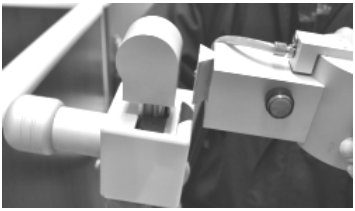

GTS-9000
Induction Shrinking Unit
User's Guide/使用說明書

GTS-9000 Setting up

1. Set up/down guide rod, fix screws.


2. Set heating head to guide holder and connect wiring of heating head.




3. Set the holder support.

4. Set cooling air pipe for cooling.

5. Connect main power supply: 3 phase 220VAC (make sure ground connecting)

What comes in the package

1. Main unit ×1(guide rod and heating head)

2. Holder support (as order)

3. Main power supply cable 3.5mm 4C×1

4. Spare Fuse

5. Pickup spring: 4mm×2 6mm×2 8mm×2 10mm×2

6. User's Menu×1

PLEASE CAREFULY READ IN DETAIL BEFORE USE

GTS-9000 OPEARTION NOTICES

1 To prevent any damages, please carefully read this notice booklet and also the enclosed operation manual:

Unlike hot air blower apparatus, this machine is designed with induction heating principle. ***Temperature*** of the being heated tool chuck will ***rise rapidly*** according to the heating time! Please confirm your chuck's and cutting tool's characteristics (material, external diameter, induction heat characters, corresponding precision) to set up accurate heating statistics, in order to prevent any damages to your tool chucks, extend machine's using life and achieve the work requirements of fast, precise and long life.

2 ***Stainless-made*** tool chucks may easily to damage induction head:

Certain Japanese brand chucks are made of stainless, which are still allowed to operate in this machine. However, because such material has inferior permeability and low heating efficiency, while in repeated operation, the heating condition should be watched. If the heating head is overheated, please stop operation temporary until the heating head is cooled. Heating apparatus ***will be damaged*** if the heating condition persists.

3 It is very important to manage your tool chucks and cutting tools:

The machine is tasked to heat up chucks to certain temperature, where allows chucks being shrink in or shrink out (around 300℃). If 's temperature has exceeded 350℃ and still cannot be shrink in/out, it would be a management problem in and cutting tool's precision.

3.1 It would be ***difficult to shrink out*** the cutting tool if the connection of chuck and cutting tool is too tight. ***might come off*** if the connection of chuck and cutting tool is loose. Please choose cutting tools with appropriate precision. Besides, please ask detailed information from your

supplier.

3.2 When cutting tool is stained with oil sludge due to the use of coolant and lubricant, please use cleaning naphtha to clean chuck and cutting tools after the chuck is shrunk out and before it is shrunk in. The heating procedure will make ***oil sludge to carbonize*** and cause difficulties to shrink out the cutting tool.

4 ***Heating without object*** should be avoided:

It is avoided to turn on and heat up the induction head, while tool chuck is not presented. Prior to remove the chuck during the heating procedures, please press STOP first to turn off the machine to ***avoid machine heating without object*** and cause unnecessary heat production or machine damages.

5 When heating head's inner cover is deformed and turn to into darker color:

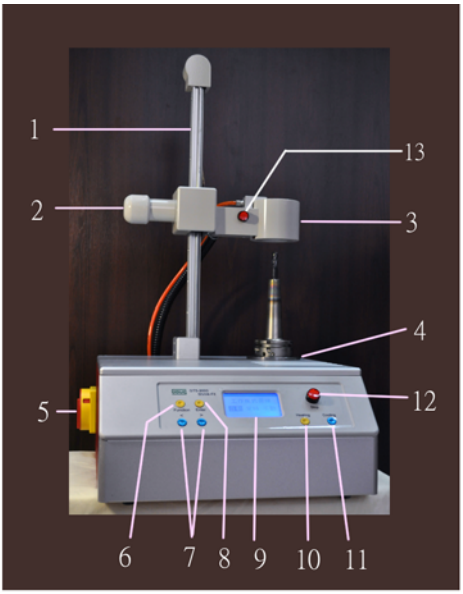
After a certain time period use, if you discover that the induction head is deformed or turns into darker color (initially it is white), you should aware that your chuck could be heated to over 400℃ quite frequently. Please, by all manner of means, review and administer related use procedures.

6 It is ***high-voltage power*** used inside this machine, personnel who is not trained and certified with related certification; please do not dismantle to maintain this machine. For achieving use safety and lowering electromagnetic interference situation, please install ***ground wire***.

7 People, who are **wearing pacemaker** or other devices that can be affected by electromagnetism, please do not approach or operate this machine.

GTS-9000 Induction shrink-fit machine

Ⅰ.Name and illustration of all parts

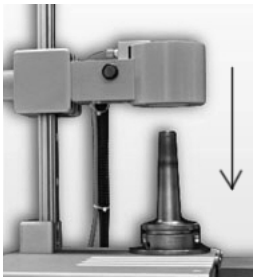


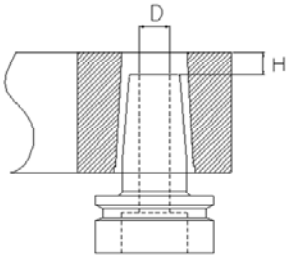
1. Up/Down guide rod
2. Operating knob for up/down
3. Induction heating Head
4. Tool support
5. Main power on/off switch
6. **Function** key
7. Setting key＜ ＞
8. **Enter** key
9. LCD display
10. Start Heating key (**Start**)
11. Cooling Key(**Cooling**)
12. Stop switch(**Stop**)
13. Manual Heating push Switch

Ⅱ. Operation Instructions

1 Preparations for operation

- Please make sure the use voltage, then connect to 3-phase 220V AC power source and ground wire.
- Set the being heated chuck on tool support and put the cutting tool on the holding spring that comes with this machine. Adjust cutting tool into appropriate length and indeed clean 's inner hole and cutting tool (use cleaning naphtha to clean oil sludge).
- Lower the induction head until the being heated chuck is fit into the heating head. chuck's location will affect heating uniformity. The following table shows our suggested set location:

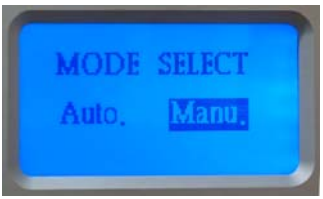


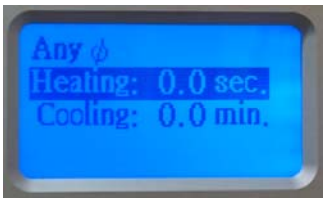


D (tool Diameter)	H (Height)
＞16 mm	5mm
12	10
10	15
8	15
6	20
4	20

2. Select operating function

Machine will be at standby for user's selecting after turn on power, push < > key to select Manual or Auto function, and then push **Enter** key into the selected function.





1.1 In **Manu.** function mode, keep pushing Manual switch(no.13) will start heating, heating will stop when switch released. Red lamp will lighting on when heating, the LCD display will count the heating time.

1.2 Push Cooling key will start air cooling function, push Stop switch to finish cooling function.

Notice: ! This machine has a fast heating capacity and the highest temperature tool chucks are able to afford is 400℃. Therefore, tool chucks might be damaged in a temperature higher than 400℃. Please confirm with your tool chucks supplier for detailed machine spec.

3. Auto. Function:

In Auto. Function, user can use < > key to select 3φ-32φ pre-setting, push **Enter** key can setting tool's diameter, heating time, cooling time, shrink in and shrink out, setting heating or cooling time by < > key.

Push **Start** key to start heating, it will stop after setting time reached.

Push **Cooling** key to start cooling, it will stop after setting time reached.

Push **Stop** switch will stop heating/cooling.

The Red lamp on **Manual switch** will light on in heating period.

Machine will record data when every time to change it.

Waiting 2 seconds after heating period to put in tool will be better to do.

! Notice: Beside Stop switch all function knob will disable in heating period.

! Notice: If you are not sure about the heating time, please check supplier's information to clarify the appropriate heating period.

! Notice: After heating procedure, if you are not sure whether the chuck and cutting tool is cooled, ***please use appropriate tools to hold and take*** them for avoiding any injuries.

! Notice: This machine has a fast heating capacity and the highest temperature tool chuck are able to afford is 400℃. Therefore, ***tool chuck might be damaged in a temperature higher than 400℃***. Please confirm with your tool chucks supplier for detailed machine spec.

Ⅲ. Other points for attention

1. Tool chuck's inner hole and cutting tool must be thoroughly cleaned (can use cleaning naphtha to clean) to prevent cutting tool from getting stuck in .
2. During the heating procedure, if message ***E1,E2,E3,E4,E5*** appears on the LCD Display Window, it means that the machine is in some trouble.

   E1: Machine in heating error, Please check heating head connection.

   E2: Heating head over temperature.

   E3: 3 phase power supply in error.

   E4: No tool chuck in heating head.

   E5: Machine's power module is over temperature.
3. This machine would need to sink heat during the use. Please place this machine at a location where is good in ventilation. The induction shrink machine should be put in a dry place and it is unable to afford any strong

hits. If there is any abnormal situation, please do not take apart this machine by yourself to avoid any electronic shock injuries.

4. For safety purpose, please remove Inflammables and fire sources away from this machine while in use.

Ⅳ. Machine Spec.

1. Power Supply: 220 AC 60 HZ, 3 phase + ground terminal
2. Max. consumption power: 10,000 WATTS
3. Dimensions: 380mm (W) ,405mm(D) ,655mm(H).