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THORLABS

C1060/M - June 18, 2021

Item # C1060/M was discontinued on June 18, 2021. For informational purposes, this is a copy of the website content at that time and is valid only for the stated product.

Ø1" (Ø25.0 mm) POST CLAMP ACCESSORIES

► **C-Clamps with Tapped or Counterbored Holes**
► **Clamps with Rotating Threaded Studs**
► **Clamps for 30 mm and 60 mm Cage Support**

Application Idea

RA90RS
Mounts Ø1" to Ø1/2" Posts
(Posts Sold Separately)

RM1B

1/4"-20 (M6) Tap

1/4" (M6) Counterbore

CH1030
For 30 mm
Cage Systems

C1010
Mounting Clamp

PJ301 Mounting Joist Holds Retroreflecting Mirrors (All Parts Sold Separately)

[Hide Overview](#)

OVERVIEW

Slip-On Clamps

Thorlabs' Ø1" (Ø25.0 mm) slip-on clamps feature a C-clamp design that allows them to be slipped on and off of a Ø1" (Ø25.0 mm) post. The clamp is secured using a non-marring brass-tipped setscrew. The clamps come in a variety of styles, each with different mounting features; see below for details.

Compact Mounting Clamp

Our C1010(/M) Mounting Clamp allows optic mounts with 8-32 (M4) tapped holes to be attached to a Ø1" (Ø25.0 mm) post. It features a flexure clamping design with a quick-release handle. For mounting larger systems or multiple components onto a Ø1" or Ø25 mm post, we also offer vertical mounting clamps and horizontal mounting brackets.

Right-Angle Mounts

These right-angle mounts allow a Ø1" (Ø25.0 mm) post to be mounted at a right angle to another Ø1" (Ø25.0 mm) post or to a Ø1/2" post. They each feature a flexure clamping design for the Ø1" (Ø25.0 mm) post clamps.

Cage System Clamps

Our cage system clamps are designed to support 30 mm and 60 mm cage systems and feature a quick-connect cage clamp with single-screw locking. They clamp onto our Ø1" (Ø25.0 mm) posts using a flexure mechanism.

Mounting Joists

Thorlabs' compact mounting joists can be used to mount multiple optical elements close together, alleviating the need for multiple posts and posts holders. These versatile joists can also offset a post from the mounted optic in order to squeeze the optic into tight areas.

Quick Links	
	Slip-On Clamps for Optomechanics
	Compact Mounting Clamp
	Right-Angle Post Clamps
	Post Clamps for Cage Systems
	Mounting Joists

Slip-On Clamps for Ø1" (Ø25.0 mm) Posts

The RM1A(/M), RM1B(/M), and RM1C(/M) Slip-On Clamps for Ø1" (Ø25.0 mm) posts each have two mounting points located 90° apart for perpendicular mounting of optomechanical components. On the RM1A(/M) and RM1B(/M), one of the mounting points has a tapped hole and the other has a counterbored hole. Alternatively, the RM1C(/M) has one mounting point with a mounting stud and another with a tapped hole. The threaded stud can be rotated using a thumb wheel which also features Ø3.1 mm holes that provide extra torque for mounting or removing components.

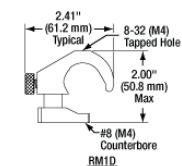| Item #	Mounting Features			
	Tapped Hole	Counterbored Hole	Mounting Stud	Clamping Feature
RM1A(/M)	8-32 (M4)	#8 (M4)	-	Setscrew w/ 5/64" (2.0 mm) Hex
RM1B(/M)	1/4"-20 (M6)	1/4" (M6)	-	
RM1C(/M)	8-32 (M4)	-	8-32 (M4)	

The C-clamp design allows these clamps to slide along a post to the desired position, where they can be locked by tightening the brass-tipped (non-marring) setscrew with a 5/64" (2.0 mm) hex key or balldriver.

Part Number	Description	Price	Availability
RM1A/M	Ø25.0 mm Slip-On Post Clamp, M4 Tap, M4 Counterbore	$28.41	5-8 Days
RM1B/M	Ø25.0 mm Slip-On Post Clamp, M6 Tap, M6 Counterbore	$28.41	Lead Time
RM1C/M	Ø25.0 mm Slip-On Post Clamp, M4 Tap, M4 Threaded Stud	$53.56	Today
RM1A	Ø1" Slip-On Post Clamp, 8-32 Tap, #8 Counterbore	$28.41	5-8 Days
RM1B	Ø1" Slip-On Post Clamp, 1/4"-20 Tap, 1/4" Counterbore	$28.41	5-8 Days
RM1C	Ø1" Slip-On Post Clamp, 8-32 Tap, 8-32 Threaded Stud	$53.56	Today

Variable Offset Slip-On Clamp for Ø1" (Ø25.0 mm) Posts

The RM1D(/M) Adjustable Clamp for Ø1" (Ø25.0 mm) posts allows users to mount a Ø1" post orthogonally over another Ø1" post without introducing a lateral offset. The slip-on clamp holds the orthogonal post with a brass-tipped (non-marring) setscrew that is actuated using a 5/64" (2.0 mm) hex key or balldriver. Once secured, the assembly can slide along a post, granting height variation of of 0.4" (10 mm). The chosen height can be locked in by tightening the 3/16" (5 mm) hex thumbscrew at the side of the mount. The clamp has a #8 counterbore at the base, allowing it to be mounted to many of our posts. There is also an 8-32 tap at the top of the part for inverted mounting.

Click to Enlarge
Mechanical Drawing

Click to Enlarge
Two Ø1" Posts Mounted Orthogonally Using the RM1D Clamp

Part Number	Description	Price	Availability
RM1D/M	Ø25.0 mm Adjustable Post Clamp, M4 Tap, M4 Counterbore	$56.81	Lead Time
RM1D	Ø1" Adjustable Post Clamp, 8-32 Tap, #8 Counterbore	$56.81	Today

Compact Mounting Clamp for Ø1" (Ø25.0 mm) Posts

The C1010(/M) Mounting Clamp allows an optic mount with a 8-32 (M4) tapped hole to be attached to a Ø1" (Ø25.0 mm) post. The mounting stud can be rotated using a thumb wheel which also features Ø3.1 mm holes that provide extra torque for mounting or removing components. A brass-tipped setscrew (5/64" [2.0 mm] hex) at the top of the clamp locks the rotation of the thumb wheel.

Each post clamp includes a C10QR(/M) Quick-Release Handle for mounting to the post;

Item #	Mounting Feature	
	Mounting Stud	Clamping Feature
C1010(/M)	8-32 (M4)	C10QR(/M) Handle[a]

a. Replacement handles are available below.

replacement quick-release handles can be purchased separately below. For space constrained applications, the handle can be removed and replaced with a 1/4"-20 (M6) cap screw at least 1/2" (12 mm) long.

Part Number	Description	Price	Availability
C1010/M	Ø25.0 mm Post Clamp, M4 Threaded Stud, Included Quick-Release Handle	$100.00	Today
C1010	Compact Ø1" Post Mounting Clamp, 8-32 Threaded Stud, Included Quick-Release Handle	$100.00	Today

Hide Right-Angle Clamp for Ø1" (Ø25.0 mm) Posts

Right-Angle Clamp for Ø1" (Ø25.0 mm) Posts

- Mounts Two Ø1" (Ø25.0 mm) Posts Perpendicular to Each Other
- Flexure Clamping Mechanism Secures Right-Angle Clamp to Ø1" (Ø25.0 mm) Posts
- 1/4"-20 (M6) Cap Screws Secure the Posts
- Imperial and Metric Versions Available

Thorlabs' RSA90(/M) Right-Angle Clamp allows one Ø1" (25.0 mm) post to be mounted perpendicularly to another Ø1" (25.0 mm) post. The clamp features a highly stable flexure lock design that is secured using a 3/16" (5 mm) balldriver. The center-to-center distance between the two posts is 1.25" for the imperial version and 30.0 mm for the metric version.

Click to Enlarge
Two Ø1" Posts Mounted Orthogonally Using the RSA90 Clamp

Part Number	Description	Price	Availability
RSA90/M	Right-Angle Clamp for Ø25.0 mm Posts	$33.28	Today
RSA90	Right-Angle Clamp for Ø1" Posts	$33.28	Today

Hide Right-Angle Ø1" (Ø25.0 mm) to Ø1/2" Post Clamp

Right-Angle Ø1" (Ø25.0 mm) to Ø1/2" Post Clamp

- Mounts a Ø1/2" Post Perpendicular to a Ø1" (Ø25.0 mm) Post
- Flexure Mechanism Secures Right-Angle Clamp to Ø1" (Ø25.0 mm) Post
- Thumbscrew Secures Ø1/2" Post
- Imperial and Metric Versions Available

The RA90RS(/M) clamp allows a Ø1/2" post to be mounted perpendicularly to a Ø1" (25.0 mm) post. The design, which is based off of the RA90 Right-Angle Post Clamp, combines a highly stable clamp flexure lock that is secured using a 3/16" (5 mm) balldriver with a thumbscrew locking mechanism. The thumbscrew can be tightened with a torque of up to 50 in-lbs (5.65 N·m). The center-to-center distance between the two posts is 1" for the imperial version and 25.0 mm for the metric version.

The C15QR(/M) handle can replace the 1/4"-20 (M6) clamping screw for better control when adjusting the clamps. Note that the C10QR(/M) handle is not compatible with these clamps.

Click to Enlarge
A Ø1/2" Post Mounted Perpendicularly to a Ø1" Post Using the RA90RS Clamp

Part Number	Description	Price	Availability
RA90RS/M	Right-Angle Ø25.0 mm to Ø1/2" Post Clamp	$28.41	Today
RA90RS	Right-Angle Ø1" to Ø1/2" Post Clamp	$28.41	Today

Hide Cage System Clamps for Ø1" (Ø25.0 mm) Posts

Cage System Clamps for Ø1" (Ø25.0 mm) Posts

- Quick-Connect Cage Clamps for 30 mm and 60 mm Cage Systems
- Easy Drop-In and Drop-Out of Cage Systems
- Single Locking Screw Allows One-Handed Operation
- Compatible with Ø1" (Ø25 mm) Posts

The CH1030, C1026/M, CH1060, and C1060/M Cage System Clamps for Ø1"

Click to Enlarge

Click to Enlarge
A C15QR/M Quick-Release Handle can be used in place of the 1/4"-20 (M6) clamping screw of the C1026/M and C1060/M clamps for better control.

[APPLIST]
[APPLIST]
60 mm Cage System Mounted on a Ø1" Post Using a CH1060 Clamp

(Ø25 mm) Posts are designed to support 30 mm (CH1030 and C1026/M) and 60 mm (CH1060 and C1060/M) cage systems. Two parallel cage rods can be placed in the clamp and locked in place with a single 9/64" (3.0 mm) hex screw. In this way, complete cage system sections can be supported by a single post. The CH1030 and CH1060 come with a C10QR Quick-Release Handle included. The C1026/M and C1060/M clamps can be secured to a Ø1" (Ø25 mm) post by tightening the highly stable flexure lock mechanism with a 3/16" (5 mm) balldriver.

The C15QR/M handle can replace the 1/4"-20 (M6) clamping screw on the C1026/M and C1060/M clamps for better control when adjusting the clamps, as shown in the image to the right. Note that the C10QR/M handle is not compatible with C1026/M and C1060/M.

Part Number	Description	Price	Availability
C1026/M	30 mm Cage Clamp for Ø25.0 mm Posts	$80.07	Today
C1060/M	60 mm Cage Clamp for Ø25.0 mm Posts	$89.01	Lead Time
CH1030	NEW! 30 mm Cage Clamp for Ø1" Posts	$87.58	Today
CH1060	NEW! 60 mm Cage Clamp for Ø1" Posts	$92.38	Today

Hide Mounting Joists

Mounting Joists

- Compatible with Thorlabs' Ø1/2" and Ø1" Posts
- Space-Saving Design Allows for Multiple Optical Elements to be Mounted on One Post
- Options for Center Mounting or Offset Mounting

Thorlabs' Mounting Joists provide valuable space-saving mounting options that are ideal for crowded optical tables or breadboards. These mounts are compatible with our Ø1/2" and Ø1" posts and allow multiple optics to be mounted close together on a single joist, eliminating the need for multiple posts and post holders.

The PJ301(/M) enables centered mounting in which optics can be placed on both sides of the post center. It features a centered #8 (M4) counterbore for post mounting and two #8 (M4) counterbored slots for mounting optomechanical components. This joist allows an optic to be offset by 0.40" - 1.40" (10.16 mm - 35.56 mm) from the post center.

The PJ302(/M) enables offset mounting in which optics can be mounted to one side of the post center. It features two #8 (M4) counterbored slots with opposite orientations, one for post mounting and one for mounting optomechanical components. This joist allows an optic to be offset by 0.40" - 2.70" (10.16 mm - 68.58 mm) from the post center.

Please note that imperial nuts only fit the imperial joists and metric nuts only fit the metric joists. Nuts are included with the these joists.

Click to Enlarge
[APPLIST]
[APPLIST]
PJ301 Post Joist Mounting Two Lenses About the Center of a Ø1/2" Post

Click to Enlarge
[APPLIST]
[APPLIST]
PJ302 Post Joint Mounting a Mirror in a Position Offset from the Center of a Ø1" Post

Part Number	Description	Price	Availability
PJ301/M	Centered Mounting Post Joist, M4 Mounting Hardware	$18.29	Today
PJ302/M	Offset Mounting Post Joist, M4 Mounting Hardware	$17.21	Today
PJ301	Centered Mounting Post Joist, 8-32 Mounting Hardware	$18.29	Today
PJ302	Offset Mounting Post Joist, 8-32 Mounting Hardware	$17.21	Today

Hide Quick Release Handles

Quick Release Handles

- Quick-Release Handles Allow Post Clamps to be Easily Repositioned
- Two Sizes Available:
  - 1.44" (36.5 mm) Long
  - 2.03" (51.4 mm) Long
- Provides More Control and Feel when Locking and Unlocking a Clamp
- Handles can be Rotated Without Actuating the Locking Screw
- 1/4"-20 (M6 x 1.0) Threads

Handle Item #	Handle Length	Compatible Ø1" (Ø25.0 mm) Post Clamps	
		Item #	Description
C10QR(/M)	1.44" (36.5 mm)	C1010(/M)	Mounting Clamps
		C1011(/M) C1045(/M)	Vertical Mounting Plates
		C1012(/M)	V-Clamp Mounts
		C1015(/M) C1019(/M)	Horizontal Mounting Platforms
		CH1030 CH1060	Cage System Clamps
C15QR(/M)	2.03" (51.4 mm)	C1026/M C1060/M	Cage System Clamps
		RA90RS(/M)	Right-Angle Ø1/2" Post Clamp

These quick-release handles provide a simple and reliable way of securing a flexure-based post clamp. In many cases a cap screw is used to lock a flexure-based clamp in place on a post, which requires a balldriver for adjustments. Depending on the mounted load, using a balldriver can be difficult, or even unsafe. These quick-release handles mitigate this problem by allowing the clamp to be hand-tightened, ensuring better control over the amount of torque applied to tighten or loosen the clamp. This also decreases the amount of time needed for basic setup and alignment by eliminating the need for additional balldrivers and allowing for a quick way to secure a clamp.

A list of Ø1" (Ø25.0 mm) Post Clamps that are compatible with these handles can be found in the table above. Visit the full quick-release handle presentation for additional compatibility information.

Easily installed by replacing the 1/4"-20 (M6) locking screw in a post clamp, each handle contains a 1/4"-20 (M6 x 1.0) threaded stud that engages a part by rotating the handle. Once the handle is tightened to secure a clamp to a post, the internal ratchet-type mechanism allows for the handle's rotational position to be adjusted without actuating the mounting stud. Simply pull the handle outwards to disengage it from the mounting stud, as shown in the image to the right, then rotate it to a more convenient position. This feature ensures that the handle will always be accessible to the user.

Part Number	Description	Price	Availability
C10QR/M	Customer Inspired! Quick Release Handle, 36.5 mm Long, M6 x 1.0 Threads	$9.00	Today
C15QR/M	Quick Release Handle, 51.4 mm Long, M6 x 1.0 Threads	$10.50	Today
C10QR	Customer Inspired! Quick-Release Handle, 1.44" Long, 1/4"-20 Threads	$9.00	Today
C15QR	Quick-Release Handle, 2.03" Long, 1/4"-20 Threads	$10.50	Today