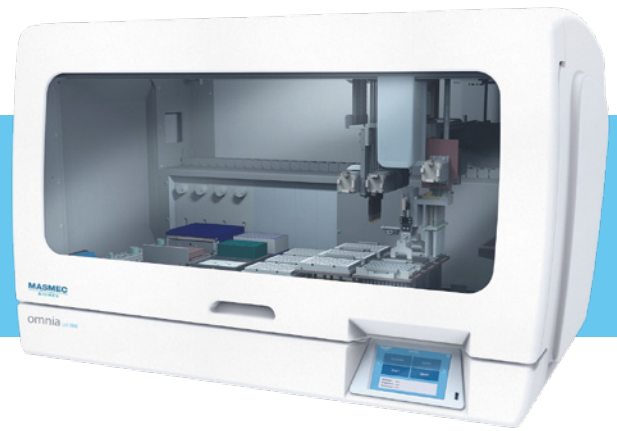


omnia LH 100



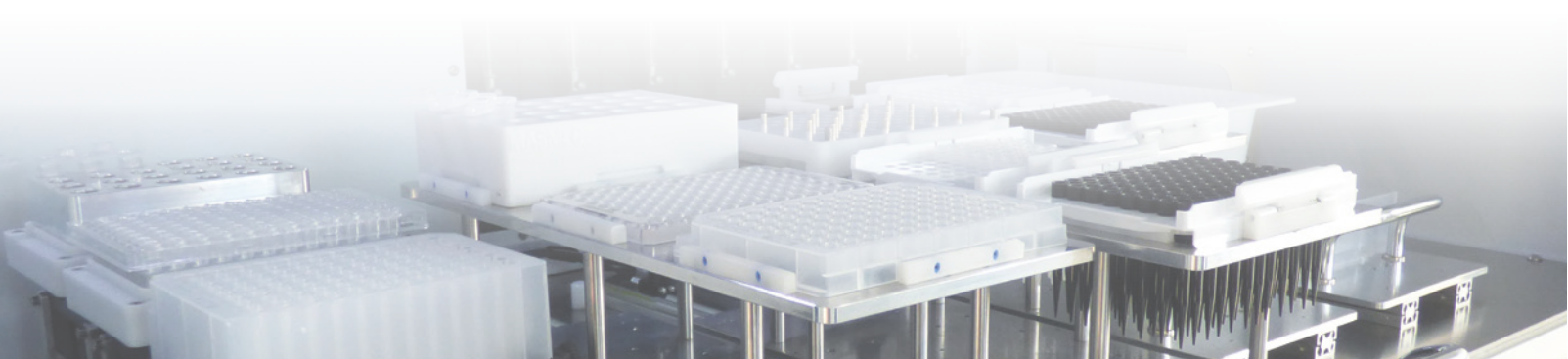
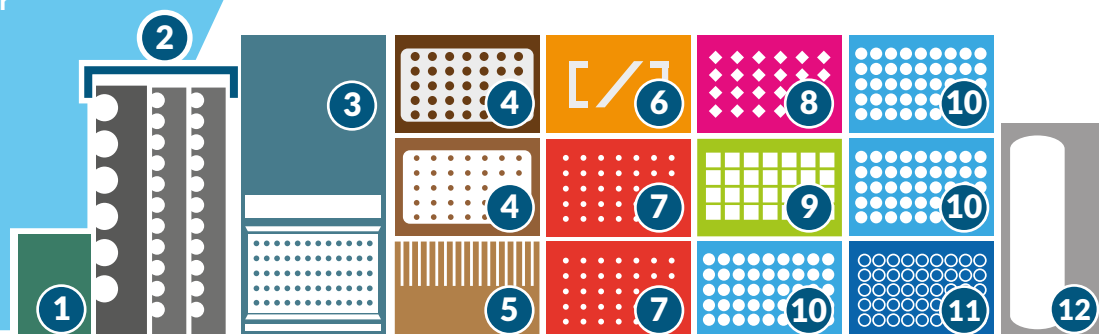
Omnia LH 100 is the workstation of the Omnia family for high-throughput molecular biology protocols, such as NGS library preparation, including both reaction setup and purification.

TECHNICAL SPECIFICATIONS

- **Pipetting channels:** up to 8 pipetting channels (with disposable tips), pipetting volume range 1 μ l to 1000 μ l, precision CV \leq 0.2% at full stroke, liquid level detection
- **Magnetic devices:** magnetic tool with 8/16 or 12/24 parallel magnets, magnetic base for purification of small volumes
- **Integrated devices:** thermoshaker (RT to 95° C, 100 rpm to 2000 rpm), heating/cooling unit (4° to 70° C), on-deck thermal cycler, gripper, others on request
- **Traceability:** barcode scanner, internal database, plate mapping
- **User-friendly Framework software:** internal control system and remote monitoring through HMI software and a built-in touchscreen, intuitive tool for single or dual indexing of sequencing library
- **Safety and decontamination tools:** easy-to-clean deck, UV-lamp (254 nm), removable waste bin, filter tips, disposable components
- **Open platform:** customisable layout to suit the specific protocol
- **Size (W x D x H):** 1266 x 788 x 848 mm
- **Certification:** CE-IVD

SBS-COMPLIANT DECK LAYOUT

1. Barcode scanner
2. Reagent and sample input racks
3. On-deck thermal cycler
4. Heating/cooling unit
5. Thermoshaker
6. Customisable position
7. Setup position
8. Magnetic base
9. Washing plate
10. Tips
11. Covers for magnets
12. Waste bin



OPERATING SPECIFICATIONS

NGS library preparation and purification

Input sample types	<ul style="list-style-type: none"> • Previously extracted DNA or RNA • Blood, saliva, and other fluids; fresh/frozen/FFPE tissue; plant and agri-food samples
Purification method	Magnetic beads
Reagents	Several commercial kits
Processing time	Depending on kit and protocol
Processing capacity	Depending on application
Operating volumes	<ul style="list-style-type: none"> • Minimisation of dead volumes according to consumables • Customisation of starting volume and elution volume
Compatibility with consumables	With different plates and tubes
Assay flexibility	Other liquid handling protocols (e.g. aliquoting, serial dilution, PCR, RT-PCR, qPCR setup)

PERFORMANCE

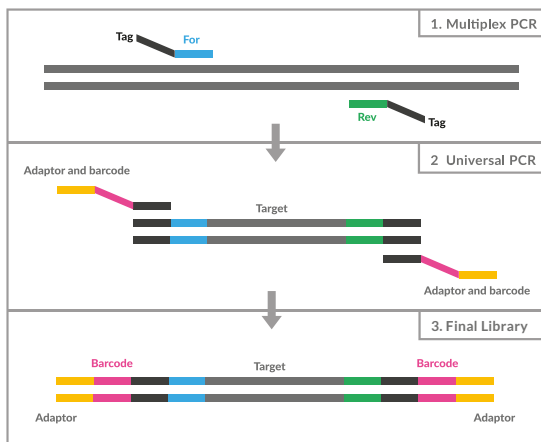


Fig. 1
General "amplicon-based" sequencing library preparation workflow. Time reduced from 4 working days (manual mode) to 4 hours (automated mode).

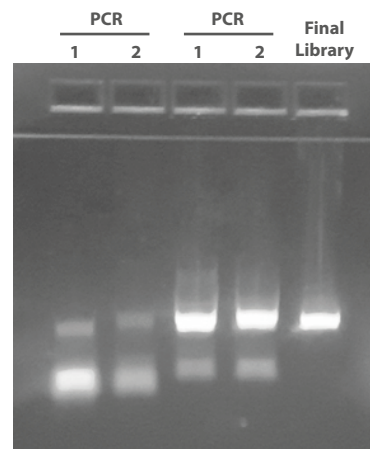


Fig. 2
Electrophoretic profile of a typical automated NGS library preparation protocol.

AUTOMATED PROTOCOLS

Breast and ovarian cancers

Cystic fibrosis

NIPT (non-invasive prenatal testing)