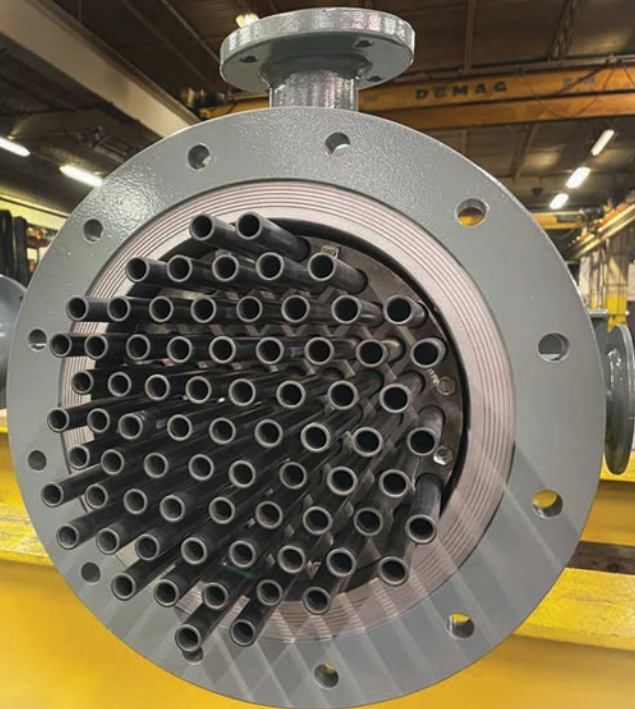


**CGThermal**  
Process Technology Solutions  
for Harsh and Corrosive Process Streams



**Impervite® Advanced Graphite**

*Shell and Tube Heat Exchanger*

# Next Generation Graphite

*Completely Field Repairable • Resistant to Thermal Shock  
Low Fouling • Corrosion Resistant • Proprietary Sealing System*



*The proprietary tube in the Impervite® Advanced Graphite shell and tube heat exchanger combines the benefits of graphite and polymer materials to provide efficiency and reliability for water treatment, heat recovery, and process chemistries.*

## Advantages

**Corrosion Resistance.** The Impervite® Advanced Graphite composite tube has been subjected to testing in various corrosive acid streams at elevated temperatures with excellent results. The tube will not degrade with operation as would a metal tube having annual corrosion rate.

**Low Fouling and Ease of Maintenance.** The Impervite® Advanced Graphite tube has excellent surface quality which results in a low propensity to foul. In addition to a reduced potential to fouling, deposits have a weak bond with the tube. This non-adhesive behavior allows successful surface cleaning using only water at relatively low pressure.

**Completely Field Repairable.** If ever required, individual tubes can be replaced in the field simply and economically without the need for special tools and/or highly specialized welding procedures. This can be accomplished on site with a simple, straightforward operation, eliminating shipping concerns and minimizing downtime.

**Superior Thermal and Mechanical Shock Resistance.** This composite graphite tube is much more ductile than traditional impervious graphite tubes. As a result, it is more resistant to vibration and other mechanical stresses. Additionally, the low CTE and tube to tubesheet seal of the Impervite® Advanced Graphite shell and tube heat exchanger offer built-in superior resistance to thermal shock.

**Proprietary Self-Contained Elastomeric Sealing System.** The proven tube to tubesheet seal system utilizes a combination of specifically selected elastomeric seals and Teflon support rings. When coupled together with the close tolerance tube nut and tubesheet hole, it results in a highly reliable, static, self-contained seal that is 100% leak free with exceptional service life.



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Twinsburg, OH

