

 北京高维
OLDENWAY



**精密数控
电火花成形机**

Precision CNC
Electrical Discharge
| Forming Machine



北京机床所精密机电有限公司
BMTI PRECISION MECHATRONICS CO.,LTD

Pursuit of Excellence
Cooperation of Win-win situation

Development Process

2011 * Attend the state major special project of five-axis precision CNC EDM project and get the first of China mechanical science and technology.

2008 * Develop new generation isopulse power supply and pass electromagnetism compatible test of State Machine Tool Product Quality Inspection Center.

2003 * The first one to research and develop full-closed loop control system.

1996 ~ 1999 * Set up Beijing Agile Chemilles Machinerys Co., Ltd joint venture, to produce precision CNC EDM.

1986 * Introduce JAPAX technology and produce DX45NC three axis CNC EDM.

1986 * The first one to manufacture single axis CNC EDM.

1976 * The first one to manufacture high-precision small hole drilling EDM machine.

1968 * The first one to manufacture EDM hydraulic servo spindle head.

公司简介 Company profile

BMTI PRECISION MEGATRONICS CO., LTD. one of the founding enterprises of electromechanical technology field in China, has more than fifty years electromechanical technology history. The Precision CNC EDM we have researched has excellent quality and performance, which makes precision machining of different kinds of complicated mould dies and parts, especially has outstanding technology advantages and competitiveness for materials like cemented carbide.

The latest product of agglomerating comprehensive technology Excellent reflection on advantages of machining cemented carbide

等能量脉冲电源 Isopulse Power Supply

- Isopulse power supply technology of international standard
- Control discharge pulse energy precisely to reach consistency of machining surface
- Inductance loop saves less than 30% energy compared with resistance loop
- Control energy and reconditioning precisely, particular for machining complicated work piece
- Outstanding advantage of particular pulse in machining cemented carbide (Jungsten steel)

控制与专家系统 Control & expert system

- Using new embedded industrial PC enables powerful and reliable function
- Windows platform realizes multi-task operation
- Machining monitoring function to adjust discharge electric automatically, which ensures machining precision and surface roughness
- Rich technology expert bases and mature machining strategy
- Display machining parameter and status anytime
- Easy operation and auto-generated program of rough machining and finishing machining according to technology requirements

机械结构 Mechanical structure

- High rigidity structure design ensures the machine tool long-term stability and high precision
- Advanced functional parts and precise assembly technology to make sure accuracy of machine tool
- Using VDI standard acceptance test to make sure quality

ISO9001
品质保证

单轴数控电火花成形机 Single Axis CNC Electrical Discharge Forming Machine Series

经济型 Economic type

- Standard isopulse power supply
- High reliable design
- Save room and cost less

GW715

精密型 Precision type

- Switzerland precision machine tool design principle
- Germany high rigidity cross roller guide is used for spindle
- Precision ball screw and special rolling bear are used for three-axis CNC EDM.
- High rigidity structure and good precision stability
- VDI standard acceptance test to make sure the quality
- Compact structure and easy operation to fit precision moulds machining

FN2P

通用型 Application type

- Universal structure, wide application and good extensibility
- Standard isopulse power supply
- Easy operation and auto-generated program of rough machining and finishing machining according to technology requirements
- Rich technology expert bases and mature machining strategy
- CNC control, finishing machining by grade, precision servo control and steady discharge
- Machining monitoring function to make sure machining precision and efficiency

GW735P

GW745P

三轴数控电火花成形机

Three-axis CNC Electrical Discharge Forming Machine Series

控制系统

Control system

- New embedded industrial PC and multi-CPU control system;
- American GALL motion control card
- Yaskawa and Panasonic AC driven unit
- Windows platform, multiple operation, user-friendly and easy operation
- Display machining status online and capable of network communication



编程专家系统

Programming expert system

- Set machining priority grade according to machining efficiency or quality.
- Intelligent program means auto-generated program from rough machining to finishing machining according to technology requirements.



- High rigidity structure design
- High precision motion unit design
- Precision assembly technique

高精度

High-precision



自动测量功能

Automatic measuring function

Rich automatic measuring function meets the requirements of positioning and alignment

丰富的平动方式

Rich translation mode

- Rich translation mode: afford circular translation, square translation, cross translation, and 45-degree angle translation, etc.
- Adjust chip-removal condition intelligently to reduce electrode wear obviously.



AUTOFORM 40



AUTOFORM 50

单轴数控电火花成形机系列

Single Axis CNC Electrical Discharge Forming Machine Series

	GW715	GW735P	
Machine Tool			
Machine weight	kg	1000	1500
Overall dimension(L×W×H)	mm	930×900×2050	1300×1400×2000
Stroke			
X axis	mm	150	350
Y axis	mm	150	250
Z axis	mm	150	200-300
Distance between tip of spindle and table surface	mm		150-250
Working range			
Worktable dimension	mm	360×180	600×320
Oil tank dimension	mm	550×550×150	850×560×350
Maximum weight of electrode	kg	30	50
Maximum weight of work piece	kg	200	600
Oil box			
capacity	L	300	
Filter			2 paper filter
Pulse power supply			
Type		isopulse power supply	isopulse power supply
Peak current (standard configuration)	A	32	32
The best surface roughness (Ra)	μm	0.4	0.4
Minimum electrode wear		0.1%	0.1%
Maximum machining efficiency 32A (S44)	mm ³ /min	200	200(400)
(Copper-steel) 36A (T28A)	mm ³ /min	600(800)	600(800)
CuW-tungsten carbide			22(46)
Copper-tungsten carbide			20(42)
External power grid			
Three-phase input voltage	V	380	380
Consumed power	KVA	3.5,7,10	3.5,7,10
Optional accessories			
* Add 32A 46A 36A 128A pulse power supply			
* Dielectric fluid cooling device			
* Micro fine pulse power supply			
* Translational head (NC/manual operation)			



GW745P	GW760P	GW780P	FN2P
2000	2700	4500	1500
2100 × 1600 × 2200	2650 × 1900 × 2300	3000 × 3000 × 2900	1320 × 1630 × 2120
450	600	800	300
350	500	500	250
200-140	240-340	400	150
240-700	270-770	500-900	250-500
			300
700 × 400	900 × 100	1000 × 600	500 × 300
1050 × 615 × 450	1700 × 900 × 510	1650 × 1100 × 600	800 × 520 × 375
200	200	200	50
1200	2000	3000	300
330	500	1000	400
2 paper filter	2 paper filter	2 paper filter	2 paper filter
isopulse power supply	isopulse power supply	isopulse power supply	isopulse power supply
64	64	64	32
0.4	0.4	0.4	0.4
0.1%	0.1%	0.1%	0.1%
200(400)	200(400)	200(400)	200(400)
600(800)	600(800)	600(800)	600(800)
			22(46)
			20(42)
380	380	380	380
3.5,7,10	3.5,7,10	3.5,7,10	3.5,7,10



三轴数控电火花成形机系列

Three-axis CNC Electrical Discharge Forming Machine of Full Closed Loop Series

	AUTOFORM 40	AUTOFORM 50
	C Type Structure	Bull Head Type Structure
Machine tool structure		
Overall dimensions (L*W*H)	mm 1600 * 1600 * 2300	2185 * 1550 * 2500
Machine weight	kg 2500	3000
X, Y, Z axis		
X, Y, Z stroke	mm 380 * 280 * 280	500 * 400 * 300
Displacement measurement system	position coder	position coder
X, Y, Z displacement measurement resolution	μm 1	1
Working range		
Tank type	stationary type	stationary type
Workable dimension (L * W)	mm 700 * 400	850 * 500
Electrode and work piece		
Maximum weight of electrode	kg 50	100
Maximum weight of work piece	kg 600	1800
Maximum dimension of work piece (L * W * H)	mm 1150 * 660 * 310	1170 * 700 * 400
Distance between tip of spindle and table surface	mm 295-615	390-630
Working fluid system		
Filter system	4 paper filter	4 paper filter
Oil tank capacity	L 600	640
Pulse power supply		
Type	isopulse power supply	isopulse power supply
Peak current	A 64	64
Polishing machining	Ra0.3 μ m/contour machining	
CNC system		
Screen	17TFT	17TFT
Remote controller	standard configuration	standard configuration
Programming expert system	standard configuration	standard configuration
Control axis	axes controlled simultaneously	axes controlled simultaneously
Power producer		
Three-phase voltage	A 380-400V	380-400V
Power frequency	Hz 50	50

多维服务体系 Multidimensional service system

Service Commitment

Quick after-sales service
Ready to realize promise anytime
Service in place within 48 hours
Lifetime service guarantee

“Buy rest assured,
Use with satisfaction”

Training Courses

Machining technology
and qualified engineers
to meet different customers'
and industries' requirements

“Make profit
within less time”

Demonstration Site

Application engineers think for
customers
Hotline tracking service
Regular visit

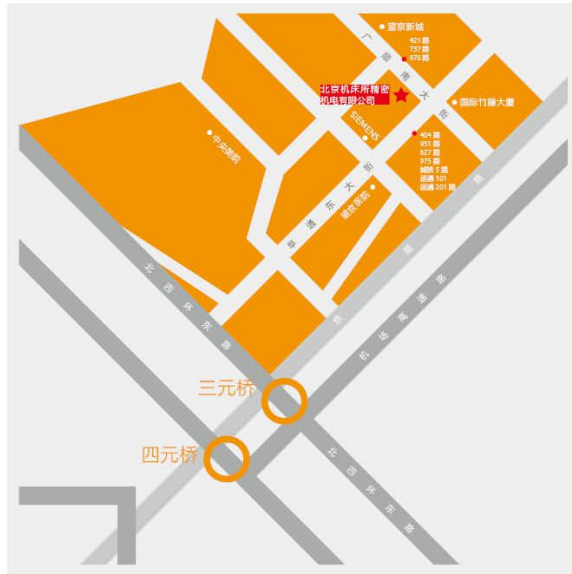
“Afford technology
skill for free”

Sales Outlets

Guangdong, Zhejiang, Shanghai,
Jiangsu, Hunan, Henan and
Shandong, etc.
Dedicate to cooperate with
many distributors closely.

“Meet customers'
requirements anytime”





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