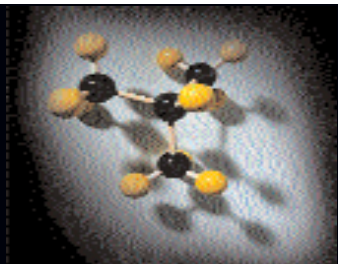


# CEREX System-48

## for Positive Pressure SPE



### **BETTER REPRODUCIBILITY**

*Highly uniform flow column-to-column*

### **MORE CONVENIENT**

*No caps or plugs required for open column ports*

### **EASIER TO USE**

*Higher pressure differential for viscous samples*

### **REDUCED CARRY-OVER**

*Pressure-sealed column processing*

### **MORE POWERFUL**

*Built-in nitrogen or air drying of extracts*

The new CEREX® System-48™ processor for Positive Pressure SPE offers state-of-the-art operation for SPE of individual columns containing sorbent beds of a few milligrams in 1ml tube sizes, up through multi-gram beds in 6 ml tube sizes. Positive pressure processing of SPE columns exhibits a number of advantages compared to traditional vacuum manifold processing.

A major problem with conventional vacuum manifolds occurs as faster flowing columns on the manifold run dry, allowing a free flow path for vacuum through the dry columns, slowing the flow on the remaining columns. This results in additional variation in column processing times, thus contributing to irreproducible analyte recoveries. Also, when running fewer columns than needed to accommodate all manifold ports, open ports must be plugged or switched off to prevent vacuum loss, which otherwise causes insufficient flow through the sample columns.

In contrast to vacuum manifolds, the System-48 uses unique, restricted gas ports. These ports cause gas flow control such that even if 47 processing channels are wide open, the remaining single channel will receive appropriate pressure to allow facile

processing. This feature provides very uniform flow across all column channels, and eliminates the need for plugs or caps when processing fewer than 48 samples.

When processing viscous samples, vacuum manifolds often cannot provide adequate processing power, since the maximum pressure is limited to something less than atmospheric (~15 p.s.i.) The System-48 allows for gas pressures up to 30 p.s.i., supplying greater motive force for viscous sample flow. If the user adjusts the pressure up or down, the column flow response is smooth and immediate.

In addition, the column openings are sealed by positive gas pressure applied to the sealing gasket. This ensures no carry-over channel-to-channel. Use of gas pressure adds a built-in capability for evaporation of extract elution solvent prior to reconstitution in mobile phase.

The System-48 is self-adjusting to column height, thus accommodating different commercial columns without special adapters or accessories.

**hologent**

*Everything New Under the Sun.*

## OPERATION

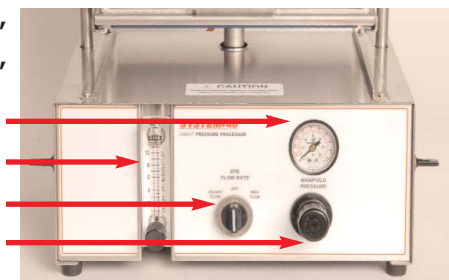
The System-48 is simple and convenient to operate. After initial connection to an instrument-grade gas supply (typically nitrogen), the System-48 may be controlled via the switches illustrated in Figure 1. The SPE columns to be processed are placed atop a tube rack (for 1, 3 or 6 ml tubes),

**Pressure Indicator**

**Flow Meter**

**Flow Selector**

**Pressure Regulator**



which is then placed atop a waste collection bin, and the assembly is set onto a sliding platform. The protocol solvent to be processed is added to the SPE columns, the assembly is slid to the rear of the unit under the pressure manifold, and the columns are raised against the pressure manifold via a hydraulic piston, using switches on either side of the unit. Gas is then applied at one of two preset, continuously adjustable pressures, via a user-selectable switch position. The protocol solvent passes through the columns, the process is reversed, and the next solvent is applied. These steps may be repeated as many times as desired (once for each protocol solvent). For elution, the waste collection bin is replaced with a collection tube rack (available

in sizes for autosampler vials up through 16 x 100 mm tubes), and the collected eluent in the collection tubes may be dried down using the processing gas, or transferred directly to an HPLC autosampler for injection. The entire process is rapid and facile.

In summary, the CEREX System-48 is powerful, fast, and convenient, offering the best technology available for reproducible, high quality processing of SPE columns.

## CEREX SPE COLUMNS

Hologent also supplies a complete line of SPE columns, which may be used with the System-48 or other commercial manifolds. Based on patented manufacturing technology and using advanced microparticulate sorbents, CEREX SPE columns offer much higher performance than conventional SPE sorbents, with greater relative capacities and reduced elution volumes. Please contact Hologent for more information.

## CEREX SYSTEM-96

For 96-well SPE plate processing, contact Hologent about the CEREX System-96 Processor. Using the same principles of operation as the System-48, the System-96 can process both CEREX 96-well plates and other commercial 96-well plate products.

## ORDERING INFORMATION

<u>Part Number</u>	<u>Description</u>	<u>Price</u>
289-0004	System-48 Processor-II*	\$3256
279-0021	1ml SPE Column Rack	231
279-0022	3ml SPE Column Rack	231
279-0023	6ml SPE Column Rack	231
279-0015	12 X 75mm Collection Rack	231
279-0016	13 X 100mm Collection Rack	231
279-0017	16 X 100mm Collection Rack	231
279-0018	12 X 32mm AutoSampler Vial Rack	231
279-0009	Waste Bin (3 per pack)	30
279-0012	48-Place Sealing Gasket	53
279-0010	Gas Supply Adapter	13

Optional Heater, 50C, Available (289-1000, \$950.)

\*Includes Waste Bin, Gas Supply Adapter and 48-Place Sealing Gasket. SPE Rack and Collection Rack must be ordered separately