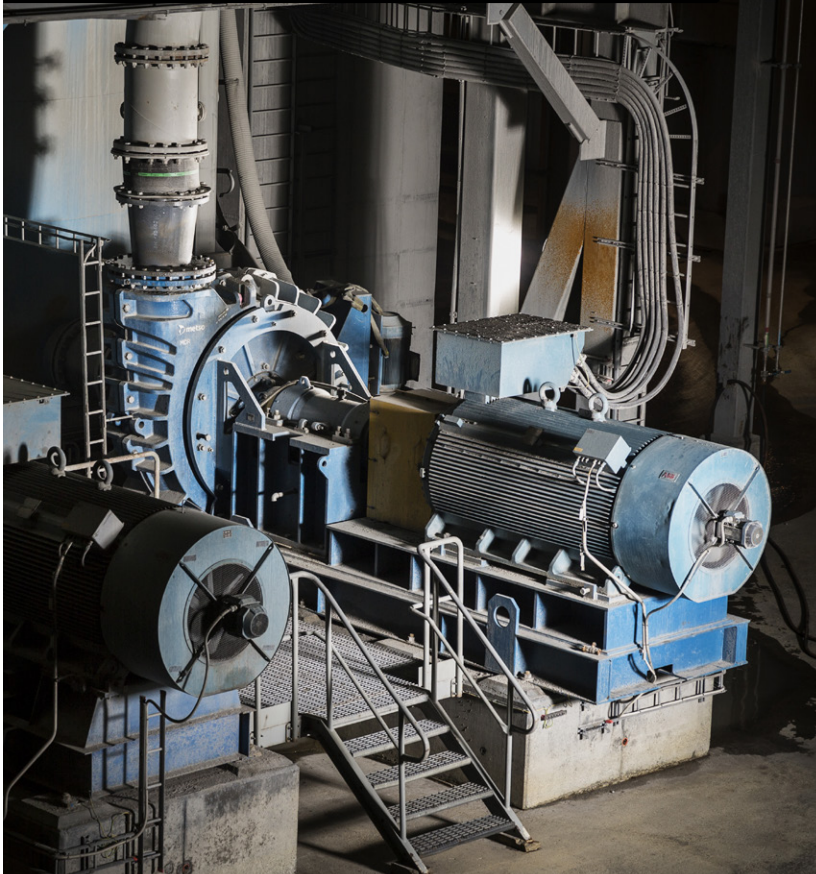


Metso:Outotec

Inspection services

Pumps inspection packages



Pumps

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 pumps designed to reduce unplanned downtime, equipment failure, and risks associated with operating faulty equipment.



Undetected issues can lead to breakdowns and unplanned service work, significantly increasing repair costs and production losses.

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

The information provided will assist in minimizing unscheduled downtime and reduce long-term operating expenses. Our specialists can also recommend service agreements and spare parts.

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 pumps and identify trends based on current and historical data
- Comprehensive data gathering improves your decision-making

1. Pump Visuals and Vitals

Gain a quick understanding of the condition of your pump.

2. Pump Mechanical Verification

Standard inspection package with specific adjustments and fixes.

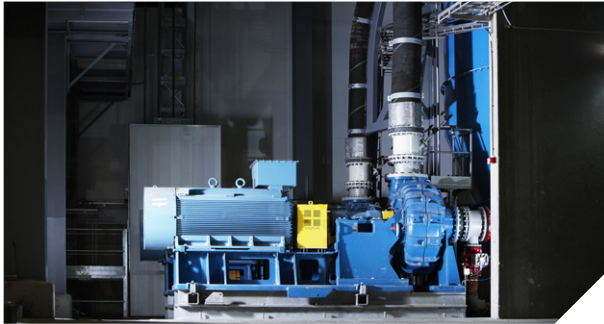
3. Pump Comprehensive/Customized

Complete, in-depth package with additional check of pump performance against the PumpDim sizing and process data.

Benefits

- Reduced downtime
- Extended pump lifetime
- Increased reliability
- Improved safety
- Maximize plant uptime
- Better visibility of maintenance requirements

Metso Outotec pumps inspection packages



	1. Visual and Vitals	2. Mechanical Verification	3. Comprehensive/Customized
Core benefit	A quick way to understand your pumps overall condition for peace of mind	Maximized pump availability through a more detailed service inspection with additional adjustments and services	Maximized pump performance and equipment longevity
Inspection offering	<p>Full inspection with the pump operating:</p> <ul style="list-style-type: none"> • Visual inspection of the general installation, pump, motor, drive and system • Catch safety hazards, underperforming pumps and general observations • Wet end: leaks around inlet and outlet connections • Shaft seal: gland performance and adjustments as required • Bearing assembly: temperature and vibration • Historical data helps predict pump performance over time • Detailed future inspections recommended if needed 	<p>Full inspection of a non-operating, rotatable spare or stocked pump. Can be undertaken at the installed location or in a service workshop. Includes the visual and vitals as well as:</p> <ul style="list-style-type: none"> • OEM inspection with guards removed • Impeller axial clearance adjustment as required • Inspection of wear and spare parts • Inspection of drive components • Historical data helps predict wear and spare parts life and service intervals over time. 	<p>Full visual, vitals and mechanical inspections. Additional inspections, measurements and services are performed, such as:</p> <ul style="list-style-type: none"> • Customizable reporting including measurements and action recommendations • Modernization and upgrade recommendations • Spare part audit and availability check • Plant optimization: Pump performance checked against the PumpDim sizing and process data

Tasks may vary depending on the type of pump and build configuration.
 All reports can be customized to include any additional checks, measurements and site-specific requirements.

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Partner for positive change

Pump - Inspection packages

Category	Sub category	Task	Visuals & Vitals	Mechanical Verification	Comprehensive
Safety	Lock out - tag out	Visual checks plus functional checks of switches and emergency stop buttons	●	●	●
	General housekeeping	Visual check of the installed environment	●	●	●
	Guards and warning signs	Visual check of drive guards, gland guards and warning signs	●	●	●
	Lifting equipment	Visual checks plus functional checks of the lifting equipment	●	●	●
	Special tools	Visual checks plus functional checks of the special tools	●	●	●
	Service platforms	Visual checks plus functional checks of the service platforms	●	●	●
Pump info	Pump model, pump size, materials of construction	Visual check of pump	●	●	●
	Type of installation, pump build options	Visual check of pump	●	●	●
	Pump foundation	Visual check plus functional checks of the foundation and fixings	●	●	●
Wet end	Inlet pipework *	Visual check for leakages	●	●	●
	Outlet pipework	Visual check for leakages	●	●	●
Pump gland	Shaft seal type *	Visual check of gland type	●	●	●
	Shaft seal performance *	Visual checks plus functional checks of the seal support system where fitted	●		●
Bearing assembly	Bearing assembly type	Visual check of bearing assembly	●	●	●
	Bearing assembly lubrication	Check lubrication type and schedule	●	●	●
	Bearing assembly fixings	Check correct quantity and tightness	●	●	●
	Bearing assembly performance	Visual checks plus functional checks of the bearing assembly	●		●
Drive	Pumpset drive arrangement, motor mounting	Visual check of drive arrangement	●	●	●
Motor	Motor type	Visual check of motor	●	●	●
	Motor performance	Visual checks and functional check of the motor	●		●
Pipework	Inlet pipework *	Visual check including auxiliaries, plus leakages check	●	●	●
	Outlet pipework	Visual check including auxiliaries, plus leakages check	●	●	●
	Feed sump, level controls	Visual checks and functional checks of the feed sump	●	●	●
Application data	Duty details, system details, slurry properties	Operational check against PumpDim sizing	●	●	●
Wet end	Shaft rotation by hand	Check shaft rotation by hand (must isolate power first)		●	●
	Axial clearance adjustment	Check impeller clearance and axial adjustment		●	●
	Wet end wear parts inspection	Visual check of wet end wear parts		●	●
Pump gland	Gland assembly inspection *	Visual check of gland components		●	●
Bearing assembly	Bearing assembly inspection	Visual check of bearing assembly components		●	●
Drive	Drive inspection	Visual check of drive components		●	●
	Drive alignment, drive tension	Visual checks plus functional check of the drive		●	●
Extra services	Spare parts	Spare parts stock audit and availability check			●
	Upgrades	Modernizations and upgrade recommendations			●
	Plant optimization	Collection of process data to optimize operation of the installed pump			●

Tasks may vary depending on the type of pump and build configuration.

All reports can be customized to include any additional checks, measurements, and site-specific requirements.

*Horizontal pumps only