

# GLOBE HEAT TREATMENT SERVICES LTD

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# **PRODUCT CATALOGUE**

www.globeheat.com

'Leading manufacturers of Heat Treatment Equipment'

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### **HEAT TREATMENT UNITS**

#### The Globe Mobile Power Source Transformers

Globe's mobile power source transformer has been manufactured for use either in a workshop or on site. The trolley like chassis is designed for each or movement and is made up of a robust mild steel box section frame with panelwork which enables straight forward servicing. All units have CE markina.

The unit features a front control panel consisting of mini controllers and energy regulators which can be used to perform pre and post weld heat freatment. It also features an auto/manual switch to allow the use of an external automatic temperature programmer.

The rear of the unit features  $3\times110^{\circ}$  auxiliary sockets designed for powering recording devices, programming devices, thermocouple attachment unit (7AU) charge points and lighting. The rear panel of the unit also includes a ventillation fan, main circuit breaker (MCB) switch and both multi plug and single channel connections for use with setternal programmers.



Product Code: GHT 1001

Product	50kVA Globe Mobile Power Source Transformer	65kVA Globe Mobile Power Source Transformer
Transformer	50kVA air natural class H	65kVA air natural class H
Primary Input	380/415/440V	380/415/440V
6 Channels	Each channel with an energy regulator,	Each channel with an energy regulator,
	mini controller, auto/manual selector	mini controller, auto/manual selector
	switch and neon indicator.	switch and neon indicator.
Protection	Transformer fitted with over-	Transformer fitted with over-
	temperature trip circuit in each	temperature trip circuit in each
	winding & 3 phase MCB with shunt trip.	winding & 3 phase MCB with shunt trip.
Switching	UK manufactured Albright	UK manufactured Albright
	contactors fitted to each channel.	contactors fitted to each channel.
Output	65V	65V
Capacity	18 x 2.7kW standard ceramic heater	24 x 2.7kW standard ceramic heater
	elements (3 per channel maximum).	elements (4 per channel maximum).
<b>Auxiliary Sockets</b>	3 x 110V auxiliary sockets	3 x 110V auxiliary sockets.
Primary Supply	5m 4 core SY 16mm <sup>2</sup> flexible	5m 4 core SY 25mm <sup>2</sup> flexible
	armoured cable.	armoured cable.
Wheels	150mm nylon -2 x locking swivel	150mm nylon -2 x locking swivel
	and 2 fixed.	and 2 fixed.
Dimensions	110cm x 60cm x 90cm	110cm x 60cm x 90cm
Weight	375kg	460kg
Globe Reference	GHT 1001	GHT 1101

#### Additional extras can also be included on request.

- Ammeters to indicate current drawn for each channel.
- Earth trip leakage safety trip circuit.
- · Selection of mini controllers i.e. P159CF.
- · Solid state switching.
- · Colour finish and branding.
- Various secondary output voltages 85V, 65V & 85V, 32.5V & 65V.
- Various primary input voltages I.e. 480V/575V (US requirement).
- 220-240V auxiliary sockets.



### Complete set of resistance heat treatment equipment - Setup diagram Link set male TC to male TC **GHT 2001** Chino EH100 - 12 point (GHT 9314) Link set male TC GHT 3001 - PTC160 to male TC (GHT 9314) nperature program GHT 9304 - Stainless steel buckles GHT 9303 - Stainless steel banding GHT 9301 - Banding machine Job piece example - attached to pipe using stainless steel banding Triple cable set (Page 22) **GHT 1101** 65kVA Mobile power source transformer Thermocouple wire attached to job piece underneath the body GHT 4001 of a heater for accurate control GTW Thermocoup (Page 29) attachment unit 4 way splitter (Page 23) 60V Ceramic heating element (Page 18)

### **HEAT TREATMENT UNITS**

#### The Globe Mobile Power Source Transformers

The Globe mobile power source transformer with integrated P256 programmer provides the technician with a P256 6 channel automatic controller built into the power source, eliminating the additional process of on site setup. The P256 module gives the technician both the option of automatic profile control for post weld heat treatment and also manual set point control for each channel used in preheating.

This unit is housed in the same casing as the standard 50kVA/65kVA Globe mobile power source transformer and can also be used both in a workshop and on site.

The rear of the unit features 3 x 110V auxiliary sockets designed for powering recording devices, programming devices, thermocouple attachment unit (IAU) charge points and lightling. The rear panel of the unit also includes a ventilation fan and main circuit breaker (MCB) switch



Product Code: GHT 1002

Product	50kVA Globe Mobile Power Source Transformer with built in P256	65kVA Globe Mobile Power Source Transformer with built in P256		
Coil Size	50kVA air natural class H	65kVA air natural class H		
Primary Input	380/415/440V	380/415/440V		
6 Channels	Each channel with automatic and manual control through the P256 controller.	Each channel with automatic and manual control through the P256 controller.		
Protection	Transformer fitted with over- temperature trip circuit in each winding & 3 phase MCB with shunt trip.	Transformer fitted with over-temperature trip circuit in each winding & 3 phase MCB with shunt trip.		
Switching	UK manufactured Albright contactors fitted to each channel output.	UK manufactured Albright contactors fitted to each channel output.		
Output	65V	65V		
Capacity	18 x 2.7kW standard ceramic heater elements (3 per channel maximum).	24 x 2.7kW standard ceramic heater elements (4 per channel maximum).		
Auxiliary Sockets	3 x 110V auxiliary sockets	3 x 110V auxiliary sockets		
Primary Supply	5m 4 core SY 16mm <sup>2</sup> flexible armoured cable.	5m 4 core SY 25mm <sup>2</sup> flexible armoured cable.		
Wheels	150mm nylon -2 x locking swivel and 2 fixed.	150mm nylon -2 x locking swivel and 2 fixed.		
Dimensions	110cm x 60cm x 90cm	110cm x 60cm x 90cm		
Weight	385kg	470kg		
Globe Reference	GHT 1002	GHT 1102		

#### Additional extras can also be included on request.

- Ammeters to indicate current drawn for each channel.
- Earth trip leakage safety trip circuit.
- · Solid state switching.
- · Colour finish and branding.
- Various secondary output voltages 85V, 65V & 85V, 32.5V & 65V.
- Various primary input voltages i.e. 480V/575V (US requirement).
- · 220-240V auxiliary sockets.



#### **6 Channel Heat Manager Connect Centre**

By incorporating the Heat Manager Connect into Globe's mobile power source transformer range we can offer what we believe is the most complete heat freatment machine on the market. Built within Globe's highly robust chassis the 6 channel Heat Manager Connect Centre offers a complete solution to the pre and post weld heat treatment process.

As standard we supply versions of both the 50kWA and 65kWA, 3 phase air natural cooling transformers with 65V output, for use with our ceramic pad heaters. The transformer is fittled with thermal overloads built into each leg which are wired with a shunt trip on the primary MCB for over-temperature protection.

The rear of the unit features 3 x 110V auxiliary sockets designed for powering recording devices, programming devices, thermocouple attachment unit (7AU) charge points and lightling. The rear panel of the unit also includes a ventilation for and MCB switch and 6 x thermocouple outputs for links to additional devices (i.e. chart recorder).



Product Code: GHT 1003

Product	50kVA Heat Manager Connect Centre	65kVA Heat Manager Connect Centre
Transformer	50kVA air natural class H	65kVA air natural class H
Primary Input	380/415/440V	380/415/440V
6 Channels	Controlled via Heat Manager Connect	Controlled via Heat Manager Connect
	with 6 x neon indication lamps.	with 6 x neon indication lamps.
Protection	Transformer fitted with over-temperature	Transformer fitted with over-temperature
	trip circuit in each winding & 3 phase MCB	trip circuit in each winding & 3 phase MCB
	with shunt trip.	with shunt trip.
Switching	UK manufactured Albright	UK manufactured Albright
	contactors fitted to each channel.	contactors fitted to each channel.
Output	65V standard -	65V standard -
	other voltages available on request.	other voltages available on request
Capacity	18 x 2.7kW 60V standard ceramic heater	24 x 2.7kW 60V standard ceramic heater
	elements (3 per channel maximum).	elements (4 per channel maximum).
<b>Auxiliary Sockets</b>	3 x 110V auxiliary sockets.	3 x 110V auxiliary sockets.
Primary Supply	5m 4 core SY 16mm <sup>2</sup> flexible armoured cable.	5m 4 core SY 25mm <sup>2</sup> flexible armoured cable.
Wheels	150mm nylon -2 x locking swivel and 2 fixed.	150mm nylon -2 x locking swivel and 2 fixed.
Dimensions	121cm x 67cm x 107cm	121cm x 67cm x 107cm
Weight	384kg	445kg
Globe Reference	GHT 1003	GHT 1103

### The inbuilt Heat Manager Connect provides the technician with the ability to tackle all situations for pre and post weld heat treatment.

- · Each individual channel can either be set to a master, slave, set-point controller, measure only (log) or unused.
- Output controlled through ultra reliable UK manufactured Albright SW200 contactors.
- Each channel with thermocouple break protection.
- User friendly 6" touch screen interface as standard, optional 4" touch screen also available on request.
  Capacity to store, save and share (via USB stick) heat treatment profiles helping reduce programming time
- and errors.

  Inbuilt wireless package makes it possible to control numerous systems from a remote laptop or PC which maximises efficiency.
- Record temperature cycle charts and store them on USB or network for quick and easy posting to clients
- via e-mail.

   Switch between Celsius & Fahrenheit.

### **HEAT TREATMENT UNITS**

#### 6 & 12 Way Mobile Heat Treatment Centre

Globe's 6.8, 12 way mobile heat freatment centres provide a complete solution for the heat freatment process. Incorporating a power source transformer, temperature programmer and temperature recorder into one chassis with either 6 or 12 channels, makes the unit ideal both on site and in workshops. The oil in one unit reduces setup times and also the risks of setup error. Built in a strong mild steel or stainless steel chassis to provide excellent strength, the unit is fittled with 4 x 150mm nylon castor wheels making transportation easy.

The unit features a control panel consisting of mini controllers and energy regulators and also a P256 (or PTC160) automatic programmer with auto/manual swiftch to allow the technician to choose between the manual mode, typically used for preheat, and the automatic mode used in the post weld heat treatment projects. The heat treatment cycle is plotted on the inbuilt temperature recorder, Chino EH100-12 as standard, however we can fit a range of Chino and Fuji chart recorders into the heat treatment centre on request.

Product Code: GHT 1203

The main circuit breaker (MCB) is located on the rear of the panel along with 2 x 110V auxiliary sockets designed for thermocouple attachment unit (TAU) charge points or other auxiliary equipment.

Standard Specification	
Primary Input	380/415/440V
Protection	Transformer fitted with over-temperature trip circuit in each winding & 3 phase MCB with shunt trip.
Switching	UK manufactured Albright contactors fitted to each channel output - neon
	indicators on front panel indicate when a channel is 'on'.
Temperature Recorder	EH100-12 Chino recorder.
Programmer	P256 or PTC160
Secondary Output	65V
<b>Auxiliary Sockets</b>	2 x 110V auxiliary sockets.
Primary Supply	5m 4 core SY flexible armoured.

#### Additional extras can also be included on request.

- Ammeters to indicate current drawn for each channel.
- Full range of Chino & Fuji temperature recorders, other brands can be offered however not typically stocked.
- Earth trip leakage safety trip circuit.
  Selection of mini controllers and automatic controllers.
- Solid state switching.
- · Colour, finish and branding.
- Various secondary output voltages 85V, 65V & 85V, 32.5V & 65V.
- Various primary input voltages i.e 480V/575V (US requirement).
- A full range of coil sizes are available i.e. 70kVA, 82kVA, 140kVA



Globe Ref	Coil Size	No. Of Channels	Auto Programmer	Mini Controllers & Energy Regulators	Primary Cable	Capacity of 2.7kw Ceramic Heater Elements
GHT 1201	50kVA	6	P256	N/A 16mm² 4 Core SY		18
GHT 1202	50kVA	6	P256	6 x Mini Controllers 16mm² 4 Core SY & Energy Regulator		18
GHT 1203	50kVA	6	PTC160	6 x Mini Controllers & Energy Regulator	16mm² 4 Core SY	18
GHT 1204	65kVA	6	P256	N/A	25mm² 4 Core SY	24
GHT 1205	65kVA	6	P256	6 x Mini Controllers & Energy Regulator	25mm² 4 Core SY	24
GHT 1206	65kVA	6	PTC160	6 x Mini Controllers & Energy Regulator		
GHT 1207	100kVA	12	2 x P256	N/A 50mm² 4 Core SY		36
GHT 1208	100kVA	12	2 x P256	12 x Mini Controllers 50mm² 4 Core SY & Energy Regulator		36
GHT 1209	100kVA	12	2 x PTC160	12 x Mini Controllers & Energy Regulator	50mm² 4 Core SY	36
GHT 1210	130kVA	12	2 x P256	N/A 70mm² 4 Core SY		48
GHT 1211	130kVA	12	2 x P256	12 x Mini Controllers & Energy Regulator		
GHT 1212	130kVA	12	2 x PTC160	12 x Mini Controllers & Energy Regulator	70mm² 4 Core SY	48

Product Code: GHT 1203



Product Code: GHT 1205 SS



Product Code: GHT 1207



Product Code: GHT 1209



# **RECORDERS**

Temperature recording is the most important part of the heat treatment cycle for both preheat and post weld heat treatment. Therefore it is vital that a high quality recorder is used to ensure accurate readings are obtained.

#### Chino EH100 - 12 Point

The standard temperature recorder that Globe offers is the 12 Point Chino EH100 analogue recorder. This is housed in a robust, powder coated, mild or stainless steel casing with convenient carry handles fitted.

#### Product Code: GHT 2001

#### Features:-

- Standard model 12 channel (6 & 24 channel available upon request).
- Temperature range 0 1200°C
- . Type K polarised sockets fitted to the rear of the unit.
- Chart speed variable in steps from 12.5mm, 25mm, 50mm, 100mm and continuous.
- Chart and scale illuminates for viewing in low light.
- Alarmed version available (Product Code: GHT 2011).
- Panel mount version available (Product Code: GHT 2021).

#### **Technical Details**

Chart width: 180mm
Min thermocouple: NiCr/NiAl, Type K
Mains - supply: 110v/240v (50/60Hz)
Dimensions: 430mm x 355mm x 365mm

Weight: 24kg



Product Code: GHT 2001

#### Chino AH3000

The Chino AH3000 series is a more sophisticated digital range of recorders offering additional features to the EH100 Series.

#### **Product Code:**

GHT 2002 (Chino AH3725-N00, 12 point simultaneous display recorder) GHT 2003 (Chino AH3720-N00, 12 point sequential display recorder)

#### Features:-

- Standard model 12 channels (6 & 24 channels available upon request).
- . Type K polarised sockets fitted to the rear of the unit.
- · Option of the simultaneous (view multiple channels) or sequential (view a particular channel) display.
- Chart and scale illuminates for viewing in low light.
  Universal input of 56 ranges of 10DC voltage ranges, 35 thermocouple ranges and 11 resistance thermometer
- ranges and these ranges can be programmed from each channel.

   Data can be processed through a PC by using the relevant data software package.
- Data can be processed through a PC by using the relevant
   Cassette type wire dotting system using 6 colour ink ribbon.
- CE, UL & CSA approved

#### Technical Details

Chart width: 180mm Min thermocouple: NiCr/NiAl, Type K

Measuring cycle: Approx 10 seconds on 12 point
Mains - supply: 110v/240v (50/60Hz)
Dimensions: 430mm x 355mm x 365mm

Weight: 18kg





#### Fuji PHA98004-EA0YV

The PHA series Fuji digital temperature recorder is a lightweight unit encased in a mild or stainless steel casing with convenient carrying handle fitted.

#### Product Code: GHT 2004

#### Features:-

- · Easy to use digital display.
- · 12 channel continuous trace.
- · Silicon ink jet printer technology in 6 colours.
- · Each channel has its own circuit, no scanning relays used.
- · Multi-range printouts.
- Temperature printouts can be printed as either continuous record or dotting type.
- · Print out functions include print out dates, chart speed, measurement ranges, tag numbers, daily reports and integrated totals.
- · Daily reports in English, French & German.
- · Built in alarm relays with volt free contact outputs.

#### **Technical Details:-**

Chart width: 180mm

Min thermocouple: NiCr/NiAl, Type K

Measurina cycle: Intermitter recording 30 sec, continuous depends on chart speed.

Mains - supply: 110v/240v (50/60Hz)

Dimensions: 430mm x 355mm x 365mm

Weight: 16kg

#### **Microcal 1 Calibration Unit**

#### Product Code: GHT 2200

The Microcal 1 thermocouple simulator is a calibration unit which is used to calibrate all Globe's equipment. It helps ensure that the frequent checking of thermometer accuracies is a routine operation. The calibrator is designed to simulate a chosen temperature to test thermocouple K, J, T, R, N, S and E without the need for specialised equipment or conversion tables. The calibrator features a custom 10mm LCD display with alpha numeric display line to prompt the user when changing parameters. Selectable parameters include °C/°F, auto power off - enable/disable, CJC - internal/external and display contrast adjustment.



Product Code: GHT 2004

Product Code: GHT 2200

#### **Recorder Spares**

Globe stock a wide range of recorder spares as detailed below. In addition to this should you require your recorder calibrating then this can be done at Globe premisies and full certification will be provided on completion of this service.



Globe Reference	Product Description
GHT 2401	Chino chart roll - ET201, 0 - 1200°C (EH100 series)
GHT 2402	Chino chart roll - EH05035, 0 - 1200°C (AH series)
GHT 2403	Chino fluorescent tube for EH100 recorder
GHT 2404	Chino inks - set of 12 colours for the chino recorder dotting wheel
<b>GHT 2405</b>	Chino dotting wheel for EH100 series
GHT 2406	Chino cassette ribbon for AH3000 series
<b>GHT 2407</b>	Fuji chart roll – BL1000-B for PHA series
GHT 2408	Fuji printer head - PHZH1002 for PHA series

an extensive range of Chino recorder spare parts are available on request.

## **PROGRAMMERS**

During the heat treatment process it is vital that the temperature can be controlled accurately. Globe offers a range of programmers to suit the individual requirements of the end user, whether working under site conditions or in a workshop.

#### PTC 160

The P160 programmer is easy to use, robust in its steel case and portable, with a carry handle fitted to the top of the unit.

#### Product Code: GHT 3001

- Features:-
- · Microcontoller based for accuracy, reliability and compactness.
- · Digital indication of set points and time.
- · 6 controllers, thermocouple inputs electrically isolated.
- · Digital 6 channel actual temperature display.
- Ramp hold feature.
- Temperature 'up' and 'down' rate settings.
- · Battery backup for mains failure.
- Rear connectors for thermocouple and contactors.
- · Control lead with 7 pin multi socket. Panel mount version available.

### Technical Details

Temperature settinas: Rate of rise/fall setting: Time setting: Thermocouple: NiCr/NiAl, Type K Mains - supply: 230V/115V, 50/60Hz 270mm x 150mm x 425mm Dimensions: Weight: 9.15kg

0 - 1200°C in 1°C intervals 1 - 999°C in 1°C intervals 0 - 100 hours in 1 min steps Product Code: GHT 3001

#### P159 CF

The P159CF is a single channel, ramp generator, panel mount unit which is used in power source units usually as part of a set of six or twelve depending on the amount of channels in the unit.

#### Product Code: GHT 3003

#### Features:-

- · Ramp up, soak and ramp down programme.
- Digital indication of load temperature or setpoint temperature.
- · Elapsed time also shown during soak
- Ability to switch between °C & °F on the front panel.
- Energy regulator mode (0 to 100% output cycle).
- · Digital proportional plus integral control, for best accuracy.

0 - 1200°C in 1°C intervals

#### **Technical Details**

Temperature settings: Rate of rise/fall setting: Time setting: Thermocouple: Mains - supply: Dimensions: Weight:

1 - 999°C in 1°C intervals 0 - 100 hours in 1 min steps NiCr/NiAl, type K 230V/115V 50/60Hz 96mm x 48mm x 127mm 350g





#### P256

The P256 is a compact digital programmer which is housed in a steel case with a carry handle fitted on each side of the unit.

#### Product Code: GHT 3002

#### Features:-

- Microcontroller based for accuracy, reliability and compactness.
- · Digital indication of set point and time.
- · 6 controllers, thermocouple inputs electrically isolated.
- Digital 6 channel actual temperature display.
- Ramp hold feature.
- · Temperature 'up' and 'down' rate settings.
- · Battery backup for mains failure.
- · Rear connectors for thermocouple and contactors.
- · Automatic hold feature.
- · Ability to link with other P256 units in a chain.
- · Control lead with 7 pin multi socket.
- · Panel mount version available.



Product Code: GHT 3002

#### **Technical Details**

Temperature settings: Rate of rise/fall setting: Time setting: Thermocouple: Mains - supply:

Thermocouple: Mains - supply: Dimensions: Weight: 0 - 1200°C in 1°C intervals 1 - 1000°C in 1°C intervals 0 - 100 hours in 1 min steps NiCr/NiAl, type K 230V/115V, 50/60Hz 260mm x 280mm x 200mm 5.5 Kg

#### Accessories

Globe Reference	Product Description
GHT 3200	Adaptor lead from Bulgin 7 pin plug to 6 x in line cannon sockets
GHT 3201	Ferrite sleeves
GHT 3202	Protection handles, stainless steel
GHT 3203	Plastic ergonomic folding handles



Product Code: GHT 3200

# THERMOCOUPLE ATTACHMENT UNITS

The thermocouple attachment unit (TAU) performs a process called capacitor discharge which is used to attach thermocouple wire to the work piece. This process is quick and easy and enables accurate temperature measurement.

Globe stock a variety of thermocouple welding units allowing the user to choose the most suitable model for their needs

#### Globe Thermocouple Welder (GTW)

The unit is housed in a stainless steel chassis with a convenient tool storage compartment and comes complete with a shoulder strap.

#### Product Code: GHT 4001

#### Features:-

- · Membrane panel to reduce unwanted ingress.
- High efficiency converter for extended time between battery recharge, we estimate several hundred uses before recharge is required.
- · Recharging necessity shown by 'Low Battery' LED.
- Mains LED shows the battery is on charge.
- Supplied with magnet, pliers and mains charging lead.

#### **Technical Details**

Discharge energy: 25 watts per second Battery recharge time: 6 - 8 Hours Supply voltage: 100-130 VAC or 200-260 VAC Dimensions: 280mm x 90mm x 200mm 3.9 Ka Weight:



#### Product Code: GHT 4001

#### Globe Variable Thermocouple Welder (GTW/V) Product Code: GHT 4002

The GTW/V has all the same features as the GTW with an additional function of a variable discharge. The dial is situated on the main front panel and can be altered between 18 and 40 watts per second.

#### TW163/V-M - Globe Automatic Variable Thermocouple Welder

The unit is housed in a stainless steel chassis with a tool storage compartment within the casing lid to enable neat storage and complete with a shoulder strap for hands free use.

#### Product Code: GHT 4003

#### Features:-

- Fully automatic to allow technicians to operate 'hands free'. Manual option is also available.
- Operated by both mains supply and its own internal rechargeable battery.
- Membrane panel to reduce unwanted ingress.
- High efficiency converter for extended time between battery recharge,
- we estimate several hundred uses before re-charge is required.
- Recharging necessity shown by 'Low Battery' LED.
- Mains LED shows the battery is on charge.
- Supplied with magnet, pliers and mains charging lead.

### Technical Details Battery recharge time:

Discharge energy: Variable - 12 watts per second to 50 watts per second

6 - 8 Hours

100-130 VAC or 200-260 VAC Supply voltage: Dimensions: 300mm x 100mm x 1900mm

Weight: 4.5 Kg



Product Code: GHT 4003



#### TW158

This is a compact lightweight thermocouple welding unit housed in a waterproof nylon carry bag which contains a tool storage space, belt loop and shoulder strap.

#### Product Code: GHT 4004

#### Features:-

- Manual and auto (hands free) operation.
- · Variable energy level of 20 to 50 watts per second.
- Runs on 4 x AA alkaline batteries (over 400 welds at 30 Joules).
- · Low battery LED indicator.
- Auto switch-off after 3 minutes to conserve battery.
- Output voltage is only 60 volts at 50 joules.

#### **Technical Details**

Discharge energy: Variable - 20 Watts to 50 Watts per second Supply voltage: 100 -130 VAC

Dimensions: 220mm x 90mm x 220mm

Weight: 1.2 Kg



Product Code: GHT 4004

#### **SW12V Auto Pin Welder**

The SW12V is a battery and mains powered capacitance discharge welding unit with up to 250 Joules energy output.

#### Product Code: GHT 4005

#### Features:-

**Technical Details** 

Supply voltage:

- · Hands free operation with audible count into auto-weld.
- Battery and mains working, IEC inlet with two metre lead.
- Rugged cased floor standing unit with hard wearing rubber feet.
   Panel mounted dinse connectors.
- Panel mounted dinse connectors.
- Two metre welding leads with large pot magnet and interchangeable pliers (long nose for low range fine wire welding and the larger pliers for thick wire and pin welding).
- · Auto switch to off to conserve the battery.

### Ethor 20 to 40 ...

Discharge energy: Either 30 to 60 watts per second or 125 to 250 watts per second

110 VAC or 230 VAC

Dimensions: 255mm x 230mm x 310mm

Weight: 6.5 kg



Product Code: GHT 4005

### Thermocouple Attachment Unit (TAU) Spares

Globe Reference	Product
GHT 4901	TAU magnet
GHT 4902	TAU pliers
GHT 4903	TAU battery
GHT 4904	Large TAU pliers

Product Code: GHT 4902



Product Code: GHT 4901

### **MAINS UNITS**

#### **Globe Mains Unit**

Globe's mains unit is designed and manufactured for use either in a workshop or on site. The mains unit has been designed with ease of movement, stability and servicing in mind. The application is ideal for temporary furnaces.

The unit is connected to a 3 phase supply of either 380V or 440V which divides into 6 channels, each with their own set point controller and energy regulator. Quad cables are used with this unit to connect the heater eitements to the wark piece. 240V fot ceramic pad heaters or 240V 4 bank channel heaters can be used with the unit. The heating elements are connected in 'star' and each channel has 3 x 63 amp circuit breakers which allow the fechnician the ability to isolate each heater independently.

A 400 amp 3 phase isolator is fitted at the rear of the unit along with 2 theremocouple sockets per channel and remote programmer inputs. A 500/4 transformer is fitted within the unit supplying 2 x 110V auxiliary sockets that can be used to power temperature recorders, remote programmers or thermocouple attachment units. The front panel control is also fitted with an 'emergency stop' which isolates all contactors, auxiliary sockets and remote programmer inputs.



Product Code: GHT 8001

Should the standard specification not satisfy your requirements then our team can manufacture a custom built unit to meet your needs.

Product	Globe Mains Unit
Primary Input	380V - 440V
6 Channels	Each channel with energy regulator, mini controller, auto/manual selector switch and neon indicator.
Protection	Each channel phase with 63 amp circuit breaker.
Switching	IMO contactors fitted to each channel output.
Output	220V - 255V connected in 'star' between phases.
Capacity	18 x 240V, 13kW 4 bank heaters/22 x 240V, 10.8kW flat ceramic pad heaters.
Auxillary Sockets	2 x 110V auxiliary sockets.
Dimensions	80cm x 59cm x 137cm
Weight	130kg
Globe Reference	GHT 8001

### **Mains Spares**

Globe Reference	Description
GHT 8101	Siemens, single pole MCB breaker, 63 amp
GHT 8102	Dorman Smith load master MCB breaker, 63 amp
GHT 8103	IMO 3 pole contactor
GHT 8104	Katko 400 amp, 4 pole load break switch
GHT 8105	Emergency stop button



#### **Channel Heaters**

Globe manufacture both single channel heaters, 2 bank heater elements and 4 bank heater elements. The heater elements are encased in a stainless steel housing and will deliver a current of 55 amps with a range of voltages available. The elements are made from either nickel chrome (NiCr) wire or high temperature wire if required. Steel connector blocks or 60 amp male twistlocks can be used for terminating the tails.

Their main uses would be to post weld heat treat large vessels and fabrications and for use in electrical furnaces. The channel heaters can be placed on supports at the desired levels within a vessel to produce the required power or attached directly to the workpice.

Globe	Description	Size in mm		Rating	Current	Voltage
Reference		A	В	(Kilowatts)	(Amps)	(Volts)
GHT 5601	Single channel	720	70	3.3	55	60
GHT 5602	2 bank channel	720	165	6.6	55	120
GHT 5603	4 bank channel	720	360	12.1	55	220
GHT 5604	4 bank channel	720	360	13.2	55	240
GHT 5605	4 bank channel	720	360	14.0	55	254
GHT 5606	4 bank channel	720	360	15.2	55	277





Product Code: GHT 5601 Product Code: GHT 5604

#### 220V/255V Ceramic Heaters

These larger pads are often used for localised heat treatment where the external surface of a vessel is required to be covered entirely in a wrapping process.

Globe	No. of	Beads	Size i	n mm	Rating	Current	Voltage
Reference		В		В	(Kilowatts)	(Amps)	(Volts)
GHT 5424	24	16	610	330	9.9	45	220
GHT 5425	26	16	660	330	9.9	45	220
GHT 5426	13	32	330	670	10.8	45	240
GHT 5427	28	16	710	330	10.8	45	255



Product Code: GHT 5624

### **CERAMIC HEATER ELEMENTS**

#### Heating Elements (Flexible Ceramic Pad Heaters)

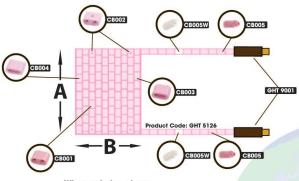
#### Introduction

Globe manufacture flexible ceramic pad heaters made from high grade nickel chrome (NiCr) 80/20 19 stranded witre. They are insulated by durable ceramic interlocking beads made of sintered alumina oxide. Each heater has a nickel 212 welded cold fall which enables the fechnician safe and easy access to the heater. A white marker bead denotes the start of the cold fall. A fixisflock connector complete with sleeve and pin is attached to the end of erach trall.

The flexible nature of the element means that they can be used on both flat and curved surfaces. There is a wide range of sizes available which enables the technician to choose the appropriate ceramic heaters required for the work that they are undertaking.

The ceramic heater can be used for the heat treatment of temperatures up to 1050°C. However should a higher temperature be required then the ceramic heater can be manufactured with a high temperature core wire.

A range of voltages are available ranging from 30 volts through to 240 volts. The voltage selection on the ceramic heater should match the secondary output on the heat freatment unit.



When ordering please state dimension 'A' first.



### **30 Volt Ceramic Heaters**

The 30 volt ceramic heater can work independently or can be used in series with another 30 volt ceramic heater to run at 60 volts, which is useful for smaller welds, when only a 60 volt output is available on a power source. To enable the 90 volt ceramic heaters to be used in series one of the pair would be manufactured with a 60 amp female twistlock connector on one of the tails to connect the two ceramic heaters together.



Product Code: GHT 5014

Globe	No of	Beads	Size i	a mm	Rating	Current	Voltage
GHT 5004	3	17	75	360	1.35	45	30
GHT 5005	3	18	75	380	1.35	45	30
GHT 5006	4	11	100	235	1.35	45	30
GHT 5007	4	12	100	255	1.35	45	30
<b>GHT 5008</b>	-4	13	100	275	1.35	45	30
GHT 5009	4	14	100	295	1.35	45	30
GHT 5010	5	9	125	195	1.35	45	30
GHT 5011	5	10	125	215	1.35	45	30
GHT 5012	5	11	125	235	1.35	45	30
GHT 5013	6	7	150	150	1.35	45	30
<b>GHT 5014</b>	6	8	150	175	1.35	45	30
GHT 5015	6	9	150	195	1.35	45	30
GHT 5016	7	6	175	125	1.35	45	30
GHT 5017	7	7	175	150	1.35	45	30
<b>GHT 5018</b>	7	8	175	175	1.35	45	30
GHT 5019	8	5	200	105	1.35	45	30
GHT 5020	8	6	200	125	1.35	45	30
GHT 5021	8	7	200	150	1.35	45	30
<b>GHT 5022</b>	9	5	225	105	1.35	45	30
GHT 5023	9	6	225	125	1.35	45	30
<b>GHT 5024</b>	10	4	255	85	1.35	45	30
GHT 5025	10	5	255	105	1.35	45	30
<b>GHT 5026</b>	11	4	280	85	1.35	45	30
GHT 5027	11	5	280	105	1.35	45	30
<b>GHT 5028</b>	12	4	305	85	1.35	45	30
GHT 5029	13	4	330	85	1.35	45	30
GHT 5030	14	4	355	85	1.35	45	30
GHT 5031	15	3	380	65	1.35	45	30
<b>GHT 5032</b>	16	3	405	65	1.35	45	30
GHT 5033	17	3	430	65	1.35	45	30
<b>GHT 5034</b>	18	3	455	65	1.35	45	30
GHT 5035	24	2	610	45	1.35	45	30

# **CERAMIC HEATER ELEMENTS**

#### **60 Volt Ceramic Heaters**

The 60 Volt ceramic heater is our standard ceramic heater and they are available in a wide range of sizes as shown in the table below.

GHT 5107**	3	32	75	660	2.7	45	60
GHT 5108	3	33	75	680	2.7	45	60
GHT 5109	3	34	75	700	2.7	45	60
GHT 5110**	4	24	100	495	2.7	45	60
GHT 5111	4	25	100	515	2.7	45	60
GHT 5112	4	26	100	535	2.7	45	60
GHT 5113	5	18	125	380	2.7	45	60
GHT 5114	5	20	125	420	2.7	45	60
GHT 5115	5	21	125	440	2.7	45	60
GHT 5116	5	22	125	460	2.7	45	60
GHT 5117**	6	16	150	335	2.7	45	60
GHT 5118	6	17	150	360	2.7	45	60
GHT 5119	6	18	150	380	2.7	45	60
GHT 5120	7	14	175	295	2.7	45	60
GHT 5121	7	15	175	315	2.7	45	60
GHT 5122**	8	12	200	255	2.7	45	60
GHT 5123	8	13	200	275	2.7	45	60
GHT 5124	9	11	225	235	2.7	45	60
GHT 5125	9	12	225	255	2.7	45	60
GHT 5126**	10	10	255	210	2.7	45	60
GHT 5127	10	11	255	235	2.7	45	60
GHT 5128	11	9	280	195	2.7	45	60
GHT 5129	11	10	280	215	2.7	45	60
GHT 5130**	12	8	305	170	2.7	45	60
GHT 5131	12	9	305	195	2.7	45	60
GHT 5132	13	7	330	150	2.7	45	60
GHT 5133	13	8	330	175	2.7	45	60
GHT 5134	14	7	355	150	2.7	45	60
GHT 5135	15	6	380	125	2.7	45	60
GHT 5136**	15	7	380	145	2.7	45	60
GHT 5137**	16	6	405	125	2.7	45	60
GHT 5138	17	5	430	105	2.7	45	60
GHT 5139	17	6	430	125	2.7	45	60
GHT 5140	18	5	455	100	2.7	45	60
GHT 5141	18	6	455	125	2.7	45	60
GHT 5142	19	5	480	105	2.7	45	60
GHT 5143	20	5	510	105	2.7	45	60
GHT 5144	21	4	535	85	2.7	45	60



	No of						
GHT 5145**	21	5	535	100	2.7	45	60
GHT 5146	22	4	560	85	2.7	45	60
GHT 5147	22	5	560	105	2.7	45	60
GHT 5148	23	4	585	85	2.7	45	60
GHT 5149	23	3	585	65	2.7	45	60
GHT 5150	24	3	610	85	2.7	45	60
GHT 5151**	24	4	610	85	2.7	45	60
GHT 5152	25	4	635	85	2.7	45	60
GHT 5153	26	3	665	65	2.7	45	60
GHT 5154	26	4	665	85	2.7	45	60
GHT 5155	27	3	690	65	2.7	45	60
GHT 5156	27	4	690	85	2.7	45	60
GHT 5157	28	3	715	65	2.7	45	60
GHT 5158	29	3	735	65	2.7	45	60
GHT 5159	30	3	760	65	2.7	45	60
GHT 5160	31	3	785	65	2.7	45	60
GHT 5161	32	3	815	65	2.7	45	60
GHT 5162	33	3	840	65	2.7	45	60
GHT 5163**	48	2	1220	45	2.7	45	60

<sup>\*\*</sup> Denotes standard ceramic pad heaters stocked.



Product Code: GHT 5130

Product Code: GHT 5163

#### **80 Volt Ceramic Heaters**

Globe have a range of 80 volt heaters which are compatible for those customers who use an 80 volt power source, mainly in North America and Canada.

GHT 5201	6	22	150	460	3.6	45	80
GHT 5202	8	17	205	350	3.6	45	80
GHT 5203	10	14	255	290	3.6	45	80
GHT 5204	12	11	305	230	3.6	45	80
GHT 5205	15	9	380	185	3.6	45	80
GHT 5206	17	8	430	165	3.6	45	80
GHT 5207	21	7	535	145	3.6	45	80
GHT 5208	33	4	835	85	3.6	45	80

# **CERAMIC HEATER ELEMENTS**

### Flexible Insulated Preheaters (FIP) 60V

For preheating a flexible insulated preheater is used, which is identical to the ceramic heater, but with a superwool insulation mat encased in stainless steel mesh and a stainless steel backing attached. Again the preheater can be used on both a flat or curved surface and is attached to the pipe by a magnet (GHT 9307). The

stainess steel backing allows the magnet to make a strong connection between the ceramic heater and the pipe quickly and with ease. These FIP's are used to preheat up to a temperature of 250°C.

Globe's standard preheaters are 60 volt however alternative voltage preheaters can be made upon request. The preheater can also be made from tank track beads in the same design.



Globe	Description	No of	Beads	Size i	in mm	Rating	Current	Voltage
Reference	Description -	A	В	A	В	(Kilowatts)	(Amps)	(Volts)
GHT 5501	CP3	3	32	75	660	2.7	45	60
GHT 5502	CP4	4	24	100	495	2.7	45	60
GHT 5503	TankTrack	1	24	100	775	2.7	45	60

Globe Reference	Description
GHT 5504	CP3 Stainless steel backing
GHT 5505	CP4 Stainless steel backing
GHT 5506	CP3 Insulation mat
GHT 5507	CP4 Insulation mat
GHT 5508	Split pin and washer for affixing



# **48 Volt Ceramic Heaters - Safety Extra Low Voltage (SELV)**

Globe have a range of Safe Extra Low Voltage 48 volt heaters which are compatible for those customers who use a 48 volt power sources to comply with SELV.

Globe	No of	Beads	Size i	n mm	Rating	Current	Voltage
Reference	A		A		(Kilowatts)	(Amps)	(Volts)
GHT 5301	3	33	75	670	2.5	52	48
GHT 5302	4	24	100	505	2.5	52	48
GHT 5303	6	16	150	335	2.5	52	48
GHT 5304	8	12	200	250	2.5	52	48
GHT 5305	10	10	255	210	2.5	52	48
GHT 5306	12	8	305	170	2.5	52	48
GHT 5307	15	7	380	145	2.5	52	48
GHT 5308	17	6	405	125	2.5	52	48
GHT 5309	21	5	525	105	2.5	52	48
GHT 5310	24	4	610	85	2.5	52	48
GHT 5311	48	2	1220	40	2.5	52	48



#### **Finger Elements**

Finger elements can be used for pre and post weld heat treatment. They are robust and require minimal maintenance. The element is made with NiCr wire threaded through ring beads. The tails are beaded with regular tail beads and a connector block is attached to the ends to

make the connection with the power source cables.

Each finger of the element is rated at 120 amps, 1.3 volts. The standard 60 volt, 2.7kW finger element is made from 46 fingers, each finger holding 5 beads as show in the digram. If an alternative voltage finger element is required the required size can be calculated from the following equation -



Voltage/individual finger voltage = Number of fingers required.

GHT 5701	Finger element	46	5	2.7	120	60
GHT 5702	Finger element	62	5	3.2	120	80

#### **Rope Heaters**

The rope heater is used for preheating and is a very flexible and robust heater which can be wrapped easily around pipes. They are manufactured with ball and socket beads which are threaded onto NiCr wire and then over-braided with additional wire.

					Voltage (Volts)
GHT 5801	Rope heater	2134	1.35	45	30
GHT 5802	Rope heater	4267	2.7	45	60
GHT 5803	Rope heater	5750	3.6	45	80



Product Code: GHT 5802

### **CABLES & SPLITTERS**

#### **Triple Cable Sets**

The triple cable set consists of two lengths of heat and oil resistant and filme retardant (HOFR), double insulated copper cable, complete with two 300 amp female twistlock connectors and an inline female thermcouple socket on one end and two 300 amp male twistlock connectors and an inline male thermcouple plug on the other end.

Used with a pair of splitter cables the triple cable set provides a feed and return from the power source to the ceramic heater elements at the workpiece. The length of the triple cable required for the job can be determined by the distance from the power source to the workpiece itself. Standard lengths in stock are 15m and 30m in 16mm² and 55mm² capper cable.



Product Code: GHT 6001

Globe Reference	Product	Copper Cable (mm²)	Length (m)	Current Rating (Amps)
GHT 6001	Triple cable set	16	30	135
GHT 6002	Triple cable set	16	15	135
GHT 6003	Triple cable set	25	30	180
GHT 6004	Triple cable set	25	15	180
GHT 6005	Triple cable set	35	30	225
GHT 6006	Triple cable set	35	15	225

#### **Ouad Cable Sets**

The quad cable and star point connectors are used to connect the mains voltage control unit to the chosen type of ceramic heater or channel element. At one end of the quad cable set are three 60 amp female twistlock connectors and one 300 amp male twistlock connectors and on the other end a 5 pin, 415 volt plug is attached.

Used with the star point connector three heating elements can be connected in 'Star' for each channel.



Product Code: GHT 6201

Globe Reference	Product	Copper Cable (mm²)	Length (m)	Current Rating (Amps)
GHT 6201	Quad cable with 3 x 60 amp female twistlocks, 1 x 300 amp male twistlock and 5 pin, 415V plug	16	30	135
GHT 6202	Star point connector with 1 x 300 amp female twistlock and 3 x 60 amp female twistlocks and 1 x 300 amp female twistlocks and 1 x 300 amp female	16	1	73



#### **Splitters**

Globe stock 2, 3, & 4 way splitters as standard. These are made from 16mm² copper cable in one metre lengths, with a 300 amp male twistlock connector on one end to attach to the power supply and three 60 amp female twistlock connectors on the other end for attaching to the ceramic heaters. The splitters are available in both black sheath and orange coloured sheath making the feed and return sides easily identifiable.

Globe Reference	Product	Copper Cable (mm²)	Length (m)
GHT 6102-BK	2 way splitter with 1 x 300 amp male twistlock $&2x60$ amp female twistlocks in black cable	16	1
GHT 6102-OR	2 way splitter with 1 x 300 amp male twistlock $&2$ x 60 amp female twistlocks in orange cable	16	1
GHT 6103-BK	3 way splitter with 1 x 300 amp male twistlock & 3 x 60 amp female twistlocks in black cable	16	1
GHT 6103-OR	3 way splitter with 1 x 300 amp male twistlock & 3 x 60 amp female twistlocks in orange cable	16	1
GHT 6104-BK	4 way splitter with 1 x 300 amp male twistlock & 4 x 60 amp female twistlocks in black cable	16	Ĩ
GHT 6104-OR	4 way splitter with 1 x 300 amp male twistlock & 4 x 60 amp female twistlocks in orange cable	16	1
GHT 6105-BK*	5 way splitter with 1 x 300 amp male twistlock & 5 x 60 amp female twistlocks in black cable	16	Ĭ
GHT 6105-OR*	5 way splitter with 1 x 300 amp male twistlock & 5 x 60 amp female twistlocks in orange cable	16	1

<sup>\*</sup>Made with 10mm2 copper cable.





Product Code: GHT 6103-BK

Product Code: GHT 6104-BK

# **INSULATION**

Globe sell both unmeshed insulation rolls and insulation mats of various sizes encased in stainless steel mesh, which enable the technician to choose the correct sizes for their workolece.

Superwool 607, 96kg density, is our standard insulation and can be used when working with temperatures up to 1100°C although short ferm exposure is only recommended between 1000°C and 1100°C. Superwool 607, 128kg density rolls and mats are also availables.

We also stock ceramic fibre rolls and we can make insulation mats with this product in a range of sizes as listed in the table below.



Product Code: GHT 7005

Globe	Size is	n mm	Product	Thickness	Density
Reference	Length	Width		(mm)	(kg/m³)
GHT 7001	300	300	Superwool 607	25	96
GHT 7002	300	600	Superwool 607	25	96
GHT 7003	300	900	Superwool 607	25	96
GHT 7004	600	600	Superwool 607	25	96
GHT 7005	600	900	Superwool 607	25	96
GHT 7006	600	1200	Superwool 607	25	96
GHT 7007	600	1800	Superwool 607	25	96
GHT 7101	300	300	Superwool 607	25	128
GHT 7102	300	600	Superwool 607	25	128
GHT 7103	300	900	Superwool 607	25	128
GHT 7104	600	600	Superwool 607	25	128
GHT 7105	600	900	Superwool 607	25	128
GHT 7106	600	1200	Superwool 607	25	128
GHT 7107	600	1800	Superwool 607	25	128
GHT 7201	300	300	Ceramic Fibre	25	96
GHT 7202	300	600	Ceramic Fibre	25	96
GHT 7203	300	900	Ceramic Fibre	25	96
GHT 7204	600	600	Ceramic Fibre	25	96
GHT 7205	600	900	Ceramic Fibre	25	96
GHT 7206	600	1200	Ceramic Fibre	25	96
GHT 7207	600	1800	Ceramic Fibre	25	96
GHT 7301	300	300	Ceramic Fibre	25	128
GHT 7302	300	600	Ceramic Fibre	25	128
GHT 7303	300	900	Ceramic Fibre	25	128
GHT 7304	600	600	Ceramic Fibre	25	128
GHT 7305	600	900	Ceramic Fibre	25	128
GHT 7306	600	1200	Ceramic Fibre	25	128
GHT 7307	600	1800	Ceramic Fibre	25	128



Unmeshed Superwool insulation is available in rolls which have the same thermal properties and can be used directly onto the work piece, without it being encased in mesh, if the technician prefers.

Globe Reference	Roll		Product	Thickness (mm)	Density (kg/m³)
GHT 7000	7.32m	610mm	Superwool 607	25	96
GHT 7100	7.32m	610mm	Superwool 607	25	128
GHT 7200	7.32m	610mm	Ceramic Fibre	25	96
GHT 7300	7.32m	610mm	Ceramic Fibre	25	128

The mesh for the insulation mats can be purchased in rolls and this is sold by the kilogram. We generally stock 10kg rolls however other weights are available upon request.

Globe Reference	Product	Width (mm)	Width (inches)	Approximate Length (m)	Roll (kg)
GHT 7901	Stainless steel mesh	100	4"	127	10
GHT 7902	Stainless steel mesh	127	5*	120	10
GHT 7903	Stainless steel mesh	330	13"	64	10
GHT 7904	Stainless steel mesh	635	25"	35	10



Product Code: GHT 7903 (left) & GHT 7902 (right)

# **SPARES & ACCESSORIES**

#### Plugs & Sockets

Globe Reference	Product	Images	
GHT 9001	60 amp male twistlock complete (cross seeve & pin)	GHT 9003 GHT 90	008 GHT 9004
GHT 9002	60 amp male brass	GHT 9002	10 00
GHT 9003	60 amp male sleeve	41 6 . 1	9 //
GHT 9004	60 amp male high temperature sleeve	GHT 9009	4
<b>GHT 9005</b>	60 amp female twistlock complete (cross seeve & pin)	411,3003	-
GHT 9006	60 amp female brass		
GHT 9007	60 amp female sleeve	GHT 9007	-9
GHT 9008	60 amp female high temperature sleeve	GHT 9006	GHT 901
GHT 9009	60 amp pin	GHT 9009	
GHT 9010	60 amp male panel mounted twistlock	GHT 90	10
GHT 9011	60 amp female panel mounted twistlock		



Globe Reference	Product	Images		
GHT 9023	Dinse socket 10/25			
GHT 9024	Dinse plug 10/25	4		A
GHT 9025	Dinse socket 35/50			<b>3</b>
GHT 9026	Dinse plug 35/50			
GHT 9027	Panel mounted dinse socket 35/50	GHT 9025	GHT 9026	<b>GHT 9027</b>

Images			Globe Reference	Product
GHT 9029			GHT 9028	110 volt in line plug
GHT 9028	-		GHT 9029	110 volt in line socket
6			GHT 9030	240 volt in line plug
100		L. El.	GHT 9031	240 volt in line socket
100			GHT 9032	110 volt panel mounted socket
	GHT 9032	GHT 9033	GHT 9033	240 volt panel mounted socket



### Plugs & Sockets

Globe Reference	Product	Images
GHT 9034	4 pin in line plug, 63 amp 415 volt	GHT 9037 GHT 9038
GHT 9035	4 pin in line socket, 63 amp, 415 volt	u > 0 > 0
GHT 9036	4 pin panel mounted socket, 63 amp 415 volt	
<b>GHT 9037</b>	5 pin in line plug, 63 amp 415 volt	
GHT 9038	5 pin in line socket, 63 amp, 415 volt	
GHT 9039	5 pin panel mounted socket, 63 amp 415 volt	1000000

Images		Globe Reference	Product
GHT 9040	GHT 9041	GHT 9040	Thermocouple plug type K, hollow pin in yellow
-	-	GHT 9041	Thermocouple socket type K, in yellow
20	2 2	GHT 9042	Thermocouple plug type K, solid pin in green
2.		GHT 9043	Thermocouple socket type K, in green
GHT 9044	GHT 9045	GHT 9044	Panel mounted thermocouple socket type K in yellow
		GHT 9045	Panel mounted thermocouple socket in green
		GHT 9046	Superior thermocouple plug type K, solid pin in yellow
E		GHT 9047	Superior thermocouple socket type K, in yellow

Globe Reference	Product	Images	
GHT 9048	Bulgin panel mounted plug & cap	GHT 9048 GHT 9049	
GHT 9049	Bulgin socket		9

Images	Globe Reference	Product
	GHT 9050	In line cannon connector socket
GHT 9050	GHT 9051	Panel mounted cannon plug

Globe Reference	Product	Images
GHT 9052	Mild steel connector block	GHT 9052

## **SPARES & ACCESSORIES**

#### **Transformers Spares**

Globe Reference	Product		
GHT 9147	Albright contactor, single pole, 200 amps. 110 volts, SW200N - 436		GHT 9151
GHT 9148	Albright contactor, single pole, 200 amps. 240 volts, SW200N - 569		
GHT 9149	Albright contactor repair kit for SW200N		1
GHT 9150	Auto/Manual switch	GHT 9147	100
GHT 9151	Neon indicator, 110 volt	GHI 9147	
GHT 9152	Neon indicator, 240 volt		
GHT 9153	Panel mounted fuse holder		
GHT 9048	Bulgin panel mount plug and cap	- 4	
GHT 9032	Panel mounted sockets, 110 volts	Van Carlot	
GHT 9051	Panel mounted cannon plug		
GHT 9021	300 amp female panel mounted twistlock	GHT 9149	-
GHT 9044	Panel mounted thermocouple socket type k in yellow	2.11 7147	GHT 9153



Globe Reference	Product Imc	iges		
GHT 3003	P159CF digital mini controller		GHT 3003	GHT 3004
GHT 3004	RF400 RKC digital mini controllers			The same of
GHT 3005	Electroserv mini analogue controller 481B-P-100K			
GHT 3006	Electroserv 6851	1 6	Co.	
GHT 9167	Energy regulator 110 volts		555	MONT
GHT 9168	Energy regulator 240 volts	0	GHT 300	15
GHT 9169	Aluminium knob	GHT 9167, GHT 9169		.5
GHT 9170	Scale for energy regulator	GHT 9170		
GHT 9171	Ammeter 0-200 Amp (48mm x 48mm)	GHI 9170	卷	
GHT 9172	Current transformer, 200/5 Amp			

#### **Wires & Cable Spares**

Globe Reference	Product
GHT 9200	Nickel chrome 80/20 19 strand wire (500m roll)
GHT 9201	Nickel chrome 80/20 37 strand wire (500m roll)
GHT 9202	Nickel chrome 60/16 19 strand wire (500m roll)
GHT 9203	Nickel 212, 7 strand wire (100m roll)
GHT 9204	Nickel 212, 7 strand wire (500m roll)
GHT 9205	Nickel 212, 19 strand wire (100m roll)
GHT 9206	Nickel 212, 19 strand wire (500m roll)
GHT 9207	High temperature wire up to 1200°c (500m roll)



Images

GHT 9207 High temperature wire up to 1200	0°c (500m roll)	
Images	Globe Reference	Product
	GHT 9208	Thermocouple wire type K, 0.711mm diamete double insulated, red & yellow (100m roll)
	GHT 9209	Thermocouple wire type K, 0.711mm diamete single insulated, red & yellow (100m roll)
GHT 9211	GHT 9210	Thermocouple wire type K, 0.711mm diamete double insulated, green & white (100m roll)
	GHT 9211	Compensating cable 13/0.2mm PVC in red (100m roll)
	GHT 9212	Compensating cable 13/0.2mm PVC in red (500m roll)
	GHT 9213	Compensating cable 13/0.2mm PVC in green (100m roll)

Globe Reference	Product Images	
GHT 9214	16mm² single insulated copper splitter cable – black (73 amps)	
GHT 9215	16mm² single insulated copper splitter cable – orange (73 amps)	GHT 9216
GHT 9216	16mm <sup>2</sup> double insulated HOFR copper cable - black (135 amps)	0
GHT 9217	16mm <sup>2</sup> double insulated HOFR copper cable – orange (135 amps)	
GHT 9218	25mm <sup>2</sup> double insulated HOFR copper cable – black (180 amps)	100000000000000000000000000000000000000
GHT 9219	25mm <sup>2</sup> double insulated HOFR copper cable - orange (180 amps)	
GHT 9220	35mm² double insulated HOFR copper cable – black (225 amps)	
GHT 9221	35mm <sup>2</sup> double insulated HOFR copper cable - orange (225 amps)	GHT 9217
GHT 9222	50mm <sup>2</sup> double insulated HOFR copper cable – black (285 amps)	(COMPA)
GHT 9223	50mm <sub>2</sub> double insulated HOFR copper cable - orange (285 amps)	
<b>GHT 9224</b>	70mm <sub>2</sub> double insulated HOFR copper cable – black (355 amps)	
GHT 9225	70mm <sup>2</sup> double insulated HOFR copper cable – orange (355 amps)	

<sup>\*</sup>Amperage rating calculations are based on 100% use over a 5 minute period

# **SPARES & ACCESSORIES**

#### **Ceramic Bead Spares**

Globe Reference	Product	Images
CB001	Main body bead	
CB002	Main body bead with hole	
CB003	Male end bead	
CB004	Female end bead	CB001 CB002 CB003 CB004 CB005 CB005W
CB005	Tail bead in pink	CB001 CB002 CB003 CB004 CB005 CB005W
CB005W	Tail bead in white	

Images	Globe Reference	Product
_	CB009	Channel bead, 4 bank main body (length 19mm, OD 30mm)
	CB010	Channel bead (length 14mm, OD 30mm)
	CB011	Channel bead (length 9.5mm, OD 30mm)
CB009 CB012 CB014	CB012	Channel bead (length 4.75mm, OD 30mm)
	CB013	Junction bead (length 27mm, OD 13mm)
	CB014	Castle bead with smooth edge
	CB015	Castle bead with straight edge
	CB016	Stepped bead (length 25mm, max OD 25mm min OD 19mm)
CB015 CB016 CB017	CB017	Disc washer bead
	CB018	Olive bead
	CB019	Small tail bead
	CB020	Twin hole bead
	CB022	Tube bead, (length 22mm, ID 4.8mm, OD 10mm)
CB020 CB023	CB023	Tube bead, 12mm (length 12mm, ID 4.8, OD 10mm)
	CB024	Small stepped bead flat top (max OD 17.5mm, min OD 11mm)
	CB025	Small stepped bead (max OD 17.5mm, min OD 11mm, ID 0.4mm)
	CB026	Small stepped bead (max OD 17.5mm, min OD 11mm, ID 5.5mm)
	CB027	Tube bead, (length 31.8mm, ID 7.4mm, OD 12.7mm)
	CB028	Tube bead, (length 42mm, ID 9.5mm, OD 14.6mm)
CB025 CB029	CB029	Tube bead, (length 50mm, ID 11.5mm, OD 17.5mm)
	CB030	Tube bead, (length 27mm, ID 9.5mm, OD 14.5mm)

Globe Reference	Product	Images
CB031	Tank track bead	
CB032	Tank track bead with one hole	
CB033	Tank track bead with two holes	CB031 CB032 CB033

Globe
Reference

GHT 9226 60 volit standard heater core wire NiCr 80/20 19 strand (approximately 5m in length inclusive of cold tails)
GHT 9227 60 volit standard heater core wire NiCr 60/16 19 strand (approximately 5m in length inclusive of cold tails)

OD = Outside Diameter - ID = Inside Diameter



### Miscellaneous Spares

Globe Reference	Product	Images
GHT 9301	Banding machine	
GHT 9302	Delux banding machine	
GHT 9303	Stainless steel banding ½" (13mm) wide, 30m roll	GHT 9301
GHT 9304	Stainless steel clips (100 per box)	GHT 9302
GHT 9305	Iron wire (25kg) roll	
GHT 9306	Square magnet pair	3
GHT 9307	Round magnet pair	GHT 9306 GHT 9307

Images			Globe Reference	Product
			GHT 9308	Poldi pocket hardness testing kit
4 4		111	GHT 9309	Poldi bar
GHT 9308		4.1	GHT 9310	Telebrineller hardness testing kit
Om 7300	GHT 9310	GHT 9311	GHT 9311	Telebrineller bar (Specify BHN of bar)

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Globe Reference	Product	Images
GHT 9312	Thermocouple putty	GHT 9312 GHT 9314
GHT 9313	PVC tape (red, blue, black, yellow & green and yellow)	
GHT 9314	Link set (to connect programmer & recorder to transformer)	ент 9313 Миг. Миг.
GHT 9315	Stainless steel crimps	OH 7515
GHT 9316	Stainless steel thermocouples (state diameter & length in mm)	
GHT 9317	Copper shim ½°(13mm) wide - 1kg roll	1
GHT 9318	Copper shim ¾"(19mm) wide - 1kg roll	
GHT 9319	Digital infrared and contact probe thermometer, type K	GHT 9316 GHT 9317