

## **METZIN - MODERN INDUCTION HEATER**

# Fast, easy, reliable, economical: The logical approach to shrink fitting

## **Important of Shrink Fitting Work-piece!**

METZIN modern induction shrink-fit technology uses the expansion and contraction properties of metal to enable smaller shafts carry the same torsion moment.

Proper shrink fitting prolong the roller bearings life by several times. Induction heating is also ideal for shrink-fit many other shaft mounted machine parts such as gears, pinions, seals and spacers that often require shrink fitting to avoid from suffer of reduced life expectancy due to improper installation.

What constitutes "proper" fitting technique? Mechanical methods such as hammers and hydraulic presses risk damaging the inside surface of the inner ring and the bearing races. The better shrink fitting solution is via heating. But beware: blow torches and hot plates tend to overheat, while oil baths are slow heating, present environmental and safety hazards, cause bearing contamination and loss of prepublication.

Engineered Savings on 57% of your bearings... "bearing purchase price is just a fraction of what they will cost you when they fail..."



#### **How Does Our METZIN Induction Heater Work So Quickly?**

Our induction heater design have utilized the eddy current induction principle like a transformers - its core and windings can be seen as the primary side, but the work piece acts as a short-circuited secondary winding, which heats up rapidly due to its great electrical resistance.

This phenomenon allows the induction heater to control the heating by continuously monitoring the work piece temperature and adjusting its own heating power during the process. Hence results in even heating of only the inner bearing ring but the heater itself remains cool and safe to handle.





## **Advantages of Induction Heating**

- > Proper fitting Work pieces are heated evenly with feedback control, with no danger of overheating.
- ➤ Long bearing life Protect bearing lubrication properties and keep away contamination.
- > Shorter heating time As compare to conventional methods even for extremely large heating objects!
- ➤ Ecological and energy efficiency Induction heating requires minimal energy to fit bearings and produces no gas/ vapour, smoke or used dispose of heated oil.
- > One man operation Portable for quick on-site mounting on straightforward and automatic design.
- Simple and little set-up required.
- ➤ Safety No dangerous heat sources with only work pieces become hot: eliminate oil bath accidentprone hot oil, space constraint oven, hot plates or torch flames.
- ➤ Demagnetization All induction heaters demagnetize work pieces automatically at the end of every heating cycle with no residual magnetism to collect debris.

Why wait, contact us or your nearest local agent for detail of package and quote.

Product Brand of Singapore



#### 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					
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 Other Parts	25Kg 15Kg	25Kg 15Kg	40Kg 25Kg	65Kg 35Kg	125Kg 75Kg	550Kg 350Kg	700Kg 400Kg	950Kg 500Kg	Can customize
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					
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	Digital	Digital	Digital	Digital	Digital	Digital	Digital	Digital	Digital
indication	Display	Display	Display	Display	Display	Display	Display	Display	Display
Section of post	40×40 mm <sup>2</sup>	40×40 mm <sup>2</sup>	60×60 mm <sup>2</sup>	60×60 mm <sup>2</sup>	70×70 mm <sup>2</sup>	80×80 mm <sup>2</sup>	100×100mm	120×120mm <sup>2</sup>	200×200mm <sup>2</sup>
Height of the post	110mm	150mm	150mm	50mm	200mm	300mm	390mm	660mm	750mm
Area between two columns	110×110 mm <sup>2</sup>	140×150 mm <sup>2</sup>	140×150 mm <sup>2</sup>	140×150 mm <sup>2</sup>	210×200 mm <sup>2</sup>	280×300 mm <sup>2</sup>	350×390 mm <sup>2</sup>	420×660 mm <sup>2</sup>	700×750 mm <sup>2</sup>
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,
- Modular design for easy service
- Environmental friendly

#### No just for bearing!

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







DCL Printing Drum Induction Heater



DCL Induction heater









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

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