

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

- 1 1 Vertical CNC-machining centre model FZ 18 WM**
Completely refurbished pre-owned machine
Year of construction: 2000, weight: 5.500 kg

Machine-No. 437-51

Scope of delivery:

Column moving machining centre with work piece changing equipment

Main spindle drive with AC-motor

10 kW at 100 %

18 kW at 25 %

Spindle speed range: 20 - 10.500 rpm - 140 Nm

01100800

Drilling capacity in steel 60

∅ 42 mm (with insert drill)

Tapping capacity

M 30

Milling capacity in steel 60

300 cm³/min.

Travel:

X-axis

630 mm

Y-axis

400 mm

Z-axis

425 with adjustable tool change level

Automatic tool changer

Tool places

20

Tool shaft

HSK A 63 acc. DIN 69893

Tool-∅

max. 65 mm

Tool-∅

if adjacent places are free

max. 180 mm

Tool weight

max. 4,0 kg (8,0 kg on 4 places)

Tool change time approx.

0,9 s (depends on CNC)

Chip-to-chip-time approx.

2,4 s (depends on CNC)



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Workpiece swivel table 0/180

Clamping surface 2 x 850 x 470 mm²
with thread and locating hole grids
M 16 x Ø 15 H7 x 50 mm
Workpiece change time approx. 4,0 s
Table loading capacity per side max. 250 kg (400 kg)
(with more table load until max. 2 x 400 kg,
the workpiece change time extended to ca. 7,0 seconds)

SIEMENS CNC-Control 840D

(MMC 100.2 / NCU 571.2, 6 measuring cycles, 1 canal)
incl. 10,4" TFT colour screen / Full keyboard OP032S
NC-memory 256 KB
(free disposable for max. 200 programs)
for ISO 66025 programming
drilling cycles G81-G89
M- and T- functions
circular interpolation (360 degrees)
re-start into program
Subroutines, parameter programming
simultaneous programming
contour train programming
polar coordinates
tool offsets for geometry, wear
tool radius correction for
intersection computing
crossingradius
4 zero offsets G54-G57
30 zero shifts programmable with G-functions
3D and helical interpolation
screen switch off
mirror function
scaling function
insert of chamfer and radius
universal interface RS 232 C (V24)
orientated spindlestop
Discharge great CNC-programs over V24 interface
dimension metric or inch
software limitswitch
NC-diagnosis
machine-diagnosis
absolute, indirect path measuring system
power meter in screen
rigid tapping



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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

Working hours- and piece counter

in the screen

Machine enclosure

with loading door, electrically interlocked, 2600 mm high above floor, incl. machine lamp

Mini-operating panel

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

Installation elements

Chip conveyor (scratch band)

discharge height 1050 mm with coolant equipment, tank capacity 500 l, pump capacity 200 l/min at 1,5 bar pump capacity 20 l/min at 20 - 70 bar programmable with 5 pressure stages by Varo Ventil high pressure circuit with coolant filtration via backwash filter RSF 60

Machine preparation

for through tool coolant system through spindle acc. DIN 69893

NC-rotary-table package, complete installed, consisting of:

- 2 NC-rotary-tables, type AWU 160, maker CHIRON-PEISELER
- 4th and 5th NC-axis, ready for plug in
- 2 adapter-plates for centre height 200 mm
- pneumatic supply without control

Technical description for NC-rotary-table:

centre height 165 mm, repetition accuracy $\pm 15''$, face plate dia. 160 mm, with centre bore dia. 50 +0.012, fixture pin dia. 16 h7, 4 fixture bores M10 prepared for pneumatic clamping

2 x 2-wired pneumatic- and hydraulic turning supply

In basic fixture



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CHIRON-Standard-rotary table-basic picture

with hydraulic counter bearing clamping
bridge size 620 mm
consisting of:

- base plate (instead of adapter plate for rotary table package)
screw- on and unscrewable for work piece changing device
- counter bearing with pneumatic clamping
- centring flange, rotary table side
- centring flange, counter bearing side
- 2 x 1-wired energy supply
- centre height 165 mm over base plate

CHIRON Tool lifetime control with:

- tool place organization
- sister tool organization
- working field organization via 4-digit program no. in the screen

Full enclosure

with connection to extraction fan,
with supplementary machine lamp, servicedoors,
drop channel at loading area

REMARK:

An exhaust fan is required by using a full enclosure!

Glass scales, maker HEIDENHAIN

Overpressured in all axes
X, Y, Z = 630 x 400 x 425 mm

Central pneumatic connection

with 2 connection couplings

Hydraulic unit

Maker: HEILMEIER & WEINLEIN
pressure: 210 bar, flow rate: 6 l/min
incl. valves for supply of 2 clamping devices
and 2 pressure switches for clamping control

Extension hydraulic unit

for clamping a rotary table and counter bearing
with 1 second pressure stage,
1 additional clamping circuits,
for both table sides (4th and 5th axis)



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Central hydraulic and pneumatic supply

with 10-wired turning supply, and connection couplings,
8 connections are for hydraulic, max. 210 bar and
2 for pneumatic without control.

Automatic loading door of total enclosure

opening and closing, actuating to closing via
two-hand push buttons

Signal lamp on machine enclosure for 3 signals

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

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
light grey acc. to NCS S1502-B
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.

