

Honeycomb Table Tops

1HT



- 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 1m² area
- Laser Port (optional – see the next page)

Honeycomb Table Tops 1HT 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 **1HT** 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 skins 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 any 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.

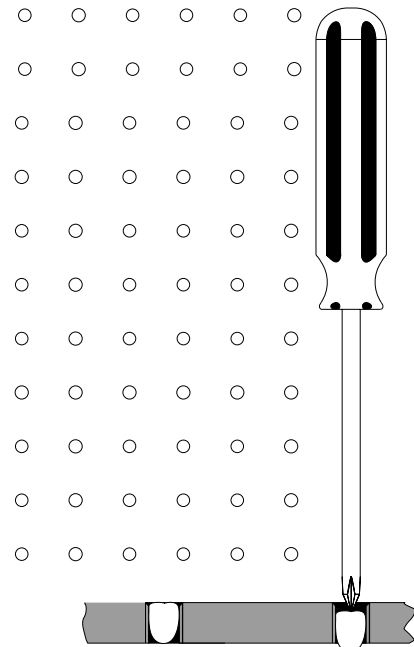
Upon request a **Laser Port** can be embedded in the table top allowing a laser beam to be let through the table (see the next page).

The Honeycomb Table Tops **1HT** 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. Only the holes you do use are open. Make “new” holes by yourself, by pushing in the plug with the help of a screwdriver, a hex key or another thin hard tool. If you need to re-seal the no longer used holes, let us know and we will provide polyethylene plugs that fit snugly into the M6 holes. To clean the Standa “closed” tabletop, simply wipe the surface using a damp cloth (with cleaning agent if necessary). No need to clean each individual hole!



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- 8 Motorised Positioners & Controllers
- 9 Fine Adjustment Screws
- 10 Opto-Mechanics & Sets
- 11 Light Test & Measurement Instruments
- 12 Lasers & Laser Accessories



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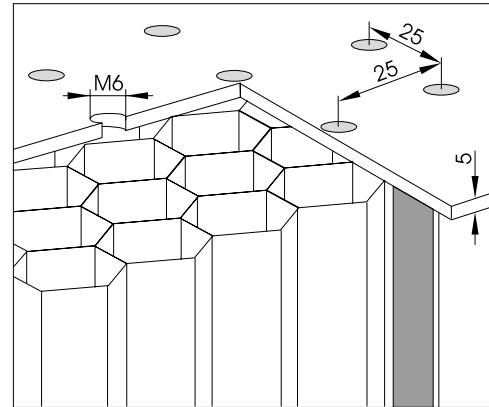


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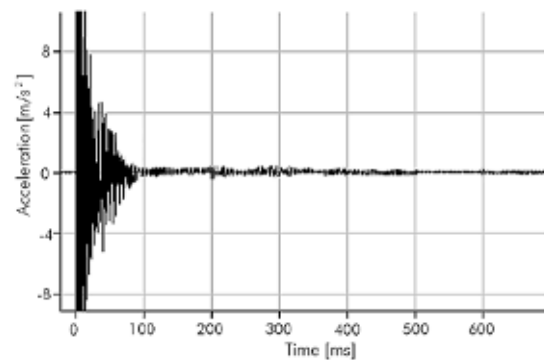
Honeycomb Table Tops

1HT

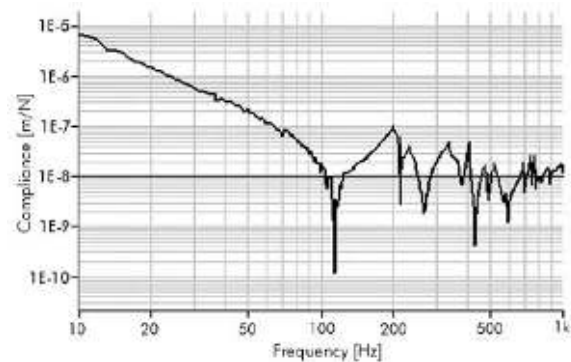


Structure of the honeycomb table tops

- top skin 5 mm thick ferromagnetic stainless 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 21x10⁵ kg/cm²
- shear modulus 8.2x10⁵ kg/cm²
- deflection under load 1.5 μm/m
- resonant frequency approx. 200 Hz
- transient excitation delay time 50 ms



Acceleration curve for 1HT12-24-20 Table Top



Compliance curve for 1HT12-24-20 Table Top

Our company produces table tops according to customer's specifications.

Non-Ferromagnetic Table Tops are available for special orders

Example for ordering:
1HT10-12-20-NM – 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 1LS52**.

To specify a Laser Port in your order please append letter "H" to the code for a Honeycomb Table Top e.g. 1HT10-20-20H.



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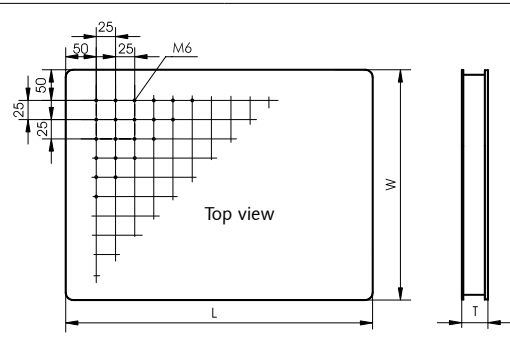


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- Optical Tables 1
- Brackets & Rails 2
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- Base Positioners 6
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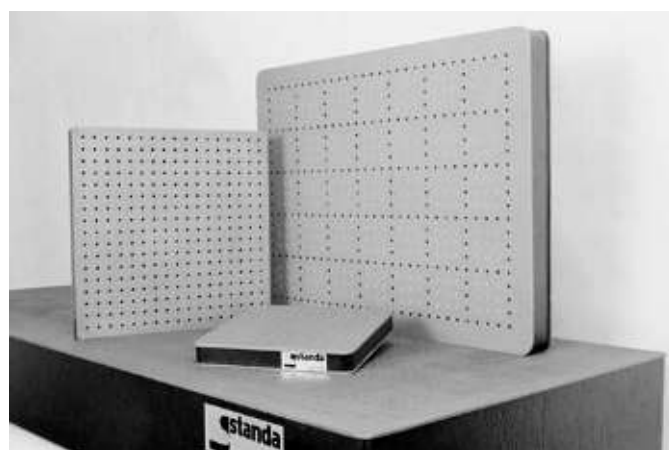
Size, mm	Thickness, mm		
	200	300	400
600×2400	1HT06-24-20		
800×1000	1HT08-10-20		
800×1200	1HT08-12-20		
800×1500	1HT08-15-20		
800×1800	1HT08-18-20		
800×2000	1HT08-20-20		
800×2400	1HT08-24-20		
900×1000	1HT09-10-20		
900×1200	1HT09-12-20		
900×1400	1HT09-14-20		
900×1500	1HT09-15-20		
900×1600	1HT09-16-20		
900×1800	1HT09-18-20	1HT09-18-30	
900×2400	1HT09-24-20	1HT09-24-30	
1000×1000	1HT10-10-20		
1000×1200	1HT10-12-20		
1000×1500	1HT10-15-20	1HT10-15-30	
1000×1800	1HT10-18-20	1HT10-18-30	
1000×2000	1HT10-20-20	1HT10-20-30	
1000×2400	1HT10-24-20	1HT10-24-30	
1000×3000	1HT10-30-20	1HT10-30-30	
1000×3500	1HT10-35-20	1HT10-35-30	
1200×1200	1HT12-12-20	1HT12-12-30	
1200×1500	1HT12-15-20	1HT12-15-30	
1200×1800	1HT12-18-20	1HT12-18-30	
1200×2400	1HT12-24-20	1HT12-24-30	1HT12-24-40
1200×3000	1HT12-30-20	1HT12-30-30	1HT12-30-40
1200×3500	1HT12-35-20	1HT12-35-30	1HT12-35-40
1200×4000	1HT12-40-20	1HT12-40-30	1HT12-40-40
1500×1500	1HT15-15-20	1HT15-15-30	1HT15-15-40
1500×1800	1HT15-18-20	1HT15-18-30	1HT15-18-40
1500×2000	1HT15-20-20	1HT15-20-30	1HT15-20-40
1500×2400	1HT15-24-20	1HT15-24-30	1HT15-24-40
1500×2500	1HT15-25-20	1HT15-25-30	1HT15-25-40
1500×3000	1HT15-30-20	1HT15-30-30	1HT15-30-40
1500×3500	1HT15-35-20	1HT15-35-30	1HT15-35-40
1500×4000	1HT15-40-20	1HT15-40-30	



Custom sizes available on request

Honeycomb Breadboards

1HB



- Core – 265 kg/m³ 0.25 mm thick steel honeycomb
- Top skin – 5 mm thick ferromagnetic stainless steel
- Pattern of M6 holes spaced by 25 mm
- Flatness ±0.1 mm/m²

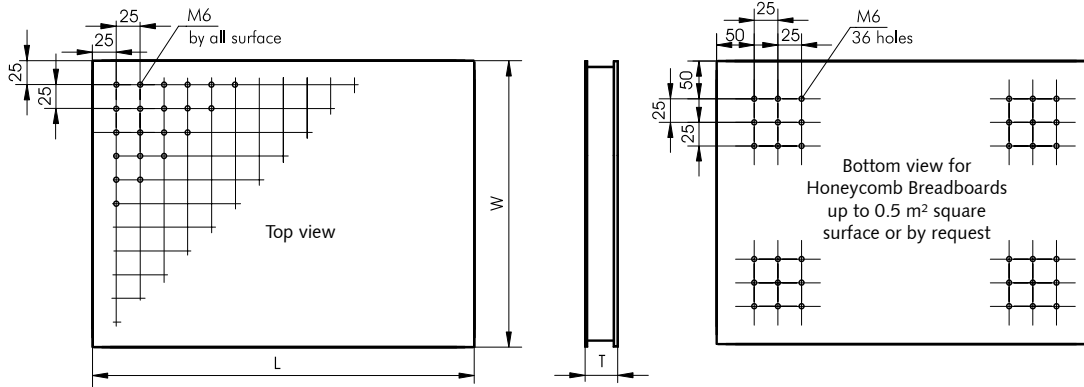


1HB03-03-04

Honeycomb Breadboards 1HB provide a particularly effective way to expand the useful area of an optical table. The mounting surface has tapped M6 holes on 25 mm centers for permanent mounting of components. These baseplates use the same sandwich structure as our full size honeycomb table tops. The standard top skin is made of ferromagnetic stainless steel. Thickness of the skin is 5 mm.

Honeycomb Breadboards

1HB



A breadboard may be mounted on a table by silent rods **2SR-32** or **3MP25**

Honeycomb Breadboards up to 0,5m² have a grid of nine **M6** tapped mounting holes in each corner of the bottom side. Larger Breadboards can have this grid by request. The **1HB** can be mounted at the bottom side of a table or elevated above its surface using the Silent Rods **2SR**.

These **Breadboards are not intended as a substitute for optical tables**. Their size-to-thickness ratio produces relatively low end-to-end rigidity, although their local rigidity over distances of less than about **30 to 60 cm** is excellent. When attached solidly to a dynamically rigid optical table, performance of resulting working surface becomes comparable to that of the table itself.

Honeycomb Breadboards 1HB Ordering Chart

Size WxL, mm	Thickness T, mm			
	40	50	70	120
300×300	1HB03-03-04			
300×600	1HB03-06-04	1HB03-06-05		
300×900	1HB03-09-04	1HB03-09-05		
300×1200	1HB03-12-04	1HB03-12-05		
300×1800	1HB03-18-04	1HB03-18-05		
440×440	1HB044-044-04			
500×500	1HB05-05-04	1HB05-05-05	1HB05-05-07	
500×750	1HB05-075-04	1HB05-075-05	1HB05-075-07	
500×1000	1HB05-10-04	1HB05-10-05	1HB05-10-07	
600×600	1HB06-06-04	1HB06-06-05	1HB06-06-07	
600×800	1HB06-08-04	1HB06-08-05	1HB06-08-07	
600×900	1HB06-09-04	1HB06-09-05	1HB06-09-07	1HB06-09-12
600×1200	1HB06-12-04	1HB06-12-05	1HB06-12-07	1HB06-12-12
600×1500			1HB06-15-07	1HB06-15-12
600×1800			1HB06-18-07	1HB06-18-12
600×2400			1HB06-24-07	1HB06-24-12
800×800	1HB08-08-04	1HB08-08-05	1HB08-08-07	1HB08-08-12
800×1000		1HB08-10-05	1HB08-10-07	1HB08-10-12
800×1200		1HB08-12-05	1HB08-12-07	1HB08-12-12
800×1500			1HB08-15-07	1HB08-15-12
800×1800			1HB08-18-07	1HB08-18-12
900×1000		1HB09-10-05	1HB09-10-07	1HB09-10-12
900×1200		1HB09-12-05	1HB09-12-07	1HB09-12-12
900×1400			1HB09-14-07	1HB09-14-12
900×1500		1HB09-15-05	1HB09-15-07	1HB09-15-12
900×1600			1HB09-16-07	1HB09-16-12
900×1800			1HB09-18-07	1HB09-18-12
900×2400			1HB09-24-07	1HB09-24-12
1000×1000		1HB10-10-05	1HB10-10-07	1HB10-10-12
1000×1200			1HB10-12-07	1HB10-12-12
1000×1500			1HB10-15-07	1HB10-15-12
1000×1800			1HB10-18-07	1HB10-18-12
1000×2000				1HB10-20-12
1000×2400				1HB10-24-12
1200×1200			1HB12-12-07	1HB12-12-12
1200×1500				1HB12-15-12
1200×1800				1HB12-18-12
1500×1500			1HB15-15-07	1HB15-15-12
1500×1800				1HB15-18-12
1500×2000				1HB15-20-12

Custom sizes available on request

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 Optical
Tables

1

 Brackets
& Rails

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 Base
Mounts &
Accessories

3

 Optical
Mounts

4

 Optical
Positioners

5

 Base
Positioners

 Translation &
Rotation
Stages

7

 Motorised
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8

 Fine
Adjustment
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 Opto-
Mechanics &
Sets

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 Light Test &
Measurement
Instruments

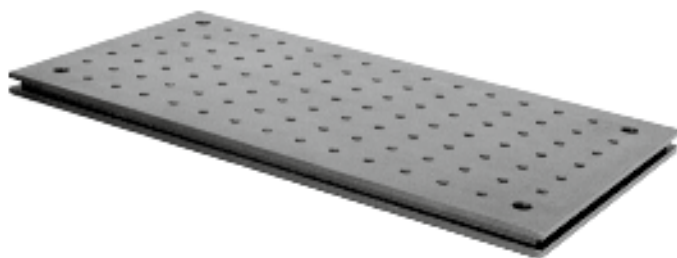
11

 Lasers &
Accessories

12

Solid Steel Breadboard

1BS-2040-015



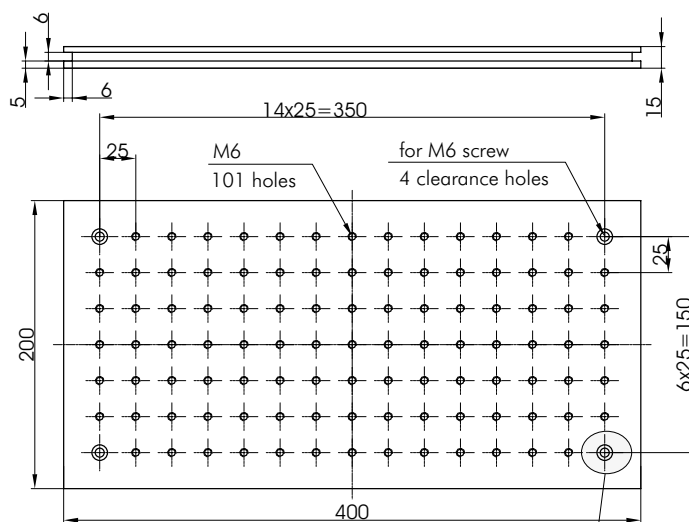
- Length 400 mm
- Width 200 mm
- Thickness 15 mm
- Weight 8.9 kg
- M6 tapped holes pattern on 25 mm centres
- Flatness ± 0.03 mm

Breadboard 1BS-2040-015 (former part number **1B82**) is an alternative to the honeycomb table tops. It is particularly useful in small optical setups.

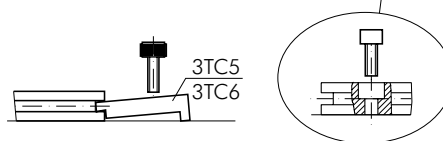
1BS-2040-015 is a **steel plate**, of **one size**. The plate is black chemically oxidized.

The breadboard has **grooves** on all 4 sides, so you can quickly mount it using Table Clamps **3TC5**, **3TC6**. On the corners there are **4 holes** for **M6** screw used to mount directly to tables or to fix at a certain height on Silent Rods **2SR32**.

Weight **8.9 kg**



1BS-2040-015 mounted on Silent Rods **2SR32**



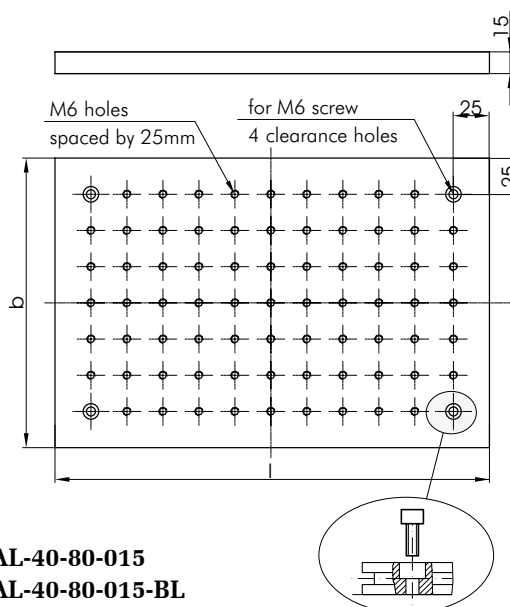
ways to fasten a Breadboard

Aluminium Breadboards

1B-AL

Model	b, mm	l, mm	Thickness, mm	Weight, kg
1B-AL-15-15-015-BL	150	150	15	0.95
1B-AL-20-20-015-BL	200	200	15	1.7
1B-AL-20-40-015-BL	200	400	15	3.4
1B-AL-30-30-015-BL	300	300	15	3.8
1B-AL-30-45-015-BL	300	450	15	5.7
1B-AL-30-60-015-BL	300	600	15	7.6
1B-AL-40-80-015-BL	400	800	15	13.5
1B-AL-45-45-015-BL	450	450	15	8.5
1B-AL-45-60-015-BL	450	600	15	11.35
1B-AL-45-75-015-BL	450	750	15	14.2
1B-AL-60-60-015-BL	600	600	15	15.2
1B-AL-60-80-015-BL	600	800	15	20.1
1B-AL-75-75-015-BL	750	750	15	23.6
1B-AL-80-80-015-BL	800	800	15	26.9

- Thickness 15 mm
- M6 tapped holes pattern on 25 mm centres



Custom sizes available on request.
Non-anodized breadboards available on request.

Ordering information

NOT anodized breadboard of size 400×800×15 mm: **1B-AL-40-80-015**
Black anodized breadboard of size 400×800×15 mm: **1B-AL-40-80-015-BL**