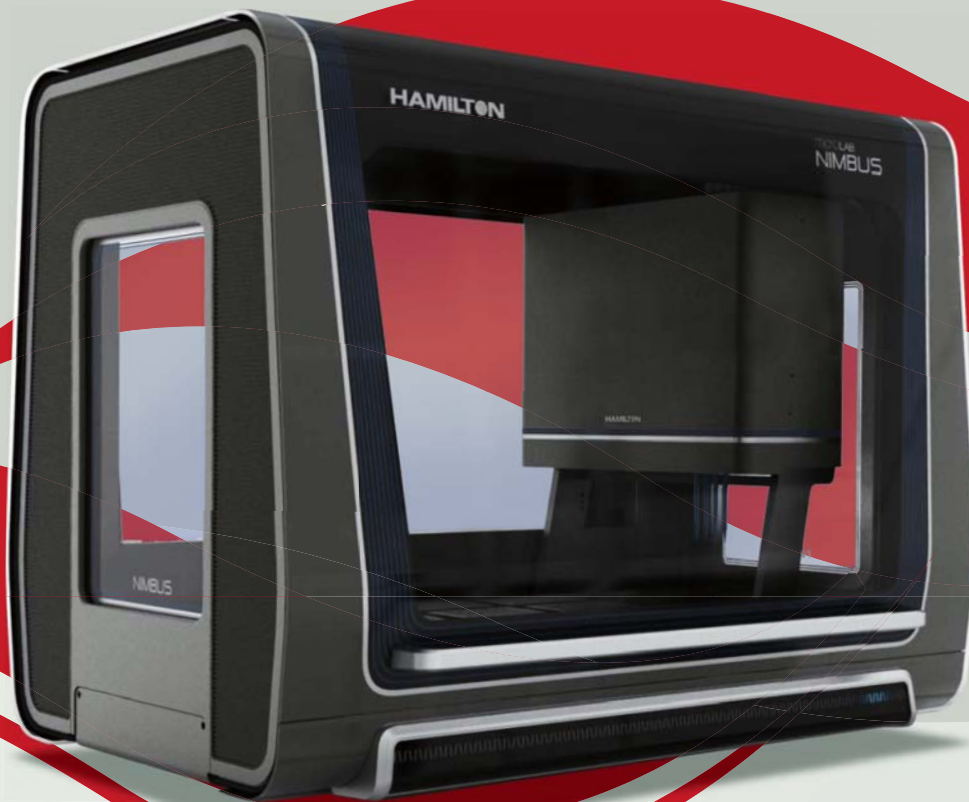


Automated NA Extraction & PCR Setup

# NIMBUS 4



Minimize hands-on time &  
maximize reliability.



## Automated NA Extraction and PCR Setup

# NIMBUS 4 (Hamilton)

### Automated Liquid Handling Workstations from NA Extraction to PCR Setup

NIMBUS 4 is an easy-to-use automated pipetting workstation with automated nucleic acid extraction and PCR Setup. This provides convenience of processing to your lab work by minimizing hands-on time. And its innovative technology delivers high performance and reliability.

- A. Automated DNA/RNA extraction and PCR setup
- B. Wide range of pipetting volume : 0.5 ~ 1,000 uL
- C. Minimized hands-on time
- D. No manual pipetting required
- E. 48 samples processed in 2.5hrs
- F. Cover system preventing contamination
- G. Built in UV lamp for decontamination of residual DNA/RNA
- H. Handheld Barcode scanner
- I. Easy maintenance through liquid waste system

## Process (Example : Anyplex™ II STI-7 Detection)

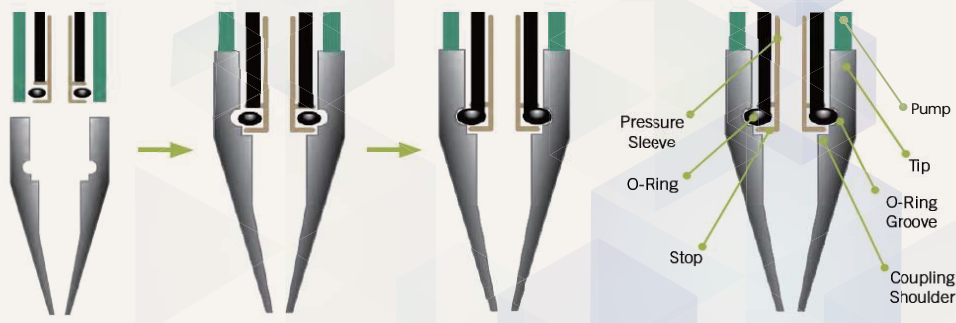




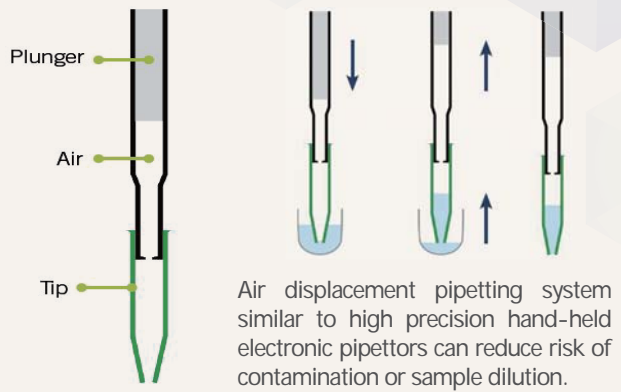
# The Innovative technologies for overall system reliability and throughput by HAMILTON

- **Compressed O-Ring Expansion (CO-RE)**

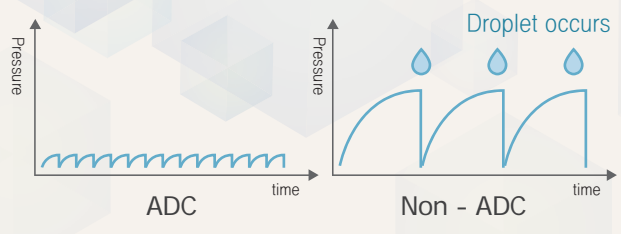
HAMILTON's proprietary CO-RE technology attaches disposable tips using a highly robust lock-and-key style mechanism. This enables improving a positional precision and eliminating mechanical stress and minimizing the production of aerosols.



- **Air Displacement Pipetting**



- **Anti-Droplet Control (ADC)**



This technology can control pressure changes of liquid channels in real-time. Upon activation, ADC prevents inadvertent dripping from the channels, reducing the risk of contaminating the deck.

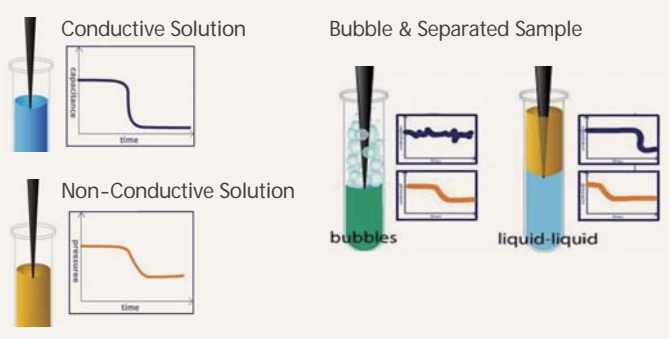
- **Monitored Air Displacement (MAD)**

By monitoring the air-based pipetting action, NIMBUS 4 can detect clots or empty wells during the aspiration step in real time.



- **Liquid Level Detection (LLD)**

LLD technology can determine liquid levels in tube or plates located on the pipetting deck. 3 types of mode, capacitive LLD (c-LLD), pressure-based LLD (p-LLD) and dual mode LLD, can apply according to properties of solvents.



## Example of Deck Layout for PCR Setup



(Position of PCR Block and 50ml Tub is changed each other during the extraction process.)

- Sample racks for 48 specimens
- 4 Independent liquid channels
- 1 Magnetic bead position
- 1 Heater (up to 100 °C)
- 1 Shaker
- 4 Tip racks
- 1 PCR setup position
- 1 Gripper arm for labware movements

## Specification

Power Input	100-240VAC, 50-60 Hz, 5A
Power consumption	Maximum 600 W
Dimensions	1041 (W) X 673 (D) X 800 (H) mm
Weight	101.4 kg
Maximum Sample Capacity	48 samples
Throughput	2.5 hr to process 48 samples. (It includes PCR setup, but it may vary according to the protocol)
Deck capacity	12
Pipetting channel	4 channels
Dispensing accuracy	10 $\mu$ l : 3%, 50 $\mu$ l : 1.5%, 100 $\mu$ l : 1%
Dispensing precision (when using 300 $\mu$ l Tip)	10 $\mu$ l : 2%, 50 $\mu$ l : 1%, 100 $\mu$ l : 1%

## Ordering Information

Products	Cat. No.
NIMBUS 4 - probe	65415-02
STARMag 96 Virus (384 T)	744800.4
1 mL filter tips (96x5x8 ea)	235905
300ul filter tips (96x5x12 ea)	235903
50ml reagent tub (28 ea)	56694-02
Waste bag (25 ea)	199202
5mL, 48well Deep well plate	P5ML48C
96 Deep well micro plate (10X10 ea)	SDP0096



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