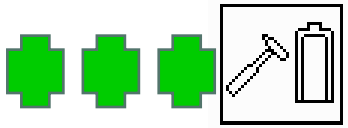
SCHAEFFLER

Inductive Heating Devices

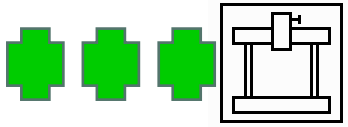
We give you new standards
for precise bearing installation

Presentado por:
Roberto Jiménez
jimenclo@schaeffler.com

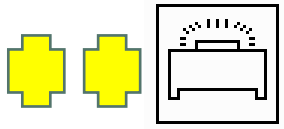
METODOS DE MONTAJE



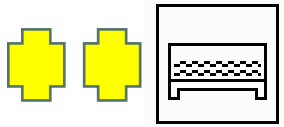
Martillo y casquillos de montaje



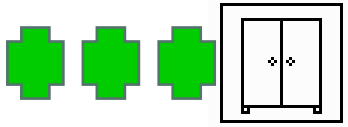
Prensa mecánica e hidráulica



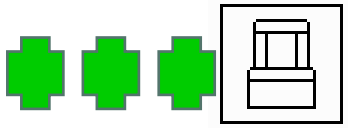
Placa calefactora



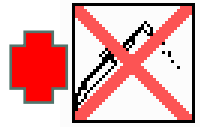
Baño de aceite



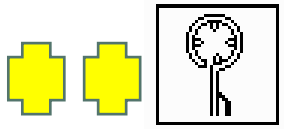
Gabinete de aire caliente *



Calentador de inducción



Soplete



Anillo quemador

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METODOS MECANICOS

NUNCA UTILICE CINCEL O DESARMADOR O BARRA DE ALUMINIO, LATÓN, COBRE O BRONCE.

SI ES NECESARIO, UTILICE UNA BARRA DE ACERO SUAVE SÓLO PARA LOS **RODAMIENTOS DE TAMAÑO PEQUEÑO**

NUNCA GOLPÉE DIRECTAMENTE SOBRE LOS AROS DEL RODAMIENTO

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METODOS MECANICOS

SIEMPRE

utilice la herramienta correcta para un buen montaje

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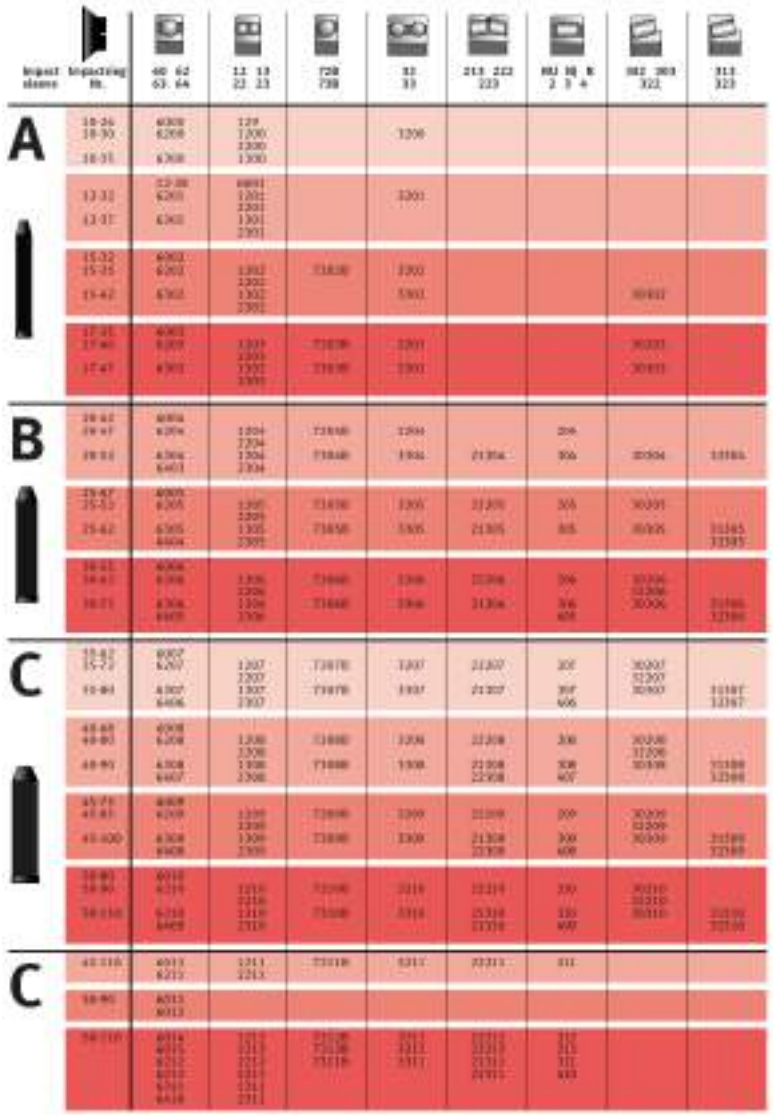
Rodamientos pequeños d = 10-50 mm

Modelo: Alu-plastic

FITTING.TOOL.ALU.SET10-50



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/ Productos / Mounting Tool Sets / IMPACT-33

IMPACT-33

Herramienta de montaje

Añadir a la comparación de productos

Añadir a la lista de favoritos

Contacta con nosotros

IMPACT-33 Herramienta de montaje: Informarse y comprar online en Schaeffler medias

METODOS TERMICOS

¡ IMPORTANTE !

La temperatura máxima de calentamiento es 110°C (248°F)

Para rodamientos con sellos o tapas: máximo de 80°C

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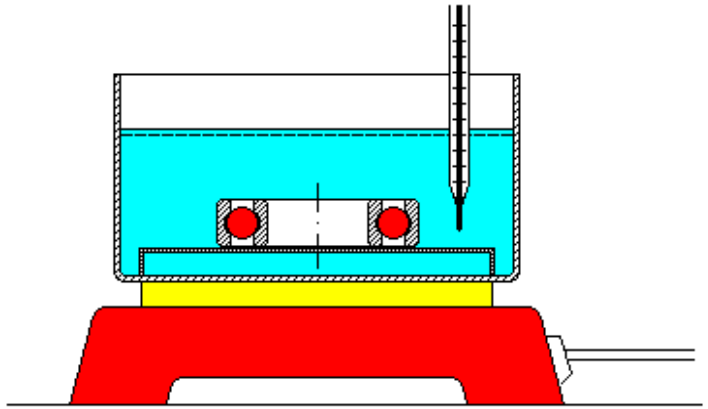
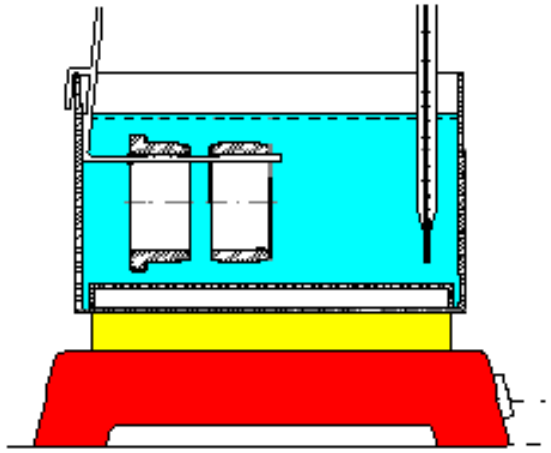
METODOS TERMICOS

Baño de Aceite



Cuide siempre que el aceite y el recipiente estén limpios.

Los rodamientos con tapas o sellos no pueden ser calentados por este método.



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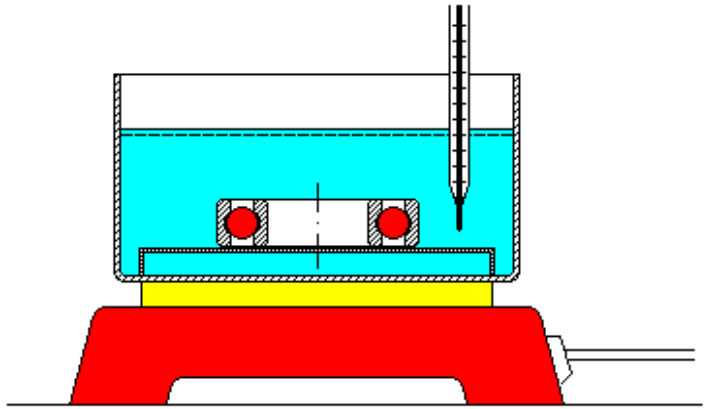
MÉTODOS TÉRMICOS

Baño de Aceite



Ventaja:

Calentamiento uniforme

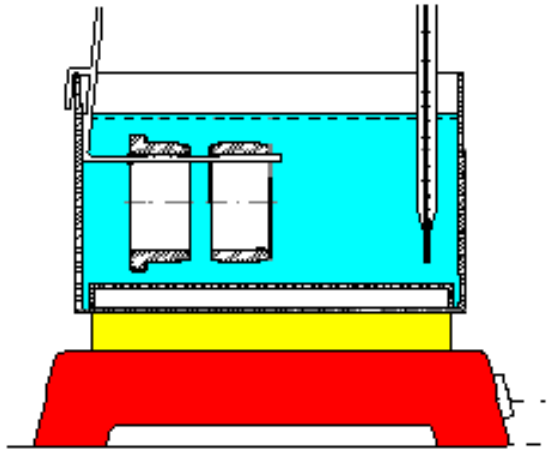
Desventajas:

Riesgo de contaminación

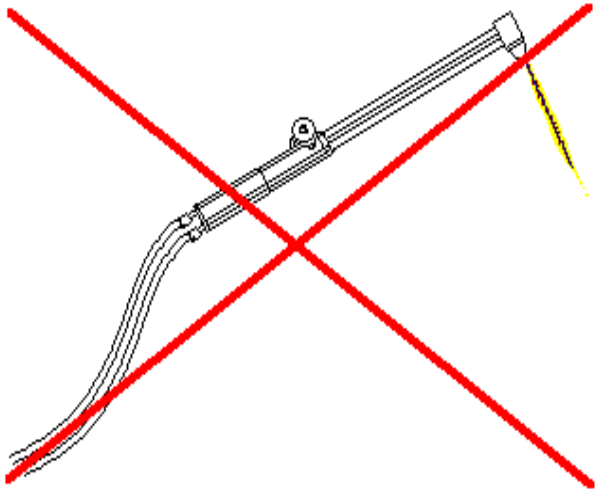
Largo tiempo de espera

Riesgo para la salud y peligro de incendio

Aceite con punto de inflamación mayor a 250° C



METODOS TERMICOS



No utilice soplete.

Ventajas:

- “Rapidéz”
- “Barato”

Desventajas:

- Sin control de temperatura
- Calentamiento irregular
- Daño del rodamiento
- Riesgo de incendio
- Peligroso para la salud

Schaeffler is

your solution provider

for smart maintenance

A thoroughly positive user experience

From installation to operation to maintenance.

One-stop shopping for all innovative and smart solutions for meeting long-term productivity needs.

In short:

We make life as easy as possible for our customers

A good example:

The use of heating devices for precise installation of bearings and other workpieces

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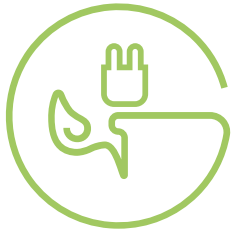
Challenges in heating bearings and other workpieces

Precision

To prevent machine downtimes due to installation errors.



Energy efficiency

To minimize energy consumption.

Safety

To avoid injuries to users and damage to workpieces.

Time/cost

To reduce maintenance costs

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Solution for heating bearings and other workpieces

Traditional heating methods, such as furnaces, oil baths, and gas burners, make it

difficult to meet these challenges.

Solution for heating bearings and other workpieces

Induction heating

- is a fast and controlled heating method.
- is an environmentally friendly alternative to traditional heating methods.
- is felt by bearing manufacturers to be the best bearing installation method.
- prevents unnecessary damage and maintains the original bearing lubrication.
- increases a bearing's life span.

Solution for heating bearings and other workpieces

Inductive heating devices from Schaeffler

- provide high-quality, fast, and controlled heating.
- ensure fast operation without contamination.
- are suitable for all sectors and industries.
- include tabletop and standalone devices from 25 kg to 1,600 kg in the current series.

Schaeffler has been supplying inductive heating devices for professional industrial use for many years.

Now we‘re stepping into the future!

Because we know that:

Induction heating is a highly individual matter.

That's why we are tackling your application requirements in an even more targeted way. And so, in addition to the new SMART series, we are also offering the brand-new …

… the BASIC version

This allows us to provide a broader portfolio than the competition. For **different customer requirements** and **for every sector.**

Which one should you buy and when?

HEATER-BASIC

HEATER-SMART

New

HEATER-BASIC

When the most important functions of induction heating are sufficient.

Cost-effective, robust, and with **smart electronics** for the best possible heating results and efficient energy consumption.

The 2 heating methods in the BASIC series:

New

HEATER-BASIC

TEMPERATURE MODE
For controlled heating to the desired temperature.

TIME MODE
For serial heating without temperature sensors, when the necessary heating time is known.

The BASIC series in use

HEATER-SMART

When you need greater control over the heating process.

With a **log function** for documentation purposes and **Delta T control** for **dual measurements.**

The 4 heating methods in the SMART series:

TEMPERATURE MODE
For controlled heating to the desired temperature.

TIME MODE
For serial heating without temperature sensors, when the necessary heating time is known.

TIME OR TEMPERATURE MODE
For controlled heating to the desired temperature or duration.

TEMPERATURE AND SPEED MODE
For controlled heating with the maximum temperature gradient per unit of time.

HEATER-SMART

New

The SMART series in use

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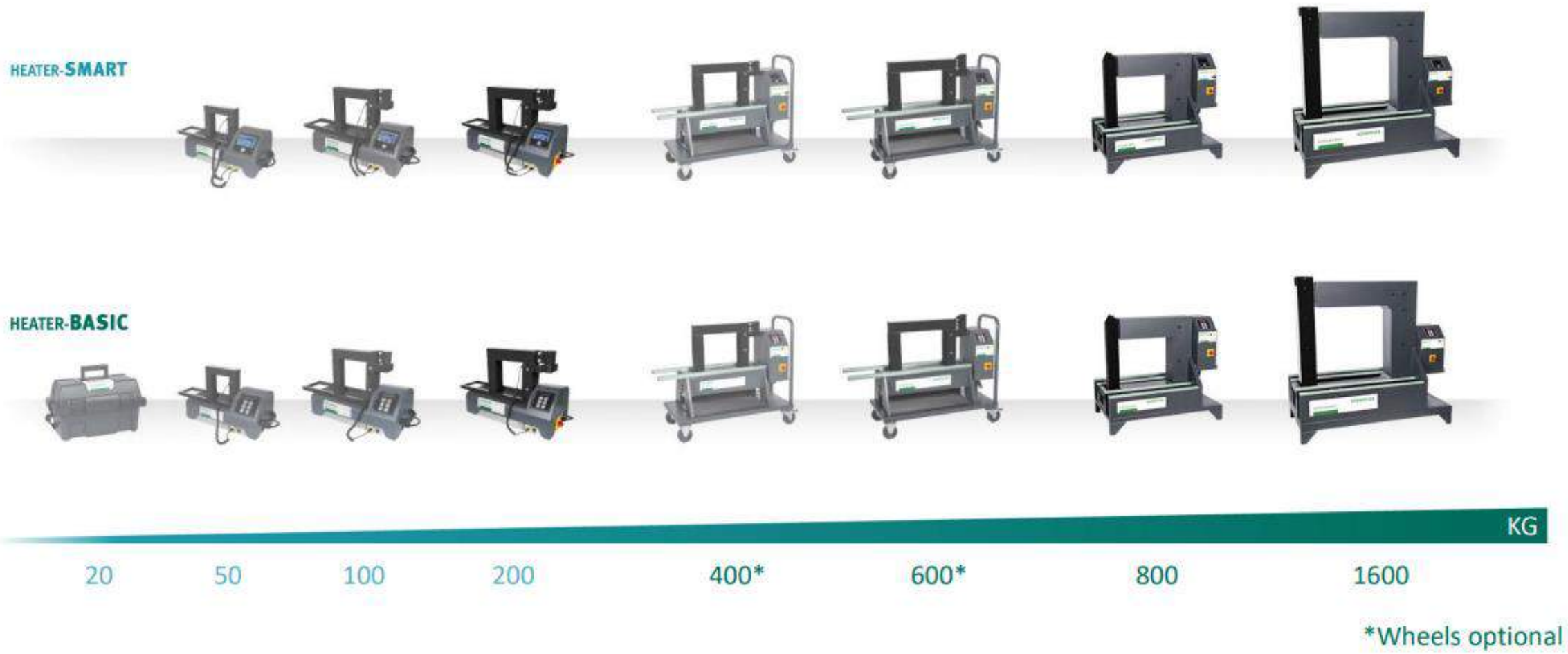
Comparison of HEATER-SMART & HEATER-BASIC

	BASIC	SMART
Temperature mode	✓	✓
Time mode	✓	✓
Time or temperature mode	✗	✓
Temperature and speed mode	✗	✓
Delta-T control	✗	✓
Log function	✗	✓

HEATER-SMART and HEATER-BASIC – available for different workpiece weights



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HEATER-BASIC – Bench-Top Devices - Variants according power supply

Designation	Voltage / Amp	kVA	Certification
HEATER20-BASIC-230V	230V/10A	2.3	CE
HEATER20-BASIC-120V-US	120V/10A	1.2	QPS
HEATER20-BASIC-240V-US	240V/5A	1.2	QPS
HEATER50-BASIC-230V	230V/13A	3	CE
HEATER50-BASIC-120V-US	120V/13A	1.5	QPS
HEATER50-BASIC-240V-US	240/13A	3.2	QPS
HEATER100-BASIC-230V	230/16A	3.7	3.7 CE
HEATER100-BASIC-120V-US	120V/15A	1.8	QPS
HEATER100-BASIC-240V-US	240V/15A	3.6	QPS
HEATER200-BASIC-400V	2 ~ 400V/20A	8	CE
HEATER200-BASIC-450V	2 ~ 450V/16A	7.2	CE
HEATER200-BASIC-500V	2 ~ 500V/16A	8	CE
HEATER200-BASIC-480V-US	2 ~ 480V/16A	7.7	QPS
HEATER200-BASIC-600V-US	2 ~ 600V/14A	8.4	QPS

Suffix „US“: QPS certified versions for US and Canada according to CSA C22.2 No. 88-19 - Industrial Heating Equipment and UL 499, 14th Ed. (Nov 7, 2014) - Electric Heating Appliances

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HEATER-BASIC – Heavy Duty Devices – Variants according to power supply

Designation	Voltage/Amp	kVA	Certification
HEATER400-BASIC-400V	2 ~ 400V/30A	12	CE
HEATER400-BASIC-450V	2 ~ 450V/25A	12	CE
HEATER400-BASIC-500V	2 ~ 500V/24A	12	CE
HEATER400-BASIC-480V-US	2 ~ 480V/24A	12	QPS
HEATER400-BASIC-600V-US	2 ~ 600V/20A	12	QPS
HEATER600-BASIC-400V	2 ~ 400V/45A	18	CE
HEATER600-BASIC-450V	2 ~ 450V/40A	18	CE
HEATER600-BASIC-500V	2 ~ 500V/36A	18	CE
HEATER600-BASIC-480V-US	2 ~ 480V/36A	18	QPS
HEATER600-BASIC-600V-US	2 ~ 600V/30A	18	QPS
HEATER800-BASIC-400V	2 ~ 400V/60A	24	CE
HEATER800-BASIC-450V	2 ~ 450V/50A	24	CE
HEATER800-BASIC-500V	2 ~ 500V/48A	24	CE
HEATER800-BASIC-480V-US	2 ~ 480V/48A	24	QPS
HEATER800-BASIC-600V-US	2 ~ 600V/40A	24	QPS
HEATER1600-BASIC-400V	2 ~ 400V/100A	40	CE
HEATER1600-BASIC-450V	2 ~ 450V/80A	40	CE
HEATER1600-BASIC-500V	2 ~ 500V/80A	40	CE
HEATER1600-BASIC-480V-US	2 ~ 480V/80A	40	QPS
HEATER1600-BASIC-600V-US	2 ~ 600V/65A	40	QPS

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HEATER-SMART – Bench-Top Devices – Variants according to power supply

Designation	Voltage / Amp	kVA	Certification
HEATER50-SMART-230V	230V/13A	3	CE
HEATER50-SMART-120V-US	120V/13A	1,5	QPS
HEATER50-SMART-240V-US	240/13A	3,2	QPS
HEATER100-SMART-230V	230/16A	3,7	CE
HEATER100-SMART-120V-US	120V/15A	1,8	QPS
HEATER100-SMART-240V-US	240V/15A	3,6	QPS
HEATER200-SMART-400V	400V/20A	8	CE
HEATER200-SMART-450V	2 ~ 450V/16A	7,2	CE
HEATER200-SMART-500V	2 ~ 500V/16A	8	CE
HEATER200-SMART-480V-US	2 ~ 480V/16A	7,7	QPS
HEATER200-SMART-600V-US	2 ~ 600V/14A	8,4	QPS

Suffix „US“: QPS certified versions for US and Canada according to CSA C22.2 No. 88-19 - Industrial Heating Equipment and UL 499, 14th Ed. (Nov 7, 2014) - Electric Heating Appliances

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HEATER-SMART – Heavy Duty Devices – Variants according to power supply

Designation	Voltage/Amp	kVA	Certification
HEATER400-SMART-400V	2 ~ 400V/30A	12	CE
HEATER400-SMART-450V	2 ~ 450V/25A	12	CE
HEATER400-SMART-500V	2 ~ 500V/24A	12	CE
HEATER400-SMART-480V-US	2 ~ 480V/24A	12	QPS
HEATER400-SMART-600V-US	2 ~ 600V/20A	12	QPS
HEATER600-SMART-400V	2 ~ 400V/45A	18	CE
HEATER600-SMART-450V	2 ~ 450V/40A	18	CE
HEATER600-SMART-500V	2 ~ 500V/36A	18	CE
HEATER600-SMART-480V-US	2 ~ 480V/36A	18	QPS
HEATER600-SMART-600V-US	2 ~ 600V/30A	18	QPS
HEATER800-SMART-400V	2 ~ 400V/60A	24	CE
HEATER800-SMART-450V	2 ~ 450V/50A	24	CE
HEATER800-SMART-500V	2 ~ 500V/48A	24	CE
HEATER800-SMART-480V-US	2 ~ 480V/48A	24	QPS
HEATER800-SMART-600V-US	2 ~ 600V/40A	24	QPS
HEATER1600-SMART-400V	2 ~ 400V/100A	40	CE
HEATER1600-SMART-450V	2 ~ 450V/80A	40	CE
HEATER1600-SMART-500V	2 ~ 500V/80A	40	CE
HEATER1600-SMART-480V-US	2 ~ 480V/80A	40	QPS
HEATER1600-SMART-600V-US	2 ~ 600V/65A	40	QPS

Scope of delivery – HEATER-BASIC + HEATER-SMART

Scope of delivery	HEATER-BASIC	HEATER-SMART
Temperature sensors	1 pc.	2 pc.
Heat protection gloves (up to 250°C)	x	x
Petroleum jelly (Can, 100 g): for lubrication of the contact surfaces to reduce wear and noise	x	x
Test certificate	x	x
Print manual in en, de, es, fr, nl (further languages as PDF in the mediathek)	x	x

Temperature Sensors – HEATER-BASIC + HEATER-SMART

Material designation	Description	Usability BASIC + SMART
HEATER.MPROBE-20-200	Magnetic temperature sensor, coiled cable, max. 240 °C	HEATER20 to HEATER200
HEATER.MPROBE-400-800	Magnetic temperature sensor, Cable length 1100 mm, max. 240 °C	HEATER400 to HEATER800
HEATER.MPROBE-1600	Magnetic temperature sensor, Cable length 2000 mm, max. 240 °C	HEATER1600

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Scope of delivery – Yokes for HEATER-BASIC + HEATER-SMART

SAP Material Description	min. Bore Diameter Workpiece	Size/Dimensions (LxWxH mm) (Product without Packaging)	Yoke Design	**Scope of delivery**	Option
HEATER20-BASIC					
HEATER50.YOKE-10	10	200x7x7	support yoke	x	
HEATER50.YOKE-15	15	200x10x10	support yoke	x	
HEATER50.YOKE-20	20	200x14x14	support yoke	x	
HEATER50.YOKE-30	30	200x20x20	support yoke	x	
HEATER50.YOKE-60	60	200x40x40	support yoke	x	
HEATER50-BASIC + HEATER50-SMART					
HEATER50.YOKE-10	10	200x7x7	support yoke	x	
HEATER50.YOKE-15	15	200x10x10	support yoke		x
HEATER50.YOKE-20	20	200x14x14	support yoke	x	
HEATER50.YOKE-30	30	200x20x20	support yoke		x
HEATER50.YOKE-60	60	200x40x40	support yoke		x
HEATER50.YOKE-65	65	200x50x40	support yoke	x	
HEATER100-BASIC + HEATER100-SMART					
HEATER100.YOKE-15	15	280x10x10	support yoke		x
HEATER100.YOKE-20	20	280x14x14	support yoke		x
HEATER100.YOKE-30	30	280x20x20	support yoke	x	
HEATER100.YOKE-45	45	280x30x30	slewing yoke		x
HEATER100.YOKE-60	60	280x40x40	slewing yoke		x
HEATER100.YOKE-68	68	280x50x50	slewing yoke	x	
HEATER100.YOKE-85	85	280x60x60	slewing yoke		

Slewing yoke

Support yoke

Scope of delivery – Yokes for HEATER-BASIC + HEATER-SMART

SAP Material Description	min. Bore Diameter Workpiece	Size/Dimensions (LxWxH mm) (Product without Packaging)	Yoke Design	**Scope of delivery**	Option
HEATER600-BASIC + HEATER600 SMART					
HEATER600.YOKE-60	60	40x40x600	slewing yoke		x
HEATER600.YOKE-85	85	60x60x600	slewing yoke		x
HEATER600.YOKE-115	115	80x80x600	slewing yoke		x
HEATER600.YOKE-130	130	90x90x600	slewing yoke	x	
HEATER800-BASIC + HEATER800 SMART					
HEATER800.YOKE-60	60	40x40x725	vertical yoke		x
HEATER800.YOKE-72	72	50x50x725	Vertikal yoke		x
HEATER800.YOKE-85	85	60x60x725	vertical yoke		x
HEATER800.YOKE-115	115	80x80x725	vertical yoke		x
HEATER800.YOKE-145	145	100x100x725	vertical yoke	x	
HEATER1600-BASIC + HEATER1600 SMART					
HEATER1600.YOKE-85	85	60x60x1220	Vertikal yoke		x
HEATER1600.YOKE-115	115	80x80x1140	vertical yoke		x
HEATER1600.YOKE-145	145	100x100x1140	vertical yoke		x
HEATER1600.YOKE-215	215	150x150x1140	vertical yoke	x	

Slewing yoke

Support yoke

Vertikal yoke

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The benefits of the new HEATER series

SKF	KG	SCHAEFFLER	KG
TIH 030m	40	HEATER50-BASIC….	50
TIH 100M	100	HEATER	
TIH 220m	300	HEATER400-BASIC-…	400

The benefits of the new HEATER series

Quality, safety, and efficiency:

- Better selection, depending on the requirements and customer request: **BASIC or SMART**
- Uniform, controlled heating for a consistently **high quality of installation.**
- **Safety** for people and machines.
- **Lower operating costs** thanks to energy-efficient heating and short installation times.
- **Fast and safe heating** while simultaneously protecting the workpiece.
- Fast and safe heating even for **large workpieces** up to 1,600 kg.

Scope of delivery – Yokes for HEATER-BASIC + HEATER-SMART

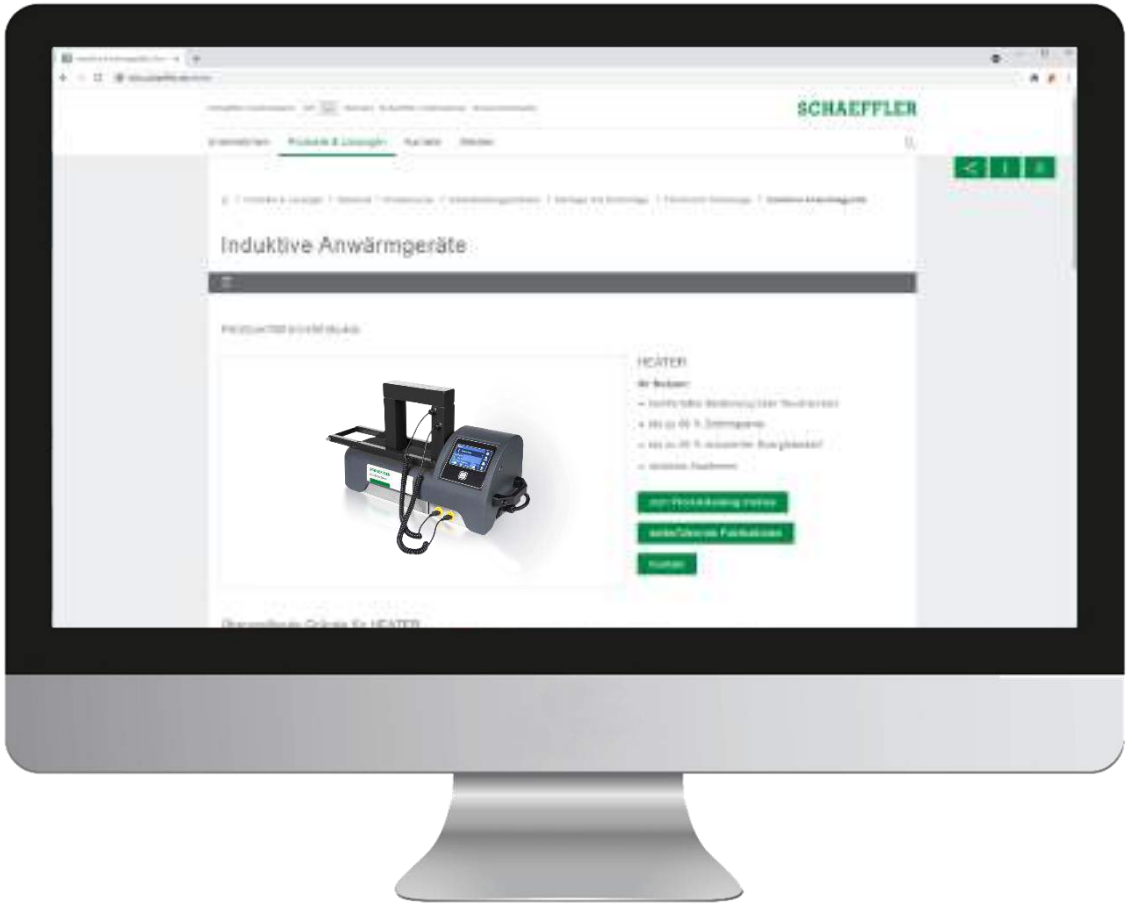
SAP Material Description	min. Bore Diameter Workpiece	Size/Dimensions (LxWxH mm) (Product without Packaging)	Yoke Design	**Scope of delivery**	Option
HEATER150-BASIC + HEATER150-SMART HEATER200-BASIC + HEATER200-SMART					
HEATER200.YOKE-15	15	350x10x10	support yoke		x
HEATER200.YOKE-20	20	350x14x14	support yoke		x
HEATER200.YOKE-30	30	350x20x20	support yoke		x
HEATER200.YOKE-45	45	350x30x30	slewing yoke	x	
HEATER200.YOKE-60	60	350x40x40	slewing yoke		x
HEATER200.YOKE-68	68	350x50x50	slewing yoke		x
HEATER200.YOKE-85	85	350x60x60	slewing yoke		x
HEATER200.YOKE-100	100	350x70x70	slewing yoke		x
HEATER200.YOKE-110	110	350x70x80	slewing yoke	x	
HEATER400-BASIC + HEATER400 SMART					
HEATER400.YOKE-30	30	20x20x500	slewing yoke		x
HEATER400.YOKE-45	45	30x30x500	slewing yoke		x
HEATER400.YOKE-60	60	40x40x500	slewing yoke		x
HEATER400.YOKE-85	85	60x60x500	slewing yoke		x
HEATER400.YOKE-115	115	80x80x500	slewing yoke	x	

Slewing yoke

Support yoke

Further information can be found on our product page.

Induction heating devices – HEATER | Schaeffler medias



When’s your first step into the **future** of

induction heating?

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Induction systems with medium frequency technology

Rely on us and our innovative solution for thermal mounting and dismounting of metal components.

Schaeffler is your

all-in-one solution provider

for production and maintenance applications

The challenge

The solution

The environmentally friendly and innovative solution

Induction heaters with medium frequency technology are an innovative solution

Because: they can be used quickly and easily and heat more energy-efficiently than conventional methods.

Induction heaters with medium frequency technology

One device, multiple application possibilities

- Thermal mounting and dismounting is possible
- Preheating of components
- Also suitable for large and heavy work pieces
- Mobile, easy to move on site

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Induction heaters with medium frequency technology – our customer sectors

Rail

Wind

Paper

Drive Technology

Aerospace

Raw Material Extraction and Processing

Cement

Steel

Application examples

Gear wheels

Bearings

Bearings in housings

Bearing inner rings

Couplings

...and many other ferromagnetic components, e.g. steel, cast iron, other materials upon request.

Medium frequency induction heaters consist of:

Generator

Flexible Inductor

Fixed inductor

MFT induction heaters consist of a generator combined with a flexible or fixed inductor.

Flexible inductors

Flexible inductors offer excellent adaptability to components of different sizes and geometries.

Special features

- can be placed either in the bore or on the outside of the workpiece
- depending on the application, up to 40 m long, max. 180 C° and 300 C°
- unique flexibility to adapt to different workpiece shapes and dimensions
- also suitable for particularly large components such as bearings, gear wheels, housings etc.

Fixed inductors

Fixed inductors are more suitable for serial production, where short set-up times and high process reliability are important.

Special features

- Application-specific manufacture
- can be placed on the work piece easily and quickly
- particularly suitable for serial production, mounting and dismounting

Schaeffler has been the leading supplier of
induction heaters for professional industrial use for years.

**Our induction heaters with
medium frequency technology are the solution
for both mounting and dismounting.**

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Two models

MF-GENERATOR 2.5

compact design with 3.5” display

10 kW

22 kW

44 kW

MF-GENERATOR 3.0

advanced functions and 7.0” display

10 kW

22 kW

44 kW

MF-GENERATOR2.5

MF-GENERATOR 2.5

When the most important functions are sufficient

The fast, environmentally friendly and reliable induction heater for mounting and dismounting.

MF-GENERATOR2.5

What makes it different:

- compact design
- 3,5'' touch screen
- user-friendly operation with touch screen
- smart electronics for optimum operating frequency
- adjustable output control
- dual temperature measurement with ΔT monitoring
- choice between fixed and flexible inductors

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MF-GENERATOR2.5 in action

MF-GENERATOR3.0

MF-GENERATOR 3.0

When more control is needed.

The fast, environmentally friendly and reliable induction heater for mounting and dismounting.

MF-GENERATOR3.0

Additional benefits compared to the 2.5 model

- larger 7“ touch screen
- heating possible according to pre-set temperature/time curve
- heating process is displayed with clear graphic
- creation of a work protocol as proof
- log function for data storage and export via USB port
- up to 8 generators can work together (leader – follower) to heat larger parts

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MF-GENERATOR 3.0 in action

Simultaneous heating of bearing inner ring and outer ring with 2 generators

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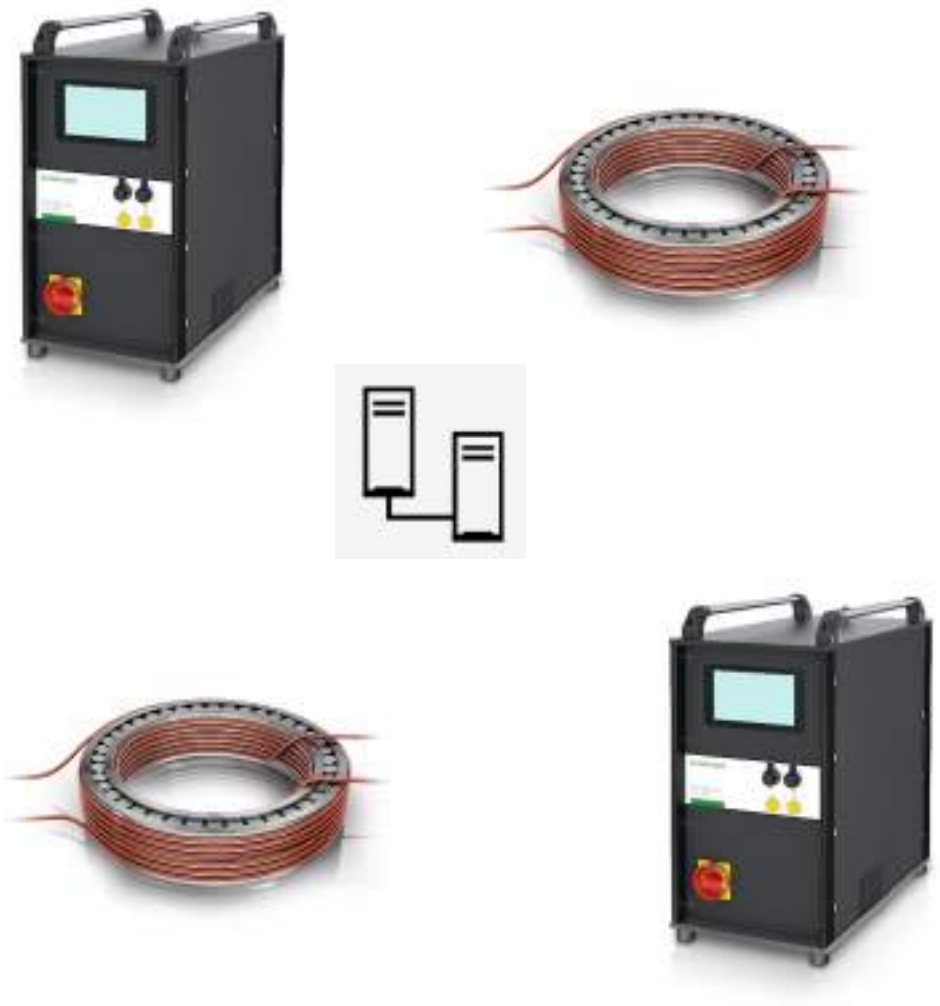
Safety through controlled heating

The two generators communicate with each other.

A max. permissible temperature difference (Delta-T) between the inner ring and outer ring is set for the heating process.

Depending on the allowed temperature difference, the generators regulate the output during the heating process.

The clearance in the bearing is maintained by the controlled heating process. Consequently, damage to the bearing due to the heating process can be ruled out.

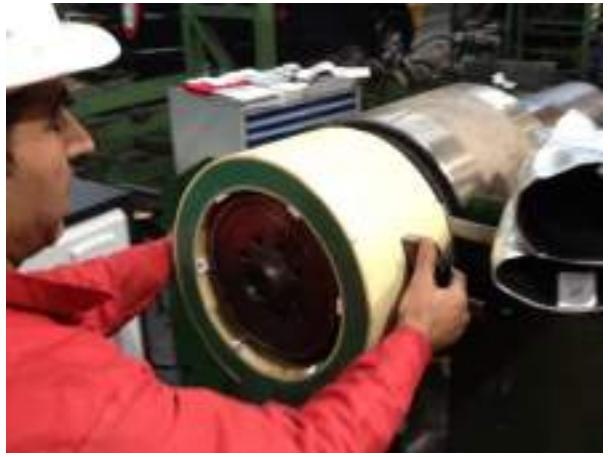


A consistently positive user experience

The configuration of an induction unit depends on the specific application. If required, we also design and manufacture fixed inductors custom-made to the application.

In short:

We have the solution for customized demands.



Induction heaters with medium frequency technology

The more sustainable solution

Energy-efficient
thanks to high efficiency

Safety
for the work piece due to controlled heating

Short heating times

Reuse
of parts that would otherwise be scrapped

Improved machine availability and productivity

Longer bearing life

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Advantages of the new induction heaters with medium frequency technology

More opportunities

Mounting and dismounting also for large work pieces

More flexibility

By using flexible or fixed inductors

More sustainability

Through energy efficiency

More mobility

The MF-GENERATOR can be taken to the workpiece, not the other way round

More individuality

The best solution for every application

More efficiency

Through lower costs and higher productivity

More safety

For both man and machine

Application examples

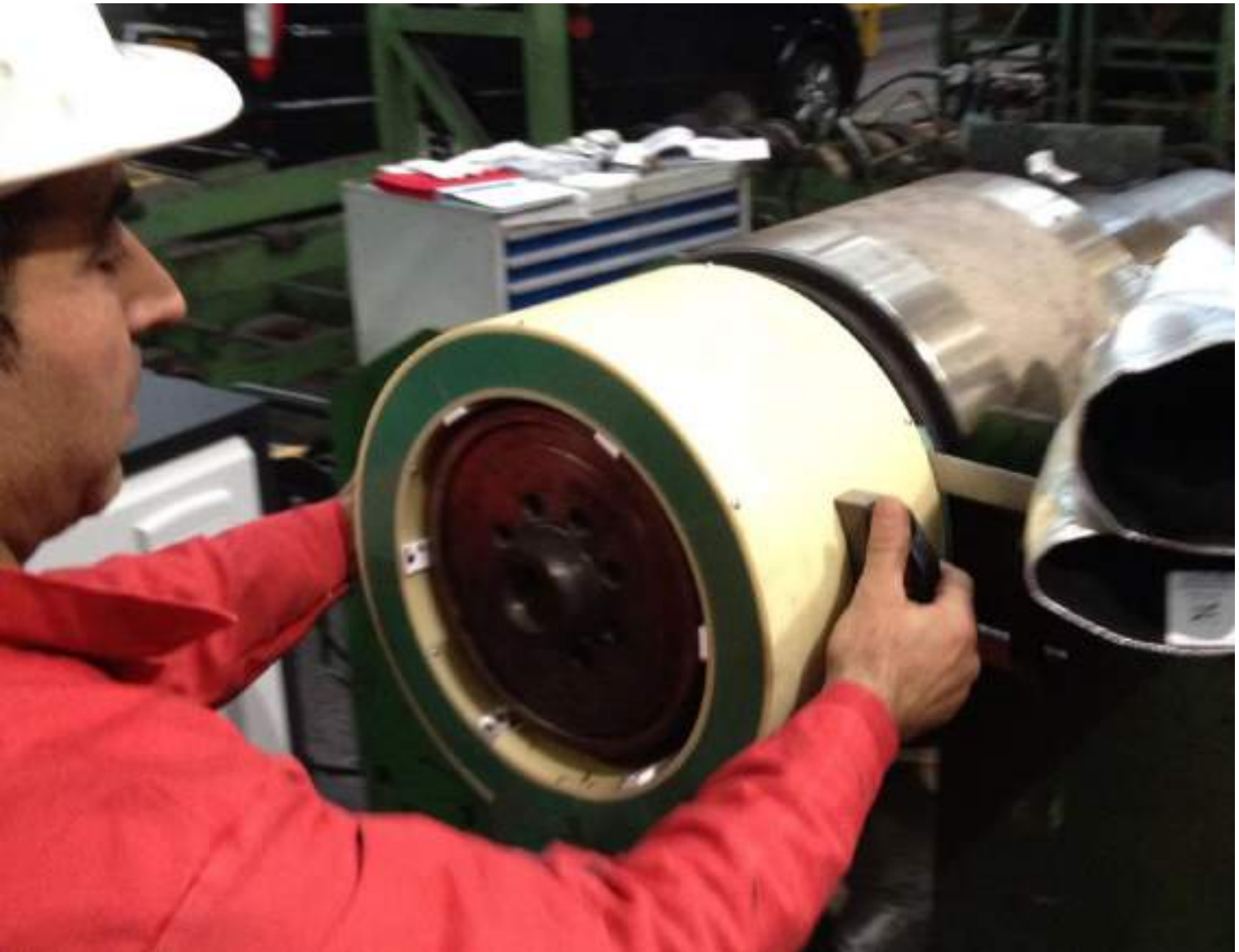
Steel

Dismounting bearing inner rings with a 22 kW generator and a flexible inductor:

Time needed: 8 minutes

Temperature: 120°C

Application examples



Steel

Serial dismounting of bearing inner rings with a 22 kw GENERATOR and fixed inductor:

Time needed : 3 minutes

Temperature: 120°C

Application examples

DRIVE TECHNOLOGY

Mounting of a gear wheel with MF-GENERATOR2.5–44 kW and flexible inductor.

Winding distribution over the circumference and face of the gear (± 2500 kg).

Time needed: 30 minutes
Temperature: 180°C

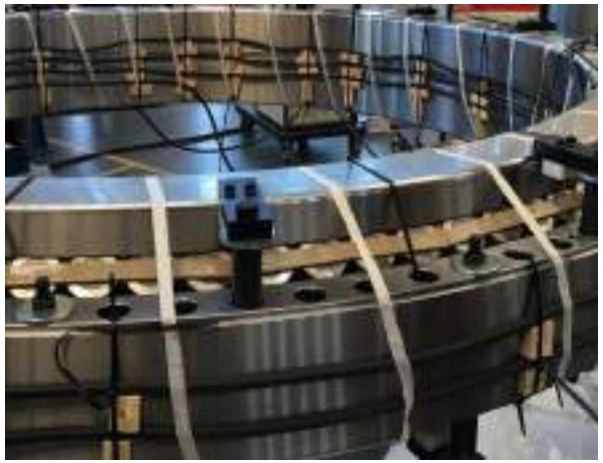
Application examples

Drive Technoloy

Bearing seat heating for mounting the bearing in a cable wheel with a MF GENERATOR 22 kW and flexible inductor:

Time needed: 4 minutes
Temperature: 120°C

Application examples



Wind

Mounting a main bearing:

Step 1: heating the bearing (6800 kg) with 2 GENERATOR3.0-44KW generators simultaneously using flexible inductors:

- 1 generator heats the inner ring
- 1 generator heats the outer ring

Time needed: 120 minutes
Temperature: 110°C

Step 2: heating the bearing seat (11.000 kg) to mount the bearing in the housing:

Time needed: 60 minutes
Temperature: 80°C

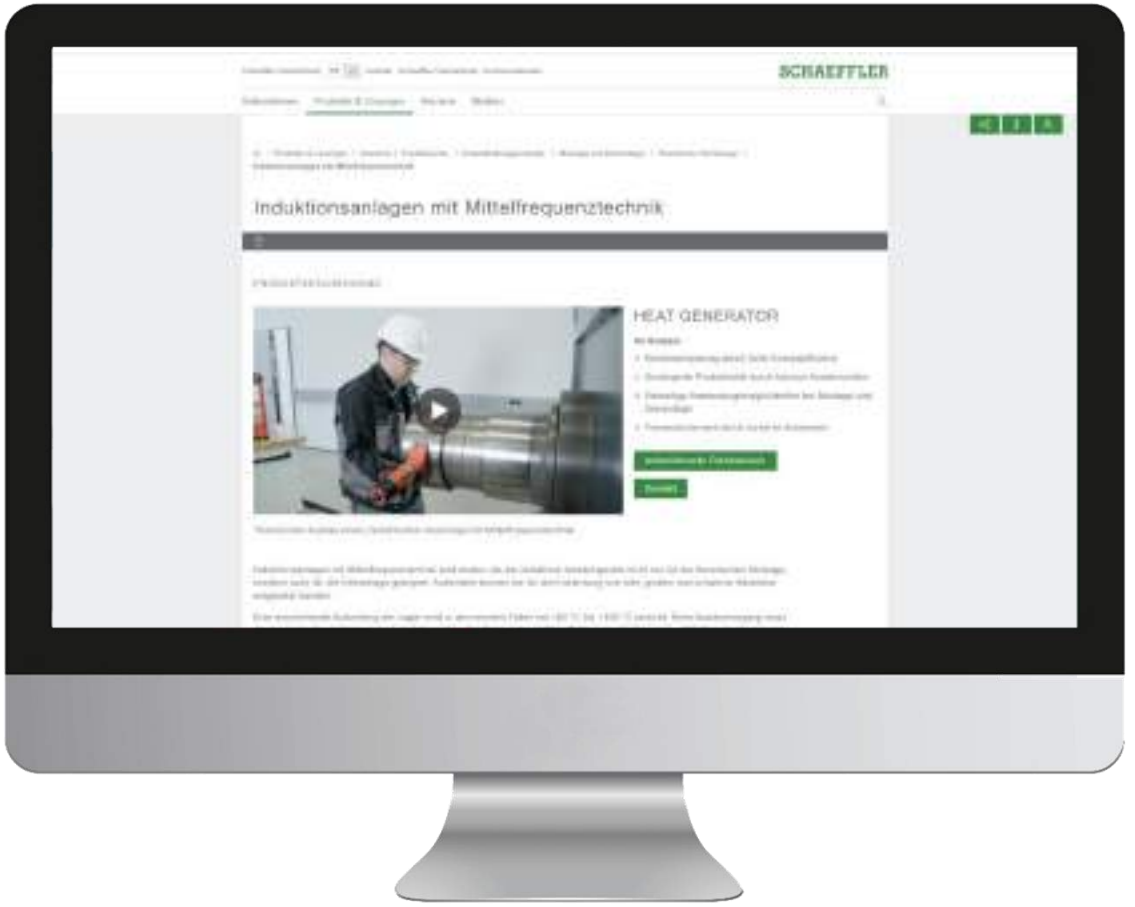
Application examples

Laser Cladding

Preheating of components for laser coating with a MF GENERATOR 22 kW and a flexible inductor

All further information can be found on our product page.

» Link to product page



When to use **the innovative solutions** for mounting and dismounting?

MF-Generator 3.0-3.5 kW

Small, mobile & powerful

- compact dimensions, low weight for mobile use
- simple power supply (230V/16A)
- 4.3‘‘ touch screen
- usable in hard-to-reach mounting locations or where space is limited
- ideal for small and medium-sized work pieces
- economical, low-cost solution also for smaller workshops
- use with flexible inductors only (available length: 5m, 7,5m, 10 m)
- energy-efficient and controlled heating

Link to MF Portfolio 3.5 to 44 kW

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Extactores mecánicos

	DESIGNCION ANTERIOR (HASTA TERMINARSE STOCK)		DESIGNCION NUEVA	
Ex de 3 brazos	PULLER-3ARM160	Extractor de 3 brazos, ancho máximo de 160 mm	MSP-2/3-120	Mechanical two-/three-arm puller. Wmax 120 mm
	PULLER-3ARM230	Extractor de 3 brazos, ancho máximo de 230 mm	MSP-2/3-180	Mechanical two-/three-arm puller. Wmax 180 mm
	PULLER-3ARM310	Extractor de 3 brazos, ancho máximo de 310 mm	MSP-2/3-270	Mechanical two-/three-arm puller. Wmax 270 mm
	PULLER-3ARM430	Extractor de 3 brazos, ancho máximo de 430 mm	MSP-2/3-300	Mechanical two-/three-arm puller. Wmax 300 mm
	PULLER-3ARM660	Extractor de 3 brazos, ancho máximo de 660 mm	MSP-2/3-380	Mechanical two-/three-arm puller. Wmax 380 mm
			MSP-2/3-440	Mechanical two-/three-arm puller. Wmax 440 mm
Ex de 2 brazos	PULLER-2ARM90	Extractor de 2 brazos, ancho máximo de 90 mm		
	PULLER-2ARM130	Extractor de 2 brazos, ancho máximo de 130 mm		
	PULLER-2ARM160	Extractor de 2 brazos, ancho máximo de 160 mm		
	PULLER-2ARM200	Extractor de 2 brazos, ancho máximo de 200 mm		
	PULLER-2ARM250	Extractor de 2 brazos, ancho máximo de 250 mm		
	PULLER-2ARM350	Extractor de 2 brazos, ancho máximo de 350 mm		

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• Hydraulic dismounting where higher extraction forces are required		
021723630-0000-10	PULLER-HYD40	hydraulic three-arm puller, 4 ton
021939918-0000-10	PULLER-HYD60	hydraulic three-arm puller, 6 ton
021939942-0000-10	PULLER-HYD60-XL	hydraulic three-arm puller with long jaws, 6 ton
021939950-0000-10	PULLER-HYD80	hydraulic three-arm puller, 8 ton
021939985-0000-10	PULLER-HYD80-XL	hydraulic three-arm puller with long jaws, 8 ton
019258402-0000-10	PULLER-HYD100	hydraulic three-arm puller, 10 ton
019258437-0000-10	PULLER-HYD100-XL	hydraulic three-arm puller with long jaws, 10 ton
019258445-0000-10	PULLER-HYD120	hydraulic three-arm puller, 12 ton
019258470-0000-10	PULLER-HYD120-XL	hydraulic three-arm puller with long jaws, 12 ton
019258526-0000-10	PULLER-HYD200	hydraulic three-arm puller, 20 ton

HSP-43	Hydraulic two-/three-arm puller. self-centering with integrated hand pump-cylinder unit 4 tons
HSP-63	Hydraulic two-/three-arm puller. self-centering with integrated hand pump-cylinder unit 6 tons
HSP-83	Hydraulic two-/three-arm puller. self-centering with integrated hand pump-cylinder unit 8 tons
HSP-123	Hydraulic two-/three-arm puller. self-centering with integrated hand pump-cylinder unit 12 tons
HSP-203	Hydraulic two-/three-arm puller. self-centering with integrated hand pump-cylinder unit 20 tons

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019258445-0000-10	PULLER-HYD120	hydraulic three-arm puller, 12 ton
019258470-0000-10	PULLER-HYD120-XL	hydraulic three-arm puller with long jaws, 12 ton
019258526-0000-10	PULLER-HYD200	hydraulic three-arm puller, 20 ton
019258550-0000-10	PULLER-HYD200-XL	hydraulic three-arm puller with long jaws, 20 ton
019258569-0000-10	PULLER-HYD250	hydraulic three-arm puller, 25 ton
019258593-0000-10	PULLER-HYD250-XL	hydraulic three-arm puller with long jaws, 25 ton
019258607-0000-10	PULLER-HYD300	hydraulic three-arm puller, 30 ton
021944342-0000-10	PULLER-HYD300-XL	hydraulic three-arm puller with long jaws, 30 ton
019258623-0000-10	PULLER-HYD400	hydraulic three-arm puller with separate pump, 40 ton
019258658-0000-10	PULLER-HYD400-XL	hydraulic three-arm puller with long jaws, 40 ton

HSP-123	pump-cylinder unit 12 tons
HSP-203	Hydraulic two-/three-arm puller. self-centering with integrated hand pump-cylinder unit 20 tons
HSP-303	Hydraulic two-/three-arm puller. self-centering with integrated hand pump-cylinder unit 30 tons
Fichas:	HSP-303 Hydraulic two-/three-arm puller: inform yourself & order online on

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Products

ACC-SET-HP123-HSP123-HXP123
Bearing splitter set

CAD

ACC-SET-HP43-HSP43
Bearing splitter set

CAD

ACC-SET-HP63-HSP63
Bearing splitter set

CAD

ACC-SET-HP83-HSP83-HXP83
Bearing splitter set

CAD

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ACC-SET-HP123-HSP123-HXP123

Bearing splitter set

BETEX Puller for gentle dismounting of complete bearings, bearing inner rings and other components so that the pulling force is not transmitted via moving parts. The part to be dismounted must be well accessible radial.

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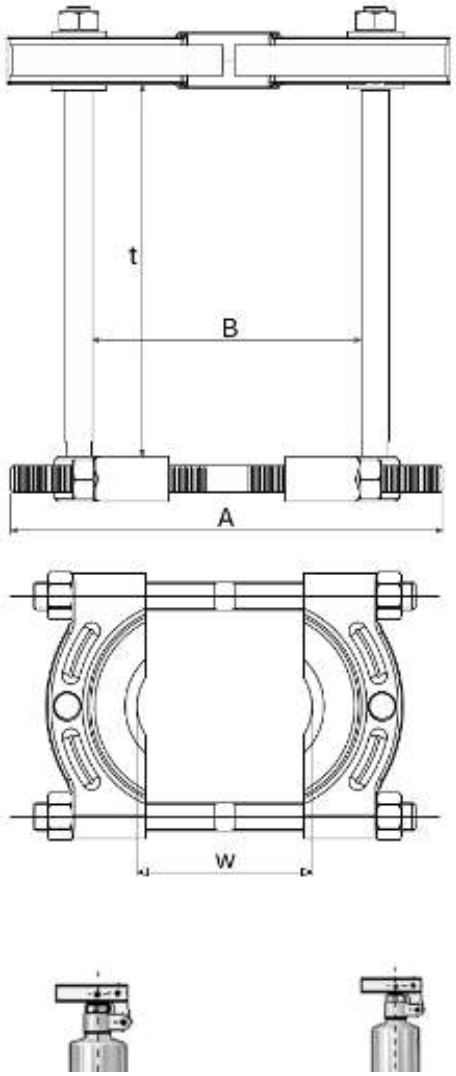

Display units

(•) Metric ( ) Imperial

Technical data

w_{min}	40 mm	Grip width, min.
w_{max}	225 mm	Grip width, max.
t_{max}	298 mm	Grip depth, max.
A	360 mm	
B_{min}	140 mm	
B_{max}	310 mm	
F_P	110 kN	max. permissible pulling force
≈m	21 kg	Weight

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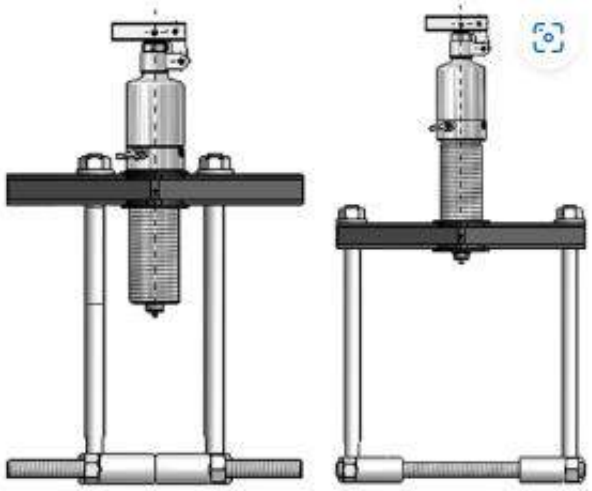

Additional information

with the pump/cylinder unit of an HP/HSP/HXP puller	Usability
1 puller bridge, 2 sets of connection rods, 2 puller plates, carrying case	included in delivery

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Gracias!

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