

ENTECH 7032-LB

AUTOMATED TEDLAR BAG LOOP AUTOSAMPLER

Tedlar bags are convenient for the analysis of VOCs and light gases. Due to the semi-permeable nature of Tedlar, the analysis should be performed quickly to minimize sample loss. Unattended sample injections can make the difference in completing the analysis during an acceptable holding period. Automated GC sample injection can also improve reproducibility by eliminating inconsistencies arising from manual syringe injections. Loop injection is typically reproducible to $\pm 1\%$, and eliminates sample loss due to leaky injection port septa.

7032-LB Tedlar Bag Autosampler

The 7032-LB Autosampler automates the introduction of up to 21 samples into a gas chromatograph for quantitative analysis. A fixed volume loop is used to measure and equilibrate sample volumes to atmospheric pressure before injection to the GC. A vacuum pump draws a sample from each bag while keeping the sample loop at atmospheric pressure. Maintaining consistent pressures, temperatures, and loop volumes during the injection makes the 7032-LB Autosampler a highly reproducible GC inlet system for quantitative Tedlar bag analysis.

Variable Volume Injections

The 7032-L uses an electronic splitter to adjust the actual volume of sample delivered to a GC. Using a single loop, the volume can be split as

much as 100:1 allowing a greater range of sample concentrations to be analyzed without dilution. Variable injection volumes also allow calibration curves to be generated from a single calibrated standard cylinder. Internal standards can be added independent of samples or analytical standards, providing added QA to the analysis.



7032-LB Autosampler

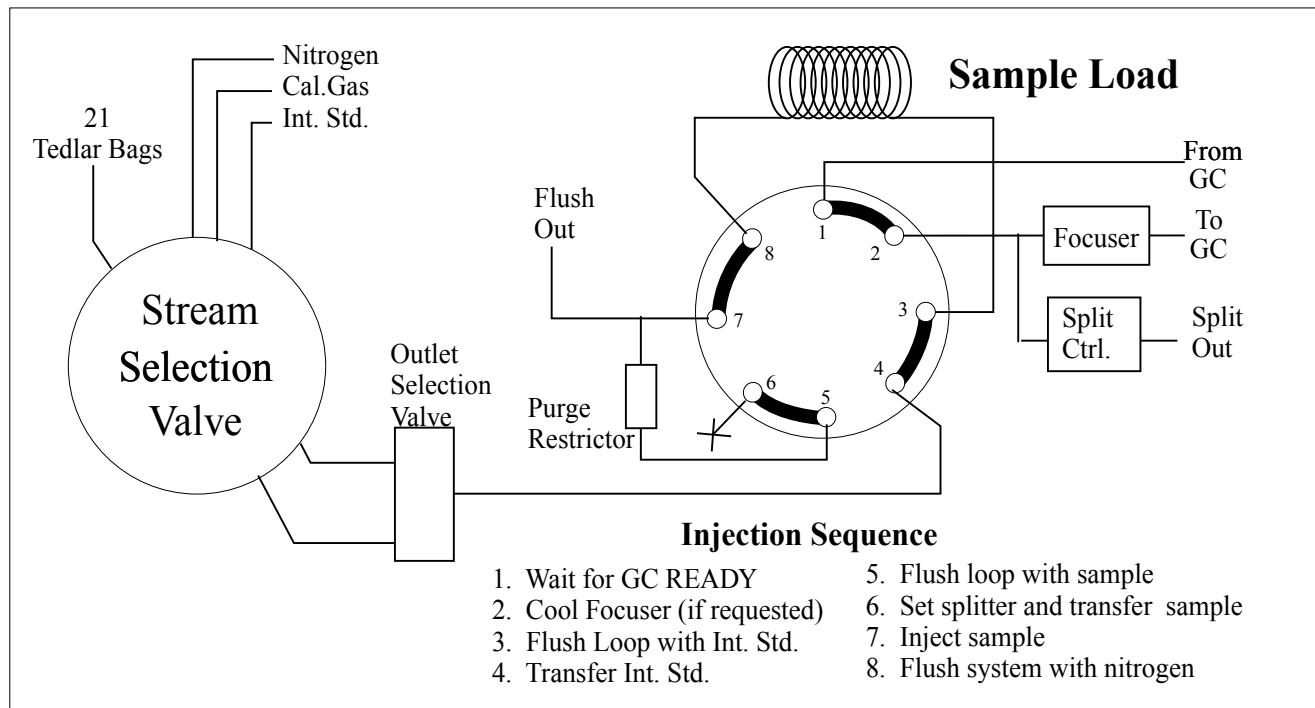
Tool Free Sample Connection

The 7032-LB uses torque wheels attached to each fitting to allow finger tightening of the bags during autosampler loading and unloading. This improves laboratory efficiency and increases sample throughput. Teflon reducing ferrules (1/4" to 3/16") provide a reliable seal and are resilient enough to use over and over. Direct connections can be made to both metal and plastic Tedlar bag valves as supplied by SKC.

System Back-flushing

The 7032-LB utilizes fused silica lined tubing to reduce transfer losses and retention of contaminants. To further reduce carryover, each sample inlet can be back-flushed with nitrogen for a user selectable period of time before loading the autosampler with the next set of bags. This virtually eliminates the possibility for system memory effects.

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Large Volume Preconcentration

The 7032-LB is also available without a loop injection valve (Model 7032-B) for operation with the 7100 Preconcentrator. Instead of being limited to a maximum of 5cc, the 7100/7032-B Preconcentration System allows analysis of 10 - 1000 cc. Larger sample volumes enhance detection limits, allowing the analysis of compounds in the 1-1000 ppb range.

Focusing Option

In order to maintain narrow peak width and maximum sensitivity when performing capillary GC analysis, it may be necessary to focus the sample at the head of the column to eliminate band broadening of the more volatile compounds. The 7032-02 focusing option is capable of cooling to -190°C using very little liquid nitrogen during each injection cycle. Heating of the focuser upon injection can approach 10,000 deg/min, giving extremely fast release of the sample to a capillary gas chromatograph.

Applications

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|-------------------------|-------------------|
| Landfill Gas | Stack Gas |
| Mobile Laboratories | Indoor Air |
| Process Stream Testing | Soil Gas |
| Petroleum/Petrochemical | Remote Head Space |

| Part Number | Description |
|-------------|---|
| 7032-LB | 21 Position Loop Injection Autosampler |
| 7032-B | 21 Position Autosampler for Operation with 7100 or 7000 Preconcentrator |
| 7032-01 | Electronic Splitter |
| 7032-02 | Focusing Option |
| 7032-03 | Option for 7032-LB to interface to 7100 Preconcentrator |

For more information on the above products and services:

Please contact us:

ExpoTechUSA
10700 Rockley Road
Houston, Texas 77099
USA

281-496-0900 [voice]

281-496-0400 [fax]

E-mail: sales@expotechusa.com

Web: www.ExpoTechUSA.com