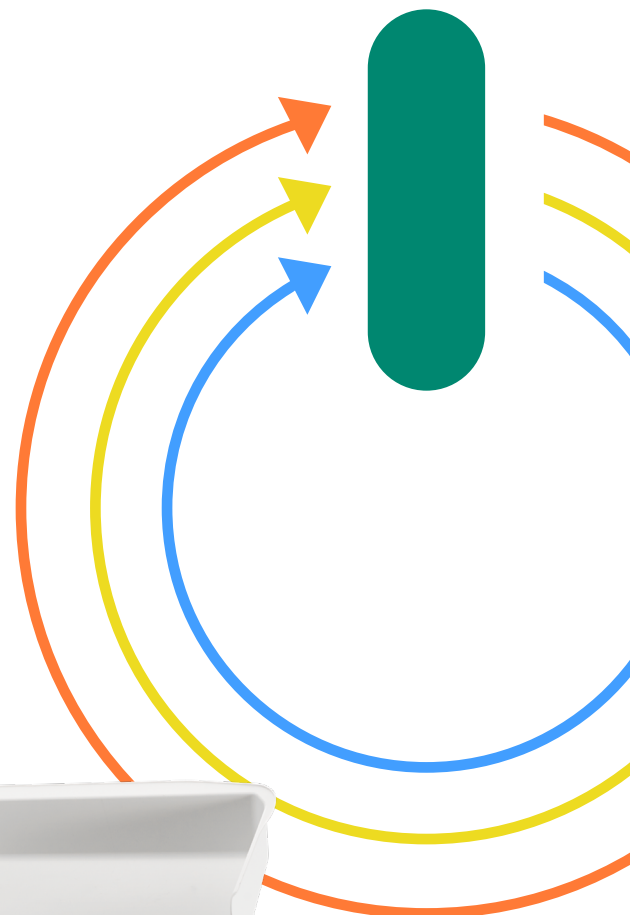


OptiRun Service Solutions

Optimize your WAVE™ bioreactor system
with preventive maintenance (PM)



**OptiRun™
LifeCycle**



**Service
traceability**



**Maximized
productivity**

Cytiva integrates PM into the design process when developing equipment. Planned PM visits maximize uptime, and they are more cost-effective and predictable than ad hoc repairs. We leverage global experience maintaining thousands of bioreactors to optimize PM procedures that protect your WAVE system performance, outcomes, and schedule.

Outcomes you can expect from a PM:

- Extend the life of your WAVE system
- Enable traceability and compliance through visit records
- Detect potential issues before they affect uptime
- Maximize productivity
- Keep your equipment running at factory specifications
- Get the latest factory developments
- Ensure quality of results



Cytiva is the right partner for PM solutions

Servicing complex research equipment requires a deep understanding of the design, process, and science behind it. Our service engineers are trained and certified to perform PM on your WAVE bioreactors.

Comprehensive testing and inspections

During PM, our trained service engineers run tests and verifications to identify and make necessary replacements and ensure your equipment performance meets our factory standards. We designed and optimized these tests throughout product development. They reflect functional tests performed during equipment manufacture and before delivery to your site. If your system is not covered by a Cytiva service agreement, any replacement parts that are not included in the PM Kit will incur additional charges.

Documentation

Our service engineers document each PM visit and provide you with a service report upon completion. Documenting PM visits supports the validation lifecycle process.

PM schedule

Our standard recommended PM frequency is one PM visit per year. We might advise additional PM visits if:

- Instrument usage is high
- WAVE is part of a critical workflow

Each usage situation is unique and our service team can advise on the best PM frequency to suit your needs.

PM, an integral part of our service agreements

To ensure the continued performance of your system, we build PM into all our service agreements.

Testing and inspection

During the PM visit, our service engineers perform a comprehensive set of tests and inspection points. These typically include adjustment and calibration of:

- Air flow control loop
- CO₂ and O₂ control loops
- Load cells
- Dissolved oxygen, pH, and temperature controls
- Temperature sensing loop with new resistance temperature device (RTD)
- Mechanical parts to ensure proper alignment

For more information, visit cytivalifesciences.com/optirunservice or to schedule preventive maintenance, visit cytivalifesciences.com/optirunpreventive.

cytiva.com

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CY12359-06Oct20-PA

Service agreements provide you with:

- Confidence in the accuracy of your results from regularly scheduled service
- Predictable ownership costs – rates are guaranteed for the duration of the agreement
- Minimal disruption with priority response from our trained service engineers
- Timely access to secured, product-specific wear parts to maximize uptime

PM Kit content

The PM Kit contains parts subject to wear-and-tear during normal instrument use to maximize system uptime. PM Kit contents vary between WAVE models, but typically include:

- All the panel mount quick disconnects and air lines, which can break over time
- Replacement filter heater and temperature sensor cable, if required, or replacements provided for future use
- RTD temperature sensor and extension cable; a new alignment pad is used on all bench-top systems
- Sensor alignment pads (when applicable)
- Heat resistant tape to route and secure the RTD wire (when applicable)
- Tubing retention pad and jaws on the tube sealer
- Replacement of sealing jaws (in the case of the Hot Lips II Tube Sealer)

If your system is not covered by a Cytiva service agreement, any replacement parts that are not included in the PM Kit will incur additional charges.

