

LARGE CRUDE OIL STORAGE TANK TRAC-LOC INSTALLATION PROJECT

PROJECT DETAILS

Client:	A Leading Petrochemical Company
Location:	Guangdong Province, China
Completion Date:	May 2011
Contract Scope:	Engineering Design, Material Supply and Installation
Applications:	Crude Oil Tank Insulation
Technology:	nVent Tracer Trac-Loc Vertical Interlock Panel System for Tank Insulation



KEY CHALLENGES

A leading Chinese petrochemical company had twelve 20,000 m³ and two 80,000 m³ crude oil storage tanks, each with a flat bottom and floating roof, under operation in a hazardous zone classification that had no exterior insulation coverage due to a lack of thermal requirements. According to new business and operation requirements, exterior insulation on the tanks' vertical body was necessary for six of the existing 20,000 m³ crude oil storage tanks in order to meet the customer's thermal and energy-saving requirements.

The exterior insulation execution presented many challenges as the tanks were in operation, and operations could not be suspended in order for the work to be completed. Also, being located in a hazardous zone, no hot work was allowed.

Structurally, the exterior insulation required additional engineering and planning as the tanks were located on a coast prone to typhoons.

SOLUTION

nVent offered a private label tank insulation solution called Trac-Loc. Constructed with superior insulation technology, Trac-Loc tank insulation was designed for large flat-bottom, stationary steel storage tanks used to store materials sensitive to temperature fluctuations. The vertical double-locking standing seam insulation panel system is unique in its design, panel construction and installation techniques. It is a more cost-effective solution compared to conventional systems as the need for expensive and time-consuming scaffolding is not required.

PRODUCTS

To meet the needs of this challenging application, nVent offered the aforementioned Trac-Loc Tank Insulation System, along with the following key deliverables:

- Project Delivery Schedule, including Man-hour Requirements and Indirects
- Custom Trac-Loc Engineering Design and Fabrication Drawings
- Client Specific Prefabricated Insulation Panels
- System Product and Material Supply
- Installation Drawings, Manuals

BENEFITS

Installation required no scaffolding, and no steel structure or welding work. This avoided all hot work, which reduced the potential for on-site EH&S issues. It also expedited project completion. The superior Trac-Loc technology and aesthetics improved not only work area appearance, but the entire working environment of the facilities.

The superior double-locked vertical standing seam is extremely sturdy and made to withstand damage from inclement weather. Additionally, the hermetic protection allowed for advanced thermal insulation. The entire system's stable long-term performance only added to the customer's energy-saving and greatly reduced the total overall operational costs.

With decades of experience in designing, manufacturing and installing heat management systems, nVent was able to provide a comprehensive solution to satisfy the customer's unique needs. By installing the private label Trac-Loc system, the customer was able to reduce heat loss/gain at a fraction of the cost of conventional systems.

nVent provides unique solutions for various applications and offers a full suite of optimization strategies customized for a given application resulting in the highest reliability and performance at a reduced CAPEX/OPEX for the project.

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