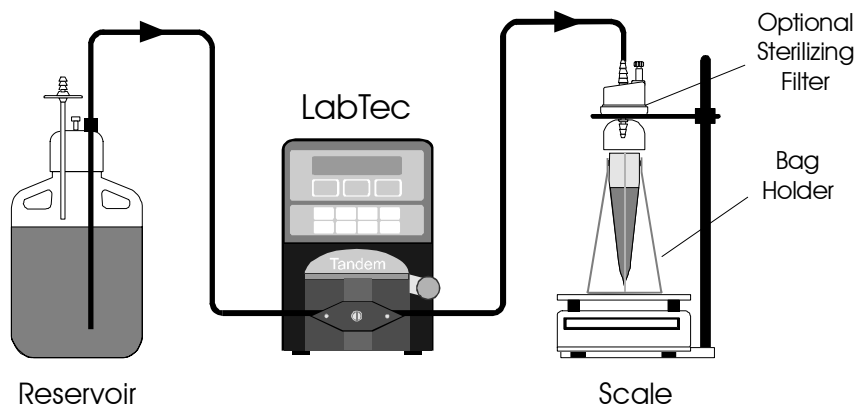


Automated Weighing & Dilution of Meat Samples for Bacteriological Analysis

SUMMARY:

Automated weighing and diluting of food samples (meat, poultry and other foods) can be readily implemented with SciLog's low cost **LabTec**[™] dispenser and weighing platform. Only an approximate sample size is needed. The SciLog LabTec dispenser calculates and rapidly dispenses the media required to achieve a dilution of each food sample. A SciLog printer accessory will automatically document each and every preparation. The LabTec dispenser increases the speed and precision of the entire sample preparation process by automating the weighing, dilution and documentation process.



ADVANTAGES:

- Automates and speeds up the weighing, dilution & documentation process
- Automated sample weight determination- only an approximate sample weight is required
- Precise auto-dispensing of sterile solution - no need to carefully measure & pour media
- Eliminates poor/ incorrect results due to operator fatigue and error
- Simple setup, fast and easy implementation
- Pre-weighed samples can be quickly checked, diluted and documented
- Factory Performance Validations: know the system performance before buying

FEATURES:

This procedure of preparing food samples for bacteriological analysis utilizes a low-cost workstation consisting of a LabTec pump and weighing platform. Dedicated software in the LabTec allows communication between the SciLog pump, platform & printer.

The LabTec calculates and dispenses the diluent in terms of a multiple of the actual sample weight determined by the platform. Example: for a food sample weighing 25.0 grams, the LabTec will dispense 225.0 grams of diluent if the user-definable weight ratio is set at 9.00 (a dilution factor = 10). **Up to ten different dispensing programs, i.e. weight ratios, can be stored in the LabTec.**

The LabTec dispenses the diluent with excellent precision, typically 0.3%. An optional 0.22 micron filter allows in-line sterilization of the diluent while dispensing. The complete system is low maintenance as your solution only contacts the bore of autoclavable and reusable tubing.

LabTec Performance Data:

The following sample dilution data was generated with a Labtec CP-200 mounted with a TANDEM 1082 peristaltic pump head and a 600-rpm motor. The weight ratio was set for a 10-fold sample dilution by weight (1:10).

Trial #	Sample Weight	Theoretical Diluent Weight	Actual Diluent Weight	Percent Error	Disp. Time
1	25.0gr.	225.0gr	225.2gr	0.08%	14sec.
2	25.0gr.	225.0gr	225.4gr	0.16%	14sec.
3	25.0gr.	225.0gr	224.8gr	0.08%	14sec.
4	25.0gr.	225.0gr	225.2gr	0.08%	14sec.
5	25.0gr.	225.0gr	225.0gr	0.00%	14sec.

LabTec Dispensing Parameters: **Weight Factor = 9.00, Slow Factor = 8.0, Pump Rate = 100%**
#24 Silicone pump tubing was used for all dispensing.

.....

ORDERING INFORMATION: SciLog Customer Service: **1-800-955-1993**

Catalog # Description

600-1682DILU **Sample Dilution System:** Includes the LabTec CP-200 Smart Pump mounted with TANDEM 1082 peristaltic pump head; 600 RPM motor; Max delivery rate 2000 ml/min. Also included in the Sample Dilution System: (1) SciLog Scale Platform, (1) Foot Switch for remote On/Off control, (1) Bag Holder, (1) Stand & Clamps to hold Pump Tubing or Filter, (1) 10 liter Carboy (Diluent Reservoir) and 25 feet of #24 Silicone Pump Tubing with (5) Dispensing Tips.

Other pump models and configurations available- call for details

Accessories & Consumables:

400-324 PharMed Peristaltic Pump Tubing #24, 25 feet
400-124 Silicone Peristaltic Pump Tubing #24, 25 feet.
400-491A Dispensing Tips, 5 / pack.
060-055 LabTec / ChemTec Pressure Sensor Kit
080-095A Thermal Printer Kit, for documenting sample and dispensing data, includes 6 Rolls of Thermal Printing Paper, and pump interface cable.

AN 1003, Copyrighted. Last updated: 12/27/05 Last Reviewed: 12/27/05

SciLog Inc, 8845 S. Greenview Drive #4, Middleton, WI 53562-2562
Web: www.scilog.com Tel: 800-955-1993 Fax: 608-824-0509