EDM SINKER MACHINE

电火花成型加工机系列产品

Main Application

EDM sinker machine is used for cavity forming. It utilizes conductive material (copper, graphite, steel) as electrode to process workpiece (conductive material) by spark erosion. Main use: processing precious die, cavity mold and so on. It is widely used in metal processing and mold making workshop.

Our company's EDM series machines are featured in strong functions, convenient and reliable operation, of fairly good rigidity, running placidly, of good controllability, suitable to process conductive metal moulds, complicated metal parts and templates with high precision, high toughness and difficult processing. EDM process has become the important part in the field of mechanical manufacture. They are widely used in the fields of moulds, electronic instruments, precision mechanical process, automobile parts, military, etc.

High efficiency,
High accuracy,
Low consumption

CNC EDM Sinker

- Adopt Taiwan HIWIN linear guideway
- Precision ball screw
- Adopt high-quality YASKAWA Japan / AC servo motor from Japan
- Base machining current 90A
- Adopt Denmark Grundfos pump

EDM640CNC

CNC EDM640 Sinker

Specification and Parameters

Parameters/specification	EDM640CNC	EDM850CNC	EDM1060CNC	EDM1670CNC
Work table size(mm)	900x600	900x600	1100x700	1700x1000
Left and right travel(mm)	600	800	1000	1600
Back and forth travel(mm)	400	500	600	800
Z spindle travel(mm)	350	370	500	550
Max distance between elecrode and working table(mm)	770	770	1000	1150
Size of oil reservoir(mm)	1650x950x550	1850x950x550	1900x1100x600	2500x1500x700
Spindle hold weight(Kg)	130	130	300	400
Work table load weight(Kg)	2500	2500	3500	6000
Machine weight(Kg)	3400	3500	5500	9000

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ZNC EDM Sinker

- Adopt Japan SANYO AC servo motor
- Steady safety device,optical sensors, auto answer, fire extinguisher and auto power cut off
- Good machine structure, high rigidity, high precision, adopt v slide design
- Adopt HT300 ageing treatment casting, keep precision long time
- Adopt high quality imported oil pump

Optional Orbital Head

Optional Magnetic Work Table

EDM 350

EDM Sinker

EDM 540

EDM Sinker

EDM 450

EDM Sinker

EDM 650

EDM Sinker

Specification and Parameters

Parameters/Specification	EDM350	EDM450	EDM540	EDM650
Table travel(mm)	350x250	450x350	500x400	650x550
Work table size(mm)	600x350	700x420	800x500	1100x650
Z spindle travel(mm)	180+(180)	200+(200)	200+(300)	300+(300)
Spindle hold weight(Kg)	50	70	150	250
Work table load weight(Kg)	300	600	1300	2800
Max distance between elecrode and working table(mm)	560	660	830	950
Size of oil reservoir(mm)	880x560x350	1180x660x450	1200x740x480	1760x960x560
Recommend machining current(A)	60A	60A	60A	100A
Machine weight(Kg)	1200	1500	2200	3500
Packing size(mm)	1630x1450x2300	1920x1620x2300	2100x1620x2600	2300x2130x2800

General Parameters

Max current	Max speed	Min electrode comsumption	Optimal surface finish	Input power	Controller model
60A	400mm3/min	0.2%	≤0.4 μ m	6KVA	LCD display, including computer assistant logic control system
100A	800mm3/min	0.4%	≤0.4 μ m	8KVA	LCD display, including computer assistant logic control system

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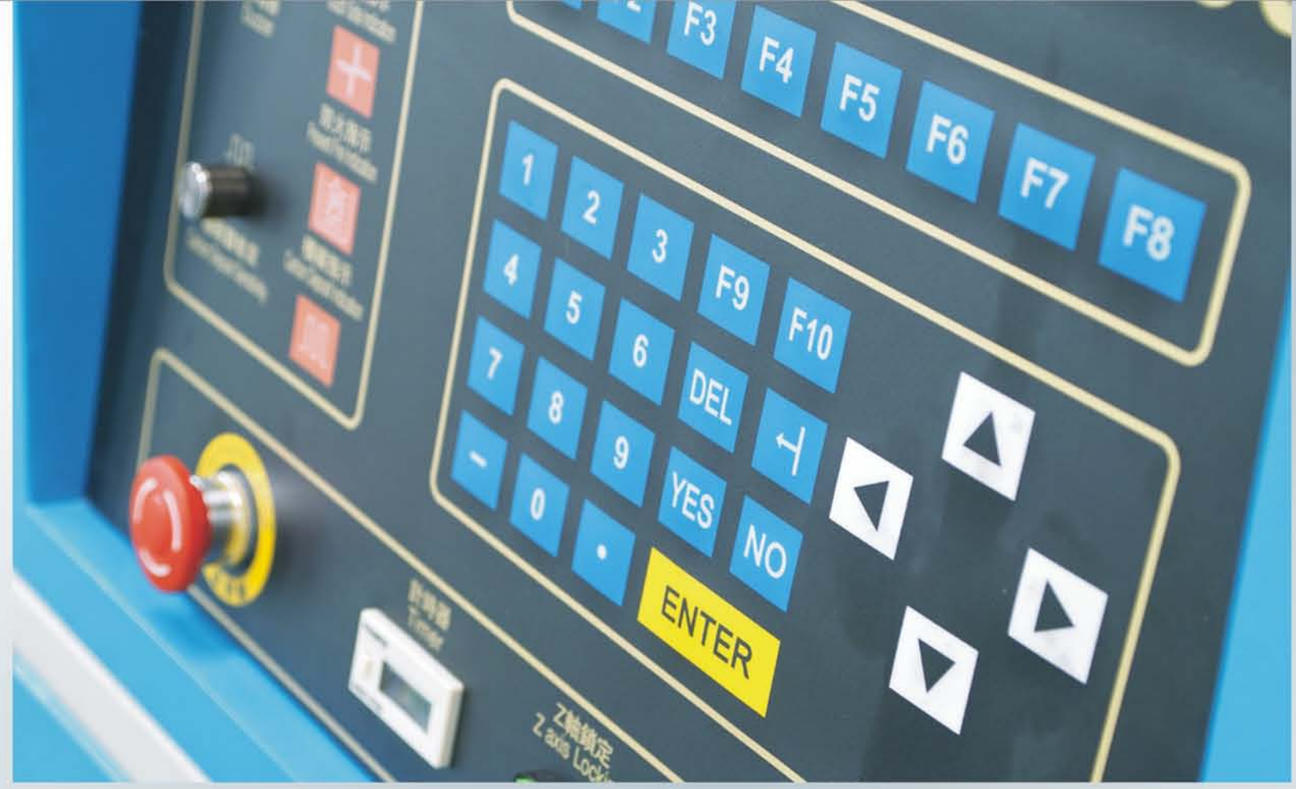

CNC System

Control Function

1. X, Y, Z axis is CNC, the electrical control accuracy is 0.001mm
2. X, Y, Z axis has absolute zero
3. Automatic edge–finding and center finding function
4. With deep positioning function , the electrode lifting height can be set, Automatic remind of short–circuit etc
5. The parameters can be set using the keypad on the computer screen, like pulse parameters, process current, servo and other processing parameters
6. X, Y, Z driven by AC servo motor
7. With manual operation
8. NC–axis power–down memory function
9. NC–axis has the function of backlash compensation
10. NC–axis with manual clear zero functions (setting relative to zero)
11. Adapt to carrying knives, cut into large pulse function
12. With a classification carrying knives feature

Processing Programming and Programming Function

1. Processing location and processing path using G code programming, it can achieve X, Y, Z axis CNC operation. Any two–axis can up to Translational function of NC and return the original trajectory.
2. We can set the parameters in processing parameters page with the keyboard. Such as the depth of processing, pulse width, pulse width, pulse gap, processing the current, carrying the knife height. Computer control the machine tools based on these settings automatically converted Criteria processing.

CNC System Hardware Configuration

IPC
LCD Monitor
With USB jack

ZNC System

ZNC System Technical Performance

A. There is an automatic A.R.C (carbon deposit sensitivity device) to prevent damaging workpiece
B. VLSI, high power VMOS to provide power
C. High and low clearance individual circuit
D. PWM (impulse width) servo system, standard DC servo motor
E. Synchronous discharge system of high voltage superposited
F. Square wave and equal energy output
G. Circuits of super–fine process
H Capacity of voltage regulation : ±20%
I. Circuits of copper electrode and graphite electrode are separate and individual process parameters
J. Discharge parameters can be edited automatically, and there are rough, medium, fine, superfine process terms to be chosen
K. Z axis is of super–precision process, process position can be affirmed repeatedly
L. There are some safe devices in circuit

a. Self–diagnostic system and LED state display, convenient to examine and repair
b. Oil level control, process device will be stopped automatically
c. If temperature of working fluid is too high according to induction, the process will be cut off automatically
d. Temperature induction, fire extinguisher sprays automatically and cut off the power supply at the same time
e. Light sensitive device, self–response, and fire extinguisher cut off the power supply at the same time
f. Automatic fire extinguisher, which is featured in best security, without pollution, there is no damaged to machine and mould

Configuration of ZNC System

A.P2 CPU industrial control computer
B.EDM software system control
C.15 inches LCD

Working Environment of ZNC System

A.Temperature: 5–40℃
B.Moisture: 40%–80%

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Main Parts of EDM Sinker Machine

Item	Name	Specification model	Manufacturer
01	X,Y Axis precious screw		Shanghai Xionglian or Nanjing Technical Equipment Factory
02	Z axis linear guide		Switzerland Wisner Bock or Taiwan
03	T sharp screw		Taiwan ABBA
04	Casting		STK(a joint venture of Sodick)
05	Z axis servo motor	DC servo motor	Japanese SANYO
06	Computer	Industrial control computer	Taiwan Advantech
07	System software	EDM software	Taiwan
08	Digital readout	Three axes	Guangzhou SINO
09	Contactor		Delixi electrics
10	Door switch		Jiuchuan electrics
11	Transformer		Wuxi jingyi
12	Automatic fire distinguisher		Taiwan
13	Pump		Taiwan
14	Orbital cutting system		Shangyu
15	Magnetic working table		Nantong Xintie

Our Company reserves the right to change manufacturers when purchase the same quality parts

Mudline Booster Pump

Fire Extinguisher

Z Axis Servo Motor

Standard Packing List of EDM Machine

Standard Configuration of Machine

No	Item	Unit	Qty
01	EDM sinker machine	set	1
02	LCD controller	set	1
03	Oil pump, oil tank	Group	1
04	DC servo motor of Z axis	Piece	1
05	220V AC Screw Transporter Motor for Z axis	Piece	1
06	Manual lubricator	Piece	1
07	T sharp screw of Z axis linear guideway	Set	1
08	Screw and guidway of X,Y axis	Set	2
09	Working lamp	Piece	1
10	Dial indicator	Piece	1

List of Accessories (In Tool Box)

No	Item	Unit	Qty
01	Tool box	piece	1
02	Chuck handle	piece	1
03	Chuck	Piece	1
04	Plate pinch	Piece	2
05	Trapezoid seat	Piece	2
06	Feet seat	Piece	5
07	Screw of feet seat	Piece	5
08	Seat of magnetic oil flushing	piece	2
09	T groove nut	Piece	2
10	Double end bolt	piece	2
11	Hexagon socket wrench	Set	1
12	Automatic fire distinguisher	Piece	1