

**Thermo Scientific**

**16-Port and 24-Port  
Glass Block Vacuum  
Manifold**

Users Guide



24-Port Vacuum Manifold 60104-233  
16-Port Vacuum Manifold 60104-232



## **Introduction**

Thermo Scientific HyperSep Glass Block Vacuum Manifolds come in 24-port and 16-port configurations. Use with a variety of SPE columns for sample preparation.

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## **Product Description**

Thermo Scientific HyperSep Glass Block Vacuum Manifolds come in 24-port and 16-port configurations. Use with a variety of SPE columns for sample preparation.

The system is supplied with: Glass Block, Corian Mainfold Lid, Cover Gasket, Vacuum Gauge and Valve Assembly, Teflon Tips, Plugs, Adjustable Collection Rack and Manifold Safety Tray.

## **Principle of Operation**

The HyperSep Glass Block Vacuum Manifolds is an easy way to automate solid phase extraction in a number of different format SPE columns (1mL, 3mL, 6mL, 15mL, 25mL, and 75mL).

## Getting Started

Unpack the HyperSep Glass Block Vacuum Manifold. The box should contain the following items:

Figure 1: **Glass Block (A)**



Figure 2: **Manifold Lid (B)**

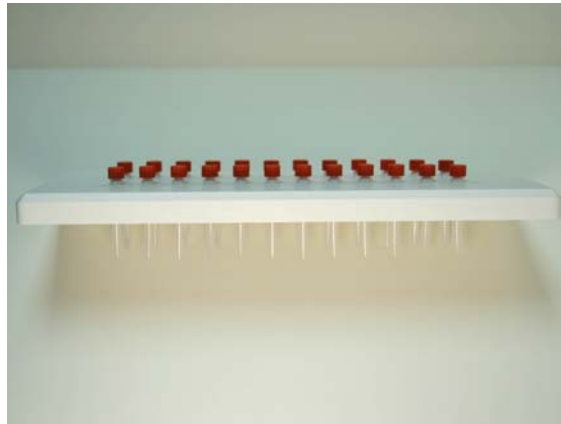


Figure 3: **Vacuum Gauge and Valve Assembly (C)**



Figure 4: **Safety Tray (D)**



Figure 5: **(2) Collection Rack, Top (E)**

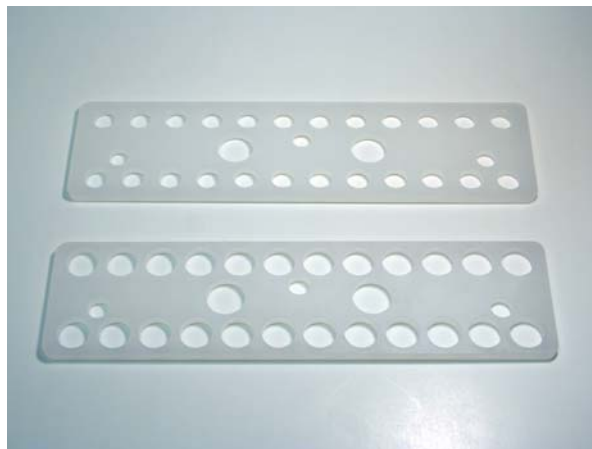


Figure 6: **(2) Collection Rack, Bottom (F)**



Figure 7: **Collection Rack Legs (G)**



Figure 8: **Collection Rack Clips (H)**



Figure 9: **Manifold Lid Legs (I)**



## Assembling the Manifold

Thermo Scientific HyperSep Glass Block Vacuum Manifold is assembled as follows:

- STEP 1      Insert vacuum gauge and valve assembly (C) into the glass block (A) *illustrated in Figure 10.*



Figure 10: Step 1

- STEP 2      Place glass block in safety tray (D) *illustrated in Figure 11.*



Figure 11: Step 2



STEP 3 Assemble collection rack by attaching the three collection rack legs (G) to bottom collection rack (F - small threaded holes). Using the collection rack clips (H), place the second bottom collection rack (F – larger, unthreaded holes) on to the collection rack legs. Using the remaining clips (H), attach the collection rack top (E) and place the entire collection rack into the glass block (A). *Illustrated in Figure 12.*



Figure 12: Step 3

STEP 4 Attach the four manifold lid legs (I) to the manifold lid (B) in the four holes located at the corners of the lid. *Illustrated in Figure 13.*



Figure 13: Step 4

STEP 5 Complete by placing the manifold lid (B) on top of the glass block (A). *Illustrated in Figure 14.*



Figure 14: Step 5

## **Software Installation**

No software is required for the use of this product.

## **Electrical Connection**

No electrical connections are required.

## **Initial Setup**

Once the system is installed 1mL, 3mL, 6mL, 15mL, 25mL, or 75mL SPE tubes are required for use.

## **Specifications**

System supplied with assembled manifold lid, adjustable collection rack, vacuum gauge and valve, and glass block. Vacuum source required for operation.

## **Computer Requirements**

A computer is not required for use of this equipment.

## **Safety Information**

The 16-Port and 24-Port Glass Block Vacuum Manifolds (60104-232/233) were designed for proper function, reliability and safety. This manual contains important safety information. Read this manual carefully and understand its contents before using this equipment.

### Warnings:

- Do not allow the vacuum level to exceed 500mmHg.
- Care should be given when pulling wash solutions. A liquid trap must be used to prevent liquids from reaching the vacuum source. Direct ingestion of liquids will damage most vacuum sources, including the oil-free vacuum pump.
- Always wear safety glasses when working with equipment under vacuum.

## Troubleshooting

### Finding Vacuum Leaks:

If you notice a slow flow rate or if the vacuum strength seems weak, you may have a leak in your system. Check the following to determine if there is a leak.

Are all of the ports being used? If you are not using all of the ports on the vacuum manifold, you should either cap them or use stopcocks to close them.

Are all the tubes connected? Loose or cracked tubing are common sources of vacuum leaks.

Are all stopcocks and cartridges firmly inserted into the ports? Twist each cartridge slightly while providing downward pressure will seat them more firmly.

Is the manifold lid seated properly on the glass block? A worn or torn lid gasket, damage along the rim of the glass block, or an obstruction between the lid and the glass block can contribute to a vacuum leak.

Is your vacuum source functioning properly? Check to make sure your vacuum source is pulling vacuum at levels you are expecting.

## Contact Information

### To Place an Order:

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