

NGS STAR

Ready-to-Run Solution for NGS Workflows



Simplicity

Proven design, open to any kit provider, including qualified methods



Scalability

Upgradable to higher throughput needs



Reliability

Reputable NGS library preparation solution, already successful for many years

EFFICIENT VERSATILE DURABLE

Unlocking the Potential of Automation for Next-Generation Sequencing

NGS has provided the possibility of accelerating genomic research and has reached applied fields within the Life Sciences community. Protocol automation has gained popularity with the possibility of eliminating labor-intensive and error-sensitive manual library preparation. Key requirements in NGS library preparation are addressed by Hamilton, including accurate and consistent pipetting.

Unlocking the Potential of Automation for Next-Generation Sequencing

Whether small or higher throughput batches, the NGS STAR copes with various sample numbers. Adding an On-Deck Thermal Cycler (ODTC) option enables full walk-away sample processing. A configurable Multi Probe Head (MPH) allows for the simultaneous pipetting of 96 samples and offers full scalability. Hamilton Heater Shakers (HHS) and a CPAC unit ensure temperature-controlled workflow steps. The Barcode Reader traces samples and reagents,

but also ensures correct labware and tip placement on-deck. Additionally, iSWAP and CO-RE® Gripper for plate transport steps as well as a Magnetic Stand for bead cleanup steps complete the workstation.

Tried and True Performance

One deck to run them all – Hamilton has developed a single layout to address the demands of various NGS Library Preparation kits. Users benefit from a pool of qualified methods, implementable on the instrument without adjusting hardware equipment. We cover the entire spectrum, ranging from targeted to whole genome, to transcriptome sequencing approaches.

With the NGS STAR, Hamilton offers an Assay Ready Workstation, designed to meet the needs of any Life Sciences research environment.

- Based on the Microlab STAR for medium-to-high throughput
- Barcode Reader allows full traceability of samples and reagents
- Integrated On-Deck Thermal Cycler with automation-friendly PCR Comfort Lids meet the needs of protocol steps
- Open to (and suitable for) most NGS library preparation kit providers
- Qualified methods for time-efficient workflow implementation

Specifications

Physical Dimensions

Description	NGS STAR	NGS STAR MOA
Width	166.7 cm	193 cm
Depth	101.1 cm	101.1 cm
Height	90.5 cm	90.5 cm
Weight	approx. 210 kg	approx. 225 kg

System Specification

Temperature	+15 - +35 °C
Humidity	15% - 85% with no condensation
Altitude	0 - 2000 m above sea level

Ordering Configuration

Description	
NGS STAR	ML STAR with 8 independent channels, 5 HHS, 1 CPAC
NGS STAR UV	ML STAR with 8 independent channels, 5 HHS, 1 CPAC, UV-Light
NGS STAR MOA	ML STAR with 8 independent channels, MPH96, 5 HHS, 1 CPAC
NGS STAR MOA UV	ML STAR with 8 independent channels, MPH96, 5 HHS, 1 CPAC, UV-Light

Pipetting Channels

Description

CO-RE Technology
Independent Channels
capacitive Liquid Level Detection (cLLD)
pressure Liquid Level Detection (pLLD)
Tip Type Detection

Pipetting Volumes

Tip Size	Precision CV (%)
50 µL	1 µL Volume ([R] 5%; CV 4%)
300 µL	50 µL Volume ([R] 2%; CV 0.75%)
1000 µL	100 µL Volume ([R] 2%; CV 0.75%)

Add-On Options

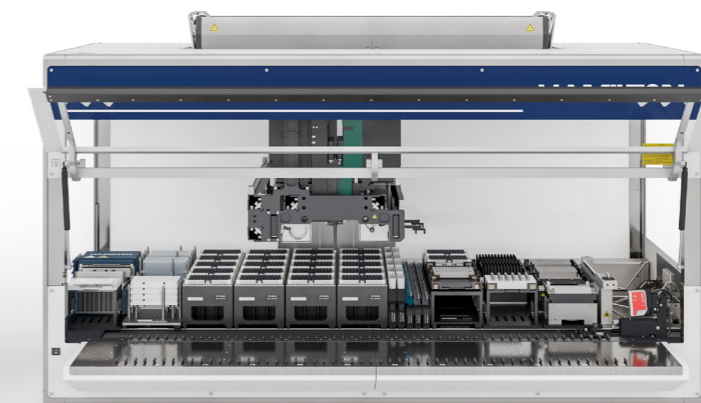
Description

ODTC Option	For On-deck Thermal Cycling
iSWAP	For Full-deck Plate Transport

Features

Description

FLUOREYE	Channel-based on-deck reader for fluorescence-based quantification and normalization
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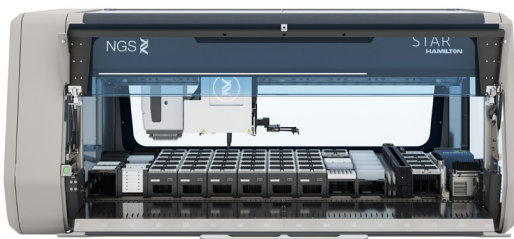


The Hamilton Genomics Squad



NGS STARlet

- Traceability of samples and reagents
- Minimal hands-on time for almost any NGS library preparation workflow
- Automated library preparation for high priority samples or smaller sample throughput



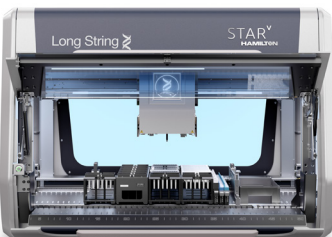
NGS STAR V

- Temperature control devices meet reagent and sample needs
- Maximum process reliability via intelligent safety lights
- High-throughput library preparation with respect to usability, reproducibility, traceability and safety needs



NIMBUS Presto

- More than 15 biologically-verified nucleic acid extraction protocols from leading kit vendors
- NOW available: Circulomics HMW DNA extraction application
- Configurable loading area for 96 samples



Long String STAR V

- Automated walk-away UHMW DNA extraction
- Optimal magnetic disk handling via Hamilton MagRod technology
- Scalable preparation of UHMW DNA for Bionano OGM for increased number of samples

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