

## **HUUSKES TAKES OUR COLD BATTERY INTO USE**

We can determine that the sustainability and flexibility are becoming increasingly important points of focus for our clients. As a result of the more stringent environmental legislation and municipal regulations, there is an increasing demand for products that serve the need to be green and efficient. With our rechargeable mobile refrigeration units, which we produce for the transportation and container industry, we can make a significant contribution to this demand.

BoTemp supplies rechargeable cold-storage systems, which are filled with a non-toxic and biodegradable gel, called PCM. (Phase Change Material)

In this newsletter, you will read about the findings of Huuskens, one of our customers regarding above issues.

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## **THE ADVANTAGES OF OUR PRODUCTS IN SHORT**

- Charging and usage of cold are disconnected from each other
- Low Total Cost of Ownership
- No emissions
- No noise
- Low maintenance & repair costs
- Easy to operate
- Sustainable
- Eligible for subsidies

Scroll down if you want to read more about our product features.

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## CUSTOMER INTERVIEW: HARRIE REINK AT HUUSKES

Harrie Reink is logistics manager at Huuskes, a Dutch food supplier who focuses on professional consumers. Harrie has an extended experience of 20 years in selecting transportation resources, as well as refrigeration systems. He facilitates the Huuskes fleet with any means necessary for everyday operation.



### Why did you choose BoTemp?

“Being sustainable is an important condition to select a particular refrigeration system”, replies Harrie. “We face numerous challenges these days and found the solution at BoTemp. Especially in inner cities regulations are severe. Your systems are silent and produce no CO2 emissions during operation at all. The refrigeration system keeps producing cold, even when the vehicle engine is switched off.”

Also, the financial advantages proved to be a major reason for Harrie to choose for BoTemp. “On the one hand, we save on diesel cost, on the other hand, we experience a longer operating life than conventional refrigeration systems.”

### Our solution for Huuskes

Harrie needs sufficient capacity for their two compartments 18-tonne trucks, to ensure the desired temperatures throughout the day. Frozen food must be delivered at a temperature of -18°C, fresh products should stay below 3°C.

Harrie: “We selected your Battery for variable temperatures in combination with an On Board Charger. It gives us the flexibility to change temperature settings for each compartment, and it gives us the latitude to charge wherever the vehicle is located because the charger is on board.

### About Huuskes

Huuskes is a supplier of fresh, chilled and frozen food for hospitals, healthcare institutions, and caterers throughout The Netherlands. Its fleet consists of more than 80 vehicles. Deliveries are derived from various distribution centers throughout the country. Every morning the vehicles are loaded with fresh vegetables, meat, ready-made meals and portioned fresh products. Their product range consists of 35,000 articles every day. Huuskes states corporate social responsibility and sustainability as their main objectives of their business management.

## OUR COLD BATTERY & COLD CHARGER

Our rechargeable refrigeration units consist of a Cold Battery filled with a non-toxic and biodegradable Phase Change Material gel. (PCM) This Battery is charged with cold by an all-electrical refrigeration unit, the Cold Charger.

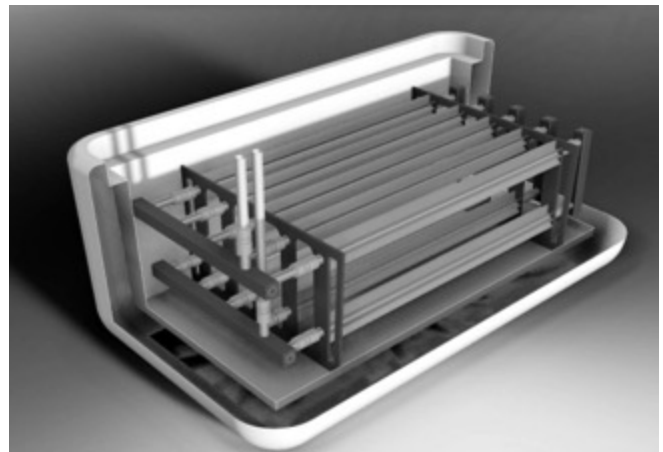
Phase Change Material gel is the core of our technology; it stores thermal energy. The PCM gel releases the cold energy gradually to maintain a set temperature in a compartment for up to six days.

### **COLD BATTERY**

We offer two types of our Cold Battery: One for variable temperatures and one for freeze or chill applications.

#### Variable temperatures

The temperature range of this Battery is between  $-25^{\circ}\text{C}$  and  $+5^{\circ}\text{C}$  and can be used in one or more compartments. The Cold Battery consists of an insulated container filled with PCM and is mounted outside the cargo area. A heat exchanger brings the cold from the Battery into the loading space. A thermostat is set to the required temperature in the cargo area. This Battery with variable temperatures is available in different capacities, sizes, and shapes.



#### Freeze or Chill

This type of Battery is a robust, leak-proof synthetic tube system filled with PCM. This Battery radiates directly into the compartment and has a fixed temperature setting per compartment. The Batteries Chill and Freeze are available in various lengths and are mounted in the cargo area.

### **COLD CHARGER**

Once the vehicle is at a charging station, the Charger is connected to the Battery and the 380V power grid. Charging time is between four and eight hours and is easily done overnight. We offer two types of Chargers.

#### Remote Charger

This Charger remains at the home base. Charging takes place through a quick coupling system. The main benefits: a lower vehicle weight, more space for cargo and therefore higher transport revenues. The Remote Charger is a flexible system with low operating costs because it can charge several vehicles at the same time.



### On Board Charger

This type has the main advantage that it is always available to charge the Battery as soon as external power is available. Just plug the Charger into a 380V socket.

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## RESEARCH & DEVELOPMENT

We improve our systems continuously. Since our Battery with variable temperature is a fairly new product, we want to learn everything about its behavior and habits. Do our promises still stand? Does shaking of the truck affect the operation? We have planted over 20 sensors in a vehicle of one of our clients (Huuskes) to test these objectives. A specific sensor system provides us with up to date information on a daily base. In the next quarter, we expect to have the first test results.

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## GENERAL CONTACT INFORMATION

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