Preventive maintenance

Ensure optimal performance of your ÄKTA pilot™ 600R system

Preventive maintenance (PM) reduces the risk of unexpected breakdowns, helps keep your schedule on track, and ensures your equipment remains properly calibrated. PM is built into our equipment design process for long-term reliability and backed by extensive global experience. Our certified service engineers are trained to deliver expert PM tailored to your system. On completion, we provide detailed service reports for full traceability.

Comprehensive system assessment

During PM, our qualified engineers perform comprehensive tests and verifications to ensure your ÄKTA pilot™ 600R system meets original factory specifications. They replace any necessary components using quality parts from Cytiva. These procedures are based on protocols optimized during system design and reflect the same functional and quality checks applied during assembly and pre-delivery validation.

Fig 1. ÄKTA pilot 600R system.

Tests and inspections

Initial performance test	Pressure pulsation test
Air sensor test	System backpressure test
Air trap leakage test	System leakage test
Valve test (air trap)	UV monitor test
Valve test (column)	Conductivity monitor test
Valve test (inlet)	Mixer module test (optional module)
Valve test (outlet)	Valve test (mixer, optional module)
Pressure sensor test	pH module test (optional module)
Check valve test	Final performance test

Parts replaced

Restrictor inserts
Pump seals
UV lamp
O-rings used in the air trap valve
Pressure sensor O-rings
All O-rings used in the air trap valve
Pump rinse diaphragm
Valve membranes (inlets, air, column, outlets and any optional modules)
Mixer O-ring (optional module)
O-ring pH module (optional module)
Mixer stirrer (optional module)

Documentation

We provide a standardized set of documentation and test results after each service or repair. This ensures full traceability, saves time, reduces costs, and supports compliance in regulated environments. Our service engineers document every PM visit and issue a service report upon completion.

Frequency

System usage	Type of PM visit
Normal usage: up to 2000 hours per year	One PM visit every second year
High usage: 2000 to 4000 hours per year, or use with aggressive solvents	One PM visit annually
Continuous usage: more than 4000 hours per year	Two PM visits annually

What we do and why it matters

Main components	Outcomes
Functional testing, inspections, and calibration	Ensures reliable accuracy of testing data and system functionality.
Wear-and-tear replacement	Minimizes risk of unexpected failure. Extends the life of your equipment.
Exchange of all elastomers in contact with process fluid	Minimizes contamination risk due to leakage, ensuring high-quality product for human use.
As-found/as-left testing	Ensures equipment runs according to specifications after completed PM.
Documentation	Signed PM service report upon completion.

An integral part of our service plans

To maintain consistent system performance of your ÄKTA pilot 600R system, PM is included in all our service agreements.

Extended life cycle

Service traceability

Maximized productivity

Learn more about how our service agreements can support your operations at cytiva.com/equipment-services

cytiva.com

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