

PRODUCTS FOR CHEMICAL PROCESSING

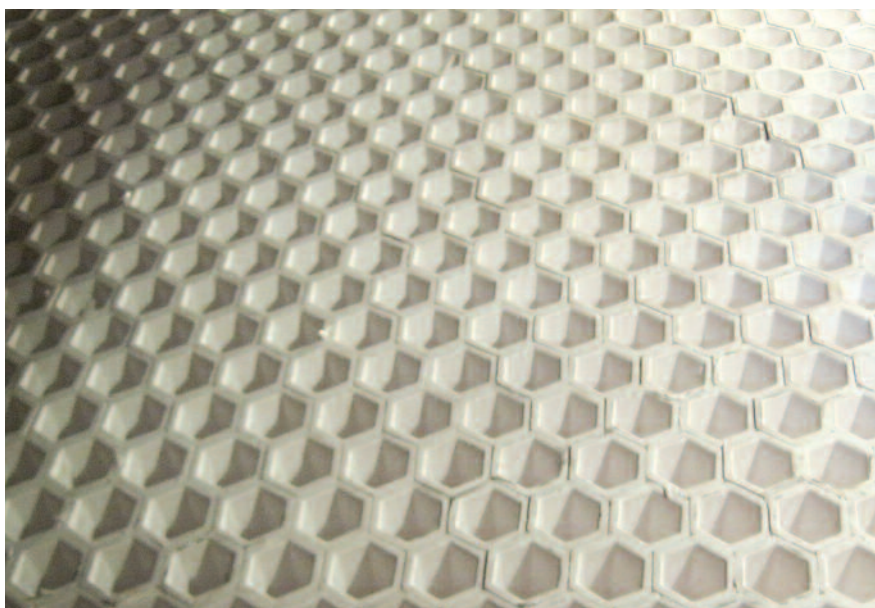


Blasch**FERRULES**

FOR WASTE HEAT BOILERS AND HEAT EXCHANGERS IN SULFUR RECOVERY, SULFUR BURNING AND SULFURIC ACID PLANTS

The Blasch family of precast ferrule systems provides more effective protection and allows for much greater design flexibility than traditional refractory systems because the structural and insulating functions are separated, and are addressed by the cast shape and the fiber backup respectively. There are a number of options available, depending on the specific details of your particular equipment.

PATENTED, PRECAST, PRECISION CERAMIC FERRULES FOR SEVERE TEMPERATURE AND THERMAL CYCLING CONDITIONS



OPERATIONAL ADVANTAGES

Thermal Management System (TMS) – a pre-fired tubesheet protection system that allows for the extensive use of fiber insulation in conjunction with the Blasch Ferrules and provides much greater insulating value than castable alone, in a greatly compressed area, saving space, and refractory.

Improved performance – Large expanses of castable refractory undergo tremendous thermal and mechanical stresses as they heat up and cool down and that generates cracking in the castable refractory. Tubesheet protection systems consisting of precast Blasch Ferrules perform with built in expansion joints, limiting any damage due to these stresses to a confined area.

Reduced pressure drop – Blasch Ferrules are available with a wide range of tapered inlet and outlet profiles and, in addition to reducing the refractory mass in the furnace, have been shown to reduce pressure drop over conventional round ferrules and castable installations.

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PROLOK™ TWIST AND LOCK TWO-PIECE FERRULES FOR SIGNIFICANTLY ENHANCED RELIABILITY



Our ProLok™ Twist and Lock two piece ferrules have several advantages over traditional one piece systems and offer increased reliability over current two piece ferrules available.

INCREASED THERMAL EXPANSION TOLERANCE

By separating the ferrule's head and stem, stress is removed from the concentration point where the two connect in a one piece design, allowing for better thermal expansion tolerance.

IMPROVED DESIGN MEANS LONGER LIFE

Sinking the stem deep into the head reduces stress on the stem by decreasing its length, also allowing the head to pivot slightly around the stem. This flexibility allows the ferrules to better accommodate warped or out of spec tubesheets while also allowing the ferrules to naturally adjust to each unit during start up, with each ferrule having the ability to independently shift into the ideal position.

PATENTED TWIST AND LOCK DESIGN KEEPS FERRULES IN PLACE

With other two piece ferrule designs, you run the risk of having the stems fall out of the tubes during service. Our ProLok Twist and Lock design addresses this concern by utilizing a locking mechanism. This lock retains the flexibility of the ferrule while ensuring that the ferrule does not separate from the head while in service.

FAST, SIMPLE INSTALLATION

Blasch Ferrules are pre-engineered for each installation and come properly sized, accurately molded, and completely wrapped with all required fiber insulation. Installation is as simple as taking them out of the box and slipping them into the boiler tubes. No castable refractory is used between the Blasch Ferrules and only the most minimal amount is required around the periphery. Operators can save days on turnaround without the need to painstakingly install, and then cure out, large expanses of castable refractory.

SUPERIOR MATERIAL PROPERTIES

With a wide range of high alumina compositions available, Blasch is able to offer exceptional resistance to corrosion, erosion, and thermal shock. Additionally, Blasch Ferrules are fired under controlled conditions in a plant environment, resulting in consistent, predictable properties; rather than one that requires the extensive use of castable refractory and field curing. Blasch Ferrules are not subject to the vagaries of weather, installation expertise, and time constraints.

