ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Find the *Newport / Oriel 70100* at our website: *Click HERE*

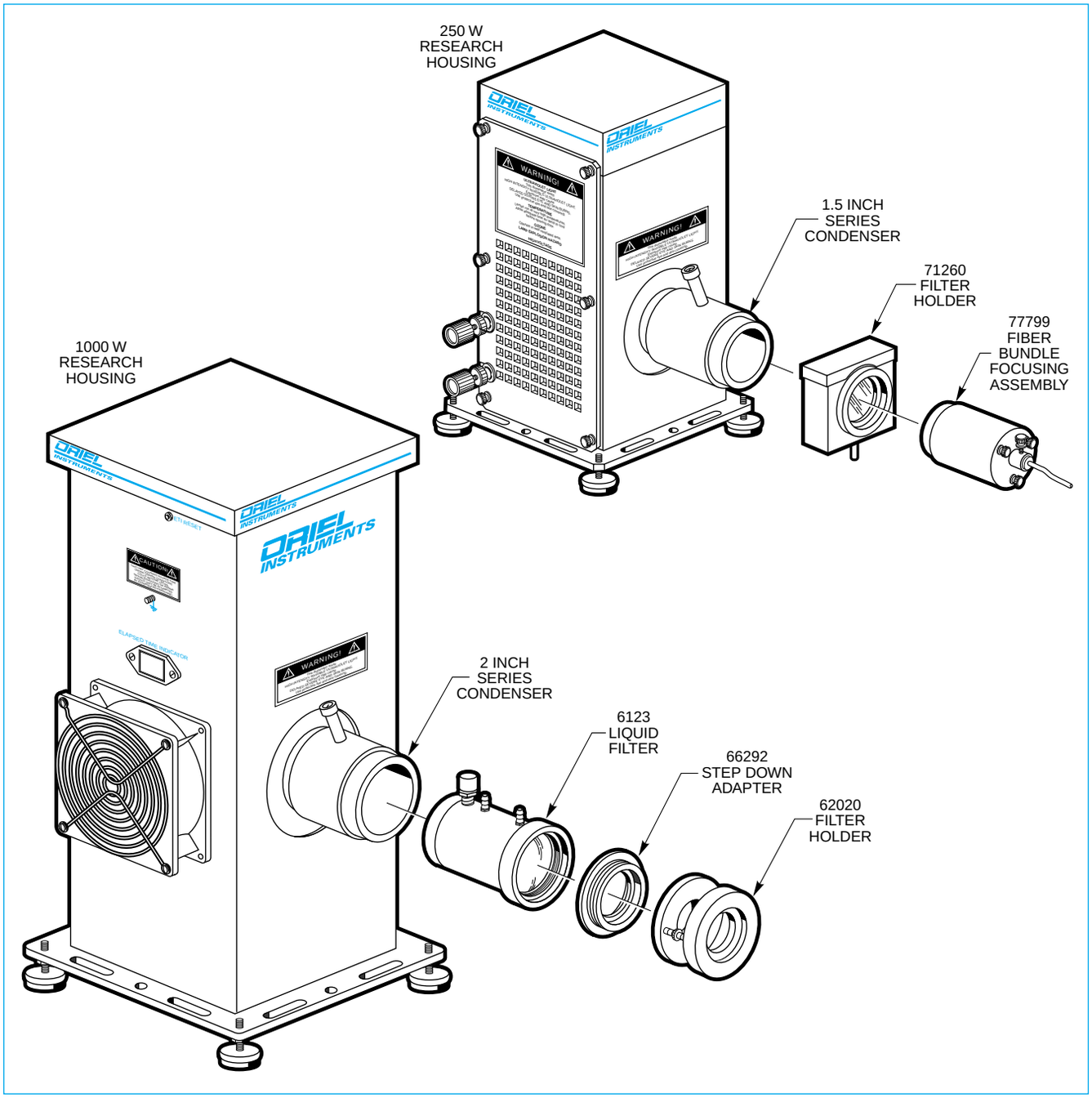


Fig. 1 We offer a large selection of optical accessories to customize your light source; these couple directly to the output of the lamp housing condenser.

If you're looking to customize a general purpose light source to your application, the next six pages are filled with the optical accessories you'll need. You can filter the beam, attenuate it, turn it, or add a fiber optic to carry the output to a remote location.

THREE SIZES OF ACCESSORIES

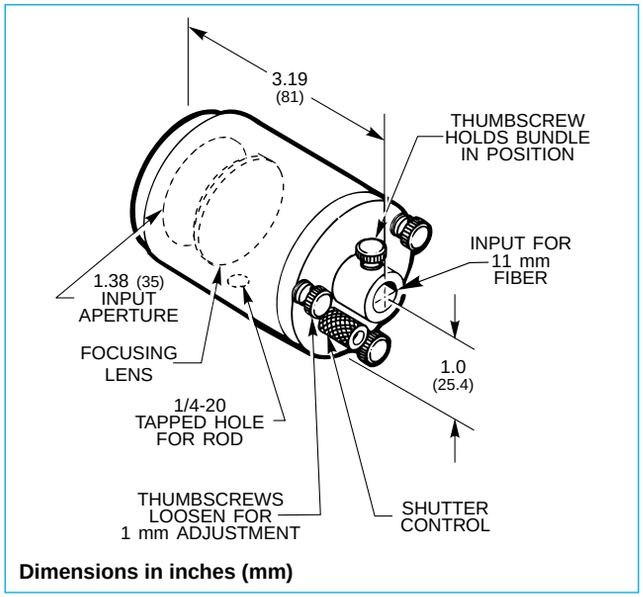
We offer three sizes of accessories to fit our three sizes of light source condensers. (See previous page for discussion of flanging system.) Most condensers are the 1.5 Inch Series, consequently most of our accessories are also that size. If you're looking for an accessory that is not available in the 2 or 3 Inch Series size, use a Step Down Adapter, described on page 1-168.

MOUNTING

The condensers on our lamp housings have a female flange; most accessories have a male flange on one end and a female flange on the other. They couple directly to the light source condenser, and to each other. Some models also have a tapped 1/4-20 hole to accept optical rods. If you're mounting several accessories to the condenser output, we recommend you also rod mount at least one for stability.

Contact us for further information on any of the products in this catalog
Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

FIBER BUNDLE FOCUSING ASSEMBLIES



Dimensions in inches (mm)

Fiber Bundle Focusing Assembly.

- **Focus collimated light into a fiber bundle**
- **Integral manual shutter lets you close off the beam for zero checking**

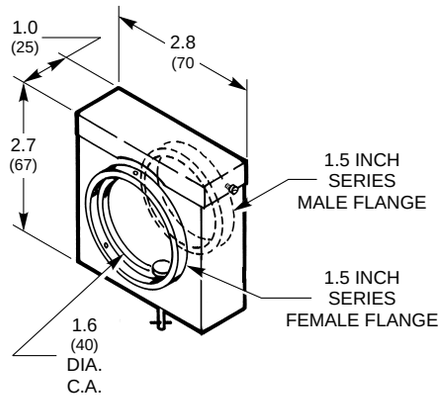
These assemblies plus a fiber bundle convert a collimated light source into a fiber optic source. They consist of a focusing lens, a manual shutter and a fiber bundle holder, in one housing. One end of the housing has a male flange to couple to the light source condenser; the other end accepts fiber bundles with an 11 mm ferrule. (All Oriel Fiber Bundles have 11 mm ferrules.)

We offer two models; the difference is in the lens. The 77799 has a glass, F/0.85 lens matched to glass bundles. The 77800 has an F/2 fused silica lens for silica bundles.

We do not recommend that you use these fiber assemblies to couple light into a single fiber, as you'll throw away most of it. However, if you aren't concerned with throughput, and you want the small bright beam produced by a single fiber, use one of the converters on page 8-24 to change the 11 mm output of these assemblies to an SMA or ST termination.

Series Size	Lens F/#	Lens Material	Tapped Hole (1/4-20)	Model No.	Price
1.5 Inch	F/0.85	Glass	Yes	**77799**	
	F/2	Fused Silica	Yes	**77800**	

QUICK CHANGE FILTER HOLDER



Dimensions in inches (mm)

71260 Quick Change Filter Holder.

- **Quick filter insertion and removal**
- **Maintains enclosed light path**
- **Holds circular or square filters**
- **Thin profile**

The ability to quickly insert and remove filters makes the 71260 ideal for holding filters in the middle of an optical train. A handy plunger on the bottom of the 71260 “pops” the filter up for easy removal. The most attractive feature is the light tight cover which prevents leakage of ambient light into the enclosed optical path.

The 71260 holds 2 inch (51 mm) square or circular filters totaling up to 0.5 inch (13 mm) thick. We offer an adapter to hold 1 inch (25 mm) diameter filters. The 71260 is available in 1.5 Inch Series only. For larger series filter holders, see the following page. The 71260 does not have a tapped hole for rod mounting, but has a male and female flange.

71260	1.5 Inch Series Quick Change Filter Holder
7124	1 Inch Filter Adapter

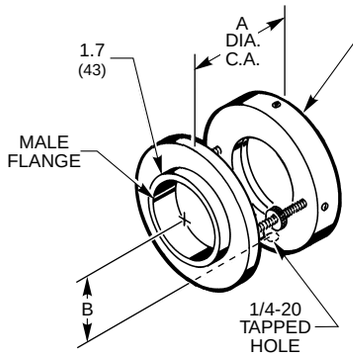
Also see these catalog pages...

We devote over 40 pages to optical filters, starting on ***page 10-4;*** *you'll find:*

- *Neutral Density Filters*
- *Color Glass Filters*
- *Broadband and Narrow Band Interference Filters*
- *Long and Short Pass Filters*
- *Dichroic Filters*
- *Solar Blind Filters*

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

MULTIPLE FILTER HOLDERS



MODEL	A	B
1.5 INCH	1.5 (38)	1.37 (35)
62020		
2 INCH	1.8 (46)	1.37 (35)
6215		
3 INCH	2.8 (71)	2.0 (51)
6216		

Dimensions in inches (mm)

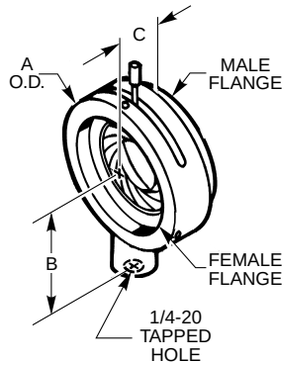
Multiple Filter Holder.

- **Inexpensive holders for square or circular filters**
- **Hold various filters together**

If you're not looking for an enclosed light path, these holders are an inexpensive alternative to the 71260 on the previous page. They are open so you have easy access to the filters and you can insert various filters simultaneously, as long as the total thickness does not exceed the value listed below. Thumbwheels hold the filters firmly in place. They're available in all three "series" sizes.

Series Size	Filter Dimensions inch (mm) Dia. or Square	Filter Dimensions inch (mm) Max Total Thk.	Clear Aper. inch (mm)	Tapped Hole (1/4-20)	Model No.	Price
1.5 Inch	2 (51)	0.75 (19)	1.5 (38)	Yes	**62020**	
2 Inch	2 (51)	0.75 (19)	1.8 (46)	No	**6215**	
3 Inch	3 (76)	0.75 (19)	2.8 (71)	No	**6216**	

IRIS DIAPHRAGMS



MODEL	A	B	C
1.5 INCH			
62030	2.3 (58)	1.54 (39)	0.65 (17)
71400	2.13 (54)	1.48 (38)	0.5 (13)
2 INCH			
62290	3.0 (76)	1.9 (48)	0.75 (19)
3 INCH			
62300	4.0 (102)	2.4 (61)	0.85 (22)

Dimensions in inches (mm)

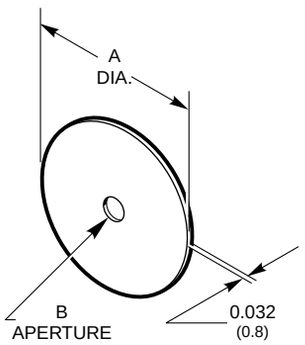
Iris Diaphragm.

- **Variable light attenuators**
- **Excellent aperture stops**

These variable apertures are excellent for light attenuation and as lens aperture stops. A lever on the top of the diaphragm controls the aperture. Do not use these in the unfiltered output of sources rated at more than 50 W; use either a liquid filter (page 1-166), dichroic mirror (page 1-152) or neutral density filter (page 10-18) first.

Series Size	Aperture Range inch (mm)	Tapped Hole (1/4-20)	Model No	Price
1.5 Inch	0.08 to 1.4 (2 to 36)	Yes	**62030**	
	0.04 to 1 (1 to 25)	Yes	**71400**	
2 Inch	0.13 to 2 (3.2 to 50)	Yes	**62290**	
3 Inch	0.16 to 2.8 (4 to 70)	Yes	**62300**	

BEAM APERTURES/PINHOLES



MODEL NO.	A DIA.	B APERTURE
70275	1.0 (25.4)	0.4 (10)
70276		0.2 (5)
70277		0.1 (2.5)
70291		0.04 (1)
71410	1.5 (38.1)	1.2 (30)
71340		1.0 (25)
71360		0.4 (10)
71370		0.2 (5)
71380		0.1 (2.5)
71390		0.04 (1)

Beam Aperture.

7123	1.0 Inch Optic Holder
6195	1.5 Inch Optic Holder

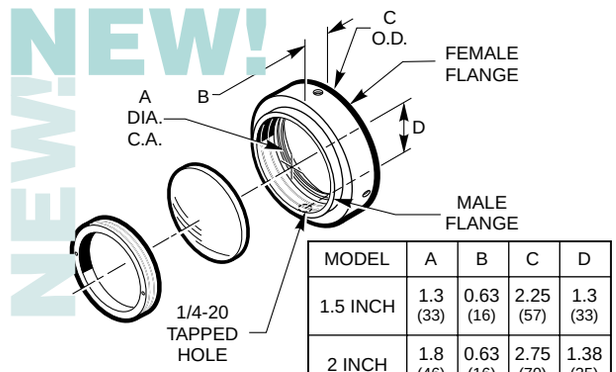
- **Limit angular aperture**
- **Attenuate beam**
- **Define beam area**

These 1.0 and 1.5 inch (38 mm) diameter aluminum discs have a circular opening; they are useful for limiting the angular or area extent entering a detector or monochromator. Use them with or without a diffuser. (See page 12-7 for diffusers.) The 1.0 inch discs fit into the 7123 Optic Holder; the 1.5 Inch models fit into the 6195. Both optic holders have 1.5 Inch Series Flanges.

Disk Diameter inch (mm)	Aperture inch (mm)	Model No.	Price
1.0 (25.4)	0.4 (10)	**70275**	
	0.2 (5)	**70276**	
	0.1 (2.5)	**70277**	
	0.04 (1)	**70291**	
1.5 (38.1)	1.2 (30)	**71410**	
	1.0 (25)	**71340**	
	0.4 (10)	**71360**	
	0.2 (5)	**71370**	
	0.1 (2.5)	**71380**	
	0.04 (1)	**71390**	

Contact us for further information on any of the products in this catalog
Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

SECONDARY FOCUSING LENS ASSEMBLIES



MODEL	A	B	C	D
1.5 INCH	1.3 (33)	0.63 (16)	2.25 (57)	1.3 (33)
2 INCH	1.8 (46)	0.63 (16)	2.75 (70)	1.38 (35)
3 INCH	2.7 (69)	0.75 (19)	4.0 (102)	2.0 (51)

Dimensions in inches (mm)

Secondary Focusing Lens Assembly.

- **Focus collimated output**
- **Various focal lengths available**

These lens assemblies focus the collimated beam from a condenser and create an image of the arc or filament one focal length away. They consist of a plano convex lens and a flanged lens holder. The lens holder is also available separately if you need to mount a different focal length lens. We offer fused silica lenses for our deuterium, arc, and quartz tungsten hologen sources, and germanium and zinc selenide for our IR sources. Match the material to the light source condenser material. The individual light sources pages specify the lens material.

TECH NOTE

If you have enough beam power, choose the secondary focusing assembly with the focal length most convenient for your optical system. But if you are like most researchers, you will want as much power as possible and therefore can't afford to waste any. In these cases you may need to consider concepts discussed on page 1-9. At the very least, F/# matching becomes very important. The lower the F/#, the smaller the focused spot. If you are illuminating a monochromator or a fiber, we recommend that you use the F/1 or F/1.5 lenses.

SPECIFICATIONS AND ORDERING INFORMATION

Fused Silica Lens Assemblies (Includes lens and lens holder)

Series Size	Focal Length inch (mm)	F/#	Lens Dia. inch (mm)	Clear Aper. inch (mm)	Model No.	Price
1.5 Inch	2 (51)	F/1.5	1.5 (38)	1.3 (33)	**6196**	
	3 (76)	F/2.3	1.5 (38)	1.3 (33)	**6197**	
	4 (102)	F/3.1	1.5 (38)	1.3 (33)	**6198**	
	6 (152)	F/4.6	1.5 (38)	1.3 (33)	**6199**	
	8 (203)	F/6.2	1.5 (38)	1.3 (33)	**6200**	
	2 (51) two element	F/1	1.5 (38)	1.3 (33)	**66110**	
2 Inch	3 (76)	F/1.7	2 (51)	1.8 (46)	**6217**	
	4 (102)	F/2.2	2 (51)	1.8 (46)	**6218**	
	6 (152)	F/3.3	2 (51)	1.8 (46)	**6219**	
	8 (203)	F/4.4	2 (51)	1.8 (46)	**6220**	
3 Inch	4 (102)	F/1.5	3 (76)	2.7 (69)	**6231**	
	6 (152)	F/2.2	3 (76)	2.7 (69)	**6235**	
	8 (203)	F/3	3 (76)	2.7 (69)	**6232**	
	10 (254)	F/3.7	3 (76)	2.7 (69)	**6236**	

NEW! Germanium Lens Assemblies (Includes lens and lens holder)

Series Size	Focal Length inch (mm)	F/#	Lens Dia. inch (mm)	Clear Aper. inch (mm)	Model No.	Price
1.5 Inch	1.3 (33)	F/1	1.5 (38)	1.3 (33)	**6243**	
	2.6 (66)	F/2	1.5 (38)	1.3 (33)	**6244**	

NEW! Zinc Selenide Lens Assemblies (Includes lens and lens holder)

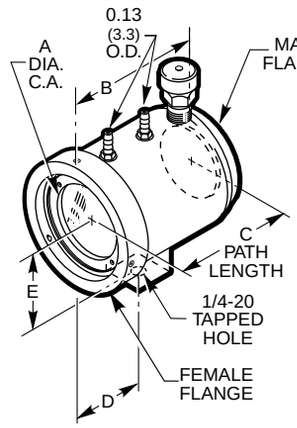
Series Size	Focal Length inch (mm)	F/#	Lens Dia. inch (mm)	Clear Aper. inch (mm)	Model No.	Price
1.5 Inch	1.3 (33)	F/1	1.5 (38)	1.3 (33)	**6245**	
	2.6 (66)	F/2	1.5 (38)	1.3 (33)	**6246**	

Lens Holders

Series Size	Tapped Hole (1/4-20)	Model No.	Price
1.5 Inch	Yes	**6195**	
2 Inch	Yes	**6222**	
3 Inch	Yes	**6237**	

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

LIQUID FILTERS



MODEL NO.	A	B	C	D	E
1.5 INCH					
61945 6117	1.3 (33)	2.54 (65)	2.13 (54)	1.3 (33)	1.4 (36)
2 INCH					
6123 6127	1.9 (48)	3.4 (86)	3.13 (80)	1.86 (47)	1.59 (40)
3 INCH					
6214 6227	2.7 (69)	3.4 (86)	3.13 (80)	1.86 (47)	2.2 (56)

Dimensions in inches (mm)

Liquid Filter.

- **Passes UV and VIS and reduces IR**
- **Protects optics from the damaging heat of the IR**

Liquid filters are useful for applications where the infrared is not required, and its heating affect is a problem. With our high powered sources (500 to 1000 W), they are almost a necessity if you are using other optical components. (Another alternative is a dichroic beam turner from page 1-152.)

Our liquid filters use a fused silica window to transmit down to 250 nm; the NIR is absorbed by the liquid. See Fig. 1 for a transmittance curve of the 6123 filled with distilled water.

The filters consist of a cell that holds the liquid and two fused silica windows. The cell has an external chamber for cooling water circulation and a pressure relief valve. External cooling is needed to remove the energy absorbed when filtering continuous high power (>100 W) sources. You can use tap water or water from a recirculating cooler.

The aluminum models take distilled water only. The steel models can take water, or copper or nickel sulfate solutions. Copper and nickel sulfate solutions prevent the growth of organics. Normal laboratory precautions should be taken when working with these solutions.

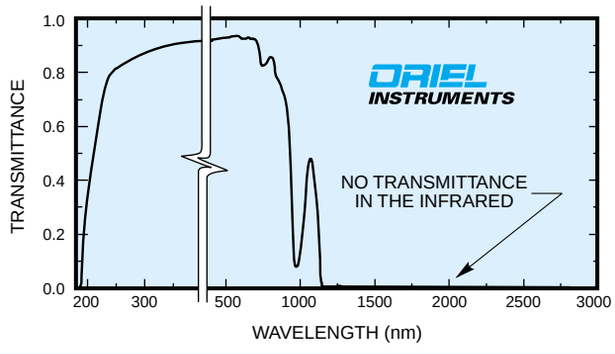
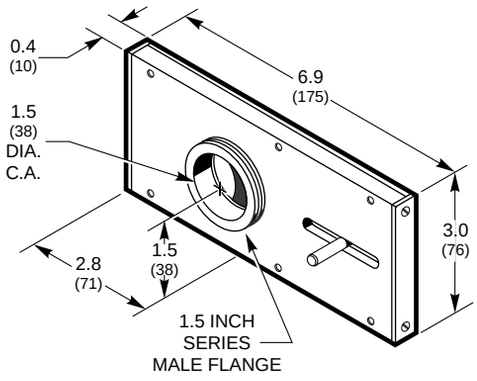


Fig. 1 Transmittance of 6123 Liquid Filter with distilled water.

Series Size	Tapped Hole (1/4-20)	Aluminum		Stainless Steel	
		Model No.	Price	Model No.	Price
1.5 Inch	Yes	**61945**		**6117**	
2 Inch	Yes	**6123**		**6127**	
3 Inch	Yes	**6214**		**6227**	

MANUAL SHUTTER



Dimensions in inches (mm)

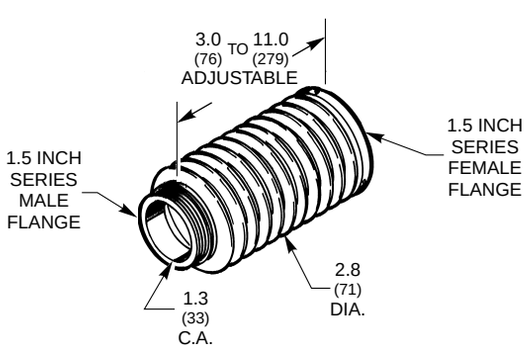
71430 Manual Shutter.

- **Convenient manual slide**
- **Thin profile**

Our low cost manual shutter is a convenient and easy device for reliably checking “radiometric zero”. The easily accessible lever moves a slide in and out of the optical path. We also offer electronic shutters on page 1-154.

71430 1.5 Inch Series Manual Shutter

FLEXIBLE LIGHT SHIELD



Dimensions in inches (mm)

Flexible Light Shield.

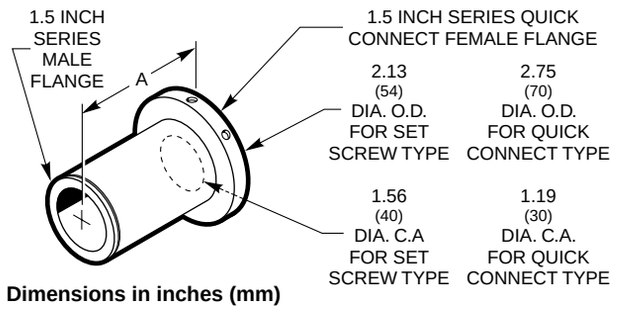
- **Folds and extends to varying length**
- **Encloses a system from stray light**

These light shields are an 11 inch (279 mm) long piece of bellows tubing with a female flange on one end and a male flange on the other. They fold and extend from 3 to 11 inches (76 to 279 mm). You can easily remove a flange, cut the tube to a shorter length and reassemble the flange. We use these tubes to enclose the beam from a light source to a monochromator; these are not intended to absorb high power radiation (see the following page for a high power model).

We offer two types: the 77356 has standard set screw type flanges.The 71305 has our convenient Quick Connect flanges. (See page 1-168 for details on both flange types.)

Series Size	Flange Type	Model No.	Price
1.5 Inch	Set Screw	**77356**	
	Quick Connect	**71305**	

Contact us for further information on any of the products in this catalog
Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



Dimensions in inches (mm)

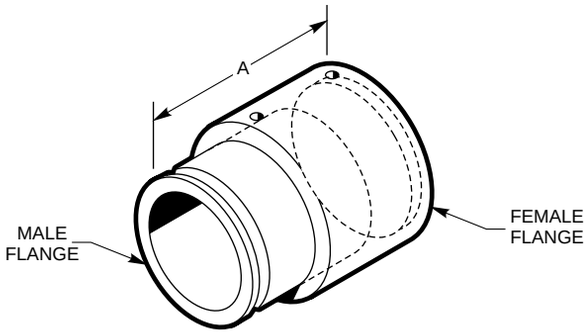
Quick Connect Spacer Tube.

- **Safely enclose high power beams**
- **Extend optical paths**

These flanged tubes enclose beam paths between separate components. We offer set screw and Quick Connect types.The junctions on the less expensive set screw versions are less light tight.

Series Size	A Tube Length (mm)	Tapped Hole (1/4-20)	Set Screw		Quick Connect	
			Model No.	Price	Model No.	Price
1.5 Inch	25	No	**7130**		**71301**	
	50	No	**7129**		**71302**	
	75	No	**N/A**		**71303**	
	100	No	**7132**		**71304**	

ADJUSTABLE LIGHT SHIELD



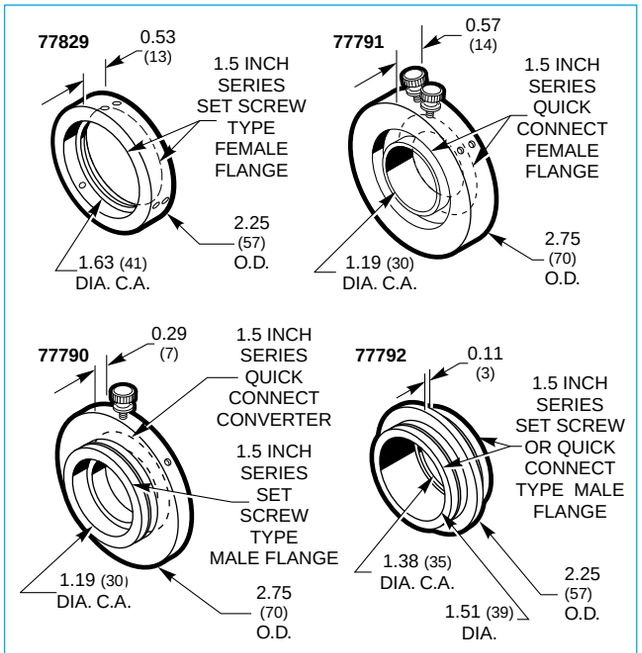
Dimensions in inches (mm)

Adjustable Light Shields

- **Adjustable length light enclosure**
- **Withstands output from kW Sources**

Use one of these light shields to enclose the beam from a light source to a monochromator or spectrograph. These “fixed adjustable” shields are made from black anodized aluminum, to withstand the output from kW sources.

Series Size	(A) Range of Extension inch (mm)	Model No.	Price
1.5 Inch	1.5 to 2.1 (38 to 54)	**71310**	
	2.1 to 3.2 (54 to 81)	**71311**	
	3.2 to 4.25 (81 to 108)	**71312**	
2 Inch	1.5 to 2.1 (38 to 54)	**71313**	
	2.1 to 3.2 (54 to 81)	**71314**	
	3.2 to 4.25 (81 to 108)	**71315**	
3 Inch	1.5 to 2.1 (38 to 54)	**71316**	
	2.1 to 3.2 (54 to 81)	**71317**	
	3.2 to 4.25 (81 to 108)	**71318**	



Dimensions in inches (mm)

Coupling Rings.

- **Mate two components with like flanges**
- **Quick connect models are light tight**

These rings couple two 1.5 Inch Series components with like flanges together; we offer two types of Double Female Coupling Rings. (The Double Male Coupling Ring accepts either flange type.)

Set Screw Type

The set screw type use three set screws to hold both flanged components together. The set screws are 6-32 cone point type. They use a 1/16” hex wrench.

Quick Connect Type

Our Quick Connect model is very convenient to use - just snap in the two flanged components and they're held firmly. A thumbscrew locks them in place so there is no fiddling with set screws and allen wrenches. This is particularly useful for setups that you frequently find yourself breaking down. And, they’re light tight - so if light leakage is a concern, choose the Quick Connect model.

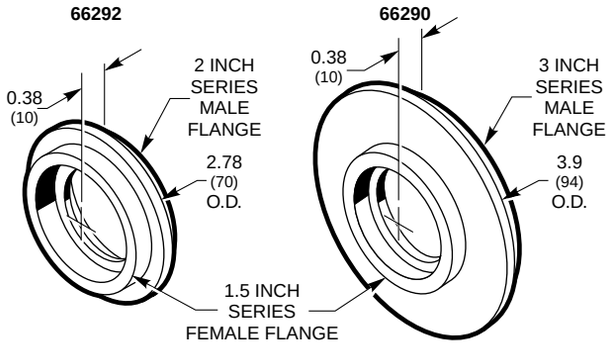
Quick Connect Adapter

The 77790 converts a set screw type female flange, into a Quick Connect female flange. Use it on any female flanged component that requires frequent interchange of accessories. Note that the clear aperture is reduced to 1.2 inches (30 mm).

Series Size	Adapter	Flange Type	Model No.	Price
1.5 Inch	Double Female	Set Screw	**77829**	
	Double Female	Quick Connect	**77791**	
	Double Male	Set Screw or Quick Connect	**77792**	
	Quick Connect Converter		**77790**	

We talk more about flanging systems on page 1-161.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



Dimensions in inches (mm)

Step Down Adapters.

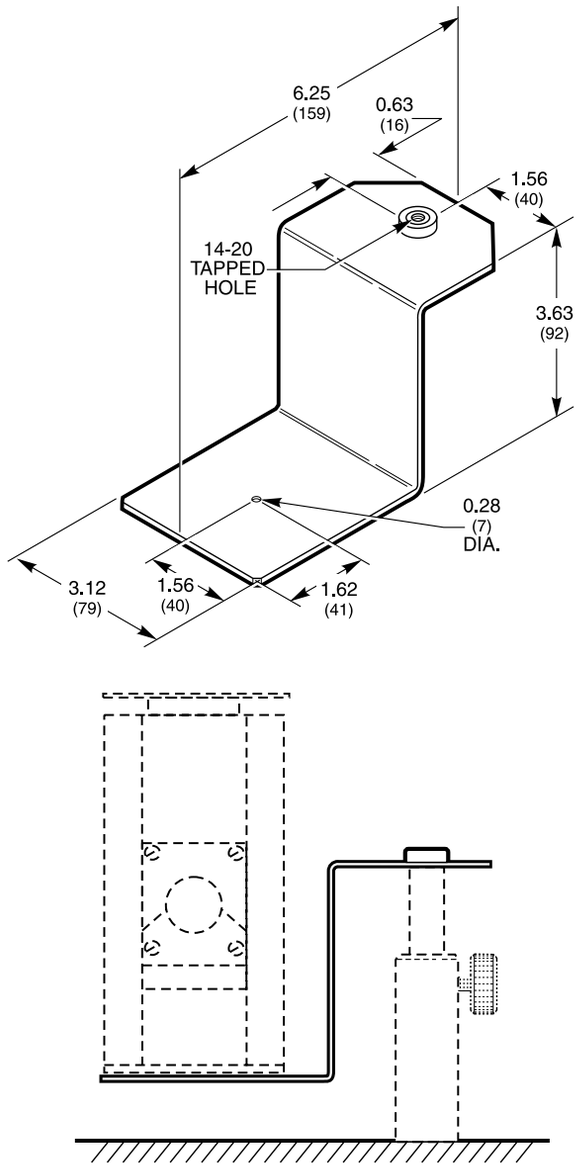
Converts a 3 or 2 inch Series flange to 1.5 inch Series

In order to take advantage of our wider selection of 1.5 Inch Series accessories, use one of these adapters to step down from a 2 or 3 Inch Series condenser to a 1.5 Inch Series. Keep in mind that there will be power loss from a collimated beam due to the reduction in clear aperture. If the beam is focused, the step down can be made without power loss. You can then re-collimate the beam with a 1.5 Inch Series secondary focusing lens assembly, described on page 1-165.

Step Down From / To	Clear Aperture Reduction From / To inch (mm)	Model No.	Price
2 to 1.5 Inch Series	1.9 to 1.3 (48 - 33)	**66292**	
3 to 1.5 Inch Series	2.7 to 1.3 (69 - 33)	**66290**	

Also see these catalog pages...

*Some flanged accessories described on the previous pages do not have 1/4-20 tapped holes for rod mounting. On **pages 18-3 and 18-4**, we describe mounts which hold such components atop an optical rod.*



Dimensions in inches (mm)

66275 Z Bracket with 63205 QTH Lamp Housing, on an optical rod.

Lower optical axis height of rod mounted housings

Simple and low cost

The 66275 Z Bracket holds our small housing for Quartz Tungsten Halogen Lamps, model 63205, and the High Power Line Lamp Housing on page 1-28. The simple design lets you rod mount the housing at a low optical axis height to match our monochromator inputs. The lowest centerline height is 2.8 inches (71 mm). Use a magnetic rod holder, page 17-10, and you have complete mounting versatility.

66275 Z Bracket

Contact us for further information on any of the products in this catalog
Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP