

RPR Reliance™/RT Series

Industrial and Educational
Grade Optical Tables

Features and Benefits

**Integrated Broadband Damping—
Only from Newport!**

- Damped work surface eliminates skin resonance
- Damped composite edge finish eliminates side wall resonance
- Constrained layer core damping attenuates broadband vibration

**Vertically Bonded Trussed Core—
Only from Newport!**

- Truss bridges honeycomb cell to increase the stiffness-to-weight ratio of the table
- Lighter, stiffer table provides better dynamic rigidity
- Vertical bonding of core increases static rigidity
- Triple core interface increases point loading capability

**Unmatched mechanical design—
Only from Newport!**

- Best flatness in the industry
- Low thermal stress bonding
- Non-corrosive sealing of holes and honeycomb cells
- Countersunk cut threads for improved component mounting



* Table and legs sold separately

The RPR and RT Series

These tables represented the state of the art before the advent of tuned damping found in the RS Series. Indeed, the RPR set the standard that younger companies still imitate. Today they still offer good value for many less stringent applications. The RPR and RT Series tables offer Newport performance and quality at an affordable price.

**The RPR Reliance™—Time
proven performance**

Featuring the material workmanship and quality found in all Newport tables, the RPR meets many general application needs. The RPR offers the same broadband damping, static rigidity, and thermal stability capabilities as the RS Series but at a more modest price.

The RT—Easy on the budget!

Offering both Newport quality and the innovative trussed core design, the RT is one of the most economical tables available. Thinner work-surface and bottom skins offer less static rigidity than other Newport tables, but the RT is still a highly rigid structure. Additionally, the tapped holes are cut and counter-sunk—not rolled like many competitive tables.

Specifications

Working Surface	400 series ferromagnetic stainless steel
RPR Series	3/16 in. (4.8 mm) thick with integrated damping layer
RT Series	0.134 in. (3.4 mm) thick with integrated damping layer
Surface Flatness [in. (mm)]	
RPR Series	±0.004 (±0.1), over 2 ft (600 mm) square
RT Series	±0.006 (±0.15), over 2 ft (600 mm) square
Core Design	Trussed honeycomb, Vertically bonded closed cell construction, 0.010 in. (0.25 mm) Steel sheet materials, 0.030 in. (0.76 mm) triple core interface
Broadband Damping	Constrained layer core, damped working surface and composite edge finish
Mounting Holes	1/4-20 holes on 1 in. grid (M6-1.0 holes on 25 mm grid), 0.5 in. borders (12.5 mm borders)
Hole/Core Sealing	Easy clean conical cup, 0.75 in. (19 mm deep) Non-corrosive, high impact polymer material

	RPR Series	RT Series
Thickness [lb/ft ² (kg/m ²)]	22 (106)	17.3 (84)
Maximum Dynamic Deflection Coefficient	<2.0 x 10 ⁻³	<2.8 x 10 ⁻³
Maximum Relative Motion Value [in. (mm)]*	<12.0 x 10 ⁻³ (<3.0 x 10 ⁻³)	<18.0 x 10 ⁻³ (<4.6 x 10 ⁻³)
Deflection Under Load [in. (mm)]†	<5.0 x 10 ⁻⁵ (<1.3 x 10 ⁻⁵)	<9.0 x 10 ⁻⁵ (<2.3 x 10 ⁻⁵)

* Calculated and verified by interferometric testing in relatively quiet lab; table on isolators.

† Calculated and verified for a 250 lb (114 kg) load placed in the center of a 12 in. table.

Ordering Information

To order, use the following format:

Model RPR or RT - WL - T
 Width x length (in ft.) _____ Thickness (in inches) _____

RPR and RT Series come standard with 1/4-20 holes on 1 in. grid; for M6 metric holes on 25 mm grid add the prefix "M-".

* Vibration isolators are sold separately.

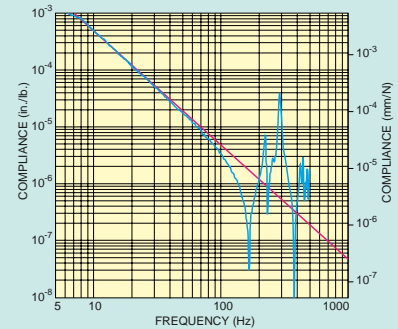
Example:

RPR-48-12 = RPR Series, 4 ft wide by 8 ft long by 12 in. thick
 M-RPR-36-8 = Metric RPR, 0.9 m wide by 1.8 m long by 200 mm thick

RPR & RT sizes

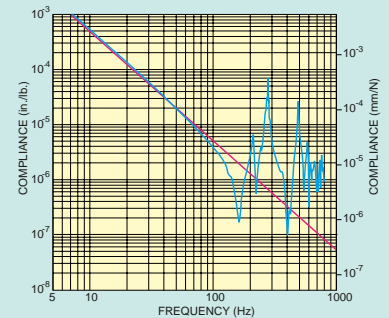
Width [ft (m)]	Length [ft (m)]	Thickness for RPR [in. (mm)]	Thickness for RT [in. (mm)]
3 (0.9)	6 (1.8)	8 (203)	7.88 (200)
4 (1.2)	8 (2.4)	12 (305)	11.88 (302)
5 (1.5)	10 (3.0)	18 (457)	
	12 (3.6)	24 (610)	
	14 (4.2)		
	16 (4.8)		
	18 (5.4)		
	20 (6.0)		

RPR Series



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

RT Series



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

Notes:

Order by feet and inches.

5 foot widths are actually 1.5 m. 59.06 in. with 1.53 in. borders.

RT only available in 3 ft and 4 ft width and lengths to 12 ft.