

Specification

Item	Model	AH53C	AH64C	AH86C	AH1080CL	AH1260CL
Work Table Specification (mm Inch)		720x430	720x500	700x900	950x1100	2020x1110
X,Y axis travel (mm)		500x300	600x400	600x800	800x1000	1200x1000
Max. Job Load Size (WxDxH) (mm Inch)		850x650x250	950x750x300	800x1000x600	1100x1400x600	2300x1500x600
Max. Job Load Weight (kgw)		1000	1200	2200	3000	4000
Z-axis Ram Travel (mm)		250	300	600	600	600
W-axis Travel (mm)		500	500	600	600	600
A axis (Degree)		360	360	360	360	360
A-axis Job Load Weight (kgw)		50	50	50	50	50
Automatic Tool Change (nos)		20	20	20	20	42
Max. Electrode Diameter (mm)		Ø0.2~Ø3.0 *	Ø0.2~Ø3.0 *	Ø0.2~Ø3.0 *	Ø0.2~Ø3.0 *	Ø0.2~Ø3.0 *
Max. Electrode Length (mm)		400	500	600	600	600
Distance from Guide to Table		185~435	185~485	500~1100	500~1100	500~1100
Dielectric Capacity (L)		450	600	1500	2500	4700
Dielectric Type		Deionized Water	Deionized Water	Deionized Water	Deionized Water	Deionized Water
Outlook Layout (WxDxH mm)		2550x2250x2100	2630x2350x2150	3000x2500x2350	3500x3200x2350	5500x5200x3100
Machine Body Net Weight (kgw)		3000	3800	4500	5500	6000

※ Remark: Electrode Diameter of ATC can use around in dia.Ø0.2~Ø3mm(opt.Ø3~6mm)
The manufacturer reserves the right to modify the design, specifications, mechanisms...etc. to improve the performance of the machine without prior notice, all the specification as above for reference.

STANDARD ACCESSORIES

- Guide Dia.0.5mm x 1
- Insert Rubber Dia.0.5mm x 1
- Electrode Brass Tube Dia.0.5mm x 1
- Flushing Pipe x 1
- Fluid Filtration System x 1
- Work Lamp x 1
- Remote Control x 1
- Single Axis Linear Motor (AH1080CL/AH1260CL)
- Guide Dia.1.0mm x 1
- Insert Rubber Dia.1.0mm x 1
- Electrode Brass Tube Dia.1.0mm x 1
- Air Fast Connector x 1
- Air Pipe x 1
- Machine Pad x 1
- Tool Box x 1
- Digital Water Conductivity

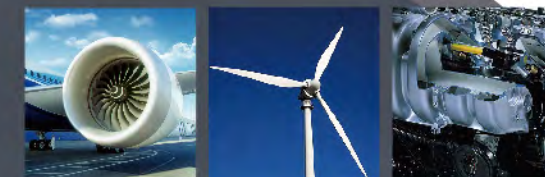
POWER UNIT

INPUT POWER KVA	3
PULSE GENERATION	Power MOSFET switching
CURRENT AMPERE	47 (OPT. 75A)
CURRENT SETTING	17 Steps
PULSE WIDTH	32 Steps each

OPTIONAL ACCESSORIES

- 2 in 1 Transformer + AVR
- Electrode Holding Device
- Upgrade Spindle speed 500 RPM w/Control Capability
- Electric Pump
- High Voltage (HV) Circuit
- 75 A discharge Current Module
- Automatic Tool Changer (AEC Device) x 10~20 Nos. Tools
- AGC SY · Linear 5~20 Nos. Position AGC (Auto Guide Changer)
- Water Chiller (Cooler) Set
- Upgrade 500mm Work Tank Height with 400/500mm(W) submerge height
- NET Ethernet Function
- Semi-CE Conformity + Door Interlock (CE circuits) (AH53C/AH64C)
- AB Axes Driver Set Unit (Please indicate the brand)
- X/Y Axes Linear Motor with glass scale for AH53C/AH64C (FAGOR)
- Single Axis Linear Motor with scale for AH1080CL/AH1260CL (FAGOR)





Gantry Style for Rigidity Submerged for Faster Drilling.

Large Work Space for Fitting A/B Indexers and work pieces.

Features:

- Gantry type construction assures excellent rigidity and stability.
- All XYZ axis use AC Servo Drive + linear guide ways Precision Encoders (scales opt).
- $\pm 0.01\text{mm}$ pitch accuracy.
- Available to equip with A / B axis.
- Accurate Fine Feeding is controlled for stable machining and faster Break-Through.
- Automatic Depth Measurement Function is available for blind-hole drilling.
- Drills deep, angled holes in hardened alloy (Stainless Steel, Titanium, Nickle-based superalloy) using standard electrode from $\text{\O}0.2\sim 3.0\text{mm}$ (optional from $\text{\O}3.1\sim 6.0\text{mm}$).

- ✓ **Advanced Design**
- ✓ **Excellent Performance**
- ✓ **Ideal for drilling Aerospace, Power Generation and Medical parts**
- ✓ **3D Shape machining for Micro EDMing**



AH1080CL

Hardware Features

LCM_BSL-125



MMK-MDWAT102B



PARKSON-PAR131R



YUKIWA-TRT140



Flexible working range, suitable for all kinds of jet engine turbine blades

Optional submersible A and AB indexers from MMK, Yukiwa, and others, allow for full 6 axes positioning and edming. All 6 axes X,Y,Z,W and optional A and B axis, are controlled from the CHMER CNC Control. No extra PLC control box required.

Superior Electronic Hardware

New 140 Volts High Voltage power supply is standard for improving performance in special alloy like nickle-based material. Optional 25 amp booster for 75 amps total with ER spindle for larger electrodes 3~6.0 mm dia.



AEC, AGC DEVICE

Automatic Electrode Changer and Automatic Guide Changer are optional features that allow for unattended operation and greater productivity. AEC 20 loaded with Electrodes and AGC with 5-10 Guides up to 6" long.

*Controller will automatically compensate for depth if an electrode change is required in the middle of the burn.

Electrode Stabilizer

Automatically stabilizes the electrode by securing it in the middle and moving down as it wears, with the 400 mm electrodes and the optional 600 mm.



All XYZ axis use AC Servo Drive + linear guide ways precision encoders (scales opt)

All X,Y and Z axes use AC servo drives with Linear guideways that are automatically lubricated. Precision rotary encoders provide the semi-closed loop feedback. Linear glass scales are optional.

Linear Motor (opt for X,Y axis)

Linear motors are optional on the AH1080 and AH1260 models with glass scale feedback.

Large Water Reservoir

Standard 250 liter (65gallon) reservoir with 2 filters and Deionization system for supplying dielectric.(larger units are available for the AH1080 and AH1260 models).



500 RPM Spindle

Programmed speeds from 10-500 RPMs for increased speed and reduced electrode wear



Water Chiller optional

An essential hardware function for a precision discharging hole.



Software Features

• ALARM



• ARC_OFF



• ATC+AGC SET



• Counter and Blind Hole



• FILE BROWSER



• FTP ETHERNET



• G70 Orbit Function



• Multi-Hole_NC



• S CODE DATABASE

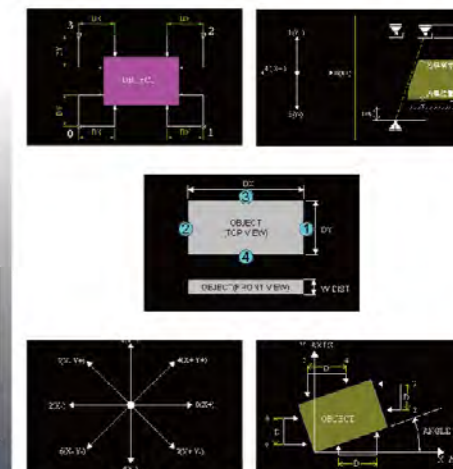
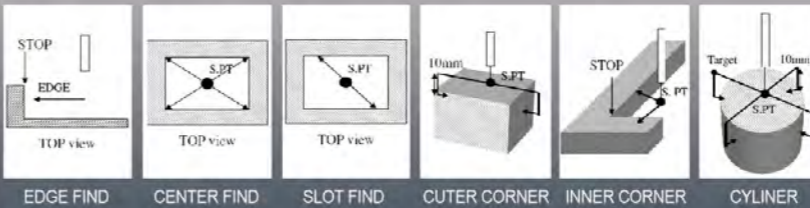


• S-CODE CHANGE

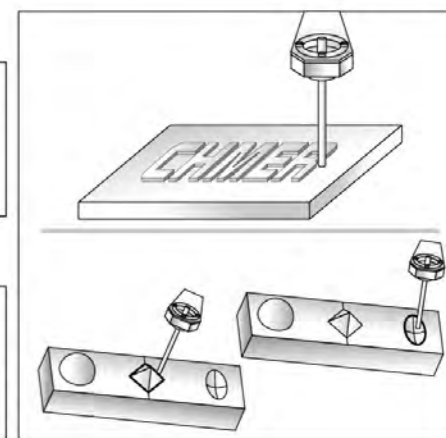


H5F CNC Controller

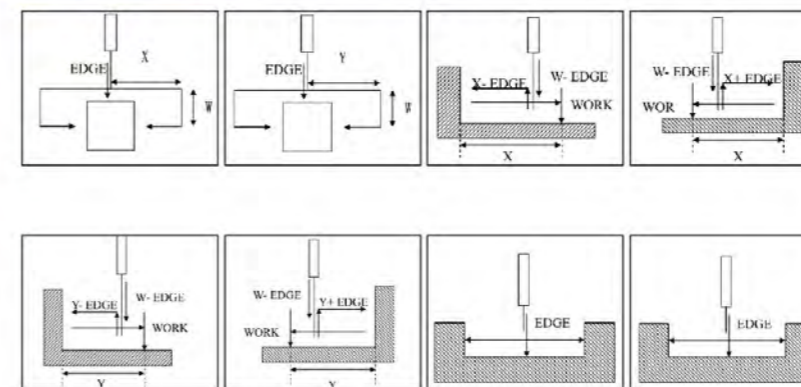
Conversational Graphic CNC Controller for Easy operation From Automatic edge, center and outside pick up and compensation, to Move commands and Burn commands, including Macro functions, the H5F is simple to program.



3D Machining Command



Probe measurements Command



Wide Range Of Cutting Conditions

In order to deal with any possible demand from customers, CHMER offered a wide range of discharging conditions: (S code Database)
 Work-piece : SKD-11, WC, Aluminum, Copper, Stainless Steel, Graphite.
 Material thickness: 10,20,50,80,100mm etc.

Start Hole Drilling

A start hole for wire cut EDM can be easily and quickly made by the AH series;
 Neither specialized skills nor experience is required.

Machining Samples

Parts of Aircraft

Work-piece Material : Nimonic 75
 Job Thickness: 0.8mm
 Electrode Material: Brass Tube
 Electrode Diameter: Dia. 0.6mm
 Recast Layer Accuracy: 0.018mm
 Machining Time: 10 sec/ per



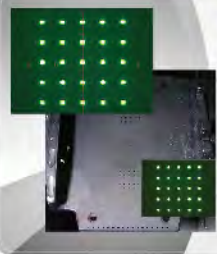
Turbine Blade Cooling Hole

Work-piece Material : Nickel Alloy
 Job Thickness: 73 mm
 Electrode Material: Brass Tube
 Electrode Diameter: Dia. 1.0mm
 Recast Layer Accuracy: 0.027mm
 Machining Time: 5Min 33 Sec/ per part.



Powder ZrO2 Ceramic Material

Work-piece Material : Zirconia
 Job Thickness: 1.0mm
 Electrode Material: Copper Tube
 Electrode Diameter: Dia. 0.15mm
 Hole Accuracy: 0.19~0.20mm
 Machining Time: 30 sec/ per



Medical Surgery Pattern

Work-piece Material : Unknown
 Job Thickness: Dia. Ø0.52mm
 Electrode Material: Brass Tube
 Electrode Diameter: Dia. 0.20mm
 Hole Accuracy: 0.25~0.26mm
 Machining Time: 15 sec/ per



High Thickness Steel Material

Work-piece Material : SKD-11
 Job Thickness: 100 mm
 Electrode Material: Copper Tube
 Electrode Diameter: Dia. 2.0 mm
 Hole Accuracy: 2.12~2.13mm
 Machining Time: 24Min 18 Sec/per



Precision Blind Hole Discharging

Work-piece Material : SKD-61
 Job Thickness: Dia. 70 mm
 Electrode Material: Brass Tube
 Electrode Diameter: Dia. 0.40mm
 Hole Accuracy: 0.45~0.56mm
 Machining Time: 6Min 50 Sec/ pe



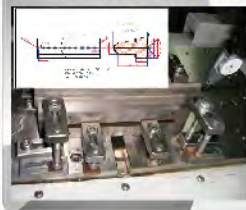
Cooling Hole of Cutting Tool

Work-piece Material : SK5M
 Job Thickness: Dia. 82.6 mm
 Electrode Material: Brass Tube
 Electrode Diameter: Dia. 1.0mm
 Hole Accuracy: 1.12~1.13mm
 Machining Time: 3Min 30 Sec/ pe



Multi-Cavities 158 Holes Tool Steel

Work-piece Material :HRC 50 Steel
 Job Thickness: Dia. 30 mm
 Electrode Material: Brass Tube
 Electrode Diameter: Dia.0.7 mm
 Hole Accuracy: 0.77~0.78mm
 Machining Time: 2Min 26 Sec/ pe

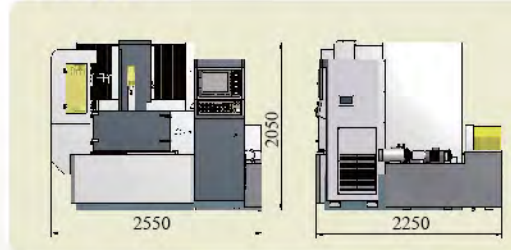


Application Range

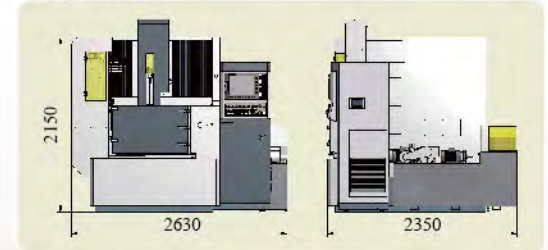


Floor Layout

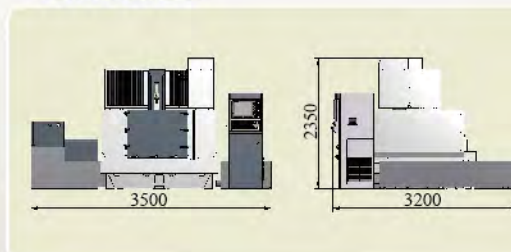
AH53C



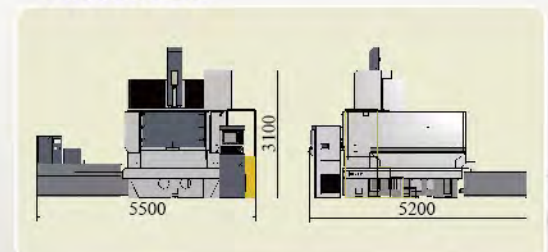
AH64C



AH1080CL

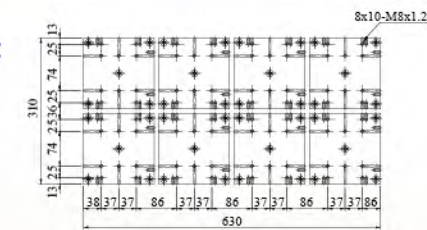


AH1260CL

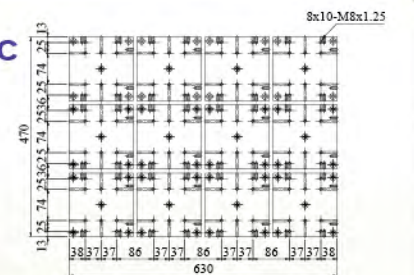


Work Table

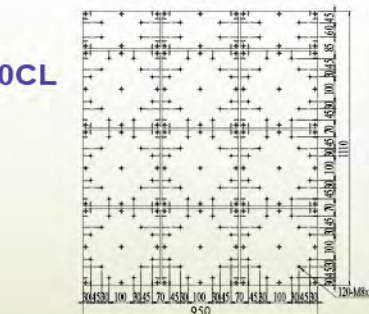
AH53C



AH64C



AH1080CL



AH1260CL

