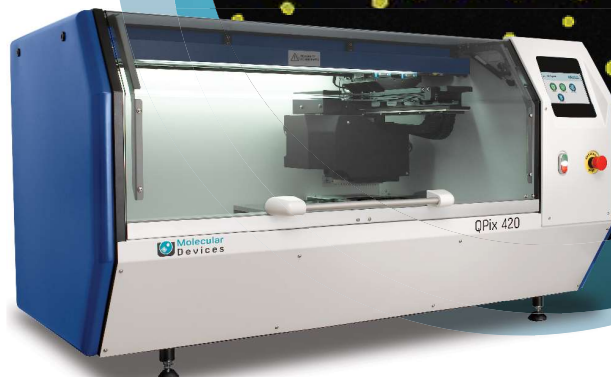


PRE-INSTALLATION GUIDE

QPix 400 Series Microbial Colony Pickers



Welcome to the family of Molecular Devices QPix® 420, 450, and 460 Microbial Colony Pickers users. This document provides you with the necessary information to prepare your facility for the installation of your new QPix 400 Series system.

This document will cover the following topics:

- Environment requirements
- Space and table requirements
- Power requirements
- Facility receiving requirements
- Utility, Water, Other Service, and Safety Precautions and Hazard Identification sections
- Service and Support

Environment Requirements

Indoor use only

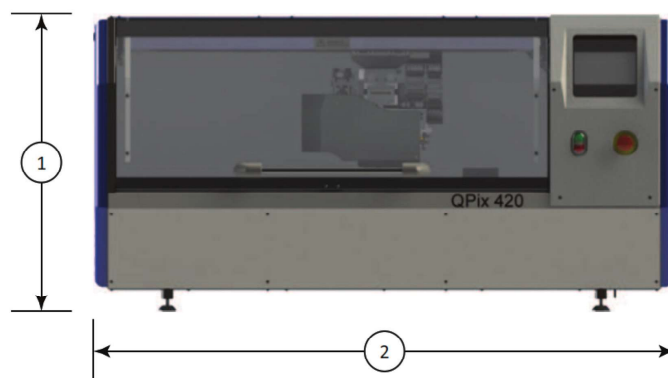
Temperature	10°C to 40°C
Humidity	20 to 80% non-condensing
Altitude	Up to 2000M
Mains supply	+/- 10% Rated Voltage
Transient overvoltage	Installation category (Overvoltage category) II

Space and Table Requirements

The size and weight for the instrument portion of the QPix 400 Series systems are provided below. The instrument should be accessible on the front, sides, and back of the instrument to allow service access to the filters and other preventative maintenance replacement parts.

The QPix 450 or 460 systems includes a table. For the QPix 420 system, the table is optional, however, it is highly recommended. Third-party tables should have the capacity of 907 kg, or more. A clamp is required to prevent the instrument from sliding caused by excessive shaking.

- QPix 420 system weight: 184 kg (405.7 lb)
- QPix 450/460 system weight: 250 kg (551.2 lb)



Front view of the QPix 420 Colony Picking systems with dimensions.
(1) Height of instrument: 78 cm (30.7 in.) (2) Width of instrument: 144 cm (56.7 in.)

Power Requirements

230 VAC ±10%, 50 Hz, 1250 VA maximum
 115 VAC ±10%, 60 Hz, 1250 VA maximum
 100 VAC ±10%, 50/60 Hz, 1250 VA maximum

Facility Receiving Requirements

Only Molecular Devices personnel are authorized to open the crates.

Equipment will arrive in two crates. Shipping crate dimensions and weights are shown below. Crates must be stored inside and protected from environmental extremes until equipment is removed. The instrument crate requires 10 feet of clearance on one side to allow removal of the instrument from the crate.

QPix 420 system – depending on options it can have 2 or 3 crates				
	L	W	H	Weight
Instrument crate	105 cm (41 in.)	165 cm (65 in.)	110 cm (43 in.)	260 Kg (572 lb)
Accessory crate	95 cm (37 in.)	120 cm (47 in.)	100 cm (39 in.)	140 Kg (308 lb)
Table/compressor crate	125 cm (49 in.)	215 cm (85 in.)	110 cm (43 in.)	280 Kg (616 lb)
QPix 450 or 460 systems – 2 crates				
Instrument crate	105cm (41 in.)	239 cm (94 in.)	112 cm (44 in.)	400 Kg (879 lb)
Accessory crate	127 cm (50 in.)	218 cm (86 in.)	112 cm (44 in.)	358 Kg (788 lb)

Utility, Other Service, Safety Precautions and Hazard Identification

Compressed Air

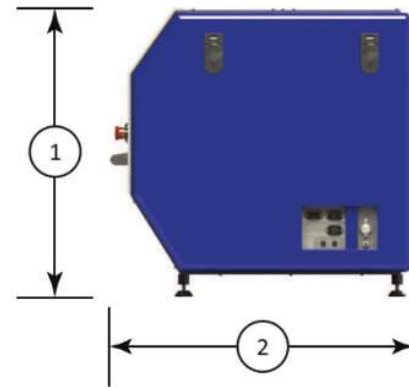
Compressed air is required for the picking movement of the picking pins. The optional oil-free compressed air unit draws air from the local environment and delivers it to the instrument through the regulator set to 100 psi (0.69 MPa).

Transport and Storage

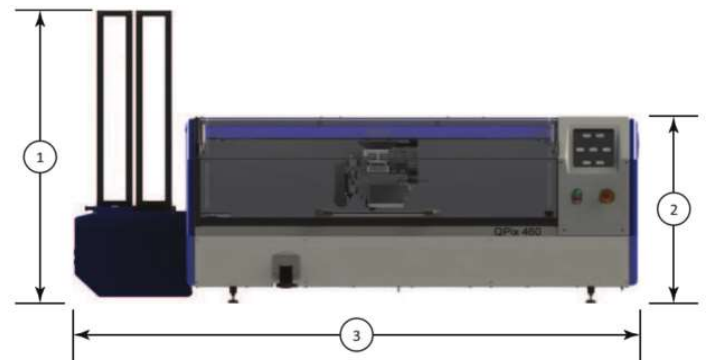
The instrument must be stored and transported in temperatures within the range -25°C (-13°F) to +55°C (131°F).

The instrument should not be moved after installation. If relocation is necessary, standard lifting gear is adequate but should be undertaken only in the presence of a Molecular Devices approved engineer.

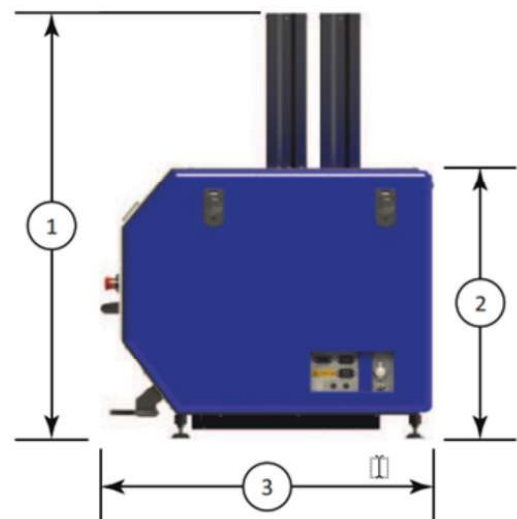
The instrument should be moved into position using appropriate handling equipment such as forklift trucks or dolly trucks. The machine should be properly balanced on the forks prior to lifting.



Side view of the QPix 420 Colony Picking systems with dimensions. (1) Height of instrument: 78 cm (30.7 in.) (2) Depth of instrument: 79 cm (31.1 in.)



Front view of the QPix 450 Colony Picking system or QPix 460 Colony Picking system with dimensions. (1) Height of instrument with stacker cassettes: 122 cm (48.0 in.) (2) Height of instrument without stacker cassettes: 78 cm (30.7 in.) (3) Width of instrument: 217 cm (85.4 in.)



Side view of the QPix 450 Colony Picking system or QPix 460 Colony Picking system with dimensions. (1) Height of instrument with stacker cassettes: 122 cm (48.0 in.) (2) Height of instrument without stacker cassettes: 78 cm (30.7 in.) (3) Depth of instrument: 79 cm (31.1 in.)

Important note: Do not use any part of the exterior bodywork to lift the instrument as this may cause irreparable damage.

External or Implanted Medical Device Safety

Motors and their related drives and cabling are sources of electromagnetic fields. Persons with external or implanted medical devices need to evaluate the risks related to these devices before entering an area where the instrument is in use. Keep magnetic storage devices or strips, such as hard drives and credit cards, away from the instrument.

WARNING! Due to the presence of electromagnetic fields, if you wear an external or implanted medical device, keep 300 mm away from the drive magnets.

Electrical Safety

The instrument must be connected to a properly earthed power outlet to protect users from the risk of electrical shock. The main chassis of the instrument is earthed together with all associated electrical components. Do not remove any of the fixed covers, as there are no user serviceable parts inside. All internal work should be referred to Molecular Devices approved service personnel. In the event of a liquid spillage into the base cavity of the robot, the power supply must be disconnected at the mains before any attempt is made to clean up the spillage. There should not be any spillage from the Wash Bath in normal use with the Wash Station correctly set up. However, spill trays have been fitted where appropriate.

WARNING! HIGH VOLTAGE. Within the instrument is the potential of an electrical shock hazard existing from a high voltage source. All safety instructions should be read and understood before proceeding with the installation, maintenance, and servicing of all modules. Always turn the power switch off and disconnect the power cord from the main power source before performing a maintenance procedure that requires removal of a panel or cover or disassembly of an interior instrument component.

Moving Parts Safety

The motors use high-powered magnets. The linear drive units and encoders are delicate, so be very careful with them. To prevent serious damage to the instrument or its auxiliary parts, follow the preparation instructions the System User Guide before every process.

WARNING! Do not obstruct or otherwise prevent access to the Emergency Stop button.

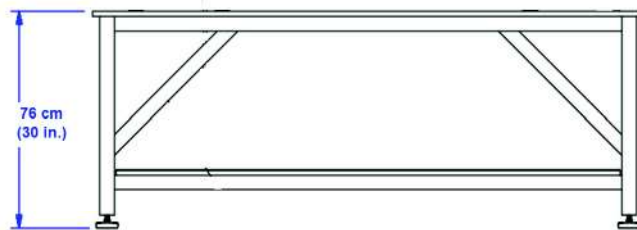
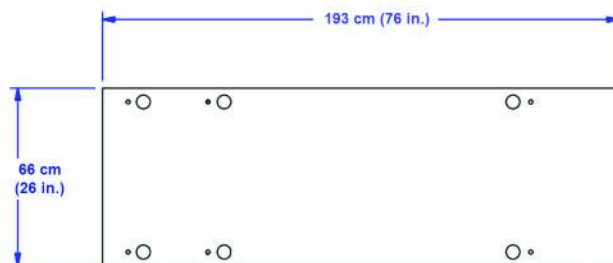
Safety Features

Door: The instrument is equipped with an automatically locking door that locks whenever you run a process. The door is made from acrylic, and so prevents UV light from passing through during operation. As a safety measure, if the door is open, an electromagnetic switch prevents the instrument from running. This switch should never be tampered with, as it serves two purposes: It prevents the motors from running to reduce the potential of physical damage, and it disables the UV light to prevent the risk of damage from UV radiation.

UV light: QPix 400 Series system is fitted with a UV germicidal lamp with timer. This is a 30 W linear discharge lamp with a sharply defined output at 253.7 nm making the lamp an efficient source germicidal radiation.

Emergency Stop button: Pressing the Emergency Stop button will immediately stop the instrument and cut power from the drives. The button must be pulled out before the machine can be restarted.

Noise level: Maximum sound pressure at one meter: 70 dBA.



*Optional table for QPix 420 system.
Measurements: 193 cm (76 in.) L X 66 cm (26 in.) W X 76 cm (30 in.) H.
Weight: 83 Kg (180 lb)
Capacity: 907 Kg (2000 lb)*



Optional compressor. Weight: 45 Kg (99.2 lb)
Measurements: 440 mm (17 in.) L X 440 mm (17 in.) W X 613 mm (24 in.) H

Support and Service

Only a QPix 400 Series system trained Molecular Devices engineer is authorized to install or uninstall the instrument.

For support or service, please contact us at:

Web: www.moleculardevices.com/support

www.moldev.com/support

Contact Us

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Email: info@moldev.com

Check our website for a current listing of worldwide distributors.

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