

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

Complete machine description

- 1 1 Completely refurbished vertical CNC-machining centre model DZ 18 W**
Year of construction: 2001, weight: 8.000 kg

Machine-No. 212-11

Scope of delivery:

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

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 2 AC-motors

9,5 kW at 100 %

14,0 kW at 15 %

Spindle speed range: 20 - 12.000 min⁻¹ - 90 Nm

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	HSK A 63 DIN 69893
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)



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

Workpiece swivel table 0/180 degrees

with centre divider made of stainless steel
 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. 3,7 s weight-dependent, self-regulating
 through self-learning speed-control
 table loading capacity per side 0 - max. 400 kg
 max. 120 kg difference in weight between both table sides

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

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 50.3 / NCU 572.5, 6 measuring circuit, 1 channel)
 incl. 10,4" TFT colour LCD screen / full keyboard OP32S
 Windows XP
 NC-memory 256 KB
 (max. 200 programmes storage capacity)
 for ISO 66025 programming
 hard disk with approx.. 20 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
 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



Pos.	Qty.	Article Description	Price / €
		<p>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</p> <p>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.</p> <p>Working hours and piece counter in the screen</p> <p>Socket 230 V at control panel</p> <p>Electrical cabinet cooler mounted to the door</p> <p>Wash gun with 1 connection and quick coupling each in loading- and working area</p> <p>Machine enclosure with full enclosed workspace with sliding doors, electrically interlocked, 2400 mm high above floor, incl. machine lamp service friendly with removable side walls vertical bellows</p> <p>Mini-operating panel with start and receipt push buttons, for pallet recognition M61/M62</p> <p>Chip conveyor (scratch band) small version with lateral discharge, discharge height 1.050 mm, tank capacity 400 l, pump capacity max. 150 l/min. at 2,0 bar tank capacity</p>	



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

Automatic central grease lubrication

Coolant tank TPF 350 / FKA 900 (new)

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

tank capacity 900 l

low pressure pump capacity from 100 l/min at 2.4 bar
up to 250 l/min at 2.3 bar

high pressure pump capacity 30 l/min at 30 bar

Full stream purification via drum paper bond filter TPF 350 S,
with coolant purification 50 μ m nominal
twin filter in the high pressure circuit for the
protection of the machine

Installation elements

Suction point

for customer specific installation

\varnothing 200 mm on top of the machine enclosure

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

* HSK A63 tool holders for through tool coolant require
the use of our patented coolant tube with sieve.

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

- Reduction of the wear at the
O-ring seal in the collet.

(Subject: requires high pressure equipment)

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.)



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

Screw conveyor

implemented in machine base for swarf extraction

Fully enclosed working area

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

Hydraulic unit

pressure: 210 bar
supply capacity: 6 l/min.
incl. valves for supply of 2 clamping devices
and 2 pressure switches for clamping control

CHIRON Tool lifetime control with:

- tool place organization
- sister tool organization
- work field organization to control of 2 clamping cycles
- tool data check for geometric values

Warranty

6 months after commissioning
on parts, excluded wear parts

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, \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.



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

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.

