MAKINO

High precision sinker EDM

EDNC6

CNC control, Model Hyper *i*

Machine Description

EDNC6

Travels

X-axis-travel ··· 650 mm
Y-axis-travel ··· 450 mm
Z-axis-travel ··· 350 mm
Z-axis-travel with HS-Rib (Option) ··· 500 mm
Controlled axis ·· X/Y/Z/C
Distance table to lowest head position (with EROWA chuck) ········ 280 mm

Table

Table area (width x depth) ··· 800 mm x 550 mm
Number of slots ··· 4
Upper width of T-slots ··· 125 mm
Table height above floor ·· 890 mm
Maximum work piece weight ·· 2.000 kg

Work tank and dielectric

Tank dimensions (width x depth x height) ···················· 1.400 x 900 x 500 mm
Maximum dielectric level from table top ······················· 450 mm
Total dielectric volume ··· 630 l

C-Axis

MR-Head (standard equipment):
Smallest increment ·· 0.001°
Maximum rotation speed in positioning mode ················ 10 min^{-1}
Maximum current ··· 80 A

MA-Head (optional equipment):
Smallest increment ·· 0.001°
Maximum rotation speed in positioning mode ················ 5 min^{-1}
Rotation speed in rotation mode, programmable by S-Code ········· 10 ~ 1.000 min^{-1}
Maximum current in positioning mode ····························· 80 A
Maximum current in rotation mode ·································· 40 A

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Fire extinguisher

Volume	2x6 l
Agent	foam
Sensors	2
Sensor type	bi-metal
Release temperature	60°C
Outlet nozzles	2
Power connection, secured by separate fuse	230 V

Cooler unit, compressor type

Cooling capacity	2.100 W
Ambient temperature	5°C ~ 45°C
Weight	ca. 45 kg
Dimensions (width x depth x height)	360 mm x 420 mm x 755 mm

Feed rates

Max. feed rate (X, Y, Z)	2.000 mm / min

Generator

Peak current	80 A

Power Sources

Alternating current 3 phases	400 V / 50 Hz
Maximum voltage difference	± 10 %
Power consumption, max.	14 kVA
Main fuse	3 x 35 A inert
Air pressure	0.6 – 0.7 Mpa
Air consumption (peak)	300 l / min

Machine Color

Standard tone	navy blue / white

Machine Installation

Floor plan

with HS-Rib

OIL COOLER (H=960)
DIELECTRIC RESERVE TANK (H=930)
OIL MATIC H=755
AIR INLET
NC POWER SUPPLY (H=2000)
A16

Height to place

- standard   2690
- with HS-Rib 3110

3350
3500
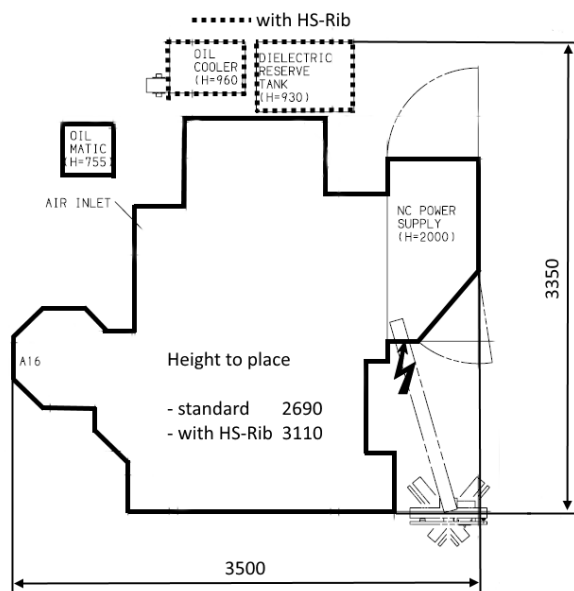
[mm]

Machine without additional aggregates	2.500 x 3.400 mm
Height	2.810 mm
Weight	approx. 7.000 kg

Documentation

1 set of documentation including

- Operators manual
- Programmers manual
- Maintenance manual
- Spare parts manual
- Schematic diagrams
- CE-Certification

These specifications may be changed by development in future. These specifications describe the standard machine. Technical data might change when additional options are selected. Please contact to your MAKINO office for further information.

MAKINO Services – all around support

- Complete installation and start-up of the machine
- Central warehouse for spare parts in Europe
- High number of service technicians situated both locally and close to the customer offering fast support on site
- Longtime experience of internal MAKINO service technicians
- High availability and high class support by MAKINO telephone support
- Maintenance of the machine during its complete life cycle

Summary of Standard

- ☑ MR head (indexing type)
- ☑ Drop tank design
- ☑ Dielectric fluid cooling unit
- ☑ 80A specification
- ☑ Automatic fire extinguisher

- ☑ Automatic power shutoff
- ☑ Portable control panel
- ☑ Measuring probe set
- ☑ Power supply line filter

- ☑ Machining generator Hyper i
- ☑ Super Spark IV
- ☑ Super Spark Gr
- ☑ Ethernet 10/100/1000 BASE-TX
- ☑ Work light
- ☑ EDM Explorer

Summary of Options

- ☐ MA head (spindle rotation type)
- ☐ HS-Rib Head (High speed jump)
- ☐ Customer-specified colors
- ☐ HQSF specification
- ☐ 0.1µm scale feedback (X, Y, Z)
- ☐ 16, 32 tool ATC

- ☐ Flame sensor (required with carbide booster or robot interface)
- ☐ Tungsten carbide machining circuit
- ☐ Ultra-fine machining Circuit II (incl. carbide machining circuit)
- ☐ DD circuit

- ☐ Super Surface Gr (including carbide machining circuit)
- ☐ EDM Viewer
- ☐ EDM Mail