

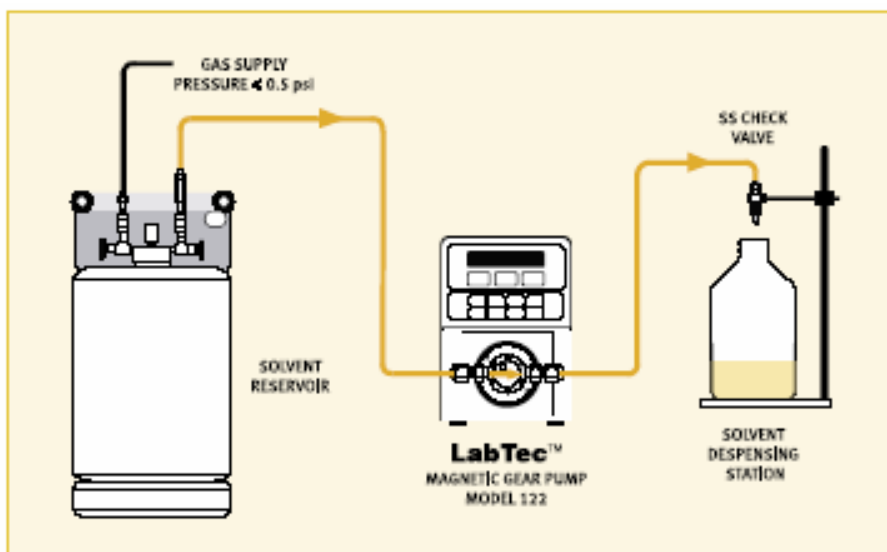
Solvent Dispensing Station for the J.T. Baker CYCLE-TAINER[®] Solvent Delivery System

SUMMARY:

SciLog has automated the safe and accurate dispensing of solvents supplied in the J.T. Baker CYCLE-TAINER[®] Solvent Delivery System. This solvent dispensing station consists of a J.T. Baker CYCLE-TAINER closed, stainless steel, returnable container and a LabTec[™] Smart Dispenser.

The LabTec[™] is a walk-up dispensing station; the user selects the solvent volume desired then presses a key or foot switch to initiate the dispensing cycle. The LabTec provides high precision, high accuracy dispensing from milliliters to liters.

Dispensing accuracy and precision is assured with a simple, single key re-calibration feature. For ease of use, up to ten user-defined dispensing volumes can be stored in the LabTec[™]. For inventory control purposes all dispensing activity can be tracked on the easy-to-read display or documented and archived in your PC.



FEATURES:

The LabTec together with the CYCLE-TAINER[®] Solvent Delivery System addresses the problem of storing and safely dispensing specific volumes of solvents. The system's closed, non-leaching stainless steel and Teflon[®] construction eliminates solvent exposure to atmospheric contamination and subsequent solvent degradation. To safeguard your solvent from contamination, all wetted surfaces are made of stainless steel or Teflon[®].

At the same time, the dispensing system maintains solvent purity, enhances employee safety and reduces liquid and hazardous waste. The solvent delivery and dispensing system significantly enhances safety in your laboratory by reducing the potential hazards of solvent spills and hazardous vapors.

The LabTec automates the rapid dispensing of solvents either by volume or by weight. Dispensing by weight eliminates the need for calibration but will require a precision balance, i.e. Ohaus AV8101. All dispensing data can be printed out or sent to your PC for archiving via HyperTerminal, or directly into a custom spreadsheet using SciLog's SciDoc Documentation Package.

LabTec Performance: Dispensing of Solvents

The LabTec magnetic gear pump arrives in your lab pre-calibrated and ready for use. Five dispense volumes are stored in the LabTec for easy access: 10ml, 50ml, 100ml, 500ml and 1000ml. If desired, any of the stored volumes can be changed from the front panel. A single-key re-calibration feature assures high dispensing accuracy and precision. The following are typical LabTec performance results:


Note: If your application requires high precision metering instead of batch dispensing, the SciLog ChemTec MP-320 should be used.

Dispensed Volume, ml	Standard Deviation, SD	Relative Deviation, %	Pump Rate (% of max.)	Slow Factor ⁽¹⁾ (ml)	Dispense Time ⁽²⁾ Per Aliquot, sec.
10.00 ml	+/- 0.02	0.24%	25%	2.ml	1.5 sec.
50.00 ml	+/- 0.11	0.22%	50%	7 ml	4 sec.
100.00 ml	+/- 0.10	0.10%	80%	11 ml	5 sec.
500.00 ml	+/- 0.15	0.15%	100%	12 ml	11 sec.
1000.00 ml	+/- 0.40	0.04%	100%	12 ml	21 sec.

- (1) For improved accuracy and precision, the pump slows down at the end of the dispensing cycle. The user-definable Slow Factor is expressed in terms of milliliters (ml).
- (2) The above data were generated with a LabTec MP-320 (Magnetic Gear Head, Model 122, Max. Delivery 3200 ml/min.)

DOCUMENTATION:

The LabTec generates data for each dispense performed. This data can be captured with a printer, or archived on your PC with HyperTerminal. The SciDoc Documentation Package can also automatically place that data into a Custom Excel Spreadsheet to simplify your inventory control and GLP documentation:

					Operator		A. Dawson		
<small>6/9/4; 08:32 DLU2 30; Volume; Exec 1; Volume set= 50.00ml; Count= 20; Rate= 90.0%; CW; Tubing=15; Units=psi; Alarms:HP=2; Limits; HP=20.0; Slow Factor= 3.00;</small>					Date		06/09/2004		
<small>Setup Data Sheet Setup Operator Info</small>					Time		08:30		
<small>Clear Data Volume Dispense Mode</small>					Product Batch Number		123456		
					Product Description		Distilled Water		
					Conditions		72F		
					Target Aliquot Size		50.0 ml		
					Target Sample Weight		n/a		
					Target Diluent Weight		n/a		
					Weight Ratio		n/a		
					Filter Mfr. / Model Number		n/a		
					Filter Size / Surface Area		n/a		
MT	SC	DV	CV	P1	ST	AL	Aliquot	Error	% Error
8:32:57	1	50.03	50.00	0.0	FINISH		50.00	0.03	0.06
8:33:04	2	50.02	100.00	0.0	FINISH		50.00	0.02	0.04
8:33:11	3	50.02	150.10	0.0	FINISH		50.00	0.02	0.04
8:33:18	4	50.02	200.10	0.0	FINISH		50.00	0.02	0.04
8:33:25	5	50.04	250.10	0.0	FINISH		50.00	0.04	0.08
8:33:33	6	50.03	300.20	0.0	FINISH		50.00	0.03	0.06
8:33:40	7	50.03	350.20	0.0	FINISH		50.00	0.03	0.06
8:33:47	8	50.03	400.20	0.0	FINISH		50.00	0.03	0.06
8:33:54	9	50.03	450.20	0.0	FINISH		50.00	0.03	0.06
8:34:01	10	50.03	500.30	0.0	FINISH		50.00	0.03	0.06
8:34:08	11	50.03	550.30	0.0	FINISH		50.00	0.03	0.06
8:34:15	12	50.02	600.30	0.0	FINISH		50.00	0.02	0.04
8:34:22	13	50.02	650.30	0.0	FINISH		50.00	0.02	0.04
8:34:29	14	50.03	700.40	0.0	FINISH		50.00	0.03	0.06
8:34:36	15	50.03	750.40	0.0	FINISH		50.00	0.03	0.06
8:34:43	16	50.04	800.40	0.0	FINISH		50.00	0.04	0.08
8:34:51	17	50.03	850.50	0.0	FINISH		50.00	0.03	0.06
8:34:58	18	50.03	900.50	0.0	FINISH		50.00	0.03	0.06
8:35:05	19	50.02	950.50	0.0	FINISH		50.00	0.02	0.04
8:35:12	20	50.03	1000.50	0.0	FINISH		50.00	0.03	0.06

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SciLog Inc, 8845 S. Greenview Drive #4, Middleton, WI 53562-2562

Web: www.scilog.com Tel: 800-955-1993 Fax: 608-824-0509