

Complete machine description

- | | | | |
|---|---|--|--|
| 1 | 1 | Completely refurbished
vertical CNC-machining centre model DZ 15 W
Year of construction: 2002, weight: 7.220 kg | |
|---|---|--|--|

Machine-No. 157-88

Scope of delivery:

Column moving machining centre

with machine bed in mineral cast technique
and workpiece swivel table
Suitable for dry-machining with optimized chip drop
Guideways with long-term-grease lubrication

Drilling capacity in 60 pc.	2 x Ø 36 mm
Tapping capacity	2 x M 24
Milling capacity in steel	2 x 150 cm ³ /min

Main Spindle drive with 2 AC-motor

9,5 KW at 100 %
14,0 KW at 15 %
Spindle speed range: 20 - 12.000 rpm - max.90 Nm

Travel:

X-axis	300 mm
Y-axis	400 mm
Z-axis	425 mm with variable tool changing level
Spindle distance	250 mm

Automatic tool changer

Tool places	2 x 12
Tool shaft	HSK A63 DIN 69893
Tool-Ø	max. 65 mm
Tool-Ø	
if adjacent places are free	max. 150 mm
Tool weight	max. 2,5 kg (5,0 kg on 2 places)
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 middle partition of sheet steel
clamping surface 2 x 660 mm x 400 mm²
with thread and locating hole grid M16 x ø 15 H7 x 50 mm
workpiece swivel time appr. 2,4 s depends on the weight, self-regulating by self-learning speed control
table loading capacity per side 0 – max. 300 kg
max. 100 kg weight difference between both table sides

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

digital direct drives with indirect absolute path measuring system
rapid traverse in all 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

(PCU 20 / NCU 572.3, 6 measuring circuit, 1 channel)
incl. 10,4" TFT colour LCD screen / full keyboard OP010S
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
insert of chamfer and radius



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

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

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.

Working hours and piece counter
in the screen

Socket 230 V
at control panel

Socket for portable mini-hand wheel
without EMERGENCY-STOP button, at control panel

Cabinet cooler as a door mounting unit

Machine enclosure
with loading door, electrically interlocked,
2200 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)
discharge height 1050 mm, lateral discharge
tank capacity 400 ltr, pump capacity 150 ltr/min at 2,0 bar

Installation elements



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

Wash gun

Central pneumatic-connection

Uncontrolled with 2 connection couplings

Coolant equipment

tank capacity 900 ltr.,
pump capacity 200 ltr/min at 2,0 bar
(the pump in the chip conveyor becomes the lift pump)
pump capacity 35 ltr/min at 30 bar
full flow cleaning via vacuum rotation filter VRF 300, filtration 50 µm nominal
incl. tub flushing

2

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 flow control switch
- 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.

Automatic central grease lubrication

Automatic loading door of total enclosure

opening and closing, incl. two-hand push buttons

Fully enclosed working area

Signal lamp on control panel for 3 signals

Signal "red" = failure

Signal "white" = machine loaded

Signal "green" = machine is running



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

Central hydraulic and pneumatic supply

prepared for max. 20 connections,
6 connections are installed including connecting couplings,
4 for hydraulic, max. 200 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

continuous duty
at switch cycles less than 30 seconds
pressure: 210 bar, output: 4,3 ltr/min
incl. valves for supply of 2 clamping circuits
and 2 pressure switches for electric clamping control

Rigid Taping

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.

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.

