
METZIN Bearing Induction Heater

Operating Instructions

Model: MIH-8.0/ S



Specifications and chassis color subject to change without notice.

METZIN Technologies & Consulting Pte Ltd.

Tel: +65 6898 2957 / 9738 8913

Fax: +65 6259 0892

www.metzin.com

I General

The product is designed to facilitate the installation of metal parts. Based on the principle of heat expansion with & cold contraction, the metal parts are heated in such a manner that the bore can be sufficient enough to reach the shaft position without bringing any damage to the work-piece and shaft.

For heating of work-piece, the product can realize the microcomputer control over the whole process. It is safe and reliable, high in efficiency and easy to operate. Three working modes (Timer Control Mode, Temperature Control Mode and Temperature Hold Mode) are provided for selection by the operator.

II Technical Characteristics

(I) Working Conditions

1. Power Supply AC 380 /460 (V)
2. Maximum Working Current 22 Ampere (A)
3. Working Frequency 50~60 Hertz (Hz)
4. Power 8.0KVA

(II) Working Modes and Advantages

1. Temperature Control Mode, Setting Range: 0~240C°
2. Timer Control Mode, Setting Range: 0~99 minutes 59 seconds.
3. Temperature Hold Mode: Press the temperature hold key, when the work-piece is heated to the temperature setting, the temperature will be maintained.
4. The product is provided with soft-start function during operation so that the impact to its components is diminished during startup and the service life is prolonged. Similarly, soft-shutdown function is provided for switching off so

as to realize remanence elimination from the work-piece automatically.

(III) Digital Display and Audio Cue

1. Temperature setting: the preset temperature of the heater is 110°C.
2. Time setting can be selected within 99 minutes 59 seconds at discretion.
3. Each end of heating cycle is accompanied by audio signal cue.
4. If the sensor is under abnormal operation, the audio cue will be given by the heater.

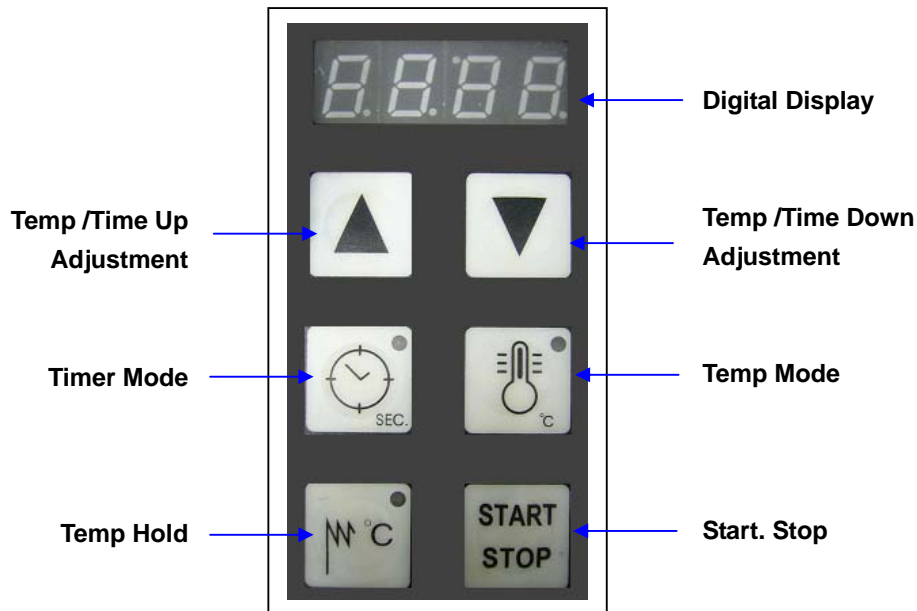
(IV) Range of Work-piece to be heated

Inside diameter of the work-piece >30mm





Outside diameter of the work-piece <800mm

Maximum thickness of the work-piece is 200mm

III Introduction to Control Panel



V Operating Instructions

1. Ensure the voltage of the power supply is correct.
2. Insert the mains plug into the socket. Turn 'ON' the main switch at the side of the outer case of the heater and the digital display is lit indicating the temperature of 110 °C. In this case, the heater is under the temperature control mode.
3. Press ▲▼ to select the desired temperature for the work-piece to be heated.
4. Press START key to start heater to heat up the work-piece.
5. When the pre-set temperature is reached, the heater will stop automatically and give audio cue simultaneously.
6. If the temperature hold function is required, just remember to press temperature hold key () before proceeding to item 4.
7. If timer control mode is desired, just press the key  after the heater is switched on. The time setting can be selected within 99 minutes and 59 seconds at discretion. Press ▲▼ key to select the heating time for the work-piece, and then press START key to start heating. The timing method applies count down. When the operation of the heater reaches the pre-set time, an audio cue will sound and the heater will stop automatically. (Time setting method: Press  key once to enter the "Second" setting, press the "" key twice to enter the "Minute" setting. If the "▲▼" key is pressed once, the timepiece will increase or decrease 1. If the "▲▼" key is pressed and held, the timepiece will change continuously).
8. In case of timer control mode, the temperature sensor is not necessary. In such case, the temperature sensor should be removed from the work-piece to prolong the service life of the sensor.

V Precautions and Safety

1. The heater can be only used under the voltage of 380V and the earth wire must be grounded securely.
2. Starting-up the heater under no load is strictly prohibited.
3. Make sure the upper crossbar /yoke is in position before pressing START key. The work-piece should be positioned in the middle of the upper crossbar.
4. In case of temperature control mode, the sensor should be closely attached to the inside of the work-piece keeping the contact face clean. If the prompt E03 is displayed, check whether the sensor is properly connected or the work-piece is too large. If the prompt is repeated, check whether the sensor has been damaged.
5. The supplies such as cardiac pacemaker, audiphone, tape and magnetic card magcard which are vulnerable to the magnetic effect should be kept away from the product with a safe distance of 2 meters.
6. Reading safety notes on device for related equipment.

WARNING!

TO AVOID POSSIBLE SERIOUS PERSONAL INJURY OR DEATH:

Read all instruction sheets before using cylinders and jack.

Cylinders or jacks must be fully supported on firm surface capable of supporting the full load.

Load must be centre and cover entire plunger.

Lift only dead weight loads.

Stay clear of lifted loads.

Follow lifted load with cribbing.

Do not use cylinders and jacks if damaged altered or in need of repair.

When extending double acting cylinders the return port must be unrestricted.

Be sure all couplers are completely connected.

Add oil to pump only when all plungers are completely retracted.

Use only manufacturer approved accessories.

This guide cannot cover every situation, so always do the job with SAFETY first. Use common sense, Read the instruction.

VI Standard accessories

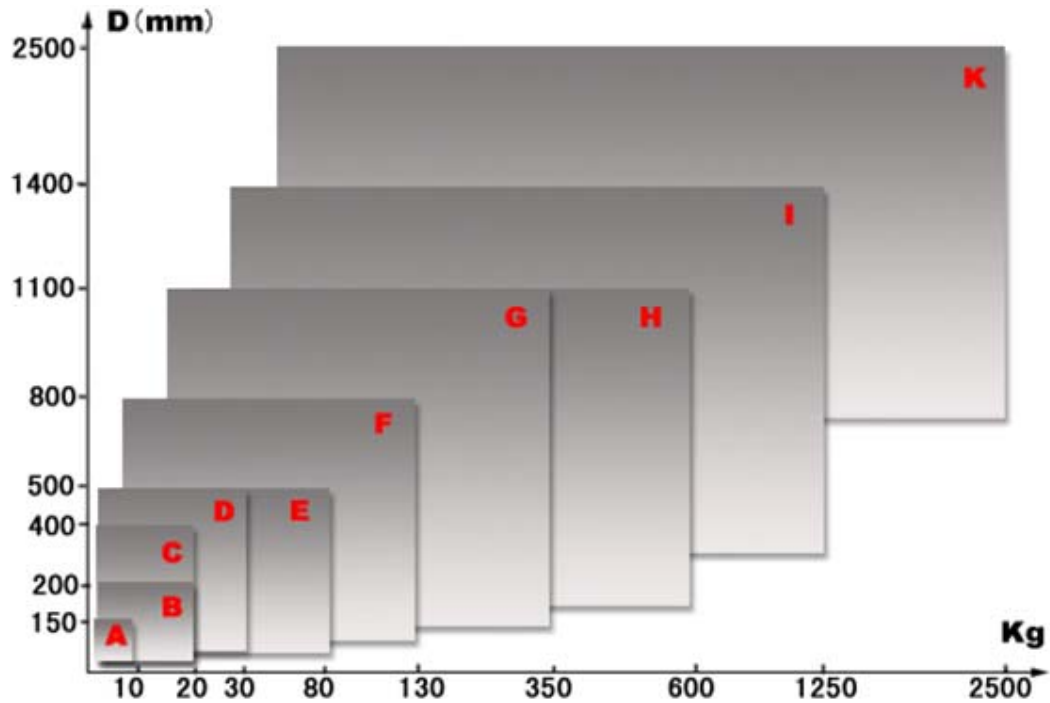
- | | | |
|-----------------------------|-----------|---------|
| 1. Temperature sensor | 1 set | |
| 2. Standard Crossbar (yoke) | 20x20x350 | 1 Piece |
| | 40x40x350 | 1 Piece |
| | 60x60x350 | 1 Piece |
| | 70x70x350 | 1 Piece |

VII Optional accessories

- | | |
|-----------------------------|--------------------------------|
| 1. Optional Crossbar (yoke) | Crossbar ID > Ø50mm, 30x30x350 |
| | Crossbar ID > Ø71mm, 50x50x350 |

Appendix

Selection of our bearing heater is easy and without severe restrictions. All you want to summary on heating work piece size and type. The follow is just a guide we offer to client for the choice of practical application.



A = MBX1.0

F = MIH8.0

B = MBX2.0

G = MIH14.0

C = MIH2.0

H = MIH24.0

D = MIH3.6

I = MIH40.0

E = MIH5.0

K = MIH100.0

Full range of induction heater from METZIN or customize to your requirement >>>>



Model	MBX-2.0	MIH-2.0	MIH-3.6	MIH-5.0	MIH-8.0	MIH-14	MIH-24	MIH-40	MIH-100
Power	2.0 KVA	2.0 KVA	3.6 KVA	5.0 KVA	8.0 KVA	14 KVA	24 KVA	40 KVA	100 KVA
Voltage / Electric Current	220V / 9A	220V / 9A	220V / 16A	380V / 13A	380V / 22A	380V / 37A	380V / 63A	380V / 105A	380V / 263A
Frequency	50 / 60Hz	50 / 60Hz	50 / 60Hz	50 / 60Hz	50 / 60Hz	50 / 60Hz	50 / 60Hz	50 / 60Hz	50 / 60Hz
Supply Voltage	110 / 220V	110 / 220V	110 / 220 / 380V	110 / 220 / 380V	220 / 380 / 415V	380 / 415V	380 / 415V	380 / 415V	380 / 415V
Adaptive Bearing Inside Diameter	Ø >15mm	Ø >15mm	Ø >30mm	Ø >30mm	Ø >30mm	Ø >60mm	Ø >85mm	Ø >120mm	Ø >145mm
Adaptive Bearing Outside Diameter	200mm	400mm	500mm	500mm	800mm	1100mm	1100mm	1400mm	2500mm
Max. Bearing Width	110mm	140mm	140mm	140mm	210mm	280mm	350mm	420mm	700mm
Max. Bearing Weight	25Kg	25Kg	40Kg	65Kg	125Kg	550Kg	700Kg	950Kg	Can customize
Other Parts	15Kg	15Kg	25Kg	35Kg	75Kg	350Kg	400Kg	500Kg	
Temp. Control (Digital Display)	0-240°C	0-240°C	0-240°C	0-240°C	0-240°C	0-240°C	0-240°C	0-240°C	0-240°C
Time Control (Digital Display)	99 min. and 59 sec	99 min. and 59 sec	99 min. and 59 sec	99 min. and 59 sec	99 min. and 59 sec	99 min. and 59 sec	99 min. and 59 sec	99 min. and 59 sec	99 min. and 59 sec
Auto Degauss	Included	Included	Included	Included	Included	Included	Included	Included	Included
Temp. Hold	Included	Included	Included	Included	Included	Included	Included	Included	Included
Sound Signal	Included	Included	Included	Included	Included	Included	Included	Included	Included
Error Operation indication	Digital Display	Digital Display	Digital Display	Digital Display	Digital Display	Digital Display	Digital Display	Digital Display	Digital Display
Section of post	40×40 mm ²	40×40 mm ²	60×60 mm ²	60×60 mm ²	70×70 mm ²	80×80 mm ²	100×100mm	120×120mm ²	200×200mm ²
Height of the post	110mm	150mm	150mm	50mm	200mm	300mm	390mm	660mm	750mm
Area between two columns	110×110 mm ²	140×150 mm ²	140×150 mm ²	140×150 mm ²	210×200 mm ²	280×300 mm ²	350×390 mm ²	420×660 mm ²	700×750 mm ²
Tuning Equipment	None	None	Available	Available	Included	Included	Included	Included	Included
Heat the support in level	Available	Available	Available	Yes	Yes	Yes	Yes	Yes	Yes
Portable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Temperature probe one's head	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Power adjustment	Auto	Auto	Auto	Auto	Auto	Auto	Auto	Auto	Auto
Figure Size (cm)	42×19×28	32×32×32	32×32×32	32×32×32	40×32×40	120×50×96	134×50×103	150×60×147	230×100×100
Complete machine weight	15 Kg	30 Kg	39Kg	45Kg	75Kg	200Kg	270Kg	700Kg	1400Kg
Heating Crossbar Included	10 / 24 / 40	10 / 24 / 40	30 / 40 / 60	20 / 40 / 60	70	80	100	120	200
Optional Heating Crossbar	15 / 20 / 30	15 / 20 / 30	25 / 35 / 50	15 / 30 / 50	20 / 40 / 60	40 / 50 / 60	40 / 60 / 80	60 / 80 / 100	80 / 100 / 150

Specifications and chassis color subject to change without notice.

METZIN Induction Heater - Quick glance of the advantages

- > Fast and automatic heating cycle
- > Straightforward and safe operation
- > High efficient heating design at inner work-piece
- > Avoid work piece damage
- > Robust industrial standard design
- > Acoustic signal
- > Wide range for bearing diameter allowable
- > Available voltages from 200volts to 600 Volts, 50/60Hz
- > Modular design for easy service
- > Environmental friendly



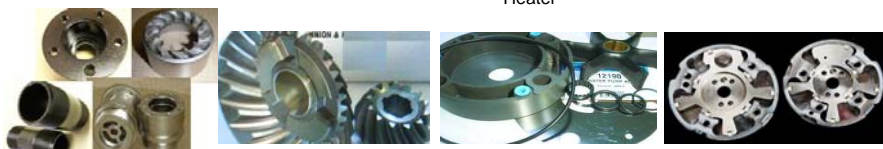
CX series Induction Heater



DCL Printing Drum Induction Heater



DCL Induction heater



No just for bearing!

Induction heating application includes shrink fit pinions, sprocket, bull gear, pump fitting, sleeve, linings, etc

To know more, contact us or your nearest local dealer for detail of package.

Product Brand of Singapore

METZIN Technologies & Consulting Pte Ltd

No .7, Tech Park Crescent, (Tuas)

Singapore 638125

Tel: +65 6898 2957 / +65 9738 8913; Fax: +65 6259 0892

Email: info@metzin.com

www.metzin.com

www.kohtect.com (Asia Pacific except China)

www.seiffertindustrial.com (Asia Pacific)