

Biotage® VacMaster™ Disk

User Manual



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CONTENTS

1 Overview

- 1 Specifications
- 1 Warranty and Liability
- 1 Safe Working Practices

2 Biotage® VacMaster™ Disk Setup

- 2 Multiple Units
- 3 Vacuum Pump Exhaust (Backside View)

4 Operation

- 4 Conditioning and Sample Loading
- 4 Elution
- 4 Clean the Biotage® VacMaster™ Disk Unit and Accessories

5 Consumables and Accessories

Overview

Biotage® VacMaster™ Disk extraction unit is a single port vacuum manifold that applies vacuum to the outlet of a solid phase extraction disk to assist in the extraction of aqueous or viscous samples. Multiple units can be connected to the same vacuum source to increase sample throughput.

VacMaster Disk is ideal for environmental SPE applications and allows for the use of both 47 mm and 90 mm disks as well as the DryDisk® Assembly for 65 mm separation membranes and the disposable Atlantic® ReadyDisk. The unit uses a 4-way valve in conjunction with a vacuum pump and three different waste containers to allow for segregation of waste.

Specifications

Dimensions (W X D X H)	130 x 170 x 210 mm (5.1 x 6.7 x 8.3 inches)
Weight	1.1 kg (2.4 lbs)
Materials	UHMWPE, brass, polypropylene, glass, viton, aluminum, polyethylene
Solvent Compatibility	<ul style="list-style-type: none"> » Acetone » Acetonitrile » Chloroform » Dichloromethane (methylene chloride) » Diethyl ether » Ethanol » Ethyl acetate » Heptane » Hexane » Isooctane » Isopropanol » Methanol » Methyl <i>tert</i>-butyl ether (MTBE) » Pentane » Water » Acidified Water (pH 2.0) acidified with HCl
Chemical Resistance	Wetted surfaces are all resistant to typical SPE reagents.

Warranty and Liability

See the “Biotage Terms & Conditions of Sale” document at www.biotage.com.

Safe Working Practices

- » Observe appropriate safety precautions when using Biotage® Solid Phase Extraction disks, VacMaster Disk stations, and related accessories.
- » Avoid eye and skin contact with harmful chemicals.
- » Use only approved glassware under vacuum.
- » Observe fire safety regulations.
- » Keep volatile chemicals in tightly sealed containers. Avoid breathing vapors.
- » Operate with appropriate ventilation.
- » Use personal protective equipment for eye and skin protection.
- » For specific guidelines, consult the Safety Data Sheet (SDS) for each chemical used.

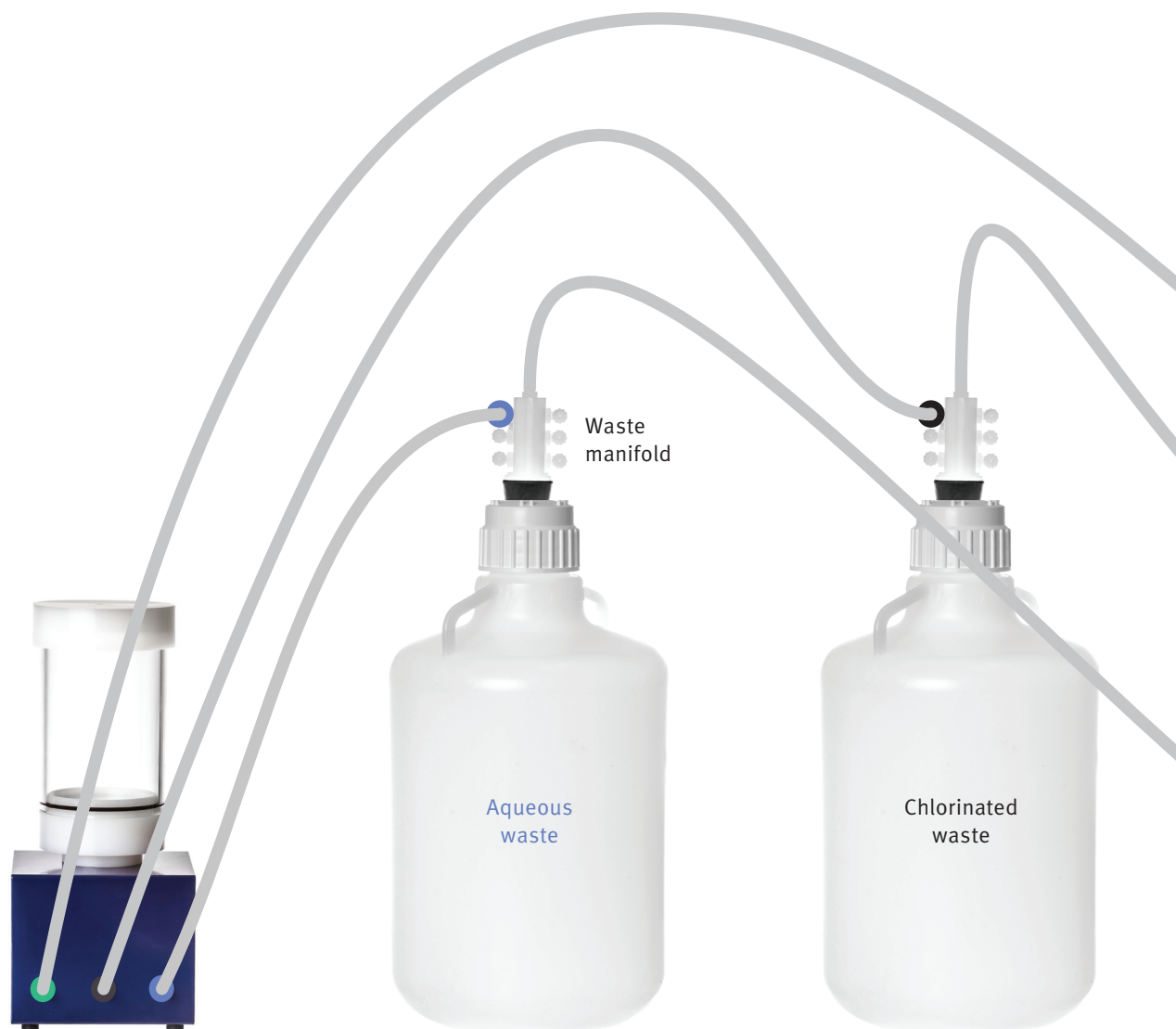


Biotage® VacMaster™ Disk Setup

VacMaster Disk can be operated either within a laboratory fume hood or on a bench top with the vacuum pump's exhaust port connected to a ventilation system.

Multiple Units

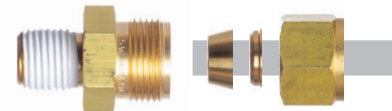
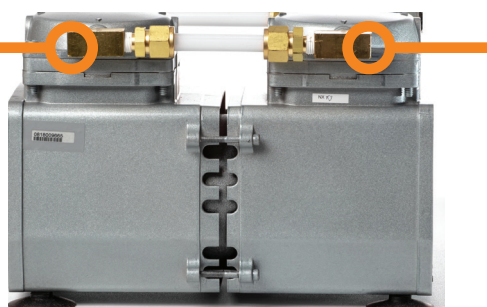
Each waste manifold has eight connections (see the picture below), which means that a maximum of eight VacMaster Disk units can be connected to the same waste vacuum source to increase sample throughput.



Vacuum Pump Exhaust (Backside View)



Plug one of the exhaust ports.



If required, connect an exhaust hose to the exhaust port.



Operation

Conditioning and Sample Loading

1. Place a disk inside a disk holder; see Figure 1. The VacMaster Disk unit is compatible with any Luer connected Solid Phase Extraction disk holders from Biotage.



Figure 1. The disk holder assembly for 47 mm and 90 mm SPE disks.

2. Adjust the vacuum to the required vacuum level for the method being utilized.
3. Remove the collection chamber and place the disk holder assembly or a disposable Atlantic® ReadyDisk directly onto the VacMaster Disk unit; see Figure 2.

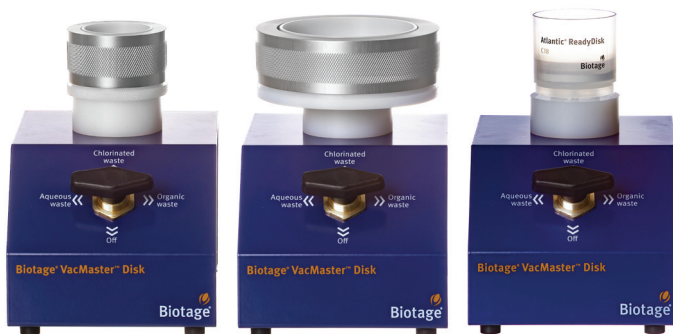


Figure 2. The disk holder assembly or disposable disk is placed directly onto the VacMaster Disk unit during the conditioning and sample loading. The picture shows a 47 mm SPE disk holder assembly, a 90 mm SPE disk holder assembly, and a disposable Atlantic® ReadyDisk.

4. Condition the disk per method requirements. Turn the 4-way valve to the correct waste location.

5. Add the sample directly to the disk by turning the bottle over onto the disk using a funnel, or by pouring it onto the disk by hand. Turn the 4-way valve to the correct waste location for your sample type.

Elution

6. Remove the disk holder assembly or disposable disk from the VacMaster Disk unit.
7. Place the glass chamber onto the unit with a suitable collection vessel inside; see Figure 3. A vial holder for 40 mL scintillation glass vials can be purchased separately.
8. Place the disk holder assembly or disposable disk on the top of the collection chamber and begin elution. Any waste location can be used for this step.



Figure 3. The disk holder assembly or disposable disk is placed on top of the collection chamber during the elution.

Clean the Biotage® VacMaster™ Disk Unit and Accessories

If the VacMaster Disk unit has been in contact with any solvents, allow the solvents to dry before trying to clean it. Attempting to dry off spilled solvents may damage the surface of the unit. Clean the surfaces of the VacMaster Disk unit using water and a non-abrasive liquid detergent; see the solvent compatibility list on page 1.

Clean the disk holder assemblies per standard lab procedures using a non-abrasive detergent. Do not use a dishwasher.

Consumables and Accessories

To order consumables and accessories, see contact information on the back of this document or visit our website www.biotage.com.

System Accessories

Part No	Description	Qty.
50-0300-01	Vacuum Regulator Assembly - Biotage® VacMaster™ Disk	1
50-0300-02	Waste Line Kit (for 2 Carboys)	1
50-5023-02	Waste Line Kit (for 3 Carboys)	1
50-2480-01	Vacuum Pump, 110V	1
50-2480-02	Vacuum Pump, 220V	1
50-2138	Waste Carboy Assembly	1
50-0051-02	H2O Vac Regulator Kit	1
50-0251	Collection Chamber	1

Oil & Grease Disks

Part No	Description	Qty.
1664-100-PHT	Pacific® Premium Disk, O&G, 90 mm	50
1664-47-PHT	Pacific® Premium Disk, O&G, 47 mm	50

SPE Disks

Part No	Description	Qty.
47-2346-02	Atlantic® C18 Disk, 47 mm	24
47-2346-06	Atlantic® DVB Disk, 47 mm	24
47-2346-08	Atlantic® HLB-L Disk, 47 mm	40
47-2346-09	Atlantic® HLB-M Disk, 47 mm	30
47-2346-10	Atlantic® HLB-H Disk, 47 mm	24
47-2346-11	Atlantic® One Pass Disk, 47 mm	24
47-2346-13	Atlantic® High Capacity C18, 47 mm	24
47-6001	Atlantic® ReadyDisk DVB	24
47-6005	Atlantic® ReadyDisk C18	24
47-6006	Atlantic® ReadyDisk HC-C18	24

Drying and Concentration

Part No	Description	Qty.
50-0914	DryDisk® Assembly 65 mm Complete	1
40-705-HT	DryDisk® 65 mm Separation Membrane	50

Prefilters

Part No	Description	Qty.
FFAP-100-HS1	Atlantic® Prefilter 90 mm, 1.0 µm coarse	50
FFAP-100-HS5	Atlantic® Prefilter 90 mm, 5.0 µm coarse	50
FFAP-77-HT	Atlantic® Prefilter, 47 mm, 5.0 µm coarse	50
FFP-47-HT	Pacific® O&G Prefilter, 47 mm	50
FFP-90-HT	Pacific® O&G Prefilter, 90 mm	50

Disk Holders

Part No	Description	Qty.
50-0807-01	47 mm Disk Holder	1
50-0809-01	90 mm Disk Holder	1
50-2766	FastFlow Disk Holder	1

Supporting Disk Holder Accessories

Part No	Description	Qty.
31-0454	47 mm Fine Mesh Screen Stainless Steel	1
31-0457	90 mm Fine Mesh Screen Stainless Steel	1
31-0661	47 mm Support Screen Stainless Steel	1
31-0662	90 mm Support Screen Stainless Steel	1
31-0663	47 mm Support Screen	1
49-0662	90 mm Support Screen	1

Collection Containers & Supporting Parts

Part No	Description	Qty.
03-0250	125 mL Erlenmeyer Flask, 24/40	1
99-0250-01	VOA Insert	1
160-0008	40 mL VOA Vial	72
02-0252-01	Multi Funnel for Disk Holders	1
150-0025	33 x 430 Cap Adapter For 1 L Narrow Mouth Bottle	1
150-0009-04	53 x 400 Cap Adapter For 1 L Wide Mouth Bottle	1
150-0006-01	89 x 400 Cap Adapter For 1 L Bottle	1

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