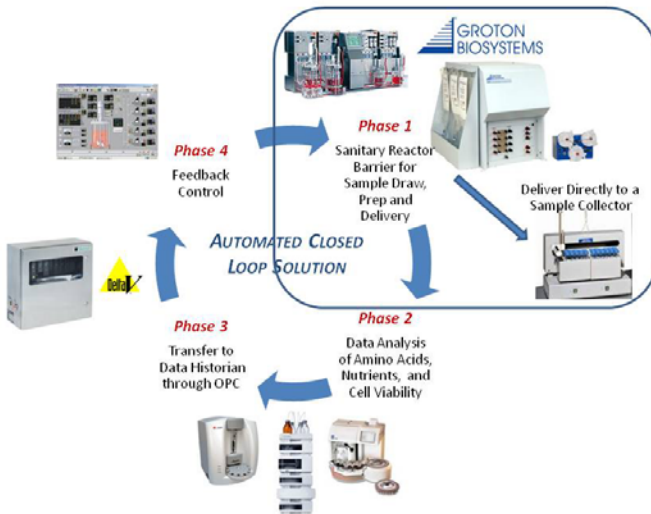


# PRODUCT BULLETIN

## SAMPLE COLLECTORS FOR AUTOMATED REACTOR SAMPLING REFRIGERATED AND SUB-ZERO



**AUTOMATED REACTOR SAMPLING:** The ARS-M™ Automated Reactor Sampling Systems automatically acquires samples from up to 8 bioreactors and, in our Phase 1 configuration, delivers the sample to a Sample Collector. A dual channel option is available to collect cell containing or cell free samples.



**CONSISTENCY:** The ARS-M provides the benefit of “Hands-Free Sampling” and eliminates the human error factor - especially during “off” hours. Operator-to-operator variability often contributes to sample mishandling, questionable data, and contamination.

**FLEXIBILITY - PRACTICAL AND ADAPTABLE:** Compatible with and fully controlled by the Groton ARS-M Series of Automated Reactor Sampling Systems. With its small footprint, interchangeable rack sizes, and portability, the system can be used for multiple applications in the same lab. Tube capacities from 2 – 50 ml.

**REALLOCATE LABOR:** Labor can be reallocated to perform higher value work. The ARS-M will have an immediate impact on your bottom line by eliminating the need to manually sample bioreactors nights and weekends. The temperature controlled system eliminates the need for constant supervision and intensive manual sample acquisition as currently required by most biotechnology applications.

**INCREASE DATA POINTS AND OPTIMIZE BIOREACTOR ENDPOINT:** Automated sampling increases your Process Knowledge. By increasing your data points you have the ability to improve trend analysis and bioreactor endpoint, reduce Design of Experiment (DOE) time, time-to-market, and improve process control and process parameters.

**CONTROL – PROVEN TEMPERATURE STABILITY:** Peltier temperature control from 4°C to 37°C. Sub-zero temperature control option to -10°C with an external chiller and environmental cabinet.

**MULTIPLE USES:** Multiple fermentation analysis, loading studies, sample stability over time studies, and statistical analysis using replicate samples are all possible with a minimum of personnel involvement.

**ASEPTIC INTERFACE:** Rinse Station with Peristaltic Pump ensures aseptic sample and no carryover.

## TECHNICAL SPECIFICATIONS

<b>Operational Interface:</b>	Programmed Automatically by the ARS-M Series
<b>Sample Rack Options:</b>	<b>24</b> , 50 ml Disposable, Sealed Aseptic Centrifuge Tubes <b>60</b> , 15 ml Disposable, Sealed Aseptic Centrifuge Tubes <b>96</b> , 2 ml Aseptic HPLC Vials
<b>Temperature Range:</b>	Peltier Temperature Control from 4°C to 37°C Sub-Zero Temperature Control to -10°C. System is also capable of heating the sample.
<b>Sanitary Interface:</b>	Rinse Station with Peristaltic Pump ensures aseptic sampling and no carryover
<b>Refrigerated Sample Collector:</b>	Sample Collector – Standard Peltier Controlled Unit 40.7 cm (L) x 35.5 cm (W) x 63.5 cm (H) 32 lbs   90 – 240V, 50-60 Hz
<b>Sub-Zero Sample Collector:</b>	Sample Collector – Sub-Zero Unit 46 cm (L) x 46 cm (W) x 63.5 cm (H) 35 lbs   115V, 60 Hz - 230V, 50 Hz  Refrigerant Chiller Unit (Free Standing) 52.07 cm (L) x 28.9 cm (W) x 67.6 cm (H) 87 lbs   115V, 60 Hz - 230V, 50 Hz

## ORDER INFORMATION

### Chilled Sample Collectors

*Chilled Sample Collector Requires the Selection of a Vial Block Configuration*

**Standard Selections - included in Sample Collector Pricing**

**Upgrade Selections - require an incremental addition to the Sample Collector price**

<u>Part Number</u>	<u>Description</u>	<u>UOM</u>
B99-5000-1.0	<b>Sample Collector FC-750 – Chilled</b> , Single Channel - .040" ID Tubing	EA
B99-5000-1.5	<b>Sample Collector FC-750 – Chilled</b> , Single Channel - .062" ID Tubing	EA
B99-5011-1.0	<b>Sample Collector FC- 750 – Chilled</b> , Dual Channel - .040" ID Tubing	EA
B99-5011-1.5	<b>Sample Collector FC- 750 – Chilled</b> , Dual Channel - .062" ID Tubing	EA
<b><u>Vial Block Selections for Chilled Sample Collectors (Select 1)</u></b>		
B99-5005-SYS	<b>Vial Blocks for Chilled FC-750, 60 Position, 15ml Vials (Standard)</b>	EA
B99-5006-SYS	<b>Vial Blocks for Chilled FC-750, 24 Position, 50ml Vials (Standard)</b>	EA
B99-5013-SYS	<b>Vial Blocks for Chilled FC-750, 96 Positions, 2ml Vials (Upgrade)</b>	EA
Can only be used with B99-5000-1.0 or B99-5011-1.0 ( .040" Tubing)		

### Sub Zero Sample Collectors

*Sub Zero Sample Collector Requires the Selection of a Refrigerant Chiller Power and Vial Block Configuration*

**Standard Selections - included in Sample Collector Pricing**

**Upgrade Selections - require an incremental addition to the Sample Collector price**

<u>Part Number</u>	<u>Description</u>	<u>UOM</u>
B99-5001-1.0	<b>Sample Collector FC-750 – Sub Zero</b> , Single Channel - .040" ID Tubing	EA
B99-5001-1.5	<b>Sample Collector FC-750 – Sub Zero</b> , Single Channel - .062" ID Tubing	EA
B99-5012-1.0	<b>Sample Collector FC-750 – Sub Zero</b> , Dual Channel - .040" ID Tubing	EA
B99-5012-1.5	<b>Sample Collector FC-750 – Sub Zero</b> , Dual Channel - .062" ID Tubing	EA
<b><u>Sub Zero System Refrigerant Chiller Unit (Select 1)</u></b>		
B99-0034-	<b>Chiller Unit, 230V, 50Hz (Standard)</b>	EA
B99-0035-sys	<b>Chiller Unit, 115V, 60Hz (Standard)</b>	EA
<b><u>Vial Block Selections for Sub Zero Sample Collectors (Select 1)</u></b>		
B99-5009-sys	<b>Vial Block for Sub Zero FC-750, 60 Position, 15ml Vials (Standard)</b>	EA
B99-5010-sys	<b>Vial Block for Sub Zero FC-750, 24 Position, 50ml Vials (Standard)</b>	EA
B99-5008-sys	<b>Vial Block for Sub Zero FC-750, 96 Positions, 2ml Vials (Upgrade)</b>	EA
Can only be used with B99-5001-1.0 or B99-5012-1.0 (.040" Tubing)		