

## Sample workflow

**02** Smear on the target slide and add matrix

**01** Pick an isolated colony

**03** Load to Autof MS1000 system

**04** Software generates spectrum automatically, the spectrum instantly matched against reference database to give identification

**05** Final review by microbiologist

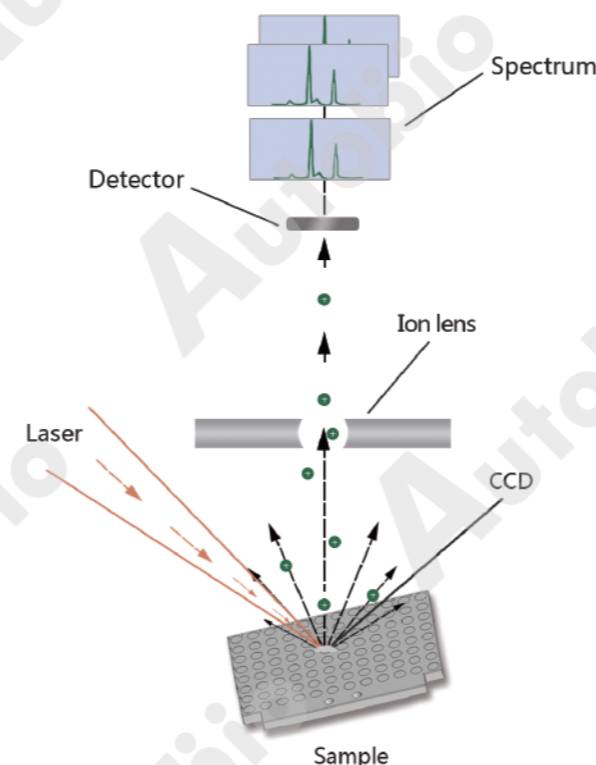
*Fast, safe and flexible !*

**Autof MS1000**

Fast and accurate microbial identification platform for clinical, drug testing and other research applications.

## HOW MALDI-TOF works

- Put the sample mixed with matrix on the target slide to high-vacuum cassette position.
- Ionize the sample by pulsed laser.
- The ions obtain the same kinetic energy and go through the flight time detector.
- The mass charge ratio of the ions is proportional to the square of the flying time.
- The identification results are available by comparing with the reference spectrums in the database.



## Hardware

- Innovative optical design enhances the resolution.
- FPGA chip, improves accuracy and stability of slide positioning.
- High power turbo molecular pump realizes the simultaneous tests once slide loaded.
- Ion source vacuum degree up to  $10^{-7}$ mbar
- Unique design of signal detection system guarantees high repeatability.
- 0.01  $\mu$ m high-precision pump filter reduces biological safety risk control.

## Software

### Acquisition system

- Efficient batch processing system saves labor cost and time.
- Rapid identification module obtains a sample result in 0.1 seconds.
- LIS connection available.
- Real-time acquired spectrums improves the convenience.

### Analysis System

- Customized report templates and database self-built functions supported.
- Multi-functional microbial mass spectrometry analysis supported.
- Highly integrated functional design.
- Remote multi-user operations supported.

## Database

- A large number of quality control strains from various fields.
- Real-time database updating system to meet the needs of multiple industries.



## Specification

### Laser

- 337 nm Nitrogen laser, fixed focus, 400 million laser shorts
- Maximum pulse rate - 60 Hz (60 laser shots per second)
- Laser power and laser aim under software control

### Analyzer

- Linear flight tube of 1.05 m drift length
- Vacuum maintained by a mechanical pump and a turbo molecular pump

### Mass range

- 1-500KDa

### Dimensions

- Size(W\*L\*H,mm): 450\*705 \*1280
- Weight: 101kg excluding data system

### Installation requirements

- Input: AC 100-240V, 50-60Hz, 290VA
- Stable and continuous power supply
- Temperature: 10-30 C
- Humidity: less than 70% non-condensing
- Vibration free



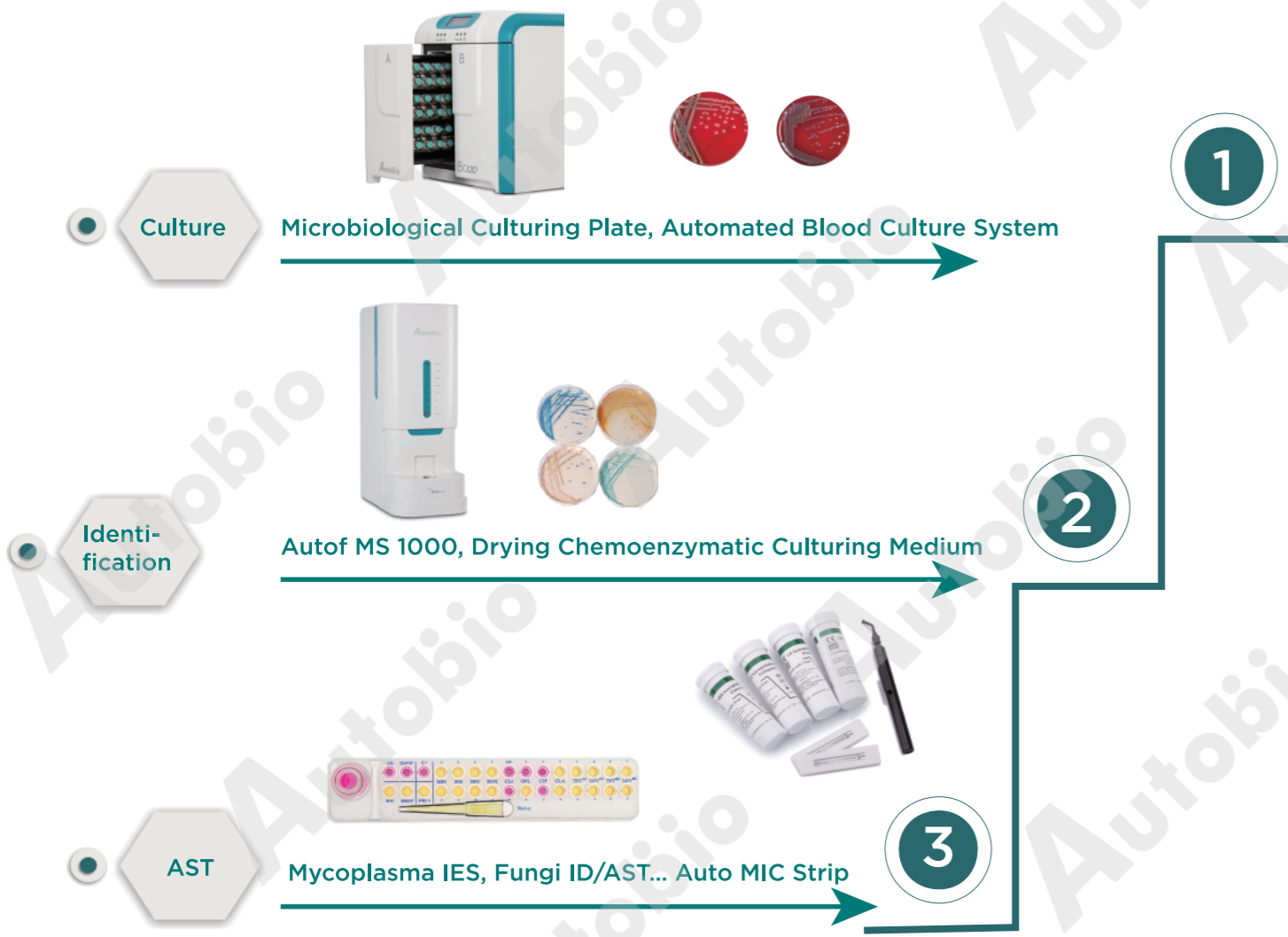


### Accessories and ready-to-use reagents

Cat No.	Description	Sepecification
MSA01	Sample Pretreatment Reagent	00T
MSA02	Calibrator	80T
MSA03	CHCA Matrix	0.5ml*4 Bottles
11.08.03.0001	Target Slide	10 pcs
11.08.03.0002	Target Slide Holder	2 pcs

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### Autof MS1000 / MALDI-TOF

Automated mass spectrometry microbial identification system  
 -Professional spectrum identification platform with comprehensive databases

