

# PANAMAX 48 PNAE-1001



## PANAMAX48 Introduction

NEW

**PANAMAX48** (Automated Nucleic Acid Extraction System)



### FEATURES

- Allow large sample volume: up to 5ml (without any structural changes)
- Handle various type of samples: Whole blood, Plasma, Cultured cells, Urine, Swab, FFPE tissue
- Extraction time: 30 minutes or less (depending on the sample type)
- Easy of use : multi-pipette compatible, 10.1 inch touch screen
- Anti-contamination: UV sanitation system
- Silent Nucleic-Acid extraction protocol and Structure

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## PANAMAX48 Specifications

- Technical Specification

	Specifications
Type	Silica Magnetic Bead technology
No. of samples	1 to 48 isolation per run
Volume	200 ul to 5,000ul
TAT	30 - 90 minutes (depending on the sample type)
Extraction Volume	50 ~ 100ul
Extraction Kit	Pre-Filled, Ready-to-use
Storage Temperature	+15°C ~ +30°C
Extracted DNA	Genomic DNA, Plasmid DNA, Cell Free DNA, Viral TNA(Total Nucleic Acid)
Type of samples	Plasma, Urine, Swabs, FFPE Tissue, Cultured cells
Heating Block	+30°C ~ +100°C
Additional features	UV, Self Check(Human Error Prevention), USB interface
Size/Weight/Power	420 x 380 x 545(W x D x H mm) / 27kg / 100 - 240VAC, 50-60Hz, 4A

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## PANAMAX48 Features: Cartridge Volume

- Large sample volume Available: up to 5ml (without any structural changes)
  - ✓ Nucleic acid can be extracted from samples of various volumes without changing equipment structure
  - ✓ Sample volume from 0.2ml to 5.0ml can be used just by changing cartridge only



2~5ml Sample



1~2ml Sample



0.2~1ml Sample

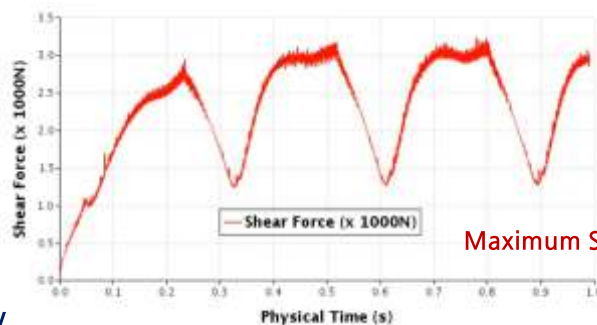
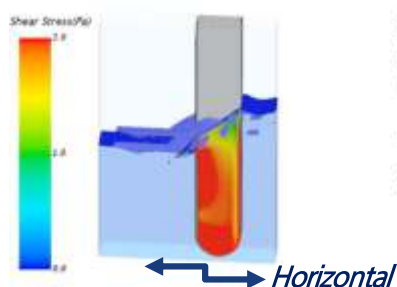
# PANAMAX 48 PNAE-1001



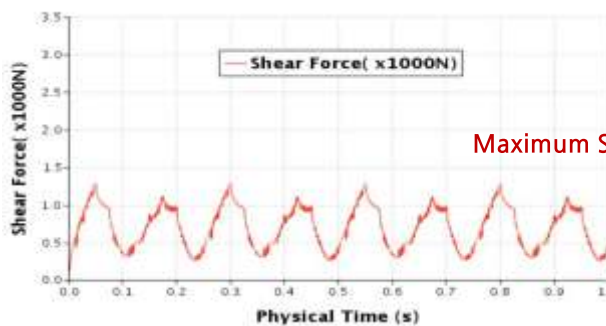
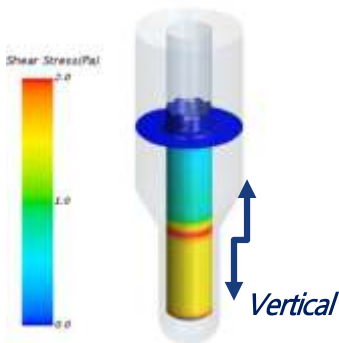
## PANAMAX48 Feature: Better Movement Efficiency

- Simulation : Mixing method (Better Efficiency)
  - ✓ Enhances Lysis efficacy by securing Shear Stress twice the level of competitors by side mixing method (Higher Shear Stress improves mechanical Lysis efficiency)

PANAMAX™ 48



Company T



# PANAMAX 48 PNAE-1001



## PANAMAX48 Feature: Better Alcohol drying Efficiency

- Fast & Accurate: enhanced alcohol drying efficiency
  - ✓ Use Magnetic Beads double sided to maximize alcohol drying efficiency
  - ✓ Improved magnetic rod fracture problem (more than double the rigidity)



Company T Magnetic Bead (Single)

*Better Efficiency with  
higher rigidity!*



PANAMAX™ Magnetic Bead (Double)

# PANAMAX 48 PNAE-1001



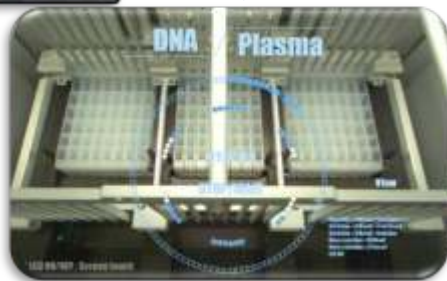
## PANAMAX48 Feature: Easy of use (User Interface)

- Easy & Simple User Interface: 10.1 inch touch screen

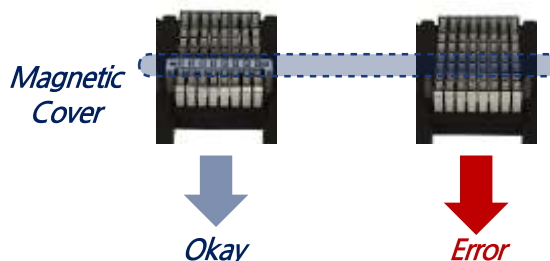
- ✓ Intuitive touch screen and user interface
- ✓ Actual machine movement will show in real-time on the screen for monitoring purpose
- ✓ Self Check (Human Error Prevention): Automatically inspect magnetic cover and kit through camera to avoid any human error



*Real-time monitoring  
with internal Camera*



Machine movement Monitoring



*Error Message occurs  
user when  
the cover is not in place*

**• Please Cover check!**



Self Check (Human Error Prevention)

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## PANAMAX48 Feature: Easy of use (Multi-pipette compatibility)

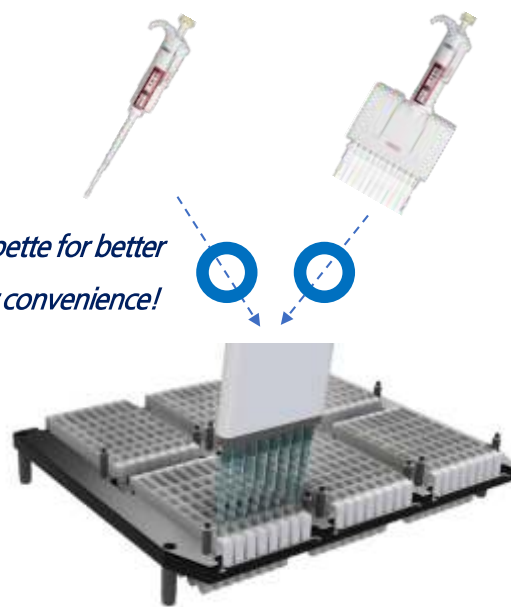
- Easy of use : compatible with various pipettes
  - ✓ Can extract 48 samples simultaneously
  - ✓ Multi-pipetting is available by arranging cartridge at 9mm equal intervals

*Can only use  
Single Pipette*



Normal Cartridge Rack

*Can use various pipette for better  
efficiency and user convenience!*



PANAMAX Cartridge Rack

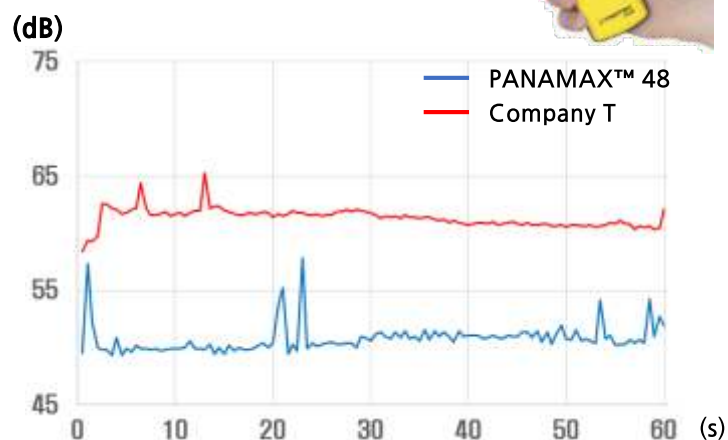


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## PANAMAX48 Feature: Quite run noise

- Quite Machine Sound
- ✓ By applying Side Mixing method, PANAMAX48 has enhanced extraction efficiency with quite run noise (5 ~ 10dB lower than other equipment)





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## PANAMAX48 Feature: Comparison (Machine/Cartridge)

### ● Comparison of Extraction Machine

Category	PANAGENE	Company T	Company P
Magnetic Bead	Double	Single	Single
Magnetic Bar rigidity	High	Low	Low
Magnetic Cover Set up	Auto	Manual	Auto
Door Open	Auto	Manual	Auto
Multi pipette available	Yes	No	No
Image Sensing (Self Check)	Yes	No	Yes

### ● Comparison of Cartridge

Category		PANAGENE	Company T	Company P
Sample Volume		200ul~5ml	200ul~1.2ml	200ul~1ml
PCR Efficiency <sup>1)</sup>		High	Low	Mid
Concentration <sup>2)</sup>	Plasma	High	Mid	Mid
	FFPE	High	Mid	High
TAT (excluding pretreatment)	Plasma	60 min.	100 min.	70 min.
	FFPE	30 min.	45 min.	50 min.
	Viral	30 min.	45 min.	50 min.

1) Based on PANAGENE MDx Product

2) Result may vary by sample

## PANAMAX48 Feature: Cartridges

- Cartridges

- ✓ PANAMAX™ Viral DNA/RNA Extraction Kit
- ✓ PANAMAX™ Plasma cfDNA Extraction Kit
- ✓ PANAMAX™ FFPE DNA Extraction Kit
- ✓ PANAMAX™ Cultured cells DNA Extraction Kit\*
- ✓ PANAMAX™ Blood DNA Extraction Kit\*
- ✓ PANAMAX™ Tissue DNA Extraction Kit\*
- ✓ PANAMAX™ FFPE RNA Extraction Kit\*
- ✓ PANAMAX™ Plant DNA Extraction Kit\*

