

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

- 1 1 **Vertical CNC-machining centre model FZ 08 KSM**  
**Partly refurbished pre-owned machine**  
**Year of construction: 2005, weight: 3.400 kg**

### Machine-No. 415-10

Scope of delivery:

**Column moving machining centre with fixed table**  
 Guideways with long-term-grease lubrication

#### Digital main drive with spindle

7,0 kW at 100 %  
 9,0 kW at 25 % - 11 Nm watercooled  
 Spindle speed range up to 30.000 rpm  
 Acceleration and deceleration 0 - 30.000 rpm ca. 1,9 sec. each  
 Warranty: 4.000 h

#### Travel:

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

#### Automatic tool changer

by robust, full encased Pick up Chain magazine,  
 with mechanic drive protection and cone cleaning  
 above blow out air

No. of tools	40
Tool shaft	HSK-A 40 DIN 69893
Max. tool dia.	max. 50 mm
Max. tool dia.	max. 100 mm if adjacent places are free
Tool length	max. 160 mm
Max. tool weight	max. 1,2 kg
Tool change time	appr. 0,8 s (depends on control)
Chip-to-chip-time	appr. 2,5 s (depends on control)

#### Fixed table with chip pan

for optimal chip drop at wet- and dry milling  
 clamping surface 770 mm x 290 mm  
 with thread and locating hole grids M16 x ø 15 H7 x 50 mm  
 table loading capacity max. 500 kg



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### Digital feed drives for X-, Y- and Z-axis

with digital direct drives and indirect absolut path measuring system  
rapid traverse in X- and Y-axes 60 m/min, Z-axis 60 m/min,  
acceleration: 1,0 g in X-axis  
1,5 g in Y-axis  
2,0 g in Z-axis

#### Remark:

With normal conditions the machine does not have to be anchored to the floor.  
(For slippery floors we recommend anchoring.)

### 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.  
Password protected confirmation of the performed maintenance through the maintenance staff.

### FANUC 21 i - 3-axes continuous path control

9.5" LCD monochrom screen  
memory capacity 32 KB  
drilling cycles G81-G89  
absolute path measuring system  
M- and T-functions  
circular interpolation (360 degrees)  
re-start into program  
makro B sub-routines  
look ahead  
simultaneous programming  
automatic corner override  
32 tool offsets  
cutter radius - contour compensation  
6 zero shifts G54-G59  
metric/inch switch  
3 D-interpolation/helical interpolation  
S-analogue  
rigid tapping  
orientated spindle stop  
Slot for PCMCIA memory card  
Interface RS 232C on the side at the control panel  
software-limitswitch  
NC-diagnosis, machine diagnosis



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### **Thermocontrol**

(deactivated with use of measuring systems e.g. spindle probe, stationary 3D probe or laser control)

### **Thermodrive**

with indirect path measuring system

### **Working hours and piece counter**

in the screen

### **Socket 230 V**

at control panel

### **Socket for portable mini-handwheel**

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 on machine enclosure for 3 signals**

Signal "red" = failure

Signal "white" = load machine

Signal "green" = machine is running

### **Coolant equipment with chip container**

tank capacity appr. 100 l

pump capacity 60 l/min at 1 bar

Coolant cleaning through interchangeable sieve box  
and sedimentation basin

### **Cabinet cooler**

as a door mounting unit

### **Oil-free air service unit**

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

### **Installation elements**

### **Wash gun**



## Extensions of Fanuc 18i

### DATA-Server

64 MB memory

### Tool lifetime control with:

tool place organization,  
sister tool organization,  
drill- and milling cycles  
6-digital toolnumbers

### Memory capacity 128 KB instead of 32 KB

### S-Ram-extension: 1 MB

(ca. 5165 KB free available)

### Documentation

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

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

### 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°

### 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.



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### 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.

