## eppendorf



## **Exceeding Your Expectations**

**Eppendorf Instrument Services** 



# »Are Your Lab Instruments in Perfect Order and Qualified?«

How much effort does it cost you to take good care of your lab instruments to ensure valuable uptime, and prove that they are delivering reproducible results? And how much time and effort would it cost you to repeat e.g. one year of your lab work when in doubt of the results?

We suggest to be continuously responsible by maintaining and qualifying your laboratory instruments on a regular basis for many years of productive and reliable operation.

#### **Eppendorf Services – Supporting You Since 75 Years**

Eppendorf began in 1945 as a medical instrument repair workshop on the grounds of the University Hospital Eppendorf in Hamburg, Germany, Today, more than 500 factory-trained and certified service specialists across the world provide in-house or on-site service solutions, ensuring the uptime you need and can rely on, increasing your peace of mind in terms of complying to regulatory requirements, and the quality and safety of your results.

#### Serving You Beyond The Product

Keep pace with new trends, methods, and technologies by receiving training and application support from our global team of scientific product and application specialists. Acquire basic knowledge, or develop more advanced skills needed for your workflows and routine maintenance within scientific research, healthcare and industry.

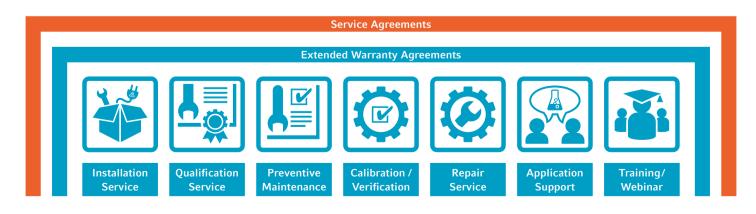
**Our dedicated Applications and Technical Service** teams are here to support you!



### Your Needs – Our Solutions

From service agreements to on-demand services – You choose to suit your uptime requirements and budgetary needs best, while meeting national and international compliance norms and regulations.

We take care of your lab equipment during its full life cycle. This helps you concentrate on achieving the reliable results you are looking for in your research and lab work routine.





We accompany you every step of the way – from the installation and maintenance of your lab instrument or software to the support of your quality and regulatory conditions.

#### Choose from the following service options:

- > Service agreements from cost-efficient to all-inclusive care packages for an easy service process
- > On-demand service solutions for individual service needs

#### Our Service Agreements - Your Advantages

With our basket of Service Agreement solutions we take the load off your shoulders by simplifying your ordering and budgeting process for various services over the full lifetime of your instruments.

Your costs become reduced and predictable, thereby assuring continuous productivity and a long service life. In addition, our agreements include repair costs – fully or partially – and discounts on other services.

Benefit from assured premium performance for your peace of mind!

### **Eppendorf Service Agreements**







| Services Agreement   | AdvancedCare For assured instrument reliability an uptime | PremiumCare For assured instrument reliability, uptime and financial plannability |
|--|---|---|
| Full preventive maintenance                                | 1/year  | 1/year  |
| Software update (during annual maintenance, if applicable) | •   | •   |
| Priority support*1   | •   |   |
| Spare parts, labor, travel on repairs                      | 20% discount  | included  |
| Discount on additional services (e.g. IQ/OQ)               | 10%   | 10%   |

<sup>\*1</sup> Subject to local business conditions, and based on a »best effort« practise. For more information please contact your local service organization

### **Extended Warranty Agreements**



**Extended Warranty plus** 





| Services Agreement   | Purchased once within the standard warranty period. Valid for one year following the standard warranty period. | Purchased within the standard warranty period. Valid following the standard warranty period. |
|--|--|--|
| Full preventive maintenance                                | _  | 1/year   |
| Software update (during annual maintenance, if applicable) | -  | •  |
| Priority support*1   | _  |  |
| Spare parts, labor, travel included on repairs             | •  |  |
| Discount on additional services (e.g. IQ/OQ)               |  | 10%  |

**Extended Warranty** 

<sup>\*1</sup> Subject to local business conditions, and based on a »best effort« practise. For more information please contact your local service organization.

### **Qualification Services**



#### Installation Qualification and Operational Qualification services - GxP compliant

Are you working in a regulated environment? We now offer specifically created and revised Installation Qualification and Operational Qualification services including GxP compliant documentation. These documents support the complex GxP standards and regulations reducing your administrative workload, and provide you with qualified assurance that your instrument is installed and operating in accordance with manufacturers' specifications.

#### Be prepared for your internal and external audits with our GxP compliant documentation!

| IQ/OQ GxP | OQ GxP    |
|-----------|-----------|
|           | -         |
| •         | -         |
|           | -         |
|           |           |
| •         |           |
| •         |           |
|           | •         |
|           | IQ/OQ GxP |

### Calibration Services





#### Calibration and verification services

How do you know your experimental data is reliable? Assuring the precision and accuracy of your instrument is maintained according to specifications is your first step to reliable results.

Eppendorf offers calibration/verification services for:

- > Centrifuges (time, speed, temperature)
- > Thermocycler (temperature)
- > Biological Shaker (speed, temperature)
- > CO<sub>2</sub> Incubator (temperature, CO<sub>2</sub>, O<sub>2</sub>, rH)
- > ULT Freezer (temperature)
- > Photometry (wavelength, temperature if applicable)
- > Temperature Control & Mixing Instruments (temperature)

### Maintenance Services



#### **Preventive Maintenance services**

How much do you rely on keeping your instrument in good working order? Our professional cleaning and maintenance services are aimed at the prevention of unexpected downtimes and failures by early detection of problems. Keeping your instruments in perfect working order will not only extend their service life, but also increase your productivity.

#### Ensure reliability and save your resources!

#### Services include:

- > Cleaning (external and internal)
- > Maintenance
- > Exchange of spare parts (additional charge)
- > Comprehensive functional check
- > Software updates
- > Evaluation of stored data
- > Documentation
- > Dated service sticker to confirm Eppendorf Service

### Your Instruments – Our Services

### Centrifuge Service





Regular service of centrifuges and rotors in either an operational or a disassembled state ensures a safe working environment. Functional inspections assure that all manufacturer specifications are met.

#### **Preventive Maintenance services include:**

- > Cleaning of external and internal parts
- > Checking of
  - stability, housing, lid latch, display and keypad
  - temperature sensors and speed sensor
  - rotor and imbalance detection
- > Software update if required
- > System test run
- > Evaluation of stored data
- > Service check list
- > Dated service sticker to confirm Eppendorf Service

#### Qualification services include:

- > Checking of delivery status and environment
- > Installation incl. configuration and functional check
- > Testing of alarm functions
- > Verification of instrument parameters (temperature, speed)
- > Detailed IQ/OQ report
- > Handling of deviation list/management
- > Signed approval by customer and service technician

#### **Rotor Assurance Plans**

Rotors and buckets are subject to normal wear and tear during regular operation. Microscopic cracks can be detected early during a qualified inspection, which will allow the rotor to be exchanged before serious damage has occurred. If none or very few surface changes are identified, the rotor can be used according to instructions.





### Mastercycler® Service







The exact adherence to defined temperatures is crucial for reproducible results in your PCR experiments. Therefore, your thermocycler should be regularly maintained, and followed by a temperature verification.

#### **Preventive Maintenance services include:**

- > Cleaning of external and internal parts
- > Checking of
  - housing, accessories and internal parts
  - electrical connection (incl. mains power)
  - LED, display and keyboard, touchscreen
  - USB-interface
  - thermoblock
  - heated lid
  - fan(s)
- > Software update if required
- > Verification of temperature
- > Evaluation of stored data
- > Service check list provided
- > Dated service sticker to confirm Eppendorf Service

#### Qualification services include:

- > Checking of
  - delivery status, and environment
  - installation incl. configuration and functions
- > Testing of alarm functions
- > Verification of instrument parameters (e.g. temperature)
- > Detailed IQ/OQ report
- > Handling of deviation list/management
- > Signed approval by customer and service technician

#### Temperature verification services

Temperature verification of selected well positions and adjustment of the cycler block temperature if necessary is highly recommended to assure instrument consistency and accuracy. The temperature verification from Eppendorf is a very accurate and precise method, meeting all documentation and detection requirements in the lab.

### **ULT Freezer Service**





Reliable and efficient performance can be expected for years of smooth operation from any of our ULT Freezers. Our services are designed to check, validate, and promote reliable freezer performance according to specifications.

#### **Preventive Maintenance services include:**

- > Cleaning and inspection of air filter, heated vent and condensor
- > Checking of
  - environment, electrical supply and fittings
  - CO<sub>2</sub> /LN<sub>2</sub> backup system
  - independent temperature monitoring system
  - compressor operating temperature
  - condition and function of inner door/lids, cooling fan motor, bearings, blades, insulation, accessible cooling circuit pipes, and accessible electrical wiring

- > Operation of
  - freezer lid gas strut (chest freezer)
  - display and function keys
  - chamber temperature sensors and alarm
  - RS232/RS485 communication port
- > Alignment of door handle/sealing of outer door (upright freezer)
- > Verification and adjustment of operating parameters
- > Service check list
- > Dated service sticker to confirm Eppendorf Service

- > Checking of delivery status, and environment
- > Installation incl. configuration and functional check
- > Testing of alarm functions
- > Verification of instrument parameters (e.g. temperature)
- > Basic IQ/OQ report

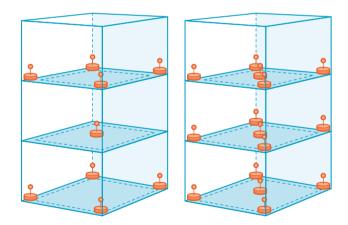


Regular verification with the help of an external, calibrated multi-channel temperature verification system inside your ULT freezer provides you with security of reliable long-term sample storage.

Our factory-trained and certified service technician will perform an on-site temperature mapping study including a full report stating:

- > Minimum, maximum and average temperature of each location
- > Full log of raw data of each measurement
- > Temperature profile graphic for duration of measuring period
- > All relevant calibration certificates

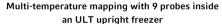
Norms, standards and best practices such as ISPE-Controlled Temperature Chamber Mapping and Monitoring, IEC 60068 – Environmental Testing, or Vaisala – 5 Rules of Sensor Placement in Validation/Mapping Applications recommend a temperature mapping of 9 or 15 probes after installation, and subsequently every two years, or when changes are made to the system.

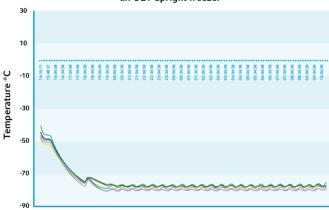


A probe holder system (9 and 15 probes) is used to ensure comparable results between different measurements and units



- > 24 hours, 365 days a year reliable storage for temperature-sensitive samples
- > Comparable annual temperature distribution results in one or multiple freezers
- > Audit proof documentation





Example of a Multi-temperature Mapping with 9 probes inside an ULT upright freezer

This service is only available in selected countries. Please contact your local Eppendorf service organization for further information.



### CO<sub>2</sub> Incubator Service





 ${\rm CO_2}$  incubators feature complex, dynamic control systems to maintain user-defined culturing parameters for optimized cell growth and proliferation. To ensure reproducible results and to protect your precious cultures from undesirable variables, we check your incubator performance.

#### **Preventive Maintenance services include:**

- > Checking of
  - installation environment
  - electrical/gas supply and fittings
  - door seals and door hinges
  - all chamber gas, temperature, humidity sensors
  - security of incubator shelf and racking systems
  - sensor covers
  - humidity trays
  - wiring system, PCB's, display, and controller

- > Testing of alarm functions
- > Replace in-line gas filter(s) and auto-zero filter
- > Basic calibration of operating parameters to within specifications
- > Comprehensive service report
- > Dated service sticker to confirm Eppendorf Service

#### Qualification services include:

- > Checking of delivery status, and environment
- > Installation incl. configuration and functional check
- > Testing of alarm functions
- > Verification of instrument parameters (e.g. temperature, CO<sub>2</sub>, speed, alarm)
- > Basic IQ/OQ report

#### For CellXpert®:

- > Detailed IQ/OQ report
- > Handling of deviation list/management
- > Signed approval by customer and service technician



### S41i Incubator Shaker Service





The S41i Incubator Shaker supports simultaneous culture of adherent and suspension cultures. The smallest deviation in the environment can result in undesirable outcomes. With regular professional instrument services you will achieve reliable culturing results with an optimized instrument performance!

#### **Preventive Maintenance services include:**

- > Checking of
  - installation environment
  - electrical/gas supply and fittings
  - chamber CO<sub>2</sub>, temperature sensors
  - security of shaker platform(s) and flask holders
  - security of incubator shelf and racking systems
  - humidity trays
  - shaker drive belt
  - platform support boot seals

- > Replace
  - in-line CO<sub>2</sub> filter and auto-zero filter
- > Validation/adjustment of operating parameters to within specifications
- > Service check list
- > Dated service sticker to confirm Eppendorf Service

- > Checking of delivery status, and installation environment
- > Installation incl. configuration and functional check
- > Testing of alarm functions
- > Verification of instrument parameters (e.g. temperature, CO<sub>2</sub>, speed, alarm)
- > Basic IQ/OQ report

### Biological Shaker Service





Biological shakers are required to be in continuous use for years. Small and short term variations in shaker operation can influence culturing outcomes, with negative effects on yields and/or cell expression. Ensure consistent, reliable shaker performance with our shaker services.

#### **Preventive Maintenance services include:**

- > Cleaning of condensor
- > Lubricate non-sealed shaker bearings, as appropriate
- > Checking of
  - installation environment
  - electrical/gas supply and fittings
  - any door/lid open sensors
  - security of doors/lids, handles, door struts and hinges
  - security of shaker mechanism
  - shaker drive motor, and circulation fan
  - shaker drive belt; adjust belt tension as necessary

- > Validation/adjustment of operating parameters within specifications
- > Service check list
- > Dated service sticker to confirm Eppendorf Service

- > Checking of delivery status, and environment
- > Installation incl. configuration and functional check
- > Testing of alarm functions
- > Verification of instrument parameters (e.g. rpm, temperature, alarms)
- > Detailed IQ/OQ report
- > Handling of deviation list/management
- > Signed approval by customer and service technician





### Photometry Service







Qualitative results with your photometry systems depend on perfectly working optics. To optimize photometric and fluorometric precision, accuracy, and linearity, your instrument should be routinely checked and adjusted by a qualified Eppendorf service technician.

#### **Preventive Maintenance services include:**

- > Cleaning of housing and cuvette shaft
- > Checking of
  - housing (incl. stability) and cuvette shaft
  - internal parts, light path, keyboard, display
  - printer output and USB port
- > Software update
- > Setting number of flashes
- > dsDNA Test 260 nm (Eppendorf BioPhotometer® plus)
- > Self Test (Eppendorf BioSpectrometer®/ Eppendorf BioPhotometer® D30)
- > Photometer Test (wavelength systematic error/precision and photometric accuracy/fluorescence)
- > Temperature verification/adjustment
- > Evaluation of stored data
- > Service check list
- > Dated service sticker to confirm Eppendorf Service

#### Qualification services include:

- > Checking of delivery status, and environment
- > Installation incl. configuration and functional check
- > Testing of alarm functions
- > Verification of instrument parameters (e.g. wavelength, temperature)
- > Detailed IQ/OQ report
- > Handling of deviation list/management
- > Signed approval by customer and service technician

#### **Photometer Test**

You are also able to verify photometric and wavelength accuracy and the respective precision using the Secondary UV-VIS Filter Set. In the event your instrument does not conform to specifications, you must have it checked and properly adjusted by a trained service technician. The filter sets themselves must be certified by Eppendorf every two years as their spectral properties can change over time.



### Temperature Control & Mixing Service







Slight deviations in temperature and mixing frequency of your samples can affect their reaction conditions leading to non-reproducible results. To guarantee you the precise function of the instrument we offer manufacturer designed maintenance and qualification services.

#### **Preventive Maintenance services include:**

- > Cleaning of housing, accessories, internal parts
- > Checking of
  - housing, plate holder, accessories, internal parts
  - electrical connection
- > Function checking of
  - LED, display and keyboard
  - vortex sensor
  - overload protection
  - detection of Eppendorf ThermoTop®, Eppendorf SmartBlock<sup>™</sup>, thermoblock
  - mixing, heating, cooling, vortexing
  - fans

- > Evalutation of stored data
- > Service check list
- > Dated service sticker to confirm Eppendorf Service

#### Qualification services include:

- > Checking of delivery status, and environment
- > Installation incl. configuration and functional check
- > Testing of alarm functions
- > Verification of instrument parameters (e.g. heating, cooling, mixing, vortexing, timer)
- > Detailed IQ/OQ report
- > Handling of deviation list/management
- > Signed approval by customer and service technician

#### Temperature verification services

Temperature verification of selected well positions is highly recommended to assure instrument consistency and accuracy.

### Cell Manipulation Service









Our entire application and service team demonstrates a passion for helping you achieve success with your cell manipulation work. We will ensure that your instruments are in good working condition by professional maintenance and qualification service including the exchange of parts due to wear and tear.

#### **Preventive Maintenance services include:**

- > Cleaning of housing, internal assemblies
- > Checking of
  - stability
  - keyboard, display
  - leak-tightness (CellTram®/FemtoJet®)
  - contacts (Electroporator)
- > Exchange of oil (CellTram® Oil/vario)

- > Software upgrade
- > Testing of motor module (Mircomanipulator)
- > Testing of system
- > Analysis of error statistics
- > Service check list provided
- > Dated service sticker to confirm Eppendorf service

- > Checking of delivery status, and environment
- > Installation incl. configuration and functional check
- > Testing of alarm functions
- > Verification of instrument parameters (e.g. motor)
- > Detailed IQ/OQ report
- > Handling of deviation list/management
- > Signed approval by customer and service technician





### **Ordering Information**

| Service Agreements and Qualification services | AdvancedCare<br>Agreement                      | PremiumCare<br>Agreement  | IQ/OQ GxP   | OQ GxP   | 1 Year<br>Extended<br>Warranty* <sup>1</sup>                                      | 1 Year<br>Extended<br>Warranty plus* <sup>2</sup>                               |
|---|--|---|---|--|---|---|
|   | Maintenance for assured reliability and uptime | Full coverage<br>for maintenance<br>incl. repair for<br>reliability and<br>uptime | Qualification<br>services for<br>the regulated<br>environment | Re-Qualification<br>services for<br>the regulated<br>environment | Spare parts,<br>labor and travel<br>costs are cov-<br>ered in case of<br>a repair | Full coverage in case of a repair, incl. maintenance for uptime and reliability |
| Microcentrifuge w/o refrigeration             | 0082 020 325                                   | 0082 020 320  | 0082 020 300  | 0082 020 305   | 0082 020 340  | 0082 020 345  |
| Microcentrifuge with refrigeration            | 0082 020 326                                   | 0082 020 321  | 0082 020 301  | 0082 020 306   | 0082 020 341  | 0082 020 346  |
| Multipurpose centrifuge w/o refrigeration     | 0082 020 327                                   | 0082 020 322  | 0082 020 302  | 0082 020 307   | 0082 020 342  | 0082 020 347  |
| Multipurpose centrifuge with refrigeration    | 0082 020 328                                   | 0082 020 323  | 0082 020 303  | 0082 020 308   | 0082 020 343  | 0082 020 348  |
| Vacuum Concentrator                           | 0082 020 329                                   | 0082 020 324  | 0082 020 012*3  | 0082 020 011*3   | 0082 020 344  | 0082 020 349  |
| Mastercycler® pro, nexus, X50                 | 0082 040 325                                   | 0082 040 320  | 0082 040 300  | 0082 040 301   | 0082 040 340  | 0082 040 345  |
| ULT Freezer                                   | 0082 070 325                                   | 0082 070 320  | 0082 070 009*3  | 0082 070 008*3   | 0082 070 340  | 0082 070 345  |
| CO <sub>2</sub> Incubator                     | 0082 060 325                                   | 0082 060 320  | 0082 060 009*3  | 0082 060 008*3   | 0082 060 340  | 0082 060 345  |
| CellXpert <sup>®</sup>                        | 0082 060 325                                   | 0082 060 320  | 0082 060 302  | 0082 060 303   | 0082 060 340  | 0082 060 345  |
| S41i Incubator Shaker                         | 0082 050 325                                   | 0082 050 320  | 0082 050 009*3  | 0082 050 008*3   | 0082 050 340  | 0082 050 345  |
| Shaker – open air                             | 0082 080 325                                   | 0082 080 320  | 0082 080 300  | 0082 080 305   | 0082 080 340  | 0082 080 345  |
| Shaker – heating                              | 0082 080 326                                   | 0082 080 321  | 0082 080 301  | 0082 080 306   | 0082 080 341  | 0082 080 346  |
| Shaker – heating & cooling                    | 0082 080 327                                   | 0082 080 322  | 0082 080 302  | 0082 080 307   | 0082 080 342  | 0082 080 347  |
| Shaker – S44i                                 | 0082 080 329                                   | 0082 080 324  | 0082 080 304  | 0082 080 309   | 0082 080 344  | 0082 080 349  |
| Eppendorf BioPhotometer®                      | 0082 110 325                                   | 0082 110 320  | 0082 110 300  | 0082 110 302   | 0082 110 340  | 0082 110 345  |
| Eppendorf BioSpectrometer®                    | 0082 110 326                                   | 0082 110 321  | 0082 110 301  | 0082 110 303   | 0082 110 341  | 0082 110 346  |
| Temp. control & mixing instruments*4          | 0082 100 325                                   | 0082 100 320  | 0082 100 300  | 0082 100 301   | 0082 100 340  | 0082 100 345  |
| Electroporator                                | 0082 010 325                                   | 0082 010 320  | 0082 010 300  | 0082 010 302   | 0082 010 340  | 0082 010 345  |
| Microinjector/-manipulator                    | 0082 010 326                                   | 0082 010 321  | 0082 010 301  | 0082 010 303   | 0082 010 341  | 0082 010 346  |

| Instrument Maintenance services            | Preventive<br>Maintenance | Device Check |
|--|---------------------------|--------------|
| Microcentrifuge w/o refrigeration          | 0082 020 260              | 0082 020 270 |
| Multipurpose Centrifuge w/o refrigeration  | 0082 020 262              | 0082 020 272 |
| Multipurpose Centrifuge with refrigeration | 0082 020 263              | 0082 020 273 |
| Concentrator                               | 0082 020 265              | 0082 020 275 |
| Mastercycler® MX50, pro, nexus             | 0082 040 260              | N/A          |
| CO <sub>2</sub> Incubator                  | 0082 060 260              | 0082 060 270 |
| S41i Incubator Shaker                      | 0082 050 260              | 0082 050 270 |
| Open Air Shaker                            | 0082 080 260              | 0082 080 270 |
| Shaker with Heating                        | 0082 080 261              | 0082 080 271 |
| Shaker with Heating/Cooling                | 0082 080 262              | 0082 080 272 |
| Shaker S44i                                | 0082 080 264              | 0082 080 274 |
| Eppendorf BioPhotometer®                   | 0082 110 260              | N/A          |
| Eppendorf BioSpectrometer®                 | 0082 110 261              | N/A          |
| Temp. control & mixing instruments*4       | 0082 100 260              | N/A          |
| Electroporators                            | 0082 010 260              | N/A          |
| Microinjectors/Micromanipulators           | 0082 010 261              | N/A          |
|  |                           |              |

| Temp. control & mixing instruments*4 – multi-channel             | 0082 100 023 |
|--|--------------|
| Temp. control & mixing instruments*4 – multi-channel – ISO 17025 | 0082 100 024 |
| Mastercycler® – sequential                                       | 6321 897 000 |
| Mastercycler® – parallel   | 6321 897 507 |
| ULT Freezer Temperature Mapping (upright)                        | 0082 070 360 |
| Eppendorf BioSpectrometer® kinetic                               | 6136 005 004 |
|  |              |

0082 100 025

#### Other services

Temperature verification services Temp. control & mixing instruments\*4

| Photometer Test for Eppendorf BioPhotometer®                | 6132 005 026     |
|---|------------------|
| Photometer Test for Eppendorf BioSpectrometer®              | 6135 005 027     |
| Photometer Test for Eppendorf BioSpectrometer® fluorescence | 6137 005 008     |
| illuorescence   |                  |
| Minimal antending and the Elevel and a set on               | E 42 4 0 / 0 100 |

Visual rotor inspection – Fixed-angle rotors 5424 860 109 Visual rotor inspection – Swing-bucket rotors 5810 860 113

Your local distributor: www.eppendorf.com/TH-en/ Eppendorf (Thailand) Co., Ltd. 5 Soi Krungthepkreetha 4, Huamark, Bangkapi, Bangkok 10240-THAILAND Phone :+66 2 379 4212-5 ext 126 email: service@eppendorf.co.th www.eppendorf.com/epServices

Info: Our service offers may differ by country. Please contact your local service representative for more information.

<sup>\*</sup>¹ Purchased once within the standard warranty period. Valid for one year following the standard warranty period.
\*² Purchased within the standard warranty period. Valid following the standard warranty period.
\*² Non GxP compliant
\*⁴ Eppendorf ThermoMixer®/Eppendorf ThermoStat™, MixMate®