



Mastercycler X50h

eppendorf

Your NGS – Upgraded

Increase the productivity of your NGS library preparation without compromising the reliability of your results

Mastercycler® X50: More Productive and Reliable NGS Library Prep

A thermal cycler is not only used for PCR, but also desirable for most incubation steps in a NGS workflow. Why settle for less when it comes to your cycler?

Steps in NGS Library Prep Requiring a Thermal Cycler

Reverse Transcription

Fragmentation

End Repair

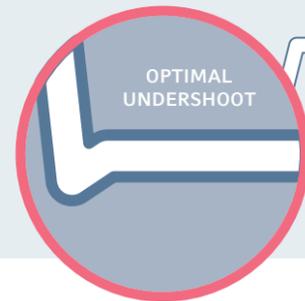
A-tailing

Ligation

Amplification



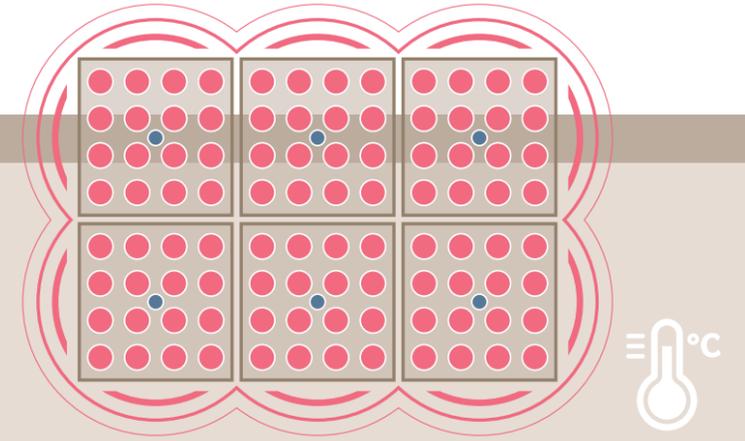
Optimal undershoot
Minimizes mispriming – no unspecific primer binding at unnecessary low temperatures.



Productivity | High Ramp Rates and No Edge

Unmatched Speed:

The fastest cycler in the market allows you to finish first. Heating rates up to 10°C/s and cooling rates up to 5°C/s reduce the time needed for amplification steps and virtually eliminate waiting for the cycler to reach temperature.



Eppendorf peltier technology covers more than the block, ensuring temperature homogeneity in all wells with NO »edge effect«. Use all 96 wells – no reduction in capacity or productivity (up to 37.5%*)!

* Based on not using 36 outer wells.

Reliability | Steady Ramping with Minimal Mispriming

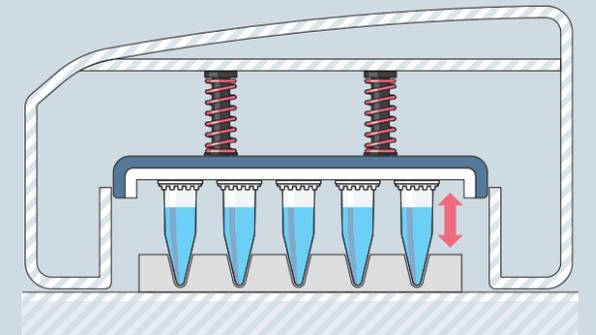
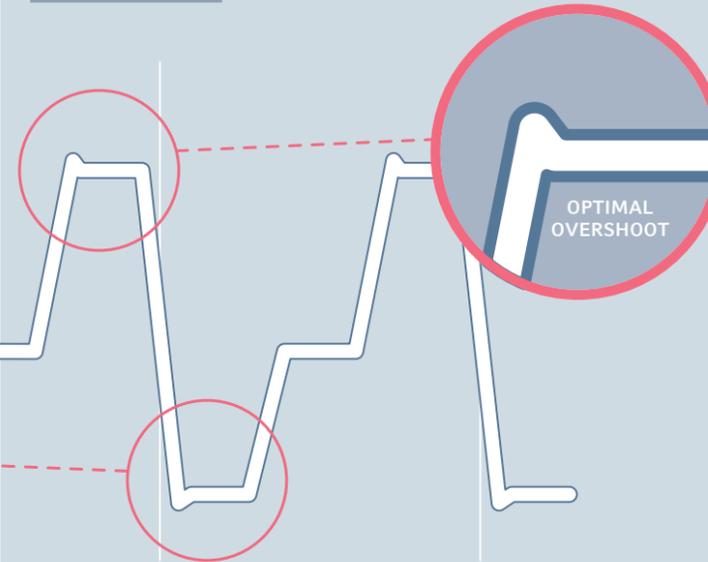


Linear ramp rates:

Innately-controlled linear ramping rate for best reproducibility due to increased run-to-run consistency (white line).

Optimal overshoot

Maximizes yield – no consumption of enzyme half-life at unnecessary high temperatures.



Sample recovery:

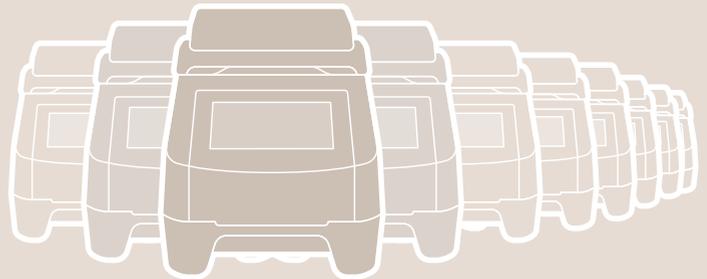
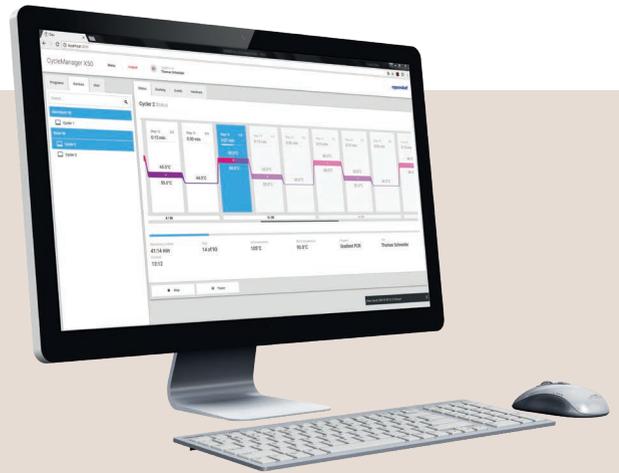
Optimal lid pressure reduces evaporation during long PCR runs or incubation steps.

CycleManager X50: Get Even More Productive

- > Need to run multiple PCR reactions or incubations in parallel?
- > Wouldn't it be easy to manage all cyclers from a central location like your laptop?

CycleManager X50 allows for the management of up to 50 cyclers.

- > Compatible to any network in your organization
- > Software includes easy-to-use functions such as »User booking« and »Automatic backup«
- > Fast and easy qualification of your cyclers
- > API functionality allows for integration with your software environment for flexible interfacing with other lab management applications



Temperature Verification System T6: Trust Your Cycler



Is your instrument unreliable due to a lack of routine maintenance?

Temperature Verification System T6

- > Measure 6 thermal block temperature points in parallel
- > One click fix for calibration of 6 Peltier elements, virtually no more block replacements

In-house verification	vs.	Off-site verification
Disinfection, packing, send = 0 day	Time saving = 3,100 %	Disinfection, packing, send = 1 day
Shipping = 0 day		Shipping = 3 days
Verification = 15 min		Verification = 1 day
Return shipment = 0 day		Return shipment = 3 days
Total cycler downtime = 15 min		Total cycler downtime = 8 days

- > Reduce thermocycler down time for minimal workflow disruptions
- > Perform in-house verification and calibration at your own convenience or with Eppendorf Service
- > ISO-certified sensors



Your Benefits in a Nutshell



Productivity

Unmatched cycler speed – Save up to 22 minutes* of protocol time due to fast and precise ramp rates compared to other recommended cyclers

No edge effect – Eppendorf's peltier technology ensures consistent temperature across a plate.

Networking capabilities – Connect and manage up to 50 cyclers, effortless user management and booking options.

Minimize downtime – Quick and easy on-site temperature verification.



Reliability

Perfectly controlled heating and cooling – Linear ramp rates maximize run-to-run consistency.

High temperature precision – Minimized over- and undershooting to avoid PCR artifacts and enzyme degradation.

Minimized sample loss – Flexlid® automatically adjusts to fit your consumables with a tight seal for limited evaporation

* Depends on kit and previously used cycler.

Ordering information

Description	International Order no.	North America Order no.
Mastercycler® X50s	6311000010	6311000010
Mastercycler® X50i	6301000012	6301000012
Mastercycler® X50a	6313000018	6313000018
CycleManager X50-Software	6349000014	6349000014
Eppendorf twin.tec® PCR Plate 96	30128613	951020303
Eppendorf twin.tec® PCR Plate 96, skirted	30128680	951020401
Eppendorf twin.tec® PCR Plate 384	30128540	951020745

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