius
contour programming
dimension metric or inch
mirror function
polar coordinates
circular interpolation (360 degrees)
3D and helical interpolation

drip feed function through V24 interface
Universal interface RS 232C (2x V24) at control panel
Ethernet connection RJ45 in control panel

NC-diagnosis
machine-diagnosis

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 it's Power Safe mode.

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.

Thermocontrol

Thermodrive

Working hours and piece counter
in the screen

Socket 230 V
at control panel



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Socket for portable mini-hand wheel

without emergency stop button,
at control panel

Machine enclosure with full enclosed workspace

with loading doors, electrically interlocked,
including replaceable safety windows,
workspace enclosure with stainless steel covers,
2070 mm high above floor, including machine lamp

Signal lamp for 3 signals

Signal "red" = failure
Signal "white" = machine loaded
Signal "green" = machine is running

Cabinet cooler as a door mounting unit

Oil-free air service unit

with automatic condensate separator,
pressure control of the air supply
and micro filter 0,01 µm for air purge

Installation elements

Wash gun

With 1 connection and fast coupling per loading- and working area

Machine preparation

- for through tool coolant system including
- Sealing system in the HSK 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

CHIRON Tool lifetime control with:

- tool place organization
 - sister tool organization
 - Working field organisation by 4 digit program number in the screen
- Geometrie monitoring at tool call



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Chip conveyor (scratch band)

discharge height 490 mm instead of standard-coolant equipment,
tank capacity 110 l, at 1,8 bar
Coolant cleaning by slot screen case

High pressure pump

used together with the standard coolant unit or
the chip conveyor

Pressure 20, 30, 50, 70, 90, 110, 130, 150 bar

(>= 30.000 min-1 max. 70bar)

Pump capacity max. 6 l/min.

Vario valve 20, 30, 50, 70, 90, 110, 130, 150 bar

Partical coolant cleaning system 60 µ via twin filter

Preconditions: Machine preparation for through tool coolant

Recommendation: Additional coolant tank with filtration via paperbondfilter

Additional coolant tank

tank capacity 500 l,

pump capacity 100 l/min at 1,8 bar

coolant filtration via paperbondfilter 50 µm

with automatic filter transport

(only in combination with chip conveyor, the pump in the chip conveyor
becomes the lift pump)

2 Rotary table package completely installed consisting of:

- NC rotary table, type AWU P 100
fit on the workpiece table grid
- interface 4th and 5th NC-axes
lowest increment 0,001°
- pneumatic supply, without control

Technical description NC rotary table

Spindle with pneumatic clamping, centre height 125 mm,
indexing accuracy ± 30"

max. spindle speed 80 rpm

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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2 Chiron standard fixture for rotary table

Bridge size **410 mm in X, 105 mm in Y**

Consisting of:

- 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
- 2 x 1-wired power supply (pneumatic)
- centre height 125 mm

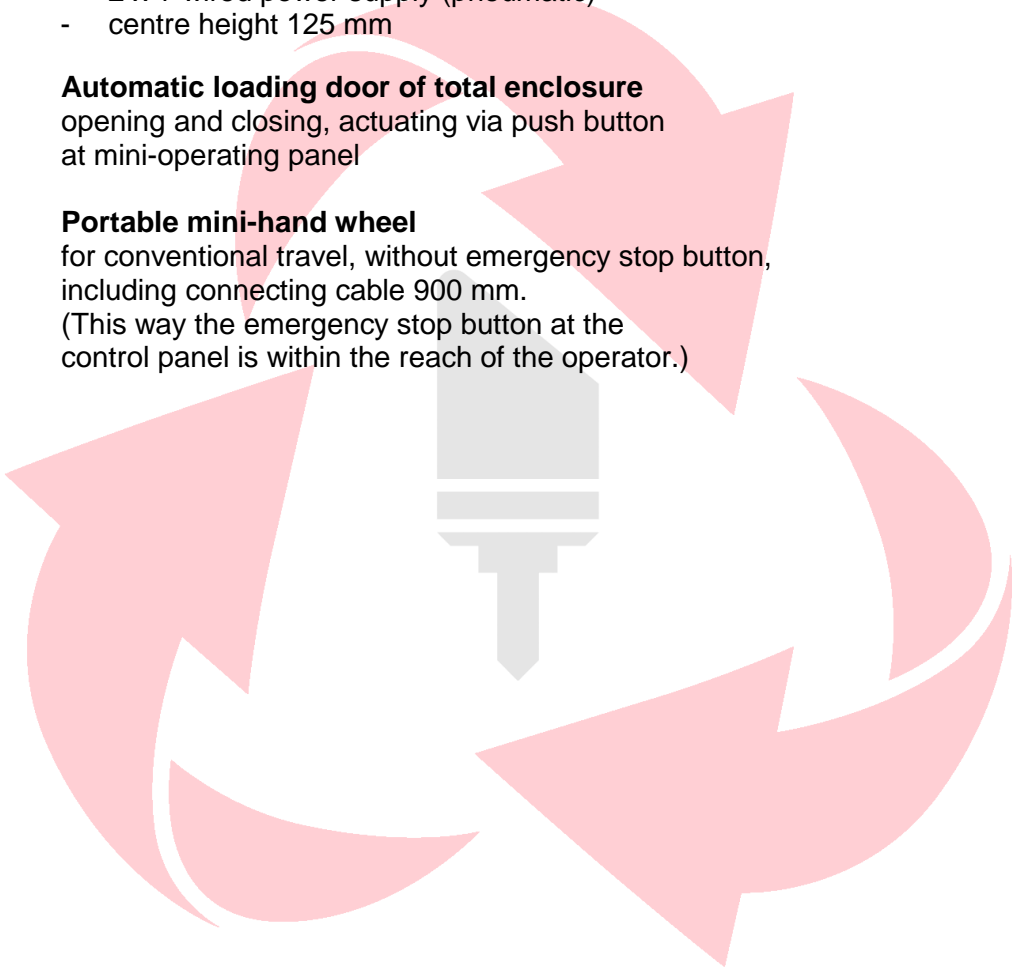
Automatic loading door of total enclosure

opening and closing, actuating via push button at mini-operating panel

Portable mini-hand wheel

for conventional travel, without emergency stop button, including connecting cable 900 mm.

(This way the emergency stop button at the control panel is within the reach of the operator.)



Electric interface for loader with "Profibus" - Siemens

on W-machines for loading through manual or automatic loading door 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", incl. direct door switch in position "door open"

Deviation from the standard interface and set up will be charged according to effort.

Waiting periods during set up will also be charged.

Recommended options:

- automatic doors, if necessary
- tool life control
- tool breakage control
- fixture washing
- chip conveyor, if not included in basic machine
- Parts location air sensing
- automatic central lubrication

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.

2 x 2-core pneumatic- or hydraulic turning supply

for CHIRON standard fixture

Machine colour

Two-components-structure varnish - 2 colours

light grey acc. to NCS S1502-B

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°



Information Export

We point out that the 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, 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.

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.

