ENTECH 4600

AUTOMATED DYNAMIC DILUTER

The analysis of Volatile Organic Compounds at ppm through sub ppb levels requires the generation of standards for instrument calibration. These standards can be prepared in passivated stainless steel canisters, Tedlar® bags, or sorbent tubes, depending on the application to be calibrated. The most accurate procedure for obtaining ppb level standards is to dilute NIST

The 3100 Canister Cleaner

The 3100 canister cleaning system adds simplicity and repeatability in the cleaning of SUMMA® and 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. Canister manifolds are made of 300 series stainless steel which eliminates VOC absorption during cleaning. Two on-line transducers monitor both pressure (0-50 psia) and vacuum (0-2000 mtorr) in the cleaning manifold. Three external canisters manifold options are available, offering flexibility to research and production laboratories working with canisters and/or MiniCans.

During cleaning, canister evacuation is performed in two stages. The first stage utilizes a 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. Cycling between fill and evacuation effectively eliminates VOC contaminants.

Entech 3100 with a 4-Canister Manifold

Control of two separate heated zones is supported allowing method selection of canister cleaning temperatures when using the optional six 6L canister oven or the 21 position MiniCan heating mantle.

Silanizing / Surrogate Spiking

The 3100 can be configured to add surrogates or silanizing agents at the end of the cleaning process. Silanizing agents help to complete the passivation of fused silica-lined canisters and can improve stability of sulfur and nitrogen containing compounds. Silanizing also helps to restore inertness to surfaces after canisters have been exposed to harsh matrices.

Surrogates can also be automatically introduces at the end of the cleaning process. Introducing 0.001 atmospheres of a ppm level surrogate will result in ppb levels in the canister after field sampling providing validations of the samplin and analysis process with virtually no dilution of the sample.

Features

- ¥ Cleans up to 16 6L canisters or 42 MiniCans unattended.
- ¥ Choice of band heaters (105^{0}C), six 6L canister ovens, or 21 MiniCan heater (140^{0}C).
- ¥ 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).
- ¥ Automatic leak-checking during cleaning.
- ¥ SmartLab) Windows -based control.
- ¥ Cleaning procedures easily defined, stored, and implemented.
- ¥ All stainless interconnective manifold.
- ¥ Option for introducing silanizing agents or surrogates.

Part Number	Description
Systems:	
3100	Cleaning System Controller
45-1000	Control Network and Computer Interface
07-10030	Humidification Chamber with Water Level Indicator
Pumps:	
10-20020	Dual Stage Diaphragm Pump
10-30020	Molecular Drag Pump (Internal to 3100)
Manifolds:	
3000-MN	4-Position Manifold (Order 1-4)
3000-MN8	8 Position “Stacking” Manifold (Order 1-2)
09-61006	6-Liter Canister Heaters (Order 1-16)
3121	21 Position MiniCan Cleaning Manifold
09-70010	Heated Enclosure for 3121
3000-OV6	Six Position 6L Canister Oven
Options:	
12-70010	10 Foot SmartLab Cable
12-70025	25 Foot SmartLab Cable
3100-01	Silane/Surrogate Spiking Option

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