

The Bearing Friend



Bearing Induction Heater



“Hire the machine or we can do the job for you!”



The Only Way to Go

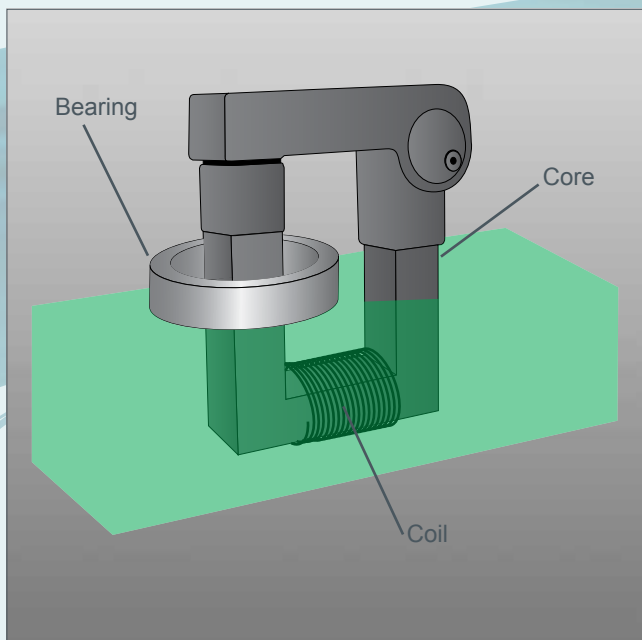
This innovative machine allows for the efficient and accurate heating of bearings and parts for shrink fit installations. Induction heating is far superior to traditional methods of heating.

Previous Methods such as Hot Oil Baths have been proven to be dangerous with a strong possibility of catching fire, emitting smoke and toxic fumes (plus contaminate the bearing). Direct heating will damage the bearing material and Conduction heating (on a hot plate) can also be ineffective because it is difficult to heat the bearing evenly.

All these methods use costly propane or acetylene. Finally, Press fits are not always suitable and bearings can only be fitted properly using a shrink fit.



Inserting the bearing onto the heater in one easy application.



Internal workings of the induction heater

How it Works

An electromagnetic coil is energised with AC current and creates a magnetic field in the Induction Core. A bearing placed within this magnetic field will disrupt the flow of electrons, and become energised. This will raise the temperature of the ferromagnetic material within the bearing, causing it to expand.

The expansion occurs evenly with the rise in temperature and can be very accurately controlled using a temperature sensor. A small residual magnetic field is left in the bearing, which is removed at the end of the heating cycle by a demagnetizing process.

Specifications

The induction bearing heater will heat a wide variety of bearings effectively up to a weight of 10kg. This would suit a shaft size of approximately Ø150mm. The 6009 is the smallest bearing that will fit onto the standard heating core. Using additional cross bars, smaller bearings can also be heated.

The 10mm x 10mm cross bar will heat a 6002 bearing and the 15mm x 15mm cross bar will heat a 6005 bearing. Pillow Type Bearings and Square Flange Housing Bearings can be heated while fitted to the housing.



Induction Bearing Heater fits a wide variety of sizes.

Operation:

Heating temperatures can be pre-set easily using the keypad. A temperature sensor measures the heat of the bearing while it is being heated. By taking a quick measurement of the bearing after the heat cycle it is possible to determine whether there is enough clearance to fit the bearing into place. If additional clearance is require, it is a simple matter of increasing the heating temperature.



Measuring bearing temperature via temperature gauge.

Specifications

Capacity	1 kVA	●
Duty	Continuous	●
Voltage	220V / 240V	●
Frequency	50 Hz	●
Max Temperature	250°C	●
Core Dimensions	30 x 30mm	●
Cross Bars	15 x 15mm / 10 x 10mm	●
Pole Height	80mm	●
Pole Separation	70mm	●
Efficient Heat Limit	10kg	●
Unit Weight	8Kg	●
Unit Dimensions (LxWxH)	310mm x 210mm x 230mm	●



Hire Rates

The Induction Bearing Heater is available for hired on a half day, full day or weekly rate. The hire fee and a security deposit must be paid before collection. A photocopy of the Driver's License of the person hiring is required before hiring; as well as details of where the equipment is to be used.

Hire Rates & Information (Excluding GST)

Security Deposit	\$100.00	●
Half Day Hire	\$55.00	●
Full Day Hire	\$99.00	●
Weekly Hire	\$385.00	●
Out Right Purchase	P.O.A	●
We can come and do the job on a per hour rate of:-	\$85.00	●

Accessories: Included with the Induction bearing Heater are the following accessories:

① Power Lead	⑤ Temperature Sensor with Protective Case	●
② Heat Resistant Gloves	⑥ Users Manual	●
③ 10 x 10mm & 15 x 15mm Cross Bar	⑦ Quick Reference Guide	●
④ Induction Bearing Heater	* Plus Carry Case	●



Notes:

Applicable Patents & Registered Design Numbers Held at Nybro

