

Complete machine description

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| 1 | 1 | Partly refurbished
vertical CNC-machining centre model FZ 12 KW
Year of construction: 2006, weight: .7500 kg | |
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Machine-No. 253-14

Scope of delivery:

Column moving machining centre with machine bed in mineral cast technique and workpiece swivel table
 Guideways with long-term-grease lubrication

Digital main drive with spindle

7,5 kW	at 100 %
13,0 kW	at 25 %
spindle speed range up to 15.000 rpm; max. 70 Nm	

Drilling capacity	Ø 25 mm (with insert drill)
Tapping capacity	M 20
Milling capacity	120 cm ³ /min

Travel:

X-axis	550 mm
Y-axis	320 mm
Z-axis	360 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

No. of tools	48
Tool taper	HSK-A 50 DIN 69893
Max. tool dia.	max. 60 mm
Tool length	max. 250 mm
Max. tool weight	max. 3 kg
Tool change time appr.	0,9 s (depends on CNC)
Chip-to-chip-time appr.	2,4 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 660 mm x 350 mm
with thread and locating hole grid M16 x \varnothing 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 300 kg,
max. 100 kg weight difference between the two table sides

AC-servo motors for x-, y- and z-axes

digital direct drives with indirect absolut path measuring system
rapid traverse in all axes 75 m/min.
Acceleration: X-axis 1 g, Y-axis 1,5 g, Z-axis 2,0 g

Remark:

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

Fanuc 18i MB – 5 axes continuous path control

10,4" LCD monochrom 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 subroutines
Look ahead
Simultaneous programming
Automatic corner override
32 tool offsets
cutter radius – contour compensation
6 zero shifts G54-G59
metric/inch switch
3D-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



Pos.	Qty.	Article Description	Price / €
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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

at indirect absolut path measuring system

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

Cabinet cooler as a door mounting unit

Signalleuchte auf Spritzschutzverkleidung für 3 Signale

Signal "rot" = Störung
Signal "weiß" = Maschine beladen
Signal "grün" = Maschine läuft

Machine enclosure

2140 mm high above floor with sliding doors,
electrically interlocked, incl. machine lamp
service friendly with removable side walls
working area with vertical bellows

Mini-operating panel

with start and receipt push buttons, for pallet recognition M61/M62

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



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Wash gun

with 1 connection and quick coupling each
in loading- and working area

Chip conveyor (scratch band)

instead of standard coolant equipment
discharge height 490 mm
tank capacity 100 l,
pump capacity 110 l/min at 1,3 bar
coolant cleaning through slot filter box
mesh size W=0,35 mm

Coolant equipment

tank capacity 350 l.
with low pressure pump 100 l/min. at 2,1 bar,
till 200 l/min. at 1,9 bar
incl. tub flushing

Package m-functions

m72/m73 2 m-function pairs for
m74/m75 simple ON/OFF function
m76 m-functions to control a
m78 peripheral equipment with external setback
(blocking of the machine course)

Flow control switch

for standard coolant

4. and 5. NC-axes ready for plug-in

Pneumatic connection controlled

with A/B connection on each tableside
for pneumatic clamping device
2 electrically activated pneumatic connections
for double acting; one pressure control,
either for one or two controlled clamping circuits;
at each clamping circuit pressure control
switch with automatic pressure regulation.
(in case of pressure change automatic pressure sensing)

High speed skip and macro common variables

(fast measure entrance)



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Cutting tools

The cutting tools have to be balanced according to DIN 1940, class G 2,5, in two levels, with max. operating speed

Machine colour

two-components-structure varnish – 3 colours
window grey acc. to RAL 7040
blue acc. to NCS S2050-R80B
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.

