

Metso:Outotec

Flotation services

Level control upgrade



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 Outotec Level Control Upgrade.

Accurate, reliable level control is key to maintaining the availability, capacity, and metallurgical performance of your flotation process.

Common challenges include accounting for fluctuations in cell levels caused by changes in volumetric flow, and the high wear of parts such as plugs, sockets, and sliding components that can result in frequent unplanned maintenance.

An effective level-control system comprises a reliable and accurate measurement instrument, accurate control valves, and an optimized control system. It is generally accepted that an internal dart valve is the most efficient and reliable way to accurately control the flow of slurry out of a cell.

The Metso Outotec dart valve is electro-pneumatic and has long stroke actuators to ensure smooth and accurate control. It is constructed from robust stainless steel, with polyurethane or rubber sockets and dart plugs that have a long lifetime.

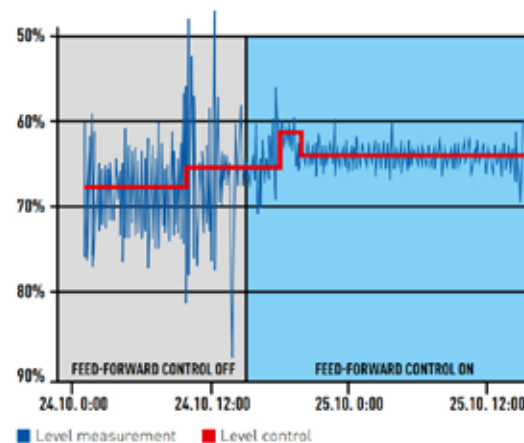
We also offer level measurement solutions such as mechanical ball floats and the state-of-the-art Metso Outotec LevelSense system, which is a low-maintenance solution that enables accurate measurement of the slurry-froth and froth-atmosphere interfaces.

By upgrading your level control system with the latest Metso Outotec technology you can improve flotation cell throughput, performance, and reliability. We offer level control upgrades for all Metso Outotec 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

[Rea more at mogroup.com](http://mogroup.com)



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 Outotec 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 Outotec?	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 Outotec 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

