

Nonmagnetic, Active Self-Leveling Isolation Table Supports



Specifications

- **Maximum Load Capacity (Set of Four):** 5500 lbs (2500 kg)
- **Height:** 23.7 and 27.5" (600 and 700 mm)
- **Height Adjustment Range:** 0.5" (± 13 mm)
- **Self-Leveling Repeatability:** 0.010" (± 0.25 mm)
- **Air Pressure Required:** 100 psi (690 kPa) Max
- **Finish:** Black Paint
- Designed Specifically for Nonmagnetic Applications

- Active Isolators Provide Unsurpassed Vertical and Horizontal Isolation
- Extremely Low Resonant Frequency and Very Fast Settling Time
- Self-Leveling Isolators for Constant Height
- Nonmagnetic Construction for Use with Nonmagnetic Tabletops

These nonmagnetic, active self-leveling vibration isolation supports offer the highest performance of any pneumatic isolator, combining extremely low transmissibility with excellent low frequency performance.

Vertical vibration is the most obvious factor that effects optical experiments; however, significant horizontal vibration is often encountered in laboratories on upper floors of buildings. Applications that demand extreme stability, such as interferometry, holography, and nanopositioning, require both vertical and horizontal isolation.

These self-leveling isolators are large-diameter, free-standing systems that provide maximum stability and safety, without cumbersome tie bars. The low vertical and horizontal transmissibility of these isolators results in the least possible relative tabletop motion. Our proprietary design does not use liquids, which could leak or degrade over time.

Nonmagnetic, Active, Self-Leveling Vibration Isolators

ITEM#*	\$	£	€	RMB	DESCRIPTION	HEIGHT
NTS502	\$ 15,990.00	£11,085.00	€ 14,197.00	¥ 135,020.00	Nonmagnetic Active Supports, Set of 4	23.7" (600 mm)
NTS503	\$ 16,364.00	£11,344.00	€ 14,529.00	¥ 138,178.00	Nonmagnetic Active Supports, Set of 4	27.5" (700 mm)

*Please contact your local sales office for a quotation including shipping.

Self-Leveling System

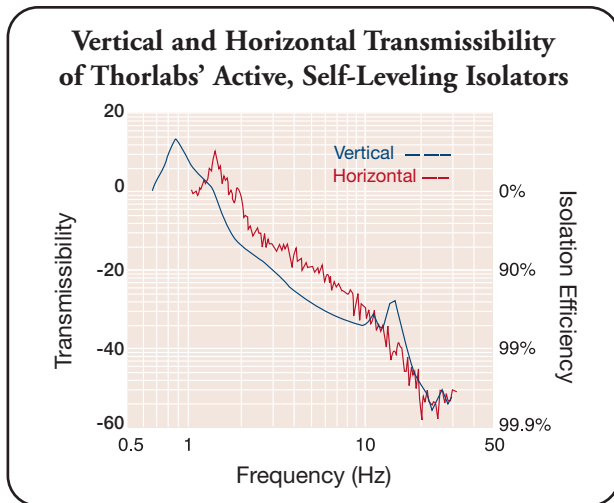
To allow for changes in load distribution, these isolators also feature a self-leveling system that incorporates precision three-way valves that do not compromise vertical isolation when the system is at rest. Because these valves are actuated by tabletop movement, the system returns to its original level position within 0.01" (± 0.25 mm) after disturbances. The valves also automatically compensate for any changes in tabletop load distribution.

Additionally, this system allows the table height to be adjusted over a range of 1.02" (26 mm) and can be used to compensate for an uneven floor. The isolators require a constant supply of air. When the air supply is removed (i.e., the isolation system is disabled), the tabletop rests securely on top of the legs, creating a rigid isolation system.

Active Isolation Technology

Vertical Damping is achieved using a dual-chamber, damped, pneumatic spring. The table is supported by the air pressure in these chambers. A piston, clamped to the bottom of the table, is sealed to the upper chamber with a rolling rubber diaphragm, allowing virtually friction-free motion between piston and chamber. Floor or tabletop motion forces air to flow from one chamber to the other through a high resistance damper. This restriction of airflow dampens oscillatory motion between the floor and table, dramatically reducing settling time. The volume ratio of the chambers has been optimized to maximize damping performance for our complete range of tabletops while preserving a low resonant frequency.

Horizontal Damping is accomplished by supporting the pneumatic vertical isolator on a trifilar suspension system. This innovative pendulum design uses gravity to provide the restoring force after horizontal disturbances. Horizontal oscillations at the system's resonant frequency are damped by linking the base of the vertical isolator to the outer cylinder with an oil-free vibration absorbing damper.



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