

Induction heaters



Heat assisted installation consists of thermally expanding the bearing by raising the temperature, then sliding it onto the shaft without the need to apply force.

Contrary to oil bath, heating table or oven devices, the SNR induction heaters are safer and ensure a more exact procedure.

Heating temperature depending on bearing bore

- Temperature should not exceed 130°C / 265°F in order to prevent altering of the characteristics of the steel or damage to the internal bearing components. Inner ring expansion (by temperature rise), facilitates bearing installation onto the shaft.
- Temperature must be adjusted according to dimensions, amount of interference fit and bearing journal material.
- Generally, the following temperature values can be applied:

Bore diameter	Heating temperature (max.)
Up to 100mm	90°C / 195°F
From 100 to 150mm	120°C / 250°F
Above 150mm	130°C / 265°F

Heat assisted installation



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Advantages

• Easy to use

- Fewer handling operations, thanks to the pivot arm.
- Operator's safety: only the part to be heated undergoes high temperatures (easier handling, reduced risk of personal injury).
- Cleanliness: no oil, no waste, lower pollution of the bearings or components.
- Operating mode choice option: temperature mode / time mode.
- Automatic demagnetizing on completion of the cycle (less than 2A/cm loss).
- Bearings can be heated even when fitted with seals and greased.
- °C / °F switching.
- Easy maintenance.

• Heating control and safety

- Temperature control by integrated probe. The initial qualities of the bearing are maintained (no risk of exceeding the displayed temperature or eliminating the bearing radial internal clearance, etc).
- No risk of part overheating. By default, the device selects a temperature of 110°C / 230°F. However, you can manually select any temperatures from 50 to 240°C / 120 to 460°F.
- Magnetic probe insulation protecting the operator from burning his or her fingers.
- Compliance with EEC standards.

• Efficiency

- Turbo-boost: "Turbo-boost" technology is integrated in the SNR heaters. In horizontal position (resting on the polyamide base), the part is heated twice as rapidly (not recommended for low internal clearance bearings such as J20).
- Rapidity: It is no longer necessary to heat the same part several times to maintain the desired temperature. As soon as the part temperature drops 5°C / 9°F, heating restarts automatically and will repeat 5 times in sequence. This function is triggered automatically.

• Cost savings

- High efficiency, with a power factor of 0.8.
- Fast bearing heating, hence lower power consumption and extended device life.

Example:

Standard heater

Operating condition:

400 Volts, 30A, 0.23 power factor.

This delivers the following power:

$$P_{rms} = U \times i \times \cos \phi, \text{ i.e. } P_{rms} = 400 \times 30 \times 0.23 = 2.76\text{kVA}$$

Therefore, it draws 12 kVA and only delivers 2.76kVA.

SNR heater

Operating condition:

400 Volts, 30A, 0.8 power factor.

This delivers the following power:

$$P_{rms} = U \times i \times \cos \phi, \text{ i.e. } P_{rms} = 400 \times 30 \times 0.8 = 9.6\text{kVA}$$

Therefore, it draws 12kVA and delivers 9.6kVA.

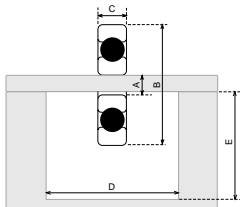


Induction heaters

Fast Therm 20



Technical information	
Voltage	110V - 230V / 110S - 230S
Frequency	50 - 60Hz
Power (kVA) / Maximum current	3.6 / 16A
Weight	17kg / 37lbs
Probe	Magnetic, insulated
Temperature mode	Max. 240°C / 460°F
Temperature hold	Yes
Time mode	No
Demagnetizing	Automatic
Pivot arm	No
Error signal / Display type	Yes / Digital
Distance between support points: height	100mm
Distance between support points: width	120mm
Device dimensions	345 x 200 x 240mm
Weight of the part to be heated	20kg / 45lbs.
Max. diameter of the part to be heated	280mm
Min. bore of the part to be heated	20mm



A = Minimum bearing bore
 B = Maximum bearing diameter
 C = Maximum bearing width
 D = Distance between support points (width)
 E = Distance between support points (height)

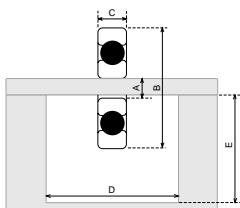
Dimensions of the bars and other components						
Bars	A	B	C	Max. weight	Max. outer diameter with raiser 40 x 50 x 75mm	Max. width with raiser 40 x 50 x 75mm
14 x 14 x 200*	20mm	215mm	120mm	10kg	365mm	120mm
25 x 25 x 200*	35mm	225mm	120mm	15kg	375mm	120mm
40 x 40 x 200*	60mm	280mm	100mm	20kg	280mm	175mm (**)

(*): These bars are included in standard delivery with heaters. (**) : Bearing in horizontal position on white base
 The Fast Therm 20 device is delivered in a durable transport case

Fast Therm 35



Technical information	
Voltage	110V - 230V / 110S - 230S
Frequency	50 - 60Hz
Power (kVA) / Maximum current	3.6 / 16A
Weight	31kg / 68lbs.
Probe	Magnetic, insulated
Temperature mode	Max. 240°C / 460°F
Temperature hold	Yes
Time mode	Max. 99.59min
Demagnetizing	Automatic
Pivot arm	Yes
Error signal / Display type	Yes / Digital
Distance between support points: height	160mm
Distance between support points: width	180mm
Device dimensions	420 x 260 x 360mm
Weight of the part to be heated	35kg / 77lbs.
Max. diameter of the part to be heated	410mm
Min. bore of the part to be heated	20mm



A = Minimum bearing bore
 B = Maximum bearing diameter
 C = Maximum bearing width
 D = Distance between support points (width)
 E = Distance between support points (height)

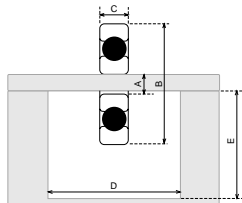
Dimensions of the bars and other components						
Bars	A	B	C	Max. weight	Max. outer diameter with raiser 50 x 50 x 120mm	Max. width with raiser 50 x 50 x 120mm
14 x 14 x 280	20mm	345mm	180mm	10kg	585mm	180mm
25 x 25 x 280	35mm	355mm	180mm	15kg	595mm	180mm
40 x 40 x 280	60mm	360mm	180mm	25kg	600mm	180mm
50 x 50 x 280	70mm	410mm	180mm	35kg	440mm	280mm (**)

(**): Bearing in horizontal position on white base

Heat assisted installation

Induction heaters

Fast Therm 150



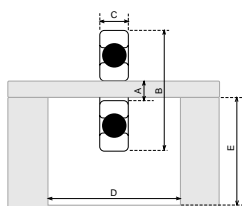
A = Minimum bearing bore
 B = Maximum bearing diameter
 C = Maximum bearing width
 D = Distance between support points (width)
 E = Distance between support points (height)

Dimensions of the bars and other components						
Bars	A	B	C	Max. weight	Max. outer diameter with raiser 70 x 70 x 150mm	Max. width with raiser 70 x 70 x 150mm
20 x 20 x 350	30mm	460mm	210mm	15kg	760mm	210mm
30 x 30 x 350	45mm	475mm	210mm	20kg	775mm	210mm
40 x 40 x 350	55mm	485mm	210mm	25kg	785mm	210mm
50 x 50 x 350	70mm	500mm	210mm	35kg	800mm	210mm
60 x 60 x 350	85mm	515mm	210mm	60kg	815mm	210mm
70 x 70 x 350	100mm	490mm	215mm	150kg*	490mm	365mm

(*): Only in horizontal position

Technical information	
Voltage	400V - 480V / 400S - 480S
Frequency	50 - 60Hz
Power (kVA) / Maximum current	12.8 / 32A
Weight	51kg / 111lbs.
Probe	Magnetic, insulated
Temperature mode	Max. 240°C / 460°F
Temperature hold	Yes
Time mode	Max. 99.59min
Demagnetizing	Automatic
Pivot arm	Yes
Error signal / Display type	Yes / Digital
Distance between support points: height	215mm
Distance between support points: width	210mm
Device dimensions	505 x 260 x 440mm
Weight of the part to be heated	150kg / 330lbs.
Max. diameter of the part to be heated	490mm
Min. bore of the part to be heated	30mm

Fast Therm 300



A = Minimum bearing bore
 B = Maximum bearing diameter
 C = Maximum bearing width
 D = Distance between support points (width)
 E = Distance between support points (height)

Dimensions of the bars and other components of the device						
Bars	A	B	C	Max. weight	Max. outer diameter with raiser 80 x 80 x 150mm	Max. width with raiser 80 x 80 x 150mm
20 x 20 x 490	30mm	620mm	330mm	15kg	760mm	330mm
30 x 30 x 490	45mm	630mm	330mm	20kg	775mm	330mm
40 x 40 x 490	55mm	640mm	330mm	25kg	785mm	330mm
50 x 50 x 490	70mm	650mm	330mm	35kg	800mm	330mm
60 x 60 x 490	85mm	660mm	330mm	60kg	815mm	330mm
70 x 70 x 490	100mm	670mm	330mm	80kg	490mm	330mm
80 x 80 x 490	115mm	740mm	300mm	300kg*	740mm	450mm

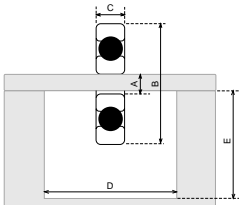
(*): Only in horizontal position

Technical information	
Voltage	400V - 480V / 400S - 480S
Frequency	50 - 60 Hz
Power (kVA) / Maximum current	25.2 / 63A
Weight	91kg / 200lbs.
Probe	Magnetic, insulated
Temperature mode	Max. 240°C / 460°F
Temperature hold	Yes
Time mode	Max. 99.59min
Demagnetizing	Automatic
Pivot arm	Yes
Error signal / Display type	Yes / Digital
Distance between support points: height	300mm
Distance between support points: width	330mm
Device dimensions	Transportable: 700 x 500 x 980 Fixed: 700 x 500 x 580
Weight of the part to be heated	300kg / 660 lbs.
Max. diameter of the part to be heated	740mm
Min. bore of the part to be heated	30mm



Induction heaters

Fast Therm 600



- A = Minimum bearing bore
- B = Maximum bearing diameter
- C = Maximum bearing width
- D = Distance between support points (width)
- E = Distance between support points (height)

Technical information	
Voltage	400V - 480V / 400S - 480S
Frequency	50 - 60Hz
Power (kVA) / Maximum current	25.2 / 63A
Weight	350kg / 770lbs.
Probe	Magnetic, insulated
Temperature mode	Max. 240°C / 460°F
Temperature hold	Yes
Time mode	Max. 99.59min
Demagnetizing	Automatic
Pivot arm	No
Error signal / Display type	Yes / Digital
Distance between support points: height	390mm
Distance between support points: width	410mm
Device dimensions	700 x 1,000 x 1,100mm
Weight of the part to be heated	600kg / 1320 lbs.
Max. diameter of the part to be heated	900mm
Min. bore of the part to be heated	45mm

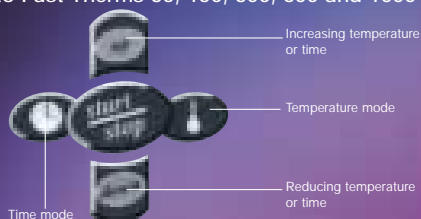
Dimensions of the bars and other components				
Bars	A	B	C	Max. weight
30 x 30 x 700	45mm	830mm	420mm	600kg
40 x 40 x 700	55mm	840mm	420mm	600kg
50 x 50 x 700	70mm	850mm	420mm	600kg
60 x 60 x 700	85mm	860mm	420mm	600kg
70 x 70 x 700	100mm	870mm	420mm	600kg
80 x 80 x 700	115mm	880mm	420mm	600kg
90 x 90 x 700	130mm	890mm	420mm	600kg
100 x 100 x 700	145mm	900mm	420mm	600kg

Fast Therm 1000



Technical information	
Voltage	400V - 480V / 400S - 480S
Frequency	50 - 60Hz
Power (kVA) / Maximum current	40 / 100A
Weight	800kg / 1760lbs.
Probe	Magnetic, insulated
Temperature mode	Max. 240°C / 460°F
Temperature hold	Yes
Time mode	Max. 99.59min
Demagnetising	Automatic
Pivot arm	No
Error signal / Display type	Yes / Digital
Distance between support points: height	500mm
Distance between support points: width	520mm
Device dimensions	600 x 1500 x 1,300mm
Weight of the part to be heated	1000 kg / 2,200 lbs.
Max. diameter of the part to be heated	1,150mm
Min. bore of the part to be heated	100mm

Control interface, common to Fast Therm 35, 150, 300, 600 and 1000



Dimensions of the bars and other components				
Bars	A	B	C	Max. weight
70 x 70 x 850	100mm	1070mm	500mm	1000kg
80 x 80 x 850	115mm	1080mm	500mm	1000kg
100 x 100 x 850	145mm	1100mm	500mm	1000kg
150 x 150 x 850	215mm	1150mm	500mm	1000kg

Heat assisted installation



Heat-insulating gloves



Designed to resist oil and heat, the SNR heat-insulating gloves are perfectly suitable for handling oily, hot bearings.

Technical characteristics

- Made of KEVLAR®: the gloves include several fabric plies (ultra strong fibers).
- Tested and certified for EN 388 mechanical and EN 407 thermal risks, they meet extremely strict requirements:
 - Mechanical protection, EN 388: 244X
 - Thermal protection, EN 407: 4341XX

NORMS EN 388

Descriptive	Norms
Abrasion	2
Cutting	4
Tearing	4
Piercing	X

NORMS EN 407

Descriptive	Norms
Flammability	4
Contact heat	3
Convective heat	4
Radiant heat	1
S. Welded metal	X
P. Welded metal	X

Norms: from 1 (satisfactory) to 4 (optimum), X, non tested

Advantages

- Resistance to temperatures up to 350°C / 660°F,
- Easy wear: provides comfort in all your maintenance tasks,
- Very high resistance to cuts, tears and abrasion,
- Non flammable: very high contact heat and convection heat protection (indices 3 and 4),
- Non-melting, lint-free,
- Size: 10.5,
- High protection: arm + hand (glove length: 35cm / 14 inches),
- Long time resistance to high temperature.