

PTA127 - December 6, 2024

Item # PTA127 was discontinued on December 6, 2024. For informational purposes, this is a copy of the website content at that time and is valid only for the stated product.

VIBRATION ISOLATION ACCESSORIES

- Air Compressors Provide up to 8 Bar of Air Pressure with Quiet Operation
- Air Filter/Regulator Removes Moisture & Particles Down to 5 µm
- Foot Pump for Passive Isolation Systems



Application Idea
The PTA522 air compressor can be used as a quiet source of air pressure for Thorlabs' active isolation systems.



PTA127
Foot Pump



PTA013
Air Filter/Regulator



PTA522
Air Compressor

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OVERVIEW

Air Compressors

The PTA522, PTA523, and PTA524 Air Compressors create up to 8 bar (120 psi) of air pressure and are self-contained, quiet, and compact. Furthermore, they are equipped with an auto-drain feature that removes condensate from the unit, thereby reducing maintenance. Each compressor ships with a bottle of compressor oil, which is also sold separately below (Item # PTA1006).

Air Filter/Regulator

The PTA013 Filter removes potentially damaging contaminants from the compressed air used in vibration isolation systems. The unit also regulates the pressure in the air line.

Foot Pump

The PTA127 Manual Foot Pump can be used to pressurize passive vibration isolation systems where a constant supply of air is not necessary.

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Air Compressors



PTA522

- ▶ Deliver Pressure up to 8 Bar (120 PSI)
- ▶ Air Tank Size: 3.5 Liters (0.92 U.S. Gallons)
- ▶ Compact Footprint
- ▶ Integrated Pressure Regulator and Filter

Item #	PTA522	PTA523	PTA524
Connector Style	US	UK	EU
Input Voltage (Frequency)	115 V (50 - 60 Hz)	230 V (50 - 60 Hz)	
Rated Input Current	1.9 A	1.05 A	
Rated Power	140 W	130 W	

- ▶ Low-Noise Operation: 50 dB(A) at 1 m
- ▶ Compatible with Our Active Optical Table Supports, Active Isolation Support Frames, and Active ScienceDesk™ Tables

The PTA52x Air Compressors can generate up to 8 bars of air pressure while providing low noise operation (50 dB(A) at 1 m away). Each unit is self-contained and compact. The low duty cycle of the compressors helps minimize vibrations. They are ideal sources of compressed air for active vibration isolation systems, such as our active optical table supports, active isolation support frames, or our active ScienceDesk™ tables.

The PTA52x air compressors accept standard 6 mm outer diameter tubing and include: an air outlet pressure regulator with gauge, a filter, a pressure tank with gauge, and a safety valve. Furthermore, they are equipped with an automatic drainage system that removes condensate from the unit, reducing the maintenance needed by avoiding the need for regular manual draining. They are shipped with a bottle of compressor oil (Item # PTA1006) and a power cord for the appropriate territory.

Note

The air compressor is only intended to operate at a duty cycle of less than 50% (or less than 15 minutes of every 30 minute cycle). To prevent exceeding a 50% duty cycle, check air connections for leaks regularly.

Free Air Delivery	20 L/minute (0.71 cfm)	17 L/minute (0.53 cfm)
Air Tank Pressure (Min/Max)	6 bar (90 psi) / 8 bar (120 psi)	
Air Tank Capacity	3.5 L (0.92 US gal.)	
Air Tank Fill Time from Empty	110 seconds (@ 50 Hz)	
Sound Pressure Level	50 dB(A) at 1 m	
Gross Weight	17 kg (37 lbs)	
Unit Dimensions	410 mm x 360 mm x 360 mm (16" x 14" x 14")	
Oil Type	ROLOIL-SINCOM/32E	

Part Number	Description	Price	Availability
PTA523	Air Compressor, 230 VAC Power Supply with UK Plug	\$993.49	Lead Time
PTA524	Air Compressor, 230 VAC Power Supply with EU Plug	\$993.49	Today
PTA1006	500 mL Bottle of Compressor Oil	\$54.64	Today
PTA522	Air Compressor, 115 VAC Power Supply with US Plug	\$993.49	Today

[Hide Air Filter/Regulator](#)

Air Filter/Regulator



- ▶ Removes Moisture and Particles Down to 5 µm
- ▶ Compatible with Our Active Optical Table Supports, Active Isolation Support Frames, and Active ScienceDesk™ Tables

Water and particles commonly found in compressed air can be damaging to a vibration isolation system. While this issue is minimized by the integrated filter on our PTA52x Air Compressors, other sources of compressed air may not yield consistent quality.

This compact filter/regulator is recommended for use with all Thorlabs active isolation breadboard support frames when not using a Thorlabs air compressor. It regulates the air pressure supplied to the isolators while removing moisture and particles down to 5 µm. The fittings are compatible with the 6 mm diameter plastic tubing supplied with the active isolator frames. Each filter/regulator is shipped with a wall mounting bracket and two 1/4" to 6 mm outer diameter tubing adapters.

Item #	PTA013
Filter Efficiency	5 µm Particles
Max Inlet Air Pressure	10.34 bar (150 psi)
Outlet Air Pressure	0.34 to 6.89 bar (5 to 100 psi)

Part Number	Description	Price	Availability
PTA013	Air Filter / Regulator	\$88.51	Lead Time

[Hide Foot Pump](#)

Foot Pump

- ▶ 2 m Hose for Use with Passive Isolation Products
- ▶ Connects to a Standard Schrader Valve
- ▶ Integrated Pressure Gauge
- ▶ Compatible with Our Passive Breadboard Support Frames, Passive

Item #	PTA127
Maximum Pump Pressure	7 bar (102 psi)
Hose Length	2 m (6 ft)



ScienceDesks™, and Passive Table Legs

The PTA127 is a manual foot pump that can be used to pressurize passive vibration isolation systems where a constant supply of air is not necessary. The foot pump comes with a Schrader-type connector, pressure gauge, and 2 m of hose to allow convenient positioning of the foot pump. Our passive breadboard frames, passive ScienceDesks™, and passive table legs can all be used with the PTA127 foot pump.

Part Number	Description	Price	Availability
PTA127	Customer Inspired! Passive Isolation Foot Pump	\$66.95	Lead Time