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ESD21 - February 2, 2015

Item # ESD21 was discontinued on February 21, 2015. For informational purposes, this is a copy of the website content at that time and is valid only for the stated product.

OPTICS HANDLING

- ▶ Latex and Cotton Gloves
- ▶ Tweezers and Forceps
- ▶ Vacuum Pick-Up Tools



TZ1

TZ3

Tweezers



MC8-L

Latex Gloves



FCP

Forceps



VCP10C

Vacuum Pick-Up Tool, Set of 10 Tips



MC6-S

Cotton Glove

[Hide Overview](#)

OVERVIEW

Thorlabs offers a line of optics tools designed to prevent the contamination of an optical element being handled. Included on this page, you'll find the following:

- Latex and Cotton Gloves
- Tweezers and Forceps
- Manual Vacuum Pick-Up Tool Kits

Thorlabs also offers a line of Optics Cleaning Supplies, Inspection Tools, Storage Boxes, and other General Laboratory Tools.



[Hide Latex Gloves](#)

Latex Gloves



- Available in 3 Sizes (Small, Medium, or Large)
- Provides Protection for the Entire Hand While Handling Optics
- Packs of 100 Gloves

Glove Fitting Guidelines			
Item #	Glove Size	Palm Size ^a	Maximum Middle Finger Length
MC8-S	Small	6.5" - 7.5" (16.51 cm - 19.05 cm)	2.75" (6.99 cm)
MC8-M	Medium	7.5" - 8.5" (19.05 cm - 21.59 cm)	3.25" (8.26 cm)
MC8-L	Large	8.5" - 9.5" (21.59 cm - 24.13 cm)	3.6" (9.14 cm)

These disposable, powder-free latex gloves prevent the transfer of oils and debris from hands to optics. Available in three sizes (small, medium, or large), these gloves come in a box of 100. The table to the right provides hand measurement guidelines for determining which glove size would fit best.

- Circumference Around the Palm Not Including the Thumb

Part Number	Description	Price	Availability
MC8-S	Small Powder-Free Latex Gloves Qty: 100 Gloves	\$21.00	Today
MC8-M	Medium Powder-Free Latex Gloves Qty: 100 Gloves	\$21.00	Today
MC8-L	Large Powder-Free Latex Gloves Qty: 100 Gloves	\$21.00	Today

[Hide Cotton Gloves](#)

Cotton Gloves



- Available in 3 Sizes (Small, Medium, or Large)
- Designed for Handling Optical Components
- Can Be Worn as a Glove Liner
- Twelve Pairs per Package

Glove Fitting Guidelines			
Item #	Glove Size	Palm Size ^a	Maximum Middle Finger Length
MC6-S	Small	6.5" - 8.0" (16.51 cm - 20.32 cm)	3.25" (8.26 cm)
MC6-M	Medium	8.0" - 8.75" (20.32 cm - 22.23 cm)	3.5" (8.89 cm)
MC6-L	Large	8.75" - 9.5" (22.23 cm - 24.13 cm)	3.75" (9.53 cm)

- Circumference Around the Palm Not Including the Thumb

Thorlabs offers disposable cotton gloves that are designed for handling optics and can be worn underneath latex gloves as a glove liner. They are packaged in bags containing 12 pairs of cotton gloves and are available in three sizes (small, medium, or large). The table to the right provides hand measurement guidelines for determining which glove size would fit best.

Part Number	Description	Price	Availability
MC6-S	Small Cotton Optic Gloves, 12 Pairs Per Package	\$13.67	Today
MC6-M	Medium Cotton Optic Gloves, 12 Pairs Per Package	\$13.67	Today
MC6-L	Large Cotton Optic Gloves, 12 Pairs Per Package	\$13.67	Today

[Hide Tweezers](#)

Tweezers



- **TZ1:** Tweezers with Stainless Steel Body and Carbon-Fiber Tips for $\leq \varnothing 12$ mm Optics
- **TZ2:** Tweezers with Nylon Body and Tips for $\leq \varnothing 25.4$ mm Optics
- **TZ3:** Tweezers with Stainless Steel Body and Polyolefin Tips for $\varnothing 12$ mm to $\varnothing 25.4$ mm Optics

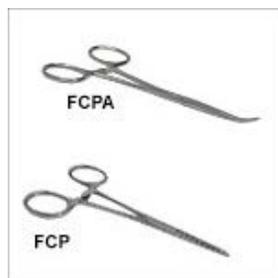
Thorlabs offers three types of tweezers for the handling of delicate optics. Our TZ1 tweezers work well for holding the edges of $\varnothing 12$ mm or smaller optics. These tweezers are made from stainless steel and have molded-carbon-fiber tips to protect the object being handled. Alternatively, our TZ2 tweezers can accommodate $\varnothing 25.4$ mm or smaller optics and are made from nylon that is chemically resistant to common lab solvents. Finally, our TZ3 self-closing tweezers are able to comfortably hold the edges of $\varnothing 12$ mm to $\varnothing 25.4$ mm optics, as shown in the photo to the right. The TZ3 tweezers have a polyolefin cover over each tip that is unaffected by common lab solvents and helps to grip and protect optics.



Click to Enlarge
TZ3 Self-Closing Tweezers Holding a $\varnothing 1$ " Lens

Part Number	Description	Price	Availability
TZ1	Optic Tweezers with Stainless Steel Body and Carbon-Fiber Tips	\$45.80	Today
TZ2	Optic Tweezers with Nylon Body and Tips	\$5.00	Today
TZ3	Optic Tweezers with Stainless Steel Body and Polyolefin Tips	\$72.00	Today

Forceps



- Fabricated from Solid Stainless Steel
- Straight or Angled Version Available
- Locking Grip Ideal for use with Lens Tissue Paper for Optics Cleaning



Click to Enlarge
Optic Cleaning Using Forceps
and Lens Tissue Paper

Thorlabs offers stainless steel forceps that are equipped with narrow tips for holding small objects. The locking grip on the forceps can be used to keep the tips in a closed position. The FCPA features an angled tip while the FCP has a straight tip.

Part Number	Description	Price	Availability
FCP	Forceps, Solid Stainless Steel	\$16.70	Today
FCPA	Customer Inspired!Angled Forceps, Solid Stainless Steel	\$16.70	Today

[Hide Manual Vacuum Pick-Up Tool Kit, 7 Interchangeable Tips](#)

Manual Vacuum Pick-Up Tool Kit, 7 Interchangeable Tips



- Ideal for Safely Picking up Lens and Mirrors without Damage
- Five Straight Tips and Two 45° Angle Tips Included (Pad Sizes: 0.0938" - 0.4")

This Manual Vacuum Pick-up Tool allows the user to lift and hold small optics, including Ø1" lenses and mirrors, without causing damage. Each tool comes with seven interchangeable tips and one body in a convenient plastic case. To ensure a good vacuum, choose a tip with a pad that is slightly smaller than the optic. To apply a vacuum force, squeeze the bulb and then depress gently while the pad is in contact with the optic; to release, squeeze the bulb. We recommend that this tool be used with optics that have a plano surface.

Please note that using the vacuum pick-up tool improperly can damage an optic. The metal extension tube may contact your optic if the suction cup is pressed against the optic too hard. These tools should not be used with gratings, pellicle beamsplitters, or any optic with an unprotected coating. Proper usage instructions are included with the pick-up tool and should be followed.

Part Number	Description	Price	Availability
ESD21	Manual Vacuum Pick-up Tool (Vacuum Tweezers), Set of 7 Interchangeable Tips	\$52.00	Lead Time

[Hide Manual Vacuum Pick-Up Tool Kit, 10 Interchangeable Tips](#)

Manual Vacuum Pick-Up Tool Kit, 10 Interchangeable Tips



- Self-Contained Vacuum Tweezer Ideal for Gently Lifting and Handling Optics
- Includes Five 45°-Angled and Five Straight Interchangeable Tips with Ø1/8", Ø1/4", Ø3/16", Ø3/8", or Ø1/2" Suction Cups
- Electrostatic Discharge Safe

The VP10C Vacuum Pick-Up Tool Kit is ideal for lifting and handling small optics, such as lenses and mirrors, without damaging the optic. This pick-up tool is shaped like a pen for ease of use and also includes a pen clip for carrying. Each kit comes with a set of five angled and five straight interchangeable tips with $\text{Ø}1/8$ ", $\text{Ø}1/4$ ", $\text{Ø}3/16$ ", $\text{Ø}3/8$ " or $\text{Ø}1/2$ " Buna-N (nitrile) suction cups. Hold and then let go of the black button while contacting an optic with a suction cup to apply the vacuum force; press the black button to release the optic.

Please use caution when handling an optic as improper use may cause damage to the optic surface. We recommend that this tool be used with optics that have a plano surface. The VP10C should not be used with gratings, pellicle beamsplitters or any optic that has an unprotected coating.



Click to Enlarge
VP10C Vacuum Pick-Up Tool
Holding a $\text{Ø}1$ " Lens

Part Number	Description	Price	Availability
VP10C	Vacuum Pick-Up Tool (Vacuum Tweezers), Set of 10 Interchangeable Tips	\$66.00	Today

Visit the *Optics Handling* page for pricing and availability information:

http://www.thorlabs.com/newgrouppage9.cfm?objectgroup_id=1453