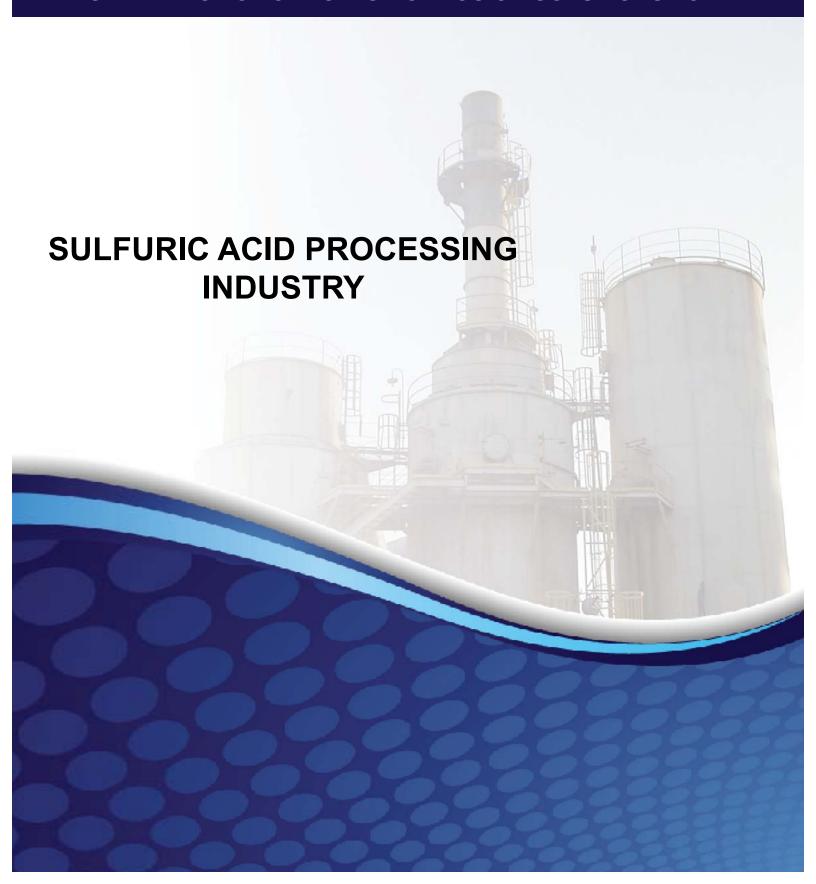
# **KOCH KNIGHT LLC**

ENGINEERING TOMORROW'S CORROSION SOLUTIONS TODAY™



## **PRODUCTS**

Our goal is to provide the best service and corrosion engineering solutions for corrosion applications in the sulfurious experience in corrosion protection and vast knowledge in ceramics, alloys, thermoplastics and fluoropolymers. We offer customers the coupled with our full line of Mass Transfer technology provides a complete an

#### FLEXFIBER® MIST ELIMINATION

1



Depending on the design parameters, FLEXIFIBER® mist eliminators collect up to 99.95% or greater of all submicron liquid particles. FLEXIFIBER® mist eliminators consist of a packed fiberbed between either of two concentric screens or two parallel screens.

- Reduce or eliminate visible stack gas plumes
- Provide unlimited turndown from design capacity
- Achieve guaranteed pressure drop as low as 40mm (1.5 in) W.G.
- Interchange with existing fiberbed equipment
- -Capture submicron mist particles 0.1 microns or smaller FLEXIFIBER® Mist EliminatorsRegistered trademark of Koch-Glitsch, LP

#### HIGH EFFICIENCY LIQUID DISTRIBUTOR

2



Key to optimal performance of tower packing. High efficiency acid distributors evenly disperse acid across the tower cross section providing optimal acid/gas contact.

- Alloy construction and design is resistant to fouling and easily cleaned for long service life
- Open area is in excess of 50+% insuring unrestricted gas flow
- Acid hydraulics within the distributor minimize impact on point to point flow variation

#### FLEXISADDLE® Ceramic Random Packing

3



Provides low pressure drop operation with superior acid resistant ceramic meeting ASTM C 515 specifications.

- Improved ancillary equipment where pressure drop savings can be applied
- Increased water displacement over the bed
- Increased unit absorption capacity

#### FLEXERAMIC® Ceramic Structured Packing

4



State-of-the-art performance benefits that offer an attractive solution restricted capacity towers.

FLEXERAMIC® Ceramic Structured packing is a geometric construction which greatly reduces channeling of both liquid and vapor producing greater contact.

- Excellent radial distribution of both liquid and vapor for improved gas liquid contact
- Lower pressure drop and higher capacity
- Available in 12"x 12" (305mm x 305mm) Cubes
- Type 88, 48 and 28





Intermediate & Final Abs

# **ID SYSTEMS**

d processing industry (H2SO4). Our turn-key engineered solutions, design and installations are based on extensive est available corrosion resistant technology and field service in the sulfuric acid processing industry today. Our application knowledge atimum solution to your corrosion absorption, mass transfer or reactor needs.



#### otion Sulfuric Acid Tower

#### **KNIGHT-WARE® KPS® Self-Supporting Dome Packing Support**

Unique dome configuration improves tower performance by increasing open area for gas flow which reduces pressure drop.

- More open area providing reduced pressure drop
- Each piece fits in compression allowing it to perform for the life of the tower with little to no maintenance
- Easy to design for retrofit applications and new construction



#### KNIGHT-WARE® Acid Resistant Ceramic Brick

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.

KNIGHT-WARE® Brick is engineered to focus specifically on our customer needs. Manufactured in standard and custom shapes providing more options than any other acid-proof brick on the market today.

- ASTM C-279 specifications
- Preferred for corrosion resistant work in higher temperature applications and highly corrosive applications
- True refractory brick; available in standard, Type II and III.



#### **PYROFLEX®** Acid Proof Membrane Lining

PYROFLEX® Membrane is a flexible, uniform, thick sheet membrane used as an impervious barrier between acid-proof brick and corrosion-prone steel or concrete shell. Our proprietary design is thermoplastic, flexible, non-porous and non-aging which can be electrostatically tested to ensure pin-hole free membrane.

- Completely seals steel or concrete from chemical corrosion
- Low installation cost
- No vulcanization or adhesive cure is required
- Continuous, uniform lining no lap joints
- Acts as an expansion joint between masonry and sheathing steel or concrete shell



#### **CORROSION RESISTANT PROCESS VESSELS & INTERNALS**

Alloy	Carbon Steel / Brick Lined		FRP	FRP Dualaminate		
Edmeston SX	PYROFLEX <sup>®</sup> Chlorobutyl Bromobutyl Rhepanol	Fluoropolymer PVDF, PFA (loose or bonded)	Derakane Hetron Bisphenol Polyester	PVC, CPNC (TROVIDUR®) (CORZAN®)	KYNAR (PVDF)	HALAR <sup>®</sup> (E-CTFE)
	KNIGHT-WARE® Acid Brick		Other			

### **CAPABILITIES**

Koch Knight offers a comprehensive portfolio from manufacturing, engineering, 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, 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.



#### 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. 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.



#### FIELD SERVICES

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.



# **GLOBAL OFFICES**

Koch Knight, LLC Headquarters PO Box 30070 5385 Orchard View Drive SE East Canton, Ohio 44730 USA

Phone: +1 (330) 488-1651 Fax: +1 (330) 488-1656

Email: info@kochknight.com

Koch Knight Australia

A Division of Koch Australia Pty Ltd
PO Box 1451
Suite 6 Level 1
186-190 Church Street
Parramatta, NSW 2150
Australia
Phone: 61 (8) 9368 4078

Phone: 61 (8) 9368-4078 Fax: 61 (8) 9368-4074

Email: australia@kochknight.com