

SPE Accessories



Empty SPE Reservoirs and Frits

Empty Columns

Cat. No.	Column Volume	Qty.
OC-01	1mL	100
OC-03	3mL	100
OC-06	6mL	100
OC-10	10mL	100
OC-20	20mL	100
OC-35	35mL	100
OC-60	60mL	100

Empty Column with One 20µm Polyethylene Frit

OC-01201	1mL	100
OC-03201	3mL	100
OC-06201	6mL	50
OC-10201	10mL	50
OC-25201	25mL	50
OC-60201	60mL	50
OC-55201	150mL	50

Empty Flangeless Columns

OC-01F	1mL	100
OC-03F	3mL	100
OC-06F	6mL	100

Super Clean Cartridges, Teflon Lined Polypropylene, Empty

OC-01T	1mL	100
OC-03T	3mL	100
OC-06T	6mL	100
OC-10T	10mL	100
OC-20T	20mL	100
OC-60T	60mL	100

PE Frits

OC-0120	1mL	100
OC-0320	3mL	100
OC-0620	6mL	100
OC-1020	10mL	100
OC-2020	20mL	100
OC-3520	35mL	100

End Caps

OC-0199	1mL	100
OC-0399	3mL	100
OC-0699	6mL	100
OC-1099	10mL	100
OC-3599	35mL	100

Luer Tip Caps

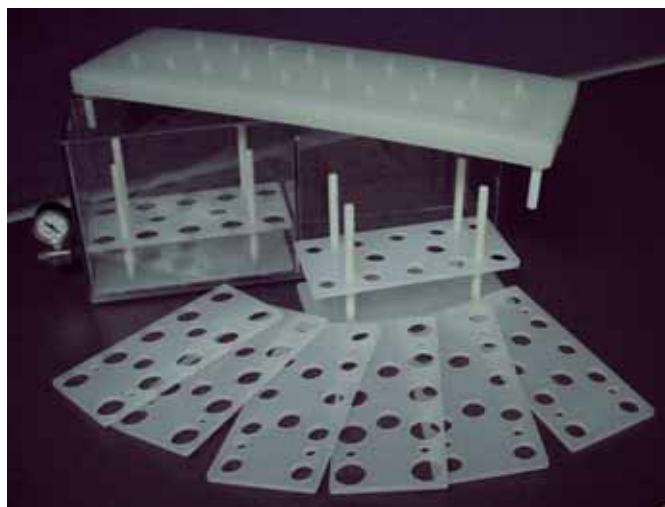
OC-01C	1mL	100
OC-03C	3mL/6mL/10mL/20mL	100
OC-35C	35mL/60mL	100

Bulk Sorbents

- Silica based sorbents, 60Å, 40µm

Cat. No.	Sorbent Phase	Qty.
OC-001825	ODS, C18	25g
OC-000825	Octyl, C8	25g
OC-000225	Ethyl, C2	25g
OC-000725	Phenyl	25g
OC-000025	Silica, Si	25g
OC-000525	Diol	25g
OC-001425	Cyano, CN	25g
OC-000325	Amino, NH ₂	25g
OC-002125	Strong Ion Exchange, SAX	25g
OC-002225	Stron Cation Exchange, SCX	25g
OC-001125	Alumina A (acidic)	25g
OC-001225	Alumina B (basic)	25g
OC-001025	Alumina N (neutral)	25g
OC-001525	Florisil	25g
OC-002425	CBA	25g
OC-002825	PFPP	25g

Please call for pricing on larger quantities.



20 Position Vacuum Manifold

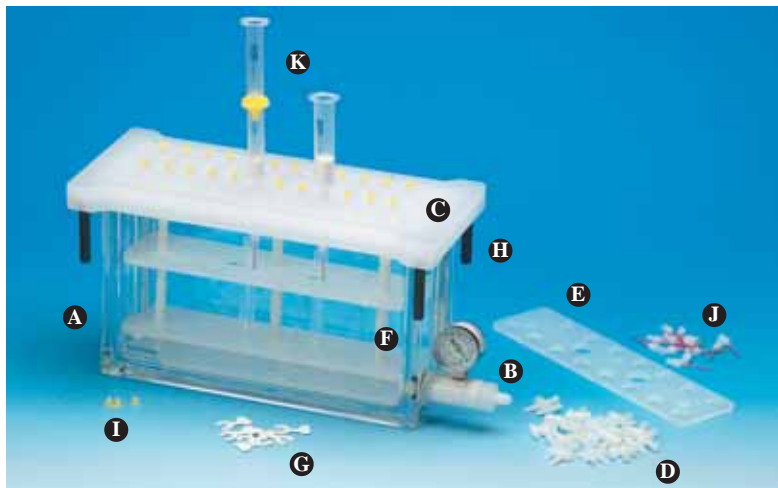
- Wide port spacing for large tubes

Multiple sample processing with the 20 position manifold consists of a clear glass chamber and lid, to which a vacuum is applied to draw solvents and sample through an SPE column, cartridge, or disk. Polypropylene top with female luer inlets and male luer outlets. Adjustable racks in the glass chamber will accommodate a variety of sample collection vessels. 19mm plates are included. Eluants are deposited directly into the collection vessel of choice via optional polypropylene, or SS needles. Dimensions: 18" (L) x 4" (W) x 7.3" (D).

20 Port Manifold

Cat. No.	Description	Qty.
OVM2020	20 Port vacuum manifold	1
OVM2025	Polypropylene needles	20
OVM2026	SS needles	20
OVM2023	Gaskets	2
OVM2028	Plate, 13mm	1
OVM2029	Plate, 16mm	1
OVM2030	Plate for volumetric flasks	1

Vacuum Manifold and Accessories



Vacuum Manifold Included Components

- A. Glass chamber
- B. Vacuum valve and gauge
- C. Polypropylene lid
- D. Stopcock valves
- E. Collection rack plates
- F. Support posts for collection racks
- G. Retaining clips for collection racks
- H. Lid legs
- I. Manifold inlet caps
- J. Polypropylene needles
- K. SPE reservoirs (sold separately)

Manifold systems come complete with the components listed above. Stainless Steel or Teflon® needles are available separately.

The 12 Port manifold also includes a waste container.

- Glass chamber for visual monitoring
- Accepts standard male luer devices



12 Port Manifold

Cat. No.	Description	Qty.
2100A-00	12 Port vacuum manifold	1

Replacement Parts for 12 Port Manifolds

2120A-01	Lid, gaskets, and 12 stopcocks	1
2132-12	Glass chamber	1
2123-04	Vacuum gauge, valve, and glass chamber	1
2125A-18	Collection rack, 12-port size*	1
2121A-12	Gaskets, 12-port size	2
2131-12	One-way stopcocks	12
2100A-33	Waste container	2

*12-Port collection rack consists of 3 support posts, bottom plate, 13- and 16mm plates, autosampler vial plate, volumetric plate, and 12 retaining clips.

16 Port Manifold

2100-16	16 Port vacuum manifold	1
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Replacement Parts for 16 Port Manifolds

2102-16	Lid, gaskets, and 16 stopcocks	1
2103-16	Vacuum gauge, valve, and glass chamber	1
2104-16	Collection rack, 16-port size**	1
2121A-12	Gaskets, 16- and 24-port size	2

24 Port Manifold

2100-24	24 Port vacuum manifold	1
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Replacement Parts for 24 Port Manifolds

2102-24	Lid, gaskets, and 16 stopcocks	1
2103-24	Vacuum gauge, valve, and glass chamber	1
2104-24	Collection rack, 24-port size**	1
2107-24	Gaskets, 16- and 24-port size	2

**16- and 24- Port collection rack consists of 3 support posts, bottom plate, dimple plate, 13- and 16mm plates and 12 retaining clips.

Replacement Parts for All Size Manifolds



Manifolds come complete with all necessary gauges and accessories. Individual replacement parts may be sold separately.

Cat. No.	Description	Qty.
2122-03	Vacuum gauge and valve	1
2129-12	Retaining clips for collection racks	12
2120-02	Female luer inlet, polypropylene	2
2121-20	Male luer outlet, polypropylene	2

Manifold Needles



Teflon® needles are disposable, fit many different manifold types, and eliminate cross contamination by extending into the collection tube. They also provide a complete

Teflon® fluid path for samples to virtually eliminate extractables. Available plain or with a valve. Stainless Steel and polypropylene needles are also available.

Cat. No.	Description	Qty.
4124-10	Teflon® needles	100
4115-25	Valved Teflon® needles	25
2124-00	Stainless Steel needles	12
2124-12	Polypropylene needles	12
2109-24	Polypropylene needles	24

Drying Attachments



Use these special drying lids to direct a gas flow into collection tubes to dry eluants. Barb is 1/4".

Cat. No.	Description	Qty.
2121-00	12-Port drying attachment	1
2121-17	16-Port drying attachment	1
2121-24	24-Port drying attachment	1

Cerex Positive Pressure SPE Processors



- **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 Positive Pressure SPE processors offers state-of-the-art operation for SPE of individual columns or 96 well plate formats. Positive pressure processing of SPE has 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, thereby 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 Cerex Positive Pressure SPE processors use unique, restricted gas ports. These ports create gas flow control such that even if all but one processing channel is left wide open, the remaining single channel will receive appropriate pressure to allow easy processing. This feature provides very uniform flow across all column channels, and eliminates the need for plugs or caps when processing fewer than instrument capacity.

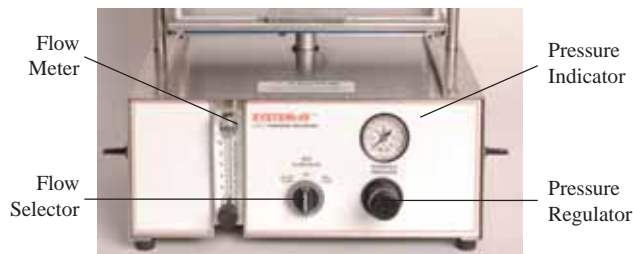
When processing viscous samples, vacuum manifolds often cannot provide adequate processing power, since the maximum pressure is limited to something less than atmospheric pressure (approx. 15 psi). The Cerex Processor allows for gas pressures up to 30 psi, supplying greater motive force for viscous sample 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 Cerex Positive Pressure SPE processor is self-adjusting to column height, thus accommodating different commercial columns and plates.

Operation

The Cerex Positive Pressure processor is simple and convenient to operate. After initial connection to an instrument-grade gas supply (typically nitrogen), the system may be controlled via the switches illustrated below.



The SPE columns to be processed are placed atop a tube rack (for 1, 3, 6mL tubes, or 96 well plates), 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 to 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 or plate (available in sizes for autosampler vials up through 16 x 100mm tubes), and the collected eluent in the collection tube may be dried down using the processing gas, or transferred directly to an HPLC autosampler for injection. The entire process is rapid and easy.

In summary, the CEREX Positive Pressure Processors are powerful, fast and convenient, offering the best technology available for reproducible, high quality SPE processing of SPE columns.

Cerex System 48 Ordering Information

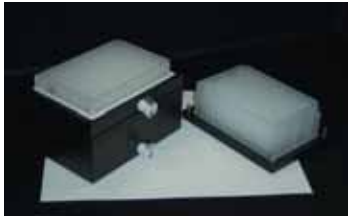
Cat. No.	Description
279-0004	System 48 processor*
279-0021	1mL SPE column rack
279-0022	3mL SPE column rack
279-0023	6mL SPE column rack
279-0015	12 x 75mm collection rack
279-0016	13 x 100mm collection rack
279-0017	16 x 100mm collection rack
279-0009	Waste bin (3 per rack)
279-0012	48-Place sealing gasket
279-0010	Gas supply adapter

* Includes waste bin, gas supply adapter and 48-place sealing gasket. SPE rack and collection rack must be ordered separately.

Cerex System 96 Ordering Information

278-0031	System 96 processor, complete Includes items listed below
278-0032	10mL x 24 collection tray
278-0034	1mL x 96 collection tray
278-0038	2mL x 96 collection tray
278-0037	96 column holder
278-0035	96 place sealing gasket
279-0010	Gas supply adapter

96 Well Plate Vacuum Manifold



The Orochem Vacuum Manifold with its unique flip-top design is robotic friendly and is compatible with filter blocks manufactured by Orochem Technologies Inc., 3M, IST, Qiagen, Promega, Millipore and others. The

footprint of the manifold is compatible with Liquid Handling Systems from Orochem, TomTec, Gilson, Tecan Genesis and Perkin Elmer. The open gasket design provides excellent seating of the filter blocks.

Vacuum Controller

In conjunction with the vacuum manifold, the single and dual vacuum setting controllers with timers allows the end user a complete control of the process. The vacuum controller is a unique offering to the industry. Presetting the timer and controller makes it possible to control the time, and volume of vacuum, at high- level or low-level vacuum operations.

96 Well Plate Vacuum Manifold and Vacuum Controller

Cat. No.	Description
ORVMN-BS1	Basic manifold for 1mL plates
ORVMN-BS2	Basic manifold for 2mL plates
ORVMN-FT1	2-in-1 manifold for 1 and 2mL plates
ORVC-SVL	Single vacuum level controller, 110/220V
ORVC-DVL	Dual vacuum level controller, 110/220V

96 Well Plate Heating/Cooling Block



The HC1080 heating and cooling block is a unique instrument using the latest technology in thermoelectric cooling (TEC). Uses a unique composite fin structure on the reactor block to provide a uniform surface contact with

the cylindrical surfaces of conventional deep well plate for high efficiency heat transfer.

- **Temperature control range from -5 to 80 °C**
- **Stability control of 0.5 °C at the sensor**
- **PC programmable via RS232 communication port**
- **Fast heating and cool down rates**

Typical Applications Include:

- Unattended restriction digestion or ligation
- Automatic reduction of sample temperature at specific times
- Production of denatured probes or single stranded DNA molecules
- Automatic temperature profiles for microbiological samples
- Temperature maintenance for different kind of samples
- Enzyme reaction and deactivations
- Cooling blood samples prior to coagulation testing
- Sample storage and freezing at workstation

QuikVap Ordering Information:

Cat. No.	Description
OCOT2003	Peltier based heating and cooling plate



QuikVap™ - Evaporator Sample Concentrator featuring Peltier Heating and Cooling Controls.

QuikVap™ Evaporator /Concentrator

- **Compact footprint- Fits under any hood or micro-ventilation system**
- **Operating temperature 0° C - 80° C**
- **Programmable controllers**
- **Flow activated heaters**
- **Polycarbonate cool touch exterior**

Unique in the industry!

- Plastic disposable manifold for air/gas delivery – Contamination & corrosion-free
- Delivery of preheated air through disposable plastic manifold
- Adjustable positioning of the manifold
- Peltier Heating and cooling of sample
- 16 programmable ramp and soak profiles available

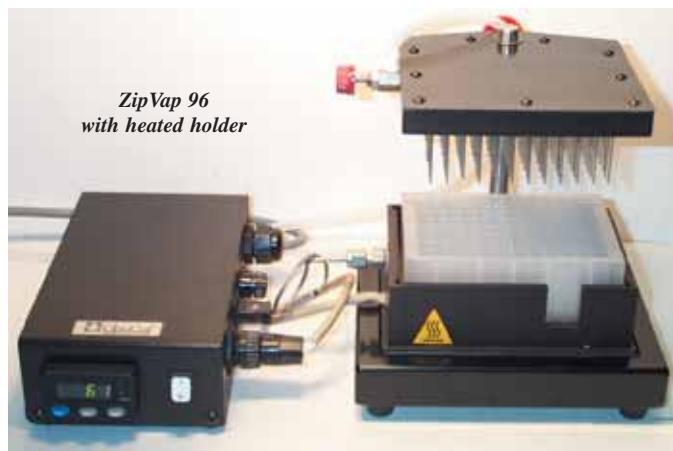
Benefits:

- Polycarbonate exterior is cool to touch and resistant to corrosion
- Adjustable manifold provides heated air/gas to be introduced into or above the samples reducing drying time
- Peltier-controlled ramp and soak function provides precise temperature control
- Cooling function prevents sample overdrying- Easy to re-suspend sample

QuikVap Ordering Information:

Cat. No.	Description
OCQV2003	Single plate evaporator with Peltier heating and cooling

Evaporators and Concentrators



96 or 384 Well Analytical Evaporators

ZIPVAPS are easy to use. No exotic setup or operating instructions. Fast dry down in minutes.

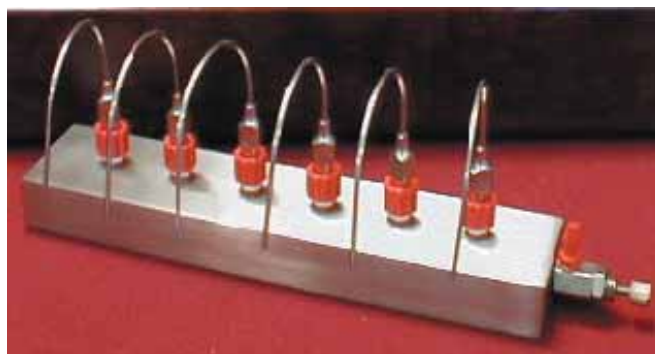
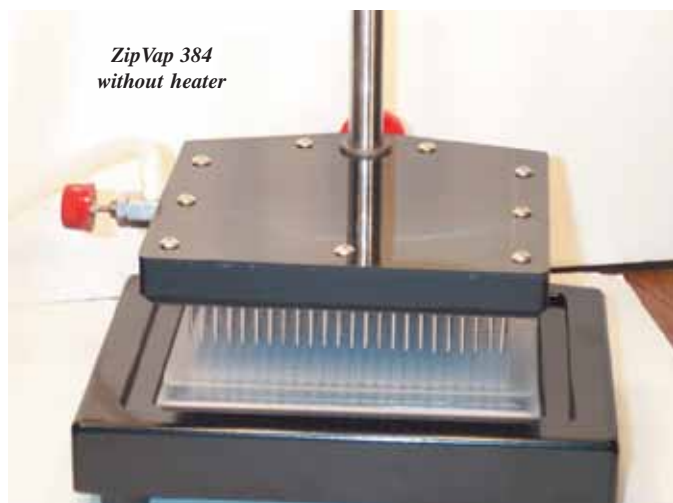
1. Interchangeable manifolds for 96 or 384 well plates
2. Removable heated holder that can be removed for room temperature operation
3. Fine needle valve control of Nitrogen or other gas flows
4. Concentrate or go to dryness with deep well or SPE plates

Features

- Holds standard micro plates or deep-well plates
- Flow control can be adjusted
- TFA, DMSO, and standard solvents are compatible
- Needle height is easily adjustable— 96 individual SS needles
- Small footprint conserves bench space
- LOW COST

Ordering Information:

Cat. No.	Description
9600E	96 well evaporator with stand
9600CB	96 well evaporator with stand, heated holder
38400E	384 well evaporator with stand
9600HTR	Heated holder for 96 well and 384 well plates with digital temperature controller; controls to better than 0.5° C with access for easy removal of all size plates. 120V 60Hz (220V 50Hz available)



BarVap Concentrator/Evaporator

- Nickel plated to resist solvents
- Needle valve for fine control of gas flow
- Stainless Steel needles

Cat. No.	Description
CE-1200	12 Position concentrator/evaporator
CE-600	6 Position concentrator/evaporator
CE-1301	Vial rack 13mm
CE-1302	Vial rack 13mm, 2/pk
CE-1601	Vial rack 16mm
CE-1602	Vial rack 16mm, 2/pk

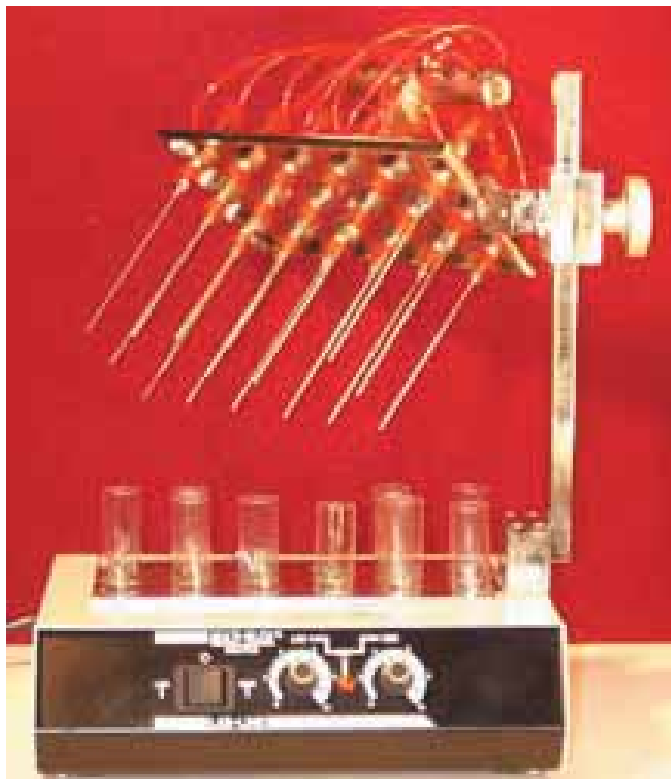
Micro Vials, Graduated with open cap and PTFE lined septa

402014	0.3mL Grad. conical vial 13x32mm, 12/pk
402006	1mL Grad. conical vial 13x45mm, 12/pk
402007	3mL Grad. conical vial 20x47mm, 12/pk
402008	5mL Grad. conical vial 20x60mm, 12/pk

Spare Parts

CE-6001	4" SS luer needle, 6/pk
CE-6002	Spare luer lock adapters, 6/pk
CE-6003	O-Ring seals, 6/pk
CE-6004	Plastic end caps, 25/pk
CE-6005	Acrylic tubing, 3 feet
CE-6006	Inlet plug, each





A swing back and tilt up or away platform for clearance of the needles from the evaporator tubes. Makes it easy to install and work with containers. It has 90° horizontal control and 360° vertical control.

ZipVap 18

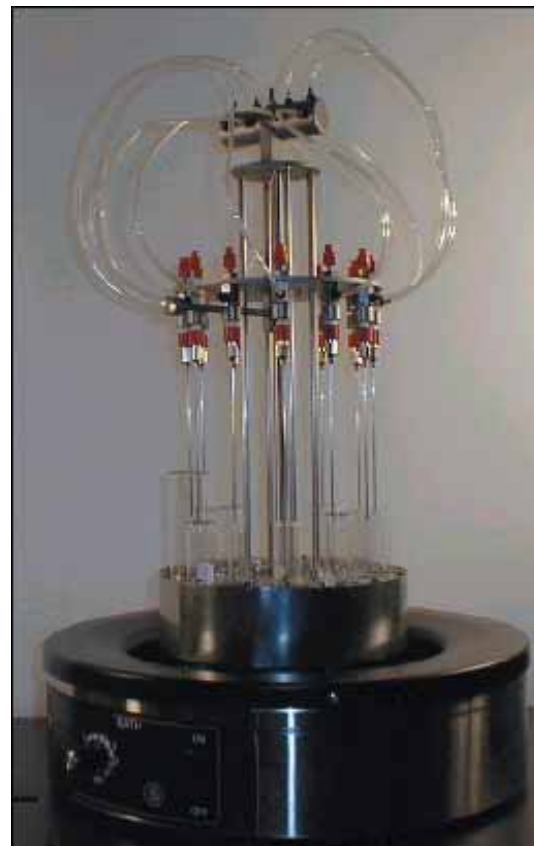
- 18 fine needle valves for individual precision flow control of evaporator gas
- A swing out and tilt up or away platform for clearance of the needles from the evaporator tubes
- Convenient and rugged needle height control of 4 1/2" Stainless Steel needles

Speed, convenience, and control are the features of the Model Z-1800 ZipVap system. For fast concentration of multiple samples, the ZipVap 18 port is the choice. It has 18 individual needle valves for precision control of Nitrogen (or other evaporating gas) for each sample. Contained in a triple block heater, any size tube up to 25 mm diameter can be accommodated with the evaporator. Individual control of flow is a feature. The main structural parts of the ZipVap 18 are made of nickel plated aluminum or nylon. The needle valves are nickel plated brass. A steel support is provided to hold tubes up to 25mm in diameter. Zirconia beads are included to provide heat stability as well as hold smaller tubes into place. The triple block "LabLine" heater is an integral part of the ZipVap 18.

The heater is capable of a temperature of 140° C. At 70° C, 10 mLs of Hexane is evaporated to dryness in less than 7 minutes.

ZipVap 18 Ordering Information

Cat. No.	Description
Z-1800	18 Position heated evaporator/concentrator



ZIPVAP 12

- Individual fine needle flow control
- Stainless Steel construction
- Simple operation

Operates at room temperature or up to 70° C with additional heated water bath. Includes our unique "surelok" tube holders that fit all size tubes up to 29 mm o.d. The unit features twelve fine needle valves for individual control of each vial or test tube being processed.

Height control of needles is easily adjustable for inserting needles in the tubes or for removal of the tubes upon completion of evaporation.

ZipVap 12 Ordering Information

Cat. No.	Description
Z-1200	12 Position evaporator/concentrator <i>Includes 12 luer lock needles with fittings</i>
Z-1200W	Heated water bath for Model Z-1200 <i>Heater has a temperature range of 35° to 65° C</i>