

Optical Tables

720 • 730 • 740

HONEYCOMB TABLE TOPS



- Sandwich structure with steel honeycomb core
- 5 mm ferromagnetic stainless steel top skin with a pattern of M6 holes spaced by 25 mm
- Surface flatness ± 0.1 mm over any 1 m² area
- Laser Port (optional)

Honeycomb Table Tops provide the base on which precision optical and laser work is performed. The table tops have a honeycomb core inside.

The table tops meet high requirements for rigidity, flatness, vibration isolation and damping. We work constantly to improve the design, weight and cost-effectiveness of the table tops.

Standard Honeycomb Tabletop consists of a 5 mm thick cold-rolled stainless ferromagnetic steel top skin, and 3–6 mm thick bottom skin, both bound under high pressure to a honeycomb core, using a special epoxy resin. Thickness of the skin depends on the dimensions of the table top.

The top skin has a pattern (grid) of M6 holes spaced by 25 mm with ± 0.1 mm accuracy. It allows to make very quick experimental

setups, and, at the same time, ensures a high level of precision and reproducibility. The surface of the top skin is ground to flatness of ± 0.1 mm over 1 m² area over the entire surface. The bottom skin is coated in a firm decorative coating.

Our standard honeycomb core is made of 0.25 mm corrosion-resistant plated sheet steel. A special composition of epoxy resin guarantees adhesion, rigidity, stability and damping corresponding to highest requirements.

The side-walls of the table top are made of a special acoustically hollow plastic which damps acoustic vibrations. The side-walls are covered in a decorative black leather substitute.

Upon request a Laser Port can be embedded in the table top allowing a laser beam to be let through the table (see the next page).

The Honeycomb Table Tops have been mechanically and acoustically tested by qualified specialists.



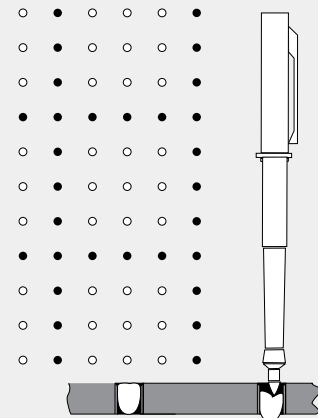
THE CONCEPT OF CLOSED TOP HONEYCOMB TABLES

Real Closed Top – no way for liquids or tiny particles to get in.

There are only the holes you do use. Make “new” holes by yourself.

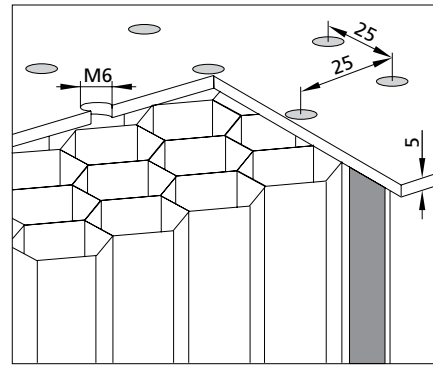


If You need a hole, clear it of the plug with a pencil or any similar item. Seal the no longer needed hole with the self-solidifying plastic mass again. In order to facilitate composition of optical schemes, we pre-set the plastic plugs of two colours, so that they form a coordinate grid with a mesh of 100 mm.

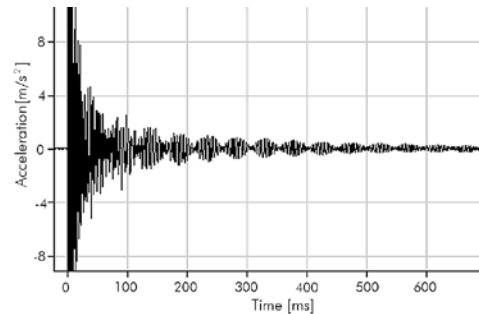




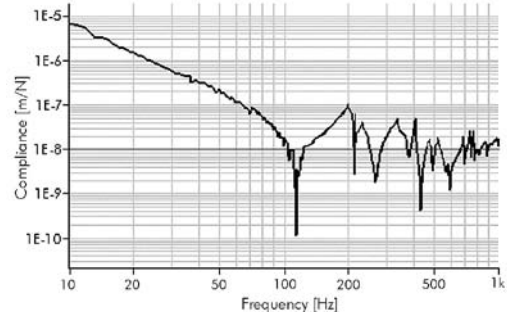
- Top skin 5 mm thick stainless ferromagnetic steel
- Honeycomb core of 0.25 mm thick steel has a density of 125–250 kg/m³ depending on the cell size and its structure
- Top skin has a pattern of M6 holes spaced by 25 mm
- Flatness ±0.1 mm/m²
- Young's modulus 21×10⁵ kg/cm²
- Shear modulus 8.2×10⁵ kg/cm²
- Deflection under load 4 μm/m (100 kg centrally loaded)
- Resonant frequency approx. 200 Hz
- Transient excitation delay time 50 ms



Structure of the honeycomb table tops



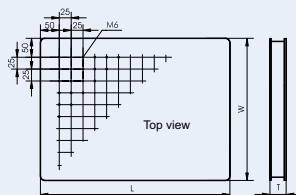
Acceleration curve for 720-1224 Table Top



Compliance curve for 720-1224 Table Top

Honeycomb table tops ordering chart

Size W×L, mm	Thickness T, mm		
	200	300	400
600×2400	720-0624		
800×1000	720-0810		
800×1200	720-0812		
800×1500	720-0815		
800×1800	720-0818		
800×2000	720-0820		
800×2400	720-0824		
900×1000	720-0910		
900×1200	720-0912		
900×1400	720-0914		
900×1500	720-0915		
900×1600	720-0916		
900×1800	720-0918	730-0918	
900×2400	720-0924	730-0924	
1000×1000	720-1010		
1000×1200	720-1012		
1000×1500	720-1015	730-1015	
1000×1800	720-1018	730-1018	
1000×2000	720-1020	730-1020	
1000×2400	720-1024	730-1024	
1000×3000	720-1030	730-1030	
1000×3500	720-1035	730-1035	
1200×1200	720-1212	730-1212	
1200×1500	720-1215	730-1215	
1200×1800	720-1218	730-1218	
1200×2400	720-1224	730-1224	740-1224
1200×3000	720-1230	730-1230	740-1230
1200×3500	720-1235	730-1235	740-1235
1200×4000	720-1240	730-1240	740-1240
1500×1500	720-1515	730-1515	740-1515
1500×1800	720-1518	730-1518	740-1518
1500×2000	720-1520	730-1520	740-1520
1500×2400	720-1524	730-1524	740-1524
1500×2500	720-1525	730-1525	740-1525
1500×3000	720-1530	730-1530	740-1530
1500×3500	720-1535	730-1535	740-1535
1500×4000	720-1540	730-1540	



Custom sizes are available on request.

Non-Ferromagnetic Table Tops are available on request.

Example for ordering: 720-1012-NF non-ferromagnetic table top

Laser Ports are designed to lead a laser beam or cables through a Table Top. The standard location of a port is chosen for use with the Laser Shelves 792. To specify a Laser Port in your order please append letter "H" to the code of a Honeycomb Table Top e.g. 720-1020-H.

