



## 63-500 Series

# Micro-g<sup>®</sup> Lab Table With Gimbal Piston<sup>™</sup> Isolators

CleanTop<sup>®</sup> breadboard top, available with M6 or 1/4 -20 precision tapped holes

Padded armrests (81-303-01)

Sliding shelf (81-311-02)

Gimbal Piston<sup>®</sup> Isolators with Thin-Wall Rolling Diaphragms

Rear support bar (81-302-014)

Front support bar (81-301-014)

Finger adjustable rugged height control valves

Exclusive tie bar gussets allow for ergonomic knee well space

Casters to help move around in the lab

Leveling feet for uneven floors

Two rows of tie bars for maximum frame rigidity

Custom configurations to meet your application needs

## Specifications

### Isolator natural frequency:

#### High Input

Vertical = 1.2 Hz  
Horizontal = 1.0 Hz

#### Low Input

Vertical = 1.5 - 2.0 Hz  
Horizontal = 1.2 - 1.7 Hz

### Isolation efficiency @ 5 Hz:

Vertical = 70 - 85%  
Horizontal = 75 - 90%

### Isolation efficiency @ 10 Hz:

Vertical = 90 - 97%  
Horizontal = 90 - 97%

### Recommended load capacity:

350 lb (160 kg)

**Finish:** Medium texture black powder coat frame, stainless steel top

### Facilities required:

80 psi nitrogen or air

### Shipping weight:

Approximately 600 lb (272 kg)

### Height control valves:

repeatability standard valve  
+/- 0.050 in. (1.3 mm)

### Precision valve:

+/- 0.005in. (.13mm)

Shown above is a Micro-g<sup>®</sup> Lab Table (63-533) with CleanTop<sup>®</sup> Optical Top and accessories. Below is a Micro-g<sup>®</sup> Lab Table (63-541) featuring a stainless steel laminate top with listed accessories.

TMC's Micro-g<sup>®</sup> Lab Table provides an excellent vibration-free working surface for loads up to 350 lb (160 kg). Now with modular construction, these tables are recommended for use in such diverse applications as electrophysiology, cell injection, ultramicrotomy, photomicroscopy, scanning tunnel microscopy, and confocal laser scanning microscopy.

Micro-g<sup>®</sup> Lab Table (63-541) with the following accessories:

- (1) 81-301-022, Front support bar-48 in., 2 in. tops
- (1) 81-302-022, Rear support bar-48 in., 2 in. tops
- (2) 81-303-01, Armrest pads
- (2) 81-312-02, 10 in. x 32 1/2 in. Sliding shelf
- (1) 83-014-01, Retractable Casters

Accessories for Micro-g<sup>®</sup> Lab Tables are specified separately and listed in the Ordering Chart on page 4.



Contact your TMC regional/field application engineer for outstanding support and competitive pricing.



**AMETEK<sup>®</sup>**  
ULTRA PRECISION TECHNOLOGIES

## 63-500 Series Micro-g® Lab Table Features & Benefits

### Superior TableTops™

Our standard laminated tops provide an attractive stainless steel ferromagnetic working surface with highly damped, high stiffness construction at low cost. For applications requiring the ultimate stiffness or mounting holes, specify our proprietary CleanTop® honeycomb top.

**TMC's Gimbal Piston™ Isolators,** proven by independent tests to consistently outperform the competition, achieve both horizontal and vertical isolation down to very low input levels.

**Thin-Wall Rolling Diaphragms,** integral components of the Gimbal Piston, are dacron-reinforced, rolling diaphragm air seals that are only 0.020 in. (0.5 mm) thick.

### Composite Height Control Valves

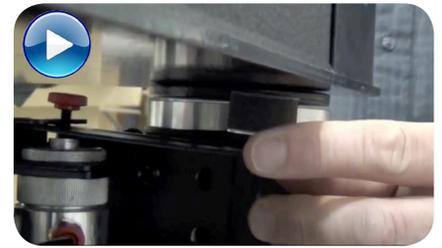
All systems are equipped with rugged, finger adjustable, height control valves.

### Internal Piston Travel Restraints

are unique in the industry. They are tamper-proof, completely independent of the table valves, and have been ram-tested at forces above those produced by the pistons operating at full pressure. Heavy loads, including the top plate, can be safely removed from a table in full operation without the risk of pinch points.

### Exclusive Tiebar Gussets

increase table frame rigidity and compensate for the elimination of the front tiebar in order to allow for ergonomic knee well space.



### Online Installation videos

available for setup assistance.

### Rugged Built-in Leveling Feet

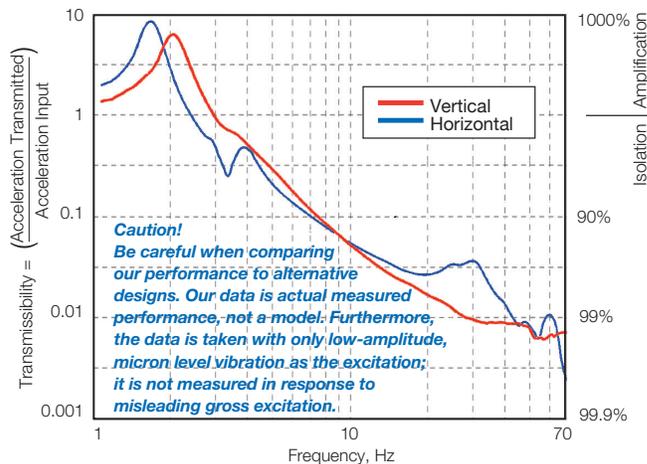
Table legs include built-in fine-thread 3 in. (75 mm) diameter screw jack levelers with 1/2 in. (13 mm) travel, provision for external adjustment, and a handy adjustment wrench. The base is a solid, slightly domed shape to assure solid, wobble-free contact with sloping or irregular floors.

### Custom Configurations Available

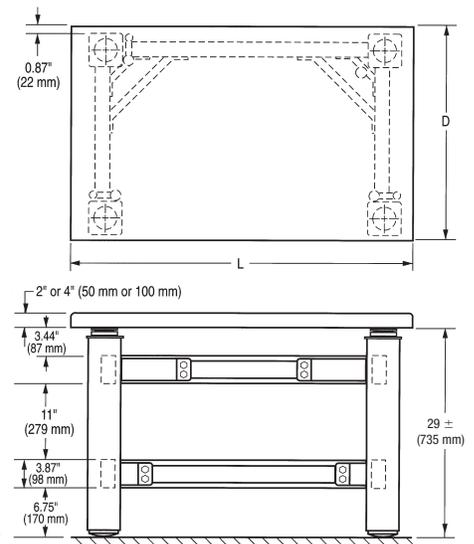
to meet your application or lab needs.

### Vibration Isolation Performance

(actual measured data)



### Dimensions



### Which top is best for you?

**CleanTop®** features TMC's proprietary spill-proof, drilled and tapped mounting hole array. Tops are 4 in. (100 mm) thick and have 1/4-20 holes on 1 in. spacing or M6 holes on 25 mm spacing. The small cell-size steel honeycomb design is even stiffer than our stainless steel laminate. Guaranteed flat to +/- 0.005 in. (+/- 0.13 mm).

**Stainless Steel Laminate,** our least expensive 63-500 Series Micro-g® top, is recommended for applications that require a strong magnetic attachment and will not involve repeated exposure of the top to corrosive liquids. However, stains from such liquids can be removed with an industrial strength stainless steel cleaner. This top does not have the precision flatness of our CleanTop® honeycomb top. Flatness is +/- 0.030 in. (+/- 0.8 mm).

## Accessories



### Adjustable Leather Armrest Pads

fasten to the front support bar. TMC also offers an armrest pad that attaches to the Full Perimeter Enclosure.



### White Laminate Sliding Shelves

slide freely from side to side and are easily lifted off the support bars. Built-in stops prevent shelves from sliding out of slots. When ordering sliding shelves, you must order front and rear support bars.



**A Subshelf** offers additional storage space. It can be mounted beneath the isolated table top and may be retrofitted.

### Fixed Full-Perimeter Enclosure

A welded-steel structure that completely surrounds the table top to provide non-isolated support for Faraday cages or other special fixtures. It cannot be used with sliding shelves or support bars. There is an 8 in. wide sliding shelf specifically for the required Full Perimeter Enclosure and it is required for use with a Faraday Cage.

### Adjustable Steel Front Support Bar

mounts on the table's front legs. It has a slot in which the shelves mount and is normally ordered with the armrest pads. The bar may be centered along the length of the table or cantilevered to either side, allowing for a wider sliding shelf to suit your application.

### Adjustable Steel Rear Support Bar

mounts on the rear table legs and supports the rear end of the sliding shelves. It may also be cantilevered to either side, allowing for a wider sliding shelf.

Both front and rear support bars can be retrofitted but cannot be used with the Full Perimeter Enclosure or Faraday Cage.

### Retractable

**Casters** have a total weight capacity of 1,000 lb (450 kg) and can be mounted to



the base of the table legs. Casters are required when using the OnTrak™ feature.

## OnTrak™

An easy-to-use, roll-off option for Micro-g® Lab Tables that dramatically simplifies table rigging and installation.

### Features & Benefits

- No heavy lifting required
- Table ships pre-installed on the isolator frame
- Reduces set-up time
- Simply roll table off skid and into final destination
- Casters required



### How to Order

1. Specify the "OnTrak" part number from the chart and be sure your table configuration includes a caster set.
2. Contact TMC for pricing.

### Ordering Chart

Item Number	Nominal Table Size
90-510	25 in. x 36 in.
90-530	30 in. x 36 in.
90-540	30 in. x 48 in.
90-550	30 in. x 60 in.
90-560	36 in. x 48 in.

### TMC's Precision Height Control Valves.

To minimize bottled air supply usage, Standard TMC height control valves have a small "dead band," resulting in a height return accuracy of +/- 0.05 in. (+/- 1.3 mm).

Precision valves control height to within +/- 0.005 in. but exhaust continuously.



To specify precision height control valves with a table, add the letter "P" after the basic table model number. (ie.: 63P-533) Precision valves may also be retrofitted to installed tables.

### The Type II Faraday Cage

offers improved access and simplified assembly. It's designed for shielding in electro-physiology type applications (around 60 Hz and harmonics). The "window-shade" retracting front panel is easy to operate and causes less disturbance when adjusted. The front panel may be positioned anywhere between fully opened and closed and stays in position without a fastener. This cage incorporates a steel



frame and bronze-mesh material and mounts to a required full-perimeter enclosure. Our 40 in. tall Faraday Cage includes a 2 in. diameter hole in the base of the side and rear panels. This feature eases cable interface to the interior of the cage. A new version of our armrest pads that is compatible with our cages. They are identical to our non-Faraday Cage pads but adhere with Velcro.





The Gimbal Piston™ isolator is standard in all Micro-g® lab tables and there are a variety of different load ratings available.

### Micro-g® Lab Table and Accessory Ordering Chart

TABLE MODEL (D x L)	25 in. x 36 in. 625 x 900 mm	30 in. x 30 in. 750 x 750 mm	30 in. x 36 in. 750 x 900 mm	30 in. x 48 in. 750 x 1200 mm	30 in. x 60 in. 750 x 1500 mm	36 in. x 48 in. 900 x 1200 mm	36 in. x 60 in. 900 x 1500 mm
Isolator frame only (no top)	63-510	63-520	63-530	63-540	63-540	63-560	63-560
Isolator with 2 in. stainless steel laminate	63-511	63-521	63-531	63-541	63-551	63-561	63-571
Isolator with 2 in. Formica® layer on stainless steel laminate	63-512	63-522	63-532	63-542	63-552	63-562	63-572
Isolator with 4 in. CleanTop®, 1/4-20 on 1 in. spacing			63-533	63-543	63-553	63-563	63-573
Isolator with 100 mm CleanTop, M6 on 25 mm			63-534	63-544	63-554	63-564	63-574
<b>ACCESSORIES</b>							
Front support bar, 2 in. (50mm) tops	81-301-012	81-301-002	81-301-012	81-301-022	81-301-032	81-301-022	81-301-032
Front support bar, 4 in. (100mm) tops	81-301-014	81-301-004	81-301-014	81-301-024	81-301-034	81-301-024	81-301-034
Rear support bar, 2 in. (50mm) tops	81-302-012	81-302-002	81-302-012	81-302-022	81-302-032	81-302-022	81-302-032
Rear support bar, 4 in. (100mm) tops	81-302-014	81-302-004	81-302-014	81-302-024	81-302-034	81-302-024	81-302-034
Armrest pads (front support bar)	81-303-01 for all tables (order 2)						
Armrest pads (perimeter enclosure and Faraday Cage)	81-303-02 for all tables (order 2)						
Sliding shelf, 6 in. (150 mm) wide	81-311-01	81-311-02	81-311-02	81-311-02	81-311-02	81-311-03	81-311-03
Sliding shelf, 10 in. (250 mm) wide	81-312-01	81-312-02	81-312-02	81-312-02	81-312-02	81-312-03	81-312-03
Sliding shelf, 14 in. (350 mm) wide	81-313-01	81-313-02	81-313-02	81-313-02	81-313-02	81-313-03	81-313-03
Sliding shelf, 20 in. (500 mm) wide	81-314-01	81-314-02	81-314-02	81-314-02	81-314-02	81-314-03	81-314-03
Full perimeter enclosure, 2 in. (50 mm) tops	81-321-01	81-321-02	81-321-03	81-321-04		81-321-06	
Full perimeter enclosure, 4 in. (100 mm) tops			81-322-03	81-322-04		81-322-06	
Raised rear shelf	81-324-01	81-324-02	81-324-01	81-324-04		81-324-04	
Subshelf	81-325-01	81-325-02	81-325-03	81-325-04	81-325-04	81-325-04	81-325-04
Sliding shelf for perimeter enclosure	81-327-03	81-327-04	81-327-04	81-327-04		81-327-06	
Acrylic enclosure			81-328-03	81-328-04		81-328-06	
Casters, set of 4	83-014-01 for all tables						

### Type II Faraday Cage Ordering Chart

*(requires table and perimeter enclosure, specified separately)*

Type II Faraday Cage	Description	D		L	
		in.	mm	in.	mm
81-333-03	Type II Faraday Cage, 40 in.	30	750	36	900
81-333-04	Type II Faraday Cage, 40 in.	30	750	48	1,200
81-333-06	Type II Faraday Cage, 40 in.	36	900	48	1,200

### Faraday Cage Accessory Ordering Chart

Description	30 in. x 36 in. 750 x 900 mm	30 in. x 48 in. 750 x 1200 mm	36 in. x 48 in. 900 x 1200 mm
Armrest pads	81-303-02 (order 2)		
Full perimeter enclosure, 2 in. (50 mm) tops	81-321-03	81-321-04	81-321-06
Full perimeter enclosure, 4 in. (100 mm) tops	81-322-03	81-322-04	81-322-06
Hanging shelf, "U"-shaped	81-335-03	81-335-04	81-335-04
Sliding side shelf, 8 in. wide	81-332-04	81-332-04	81-332-06

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