



USER MANUAL

Induction heaters BETEX®

Induktionsanwärmer | Chauffage à induction | Calentador de inducción | Inductieverhitter

Standard models BETEX®		TURBO models BETEX®	
22 ELD <i>i</i>	SUPER GIGANT	24 RLD <i>i</i>	SUPER GIGANT
22 ESD <i>i</i>		24 RSD <i>i</i>	
38 ESD		40 RSD(m)	
38 ZFD		40 RMD	



1. User manual

2. Gebrauchsanleitung

3. Manuel del usuario

4. Manual de l' utilisateur

5. Gebruiksaanwijzing

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NL

READ THE MANUAL AND SAFETY INSTRUCTIONS

Check all parts for possible transport damage.
If any damage is apparent, inform carrier immediately.

GEBRAUCHSANLEITUNG UND SICHERHEITSHINWEISE BITTE SORGFÄLTIG LESEN

Bitte kontrollieren Sie den Inhalt auf Transportschäden. Falls Sie Schäden entdecken, informieren Sie bitte umgehend das Transportunternehmen.

LEA EL MANUAL Y LAS INSTRUCCIONES DE SEGURIDAD

Compruebe todas las piezas por si hubieran sido dañadas durante el transporte. Si hay daños, informe al transportista inmediatamente.

VEUILLEZ LIRE LE MANUEL EN CONSIGNES DE SÉCURITÉ

Vérifier le bon état de tous les éléments afin de s'assurer qu'ils ne sont pas endommagés.
En cas de dommage, veuillez informer immédiatement à réception le transporteur.

LEES DE GEBRUIKSAANWIJZING EN VEILIGHEIDSVOORSCHRIFTEN

Controleer alle onderdelen op mogelijke transport schade. Schade dient direct aan de transporteur gemeld te worden.

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1. Safety Instructions

WARNING! = potential risk of serious personal injury
CAUTION! = danger of damaging the heater or work piece

WARNING!

- Do not use the induction heater if supply cord is damaged. The cord must be replaced by the manufacturer, its agent or similarly qualified persons.
- Induction heaters generate a magnetic induction field, which may affect or impair medical devices such as pacemakers or hearing aids, resulting in a high risk of serious bodily harm. Do not operate, or be within a suggested minimum distance of 5m (16ft) of the machine while wearing such devices.
- Hot work pieces may burn. Use supplied protective gloves when handling such work pieces (suitable up to 150°C (302°F)).
- Do not operate an Induction heater in areas where there is a risk of an explosion.
- Proper maintenance and handling practices are critical. Failure to follow user manual can result in equipment failure, creating a risk of serious bodily harm.

CAUTION!

- Sensitive electronic equipment (e.g. portable telephones, computers, watches, etc.) may be affected by the magnetic field and should not be used within the vicinity of the heater.

Safety precautions

- The user should have an appreciation of the contents of this manual, and be familiar with safe workshop practices.
- Follow the User Manual at all times.
- Ensure that the machine operates at the correct supply voltage. If the heater has been supplied without a plug connection to the power supply should only be made by a suitably qualified person.
- Do not use or store the heater in humid environments. Bega Induction heaters are designed for indoor use only.
- On mobile models, always apply brake when in a stationary position.
- If the heater is equipped with sliding horizontal supports, always secure these with the designated safety pin, either in the "in" or "out" position.
- Use proper handling equipment, appropriate for the weight of the work piece or yoke.
- Never support parts with a metal cable or have anything metallic hanging in the proximity of the magnetic field. Extremely high currents can flow through the cable, causing the cable to heat up.
- Do not hold metal objects near the yokes and poles.
- While heating keep at least 1 metre (3,3ft) distance from the heater.
- Never remove the yokes during the heating cycle.
- Do not modify the heater and do not use self-fabricated yokes.
- Always check that the yoke is correctly adjusted to the poles otherwise excessive vibration may occur.
- Only switch the machine on when the yoke is positioned correctly – on models equipped with a swing arm (or swivelling yoke), the arm should always be closed.

Note: Since our products are subject to continuous improvement, we reserve the right to make changes.

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Safety features

- The heater will switch off automatically if the ambient temperature exceeds 70°C (158°F).
 - When using the temperature mode, the heater will switch off automatically if the rate of temperature rise is too low.
 - On models equipped with a swing arm, the arm can be fixed in the open position.
- An induction heater works due a magnetic field. In the table below are there are some measured values of the flux density in milliTesla (mT). These values are measured in different radii and heights around the heater. These measurements can be used as a guide in conforming to local regulations regarding the maximum time exposure of people to magnetic fields. The values below are only valid for this combination of bearing type and yoke bar. Different configurations may give different values. Due to the large variety of bearing types in combination with the different yoke bars it is impossible for us to give every possible value.

Heater type	Radius/height	h = 250 mm (10in)	h = 500 mm (20in)	h = 750 mm (30in)	h =1000 mm 40in)	h = 1250 mm (49in)
Model 22ELDi Yoke bar 40 Bearing 6215	R =250 mm	0,785 mT	0,110 mT	0 mT	0 mT	0 mT
	R =500 mm	0,054 mT	0,012 mT	0 mT	0 mT	0 mT
	R =750 mm	0 mT	0 mT	0 mT	0 mT	0 mT
	R =1000 mm	0 mT	0 mT	0 mT	0 mT	0 mT
Model 22ESDi Yoke bar 60 Bearing 6219	R =250 mm	2,950 mT	1,070 mT	0,120 mT	0 mT	0 mT
	R =500 mm	0,310 mT	0,170 mT	0,050 mT	0 mT	0 mT
	R =750 mm	0,500 mT	0,250 mT	0 mT	0 mT	0 mT
	R =1000 mm	00 mT	00 mT	0 mT	0 mT	0 mT
Model 38ESD Yoke bar 70 Bearing 6222	R =250 mm	6,800 mT	4,310 mT	0,590 mT	0,110 mT	0 mT
	R =500 mm	0,935 mT	0,696 mT	0,230 mT	0,042 mT	0 mT
	R =750 mm	0,204 mT	0,152 mT	0,059 mT	0 mT	0 mT
	R =1000 mm	0,034 mT	0,023 mT	0,003 mT	0 mT	0 mT
	R =1250 mm	0 mT	0 mT	0 mT	0 mT	0 mT

Heater type	Radius/height*	h = 900 mm (10in)	h=1300 mm (51in)	h=1500 mm (59in)	h =2000 mm (79in)
Model 38ZFD Yoke bar 80 Bearing 229750/03	R =250 mm	5,800 mT	0,750 mT	0,253 mT	0,010 mT
	R =500 mm	1,070 mT	0,320 mT	0,134 mT	0 mT
	R =750 mm	0,345 mT	0,141 mT	0,068 mT	0 mT
	R =1000 mm	0,121 mT	0,054 mT	0,020 mT	0 mT
	R =1250 mm	0,030 mT	0,006 mT	0 mT	0 mT
Model SUPER Yoke bar 100 Bearing RH24B	R =250 mm	6,400 mT	4,100 mT	1,460 mT	0,150 mT
	R =500 mm	1,308 mT	1,050 mT	0,530 mT	0,105 mT
	R =750 mm	0,350 mT	0,298 mT	0,186 mT	0,037 mT
	R =1000 mm	0,116 mT	0,093 mT	0,063 mT	0,010 mT
	R =1250 mm	0,030 mT	0,017 mT	0,010 mT	0 mT
Model GIANT Yoke bar 150 Bearing 17.52926	R =500 mm	1,980 mT	1,375 mT	1,020 mT	0,340 mT
	R =750 mm	0,530 mT	0,450 mT	0,370 mT	0,170 mT
	R =1000 mm	0,180 mT	0,180 mT	0,160 mT	0,080 mT
	R =1250 mm	0,070 mT	0,030 mT	0,030 mT	0,030 mT
	R =1500 mm	0,020 mT	0,020 mT	0,010 mT	0 mT
R =1750 mm	0 mT	0 mT	0 mT	0 mT	

Heights are measured from the bottom of the heater. To determine where the field is exactly in relation to the floor, the distance from the bottom of the heater to the floor should be added on to the values mentioned in the table. (e.g. the height of a workbench).

WARNING!

- We advise a safety distance of at least 1 meter for people.

CAUTION!The machine works through an induction field. Bear in mind that this can influence electronic equipment, e.g. watches, magnetic charts etc.

2. Introduction

2.1 Application

Bega Induction Heaters are designed to heat bearings, bushings, gear wheels, couplings or other metallic work pieces which form a closed electrical loop. This will facilitate mounting where an interference fit is required.

The heaters are designed to heat the work piece up to a maximum temperature of 240°C (464°F), with the exception of the 22 ELD series models where the temperature is limited to a maximum of 150°C (302°F) and special custom-designed heaters where the maximum temperature can be as high as 480°C (896°F).

Bega Induction heaters can be used on continuous bases. There is however a limitation; do not operate heater at a temperature of 240°C (464°F) or more for more than half an hour. By heating with the time function this has to be checked with an external temperature meter.

Caution:

- Bearings generally should only be heated up to a maximum temperature of 120°C (248°F).
- Precision bearings should only be heated up to a maximum temperature of 70°C (158°F). Heating to higher temperatures may affect the metallurgical structure and dimensional stability resulting in premature bearing failure or loss of bearing performance.
- Do not use induction heaters for bearings or work pieces, which are outside the minimum, or maximum dimensions as specified in the technical data (Appendix 1).
- Do not switch off the heater with the main switch while heating cycle is running

2.2 Operating conditions

Designed to be used in an industrial environment with an ambient temperature of 0°C to 50°C (32°F to 122°F), and an atmospheric humidity of between 5% to 90%. The induction heater is meant for indoor use only.

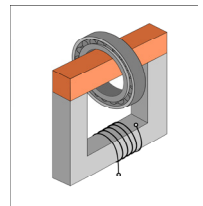
2.3 Principle of operation

The heater works in the same way as a transformer. The primary coil is the heater and the secondary coil is the work piece.

When the heater is switched on, a high voltage, low alternating current passes through the numerous windings of the primary coil. This induces a low voltage, high current in the work piece acting as the secondary coil. This high current results in the heating up of the work piece.

The current is only flowing in the work piece, hence it is only this which starts to heat up. The work piece is automatically demagnetised at the end of each heating cycle.

In the Turbo models, the coil is located in the round pole. When the job is placed around this pole, the magnetic field does not need to be transported, which results in a shorter heating cycle.



3. Installation

- Remove packing material and place the induction heater on a non-ferrous, stable, flat surface. The box will normally contain the heater, a yoke or a set of yokes, the temperature probe, a pair of heat-resistant gloves and a small container of lubricant.
- Check the supply voltage and current meet the specifications on the type plate to be found on the back of the machine.
- As there are a large number of plug types, not every Bega induction heater is provided with a plug. When the heater is not provided with a plug, a suitable plug has to be affixed by a qualified electrician.
- The wires should be connected as follows, there are 3 options depending on what type of cable the heater is supplied with:

230V/110V 1 phase Heaters

Brown	Phase
Blue	Neutral
Green/yellow	Ground

Black	Phase
White	Neutral
Green	Ground

Black "1"	Neutral
Black "2"	Phase
Green/yellow	Ground

400, 450, 500V 2 phase Heaters

Brown	Phase
Blue	Phase
Green/yellow	Ground






Brown	Phase
Black	Phase
Green/yellow	Ground

Black "1"	Phase
Black "2"	Phase
Green/yellow	Ground

- Make sure that the supply cable cannot come into contact with the bearing that is to be heated. Insert the plug into a shockproof wall socket.
- Use the main switch to switch on the current. The machine will emit a short bleep and the display will show a "pre-set goal temperature" set by the manufacturer.
- Connect the temperature probe by inserting the plug in the socket. Make sure that – and + correspond on both plug and socket
- The induction heater is now ready to be used in the temperature function mode.

4. Symbols and Display

Symbols shown on the heater:

	Prohibited for people with a pacemaker. Magnetic field may have influence.
	No watches or other metal objects allowed. Magnetic field may have influence.
	Use heat-resistant gloves
	Read the instructions
	Warning of Magnetic Field

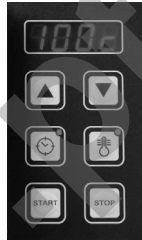
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Display:

Increase time/temperature -

Operate using Time Mode -

Start operation -



- Display: time or temperature

- Reduce time/temperature

- Operate using Temperature Mode

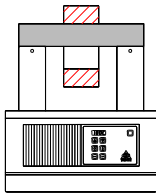
- Stop operation/automatic demagnetisation

5. Setting up the Work Piece

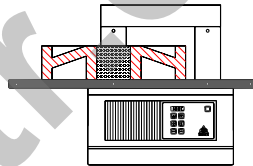
WARNING!

- Use appropriate hoisting equipment for heavy components and yokes. The manual lifting of heavy objects is a common cause of injury.
- The weight of the work-piece should not exceed the maximum weight shown in section 5.2 below, and in the technical data (Appendix 1) at the back of the manual. Exceeding these limits may result in catastrophic equipment failure leading to personal injury.
- If heater is equipped with sliding horizontal supports, always secure these with the designated safety pin, in either the 'in' or the 'out' position. Unexpected movement of the work piece may lead to personal injury.
- Ensure that the mains cable cannot come into contact with the work piece. Damage to the cable may result in electrocution.
- Never support components with a metal cable or have any hanging in the proximity of the magnetic field. Extremely high currents can flow through the cable causing it to heat up quickly, resulting in a risk of burning.

The work piece can be set up in two different ways:



Yoke passing through the work piece



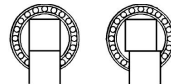
Yoke in the horizontal position

(The bore is large enough for the pole to pass through it. The work piece in this example is shown resting on the horizontal supports).

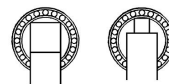
Larger work pieces can be isolated from the environment by packing them in isolation material like a welding cloth. This will keep the heat in the work piece and will avoid that the heat is transmitted to the air.

5.1 Setting up the work piece where the yoke passes through it

- Make sure that the bright sides are greased sufficiently (improve contact, avoid excessive vibration) and are aligned on the top of poles.
- Always choose a yoke, which fills the bore of the bearings as fully as possible. You can even combine 2 yokes - this helps to heat more quickly & evenly.



Correct Incorrect



Correct Incorrect

- For Swing Arm Yokes: Swing out yoke towards the front of the heater until it falls in the positioning lock of the hinge construction. Slide the workpiece over the yoke till it lies in the middle of the yoke and swing the yoke incl. Work piece back on top of the poles.
- Always make sure that the workpiece has no direct contact with the plastic housing of the heater.
- When heating cycle is ready, follow the above instructions in opposite order to take of the heated work piece. Wear protective clothing like heat resistant gloves because the workpiece is hot now. (Supplied gloves are suitable for 150°C (302°F).
- Always treat yokes carefully falling, jolting, etc, can damage them. Always put the yoke away immediately after use

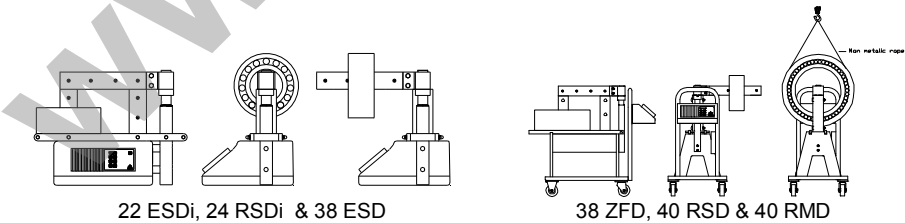
5.2. Maximum weights for swing-arm models

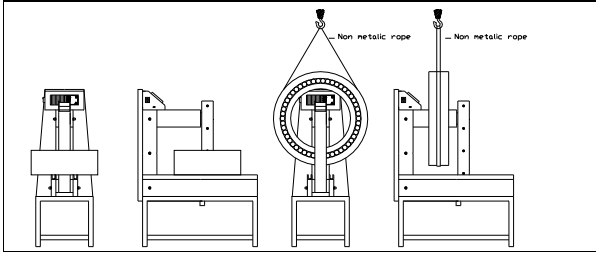
Table showing the maximum permitted weights on the horizontal supports & swiveling yokes:

Heater Series	On Supports	Swing Arm Yoke Size						
		20 mm	30 mm	40 mm	50 mm	60 mm	70 mm	80 mm
22 ESDi	65 kg	5 kg	10 kg	15 kg	20 kg	25 kg	n/a	n/a
24 RSDi	150 kg	10 kg	15 kg	25 kg	40 kg	45 kg	n/a	n/a
38 ESD	150 kg	10 kg	15 kg	25 kg	40 kg	n/a	50 kg	n/a
38 ZFD	300 kg	10 kg	20 kg	30 kg	n/a	60 kg	n/a	80 kg
40 RSD	350 kg	10 kg	20 kg	30 kg	n/a	60 kg	n/a	80 kg
40 RMD	600 kg	n/a	n/a	30 kg	n/a	60 kg	n/a	80 kg

- To avoid the heater from tipping and damage to the yokes and the hinge construction, the maximum weight for each size yoke is restricted.
- Parts with a higher weight can rest on the horizontal supports (if fitted), or be supported by a non-metallic rope from a crane, avoiding any weight on the yoke.

Diagram showing how the work piece can be supported:





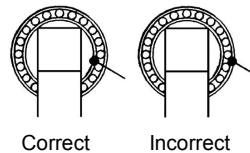
Type	Max. weight kg
Super	600
Giant	1250

CAUTION!

- Always treat the yokes carefully. They can easily be damaged through dropping, jolting etc. Always store the yokes immediately after use.

6. Magnetic Temperature Probe

- Always use magnetic temperature probe (hereafter referred to as the 'probe') for heating in the Temperature Mode.
- The probe can be used as a temperature-control aid for heating in the Time Mode.
- The probe is suitable for operation up to a maximum temperature of 240°C (464°F) - special probes are supplied with custom machines designed to operate above this temperature.
- As a safety feature, the connection between magnet and probe will break above the maximum temperature. If this occurs when operating in the Temperature Mode, the machine will turn itself off since the probe will fail to register any increase in the temperature over a set period of time.
- A probe fixed to a clamp is also available when heating non-magnetic work pieces.
- Ensure that the area where the probe is located is completely clean.
- Always place the probe as close as possible to the bore of the work piece (see opposite).
- Connect the probe by inserting the plug into the socket at the back of the heater (the terminals have a different orientation, so that the plug will only fit in one way - the 22 ELD series models have the probe permanently connected).



CAUTION!

- Treat the probe with care. It is a valuable part of the heater and can easily be broken through careless handling. After use, we suggest that it is placed on the side of the vertical pole.


7. Operation

There are two modes of heating:


Temperature Mode:	Time Mode:
<ul style="list-style-type: none">Used for controlled heating up to the desired temperature.Used when you wish to keep the work piece at the desired temperature for up to 15 minutes.	<ul style="list-style-type: none">Suitable for batch production. If the time taken to heat the work piece to the desired temperature is known.Emergency use if the temperature probe is lost or defective. The temperature of the work piece should be checked using an external thermometer.

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7.1 Using the Temperature Mode (Default mode whenever the machine is switched on)

- Set up the work piece and probe according to the instructions in sections 5 & 6.
- Switch the machine on. The display will show 100c (or 100F). Enter the desired temperature to which the work piece will be heated up to using the '▲' or '▼' key (by pressing the temperature mode key () you can choose between steps of 1° or 10° - this is the same whether working in C or F).
- Press the 'START' key. Heating starts and a soft buzzing sound will be heard.
- The current temperature of the work piece appears on the display. When the desired temperature has been reached, the display starts to blink and a loud beeping is emitted. Unless you press the 'STOP' key, the **heat-retention function** will keep the bearing at that temperature for 5 minutes. The machine resumes heating after a temperature drop of 3° (C or F). When the set temperature is reached once more the induction heater emits a loud beep. Press the 'STOP' key to switch off the machine.
- The heating process or the heat-retention function can be interrupted at any time by pressing the 'STOP' key.

7.2 Using the Time Mode

- Set up the work piece and temperature probe according to the instructions in sections 5 & 6 (the temperature probe is only necessary if you want to check the temperature).
- Switch the machine on and press the time mode key '⌚'. Press the '▲' or '▼' key to set the desired time (by pressing the time mode key '⌚' you can choose between steps of one minute or one second).
- Press the 'START' key. Heating starts and a soft buzzing sound will be heard.
- If the temperature key '  ' is pressed while heating, the current temperature is displayed for 3 seconds. After that the countdown is resumed.
- During the heating process the set time runs to 00:00. When 00:00 is reached the induction heater switches off. The work piece is then automatically demagnetised and a loud continuous beeping is emitted. Press the 'STOP' key to switch off the machine.

7.3 Work piece removal

- After pressing the 'STOP' key, place the probe on the side of the vertical pole. Pressing the 'STOP' key always causes the work piece to be automatically demagnetised.
- Using heat-resistant gloves**, grip the yoke with the bearing on it and place it on a clean, heat-resistant surface. Mount the bearing immediately to prevent cooling. If using a model with a swing arm, swivel the yoke with the bearing on it into the fixed, open position (at 45°). Slide the bearing from the yoke. Mount the bearing immediately to avoid heat loss.

7.4 Malfunctioning

- If the temperature of the work piece fails to increase by 1° (either C or F) within a set time-span, the heater switches off automatically. Four blinking dashes will appear (----) in the display, and a loud intermittent beep is emitted. Press the **'STOP'** key to stop the beeping and check whether:
 - the probe is still attached to the work piece, and is connected correctly into its socket.
 - the probe wiring has been damaged.
 - the probe surface is clean.
 - the heater capacity is too small for the work piece.If the probe is defective, the Time Mode can still be used. The temperature should be checked using an external thermometer.
- If a loud vibrating noise is heard, first check to see that the contact surfaces of the yokes are greased sufficiently. Then check to see that the yoke is making optimal contact with poles. (To adjust yokes: Place yoke on heater, unscrew the bolts in the yoke ¼ turn. Switch on heater and the yoke will set itself. Re-tighten the bolts. You can also use a nylon hammer as an aid to reposition the laminates).

7.5 The Induction heater can be used in °C or °F.

To change this follow steps:

- Press the temperature button for 10 seconds, you will hear a short “bleep”.
- Then wait, after another 10 seconds a second “bleep” will sound and in the display the temperature mode will switch from Celsius to Fahrenheit or vice versa.
- The heater is now ready for use in the newly set temperature mode.

WARNING!

- If in any doubt, isolate the machine and contact your local distributor.

8. Cleaning and Maintenance

- Store in a dry, frost-proof area, free from humidity.
- Keep clean with a soft, dry cloth.
- Keep the contact parts of the poles clean. Grease regularly with an acid-free grease for optimal contact with the yokes and to prevent corrosion (on swing-arm models, also grease the vertical pin regularly).
- Contact your supplier if there is any suspicion of malfunctioning.

WARNING!

- Proper maintenance and handling practices are critical. Failure to follow installation instructions and to maintain proper lubrication can result in equipment failure, creating a risk of serious bodily harm.



9. TECHNICAL DATA

Type BTEX	22 ESD/ Turbo Portable	24 RUD/ Turbo Portable	22 ESD/ Turbo	24RSU/ Turbo	38 ESD	40 RSD en RS0m (mobile) TURBO	38 ZFD	40 RMD TURBO	SUPER Standard and DI-700	DI-700 and DI-1000	GIANT Standard and DI-700	GIANT standard DI-700 and DI-1000	GIANT XL TURBO
Facility power, standard	3.6 kVA	3.6 kVA	3.6 kVA	3.6 kVA	8 kVA	8 kVA	12 kVA	12 kVA	24 kVA	24 kVA	40 kVA	40, 48, 102 kVA	40-48, 100 kVA
Voltage/ Amp*, standard	230V/16A	230V/16A	230V/16A	230V/16A	400V/20A	400V/20A	400V/30A	400V/30A	400V/60A	400V/60A	400V/100A	400V/120, 250A	400V/100, 120, 250A
Voltage/ Amp*, optional	120V/15A	120V/15A	120V/15A	120V/15A	50V/60Hz	50V/60Hz	50V/60Hz	50V/60Hz	50V/60A	50V/60A	50V/100A	500V/120, 250A	50V/60Hz
Frequene Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	30/70	30/70	optional	optional	50/60Hz	50/60Hz	optional	50/60Hz	50/60Hz
Yokes, standard mm/ set.1	7,10,14,20,40	7,10,14,20,40	14,30,60	14,30,60	20,30,40	20,30,40,60,80	optional	optional	included	optional	optional	optional	included
Yokes, standard mm/ set.2	in box	in box	10,14,20,30,60	10,14,20,30,60	20,30,40	20,30,40,60,80	20,30,40,60,80	40,60,80	1 yoke	1 yoke	60,80,100,150,200 ¹	60,80,100,150,200 ¹	1 yoke
Swivel arm	-	-	YES	YES	YES	YES	YES	YES	-	-	-	-	-
Max. weight ± kg	20	50	65	150	150	350	300	600	600	1200	1500/2000 ³	3000/3500 ³	1500/12000 ³
- bearings	10	30	30	80	75	250	200	450	350	900	900/1500 ³	1500/2500 ³	<12000 ³
- other parts	-	-	-	-	-	-	-	-	-	-	-	-	-
Min. ID Ø, mm; vertical/horizontal	10	10/Ø100	15/Ø100	45/Ø120	30/Ø110	30/Ø160	30/Ø130	60/Ø175	60/Ø175	175/Ø200	85 ³	85/215 ³	115/240 ³
Max. OD Ø, mm;	240	380	380/580 ¹	520	500/720 ¹	790	720/Ø180 ¹	920	900/1300 ²	1700	1400/1700 ³	1700/2500 ³	1400/2500 ³
Max. width, mm	120	135	150	200	200	315	340	365	400/700 ³	750	620/700 ³	700/900 ³	450/1020 ³
Max. width at horizontal heating, mm	-	135	125	230	180	280	290	305	305/690 ³	600	440/730 ³	730/990 ³	450/1000 ³
Cross section poles mm	40	Ø100	60	Ø120	70	Ø160	80	Ø175	100 ³	Ø200	150 ³	150/200 ³	200 ³
Pole height mm	130	165	140	230	210	320	340	305	390 ³	595	660/740 ³	740/1000 ³	900 ³
Temperature control °C/ F	150°C	240°C	240°C	240°C	240°C ²	240°C ²	240°C ²	240°C ²	240°C ²	240/350°C ²	240/350°C ²	240/350°C ²	240/350°C ²
- max reach*	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
- magnetic probe	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
- digital display	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Time control	0-30 min.	0-45 min.	0-45 min.	0-45 min.	0-60 min.	0-60 min.	0-99 min.	0-99 min.	0-99 min.	0-99 min.	0-99 min.	0-99 min.	0-99 min.
- max. reach	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
- digital display	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Sound signal	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Error report	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Temperature hold	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Automatic power reduction	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Aut. demagnetising, ZAN/cm	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Thermal safety guard electronics	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Support for horizontal heating	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Dimensions mm (width)	460x240x280	600x220x275	340x250x380	440x270x420	630x365x470	1200x640x1000	1200x640x1000	1200x660x1000	1000x500x1350 ¹	1600x700x1300	1750x650x1470 ¹	2150x910x210 ¹	2350x1000x1875 ¹
Weight heater kg	21	23	31	37	53	65/105	125	205	220/320 kg ³	459 kg	660/800 kg ²	800/1700 kg ³	1800 kg ³
Electric crane for yokes (incl. yokes)	-	-	-	-	-	-	-	-	-	-	-	-	-
Alarm signal	-	-	-	-	-	-	-	-	-	-	-	-	-
Mobile	-	-	-	-	-	YES (40P/SDm)	YES	YES	optional	optional	optional	optional	optional



Heating times are subject to the relationship between:

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

Reference list available on request

*1 With adaptor yokes, only available for the Standard models.
 *2 On request: 350°C with heavy duty sensor and extra isolation
 *3 Subject to power and execution
 Optional: other voltage/ amperage/ higher temperature up to 480°C



TURBO-Design, high output, efficient energy!

10. Declaration of Conformity



DECLARATION OF CONFORMITY

Bega International BV
Schorsweg 15, 8171 ME Vaassen, NL
Postbus 118, 8160 AC Epe, NL

Herewith we declare that the supplied version of

Betex induction Heaters

- 22 ELD*i*
- 22 ESD*i*
- 24 RLD*i* TURBO
- 24 RSD*i* TURBO

Voldoen aan de volgende productspecificaties

Electrical safety: : EN 60335-1 (2012)

EMC Emission : EN 55011 (2009) + A1 (2010)
: EN 61000-3-2 (2006 + A1 (2009) +A2 (2009)
: EN 61000-3-3 (2008)

Immunity : EN 61000-6-2 (2005) + AC (2005)

Additional information

This product complies with the technical standards and specifications as defined by low voltage directive 2006/95/EG and EMC directive 2004/108/EG.

F. Garritsen,
Director/CEO

10. Declaration of Conformity



GB

DECLARATION OF CONFORMITY

Bega International BV
Schorsweg 15, 8171 ME Vaassen, NL
P.O. Box 118, 8160 AC Epe, NL

Herewith we declare that the supplied version of

Betex Induction Heaters

- 38 ESD
- 38 ZFD 12kVA
- SUPER 24kVA
- GIGANT / DL700 / DL1000 40/48kVA
- 40 RSD(m) Turbo
- 40 RMD Turbo
- SUPER Turbo
- GIGANT Turbo

Complies with the following provisions applying to it

Electrical safety	:	IEC 335-1 classification I
	:	IEC 664-1 category II
EMC	Emission	: EN 55011 (1998) + A1 (1999) + A2 (2002)
		: EN 61000-3-2 (2000)
		: EN 61000-3-3 (1995) + A1 (2001)
	Immunity	: EN 61000-6-2 (2001)

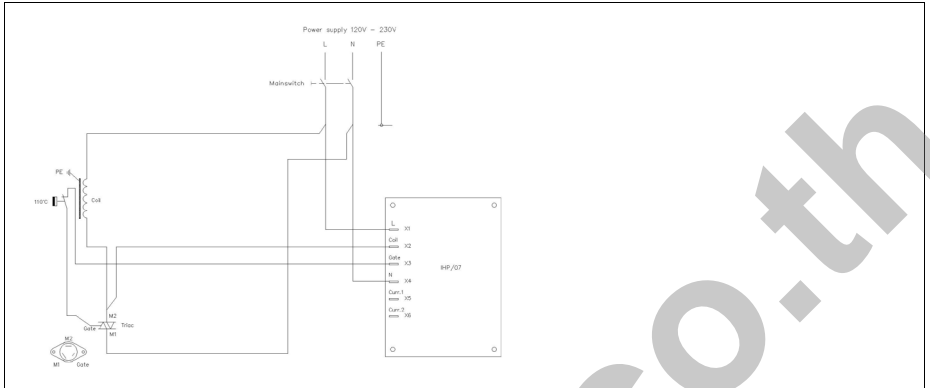
Additional information

This product complies with the technical standards and specifications as defined by low voltage directive 2006/95/EG and EMC directive 2004/108/EG.

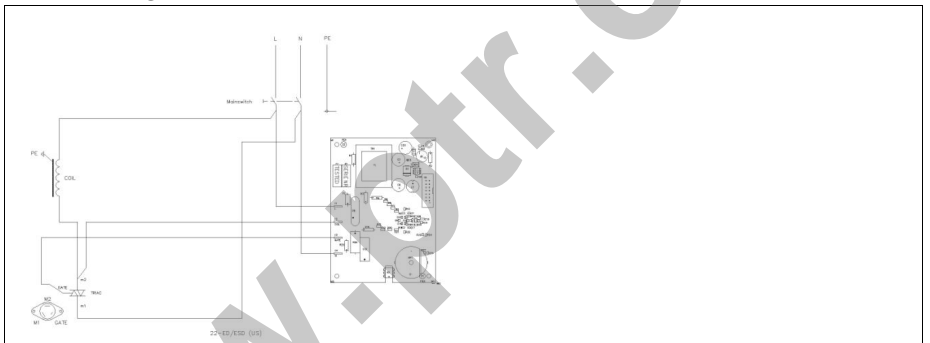
F. Garritsen,
Director/CEO

Appendix 1. Electrical Diagrams

BETEX 22 ELD*i*



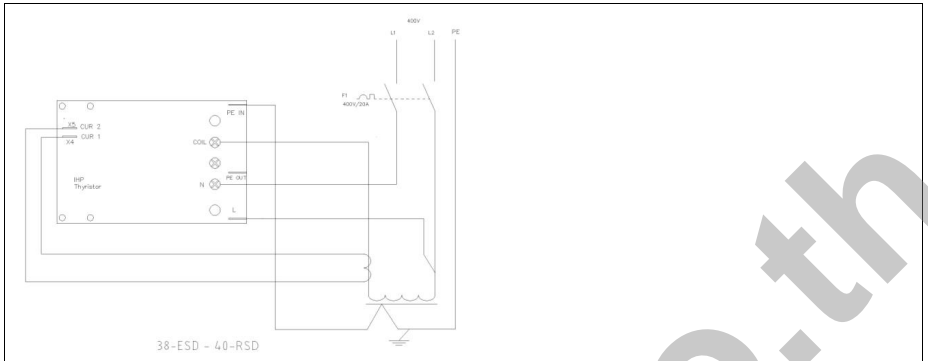
BETEX 22 ESD*i*



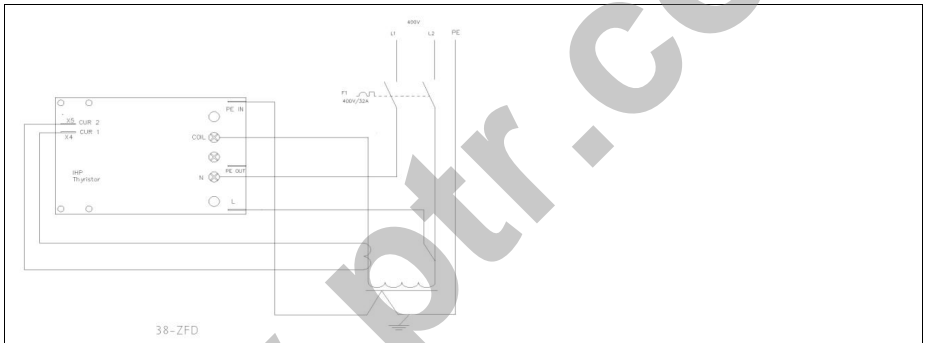
BETEX 24 RLD*i*, 24 RSD*i*



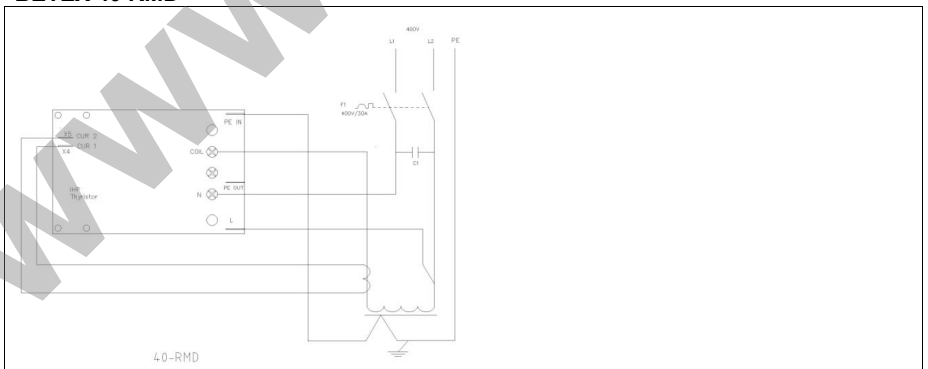
BETEX 38 ESD, 40 RSD



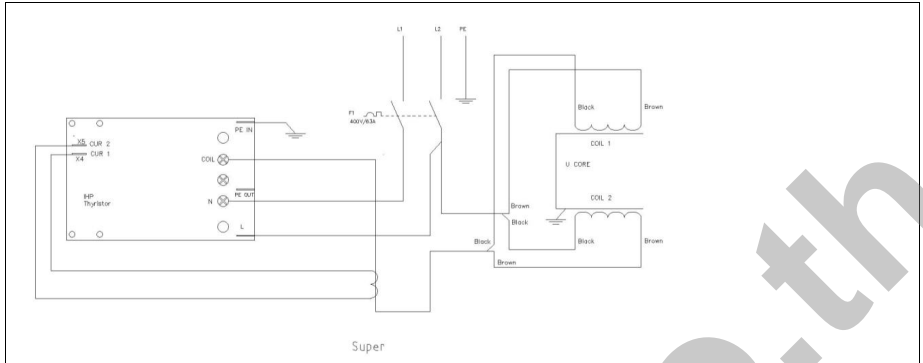
38 ZFD



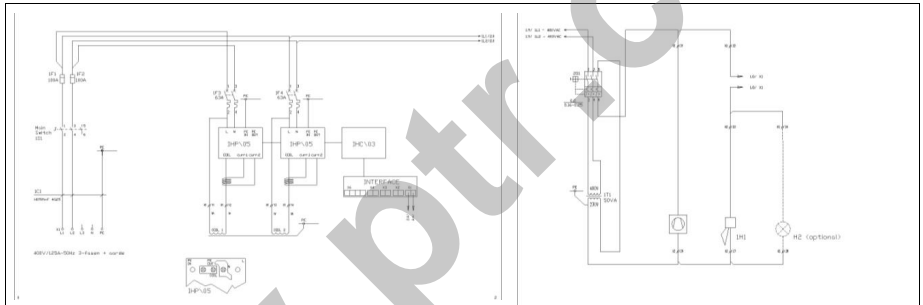
BETEX 40 RMD



BETEX SUPER



BETEX GIANT 40 kVA



BETEX GIANT 48 kVA

