

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

- 1 1 **Vertical CNC-machining centre model FZ 18 KW**
Completely refurbished pre-owned machine
Year of construction: 2001, weight: 8.000 kg

Machine-No. 196-58

Scope of delivery:

Column moving machining centre with workpiece swivel table
 Suitable for dry-machining with optimized chip drop
 Guideways with long-term-grease lubrication

Main spindle drive with AC-motor

10,0 kW at 100 %

18,0 kW at 25 %

Spindle speed range: 20 - 10.500 min⁻¹ - 140 Nm

Drilling capacity in steel 60

∅ 42 mm (with insert drill)

Tapping capacity

M 30

Milling capacity in steel 60

500 cm³/min.

Travel:

X-axis

630 mm

Y-axis

400 mm

Z-axis

630 mm (with variable tool change level)

Automatic Pick up tool changer

Tool places

40

Tool shaft

SK 40 DIN 69871+72

Tool-∅

max. 78 mm

Tool-∅

max. 160 mm

if adjacent places are free

max. 160 mm

Max. tool length

280 mm

Max. tool weight

max. 5 kg (8 kg)

Tool change time approx.

1,0 s (depends on CNC)

Chip-to-chip-time approx.

2,9 s (depends on CNC)



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Workpiece swivel table 0/180 degrees

with centre divider made of sheet metal
clamping surface 2 x 940 mm x 470 mm
with thread and locating hole grid M16 x ø 15 H7 x 50 mm
workpiece swivel time appr. 4,0 s weight-dependent, self-regulating
through self-learning speed-control
table loading capacity per side 0 - max. 400 kg

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

digital direct drives with indirect absolute path measuring system
rapid traverse in all axes 40 m/min.
acceleration: 0,5 g in X and Y axis
0,7 g in Z axis

SIEMENS CNC-control 840D

(MMC 100.2 / NCU 572.2, 6 measuring circuits, 1 channel)
incl. 10,4" TFT colour LCD screen / full keyboard OP032S
NC-memory 256 KB
(max.200 programmes storage capacity)
for ISO 66025 programming
drilling cycles G81-G89
drilling and milling cycles
M- and T- functions
circular interpolation (360 degrees)
re-start into program
Subroutines, parameter programming
simultaneous programming
contour programming with cycle support
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 232C (2 x V24)
orientated spindlestop
drip feed function through V24 interface
dimension metric or inch
software limitswitch
NC-diagnosis



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machine-diagnosis
absolute indirect path measurement systems
powermeter in screen
rigid tapping
look ahead function

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

Socket 230 V

at control panel

Cabinet cooler as a door mounting unit

Machine enclosure

with sliding doors, electrically interlocked,
2400 mm high above floor, incl. machine lamp
service friendly with removable side walls
vertical bellows

Chip conveyor (scratch band)

discharge height 1050 mm with coolant equipment,
tank capacity 400 ltr., pump capacity 150 ltr/min at 2,0 bar
incl. tub flushing

Mini-operating panel

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

Installation elements

Coolant equipment

tank capacity 800 l,
pump capacity from 200 l/min at 2,5 bar
(the pump in the chip conveyor will becomes a lifting pump)
high pressure pump capacity 20 l/min at 30 bar
high pressure circuit with coolant filtration 60 µm
incl. tub flushing



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Machine preparation

for through tool coolant system including:

- Sealing system in the DIN 69871 Form A40 or DIN 69893 HSK A63* collet
- coolant distributor installed at the main spindle drive
- Coolant leakage sensor
- Implemented mud flap in the high pressure piping
- Solenoid valve, controlled via machine program

Wash gun

Automatic loading door of total enclosure

opening and closing,
incl. two-hand push buttons

Rotary table package, completely installed consisting of:

- 2 NC rotary tables, type RT 160, CHIRON-PEISELER
- 4th and 5th NC-axis, ready for plug-in
- Central pneumatic-connection, uncontrolled

Technical description NC rotary table

Center height 165 mm, indexing accuracy $\pm 15''$
face plate dia. 160 mm, with center hole $\varnothing 50 +0,012$
fixture pin dia. 16 h7, 4 fixture bores M10
incl. pneumatic clamping

Fully enclosed work space

Central grease lubrication

Exhaust fan with air cleaner

exhaust capacity 1.000 m³/h

Thermocontrol

Glass scales

maker HEIDENHAIN, overpressured in all axes
X, Y, Z = 630 x 400 x 630 mm

Coolant supply

for fixture washing in the work-piece-swivel area,
with 1 magnetic valve and one coupling in the working area



Pneumatic and hydraulic-connection

Central hydraulic and pneumatic supply

with 10-core turning supply
including connecting couplings, thereof
8 connections for hydraulic, max. 210 bar and
2 connections for uncontrolled pneumatic

Hydraulic unit

HEILMEIER & WEINLEIN
pressure: 210 bar
supply capacity: 6 l/min.
incl. valves for supply of 2 clamping devices
and 2 pressure switches for clamping control
2 x A/B per tableside

CMS variable clamping logic

To define of various clamping and releasing consequences
per tableside max. 5 clamping circuits and max. 5 clamping or
unclamping steps, taking account of delay times and clamping
circuit monitoring such as pressure switches.

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.



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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.

