

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

- 1 1 **Functional tested
vertical CNC-machining centre model FZ 08 KSM
Partly refurbished in 2017
Year of construction: 2006, weight: 3.200 kg**

Machine-No. 414-51

Scope of delivery:

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

Digital main drive with water-cooled motor spindle
with air purge and monitoring of the tool clamping
7 kW at 100 %
9 kW at 25 %
spindle speed range up to 30.000 rpm; 11 Nm
acceleration from 0 to 30.000 rpm
or deceleration in 0,6 seconds

Drilling capacity in steel Ø 12 mm
Tapping capacity M 8
Milling capacity in steel 30 cm³

NC swivel head
swivel range -20° / +115°
rapid traverse 60 rpm
lowest increment 0,0001°
with direct measuring system ± 5"

Travel:
X-axis 450 mm
Y-axis 270 mm
Z-axis 310 mm (plus distance from spindle nose to
table surface, according to data sheet)



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Automatic tool changer

trough robust, fully enclosed Pick-up magazine chain with mechanical tailgate protection and cone cleaning.

No. of tools	40
Tool shaft	HSK-A 40 DIN 69893
Max. tool dia.	50 mm
Max. tool dia.	100 mm if adjacent places are free
Tool length	160 mm
Max. tool weight max.	1,2 kg (max. magazine loading 20 kg)
Tool change time	appr. 0,8 s
Chip-to-chip-time	appr. 1,9 s
Chip-to-chip-time with 90°	appr. 2,3 s

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

AC-servo-motors feed drives for X-, Y- and Z-axes with glass scale package, digital direct drives with direct absolute path measuring system overpressured in all axes
 rapid traverse in X-, Y- and Z-axes 75 m/min,
 acceleration X-axis 1 g, Y-axis 1,5 g, Z-axis 2 g

Remark:

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

FANUC 18i MB5 - 5-axes continuous path control

10,4" color screen
 memory capacity 256 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



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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

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.

Signal lamp on machine enclosure for 3 signals

- Signal "red" = failure
- Signal "white" = load machine
- Signal "green" = machine is running

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

Chip conveyor (scratch band)

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



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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

Installations elements

Wash gun

Automatic loading door of total enclosure

opening and closing, actuating via button on control panel

Probe for automatic measuring in the machine

Renishaw-probe – package OMP 40

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
- Interface 0I12
- Tragarm with Infraredreceiver OMM-C
- 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 (CS12100800) are necessary.

Exhaust fan with air cleaner

exhaust capacity 500 m³/h

mounted and integrated in the machine base

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.

Pneumatic connection (A+B)

for pneumatic clamping device

electrically controlled pneumatic connection,

for double acting; pressure control;

pressure control switch with automatic pressure regulation.



Extensions of Fanuc 18 i

High speed skip and extended macro variable's (fast measuring entries)

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.

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.

