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# **BETEX<sup>®</sup> INDUCTION HEATERS**

Bega develops, manufactures and sells worldwide a wide range of BETEX<sup>®</sup> induction heaters for professional use in industry and industrial services.

### **OUR RANGE INCLUDES**

- Standard series to 100 kVA.
- TURBO series (energy efficient) to 100 kVA.
- Custom-made to client's requirements.

### DEPENDABLE QUALITY

BETEX<sup>®</sup> induction heaters are proven dependable. Their sturdy styling and user-friendly design guarantees sustained, problem-free operation in an industrial environment. Devices are low frequency (50/60 Hz).

#### **SERVICE & WARRANTY**

Our expertise and experience ensure quality, reliability, expert advice and outstanding service. BETEX® induction heaters are supplied with clear instructions and a 3-year warranty on electronics.

#### WHY USE INDUCTION HEATING?

Induction heating is a superior, fast and controlled heating method. It is a safe and environmentally-friendly alternative for traditional heating methods such as ovens, oil baths or blow torches. These methods cause smoke, fumes or oil waste and are hazardous for personal health and safety.

#### FOR BEARINGS AND OTHER COMPONENTS

BETEX<sup>®</sup> induction heaters are versatile and can be used for the heating of gear wheels, bushes, couplings, etc. It is common knowledge that a correct mounting method extends bearing life. Even, tension-free heating prevents unnecessary damage and retains original lubrication. Ideal for sealed bearings (2RS-ZZ).

#### SAFE AND CONTROLLED HEATING

Digital electronics ensure optimum control during the heating

process, automatically regulating the most efficient use of power and ensuring even and rapid heating. No extra steps are necessary. Explosive heating is impossible (no discoloration or pitting of material).

### **ADVANTAGES OF BETEX® INDUCTION HEATERS**

- Robust design for working in industrial environment.
- Even heating: the microprocessor controlled electronics prevent overheating and explosive heating.
- Automatic power reduction.
- Automatic demagnetization to <2A/cm.
- Unique, user-friendly swivel-arm construction.
- Suitable for continuous use.
- Extensive standard range, Standard and TURBO variants.
- 3-years warranty on electronics.
- Meets CE and IEC requirements.
- TÜV certification CSA, UL.
- Maintenance free.

#### DEMAGNETIZING

Fail-safe demagnetisation is essential for bearings and transmission parts.

The proven quality of  $BETEX^{\otimes}$  induction heaters guarantees maximum demagnetisation.

This has a major positive effect on the life span of bearings, gears, etc.

#### ▼ TABLE FOR SELECTING INDUCTION HEATER

(assumes average heating times for average weights for each induction heater).

Heating times are subject to the relationship between

- Min. bore and max. outside diameter, width, weight.
- Required temperature and material type.
- Available power.



# **STANDARD** series

VERSATILE HEATERS, FOR ALL KINDS OF COMPONENTS. With variable capacities, BETEX<sup>®</sup> induction heaters are suitable for continuous use



**BETEX 22 ELD PORTABLE, 3.6 kVA** Portable, easy to use, ideal for on-site jobs. Incl. 5 yokes and magnetic probe. **Min.**  $\emptyset$  10 mm. **Max.** outside diameter 240 mm.. Suitable for bearings up to ± **15 kg.** 



Operating panel in °C or °F. Cooling lamellae for efficient waste of excess heat.

BETEX 22 ESD, 3.6 kVA Basic bench-top type with swivel arm for ergonomic operation. Heats parts in horizontal or vertical position. Choice of 5 yokes. Min.  $\emptyset$  15 mm. Max. outside diameter 340 mm. (With extension yokes 480 mm). Suitable for bearings up to  $\pm$  40 kg.

Heavy duty bench-top type **with swivel arm for ergonomic operation.** Heats parts in horizontal or vertical position. Choice of 3 yokes **Min.** Ø 30mm. **Max.** outside diameter 480 mm. (With extension yokes 720 mm). Suitable for bearings up to ± **125 kg.** 

BETEX 38 ESD, 8 kVA



BETEX 38 ZFD, 12 kVA Mobile, heavy duty heater with swivel arm for ergonomic operation and practical folding operating panel. Heats parts in horizontal and vertical position. Min. Ø 30 mm. Max. outside diameter 720 mm.

(With extension yokes 1020 mm). Suitable for bearings up to  $\pm$  **280 kg**.

Folding operating panel from ZFD/RMD/RSD series

# TURBO series

#### ENERGY EFFICIENT.

This new generation of induction heaters is more energy efficient: higher output with less energy consumption. Larger components can be heated using less power.



**BETEX 24 RLD TURBO portable, 3.6 kVA** Portable, easy to use, ideal for on-site jobs. Incl. 5 yokes and magnetic probe. **Min.**  $\emptyset$  10 mm. **Max.** outside diameter 350 mm. Suitable for bearings up to  $\pm$  **40 kg.** 

#### BETEX 24 RSD TURBO, 3.6 kVA Bench-top type with swivel arm for ergonomic operation. Heats parts in horizontal or vertical position. Choice of 5 yokes. Min. $\emptyset$ 15 mm. Max. outside diameter 520 mm. (With extension yokes 750 mm). Suitable for bearings up to $\pm$ 95 kg.

**BETEX**<sup>®</sup>

#### BETEX 40 RSD TURBO, 8 kVA

Heavy duty bench-top type with swivel arm for ergonomic operation. Also available in mobile version (BETEX 40 RSDm TURBO). Heats parts in horizontal or vertical position. Choice of 5 yokes. Min. Ø 30 mm. Max. outside diameter 790 mm. Suitable for bearings up to  $\pm$  350 kg.

#### BETEX 40 RMD TURBO, 12 kVA Mobile, Heavy duty heater with swivel arm for ergonomic operation and practical folding operating panel. Heats parts in horizontal and vertical position. Choice of 3 yokes. Option: with fixed or adjustable horizontal supports. Min. $\emptyset$ 60 mm. Max. outside diameter 920 mm. (With extension yokes 1020 mm). Suitable for bearings up to ± 600 kg.

# HEATING TIMES

## COMPARISON HEATING TIMES BETWEEN STANDARD AND TURBO HEATERS

Heating in horizontal position, to 110°C, in minutes.

Treating in nonzontal position, to the c, in minutes.						
Bearing no.	23130	22240	23148	23156	175296	gearwheel
Weight kg	16 kg	43,5 kg	63 kg	95,8 kg	220 kg	300 kg
ID/OD mm	150/250	200/360	240/400	280/460	350/580	210/600
22 ELD 3,6 kVA	31.20 min.					
24 RLD TURBO 3,6 kVA	07.26 min.					
22 ESD 3,6 kVA		30.15 min.				
24 RSD TURBO 3,6 kVA		10.05 min.	19.20 min.	45.00 min.		
38 ESD 8 kVA			11.50 min.	23.00 min.		
40 RSD TURBO 8 kVA			04.30 min.	08.57 min.	26.50 min.	15.00 min.
38 ZFD 12 kVA			09.55 min.	14.20 min.	39.50 min.	48.45 min.
40 RMD TURBO 12 kVA			02.15 min.	03.30 min.	08.40 min.	06.35 min.

# **CUSTOM-MADE** and **ACCESSORIES**

**CUSTOM-MADE: INDUCTION FOR PRODUCTION** Bega designs and builds custom-made heaters for serial heating of components such as bearings, gear wheels, bushes, rings and aluminium houses of E-motors.

When fast and accurate heating is imperative, these 'Specials' offer surprising solutions. It is possible to integrate them in fully automated production processes, even with a pick-and-place unit. An additional advantage is the use of low frequency (50/60Hz), which costs much less than medium- or high-frequency solutions. A brochure with examples of 'Specials' is available on request.



**BETEX IMPACT 33 OR 39 FITTING TOOLSET** For correctly mounting bearings, seal rings, oil seals, bushes, etc. For bore sizes of min. 10 mm to max. 130 mm OD.

Magnetic temperature probe (a clamp probe is also available for non-ferrous components).



ACCESSORIES AVAILABLE SEPARATELY:

- Yokes
- Extension yokes
- Heat resistant gloves
- Magnetic probe, various types
- Sliding supports for horizontal heating

Using extension yokes. Extension yokes combined with 2 yokes on top of each other.

# **BETEX<sup>®</sup> SUPER and GIANT**



### **BETEX SUPER and GIANT upto 100 kVA**

#### From 600 kg to 12,000 kg!

These are powerful heaters for heavy components. Components can be heated horizontally or vertically. For bore sizes of min. 85 mm to max. 3500 mm OD. Many variations are possible.

#### **Options are:**

- Standard or TURBO version.
- · Electric swivel arm for handling induction yokes ergonomically.
- Horizontal yoke on a sliding support.
- Widened opening up to 1000 mm.
- Variable capacities up to 100 kVA.
  Temperatures max. 350 °C.
- Mobile.
- Flashing warning system.
- Infrared remote control.

#### Areas of application

- Machine construction
- Wind turbine manufacture
- Steel industry
- Railways
- Paper industry
- Mining
- Gearbox manufacturers
- Demagnetisation of fabricated parts and bearings

#### BETEX SUPER, 24 kVA 🕨

Min. Ø 85 mm. Max. outside diameter 900-1300 mm. Suitable for weight: 600 kg.

### BETEX GIANT, 40- 48 kVA

Min. Ø 115 mm. Max. outside diameter 1400-2500 mm. Suitable for weight: 1500-3500 kg.

> BETEX GIANT TURBO, 48- 100 kVA Min. Ø 215 mm. Max. outside diameter 1400 - 3500 mm. Suitable for weight: 1500-12000 kg.