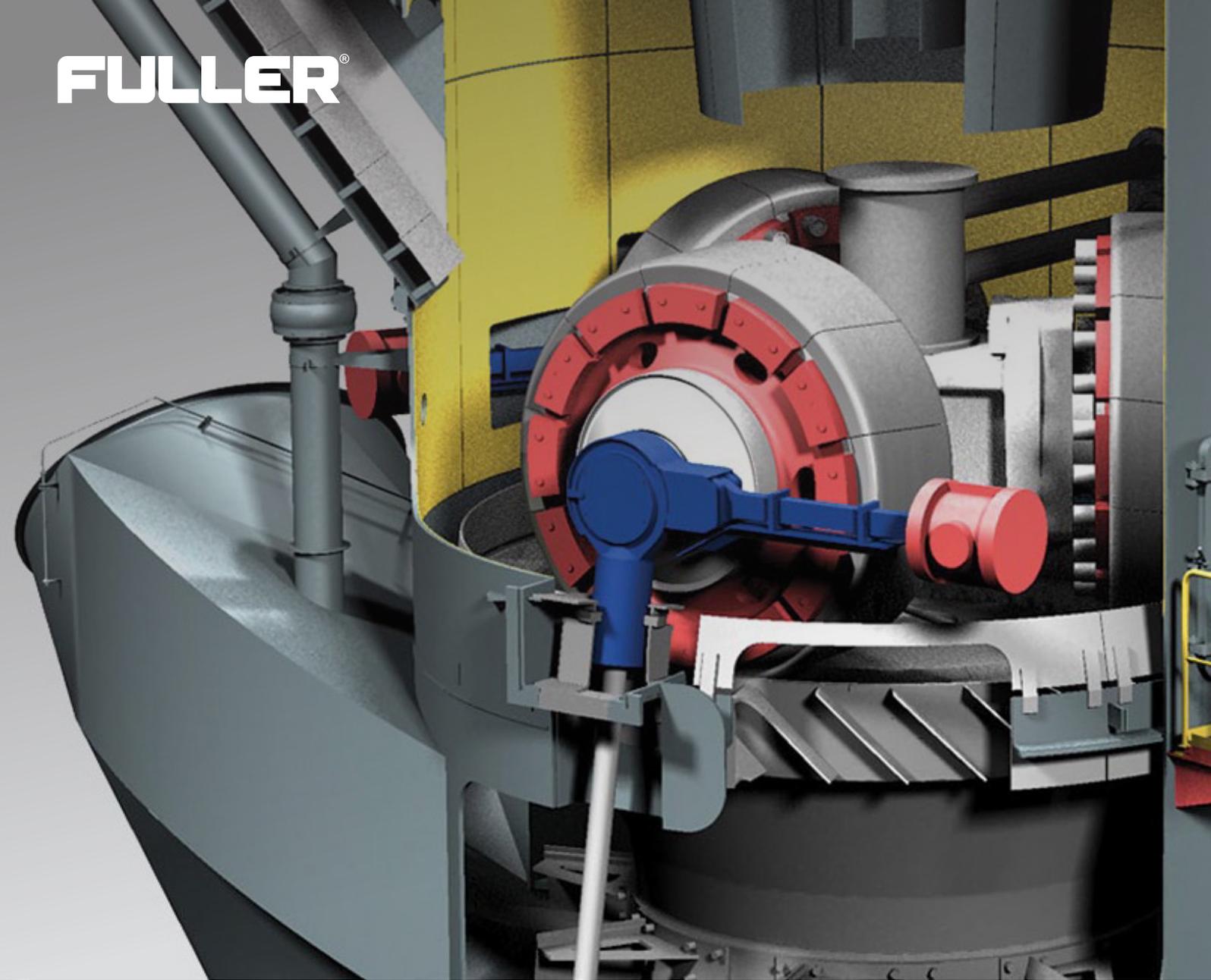


FULLER®



ATOX MILL

SPLIT OIL SEAL

SPLIT SEAL CONVERSION KIT INCREASES ATOX MILL AVAILABILITY

As every maintenance manager knows, equipment availability is a high priority. This is especially true when equipment failure or downtime can affect mill and kiln operation. Oil seals for ATOX mill grinding rollers are a case in point. They are vital parts, which contain lubrication oil and act as a barrier against outside contamination of roller bearings.

Standard maintenance involves regular replacement of seals to prevent massive oil spillage. Regular seal maintenance is always planned to occur during a scheduled mill stop – but even the best planning in the world is not fail-safe. Seals can fail unexpectedly during production, creating major leakage of expensive lubrication oil. Replacing inner oil seals requires days of maintenance and unplanned mill downtime due to roller disassembly. This often results in days of kiln downtime, causing costly loss of production.

KEY BENEFITS

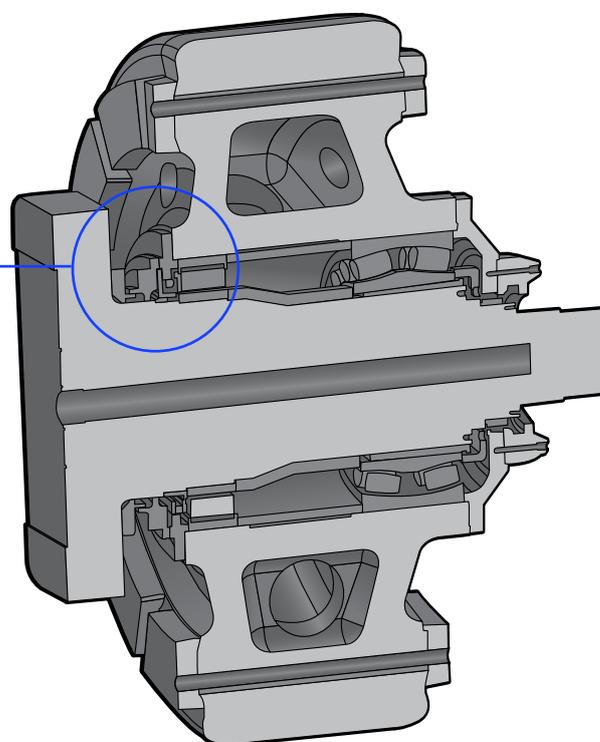
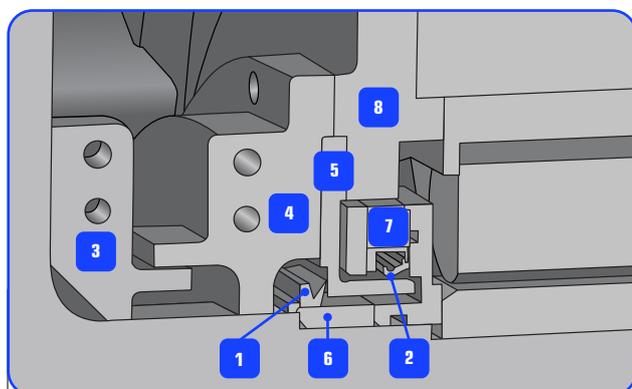
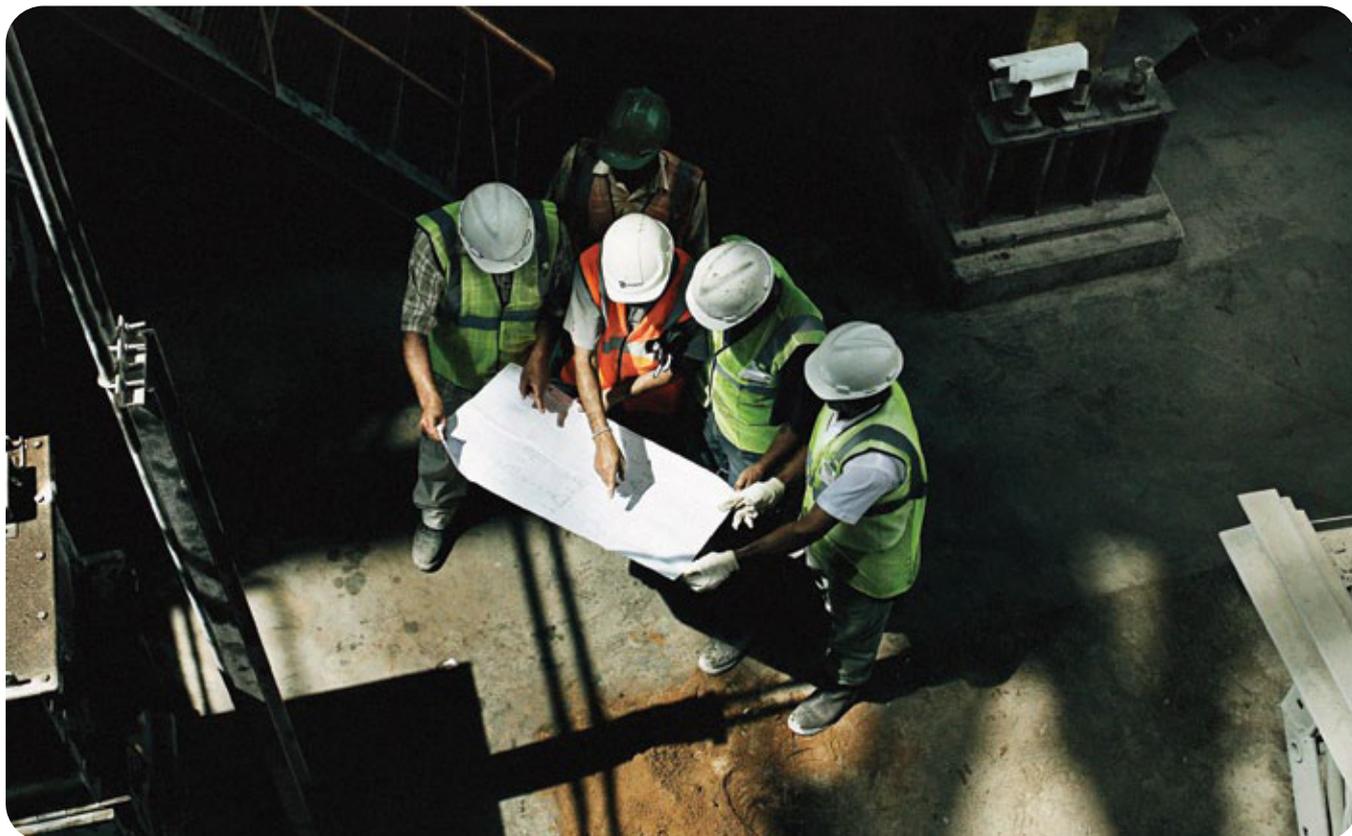
- Dramatically reduces seal replacement time
- Ensures higher ATOX mill availability
- Makes seal replacement easier – no need to remove grinding rollers; no special tools needed
- Represents a one-time investment in long-term savings
- Eliminates a kiln stop and excessive loss of lubrication oil

A valuable one-time investment

Fuller has designed a new split inner oil seal for grinding rollers that dramatically reduces seal replacement downtime and helps ensure higher ATOX mill availability. The new split seal can be replaced inside the mill, without removing the grinding rollers. New ATOX 27.5 mills and bigger are today as standard equipped with the split seal arrangement. For previously supplied ATOX mills the split seal design has also been introduced. Conversion kits are now available for 27.5 to 52.5 ATOX raw mills. The conversion is a one-time investment: to install the conversion kit, the roller must be disassembled in the workshop. After converting to split seals, an inner oil seal replacement can be done with only 15 hours of mill downtime. This simplified procedure eliminates a kiln stop and excessive loss of lubrication oil, as well as crane and workshop expenses. The new split seal requires the same frequency of replacement and maintenance as before, but these are now much faster and easier operations, which require no special tools and can be done by maintenance staff on site. An additional benefit is that the new split seals also eliminate removal of rollers when doing maintenance on air-sealing parts.

Innovative design makes seal replacement faster, easier and less expensive

REPLACEMENT REQUIREMENTS	OLD INNER SEAL	NEW SPLIT SEAL
Roller disassembly	Yes	No
Use of crane	Yes	No
Workshop facilities	Yes	No
Mill downtime	4-5 Days	15 Hours



- 1 Split V-seal *
- 2 Split oil seal *
- 3 Split inner air seal
- 4 Split outer air seal
- 5 Rotary seal ring
- 6 Seal ring
- 7 Seal housing parts
- 8 Bearing end cover

* NOTE after conversion, only these parts are replaced during maintenance

FULLER[®]

TECHNOLOGIES

fuller-technologies.com

