

ROBOTIQ

POWERPICK MULTI

GRIPPER

Original instructions (en)

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Robotiq PowerPick Multi Vacuum Gripper

User Manual

Table of Contents

Revisions 4

1. General Presentation 6
1.1. Disclaimer 6
1.2. Nomenclature 6

2. Safety 8
2.1. Disclaimer 8
2.2. Risk Assessment 9
2.3. Use of the PowerPick Multi Vacuum Gripper 11

3. Installation 13
3.1. Required Tools and Equipment 13
3.2. Scope of Delivery 14
3.3. Environmental and Operating Conditions 16
3.4. Air Supply 17
3.5. Reception of the Product 17
3.6. Mechanical Installation 18
3.7. Electrical Installation 37
3.8. Supply Pressure Adjustment 38
3.9. Configuration Steps and Tips 39

4. Software 42
4.1. Robotiq Gripper URCap 42
4.2. Vacuum Gripper Selection 43
4.3. Vacuum Gripper Toolbar 44
4.4. PowerPick Node 45

5. Specifications 50
5.1. Technical Dimensions 50
5.2. Mechanical Specifications 53
5.3. Tool Center Point and Center of Mass 54
5.4. Electrical Specifications 56
5.5. Control Specifications 56

6. Maintenance 57

6.1. Safety Measures 57
6.2. Maintenance 58
7. Spare Parts, Kits and Accessories 61
8. Troubleshooting 63
9. Warranty 64
9.1. Conditions 64
9.2. Warranty Void and Exclusions 65
10. Harmonized Standards 66
11. Appendix 67
12. Contact 68

Revisions

Robotiq may modify this product without notice, when necessary, due to product improvements, modifications or changes in specifications. If such modification is made, the manual will also be revised, see revision information. See the latest version of this manual online at robotiq.com/support.

2026/03/20

Added Motion Stabilizer Kit and Triple Pick Stabilizer Kit.

2025/05/26

Initial release.

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Information provided by Robotiq in this document is believed to be accurate and reliable. However, no responsibility is assumed by Robotiq for its use. There may be some differences between the manual and the product if the product has been modified after the edition date.

The information contained in this document is subject to change without notice.

1. General Presentation

1.1. Disclaimer

The terms Gripper, PowerPick Multi Gripper, PowerPick Multi Vacuum Gripper and PowerPick Multi used in the following manual all refer to the Robotiq PowerPick Multi Vacuum Gripper. The Robotiq PowerPick Multi Vacuum Gripper is a robotic device designed for industrial applications. The vacuum is generated with a venturi system that uses compressed air as an energy source. It is an end-of-arm tool designed to pick, place and handle a range of items (typically cardboard boxes) of varying sizes and weights.

	NOTICE
	The following section presents the key features of the Robotiq PowerPick Multi Vacuum Gripper and must not be considered as exhaustive and comprehensive for the operation of the Gripper. Each feature is detailed in the appropriate section.

1.2. Nomenclature

1.2.1. PowerPick Multi Gripper

The PowerPick Multi is an array of cup grippers with an integrated vacuum generator. The integrated vacuum generator is a dual-channel electrical and pneumatic device composed of two solenoid valves, two pressure sensors and two vacuum generator cartridges.

The PowerPick Multi Gripper is an intermediate control device, connected to the robot wrist and the control box via I/O cable and air tubes to create and release the vacuum. It uses the negative pressure generated by the integrated vacuum generation unit to create a vacuum and, through the multiple suction cups, lifts, holds and moves boxes and other objects weighing up to 21 kg (46 lb) when used with the default PowerPick Multi suction cups PIAB BX52P (24x), or up to 30 kg (66 lb) when used with the optional PowerPick Multi suction cups PIAB B52XP (24x).

To simplify this manual, the word “box” will be used to represent the item to be handled with the Gripper. The PowerPick Multi Gripper is directly installed on the wrist of the robot, without a coupling interface.

	NOTICE
	Payload may be limited by the chosen robot and choice of accessories.



Fig. 1: PowerPick Multi Gripper, Default Configuration

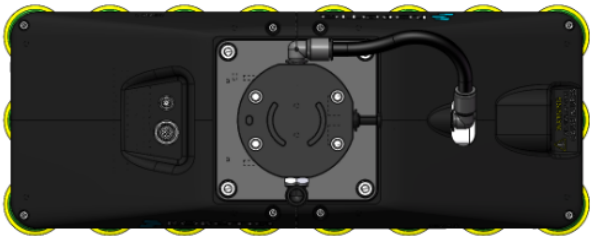


Fig. 2: PowerPick Multi Gripper, Default Configuration (top view)

2. Safety



CAUTION

Any user of the Robotiq PowerPick Multi must have read and understood all of the instructions in the following section before operating it. It is the installer/operator's responsibility to ensure that all local safety measures and regulations are met.

2.1. Disclaimer

The intent of this section is to provide general guidelines for safe use of the PowerPick Multi Vacuum Gripper.

Always follow local rules and regulations. The installer is responsible for the safe installation and commissioning of the PowerPick Multi Vacuum Gripper.

Robotiq accepts no liability for damage, injury or any legal responsibility incurred directly or indirectly from the use of this product.

The user (installer and operator) shall observe safe and lawful practices including but not limited to those set forth in this document.

The term operator refers to anyone responsible for any of the following operations on the Robotiq Vacuum Gripper:

- Installation
- Control
- Maintenance
- Inspection
- Calibration
- Programming
- Decommissioning

This manual covers the various components of the PowerPick Multi Vacuum Gripper and the general operations regarding the whole life-cycle of the product, from installation to operation and decommissioning.

The drawings and photos in this manual are representative examples. However, discrepancies may be observed between the visual supports and the actual product.



WARNING

Any use of the PowerPick Multi Vacuum Gripper in non-compliance with these instructions is deemed inappropriate and may cause injury or damage.

2.2. Risk Assessment



DANGER

Exhaust air stream can cause injuries. Avoid being close to the gripper during operation and always wear safety glasses.

2.2.1. General Risk Assessment

The robot, the Gripper and any other equipment used in the final application must go through a comprehensive risk assessment process before they can be used.

The following non-exhaustive list presents risks that must be assessed during the integration process:

- Risk of injuries caused by the air streams from the gripper exhausts
- Risk of contact between body parts and the Gripper and/or suction cups;
- Risk of load ejection resulting from cut IO cable ;
- Risk of load ejection resulting from loss of vacuum;
- Risk of load ejection resulting from loosened fasteners on the end effector;
- Risk of load dropping resulting from cut IO cable;
- Risk of load dropping resulting from loss of vacuum;
- Risk of load dropping resulting from loosened fasteners on the end effector;
- Risk of pinching between the Gripper and the items being handled, or other objects in the environment;
- Risk of injury resulting from misuse of the product;
- Risk of entanglement of the tool cables resulting from inappropriate robot cable management.

Depending on the application, configuration and items being handled, additional hazards may be present. For instance, the boxes handled by the Gripper could be inherently dangerous to the operator. Such hazards may require additional protection or safety measures (e.g., light curtains, safety scanners, enclosure, etc.).

To ensure an adequate level of safety, floor markings must be applied to delineate safe zones around the work cell. It is the responsibility of the integrator to establish the proper safe distance from the work cell to protect the user.

The software allows for the limiting of the robot's speed, force and working area in order to reduce residual risk. These measures can namely give the operator more time to react appropriately, and reduce the robot’s brake time.



WARNING

Collisions between a person and the PowerPick Multi Gripper may result in material damage, bodily injury and even death. Anyone in the vicinity of the work cell should take the necessary precautions.

Make sure no individual or asset is in the vicinity of the robot and/or Gripper prior to initializing the robot.

Always keep body parts and clothing away from the Gripper while the device is powered on.

Do not use the Gripper on people or animals.

Never stand under suspended loads held by the Gripper.

Secure the Gripper properly before operating the robot.

Always meet the Gripper payload specifications.



WARNING

Maintenance and repair work on electrical equipment must only be carried out by qualified and authorized personnel.

Never supply the PowerPick Multi Vacuum Generator with power from an alternating current source.

Make sure that the PowerPick Multi I/O and Tool I/O cables are always secured at both ends.

2.2.2. Noise Level

At the optimal pressure (please refer to the **Specifications** section), the noise level at the workstation is 79 dBA. Noise level may increase if objects or surfaces are close to the PowerPick Multi Vacuum Generator, in the direction of the exhaust flow. Hearing protection is recommended but not mandatory. Make sure that all local safety measures and regulations are met.

2.2.3. Pneumatic Limitations

- The maximum permissible pressure of all pneumatic components must never be exceeded (8 bar).
- Pneumatic tubing must be inspected at regular intervals and, if necessary, replaced (please refer to the Maintenance section for more details).
- Leaky connections must be sealed to avoid breakage, unnecessary or excessive noise, loss of energy, etc.
- Loss of vacuum can occur due to power failure or air supply interruption.



WARNING

Make sure that the air tubes are properly secured before pressurizing the PowerPick Multi Gripper using the provided safety clips and t-wraps.

Make sure that the air tubes are not pressurized before removing the air supply tube or any other air tube from the PowerPick Multi Vacuum Gripper.

Never operate the PowerPick Multi Gripper with leaking or worn parts.

2.3. Use of the PowerPick Multi Vacuum Gripper

The PowerPick Multi Vacuum Gripper is designed to pick, place and handle cardboard boxes. If the Gripper is used for other applications, make sure to consider the type of item to be handled in the risk assessment (please refer to the General Risk Assessment section) and take the appropriate safety measures.



CAUTION

The Gripper is NOT intended for applying force against objects or surfaces.





DANGER

Always wear safety glasses when operating the PowerPick Multi due to potential air streams from the gripper on the robot wrist. Keep clear of the gripper during operation to prevent injury from exhaust air.



DANGER

- Qualified personnel only for installation; wear safety glasses.
- Pinch hazard: Keep hands and fingers clear when activating the vacuum between the gripper and box.
- Loss of grip hazard: Never stand directly under or in the projection zone of the gripper. A sudden loss of vacuum can cause serious injury or death from dropped or ejected boxes. Conduct a thorough risk analysis focusing on box drop/projection risks.
- Loss of grip hazard: Wear safety toe shoes near the gripper's projection zone.

- Only use the Gripper in its original condition without unauthorized modifications.
- Only use the Gripper if it is in perfect technical condition.
- Follow all safety rules and regulations of the workplace when installing, operating and performing maintenance work on the Gripper.
- Wear all recommended personal protective equipment in accordance with the safety standards of the workplace, including but not limited to safety glasses, hearing protection, safety footwear, head protection.
- Handle with care any tool that contains sharp edges, pinching surfaces or generate heat.
- Comply with local, state, province and/or federal laws, regulations and directives regarding automation safety and general machine safety.

The unit should be used exclusively within the range of its technical data. Any other use of the product is deemed improper and unintended. Robotiq will not be liable for any damages resulting from any improper or unintended use.

When manually moving the Gripper installed on the robot (e.g., for teaching, maintenance, inspection purposes) make sure not to insert fingers through bracket cut outs and openings.

Make sure that all workers who operate the Gripper have received the appropriate training to do so in a safe manner.

Perform all necessary maintenance work periodically as specified in the Maintenance section.

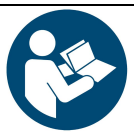
3. Installation

3.1. Required Tools and Equipment

This section will guide the user through the installation and general setup of the Robotiq PowerPick Multi Vacuum Gripper.

Before installing:

- Read and understand the safety instructions related to the PowerPick Multi Vacuum Gripper. Please refer to the Safety section for more information.
- Verify the package according to the scope of delivery and the order.
- Make sure to have the required parts, equipment and tools listed in the scope of delivery.
- Make sure to meet the recommended environmental conditions.



NOTICE

This manual uses the metric system. Unless specified, all dimensions are in millimeters.



WARNING

When installing:

- Do not operate the PowerPick Multi Vacuum Gripper or even turn on the power supply before confirming the device is firmly attached and the work area is clear.
- Make sure that the air supply source is secured.
- Failure to properly secure and install the equipment can result in material damage and bodily injury.

If the installation is not performed in compliance with the manufacturer's instructions, the warranty will be void.

3.2. Scope of Delivery

3.2.1. PowerPick Multi Vacuum Gripper Kit

- 1x PowerPick Multi Gripper with integrated vacuum generator
- Hardware Kit
  - 4x M8 x 45 mm hex Flanged socket head cap screw
  - 4x Washer M8 Belleville washer
- Accessory Kit
  - 1 x 6 mm hex key, L-shape
  - 1 x 12 mm Pneumatic Tube (250 mm)
  - 1 x 12 mm Pneumatic Tube (315 mm)
  - 2 x Pneumatic Connector 12mm Safety Clip
  - 6 x Pneumatic Connector Plug G1/4 Zinc with seal
  - 1 x 22 mm wrench
  - 1 x I/O cable (M12, 5 pins, 10 m)
  - 1 x Tool I/O cable (M8, 8 pins, short)
  - 1 x Tool I/O cable (M8, 8 pins, long)
  - 1 x 12mm Pneumatic Tube (5m) with tie wraps
- Motion Stabilizer Kit
  - 1 x 3 mm hex key, L-shape
  - 2 x Motion Stabilizer Frame
  - 2 x Motion Stabilizer Bar
  - 4 x M4 x 8 mm socket head cap screw
  - 4 x M5 x 12 mm button head cap screw
- 1 x 200 mm hollow offset link kit (optional):
  - 1 x 200 mm horizontal hollow offset link
  - 4 x M8 x 20 mm hex socket head cap screws with captive spring washer
  - 2 x 8 mm air tubes (275 mm)
  - 2 x 8 mm air tubes (475 mm)

- 1 x 100 mm hollow offset link kit (optional):
  - 1 x 100 mm horizontal hollow offset link
  - 4 x M8 x 20 mm hex socket head cap screws with captive spring washer
  - 2 x 8 mm air tubes (275 mm)
  - 2 x 8 mm air tubes (375 mm)
- 1 x 100 mm wrist extension kit (optional):
  - 1 x 100 mm wrist extension
  - 4 x M8 x 50 mm hex Flanged socket head cap screw
  - 4 x Washer M8 Belville washer
  - 4 x M8 x 20 mm hex socket head cap screws with captive spring washer
- Triple Pick Stabilizer Kit (optional)
  - 1 x 3 mm hex key, L-shape
  - 2 x Triple Pick Stabilizer Frame
  - 2 x Triple Pick Stabilizer Slider
  - 4 x M4 x 8 mm socket head cap screw
  - 4 x M5 x 12 mm button head cap screw

3.3. Environmental and Operating Conditions

Condition	Value	
	Min	Max
Operating temperature (Vacuum Generator)	0°C (32°F)	50°C (122°F)
Operating temperature (suction cups)	10°C (50°F)	50°C (122°F)
Storage temperature	-20°C (-4°F)	70°C (158°F)
Humidity (non-condensing)	35% RH	85% RH
IP rating	IP2X	
Dust, soot and water	Affect the time between maintenance	
Food	No	
Clean room		
Intrinsic Safety (IS)		
Corrosive liquids or gases		
Explosive liquids or gases		

Table 3-1: Environmental and operating conditions of the PowerPick Multi Gripper

3.4. Air Supply



CAUTION

- Use dry and filtered air only.
- Follow ISO 8573-1 Class 7.4.4.
- The maximum pressure allowed is 8 bar (116 psi). The optimal pressure for compressed air consumption is 6.5 bar (94.3 psi).
- Robotiq recommends using a local pressure regulator with a filter and air dryer. The filter should prevent any dust particle larger than 5 µm from getting inside the system.

3.4.1. Connecting the Supply Line

Compressed air must be supplied to the Vacuum Gripper according to the technical specifications.

The air supply tubing must be connected and disconnected to or from the inlet port only when the line is depressurized.

It is recommended to use a lockout valve before connecting to the product.

To protect against whipping hazards, the air supply tubings (connected to the Air Filtration Unit provided with the Palletizing solution) must be firmly secured. At optimal pressure (6.5 bar / 94.3 psi) and 50°c, the air supply line must ensure an air flow of 476 lpm.

Make sure any other pneumatic equipment connected to the same supply line is not temporarily reducing the air flow made available for the vacuum generator.

3.4.2. Depressurizing the Supply Line

In order to safely depressurize the supply line, the air supply must first be shut off.

If no lockout valve is present to depressurize the line, the Gripper can be activated until the pressure is fully released.

3.5. Reception of the Product

3.5.1. Visual Inspection

Inspect the package for damage or defects before and after opening it.

Make sure to have all components in hand before discarding the box and packaging material.

If damage or defects are discovered, or if components are missing, contact the Robotiq support team at support@robotiq.com.

3.6. Mechanical Installation

WARNING

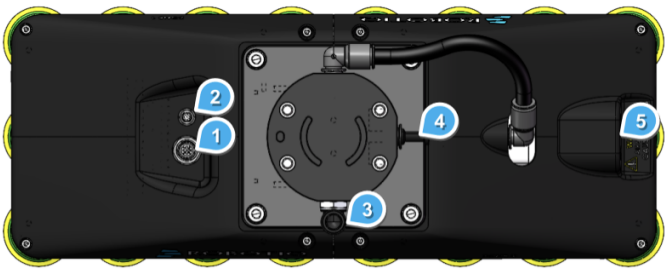
Failure to properly secure and install the equipment can result in material damage and bodily injury.

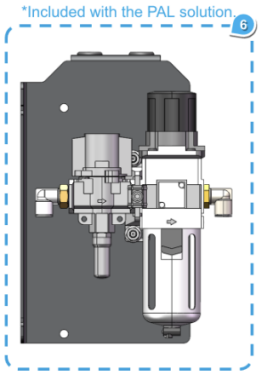
The warranty will not cover material damage resulting from an installation that did not comply with the instructions found in this manual.

- Installation by qualified personnel only. Wear safety toe shoes and safety glasses.
- Safety clips are mandatory on all pressurized push-to-connect fittings.

3.6.1. Overview: Control I/O Cable M12-5Pins

1. I/O Cable M12-5Pins
2. Tool I/O Cable M8-8Pins
3. Gripper Compressed Air Input (Push-in Fitting for 12mm tubing)
4. Alternate Gripper Compressed Air Input
5. Venturi Silencer Exhaust
6. Air Filtration Unit (optional)





CAUTION

Make sure the installation of the PowerMulti and the air filtration unit on a machine or piece of equipment does not alter the warranty or certification of said machine or piece of equipment.

NOTICE

When the PowerPick Multi Vacuum Gripper is used in conjunction with either the PE20 or AX20/AX30 Robotiq Palletizing Solution, follow the Air Filtration Unit instructions found in the corresponding Palletizer user manual.

3.6.2. PowerPick Multi Gripper Installation

Required Tools

Included:

- 1 x 6 mm hex key, L-shape
- 1 x 22 mm wrench
- 1 x 3 mm hex key, L-shape

Not included:

- Torque wrench
- 10 mm hex bit

Standard Gripper Parts & Options

Upon receipt, the PowerPick Multi Vacuum Gripper includes the following components:

Standard Kit

- 1 x Gripper with integrated vacuum generator, default configuration, pre-assembled with the following components:
  - Protective shell (1)
  - Manifold assembly (2)
  - 12mm tube (3)
  - Mounting plate (4)
  - Support frame (5)
  - Distribution plate (6)
  - Suction cup plate (7)
  - Standard BX52P Cups (8)
- Hardware kit
- Accessory kit
- Motion Stabilizer Kit (12)

Option kits

- Wrist extension (9)
- Tube offset 100 or 200 mm (10)
- High-Capacity B52XP Cup (11)
- Triple Pick Stabilizer Kit (13)

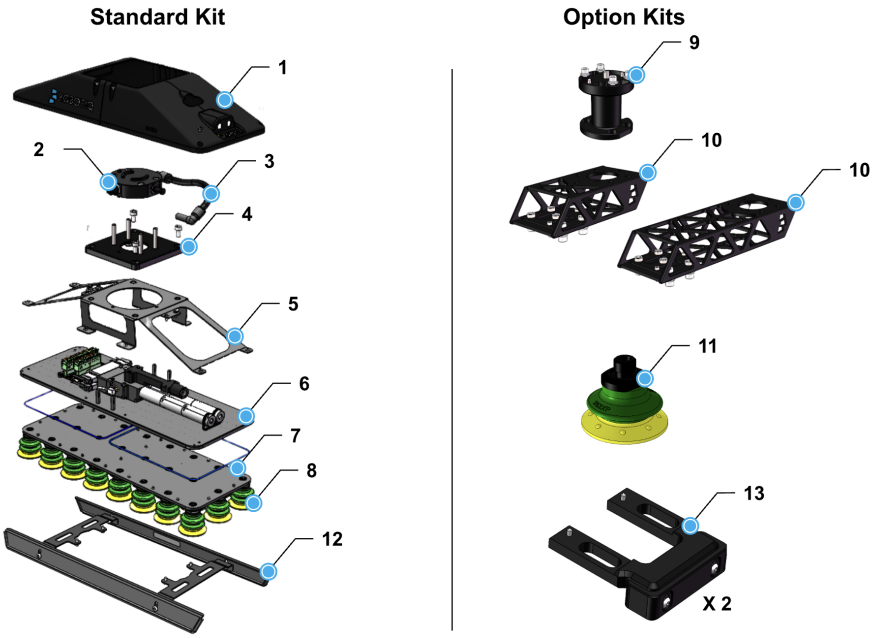


Fig. 3-1: PowerPick Multi Gripper Kits

NOTICE

The following instructions detail how to install any Gripper configuration. However, use the configuration that corresponds best to the application. For more detail about the possible Gripper configurations, please refer to the Configuration Steps and Tips section.

NOTICE

Please use the Robotiq Configurator to simulate the configuration that corresponds best to the application at hand. Should the application require more than one configuration, consider using a gripper arrangement that adapts to every situation.

Please note that this configurator is for palletizing purpose, but can be used to find the best configuration for your application



Fig. 3-2: PowerPick Multi Gripper, Default Configuration

CAUTION

Any unused manifold port should be covered with a port plug to avoid air leakage.

PowerPick Multi Configurations and Components Selection

# Configuration	Installation Steps	Pneumatic Tube	Tool I/O Cable	Overhang of the electrical cable from the pneumatic tube	Used air inlet
1- Gripper Only 	**Option 1: Standard Configuration** section	200 mm	Short	235 mm	Connector to wrist at 90 degrees
2- Gripper + Z Ext. 	**Option 3: Wrist Extension on Manifold Configuration** section	250 mm			
3- Gripper + X 100 	**Option 2: Hollow Offset Link (100 or 200 mm) on Manifold Configuration** section	200 mm		330 mm	
4- Gripper + Z Ext. + X 100 	**Option 4: Hollow Offset Link (100 or 200 mm) on Wrist Extension Configuration** section	250 mm			
5- Gripper + X 200 	**Option 2: Hollow Offset Link (100 or 200 mm) on Manifold Configuration** section	250 mm	Long	430 mm	
6- Gripper + Z Ext. + X 200	**Option 4: Hollow Offset Link**	315 mm			

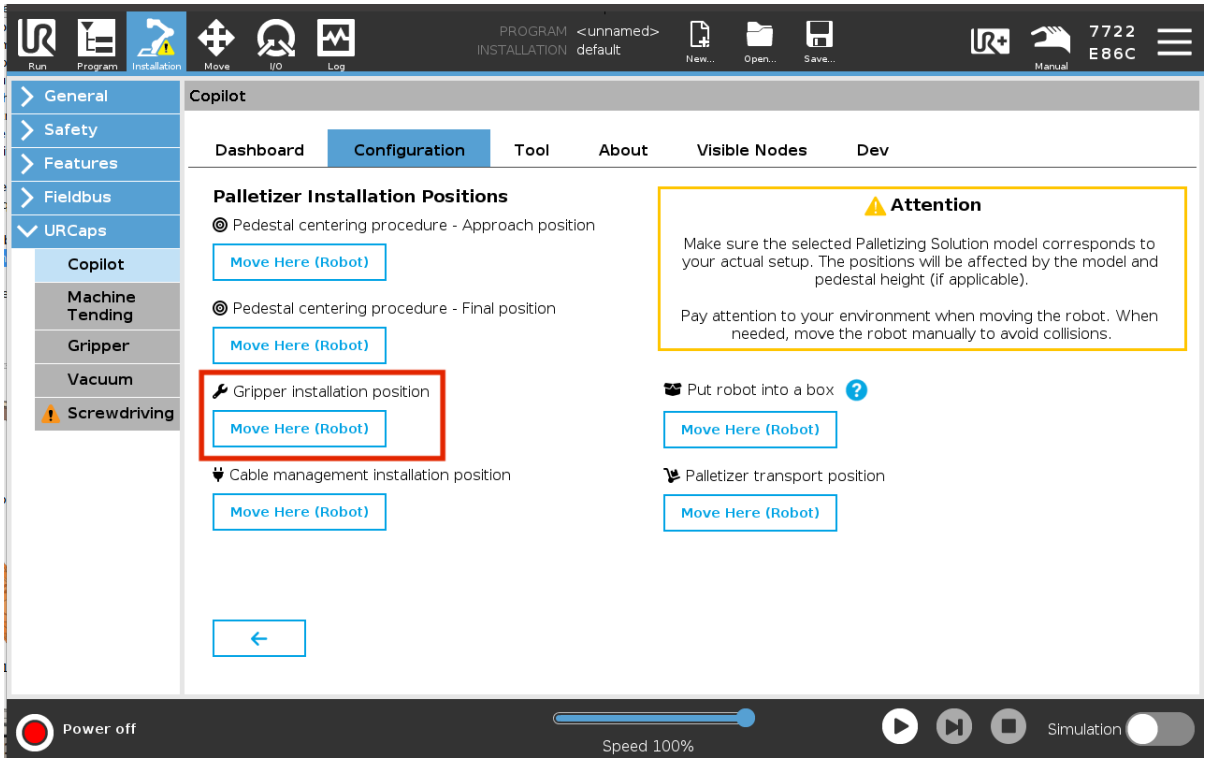
	**(100 or 200 mm) on Wrist Extension Configuration** section				

Table 3-2: PowerPick Multi Configurations and Components selection

* Install the T-wraps at the following distances for all configurations: 225/225/145/30/45/60. Use the marks on the tube as your guide for installation.

Gripper Installation

1. Robot Positioning
    a. Move it to the following pre-programmed position: Gripper installation position (Installation tab -> URCaps -> Copilot -> Configuration -> Installation positions).



2. Remove the 12 mm air tube connected between the Manifold and the Gripper Compressed Air Input.
3. Remove the four (4) M8x14mm screws holding the mounting plate to the support frame using the 6 mm hex key.
4. From here, installation steps, pneumatic tube length, and tool I/O cable length will differ depending on the chosen gripper configuration.
5. Refer to the table above (Tab. 6-2: PowerPick Multi Configurations and Components Selection) to select the appropriate option and follow the required installation instructions.

Option 1: Standard Configuration

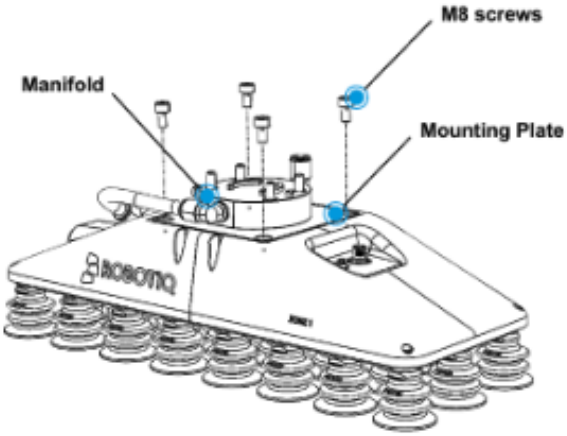


Fig. 3-3: PowerPick Multi Standard Configuration

a. Install the manifold assembly and mounting plate onto the robot wrist with the four (4) provided M8x45 screws and washers using the 6 mm hex key.

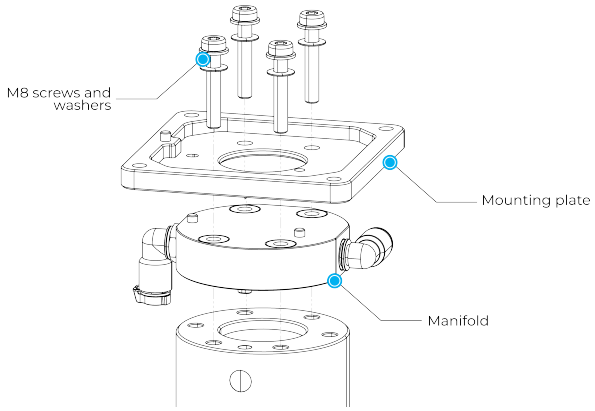


Fig. 3-4: Installation of the manifold assembly and the mounting plate onto the robot wrist

b. Reattach the Mounting Plate to the gripper with the four (4) M8x14mm screws. Required torque is 16 Nm (11.8 lb-ft).

CAUTION

Make sure the gripper cables are aligned with the robot wrist cable.

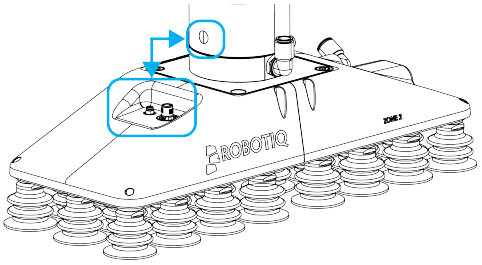


Fig. 3-5: Alignment between the robot wrist cable and the gripper cables

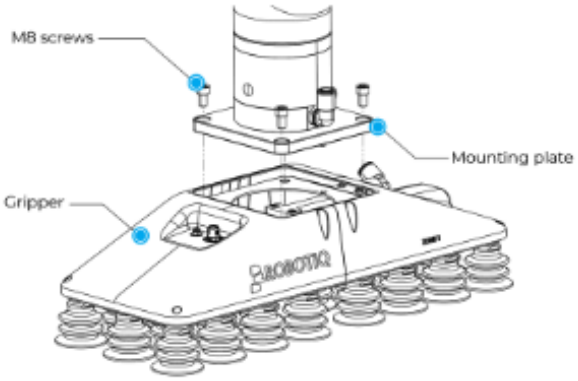


Fig. 3-6: Installation of the mounting plate onto the gripper

Option 2: Hollow Offset Link (100 or 200 mm) on Manifold Configuration

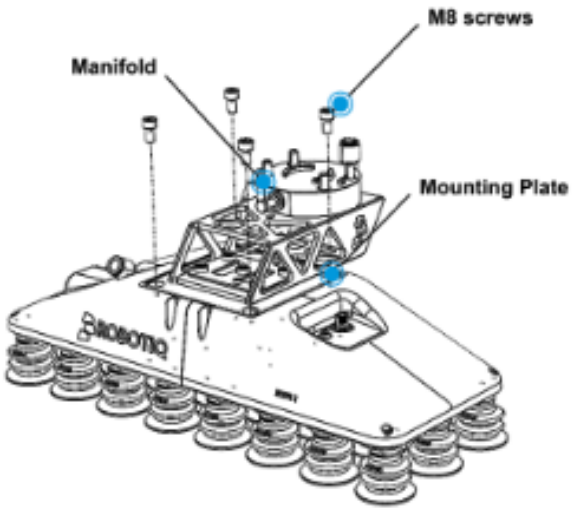


Fig. 3-7: Hollow Offset Link (100 or 200 mm) on Manifold Configuration

a. Align the holes of the hollow offset link with the corresponding pins on the manifold. Please refer to the figure below for the correct alignment.

b. Install the hollow offset link onto the robot wrist with four (4) M8 x 45 mm hex socket head cap screws and washers using the provided 6 mm hex key. Required torque is 16 Nm (11.8 lb-ft).

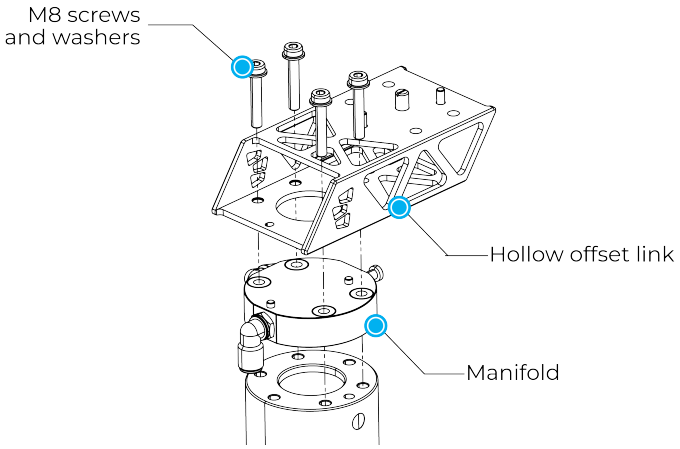


Fig. 3-8: Installation of the Manifold Assembly and the Hollow Offset Link onto the robot wrist

c. Install the mounting plate onto the hollow offset link with the four (4) M8x14mm screws and washers, using the 6 mm hex key. Required torque is 16 Nm (11.8 lb-ft).

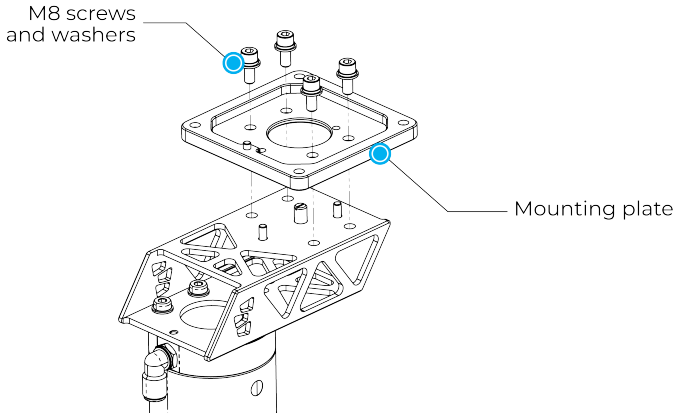


Fig. 3-9: Installation of the Mounting Plate onto the Hollow Offset Link

d. Reattach the Mounting Plate to the gripper with the four (4) M8x14mm screws and washers, using the 6 mm hex key. Required torque is 16 Nm (11.8 lb-ft).

CAUTION

Make sure the gripper cables are aligned with the robot wrist cable.

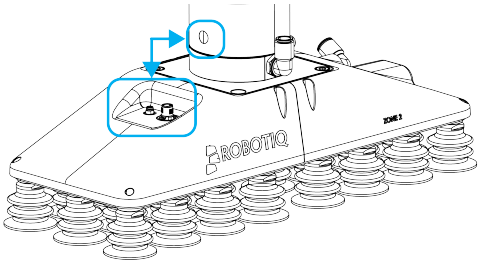


Fig. 3-10: Alignment between the robot wrist cable and the gripper cables

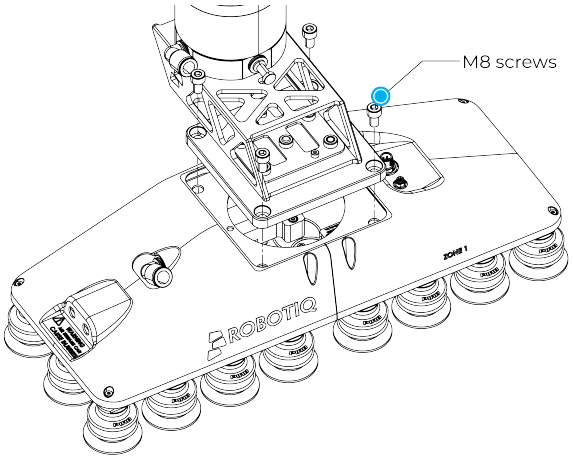


Fig. 3-11: Installation of the mounting plate onto the gripper

Option 3: Wrist Extension on Manifold Configuration

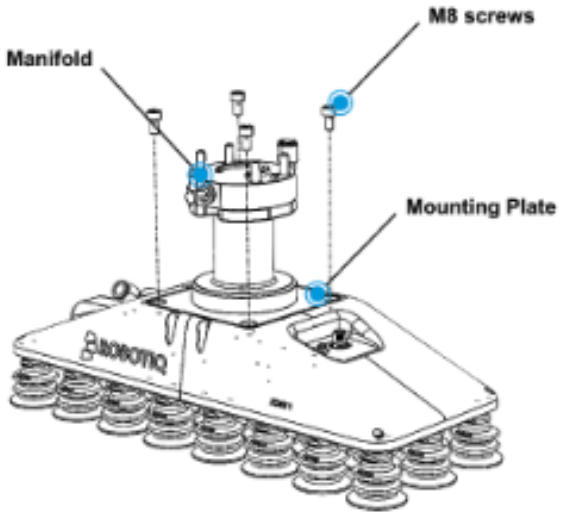


Fig. 3-12: Wrist extension on manifold configuration

a. Align the holes of the wrist extension with the corresponding pins on the manifold. Please refer to the figure below for correct alignment.

b. Install the wrist extension onto the robot wrist with four (4) M8 x 50 mm hex socket head cap screws and washers using the provided 6 mm hex key. Required torque is 16 Nm (11.8 lb-ft).

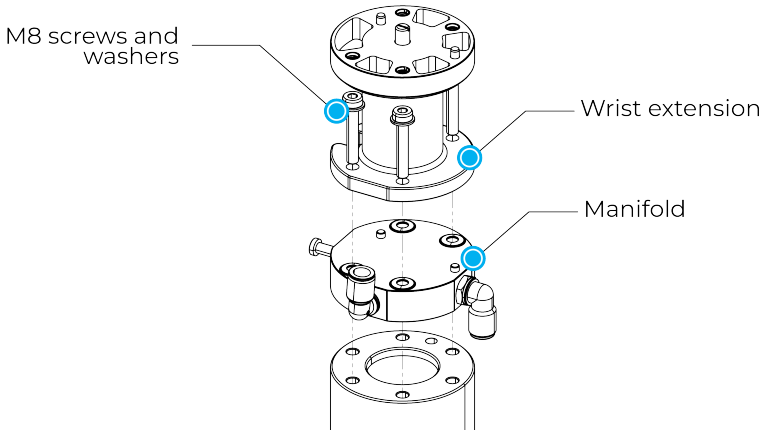


Fig. 3-13: Installation of the manifold assembly and the wrist extension onto the robot wrist

c. Install the Mounting Plate onto the wrist extension with the four (4) M8x14 mm screws, using the 6 mm hex key. Requic.red torque is 16 Nm (11.8 lb-ft).

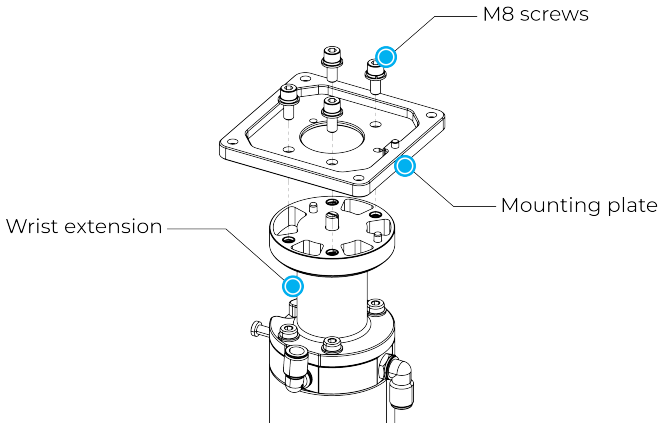


Fig. 3-14: Installation of the mounting plate onto the wrist extension

CAUTION

Make sure the gripper cables are aligned with the robot wrist cable.

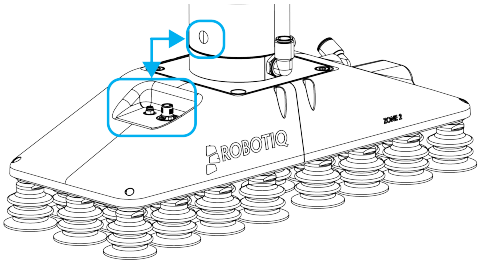


Fig. 3-15: Alignment between the robot wrist cable and the gripper cables

d. Reattach the Mounting Plate to the gripper with the four (4) M8x14mm screws, using the 6 mm hex key. Required torque is 16 Nm (11.8 lb-ft).

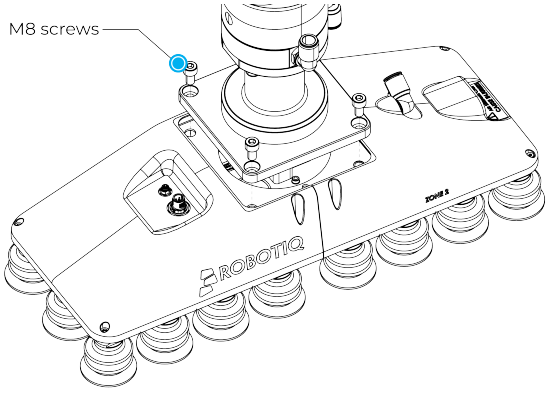


Fig. 3-16: Installation of the mounting plate onto the gripper

Option 4: Hollow Offset Link (100 or 200 mm) on Wrist Extension Configuration

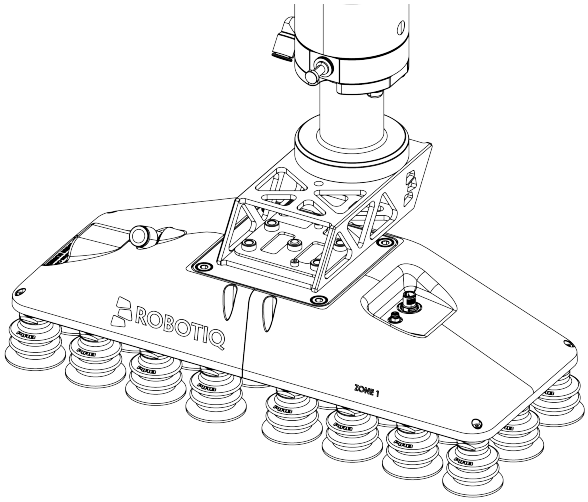


Fig. 3-17: Hollow offset link (100 or 200 mm) on wrist extension configuration

a. Align the holes of the wrist extension with the corresponding pins on the manifold. Please refer to the figure below for correct alignment.

b. Install the wrist extension onto the robot wrist with the four (4) M8 x 50 mm hex socket head cap screws and washers using the provided 6 mm hex key. Required torque is 16 Nm (11.8 lb-ft).

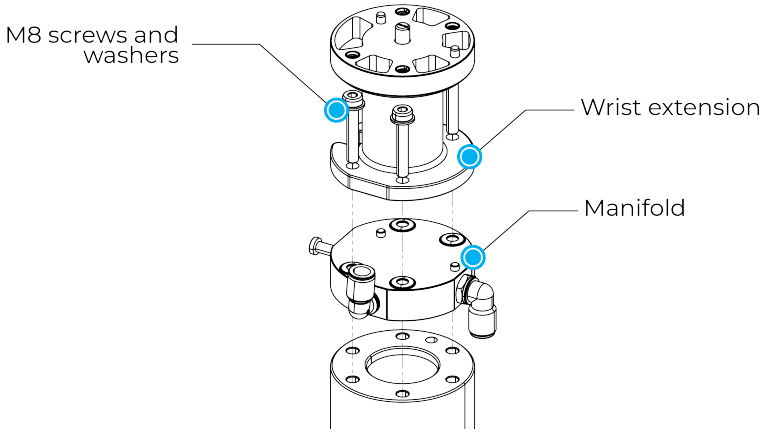


Fig. 3-18: Installation of the manifold and the wrist extension onto the robot wrist

c. Align the holes of the hollow offset link with the corresponding pins on the Wrist Extension. Please refer to the figure below for the correct alignment.

d. Install the hollow offset link (100 or 200 mm) onto the wrist extension with four (4) M8 x 20 mm socket head cap screws and washers using the provided 6 mm hex key. Required torque is 16 Nm (11.8 lb-ft).

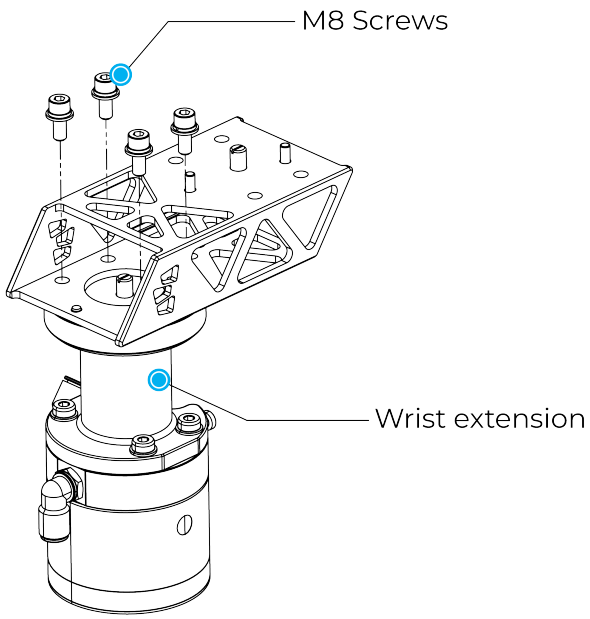


Fig. 3-19: Installation of the hollow offset link (100 or 200 mm) onto the wrist extension

e. Install the mounting plate onto the hollow offset link with the four (4) M8x14mm screws and washers, using the 6 mm hex key. Required torque is 16 Nm (11.8 lb-ft).

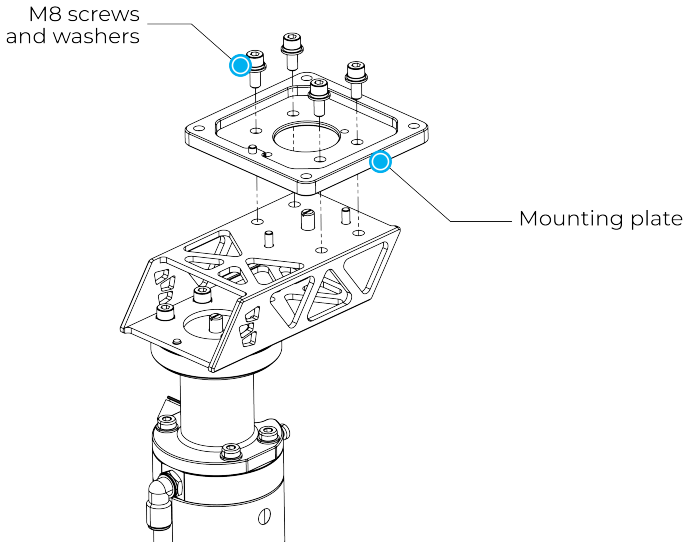


Fig. 3-20: Installation of the mounting plate onto the hollow offset link (100 or 200 mm)

CAUTION

Make sure the gripper cables are aligned with the robot wrist cable.

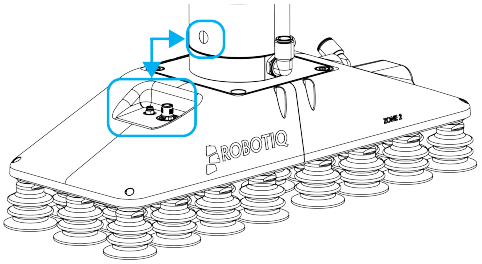


Fig. 3-21: Alignment between the robot wrist cable and the gripper cables

f. Reattach the Mounting Plate to the gripper with the four (4) M8x14mm screws and washers, using the 6 mm hex key. Required torque is 16 Nm (11.8 lb-ft).

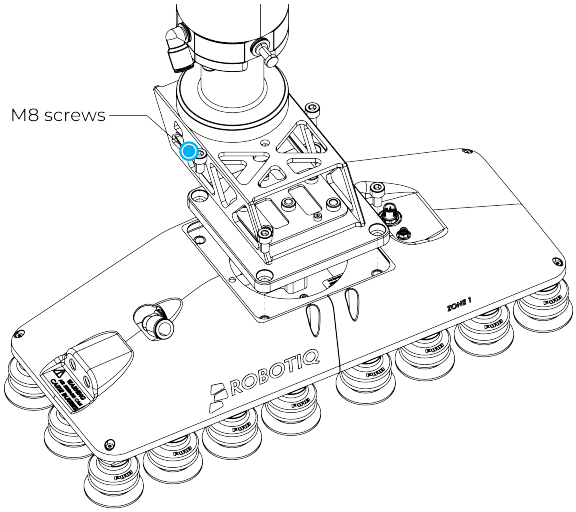


Fig. 3-22: Installation of the mounting plate onto gripper

Stabilizer Kits Installation

Motion Stabilizer Kit (Optional)

Install the Motion Stabilizer Kit if required.

For detailed guidance on whether to use this option for your specific application, please consult this technical article.

- Attach the Motion Stabilizer Frames to the gripper suction cup plate using the four (4) M4 x 8 mm socket head screws. Required torque is 1 Nm (8.9 lb-in). **Do not overtighten.**
- Attach the Motion Stabilizer bars to the frames using the four (4) M5 x 12 mm button head screws. Adjust the height position as required and explained in this article. Required torque is 1.5 Nm (13.3 lb-in).

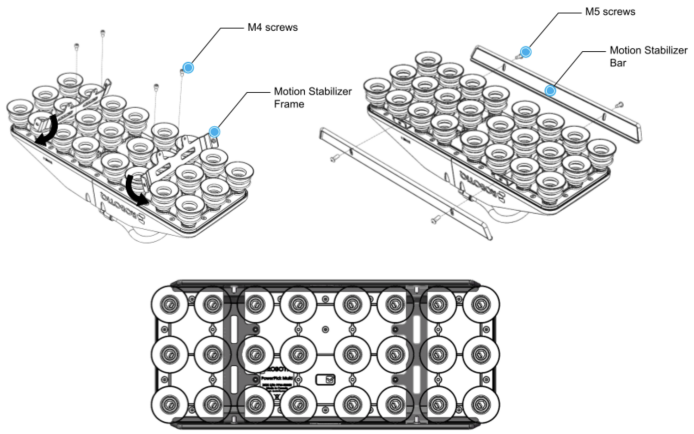


Fig. 3-23: Installation of the Motion Stabilizer Kit onto the PowerPick Multi Gripper (Optional)

Triple Pick Stabilizer Kit (Optional)

Install the Triple Pick Stabilizer Kit if required. For detailed guidance on whether to use this option for your specific application, please consult this technical article.

- Attach the Triple Pick Stabilizers to the gripper suction cup plate using the four (4) M4 x 8 mm socket head screws. Required torque is 1 Nm (8.9 lb-in). **Do not overtighten.**
- Adjust the Triple Pick Stabilizer Sliders height position as required using the four (4) M5 x 12 mm button head screws. Required torque is 1.5 Nm (13.3 lb-in).

	**CAUTION**
	Do not adjust the stabilizers while the vacuum is ON.

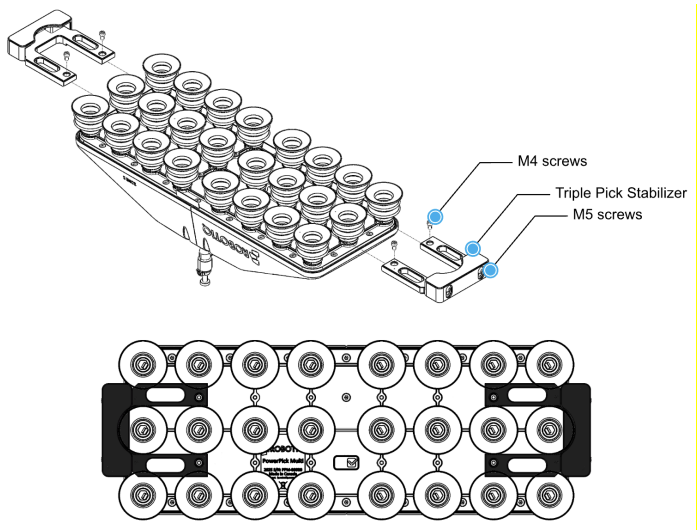


Fig. 3-24: Installation of the Triple Pick Stabilizer Kit onto the gripper (Optional)

Cables Routing

1. Connect the appropriate M8 and M12 I/O cable (refer to *Table 1-3: Choices of Configuration*, Tool I\O cable column, to identify the needed cable length for your gripper configuration).

	CAUTION
	When the 200 mm X extension (with or without Z extension) is used in the configuration, the M8 IO cable must be passed inside the X extension and attached with t-wraps.

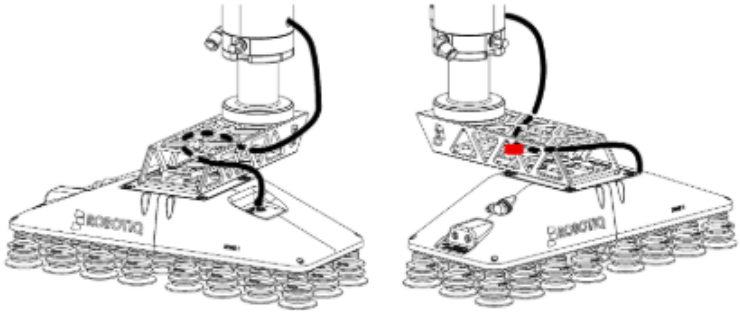


Fig. 3-25: M8 IO cable management for usage with the 200 mm X extension

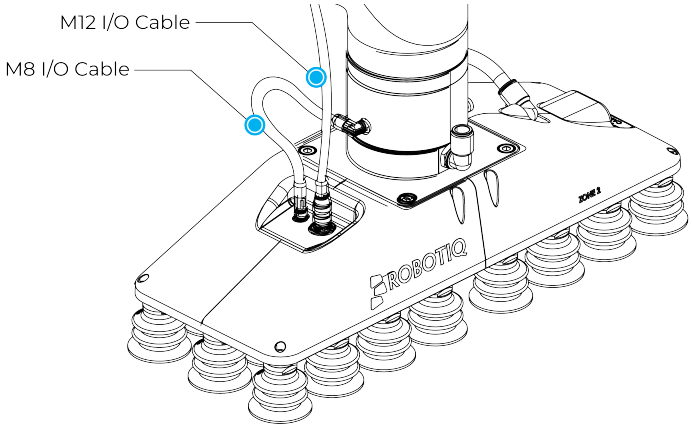


Fig. 3-26: M8 IO cable and M12 IO cable connections

2. Thereafter, the M12 cable must be attached to the robot in such a way as to allow all required movements and to attach the M12 I/O cable with the pneumatic tube along the robot.

	NOTICE
	When the PowerPick Multi Vacuum Gripper is used in conjunction with either the PE20 or AX20/AX30 Robotiq Palletizing Solution, follow the Cable Management instructions found in the corresponding Palletizer user manual.

Pneumatic Tubing

1. Install safety clips on both the Manifold and Gripper Compressed Air Input elbow fittings. Then, plug in the correct 12mm intermediate air tube at both ends, pushing it in firmly to ensure it's properly secured. Refer to **Fig. 6-19: 6 possible configurations** to determine the appropriate tube length for your gripper setup.

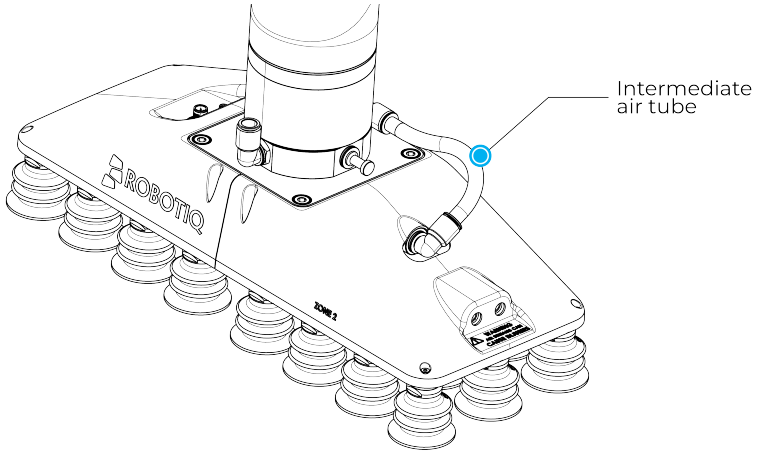


Fig. 3-27: Connection of the intermediate air tube between the manifold and the gripper compressed air input

	NOTICE
	Follow cable management good practices: position and secure the air tubes so they do not clutter the working environment. Cut the air tubes to the right length if necessary.

Required Tools

Not Included:

- Tube cutter

Connection to PowerPick Multi Gripper Compressed Air Input

1. Attach the locking clip onto the elbow fitting on the PowerPick Multi Gripper manifold
2. Connect the end of the 12 mm air tube to the previous fitting.
3. Push the air tube until it cannot go any further.
4. Attach the 12mm air tube on the robot
5. Connect the other end to your air filtration unit (see recommendation in **Air Supply** section for filtration unit)

	WARNING
	Ensure safety clips are properly installed on all pressurized push-to-connect fittings.

NOTICE

Make sure the air tube is neither too tight nor too loose so that the robot can move freely, without the air tube getting stuck when moving.

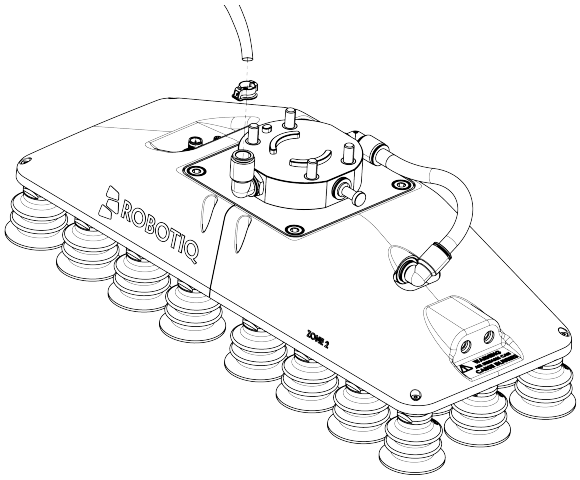


Fig. 3-28: PowerPick Multi Gripper Compressed Air Input

NOTICE

When the PowerPick Multi Vacuum Gripper is used in conjunction with either the PE20 or AX20/AX30 Robotiq Palletizing Solution, follow the Air Filtration Unit instructions found in the corresponding Palletizer user manual.

We recommend connecting the gripper to an air filtration unit, and not directly to the air supply.

CAUTION

- Use dry and filtered air only.
- Follow ISO 8573-1 Class 7.4.4.
- The maximum pressure allowed is 8 bar (116 psi). The optimal pressure for compressed air consumption is 6.5 bar (94.3 psi).
- Robotiq recommends using a local pressure regulator with a filter and air dryer. The filter should prevent any dust particle larger than 5 µm from getting inside the system.

For more information, refer to **Connecting the Supply Line** section.

3.7. Electrical Installation

3.7.1. PowerPick Multi Vacuum Generator

1. Connect the M12 I/O cable to the PowerPick Multi.
2. Connect the open end of the I/O cable to the robot control box according to the table and figure below.
3. Complete the ground (GND) connection by securing the cable with the ring connector to an M6 protective earth stud with the two (2) M6 external tooth lock washers provided and one (1) M6 flange nut (tool not supplied).
4. Tighten the nut so that the lock washers are properly engaged.

	NOTICE
	Refer to the figure (Fig. 3-14) below for an example of the ground connection. Below are examples of the electrical connections when working with a UR20 or a UR30 robot.

Color	Connection	Function
WHITE	DO0 (Digital Output)	Suction #1
RED	DO1 (Digital Output)	Suction #2
BLACK	DO2 (Digital Output)	Blow off #1
GREEN	DO3 (Digital Output)	Blow off #2
GREEN/YELLOW	GND (Ground)	Ground

Table 3-3: Identification of I/O Cable M12-5pins Connections

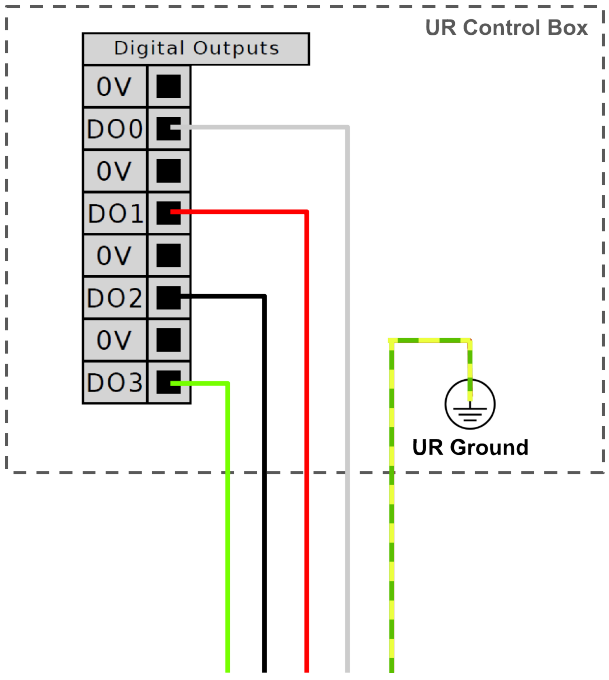


Fig. 3-29: PowerPick Multi Connections to Robot Control Box

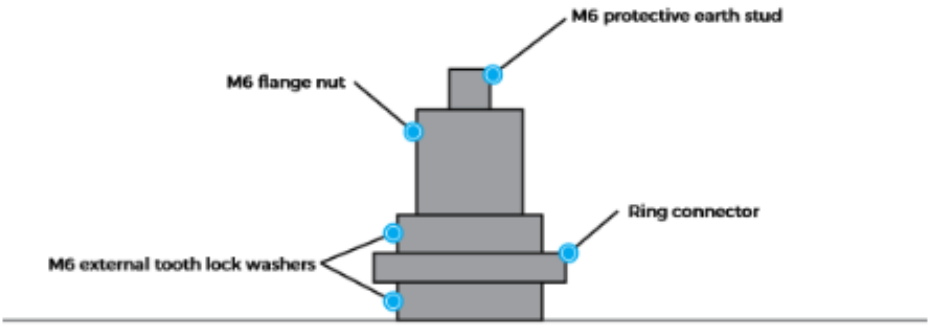


Fig. 3-30: Schematic Figure of Ground Connection



Fig. 3-31: Example of Ground Connection in Robot Control Box

3.8. Supply Pressure Adjustment

The optimal pressure for compressed air consumption is 6.5 bar (94.3 psi). However, it is possible to reduce the supply pressure in order to reduce air consumption or noise level. It is also possible to increase the supply pressure if more vacuum force is necessary. If so, further tests must be performed to ensure the payload is always maintained in operating conditions.

	CAUTION
	Never exceed the maximum allowed pressure of 8 bar (116 psi), as previously mentioned in the Air Supply section of this user manual.

Follow these instructions to adjust the supply pressure of the Air Filtration Unit.

	NOTICE
	The digital outputs are identified in the Electrical Installation section.

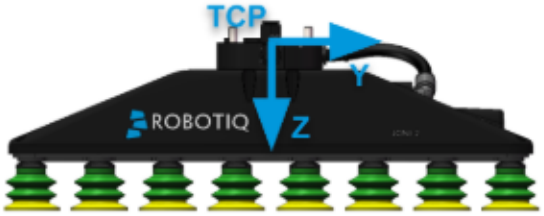
1. Open the shut-off valve by turning it in "SUP" position.
2. Remove all objects from under the suction cups and activate both suction valves.
3. While the vacuum is activated, adjust the pressure to the desired value on the filter-regulator.
4. Let the valves open for at least 30 seconds to stabilize the pressure (optimal pressure is 6.5 bar (94.3 psi)).
5. Deactivate both suction valves.
6. Validate the adjustment by repeatedly activating and deactivating both suction valves.
7. Verify the pressure value shown on the filter-regulator.

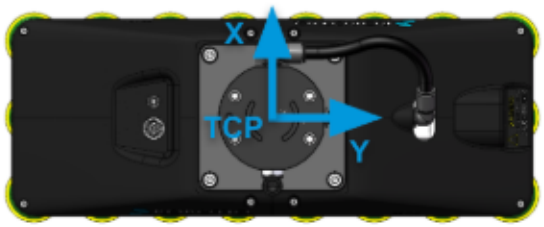
3.9. Configuration Steps and Tips

	NOTICE
	Please use the Robotiq Configurator to simulate the configuration that corresponds best to the application at hand. Should the application require more than one configuration, consider using a gripper arrangement that adapts to every situation.

3.9.1. TCP and Center of Mass

Refer to the **Specifications** section (Tool Center Point and Center of Mass) to identify the values that correspond to the configuration.





	NOTICE
	To ensure stability when operating the Gripper, always position the Gripper so that it is aligned with the center of the box, with the suction cups as close to the edge of the box as possible.

3.9.2. Choices of Configuration

Choose the offset component based on the X-axis and/or Z-axis tool offset requirements from the Robotiq Palletizing Configurator. The recommended Payload represents the maximum weight (box) to be lifted from the gripper in each configuration in a palletizing application.

WARNING

Failure to follow the recommended payload may result in damage and bodily injury.

The warranty will not cover material damage resulting from an installation that did not comply with the instructions found in this manual.

Configuration #	Description	Payload - Double Below	Payload - Single Below
1- 	Standard configuration, no offset component.	UR20: 20,7 kg UR30: 21 kg	UR20: 20,8 kg UR30: 30 kg
2- 	Wrist extension (Z offset, 100 mm).	UR20: 20,2 kg UR30: 21 kg	UR20: 20,3 kg UR30: 30 kg
3- 	Hollow offset link (X offset, 100 mm).	UR20: 20,2 kg UR30: 21 kg	UR20: 20,3 kg UR30: 30 kg
4- 	Hollow offset link (X offset, 100 mm) + Wrist extension (Z offset 100 mm).	UR20: 19,7 kg UR30: 21 kg	UR20: 19,8 kg UR30: 29,8 kg
5-	Hollow offset link (X offset, 200 mm).	UR20: 20,1 kg UR30: 21 kg	UR20: 20,2 kg UR30: 30 kg

			
6- 	Hollow offset link (X offset, 200 mm) + Wrist extension (Z offset, 100 mm).	UR20: 19,6 kg UR30: 21 kg	UR20: 19,7 kg UR30: 29,7 kg

Table 3-4: Choices of Configuration

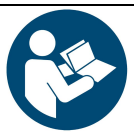
*Always follow UR's recommendations, which can be found in the robot's manual.

*The specified values are intended for palletizing applications.

* Refer to Table 5-2: TCP and Center of Mass for All PowerPickMulti Gripper Configurations to find the gripper's weight for each setup.

4. Software

4.1. Robotiq Gripper URCap



NOTICE

Robotiq gripper URCap is compatible only with e-Series UR robot.

Robotiq provides you with a Universal Robots URCap package that enables direct serial communication to your robot controller.



NOTICE

To download the URCap package for your Universal Robots controller, go to robotiq.com/support, select Vacuum Grippers, the robot brand from the list, then go to Software > Robotiq Gripper URCap > Gripper URCap > DOWNLOAD ZIP.

Make sure the PowerPick is properly mounted to the robot arm and that the payload and the center of gravity are adjusted. Refer to the Mechanical Installation section for detailed information on the mechanical installation.

- The Gripper URCap package installs the following elements:
  - Gripper URCap
  - Gripper Toolbar
  - Gripper nodes



CAUTION

The robot's PolyScope version must be 5.16.0+ in order to install the URCap. To identify your PolyScope version, go to the PolyScope home page and tap About. A window containing the Universal Robots software version is then displayed.

4.1.1. Installing URCap Package

1. Make sure that your PolyScope version is up-to-date and that your Universal Robots controller is compatible with the Gripper's URCap package.
2. Browse to support.robotiq.com and click on Vacuum Grippers > Universal Robots > Software > Robotiq Gripper URCap.
3. Download the latest Gripper URCap version and extract its content on the root of a blank USB stick.
4. Insert the USB stick in the UR teach pendant or controller.
5. On the teach pendant, tap the triple bar icon in the upper right corner of the screen.
6. Tap Settings.
7. Tap the System button in the navigation pane on the left.
8. Select URCaps in the dropdown list.
9. Press the plus (+) button to look for the .urcap file in the available drives.
10. Once the file is selected, it will display in the Active URCaps box, next to a rounded arrow.
11. Tap the Restart button to activate the URCap.

4.1.2. Uninstalling URCap Package

1. On the teach pendant, tap the triple bar icon in the upper right corner of the screen.
2. Tap Settings.
3. Tap the System button in the navigation pane on the left.
4. Select URCaps in the dropdown list.
5. Select the URCap to uninstall.
6. Press the minus (-) button to remove the URCap.
7. Tap the Restart button to deactivate the URCap.

4.2. Vacuum Gripper Selection

In the Installation tab, under URCaps/Vacuum, select PowerPick as the vacuum gripper model.

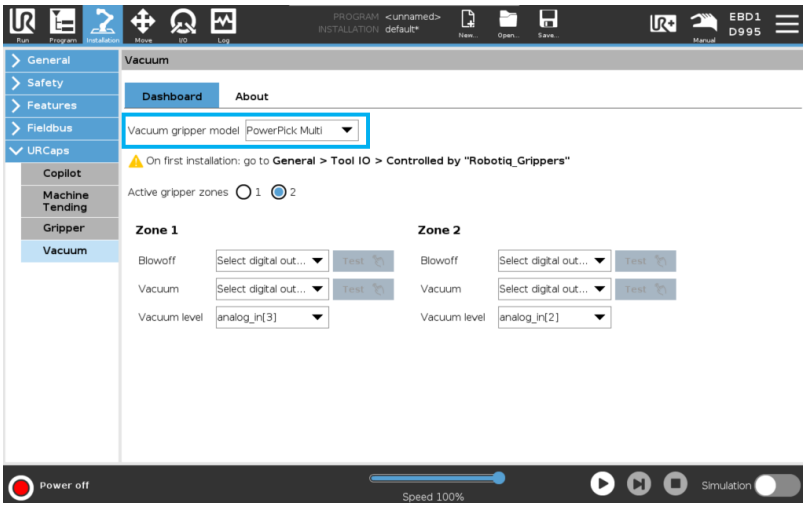


Fig. 4-1: URCap: Vacuum gripper model

In the Installation tab, under General/Tool I/O, select Robotiq_Grippers in the Controlled by drop down menu. It will automatically select the right information for the gripper.

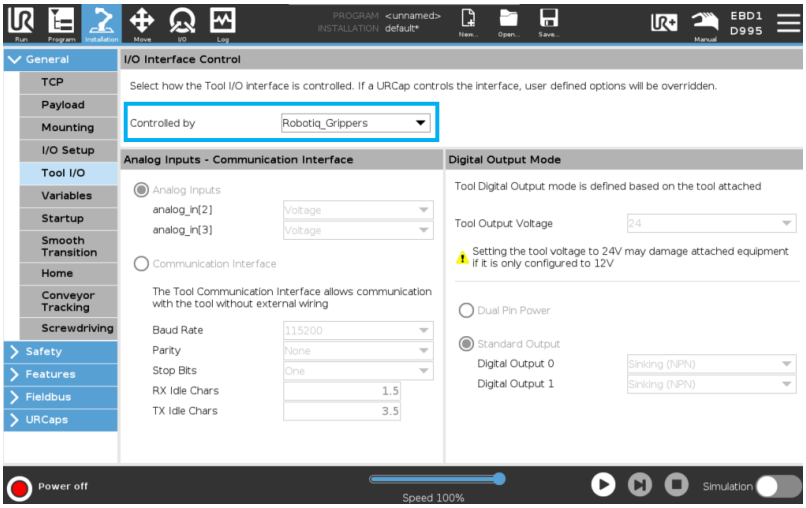


Fig. 4-2: URCap: I/O Interface Control

4.3. Vacuum Gripper Toolbar

4.3.1. Overview

The Vacuum Gripper Toolbar is used to test the gripper.



Fig. 4-3: Vacuum Gripper Toolbar

Alternative approach for calculating void percentage, bypassing the URCap.

To translate the reading to a vacuum percentage (%), use the following formula:

$$Vac_{(\%)} = \frac{Voltage - 1}{4} * 100$$

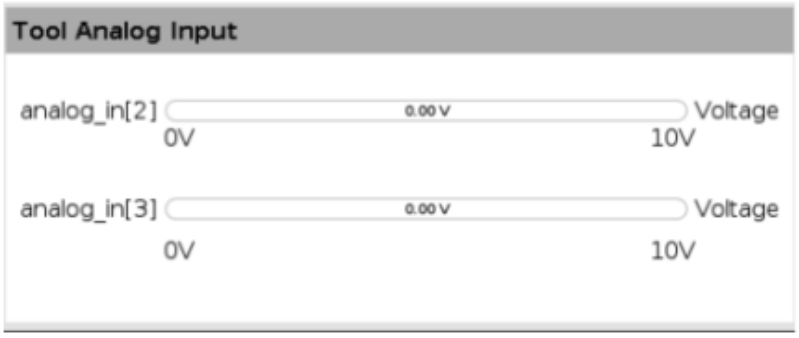


Fig. 4-4: Vacuum Gripper Settings

4.3.2. Features

Functionality name	Description
Zones	Select which zone to use
Target vacuum	Sets a target vacuum level to reach
Timeout	Allows to set a time in which the robot will call a timeout if the target vacuum level is not reached
Enable blow off	Enables blowoff during the release
Test Grip / Release	Performs a Grip/Release test corresponding to the Grip mode selected
Vacuum level	Gives the vacuum level of each zones in real time

4.4. PowerPick Node

Adding and editing a PowerPick node inside a robot program is done by following these steps:

1. On the teach pendant, at the top of the screen, tap the New icon to create a program or the Open icon to load an existing program.
2. Select Program. The Program window will display.
3. Tap the URCaps menu in the navigation pane on the left.
4. Tap the Vacuum button.
5. Select the node in the robot program and tap the Command tab.

4.4.1. Grip Command

The Grip command window shows the requested action parameters for the PowerPick grip.



Fig. 4-5: Grip Command Window from the PowerPick Node

The command window has the same functionalities as the vacuum gripper toolbar and additional ones.

Functionality name		Description
Zones		Select which zone to use.
Wait until the target vacuum is reached	Target vacuum	Allows the robot to wait for the Target vacuum, set in this functionality, to be reached before any other action. If the Timeout is reached before the target vacuum level, a pop-up will appear on the teach pendant.
	Timeout	
Wait for fixed duration	Fixed wait duration	Allows the robot to wait for the Fixed wait duration set in this functionality before any other action. It will not get a precise

		vacuum level in this case.
Stop program if object is dropped	Minimum vacuum	Will stop the program whenever the Minimum vacuum level is reached after a grip. It allows the program to stop if a box is dropped or partially. In case this occurs, the robot won't cut the vacuum. This allows the robot not to drop the object if it's still gripped.A grip check error pop-up will appear.
Vacuum level		Gives the vacuum level of each zone in real time
Test Grip/Release		Performs a Grip/Release test.

Table 4-1: Grip Command Window Functionalities

4.4.2. Release Command

The Release command window shows the requested action parameters for the PowerPick release.



Fig. 4-6: Release Command Window from the PowerPick Node

Functionality name		Description
Zones		Select which zone to use.
Wait for release to complete	Release threshold	Allows the robot to wait for the Release threshold, set in this functionality, to be reached before any other action. If the Timeout is reached before the release threshold, a pop-up will appear on the teach pendant.
	Timeout	
Wait for fixed duration	Fixed wait duration	Allows the robot to wait for the Fixed wait duration set in this functionality before any other action. It will not get a precise vacuum level in this case.

Enable blow off	Blow off duration	This will activate the blowoff at the release. The time of the blowoff can be set in this functionality.
Vacuum level		Gives the vacuum level of each zone in real time
Test Grip/Release		Performs a Grip/Release test.

Table 4-2: Release Command Window Functionalities

5. Specifications

	NOTICE
	This manual uses the metric system. Unless specified, **all dimensions are in millimeters**.

5.1. Technical Dimensions

5.1.1. 100 mm Hollow Offset Link

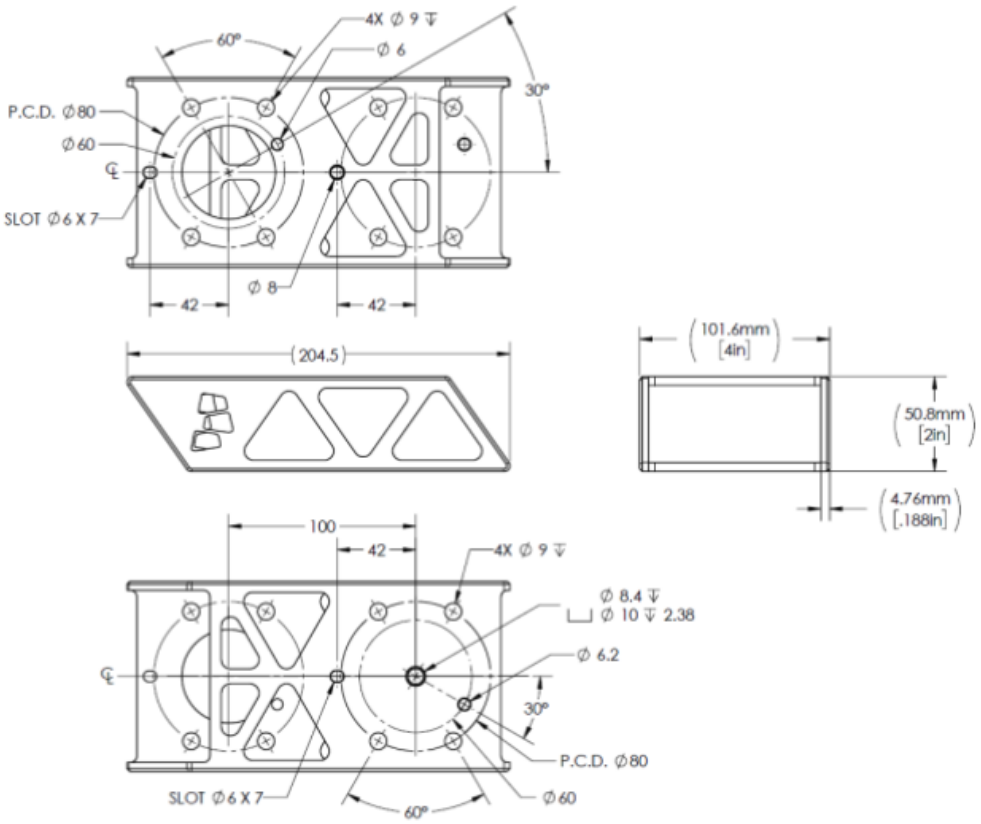


Fig. 5-1: Technical Dimensions of the 100 mm Hollow Offset Link

5.1.2. 200 mm Hollow Offset Link

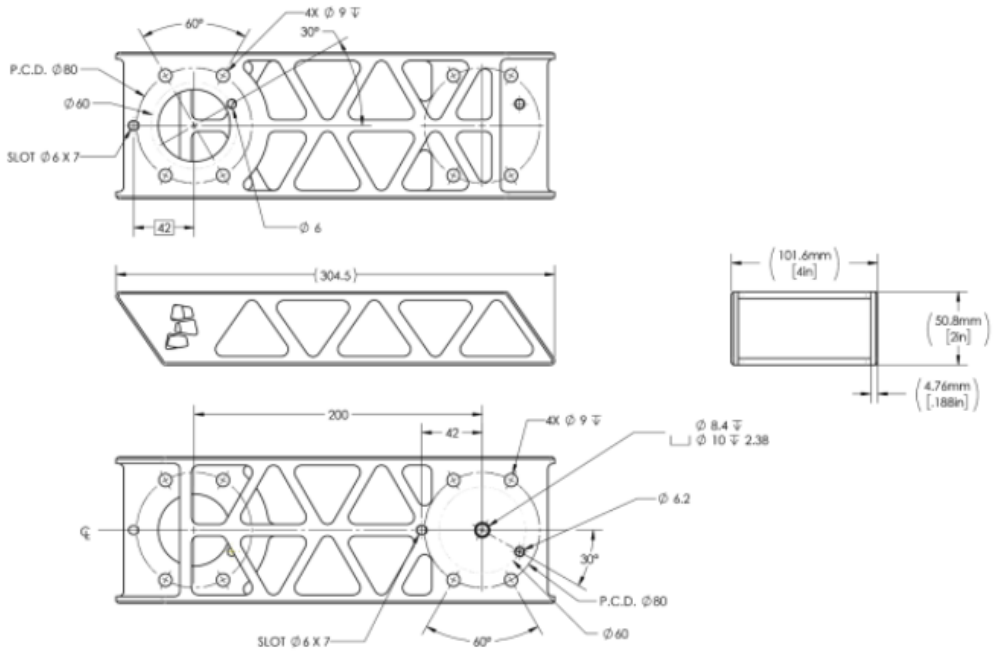


Fig. 5-2: Technical Dimensions of the 200 mm Hollow Offset Link

5.1.3. Wrist Extension

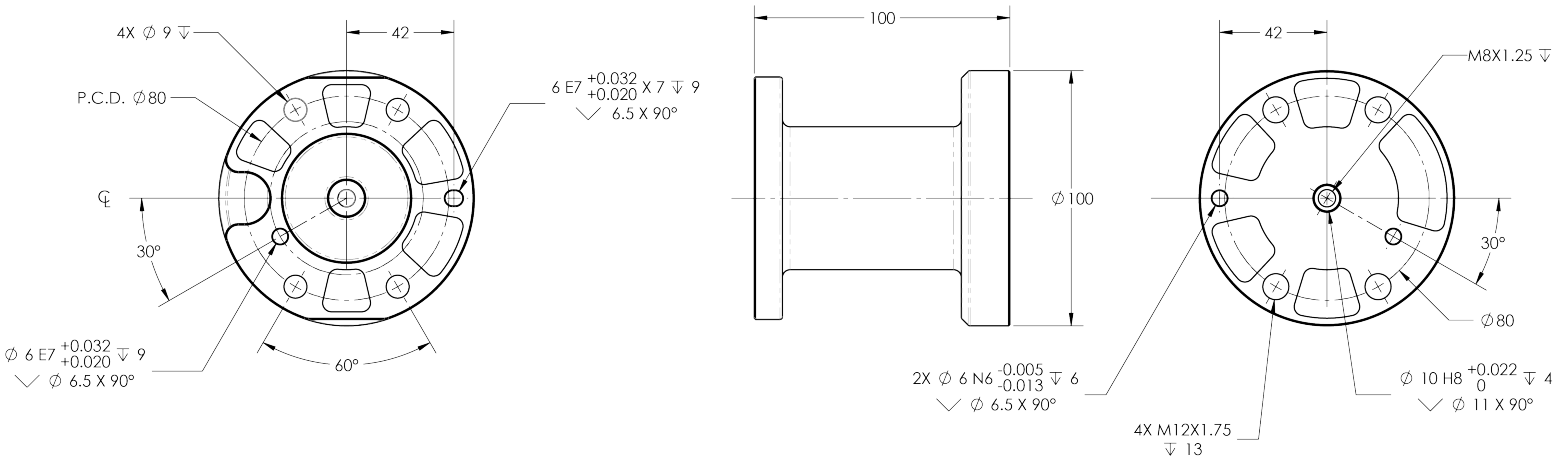


Fig. 5-3: Technical Dimensions of the Wrist Extension

5.1.4. PowerPick Multi (Default Configuration)

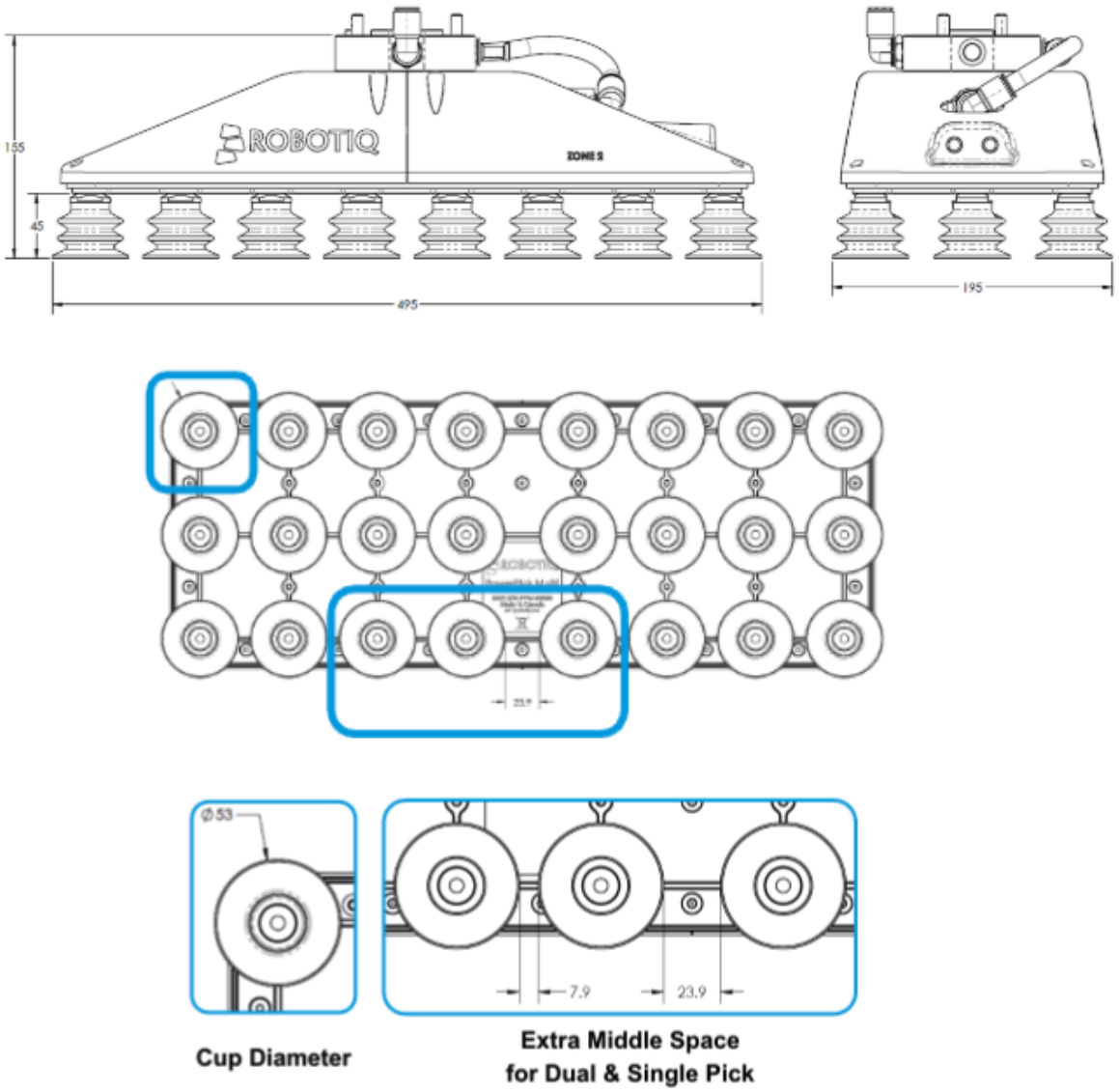


Fig. 5-4: Technical Dimensions of PowerPick Multi Gripper (Default Configuration)

5.2. Mechanical Specifications

5.2.1. PowerPick Multi Vacuum Gripper

Specification	Value	
	Metric	Imperial
Energy source	Compressed air and electricity	
Gripper mass	Refer to the Tool Center Point and Center of Mass section.	
Air tube to Filter Regulator	12 mm OD	N/A
Air tube to Gripper	12 mm OD	N/A
Suction Cup Thread	G 1/4	1/4-19 BSPP
Gripping time	0.14 s	
Release time (with blow off)	0.04 s	
Minimum feed pressure	3 bar	43.5 psi
Optimal feed pressure for compressed air consumption	6.5 bar	94.3 psi
Maximum feed pressure	8 bar	116 psi
Maximum vacuum at optimal feed pressure	92%	
Air consumption at minimum pressure	276 lpm	9.75 CFM
Air consumption at optimal pressure	476 lpm	16.81 CFM
Air consumption at maximum pressure	542 lpm	19.14 CFM
Maximum vacuum flow at optimal feed pressure	392 lpm	13.84 CFM
Maximum acceleration in operating conditions	1.5 G	
Maximum acceleration in emergency stop situations	3.5 G	
Maximum payload PowerPick Multi (Double Bellow suction cups / default config)	UR20 = 20,72 kg UR30 = 21 kg	UR20 = 45.68 lb UR30 = 46,3 lb
Maximum payload PowerPick Multi (Single Bellow suction cups / optional)	UR20 = 20,87 kg UR30 = 30 kg	UR20 = 46,1 lb UR30 = 66,1 lb

Noise level at optimal pressure	79 dBA
Required media	Dry and filtered air as per ISO 8573-1 class 7.4.4

Chart 5-1: Mechanical Specifications of PowerPick Multi Gripper

5.3. Tool Center Point and Center of Mass

5.3.1. PowerPick Multi Gripper

Configuration	X-off-set	Wrist extension	Center of mass (mm)			TCP (mm)			Mass (g)
			X	Y	Z	X	Y	Z	
	0 mm	No	0	-5	82	0	0	155	4277
	0 mm	Yes	0	-5	165	0	0	255	4773
	100 mm	No	87	-4	120	100	0	205	4795
	100 mm	Yes	79	-4	201	100	0	305	5277
	200 mm	No	173	-4	119	200	0	205	4902

	200 mm	Yes	157	-4	200	200	0	305	5384

Table 5-2: TCP and Center of Mass for All PowerPick20 Gripper Configurations

* When using the Motion Stabilizer Kit, increase the gripper weight by 410g and the TCP offset will be 3mm more in the Z-axis.

* When using the Triple Pick Stabilizer Kit, increase the gripper weight by 489g and the TCP offset will be 4mm more in the Z-axis.

* Using single bellow cups reduces gripper weight by 150g.

* When using single bellow suction cups, the TCP offset will be 10mm less in the Z-axis.

5.4. Electrical Specifications

5.4.1. PowerPick Multi Gripper

Specification	Value
Nominal supply voltage	24 VDC ± 10%
Quiescent power (minimum power consumption)	0.7 W
Peak current	200 mA
Hot swappable	Yes
ESD safe	No
Electrical connection	12-pole female M12 connector

Table 5-3: Electrical Specifications of PowerPick Multi Gripper

5.5. Control Specifications

Specification	Value
Communication protocol options	Digital I/O
Feedback	Vacuum level (1-5V analog)
Object detection (grip check)	Yes, via vacuum level

Table 5-4: Control Specifications of thePowerPick Multi Gripper

6. Maintenance

The maintenance operations presented in this section are for the average normal usage of the Robotiq PowerPick Multi Gripper. The maintenance intervals must be adjusted according to the environmental conditions such as:

- Operating temperature
- Humidity
- Presence of chemical(s)
- Presence of physical objects (debris, scraps, dust, grease, etc.)
- Interaction with parts and objects (sharp or rough)
- Dynamics of the operation (e.g., accelerations).

The Vacuum Gripper only requires external maintenance with limited downtime. Following the maintenance interval will ensure:

- The correct functioning of the Vacuum Gripper;
- The validity of the warranty;
- The prescribed lifetime of the Vacuum Gripper.



CAUTION

- Unless specified, any repair work performed on the PowerPick Multi Gripper must be done by Robotiq.
- The warranty will be void if the PowerPick Multi is opened by anyone other than a Robotiq employee.

6.1. Safety Measures

6.1.1. General Guidelines



WARNING

Before performing maintenance operations, make sure that the system is turned off and de-energized, and that it cannot be accidentally turned on.



CAUTION

- Maintenance must only be carried by qualified and authorized service personnel.
- Refer to the Safety section for more safety instructions.

- All pneumatic tools and devices must be emptied before work.
- Always turn off and lock out electrical disconnect switches.



CAUTION

For maintenance on pneumatic components, install a lockout valve before connecting to the product.

Always lockout prior to performing maintenance on pneumatic components.

- Always inform the operator before performing maintenance operations and tag out the system.
- Secure the maintenance area with temporary barriers if needed.
- Clean the affected parts, especially the connections and fittings.
- If the dismantling of safety equipment is necessary, reinstall and inspect it immediately after completion of the maintenance work.
- Make sure to remove all tools and equipment after performing maintenance work to avoid ejecting or falling parts, material damage and bodily injury.
- Always verify fastener torque after performing maintenance work.
- Only use original spare parts.

6.2. Maintenance

The Vacuum Gripper only requires external maintenance with limited downtime.

Maintenance is required after specified usage, measured in cycles (workpiece pick-up and release) or use time (hours).

6.2.1. Cleaning of Suction Cups

Workspace Conditions	Interval
Dirty	Daily
Normal	Monthly

Chart 6-1: Cleaning Intervals for Suction Cups

- Clean the suction cups with warm water and soap. Remove all debris, dirt and dust from their surfaces.
- If applicable, clean the suction cups mesh filter using compressed air.
- If wear is visible, replace the suction cups. Please refer to the Spare Parts, Kits and Accessories section.

6.2.2. Replacing or Changing Suction Cups

The suction cups may need to be replaced or changed for maintenance or to accommodate different SKUs. Two cup models are available:

- The PIAB 52mm double bellows (default), which is the default cup and comes with the gripper. This cup is optimized for the UR20 and is ideal for high SKU variability, box imperfections, and uneven surfaces (concave, convex, etc.).
- The PIAB 52mm single bellow (optional), which is best suited for higher payloads.

Removing the Cups

To remove the cups, use the provided 22mm wrench to unscrew the base cups individually, starting with those located at the end.

Installing New Cups

To install new cups, you will need a 10mm hex bit (not provided). Tighten the screw until it reaches a torque of 5 Nm.

Use the assembly tool to install the piSave Sense in the cavity.

6.2.3. Periodic Inspection

Operation	Interval
Visual inspection of the electrical cables and fixtures for excessive wear	Monthly
Visual inspection of the pneumatic tubing and fixtures for excessive wear	Monthly
Visual inspection of suction cups for cracks or damage	Every six (6) months

Chart 6-2: Periodic inspection intervals

- Visually inspect the PowerPick Multi Gripper and pay attention to any visible damage or wear. If necessary, contact support@robotiq.com.
- If wear is visible on the suction cups, replace them. See the Spare Parts, Kits and Accessories section. If grip reliability is reduced or the grip time is increased (boxes are regularly dropped or vacuum level takes more time to be obtained, even if the rest of the elements are in good condition), replace the cups.
- If an air tube is crushed or kinked, replace it.

6.2.4. Fasteners

Inspect the fasteners on a monthly basis to make sure that all the bolts are tightened.

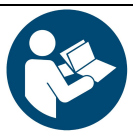
If necessary, tighten the fasteners according to the torque values specified in the table below.

Designation	Location	Torque	
		Metric	Imperial
Socket Head Cap Screw M8 X 1.25	Robot wrist	16 Nm	11.8 lb-ft
	Accessories	16 Nm	11.8 lb-ft
	Mounting plate	16 Nm	11.8 lb-ft
Socket Head Cap Screw M4 x 0.7	Protective shells	1 Nm	8.9 lb-in
Flat Head Cap Screw M4 x 0.7	Suction cup plate shells	2 Nm	17.7 lb-in

Socket Head Cap Screw M4 x 0.7	Motion Stabilizer Frame Triple Pick Stabilizer Frame	1 Nm	8.9 lb-in
Button Head Cap Screw M5 x 0.7	Motion Stabilizer Bar Triple Pick Stabilizer Slider	1.5 Nm	13.3 lb-in

Table 6-3: Torque Settings for Fasteners on PowerPick Multi Gripper

7. Spare Parts, Kits and Accessories



NOTICE

The following list is deemed up to date based on the moment at which this document was built. It is subject to change. Please check online for updates.

Item	Description	Ordering Number
DOUBLE BELLOW CUP 52MM KIT (24X)	Included: - 24 x Cups BX52P Double Bellows G1/4 - 24 x Pneumatic Valves - PiSaveSense - 1 x Tool Socket for PiSave Installation	VAC-CUP-PIAB-52MM-DB-KIT
SINGLE BELLOW CUP 52MM KIT (24X)	Included: - 24 x Cups B52XP Single Bellow G1/4 - 24 x Pneumatic Valves - PiSaveSense - 1 x Tool Socket for PiSave Installation	VAC-CUP-PIAB-52MM-SB-KIT
DOUBLE BELLOWS CUP 52MM (1X)	Included: - 1 x Cup BX52P Double Bellows G1/4 - 1 x Pneumatic Valve - PiSaveSense ** Tool Socket for PiSave Installation included in kit only**	VAC-CUP-PIAB-52MM-DB
SINGLE BELLOW CUP 52MM (1X)	Included: - 1 x Cup B52XP Single Bellow G1/4 - 1 x Pneumatic Valve - PiSaveSense ** Tool Socket for PiSave Installation included in kit only**	VAC-CUP-PIAB-52MM-SB
POWERPICK MULTI SHELL COVER ZONE 1	Included: - 1 x PowerPick Multi Shell Cover for Gripper Zone 1	VAC-PPM-SHELL-COVER-ZONE1

Item	Description	Ordering Number
POWERPICK MULTI SHELL COVER ZONE 2	Included: - 1 x PowerPick Multi Shell Cover for Gripper Zone 2	VAC-PPM-SHELL-COVER-ZONE2
POWERPICK MULTI MOTION STABILIZER KIT	Included: - 1x PowerPick Multi Motion Stabilizer Kit	VAC-POWERPICK-MULTI-MOT-STAB
POWERPICK MULTI TRIPLE PICK STABILIZER KIT	Included: - 1x PowerPick Multi Triple Pick Stabilizer Kit	VAC-POWERPICK-MULTI-TRIP-STAB
POWERPICK MULTI FEMALE CONNECTION KIT	Included: - 1 x Electrical Connector Rear Mount M8-Male 8 connector - 1 x Electrical Connector Rear Mount M12M 5 CONN. M16 - 1 x PCB Terminal Block Female 12 Pins - 1 x Electrical Heat-Shrink Tubing 1/4 in Dia. x 1 in - 8 x Ferrule	VAC-PPM-FEMALE-CONNECTION-KIT
POWERPICK MULTI SHORT WRIST CABLE	Included: - 1 x PowerPick Multi Short Wrist Cable	VAC-PPM-SHORT-WRIST-CABLE
POWERPICK MULTI LONG WRIST CABLE	Included: - 1 x PowerPick Multi Long Wrist Cable	VAC-PPM-LONG-WRIST-CABLE
POWERPICK MULTI I/0 CABLE (10m)	Included: - 1 x PowerPick Multi I/O Cable	VAC-PPM-I/O-CABLE-10M

Table 7-1: PowerPick Multi Spare Parts, Kits and Accessories

8. Troubleshooting

Symptom / Issue	Cause	Solution
The boxes are not picked or dropped reliably.	The vacuum level at the suction cups is not at the right level.	Validate that the input pressure is at the right level. If needed, increase it to 7 bar (100 psi).
		Verify that the suction cups are in good condition. If needed, clean them (please refer to the Maintenance section). If wear is visible, replace them (please refer to the Spare Parts, Kits and Accessories section).
		Verify that there is no air leak in the circuit between the PowerPick Multi and the suction cups.
		Verify that the air path, manifold and suction cups mesh filter are clean and not obstructed.
Nothing happens when the vacuum and/or blowoff is activated .	There must be an electrical or pneumatic issue.	Make sure the wires are correctly connected (please refer to the Electrical Installation section).
		Verify that the feed air pressure is at least 3 bar (43.5 psi)

Table 8-1: PowerPick Multi Troubleshooting Guidelines

9. Warranty

9.1. Conditions

Robotiq warrants the PowerPick Multi and all its components against defects in material and workmanship for a period of one (1) year from the date of reception when utilized as intended. Robotiq also warrants that this equipment will meet applicable specifications under normal use.



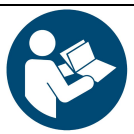
WARNING

The warranty applies under the following conditions:

- Usage is made in accordance with the operating and storage conditions specified in the Environmental and Operating Conditions section.
- The product and all its components have been properly installed as specified in the Installation section and following subsections.
- Maintenance is performed in accordance with the conditions specified in the Maintenance section.
- Usage complies with the recommended payload, force, acceleration and speed values specified in the Mechanical Specifications section.

The warranty will come to an end when one of the following conditions is reached, whichever comes first:

- One (1) year
- 2,000,000 opening and closing cycle counts for each valve. Once one of the valves reaches the count, the warranty will not apply anymore.



NOTICE

Cycle count definition: One (1) cycle count is defined as the activation of the component, which in this case is creating and releasing the vacuum.

During the warranty period, Robotiq will repair or replace any defective PowerPick Multi and any of its components, as well as verify and adjust the equipment free of charge if it needs to be repaired or if the original adjustment is erroneous. If the equipment is sent back for verification during the warranty period and found to meet all pertaining specifications, Robotiq will charge standard verification fees. If the PowerPick Multi feedback necessary for the robot program is not accessible, the unit is considered defective.

9.2. Warranty Void and Exclusions

The warranty will become void if:

- The unit has been tampered with, repaired or worked on by unauthorized individuals.
- The screws and hardware, other than as explained in this guide, have been removed.
- The unit has been opened other than as explained in this guide.
- The unit serial number has been altered, erased, or removed.
- The unit has been misused, neglected, or damaged.
- The Vacuum Generator has been opened by anyone other than a Robotiq employee.

This warranty is in lieu of all other expressed, implied, or statutory warranties, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose.

Robotiq shall not be liable for damages resulting from the use of the PowerPick Multi, nor from special, incidental, or consequential damages. Robotiq shall also not be responsible for any failure in the performance of other items to which the PowerPick and any of its components is connected or the operation of any system of which it may be a part.

This warranty excludes failure resulting from: improper use or installation, normal wear and tear, accident, abuse, neglect, fire, water, lightning or other acts of nature, causes external to the PowerPick Multi and any of its components or other factors beyond Robotiq's control. It also excludes all consumable parts, such as suction cups, and their normal wear.

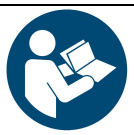
Robotiq reserves the right to make changes in the design or construction of any of its products at any time without incurring any obligation to make any changes whatsoever on units already purchased.

10. Harmonized Standards

The standards listed in the table below were followed, as far as applicable, for the design and production of the Robotiq PowerPick Multi Vacuum Gripper.

Standard	Year	Description
ISO 12100	2010	Safety of machinery — General principles for design — Risk assessment and risk reduction
ISO 9409-1	2004	Manipulating industrial robots – Mechanical interfaces – Part 1: Plates
ISO 4414	2010	Pneumatic fluid power – General rules and safety requirements for systems and their components
IEC 61000-6-2	2016	Generic standards – Immunity standard for industrial environments
IEC 61000-6-4	2018	Generic standards – Emission standard for industrial environments

Table 10-1: PowerPick Multi Applicable Standards



NOTICE

The EC Declaration of Incorporation is available at http://robotiq.com/support.

11. Appendix

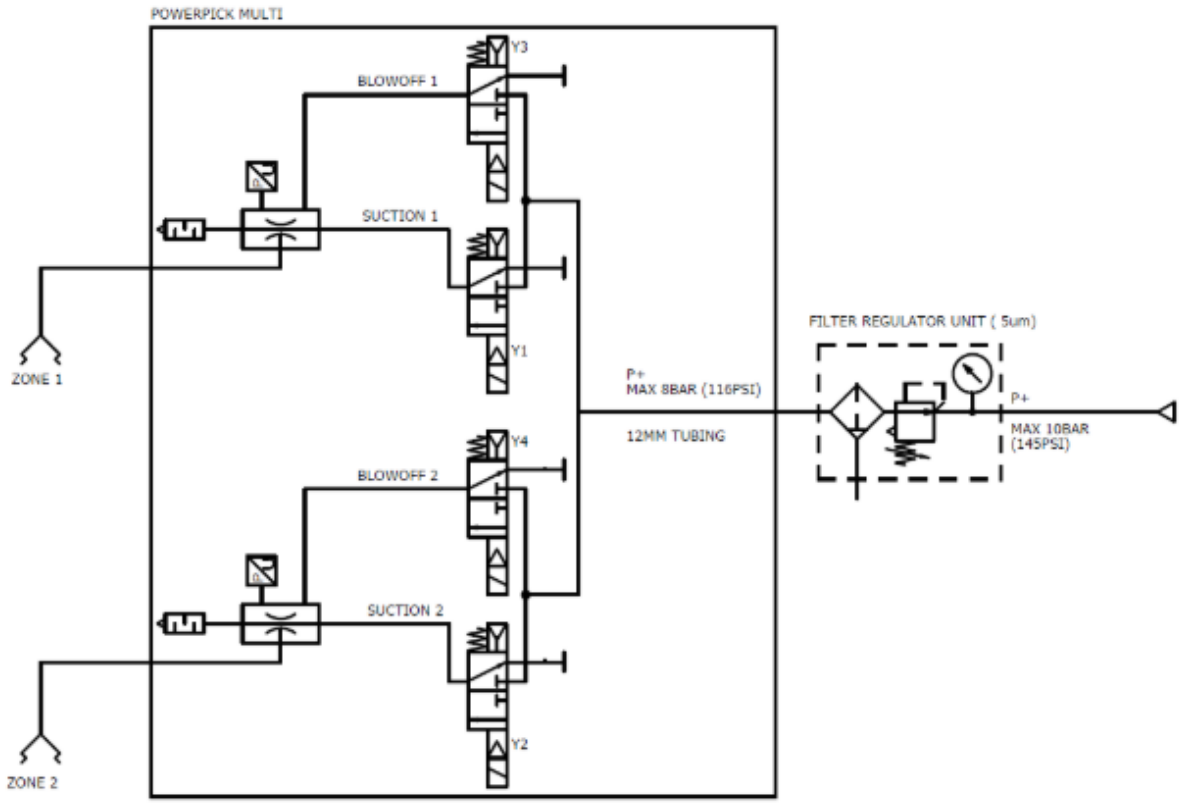


Table 11-1: Pneumatic Diagram of PowerPick Multi with Filter-Regulator Unit

12. Contact

Robotiq
www.robotiq.com ## Contact Us **Phone** 1-888-ROBOTIQ (762-6847) (01) 418-380-2788 Outside US and Canada **Technical support and engineering** option 3 **Sales** option 2 **Head office** Robotiq: 966, chemin Olivier Suite 500 Lévis, Québec G7A 2N1 Canada