

LCP07T/M - June 29, 2023

Item # LCP07T/M was discontinued on June 29, 2023. For informational purposes, this is a copy of the website content at that time and is valid only for the stated product.

60 mm REMOVABLE CAGE SEGMENT PLATES

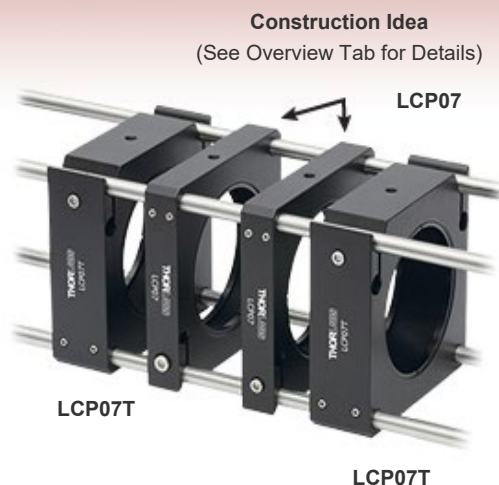
- Insert or Remove Cage Segments while Maintaining Rigidity of Existing Cage System
- Flexure Cam Lock Design
- 0.50" and 0.90" Thick Versions



LCP07T
60 mm
Removable
Cage Plate,



LCP07
60 mm
Removable
Cage Plate,



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OVERVIEW

Features

- Compatible with 60 mm Cage Systems
- Accepts $\varnothing 6$ mm Cage Rods
- Connect to Rods via 4-40 Setscrews
- SM2 (2.035"-40) Internal Thread
- Available in 0.50" and 0.90" Thick Versions

Thorlabs' 60 mm Removable Cage Segment Plates provide the means to extract a portion of a cage system and replace it with other pre-aligned segments, as illustrated below. These cage plates add versatility to a cage system without disturbing any pre-aligned components while maintaining the rigidity of the cage system. They are equipped with a flexure cam lock to hold the cage plate in position prior to final tightening via the included 4-40 (M3) cap screws. The cage plates may be mounted on our $\varnothing 1/2$ " Posts via two 8-32 (M4) mounting holes on opposite sides.

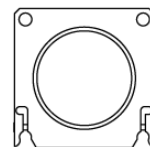
Assembling a Removable Cage Segment

1. Use an LCP07T cage plate to create an interface for a removable cage segment. Two cage rods pass completely through the holes in the cage plate and are secured using the side-located 4-40 setscrews. The remaining cage rods only pass halfway through the flexure clamp as shown below. Do not tighten the flexure mechanism at this time.

2. The removable cage segment is constructed using LCP07 or LCP07T cage plates. The cage rods in the removable segment need to be long enough so that they fit into the flexure clamp of the outer LCP07T cage plates.

Alternative Size Options

16 mm Removable Segment Cage Plates
30 mm Removable Segment Cage Plates
60 mm Removable Segment Cage Plates



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3. The completed cage system is shown below. To lock the removable cage segment, tighten all of the flexure mechanisms by tightening the 4-40 (M3) cap head screws. To remove the segment, simply loosen the screws on the flexure mechanisms.



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Cage System Compatibility: Thorlabs offers 16 mm, 30 mm and 60 mm cage systems designed for Ø1/2", Ø1" and Ø2" optical components (respectively). The parts on this page are compatible with our 60 mm cage system and utilize Ø6 mm ER cage rods.

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[Hide Cage Overview](#)

CAGE OVERVIEW

Cage System Overview

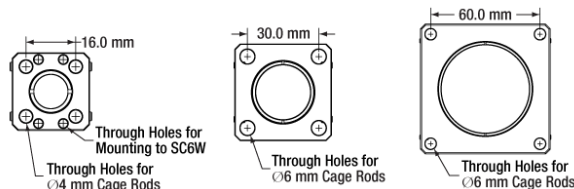
The Cage Assembly System provides a convenient way to construct large optomechanical systems with an established line of precision-machined building blocks designed for high flexibility and accurate alignment.

16 mm, 30 mm, and 60 mm Cage System Standards

Thorlabs offers three standards defined by the center-to-center spacing of the cage assembly rods (see image below). The 16 mm cage, 30 mm cage, and 60 mm cage standards are designed to accommodate Ø1/2", Ø1", and Ø2" optics, respectively. Specialized cage plates that allow smaller optics to be directly inserted into our larger cage systems are also available.

Standard Threads

The flexibility of our Cage Assembly System stems from well-defined mounting and thread standards designed to directly interface with a wide range of specialized products. The three most prevalent thread standards are our SM05 Series (0.535"-40 thread), SM1 Series (1.035"-40 thread), and SM2 Series (2.035"-40 thread), all of which were defined to house the industry's most common optic sizes. Essential building blocks, such as our popular lens tubes, directly interface to these standards.



An example of the standard cage plate measurements determining cage system compatibility.

Standard Cage System Measurements			
Cage System	16 mm	30 mm	60 mm
Thread Series	SM05	SM1	SM2
Rod to Rod Spacing	16 mm (0.63")	30 mm (1.18")	60 mm (2.36")
Total Length	25 mm (0.98")	41 mm (1.60")	71.1 mm (2.8")

Cage Components

16 mm

Cage Rods	30 mm	These rods are used to connect cage plates, optic mounts, and other components in the cage system. The SR Series Cage Rods are compatible with our 16 mm cage systems, while the 30 mm and 60 mm cage systems use ER Series Cage Rods.
	60 mm	
Cage Plates	16 mm	These serve as the basic building blocks for a cage system. They may have SM-threaded central bores, smooth bores sized for industry standard optics or to accommodate the outer profile of our SM Series Lens Tubes, or specialized bores for other components such as our FiberPorts.
	30 mm	
	60 mm	
Optic Mounts	16 mm	Thorlabs offers fixed, kinematic, rotation, and translation mounts specifically designed for our Cage Systems.
	30 mm	
	60 mm	
Cage Cubes	16 mm	These cubes are useful for housing larger optical components, such as prisms or mirrors, or optics that need to sit at an angle to the beam path, such as beamsplitters. Our cage cubes are available empty or with pre-mounted optics.
	30 mm	
	60 mm	
Replacement Setscrews		Replacement setscrews are offered for our 16 mm (SS4B013, SS4B025, and SS4B038) and 30 mm (SS4MS5 and SS4MS4) cage systems products.
Post and Breadboard Mounts and Adapters		Mounting options for cage systems can be found on our Cage System Construction pages. Cage Systems can be mounted either parallel or perpendicular to the table surface.
Size Adapters		Cage System Size Adapters can be used to integrate components from different cage system and threading standards.
Specialized Components		Thorlabs also produces specialized cage components, such as Filter Wheels, a HeNe Laser Mount, and a FiberPort Cage Plate Adapter, allowing a wide range of our products to be integrated into cage-mounted optical systems. Explore our Cage Systems Visual Navigation Guide to see the full range of Thorlabs' cage components.

[Hide Part Numbers](#)

Part Number	Description	Price	Availability
LCP07/M	Customer Inspired! 60 mm Removable Segment Cage Plate, 0.50" Thick, Metric	\$44.26	Today
LCP07T/M	Customer Inspired! 60 mm Removable Segment Cage Plate, 0.90" Thick, Metric	\$48.05	Lead Time
LCP07	Customer Inspired! 60 mm Removable Segment Cage Plate, 0.50" Thick	\$44.26	Today
LCP07T	Customer Inspired! 60 mm Removable Segment Cage Plate, 0.90" Thick	\$48.05	Today