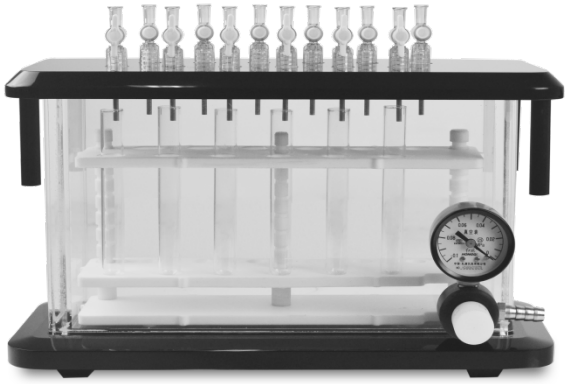
A Geno Technology, Inc. (USA) brand name

Solid Phase Extraction (SPE) Manifold

Cat. No. BT2105



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Thanks for choosing the **BT2105 SOLID PHASE EXTRACTION MANIFOLD**. This operation manual describes the function and operation of the instrument. Please read this manual carefully before operating the instrument.

INTRODUCTION

Solid Phase Extraction (SPE) is a widely used and popular sample pretreatment instrument, which uses solid adsorbent to adsorb the target compounds in the liquid sample and separate them from the substrate and the interfering compounds. It can separate and enrich the target compounds by eluent eluting or heating desorption

Key Features

- Good sealing, high consistency, no cross over, anti-atomization vacuum tank design.
- Simple operation, easy to collect the analysis component and can process small sample by no-phase separation operation
- Can be equipped with large capacity acquisition container, can handle samples in batches or individually.
- The vacuum tank is made of extra hard and thick acrylic, whose well-distributed wall thickness can bear the high negative pressure above -80kpa.
- The inner tube bracket is made of high polymer material, beautiful and corrosion-resistant, and can be used for a long time without deformation under high pressure
- The hydraulic switch with high quality valve, each independent valve control is durable which makes the operation more convenient.

SPECIFICATIONS

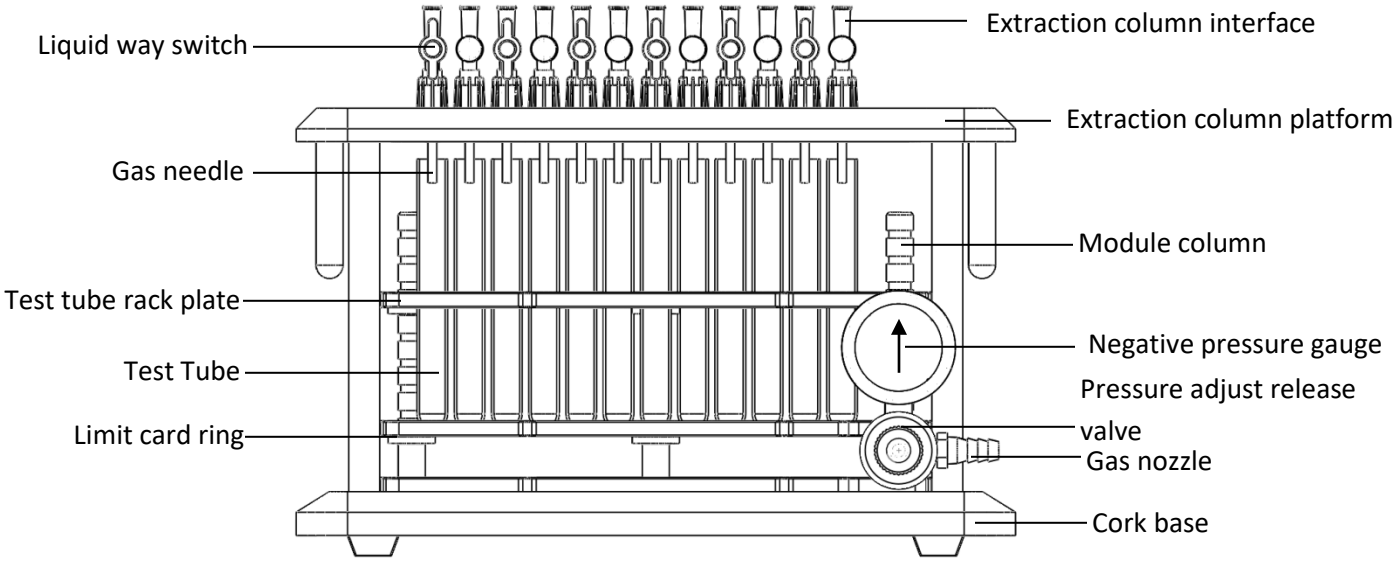
- Ambient temperature: 4°C-45°C
- The relative humidity: ≤70%
- Type and number of processing samples:
    - 10mm tube X 12
    - 12mm tube X 12
    - 15mm tube X 12
- Vacuum degree ≤-0.08Mpa
- Internal dimension of tank: 215x57x140mm
- Dimension (W x D x H mm) 280x150x214mm
- Net Weight(kg) 2.8kgs

VACUUM PUMP REQUIREMENT

- Negative pressure adjustment range : 0-0.08MPa
- Maximum flow : 250ml/1000ml

BT Lab Systems recommends

OVERVIEW



SET UP

1. Use a rubber hose to connect the nozzle of vacuum pump and the gas nozzle of the manifold.
2. Ensure that the extraction column tray assembly is properly covered on top of the cylinder.
   NOTE: *The groove at the bottom of the extraction column tray assembly shall be fitted with the upper mouth of the cylinder block and be level.*
3. Turn off all the liquid circuit switches by turning to a horizontal position.
4. Tighten the pressure adjustment/release button clockwise.
5. Turn the pressure setting knob of the vacuum pump to 75kpa.
6. Turn on the vacuum pump and observe the number on the pump pressure gauge and on the vacuum pressure on the pressure gauge of the manifold.
7. Turn on one liquid switch on the extraction column tray assembly by turning vertical and observe the number of pressure gauge.
8. When the number is lower than 70kpa, the vacuum pump should turn back on.
9. Turn off the power switch of the pump and release the pressure by turning the pressure adjust release valve counter clockwise.
   NOTE: *If the manifold does not perform as described, then check that the extraction column tray was properly covered, and the pressure relief valve is closed.*

OPERATION

Adjust the height of general test tube tray according to the length of test tube

1. Remove the tube holder from the manifold and adjust the height of the test tube rack plate so that the top of the tubes will be about 10mm below the top of the extraction column platform, secure with the horseshoe position clip.
2. Select the appropriate test tube rack plate and secure with the horseshoe position clip test tube. Return the tube holder to the manifold.
3. Fill with the appropriate tubes and reassemble the manifold, ensuring the column outlets are above the tubes.
   NOTE: *Make sure to use a vacuum trap between the manifold and the vacuum pump.*
4. Turn all the liquid circuit switches off and insert the columns into the manifold.
5. Tighten the pressure regulating relief valve which is in front of the extraction column tray by turning clockwise.
6. Turn on the vacuum pump to achieve the desired negative pressure.
   NOTE: *The negative pressure should be no more than -65kPa (-20Hg) to ensure the integrity of the manifold.*
7. Observe the pressure display on the vacuum pump (or gauge on the extractor), at this moment the negative pressure will gradually rise until the pressure value set by the pressure adjusting knob.
   NOTE: *If the negative pressure does not rise then press the extraction column tray against the vacuum chamber of the cylinder block.*
8. Load the columns with the samples and turn the liquid path switch on by turning clockwise.
   NOTE: *Adjusting the rotation of the switch can control the flowrate.*
9. When the sample extraction is completed, turn off the vacuum pump. Rotate the pressure of regulating relief valve counterclockwise to release pressure from the vacuum chamber of the cylinder block.
10. Carefully remove the tubes from the manifold.
    NOTE: *If the sample is not required to be collected, i.e. washing buffers, then these can be collected in the manifold without tubes. Make sure to use a vacuum trap between the manifold and the vacuum pump*

WARRANTY

BT Lab Systems' Solid Phase Extraction Manifold is warranted against defects in materials and workmanship for 1 year. If any defects occur in the instrument or accessories during this warranty period, BT Lab Systems will repair or replace the defective parts at its discretion without charge. The following defects, however, are specifically excluded:

1. Defects caused by improper operation.
2. Repair or modification done by anyone other than BT Lab Systems or an authorized agent.
3. Damage caused by substituting alternative parts.
4. Use of fittings or spare parts supplied by anyone other than BT Lab Systems.
5. Damage caused by accident or misuse.
6. Damage caused by disaster.
7. Corrosion caused by improper solvent or sample.

For any inquiry or request for repair service, contact your local BT Lab Systems office. Inform BT Lab Systems of the model and serial number of your instrument.

TECHNICAL SUPPORT

BT Lab Systems offers technical support for all of its products. If you have any questions about the product's use or, operation, please contact BT Lab Systems at the following info.

E-Mail: info@BTLabSystems.com