



ED

SERIES

High Precision Die Sinker
EDM Series



Gantry Type Movement

Die Sinking Electric Discharge Machine

Sharp performance	1
Mechanical frame and features	3
Specialized controller features	5
Automation	7
Specifications	9



ED30C



ED600C

Sharp performance with a wide range of machine models

ED SERIES

CNC EDM for Quality. Reliability

ED2200C-2H
ED3000C-2H



ED800C/ED1000C/ED1400C

Mechanical frame and features



Multifunction

- 18 kinds of OB modes
- ATC system
- A variety of measurement functions

High Precision

- Column structure design
- Floor-mounting design
- Z axis counterweight patented Structure

Automation

- 4 & 6 optional ATC / 16 & 20 Robomatic ATC (Optional)
- Vertical Front-door design
- G-CODE au to-programming

High Performance

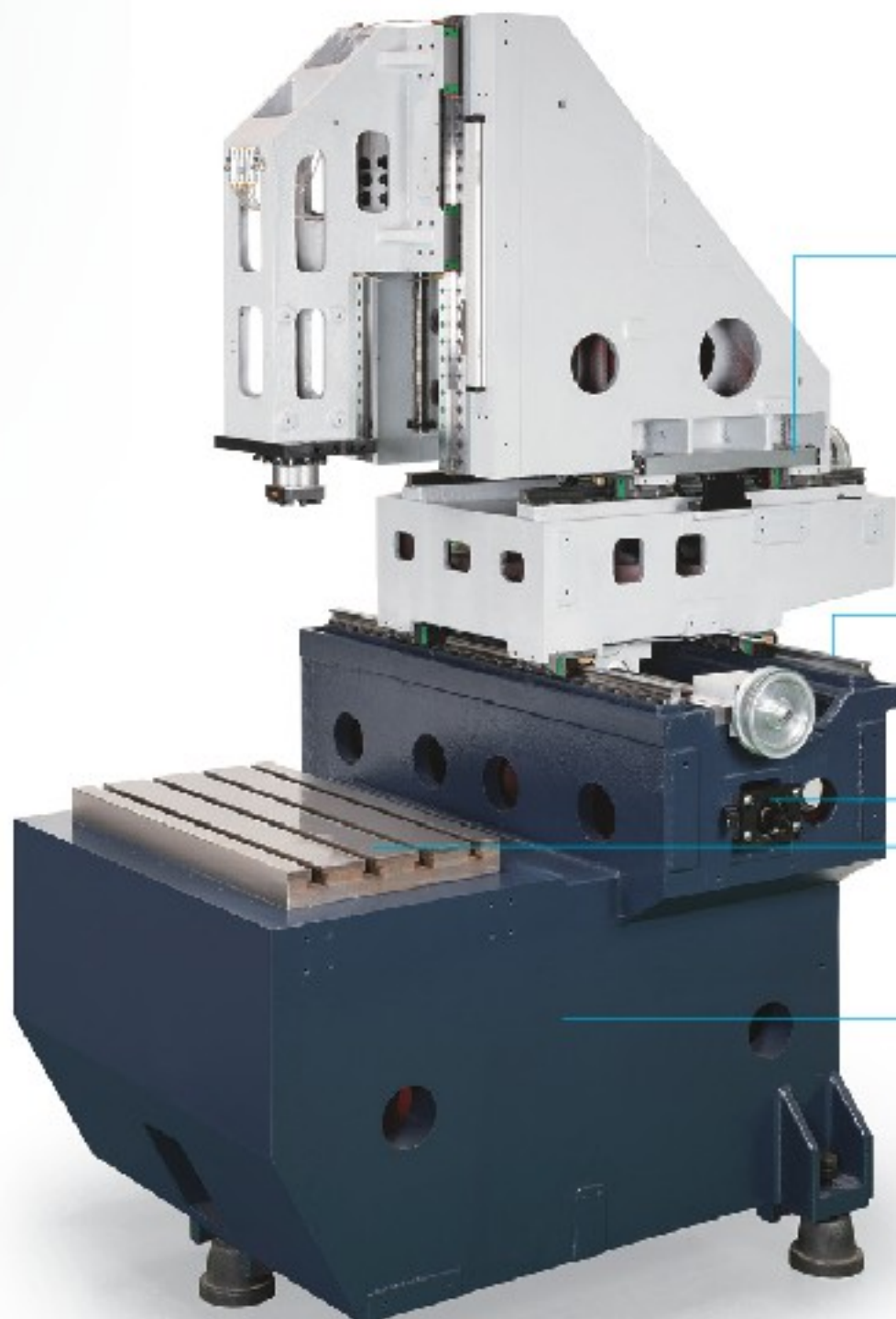
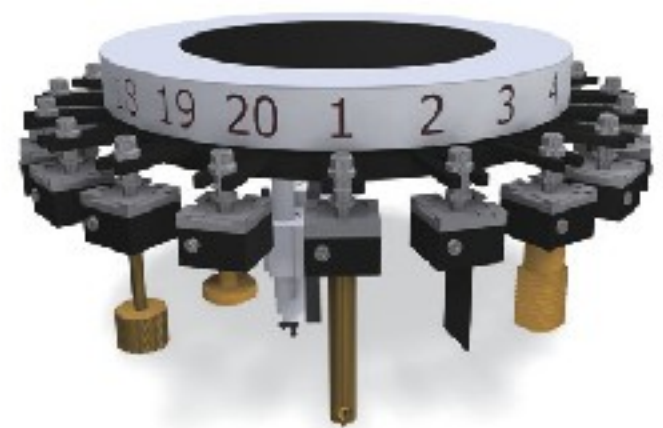
- Tungsten Carbide Sparking circuit (Optional)
- MOSFET Discharge circuit
- ARC protection
- APC protection



ATC system

- 4 & 6 optional ATC / 16 & 20 Robomatic ATC (Optional)
- Auto electrode offset compensation function

Robomatic Electrode Change System



- Linear scale with high- positioning accuracy



- Linear guide way with roller type
The rigidity for roller type is 1.7 times higher than the ball type

- High-resolution, AC servo motor

- Work table with Hardness HRC50

- High rigidity mechanical frame design optimized under FEM analysis



Specialized Controller features



Measurement System



Auto tools changer & electrode offset compensation features

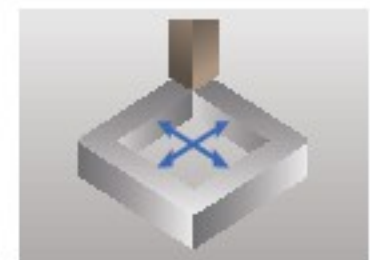


File Management

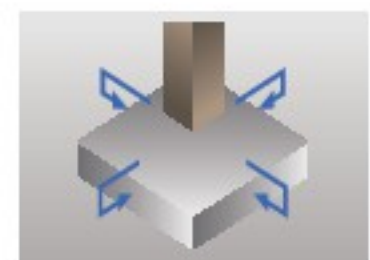


User Friendly Interface

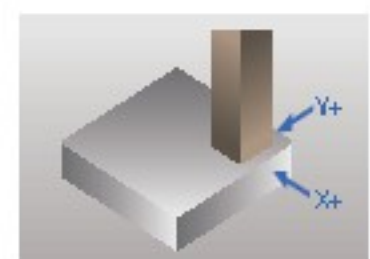
Edge Finding Function



Inner Center Measure



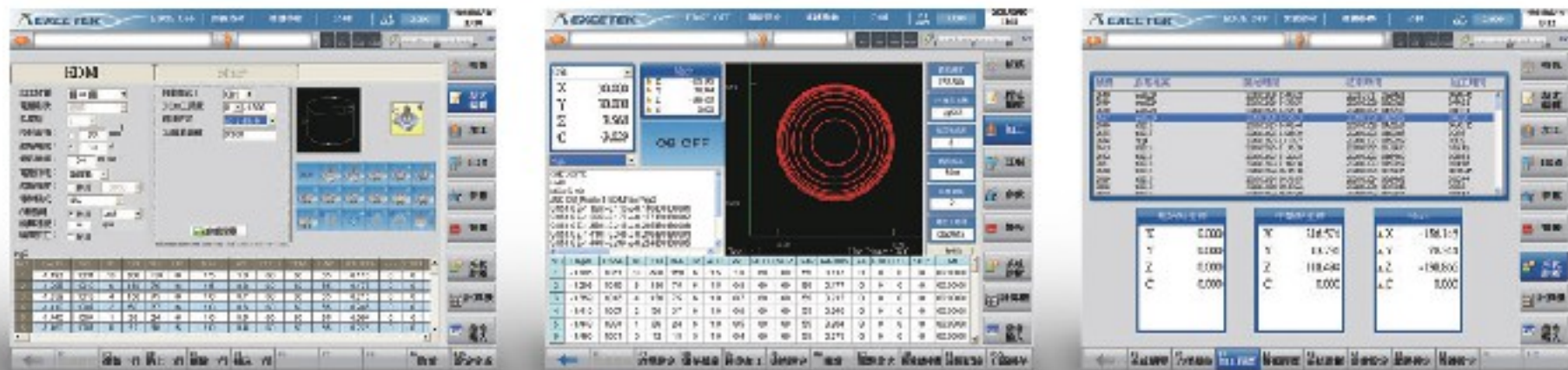
Outer Center Measure



Corner Center Measure

Excetek's Specialized exclusive controller system, brings enormous features and functions in sparking performance and automated technology.

- In order to simplify, we provide a feasible function by increasing Mold lead time and sparking energy automatically based on the set condition which gives high precision of molding.
- In addition, by using provided machining database conditions helps to establish a quick process of working along with the user set conditions.
- Used standard ISO G code format for easier understanding and working.

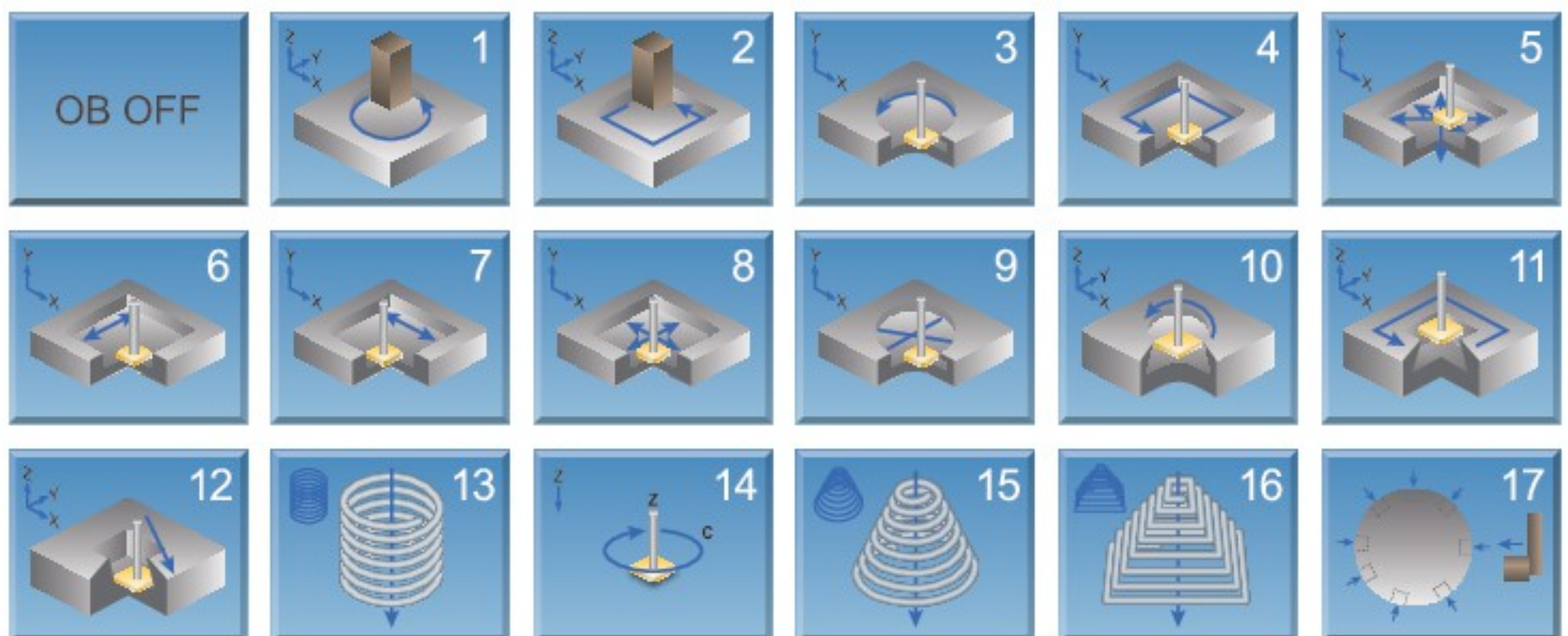


Auto Programming

Sparking Monitor

Sparking History

OB-Mode



Automation



E-Link Server (Optional)



Machine view



NC file



Machine Status



Consumable Part Monitor



Machining Monitor



Utilization Rate Summary Graph

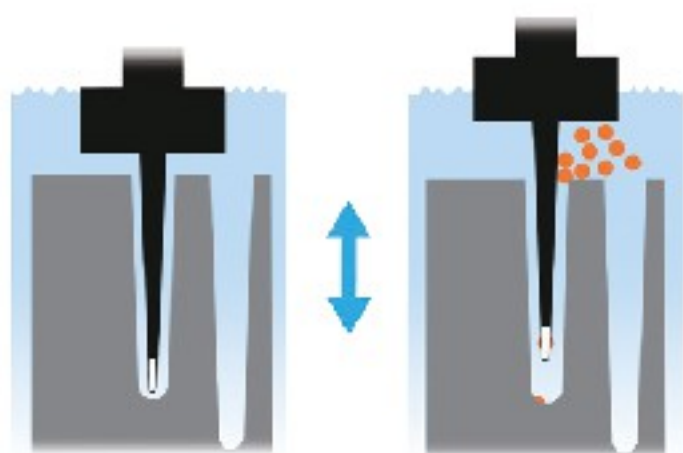


Through OPCUA international standard protocol interface link to another CNC system
Example: Heidenhain, Delta DIA View, DZ Connect system ...

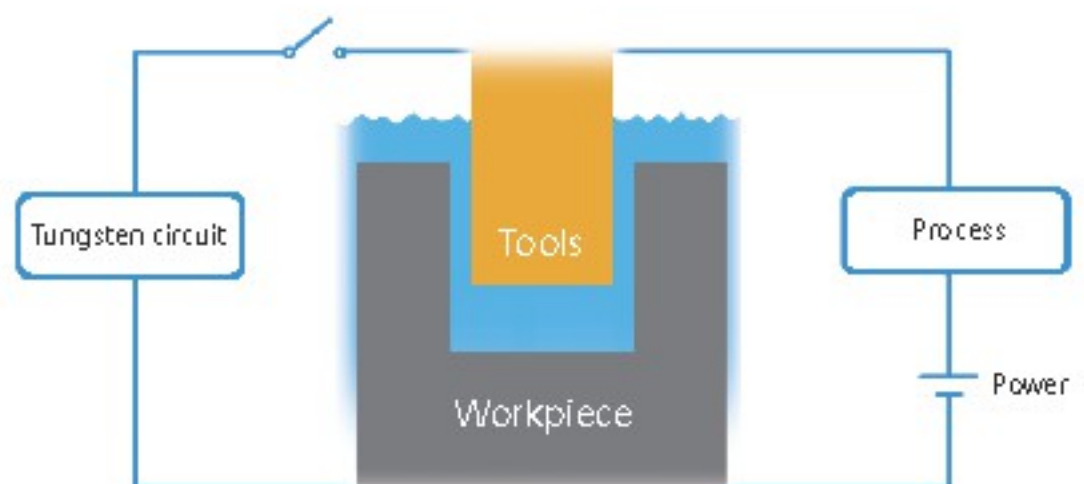


- **Generous function of erosion data base:** Automatic generator function which is featured to the provided erosion condition, where it works automatically according to the electrode material, size and erosion depth.
- **User-Friendly operation:** It is a user-friendly operation which is easier to operate and understand.
- **Auto- parameter function:** the auto-parameter function automatically adopts for quick erosion process and fine finish erosion process where the controller automatically calculates and provides best erosion condition to use which brings efficiency, accuracy and saves the working time.
- **Equal pulse generator:** For big electrode size or depth erosion, controller will calculate the servo speed and generates equal pulse for erosion which brings high accuracy after machining and helps in solving the sparking detect.
- **Special function:** for copper, graphite and tungsten carbide circuit helps to improve the erosion speed and less electrode wear.
- **ARC & Short circuit Protection:** Auto-monitor of erosion status where the ARC or Short Circuit, the generator helps to detect GAP feedback signal and auto rejects the flushing status and adjust erosion frequency.
- **Safety Protection:** Auto Fire detection system, ARC Protection, Oil Level Detection provide, safety security system and X/Y/Z axis use high resolution display system.

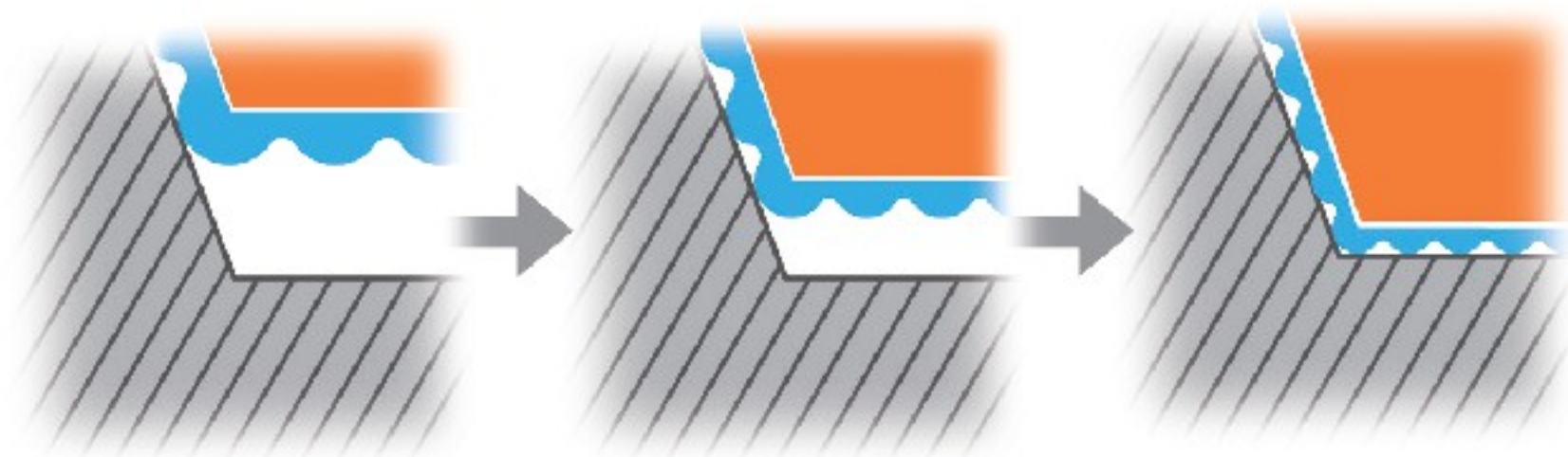
Using high pulse function the electrode sparking improves discharge efficiency and reduces the electrode wear from the material.



By Tungsten Carbide Sparking circuit, we can achieve high discharge efficiency and low electrode wear.



By equal discharge pulse circuit, it detects the real time Gap sparking status where it auto-adjust discharge condition to reduce electrode wear and improve discharge efficiency from rough surface to finished sparking surface.



Specifications

Application



Sample



Sample: Punch
Material: Tungsten Carbide
Electrode material: Copper
Electrode quantity: 3
Roughness: Ra0.3 μm



Sample: 50x50 Square
Material: NAK80
Electrode material: Copper
Electrode quantity: 1
Roughness: 0.12–0.15 μm



Sample: Graphite Rib
Material: NAK80
Electrode material: Graphite
Electrode quantity: 1
Electrode Wear: 1.98%

Standard Equipment

- Alcohol Extinguisher
- Working Lamp
- Leveling Pad
- Flushing unit
- Paper Filter
- 1/2 Drill chuck
- Tools Box
- Clamp Jig

Optional Equipment

- C-Axis
- Auto Tool Changer
- X/Y/Z Linear Scale
- Edge Finder Ball
- Oil Chiller
- Auto Voltage Regulator
- Permanent Magnetic Pedestal
- Tungsten Carbide Sparking Circuit

Specifications

MACHINE MODEL		ED30C
X/Y Travel	mm	300×250
Z Travel	mm	300
Work Table	mm	650×350
Max. Work Piece Size	mm	720×450
Max. Work Tank Size	mm	770×500×300
Max. Work Piece Weight	kg	550
Max. Electrode Weight	kg	50
Machine Weight	kg	1450
Outside Dimensions (Machine Body - Land - Table - Generator)	mm	2340×1690×2250
Electrode Head to Work Table Distance		280 - 580
OIL FILTER TANK		
Tank Capacity	L	350
Tank Weight	kgs	-
Paper Filter		2
Outside Dimensions	mm	Built-in

*The content of this catalogue is subject to be change by the factory

Column Movement Specifications

ED400C	ED600C	ED800C	ED1000C
400×300	650×450	800×600	1000×600
350	400	500	500
700×400	1000×600	1200×700	1250×750
850×580	1290×700	1600×1000×500	1800×1000×500
950×700×450	1390×700×500	1650×1050×550	1850×1050×550
1000	3000	4000	4500
50	50	350	350
2800	3900	5000	5500
2344×2110×2410	2791×2669×2666	3260×3320×3200	3450×3320×3200
300 - 650	300 - 700	420 - 920	420 - 920
OIL FILTER TANK			
450	1200	1500	1700
115	350	450	500
3	4	4	4
1320×550×680	2020×530×1060	2200×1400×580	2300×1400×580

Column Movement Specifications

MACHINE MODEL		ED1400C	ED1600C	ED1800C	ED2200C	ED2200C-2H	ED3000C-2H
X/Y Travel	mm	1400×700	1600×750	1800×800	2200×1000	1550 (775)×1000	2550 (1275)×1000
Z Travel	mm	500	550	600	600	600	600
Work Table	mm	1700×950	1850×1000	1850×1000	2250×1100	2250×1100	3100×1100
Max. Work Piece size	mm	2100×1200×500	2100×1200×500	2500×1200×600	2700×1600×700	2700×1600×700	3700×1600×700
Work Tank Capacitor	mm	2150×1250×550	2150×1250×550	2550×1250×650	2750×1650×750	2750×1650×750	3750×1650×750
Max. Work Piece Weight	kg	6000	6000	7000	9500	10000	16000
Max. Electrode Weight	kg	450	450	500	500	500	500
Machine Weight	kg	8000	8500	9000	13500	15000	21000
Outside Dimensions (Machine Body - Land - Table - Generator)	mm	3700×3930×3260	3740×3930×3260	3750×3930×3260	4000×4600×3960	5350×4610×3960	6500×4610×3700
Electrode Head to Work Table Distance		550 - 1050	550 - 1050	450 - 1050	660 - 1260	760 - 1360	760 - 1360
OIL FILTER TANK							
Tank Capacity	L	2200	2600	3000	4000	5000	6500
Tank Weight	kgs	600	700	750	950	1050	1150
Paper Filter		8	8	8	8	8	8
Outside Dimensions	mm	2600×1600×580	3000×1580×640	3050×1650×640	3300×1800×780	3700×1850×780	4700×1850×780

*The content of this catalogue is subject to be change by the factory

Generator Specifications

MACHINE MODEL		50N	75N	100N	150N	200N	300N
Max. Erosion Current.		50A	75A	100A	150A	200A	300A
Max. Stock Remove Rate.	mm ³ /min	400	600	800	1100	1400	1700
Max. Power Input.	KVA	4.5	6	8	12	14	20
Max. Electrode wear.		0.2 %	0.3 %	0.4 %	0.4 %	0.5 %	0.5 %
Best of surface Roughness		0.20	0.30	0.50	0.70	0.70	0.70
Generator Weight	kg	200	300	330	330+300	330+300	330+300+300
Generator Dimension (L×W×H)	mm	610×610×1885	610×610×1885	610×610×1885	(610×610×1885)×2	(610×610×1885)×2	(610×610×1885)×3

ED

SERIES

High Precision Die Sinker EDM Series



EXCETEK TECHNOLOGIES CO., LTD.

No. 10, Fenggong 3rd Rd., Shengang Dist.,
Taichung City 42942, Taiwan

TEL. +886 4 2520 0688

FAX. +886 4 2520 0111

www.excetek.com

info@excetek.com.tw

No.510430