

# Vacuum Manifold

*For research use only*

**Catalogue Number**

ZVF03

## Introduction

Featuring a unique three-tier architecture, the Presto™ Vac 96 Well Vacuum Manifold (ZVF03) is an efficient system for manual DNA and RNA purification from 96 samples concurrently. This smart design stacks a top filter plate for debris removal, a middle binding plate for target capture, and a bottom waste tray to streamline 96-well plasmid purification into a single continuous run. A large pressure gauge allows for clear determination of vacuum pressure in both cm and inch Hg which can be easily adjusted with the ergonomically designed pressure regulator. Binding plates and filter plates seal tightly to the gasket when vacuum pressure is applied to facilitate uniform flowthrough. The waste tray allows for quick and easy disposal of reagent flowthrough and the flat spacer reduces the distance between the 0.35 ml collection plate and binding plate to ensure complete eluate collection. The compact yet robust design ensures stability during vacuum procedures for excellent reproducibility.

## Components:

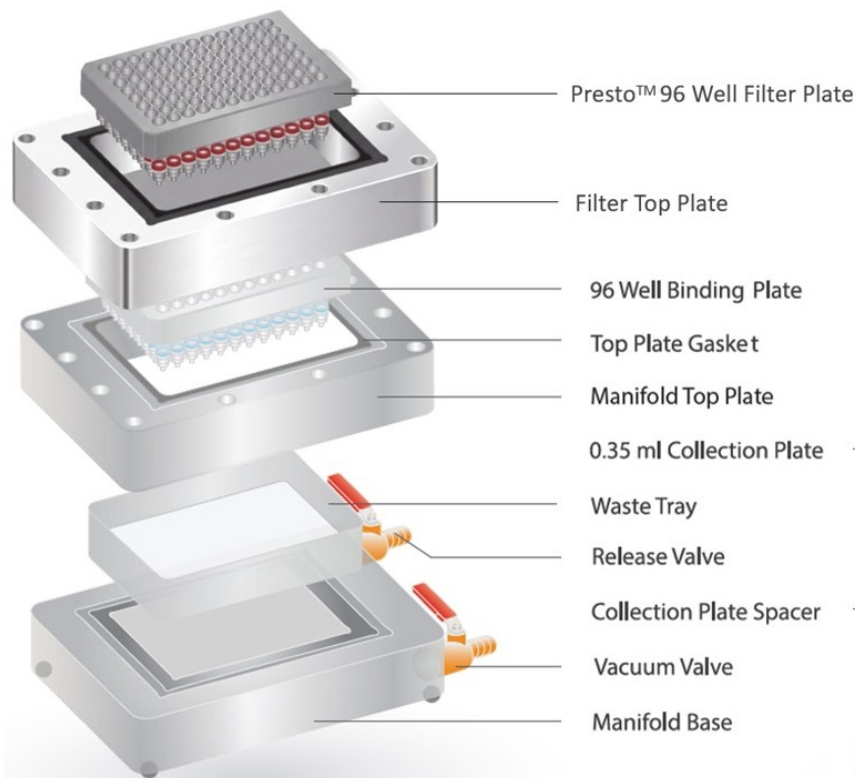
<b>1</b>	Manifold Base
<b>2</b>	Manifold Top Plate
<b>3</b>	Waste Tray

<b>4</b>	Collection Plate Spacer
<b>5</b>	Spin Column Adapter
<b>6</b>	Microcentrifuge Tube Adapter
<b>7</b>	Filter Top Plate

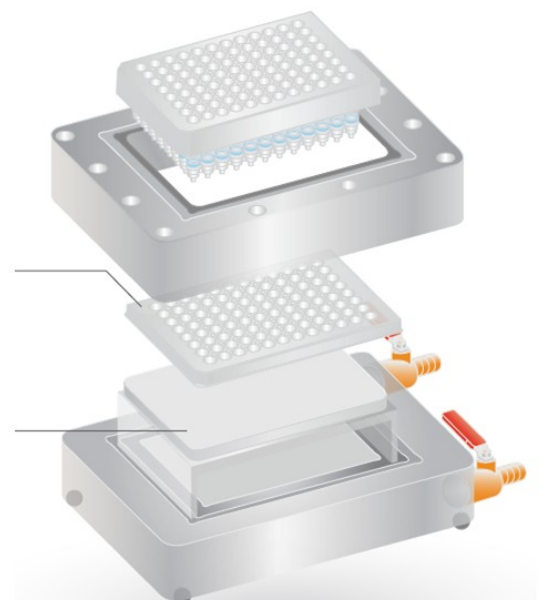
## Manifold Set up:

96 well plate format

- For DNA/RNA Binding, Wash steps



- For DNA/RNA Elution step



### Set up the Manifold:

- Place the manifold on a stable lab bench.
- Lift the Manifold Top Plate and Filter Top Plate off of the Manifold Base and set it aside.
- Place the Waste Tray on the Manifold Base then place the Manifold Top Plate back on the Manifold Base.
- Place a 96 Well Binding Plate on the Top Plate Gasket.
- Place the Filter Top Plate on the Manifold Top Plate. Place a Filter Plate on the Filter Top Plate Gasket.
- Make sure the Vacuum Valve and the Release Valve are in the closed position. When the Vacuum Valve and Release Valve handles are parallel to the valves, the valves are open. When the handles are perpendicular to the valves, the valves are closed.
- Connect the manifold to a vacuum source by attaching the vacuum hose to the Vacuum Valve. The manifold is now ready for DNA/RNA extraction following the 96 well kit extraction protocol.

### For DNA/RNA Binding and Wash steps:

- Turn on the vacuum source and open the Vacuum Valve.
- Pressing the 96 well plates down firmly will help seal the plates to the gasket more quickly. Adhesive film should be used to cover empty wells to improve efficiency.

NOTE: While the vacuum pump is turned on and the Release Valve is closed, the vacuum manifold will remain under vacuum pressure. Turn the vacuum pump off and open the Release Valve to release vacuum pressure.

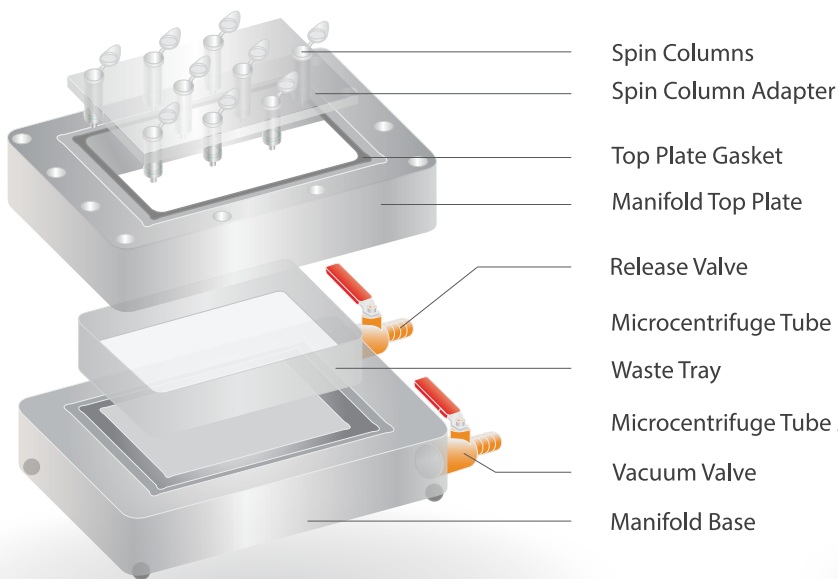
### For DNA/RNA Elution step:

- Prior to elution, the Waste Tray should be removed. Remove the Manifold Top Plate and set it aside.
- Place the Collection Plate Spacer on the Manifold Base then place a 0.35 ml Collection Plate on the spacer.
- Place the Manifold Top Plate back on the Manifold Base then place the 96 Well Binding Plate back on the Top Plate Gasket.
- Proceed according to the 96 well kit elution procedure.

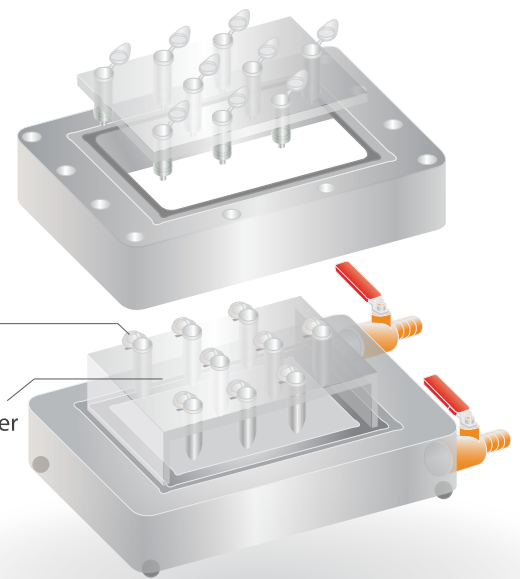
## Manifold Set up:

### Spin Columns format

- For DNA/RNA Binding, Wash steps



- For DNA/RNA Elution step



## Spin column procedure:

### Set up the Manifold:

- Place the manifold on a stable lab bench.
- Lift the Manifold Top Plate off of the Manifold Base and set it aside.
- Place the Waste Tray on the Manifold Base then place the Manifold Top Plate back on the Manifold Base.
- Place the Spin Column Adapter on the Top Plate Gasket.
- Insert the spin columns (or spin column/extension tube assembly) into the holes of the Adapter then push them firmly into position.  
Note: Adhesive film should be used to cover empty wells to improve efficiency.
- Make sure the Vacuum Valve and the Release Valve are in the closed position. When the Vacuum Valve and Release Valve handles are parallel to the valves, the valves are open. When the handles are perpendicular to the valves, the valves are closed.
- Connect the manifold to a vacuum source by attaching the vacuum hose to the Vacuum Valve.
- The manifold is now ready for DNA/RNA extraction following the spin column kit extraction protocol.

### For DNA/RNA Binding and Wash steps:

- Turn on the vacuum source and open the Vacuum Valve.
- Pressing the Spin Column Adapter down firmly will help seal it to the gasket more quickly.

NOTE: While the vacuum pump is turned on and the Release Valve is closed, the vacuum manifold will remain under vacuum pressure. Turn the vacuum pump off and open the Release Valve to release vacuum pressure.

### For DNA/RNA Elution step:

- Prior to elution, the Waste Tray should be removed. Remove the Manifold Top Plate with the Spin Column Adapter and set it aside.
- Place the Microcentrifuge Tube Adapter on the Manifold Base then insert the microcentrifuge tubes into the holes of the Adapter.
- Place the Manifold Top Plate with the spin columns back on the Manifold Base. Make sure the position of the spin columns and the microcentrifuge tubes are aligned.
- Proceed according to the spin column kit elution procedure.