

# **PTL701, PTL802, PTL803**

## **Rigid, Non-isolating Optical Table Supports**

### **User Guide**



Original Instructions

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# Chapter 1 Safety

## 1.1 Safety Information

For the continuing safety of the operators of this equipment, and the protection of the equipment itself, the operator should take note of the **Warnings, Cautions** and **Notes** throughout this handbook and, where visible, on the product itself.

The following safety symbols may be used throughout the handbook and on the equipment itself.



 **Shock Warning**   
Given when there is a risk of injury from electrical shock.

 **Warning**   
Given when there is a risk of injury to users.

 **Caution**   
Given when there is a risk of damage to the product.

**Note**  
Clarification of an instruction or additional information.

## 1.2 General Warnings

 **Warnings** 

**Do:**

- Ensure that the system is securely positioned prior to any work being undertaken.
- If using the system with any electrical equipment, incorporate appropriate earthing and/or other safety circuitry as required by national standards to protect the operator.
- When lifting or moving components, ensure that the proper posture is maintained. Do not lift loads in excess of nationally recognized safe working limits (25kg per operator in Europe). If in doubt use an appropriately designed lifting device.
- Before lifting the table top, ensure it is unpopulated.
- Exercise particular caution if moving the system on a sloping surface.
- Ensure all fixings are secure prior to use.
- Ensure that proper airflow is maintained to any electrical equipment installed on the system.

**Do not:**

- Use the system outdoors. The system is designed for indoor use only.
- Get into any position where you can be trapped between a wall, door frame or other immovable object and the system.
- Go underneath the system when the unit is being moved.
- Move the system when the table is floating on its supports.
- Tow the system with any powered device.
- Ride on the system.
- Move the system over uneven ground.
- Sit on the system.

# Chapter 2 Installation

## 2.1 General Description

Thorlabs rigid nonisolating supports are designed for use in applications which do not warrant vibration isolation, such as an ultra short pulse laser system. They provide an economical support structure for an optical table under heavy loading and feature manual levelling adjustment on each support to compensate for uneven floors. Each nonisolating support has an adjustment pad to level the optical table or adjust the table height over a +15 mm, -8 mm (+0.59", -0.31") range.

A choice of height allows any of the standard Thorlabs table tops to be mounted at a nominal working height of 910mm (36 in.) above the floor.

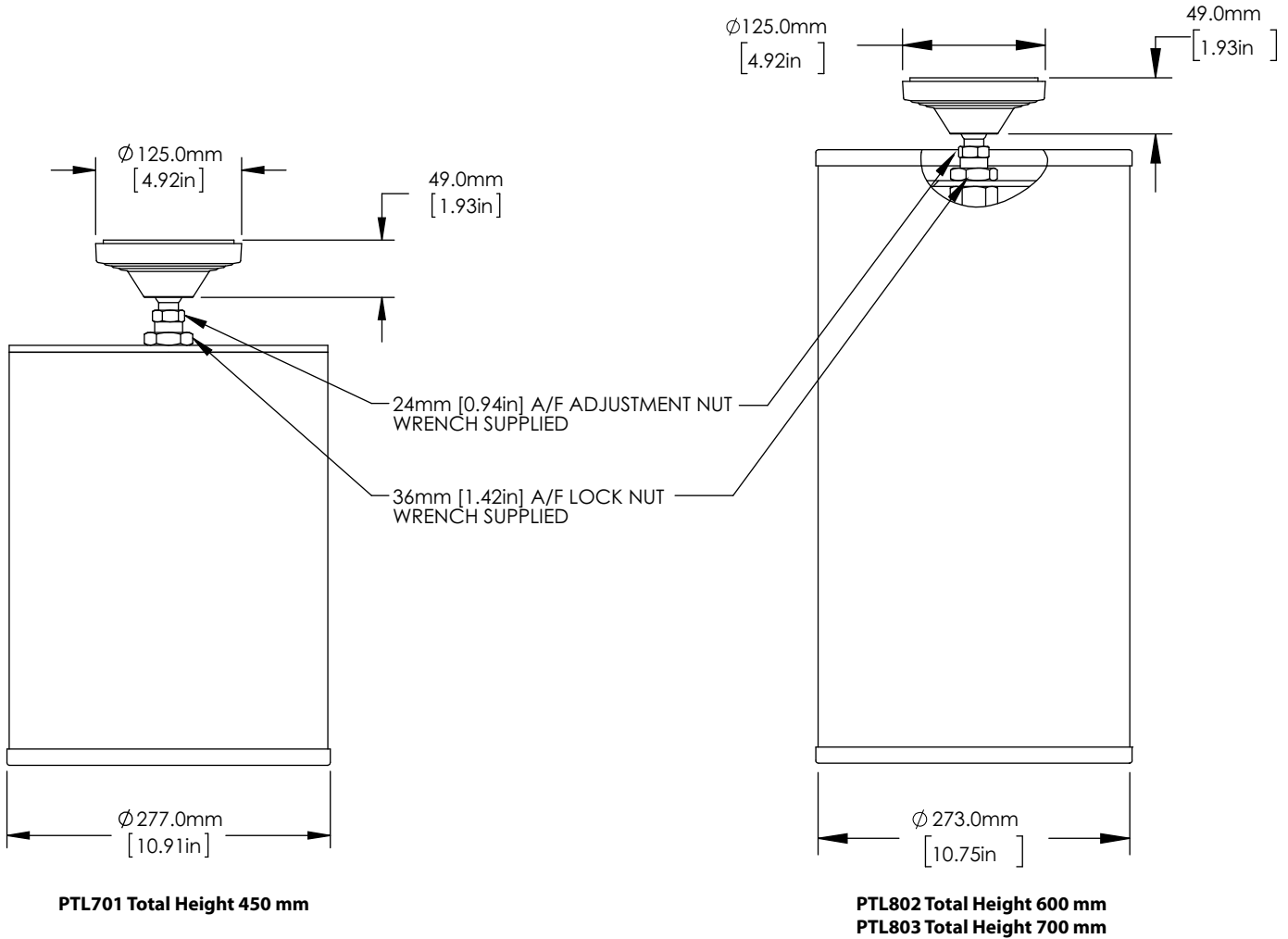


Fig. 2.1 Nonisolating support cross-section

## 2.2 Parts List

The following items are supplied as standard:

- 4 rigid supports
- 2 adjustment wrenches

### 2.2.1 Preparation

Ensure that the floor of the installation site is flat and horizontal to within 12 mm, (i.e. +/- 6.5 mm).

## 2.3 Installation

### Note

During item 1, two people, one on each side, should be employed in positioning the supports.

- 1) Position the supports in approximately the correct position for the table – see Fig. 2.2 for dimensions.

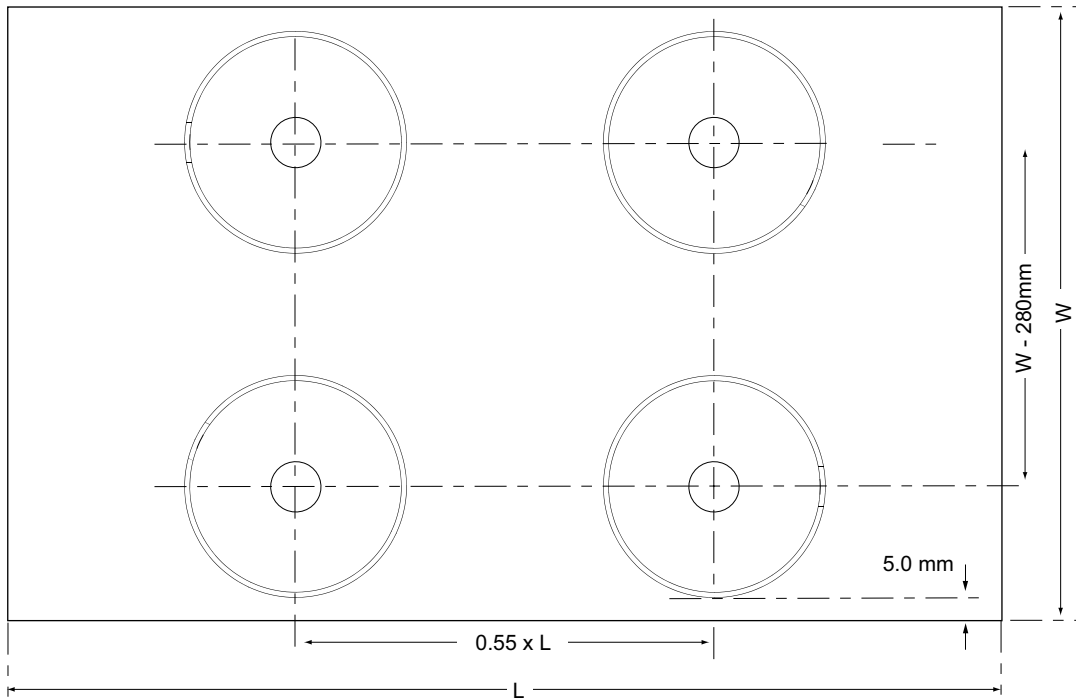


Fig. 2.2 Support positions

### 2.3.1 Mounting the Table on the Supports

- 1) Raise the table on a fork-lift truck, ensuring that the fork distance is set such that the forks can pass between the supports when the table is lowered into position – See Fig. 2.3.

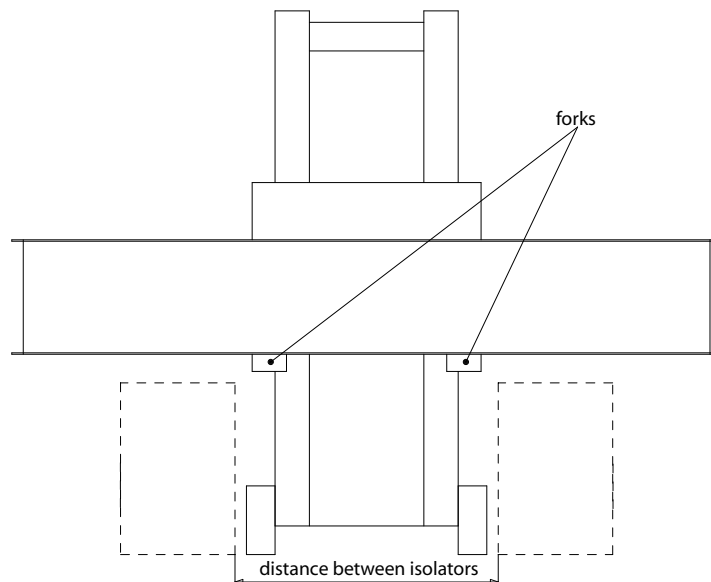


Fig. 2.3 Distance between forks

- 2) Manoeuvre the fork-lift truck until the table is over the supports. Carefully lower the table until it is around 20mm above the supports.
- 3) Lower the table onto the supports.
- 4) When the table is resting on the supports, remove the fork-lift truck.

## 2.4 Set-up

- 1) Using the 24 mm wrench supplied, adjust the pad on top of one of the supports to the required height.
- 2) Repeat item 1) for the support diagonally opposite.
- 3) Repeat items (1) and (2) for the remaining two supports.
- 4) Using a bubble level or other suitable device, check that the work surface is level. Repeat items (1) to (3) as necessary. – see Fig. 2.4.

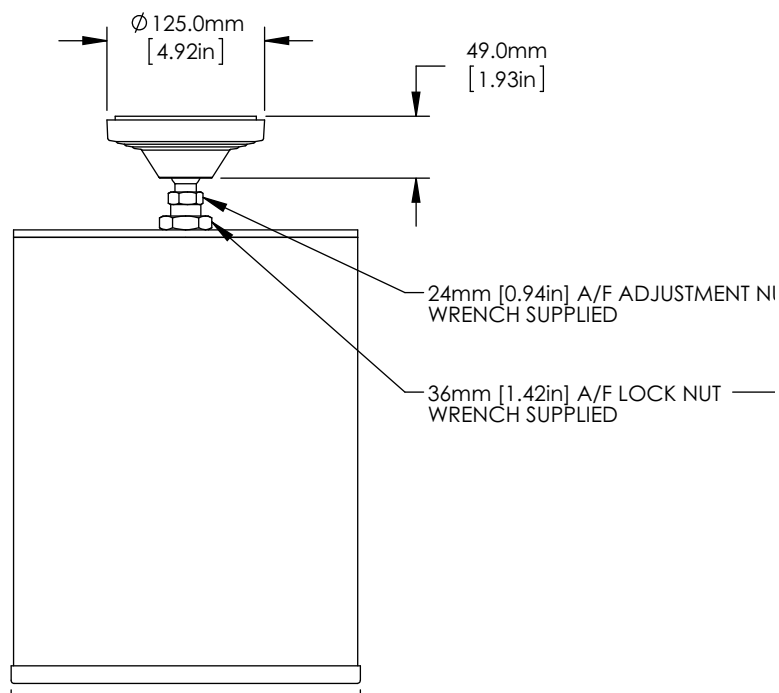


Fig. 2.4 Levelling the system

- 5) Using the 36 mm wrench supplied, tighten the locking nuts.

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## Chapter 3 Joined Systems

The location and pneumatic connections for a joined system will depend on the configuration of the system. Some typical examples are shown below. Please contact your local tech support office for more details.

### 3.1 Smaller Systems

Although single tables require four isolators, smaller joined systems may require only six rather than eight isolators. The number of isolators required will depend upon the joiner configuration and the size of the tables. Contact tech support for detmore details of a specific system attangement.

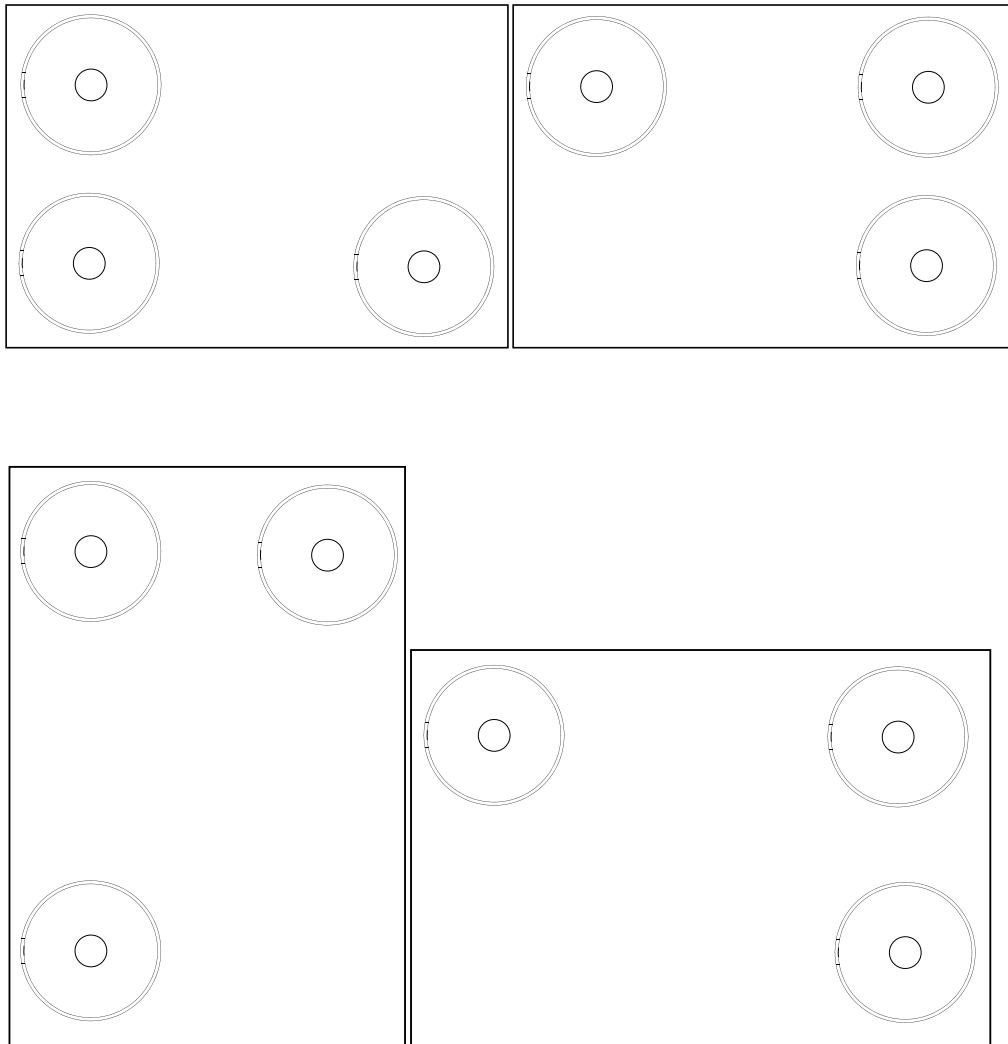
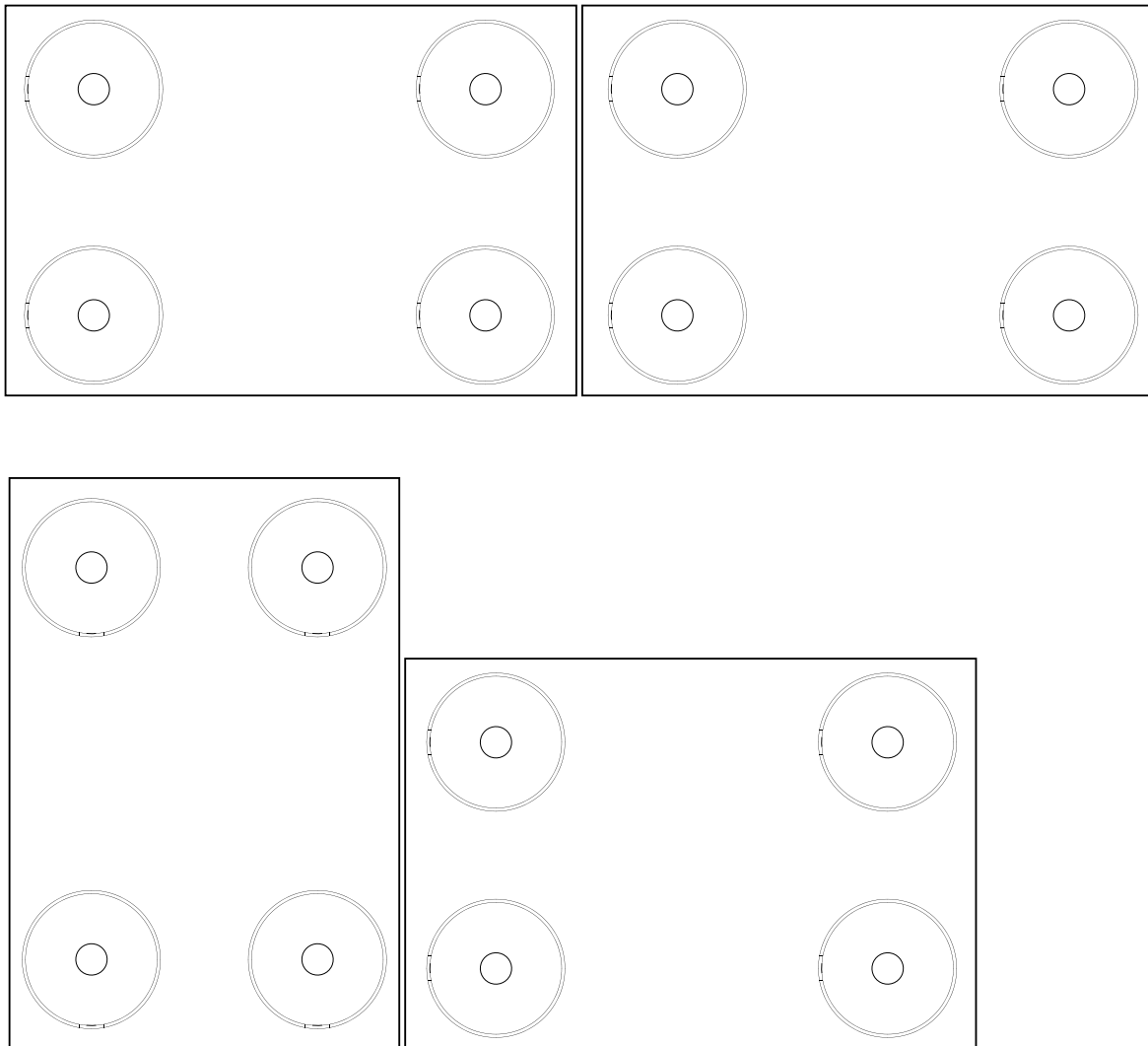


Fig. 3.1 Isolator positions and pneumatic connections - small systems

### 3.2 Larger Systems

Depending on the configuration of the joiner, larger systems may require eight or more isolators as shown below.



**Fig. 3.2 Isolator positions and pneumatic connections - larger systems**



## Appendix D Thorlabs Worldwide Contacts

For technical support or sales inquiries, please visit us at [www.thorlabs.com/contact](http://www.thorlabs.com/contact) for our most up-to-date contact information.



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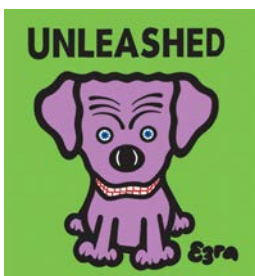
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