



SKF Bearing heaters



How to contact your authorised distributor

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W www.acorn-ind.co.uk/northeast

South West RDC

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The power of SKF knowledge engineering

More than 25 years ago, SKF innovated the use of induction heating for bearing mounting. Our competency in offering customer-focused solutions has made SKF the class leader in developing, manufacturing and global distribution of induction heaters for bearing applications.

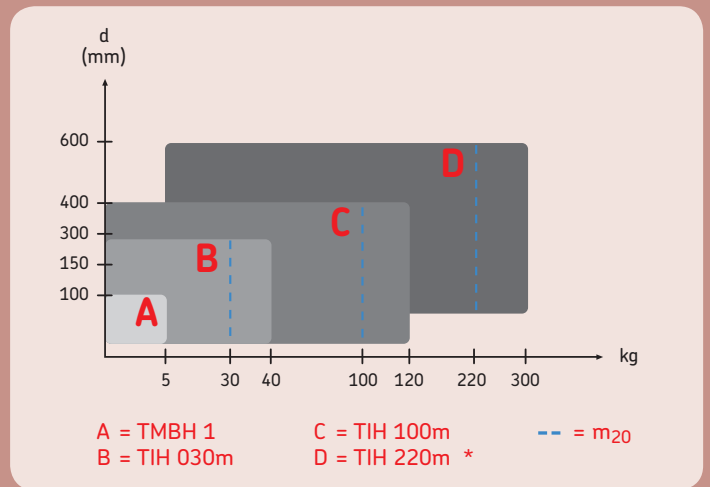
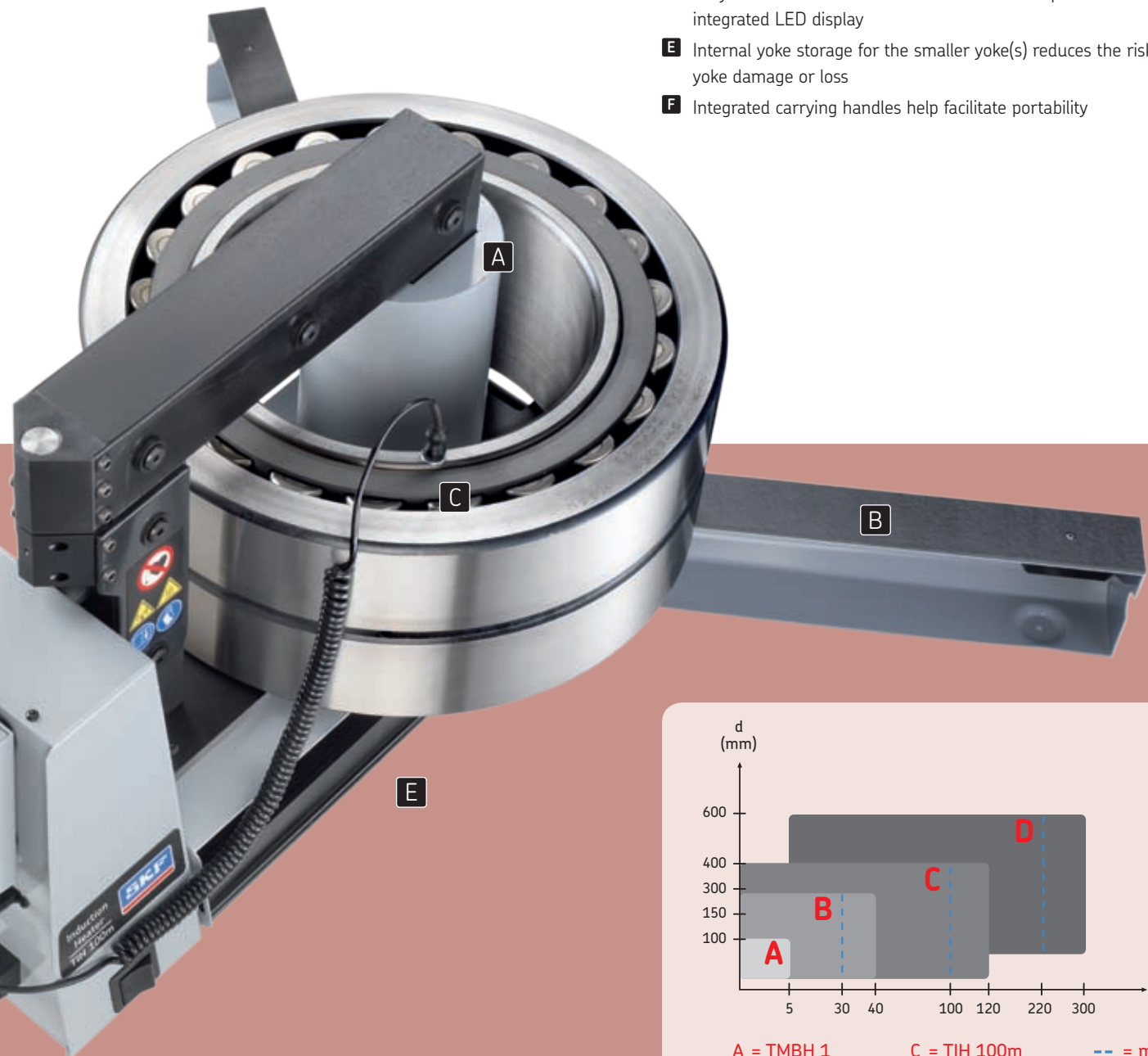
Sustainable heating solution

The newest generation of SKF Induction heaters are highly efficient, and suitable for heating a wide range of bearings as well as other components. To achieve maximum heating efficiency the induction coil of the SKF heaters is positioned outside the heater's housing, allowing the bearing to be placed around it.

This significant innovation results in reducing heating time and power consumption to up to 80%, ultimately saving up to 70% on heating costs.



- A** Induction coil outside the heater's housing combined with advanced electronics allows shorter heating time and lower energy consumption
- B** Foldable bearing support arms facilitate the heating of larger diameter bearings
- C** Magnetic temperature probe helps prevent bearing overheating
- D** Easy-to-use remote control with time and temperature modes and integrated LED display
- E** Internal yoke storage for the smaller yoke(s) reduces the risk of yoke damage or loss
- F** Integrated carrying handles help facilitate portability



SKF m₂₀ concept

“m₂₀” represents the weight (kg) of the heaviest SRB 231 bearing which can be heated from 20 to 110 °C (68 to 230 °F) in 20 minutes. This defines the heater’s power output instead of its power consumption.

Selection guide

There are no totally restrictive guidelines to follow when choosing your SKF bearing heater. It will depend upon the type and geometrical dimensions of the bearings you want to heat. Nevertheless, SKF offers the following helpful general selection guide.

* SKF can also offer custom-made induction heaters for bearings larger than mentioned in the selection guide.

Small induction heater TIH 030m

A portable induction heater for mounting bearings up to 40 kg

The SKF Small induction heater is a compact lightweight induction heater combining high heating capacity with portability. This induction heater is suitable for heating bearings with a maximum weight of 40 kg (88 lbs) and solid components with a maximum weight of 20 kg (44 lbs).

- Compact lightweight design; just 20,9 kg (46 lbs) facilitating portability
- Capable of heating a 28 kg (61,7 lbs) bearing in just 20 minutes
- Temperature mode pre-set at 110 °C (230 °F) helps prevent bearing over-heating
- Equipped with thermal overheating protection to reduce the risk of damage to the induction coil and the electronics
- 2-step power setting and smaller yokes allow heating smaller bearings safely at lower power consumption
- Automatic demagnetization prevents bearing contamination with metal particles from the surrounding area
- Available in two voltage variants: 230 V/50–60 Hz and 100–110 V/50–60 Hz
- Supplied standard with three yokes
- 3 year warranty

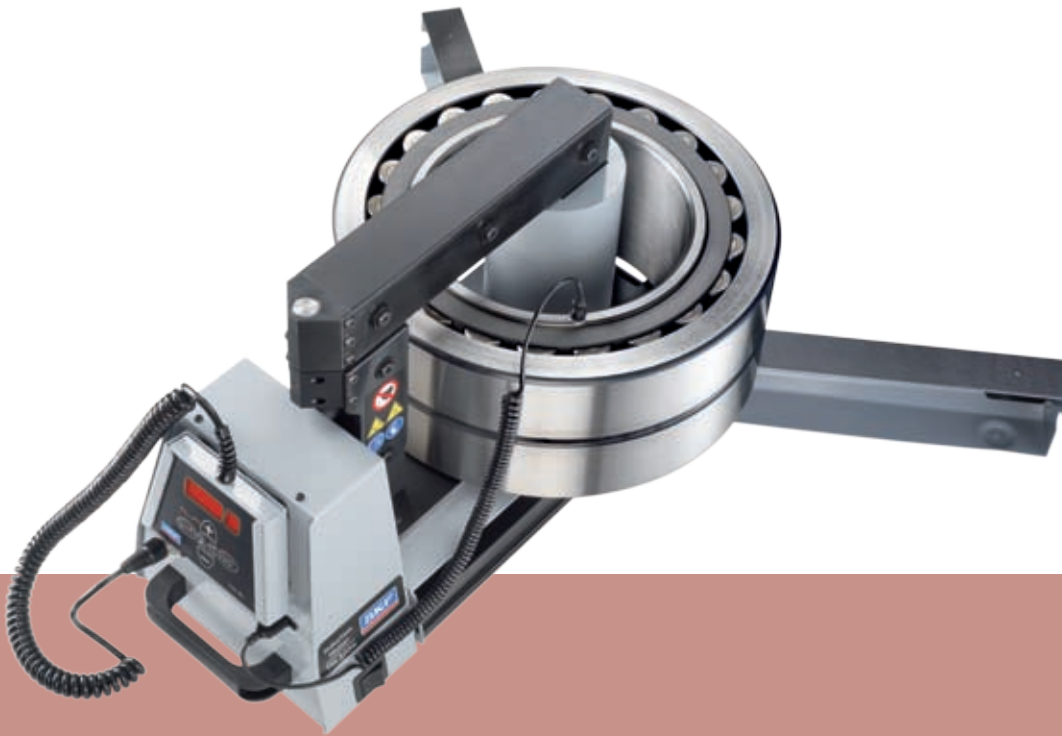


Medium induction heater TIH 100m

Easy, quick and efficient heating of bearings up to 120 kg

The SKF Medium induction heater TIH 100m is suitable for heating bearings with a maximum weight of 120 kg (264,5 lbs) and solid components with a maximum weight of 60 kg (132,2 lbs). Class leading design helps ensure efficient performance and excellent reliability.

- Capable of heating a 97 kg (213 lbs) bearing in less than 20 minutes, saving time and energy
- Temperature mode pre-set at 110 °C (230 °F) helps prevent bearing over-heating
- Equipped with thermal overheating protection to reduce the risk of damage to the induction coil and the electronics
- 2-step power setting and smaller yokes facilitate efficient heating of smaller bearings with a lower power consumption
- Automatic demagnetization prevents bearing contamination with metal particles from the surrounding area
- Available in two voltage variants:
230 V/50-60 Hz and 400-460 V/50-60 Hz
- Supplied standard with three yokes, allowing bearings with a bore diameter from 20 mm (0,78 in) up to a maximum weight of 120 kg (264 lbs) to be heated
- The larger yoke incorporates a "swivel arm", which makes it easier to load a bearing as the operator does not have to lift and remove the yoke in order to load a bearing
- Internal storage for all three yokes, reduces the risk of yoke damage or loss
- 3 year warranty



Large induction heater TIH 220m

Save time, money and effort when mounting bearings up to 300 kg

The SKF large induction heater TIH 220m is an advanced and reliable induction heater from the TIH...m range suitable for heating bearings up to a maximum weight of 300 kg (660 lbs) and solid components up to a maximum weight of 150 kg (330 lbs). Robust design coupled with high efficiency help make the TIH 220m the most sustainable heater in its class.

- Capable of heating a 220 kg (480 lbs) bearing in just 20 minutes, saving time and energy
- Temperature mode pre-set at 110 °C (230 °F) helps prevent bearing over-heating
- Equipped with thermal overheating protection to reduce the risk of damage to the induction coil and the electronics
- 2-step power setting and smaller yoke facilitates efficient heating of smaller bearings with a lower power consumption
- Automatic demagnetization prevents bearing contamination with metal particles from the surrounding area
- To suit different operating voltages worldwide, the TIH 220m is available in different voltage variants
- Supplied standard with two yokes, allowing bearings with a bore diameter from 60 mm (2,3 in) up to a maximum weight of 300 kg (660 lbs) to be heated
- The larger yoke has been ergonomically designed with a “sliding arm” feature making it easier to load a bearing as the operator does not have to lift and remove the yoke
- 3 year warranty



Other SKF bearing heaters

Electric hot plate 729659 C

Thermostat controlled bearing heating

The SKF electric hot plate, 729659 C, is a professional heating device especially designed for pre-heating small bearings prior to mounting. The temperature of the plate can be adjusted at the turn of a knob to provide a temperature range of between 50 and 200 °C (120 and 390 °F).

Custom-made heaters for large components

Heating solution for components up to 10 000 kg

For heating large sized bearings and components, SKF can offer custom-made induction heaters to meet your requirements. Designed to precisely suit your application, these heaters offer a cost effective and efficient mounting solution.

High frequency portable induction heater TMBH 1

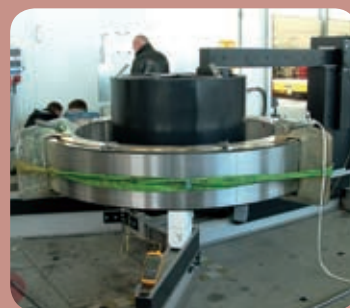
A portable bearing heater weighing only 4,5 kg

The SKF bearing heater TMBH 1 is a portable lightweight heater for heating bearings with an inner diameter ranging from 20 to 100 mm (0.8 to 4 in) and a maximum corresponding weight of 4,5 kg (10 lb). The heater uses a patented method of heating based on high frequency induction, which provides optimised efficiency. This method is very quiet and creates no magnetisation at all. In addition to bearings, the heater can also be used for heating ferrous components such as gears, pulleys, bushings and shrink rings.

Accessories

- Induction heater trolley TIH T1
- Heat resistant gloves TMBA G11
- Extreme temperature gloves TMBA G11ET

For more details or technical information please visit our website www.mapro.skf.com



TIH ...m series

Designation	TIH 030M	TIH 100M	TIH 220M
SKF m ₂₀ performance	28 kg (61,7 lb)	97 kg (213 lb)	220 kg (480 lb)
Voltage, V/Hz	230 V/50–60 Hz or 110 V/50–60 Hz	230 V/50–60 Hz or 400–460 V/50–60 Hz	200–230/50–60 Hz or 400–460/50–60 Hz
Work piece (bearings): – Maximum weight – Maximum bore diameter	40 kg (88 lb) 20 – 300 mm (0,8 – 11,8 in)	120 kg (264 lb) 20 – 400 mm (0,8 – 15,7 in)	300 kg (661,4 lb) 60 – 600 mm (2,3 – 23,6 in)
Temperature control: – Range – Magnetic probe – Accuracy (electronics)	0 – 250 °C (32 – 482 °F) Yes, K-type ± 2 °C (± 3,6 °F)	0 – 250 °C (32 – 482 °F) Yes, K-type ± 2 °C (± 3,6 °F)	0 – 250 °C (32 – 482 °F) Yes, K-type ± 2 °C (± 3,6 °F)
Time control: – Range – Accuracy	0 – 60 minutes ± 0,01 sec.	0 – 60 minutes ± 0,01 sec.	0 – 60 minutes ± 0,01 sec.
Maximum temperature (approx.)	400 °C (750 °F)	400 °C (750 °F)	400 °C (750 °F)
Thermometer mode	Yes	Yes	Yes
Bearing mode (pre-set at 110 °C / 230 °F)	Yes	Yes	Yes
Power reduction	2-step; 50 – 100%	2-step; 50 – 100%	2-step; 50 – 100%
Demagnetisation according to SKF norms (automatic)	Yes (<2 A/cm)	Yes (<2 A/cm)	Yes (<2 A/cm)
Can heat sealed bearings	Yes	Yes	Yes
Can heat pre-greased bearings	Yes	Yes	Yes
Error guiding codes	Yes	Yes	Yes
Thermal overload protection	Yes	Yes	Yes
Maximum magnetic flux	1,7 T	1,7 T	1,55 T
Control panel	Key board with LED in remote control	Key board with LED in remote control	Key board with LED in remote control
Operating area (w × h)	100 × 135 mm (3,9 × 5,3 in)	155 × 205 mm (6,1 × 8,0 in)	250 × 255 mm (9,8 × 10 in)
Coil diameter	95 mm (3,7 in)	110 mm (4,3 in)	140 mm (5,5 in)
Dimensions (w × d × h)	450 × 195 × 210 mm (17,7 × 7,6 × 8,2 in)	570 × 230 × 350 mm (22,4 × 9,0 × 13,7 in)	750 × 290 × 440 mm (29,5 × 11,4 × 17,3 in)
Total weight, including yokes	20,9 kg (46 lb)	42 kg (92 lb)	86 kg (189 lb)
Maximum power consumption	2,0 kVA	3,6 kVA (230 V) 4,0–4,6 kVA (400–460 V)	10,0–11,5 kVA (400–460 V)
Number of standard yokes	3	3	2
Standard yokes	45 × 45 × 215 mm (1,7 × 1,7 × 8,4 in), for heating bearings with bore diameter of 65 mm (2,6 in) and larger 28 × 28 × 215 mm (1,1 × 1,1 × 8,4 in), for heating bearings with bore diameter of 40 mm (1,6 in) and larger 14 × 14 × 215 mm (0,5 × 0,5 × 8,4 in), for heating bearings with bore diameter of 20 mm (0,8 in) and larger	56 × 56 × 296 mm (2,2 × 2,2 × 11,7 in), for heating bearings with bore diameter of 80 mm (3,1 in) and larger 28 × 28 × 296 mm (1,1 × 1,1 × 11,7 in), for heating bearings with bore diameter of 40 mm (1,6 in) and larger 14 × 14 × 296 mm (0,6 × 0,6 × 11,7 in), for heating bearings with bore, diameter of 20 mm (0,8 in) and larger	70 × 70 × 430 mm (2,8 × 2,8 × 16,9 in), for heating bearings with bore diameter of 100 mm (3,9 in) and larger 40 × 40 × 430 mm (1,6 × 1,6 × 16,9 in), for heating bearings with bore diameter of 60 mm (2,4 in) and larger
Core cross section	45 × 45 mm (1,7 × 1,7 in)	56 × 56 mm (2,2 × 2,2 in)	70 × 70 mm (2,8 × 2,8 in)
Yoke storage	Yes, foldable	Yes, foldable	Yes, foldable
Sliding arm	No	No	Yes, 70 × 70 × 430 mm (2,8 × 2,8 × 16,9 in) yoke only
Swivel arm	No	Yes, 56 × 56 × 296 mm (2,2 × 2,2 × 11,7 in) yoke only	No
Cooling fan	No	No	No
Housing material	Steel and glass filled polyamide	Steel and glass filled polyamide	Steel and glass filled polyamide
Warranty period	3 years	3 years	3 years

SKF Maintenance Products

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