

Pos.	Qty.	Article Description	Price / €
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## Complete machine description | FZ 08 KWM no. 230-62

1	1	<b>Completely refurbished vertical CNC-machining centre model CHIRON FZ 08 KWM Year of construction: 2005, weight: 3.600 kg</b>	
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**Machine-No. 230-62**



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

GB | Data sheet | ref 230-62.docx

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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 <sup>3</sup> /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)

### 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



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### 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  
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)



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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.

### Thermodrive

**Working hours and piece counter**  
 in the screen

**Socket 230 V**  
 at control panel

**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



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### 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

### Electrical suction preparation

### 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

### 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

### 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)



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### 2 Rotary table package completely installed consisting of:

- NC rotary table, type TG 100 FT axis  
fit on the workpiece table grid
- interface 4<sup>th</sup> and 5<sup>th</sup> 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  $\pm 30''$

max. spindle speed 80 rpm

Faceplate- $\varnothing$  100 mm, with centre hole  $\varnothing 50 + 0,012$ ,

Through bore 35 mm, fixing pin  $\varnothing 10H7$ ,

4 mounting holes M8

### 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 2-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



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### Electric interface for loader with Harting plug

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 sensoring
- 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.

### Additional button for indexing in the loading station

indexing 4 x 90° or 2 x 180° for NC rotary tables, 4th or 4th and 5th axis

### Chiron Lasercontrol Single F500

for tool breakage control, min. tool  $\varnothing > 1\text{mm}$ , incl. test mandrel with tool holder, transmitter and receiver, gland and shutter

### Documentation

Operating manuals, programming and operating manuals 1-fold on a USB-Stick.

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



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### 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 ± 10 %, 50 cycles N/PE,  
 neutral conductor, load possible, pressure supply  
 6 bar, ± 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.

