

# 11K Rod Seal Solves Fluid Leakage in Large Press with Minimal Disassembly

*Metal Processing Industry  
Chesterton R11K with Spacer and R9K AER  
Polymer Seal Case Study*

## Challenge

### Background

A 5,000-ton press had issues with leakage of hydraulic oil around the ram. The equipment was quite old and in need of repair. Due to the size of the equipment, it was not possible to completely disassemble it.

The medium being compacted was Zirconium powder, which may be used in applications such as high density hydrogen storage.

## Solution

### Product

A **Chesterton® 11K Rod Seal** set with a spacer and a **9K AER Backup Ring** designed tight to the outer diameter of the packing chamber were selected to make installation less challenging.

Installation occurred overhead and the interference fit was intended to help in this process.

## Results

### No Fluid Loss and Smooth Actuation

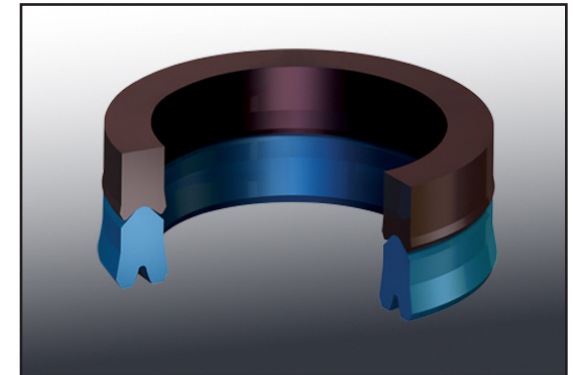
The Chesterton solution resulted in minimal equipment downtime with equipment soon returning to production. Further, the equipment was quite old, so the softer blue **AWC825** primary seal conformed well to the worn seal surfaces. Overall, the result of the solution was smoother system actuation with no oil leakage following installation.



*5,000-ton compaction press was too large to disassemble.*



*Leakage around rams was evident.*



*Chesterton 11K assembly and drawing.*