

REVOLUTIONISING REAGENT DOSING FOR THE MINING INDUSTRY

In the mining industry, the process of extracting base metals from ore is complex and involves using reagents to maximise the yield. Reagent dosing also plays a part in toxicity reduction for waste processes such as in tailings dams.

Reagent dosing is a critical but fickle process: underdosing can reduce the recovery yield, while overdosing can be a waste of money and increase risks for mining operations. Overdosing can be particularly dangerous since reagents are inherently hazardous and can have significant environmental, occupational health and safety impacts. Dosing accuracy and reliability is crucial.

Finding an accurate, reliable, and customised solution that helps to achieve maximum recovery yield while minimising the use of hazardous chemicals, is where Bürkert Fluid Control Systems can assist.

An example of Bürkert technology applicable to mining applications is the Type 3361 valve process controller. The electromotive actuator with ball screw positions the control cone with highest precision at a positioning speed up to 6 mm/s, reacting almost delay-free to process signals.

Pressure fluctuations or surges in the medium are not transferred to the valve position, and each flow-optimised valve body can be equipped with up to five different valve seats for a precise adaptation according to needs.

The Type 8756 mass flow controller and mass flow meter is also particularly suitable for the very precise measurement or control of small quantities of liquid that also require a medium-separated sensor.

The measuring principle of the sensor is based on the Coriolis effect and is completely

independent of the medium, with pressure and temperature deviations have no impact on accuracy. In addition to the flow rate, the density and temperature of the liquid are also measured.

The device design enables a stable flow measurement that is immune to external vibration. Supporting flow measurement and control up to 120 kg/h, it offers high long-term stability, with no zero-point adjustment necessary.

The implementation can be done via your standard 4-20ma signals back to your SCA-DA or industrial Ethernet technologies, such as EtherNet/IP, by the mining industries also permits the use and transmission of both cyclic and acyclic data, providing valuable information for condition monitoring and preventative maintenance.

Bürkert devices such as the Type 3361 and

8756 can interface with most industrial Ethernet protocols currently available, maximising flexibility and potential implementation. The Type 3361 and Type 8756 are only two examples of the precision technology available, and as a provider of dosing control solutions, Bürkert Fluid Control Systems can provide the most suitable dosing solution for the application, providing tailored solutions that address each application's unique needs.

With its holistic approach, strong communication and engagement, and understanding of mining company sustainability goals, Bürkert Fluid Control Systems has been able to stay ahead of the curve in terms of emerging technologies and trends.

Bürkert Fluid Systems is revolutionising reagent dosing in the mining industry, providing optimised, sustainable, and cost-effective solutions. **AMR**



Mining prefer to partner with us for Process Control solutions



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