



The Electric Vaporising Aid for LPG Cylinders



The VaporBooster™ heating belt **increases vapour flow from LPG cylinders**. This flexible electric heating pad is designed to add heat - to boost low LPG vapour pressure and flow rates when Natural Vaporisation is not enough. The VaporBooster™ is **very durable, flexible, safe and moisture resistant** and is constructed of a fused matrix of silicon layers, reinforcing mesh and electrical ribbon heaters. The integral expanding strap allows the pad to be **quickly and easily installed** on most cylinders.



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Benefits of the VaporBooster™ Vaporising Aid

- **Increases safety** of LPG installations by reducing storage requirements.
- **Maintains increased pressure and flow** even with high levels of Butane.
- Vaporising pad **easily attaches** to the lower portion of the cylinder.
- **Maximizes the use of LPG** in the container.
- Maintains LPG vapour pressure and flow for **peak and steady** high demand conditions.
- **Reduces LPG storage requirements** by increasing cylinder vaporisation capacity.
- **Minimises negative effects of low ambient temperatures** and **low liquid LPG level** on vapour pressure even under high use conditions.
- **Models available** for most cylinder sizes 9 to 45kg, 230 VAC power.

Highest Efficiency Through Maximum Use of Natural Vaporisation.

The VaporBooster™ vaporisation aid is specifically designed to safely and reliably boost the delivery of LPG vapour from containers. The innovative heater design has been extensively engineered and tested by a team of International Engineers to create a superior performing product that will operate trouble-free for years.

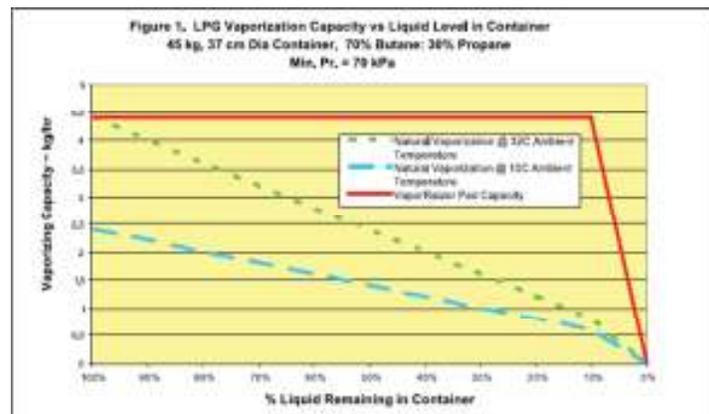
The Need for the VaporBooster™ Vaporising Aid

The VaporBooster™ is a relatively simple device that has been thoroughly engineered. The device is a flexible pad with imbedded electrical heating elements and integral controls. The pad is easily installed directly on the lower portion of the LPG cylinder.

When installed and plugged into the AC power supply, the VaporBooster™ turns on when the pressure in the LPG container falls to the normal set point of 70kPa for a 30% Propane and 70% Butane mixture. The capacity rating of the VaporBooster™ is for a blanket surface temperature 10°C above the corresponding LPG temperature at 70kPa. The temperature of the cylinder cannot go higher than 35°C from the electrical heating because of the built-in thermostatic controls.

Minimizes Temperature & Liquid Level Effects on Vaporisation

For many applications, the pressure and flow from natural vaporisation of a cylinder is entirely adequate when the outside temperature is above 32°C, and when the liquid LPG level is high. Figure 1 shows the effect of air temperature and container liquid level on natural vaporisation capacity. The VaporBooster™ maintains the required container pressure and flow even when either, or both, of these conditions fall below optimum levels.



Maintains LPG Vapour Pressure

The VaporBooster™ system maintains a minimum LPG pressure of 70kpa (10 psig) by automatically turning on at low cylinder temperatures.

The VaporBooster™ does not raise the cylinder temperature above 32°C (+/- 5%).

Allows Nearly Complete Use of LPG Liquid in the Cylinder

Even at low liquid levels, the VaporBooster™ allows for full vapour flow from the cylinder by providing low temperature heat near the bottom of the container.

Increases Safety of LPG Storage & Use

The VaporBooster™ provides additional vaporisation capacity from each cylinder. The electric vaporising pad operates at less than 32°C at all times, and as such is safe for use in all areas.

Simple to Install and Use, High Quality, Durable, Economical

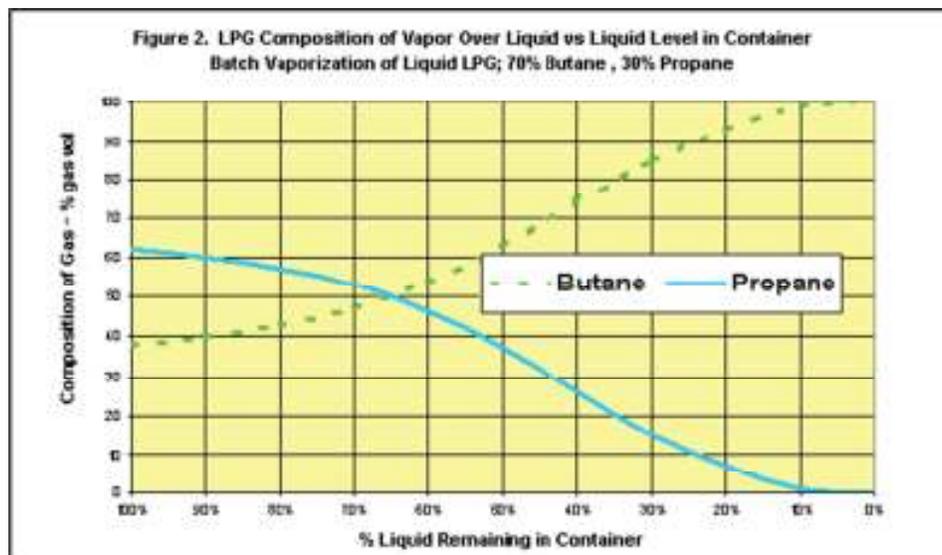
The VaporBooster™ can be attached or removed from the cylinder in moments, and it plugs into readily available power; 230VAC. It is a safe, high-performance and innovative product that is effective, trouble-free and will last for years.

Reduces LPG Storage Requirements

The VaporBooster™ system reduces the storage space required of multiple cylinder installations by maximizing vaporisation capacity even at times of high use. One cylinder with a VaporBooster™ installed may take the place of up to 4 cylinders when only using natural vaporisation.

Maximise Efficiency by Supplementing Natural Vaporisation

Natural Vaporisation is the primary source of energy for vaporisation even when using the VaporBooster™ heater. If the temperature is above 30°C and the vapour demand is within the limits of natural vaporisation the VaporBooster™ will be off. If the container temperature drops due to higher flow demands or low liquid level, the VaporBooster™ adds heat to the liquid LPG in the container to make up for the energy not supplied from the air.





Specifications

Design Purpose

- To supplement **natural vaporisation** in LPG Cylinders.
- Specifically **designed for the most popular vertical containers** 9, 12 & 45kg capacity. VaporBooster™ for other gas cylinders and sizes are available.

Pad Dimensions

- VB-100; 230V.ac 907mm long x 120mm high
- Power cord is 2.74M long (other power cord lengths are available).
- An expandable bungee strap secures the pad to the container.

Rated Capacity

- **Vapour Flow Rate** = 4.5 kg/hr (225MJ/hr) of 70% Butane 30% Propane at 0°C.
- **Input power** = 500 watts.
- **Power density** = 500 watt/unit = 0.46 to 0.5 watts/cm²

Operating Controls

- Hermetically sealed thermostat senses the temperature of the cylinder and ensures the temperature for adequate evaporation of the gas. This temperature is set at 32.5°C +/- 8%

Safety



Two cut-off devices monitor the heat output for increased safety. One automatically cycles while the second (Red #2) requires a manual push to reset. All thermostats are applied against the LPG cylinder. They measure the temperature of the Cylinder surface.

Thermostat #1: **Automatic On-Off**

Turns the heater on at 30°C and off when the temperature reaches 40°C.

Thermostat #2: **Over Temperature Safety Barrier**

In case of overheating due to malfunction, de-activates heating at 50°C. Requires Manual Reset.

Electrical Requirements

- 230 VAC 2.3 amps.

Materials

- **Elastomer:** High temperature Silicone Rubber; UV stable, non-flammable, and waterproof.
- **Sealant rating:** IPX7



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