

Dismounting & Mounting of
SHRUNKFIT INNER RACES
of Cylindrical Roller Bearings by
PRECISION INDUCTION HEATER



Series : PIR



Fast, Safe & Economical Heating Of Bearings

Precision Induction Heater Series PIR available in 3 Models

- PIR - 25 Power 25KVA, controls Micro Controller based.
- PIR - 40 Power 40KVA, controls Micro Controller based.
- PIR - 60 Power 60KVA, controls Micro Controller based.



INTRODUCTION

Precision Induction Heater Series PIR is specially designed to cater the need of dismounting & mounting of the inner races cylindrical Roller Bearings used on the axles of Railway Rolling stock and in Traction Motors. It can be used in other industries with similar application.

PRINCIPLE

Induction is done in electro magnetic materials. Here magnetic flux is generated in the coil and short circuited by work piece to be heated. Heat gets generated in short circuited area.

Practically Transformer principle is used in induction heating. Individual coils acts as a primary to which supply is given while work place to be heated acts as a short circuited secondary. Hence heavy current induced in the secondary (Work Piece).

In this process peripheral surface area of the work piece (Racer) gets heated faster than the core, hence expansion takes place in racer which overcome interference and releases from the shaft (Axle).

ADVANTAGES

- 1) Induction heating is more safe, reliable & clean Process.
- 2) Even unskilled labour can be trained to operate the equipment easily.
- 3) High heating rates can be easily achieved.
- 4) Precise Temperature and Time controls are achieved through state of the art technology used in heaters.
- 5) Lower cost & high efficiency are the plus points of Induction Heating.

FEATURES

One of the possible Problems related to induction heating is that job heated acquires magnetism so strong that it tends to attract iron particles, iron dust etc. So to take care of this residual magnetism, a special demagnetizing cycle has to be executed. Precision induction heaters come with this special feature a demagnetisation cycle is incorporated.

PRODUCT DATA	PIR- 25	PIR- 40	PIR- 60
1. Power	25KVA	40KVA	60KVA
2. Supply Voltage	3Ø x 440V	3Ø x 440V	3Ø x 440V
3. Nominal Current	57A	90A	136A
4. Output Voltage	40-60V	40-60V	40-60V
5. Output Current	500A	800A	1200A
6. Power Control	25%, 50%, 75% &100%	25%, 50%, 75% &100%	25%, 50%, 75% &100%
7. Temperature Control	(0-200°C)	(0-200°C)	(0-200°C)
Accuracy Temperature	±5°C	±5°C	±5°C
8. Time Control	0-3 min.	0-3 min.	0-3 min.
9. Residual Magnetisum	<2A/cm	<2A/cm	<2A/cm

PRECISION
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