



+ SMART Induction Heater
Betex SLF 303

- Safe mounting and dismounting of bearings and other drive components



There can be many reasons for bearing failure, and one of them is improper installation. It is estimated that improper installation accounts for at least 18% of the defects. Traditional mounting methods can be press fitting, oil baths, even torches are used to heat parts in order to shrink fit them onto shafts. Most bearing manufacturers recommend induction heaters as a safe and controlled heating method to mount bearings. Induction heaters have been around for a long time. Early heaters were analog. They simply worked with an on off switch and had no control over the heating process. They just heated. When the digital generations were introduced, additional functionalities were added such as time and temperature control and automatic demagnetization. Induction heaters increase efficiency and reduce risk of damage and contamination.

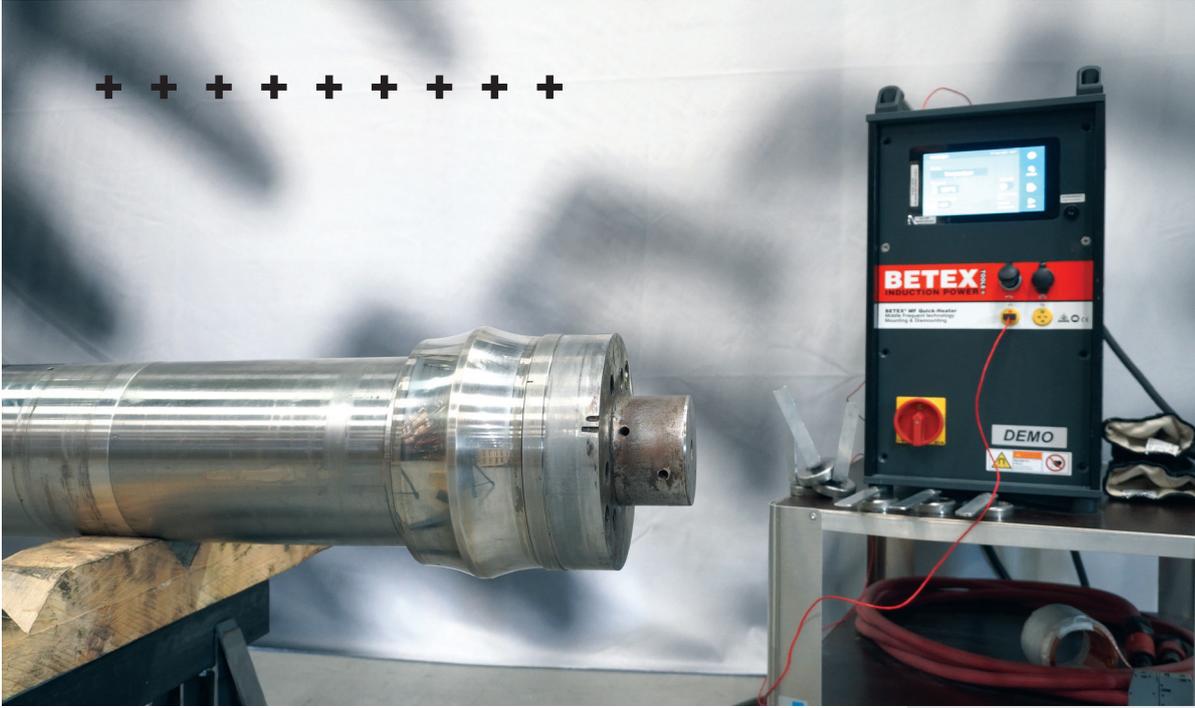
As the development of digital systems is advancing, so are the possibilities with induction heaters. Bega Special Tools has introduced new intelligent BETEX® heater generations that are capable of both mounting and dismounting.

Developments are aimed at improving the service life of bearings and other parts, and at working damage-free

to allow parts to be reused. New features are:

- Easy to use touch screens
- Log function to store data or export to a USB-stick
- Double temperature measurement (Delta T) for perfect control and tension free heating
- Creating proof of work reports

+ Crank shaft with inner ring and the Betex MF Quick-Heater

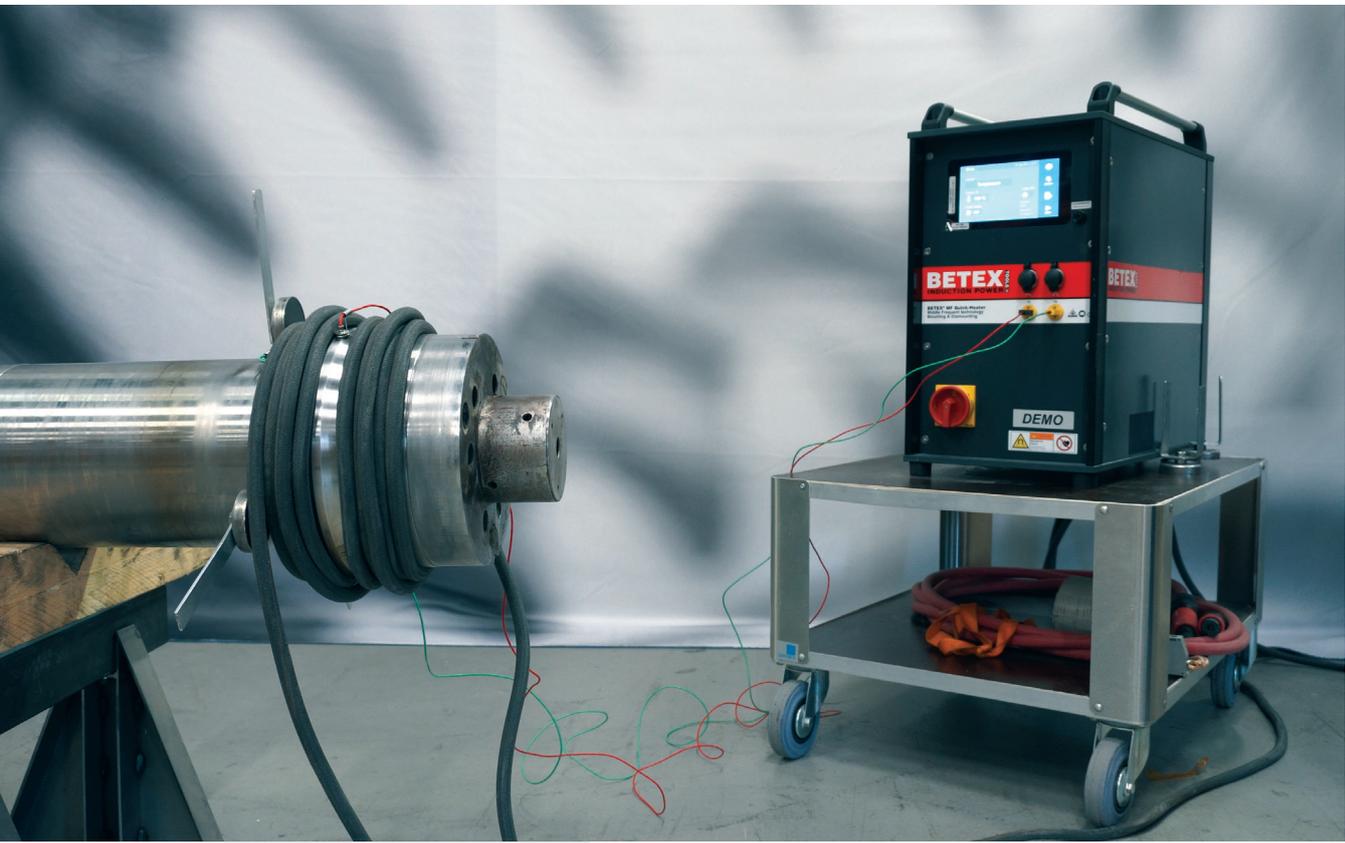


The new generation of “quick-heaters” in particular offer remarkable solutions for both mounting and dismounting. Especially the latter can cause problems during maintenance jobs where stuck parts can cause long delays. Working with grinding wheels or with gas burners is very common in workshops, with all its consequences: time consuming, damage to shafts and parts, pollution of the working environment. By using induction heating, technicians achieve a clean, damage free disassembly of stuck parts, for example due to rust or glue. In addition, induction heating contributes to a much higher level of safety for the users. There is no open fire, no noise, smoke or smell, no chance of flying steel splinters that can cause serious injuries.

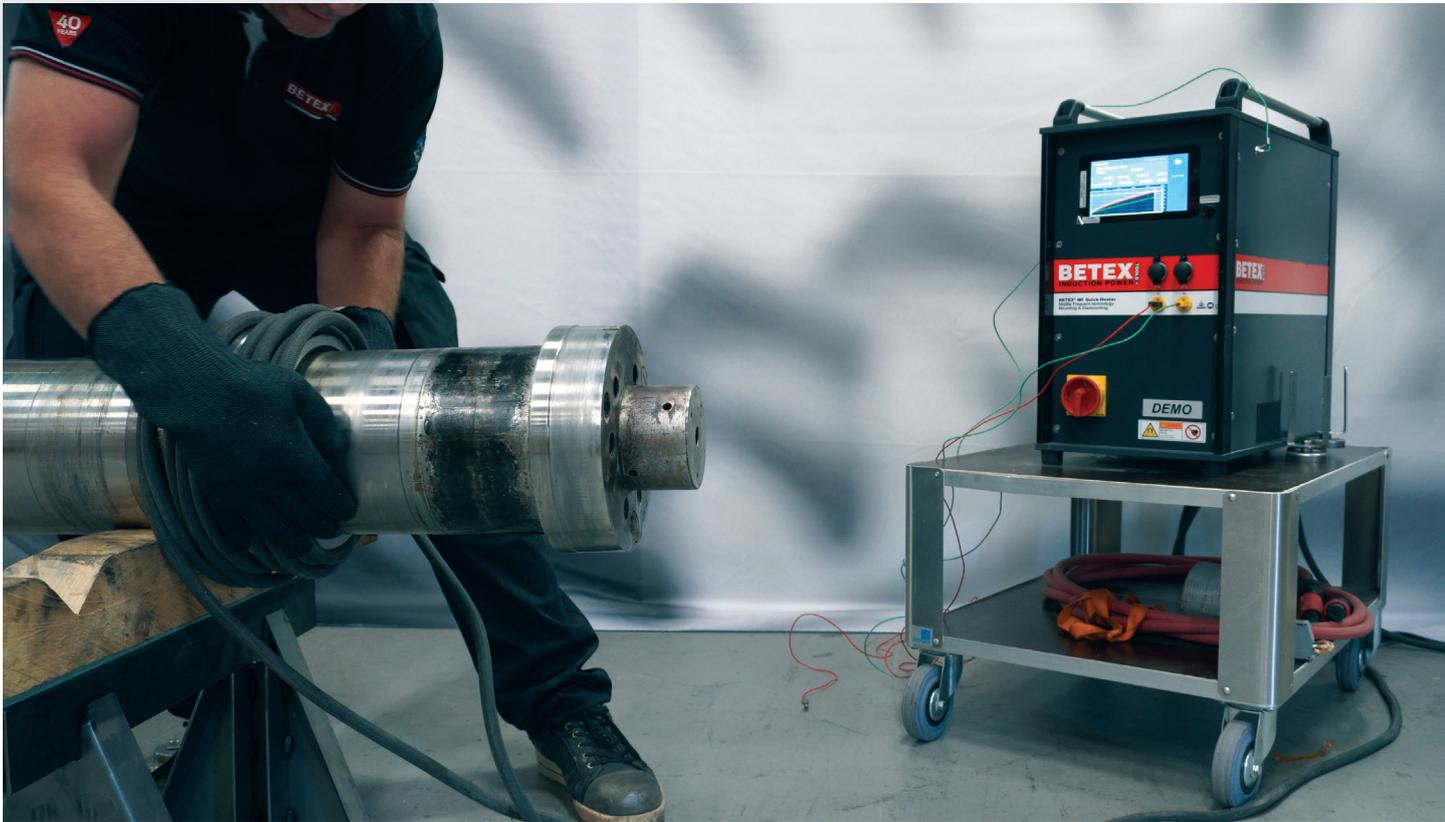
Betex MF Quick-Heaters consist of a generator used in combination with a fixed or flexible inductor. Fixed inductors are suitable for serial mounting or dismounting of labyrinth seals, bearings etc. Flexible inductors come in various lengths and diameters and can be placed around and/or in a part. Shape or size are virtually unlimited.

Technicians are pleasantly surprised when they experience how easily they can work with these devices and how quickly they can move them into position where they need to do the job. A recent project involved a manufacturer of pellet presses. For maintenance work, they have to remove inner rings from a crank shaft. Normally they would grind them off. At the customer’s request we ran some tests with a BETEX MF Quick-Heater 22 kW, with a flexible inductor. Within 1 minute, the inner ring was heated to 150°C and could be pushed off the shaft without any extra force. The customer was so pleased that they sent us other parts to test, all of which were carried out successfully. The time savings were amazing! The heater had proved its versatility so the decision to purchase it was quickly made. The dirty and noisy work of grinding off the rings is now history, much to the delight of the workers who were responsible for doing this. Also, collateral damage to the shafts is now a thing of the past.

For further information visit www.begaspecialtools.com or call +31 578 668000



+ Crank shaft with inner ring and flexible inductor



+ Crank shaft with inner ring dismantled in 1 minute