

# Preventive maintenance

Ensure optimal performance of your iCELLis™ 500+ bioreactor 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 iCELLis™ 500+ bioreactor 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.

## Tests and inspections

### Functionality verification

- Gas handling module
- Biomass sensor
- pH and DO measurement
- Pressure sensor and pressure relief valve
- Temperature probe sensor
- Pinch valve
- Base, inoculation, and sampling pump rotation and speed
- Feed-in and feed-out pump rotation and speed
- Fill and drain pumps (if applicable)
- Agitation motor speed
- Media pre-heater and filter heater
- TCU communication
- Beckhoff UPS

Fig 1. iCELLis 500+ bioreactor system.



### Verification and adjustment measurements

- Bioreactor scale/base scale pH and dissolved oxygen (DO)

### Calibration

- Gas-handling module

### Software check

- Check for latest version

## Parts replaced

- Agitator motor and gearbox
- Fan filter
- Cabinet filter

**Note:** If your system is not covered by a Cytiva service agreement, any part replaced other than a wear part will incur additional charges.

## 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

Our standard recommendation is one PM visit per year. Your service team can advise on the right frequency for you.

## 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 unexpected failure risk. Extends the life of your equipment.
As-found/as-left testing	Ensures evidence equipment runs according to specifications after completion.
Documentation	Signed service report after completion.

## An integral part of our service plans

To maintain consistent system performance of your iCELLis 500+ bioreactor 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](https://cytiva.com/equipment-services)

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