ZSR-P Series Pneumatic Optical Tables, Individual Isolators, 1500–3500 mm

Model ZSR-P Series · waveqvanta.com/products/zsr-p-series-pneumatic-optical-tables

Pneumatic optical table on individual isolators with automatic inflation and balancing, for vibration-sensitive optics.



The ZSR-P Series supports its tabletop on individual pneumatic isolators using semi-diaphragm air springs, a single swing-rod isolation system and pinhole damping. Automatic inflation and automatic balancing give a short response time, and isolation efficiency at 10 Hz is 90–95% both vertically and horizontally. Eighteen sizes range from 1500 × 900 mm to 3500 × 1500 mm, with 200 or 300 mm thick tops and load capacities of 1000–3000 kg.

Key features

- Individual pneumatic isolators with semi-diaphragm air springs
- Automatic inflation and automatic balancing with short response time
- Speed control fitted as standard to improve system stability
- Single swing-rod isolation system with pinhole damping
- Isolation efficiency 90–95% at 10 Hz, vertical and horizontal
- Three-layer sandwich honeycomb top; bonded trussed honeycomb top with individual cleaning cups (-K) optional
- SUS430 (1Cr17) stainless steel working surface as standard; SUS304 or SUS316 available; matte black, low-reflection finish

Specifications

Isolator Type	Individual pneumatic isolators, semi-diaphragm air springs
Isolation Mechanism	Single swing-rod isolation system
Damping	Pinhole damping
Isolation Efficiency at 10 Hz	90–95% vertical; 90–95% horizontal
Leveling	Automatic inflation and automatic balancing
Tabletop	Three-layer sandwich honeycomb, welded (default); bonded trussed with cleaning cups (-K)
Flatness, Welded Top	0.02–0.05 mm / 600 mm × 600 mm
Flatness, Bonded Top (-K)	0.1 mm / 600 mm × 600 mm
Tabletop Sizes	1500 × 900 mm to 3500 × 1500 mm
Tabletop Thickness	200 / 300 mm
Working Surface	4–6 mm stainless steel, SUS430 (1Cr17) standard
Optional Surface Materials	SUS304, SUS316
Working Surface, Width Over 1500 mm	1Cr13 (410) stainless steel
Bottom Skin	4–6 mm thick carbon steel
Side Panels	Blue PU leather (welded top), black PU leather (bonded top)
Mounting Holes	M6 on 25 mm × 25 mm grid, 37.5 mm from border
Total Height (Tabletop and Frame)	800 mm
Load Capacity	1000 kg (1500/1800 mm), 2000 kg (2000/2400 mm), 3000 kg (3000/3500 mm length)

Supports	4 legs; 6 legs for 3000 mm length and above
Maximum Air Pressure	0.7 MPa
Recommended Working Pressure	0.3–0.4 MPa
Horizontal Repeatability	±0.5 mm

Model overview

Model	Size L × W × H (mm)	Top Thickness (mm)	Top Weight (kg)	Load (kg)	Legs	-K Version	Working Surface
ZSR-P-15-09	1500 × 900 × 800	200	189	1000	4	Available	SUS430
ZSR-P-15-10	1500 × 1000 × 800	200	210	1000	4	Available	SUS430
ZSR-P-15-12	1500 × 1200 × 800	200	252	1000	4	Available	SUS430
ZSR-P-15-15	1500 × 1500 × 800	200	315	1000	4	Available	SUS430
ZSR-P-18-09	1800 × 900 × 800	200	227	1000	4	Available	SUS430
ZSR-P-18-10	1800 × 1000 × 800	200	252	1000	4	Available	SUS430
ZSR-P-18-12	1800 × 1200 × 800	200	302	1000	4	Available	SUS430
ZSR-P-18-15	1800 × 1500 × 800	200	378	1000	4	Available	SUS430
ZSR-P-20-10	2000 × 1000 × 800	200	280	2000	4	Available	SUS430
ZSR-P-20-12	2000 × 1200 × 800	200	336	2000	4	Available	SUS430
ZSR-P-20-15	2000 × 1500 × 800	200	420	2000	4	Available	SUS430
ZSR-P-24-12	2400 × 1200 × 800	200	403	2000	4	Available	SUS430
ZSR-P-24-15	2400 × 1500 × 800	200	504	2000	4	Available	SUS430
ZSR-P-24-18	2400 × 1800 × 800	200	605	2000	4	No	1Cr13 (410)
ZSR-P-30-12	3000 × 1200 × 800	300	601	3000	6	Available	SUS430
ZSR-P-30-15	3000 × 1500 × 800	300	752	3000	6	Available	SUS430
ZSR-P-35-12	3500 × 1200 × 800	300	701	3000	6	No	SUS430
ZSR-P-35-15	3500 × 1500 × 800	300	877	3000	6	No	SUS430

Typical applications

- Optical communication
- High-magnification optical microscopy
- Optical imaging
- Precision spectral measurement