

Pos.	Qty.	Article Description	Price / €
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Komplette Maschinenbeschreibung

- 1 1 **Completely refurbished vertical CNC-machining centre model DZ 18.2 KW**
Year of construction: 2005, weight: 10.000 kg

Machine-No. 200-16

Scope of delivery:

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

Main spindle drive with 2 AC-motors

12,0 kW at 100 %

28,0 kW at 15 %

Spindle speed range: 20 - 12.000 min⁻¹ - 180 Nm

Drilling capacity in steel	2 x Ø 36 mm (with insert drill)
Tapping capacity	2 x M 24
Milling capacity in steel	2 x 150 cm ³ /min

Travel:

X-axis 400 mm

Y-axis 400 mm

Z-axis 630 mm with variable tool change level

Spindle distance in X-axis 320 mm

Automatic tool changer, protected against chips

No. of tools	2 x 12
Tool shaft	SK A 40 DIN 69871 + 72
Max. tool dia.	65 mm
Max. tool dia.	180 mm if adjacent places are free
Max. tool weight	4,0 kg (8 kg on 2 places per spindle)
Tool changing time approx.	0,9 s (depends on CNC)
Chip-to-chip-time approx.	2,1 s (depends on CNC)

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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. 3,7 s weight-dependent, self-regulating through self-learning speed-control table loading capacity per side 0 - max. 180 kg, max. 120 kg weight difference between the two table sides. Per table side integrates:

- **NC-rotary-table, type AWU 160 P with hydraulic clamping**

accuracy $\pm 15''$, face plate dia. 225 mm, with center bore dia. 50 H7 and 4 T-nuts dia.12 h7, - CHIRON standard fixture for rotary table

bridge size 720 mm

counter bearing with **hydraulic** 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 2-core energy supply pneumatic or hydraulic swing radius 200 mm

- 4th or 5th NC-axes, complete

- pneumatic supply without control

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-axis

0,7 g in Yaxis

1,0 g in Z axis

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

(PCU 50 / NCU 573.5, 6 measuring circuit, 1 channel)

incl. 10,4" TFT colour LCD screen / full keyboard OP010S

Windows NT

NC-memory 256 KB

(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

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		<p>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 Universal interface RS 232C (2 x V24) USB-interface at control panel Ethernet connection RJ45 in control panel orientated spindle stop drip feed function through V24 interface dimension metric or inch software limit switch, NC-diagnosis machine-diagnosis absolute indirect path measurement systems power meter in screen rigid taping</p> <p>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.</p> <p>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. Password protected confirmation of the performed maintenance through the maintenance staff.</p> <p>Working hours and piece counter in the screen</p> <p>Socket 230 V at control panel</p> <p>Socket for portable mini-hand wheel without EMERGENCY-STOP button, at control panel</p>	

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Electrical cabinet cooler mounted to the door

Signal lamp on machine enclosure for 3 signals

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

Machine enclosure with full enclosed workspace

with sliding doors, electrically interlocked,
 2270 mm high above floor, incl. machine lamp
 service friendly with removable side walls
 vertical bellows

Mini-operating panel

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

Chip conveyor (scratch band) small version

with lateral discharge, discharge height 1.050 mm,
 tank capacity 150 l, pump capacity max. 300 l/min. at 1,3 bar

Installation elements

Coolant equipment PF 50 / KFA 900

(for cast iron slurry, Al with Si \geq 12%)
 tank capacity 900 l,
 pump capacity from 100 l/min at 2,1 bar
 up to 250 l/min at 1,8 bar
 high pressure pump capacity 35 l/min at 30 bar
 high pressure circuit with filtration via paper bond filter,
 filtration 50 μ m nominal.
 twin filter in the high pressure circuit for the protection of the machine.
 incl. bed flushing system and

Fixture washing

with nozzles installed at the centre divider
 controlled with m-functions for washing the working area
 (This filtration method will not eliminate increasing cast iron slurry from the
 coolant equipment.)

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2 x 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 and 2 flow control switches
- Solenoid valve, controlled via machine program

* At HSK A63 we recommend for tool holders the use of our patented coolant tube with sieve.

Advantages: Decrease of the clogging in the internal coolant channel.

(Subject: required high pressure equipment)

Fully enclosed working area

Suction point

for customer specific installation
 Ø 200 mm on top of the machine enclosure
 and electrical preparation in cabinet

Undervoltage relay

with inadvertently variation of the power supply
 the machine will be stopped

Electric interface for loader with "Profibus" - Siemens on W-machines for loading through manual or automatic loading door

for automatic loading system,
 with DP/DP-coupler (slave) in the electrical cabinet,
 according to documentation of CHIRON loader interface,
 consisting of: circuit diagram, signal description and functional diagram,
 interface tested according to Chiron-description,
 incl. key-operated switch and indicator lamp in the control panel "with loader",
 incl. direct door switch in position "door open"

Deviation from the standard interface and set up will be charged according to effort.

Waiting periods during set up will also be charged.

Recommended options:

- automatic doors, if necessary
- tool life control
- tool breakage control
- fixture washing
- chip conveyor, if not included in basic machine
- Parts location air sensing
- automatic central lubrication

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CHIRON Lasercontrol Single F500

for tool breakage control,
 distance from transmitter to receiver <= 1000 mm,
 min. tool Ø > 1mm,
 incl. test mandrel with tool holder,
 transmitter and receiver,
 gland and shutter

Additional button for indexing in the loading station

indexing 4 x 90° or 2 x 180° for NC rotary tables,
 4th or 4th and 5th axis

Pneumatic and hydraulic-connections

Central hydraulic and pneumatic supply

prepared for max. 20 connections,
 6 connections are installed including connecting couplings,
 4 for hydraulic, max. 210 bar and
 2 for pneumatic without control.
 Installation up to the outside of machine bed, with electrical control
 for clamping ON - OFF via push button at control panel

2 x Further hydraulic connection(s)

including 1 connecting coupling, max. 210 bar,
 addition to central hydraulic and pneumatic supply
 (a total of max. 20 connections is possible)

Hydraulic unit

for continues duty, switch cycles less than 30 seconds
 pressure: 210 bar
 supply capacity: 4,3 l/min.
 incl. valves for supply of 2 clamping devices
 and 2 pressure switches for clamping control

Hydraulic unit – extension with pressure regulator 63 bar

For rotary table or counter bearing clamping with:
 1 second pressure stage
 2 further clamping cycles
 1 additional clamping cycle (double acting)
 2 connections at central hydraulic- and pneumatic connection
 (a total of max. 20 connections is possible)

Documentation

Operating manuals, programming and operating manuals 1-fold
 on a USB-Stick.
 Please refer to the manufacturer´s instructions for each component.

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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 ± 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.