

KEEPING CONTINUOUS SYSTEMS RUNNING CONTINUOUSLY

As rendering systems are updated to handle today's needs in the industry, most companies have been installing continuous cookers and hydrolyzers. The continuous systems have improved production time, lowered operating costs, and require less floor space, less labor hours to operate, fewer moving parts, and overall less maintenance.

The continuous systems have achieved great strides in the industry, especially with the hydrolyzer, which allows renderers to push capacity of one hydrolyzer to a new level, up to 30,000 lbs. per hour. One new continuous hydrolyzer can replace up to 10 batch units, which makes it a strong workhorse when operating. Sealing performance of the packing is a major concern when these massive continuous systems are operating. Excessive leakage through the packing area can cause undue shaft/sleeve wear and bearing failure resulting in costly downtime and unnecessary maintenance.

In the last ten years, Rick Eaglin, Anco-Eaglin, Inc., Greensboro, NC, has seen his customers use almost anything for packing material in their cookers and hydrolyzers. In South America, one company packed their cooker with pieces of rope and then complained about leakage. In El Salvador, another renderer bought local packing material, which eventually bound the shaft up so tight the drive would not turn over. Results such as these often make users of Anco-Eaglin's equipment unhappy. But Eaglin explains to his customers that by using inferior packing material or material such as rope, they are creating a snowball effect and destroying and reducing the life of their equipment.

To the rescue in situations such as these is a Denver, CO, manufacturer who engineers a packing sealing system that provides a long lasting seal around the shaft/sleeve of the hydrolyzers, enabling the continuous hydrolyzer to maintain its name "continuous."

Rains-Flo Manufacturing's claim to success with its sealing system is in the materials used, known as granulated flowable material (GFM), a self lubricating, heat conductive

material that can adapt to irregularities in the stuffing box area, providing the tightest seal possible. The sealing system has the ability to seal against a worn shaft/sleeve and also conform to the shaft/sleeve in a stuffing box that is not centered on the shaft. The GFM sealing system has been tested by many renderers and hydrolyzer manufacturers and has been proven to out-perform other braided packing available in today's market.

Valley Proteins, Inc., with numerous rendering facilities located throughout the east, has used Rains-Flo's packing for several years, not only in their cookers but also in their hydrolyzers and pumps that transfer hot fat.

Michael Smith, vice president at Valley Proteins, stated that the GFM packing has been highly effective in keeping leaks to a minimum, which has reduced the oil and grease volumes at their wastewater plant thus helping to reduce their sludge volume at their rendering plant by lessening the load to their dissolved air flotation cells.



Using the proper packing material, such as these from Rains-Flo Manufacturing, will help ensure your equipment operates properly for years to come.

"We feel it is a superior product that helps save wear and tear on equipment and maintenance costs on our packing glands and wear sleeves," stated Smith, who recommends Rains-Flo's sealing system for plants who may be experiencing continuous problems with grease leaks that conventional packing has not resolved.

In the instances where Anco-Eaglin customers have used other packing material not recommended by the manufacturer, their troubles were immediately resolved once the GFM sealing system was installed. Eaglin stated that in the case of the plant in Mexico, the GFM packing sets were provided for a few of the renderer's cookers. When the company's problems were solved, they came back and changed out all their cookers.

Anco-Eaglin had used a variety of sealing materials from other manufacturers before exclusively installing Rains-Flo's sets eight years ago. One reason for this was their new continuous hydrolyzer that incorporates one of the highest-pressure ratings for a unit of its type.

"Rendering applications are some of the most difficult

requirements for sealing hydrolyzers and cooker shafts,” stated Eaglin. “About six years ago, Anco-Eaglin introduced our new series of Anco 1212 Continuous Hydrolyzer. The design incorporates one of the highest-pressure ratings for any unit of its type. Because of the higher sealing demand, we went with the best possible method to assure that the shaft packing would seal and provide long-term performance.” Eaglin added that no matter what the application, they found much better performance using the GFM sealing kits. He is quick to point out, though, that the longevity of seals depends on the application and product, with feathers being the most abrasive to hydrolyze.

The Dupps Company, Germantown, OH, is another manufacturer of rendering cookers and hydrolyzers worldwide. According to Rainsflo’s Scott Harris, vice president, Sales/Product Applications, Dupps has been using the GFM sealing systems in all their new equipment and installing the packing in field rebuilds for several years after tests using a number of highly recommended braided packings conclusively found the GFM packing provided the long lasting sealing performance that Dupps was looking to use in their continuous hydrolyzers.

A 73-year-old rendering company was first introduced to Rainsflo’s products over 10 years ago and has used them in various applications.

“Consistently, the products have matched the needed applications,” stated Michael Anderson, president, Pacific Rendering Co., Inc., Seattle, WA. “These include packing on pumps, cookers, and sealants on the doors and hatches of our pressurized batch cookers.”

Continuous systems have become a reliable workhorse within rendering plants, improving production time and lowering operating costs. Keeping these massive machines properly maintained is important to their longevity and keeping downtimes to a minimum. Using packing material with a proven reputation throughout the industry will ensure that both the continuous systems and the rendering operations will work at their optimum. ❖