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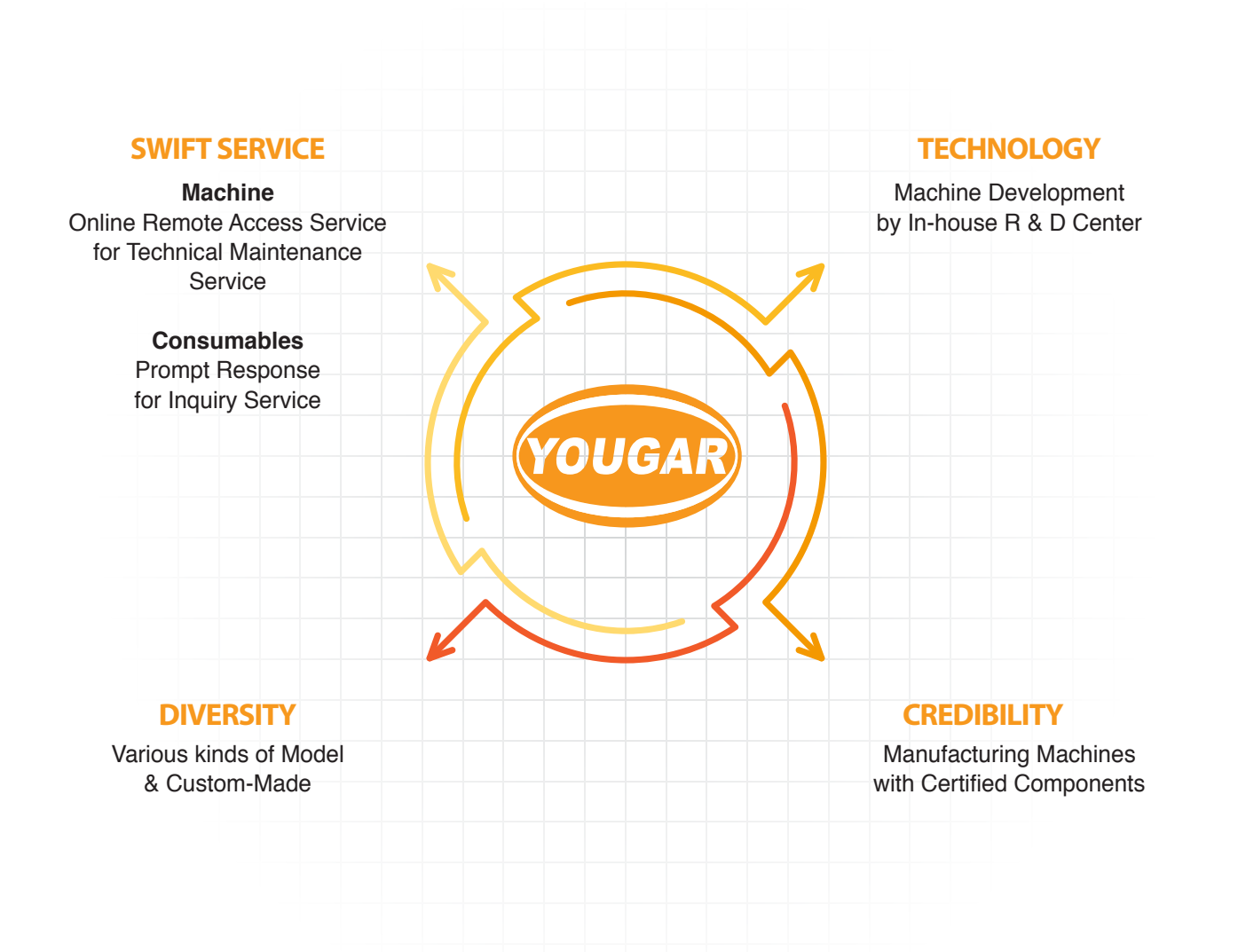
YGS SERIES

SMALL HOLE DRILLING EDM MACHINE



YOUGAR M&T

SMALL HOLE DRILLING EDM MACHINE



World Best EDM Partners

Since 1999, YOUGAR M&T INC managed to produce consumables of wire-cut EDM & sinking EDM as trading company, turnover as Small Hole Drilling Machine manufacturer.

Our main item Small Hole Drilling Machine (which is also known as EDM Drilling Machine, Super Drill EDM, Hole Popper or EDM Hole Drilling) is activating aggressive business in north/ south America, all over Europe, Middle east, Asia, Oceania etc.

We are leading manufacturer of Small Hole Drilling EDM Machine in Korea & global supplier of EDM consumables as well as Small Hole Drilling Machine.

We are very proud of R&D center by own technology and getting highly evaluations for our competency about aggressive Global Sales Team as well as strong organized Domestic Sales Team including Maintenance Team for rapid service.

COMPANY HISTORY

2016-2018

2016

Participated in 2016 SIMTOS Exhibition in Korea

2017

Participated in 2017 BUTECH in Busan, Korea
Manufacturing Indonesia Exhibition in Indonesia

2018

Newly developed High-End, new designed box type "YGS-85C" presented at SIMTOS Exhibition in Korea

2018

Participated in SIMTOS in Exhibition in Korea
Inter mold Osaka in Japan

2018

Joining in MetalTech in Malaysia
IMTS in Chicago, USA

2011-2015

2011

ISO Certificate of Approval

2012

Certificate of INNOBIZ, Obtaining CE (TUV Nord)

2014

Developed High-End, Big size & submerged machine "YGS-75C"

2014

Obtaining Certificate for Promising Export Firm by the Small & Medium Business Administration

2015

Created Head Moving Type "YGS-43C" & Obtaining CE & EMC certification

2015

Began supplying Small Hole Drilling Machine as ODM for Mitsubishi Europe

2008-2010

2008

Developed Small Hole Drilling EDM Machine Business

2010

Developed YGS Small Hole Drilling EDM Machine

2010

Changed Company name to YOUGAR M&T

2010

YOUGAR Brand Registration

2005-2009

2005

Developed Cutting Tool Business

2006

Developed Mold-Welder Machine Business

2009

Developed YGS Small Hole Drilling EDM Machine

1999

1999

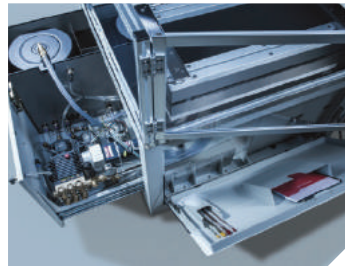
Established YOUGAR ENTERPRISE and Supply All Kinds of EDM Consumables

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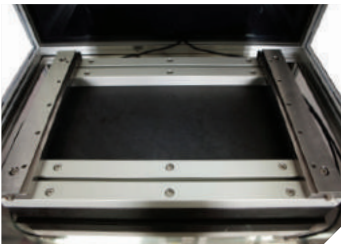
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Functions & Features

Standard NC Type with Table Moving



Standard CNC Type with Head Moving



Functions & Features



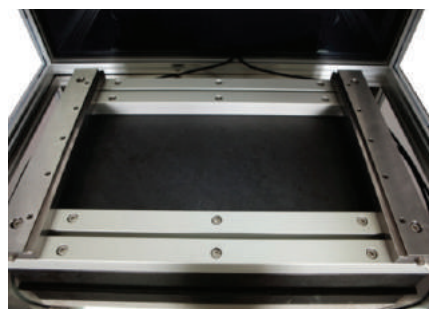
Panel Board Controller [ZNC]

- Moveable panel
- Easy to operate
- Z & W adjust by Up & Down button



Industrial Tablet PC Controller [ZNC]

- User friendly & 10.4" touch screen display
- IP slope function
- Ion value shown on screen
- Internet connect - remote access service by on-line



Work Table [ZNC & CNC]

- **Granite Work Table**
 - Stable base
 - Maximize precision
 - No corrosion issue
 - Excellent electrical isolator
- **Stainless & Aluminum Rail System**
 - Eliminates the need for expensive fixturing(JIG)



Compact Design [ZNC & CNC]

- **Filtration Tank with Resin(DI) Placed Inside**
 - Minimizes shop floor footprint
 - Eliminates need to purchase additional filtration units
- **Dual-Side Cabinet Design**
 - Internal plumbing completely separated from electrical components for safety
 - Enough extra storage for manual book & electrode tubes



Head Tilting [ZNC & CNC]

- Z axis slant angle : +/- 45 degree

Machine Feature [ZNC]

- **Stepping Motor**
 - Excellent stability and high precision drilling
- **TM screw**
 - High speed processing & precise working
- **Linear scale for X & Y axis LM guides in all 4 axis (X, Y, Z, W)**
 - Heavy weight handling & extending machine's life span
- **Cutting data storage(E-Pack), LED work lamp**



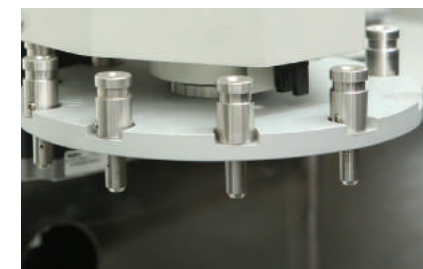
Industrial Window PC Controller [CNC]

- User friendly & large 17" touch screen display
- Equipped all kinds of advanced functions
- Internet connect - remote access service by on-line
- Windows base - easy operation & updating functions
- Multilingual control system



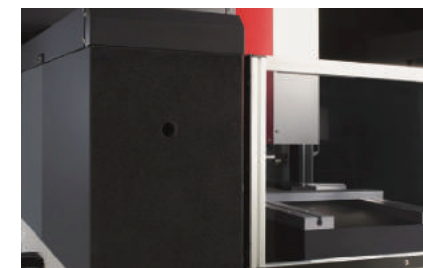
AEC (Automatic Electrode Changer) [CNC]

- Electrode size for changer: Ø 0.3mm - 3.0mm
- Number of electrodes changeable : 20 ea
- Minimum travel distance
- "Swift" and "Precise" tool changer



AGC(Automatic Guide Changer)for 75C, 85C [CNC]

- Guide size for changer: Ø 0.3mm - 3.0mm
- Number of guides changeable : 10 pcs
- "Swift" and "Precise" tool changer



Head Moving [CNC]

- **Head Moving Mechanism**
 - Stable & solid work table
 - Work pieces available up to "1,000 kg"
- **Precise and Fine Drilling**



8 axis Kit [CNC]

- Option item : 1 or 2 axis rotary table

Machine Feature [CNC]

- **Stepping Motor**
 - Excellent stability and high precision drilling
- **Precision Ball Screw**
 - Control up to 1 μm pulse
 - Enable high speed processing & precise working
- **LM Guides in all 4 axis (X, Y, Z, W)**
 - Heavy weight handling & extending machine's lifespan
- **Cutting data storage(E-Pack), LED work lamp, Signal tower**

Specifications

Classification	Standard NC type With Table Moving		Standard CNC TYPE With Head Moving				TILTING TYPE With Head Moving	
MODEL	YGS-43Z (Panel)	YGS-43Z (Tablet)	YGS-43C	YGS-43C (AEC)	YGS-64C	YGS-64C (AEC)	YGS-43CT	YGS-64CT
Table Size of X, Y axis (mm)	910x650		920x680		1100x720		920x680	1100x720
Travel Size of X, Y axis (mm)	400x300		450x300		650x400		450x300	650x400
Max. Travel of Z axis (mm)	400		400		400		400	
Max. Travel of W axis (mm)	345		345		345		345	
Range of electrode diameter(mm)	Φ0.1~Φ3.0	Φ0.1~Φ3.0	Φ0.1~Φ3.0	Φ0.3~Φ3.0	Φ0.1~Φ3.0	Φ0.3~Φ3.0	Φ0.1~Φ3.0	Φ0.1~Φ3.0
Max. Length of electrode (mm)	400		400		400		400	
Max. Weight of work piece (kg)	200		500		500		500	
AEC (Automatic Electrode Changer) AEC Range : Φ0.3~Φ3.0 Quantity : 20ea	Without AEC		Without AEC	AEC	Without AEC	AEC	Without AEC	
Controller (Display)	Panel Board	Industrial Tablet PC	Industrial 17” PC (Windows OS with Touch Screen)					
Total power supply	Single Phase 220V 3.5 KW ; 50~60HZ							

Comparison Table for YGS Models

FUNCTION	43Z PANEL	43Z TABLET	43C	64C	43CT 64CT	43CT 64C (Submerged)	75CT	85C
Head Moving			✓	✓	✓	✓	✓	✓
Table Moving	✓	✓						
Head Tilting					✓	✓	✓	
Automatic Electrode Changer			✓	✓		✓	✓	✓
AGC(Automatic Guide Changer)							✓	✓
Automatic Cutting Sharp-Pointed Electrode								✓
Industrial PC		✓	✓	✓	✓	✓	✓	✓
Blind Hole Machining			✓	✓	✓	✓	✓	✓
Stepping Motor	✓	✓	✓	✓	✓	✓	✓	✓
Servo Motor							✓	✓
Granite Table	✓	✓	✓	✓	✓	✓	✓	✓
Standard Tool Box	✓	✓	✓	✓	✓	✓	✓	✓
ION Quality Sensor Module	✓	✓	✓	✓	✓	✓	✓	✓
Electrode Cutting Data Storage (E-Pack)	✓	✓	✓	✓	✓	✓	✓	✓
On-Line HelpDesk via Remote Access		✓	✓	✓	✓	✓	✓	✓

Classification	Submerged Type With Head Moving		Special Model-Carbide With Table Moving	High-End With Head Moving	
MODEL	YGS-43CT (Submerged)	YGS-64C (Submerged)	YGS-43CT (Submerged OIL)	YGS-75CT (AEC,AGC)	YGS-85C (ATC, AGC)
Table Size of X, Y axis (mm)	920x680	1100x720	910x650	950x880	1490x1080
Travel Size of X, Y axis (mm)	450x300	650x400	400x300	705x505	800x500
Max. Travel of Z axis (mm)	400	400	400	600	600
Max. Travel of W axis (mm)	345	345	400/500	500	500
Range of electrode diameter(mm)	Φ0.1~ Φ3.0	Φ0.1~ Φ3.0	Φ0.1~ Φ3.0	Φ0.3~ Φ3.0	Φ0.3~ Φ3.0
Max. Length of electrode (mm)	400		400	600	
Max. Weight of work piece (mm)	500		200	800	1000
AEC (Automatic Electrode Changer) AEC Range : Φ0.3~ Φ3.0 Quantity : 20ea	Without AEC	Without or With AEC	Without AEC	ATC (20ea) : 0.30-3.0mm AGC (10ea) : 0.30-3.0mm	
Controller (Display)	Industrial 17” PC (Windows OS with touch Screen)				
Total power supply	Single Phase 220V 3.5 KW ; 50~60HZ			Three Phase 220V 3.5 KW ; 50~60HZ	

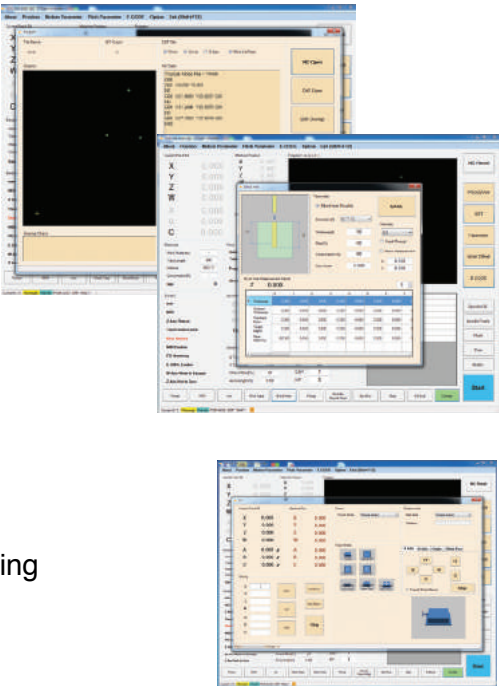
Software Advantage

Programming

- Electrode cutting data storage (e-pack)
- Blind hole function with different depths
- NC programs, G code, and DXF file reading function
- Auto centering by 2 touch, 4 touch and corner touch
- IP slope function offering smooth surface of work piece by soft start
- Value of ion showing on control screen
- Automatic checking of the hole-depth and returning function
- Automatic reset and depth calculation of Z axis
- Stable micro discharge (1 μm) function for electrode consumption saving

System Features

- Industrial PC controller for prevention noise issue
- Adoption of windows OS ensures stability of the system
- Easy to operate interactive interface system and similar with wire EDM system [CNC]
- Nine (9) multilingual based menu supported
- On-line remote access HelpDesk for rapid maintenance service and software update



YGS - 43Z [Panel]

NC Type - Panel Board Controller

- Table moving type
- **Panel board control unit**
 - Easy operate, easy move right, left, up and down
- Electrode cutting data storage (E-pack)
- **Filtration tank with resin system placed inside for precise hole drilling**



YGS - 43Z [Industrial Tablet]

NC Type - Industrial Tablet PC Controller

- Table moving type
- **10.4" industrial tablet PC display (Windows OS)**
- Electrode cutting data storage (E-pack)
- **Filtration tank with resin system placed inside**
- **Resin value appeared on screen**
- **On-line remote access service**

YGS - 43C

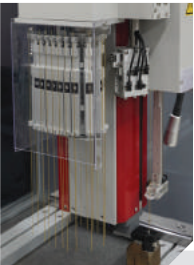
CNC Type

- Head moving type - More stable and precise drilling
- **Optimum CNC machine size.**
- **17" industrial touch screen PC. (Window OS)**
- All advanced CNC functions equipped. (IP slope, Blind etc.)
- On-line remote access service



Automatic Electrode Changer

Change up to 20 electrodes
Range : Ø 0.3mm - 300mm



YGS - 43C [AEC]

CNC Type

- Head moving type -
 - More stable and precise drilling
- **AEC(Automatic Electrode Changer) equipped**
- **"Swift" and "Precise" tool(electrode) change**
- **17" industrial touch screen PC(Window OS)**
 - All advanced CNC functions equipped (IP slope, Blind, AEC etc.)
- On-line remote access service



Travel Size (X,Y,Z)	Drilling Range (mm)	Power Supply	Installation Dimension (mm)
400 x 300 x 400	Dia. 0.1mm ~ 3.0mm	Single Phase 220V / 3.5Kw 50-60 Hz.	2115 x 2030 x 2450

Travel Size (X,Y,Z)	Drilling Range (mm)	Power Supply	Installation Dimension (mm)
450 x 300 x 400	Dia. 0.1mm ~ 3.0mm	Single Phase 220V / 3.5Kw 50-60 Hz.	2217 x 2100 x 2450

YGS-64C

CNC Type

- Head moving type - More stable and precise drilling
- **Big size and heavy workpiece drilling**
- 17" industrial touch screen PC (Window OS)
- All advanced CNC functions equipped (IP slope, Blind etc.)
- On-line remote access service



Automatic Electrode Changer

Change up to 20 electrodes
Range : Ø 0.3mm - 3.0mm



YGS-64C [AEC]

CNC Type

- Head moving type - More stable and precise drilling
- **Big size and heavy workpiece drilling**
- **AEC (automatic electrode changer) equipped**
- **"Swift" and "Precise" tool (electrode) change**
- 17" industrial touch screen PC (Windows OS)
- All advanced CNC functions equipped (IP slope, Blind, AEC etc.)
- On-line remote access service

YGS-43CT

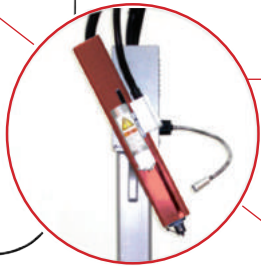
CNC Type with Head Tilting

- Head moving type - More stable and precise drilling
- **Head tilting angle +/- 45 degree.**
 - Total rotate angle : 90 degree
- **Keep accurate tilting angle.**
- **Easy drilling slant hole without JIG fixture.**
- 17" industrial touch screen PC. (Windows OS)
- All advanced CNC functions equipped (IP slope, Blind, AEC etc.)
- On-line remote access service



Head Tilting

Z axis tilting angle +/-45 degree



YGS-64CT

CNC Type with Head Tilting

- Head moving type - More stable and precise drilling
- **Big size and heavy workpiece drilling**
- **Head tilting angle +/- 45 degree**
 - Total rotate angle : 90 degree
- **Easy drilling slant hole without JIG fixture.**
- 17" industrial touch screen PC. (Windows OS)
- All advanced CNC functions equipped. (IP slope, Blind etc)
- On-line remote access service

Travel Size (X,Y,Z)	Drilling Range (mm)	Power Supply	Installation Dimension (mm)
650 x 400 x 400	Dia. 0.1mm ~ 3.0mm	Single Phase 220V / 3.5Kw 50-60 Hz.	2496 x 2253 x 2450

Model	Travel Size (X,Y,Z)	Drilling Range (mm)	Power Supply	Installation Dimension (mm)
43CT	450 x 300 x 400	Dia. 0.1mm ~ 3.0mm	Single Phase 220V / 3.5Kw 50-60 Hz.	2217 x 2100 x 2450
64CT	650 x 400 x 400	Dia. 0.1mm ~ 3.0mm	Single Phase 220V / 3.5Kw 50-60 Hz.	2496 x 2253 x 2450

YGS - 43CT

Submerged Oil Type

- Table moving type
- Submerged oil type - Best for Carbide material drilling
- Keep clean workpiece surface
- Avoid surface whitening erosion
- Good for carbide end mill (cutting tools), micro nozzle, carbide precision parts drilling
- Minimized drilling hole tolerance
- Rapid drilling speed



YGS - 43CT

CNC Type with Head Tilting
Submerged Type

- Head tilting angle +/- 45 degree
- Submerged WATER or OIL type all possible
- Keep clean work piece surface without burr



YGS - 64C

Submerged Type

- Big size and heavy workpiece drilling
- Submerged WATER or OIL type all possible
- Keep clean work piece surface without burr



* This model will be produced to have same look as YGS-43CT (Submerged type)

Travel Size (X,Y,Z)	Drilling Range (mm)	Power Supply	Installation Dimension (mm)
400 x 300 x 400	Dia. 0.1mm ~ 3.0mm	Single Phase 220V / 3.5Kw 50-60 Hz.	2115 x 2030 x 2450

Model	Travel Size (X,Y,Z)	Drilling Range (mm)	Power Supply	Installation Dimension (mm)
43CT Submerged	450 x 300 x 400	Dia. 0.1mm ~ 3.0mm	Single Phase 220V / 3.5Kw 50-60 Hz.	2617 x 1713 x 2450
64C Submerged	650 x 400 x 400	Dia. 0.1mm ~ 3.0mm	Single Phase 220V / 3.5Kw 50-60 Hz.	2496 x 3000 x 2450

YGS-75CT

- Head moving type - More stable and precise drilling
- Submerged type for best drilling performance
- Head tilting angle +/- 45 degree.
- New chuck type AEC (Automatic Electrode Changer)
- AGC (Automatic Guide Changer)
- Servo motor equipped
- Big size separate filtration tank - Complete pumping system

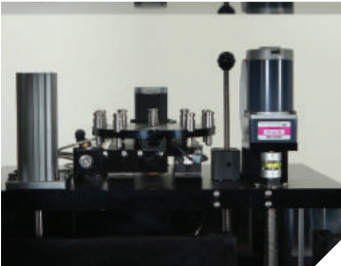
ATC-Automatic Tool Changer

Change up to 20 electrodes
Range : Dia. Ø0.3mm – Ø3.0mm



Automatic Guide Changer

Change up to 10 guides
Range : Dia. Ø0.3mm – Ø3.0mm



YGS-85C

- Newly designed outward by box type - Stable hole drilling and operation
- Getting fine surface by submerged drilling
- New ATC (Automatic Tool Changer) - Chuck & socket type tool changer
- AGC(Automatic Guide Changer)
- Automatic Cutting Sharp-Pointed Electrode
- Compact PC design with 17” industrial touch screen PC (Window OS)
- Used high grade components - SERVO MOTOR equipped
- Lamp - Outside displaying for machine electrical status
- Big size separate filtration tank - Strong pumping system

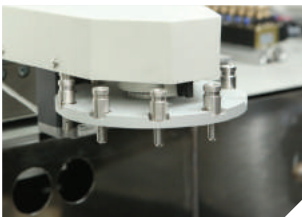
ATC-Automatic Tool Changer (Chuck & Socket Type)

Change up to 20 electrodes
Range : Dia. Ø0.3mm – Ø3.0mm



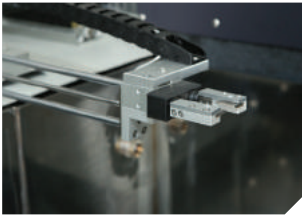
AGC (Automatic Guide Changer)

Change up to 10 Guides
Range : Dia. Ø0.3mm – Ø3.0mm



Automatic Cutting Sharp-Pointed Electrode

Stable Hole Tolerance
Speedy Hole Drilling



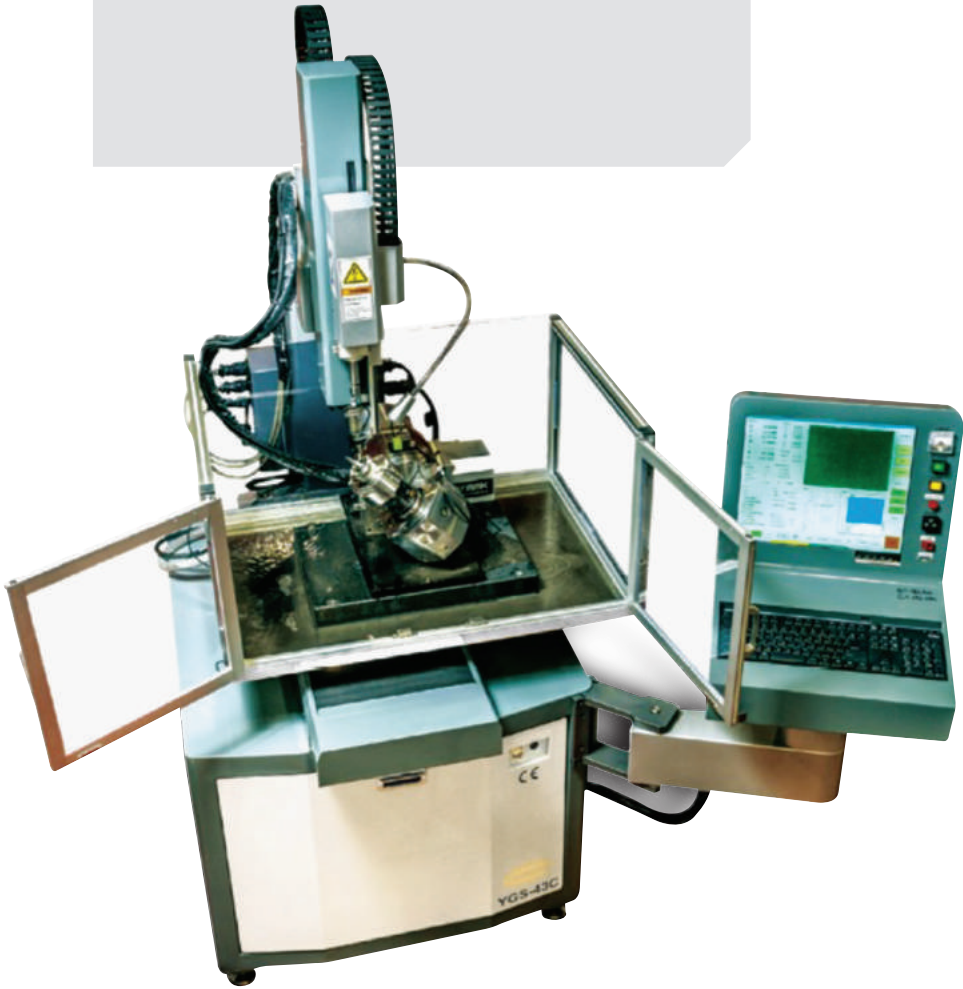
Travel Size (X,Y,Z)	Drilling Range (mm)	Power Supply	Installation Dimension (mm)
705 x 505 x 600	Dia. 0.1mm ~ 3.0mm	Three Phase 220V / 3.5Kw 50-60 Hz.	2890 x 2650 x 3130

Travel Size (X,Y,Z)	Drilling Range (mm)	Power Supply	Installation Dimension (mm)
800 x 500 x 600	Dia. 0.1mm ~ 3.0mm	Three Phase 220V / 3.5Kw 50-60 Hz.	4186 x 4353 x 3000

YGS-43C

CNC type with Rotary Table

- Option - 8 axis kit(1 or 2 axis rotary table)
- * This model will be produced to have same look as head moving type



8 axis controller kit



Distributors in worldwide

USA, Mexico, Germany, Sweden, Switzerland, China, Malaysia, Vietnam, Australia, Iran, Turkey, ETC

Patent & Certification



Travel Size (X,Y,Z)	Drilling Range (mm)	Power Supply	Installation Dimension (mm)
450 x 300 x 400	Dia. 0.1mm ~ 3.0mm	Single Phase 220V / 3.5Kw 50-60 Hz.	2217 x 2100 x 2450



World Best EDM Partner

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