

TFS301 - Mar. 17, 2017

Item # TFS301 was discontinued on Mar. 17, 2017. For informational purposes, this is a copy of the website content at that time and is valid only for the stated product.

SHELVING FOR OPTICAL TABLE WORKSTATIONS

- ▶ **Multiple Shelving Options Provide Extra Space At or Above Table Level**
- ▶ **Strong, Melamine-Faced MDF or Steel Construction**
- ▶ **Various Sizes Ideal for Any Application**



PSY155/S
 950 mm Wide Overhead Tray with Rack



PSY360
 Breadboard Mounting Brackets



Optical Table Workstation with Various Shelving Options (Under Shelf Included)

OVERVIEW

Features

- Overhead Shelves, Side Shelves, and Cross Table Shelves for Holding Tools and Equipment
- Brackets Available for Mounting Breadboards as Side Shelves or Overhead Shelves



Thorlabs offers several shelving options that allow a user to place instruments above or around the vibration isolated work surface of the Optical Table Workstations. Our modular shelving options can be selectively added when the need arises, allowing for a fully customizable workspace. Brackets for mounting breadboards as overhead or side shelves are also available. Many of these accessories require the use of lean bars; please see the presentations below for the mounting requirements of each item.

Workstation Shelving Quick Links

Overhead Shelving Unit	Post Adapter for Overhead Shelving Unit
Breadboard Brackets for Overhead Shelving Unit	Cross Table Shelf
Post-Mounted Overhead Shelves	Overhead Storage Tray with Rack
Instrument Shelves	Post-Mounted Component Tray
Post-Mounted Breadboard Brackets	Side Shelves
Computer Shelf	Breadboard Mounting Brackets

Optical Table Workstation Accessories

Shelving	Computer Accessories	Lighting	Power Strips	Storage	19" Rack Chassis	Mounting Posts	Lean Bars	Wrist Rest	Vibration Isolation

Overhead Shelving Unit

- ▶ Provides Extra Storage Space

- ▶ Strong, Melamine-Faced MDF Construction
- ▶ Spans the Entire Length of the Chosen Optical Table
 - ▶ TFS201: For 2 m (6') Long Optical Tables
 - ▶ TFS251: For 2.5 m (8') Long Optical Tables
- ▶ Maximum Load Capacity: 135.0 kg (297.0 lbs) per Shelf
- ▶ Through Holes in Frame Allow for Easy Cable Management
- ▶ Accommodates Our 24-Outlet Power Strip, LED Light Strip, or Cable Trays
- ▶ Attaches Directly to the Optical Table Frame

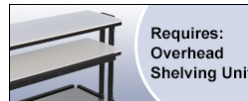
If additional shelf space is required around a workstation, these overhead shelving units, which each contain two shelves, are an ideal solution. The shelves span across the length of the optical table and are a great space saver in the lab. The vertical supports feature a range of mounting points to allow height adjustment, and through holes are included in each corner of the frame for easy cable management. Two options are available, one that is compatible with 2 m (6') long optical tables and another for 2.5 m (8') long optical tables.

The shelves can be replaced with aluminum breadboards when using the mounting brackets detailed below.

Part Number	Description	Price	Availability
TFS201	Nexus Table Frame Overhead Shelf, 2 m (6') Long	\$1,925.00	3-4 Weeks
TFS251	Nexus Table Frame Overhead Shelf, 2.5 m (8') Long	\$2,247.00	Today

Post Adapter for the Overhead Shelving Unit

- ▶ Compatible with Monitor Mount, Instrument Shelves, Breadboard Brackets, or Component Trays
- ▶ Strong, Steel Construction
- ▶ Attaches Directly to the Overhead Shelf Unit Uprights via Included M8 Bolts



Requires:
Overhead
Shelving Unit



Click to Enlarge
PSY121 Monitor Mount Shown Mounted on the TFA4 Adapter

The TFA4 Post Adapter allows you to attach post-mounted accessories to the optical table frame overhead shelving unit. As shown in the photo to the right, the adapter is bolted to one of the uprights using two supplied M8 bolts. Once connected, the 75 mm (2.95") long Ø1.5" post can be used to attach various accessories, such as our monitor mount, instrument shelves, breadboard brackets, or component trays.

Part Number	Description	Price	Availability
TFA4	Ø1.5" Post Adapter for TFS201, TFS251, PTA280, and PTA281 Overhead Shelving Units	\$66.50	Today

Breadboard Mounting Brackets for the Overhead Shelf Unit

- ▶ Supports Aluminum Breadboards 300 mm to 600 mm (12" to 24") Wide
- ▶ Fits Over The Overhead Shelf Support Frame (Shown in Photo to the Right)
- ▶ Strong, All-Steel Construction



Requires:
Overhead
Shelving Unit



Click to Enlarge
An Aluminum Breadboard Fitted to the Overhead Shelf Frame and Viewed from the Underside

These brackets allow any of our aluminum breadboards with a width from 300 mm to 600 mm (12" to 24") to be fixed to the frame of the overhead shelf. Four brackets are supplied that attach to the underside of the breadboard using standard M6 or 1/4"-20 cap screws (not supplied).

Part Number	Description	Price	Availability
TFA1	Breadboard Mounting Brackets (Set of Four)	\$41.00	Today

Cross Table Shelf

- ▶ Provides Additional Storage or Equipment Space Above the Optical Table Surface
- ▶ Strong, Melamine-Faced MDF Construction
- ▶ Spans the Entire Width of the Chosen Optical Table



Requires:
Front and Rear
Lean Bars



Click to Enlarge


- ▶ TFS301: For 1 m (3') Wide Optical Tables
- ▶ TFS302: For 1.2 m (4') Wide Optical Tables
- ▶ Maximum Load Capacity: 75 kg (165 lbs)
- ▶ Can be Set at Two Different Heights
- ▶ This Accessory Requires Front and Rear Lean Bars for Attachment to the Frame

The shelf can be installed just above the optical table in the lower configuration.

The TFS301 and TFS302 Cross Table Shelves provide extra space for tools or equipment at a workstation. The shelves are designed to straddle the width of the optical table and attach to the lean bars of the workstation, allowing equipment to be placed close to the optical table while leaving the isolated breadboard undisturbed.

The shelf can be installed at either of two heights, depending on the clearance needed under the shelf. In the lower configuration, shown in the image to the right, the shelf surface is 103.0 mm (4.06") above the optical table surface. The legs can be repositioned to raise the shelf to the higher configuration, shown in the image to the left. In the higher configuration, the shelf surface is 338.0 mm (13.31") above the optical table, leaving 275.0 mm

Dimensions			
Item #	Shelf Surface	Shelf Height Above Table	Compatible Breadboards
TFS301	350.0 mm x 1150.0 mm (13.78" x 35.28")	Low Configuration: 103.0 mm (4.06"), 35.0 mm (1.38") Clearance	MB1445, MB35115/M
TFS302	350.0 mm x 1435.0 mm (13.78" x 56.50")	High Configuration: 338.0 mm (13.31"), 275.0 mm (10.83") Clearance	MB1456, MB35142/M

(10.83") of clearance underneath. For more details on installation, please see the manual, which is available by clicking on the red Docs icon () below.

The shelf features four M6-tapped holes on each side for compatibility with our 12-Outlet Power Strips, PSY240 LED Light Strip, or TFC100 Cable Tray. Note that some accessories may not be compatible with the shelf when it is in the lower configuration.

The shelf surface can be replaced with an aluminum breadboard. After the shelf surface is removed, the breadboard can be installed using 1/4"-20 cap screw and locking nut in each of the four mounting counterbores in the corners of the breadboard. See the table to the right for compatible breadboard options.

Part Number	Description	Price	Availability
TFS301	Cross Table Shelf for Nexus Workstations with 1 m (3') Table	\$424.00	Lead Time
TFS302	Cross Table Shelf for Nexus Workstations with 1.2 m (4') Table	\$459.00	Lead Time

Overhead Shelves, Post Mounted

- ▶ Strong, Melamine-Faced MDF Construction
- ▶ Width Options: 956 mm (37.6") or 1256 mm (49.4")
- ▶ Shelf Depth: 300 mm (11.8")
- ▶ Maximum Load: 50 kg (110 lbs)
- ▶ This Accessory Requires a Front or Rear Lean Bar for Attachment to the Frame




Click to Enlarge
Hinged clamps allow for quick attachment to mounting posts.



The PSY221 and PSY222 Overhead Shelves mount to the front or rear lean bars of the workstation frame and are supported by two 750 mm (29.5") tall accessory mounting posts (included). Slide the shelf along the post to the desired height above the work surface and then secure it using the hinged clamps.

Up to two shelves can be mounted onto a single set of supporting posts. Additional shelves are sold separately; select the PSY223 additional shelf unit if purchasing the PSY221 overhead shelf and the PSY224 unit if purchasing the PSY222 overhead shelf. These additional shelves are also ideal if you wish to use our 1000 mm (39.4") tall mounting posts (sold separately) instead of the 750 mm (29.5") tall posts provided with the PSY221 and PSY222.

Dimensions		
Item #	Shelf Surface	Posts
PSY221	300 mm x 956 mm (11.81" x 37.64")	750 mm (29.5") Tall
PSY223		-
PSY222	300 mm x 1256 mm (11.81" x 49.45")	750 mm (29.5") Tall
PSY224		-

Each shelf has two hinged clamps, allowing it to be easily positioned by one person anywhere along the post, without needing to remove the existing shelf. Simply secure the clamps to the posts, fit the shelf to the clamps using the M6 bolts provided, and reposition or level as required. For more details on installation, please see the manual, which is available by clicking on the red Docs icon () below.

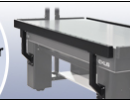
Our PSY240 LED light strips or the HDPS12 power outlets can be mounted underneath the shelf using the M6-tapped holes provided.

Part Number	Description	Price	Availability
PSY221	300 mm Deep Overhead Shelf with 750 mm Posts for 900 mm Wide ScienceDesks	\$363.00	Today
PSY223	Additional Shelf: 300 mm Deep Overhead Shelf for 900 mm Wide ScienceDesks	\$191.00	Today
PSY222	300 mm Deep Overhead Shelf with 750 mm Posts for 1200 mm Wide ScienceDesks	\$373.00	Today

Overhead Storage Tray with Rack

- ▶ Strong, Welded-Steel Construction
- ▶ Hinged Clamps for Quick Attachment to Mounting Posts
- ▶ Four Plastic Storage Bins Included
 - ▶ 190 mm Deep x 105 mm Wide x 75 mm High (7.48" Deep x 4.13" Wide x 2.95" High)
 - ▶ Front Lip Height: 34 mm (1.34")
- ▶ Maximum Load: 50 kg (110 lbs)
- ▶ This Accessory Requires a Front or Rear Lean Bar for Attachment to the Frame

Requires:
Front or Rear
Lean Bars



Click to Enlarge
Hinged clamps allow for quick attachment to mounting posts.

These Storage Trays consist of a steel tray and a front-located steel rack. The top tray includes a removable tool caddy that can be placed along the top tray for flexible storage and organization of tools, components, and accessories. The rack contains two rows of slots for flexible positioning of the four included plastic storage bins, as shown in the top portion of the image to the left. For extra support, these bins can be secured using the provided clips. Hinged clamps are used for placement on the posts, as shown in the image to the right. Simply slide the shelf along the post to the desired height above the work surface and then secure it using the clamps.

The PSY155/S is 950 mm wide, while the PSY156/S is 1250 mm wide. The trays can be supported by two 750 mm or 1000 mm tall posts (sold separately) that can be attached to the workstation's front or rear lean bars. Two overhead trays can be mounted onto a single set of mounting posts.

Dimensions		
Item #	Storage Tray ^a	Storage Bins
PSY155/S	80.2 mm x 950 mm x 128.2 mm (3.16" x 37.40" x 29.39") Depth x Width x Height	190 mm x 105 mm x 75 mm (7.48" x 4.13" x 2.95") Depth x Width x Height
PSY156/S	80.2 mm x 1250 mm x 128.2 mm (3.16" x 49.21" x 29.39") Depth x Width x Height	190 mm x 105 mm x 75 mm (7.48" x 4.13" x 2.95") Depth x Width x Height Front Lip Height: 34 mm (1.34")

Each storage tray comes with two hinged clamps for attachment to mounting posts, as shown in the image to the right. To install the tray, secure the clamps at the desired height on the posts. The tray can then be lowered onto the clamps and attached using the provided M6 cap screws. At this point the tray can be repositioned or leveled as required. For more details on installation, please see the manual, which is available by clicking on the red Docs icon (📄) below.

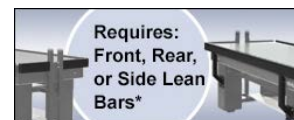
- Posts for mounting the storage tray must be purchased separately. The included mounting clamps are compatible with our posts for Optical Table Workstations as well as our standard Ø1.5" posts.

The bottom of the tray also contains five M6 taps spaced for compatibility with our PSY240 LED light strips or HDPS12 power outlets.

Part Number	Description	Price	Availability
PSY155/S	Additional Overhead Storage Tray with Rack for 900 mm Wide ScienceDesks	\$301.00	Today
PSY156/S	Additional Overhead Storage Tray with Rack for 1200 mm Wide ScienceDesks	\$336.00	Today

Instrument Shelves

- ▶ Strong, Melamine-Faced MDF Construction
- ▶ Shelf Size:
 - ▶ PSY191(/S): 300 mm x 278 mm (11.8" x 10.9")
 - ▶ PSY192(/S): 300 mm x 500 mm (11.8" x 19.7")
- ▶ Maximum Load Capacity: 20 kg (44 lbs)
- ▶ PSY191 and PSY192 Include 750 mm (29.5") Post
- ▶ PSY191/S and PSY192/S can be Installed Without Removing the Post or Other Shelves
- ▶ This Accessory Requires a Front, Rear, or Side Lean Bar for Attachment to the Frame



Requires:
Front, Rear,
or Side Lean
Bars*



Click to Enlarge

*These shelves can also be attached to our TFA4 Overhead Shelf Post Adapter. However, an overhead shelving unit will also be required.

These instrument shelves are smaller in size than the overhead shelves featured above and can be used to hold a variety of items above the table. The post of the instrument shelf assembly mounts to the lean bars of the table frame, as shown in the image to the left. More than one shelf can be mounted to the same post. The split-clamp design (see image right) allows the shelves to be installed anywhere on the post without removing the existing shelves. Additional shelves are sold separately but do not include support posts. These additional shelves are also ideal if you wish to use our 1000 mm (39.4") tall mounting posts (sold separately) instead of the 750 mm (29.5") tall posts provided with the PSY191 and PSY192.

Part Number	Description	Price	Availability
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PSY191	300 mm x 278 mm Instrument Shelf with 750 mm High Post	\$181.00	Today
PSY191/S	Customer Inspired!Additional Instrument Shelf: 300 mm x 278 mm	\$118.00	Today
PSY192	Customer Inspired!500 mm x 300 mm Instrument Shelf with 750 mm High Post	\$191.00	Today
PSY192/S	Customer Inspired!Additional Instrument Shelf: 500 mm x 300 mm	\$128.00	Today

Components Tray, Post Mounted

- ▶ Strong, Steel Tray
- ▶ Tray: 300 mm x 300 mm (11.81" x 11.81")
- ▶ 12.7 mm (0.50") High Lip Along all Four Edges Retains Equipment
- ▶ Maximum Load: 20 kg (44 lbs)
- ▶ PSY320 Includes a 750 mm (29.5") Tall Post
- ▶ Hinged Clamp Design Allows for Installation Without Removing Existing Shelves
- ▶ Removable Rubber Pad Included



*These shelves can also be attached to our TFA4 Overhead Shelf Post Adapter, however, an overhead shelving unit will be also required.



Click to Enlarge Hinged Clamps Allow for Quick Attachment to Mounting Posts

The PSY320 and PSY320/S Component Trays can be used to hold a variety of items, such as screws, hex keys, or other tools, near the working surface. A 12.7 mm (0.50") high lip on the four edges prevents parts from falling off of the tray, while the 300 mm x 300 mm (11.81" x 11.81") surface provides adequate space to hold needed tools. Each tray comes with a PSY322 Hinged Locking Clamp, shown to the right, to attach it to Ø1.5" mounting posts. Its design allows the tray to be installed anywhere on the post without removing the existing shelves. The clamp will hold the vertical position on the post while allowing for free rotational movement around the axis of the post.

A 750 mm (29.5") tall post is included with the PSY320 tray to attach directly to the lean bars of the optical table frame system. If additional trays are needed we offer the PSY320/S, which do not include mounting posts. These additional trays are also ideal if you wish to use our 1000 mm (39.4") tall mounting posts (sold separately) instead of the 750 mm (29.5") tall posts provided with the PSY320, or if you wish to attach the tray to the TFA4 Overhead Shelf Post Adapter.

Part Number	Description	Price	Availability
PSY320	Ø1.5" Post Mounted Components Tray, 750 mm Tall Post Included	\$261.00	Today
PSY320/S	Additional Ø1.5" Post Mounted Components Tray	\$201.00	Today

Breadboard Bracket, Post Mounted



*These shelves can also be attached to our TFA4 Overhead Shelf Post Adapter. However, an overhead shelving unit will also be required.

- ▶ Strong, Steel Construction
- ▶ Supports Solid Aluminum Breadboards up to 300 mm x 300 mm (12" x 12")
- ▶ Maximum Load: 20 kg (44 lbs)
- ▶ PSY321 Includes a 750 mm (29.5") Tall Post
- ▶ Hinged Clamp Design Allows for Installation Without Removing Existing Shelves



Click to Enlarge Hinged Clamps Allow for Quick Attachment to Mounting Posts



Click to Enlarge PSY321 Bracket Used to Attach a 12" x 12" Breadboard to a Ø1.5" post

The PSY321 and PSY321/S Breadboard Brackets are designed to securely mount breadboards onto a Ø1.5" mounting post. Each bracket will support any aluminum breadboard up to 300 mm x 300 mm or 12" x 12" in size, and has a maximum load capacity of 20 kg (44 lbs). A hinged clamp, shown to the right, is included to attach the tray to the mounting posts. Its design allows the bracket to be installed anywhere on the post without removing the existing shelves. Additionally, a PSY322 Hinged Locking Clamp is included, which will hold the vertical position on the post while allowing for free rotational movement around the axis of the post.

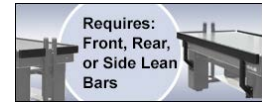
A 750 mm (29.5") tall post is included with the PSY321 bracket to attach directly to the optical table frame lean bars. If additional brackets are needed we offer the PSY321/S, which do not include mounting posts. These additional brackets are also ideal if you wish to use our 1000 mm (39.4") tall mounting posts (sold separately) instead of the 750 mm (29.5") tall posts provided with the PSY321, or if you wish to attach the bracket to the TFA4 Overhead Shelf Post Adapter.

The breadboard is mounted to the bracket using six 1/4"-20 (M6) cap screws (not included). For more details on installation, please see the manual, which is available by clicking on the red Docs icon (📄) below.

Part Number	Description	Price	Availability
PSY321	Ø1.5" Post-Mounted Breadboard Bracket, 750 mm Tall Post Included	\$211.00	Today
PSY321/S	Additional Ø1.5" Post Mounted Breadboard Bracket	\$149.00	Today

Side Shelves

- ▶ Strong, Melamine-Faced, MDF Construction
- ▶ Width Options: 450 mm, 600 mm, 750 mm, or 900 mm
- ▶ Depth: 600 mm (23.6")
- ▶ Maximum Load Capacity: 50 kg (110 lbs)
- ▶ These Accessories Require a Front, Rear, or Side Lean Bar for Attachment to the Frame



These side shelves can be mounted to the front, rear, or side lean bars of the Nexus Optical Table Frame. The shelf is attached using mounting brackets with clips that hook onto the lean bar. Measuring 600 mm deep, they are available in four widths to suit a variety of applications: 450 mm, 600 mm, 750 mm, or 900 mm.

Part Number	Description	Price	Availability
PSY353	400 mm x 600 mm Side Shelf	\$169.00	Today
PSY352	600 mm x 600 mm Side Shelf	\$174.00	Today
PSY350	750 mm x 600 mm Side Shelf	\$179.00	Lead Time
PSY351	900 mm x 600 mm Side Shelf	\$189.00	Today

Computer Shelf

- ▶ Strong, Melamine-Faced, MDF Construction
- ▶ Designed to Hold a Computer
- ▶ Dimensions: 260 mm x 450 mm (10.2" x 17.7")
- ▶ Maximum Load Capacity: 20 kg (44 lbs)
- ▶ This Accessory Requires a Front, Rear, or Side Lean Bar for Attachment to the Frame

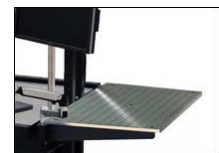
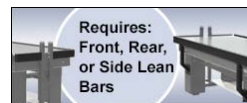


This shelving option can be ergonomically positioned around the table frame and is ideally suited for supporting a computer. It can be mounted to the front, rear, or side lean bars and provides a shelf size of 260 mm x 450 mm (10.2" x 17.7"). The shelf is attached using mounting brackets with clips that hook onto the lean bar.

Part Number	Description	Price	Availability
PSY180	260 mm x 450 mm Computer Shelf	\$51.00	Today

Breadboard Mounting Brackets

- ▶ PSY360 Supports Breadboards up to 300 mm x 600 mm (12" x 24")
- ▶ PSY361 Supports Breadboards up to 600 mm x 900 mm (24" x 36")
- ▶ Maximum Load Capacity: 50 kg (110 lbs)
- ▶ Strong, All-Steel Construction
- ▶ Can be Leveled via Adjustment Screw
- ▶ This Accessory Requires a Front, Rear, or Side Lean Bar for Attachment to the Frame



Click for Details
Breadboard Mounting Brackets
Attaching Aluminum Breadboard
to the Lean Bars of the
Workstation

These brackets allow our aluminum breadboards to be fixed to the front, rear, or side lean bars of a Nexus workstation, in a similar way to the side shelves described in the section above. They are available in two sizes: the PSY360 supports breadboards with dimensions up to 300 mm x 600 mm (12" x 24"), while the PSY361 can be used with breadboards with dimensions up to 600 mm x 900 mm (24" x 36").

The breadboard can be leveled by adjusting a screw in the rear face of each bracket, using a 4 mm or 9/64" hex key (click the image to the right). Two brackets are supplied that attach to the underside of the breadboard using standard M6 x 12 mm or 1/4"-20 x 1/2" bolts (not supplied).

Part Number	Description	Price	Availability
PSY360	Breadboard Mounting Brackets, 300 mm Long, 2 Pieces	\$113.00	Today
PSY361	Breadboard Mounting Brackets, 600 mm Long, 2 Pieces	\$128.00	Today

Locking Clamp for Ø1.5" Posts

- ▶ Retain the Position of Ø1.5" Post Mounted Accessories
- ▶ Hinged Clamp Design Allows for Installation Without Removing Existing Shelves

Thorlabs PSY322 Hinged Locking Clamps are the ideal solution for preventing the unwanted movement of accessories along the axis of the post. Locking the clamp in place (5 mm hex key included) directly under a post-mounted accessory, as shown to the right, prevents the accessory from sliding down the post when it is loosened for adjustments. This also allows mounted shelving or brackets to be freely rotated around the axis of the post to a needed position at any time.



[Click to Enlarge](#)
Locking Clamp Positioned
Under Our PSY321 Breadboard
Mounting Bracket, Holding it
in Place and Allowing for Free
Rotation of the Bracket

Part Number	Description	Price	Availability
PSY322	Hinged Locking Clamp for Ø1.5" Posts	\$53.25	Today