Comprehensive functions

Integrated design comprising functional modules including PCR preset protocols, temperature control, etc. covering the whole testing process.

Cost effectivity

Short time to set up the library, batched sample processing, suitable for small to medium laboratories.

Professional and minimal contamination

Including a laminar flow hood which eliminates external contaminants to maximize accurate results.

Flexible platform

Allows customized workflow development; high expandability.

cTUVus
US + Canada Certificate

Certification Bodies' Scheme

CONFORMITE EUROPEENNE

MGISP-100

Automated Sample Preparation System

——Designed for Next Generation Sequencing Applications

Rafer INNOVACIÓN TECNOLÓGICA PARA LABORATORIO

MGI 华大智造

Product Introduction

MGISP-100 Automated Sample Preparation System is an automated workstation specialized for NGS applications. Through automated operation the system processes samples in batches, eliminates operators from repetitive processing procedures, increases the stability of library preparation, reduces the total costs, and significantly enhances the overall efficiency in the laboratory.

Product Functionality

Replacing manual handling in nucleic acid extraction, PCR, library preparation and more.

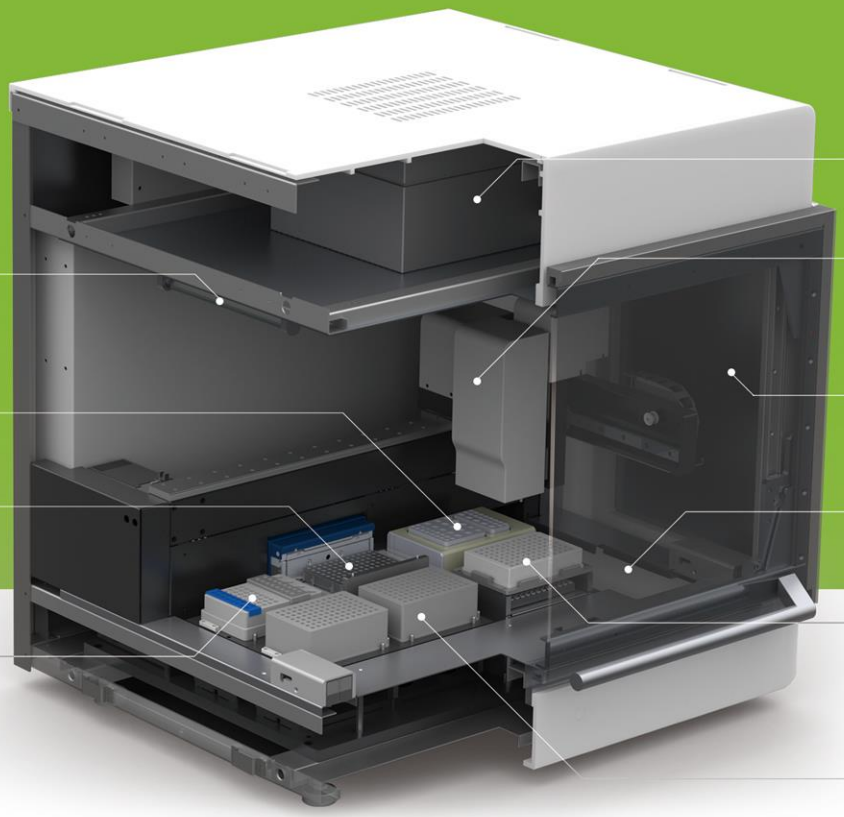
Suitable for a wide range of NGS applications, but not limited to:

- Non-Invasive Prenatal Screening
- Rapid Pathogenic & Microbial Testing[a]
- Embryo Pre-implantation Genetic Screening
- Single Microbe Identification[a]
- Lung Cancer Genetic Targets Testing[a]
- Human Whole Genome Sequencing

a. Under development, please visit en.mgitech.cn for updates.

	Manual	Automated
Time Requirement[b]	9 hours	Manual 1 hour, machine 6 hours
Operation Difficulty	Numerous steps, tedious operation	Multi-step integration, simple operation
Testing Repeatability	Medium	High
Traceability	Difficult	Full traceability
Staff Skill Level	Experienced	Beginner

b. The parameters above are based on the Whole Genome Sequencing (WGS) Library Preparation. Time requirement may vary depending on the application.



- **UV Disinfection Lamp**
  Ultraviolet disinfection before and after the experiment, which effectively avoids the influence of pathogens and aerosols on the experiment.
- **Temperature Control Module**
  For sample incubation and reagent storage
- **PCR**
  Fast and accurate heating and cooling, precise control of PCR
- **Sample & Product Position**
  Place the sample and collect the product
- **High Efficiency Filter**
  ISO5 Standard, filtration efficiency 99.995% at 0.3μm.
- **High-precision Robotic Arm**
  Precise positioning, rapid movement, and 8-channel pipettes for efficient and flexible liquid handling

  Vertical sliding door and the side window designed for multiple angle viewing of the equipment during operation
- **Waste Station**
  Built-in to collect waste tips generated during the experiment
- **Magnetic Beads Purification Module**
  High magnetic field strength for rapid and efficient separation process. Enables effective automated extraction and purification
- **Consumables Position**
  Pre-place consumables to fully meet experimental requirements

Technological Advantages

Integrated Design, One-Stop Library Preparation

- Integrating multiple functional modules including 8-Channel pipette, PCR module, Temperature Control module, Magnetic Separation Racks, etc.
- One-stop operation of the complex full library preparation, minimal labor required, reduced error rate.
- Use multiple certified consumables and analysis software, providing full end-to-end solutions.

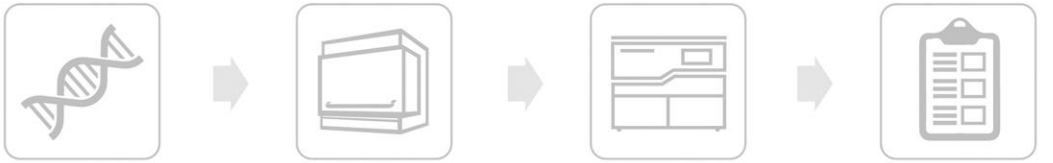
Smart Control Panel, Easy to Operate

- User-friendly icon design, easy to operate even for beginners
- Real-time display of operation status, efficient tracking of the procedure progress.
- Compatibility with ZLIMS Laboratory Information Management System, full process data management.

Full Contamination Control

- Built-in ISO5 Standard Cleanroom Fan Filter Unit.
- UV Disinfection Unit, clean environment inside the instrument.

NGS Full Workflow Solution



Samples

Plasma, saliva, FFPE, gDNA, WGA Products etc.

Sample Processing & Preparation

Provides various sample preparation protocols, supports multiple library preparation strategies, and suitable for prefabricated library preparation kits

Sequencing

Supports but not limited to sequencing systems such as BGISEQ, MGISEQ, etc.

Analysis Report

Localized Analysis Server; Cloud: BGI Online

System Specifications

Model	Intended Market	Product Number
MGISP-100	China IVD	900-000027-00
MGISP-100RS	China RUO	900-000070-00
MGISP-100CX	Overseas IVD	900-000052-00
MGISP-100RS	Overseas RUO	900-000051-00

Throughput	16 samples per run		
Sample Type	Plasma, saliva, FFPE, gDNA, WGA Products etc *		
Pipette Range	2~200ul		
Pipette Accuracy	Volume	2ul	200ul
	CV	<5%	<1%
	Accuracy	<±10%	<±1%
Temperature Range	PCR: 4~99℃; Temperature Control module: 4~90℃		
Temperature Accuracy	PCR Accuracy: ±0.3℃ at 55℃; PCR Uniformity: ±0.2℃ at 72℃		
	Temperature Control Module Accuracy: ±1℃ at 55℃		
	Temperature Control Module Uniformity: ±1℃ at 55℃		
Working Environment	Temperature: 19~25℃		
	Relative Humidity: 20%RH~80%RH, Non-condensing		
	Atmospheric Pressure: 80~106kPa		
	Maximum Altitude: 2000m		
Power Requirements	Power Type: 100~240V, 50/60Hz		
	Rated Power Consumption: 1600VA		
Weight	130kg		
Dimensions	L: 780mm; W: 725mm; H: 777mm		

* More sample types will be launched. Please visit en.mgitech.cn for more relevant information for your research applications.