

Metso

Grinding services

Grinding mills critical fasteners



Grinding mills are designed to help you achieve operational efficiency, reliability and productivity. You need confidence that each mill component will perform as it should to produce the results you need.

Horizontal grinding mills are very large and complex machines comprised of many parts that are subject to significant operating loads. With grinding equipment operating 24/7, the failure of any part or component can lead to significant downtime and production losses.

Critical components

Fastening hardware, though smaller in size, plays a large role in your grinding mill's efficiency. Critical fasteners such as bolts or studs used to secure mill structural components together are subject to cyclical loading from mill rotation and must be able to withstand the harsh and strenuous forces of grinding mill operations.

With global trends driving the use of fewer larger grinding mills over several smaller mills per circuit, mill components must be manufactured in multiple segments to facilitate transportation and logistics. The production of more components leads to more bolted connections.

In certain circumstances, critical fasteners may fail due to improper specification, manufacturing issues, incorrect installation, operational issues such as slurry ingress in flanges, or lagging indicators used to identify mechanical problems. When a failure does occur, a lack of spare fasteners on site for replacement can make matters worse.

Best practice expertise

Bolted connections are viewed as the



fastest, easiest and most reliable way to assemble mill components.

Together with proper installation, Metso critical hardware components are

designed to provide a secure and reliable connection between mill components. Our bolts have machined faces, which allow you to control the pre-load bolt strain by measuring bolt elongation during tightening. This is a more precise method than controlling torque force, which can be impacted by a variety of factors, including surface friction, lubrication and thread damage.

The Metso advantage

Metso has designed and manufactured grinding mills for over 100 years. We know the importance of critical fastener applications, operating loads and issues. Our bolts are manufactured according to Metso designs and standards and inspected according to our stringent quality specifications that ensure their reliability to withstand loads.

Metso also stocks various bolt sizes to provide immediate customer support by minimizing downtimes when unexpected shutdowns occur and replenishing parts when you need them most.