

Metso:Outotec

Inspection services

Flotation inspection packages



Flotation
Regular, systematic inspections provide you with a clear understanding of the current condition and maintenance needs of your equipment to keep your operations running.

3 Inspection packages for your Metso Outotec flotation cells designed to reduce unplanned downtime, equipment failure, and risks associated with operating faulty equipment.



Get fast, accurate information about the condition of your equipment, recommendations for maintenance and improved operation with our systematic flotation inspections.

Regularly and proactively scheduled inspections are critical for ensuring the longevity and peak performance of equipment and processes. Unplanned equipment downtime can cause severe financial losses. Equipment failures, multiple service center calls and degrading process efficiency are all potential outcomes from equipment that has not been regularly inspected and maintained.

Features

- Faster, easier inspections mean you get recommendations you can quickly act on
- Reports are clear, thorough and easy to share with colleagues
- Benchmark your flotation equipment and identify trends based on current and historical data
- Comprehensive data gathering improves your decision-making

Benefits

- Higher flotation availability
- Better process results
- Increased production due to less stoppages
- Preventative maintenance and proactive repairs

1. Flotation Visuals and Vitals

A quick flotation health check

2. Flotation Mechanical Verification

A detailed condition check to improve your flotation availability

3. Flotation Comprehensive/ Customized

Comprehensive inspection with flotation adjustments for maximum performance

[Read more at mogroup.com](https://www.mogroup.com)

Metso Outotec flotation inspection packages



	1. Visual and Vitals	2. Mechanical Verification	3. Comprehensive/Customized
Core benefit	Detect issues early for improved reliability	Overall detailed condition of the flotation cell	Includes additional checks, adjustments and process performance analysis
Time required	Inspection requires approximately 30 minutes per cell with flotation running, no downtime required.	Visual and vitals inspection requires approximately 30 minutes per cell with flotation running. Mechanical verification inspection requires approximately 30 minutes* per cell during shutdown.	1 hour* required to conduct the visual and vitals and mechanical verification inspections. Additional time may be required on a case by case basis.
Inspection frequency recommendation	3-4 times per year	1-2 times per year	Performed as required
Inspection offering	<ul style="list-style-type: none"> • OEM visual inspection of the flotation during operation • Catch safety hazards, flotation results, leakages, bolt tightness, temperatures, vibrations • Historical data helps predict flotation component performance over time • Detailed future inspections recommended if needed 	<ul style="list-style-type: none"> • Includes the Flotation Visuals and Vitals inspection • OEM inspection with guards and covers removed • Additional tests, measurements and services • Mechanical adjustments 	Includes visual and vitals and mechanical verification inspections. Additional inspections, measurements and adjustments performed including: <ul style="list-style-type: none"> • Level control • Instruments • PID control loop • Reagents • Instrument air system

*Excluding drainage time

Flotation - Inspection packages

Component	Task	Cell status	Package 1	Package 2	Customized
			Flotation Visuals and Vitals	Flotation Mechanical Verification	Flotation Comprehensive
General					
Surface protection (outside)	Visual check for corrosion and liner damage	Operating	●	●	●
Gratings and handrails condition	Visual check for corrosion, sturdiness	Operating	●	●	●
Drive unit (rack, drive)	Visual check and check bolt tightness	Operating	●	●	●
Air valves and flow meter operative	Visual check and check for leakages	Operating	●	●	●
Level measurement condition	Check that the float level arm is moving without obstruction	Operating	●	●	●
Float washing system	Check operation	Operating	●	●	●
Dart valves	Check that level control operates the dart valves	Operating	●	●	●
V-Belt drive					
V-Belt safety guard fitted, motor lubrication	Visual check for temperature, debris and vibrations	Operating	●	●	●
Bearing unit	Visual check for temperature, leakages and vibrations	Operating	●	●	●
Electric motor cooling	Visual check and cleanliness	Operating	●	●	●
Electric motor	Check temperature and vibrations	Operating	●	●	●
Gear drive					
Electric motor cooling	Check cleanliness	Operating	●	●	●
Motor lubrication	Visual check, check for temperature and vibrations	Operating	●	●	●
Gear unit	Check temperature, oil pressure, breather and vibrations	Operating	●	●	●
Process observations					
Concentrate flows evenly to the launder, launder empties correctly	Visual check for level froth flow, flooding	Operating	●	●	●
Stable concentrate froth bed	Visual froth check for consistency, turbulence & boiling	Operating	●	●	●
Operating parameters	Collect data	Operating	●	●	●
V-Belt Drive					
Pulley condition	Check condition (DE/NDE) and measure alignment	Shutdown		●	●
Belt condition	Check condition and measure tension	Shutdown		●	●
Gear Drive					
Air breather	Visual check to ensure the silica is active	Shutdown		●	●
Gearbox	Check oil level and leakages	Shutdown		●	●
Flotation Machine					
Launders	Visual check and cleanliness	Shutdown		●	●
Drive unit (rack, drive)	Visual check and bolt tightness	Shutdown		●	●
Level control float	Visual check the operating range and for water in the float	Shutdown		●	●
Surface protection (internal)	Visual check of the lining of the cell as well as inlet & outlet	Shutdown		●	●
Shaft vertical & shaft flange (rotor end)	Ensure the shaft is vertical, no flange corrosion, check sika flex	Shutdown		●	●
Rotor alignment and fastening	Visual check and tightness	Shutdown		●	●
Dart valves	Visual and functional check	Shutdown		●	●
Dart plug & sockets	Check wear	Shutdown		●	●
Guide blocks, froth cone clears shaft	Visual check for foreign objects in tank	Shutdown		●	●
Rotor and stator	Visual check of tip thickness, gap and bolt cups wear	Shutdown		●	●
Rotor bottom	Check clearance	Shutdown		●	●
Additional					
Level control	Measure and adjust dart valves	Shutdown			●
Instruments and reagents	Visual check and adjustments	Operating			●
PID control loop	Adjustment and fine tuning	Operating			●
Instrument air system	Visual check, measurements and balance adjustments	Operating			●