

System Seals Designs For Next-Gen HAGC Cylinders

Flat mills operating with Hydraulic Automatic Gauge Control (HAGC) appreciate the importance of precision. As the demands of industry increase, mills are being designed for increased accuracy, higher rolling forces, and ultra-reliability.

The challenge in HAGC sealing is striking the precise balance between performance and control. These systems require heavy-duty seals robust enough to resist extrusion and prevent metal on metal contact. But they also must minimize friction to remain extremely responsive and dynamic. It's a difficult equilibrium, but finding the sweet spot between precision and reliability is what sets System Seals apart.

As cylinder diameters increase, the desire to have equally larger clearances come into play. System Seals rod seal type 188 is designed with our low-friction PTFE blend, incorporated with a high strength anti-extrusion ring to allow low friction performance while allowing for larger gaps between components.

These larger gaps are maintained by System Seals MTC20 mill-duty composite guide bands. This high strength, low friction material keeps deflection to a minimum and prevents metal on metal contact from resulting in cylinder seize and expensive repairs.

The entire system is protected by our new 317 wiper. This wiper is designed for ease of installation and scraping ability, with an added external shroud that helps keep moisture and debris from collecting in the sealing area. The 317 wiper also has a retrofit version, designed to replace existing PTFE wipers, which means you can take advantage of the latest technology without having to alter existing equipment.

System Seals new HAGC sealing system is proven to increase performance and seal life in both newly build mills, and those operating for decades.

These innovations are why the world's leading HAGC manufactures and mill builders turn to System Seals to improve their equipment performance and reliability. It's an industry focus that has distinguished the company through decades of experience inside the mills with a relentless drive toward engineering excellence.



CHALLENGE

To engineer the next generation HAGC sealing system design to increase performance and reliability for new and existing flat mills.

SOLUTION

System Seals updated the standard seal package with high clearance rod seals, state-of-the-art composite guide bands and an innovative new wiper profile.

RESULT

Seals that can withstand the larger diameters, higher deflections and increased clearance without compromising seal lifetime or performance.