# **OUR PRESENCE**







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# INDUCTION HEATER





# Incorrect mounting methods accounts for upto 16% of premature bearing failures

# Induction heating has many advantages over other bearing heating methods

The use of an open flame to heat a bearing is not only inefficient and uncontrolled, but often leads to bearing damage. This method should not be used.

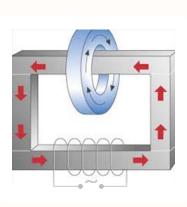
Oil baths are sometimes used to heat bearings. Oil baths often take a long time to reach the required temperature and can be difficult to control the actual bearing temperature. The energy consumption of an oil bath is also significantly greater than using an induction heater. The risk of contaminating the bearing, due to dirty oil, is significant and can lead to premature bearing failure. Handling hot, oily and slippery bearings present significant hazards to the operator and great care must be taken to avoid potential injuries.

The oil losses its viscosity after getting the temp and becomes thicker and get stuck after getting on the rollers and the pockets of the cages and lips of the bearings.

Many times the oil bath does not provide the exact temp where the temp varies from point to point and premature failure of bearings happens.

Ovens and hot plates are often used for batch heating of small bearings and this is an acceptable technique. However, for larger bearing, the use of ovens and hotplates is generally quite inefficient and time consuming and can present the operator with significant.

Mounting is one of the critical stages of the bearing's lifecycle. If the bearing is not mounted properly using the correct method and tools, the bearing's service lifetime will be reduced. Individual applications may require mechanical, heat or hydraulic mounting methods forcorrect and efficient bearing mounting. Selecting the correct mounting technique for your application will help you extend your bearing's service life and reduce costs resulting from premature bearing failure, as well as potential damage to the application.





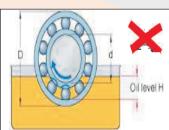
The proper mounting is the induction heating for heating the bearings having straight bore to mount the bearings onto the shaft.

# Don't Do:

# A. Flame Heating



# B. Oil Bath



# C. Oven Heating



# **Technical Details**

# **INDUCTION HEATER - KDM**

 Bore diameter
  $20-450 \, \text{mm} \, (0.8-15.7 \, \text{inches})$   $20-650 \, \text{MM}$  

 Operating area
  $155 \times 210 \, \text{mm} \, (6.6 \times 8.1 \, \text{inches})$   $11X13.1 \, \text{inches}$  

 Standard Yokes
  $14 \times 14 \times 300 \, \text{mm}, 28 \times 28 \times 300 \, \text{mm},$   $14 \times 14 \times 325 \, \text{mm}$ 
 $56 \times 56 \times 300 \, \text{mm} \, (\text{Yokes will be available})$   $28 \times 28 \times 325 \, \text{mm}$  

 Maximum Power Consumption
  $4.0 - 8.6 \, \text{KVA} \, (440 \, \text{V})$   $12 \, \text{KVA} \, (440 \, \text{V})$ 

Temperature Control 20 degree to 250 degree Celsius (In temp. Mode)

Time Control 0-90 minutes

Maximum Temperature 450 degree Celsius (In time Mode)
Dimensions 230 mm x 570 mm x 350 mm

Total weight of the induction heater 90 kgs. 140kgs.

Induction Heater body will not be foldable

# For bearings maximum operating temperature will be 110°

Note: AC Power Supply : Two Phase

# How to use the Induction Heater (KDM)

- 1) Place the induction Heater at your convenient place and keep your bearing to get mounted.
- 2) Plugged in the wire and start the induction heater.
- 3) Select the bearings and then select the yokes accordingly and the arrangement should be properly done along through.
- 4) Place the grease in the point of contact of the yokes, and then smoothly place the bearings onto the yoke and then place the yokes and make the loop closed and then only.
- 5) Connect the temperature probe onto the inner ring of the bearings to control the temperature.
- 6) Start the induction electric current and select either the temperature or time from the panel board.
- 7) Wait for the heating of the bearings which takes the time accordingly to the proportional of the diameter of the bearings.
- After the completion of the process and attaining the same in the control panel then the loop completes and wait for couple of seconds to get the bearing demagnetized and remove the bearings smoothly from the induction heater and place the bearings onto the required shaft.
- 9) Hold the hot bearings through gloves for easy handling of the bearings.
- 10) This enriches the life of the bearings and helps you to avoid premature failures of the bearings.
- 11) FOR MORE INFORMATION PLEASE WATCH THE VIDEO ISSUED.

\*\*\* please go through the manual for further information.