

Complete machine description

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| 1 | 1 | Completely refurbished vertical CNC-machining centre model Mill 1250 high speed plus
Year of construction: 2006, weight: 9000 kg | |
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Machine-No. 439-01

Scope of delivery:

Column moving machining centre with fixed table

Machine substructure with chip discharge left
 Linear guides with long-term-lubrication

Digital main drive with watercooled motor spindle, air purged

42,0 kW at 100 %
 58,0 kW at 30 %,
 Spindle speed range: 20 - 20.000 rpm - 70 Nm
 Spindle speed acceleration and deceleration from 0 – 20.000 min⁻¹
 each 0,6 seconds

Drilling capacity in steel 60	ø 30 mm (with insert drill)
Tapping capacity	M 20
Milling capacity in steel 60	150 cm ³ /min.

Travel:

X-axis	1250 mm
Y-axis	840 mm
Z-axis	550 mm

Automatic tool changer, protected against chips

No. of tools	40
Tool shaft	HSK A-63 DIN 69893
tool dia.	max. 75 mm
tool dia.	
if adjacent places are free	max. 160 mm
Max. tool length	max. 320 mm
Max. tool weight	4 kg
Tool change time	approx. 1,5 s (depends on CNC)
Chip-to-chip-time	approx. 5,0 s (depends on CNC)



Pos.	Qty.	Article Description	Price / €
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Machine table

divided for the setting up a numerical control top plate and a back support with free splinter openings between the table halves directly into the cooling agent plant

AC-servo motors

for x-, y- and z-axes
digital direct drives with direct absolute path measuring system (no time-consuming reference)
rapid traverse in all axes 60 m/min.

SIEMENS CNC-control 840D

(PCU 50 / NCU 572.4, 10 measuring circuits, 1 canal)
incl. 10,4" TFT colour LCD screen / full keyboard OP010S
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
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
NC-diagnosis
machine-diagnosis
absolute indirect path measurement systems



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powermeter 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

Socket for portable mini-handwheel
without emergency stop button,
at control panel

Cabinet cooler as a door mounting unit

Machine enclosure
with loading door, electrically interlocked,
suitable for loading by crane
2.500 mm high above floor, incl. machine lamp

Installation elements



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Production package with HP pump (HSK A63)

consisting of:

- Chip conveyor (scratch band)

instead of coolant equipment with chip container
discharge height 1.050 mm, discharge to the left,
tank capacity 200 ltr., lift pump with 200 ltr./min. at 1,5 bar,
incl. bed flushing system (with Y480 mm or 500 mm)

- Coolant equipment HL 450 / 900

(for cast iron slurry, Al with Si \geq 12%)
tank capacity 900 l,
LP-pump capacity from 100 l/min at 2,1 bar
up to 250 l/min at 1,8 bar
and HP-pump 20 l/min. at 30 bar
coolant filtration with hydrostatic paper bond filter HX 450,
filtration 50 μ m nominal and double act filter for protection of the machine
incl. bed flushing system and

- 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

We recommend for tool holders 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.

4. axis ready for plug-in

for NC-rotary table

Exhaust fan with air cleaner

exhaust capacity 800 m³/h

Smoke and gases that arise during the
processing are not filtered by this unit.
In this case we recommend the connection
to a central exhaust fan.



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Signal lamp for 3 signals

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

Hydraulic connection for 210 bar

with 2 connecting couplings "A + B" and hydraulic installation up to outside of machine bed, electrical control for clamping ON - OFF via push button at control panel per connection

Extension hydraulic unit

for clamping of rotary table or counter bearing with 1 second pressure stage, 1 additional clamping circuit and 1 connecting coupling with hydraulic installation up to outside of machine bed for one table side (4th axis)

Hydraulic unit

for permanent operations in case, operating cycles are less than 30 seconds
pressure: 210 bar
supply capacity: 4,3 ltr./min.
incl. valves for supply of 1 clamping device and 1 pressure switch for clamping control

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.

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.

