

## CYTOMATION

*Better Tools. Good Science.*



**The Cytomation Automated Sample Station is a unique instrument that automates the introduction of samples into the MoFlo cytometer. Its sample containment system protects the operator from tube breakage and accidental aerosol contamination.**

### **SIMPLIFIED SAMPLE INTRODUCTION**

The Automated Sample Station simplifies the process of introducing samples into the MoFlo cytometer. Advanced pneumatic actuators automate sample handling for the MoFlo. The exchange of sample tubes is fast and easy; once the tube is loaded, all functions are available by pressing a button. The Automated Sample Station pressurizes the sample by surrounding it with a “chamber” of pressurized air that pushes the sample through the sample tubing and into the nozzle.

### **AGITATION AND TEMPERATURE CONTROL**

Sample agitation ensures that the sample will remain consistently mixed and evenly cooled. To ensure sterile agitation, the sample agitation tube itself is used to stir the sample; no magnetic stir bars or other potential sources of contamination are introduced into the valuable sample. Agitation is available at three speeds and can be continuous or intermittent during the sort. Agitation maintains event rate and has no measurable effect on droplet formation.

The Automated Sample Station can be readily attached to a Haake circulating water bath for full temperature control. Samples can be maintained in a 5 ml tube at 2 degrees  $\pm$  1 degree Celsius indefinitely in a standard laboratory environment.

### **OPERATOR SAFETY**

Operator safety is a primary concern during the MoFlo design process, and can be noted in several features of the Automated Sample Station. Sample handling by the operator is decreased, providing increased safety for the operator, as well as decreasing the risk of sample contamination. The Automated Sample Station completely encloses the sample tube for safe pressurization without risking fracture of the sample tube. The debubble, declog, purge and backflush functions are fully automated. An optional Aerosol Filter Kit filters air vented from the chamber prior to opening.



**FIGURE 1.** Sample tubes and tube inserts.

**ACCEPTED SAMPLE TUBES**

The Automated Sample Station accepts samples in the following tubes (Figure 1):

- Standard round bottom 12 x 75 mm tube inside tube insert
- 1.5 ml Eppendorf tube inside tube insert

**AUTOMATED SAMPLE STATION TECHNICAL SPECIFICATIONS**

**Automated Sample Station includes:**

- Automated Sample Station Unit
- 12 x 75 mm sample tube adapter
- 1.5 ml Eppendorf tube adapter
- Water Bath Fittings
- User Guide

**Tube Sizes Accepted (Figure 1):**

- Standard round bottom 17 x 100 mm tube
- Standard conical bottom 17 x 120 mm tube
- Standard round bottom 12 x 75 mm tube
- 1.5 ml Eppendorf tube

**Operating Pressure:**

75-110 psi, operating at  $\geq 10$  psi over nominal sheath pressure

**Agitation Speeds:**

7.6, 10.2, 15.3 revolutions per second

**Sample Station Size:**

5.7 cm wide x 27 cm tall x 18 cm deep

**Sample Station Weight:**

7.87 kg

Cytomation, Inc. is a privately held bio-technical instrumentation corporation specializing in high-performance, high-speed flow cytometer analyzers, sorters and upgrades. Our mission is to design, produce, and service the finest flow cytometers and cell sorters in the world — unparalleled in performance, accuracy, versatility, reliability and speed. MoFlo, our premier flow cytometer, is a modular system that is easily upgraded whenever requirements change or new modules become available.

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