

Metso

Flotation services

Level control upgrade



Flotation

The level control upgrade solves challenges such as fluctuations in cell levels caused by changes in volumetric flow and frequent unplanned maintenance.

Improve flotation cell throughput, performance level, and reliability with a Metso Level control upgrade.

Maintaining accurate and reliable level control is crucial for sustaining the availability, capacity, and metallurgical efficiency of your flotation process.

Challenges such as fluctuating cell levels due to volumetric flow changes and the wear of components like plugs, sockets, and sliding parts can lead to frequent unplanned maintenance.

A comprehensive level-control system includes a precise measurement instrument, accurate control valves, and an optimized control system. The Metso dart valve, an electro-pneumatic system with long-stroke actuators, ensures smooth and accurate slurry flow control.

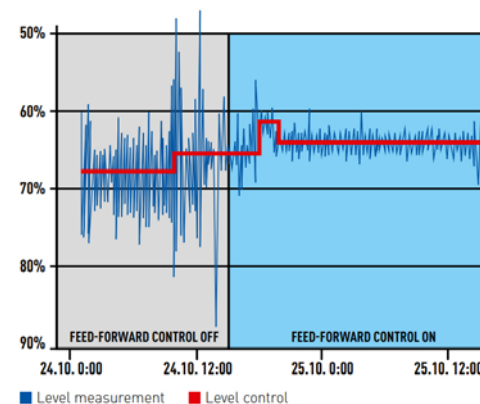
Constructed from robust stainless steel with durable polyurethane or rubber sockets and dart plugs, it offers extended lifetime.

Additionally, our level measurement solutions include mechanical ball floats and the advanced Metso LevelSense system, ensuring low-maintenance and accurate measurement of slurry-froth and froth-atmosphere interfaces.

Upgrading your level control system with Metso technology significantly improves flotation cell throughput, performance, and reliability. Our level control upgrades are available for all Metso TankCell®, OK, and RCS cells..

Delivery scope

- Dart valve seats, plugs, rods, and guide blocks
- Actuator units
- Level-measurement instrument
- Control system with advanced control algorithms
- Installation and ramp-up services



Process stabilization with feed-forward control

Benefits

- Accurate, reliable level measurement and control
- Improved availability
- Process stabilization
- Stable process ramp-up
- Robust for capacity changes

Frequently asked questions

Question	Answer
When should I consider upgrading my level control system?	You should consider upgrading if you want to switch from manual to automatic control, or if you don't typically operate with a valve opening of between 20 and 70%
Is there a reliable way to measure froth bed thickness?	The Metso LevelSense – our proven, low-maintenance solution is the best available technology for slurry froth and froth-air interface measurement
Is it possible to use my existing level-control components in combination with the upgraded ones from Metso?	Providing your existing components are compatible and meet the required standards for accurate level control, they can be used alongside the upgraded components.
Will I need to replace the actuator if the volumetric flow through the dart will be larger or smaller?	The actuator may need to be replaced with a larger or smaller unit, but specialists will first check whether the existing unit is capable of handling the new volumetric flow and dart stress.
Are there any special requirements if multiple cells in the same level step are controlled by two valves?	We always recommend using cells in single step, as this optimizes metallurgical control. For plants where multiple cells are in the same level step, we will design the dart-valve upgrade accordingly

