

NOVICK

AF1100/2100/3300/4300
PRECISE CNC DIE-SINKING EDM AF SERIES



NOVICK GROUP
Novick Digital Equipment Co.,Ltd.

Addr: 8#, Fengxiang Scien-tech Development Zone,
Yangsong, Huairou, Beijing, PR of China, 101400
Tel.: +86-10-6167 8811
Fax: +86-10-6167 8037
Hot line: +86-10-6167 8271 400-650-9707
E-mail: novick@novick.cn
Website: www.novick.cn

Technology leads to enterprise development
Service creates client profit

NOVICK GROUP
Novick Digital Equipment Co.,Ltd.



AF1100/2100/3300/4300 PRECISE CNC DIE-SINKING EDM AF SERIES

INTRODUCTION & HISTORY

NOVICK



As a subsidiary company of Novick Group, Beijing Novick Digital Equipment Co., Ltd. is a high-tech joint venture, which focuses on providing market with reliable and excellent performance metal cutting and EDM equipments.

Until now, **NOVICK** brand covers six series, fourteen products: precise CNC die-sinking EDM AF series, precise CNC reciprocal wire-cut EDM AR series, precise CNC diamond tools EDM AT series, precise CNC brass wire-cut EDM AW series, precise CNC drilling EDM AD series, precise vertical machining center JCV series.



The ISO-9001 quality system with effective process control and advanced monitoring measurements ensures products delivered in the condition of good quality and high reliability.

Professional sales and services network offers effective and quick technical consulting, training and service support both on theories and applications.

ISO-9001 QUALITY SYSTEM



The ISO-9001 quality system ensures products delivered absolutely under control.

TECHNICAL SPECIFICATIONS

Items	Unit	AF1100	AF2100	AF3300	AF4300
Main machine					
Size of machine	mm	1650×1500×1975	2050×2460×2380	3400×3260×3290	6260×4600×3500
Weight of machine	kg	1800	3500	7000	18000
Size of worktable	mm	600×400	800×550	1400×900	2500×1200
Travels(X×Y×Z)	mm	380×250×250	600×400×350	1300×700×500	2100 / 1450×2×900×500
The distance between Z-platen and worktable	mm	250-500	320-670	650-1150	650-1150
Min. Resolution(XYZ)	mm	0.001			
Size of work tank	mm	1050×620×380	1430×800×500	2250×1300×650	3500×1800×650
Electrodes and workpiece					
Max.electrode weight	kg	70	100	200	200
Max.workpiece weight	kg	1000	2000	6000	8000
Max.workpiece size	mm	800×500×320	1100×600×450	2000×1100×600	3200×1600×600
Dielectric unit					
Capacity	L	450	800	2800	5000
Paper filter	pc	2	4	4	4
Power supply system					
Standard configuration		380V±10% 50 or 60HZ			
Power input	KW	10	17	17	17
Impulsec and machining technology					
Max.machining current	A	64	128	128	128
Max.removal rate	mm ³ /min	380 (copper-steel 64A)	550 (copper-steel 128A)	550 (copper-steel 128A)	550 (copper-steel 128A)
Best roughness(Ra)	μm	0.15	0.15	0.3	0.3
Min. electrode wear		0.03%	0.03%	0.1%	0.1%
Standard technology parameters		copper/graphite-steel, copper/ tungsten carbide			
CNC control system					
Display		15" Color LCD			
Keyboard		stainless steel and waterproof keyboard			
Programmable axes		XYZC 4-axes(4-axes controlled simultaneously)			
Program mode		automatic programming/ISO G.M code			
Unit		metric/Inch			
Interpolation		linear/arc			
Orbit type		circle/square/vector/polygon			
Orbit mode		free orbit/servo orbit			
CNC function		setup/erosion/edit/graphic/diagnostic			
Input type		USB/RS-232			
Options					
Extended current module		128A			
Imbeded c-axis		max.electrode weight 15kg			
Various kinds of electrode chucks		manual/3R/EROWA			

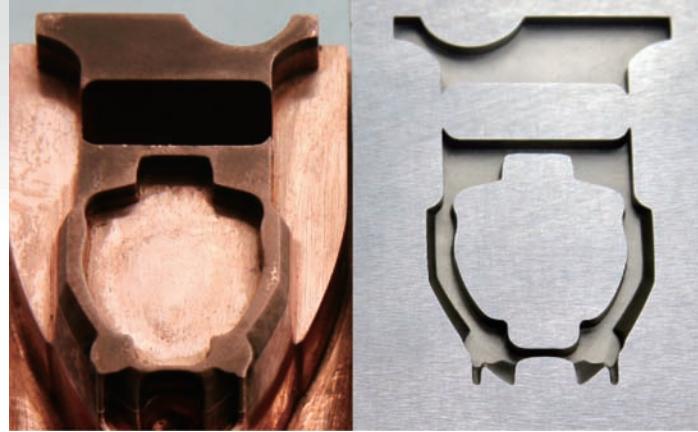
GENERATOR & MACHINING TECHNOLOGY

Super large-scale integrated circuit makes electrical discharge circuit powerful and reliable.

With fuzzy algorithms the discharging status and gaps are optimized adaptively which result in high removal efficiency and low electrode wear.

The complete set of EDM machining technology parameters database makes it easy and convenient to realize various kinds of machining: copper-steel; copper-aluminium; copper-carbide; graphite-steel; copper tungsten-carbide;etc.

A group of machining parameters can be called by one code. The parameters can be modified real-timely during erosion, and the modified parameters can also be stored for special use hereinafter.



Mirror machining: Ra0.15 μm



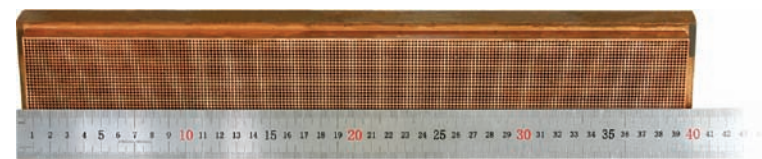
Mirror machining



Rib machining



Big surface machining



Mesh machining (big area)

AF SERIES



AF1100

AF2100

AF3300

AF4300



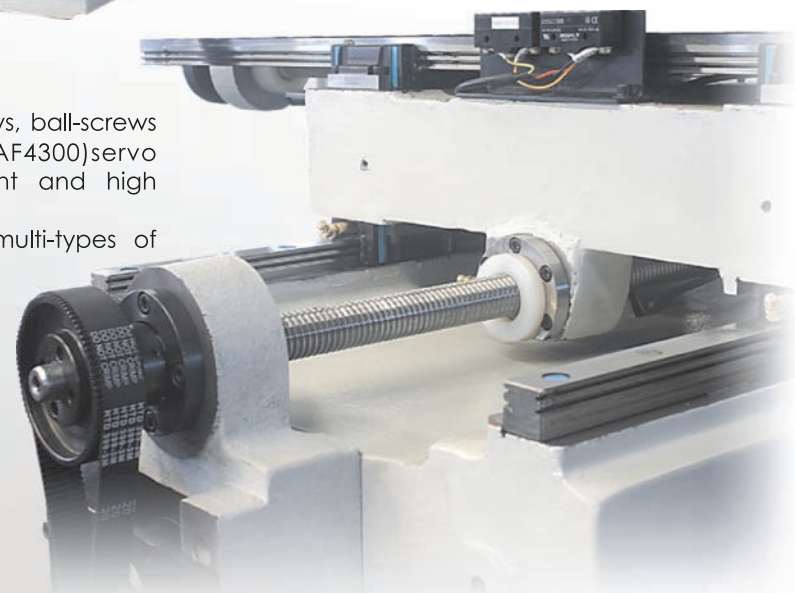
C-style cast iron structure makes machine keep stability and high precision.

Fixed worktable ensures the stability of erosion, the weight of workpiece and dielectric has no effect on processing. The closer distance between operator and workpiece ensures easily alignment and observation.

Workpiece can be mounted by crane, which is convenient to use and reduce the striking to machine.

Machine provides good rigidity and strong bearing capacity.

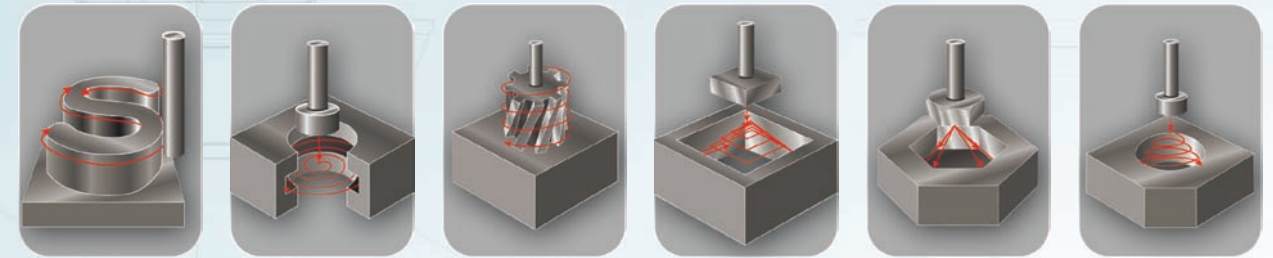
Imbedded C-axis ensures the completely and automatic discharging.



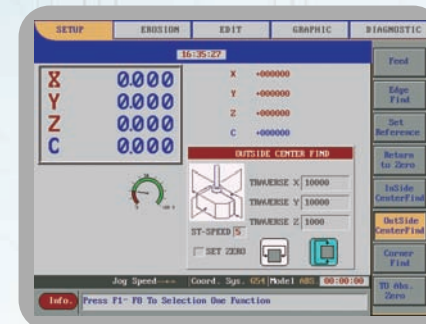
X/Y/Z axes adopt precise linear guide-ways, ball-screws and DC (AF1100,AF2100)/AC(AF3300,AF4300)servo system which ensure smooth movement and high accuracy.

Z-axis platen can be connected with multi-types of chucks(manual, 3R, EROWA).

CNC CONTROL SYSTEM



Contour machining Circle orbiting Helical machining (need C-axis) Square orbiting 3D machining Free orbiting



5 pages of functional screens consisted of Setup, Erosion, Edit, Graphic, Diagnostic provide very friendly man-machine interface.

Real-timely multi-tasking control software makes it possible to do preparations for next jobs during erosion.

The flexible NC programming system can meet the needs both for beginners and experienced operators.

With orbit function, machine can finish various kinds of EDM machining conveniently.

With powerful CNC function, machine can conveniently finish EDM erosion in linear and arc.

With RS-232 communication interface and USB interface, the machine can exchange datum with programming computer or control center conveniently.

With the small hand-box, operators can operate the machine within short distance.

