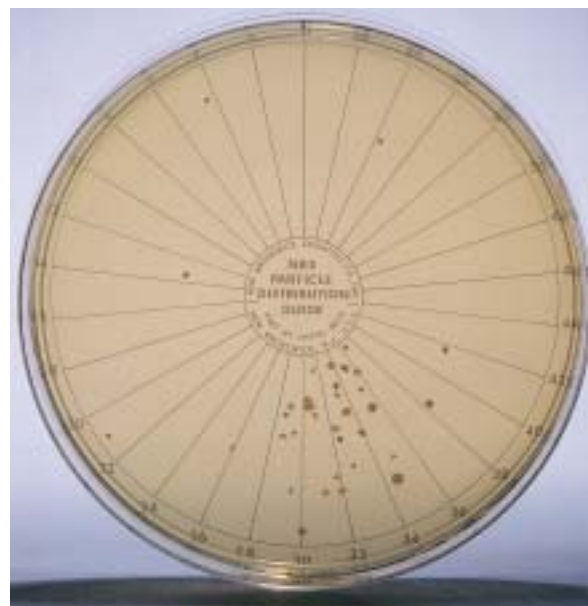


# SLIT-TO-AGAR BIOLOGICAL AIR SAMPLERS



Model STA 203, shown at left. Above, the particle distribution guide helps determine the time of occurrence and duration of a contamination event.

## Applications

Slit-To-Agar (STA) air samplers have become a lab standard for detecting airborne microbial contamination. New Brunswick Scientific has improved the original designs with two new models that provide a dynamic sampling range, more precise control and easier validation. STA 203 and STA 204 Models have been successfully used in a variety of environments including pharmaceutical facilities, hospitals, food and cosmetics labs, and in the detection of terrorist-dispersed anthrax.

## Principle of Operation

A known volume of air is drawn by vacuum through a slit orifice that accelerates the sampled air and its contaminants. Located below the slit and in the path of airflow is an exposed agar plate that rotates on a turntable at a selected rate of speed. The contaminants, because of their higher mass become impacted on the agar surface, while the rest of the air mass flows around the plate and exits the air sampler. After incubation of the agar plate, colonies can be counted and identified. A particle distribution grid can also be used to help determine when a contamination event occurred.

## Features

New Brunswick STA models utilize microprocessor controls, variable speed turntable and a thermal mass flow controller. This allows the user to select an extraordinarily broad sampling volume range. For clean room environments, the STA 203 can sample a volume up to 5 cubic meters (5000 liters). In environments with more viable particles, the STA 203 and STA 204 can sample as little as 0.03 cubic meters (30 liters).

Flow rates and sampling time are easily entered using a membrane keypad. Total sampling volume is automatically computed and continuously displayed on a large, easy to read LED indicator. Sample volume for each run can also be output to a recorder for validation purposes.

STA 203 is used with a customer supplied vacuum pump capable of at least 2.2 cu.ft. air/min at 15" Hg. STA 204 is supplied with a vacuum pump.



**NEW BRUNSWICK SCIENTIFIC**

*Where Quality and Innovation Have Become Tradition*

# NBS Slit-To-Agar Air Samplers

## Improve Efficiency in Detecting Microbial Organisms



### UNIQUE FEATURES & BENEFITS

- Sample volume is accurately calculated by measuring and controlling air flow using a thermal mass flow controller. (Competitive units merely assume a constant flow rate or use a volume flow meter, which are both adversely affected by temperature and pressure.)
- Flow rate validation enabled via output signal for data recording.
- Audible & visual alarms signal power interrupt, variation in flow rate, or end of sample run, with output signals for remote alarming.
- Capable of identifying when a contamination event occurs.

Specifications	STA-203	STA-204
Flow Rate	15 - 50 Liters/minute, $\pm 2\%$ Regulated via Thermal Mass Flow Controller. Set via keypad	15 - 30 Liters/minute, $\pm 2\%$
Sample Exposure Time (time for one revolution of a 150 mm petri dish)	2 - 99.9 minutes. "Total time" or "time remaining" displayed on a 3-digit LED in 0.1 minute increments. Set via keypad	
Sample Volume	0.03 m <sup>3</sup> - 5.0 m <sup>3</sup> Sample volume displayed on a 3-digit LED in 0.01 m <sup>3</sup> increments	0.03 m <sup>3</sup> - 3.0 m <sup>3</sup>
Alarms	Audio/Visual Alarms indicate when run is completed or air flow deviates $\pm 5$ Liters/minute from setpoint	
Remote Alarm	A dry contact is provided to trigger a remote alarm	
Recorder Output	For validation purposes a (0-5 V) signal representing the flow rate provides for data recording. Integration of flow rate over time will give you total volume sampled	
Event Tracking	Time grid provided to position over the petri dish for simplified event tracking when contamination occurs	
Vacuum Source	Required	Supplied
Shunt Valve	Protects vacuum source at the end of a run	
Calibration	Calibration of flow rate using a suitable calibration device (such as optional calibration kit) is simplified using the keypad	
Optional Accessories	Sampling wand for remote sampling; Flow rate and sample time calibration kit	
Dimensions (W x D x H)	10 <sup>5</sup> / <sub>8</sub> " x 11 <sup>1</sup> / <sub>4</sub> " x 11 <sup>1</sup> / <sub>2</sub> " (27 x 28.6 x 29 cm)	10 <sup>5</sup> / <sub>8</sub> " x 11 <sup>1</sup> / <sub>4</sub> " x 18" (27 x 28.6 x 45.7 cm)
Electrical Requirements	120/100 V or 220/240 V, 50/60 Hz	
Approvals	UL, CSA, CE	
Weight	11 lbs. (5 Kg)	25 lbs. (11.4 Kg)

Specifications subject to change, without notice.



**New Brunswick Scientific Co., Inc.**