

PRECISE CNC EDM DRILL MACHINES

CATALOG

SUPER SIZE

Work Area: 1250(X) 800(Y)
Especially for LCD mould.
Model: 8000G (Full Auto)
See Page 4

SUPER SIZE

Super Size CNC EDM Drill is very unique and our specialty. Check the convenience and the stability.

LARGE

Work Area: 1000(X) 600(Y)
Model: 1000K (Full Auto)
See Page 5

TIP to Choose Model

To make easier when you setup an workpiece on the EDM Drill, You'd better choose 50mm wider(X, Y) than the work range of Wirecut EDM.

MEDIUM

Work Area: 700(X) 450(Y)
Model: 750K (Full Auto)
See Page 6

SMALL

Work Area: 500(X) 300(Y)
Model: 530K (Full Auto)
See Page 8

MEDIUM-SMALL

Work Area: 600(X) 400(Y)
Low Price for mass production
Model: 640K (Full Auto)
See Page 7

COMPACT

Work Area: 510(X) 300(Y)
Model: 510 (3 Axes Auto)
See Page 9

Select a Model first and go to the page to see detail.

SUPER SIZE

8000G



Guaranty **THREE "AUTO"s!**

- ☒ 1. Auto Penetration(100%)
- ☒ 2. Ceaseless Auto Electrode Change(100%)
- ☒ 3. Auto Setting w/o Error(100%)

LARGE

1000K



MEDIUM

750K



SMALL

530K



MEDIUM-SMALL

640K



COMPACT

510



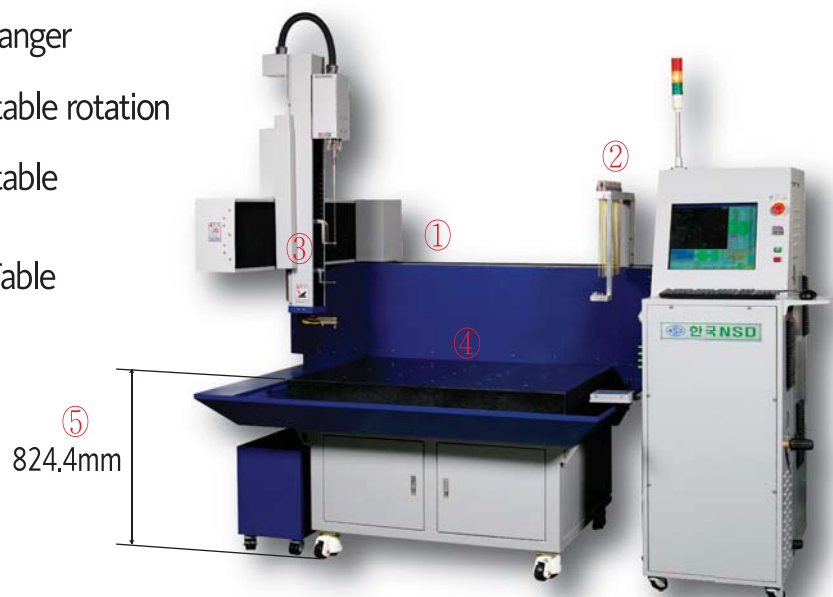
SUPER SIZE 8000G

ADVANTAGES

- Working Area is 1250mm(X) and 800mm(Y), specialized for big workpieces.
- Operator can handle a heavy workpiece safely for the Low/Open Style Granite Table.
- Advanced Pitch Compensation Function.
NSD machines keep the pitch data and make axis to move very accurate.

- < Features >
- ☒ 100% Unattended Auto Tool Changer
 - ☐ Auto Thickness Verifying System
- No need to wait until breaking through at the first hole.
 - ☐ Convenient One Touch Guide Grab/Release
 - ☐ Carbide inserted in the Guide hole for the better durability
 - ☐ Dual Moving Sub Guides for stable rotation of electrode
 - ☐ Advanced CAD data Loading System
(Check Errors on drawings optically, Faster than Loading NC)
 - ☐ Small Hole Drilling (0.1 ~ 3.0mm)
- < Options >
- ☐ Oil Machine (Use EDM Oil as dielectric to Drill 0.1mm)
 - ☐ 60A Power Booster (Drill Faster for larger than 2.0mm)
 - ☐ Auto Guide Changer (i.e: Drill 0.5 and 0.7 at one process even though there is no operator)
 - ☐ EDM Tapping (Make Taps on Heat-Treated Material)

- ① Using double nuts on X and Y axes to prevent backlash.
- ② 100% Unmanned Electrode Changer
- ③ Dual Moving Sub Guides for stable rotation
- ④ 21 Taps(8mm) on the granite table for convenience
- ⑤ Low and Open Large Granite Table



- ☒ 3 stage fine discharge control for stable drilling
(Normal EDM drillers use 1 stage discharge control)

LARGE 1000K

ADVANTAGES

- Best Design for big workpiece such as PRESS mould
- Advanced Pitch Compensation Function
 - NSD machines keep the pitch data and make axis to move very accurate.

- < Features >
- ☒ 100% Unattended Auto Tool Changer
 - ☐ Auto Thickness Verifying System
 - No need to wait until breaking through at the first hole.
 - ☐ Convenient One Touch Guide Grab/Release
 - ☐ Carbide inserted in the Guide hole for the better durability
 - ☐ Dual Moving Sub Guides for stable rotation of electrode
 - ☐ Advanced CAD data Loading System
(Check Errors on drawings optically, Faster than Loading NC)
 - ☐ Small Hole Drilling (0.1 ~ 3.0mm)
- < Options >
- ☐ Oil Machine (Use EDM Oil as dielectric)
 - ☐ 60A Power Booster (Drill Faster for larger than 2.0mm)
 - ☐ Auto Guide Changer (i.e: Drill 0.5 and 0.7 at one process even though there is no operator)
 - ☐ EDM Tapping (Make Taps on Heat-Treated Material)

- ① Using double nuts on X and Y axes to prevent backlash.
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- ④ 21 Taps(8mm) on the granite table for convenience
- ⑤ Low and Open Large Granite Table



- ☒ 3 stage fine discharge control for stable drilling
(Normal EDM drillers use 1 stage discharge control)

MEDIUM 750K

ADVANTAGES

- Wide Granite Table(1,140mm x 580mm) makes easy to handle big size workpieces.
- Multi Purpose: 750K can cover from small precise parts to big size parts.

- < Features >
- ☒ 100% Unattended Auto Tool Changer
 - ☐ Auto Thickness Verifying System
 - No need to wait until breaking through at the first hole.
 - ☐ Convenient One Touch Guide Grab/Release
 - ☐ Carbide inserted in the Guide hole for the better durability
 - ☐ Dual Moving Sub Guides for stable rotation of electrode
 - ☐ Advanced CAD data Loading System
(Check Errors on drawings optically, Faster than Loading NC)
 - ☐ Small Hole Drilling (0.1 ~ 3.0mm)
- < Options >
- ☐ Oil Machine (Use EDM Oil as dielectric)
 - ☐ 60A Power Booster (Drill Faster for larger than 2.0mm)
 - ☐ Auto Guide Changer (i.e: Drill 0.5 and 0.7 at one process even though there is no operator)
 - ☐ EDM Tapping (Make Taps on Heat-Treated Material)

- ① Using double nuts on X and Y axes to prevent backlash.
- ② Convenient Rotating Controller Unit
- ③ 100% Unmanned Electrode Changer
- ④ Dual Moving Sub Guides for stable rotation
- ⑤ Left Splash Guard can be open for wider workpiece

- ☒ 3 stage fine discharge control for stable drilling
(Normal EDM drillers use 1 stage discharge control)



MEDIUM-SMALL 640K

ADVANTAGES

- The Most Valuable model with cost performance.
- 640K is the best model for many holes in one process such as PCB, FPCB works.

- < Features >
- ☒ 100% Unattended Auto Tool Changer
 - ☐ Auto Thickness Verifying System
 - No need to wait until breaking through at the first hole.
 - ☐ Convenient One Touch Guide Grab/Release
 - ☐ Carbide inserted in the Guide hole for the better durability
 - ☐ Dual Moving Sub Guides for stable rotation of electrode
 - ☐ Advanced CAD data Loading System
 - (Check Errors on drawings optically, Faster than Loading NC)
 - ☐ Small Hole Drilling (0.1 ~ 3.0mm)
- < Options >
- ☐ Oil Machine (Use EDM Oil as dielectric)
 - ☐ 60A Power Booster (Drill Faster for larger than 2.0mm)
 - ☐ Auto Guide Changer (i.e: Drill 0.5 and 0.7 at one process even though there is no operator)
 - ☐ EDM Tapping (Make Taps on Heat-Treated Material)

- ① Using double nuts on X and Y axes to prevent backlash.
- ② Convenient Rotating Controller Unit
- ③ 100% Unmanned Electrode Changer
- ④ Dual Moving Sub Guides for stable rotation
- ⑤ Left Splash Guard can be open for wider workpiece

- ☒ 3 stage fine discharge control for stable drilling
(Normal EDM drillers use 1 stage discharge control)



SMALL 530K

ADVANTAGES

- Small size, but full options are available.
- 530K is the best model for small size mould work.

- < Features >
- ☒ 100% Unattended Auto Tool Changer
 - ☐ Auto Thickness Verifying System
 - No need to wait until breaking through at the first hole.
 - ☐ Convenient One Touch Guide Grab/Release
 - ☐ Carbide inserted in the Guide hole for the better durability
 - ☐ Dual Moving Sub Guides for stable rotation of electrode
 - ☐ Advanced CAD data Loading System
(Check Errors on drawings optically, Faster than Loading NC)
 - ☐ Small Hole Drilling (0.1 ~ 3.0mm)
- < Options >
- ☐ Oil Machine (Use EDM Oil as dielectric)
 - ☐ 60A Power Booster (Drill Faster larger than 2.0mm)
 - ☐ Auto Guide Changer (i.e: Drill 0.5 and 0.7 at one process even though there is no operator)
 - ☐ EDM Tapping (Make Taps on Heat-Treated Material)

- ① Using double nuts on X and Y axes to prevent backlash.
- ② Convenient Rotating Controller Unit
- ③ 100% Unmanned Electrode Changer
- ④ Dual Moving Sub Guides for stable rotation
- ⑤ Left Splash Guard can be open for wider workpiece

- ☒ 3 stage fine discharge control for stable drilling
(Normal EDM drillers use 1 stage discharge control)



COMPACT 510

ADVANTAGES

- The Best Cost Performance, User Friendly Design
- Affordable Price like a manual machine, but Full CNC Features except for ATC.

- < Features > ☐ Auto Thickness Verifying System
- No need to wait until breaking through at the first hole.
- ☐ Sub Guides for stable rotation of electrode
- ☐ Advanced CAD data Loading System
(Check Errors on drawings optically, Faster than Loading NC)
- < Options > ☐ External 60A Power Booster (Fast Drilling larger than 2.0mm)
- ☐ Large Water Tank(130Liters) with EDM Filter Pump
- ☐ EDM Tapping (Make Taps on Heat-Treated Material)

- ① Convenient Rotating Controller Unit
- ② Dual Moving Sub Guides for stable rotation
- ③ Left Splash Guard can be open for wider workpiece

- ☒ 3 stage fine discharge control for stable drilling
(Normal EDM drillers use 1 stage discharge control)



SPECIFICATIONS

Dimensions

Model	Table Size(X x Y)	Travel Distance(X x Y x Z)	Dimensions(W x D x H)
8000G	1200 x 800mm (47.2 x 31.5in)	1300 x 800 x 360mm (51.2 x 31.5 x 14.2in)	2850 x 1390 x 2140mm (Max 2500mm) 112.2 x 54.7 x 84.3in (Max 98.4in)
1000K	1200 x 710mm (47.2 x 27.9in)	1050 x 600 x 360mm (41.3 x 23.6 x 14.2in)	2910 x 1480 x 2200mm (Max 2560mm) 114.6 x 58.3 x 86.6in (Max 100.8in)
750K	1140 x 580mm (44.9 x 22.8in)	750 x 450 x 360mm (29.5 x 17.7 x 14.2in)	1910 x 1990 x 2240mm (Max 2600mm) 75.2 x 78.3 x 88.2in (Max 102.4in)
640K	940 x 450mm (37 x 17.7in)	650 x 400 x 360mm (25.6 x 15.7 x 14.2in)	1790 x 1710 x 2240mm (Max 2600mm) 70.5 x 67.3 x 88.2in (Max 102.4in)
530K	940 x 450mm (37 x 17.7in)	550 x 300 x 360mm (21.7 x 11.8 x 14.2in)	1790 x 1710 x 2240mm (Max 2600mm) 70.5 x 67.3 x 88.2in (Max 102.4in)
510	500 x 400mm (19.7 x 15.7in)	510 x 300 x 250mm (20.1 x 11.8 x 9.8in)	1390 x 1320 x 1950mm (Max 2200mm) 54.7 x 52 x 76.8in (Max 86.6in)

Weight and Capacity

Model	Machine Weight	Max Weight of Workpiece	Water Tank Capacity
8000G	2000Kg / 4405lb	1000Kg / 2203lb	90Liter / 23.1gal*
1000K	1800Kg / 3965lb	1000Kg / 2203lb	130Liter / 33.4gal
750K	1700Kg / 3744lb	500Kg / 1100lb	130Liter / 33.4gal
640K	1100Kg / 2423lb	300Kg / 661lb	70Liter / 18gal*
530K	1100Kg / 2423lb	300Kg / 661lb	70Liter / 18gal*
510	900Kg / 1982lb	100Kg / 220lb	70Liter / 18gal*

* The default size water tanks for these models can be replaced with an optional Larger Water Tank(130Liter/33.4gal).

ATC/AGC holes

Model	8000G	1000K	750K	640K	530K
1 row (w/o AGC)	15	16	16	18	14
2 rows (w/o AGC)	30	32	32	36	28
1 row (with AGC)	15	16	16	14	10
2 rows (with AGC)	30	32	32	28	20
AGC Holes	4	4	4	4	4

* ATC and AGC options are not applicable for 510.

* Rated Voltage: 3phase 220/380/400V, 50/60Hz (Select when you order)

* Rated Power Capacity: 5KVA

* Max Allowable Current: 30A

* Required Air Pressure: 5Kgf/Cm²

SPECIAL OPTIONS

100A Super Power Booster for Large Hole(3.1~6.0mm)

If you need to drill holes bigger than 3.0mm, we have an additional Power Booster for 60A.

Add on that, if you need much faster drilling for bigger holes, we strongly recommend this 100A Super Power Booster.

It just makes all the drilling performance faster than double compared to normal EDM drilling Machines on large holes.



2 Row Tool Bar(Electrode Holder)

In case that you have to drill thousands of holes, the most important thing you need is the tool bar that can hold as many as it can.

The structure of 2 row tool bar is simple enough so that there is no chance of "Tool Change Failure".

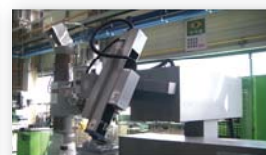


1/2 Axis Indexer (Ready-made / Customized)

We have our own developed technology for additional A/B or AB axis indexers.

Our axis indexer technology has been proven by the users from all around the world for more than 10 years.

If you need any kinds of customized indexer, Just ask us. We provide the best solution for you.



Large Water Tank(130Liters) with EDM Filter Pump

Large Water Tank is very helpful to keep the water clean and cool.

There are two separated(Clean and Dirty) water tanks.

The EDM Filter Pump sucks dirty water and push it into the Filter.

Total 4 pumps are included for each purpose. (For Main Pressure, for EDM Filter, for Pre Filter and for Ion Exchange Resin)



EDM Tapping Option

EDM Tapping is generally a job for Sinker EDM machine. However NSD's EDM drill can do this by replacing few parts. If you need to make a tap on a heat-treated material, try this EDM Tapping Option.

The tap electrode moves into radial directions (for example, 12 directions and you can change this) on the X-Y plain to make a tap in a hole. This is very useful function of NSD EDM drill machines.

ADVANTAGES

1. AUTO TOOL(ELECTRODE) CHANGER

World's Simplest Structure ATC (No Tool Change Failure)

2. PITCH COMPENSATION SYSTEM

Pitch Compensation feature is very necessary for accurate drilling.
NSD's EDM Drill Machines have this function so that they move Axes precisely.

3. AUTO GUIDE CHANGER

World's Simplest Structure AGC (No Guide Change Failure)

4. AUTO SETTING

Some EDM Drillers have auto setting feature, but there is no check after setting.
NSD's EDM Drillers have ACCURACY CHECK feature for AUTO SETTING.

5. LOAD CAD DATA DIRECTLY

Of course, NSD machines can load NC program function, but if you load CAD data directly, you can save time and easy to find error on the drawings.

6. ONE TOUCH GUIDE GRAB/RELEASE

Do not use screw to fix a guide. NSD has its special one touch guide grab /release function. Also we use hard metal on the guide hole for durability.

7. DECREASE BUR

NSD's EDM Drillers can decrease bur on the surface by fine discharge control.

8. VERIFY THICKNESS

Mostly, operator has to wait until the first hole is penetrated to check the depth or consumption for the other EDM drill machines. You don't have to wait for NSD machines because they can verify the thickness and penetrate by themselves.

9. AUTO PENETRATION

Until Now, operators have to check if all the holes are penetrated well or not every time after drilling for wire EDM start hole.
NSD's EDM drillers check and penetrate hole automatically and perfectly.

10. DUAL MOVING SUB GUIDES

Use 700mm electrode rather than 400mm on NSD's EDM Drillers. With 700mm, you can drill about 18 holes with one electrode for 30mm Thickness SKD-11.
You can save time and cost for the dual moving sub guides.

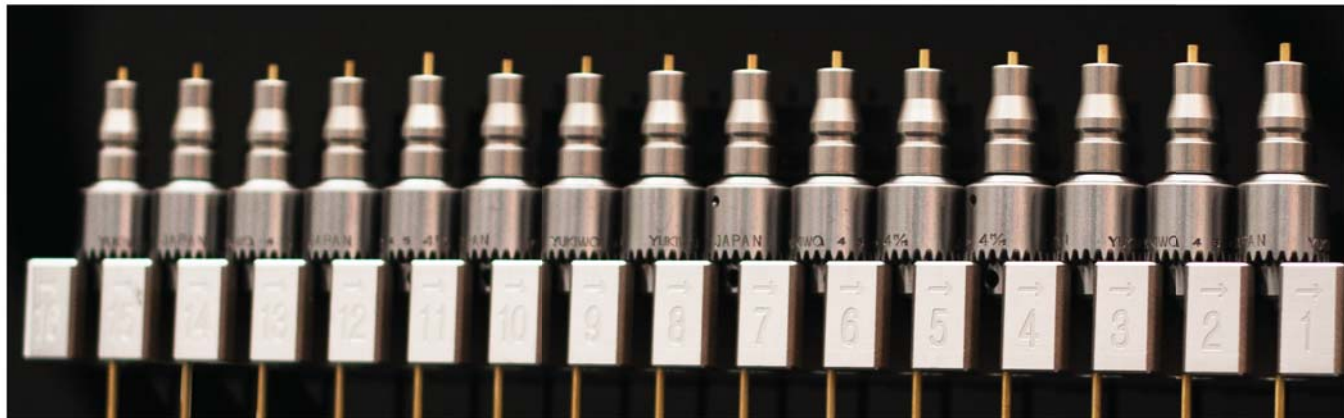
11. CUSTOMIZABLE

NSD has deep technologies on EDM applications and machines. We are able to provide customized machines for our clients various requests.

SPECIAL FEATURES

Auto Tool(Electrode) Changer

World's Simplest Design (No Tool Change Failure)



Compact Remote Controller (Phone Size)

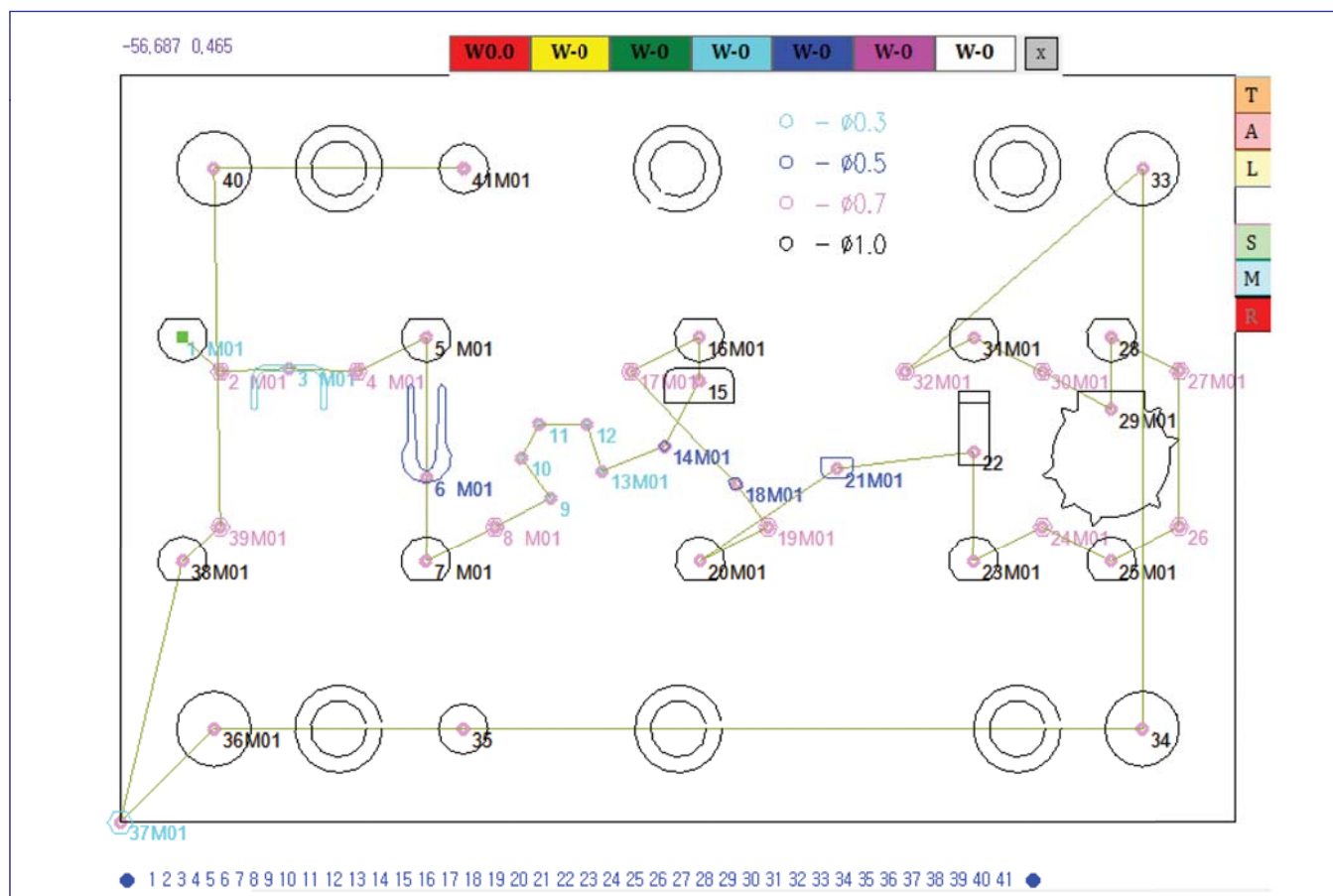


Loading CAD Data Directly

Zooming, Measuring is possible by Mouse.

Shows detailed geographic information to prevent Errors.

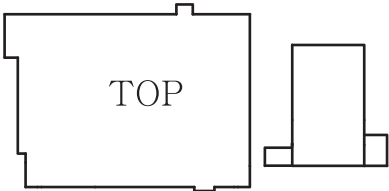
〈NSD Software Main Screen〉



FLOOR PLANS

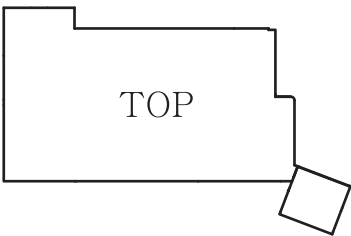
8000G

W: 2850mm
D: 1390mm
H: 2140mm
(Max: 2500mm)



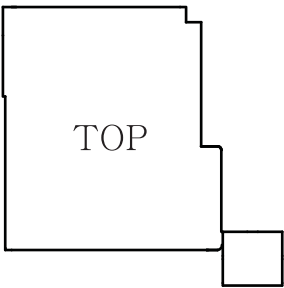
1000K

W: 2910mm
D: 1480mm
H: 2200mm
(Max: 2560mm)



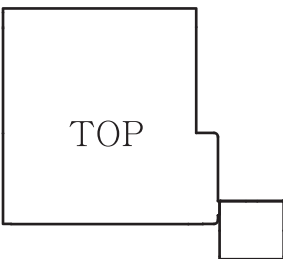
750K

W: 1910mm
D: 1990mm
H: 2240mm
(Max: 2600mm)



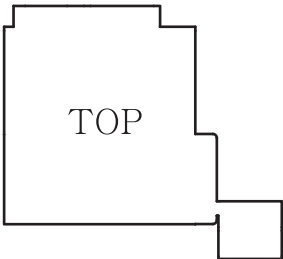
640K

W: 1790mm
D: 1710mm
H: 2240mm
(Max: 2600mm)



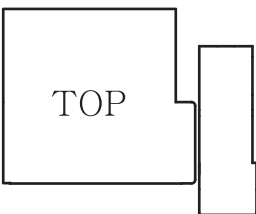
530K

W: 1790mm
D: 1710mm
H: 2240mm
(Max: 2600mm)



510

W: 1390mm
D: 1320mm
H: 1950mm
(Max: 2200mm)





Guaranty **THREE "AUTO"s!**

- ☒ 1. Auto Penetration(100%)
- ☒ 2. Ceaseless Auto
Electrode Change(100%)
- ☒ 3. Auto Setting
w/o Error(100%)

"Perfect Perpendicularity"

"Electrode will never stuck in the hole
when it goes from one hole to another
during drilling on 70mm or thicker applications"