

Mining new discoveries with Weir Minerals

hange is pervasive and demands adaptation. With declining ore grade and low commodity prices, the mining industry has had to adapt to stay competitive. As merger and acquisitions opportunities and greenfield projects diminish, there is a strong focus on modifying and optimising existing mine sites and processes to achieve greater operational efficiency.

Mining companies are under intense pressure to increase production through the optimisation of their current plant and its resources. In order to achieve this, it is important they preserve and extend their assets. "Weir Minerals recognised the demand within the industry and we have expanded our service offering as a result. We don't just design and manufacture products; we provide tangible solutions for operators across the globe," states John McNulty, Director of Technology for Weir Minerals.

When it comes to supplying solutions to mining operators, Weir Minerals ensure to visit mine sites daily to assess operator's processes, discover the pain points and work with the customer to overcome their productivity related problems, providing the solutions they need – from modifying a cyclone cluster to developing a transportable self-priming pump to increase availability of a plant. Weir Minerals supply tangible solutions to enable operators to utilise existing infrastructure and equipment to maximise production whilst minimising total ownership cost. "It's not about reinventing the wheel, it's about re-thinking how we use current assets and working together to modify the process, increasing mine throughput and improving access to high-quality mineral resources," says John McNulty.

Laser Scanning Technology

Through their plant optimisation strategy, Weir Minerals use laser scanning technology to examine the entire plant, gaining a full understanding of all of the equipment, applications and processes present. Many older plants no longer have access to their original drawings, or find that their original drawings are out-of-date due to modifications since the plant's establishment. So laser scanning is a useful alternative to create detailed drawings alongside 3D models. This technology enables engineers to visualise where and how the equipment fits into the entire operation; identify what works and what doesn't and detect bottlenecks. Weir Minerals' engineers can then refine the data collected to determine the best approach to modify and enhance the operator's entire process.

Eliminating bottlenecks

Bottlenecks are inevitable in mining, therefore, it is important to unlock these barriers and plan the production flow accordingly. It's important to take a holistic approach to optimisation; modifying each process with the entire operation in mind, avoiding bottlenecks which slow down the overall process. Furthermore, mine operators may be looking to expand capacity, lower operating costs as well as to increase productivity. John McNulty concludes: "It's our job to truly understand our customers' challenges and use our engineering expertise to optimise the process, taking their business to the next level."

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