Chart Vacuum Insulated Liquid Use Withdrawal

Environmental Test Chambers require extremely cold, low-pressure liquid. In order to maintain the condition of the liquid being transferred from the storage tank to the Environmental Test Chamber, you need to incorporate the most efficient piping and plumbing components. It all starts at the tank!

Chart has developed the most efficient storage tank for low-pressure liquid use applications, like Environmental Test Chambers. Chart offers sate-of-the-art insulation technology, which maintains the liquid in its lowest possible temperature, while maintaining low pressure required to cool the Environmental Test Chamber.

Traditional storage tanks are designed for gas use only applications. Therefore, low-pressure liquid management is not necessary. A gas use application storage tank utilizes bronze, uninsulated globe valves for removing the high-pressure liquid from the tank and converting it quickly to gas. Low-pressure liquid applications are just the opposite in function. The condition of the liquid stored in the tank is the same as the condition of the liquid the Environmental Test Chamber requires to function.

The two illustrations below reflect the thermo efficiency or lack there of, in both designs of liquid use valving on the storage tank. The ice build up on the uninsulated valve design not only causes a maintenance problem, it also causes a safety concern when needing to shut off the liquid supply to the Envionmental Test Chamber. Many times the valve handle is concealed in the ice formation, making it impossible to shut the valve off.

Poor valve efficiency at the tank not only costs you thousands of dollars a year in wasted liquid nitrogen; it also causes the Environmental Test Chamber to operate at a fraction of its potential. The warmer the liquid to the Environmental Test Chamber, the slower you can expect your products to change rate.

Insist on a Vacuum Insulated Liquid Use Valve on your Liquid Nitrogen Storage Tank!

OLD TECHNOLOGY

NEW VACUUM TECHNOLOGY

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