

CleanTop[®] Breadboards 2 and 4 in. Thick (50, 100 mm)

78 Series — 3/16 in. Skins (5 mm)

77 Series — 1/8 in. Skins (3 mm)



TMC's 78 and 77 Series CleanTop[®] Breadboards provide the ultimate in rigidity and damping for smaller tops. Available in both 2 and 4 in. thicknesses (50, 100 mm), these tops include the same proprietary CleanTop spill-proof hole technology and small cell, high-density steel honeycomb core as our largest tops. These tops can be readily designed to meet custom requirements including custom mounting hole patterns, through-holes, special shapes and custom materials. TMC's 78 and 77 Series CleanTop Breadboards are recommended for virtually all demanding breadboard applications.

Model Number Example

78 or 77 — 219 — 02R

Prefix	Size	Suffix
CleanTop 1/8 in. or 3/16 in. skins	24 in. x 48 in. x 4 in.	1/4 in. - 20 holes on 1 centers Radius corners

General Specifications

- Core:** Steel honeycomb, closed-cell, 0.010 in. (0.2 mm) thick foil
- Core shear modulus:** 275,000 psi (19,300 kg/cm²)
- Core cell size:** <0.5 in.² (3 cm²)
- Core density:** 13.3 lb/ft³ (230 kg/m³)
- Flatness:** ± 0.005 in. (0.13 mm)
- Top skin:** 430 series ferromagnetic stainless steel, 1/8 in. or 3/16 in. thick
- Sidewalls:** Damped, formed steel channel, vinyl covered
- Tapped holes:** Backed by 1 in. (25 mm) long CleanTop nylon cups

1. Prefix Chart

Skin Thickness	Prefix
1/8 in. (3 mm)	77
3/16 in. (5 mm)	78

2. Size Chart

Surface Dimensions			78 Series		77 Series		
in.	ft	m	2 in. (50 mm)	4 in. (100 mm)	2 in. (50 mm)	4 in. (100 mm)	
12 x 12	1 x 1	0.3 x 0.3	- 105 -	- 205 -	- 105 -	- 205 -	
12 x 24	1 x 2	0.3 x 0.6	- 107 -	- 207 -	- 107 -	- 207 -	
12 x 36	1 x 3	0.3 x 0.9	- 108 -	- 208 -	- 108 -	- 208 -	
12 x 48	1 x 4	0.3 x 1.2	- 109 -	- 209 -	- 109 -	- 209 -	
12 x 72	1 x 6	0.3 x 1.8	- 110 -	- 210 -	- 110 -	- 210 -	
20 x 30		0.5 x 0.75	- 111 -	- 211 -	- 111 -	- 211 -	
20 x 40		0.5 x 1.0	- 112 -	- 212 -	- 112 -	- 212 -	
24 x 24	2 x 2	0.6 x 0.6	- 113 -	- 213 -	- 113 -	- 213 -	
24 x 36	2 x 3	0.6 x 0.9	- 115 -	- 215 -	- 115 -	- 215 -	
24 x 48	2 x 4	0.6 x 1.2	- 119 -	- 219 -	- 119 -	- 219 -	
24 x 60	2 x 5	0.6 x 1.5	- 121 -	- 221 -	- 121 -	- 221 -	
24 x 72	2 x 6	0.6 x 1.8	- 123 -	- 223 -	- 123 -	- 223 -	
24 x 96	2 x 8	0.6 x 2.4	- 124 -	- 224 -	- 124 -	- 224 -	
30 x 30		0.75 x 0.75	- 125 -	- 225 -	- 125 -	- 225 -	
30 x 36		0.75 x 0.9	- 127 -	- 227 -	- 127 -	- 227 -	
30 x 40		0.75 x 1.0	- 129 -	- 229 -	- 129 -	- 229 -	
30 x 48		0.75 x 1.2	- 131 -	- 231 -	- 131 -	- 231 -	
30 x 60		0.75 x 1.5	- 132 -	- 232 -	- 132 -	- 232 -	
30 x 72		0.75 x 1.8	- 191 -	- 291 -	- 191 -	- 291 -	
30 x 96		0.75 x 2.4	- 192 -	- 292 -	- 192 -	- 292 -	
36 x 36	3 x 3	0.9 x 0.9	- 133 -	- 233 -	- 133 -	- 233 -	
36 x 48	3 x 4	0.9 x 1.2	- 135 -	- 235 -	- 135 -	- 235 -	
36 x 60	3 x 5	0.9 x 1.5	- 136 -	- 236 -	- 136 -	- 236 -	
36 x 72	3 x 6	0.9 x 1.8	- 139 -	- 239 -	- 139 -	- 239 -	
36 x 96	3 x 8	0.9 x 2.4	- 140 -	- 240 -	- 140 -	- 240 -	
40 x 40		1.0 x 1.0	- 141 -	- 241 -	- 141 -	- 241 -	
40 x 60		1.0 x 1.5	- 143 -	- 243 -	- 143 -	- 243 -	
40 x 80		1.0 x 2.0	- 144 -	- 244 -	- 144 -	- 244 -	
48 x 48	4 x 4	1.2 x 1.2	- 147 -	- 247 -	- 147 -	- 247 -	
48 x 60	4 x 5	1.2 x 1.5	- 149 -	- 249 -	- 149 -	- 249 -	
48 x 72	4 x 6	1.2 x 1.8	- 151 -	- 251 -	- 151 -	- 251 -	
48 x 96	4 x 8	1.2 x 2.4	- 155 -	- 255 -	- 155 -	- 255 -	
Weight Factor (WF)			lb/in. ²	0.135	0.195	.100	0.150
Area x WF = Total Weight			kg/cm ²	0.01	0.014	0.007	0.011

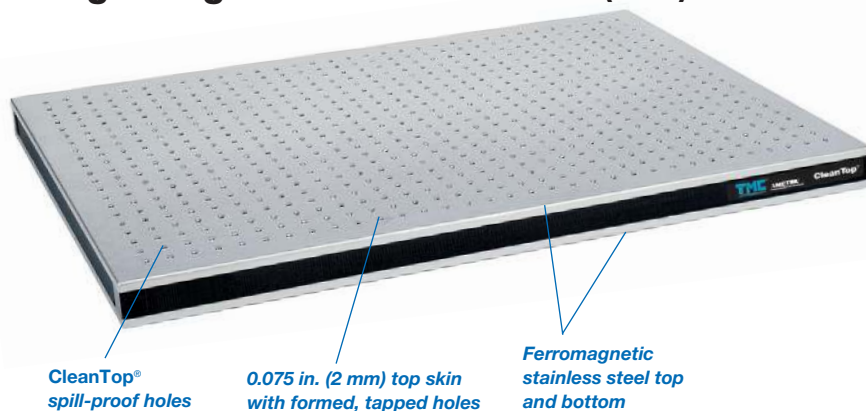
3. Suffix Chart

Suffix	Hole Pattern - Threads	Double Density*	Laser Port**
00R	No Holes	no	no
01R	1 in. centers - 1/4-20	no	yes
02R	1 in. centers - 1/4-20	no	no
11R	25 mm centers - M6	no	yes
12R	25 mm centers - M6	no	no
01DR	1 in. staggered centers - 1/4-20	yes	yes
02DR	1 in. staggered centers - 1/4-20	yes	no
11DR	25 mm staggered centers - M6	yes	yes
12DR	25 mm staggered centers - M6	yes	no

* see page 44 ** see page 47

CleanTop® Breadboards 2 in. Thick (50 mm)

75 Lightweight Series — 0.075 in. Skins (2 mm)



Another in a long line of TMC innovations, our 75 Series Breadboards minimize both weight and cost. A patented manufacturing technique allows us to form countersunk, tapped holes in a thin top skin of stainless steel. The holes are not drilled or punched, but fabricated in a way that effectively “thickens” the skin in a small ring around the threads. No inserts are used and the tapped holes are three threads deep.

These tops have relatively high levels of rigidity, as they utilize our standard steel core. However, with their thin top and bottom skins, they cannot have the

rigidity and damping properties of our 78 and 77 CleanTop® Breadboards. They are ideal when light loads are anticipated and low weight and/or cost are the most crucial factors.

The weight savings – 50% less than our 78 Series Breadboards – is derived only from the lighter gauge skins.

This lightweight design is available from stock in the sizes listed below. A full range of sizes and materials is available on a custom basis. Contact TMC for pricing and delivery for custom configurations.

General Specifications

Core: Steel honeycomb, closed-cell, 0.010 in. (0.2 mm) thick foil

Core shear modulus: 275,000 psi (19,300 kg/cm²)

Core cell size: <0.5 in.² (3 cm²)

Core density: 13.3 lb/ft³ (230 kg/m³)

Flatness: ± 0.005 in. (0.13 mm)

Top skin: 430 series stainless steel, 0.075 in. (2 mm) thick

Bottom skin: 400 series stainless steel, 0.075 in. (2 mm) thick

Sidewalls: High-pressure laminate

Tapped holes: Backed by individual, CleanTop cups; 3 threads

Features

- Ultra-lightweight design – weighs less than 9 lbs/ft² (44 kg/m²).
- Stainless steel top and bottom skins.
- Aluminum and carbon steel versions available.
- Very low prices, even in low quantity.
- Formed holes are countersunk and tapped three threads.
- Formed holes in top skin add to rigidity.
- CleanTop individual cups under each hole make the core spill proof.

Ordering Chart — Model Number

Surface Dimensions		Model Number		Weight	
in.	mm	1/4 - 20 holes on 1 in. centers	M6 holes on 25 mm centers	lbs	kg
19 x 23	450 x 600	75SSC - 103 - 02	75SSC - 103 - 12	31	14
19 x 47	450 x 1200	75SSC - 104 - 02	75SSC - 104 - 12	62	28
23 x 23	600 x 600	75SSC - 113 - 02	75SSC - 113 - 12	37	17
23 x 35	600 x 900	75SSC - 115 - 02	75SSC - 115 - 12	56	25
23 x 47	600 x 1200	75SSC - 119 - 02	75SSC - 119 - 12	74	34
35 x 47	900 x 1200	75SSC - 135 - 02	75SSC - 135 - 12	111	50

Note: Only the most common, stocked sizes are listed. Contact TMC for more details.