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FLSmidth launches SAGwise™ total process control. An advanced process optimisation solution with less than six months return on investment.

**PRESS RELEASE, COPENHAGEN** *FLSmidth launches a sensory and process optimisation system designed to optimise the use of the three main consumables in SAG milling: power, media and liners.*

The SAGwise™ total process control system reduces energy consumption by up to 6%. This is a significant reduction considering that, by far, mills are typically the single largest consumer of power within a processing plant. Other benefits include up to 45% reduction of ball-on-liner impacts, prolonging liner life and minimising media degradation.

Through specially-designed acoustic sensors and proprietary process control software, induced impacts, generated inside the SAG mill, are monitored and interpreted by the SAGwise™. It registers undesirable high-energy impacts caused by steel balls striking the mill liners categorised as critical impacts. Then, an advanced process control solution makes small and frequent adjustments to mill operational conditions that reduce the critical impacts, improving ore reduction and energy efficiency.

Global Product Line Manager for Automation Process Optimisation, King Becerra, explains: "This solution employs state of the art process control technologies to reduce critical impacts to the desired targets, stabilising and then optimising the operation of the SAG mill. Multiple process control technologies, such as model predictive control and fuzzy logic, are embedded into the solution, modelling both the process and the human operators."

Weighing up to 4 tons each, replacing worn mill liners requires significant effort. This is associated with downtime to complete the replacement affecting plant productivity. "High mill availability is crucial. A gold processing plant I visited recently valued their SAG mill downtime at US\$ 130,000 per hour," says Jack Meegan, Global Product Manager for Liners. "Under normal conditions, the return on investment of SAGwise™ total process control is 6 months, but if we factor in reduced unscheduled maintenance, the return is a lot sooner."

Extending the life of mill liners pays off in many areas beyond prolonging the initial replacement, cost of what can be over 1 million US dollars. FLSmidth's customers also benefit from improved safety performance, stemming from reducing the number of times that employees are required to move the heavy equipment inside the mill, improved inventory management, and better predictive maintenance planning.

SAGwise™ total process control is an innovative solution of how FLSmidth uses technology, process knowledge and practical experience to further enhance productivity of SAG mills.

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