

### ENGINEERING TOMORROW'S CORROSION SOLUTIONS TODAY

# CHEMICAL PROCESSING INDUSTRY

### **PRODUCTS AND SYSTEMS**

Our goal is to provide the best service and corrosion engineering solutions for corrosion applications in the chemical processing industry (CPI). Our turn-key engineered solutions, design and installations are based on extensive experience in corrosion protection and vast knowledge in ceramics, alloys, thermoplastics and fluoropolymers. We offer customers the best available corrosion resistant technology and field service in the chemical processing industry today. Our application knowledge coupled with our full line of Mass Transfer technology provides a complete and optimum solution to your corrosion mass transfer or reactor needs.

#### INTERNALS



From ceramic, graphite, furan, fiberglass and alloy materials, we design and custom engineer your distributor and internals for maximum liquid dispersement over the vapor field with minimal fouling.

### PACKING SUPPORT BEAM



Individually manufactured to provide the optimal packing load support with limited affect on overall tower performance. Various materials and configurations provide excellent gas and liquid handling capacities.

#### PACKING



FLEXERAMIC<sup>®</sup> Ceramic Structured packing geometric construction greatly reduces channeling of both liquid and vapor producing greater contact. We offer structured and random packing prodcued from ceramic, plastic or metal.

#### BRICK LINING



KNIGHT-WARE<sup>®</sup> Acid Proof brick is the gold standard in the industry. Standard and custom produced geometric shapes offer nearly unlimited design capabilities for engineering and installing the equipment which best fits your process. Also available in red shale, carbon and CORESITE<sup>™</sup>.

#### MEMBRANES



Our PYROFLEX<sup>®</sup> Acid Proof Membrane Lining is a thermoplastic, corrosion-proof, flexible, nonporous and non-aging material. It can be electro statically tested to insure a pin-hole free membrane. We offer other lining materials from rubber to TEFLON sheeting.

#### FRP / DUALAMINATE



We offer other non-metallic material options to fulfill your project requirements. From fiberglass reinforced plastics and dualaminates to thermoplastic linings. Our array of material offerings will meet your process specifications.



Triple-Stage Chlorine Absoprtion Tower

## CAPABILITIES

Koch Knight offers a comprehensive portfolio from manufacturing, engineering and design, project management, installation and inspection providing a complete service package from start-to-finish and beyond.

#### TURN-KEY PROVIDER

As a global leader in the chemical process industry, we offer clients a full service package that ranges from complex projects to simple reline installations all over the world. From our professional engineeers, manufacturing and shop-line facilities, experienced project managers and veteran field installers, Koch Knight provides process evaluation, custom engineering and design, manufacturing, construction management and field installation allowing you to focus on running your profitable business. We make sure that our work is done right by offering routine inspections and service for not only our equipment, but even for competitive equipment. Koch Knight is your single source for non-metallic corrosion resistant process vessels.



FIELD SERVICES

#### INSTALLATION AND RE-LINING

We provide complete installation and construction services for all equipment we manufacture and provide. Our professional and highly experienced field installers are committed to satisfying our clients' most exacting requirements. In additon to lining our equipment, we can refurbish and re-line a wide range of competitive equipment in your plant. From initial installation, pointing, spot repair, tear-out and full re-lining of your equipment, Koch Knight has the experience and personnel to complete the project.

Our globally recognized, safety focused, professional and highly skilled service crew performs repair and equipment maintenance all over the world. From full service contracts to case-by-case situations, Koch Knight offers preventitive and routine maintenance, brick and membrane tear-outs and repair, upgrade and refurbishing of existing equipment, full replacement from flange-to-flange and complete equipment removal.



#### INSPECTION

Routine and Preventive Maintenance Inspections (PMI) extends service life and prevents unnecessary repairs. Our service can be used to predict future repairs, assist planning of maintenance budgets, and to prevent unplanned outages caused by unexpected failures. We routinely inspect equipment during scheduled shutdowns.

Our PMI service offering is what differentiates Koch Knight from others in our industry.







#### **CORROSION RESISTANT PROCESS VESSELS & INTERNALS Carbon Steel / Brick Lined FRP FRP Dualaminate** Derakane **PYROFLEX**<sup>®</sup> Fluoropolymer Hetron PVC, CPNC Chlorobutyl HALAR® PVDF, PFA (TROVIDUR<sup>®</sup>) KYNAR (PVDF) Bisphenol Bromobutyl (E-CTFE) (loose or bonded) Polyester (CORZAN<sup>®</sup>) Rhepanol Other Acid Brick

## **GLOBAL OFFICES**

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### **KOCH KNIGHT LLC** Visit us on the web: www.kochknight.com

