FLSMIDTH CEMENT

ONLINE CONDITION MONITORING SERVICES FOR OK™ MILLS

The OK™ Mill is manufactured by FLSmidth under patent and license from Kobe Steel Ltd. & Taiheiyo Cement Corp.

Key Benefits

- Minimise unplanned stoppages
- MInimise secondary damage to equipment
- Increase equipment lifetime, reliability and performance
- Lower OPEX and more productivity
- Achieve more sustainable operations

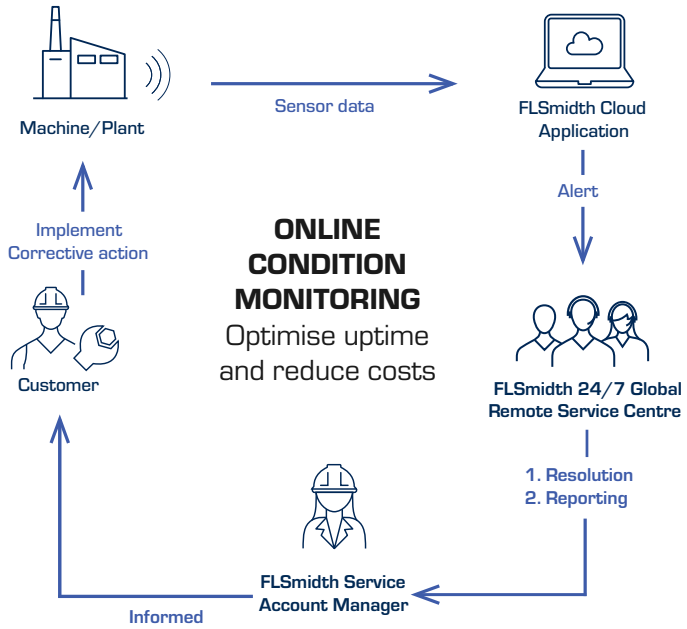
Proactive maintenance strategy to eliminate unexpected downtime

Sustain maximum mill performance

Our online condition monitoring services for OK™ mills let you keep a constant eye on critical operating parameters and settings, ensuring optimised mill reliability and performance.

This service helps detect early symptoms that can't be detected by regular on-site maintenance alone. Standard sensors on the mill monitor, for example, gas flow pressure and temperature, and hydraulic grinding pressure. With continuous monitoring, you can ensure these parameters are all consistently maintained, giving you plenty of time to take planned action before problems become severe.

If you would like to reduce downtime with a more strategic approach to maintenance, contact us today. All our service packages can be tailored to your needs.



Our specialists interpret the data and give you qualified analysis and expert recommendations for a healthy, optimised mill system.

- **What?** Continuous OK mill health monitoring and incident support; regular reports summarising alarms and recommenda-tions; clear, actionable insights that you can implement to reduce operating costs and optimise performance.
- **Outcome:** This means you can predict potential problems in critical components or subsystems in the mill circuit and prevent them from negatively impacting overall mill operation.
- **Case:** The early onset of instability in grinding pressure caused by cylinder seal leaks was detected by this service before the more severe symptoms of lost production or product quality were seen. Replacing a piston seal during a planned maintenance schedule ensured regular production was maintained.

With Level I service, we monitor:

- Operating conditions
- Mill air circuit
- Mill fan efficiency
- Grinding hydraulic system
- Roller and table wear liner life
- Separator top seal

With Level II service, we monitor all of Level I plus:

- Roller position and speed
- Mechanical stopper impact
- Bearing temperatures
- High resolution gear and bearing vibrations
- Lubrication oil pressure and flow
- Input torque on mill gears
- Table wobbling and tilting on mill gears

FLSMIDTH CEMENT

C 090-21000-104ENG