

Biotage® PhyPrep

Installation and Safety



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Installation

Warning

- » The system must be unpacked and installed by an authorized Biotage service engineer.
- » Follow regional safety practices when handling and moving shipping boxes and containers, and when moving the system.
- » Observe general and specific safety regulations for the use of the system and its accessories and consumables at all times, in order to reduce the risk of personal injury, fire, and/or explosion; see "Safety" on page 4.

Download User Documentation

The following user documentation is supplied with the system and can be downloaded at www.biotage.com:

- » Biotage® PhyPrep Installation and Safety, P/N 417327 (this document)
- » Biotage® PhyPrep User Manual, P/N 417343
- » Biotage® PhyPrep Quick Start Guide, P/N 417121

If you have problems downloading the user documentation, please contact your local Biotage representative. See contact information on the back of this document or visit our website www.biotage.com.

Software License Agreement

Biotage Sweden AB licenses the Biotage® PhyPrep software to you only upon the acceptance of all of the terms and conditions in the software license agreement supplied with the system. By using the software, you consent to be bound by and are becoming a party to that agreement.

Delivered Items

Note: We recommend that the boxes and packing materials are kept by the customer in case the system needs to be returned for service or moved to another location.

Check the delivery against the shipping documentation to ensure that all parts are included in the shipment. If any part of the order is missing or damaged, please contact Biotage® 1-Point Support™.

Site Requirements

Before the system is installed by an authorized Biotage service engineer, the installation site should be prepared as follows:

Location

Operate the system in a well-ventilated laboratory verified as meeting the requirements of a "non-hazardous area" with regards to potentially explosive atmosphere. If an internal system leakage occurs, liquids are collected on the tray underneath the system. The system must therefore be operated on a bench that has the capacity to handle leakage. Note that the maximum leakage volume is determined by the volume used in the tubes, reservoirs and wash containers and that the flow rate is determined by the flow rate setting for the run (up to 1000 mL/min).

Ensure that the location meets the requirements of the system regarding dimensions, weight, electrical supply, altitude, pollution degree, ambient temperature, and humidity; see "Technical Specifications" on page 3.

External Fire Protection

External fire protection should be installed according to local regulations.

Move the System

Warning

- » At least two persons are required when lifting the system.
- » Follow regional safety practices when moving the system.
- » Take the necessary precautions to avoid splashing when disconnecting the waste tubes.

If moving the system within the laboratory or between laboratories in the same building, follow the instructions below.

If you need to ship the system, please contact Biotage 1-Point Support for instructions.

1. When the system is not processing, shut it down:
 - a. Shut down the computer by pressing the **Shut Down** button on the home screen..
 - b. Turn off the system. The power switch is located on the left side of the system.
2. Unplug the power cords to and from the system.
3. Disconnect tubing for vacuum and waste.
4. Remove and empty all containers on the system bed.
5. If applicable, remove and empty the tray underneath the system.

- 6. Carefully lift the system by the base plate and place it on a trolley that can support the weight of the system. At least two persons are needed.
- 7. Move the trolley and the rest of the equipment to the new location.
- 8. Carefully lift the system by the base plate and place it in a location that meets the site and safety requirements. Place it in a position that allows access to the left side of the system. At least two persons are needed.
- 9. If applicable, place the leakage tray underneath the system.
- 10. Connect the system to a grounded (earthed) power outlet using the supplied power cord.
- 11. Level the system by adjusting the height of the four feet.
- 12. Connect the waste carboy to the waste port on the left side of the system (see Figure 2).

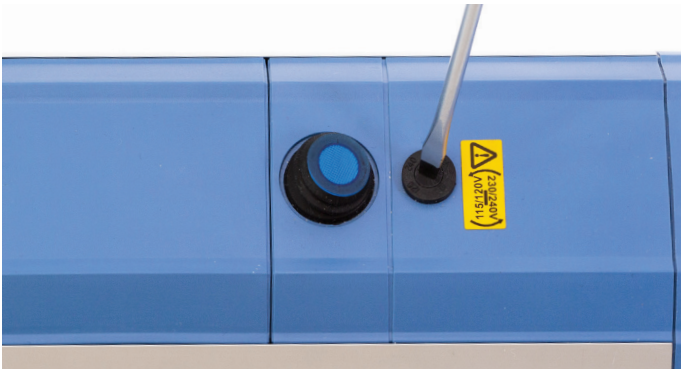


Figure 1. The voltage selection setting on the vacuum pump.

- 13. Connect the vacuum carboy to the vacuum port on the left side of the system (see Figure 2). Ensure that the voltage selection setting next to the power switch on the auxiliary vacuum pump (see Figure 1) is correct: 115/120 corresponds to 100-120 V supply voltage and 230/240 corresponds to 200-230 V supply voltage. If needed, use a flat blade screwdriver to change the setting.
 - 14. Connect the pump power cord to the system.
 - 15. Turn on the system.
- For instructions and more information, see the user manual (P/N 417343).

Connections

Power Supply and Communication Connections

Warning

- » Use only power cords supplied by Biotage. The cords should be inspected periodically and replaced if damaged.
- » The power cord plug must not be altered, and the plug should only be connected to a grounded outlet as per local and national regulations.



Figure 2. Connections on the left side of the system.

Label	Description
T4.0A	Fuse holder and power inlet.
Pump Mains Voltage Output	Only used for external auxiliary. Max current 2 A.
ETH	Connector for computer.
PC Mains Voltage Output	Only used for PC connection. Max current 1 A.
VACUUM	Connector for vacuum waste carboy.
WASTE	Connector for gravity waste carboy.

Tube Connections

Warning

- » Only use waste carboys supplied by Biotage.
- » To prevent leakage, inspect all tubes before each run to ensure that they do not show signs of wear or damage and that they are properly connected and tightened.
- » Use caution when finger tightening fittings to prevent stripped threads or crushed ferrules.
- » Use only tubing designed for the PhyPrep system and supplied by Biotage.
- » Take the necessary precautions to avoid splashing when disconnecting the waste tubes.

Technical Specifications

General System Specifications

Location	A laboratory with the capacity to handle leakage. For more information, see "Site Requirements" on page 1.
Ambient Temperature	Operating: 15°C to 32°C (59°F to 90°F) Storage and transportation: -25°C to 60°C (-13°F to 140°F)
Humidity	20% to 95% RH (non-condensing)
Altitude	Operation: up to 2000 m
Pollution Degree	The system shall be installed in a level 2 environment in accordance with EN 60664-1.
Electrical Supply	100-127, 220-240 VAC, 50/60 Hz. Connect only to a grounded outlet. Please be aware that if any auxiliary equipment is connected to the mains voltage output, it needs to be compatible with the supply connected to the instrument.
Fuses	T4.0A-250 VAC
Maximum Power Consumed	820 VA (100 VA for only the instrument)
Weight	48 kg (105 lbs) not including computer.
Dimensions (WxDxH)	Footprint (W x D): 530 mm x 720 mm (20.9" x 28.4") Height (H): 830 mm (32.7")
Interfaces	Ethernet port
Certification	CE and FCC marked and CB and NRTL certified

External Vacuum Pump Specifications

Power Consumption	Maximum power supply available from the instrument is 200 VA.
Pump Speed	The minimum pumping speed required is 0.7 m ³ /h.
Vacuum Level	Minimum absolute pressure at ultimate vacuum must be below 100 mbar.
Max Sound Level	60 dB using the supplied silencer accessory 70 dB without the silencer accessory

Operational Performance Specifications

Column Channels	2
Max Number of Preps	4 preps, 150-500 mL culture volume per prep.
Expected Plasmid Mass	1 - 10 mg per prep.

Safety

Intended Use

Biotage® PhyPrep from Biotage is intended solely for automating plasmid purification. The system must be operated in a laboratory environment by trained professionals. The system is not designed to be operated in a potentially explosive atmosphere. It is the responsibility of the customer to classify (zone) their particular environment in order to verify that it meets the requirements of a “non-hazardous area” with regards to potentially explosive atmosphere. All operations must be performed:

- » According to the user documentation delivered with the system.
- » According to instructions available at www.biotage.com.
- » According to instructions provided through dialogs appearing on the screen.
- » According to instructions given by the technical support staff from Biotage.
- » Within limits set by the system’s technical specifications.

Failure to follow these instructions and/or failure to operate within the limits set by the technical specifications may result in personal injury and/or equipment damage. Education, Training, and Competence

It is your responsibility to provide all applicable health and safety regulations to your personnel. You must also ensure that all personnel involved in the operation and maintenance of the system fulfill the following criteria:

- » Have the necessary education, training, and competence required for the intended use of the system.
- » Observe general and specific safety regulations for the use of the system and its accessories and consumables at all times, in order to reduce the risk of personal injury, fire, and explosion.

Warranty and Liability

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

Service

All service or upgrades must be performed by an authorized Biotage service engineer. Before handing over the system for

service, it should be emptied of liquid and cleaned from harmful residues.

It is the responsibility of the customer to inform Biotage 1-Point Support representatives if the system has been used with hazardous biological, radioactive, or toxic samples and/or other chemicals, prior to any service being performed.

When returning equipment to Biotage, this should be done in accordance with the material return procedures supplied separately by Biotage.

Labels

The following labels are used on the system.



In accordance with all the essential requirements of all applicable European product directives; see the Declaration of Conformity document.



In accordance with both U.S. and Canadian safety standards; see the Declaration of Conformity document.



In accordance with the Restriction of Hazardous Substances Directive; see “Restriction of Hazardous Substances (RoHS) Directive” on page 6 and the Declaration of Conformity document.



This device complies with part 15 of the FCC Rules. Operation is subject to the condition that this device does not cause harmful interference. For details, see the Declaration of Conformity document.



Subject to the Waste Electrical and Electronic Equipment (WEEE) Directive; see “WEEE Compliance Statement” on page 6.



Manufacturer.



Consult accompanying user documentation.

Safety Requirements

You must observe all safety requirements when installing and operating the system. Failure to install or use the system in the manner specified by Biotage may result in personal injury and/or equipment damage.

If the system has been damaged or does not function properly, shut it down immediately and contact Biotage 1-Point Support (www.biotage.com).

Installation

- » The system must be unpacked and installed by an authorized Biotage service engineer.
- » Follow regional safety practices when handling and moving shipping boxes and containers, and when moving the system.
- » Keep the mains plug easily accessible in case the system needs to be disconnected quickly from mains power.
- » Ensure that the power cord, cables, and tubing connected to the system cannot come in contact with chemicals. Corrosives and solvents can degrade the cord/cable insulation and dissolve the tubing causing a risk of electric shock, fire, and/or equipment damage.
- » External fire protection should be installed according to local regulations.
- » Operate the system in a well-ventilated location verified as meeting the requirements of a “non-hazardous area” with regards to potentially explosive atmosphere. If an internal system leakage occurs, liquids are drained through drain ports underneath the system. The system must therefore be operated in a location that has the capacity to handle leakage. Note that the maximum leakage volume is determined by the volume used in the tubes, reservoirs and wash containers and that the flow rate is determined by the flow rate setting for the run (up to 1000 mL/min).
- » Do not connect any accessory to any port other than what is specified in the user documentation.

Operation

- » The system shall be used in accordance with the instructions found in the user documentation supplied by Biotage.
- » The instrument must be connected to a power supply with the specifications 100-127 or 220-240 VAC, and 50/60 Hz.
- » The instrument must be connected to a grounded outlet.
- » Please be aware that if any auxiliary equipment is connected to the mains voltage output, it needs to be compatible with the supply connected to the instrument.

Power Supply and Fuses

- » Use only a power cord supplied by Biotage. The cord should be inspected periodically and replaced if damaged.
- » The power cord plug must not be altered, and the plug should only be connected to a grounded outlet as per local and national regulations.
- » Use only an exact replacement fuse specified by Biotage. An incorrect fuse create a potential fire hazard.

Chemicals and Waste

- » Only use waste carboys that are supplied by Biotage for PhyPrep.
- » Electrical equipment can introduce ignition hazards. Ensure that all chemical manufacturers’ recommendations are followed with respect to handling, ventilation, and operating environment.
- » Monitor the gravity and vacuum waste carboys to prevent overflow during operation.
- » All samples and waste should be treated as potentially biohazardous.
- » Take the necessary precautions to avoid splashing when disconnecting the waste tubes.

Lab Safety Procedures

- » Follow all generally-accepted lab safety procedures and applicable laws and regulations.
- » Personnel working with or near the system must wear protective clothing, safety gear, and eye protection in accordance with applicable local and national safety regulations.
- » The system uses chemicals. Always follow local and national safety regulations and the chemical manufacturer’s safety, handling, storage, and disposal recommendations; refer to the safety data sheets (SDS).

Leakage and Maintenance

- » Always handle leakage immediately. If leakage is observed, shut down the system and disconnect the power cord. For more information, see the supplied user manual.
- » Follow all maintenance instructions in the “Maintenance” chapter in the supplied user manual.
- » There are potentially lethal voltages inside the system. Do not remove the cover panels; there are no user serviceable parts inside. If you experience a problem with your system, please contact Biotage 1-Point Support immediately (www.biotage.com).

External Tubing and Fittings

- » All tubing should be connected according to the instructions in the user documentation supplied by Biotage.
- » To prevent leakage, inspect all tubes before each run to ensure that they do not show signs of wear or damage and that they are properly connected and tightened.
- » Use caution when finger tightening fittings to prevent stripped threads or crushed ferrules.
- » Use only tubing designed for the PhyPrep system and supplied by Biotage.

Restriction of Hazardous Substances (RoHS) Directive

The RoHS directive is a European Union-derived initiative in which the elimination of certain hazardous substances is the key objective. The elimination of these substances will contribute to the protection of human health and the environmentally sound recovery and disposal of equipment.

WEEE Compliance Statement

Valid for customers in EU countries



We are committed to being a good corporate citizen. As part of that commitment, we strive to maintain an environmentally conscious manufacturing operation. The European Union (EU) has enacted a directive on product recycling (Waste Electrical and Electronic Equipment, WEEE).

Products falling under the scope of the WEEE Directive are identified with a crossed over “wheelie bin” symbol on the product label, as indicated to the left. To forward a product for recycling or proper disposal, return them to Biotage Sweden AB.

Before forwarding a product for recycling or disposal, it should be emptied of all liquid and cleaned from harmful residues. When returning a product to Biotage, this should be done in accordance with the material return procedures supplied separately by Biotage.

Safety in Other Languages

Translated versions of the safety chapter are supplied with the system and can be downloaded at www.biotage.com. If you have problems downloading the safety translations, please contact your local Biotage representative.

See contact information on the back of this document or visit our website www.biotage.com.

General Information

Consumables and Accessories

Only genuine Biotage consumables and accessories must be used in the system. To order consumables and accessories, see contact information on the back of this document or visit our website www.biotage.com.

Manufacturer



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Notes

Your Complete Partner for Effective Chemistry

Biotage is a worldwide supplier of instruments and accessories designed to facilitate the work of scientists in life sciences. With our deep knowledge of the industry, academic contacts and in-house R&D teams, we can deliver the best solutions to your challenges. We take great pride in our flexibility and ability to meet our customer's individual needs. With strong foundations in analytical, organic process, and biomolecule chemistry, we can offer the widest range of solutions available on the market.

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