# **REPAREX** Flow Pro-Tech Liners: wear resistant elbow lining systems

# The Choice for Extremely Abrasive Environments

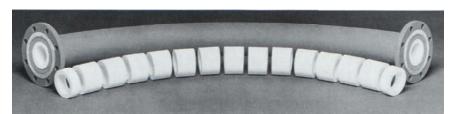
In industrial environments where abrasive materials are pneumatically conveyed, unlined steel or rubber-lined elbows may wear out in just a few weeks, generating a costly cycle of downtime for frequent repairs and replacements. The Reparex solution to this common wear problem are our Flow Pro-Tech Liners, a flexible system that offers, easy installation into existing equipment, exceptionally long service life, low-cost fabrication and wear resistant materials specified for your environment.

Reparex has developed Flow Pro-Tech Liners



specifically for this type of application. By engineering high alumina or silicon carbide, both proven to be one of the best wear materials available for fine particle abrasion, we have produced a product with excellent mechanical properties, superior wear resistance, and desirable corrosion performance. Even in the most sever operating environments our Flow Pro-Tech Liners have lasted five to ten times longer than steel. Flow Pro-Tech Liners are frequently specified in plants where small diameter pipe and long, sweeping elbows pneumatically convey abrasive materials such as wood chips, sinter product, ores, dry chemical feedstocks, glass batch, sand, and coal.

## **Easy Integration Into Your System**



Flow Pro-Tech Liners are designed with the same internal diameter as the unlined existing pipe. A minimum lining thickness of 1/4 inch is required, but a heavier 1 inch wall can be specified for optimum wear life. The

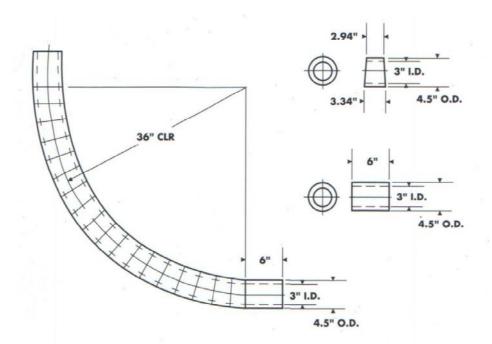
cylinders for the lining can be made from various grades of high alumina and silicon carbide ceramics that best address your operating environment. Our Flow Pro-Tech Liners segmented cylinder liners are laid out in preparation for installation, and each joint is coated with a specially formulated epoxy. The ceramic liner is inserted into the steel elbow. The space between the liner and the pipe is filled with a ceramic mortar specified for your operating environment. Special oversized flanges are used on existing straight pipes to connect them to the Flow Pro-Tech Liners elbow. When the elbow is installed an 1/8 inch thick gasket is placed between the flanges.

### **Segmented Construction Offers Design Flexibility**

The Reparex recommended design for elbow liners is called segmented construction because each section of the liner is a straight tube, rather than a curved piece. A minimum clearance of 1/8 inch between the Flow Pro-Tech Liners and the inside diameter of the steel is required for proper mortar seating. Reparex Flow Pro-Tech Liners are available in diameters up to 20 inches with virtually any degree of bend and center line radius.

#### Markets

- Coal Fired Power Generation
- Abrasive Material Handling
- Chemical Processing
- Food Processing
- Powder/ Bulk Solids Conveying
- Mining & Mineral Processing
- Pulp & Paper
- Pulverizing & Grinding
- Iron & Steel Manufacturing
- Sewage & Wastewater Treatment



# **Quality Through Design**

Analyzing a wear problem is a complex process. Wear is typically caused by a combination of temperature, raw material impingement, high velocity particles, abrasive slurries, and chemical attack. Our design team understands wear problems and can specify materials to suit your operational environment. Material properties, engineering tolerances, attachment methods, and material costs are all considered in a Reparex solution. Our expertise in materials, computer design, and our unique systems capabilities give Reparex a technical edge. One of our major strengths is custom engineering ceramic liners, which enables us to provide a more precise fit and full ceramic protection. The result is a superior wear system that eliminates frequent downtime for repairs and substantially extends the service life of your equipment.

All of the above statements, recommendations, suggestions and data concerning the subject material are based on laboratory and field results and although we believe the some to be reliable, we expressly do not represent, warrant or guarantee the accuracy, completeness or reliability of same, of the material, or the result to be obtained from the use thereof. Nor do we warrant that any such use, either alone or in combination with other materials, shall be line of the rightful claim of any third party by way of **INFRINGEMENT** or the like, and Reparex Fabricated Systems DISCLAIMS ALL WARRANTIES, **EXPRESSED OR IMPLIED OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.** 

