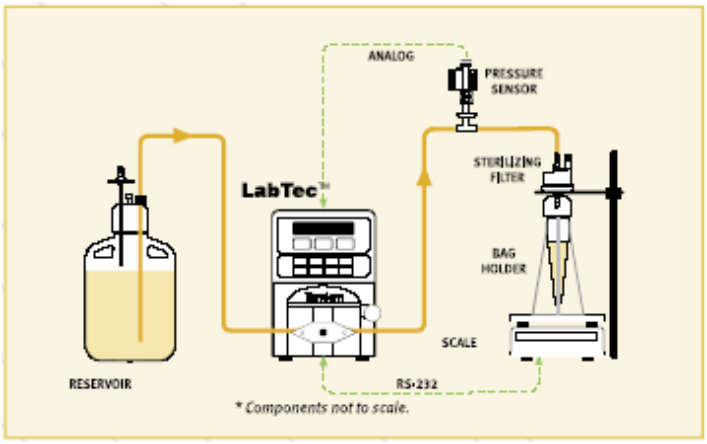
SciLog® **Intelligent BioProcessing Systems**

Simple, Rapid Sample Prep of Food for Bacteriological Analysis

Automated weighing and diluting of food samples can be readily implemented with SciLog's low cost **LabTec™** dispenser. Only an approximate food sample size is needed. The SciLog LabTec dispenser calculates and rapidly dispenses the required diluent. The LabTec dispenser increases the speed and the precision of the entire sample prep process.



Advantages:

- Simple setup, fast and easy implementation.
- Automated Sample Weighing and Auto-Dilution.
- Precise, rapid auto-dispensing of diluent based on user-defined weight ratio.
- Precision of sample prep steps independent of technician's laboratory skills.
- In-Line Filter Sterilization available.
- Built-in alarm alerts when to change sterilizing filter.
- 10 Different Weight Ratios can be stored and easily retrieved.
- GLP documentation of each sample prep step to printer or to spreadsheet.
- Performance Validation sent with each LabTec.

This procedure of preparing food samples for bacteriological analysis utilizes a low-cost workstation consisting of a LabTec pump and an electronic top-loading balance. Dedicated software in the LabTec allows communication between the SciLog pump and the balance.

The LabTec calculates and dispenses the diluent in terms of a multiple of the actual sample weight determined by the balance. Example: for a food sample weighing 11.0 grams, the LabTec will dispense 99.0 grams of diluent if the user-definable weight ratio is set at 9.00. **Up to ten different dispensing programs, i.e. weight ratios, can be stored in the LabTec**.

LabTec dispenses the diluent with excellent precision, typically 0.3%. An optional sterilizing filter and pressure transducer provides safe, effective in-line filter sterilization. The LabTec continuously monitors filter backpressure and alarms before filter plug-up! Get the most out of your sterilizing filters and avoid filter plug-up!

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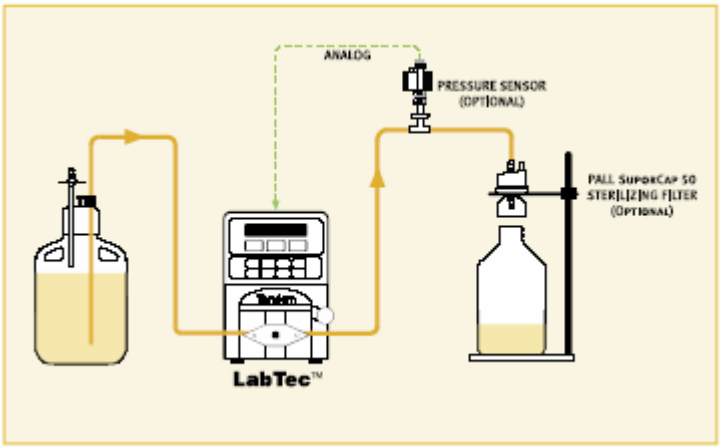
Example:

LabTec Performance Data: Automated Weighing and Dilution of Food Samples

Trial #	Sample Weight	Theoretical Diluent Weight	Actual Diluent Weight	Error (grams)
1	10.0gr.	90.0gr	90.0gr	0.0
2	10.0	90.0	89.9	- 0.1
3	10.0	90.0	90.1	+ 0.1
4	10.0	90.0	89.8	- 0.2
5	10.0	90.0	90.1	+ 0.1
6	10.0	90.0	90.0	+ 0.1
7	10.0	90.0	89.9	- 0.1
8	10.0	90.0	90.2	+ 0.2
9	10.0	90.0	90.1	+ 0.1
10	10.0	90.0	89.8	- 0.2
		AVE:	89.99	
		SD:	0.14	
		RSD:	0.15%	

LabTec Dispensing Parameters: Weight Factor = 9.00, Slow Factor = 25gr, Pump Rate = 50% #24 Silicone pump tubing was used for all dispensed aliquots. All solutions were dispensed through a Pall SuporCap 50 sterilizing filter. Cycle Time: 25 sec.; Diluent Dispensing Time: 14 sec.

The SciLog LabTec also offers a low-cost alternative for your medium and large volume dispensing applications. ***The LabTec is ideally suited for semi-automated batch dispensing of solutions either by volume or weight.***



The LabTec Smart Dispensing System is capable of high speed, high precision batch dispensing. The LabTec comes with a 1082 Tandem peristaltic pump head. Up to 10 different dispensing volumes can be stored and easily retrieved for quick batch volume dispensing.

An optional sterilizing filter and pressure transducer provides safe, effective in-line filter sterilization. The LabTec continuously monitors filter backpressure and alarms before filter plug-up! Get the most out of your sterilizing filters and avoid filter plug-up!

Batch dispensing with the LabTec can be initiated remotely with a foot switch or automatic dispensing with user-defined delays. For your sterile dispensing needs, the Tandem peristaltic pump head is recommended. *For large volume dispensing applications in the 0.5 to 6.0 liter range, a LabTec MP Model is recommended.*

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