



Thermal News *Spring 2014*

closing the loop on thermal solutions

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www.durexindustries.com

Welcome! Durex continues to develop new product and manufacturing capabilities that we want to share with our customers and employees. In this issue, readers will learn about new capabilities at our Process Heat Division and Temperature Sensor Product Group.

Durex Receives ASME 'U' Certification and National Board 'R' Designation

Durex continues to expand its capability to serve industries requiring immersion and circulation heaters for high pressure and temperature applications. We received an ASME (American Society of Mechanical Engineers) Certificate of Authorization for the manufacture of ASME Section VIII Division 1 Code stamped pressure vessels with ratings up to 3,000psi. We also received the NBBI (National Board of Boiler and Pressure Vessel Inspectors) 'R' Designation which allows Durex to repair and/or re-rate pressure vessels and heaters, whether they were manufactured by Durex or others.



Durex Ind. Process Heat Team ASME Certification

Code stamping means that a third party (known as an Authorized Inspector or AI) reviews the design calculations, materials, weld procedures, quality control and final inspection of each and every ASME code job to ensure that Durex is in compliance to Code standards. This provides customers with the certainty that the products were built as required.

"Getting these certifications not only allows us to offer new capabilities to our existing customers, but opens new markets for Durex globally," said Jim Tomlinson, Process Heat Business Group Manager.

He added, "This is the latest milestone in Durex's drive to becoming a world class manufacturer. We still have many milestones to strive for on our journey of continuous improvement."

For more information on Durex capabilities, contact our Process Heat division or visit our website! www.durexindustries.com ■

Process Heater and Panel Skid Packages Provide Customer Solutions

Oil and gas exploration as well as oil and gas processing industries continue to be strong growth areas for Durex. A growing number of companies want engineering help and expertise in problem solving, especially in improving equipment performance and packaged heating solutions. One such customer was having problems with heaters used to heat holding tanks. The tanks contained liquids, solids and lubricants used in well drilling. Durex suggested going to an external circulation heater system with pump, piping, control panel and instrumentation. Although the customer had their own control panel building capabilities, Durex was given the entire project to ensure system integrity and single source responsibility. ■



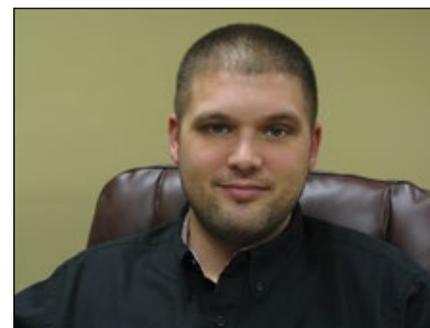
Durex Industries Process Heat Division designed and manufactured skid systems

"Durex Industries continues to be an industry leader by pushing the limits of thermal technology."

heaters • sensors • controls • process systems

Electric Heater Conversion in Fuel-Fired Separators

Christian Smith, Product Sales Manager for Temperature Sensors, Cast Heaters and Cartridge Heaters, has a technical article being published in the April 2014 issue of Process Heating. Durex occasionally receives RFQs from potential customers looking to possibly switch from gas or oil heating to electric heat. The main drivers are reduction of local exhaust emissions, equipment up-time and the comparatively low cost of remote, lower-powered electric heater installations. In the article, Christian elaborates on field experiences of using both direct immersion and indirect immersion heater replacements for fuel-fired burner systems. The challenges revolve around identifying potential known and unknown sources of chemical attack on the heater sheath and getting accurate and comprehensive application information.



*Christian Smith, Durex Industries
Product Sales Manager*

Check out Christian's article in April's edition of "Process Heating" magazine. ■

Sensor Team Shines in Solving Customer Problems

Durex has been making temperature sensors for decades. One of the reasons the sensor group continues to be a leader in growth at Durex is its problem solving and product development capabilities. For instance, a manufacturer of pressure washers was having problems with temperature sensor life in a heated, high pressure application. Durex engineered a moisture-sealed, heavy wall, high pressure sensor design using Class 6000 fittings to ensure a minimum of 4,000 psig continuous pressure rating.



Temperature sensor installed in power unit

In another case, a manufacturer of over-the-road power equipment was experiencing sensor failure due to moisture, road salt and dirt migrating into the sensor assembly internals. Durex analyzed the sensor and discovered that thermal expansion and contraction, over time, were allowing these contaminants to seep into the sensor causing corrosion and sensor error. Durex developed a probe design to remove the contamination pathways and eliminate the problem.

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In one final example, a manufacturer of boilers and water heaters was experiencing corrosion and pitting of the thermowell, despite switching to 316L material. To solve the problem, Durex developed a gold-plated thermowell and sensor assembly with thinner walls to not only prevent corrosion, but also improve sensor response time. ■

Thermal Solution Competency

Durex Industries is a unique heater, sensor and controller manufacturer, as we have an in-house capability to design and manufacture thermal solutions without being overly dependent on a large supplier base. At our Cary, Illinois facilities, Durex designs and manufactures thousands of custom cable, cast, Kapton®, silicone rubber, tubular and process heaters, temperature sensors and controllers for industrial equipment applications.

Contact Durex Industries for all your heater, sensor and control requirements.



For more information, visit our website!

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