

PCR ComfortLid

As simple as never before

Automate your molecular biological workflow
on a Hamilton liquid handling workstation



Lid Pickup



Plate Sealing



Method Run



Lid Disposal

Simple. Powerful. Automatable.

The new Hamilton PCR ComfortLid is the first fully automatable and blister packaged disposable sealing/unsealing lid, which covers the wells of a PCR plate with a dedicated mechanism (patent pending) during thermo cycling in the ODTC[®] from Inheco.

- The ease of use blister concept yields a simple workflow
- Reliable transportation with iSWAP, IPG, QUAD CO-RE and CO-RE gripper fulfills automation requirements
- Enhanced walk away time by stackable lid concept
- Single use contamination-free process (free of DNA, DNase)
- Validated for ODTC from Inheco in combination with Hamilton 96/384 PCR FramePlates (PN 814302, PN 814305)



It's a automation friendly, easy to handle and implement, and low-cost consumable lid for the ODTC

Tom Hofste

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Department of Human Genetics - Genome Diagnostics*

Minimize evaporation of your PCR sample and reduce the risk of contamination

EVAPORATION TEST RESULTS

Radboud UMC Nijmegen
Department of Human Genetics , Nijmegen, NL

Wrong calculated PCR results can be caused by different errors which may result in severe consequences. Since PCR-Cycler increase temperatures up to 100°C, liquid evaporation can be named as one possible error.

To carry out reliable results, a close sealing mechanism has to be guaranteed. The new Hamilton PCR ComfortLid is the first automatable sealing/unsealing lid, which covers the wells of a PCR plate during thermo cycling.

To verify the liquid evaporation during PCR processing, the volume of a plate before and after the run has been analyzed.

The volumetric investigation has shown that after four individual PCR runs by using the PCR ComfortLid, a non-significant volume of liquid at the sensitive parts (edges) of the plate (<1%) evaporates (see Figure 1).

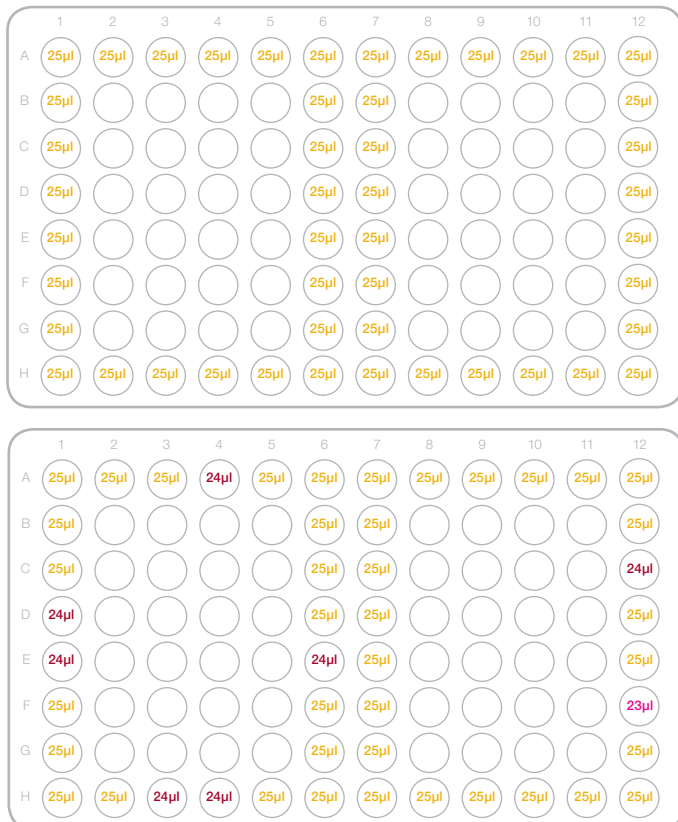


Figure 1: (top) before PCR run: 25µl of PCR starting volume; (bottom) after 4 PCR runs: only 0.8 % of the total volume has been evaporated during PCR runs.

CONTAMINATION TEST RESULTS

Exosome Diagnostics GmbH
Martinsried, Germany

Contaminated samples can lead to faulty results and may cause a misinterpretation. In an experiment with alternating template concentrations, it was shown that contamination can be avoided by precise sealing.

To assess the possibility of cross-contamination by incorrect sealing in a 96 well plate, PCR experiments were carried out on alternating levels of high and no template DNA in sample wells next to each other (checkerboard). After addition of template, the plate was sealed & cycled using typical conditions for reverse transcription (3-stage temperature ramp with a max. temperature of 85°C). Subsequently, the content of each well was analyzed by quantitative PCR. As shown in Figure 2, no cross-contaminations could be detected in any of the wells without template, demonstrating precise sealing of the PCR plate during the cycling process.



Figure 2: (top) samples with different DNA concentrations were set up in a checkerboard pattern (control, template) on the 96 well plate and subjected to temperature cycling; (bottom) after cycling, no cross-contamination could be detected by qPCR in the control wells (U).

Legenda: C - Control; T - Template; U - Undetermined

ON DECK THERMAL CYCLING WITH THE ODTC[®] FROM INHECO INCLUDING HAMILTON “SMART CONSUMABLES”

The combination of Smart Consumables and tailored technological devices provides the appropriate solution for different applications.



Sanger Sequencing

Prepare and perform your Sanger sequencing reactions on one compact instrument



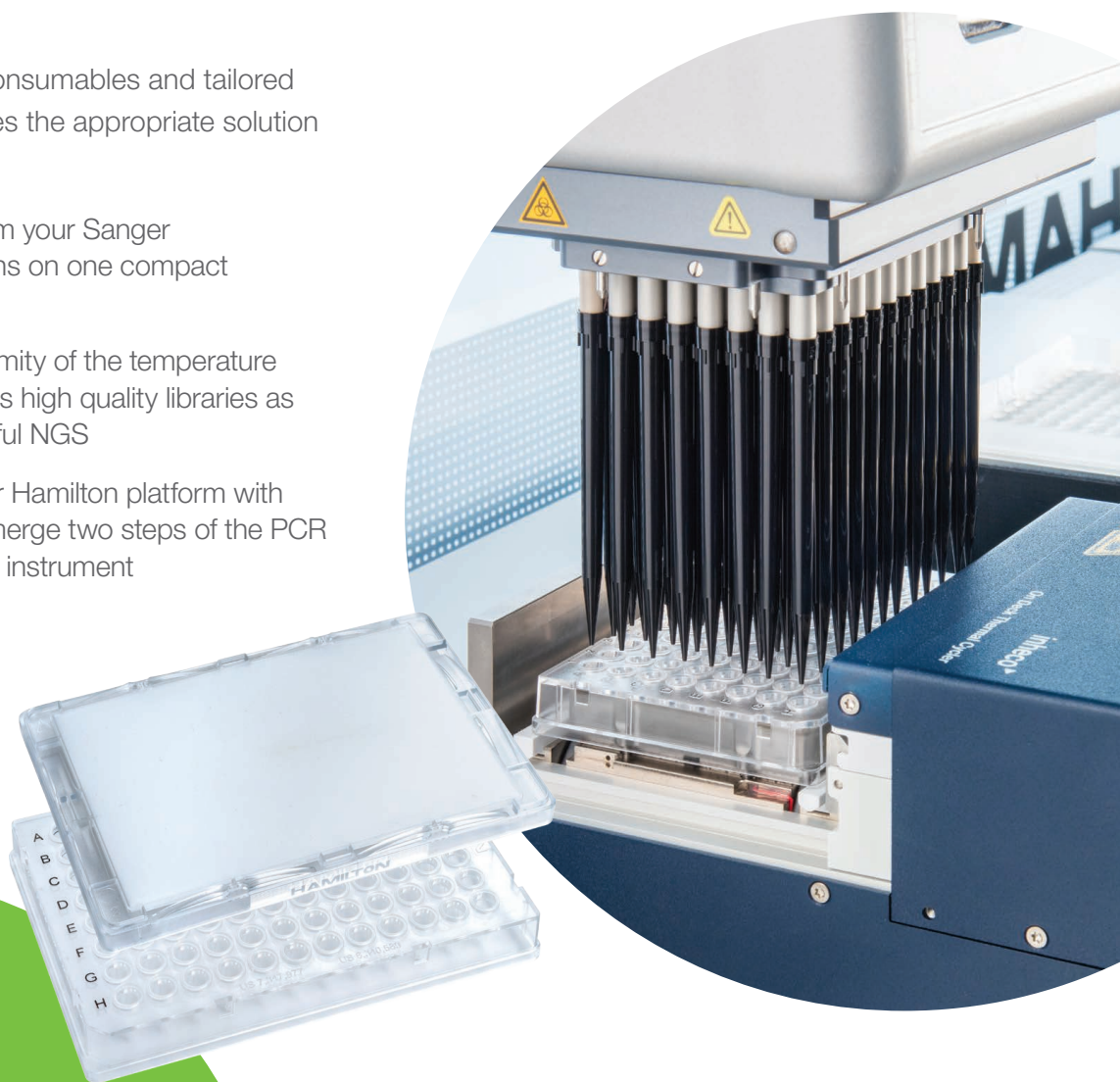
NGS Library Prep

The excellent uniformity of the temperature in the ODTC ensures high quality libraries as a basis for successful NGS



End-point PCR

Easily combine your Hamilton platform with Inheco's ODTC to merge two steps of the PCR workflow in a single instrument



Get your
PCR ComfortLid
for free!



<http://robotics.hamiltoncompany.com/pcr-comfortlid>

Ordering Information

Description	Packaging	P/N
PCR ComfortLid Dual component, stackable, disposable PCR lid; free of DNA, DNase, ATP, Pyrogene, PCR inhibitor	10 lids/blister, 5 blister/box	814300
PCR ComfortLid Adapter for blister on deck integration	1	814337

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