

Complete machine description

1 1 **Completely refurbished
vertical CNC-machining centre model FZ 08 S**
Year of construction: 2001, weight: 2.000 kg

Machine-No. 213-78

Scope of delivery:

Column moving machining centre with fixed table

High speed spindle

| | |
|----------------------|------------------------|
| 2,2 kW | at 100% |
| 7,2 kW | at 25% |
| Spindle speed range: | 20 – 15.000 rpm –23 Nm |

Drilling capacity
Tapping capacity
Milling capacity

Ø 16 mm
M 12
30 cm³/min

Travel:

| | |
|--------|--------|
| X-axis | 300 mm |
| Y-axis | 250 mm |
| Z-axis | 250 mm |

Automatic tool changer

| | |
|---------------------------|------------------------|
| Tool places | 12 |
| Tool shaft | HSK-A 32 DIN 69893 |
| Tool-Ø | max. 63 mm |
| Tool weight | max. 0,7 kg |
| Tool change time approx. | 0,5 s (depends on CNC) |
| Chip-to-chip-time approx. | 1,5 s (depends on CNC) |

Fixed table with chip pan

| | |
|------------------------|---------------------------|
| clamping surface | 620 x 270 mm ² |
| with grid | M16 x Ø 15 H7 x 50 mm |
| table loading capacity | max. 150 kg |

Remark:

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



| Pos. | Qty. | Article Description | Price / € |
|------|------|---------------------|-----------|
|------|------|---------------------|-----------|

AC-servo-motors

feed drives for X-, Y- and Z-axes,
indirect absolut path measuring system
rapid traverse in X- and Y-axes 40 m/min,
acceleration 0,7 g.
rapid traverse in Z-axes 60 m/min,
acceleration 1,0 g.

Remark:

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

SIEMENS CNC-control 840D

(MMC 100.2 / NCU 571.2, 6 measuring circuits, 1 canal)
incl. 10,4" TFT colour LCD screen / full keyboard OP032S
NC-memory 256 MB
(max.200 programmes storage capacity)
for ISO 66025 programming
hard disk with approx. 2 GB for free disposal
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
support through cycles
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) at control panel
Ethernet connection RJ45 in control panel
orientated spindlestop
drip feed function through V24 interface
dimension metric or inch
software limitswitch



| Pos. | Qty. | Article Description | Price / € |
|------|------|---------------------|-----------|
|------|------|---------------------|-----------|

NC-diagnosis
machine-diagnosis
absolute indirect path measurement systems
powermeter in screen
rigid tapping

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.

Thermocontrol

Socket 230 V

on the control console

Machine enclosure

bolted on, with loading door, electrically interlocked, 2.000 mm high above floor, incl. machine lamp

Coolant unit with chip container

Tank capacity 100 l, pump capacity 60 l/min. at 1 bar

Cabinet cooler as a door mounting unit

Installation elements

Wash gun

Basic package for machining from bar, consisting of:



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

- NC-rotary-table, type AWU P 100
suited to inflexible table raster
- 4th NC-axis, complete
smallest increment 0,001°
- pneumatic supply without control

Technical description for NC-rotary-table:

repetition accuracy $\pm 30''$,
max. spindle rotation speed 80 min⁻¹
Spindle with pneumatic clamping, centre height 125 mm,
face plate dia. 100 mm, with centre bore dia. 50 +0,012,
through hole 35 mm, fixture pin dia. 10 h7
4 fixture holes M8

Switch for end of bar

mounted outside of the machine enclosure

Opening at machine enclosure on left hand side

Loadingdoor

as two split sliding door to the left „closing“

Machine colour

Two-components-structure varnish - 2 colours
light grey acc. to NCS S1502-B
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, ± 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.

