



blue photon®

2023 PRODUCT CATALOG

**ADHESIVE WORKHOLDING**  
*a universal part gripping solution.*



Blue Photon is a manufacturer of adhesive workholding products. The Blue Photon grip technology is designed to hold parts for manufacturing that can eliminate operations, problems associated with current workholding devices including distortion and machine access. The technology allows you to hold parts and most materials without the use of clamps.



## HOW TO USE BLUE PHOTON

*Apply these simple steps to use the Blue Photon workholding system effectively:*



Clean dirt and oil from the grippers and workpiece.



Apply enough adhesive to the grippers to fully fill the gap between the part and gripper.



Polymerize the adhesive by applying ultraviolet (UV) light for 60 seconds.



Machine the workpiece.



Separate fixture from workpiece with a 1/4 turn twist or hot water soak.



Remove and peel away residual adhesive with steam or hot water spray.

### YOUR WORKHOLDING ADVANTAGE

From machining optical glass to medical and jet propulsion components, Blue Photon is unlike any workholding system in the world. Ask us how to put Blue Photon to work for you in your applications.

Offering fixture design, engineering and workholding for:

- Surface grinding
- Creep feed grinding
- Milling
- Turning
- Electrical discharge machining (EDM)
- Electro-chemical machining (ECM)
- 3D printing/additive manufacturing
- Laser, inspection and assembly

### THE BLUE PHOTON DIFFERENCE

Blue Photon grippers and BlueGrip adhesives create a versatile and simplified workholding system that can give you:

- Less scrap.
- No or reduced part distortion.
- Fewer operations.
- Lower cost.
- Higher efficiency.
- Improved machine access.
- Improved accuracy.
- Simplified fixture design.
- Better automation.

### THE BLUE PHOTON WORKHOLDING SYSTEM

- Holds ceramic and glass.
- Holds composite and laminate materials.
- Holds most metals.
- Holds irregular and complex shaped parts.
- Stands up to oils and cutting fluids.
- Stands up to heavy machining.

Before you begin, refer to our user guide and read the manual carefully. In particular, pay attention to the warnings and cautions that appear in the safety and design sections at the front of the manual. For more information, visit our website for the most up-to-date product and safety guidelines: [www.BluePhotonGrip.com](http://www.BluePhotonGrip.com).

#### Sales and Engineering Support

Blue Photon Technology & Workholding Systems LLC  
1002 Industrial Park Dr., Shelby, MI 49455  
855-777-2040 • [sales@BluePhotonGrip.com](mailto:sales@BluePhotonGrip.com)

### WARRANTY

Blue Photon is proud to offer a 3-year warranty on all Blue Photon grippers. Grippers are warrantied against manufacturer's defects when used exclusively with BlueGrip workholding adhesives.

All other Blue Photon equipment is warrantied for a period of one year from the date of delivery against manufacturing defects that affect the performance of the Blue Photon system. Equipment and supplies not manufactured by Blue Photon may have different manufacturer warranties.

Consult the information provided with the equipment or contact the Blue Photon sales team for additional information.

**FAILURE TO USE BLUEGRIP WORKHOLDING ADHESIVES AND BLUE PHOTON APPROVED EQUIPMENT WILL VOID ALL WARRANTIES AND MAY SUBJECT THE USER TO UNSAFE CONDITIONS.**



#### DESIGN CONSIDERATIONS

The user guide provides general operating procedures. Your specific application will have special considerations in setup, function and use. There are several design considerations that must be addressed before implementing Blue Photon workholding. Review these considerations with your design and engineering teams, including the number and position of grippers, adhesive joint temperature, adhesive cure time, amount of adhesive, setting the part on applied adhesive, and part and gripper cleaning.



#### CAUTION

The user guide as well as additional manuals provide a description of the function, application and safety considerations of the Blue Photon system. These manuals must be read and understood before any attempt is made to install or use this system. Improper use could result in damage to the product or unsafe conditions for the user. Follow these safeguards to prevent serious injury or property damage. Consult the factory on turning applications.



#### WARNING

Do not use the Blue Photon workholding system to hold overhead loads. The Blue Photon workholding system is not designed to support people. Never stand under a lifted fixture and/or part. If insufficient holding strength to resist cutting forces; or if improperly used, a workpiece may be ejected from the fixture at a high rate of speed. Always follow employer work instructions and Blue Photon user guide recommendations to minimize any risk. Always use proper guarding to protect people from injury due to a workpiece coming dislodged from the fixture.





5-axis machining of aluminum with BlueGrip workholding adhesive, gripper and insert components installed in a 300 mm square grip pallet.

blue photon

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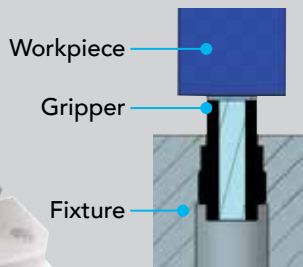
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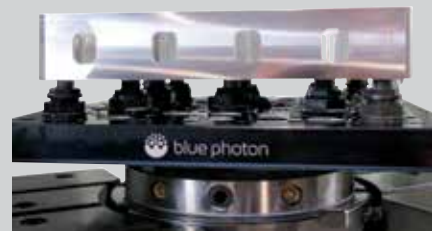
### Head-In Grippers

Unique workholding grippers that allow for complete BlueGrip workholding adhesive curing. Blue Photon's adhesive workholding grippers are patented, load bearing and light transmitting fixture components. The head-in grippers are inserted into an internal or external insert and/or fixture. The workpiece is secured to the grippers with BlueGrip workholding adhesive, which is cured with UV light transmitted through the core of the gripper.

#### HEAD-IN GRIPPERS



- Insert into fixture from the backside.
- Can be retracted during workplace loading.
- Use with gripper internal and external inserts.
- Workpiece separates from gripper with 1/4 turn of gripper or hot water soak.



#### P/N 14130 / 14131

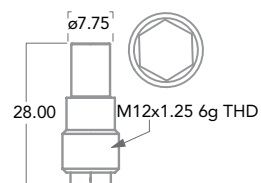


#### SMALL HEAD-IN GRIPPERS

**Part # 14130 Standard**

**Part # 14131 Corrosion Resistant**

- To hold small size workpieces for lighter duty machining.
- Average tensile holding power with BlueGrip S2 workholding adhesive is 150 lbs.\*
- Use P/N 14131\*\* where deionized water or acid is used.



#### P/N 15130 / 15131

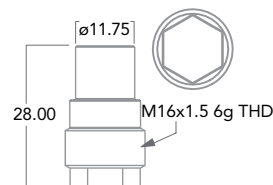


#### MEDIUM HEAD-IN GRIPPERS

**Part # 15130 Standard**

**Part # 15131 Corrosion Resistant**

- To hold small to medium size workpieces.
- Average tensile holding power with BlueGrip S2 workholding adhesive is 400 lbs.\*
- Use P/N 15131\*\* where deionized water or acid is used.



#### P/N 16160 / 16161

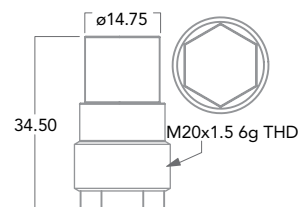


#### LARGE HEAD-IN GRIPPERS

**Part # 16160 Standard**

**Part # 16161 Corrosion Resistant**

- To hold medium to large size workpieces.
- Offers more surface area on gripper head for stronger holding power.
- Average tensile holding power with BlueGrip S2 workholding adhesive is 605 lbs.\*
- Use P/N 16161\*\* where deionized water or acid is used.



Go to [www.BluePhotonGrip.com](http://www.BluePhotonGrip.com) for additional product info and to download tech specs. Click on [technical resources](#) for a list of all compatible materials.

Consult a Blue Photon Representative or the factory about your applications.

\*Testing done under controlled conditions.

\*\*CNC spindle mounted cleaning tool cannot be used with corrosion resistant grippers.

5-axis machining of aluminum with BlueGrip workholding adhesive, gripper and insert components installed in a 300 mm square grip pallet.

# Main Workholding Components

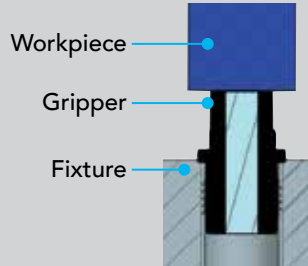
## GRIPPERS

### Head-Out Grippers

Blue Photon's UV adhesive workholding technology is for machining parts. Blue Photon's head-out grippers are inserted into a fixture from the topside to hold delicate and complex parts. The grippers free the workpiece from clamps and eliminates the need for designing additional workholding features into the workpieces.



### HEAD-OUT GRIPPERS



- Insert into fixture from the topside.
- Cannot be retracted during workplace loading.
- Workpiece separates from gripper with 1/4 turn of gripper or hot water soak.



### P/N 14230 / 14231

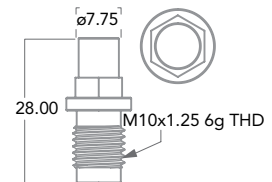


### SMALL HEAD-OUT GRIPPERS

Part # 14230 Standard

Part # 14231 Corrosion Resistant

- To hold small size workpieces.
- Use in applications for simplified fixture design.
- Average tensile holding power with BlueGrip S2 workholding adhesive is 150 lbs.\*
- Use P/N 14231\*\* where deionized water or acid is used.



### P/N 15230 / 15231

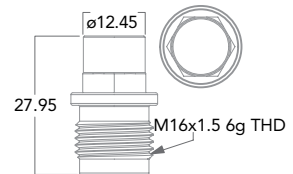


### MEDIUM HEAD-OUT GRIPPERS

Part # 15230 Standard

Part # 15231 Corrosion Resistant

- To hold small to medium size workpieces.
- Use in applications for simplified fixture design.
- Average tensile holding power with BlueGrip S2 workholding adhesive is 400 lbs.\*
- Use P/N 15231\*\* where deionized water or acid is used.



### P/N 16260 / 16261

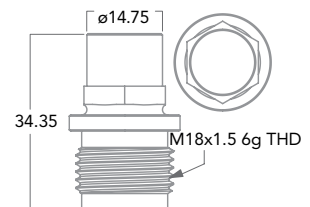


### LARGE HEAD-OUT GRIPPERS

Part # 16260 Standard

Part # 16261 Corrosion Resistant

- To hold medium to large size workpieces.
- Use in applications for simplified fixture design.
- Average tensile holding power with BlueGrip S2 workholding adhesive is 605 lbs.\*
- Use P/N 16261\*\* where deionized water or acid is used.



Go to [www.BluePhotonGrip.com](http://www.BluePhotonGrip.com) for additional product info and to download tech specs. Click on [technical resources](#) for a list of all compatible materials.

Consult a Blue Photon Representative or the factory about your applications.

\*Testing done under controlled conditions.

\*\*CNC spindle mounted cleaning tool cannot be used with corrosion resistant grippers.

Hip tracker part courtesy of Renishaw, University of Waterloo and Intellijoint Surgical.

Call us today to get started at 855-777-2040!

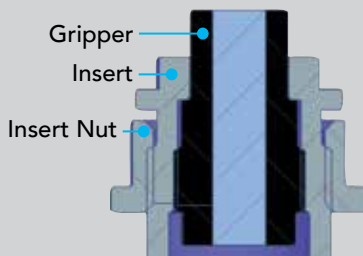


### External Adjustable Insert Assemblies

Blue Photon's workholding external inserts are available in small, medium, and large sizes for head-in grippers. The external inserts include the gripper insert and nut to increase standoff from the fixture, allows for height adjustability, and protects aluminum fixtures from thread galling.



### EXTERNAL ADJUSTABLE INSERT ASSEMBLIES



- Inserts increase standoff from the fixture.
- Workpiece separates from gripper with 1/4 turn of gripper or hot water soak.



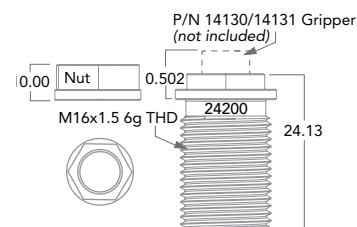
### P/N 24200



### SMALL EXTERNAL INSERT ASSEMBLY

**Part # 24200** Small external insert to use with small head-in gripper P/N 14130/14131.

- Includes the gripper insert and insert nut.
- Use to increase standoff from the fixture and/or to protect aluminum fixtures from thread galling.
- Inserts allow for additional flexibility for exact gripper height positioning.
- Inserts into fixture from the top.



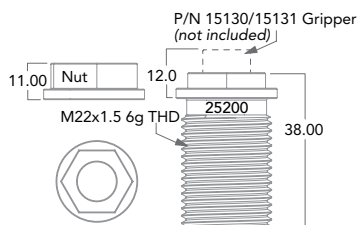
### P/N 25200



### MEDIUM EXTERNAL INSERT ASSEMBLY

**Part # 25200** Medium external insert to use with medium head-in gripper P/N 15130/15131.

- Includes the gripper insert and insert nut.
- Use to increase standoff from the fixture and/or to protect aluminum fixtures from thread galling.
- Inserts allow for additional flexibility for exact gripper height positioning.
- Inserts into fixture from the top.



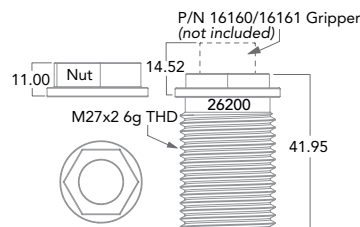
### P/N 26200



### LARGE EXTERNAL INSERT ASSEMBLY

**Part # 26200** Large external insert to use with large head-in gripper P/N 16160/16161.

- Includes the gripper insert and insert nut.
- Use to increase standoff from the fixture and/or to protect aluminum fixtures from thread galling.
- Inserts allow for additional flexibility for exact gripper height positioning.
- Inserts into fixture from the top.



Consult a Blue Photon Representative or the factory about your applications.

Turning 304 stainless steel rings with BlueGrip workholding adhesive, gripper and insert components.



# Main Workholding Components

## INSERTS

### External Fixed Inserts and Assemblies

Blue Photon's external fixed inserts for grip pallets are available in large sizes fitting small, medium, and large head-in grippers. External fixed inserts allow for simple installation of the grippers at the required height for maximum holding power.



### EXTERNAL FIXED INSERTS

- Inserts increase standoff from the fixture.
- Made from hardened steel with a black oxide finish.
- Inserts into fixture from the top.
- Workpiece separates from gripper with 1/4 turn of gripper or hot water soak.



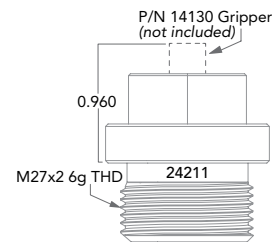
### P/N 24211 / 24219



### SMALL EXTERNAL FIXED INSERTS

**Part # 24211** Large gripper external insert for small head-in gripper, use with P/N 14130.

**Part # 24219** Large gripper external insert with small head-in gripper.



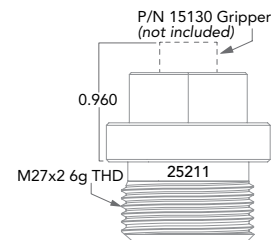
### P/N 25211 / 25219



### MEDIUM EXTERNAL FIXED INSERTS

**Part # 25211** Large gripper external insert for medium head-in gripper, use with P/N 15130.

**Part # 25219** Large gripper external insert with medium head-in gripper.



### P/N 26211 / 26219



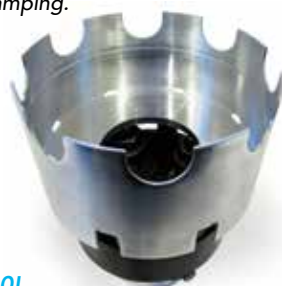
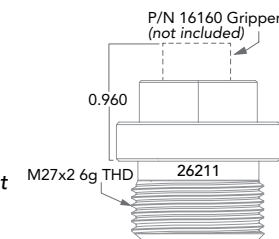
### LARGE EXTERNAL FIXED INSERTS

**Part # 26211** Large gripper external insert for large head-in gripper, use with P/N 16160.

**Part # 26219** Large gripper external insert with large head-in gripper.

*Consult a Blue Photon Representative or the factory about your applications.*

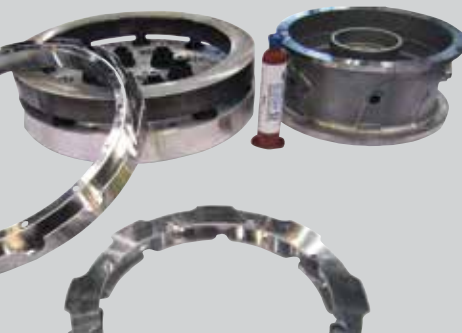
*Turning aluminum with gripper and insert components installed in a round machinable blank with manual zero point clamping.*



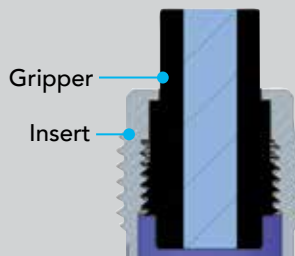
Call us today to get started at 855-777-2040!

### Internal Inserts

Blue Photon's workholding internal inserts are available in small, medium, and large sizes for head-in grippers. The internal inserts are thread locked into the fixture.



### INTERNAL INSERTS



- Thread locked into the fixture.
- Insert into fixture from the backside.
- Install with thread locker.
- Workpiece separates from gripper with 1/4 turn of gripper or hot water soak.



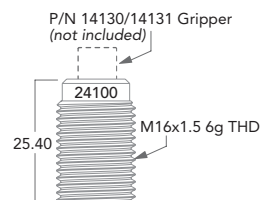
### P/N 24100



### SMALL INTERNAL INSERT

**Part # 24100** Small internal insert to use with small head-in gripper P/N 14130/14131.

- Use gripper inserts to protect aluminum fixtures from thread galling.
- Made from hardened steel with a black oxide finish.
- Install with thread locker.
- Screws in from the bottom.



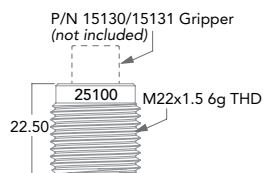
### P/N 25100



### MEDIUM INTERNAL INSERT

**Part # 25100** Medium internal insert to use with medium head-in gripper P/N 15130/15131.

- Use gripper inserts to protect aluminum fixtures from thread galling.
- Made from hardened steel with a black oxide finish.
- Install with thread locker.
- Screws in from the bottom.



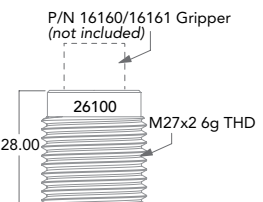
### P/N 26100



### LARGE INTERNAL INSERT

**Part # 26100** Large internal insert to use with large head-in gripper P/N 16160/16161.

- Use gripper inserts to protect aluminum fixtures from thread galling.
- Made from hardened steel with a black oxide finish.
- Install with thread locker.
- Screws in from the bottom.



Consult a Blue Photon Representative or the factory about your applications.

Turning 304 stainless steel rings with BlueGrip workholding adhesive, gripper and insert components.





*Hip tracker part courtesy of Renishaw, University of Waterloo and Intellijoint Surgical.*





Technical Glass image courtesy of S.I. Howard Glass Co., Inc.



## Main Workholding Components

### WORKHOLDING ADHESIVES

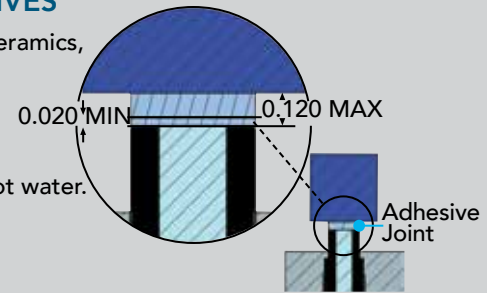
#### Adhesives

BlueGrip™ workholding adhesives—nothing is too hard to hold! BlueGrip workholding adhesive is designed specifically and exclusively for Blue Photon's workholding system. The gel-like adhesive fills the gap between the surface of the gripper and the surface of the workpiece for outstanding holding power.



#### BLUEGRIP™ WORKHOLDING ADHESIVES

- Works on ferrous and non-ferrous metals, ceramics, composite materials and some plastics.
- Cures in 60 to 90 seconds.
- Impervious to cutting fluids and oils.
- Cured adhesive removable with steam or hot water.
- Available with a fluorescent dye.



#### P/N 43200 / 46200



#### BLUEGRIP™ S2 WORKHOLDING ADHESIVES

*Specifically formulated for Blue Photon's photo-activated adhesive workholding.*

Part # 43200 30 cc syringe

Part # 46200 1 liter cartridge

- 30 cc syringes are for manual and pneumatic dispensing.
- 1 liter cartridges for automated dispensing, see adhesive dispensers on page 23 for additional information.
- BlueGrip S2 workholding adhesive is curable with heat.
- Cured adhesive easily removable with CNC machine mounted cleaning tool, hot water, steam, hot water spray or dry ice blasting.
- Fills gaps between the gripper and workpiece of .020" to .120".



#### P/N 43210 / 46210



#### BLUEGRIP™ S2-F FLUORESCENT WORKHOLDING ADHESIVES

*Specifically formulated with a dye that fluoresces under black light for easy identification of residual adhesive on workpieces.*

Part # 43210 30 cc syringe

Part # 46210 1 liter cartridge

- 30 cc syringes are for manual and pneumatic dispensing.
- 1 liter cartridges for automated dispensing, see adhesive dispensers on page 23 for additional information.
- Cured adhesive easily removable with CNC machine mounted cleaning tool, hot water, steam, hot water spray or dry ice blasting.
- Fills gaps between the gripper and workpiece of .020" to .120".

#### P/N 48300



#### BLUEGRIP™ S3 WORKHOLDING ADHESIVE

*Specifically formulated for automated dispensing systems.*

Part # 48300 40 lb / 5 gallon pail

- 40 lb pails for automated dispensing, see adhesive dispensers on page 23 for additional information.
- Cured adhesive easily removable with CNC machine mounted cleaning tool, hot water, steam, hot water spray or dry ice blasting.
- Fills gaps between the gripper and workpiece of .020" to .120".

#### P/N 74000



#### MANUAL PLUNGER

*Plunger fits into 30 cc adhesive tubes for dispensing by hand.*

Part # 74000

Call us today to get started at 855-777-2040!

### Controllers and UV LED Heads

UV light source to quickly cure BlueGrip workholding adhesive. Curing the adhesive is a "60-90 second" operation with our patented system using our UV LED controllers and UV LED heads. The controllers are capable of operating multiple UV LED heads and are available with up to 8 channel configurations. We also supply handheld radiometers, long and short UV LED head assemblies, gripper adapters and right angle adapters for various sizes of grippers. See page 21 for additional UV curing accessories.

**P/N 65440**



### BLUECURE MINI 4 | UV LED CONTROLLER

*BlueCure mini spot curing system is for curing BlueGrip workholding adhesive.*

**Part # 65440** UV LED controller, 4 channel

- 1-4 individual UV LED heads, interchangeable to any channel.
- 2.4 inch display with main control, input configurations, system maintenance, and LED information.
- Alarm icon on screen in the event of an error or fault.
- Foot pedal included to operate controller externally.



*Select UV LED heads and quantities below and/or on page 14.*

**P/N 65449**



### BLUECURE 8 | UV LED CONTROLLER

*BlueCure spot curing system is for curing BlueGrip workholding adhesive.*

**Part # 65449** UV LED controller, 8 channel

- 1-8 individual UV LED heads, interchangeable to any channel.
- 3.75 inch color display with main control, input configurations, system maintenance, and LED information.
- Touch screen display.
- Alarm icon on screen in the event of an error or fault.
- Foot pedal included to operate controller externally.
- Password protected for unwanted changes and saving controller settings.

*Select UV LED heads and quantities below and/or on page 14.*

**P/N 52802**



**P/N 52803**



**P/N 52804**



### UV LED HEAD ASSEMBLIES – 2M

*Gripper adapter and UV LED head cures BlueGrip workholding adhesive through grippers.*

**Part # 52802** Small adapter with 56 mm head length, 2M cable length.

**Part # 52803** Medium adapter with 56 mm head length, 2M cable length.

**Part # 52804** Large adapter with 56 mm head length, 2M cable length.

**Part # 53802** Small adapter with 85 mm head length, 2M cable length.

**Part # 53803** Medium adapter with 85 mm head length, 2M cable length.

**Part # 53804** Large adapter with 85 mm head length, 2M cable length.

*When ordering, use the above part numbers to specify small, medium or large adapters to coincide with gripper size.*

## Main Workholding Components

### UV CURING

#### LONG REACH UV LED HEAD ASSEMBLIES – 5M & 10M

*Provides extra cable length from the UV LED controller to the UV LED head where the UV curing process is farther away from the controller.*

Part # 52855 Small adapter with 56 mm head length, 5M cable length.

Part # 52865 Medium adapter with 56 mm head length, 5M cable length.

Part # 52875 Large adapter with 56 mm head length, 5M cable length.

Part # 52850 Small adapter with 56 mm head length, 10M cable length.

Part # 52860 Medium adapter with 56 mm head length, 10M cable length.

Part # 52870 Large adapter with 56 mm head length, 10M cable length.

Part # 53855 Small adapter with 85 mm head length, 5M cable length.

Part # 53865 Medium adapter with 85 mm head length, 5M cable length.

Part # 53875 Large adapter with 85 mm head length, 5M cable length.

Part # 53850 Small adapter with 85 mm head length, 10M cable length.

Part # 53860 Medium adapter with 85 mm head length, 10M cable length.

Part # 53870 Large adapter with 85 mm head length, 10M cable length.

#### P/N 52812 / 53812



#### UV LED HEADS WITHOUT ADAPTERS

Part # 52812 56 mm head length, 2M cable length.

Part # 53812 85 mm head length, 2M cable length.

#### LONG REACH UV LED HEADS WITHOUT ADAPTERS

Part # 52815 56 mm head length, 5M cable length.

Part # 53815 85 mm head length, 5M cable length.

Part # 52810 56 mm head length, 10M cable length.

Part # 53810 85 mm head length, 10M cable length.

#### P/N 51705 / 52705 / 57705



#### GRIPPER ADAPTERS

*Gripper adapter for UV LED heads.*

Part # 51705 Small adapter to use with UV LED head P/N 52812 or 53812.

Part # 52705 Medium adapter to use with UV LED head P/N 52812 or 53812.

Part # 57705 Large adapter to use with UV LED head P/N 52812 or 53812.

*When ordering adapters as a replacement or add-on, please specify small, medium or large adapters.*



Call us today to get started at 855-777-2040!

### Cleaning Equipment

Cleaning up the adhesive is simple. Blue Photon offers a variety of steamers to effectively remove and peel any cured, residual adhesive from grippers and machined parts.

See page 27 for additional cleaning equipment and methods.

#### P/N 84750



#### STARTER HANDHELD PRESSURIZED STEAMER

The handheld steamer provides pressurized steam continuously for 10 minutes to easily remove residual cured adhesive from grippers and workpieces. Economical solution for prototypes or low-volume usage. Actual unit may vary from one shown.

##### Part # 84750

- 8" x 5.2" x 10.7"
- 15' power cord
- 900W
- 200°F steam temperature
- 3 lbs
- 6 oz water capacity
- Emits steam continuously for 10 minutes

#### P/N 80030 / 86004 / 86005



#### SCRAPERS

The scraper is used to clean parts and grippers of cured adhesive after heating.

Part # 80030 5" aluminum handle knife with a heavyweight adhesive removing blade.

Part # 86004 3/4" flat edge nonmarring plastic scraper.

Part # 86005 7/8" flat edge nonmarring plastic scraper.

#### HEAVY DUTY STEAM CLEANERS

Used to remove cured adhesive.

These heavy duty steamers produce 60 PSI for increased of continuous steam pressure, and reaches temperatures up to 221°F at the tip. These steamers are ideally suited for cleaning away cured adhesive on grippers and parts.

#### P/N 84870



Part # 84870 Approximately 6 hours of working time.

- 110V/120V 1200W heating element
- 1.25 gallon, 4.5 liter water capacity
- Low water light indicator
- 61 PSI, 4.1 bar operating pressure
- Pressure/safety switch
- 30A heavy-duty contactor
- 12-gauge heavy-duty wiring
- Stainless steel tank and outer casing
- Carrying handle
- 15-20 minute heat up time

#### P/N 84880



Part # 84880 Minimum 8 hours of working time.

- 110V/120V 1200W heating element
- 2.37 gallon, 9 liter water capacity
- Visual water level indicator
- Low water light indicator
- Uses regular tap water
- Optional 220V (P/N 84881) available to order
- Ranco pressure control/li>
- 12-gauge heavy-duty wiring
- Stainless steel tank and outer casing
- 2 incoloy heating elements (1-spare)
- Carrying handle
- 30-40 minute heat up time

#### P/N 84890



Part # 84890 Full-time steam.

- 110V/120V
- Boiler thermostat reset switch
- Heavy-duty adjustable feet
- Low water light indicator
- Uses regular tap water
- Ranco pressure control
- Automatic shut-off of pump in case water supply is interrupted
- 12-gauge heavy-duty wiring
- 1 incoloy heating element
- Stainless steel tank and outer casing
- Blow down valve
- 20-30 minute heat up time
- 20-amp service supply required
- Direct connection to a water supply line





Additive machining fixture with BlueGrip workholding adhesive and  
Stratasys FDM® Nylon-CF10 material.

MAX. 30Nm (22ft-lbs)

JERGENS  
Quick-Loc®

QU-100120

JERGENS WORKHOLDING SOLUTIONS





Machining aluminum with Blue Photon's 300 mm square grip pallet.

## Main Workholding Components

### KIT PART NUMBER CONFIGURATOR

#### Workholding Kit

The workholding kit includes everything you need to start using Blue Photon's workholding technology. We offer simple solutions to solve your workholding problems. The workholding kit includes grippers of your preferred style and size bundled with a UV LED controller, light heads, adhesive, plunger, and steamer.



#### WORKHOLDING KIT

Includes everything you need to start using the Blue Photon workholding system to manufacture your parts.

Part Number Configurator (see below).



Select your kit based on the configuration below:

| KIT | GRIPPER*                    | CONTROLLER    | UV LED HEAD ASSEMBLY                     | UV LED HEAD QTY. | INSERT**                                 |
|-----|-----------------------------|---------------|--|------------------|--|
| 3   |                             |               |  |                  |  |
|     | 1 - Small Head-In Gripper   | 1 - 4 Channel | 1 - Small Adapter and 56 mm Head Length  | 1                | 1 - Small Gripper Internal Insert        |
|     | 2 - Small Head-Out Gripper  | 2 - 8 Channel | 2 - Small Adapter and 85 mm Head Length  | 2                | 2 - Small Gripper External Insert        |
|     |                             |               |  | 3                | 3 - Small Gripper External Fixed Insert  |
|     | 3 - Medium Head-In Gripper  |               | 3 - Medium Adapter and 56 mm Head Length | 4                | 4 - Medium Gripper Internal Insert       |
|     | 4 - Medium Head-Out Gripper |               | 4 - Medium Adapter and 85 mm Head Length | 5                | 5 - Medium Gripper External Insert       |
|     |                             |               |  | 6                | 6 - Medium Gripper External Fixed Insert |
|     | 5 - Large Head-In Gripper   |               | 5 - Large Adapter and 56 mm Head Length  | 7                | 7 - Large Gripper Internal Insert        |
|     | 6 - Large Head-Out Gripper  |               | 6 - Large Adapter and 85 mm Head Length  | 8                | 8 - Large Gripper External Insert        |
|     |                             |               |  |                  | 9 - Large Gripper External Fixed Insert  |



In addition to your selections above, each workholding kit contains:

- BlueGrip S2 Workholding Adhesive
  - Manual Plunger
  - Scraper
  - Ratchet and Socket
  - UV Safety Glasses
  - Handheld Steamer
- Actual unit may vary from one shown.

\*6 grippers included within each kit. \*\*Inserts optional with kit order.  
Optional hard case with foam slots, see page 20 for details.





*Production machining aluminum with Blue Photon's gripper and insert components installed in a full-face fixture plate with a Jergens production vise for milling three parts. Aluminum parts completed in one operation.*





**P/N 50200 / 52200**



**RATCHETS**

*Head-in grippers separate with 1/4 turn twist of ratchet.*

**Part # 50200** 3/8 drive ratchet use with sockets P/N 54595 and 58595.

**Part # 52200** 1/4 drive ratchet use with socket P/N 51525.

**P/N 51525 / 54595 / 58595**



**THIN WALL DEEP WELL SOCKETS**

*Head-in grippers separate with 1/4 turn twist of ratchet.*

**Part # 51525** 1/4 drive 8 mm thin wall socket. Use with small grippers.

**Part # 54595** 3/8 drive 12 mm thin wall socket. Use with medium grippers.

**Part # 58595** 3/8 drive 14 mm thin wall socket. Use with large grippers.

**P/N 52525 / 55595 / 56595**



**THIN WALL DEEP WELL SOCKETS**

*Used to install or remove head-out grippers within a fixturing system.*

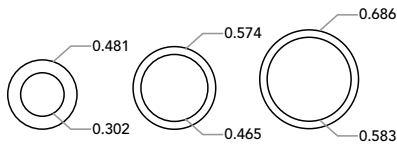
**Part # 52525** 1/4 drive 10 mm deep well socket. Use with small grippers.

**Part # 55595** 3/8 drive 13 mm deep well socket. Use with medium grippers.

**Part # 56595** 3/8 drive 16 mm deep well socket. Use with large grippers.

**SMALL / MEDIUM / LARGE**

**SHIMS**



*To adjust a gripper height while using the head-in grippers.*

**Part # 51330** Small shim, stainless steel .005" thickness.

**Part # 51430** Small shim, stainless steel .010" thickness.

**Part # 55330** Medium shim, stainless steel .005" thickness.

**Part # 55430** Medium shim, stainless steel .010" thickness.

**Part # 58330** Large shim, stainless steel .005" thickness.

**Part # 58430** Large shim, stainless steel .010" thickness.

**P/N 35000**



**HARD CASE**

*Optional hard case with foam insert and custom made slots to hold workholding kit components.*

**Part # 35000**

**P/N 51705 / 52705 / 57705**



**GRIPPER ADAPTERS**

*Gripper adapter for UV LED heads.*

**Part # 51705** Small adapter to use with UV LED head P/N 52812 or 53812.

**Part # 52705** Medium adapter to use with UV LED head P/N 52812 or 53812.

**Part # 57705** Large adapter to use with UV LED head P/N 52812 or 53812.

*When ordering adapters as a replacement or add-on, please specify small, medium or large adapters.*

**P/N 64850 / 64860**



**P/N 64950 / 64960**



**RIGHT ANGLE ADAPTERS**

*Attaches to the UV LED head when clearance issues arise in tight places.*

**Part # 64850** Standard medium adapter.

*Use with medium grippers.*

**Part # 64860** Extended medium adapter.

*Use with medium grippers.*

**Part # 64950** Standard large adapter.

*Use with large grippers.*

**Part # 64960** Extended large adapter.

*Use with large grippers.*

*Right angle adapters cure the adhesive in 90 seconds.*



**P/N 50010**



**UV SAFETY GLASSES**

*Glasses offer 99% protection against harmful UV rays. Meets ANSI Z87.1.*

**Part # 50010**

*Style may vary from one shown.*

**P/N 62020**



**HANDHELD RADIOMETER**

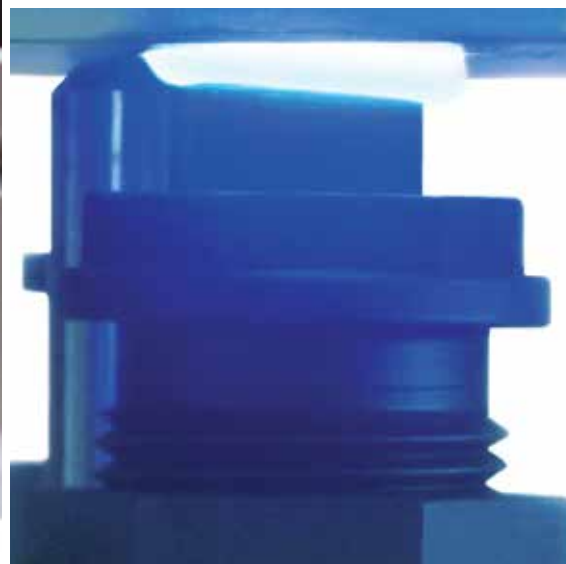
*Measures stray UV light output in the range of 280 to 400 nm.*

**Part # 62020**

- Measuring Range - 1 to 1999 uW/cm<sup>2</sup>, 0.01 to 40 mW/cm<sup>2</sup>
- Accuracy +/-4% +/- 1 Digit
- Display - Backlit 4 Digit LCD
- Data Hold
- Min./Max. Memory
- Memory - 20 Point
- Battery Type - 9V
- Cord Length - 46"
- Calibration Certificate - NIST



*Gripper and insert components installed in an additive fixture.  
Adhering glass sphere with BlueGrip workholding adhesive.*



Manual or automated adhesive dispensers for Blue Photon's workholding system. From a simple, manual plunger, to sophisticated and precise dispensing equipment, Blue Photon offers a range of adhesive dispensers compatible with BlueGrip workholding adhesives.

Contact us for help selecting the best adhesive dispensing equipment for your application.

#### P/N 71100



#### ADHESIVE DISPENSER

Adhesive dispenser to use in a manual or semi-automatic control mode.

##### Part # 71100

- Foot-operated adhesive dispenser.
- Two control modes: manual or semi-automatic.
- Minimum injection volume is 0.01 ml.
- Controlled by a timer.



#### P/N 71906



#### PNEUMATIC DISPENSER

Pneumatic adhesive dispensing unit with digital time/pressure display.

##### Part # 71906

- Digital time/pressure display.
- Foot-operated adhesive dispenser.
- Timed or steady modes of operation.
- Vacuum control keeps thin fluids from dripping between cycles.
- Optional electric finger switch (P/N 75490) available to order with pneumatic dispenser.

#### P/N 73006



#### HIGH PRECISION DISPENSER WITH OPTIMETER

Includes controls and settings to electronically change/adjust dispensing time, pressure and vacuum. Consists of an auto-increment feature to adjust dispensing parameters after a certain number of shots or a specific lapsed time and an auto-sequence mode that allows deposit patterns to be repeated automatically.

##### Part # 73006

- 400 individual memory storage cells.
- Scroll or select cells via front panel keypad or external PC/PLC control.
- Switch between steady, timed and teach modes.
- Front panel manual cycle key.
- Teach function.
- Multi-level operator lockout.
- Alarm indicators.
- End of cycle feedback loop.
- Soft button data input 0-9 keypad.
- Operator control of LCD display brightness.
- Easy up/down arrow key navigation.
- External PC interface for data input.
- Display cycle counter.
- RS-232 communication capability.
- ESD safe via connection with external ESD.
- 0-100 psi (0-6.9) bar air regulation range.
- D-sub I/O (15-pin) and communication (9-pin) connections.
- Alarm I/O signals.





*Turning an aerospace component.*

#### P/N 77707



#### 5 GALLON PAIL DISPENSER

*For efficient unloading of BlueGrip workholding adhesive into smaller one liter cartridges. Highly efficient unloading for one component material, using durable components, and wear resistant coatings.*

##### Part # 77707

- Single-post unloader
- Manual bulk filling station
- Use to fill one liter cartridges

**Dispensing Consistency** – Fast air motor changeover with rapid-cycling, dual air-piloted cylinder provides uniform material output and consistent material pressure.

**Ease of Operation** – Simple and intuitive front facing pneumatic controls that feature auto shutdown to prevent damage to the unit when the pump reaches the bottom of the container.

**Speed of Maintenance** – Removable packing gland provides fastest repair in industry, without having to remove the pump from the line.

**Production Efficiencies** – Interchangeable follower plate and seal design reduce wasted material and lengthy changeover procedures.

**Safety Compliance** – Tapered solvent cup and finger safe design for CE compliance.

**Easy Pail Changeover** – Pail hold down feature facilitates ease of container changeover procedure, preventing movement when the follower is withdrawn.

**Pail Protectors (P/N 48006)** – Optional pail protectors to extend seal life and reduce clean-up of BlueGrip workholding adhesive.

*Automated recommendations available upon request.*

#### 5 GALLON PAIL PROTECTOR

*Pail protectors to extend seal life and reduce clean-up of BlueGrip workholding adhesive. To be inserted between the dispenser follower plate and the adhesive in the pail.*

**Part # 48006** 10 per box

#### P/N 74000



#### MANUAL PLUNGER

*Plunger fits into 30 cc adhesive tubes for dispensing by hand.*

**Part # 74000**

#### P/N 75880



#### DISPENSER ADAPTER ASSEMBLY

*Adapter fits onto 30 cc adhesive tubes for dispensing with pneumatic dispensers.*

##### Part # 75880

- 6' (1.8 m) hose.
- Required in order to operate all automated dispensers using 30 cc adhesive tubes.
- Designed with a positive safety locking action to prevent accidental disengagement. Adapters are easy to install and remove.
- Each adapter assembly is precision molded for secure attachment to the adhesive tube with minimal effort, making its connection to the air output port of the fluid dispensing unit fast and seamless.

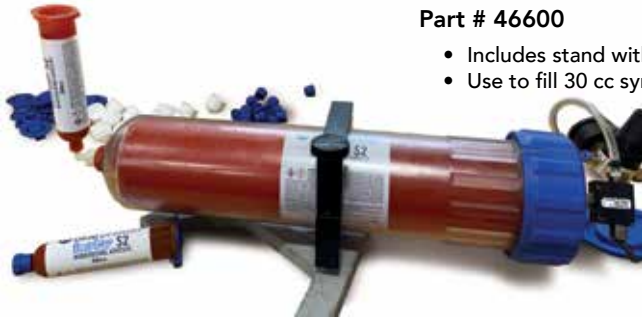
**P/N 46600**

**BARREL LOADER**

*Barrel-filling system for BlueGrip workholding adhesive.*

**Part # 46600**

- Includes stand with retainer block.
- Use to fill 30 cc syringes from a 1 liter cartridge.



**P/N 43402 / 46402**

**SYRINGE AND CARTRIDGE BARRELS**

*UV blocking barrels block UV light, while allowing fluid levels to be monitored.*

**Part # 43402** 30 cc amber syringe barrel with piston and label, 20 per box.

**Part # 46402** 1 liter amber cartridge barrel with piston and label, 10 per box.



**P/N 43700 / 46700**

**TIP CAPS**

*Tip caps protect BlueGrip workholding adhesive from light exposure.*

**Part # 43700** 30 cc amber syringe barrel tip cap, 20 per box.

**Part # 46700** 1 liter amber cartridge barrel tip cap, 10 per box.



**P/N 43800 / 46802**

**END CAPS**

*End caps fit securely over syringe and cartridge tabs, and feature a center push button that makes it easy to create a snug, airtight seal.*

**Part # 43800** 30 cc amber syringe barrel end cap, 20 per box.

**Part # 46802** 1 liter amber cartridge barrel end cap, 10 per box.



**P/N 75112**

**FINE POINT APPLICATOR**

*Dark green applicator for 30 cc amber syringe barrel.*

**Part # 75112** 18 gauge fine point applicator, 50 per box.





### Cleaning

Cleaning up the adhesive is simple. Blue Photon offers a variety of soak tanks and cleaning tools to efficiently separate the workpiece and remove any cured residual adhesive from grippers and machined parts.

Contact us for more information about our cleaning equipment and methods.

#### P/N 82400 / 82500



#### CNC SPINDLE MOUNTED CLEANING TOOL

The spindle mounted gripper cleaning tool loads in a CNC machine to remove cured adhesive from grippers.

Part # 82400 Gripper Cleaning Tool Assembly

Part # 82500 Replacement Head

- Mounts in any 3/4" diameter collet or end mill holder.
- Replaceable head for P/N 82400 tool assembly.
- Cleans an estimated 1,000 grippers before replacing head.
- Do not use with corrosion resistant grippers.



#### P/N 81300



#### SOAK TANK

The soak tank allows for separating the part from the grippers without twisting. This method is preferred in applications where twist separation could cause delamination or other damage to the workpiece.

Part # 81300\*

- Stainless steel construction
- Electric heat
- Programmable temperature control/sensor
- Simple push button cycle operation
- Easy access for cleaning and maintenance
- High performance thermal insulation to avoid heat loss
- Easy fill and drain tank connections
- Low energy consumption
- Emergency stop button
- Soak time timer
- Manual or automatic operation
- No water alarm light
- Interlock casters

#### Product Specifications

- Maximum product height - 10" (255 mm)
- Immersion platform size - 23" x 14" (584 x 355 mm)
- Immersion depth - 12" (305 mm)
- Cycle time - up to 15 minutes
- Volume of water - 100 liters
- Electrical - 220V / 60 Hz / 3 Ø, 10 amps
- Machine size - 27" L x 33.5" W x 57.25" H (673 x 1016 x 1454 mm) with cover up (63" (1600 mm)
- Weight - 394 lb (179 kg)

\*All external walls of the unit are insulated to help protect from hot surface contact. All specifications subject to change.

Impeller part courtesy Autodesk/Renishaw Canada.



**P/N 80030 / 86004 / 86005 SCRAPERS**



The scraper is used to clean parts and grippers of cured adhesive after heating.

**Part # 80030** 5" aluminum handle knife with a heavyweight adhesive removing blade.

**Part # 86004** 3/4" flat edge nonmarring plastic scraper.

**Part # 86005** 7/8" flat edge nonmarring plastic scraper.

**P/N 84750**



**HANDHELD PRESSURIZED STEAMER**

The handheld steamer provides pressurized steam for easy removal of residual cured adhesive from grippers and workpieces. Economical solution for prototypes or low-volume usage.

**Part # 84750\***

- 8" x 5.2" x 10.7"
- 3 lbs
- 6 oz water capacity
- Emits steam continuously for 10 minutes
- 15' power cord
- 900W
- 200°F steam temperature

\*Actual unit may vary from one shown.

**HEAVY DUTY STEAM CLEANERS**

These heavy duty steamers produce 60 PSI for increased of continuous steam pressure, and reaches temperatures up to 221°F at the tip. These steamers are ideally suited for cleaning away cured adhesive on grippers and parts.

**P/N 84870**



**Part # 84870** Approximately 6 hours of working time.

- 110V/120V 1200W heating element
- 1.25 gallon, 4.5 liter water capacity
- Low water light indicator
- 61 PSI, 4.1 bar operating pressure
- Pressure/safety switch
- 30A heavy-duty contactor
- 12-gauge heavy-duty wiring
- Stainless steel tank and outer casing
- Carrying handle
- 15-20 minute heat up time

**P/N 84880**



**Part # 84880** Minimum 8 hours of working time.

- 110V/120V 1200W heating element
- 2.37 gallon, 9 liter water capacity
- Visual water level indicator
- Low water light indicator
- Uses regular tap water
- Optional 220V (P/N 84881) available to order
- Ranco pressure control/li>
- 12-gauge heavy-duty wiring
- Stainless steel tank and outer casing
- 2 incoloy heating elements (1-spare)
- Carrying handle
- 30-40 minute heat up time

**P/N 84890**



**Part # 84890** Full-time steam.

- 110V/120V
- Boiler thermostat reset switch
- Heavy-duty adjustable feet
- Low water light indicator
- Uses regular tap water
- Ranco pressure control
- Automatic shut-off of pump in case water supply is interrupted
- 12-gauge heavy-duty wiring
- 1 Incoloy heating element
- Stainless steel tank and outer casing
- Blow down valve
- 20-30 minute heat up time
- 20-amp service supply required
- Direct connection to a water supply line

### Pallets

Blue Photon grip pallets for 52- and 96-mm quick change receivers to allow for holding more applications using existing fixturing systems in machine centers. Blue Photon grip pallets were designed to simplify how parts are loaded to reduce scrap and increase spindle up-time.



### GRIP PALLETS

- Part spacers: 4 per pallet with standoff at 25.4 mm. *Additional part spacers optional.*
- Grip handles: 2 per pallet. *Specify handle color on purchase order: yellow, red, orange, black, gray, or white.*
- Clamp studs: Available in 52- and 96-mm patterns for 5th Axis, Jergens, Lang, and Mate Systems. *Optional, order separately. Specify clamp studs on purchase order.*



### P/N 96760 / 96770



### 150 MM SQUARE PALLETS

52 mm quick change receiver with up to 9 grippers and inserts.\*

Part # 96760 Steel

Part # 96770 Aluminum



### P/N 96860 / 96870



### 225 MM SQUARE PALLETS

96 mm quick change receiver with up to 21 grippers and inserts.\*

Part # 96860 Steel

Part # 96870 Aluminum



### P/N 96970



### 300 MM SQUARE PALLET

96 mm quick change receiver with up to 33 grippers and inserts.\*

Part # 96970 Aluminum

*\*Grippers and external inserts are sold separately.*





## Workholding Fixture Systems

### GRIP PALLET ACCESSORIES

#### P/N 90400-3



#### P/N 90400-5



#### P/N 90470-5



#### PART SPACERS

*Provides the nominal adhesive gap thickness when used with external fixed inserts on page 8. 4 per 150-, 225-, and 300-mm square pallets.*

**Part # 90400-3** 15.9 mm dia., black oxide finish.

**Part # 90400-5** 9.5 mm dia., black oxide finish.

**Part # 90470-5** 9.5 mm dia., machinable aluminum.

*Additional part spacers optional.*



#### P/N 96500



#### 52 mm pattern



#### 96 mm pattern

#### CLAMP STUDS

*Available in 52- and 96-mm patterns for 5th axis, Jergens, Lang, and Mate systems.\**

**Part # 96500-61** 5th Axis 52 mm pattern for 150 mm square pallet.

**Part # 96500-71** Jergens 52 mm pattern for 150 mm square pallet.

**Part # 96500-81** Lang 52 mm pattern for 150 mm square pallet.

**Part # 96500-91** Mate 52 mm pattern for 150 mm square pallet.

**Part # 96500-62** 5th Axis 96 mm pattern for 225- and 300-mm square pallet.

**Part # 96500-72** Jergens 96 mm pattern for 225- and 300-mm square pallet.

**Part # 96500-82** Lang 96 mm pattern for 225- and 300-mm square pallet.

**Part # 96500-92** Mate 96 mm pattern for 225- and 300-mm square pallet.

*\*Optional, order separately. Specify clamp studs on purchase order.*

### Universal Fixture

Blue Photon's universal fixture revolutionizes rapid prototype workholding. The universal fixture saves time and money for prototyping, one-offs and low volume parts because of its capability to easily hold near-net shaped parts; including parts that are generated by additive manufacturing. This results in lower fixture costs, and quick turnaround times.



### Universal Fixture

Allows the user to very simply and immediately get started using Blue Photon workholding technology. The collection of included gripper arms and locator assemblies can be set up to hold a workpiece for 5- and even 6-sided tool access.

Part # 91200 Entire universal fixture shown.

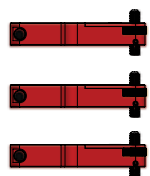
Each fixture includes the following components:

| P/N       | QTY | DESCRIPTION                         | P/N       | QTY | DESCRIPTION                          |
|-----------|-----|-------------------------------------|-----------|-----|--------------------------------------|
| 91201-000 | 3   | Z Locator Assembly                  | 91209-110 | 9   | Shaft Foot                           |
| 91202-000 | 3   | XY Locator Assembly                 | 91209-420 | 2   | Shaft Support, 50 mm length          |
| 91203-200 | 2   | 50 mm Vertical Gripper Arm Assembly | 91209-440 | 4   | Shaft Support, 100 mm length         |
| 91203-300 | 4   | 75 mm Vertical Gripper Arm Assembly | 91209-460 | 3   | Shaft Support, 150 mm length         |
| 91203-400 | 2   | Horizontal Gripper Arm Assembly     | 15130     | 6   | Medium Head-In Gripper               |
| 91204-000 | 2   | Pivoting Gripper Assembly           | 64860     | 1   | Right Angle Adapter, Extended Medium |
| 91205-100 | 1   | 300 mm Square Base Plate*           |           |     |                                      |

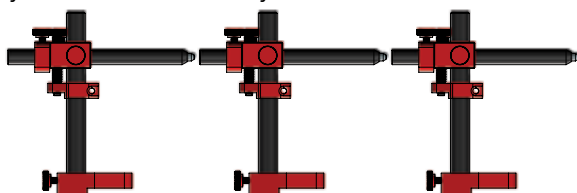
Order UV LED controller, UV LED head assemblies and workholding adhesive separately.

\*Custom sizes available upon request.

**Part # 91201-000**  
Z Locator Assembly



**Part # 91202-000**  
XY Locator Assembly



**Part # 91204-000**  
Pivoting Gripper Assembly



**Part # 91205-100**  
300 mm Square Base Plate



**Part # 91203-200**  
50 mm Vertical Gripper Arm Assembly



**Part # 91203-300**  
75 mm Vertical Gripper Arm Assembly



**Part # 91203-400**  
Horizontal Gripper Arm Assembly



**Part #: 91209-110**  
Shaft Foot



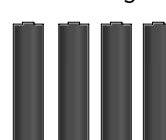
**Part # 15130**  
Medium Head-In Gripper



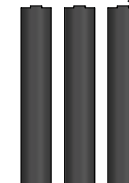
**Part # 91209-420**  
Shaft Support  
50 mm length



**Part # 91209-440**  
Shaft Support  
100 mm length

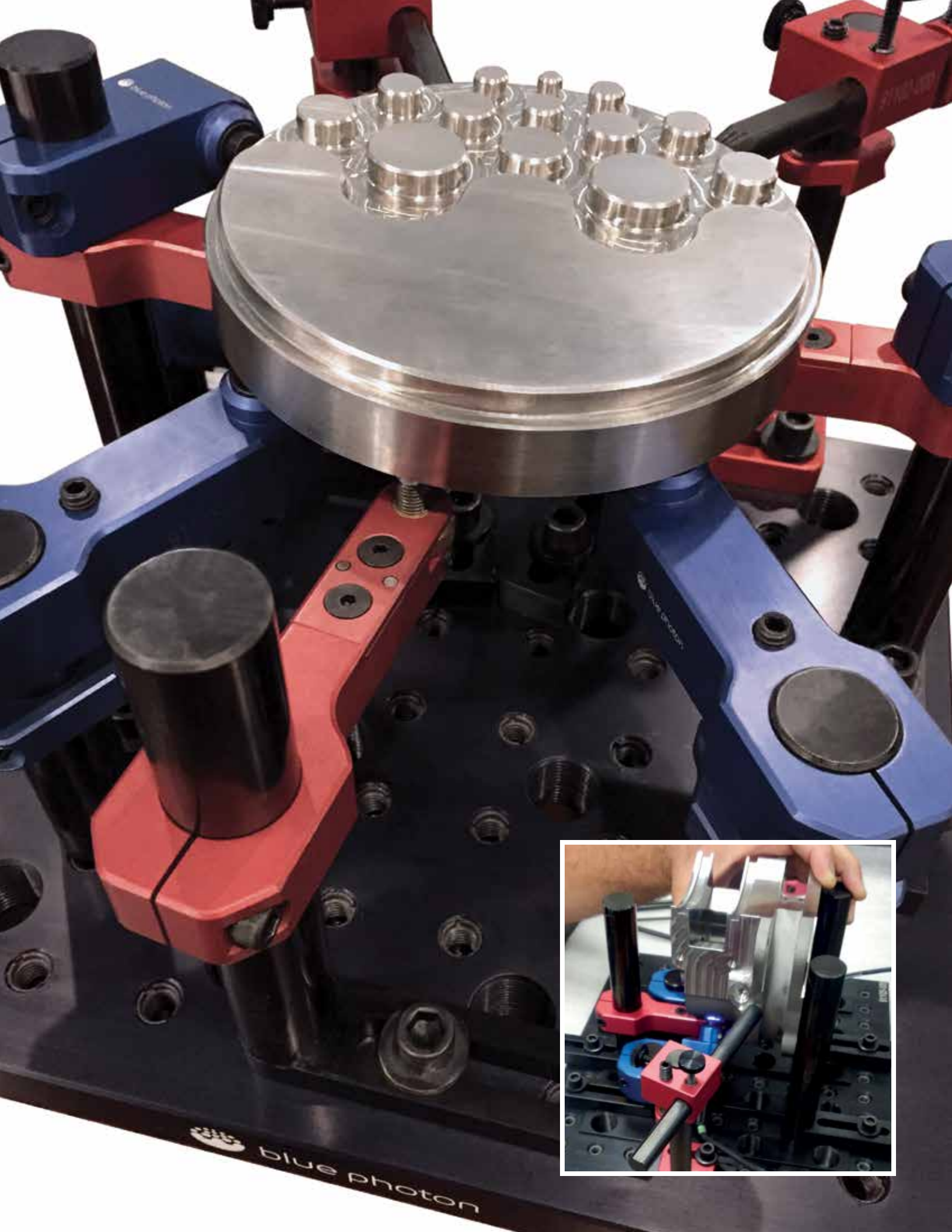


**Part # 91209-460**  
Shaft Support  
150 mm length



**Part # 64860**  
Right Angle Adapter, Extended Medium

Blue Photon offers custom fixture solutions! Contact our engineers for assistance in designing application solutions.



blue photon



### Stabilizer System

Blue Photon's gripper and insert components with an external system to stabilize workpiece without drilling and tapping into the part. The unit allows for adjusting and placing the pucks as needed to stabilize the workpiece.



### STABILIZER SYSTEM

- Large, medium or small head-in grippers: 3 per system for maximum stabilizing strength.
- Part spacers: 3 per system with standoff at 25.4 mm.
- Puck base
- Attachment ball: direct ball attachment with no location requirement.



### P/N 98079



### PUCK BASES

Puck base shown with three large head-in grippers and large gripper external fixed inserts for maximum stabilizing strength.

Part # 98070 Puck base can be ordered separately.

Part # 98077 Puck base assembly with small head-in grippers and small external fixed inserts.

Part # 98078 Puck base assembly with medium head-in grippers and medium external fixed inserts.

Part # 98079 Puck base assembly with large head-in grippers and large external fixed inserts.

### P/N 98140 / 98150

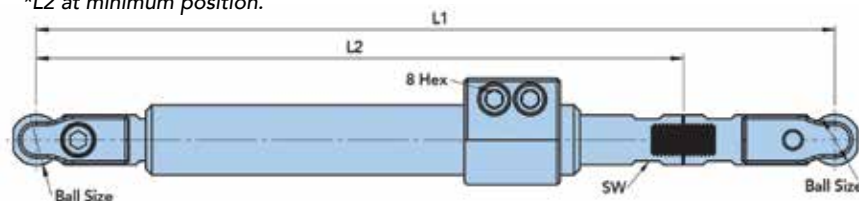


### 5-AXIS ADJUSTABLE STABILIZER BASES

| Part # | Length L1  | Length L2* | Clamping Ball | Weight  |
|--------|------------|------------|---------------|---------|
| 98140  | 255-305 mm | 187 mm     | Ø25.4 mm      | 4.3 lbs |
| 98150  | 400-550 mm | 287 mm     | Ø25.4 mm      | 5.3 lbs |

2x balls are included; clamps can be ordered separately.

\*L2 at minimum position.



### P/N 98200

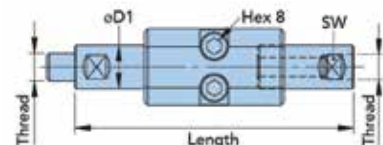


### 5-AXIS FINE ADJUSTABLE STABILIZER EXTENSION

Allows for adjusting the position of parts as needed.

| Part # | Length     | ØD1    | Thread   | Wrench | Weight  |
|--------|------------|--------|----------|--------|---------|
| 98200  | 120-160 mm | Ø25 mm | M16XP1.5 | 21 SW  | 2.6 lbs |

Hex nut included.





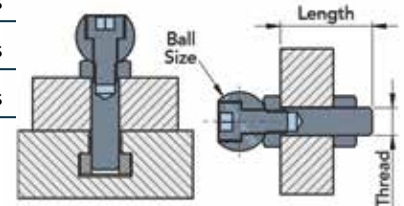
### P/N 98330



### STABILIZER MOUNTING SCREWS

| Part # | Thread    | Ball Size | Length | Weight |
|--------|-----------|-----------|--------|--------|
| 98330  | M12xP1.75 | Ø25.4 mm  | 40 mm  | .4 lbs |
| 98340  | M14xP2    | Ø25.4 mm  | 40 mm  | .4 lbs |
| 98350  | M16xP2    | Ø25.4 mm  | 40 mm  | .4 lbs |
| 98360  | M18xP2.5  | Ø25.4 mm  | 40 mm  | .4 lbs |
| 98370  | M20xP2.5  | Ø25.4 mm  | 50 mm  | .4 lbs |
| 98380  | M24xP3    | Ø25.4 mm  | 50 mm  | .9 lbs |

*T-nut not included.*



### P/N 98418

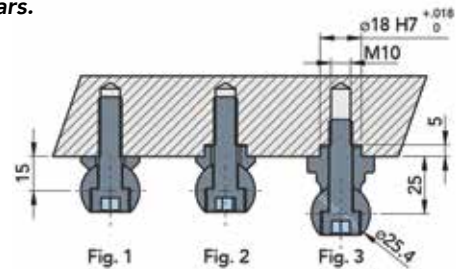


### 5-AXIS STABILIZER BALL AND COLLARS

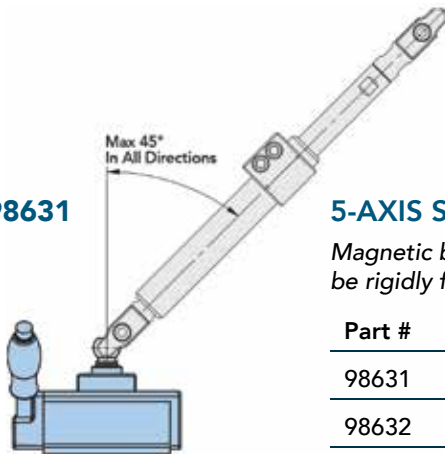
*Allows you to attach or grab the workpiece(s) via a variety of different methods.*

| Part # | Fig.  | Description  | Ball Size | Height      | Weight |
|--------|-------|--|-----------|-------------|--------|
| 98418  | 1     | Attachment ball with no location requirement (H=10). | Ø25.4 mm  | 15 mm       | .1 lbs |
| 98419  | 2     | Ball and collar with location (H=10).                | Ø25.4 mm  | 15 mm       | .2 lbs |
| 98429  | 3     | Ball and collar with location (H=25).                | Ø25.4 mm  | 25 mm       | .2 lbs |
| 98500  | 1/2/3 | Ball and collar set.                                 | Ø25.4 mm  | 15 or 25 mm | .4 lbs |

*Set (98500) contains 1 ball and 3 collars.*



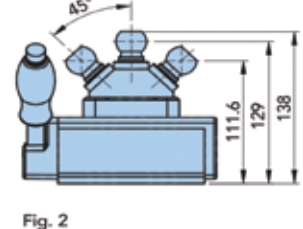
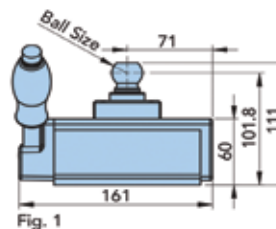
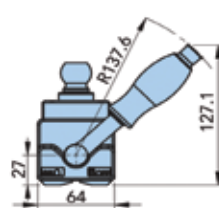
### P/N 98631



### 5-AXIS STABILIZER MAGNETIC BASES

*Magnetic base is used at the bottom of the stabilizer system and allows it to be rigidly fixed in place.*

| Part # | Fig. | Load Capacity    | Ball Size | Qty. of Balls | Weight  |
|--------|------|------------------|-----------|---------------|---------|
| 98631  | 1    | 330 lbs / 150 kg | Ø25.4 mm  | 1             | 7.5 lbs |
| 98632  | 2    | 330 lbs / 150 kg | Ø25.4 mm  | 2             | 7.5 lbs |





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