

Complete machine description

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| 1 | 1 | Completely refurbished
vertical CNC-machining centre model FZ 18 W
Year of construction: 2001, weight: 9.100 kg | |
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Machine-No. 158-52

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 - 12.000 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 tool changer, protected against chips

Investment casting gripper

Tool places

20

Tool shaft

HSK A 63 DIN 69893

Tool-∅

max. 65 mm

Tool-∅

max. 180 mm

if adjacent places are free

Max. tool weight

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

Tool change time approx.

0,9 s (depends on CNC)

Chip-to-chip-time approx.

2,1 s (depends on CNC)

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

digital direct drives with indirect absolut path measuring system

rapid traverse in all axes 60 m/min.

acceleration: 0,5 g in X and Yaxis

0,7 g in Z axis



Pos.	Qty.	Article Description	Price / €
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SIEMENS CNC-control 840D Solution Line

(TCU / NCU 710.3, 6 measuring circuits, 1 channel)
incl. 10,4" TFT colour LCD screen / full keyboard OP010S
operator panel logic
NC-memory 3 MB Standard
(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
support through cycles
polar coordinates
tool offsets for geometry, wear
tool radius correction for
intersection computing
crossing radius
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
USB-Interface at the control panel
orientated spindle stop
dimension metric or inch
software limits witch
NC-diagnosis
machine-diagnosis
absolute indirect path measurement systems
power meter in screen
rigid tapping
look ahead function



CHIRON Powersafe

Software package for selective shutdown of installed consumers like axis motors, drives, spindles, seal air, airsensing and ancillary equipment in production breaks or during programmable points in time using a shift calendar. Definable point in time at which the machine starts demand-oriented automatically with a variable warmup program to recovery the production readiness.

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 belt)

discharge height 1050 mm, discharge behind,
tank capacity 400 l, lifting pump max. 150 l/min at 2,0 bar
incl. tube flushing

Mini-operating panel

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

Integrated Workpiece swivel table IWW 0/180 degrees

With gaps underneath the trunnion fixture
for optimal chip drop, with center divider
workpiece swivel time appr. 2,4 s weight-dependent, self-regulating
through self-learning speed-control
table loading capacity per side 0 - max. 300 kg,
Per table side integrates:

- NC-rotary-table, type **AWU 160 P** with pneumatic clamping
accuracy $\pm 15''$, face plate dia. 160 mm,
with center bore dia. 50 +0.012 mm, fixture pin dia. 16 h7,
4 fixture bores M10,
- CHIRON standard fixture for rotary table
bridge size 620 mm
counter bearing with pneumatic clamping



flange plate incl. connecting couplings and quick-locator,
on side of the rotary table
flange plate incl. connecting couplings and quick-locator,
on side of the counter bearing
2 x 1-core energy supply
- centre height 165 mm over base plate
- total height of the basic device
"top edge till the middle of the rotary axis" 197 mm \pm 0,02 mm
- set zero point to the middle of the rotary table in Y-axis to 220 mm
- pneumatic supply without control
- 4.or 5. NC-axis, ready for plug-in

Installation elements

Fully enclosed working area

Coolant equipment

(also for sludge generating materials, i.e. grey cast iron,
GGG, Al with Si \geq 12%)

tank capacity 1000 l

low pressure pump capacity from 100 l/min at 2 bar

high pressure pump capacity 20 l/min at 30 bar

partly stream purification with turbo filter

with coolant purification 50 μ m nominal

twin filter in the high pressure circuit for the

protection of the machine with sludge remover

Machine preparation

for through tool coolant system including:

- Sealing system in the 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

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



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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.

