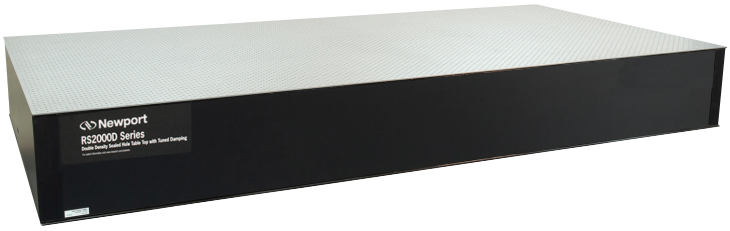
RS2000D Series Optical Table Tops

Double Density Optical Table Tops with Two Precision Tuned Dampers

Featuring a double density hole pattern and two precision tunable dampers, our RS2000D Series optical table tops exceed our competitor's best performance tables while providing damping for applications such as biomedical imaging, scanning microscopy, spectroscopy, electrophysiology ultrafast studies, atomic physics research, and more.



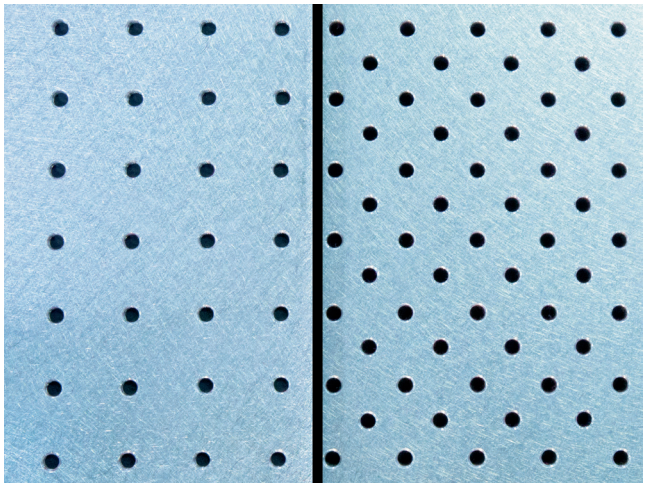
Features and Benefits

- Two precision tunable dampers concentrate damping where it's needed
- Double density hole pattern allows for more compact setups
- Trussed honeycomb core improves table stiffness
- Triple core interface increases point loading capability
- Mounting holes individually sealed with conical polymeric cup
- Compatible with S-2000A Series pneumatic isolators and RL Series LabLegs

Double Density Hole Pattern

The unique double-density hole grid pattern on these optical table tops provides twice the mounting locations of standard 1 inch (25 mm) hole grids. It is ideal for applications that require a dense mounting surface, such as laser cooling, atomic physics, and spectroscopy.

The standard 1 inch (25 mm) hole grid pattern is shown on the left. A double density hole grig pattern with additional mounting holes is shown on the right.

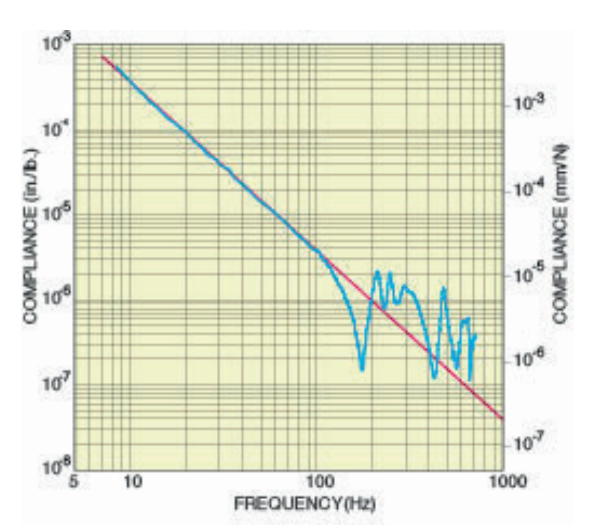


RS2000 Broadband and Tuned Damping Performance

RS2000 Series optical tables are a culmination of many years of experience, innovation and attention to detail leading to unmatched vibration immunity. RS2000 tables feature a 4.8 mm thick optical table skin, a constrained layer core, damped working surface and composite edge finish to provide broadband damping. Two precision tuned dampers are included to selectively eliminate two fundamental structural table modes and their entire harmonics. Originally designed for high end interferometric research, these optical tables are the best choice for extremely sensitive measurements requiring the utmost in vibration control.

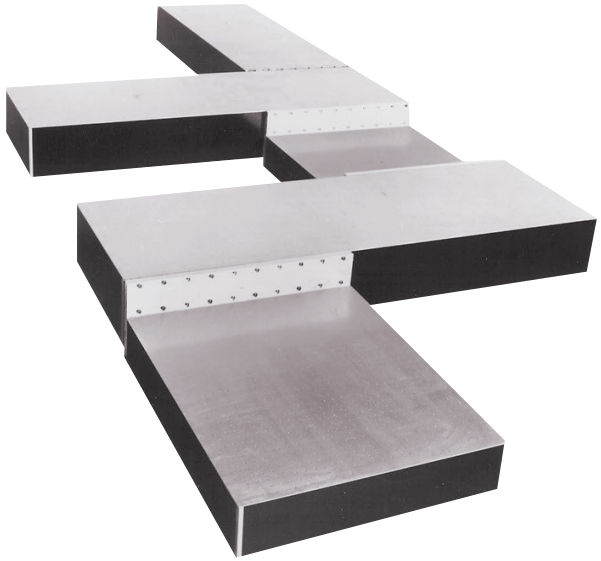
The compliance curve shows the positional motion of the structure for a given excitation force and frequency. The red line is the rigid body line showing how an ideal optical table would perform with no relative motion. The blue line shows the natural frequencies of the optical table and how they deviate from that of a rigid body.

Compliance curve for a RS2000 4 ft x 8 ft x 12 in. (1200 x 2400 x 305 mm) table top.



Custom Optical Table Design Options

Newport has a dedicated custom design team for your custom needs. This team has been working with various types of materials, shapes (see doubled table tops), structures, hole patterns (and many more) for over 40 years, and has served customers across the world in research, aerospace, semiconductor and medical related fields. Newport is committed to providing: The most accurate and timely quoting response; The most professional communications of custom design review and changes; The optimum turnaround time and the highest quality end product. Contact Newport today for your custom needs.



Specifications

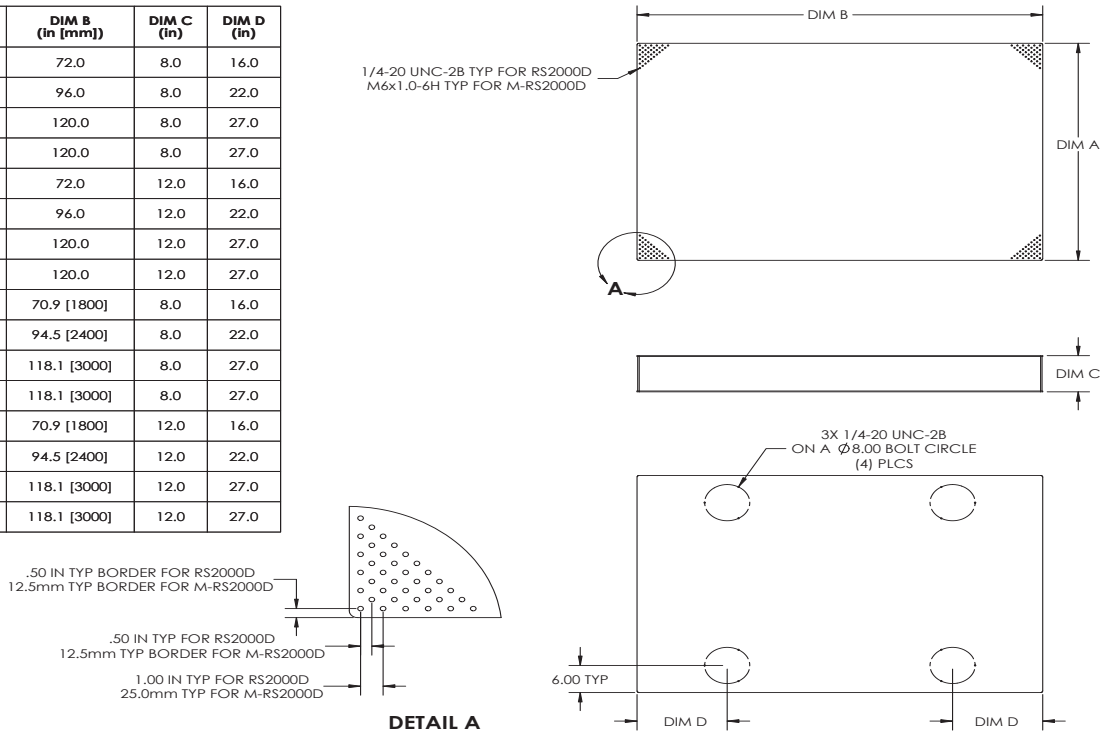
Type	Double Density Optical Table Top
Tuned Damping	2 Precision Tuned Dampers
Broadband Damping	Constrained layer core, damped working surface and composite edge finish
Working Surface	4.8 mm thick ferromagnetic 430 stainless steel
Surface Flatness	± 0.004 in. (0.1 mm) over 2 ft. (600 mm) square
Mounting Holes	1/4-20 M6 (M- Versions)
Mounting Hole Pattern	1 in. (25 mm) grid, double density
Alpha-Numeric Grid Labels	No
Mounting Hole Borders	0.5 in. 12.5 mm (M- Versions)
Hole Sealing Type	Easy clean conical cup, 0.75 in. (19 mm) deep, non-corrosive high impact polymer material
Core Design	Trussed honeycomb, vertically bonded closed cell construction, 0.010 in. steel sheet materials, 0.030 in. triple core interface

Order Table

MODEL (Metric)	Width [ft. (mm^3)]	Length [ft. (mm^2)]	Thickness [in. (mm)]
RS2000D-46-8 (M-RS2000D-46-8)	4 (1200)	6 (1800)	8 (203)
RS2000D-46-12 (M-RS2000D-46-12)	4 (1200)	6 (1800)	12 (305)
RS2000D-48-8 (M-RS2000D-48-8)	4 (1200)	8 (2400)	8 (203)
RS2000D-48-12 (M-RS2000D-48-12)	4 (1200)	8 (2400)	12 (305)
E RS2000-410-8 (M-RS2000-410-8)	4 (1200)	10 (3000)	8 (203)
RS2000-410-12 (M-RS2000-410-12)	4 (1200)	10 (3000)	12 (305)
RS2000-510-8 (M-RS2000-510-8)	5 (1500)	10 (3000)	8 (203)
RS2000-510-12 (M-RS2000-510-12)	5 (1500)	10 (3000)	12 (305)

Dimensional Drawing

MODEL NUMBER	DIM A (in [mm])	DIM B (in [mm])	DIM C (in)	DIM D (in)
RS2000D-46-8	48.0	72.0	8.0	16.0
RS2000D-48-8	48.0	96.0	8.0	22.0
RS2000D-410-8	48.0	120.0	8.0	27.0
RS2000D-510-8	59.1	120.0	8.0	27.0
RS2000D-46-12	48.0	72.0	12.0	16.0
RS2000D-48-12	48.0	96.0	12.0	22.0
RS2000D-410-12	48.0	120.0	12.0	27.0
RS2000D-510-12	59.1	120.0	12.0	27.0
M-RS2000D-46-8	47.2 [1200]	70.9 [1800]	8.0	16.0
M-RS2000D-48-8	47.2 [1200]	94.5 [2400]	8.0	22.0
M-RS2000D-410-8	47.2 [1200]	118.1 [3000]	8.0	27.0
M-RS2000D-510-8	59.1 [1500]	118.1 [3000]	8.0	27.0
M-RS2000D-46-12	59.1 [1200]	70.9 [1800]	12.0	16.0
M-RS2000D-48-12	47.2 [1200]	94.5 [2400]	12.0	22.0
M-RS2000D-410-12	47.2 [1200]	118.1 [3000]	12.0	27.0
M-RS2000D-510-12	59.1 [1500]	118.1 [3000]	12.0	27.0



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