



## 3106A / 3120A AUTOMATED CANISTER CLEANERS

*Fused silica lined stainless steel canisters are the preferred means of collecting VOC's at ppm to sub ppb levels in air for analysis in the laboratory. After sample analysis, the canisters must be cleaned for reuse by eliminating all gas-phase and surface bound contaminants. Failure to remove all of these contaminants will result in false-positive detection and poor quantification in future sampling events. In addition, heavier organics remaining in the canisters can result in build up on passivated surfaces which may increase VOC losses due to absorption.*

### The 3100A Canister Cleaner

The 3100A canister cleaning systems add simplicity and repeatability in the cleaning of SUMMA<sup>®</sup> and Silonite fused silica lined canisters. Multiple canisters are cleaned on a common manifold by cycling between evacuation and filling with clean air or nitrogen to "rinse" the contamination out of the canisters. The 3106A bundle uses an oven large enough to accommodate six 6L canisters, while the 3120A is designed to maximize the throughput of Entech



**Entech 3120A with MiniCan Oven Manifold**



**Entech 3106A with 6L Oven Manifold**

MiniCans and Bottle-Vac samplers. Canister manifolds are made of electropolished 300 series stainless steel which eliminates VOC absorption during cleaning. No Teflon or other plastic tubing is used throughout to improve vacuum and to prevent outgassing of impurities. The oven manifolds are also Silonite coated to further enhance the buildup of heavy contaminants. Two on-line transducers monitor both pressure (0-50 psia) and vacuum (0-2000 mtorr) in the cleaning manifold. Options are available to attach multiple ovens to increase the throughput of canisters and Bottle-Vacs.

During cleaning, canister evacuation is performed in two stages. The first stage utilizes a 2-stage diaphragm pump to perform a rough evacuation of the canisters. A molecular drag pump then further reduces the vacuum down to the millitorr range. Both pumps are oil-free eliminating the need for isolation traps. After evacuation, canisters are refilled with humidified zero air or nitrogen to dilute any remaining impurities. The fill and evacuation process is performed through separate lines to create a "one-way" flow which is unique to Entech's cleaning systems. This one-way flow prevents heavier contaminants from being washed back into the canister up refilling.

## Features

- Cleans up to 24 6L canisters (4 ovens) or 80 MiniCans (2 Ovens) unattended.
- 6L Ovens and MiniCan Ovens can be intermixed on the same system for maximum flexibility
- Oilless pumps virtually eliminate potential for system contamination.
- Fill/evacuation cycling improves VOC removal.
- Digital representation of system pressure (0-50 psia) and vacuum (0-2000 mtorr).
- Easily used to assist in cleaning of CS1200E canister samplers
- No other automated cleaning system reduces VOC levels in canisters more completely



*3100A Cleaner*

- SmartLab2<sup>®</sup> Windows 2000/XP control.
- Cleaning procedures easily defined, stored, and implemented.
- All stainless or Silonite interconnective manifold. No outgassing from Teflon or other plastic tubing.

## Part Number

## Description

### *Systems:*

3106A	Cleaning System with 6L Canister Oven (6 position)
3120QT	Cleaning System with MiniCan/Bottle-Vac Oven (20 position)

### *Pumps:*

10-20030	Dual Stage Diaphragm Pump
10-30001	Molecular Drag Pump (Internal to 3100A Controller)

### *Manifold Options:*

09-OV6L	Six Position 6L Canister Oven (without internal manifold)
3100-6	Six Position Silonite coated Manifold for 09-OV6L
3100-03	Option to Connect 2 6L Can Ovens (for 12 position)
09-OV20	MiniCan Oven (without internal manifold)
3100-20QT	20 Position Silonite coated Manifold w/ Micro QT Valves
30-22800	Micro QT valves to expand from 20 to 40 positions within the same oven (for MC400's, MC600's, BV460A)
3100-04	Manifold Switching Option (Isolates 6L and MiniCan Ovens)