

This white paper introduces nSure, a solution designed to tackle the freezing orifice dilemma that tank burners face head-on. Say goodbye to downtime, lost revenue, and maintenance headaches. Let's dive into how nSure transforms the game for companies operating in cold climates.

In regions with cold climates, oil field tank burners frequently encounter operational downtime caused by frozen orifices, resulting in substantial losses for companies. The presence of moisture in the wet gas extracted from the ground contributes to the freezing of orifices during the combustion process. Consequently, producers can't treat their oil which results in a bottleneck. Moreover, workers are compelled to brave freezing weather conditions at all hours to manually thaw the orifices and gas lines, further exacerbating the operational challenges faced by companies.

The Solution: nSure

Experience unparalleled reliability in cold weather conditions with our revolutionary nSure technology. Engineered to thrive in temperatures as low as -40 degrees Celsius, our innovative design ensures optimal performance even in the harshest environments.

Key Features:

Internally Heated Orifice: Our advanced patented glycol heated block technology guarantees that the internal orifice remains heated, preventing exposure to extreme cold temperatures.

Supports Wet Natural Gas or Propane: Versatile compatibility for various fuel types, providing flexibility for different applications.

Easily Removable Orifice: Simplified maintenance and troubleshooting with an orifice that can be effortlessly removed and reinstalled.

Adaptable to Any Burner System: Seamlessly integrate the nSure block into your existing burner system for enhanced reliability.

Optional Thermocouple: Monitor glycol temperature with precision through SCADA, ensuring optimal operation and early detection of issues.

No Need to Upsize Glycol Lines: Eliminate back pressure loss with traditional radiators, as our system eliminates the need for upsizing glycol lines.

Optional Quick Hose Adapters: Streamlined maintenance and servicing with quick hose adapters for easy removal.

No Restriction or Back Pressure: Ensure uninterrupted operation with our glycol pump system, free from restrictions or back pressure.

Eliminates Pre-Heaters in Burner Housing: Simplify your setup and reduce complexity with our integrated heating solution.

Tested in Canadian Winters: Rigorously tested in harsh winter conditions to ensure reliability and performance.

Extended Glycol Pump Lifespan: Reduced restriction means glycol pumps run longer, enhancing overall system longevity.

Technical Details

Glycol Heating: The glycol heated block operates by circulating warm glycol fluid from the engine's skid to the nSure block, which then transfers the heat to the orifice. The orifice will adopt the same temperature as the glycol process

Minimal Back Pressure: One of the key advantages of our system is the minimal back pressure it introduces to the glycol system. This ensures efficient circulation of glycol fluid without impeding the overall performance of the system.

Prevention of Freeze-offs: Freeze-offs in the orifice are a common issue in cold weather conditions. However, with our heated orifice technology, this risk is mitigated. By constantly heating the orifice via the glycol circulation, we eliminate the possibility of freeze-offs, thereby ensuring consistent and reliable operation.

Seamless Integration and Compatibility: Our nSure Heated Orifice Block seamlessly integrates into existing burner systems, offering versatile compatibility with both wet natural gas and propane. This adaptability allows for flexible application across various industries and environments.

In conclusion, the introduction of nSure is the solution to the freezing orifice dilemma confronting tank burners in cold climates. By addressing the persistent challenges of operational downtime, revenue loss, and maintenance burdens, nSure heralds a new era of reliability in oil field operations. The effects of frozen orifices, exacerbated by moisture in extracted wet gas, lead to significant bottlenecks in oil treatment processes and demand arduous manual interventions in harsh weather conditions. However, with nSure's patented technology, you can completely eliminate these adversities. Engineered to excel in temperatures as low as -40 degrees Celsius, nSure's internally heated orifice, and adaptable design, offer unparalleled performance and versatility. With features like optional thermocouples, seamless integration, and extended pump

lifespans, nSure not only resolves existing challenges but also anticipates and mitigates potential issues, ensuring consistent, reliable operation in diverse industrial environments. As the industry embraces nSure, it embraces a future of enhanced productivity, minimized downtime, and optimized performance in the face of cold climate challenges.