











VIPA International Case Study

Vacuum insulated boxes provide the UK NHS Blood and Transplant with a transportation solution for blood components nationwide

The temperature controlled transportation of blood components is an essential link in the blood supply chain from processing sites to hospitals and patients. Relying on VIP technology, NHS Blood and Transplant (NHS BT) has established a deviation-free, temperature controlled transportation solution for blood components nationwide.

The Problem

NHS BT supplies two million blood units to hospitals in England and North Wales each year. These units can also be blood components like red blood cells (RBC), platelet concentrates (PC) and frozen plasma. "We dedicate ourselves to saving and improving patients' lives. That is why we needed to establish reliable and temperature controlled transportation solutions nationwide to guarantee blood arrives at the right temperature anywhere in the UK", says Philip Taylor, Senior Buyer Strategic Goods at NHS BT.

To maintain its oxygen-carrying ability, RBC's must maintain a surface temperature between +2°C and +6°C until used. Platelets must be transported at a temperature between +20°C and +24°C to prevent coagulation. The optimal storage temperature for frozen plasma is below -30°C. The required transportation solution must be cost efficient per use, simple to operate and carry, and suitable for short and long distances.

The Solution

Since 2009, NHS BT uses a customized box which meets thermal, health and safety requirements for blood and blood products. Vacuum Insulation Panels (VIPs) in the box walls protect the blood units from extreme ambient temperatures, Phase Change Materials (PCM) inside maintain specific temperature ranges for several days. The customizable outer fabric bag enables easy and secure handling.

The Result

"With the vacuum insulated box we have established a reliable solution for every blood component", says Teresa Long, Strategic Lead Specialist, Hospital Services at NHS BT. The ergonomic design, barcode window and documents holder facilitates easy handling. The high performance solution offers customized color coding and specific different temperature ranges from -50°C to +40°C with the use of PCM for shipments up to 120 hours. "The thermal box means a support for the "Help save a Life – Give the Gift of Blood" Initiative of NHS BT", concluded Teresa Long.

Case Study provided by va-Q-tec AG.

About VIPA International:

The Vacuum Insulation Panel Association is a global trade association representing the interests of manufacturers of vacuum insulation panels as well as supply chain. The mission of the association is to act as the global voice of the vacuum insulation panel industry, promote quality and raise awareness of the potential to save space and energy costs and to reduce carbon dioxide emissions in a wide range of applications and industries. VIPA International is a 501 (c) (6) not-for-profit organisation incorporated under the law of the State of Delaware in the United States of America. The association was created in August 2014 by ten founding members. For more information, visit the website: www.vipa-international.org.







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