

# BESSEY® Product Training



**BESSEY® Tools North America**  
**PV, PVH, SV & SVH Induction Heaters**

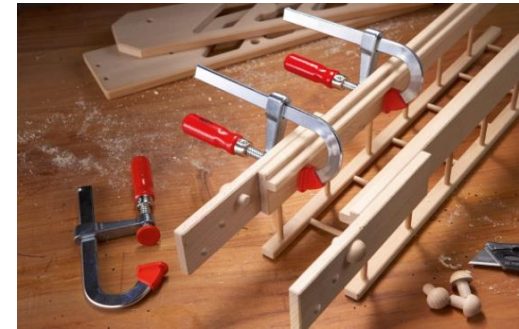


# Bearing Heater Basics



Simply better.

- ❑ Correct mounting and dismounting tools and methods help to prevent damage to a bearing/part or other machine parts.
- ❑ 60% of premature bearing failure is caused by: incorrect mounting, lack of lubrication, contamination, overdue maintenance
  - For a maximum bearing lifecycle use correct mounting tools and methods
  - Machines must be aligned
  - Correct lubrication is completed
  - Planned bearing maintenance prevents machine downtime during production runs



# Bearing Heater Basics

## FOR MOUNTING

### TRANSMISSION PARTS:

- Bearings
- Gear wheels
- Bushes
- Couplings
- Inner rings

### ADVANTAGES:

- Safe
- Fast
- Clean (environmentally friendly)
- Microprocessor controlled
- Energy efficient
- Automatic demagnetization
- Retains original pre-lubrication
- Large choice of standard models



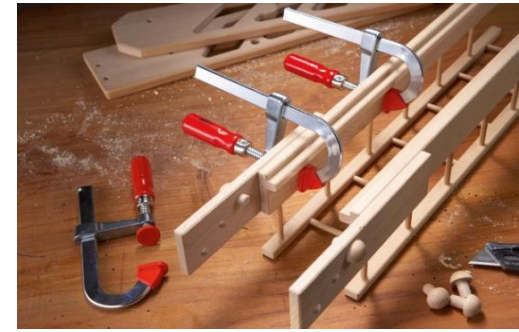
# Bearing Heater Basics



Simply better.

- ❑ CORRECT MOUNTING EXTENDS BEARING LIFE
- ❑ BEARING SUPPLIERS ADVISE SHRINK FITTING
- ❑ INDUCTION HEATING IS A SUPERIOR HEATING METHOD

- Compared to traditional heating methods, induction heating is a safe and environmentally friendly alternative for ovens, oil baths or blow torches.
- These methods cause smoke, fumes or oil waste and are hazardous for personal health and safety.



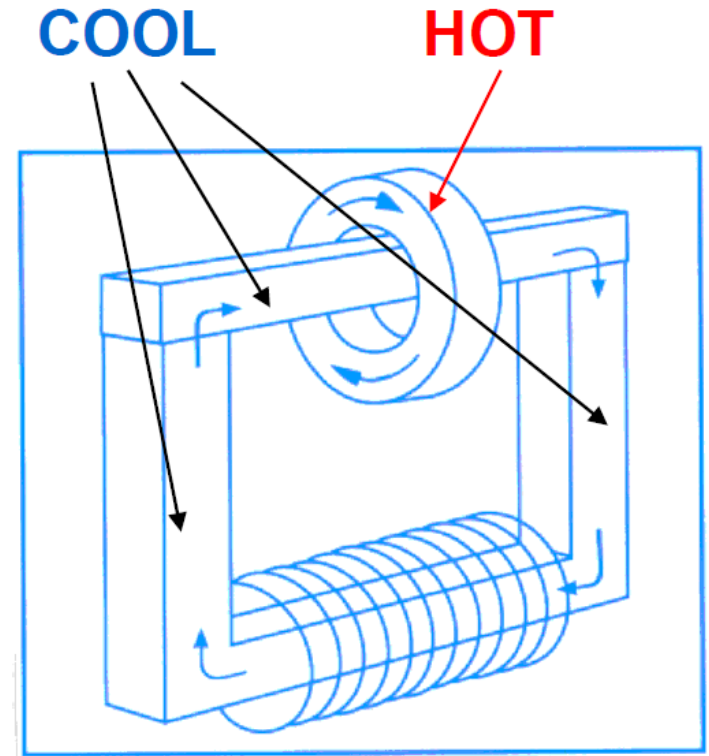
# Bearing Heater Basics



Simply better.

## HOW DOES IT WORK?

- ❑ The heater works by inducing a (low frequency) current in the part to be heated. This is achieved by incorporating the component as a secondary winding in a transformer.
- ❑ The primary winding is connected to the main power by means of an electronic control.
- ❑ The magnetic field induces a high current (short circuit current) through the component which consequently becomes hot.
- ❑ The part is automatically demagnetized after each heating cycle.



# Induction Heaters



Simply better.

## Induction Models:

### PV2412

- 120 V/15 A, digital control
- Max bearing weight 44 lbs
- Time to heat 18 kg (39.6 lbs) = 30.0 minutes



### PVH3813 (Fast Acting)

- 120 V/15 A , digital control
- Max bearing weight 110 lbs
- Time to heat 18 kg (39.6 lbs) = 3.5 minutes
- Time to heat 50 kg (110 lbs) = 23.0 minutes



### SVH5223 (Fast Acting)

- 120 V/15 A , digital control
- Max bearing weight 330 lbs
- Time to heat 50 kg (110 lbs) = 6.0 minutes
- Time to heat 65.5 kg (144.1 lbs) = 19.2 minutes
- Time to heat 147 kg (323.4 lbs) = 47.0 minutes



# Induction Heaters



Simply better.

## Induction Models:

### SV5020

- 500 V/16 A, digital control
- Max bearing weight 330 lbs



### SVH7931 (Fast Acting)

- 500 V/16 A , digital control
- Max bearing weight 770 lbs
- Mobile version available

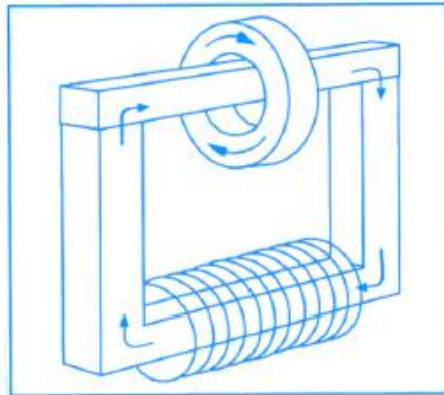


# Induction Heaters

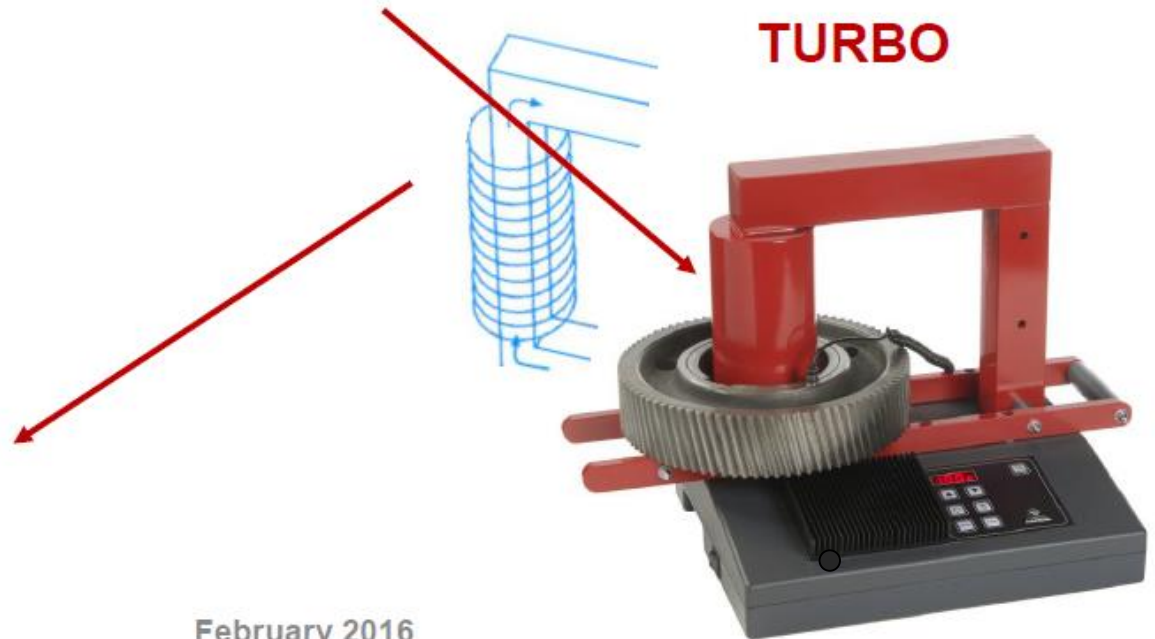
## Fast Acting Models

- ❑ Low energy consumption combined with high output.
- ❑ The coil is positioned differently on specific models to give real-world benefits.
- ❑ Only works for bearings positioned horizontally

**Standard**



**TURBO**



February 2016





## Easy operation

- Up / Down
- Time or Temperature °C or °F
- Start / Stop



## Digital electronics

- For optimum control
- No explosive heating

February 2010

# Induction Heaters



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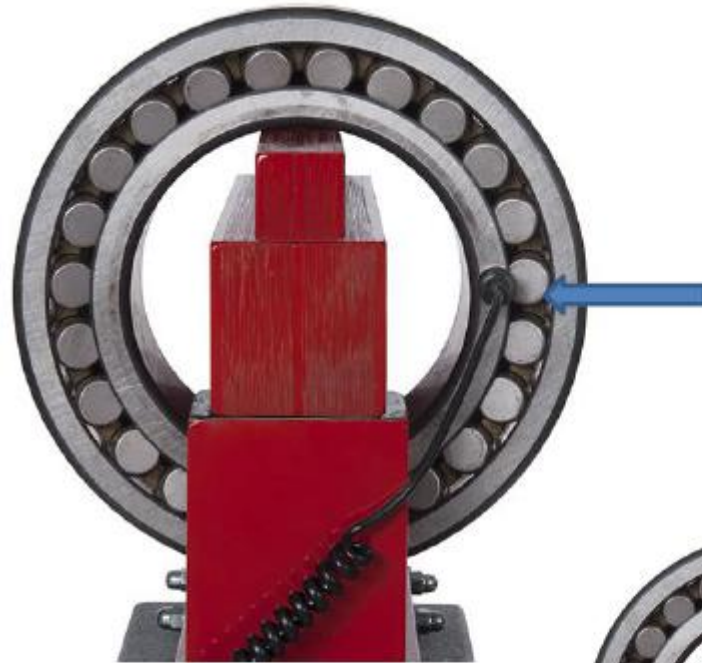
Swivel arm for easy handling of parts



# Induction Heater

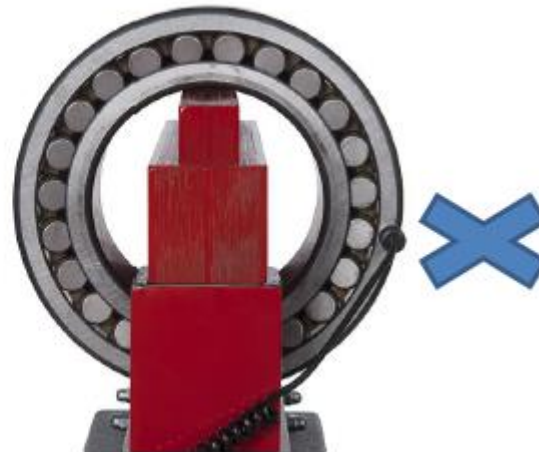


Simply better.



**IMPORTANT**

Position magnetic probe on inside of bore





## IMPORTANT

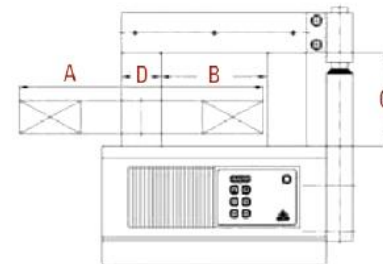
Fill bore with largest possible yoke, or use an extra yoke

# Induction Heaters



Simply better.

	PV2412 Portable	PVH3813 Portable	SVH5223 Fast Action
Voltage/Amp	120V/15A	120V/15A	120V/15A
Frequency Hz	50/60Hz	50/60Hz	50/60Hz
Cross bars yokes standard	1/4", 3/8", 9/16", 13/16", 1 9/16"	1/4", 3/8", 9/16", 13/16", 1 9/16"	9/16", 1 3/16", 2 3/8"
Swivel arm	-	-	yes
Max. weight ± lb			
- bearings	44 lbs	110 lbs	330 lbs
Min. ID Ø	3/8"	3/8"/Ø3 7/8"	5/8"/Ø4 3/4"
Max. OD Ø <b>A</b>	9 1/2"	15"	20 1/2"
Max. width <b>B</b>	4 3/4"	5 1/4"	7 7/8"
Max. width at horizontal heating <b>C</b>	-	5 1/4"	9"
Cross section poles <b>D</b>	1 5/8"	1 5/8"/Ø 3 3/4"	2 3/8"/Ø4 1/2"
Pole height	5"	6 1/2"	9"
Temperature control			
- max reach	302°F	464°F	464°F*
- magnetic probe	yes	yes	yes
- digital display	yes	yes	yes
Time control			
- max. reach	0-30 min.	0-45 min.	0-45 min.
- digital display	yes	yes	yes



# NEW Induction Heaters 2016

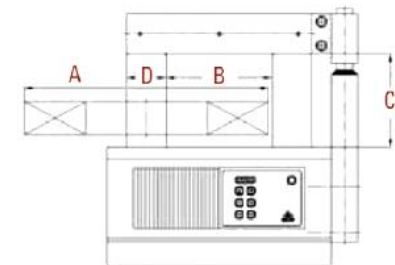


Simply better.

	PV2412 Portable	PVH3813 Portable	SVH5223 Fast Action
Voltage/Amp	120V/15A	120V/15A	120V/15A
Frequency Hz	50/60Hz	50/60Hz	50/60Hz
Cross bars yokes standard	1/4", 3/8", 9/16", 13/16", 1 9/16"	1/4", 3/8", 9/16", 13/16", 1 9/16"	9/16", 1 3/16", 2 3/8"
Swivel arm	-	-	yes
Max. weight ± lb			
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Temperature control			
- max reach	302°F	464°F	464°F*
- magnetic probe	yes	yes	yes
- digital display	yes	yes	yes
Time control			
- max. reach	0-30 min.	0-45 min.	0-45 min.
- digital display	yes	yes	yes



These units can mount vertically or horizontally so the technical data shows both



# CONE HEATER

## Cone Heater Models:

### GCS-NCB

- Without control setting

### GCS-CB

- With control setting

## Basic Information:

- 120 V/15 A
- 10 mm – 203 mm (5/8 – 8 IN)
- CE, UL and CSA certified
- Produced within an ISO certified facility
- European production facility



# Thank you for your attention!

BESSEY® Tools North America