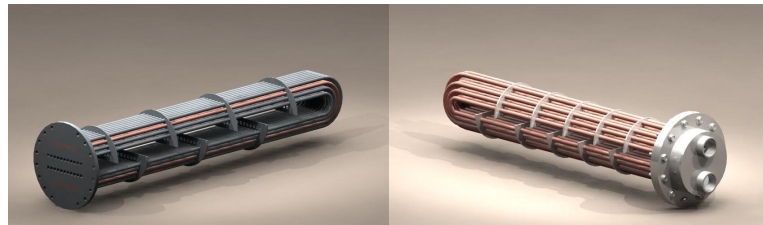




# Thermal Products Ltd

## Spares



## Water Heating & Heat Recovery For the Building Services Industry



As well as manufacturing goods, GMS are also able to supply spare and replacement items for your systems such as immersion heaters, gaskets, thermostats, valves, pumps as well as tube bundles and headers. This leaflet details a variety of spares that we offer, however if you cannot find what you are looking for, please do not hesitate to contact us to discuss your enquiry, we may be able to help you or point you in the right direction.

Intro

### Immersion Heaters

GMS use electric immersion heaters as an alternative heating source as it requires low installation, maintenance and has low off-peak costs. It can also be a cost effective back-up for other heat sources during periods of low demand and shut-down of the main primary heating source. Electric Immersion Heaters are used as the main source of heat in our Electric Storage Calorifiers

GMS can provide a range of immersion heaters to suit your requirements from 1kW to 250kW power supply in a range of screwed or flanged connections (dependent on Kilowatt rating). Below is a summary of the options available.



**Fixed Element:** Lowest cost option but if one element fails, the entire heater must be replaced



**Replaceable Elements:** These are fixed to the element plate using special nuts and glands. A failed element can be replaced (after draining the calorifier to remove the heater) without wasting the remaining good elements

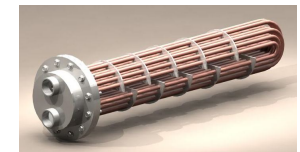


**Removable Core Elements:** The highest cost type. Each heater element can be withdrawn from the immersion heater and replaced without draining down the calorifier.

*N.B. Element Sheaths are available in Copper, Nickel Alloys and Stainless Steel.*

U-Tube batteries are the most common method of heat exchanger for use with calorifiers. The battery consists of a number of 'U-tubes' expanded into a tube plate. The tubes and tube plate can be manufactured in a variety of materials to suit the shell material and application.

GMS can design U-tube Bundles based on kilowatt rating, primary temperatures available and the secondary temperatures required. Tube bundles can be designed and manufactured for new installations or can be designed as replacement items suitable for existing units.



Tube Bundles

Replacement gaskets can be provided in NBR, EPDM or NOVUS materials. Gaskets can be provided for headers, flanges, and inspection openings. If the replacement gasket is for a GMS unit all the information that we require is the original contract reference. If the gasket is for a 'non-GMS' unit we will require a template or details regarding the PCD, overall diameter, thickness required etc. Our sales department will be more than happy to help you with your enquiry.

### Gaskets

GMS stock a variety of own brand pressure and altitherm gauges.

**GMS Altitherm Gauge** – displays both the pressure and temperature (0-4 BarG, 0-120°C) bottom entry

**GMS Pressure Gauge** – bottom/back entry, 100mm/63mm Diameter Dial, 1/4" / 3/8" BSP Connection, 0-7 BarG or 0-14 BarG



We quote all of our unvented cylinders with an unvented kit, however if you forgot to order one or just need a couple of spares GMS can provide a quotation for the correct unvented kit that you require.

**Expansion Vessel** - this is sized based on the storage volume of the system and maximum water pressure after thermal expansion. See next page for more details

**Expansion Vessel Accessories** – DN20 Expansion Vessel Isolating Valve (Lockshield Type), Drain Valve (Ball Type) and Relief Valve

**Temperature & Pressure Relief Valve** – used to protect the vessel from over pressure and over temperature. A temperature relief valve may only be required as the expansion relief valve can be used to protect against over pressure. The type and size of valve is based on the kilowatt rating and design pressure of the vessel

**Anti-Vacuum Valve** – eliminates the risk of vacuum conditions within the vessel which could cause the vessel to collapse

GMS are also able to provide you with a full range of valves and accessories that you may require for water systems such as; air vents, *check valves*, *PRV valves*, *strainers*, *steam traps*, *bursting discs*, *solenoid valves*, *control valves* and *many more*.

Please contact our sales department for more information and a quotation.

### Unvented Kit

Expansion vessels are commonly used to protect closed water heating systems and domestic hot water heating systems from being exposed to high pressure. Expansion vessels work by being part filled with air, this then protects the system by cushioning any shock which is caused by water hammer and also absorbing any excessive water pressure which may have been caused by thermal expansion.

GMS supply two types of expansion vessel

- Heating Expansion Vessel
- Potable-Water Expansion Vessel



Modern expansion vessels are split, air is contained next to the steel interior wall of the vessel and the centre of the vessel contains a butyl membrane which holds water which is pushed from the water system when the pressure within that system becomes too high. The butyl membrane used within an expansion vessel can be suitable for potable domestic hot water systems and meet drinking water regulations. When the heating system is empty the butyl membrane is pushed against the water inlet which is connected to the heating system and supplies the hot water, as the water increases within the water heating system, water is pushed into the expansion vessel and the butyl membrane fills, this then expands and compresses the air that is contained within the vessel.

### Expansion Vessels

The GMS dial thermometer is a standard dial thermometer for use with water applications and comes complete with pocket (other thermometers can be quoted on request). Specification as below;

**Mounting:** Bottom or Back entry

**Temperature Range:** 0°C to 120°C

**Maximum Pressure:** 16 BarG

**Pocket:** 100mm ½" BSP Solid One Piece Brass

**Dial:** 100mm Diameter, Dual Scale °C & °F



### Thermometers

**For further information please contact our sales team at:**

**Phone:** 01457 835 700

**Fax:** 01457 832 700

**Email:** [sales@gmsthermal.co.uk](mailto:sales@gmsthermal.co.uk)

**Web:** [www.gmsthermal.co.uk](http://www.gmsthermal.co.uk)

**Address:** GMS Thermal Products Ltd, Unit 5, Glover Centre, Egmont Street, Mossley, Ashton-Under-Lyne. OL5 9PY