



blue photon®

Technology & Workholding Systems



PRODUCT CATALOG

WELCOME TO THE BLUE PHOTON WORKHOLDING SYSTEM



Blue Photon's revolutionary Adhesive Workholding® technology provides a secure, stable grip on complex parts while eliminating common challenges such as part distortion and limited machine access.

Engineered for precision and efficiency, Blue Photon offers an innovative alternative to traditional clamping methods -- improving machining accuracy, reducing setup times, and enhancing flexibility in manufacturing operations.

Whether your processes are manual, fully automated or somewhere in between, Blue Photon has a workholding solution to optimize your manufacturing process.

From simple components to the most demanding geometries, Blue Photon delivers the precision, flexibility and confidence manufacturers need to tackle even their most challenging applications.

TABLE OF CONTENTS

GET A GRIP!	10
BUILD THE BOND.	20
PRECISION CURE.	26
CLEAN REMOVAL	32
FIXTURE WITH PRECISION	38

YOUR WORKHOLDING

HERO



WARRANTY & SAFETY INFORMATION

WARRANTY

Blue Photon is proud to offer a 3-year warranty on all Blue Photon grippers. Grippers are warranted against manufacturer's defects when used exclusively with BlueGrip™ Workholding Adhesive®.

All other Blue Photon equipment is warranted 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 BLUE PHOTON'S BLUEGRIP™ WORKHOLDING ADHESIVE® AND BLUE PHOTON APPROVED EQUIPMENT WILL VOID ALL WARRANTIES AND MAY SUBJECT THE USER TO UNSAFE CONDITIONS.

SAFETY

Please read the following safety information carefully to ensure proper operation and user safety when using the Blue Photon system.



DESIGN CONSIDERATIONS

The Blue Photon User Guide outlines general operating procedures; however, each application will have unique setup, functional, and usage requirements. Several key design considerations must be addressed before implementing the Blue Photon workholding system. These should be reviewed with your design and engineering team and include the number and placement of grippers, adhesive joint temperature, adhesive cure time, adhesive quantity, part placement on the applied adhesive, and proper cleaning of both parts and grippers. Contact Blue Photon engineers (engineering@bluephoton.com) for consultation.

Blue Photon offers custom fixture design and manufacturing services that utilize our expertise with our workholding system to develop fixtures optimized for specific parts and machining applications. Customers who choose to design and manufacture their own fixtures, or work with a third-party fixture builder, are responsible for ensuring the fixture is properly designed for use with the Blue Photon system. Because Blue Photon does not control the design, manufacture, or application of customer- or third-party-built fixtures, Blue Photon assumes no responsibility for performance issues or damage resulting from the design, construction, or use of those fixtures.



CAUTION

Blue Photon user manuals describe 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 operate the system. Improper use may result in product damage or unsafe operating conditions. Follow all recommended safeguards to prevent serious injury or property damage. Consult Blue Photon when using the product for turning applications.



WARNING

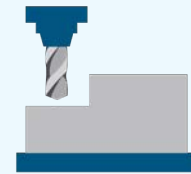
Do not use the Blue Photon workholding system to support overhead loads or people; it is not designed for these purposes. Never stand beneath a lifted fixture or workpiece. If the system is improperly used or provides insufficient holding force to resist cutting loads, the workpiece may be ejected from the fixture at a high rate of speed. Always follow employer work instructions and Blue Photon User Guide recommendations to minimize any risk. Proper guarding must be used at all times to protect personnel from injury due to a dislodged workpiece.

APPLICATIONS

THE SOLUTION FOR ANY APPLICATION

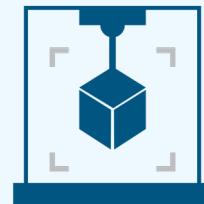
MILLING (5-Axis, Horizontal & Vertical)

Blue Photon's Adhesive Workholding® system delivers secure, distortion-free workholding for milling applications ranging from aggressive roughing to high-speed finishing. Precision grippers replace traditional clamps to eliminate overtightening and maximize part access. In 5-axis environments, the system provides critical clearance for unobstructed 5-sided — and in some cases 6-sided — machining with minimal interference



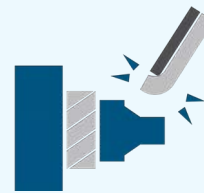
ADDITIVE MANUFACTURING

Many additively manufactured parts require post-process machining, and the Blue Photon system is ideally suited for securing these net-shaped, often highly complex geometries. Cost savings are achieved through quickly designed, low-cost fixtures, and the elimination of the need to print clamping features into the printed part.



TURNING

During turning operations, the Blue Photon system eliminates the need for traditional chuck jaws that introduce excessive clamping forces, while securely holding delicate workpieces that are susceptible to distortion.



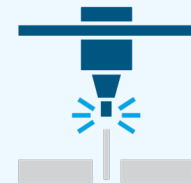
GRINDING

BlueGrip™ Workholding Adhesive® dampens vibration commonly encountered in grinding applications, significantly reducing chatter and improving process stability. When paired with a zero-point system, automated part loading is simplified and repeatability is enhanced.



EDM

The Blue Photon workholding system securely holds EDM components while eliminating the need for cumbersome fixtures with moving parts that can foul in the EDM environment. When used in conjunction with a zero-point system, shim checking can be completely eliminated, simplifying setup and improving process reliability.



MARKETS WE SERVE

SOLVING PROBLEMS ACROSS INDUSTRIES

AEROSPACE/DEFENSE



Aerospace and defense components demand precision and repeatability, while often requiring the machining of complex, high-value materials such as titanium, Inconel, and advanced composites. Blue Photon Adhesive Workholding® provides secure, distortion-free fixturing that improves access to critical features, reduces setup complexity, and helps lower overall production costs while decreasing turnaround times.

OPTICS



Optical components are delicate, high-value and require exceptional dimensional accuracy and surface quality. The Blue Photon system helps to eliminate part distortion, improves part access, supports fragile components, and allows for tighter tolerances while eliminating the need for wax or vacuum workholding.

MEDICAL



Medical components present unique machining challenges that Blue Photon Adhesive Workholding® is designed to solve. From delicate features and tight tolerances to complex geometries and demanding surface finish requirements, our UV Adhesive Workholding® solution provides secure, distortion-free part holding for precision medical manufacturing.

PRODUCTION/AUTOMATION



Blue Photon delivers consistent, repeatable workholding that integrates easily into existing systems. Fixtures can be designed for automated and high-volume production environments improving process reliability, reducing handling variability, and minimizing the risk of inaccuracy during automated part transfer.

JOB SHOP/PROTOTYPING



Ideal for job shops and prototyping environments, Blue Photon Adhesive Workholding® provides a versatile, cost-effective solution for holding ordinary to complex parts. It eliminates the need for costly single-use fixtures while reducing setup time and supporting faster iteration from design to finished part.

ENERGY



Energy component manufacturing often involves intricate geometries (thin-walled, thin-floored, unique shapes), hard-to-machine alloys, and parts requiring multi-face access. Blue Photon Adhesive Workholding® provides secure, distortion-free fixturing that improves accessibility, reduces setup requirements, and supports higher-precision machining of complex energy-sector components.

USING BLUE PHOTON

IMPROVED WORKHOLDING IS A BREEZE!



SUPERIOR HOLDING IN A FEW SIMPLE STEPS

Radically improve your workholding without complicating your process.



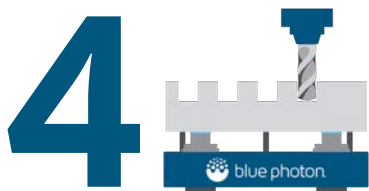
Clean dirt and oil from the grippers and the workpiece.



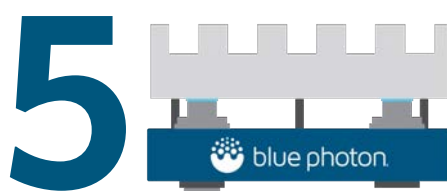
Apply enough adhesive to the grippers to fully fill the gap between the part and gripper.



Apply ultraviolet (UV) light for 60 seconds to cure adhesive.



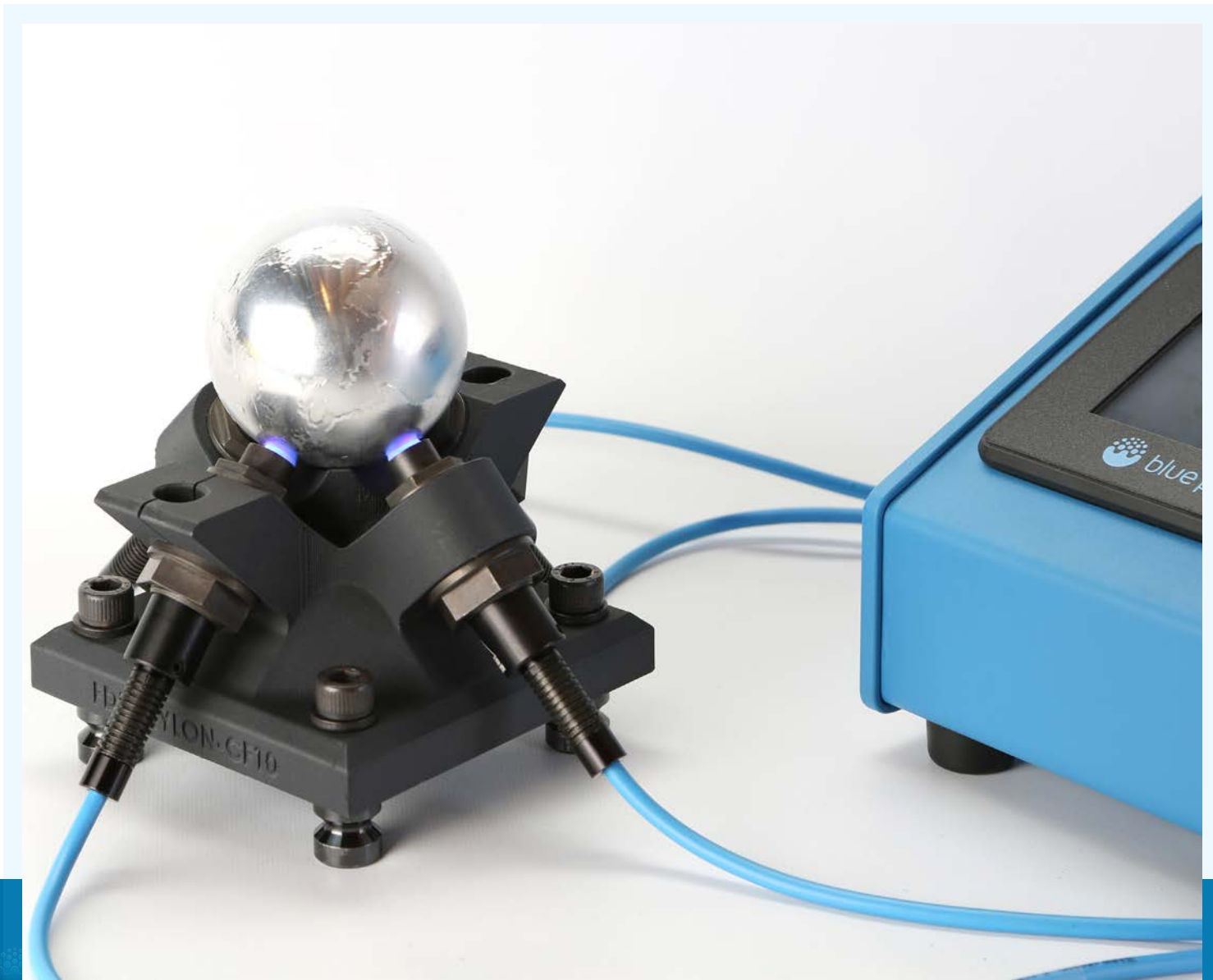
Machine your workpiece.



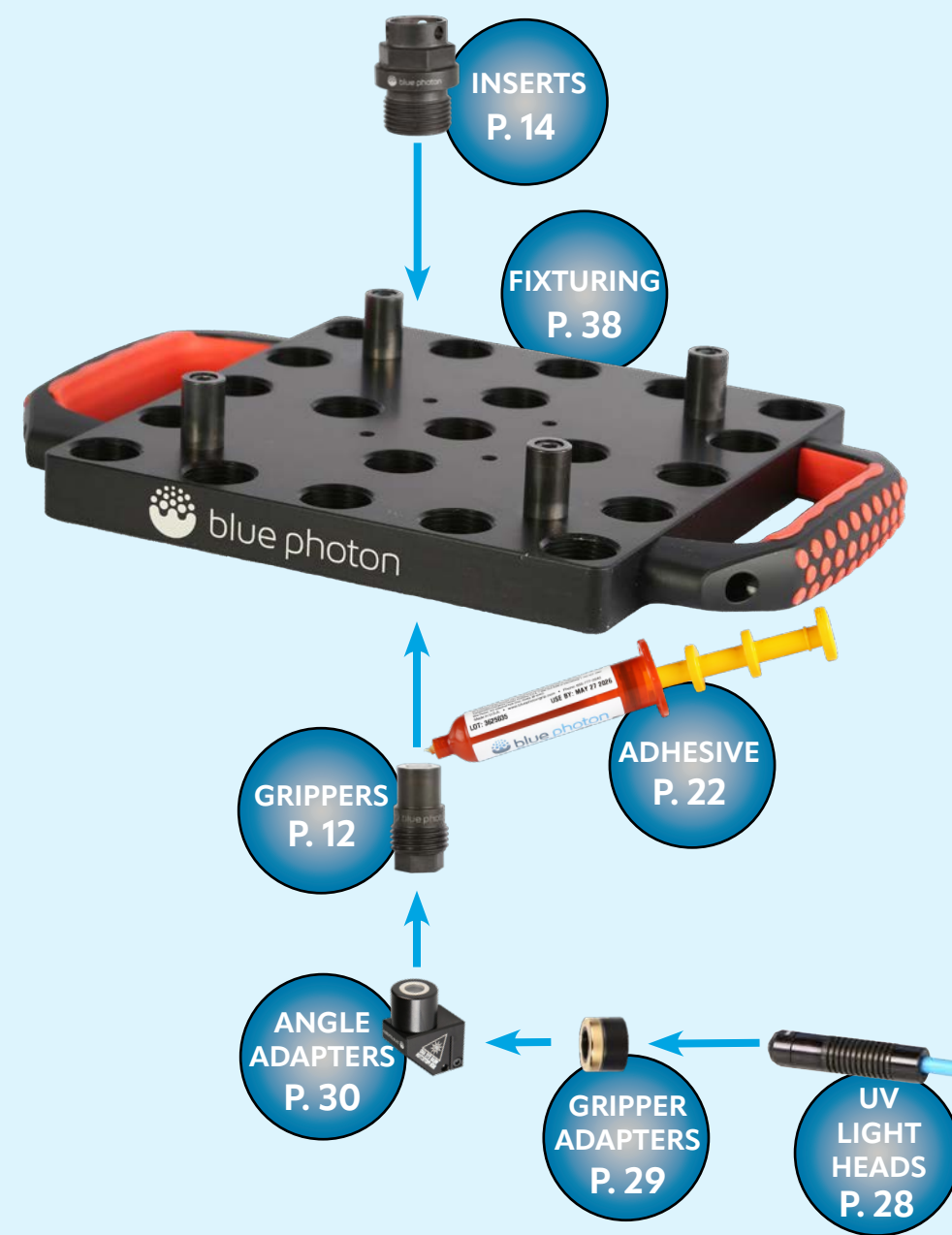
Separate fixture from workpiece with a 1/4 turn twist or hot water soak.



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



THE BLUE PHOTON SYSTEM



CONTROLLERS
P. 28

GET A GRIP!



The foundation of every Blue Photon Adhesive Workholding® setup begins with the right grip.

Our patented grippers and precision inserts are designed to provide the strength, stability, and versatility required to securely hold even the most challenging parts.

Engineered for demanding manufacturing environments, these components sustain machining forces while enabling the distortion-free workholding that makes Blue Photon unique.

GRIPPERS

GET A GRIP WITH BLUE PHOTON!



Blue Photon’s patented workholding grippers are unique, load-bearing, light-transmitting fixture components. They are installed into a fixture and bonded to your workpiece using BlueGrip™ Workholding Adhesive®, which is rapidly cured by UV light transmitted through the gripper core.

After machining, the grippers can be easily released from the workpiece with 1/4 turn of the gripper or a hot water soak.

CHOOSE FROM TWO GRIPPER STYLES

HEAD-IN GRIPPERS

- Gripper inserted into the back side of fixture.
- Gripper can be retracted during workpiece loading.
- Can be used with internal and external inserts.

HEAD-OUT GRIPPERS

- Gripper inserted into the top side of fixture.
- Gripper cannot be retracted during workpiece loading.
- Use when twist debonding is not the preferred method.



PART NUMBER	SIZE	STYLE	TYPE	AVERAGE TENSILE HOLDING POWER WITH BLUEGRIP™ S2*
14130	Small	Head-In	Standard	75 lbs
14131		Head-In	Corrosion Resistant	
14230		Head-Out	Standard	
14231		Head-Out	Corrosion Resistant	
15130	Medium	Head-In	Standard	400 lbs
15131		Head-In	Corrosion Resistant	
15230		Head-Out	Standard	
15231		Head-Out	Corrosion Resistant	
16160	Large	Head-In	Standard	600 lbs
16161		Head-In	Corrosion Resistant	
16260		Head-Out	Standard	
16261		Head-Out	Corrosion Resistant	

* Testing done under controlled conditions.

HOW MANY GRIPPERS DO I NEED?

This is a common question and is very project dependent. Contact engineering@bluephotongrip.com to initiate a discussion about your project and the optimal number of grippers required.

STANDARD VS CORROSION RESISTANT GRIPPERS

Corrosion Resistant Gripper models are for applications where deionized water or acid is used.

INSERTS

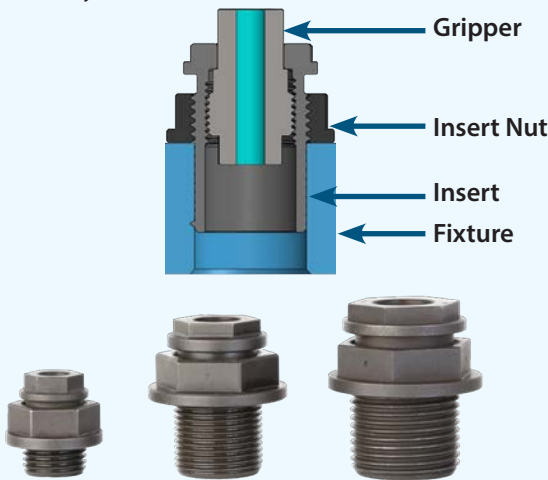
PROTECT FIXTURE THREADS



When fixtures are manufactured from aluminum or other soft materials, threads can wear prematurely—especially when twist debonding is used for part removal. Blue Photon inserts help prevent this wear by creating a durable barrier between the gripper and the fixture threads.

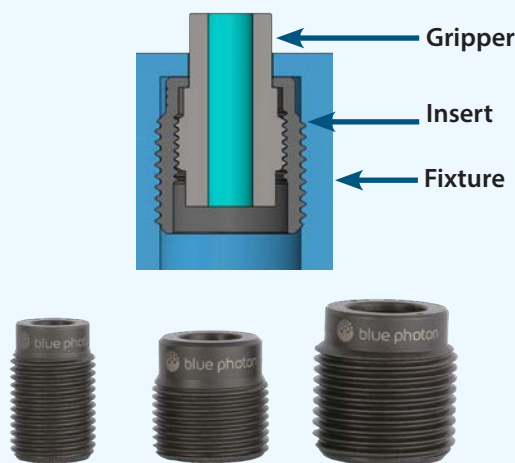
ADJUSTABLE INSERT ASSEMBLIES

- Includes the gripper insert and lock nut to adjust stand-off from the fixture.
- Allows for height adjustments.
- Inserts into fixture from the top.
- External style.



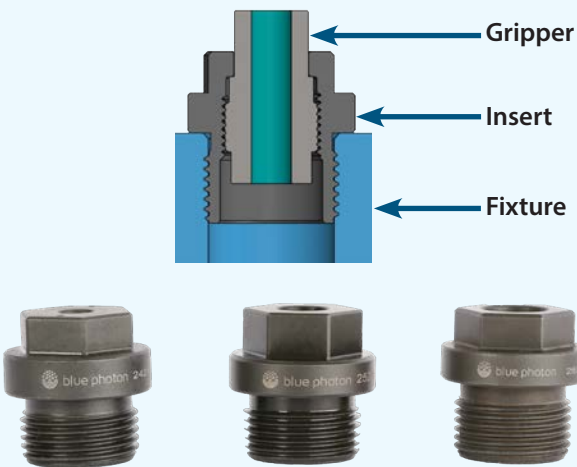
INTERNAL INSERTS

- Thread locked into the fixture.
- Insert into fixture from the backside.
- Inserts permanently into the fixture.



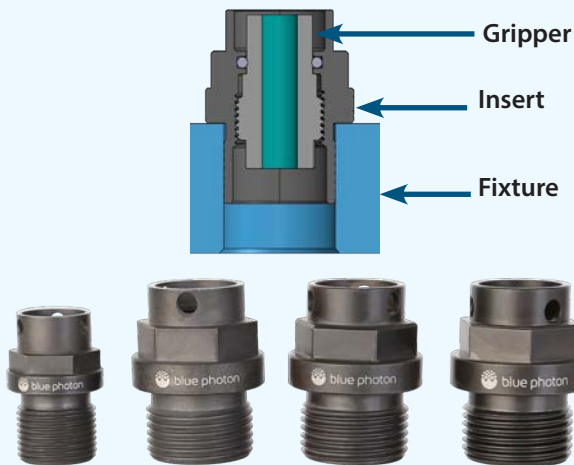
FIXED EXTERNAL INSERTS

- Available in large sizes fitting small, medium or large head-in grippers.
- Increases standoff from the fixture.
- Inserts into fixture from the top.
- External style.



STAND-OFF INSERTS

- Integrates function of an insert and a part spacer.
- Eliminates the need for part spacers.
- Provides target adhesive gap between gripper & part.
- Assists with part support.



INSERTS

All inserts and extensions are manufactured from hardened stainless steel with a black oxide finish.

PART NUMBER	SIZE	COMPATIBLE GRIPPERS*	GRIPPER ADAPTER SIZE*
ADJUSTABLE INSERT EXTERNAL ASSEMBLIES			
24200	Small	14130/14131	Small
25200	Medium	15130/15131	Medium
26200	Large	16160/16161	Large
FIXED EXTERNAL INSERTS			
24211	Small	14130/14131	Small
25211	Medium	15130/15131	Medium
26211	Large	16160/16161	Large
INTERNAL INSERTS			
24100	Small	14130/14131	Small
25100	Medium	15130/15131	Medium
26100	Large	16160/16161	Large
STAND-OFF INSERTS			
24209	Small Compact**	14130/14131	Small
24212	Small	14130/14131	Large
25212	Medium	15130/15131	Large
26212	Large	16160/16161	Large

* Grippers (P. 12) and gripper adapters (P. 29) sold separately.
**Reduced thread size. Compatible with small stabilizer puck.

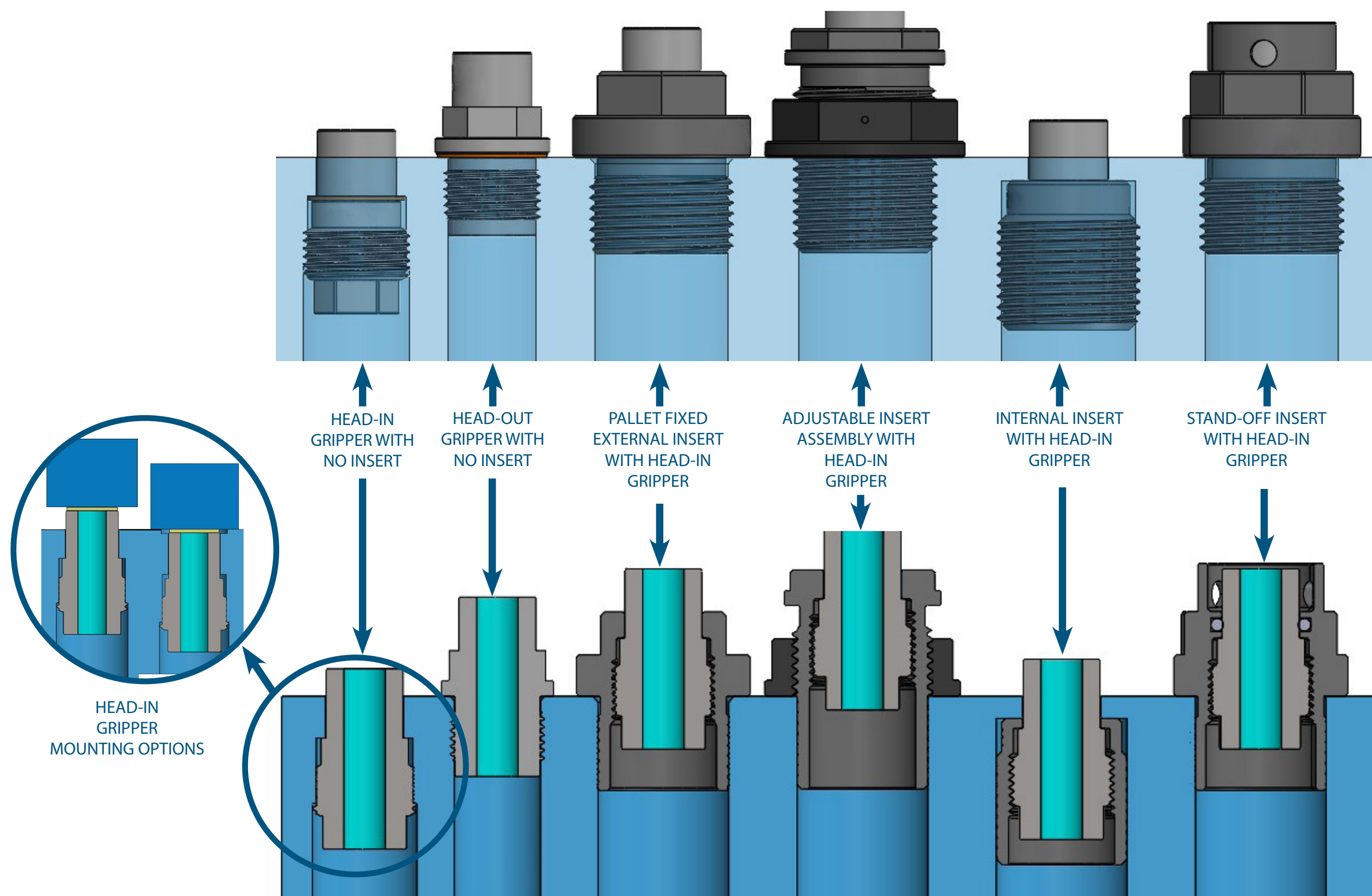
INSERT EXTENSIONS

- Extends height to accommodate workpieces positioned farther from the fixture.
- Compatible with most inserts.

INSERT EXTENSIONS		
PART NUMBER	EXTENSION LENGTH	
37222	1"	
37223	2"	

GRIPPER/INSERT INSTALLATION

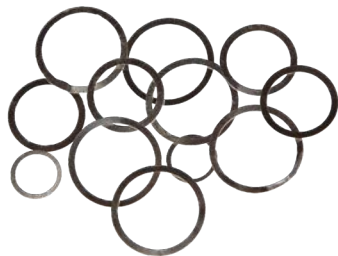
THE RIGHT OPTION FOR YOUR FIXTURE



SHIMS

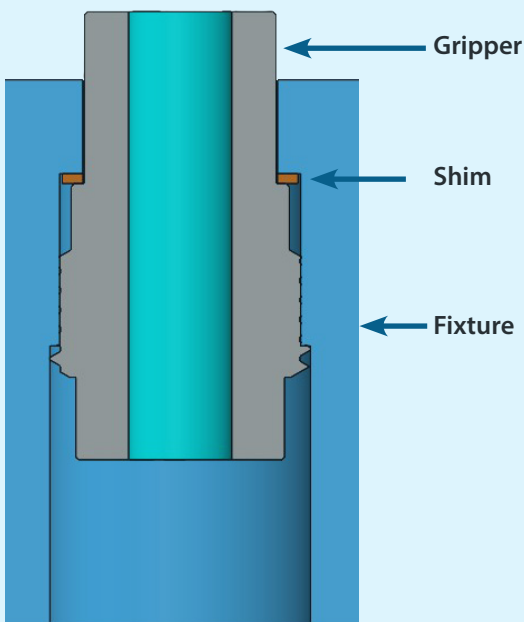
Stainless steel shims for gripper height adjustment.

PART NUMBER	SIZE	THICKNESS	COMPATIBLE GRIPPER STYLE	QTY
51330	Small	.005"	Head-In	6
51430	Small	.010"	Head-In	6
51530	Small	.030"	Head-In	6
52130	Medium	.010	Head-In	6
55330	Medium	.005"	Head-In	6
55430	Medium	.010"	Head-In	6
52230	Medium	.020"	Head-In	6
55530	Medium	.030"	Head-In	6
58330	Large	.005"	Head-In	6
58430	Large	.010"	Head-In	6
58440	Large	.010"	Head-Out	6
58530	Large	.030"	Head-In	6
58540	Large	.030"	Head-Out	6



WHAT IF I NEED MORE CLEARANCE?

Shims can be combined to accommodate your specific clearance requirements.



SHIM INSTALLATION

THIN WALL DEEP WELL SOCKETS

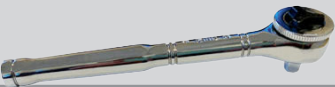
Use to install or remove grippers within a fixturing system.

PART NUMBER	SIZE	COMPATIBLE GRIPPER SIZE	COMPATIBLE GRIPPER STYLE
51525	1/4 drive, 8mm	Small	Head-In
54595	3/8 drive, 12mm	Medium	Head-In
58595	3/8 drive, 14mm	Large	Head-In
52525	1/4 drive, 10mm	Small	Head-Out
55595	3/8 drive, 13mm	Medium	Head-Out
56595	3/8 drive, 16mm	Large	Head-Out



RATCHETS

Use for the removal of head-in grippers.

PART NUMBER	SUPPORTED SOCKETS	DESCRIPTION
50200	PN 54595 PN 58595	3/8" drive ratchet 
52200	PN 51525	1/4" drive ratchet 

Style may vary from the ones shown.



BUILD THE BOND



BlueGrip™ Workholding Adhesive® is the key ingredient in Blue Photon's revolutionary workholding technology.

Specially formulated for manufacturing applications, it rapidly cures when exposed to UV light, creating a powerful bond that securely holds parts throughout demanding machining operations.

Designed to withstand the forces generated during milling, turning, grinding, EDM and more, BlueGrip™ Workholding Adhesive® enables manufacturers to machine delicate, thin-walled, and complex components without the distortion, obstruction, or setup challenges associated with traditional clamping methods.

BLUEGRIP™ ADHESIVE

HOLD ON TIGHT!

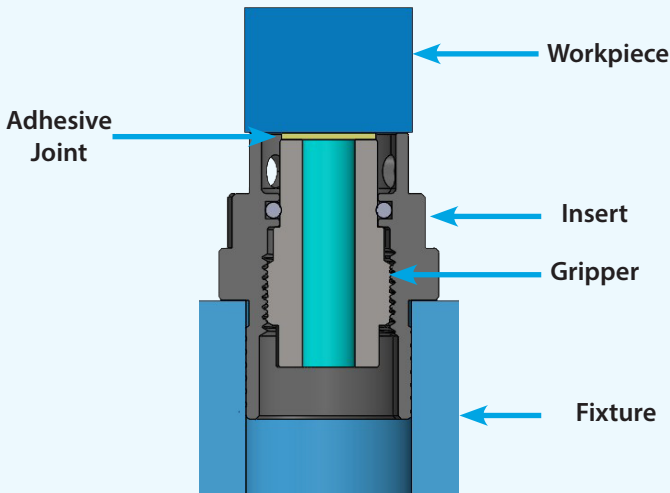


BLUEGRIP™ WORKHOLDING ADHESIVE®

BlueGrip™ Workholding Adhesive® is specifically designed for use with the Blue Photon workholding system.

The gel-based adhesive conforms to surface irregularities and fills the gap between the gripper and the workpiece, ensuring superior grip and consistent holding performance.

- Works on a wide range of materials including ferrous and non-ferrous metals, ceramics, composite materials and some plastics.
- Cures in 60-90 seconds.
- Impervious to cutting fluids and oils.
- Cured adhesive is removable with a CNC machine mounted cleaning tool, hot water, steam, or dry ice blasting.
- Fills gaps of .020" to .120" between the gripper and workpiece.
- Available with fluorescent dye for easy identification of residual adhesive.
- Includes certifications and lot numbers.



PART NUMBER	ITEM	SIZE	DESCRIPTION
43200	BlueGrip™ S2 Regular	30cc Syringe	Use for manual and automated dispensing. 
43210	BlueGrip™ S2 Fluorescent		
46200	BlueGrip™ S2 Regular	1 Liter Cartridge	Use for automated dispensing. 
46210	BlueGrip™ S2 Fluorescent		
48300	BlueGrip™ S3 Regular	40lb/5 Gallon Pail	Use for automated dispensing. Pail unloader and cartridges available upon request. 



ADHESIVE SHELF LIFE & STABILITY

BlueGrip™ adhesive has a shelf life of 9 months from the date of manufacture. Each adhesive tube is clearly labeled with the expiration date. Adhesive older than the expiration date is not guaranteed to hold with the same power.

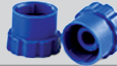


BlueGrip™ S2 Fluorescent



BlueGrip™ S2 Regular

MANUAL DISPENSING

30cc SYRINGES AND ACCESSORIES				
PART NUMBER	ITEM	DESCRIPTION	QTY	
43402	Syringe Barrel	Blocks UV light while allowing monitoring of fluid levels. <i>Includes piston and label.</i>	20	
74000	Manual Plunger	Fits into 30cc adhesive barrel for dispensing adhesive by hand.	1	
43700	Syringe Barrel Tip Cap	Protect BlueGrip™ adhesive from light exposure.	20	
43800	Syringe Barrel End Cap	Fit securely over syringe tabs to create an airtight seal.	20	
43500	Syringe Barrel Labels	Blank labels for recording adhesive expiration date and lot number.	20	
75112	Fine Point Applicator	14 gauge fine point applicator.	50	
BARREL LOADER AND ACCESSORIES				
PART NUMBER	ITEM	DESCRIPTION	QTY	
46600	Barrel Loader	System for filling 30cc syringes from 1 liter cartridge barrel. <i>Includes 90° fitting and syringe weight.</i>	1	
75849	90° Barrel Loader Fitting	Replacement adapter fits into 1 liter cartridge to allow attachment of 30cc syringe.	1	



ARE ADHESIVE TUBES REUSABLE?
While BlueGrip™ adhesive tubes can be reused, it is not recommended as contaminants can compromise adhesive holding strength.

PNEUMATIC DISPENSING

PART NUMBER	ITEM	DESCRIPTION
71906	Pneumatic Dispenser	Foot operated, adhesive dispenser with vacuum control. 
75490	Electric Finger Switch for P/N 71906.	Optional electric finger switch for hand-held, precise control allowing for more consistent bead placement. Recommended when foot control isn't practical due to workspace layout.

AIR FREE DISPENSING

PART NUMBER	ITEM	DESCRIPTION
73010	Air Free Dispenser for Manual Operations	- Air free, positive displacement, volumetric dispensing. - Includes controller and 30cc applicator. - Capability for up to 10 programs. - Applicator stand sold separately (PN 75510). 
75510	Applicator Stand for PN 73010	Stand to hold applicator when not in use.
73015	Air Free Dispenser for Automated Operations	- Air Free PLC/HMI/automation compatible dispensing system. - Includes controller and 30cc applicator. - Stands sold separately (PN 75515).
75515	Applicator Stands for PN 73015	Stands to hold controller and applicator. 

PRECISION CURE



BlueGrip™ Workholding Adhesive® cures rapidly when exposed to UV light, allowing parts to be securely fixtured in as little as 60–90 seconds.

Blue Photon's patented UV curing system, featuring UV LED controllers and UV LED light heads, delivers consistent, reliable curing directly through the grippers to create a strong bond capable of holding parts gently while standing up to heavy machining.

The result is faster setup times, improved process efficiency, and dependable workholding performance.

UV CURING

LOCK DOWN YOUR WORKPIECE



UV LED CONTROLLERS

Precise curing of BlueGrip™ adhesive is effortless with Blue Photon’s UV LED Controllers.

Multi-channel capability enables simultaneous curing of all contact points, significantly reducing cycle time.

The BlueCure touchscreen display provides real-time access to system controls, input configurations, maintenance status, LED performance data, and alarm notifications in the event of a fault.

PART NUMBER	ITEM	LIGHT HEAD CAPABILITY	DESCRIPTION
65640	BlueCure 4	1-4	4 Channel UV LED Controller
65659	BlueCure 16	1-16	16 Channel UV LED Controller

Actual unit may vary from the images shown.



UV LIGHT HEADS

Cures BlueGrip™ Workholding Adhesive® through Blue Photon grippers.

PART NUMBER	HEAD LENGTH	CABLE LENGTH*	TYPE
69115	56mm	1.5M	Standard Length
69215	85mm		
69113	56mm	3M	Long Reach
69213	85mm		
69145	56mm	5M	Extra Long Reach
69245	85mm		
*Custom cable lengths are available upon request.			
PART NUMBER	DESCRIPTION		
69000	Light Head Replacement Lens		



GRIPPER ADAPTERS

Adapters to align UV LED Heads to fixture.

PART NUMBER	SIZE	
51705	Small	
52705	Medium	
57705	Large	

UV CURING

LOCK DOWN YOUR WORKPIECE



RIGHT ANGLE ADAPTERS

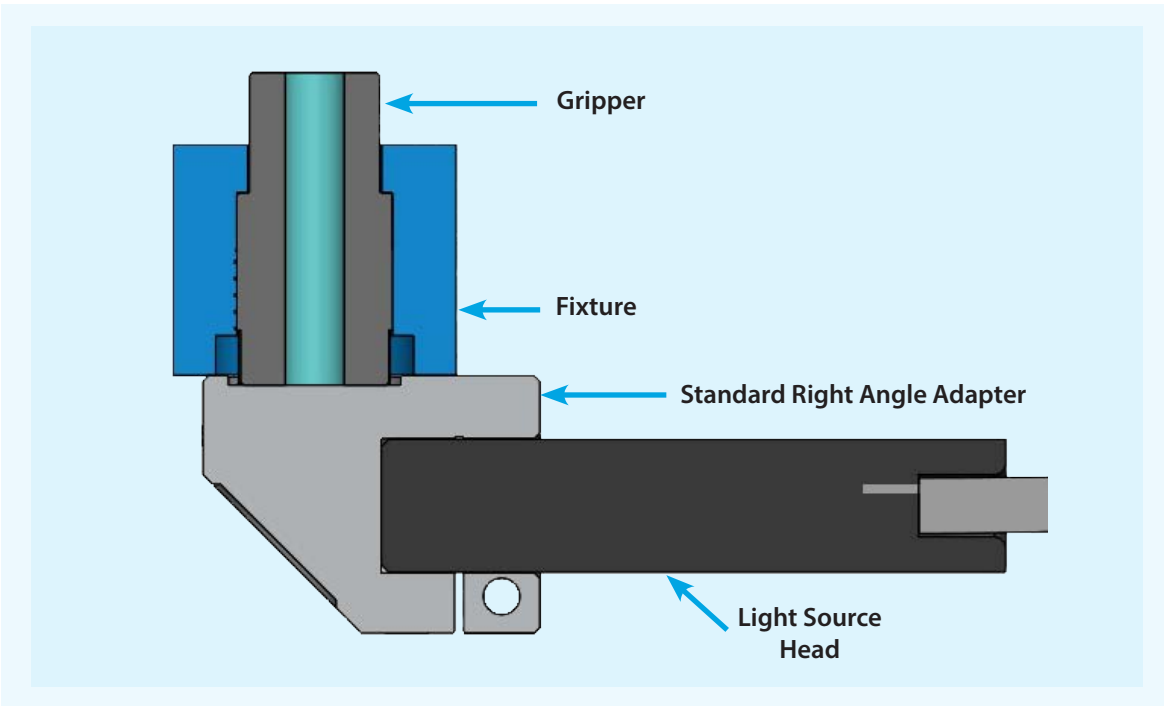
Angled adapters to align UV LED Heads to fixture when clearance issues arise in tight spaces.

PART NUMBER	SIZE	COMPATIBLE GRIPPER SIZE	TYPE	
64850	Medium	Medium	Standard	
64860			Extended	
64950	Large	Large	Standard	
64960			Extended	
64970			Extra Extended	

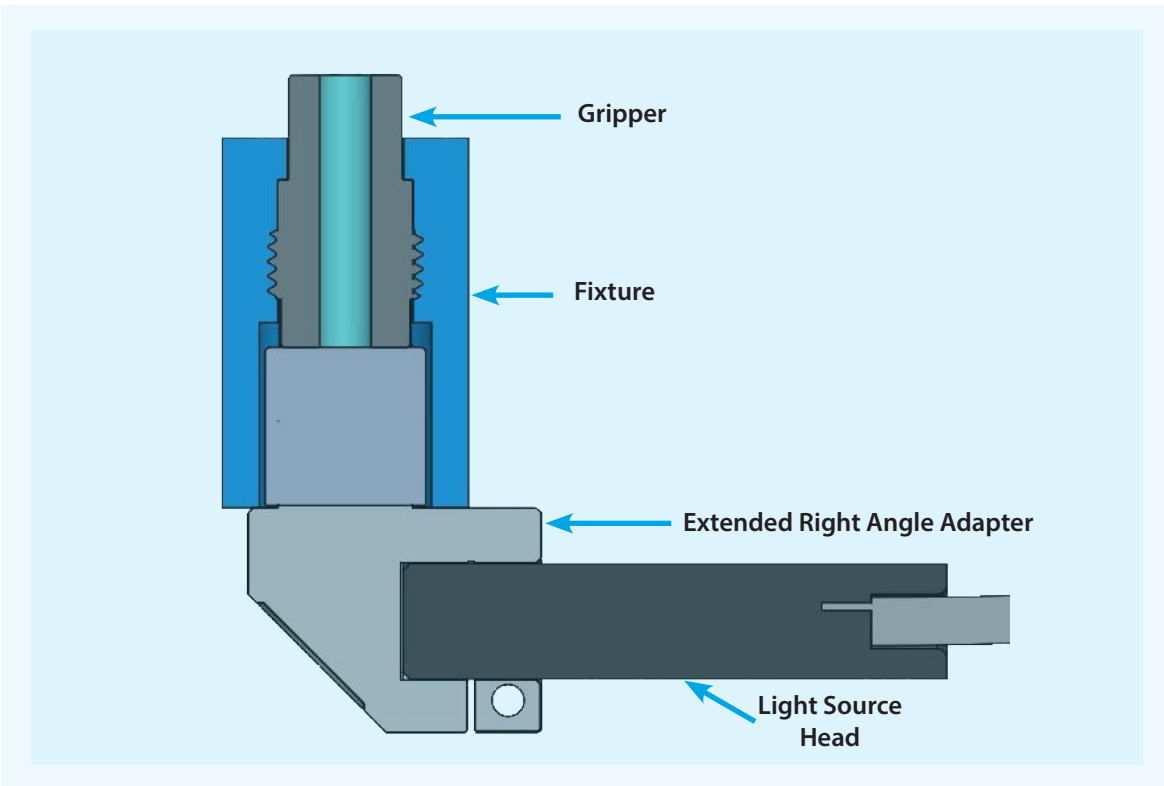


ACCESSORIES

PART NUMBER	ITEM	DESCRIPTION	
50010	UV Safety Glasses	99% protection against harmful UV rays. Meets ANSI Z87.1. Style may vary from the one shown.	
62020	Hand Held Radiometer	Measures stray UV light	
35000	Hard Case	Protect your workholding components when not in use in this custom case with foam insert.	



RIGHT ANGLE ADAPTER INSTALLATION



CLEAN REMOVAL



Blue Photon's Adhesive Workholding® system is designed for easy part release and cleanup.

Following machining, parts can be removed from the fixture with a simple 1/4-turn motion or a hot water soak. Residual adhesive is easily removed using steam, hot water spray, dry ice blasting, or a machine mounted cleaning tool.

With multiple adhesive removal options available, manufacturers can choose the method that best fits their workflow—streamlining post-machining operations and maximizing productivity.

ADHESIVE CLEANING

EASY CLEAN-UP!



STEAM CLEANING

Our steam cleaners provide the pressurized steam necessary for easy removal of residual cured Workholding Adhesive® from grippers and workpieces.

SPACE SAVING STEAM CLEANER					
PART NUMBER	ITEM	SIZE	DESCRIPTION		
84750	NEAT™ Steam Cleaner	• 10.5"x10.5"x9.5" • 9 lbs • 54 oz water capacity • 120V	• Economical steaming solution for prototypes or low-volume usage. • Temperatures of up to 275° F/135° C. • Includes steamer tip.		
84751	Steamer Tip	N/A	Attachment for NEAT Steam Cleaner to provide a more directed blast of steam.		
HEAVY DUTY STEAM CLEANERS					
PART NUMBER	HOURS OF WORKING TIME	HEATING ELEMENTS	WATER CAPACITY	HEAT UP TIME	DESCRIPTION
84870	Approx 6	110V/120V 1200W	1.25 Gallon 4.5 Liter	15-20 Minutes	• 61 PSI, 4.1 bar operating pressure • Pressure/safety switch • 30A heavy-duty contactor • Carrying handle • 6000 CD 
84881	Minimum 8	220V	2.37 Gallon 9 Liter	30-40 Minutes	• Visual water level indicator • Uses regular tap water • Ranco pressure control • Carrying handle • 2 incoloy heating elements • 1 steam gun • 7500 BU 
84890	Full-time steam	110V/120V	Connects directly to water supply line.	20-30 Minutes	• Boiler thermostat reset switch • Heavy-duty adjustable feet • Uses regular tap water • Ranco pressure control • Automatic shut-off pump in event of water supply interruption • 1 incoloy heating element • Blow down valve • Requires 20-amp service supply • 1 steam gun • 8000 BU 

HOT WATER CLEANING

HEATED SOAK TANK

Use when twist debonding may damage workpiece.

PART NUMBER	SIZE	DESCRIPTION
81312	26"W x 23.6" D x 20.65" H (External dimensions) 9" tank depth 23" x 20" (Immersion platform size) 14 gallon water capacity 120V / 50-60 HZ / 1 - (12A) 43 lbs	Stainless steel, insulated, heated soak tank with 5" interactive full-color touch screen. Temperature range of 41°F - 203° F. 
SOAK TANK OPTIONAL ACCESSORIES		
PART NUMBER	ITEM	DESCRIPTION
81309	Insulated Tank Lid	Stainless steel lid with handle for preventing water evaporation during heating process. 
81310	Floating Balls	Minimizes heat loss and evaporation during the heating process. 

ADHESIVE CLEANING ACCESSORIES

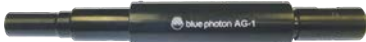
SCRAPERS

Remove cured adhesive from parts and grippers.

PART NUMBER	MATERIAL	DESCRIPTION
80030	Aluminum	Heavyweight adhesive removal blade 
86004	Plastic	Flat edge, non marring 

CNC SPINDLE MOUNTED CLEANING TOOL

Loads into CNC machine to quickly remove cured adhesive from grippers.

PART NUMBER	ITEM	DESCRIPTION
82400	Gripper Cleaning Tool Assembly	- Mounts to any 3/4"Ø collet or end mill holder - Cleans an estimated 1,000 grippers Cannot be used with corrosion resistant grippers 
82500	Replacement Head	Provides approximately 1,000 gripper cleanings. 

WORKHOLDING KITS

EASY START UP!



BLUE PHOTON WORKHOLDING KITS

Everything you need to quickly experience the power of the Blue Photon workholding system is included in our workholding kits.

Workholding kits are customized to meet your needs and include six grippers in the optimal size for your application bundled with a UV LED controller, light heads, BlueGrip™ adhesive, steamer, and more!

Configure your custom kit to generate part number.

KIT	GRIPPERS (QTY 6)	CONTROLLER	UV LED HEAD ASSEMBLY	UV LED HEAD QTY	INSERTS - OPTIONAL (QTY 6)
3		1			
	1 - Small Head-In Gripper (PN 14130)	1 - 4 Channel	1 - Small Adapter/56mm Head Length	1	01 - Small Internal (PN 24100)
	2 - Small Head-Out Gripper (PN 14230)		2 - Small Adapter/85mm Head Length	2	02 - Small Adj External (PN 24200)
	3 - Medium Head-In Gripper (PN 15130)		3 - Medium Adapter/56mm Head Length	3	03 - Small Fixed External (PN 24211)
	4 - Medium Head-Out Gripper (PN 15230)		4 - Medium Adapter/85mm Head Length	4	04 - Medium Internal (PN 25100)
	5 - Large Head-In Gripper (PN 16160)		5 - Large Adapter/56mm Head Length		05 - Medium Adj External (PN 25200)
	6 - Large Head-Out Gripper (PN 16260)		6 - Large Adapter/85mm Head Length		06 - Medium Fixed External (PN 25211)
					07 - Large Internal (PN 26100)
					08 - Large Adj External (PN 26200)
					09 - Large Fixed External (PN 26211)
					10 - Small Compact Stand-Off (PN 24209)
					11 - Small Stand-Off (PN 24212)
					12 - Medium Stand-Off (PN 25212)
					13 - Large Stand-Off (PN 26212)



Each workholding kit also contains:

- BlueGrip S2™ Workholding Adhesive®
- Manual Plunger
- Scraper
- Ratchet and Socket
- UV Safety Glasses
- Adhesive Cleaning Steamer (actual unit may vary from the one shown)



PROTECT YOUR WORKHOLDING KIT
Store and protect your workholding kit with available hard case. See P. 30 for details.

FIXTURE WITH PRECISION



The complex geometries, delicate features, and tight tolerances of the parts held by the Blue Photon Adhesive Workholding® system often require specialized fixturing to maximize efficiency and performance.

Blue Photon offers a range of standard fixtures and components, as well as custom-engineered solutions designed to meet the unique requirements of each application. Compatible with existing quick-change systems, these solutions combine secure, distortion-free workholding with reduced setup times and increased productivity.

When a custom solution is required, the Blue Photon engineering team is available to assist with fixture design and development, helping manufacturers achieve optimal results.

PART STABILIZATION

STABLE POSITIONING FOR PRECISION MACHINING



STABILIZER SYSTEM

Our Stabilizer System combines Blue Photon grippers and inserts with components designed to stabilize your workpiece without drilling/tapping into your part.



STABILIZER ASSEMBLIES

PART NUMBER	PART NAME	MIN LENGTH	MAX LENGTH	DESCRIPTION	
98544	Short Stabilizer Assembly	8.5"	11.5"	Full Stabilizer Assembly Includes: • Puck assembly • Stabilizer arm • Stabilizer base	
98554	Long Stabilizer Assembly	11.25"	14.25"		

Custom lengths are available upon request.



STABILIZER COMPONENTS

STABILIZER ARMS					
PART NUMBER	PART NAME	MIN LENGTH	MAX LENGTH	DESCRIPTION	
98144	Short Stabilizer Arm	8.5"	11.5"	Adjustable rod placed between puck assembly and base allowing for increased reach.	
98154	Long Stabilizer Arm	11.25"	14.25"		
Custom lengths are available upon request.					
PUCK ASSEMBLY					
PART NUMBER	PART NAME	DESCRIPTION			
98074	Puck Assembly	Can be adjusted and placed as necessary to stabilize workpiece. Includes: • Puck • Three grippers • Three stand-off inserts			
STABILIZER BASE					
PART NUMBER	PART NAME	DESCRIPTION			
98634	Stabilizer Base	Base for connecting stabilizer arm to the machine table.			

STANDARD FIXTURING

GRIP PALLETS & ACCESSORIES



GRIP PALLETS

Blue Photon Grip Pallets for 52mm and 96mm quick change receivers are compatible with existing fixturing systems in machining centers. These pallets are designed to simplify part loading, resulting in reduced scrap and increased spindle up time.

PART NUMBER	SIZE	RECEIVER SIZE	MATERIAL	GRIPPER INSERT CAPACITY	
96772	150mm X 150mm	52mm	Steel	8	
96771	150mm X 150mm	52mm	Aluminum	8	
96860	225mm X 225mm	96mm	Steel	20	
96870	225mm X 225mm	96mm	Aluminum	20	
96970	300mm X 300mm	96mm	Aluminum	32	

Grip Pallets can be adapted to accommodate additional zero point options upon request.

Each Grip Pallet includes four part spacers and two (optional) grip handles.

- Grip handles are available in yellow, red, orange, black, gray or white. Please specify color choice on purchase order.

Grippers and external inserts are sold separately (P. 12 and P. 14).



PART SPACERS

Part spacers ensure the required gap between the workpiece and gripper is achieved.

PART NUMBER	SIZE (Ø)	STAND-OFF	HEIGHT TOLERANCE	MATERIAL	Qty	
90400-3	15.9mm	25.4mm	+/- .025mm	Hardened stainless steel with black oxide finish	4	
90400-5	9.5mm	25.4mm	+/- .025mm	Hardened stainless steel with black oxide finish	4	
90470-5	9.5mm	25.4mm	+/- .025mm	Machinable aluminum	4	

M6x1 screws are included with all part spacers.



CUSTOM FIXTURE BUILDING

INNOVATIVE DESIGN FOR UNIQUE PROJECTS



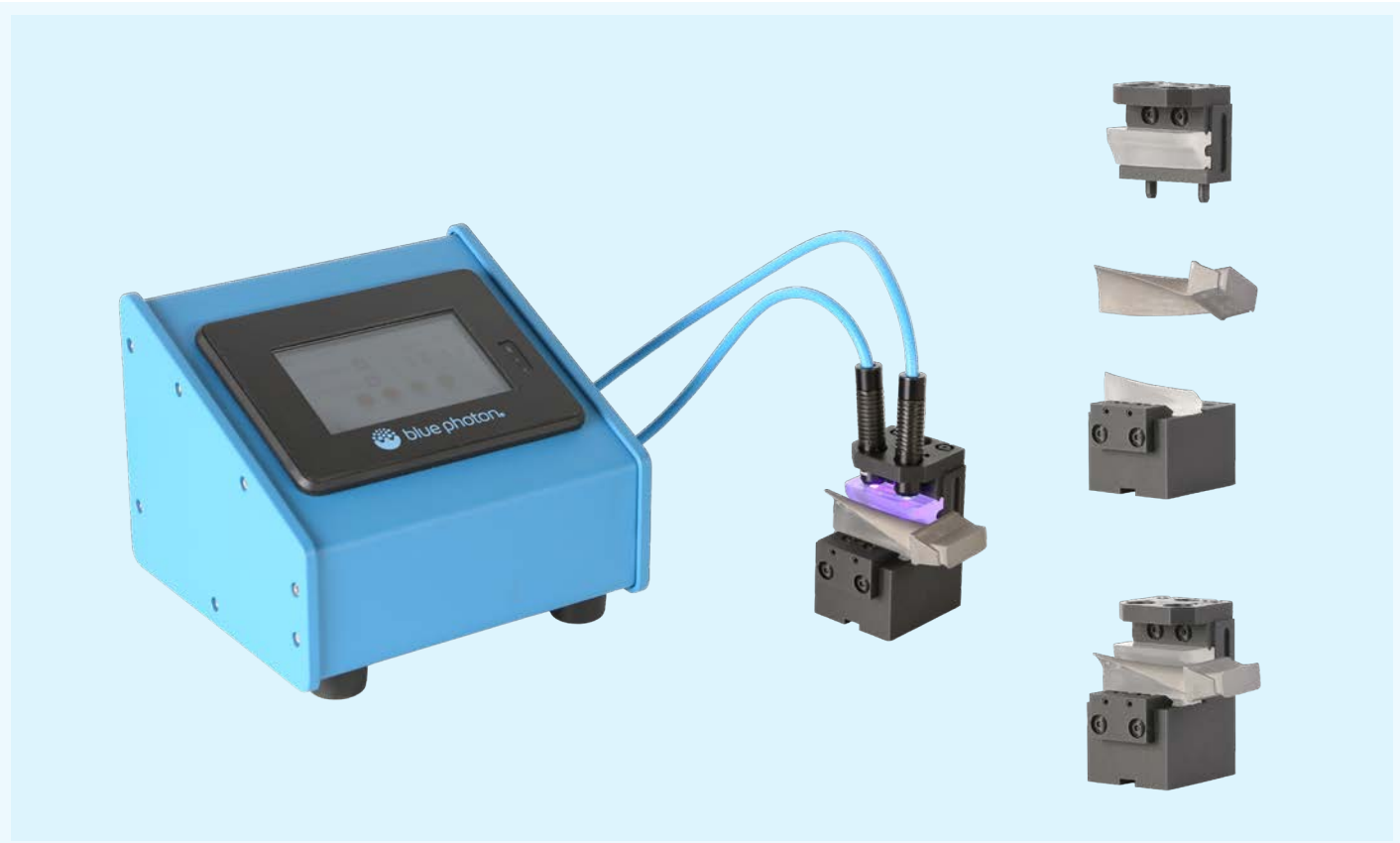
CUSTOM DESIGNED FIXTURES

Blue Photon provides innovative fixture design and build services to securely hold your most challenging parts while maximizing machine efficiency. We are experts at combining the power of our Adhesive Workholding® solution with a fixture designed specifically for your part and machining operation.

Our custom fixtures can even integrate with your current automation and quick change systems!

We have tackled some of the most complex parts in the industry -- and consistently deliver fixture solutions that exceed expectations.

Contact us to discuss your part holding requirements and start engineering YOUR custom solution.



CUSTOM FIXTURE CONSIDERATIONS

Blue Photon offers custom fixture design and manufacturing services that utilize our expertise with our workholding system to develop fixtures optimized for specific parts and machining applications. Customers who choose to design and manufacture their own fixtures, or work with a third-party fixture builder, are responsible for ensuring the fixture is properly designed for use with the Blue Photon system. Because Blue Photon does not control the design, manufacture, or application of customer- or third-party-built fixtures, Blue Photon assumes no responsibility for performance issues or damage resulting from the design, construction, or use of those fixtures.

APPLICATION SAMPLES

WE'VE GOT YOUR APPLICATION COVERED



MILLING

5-Axis, Horizontal & Vertical



EDM



ADDITIVE MANUFACTURING



GRINDING



CMM



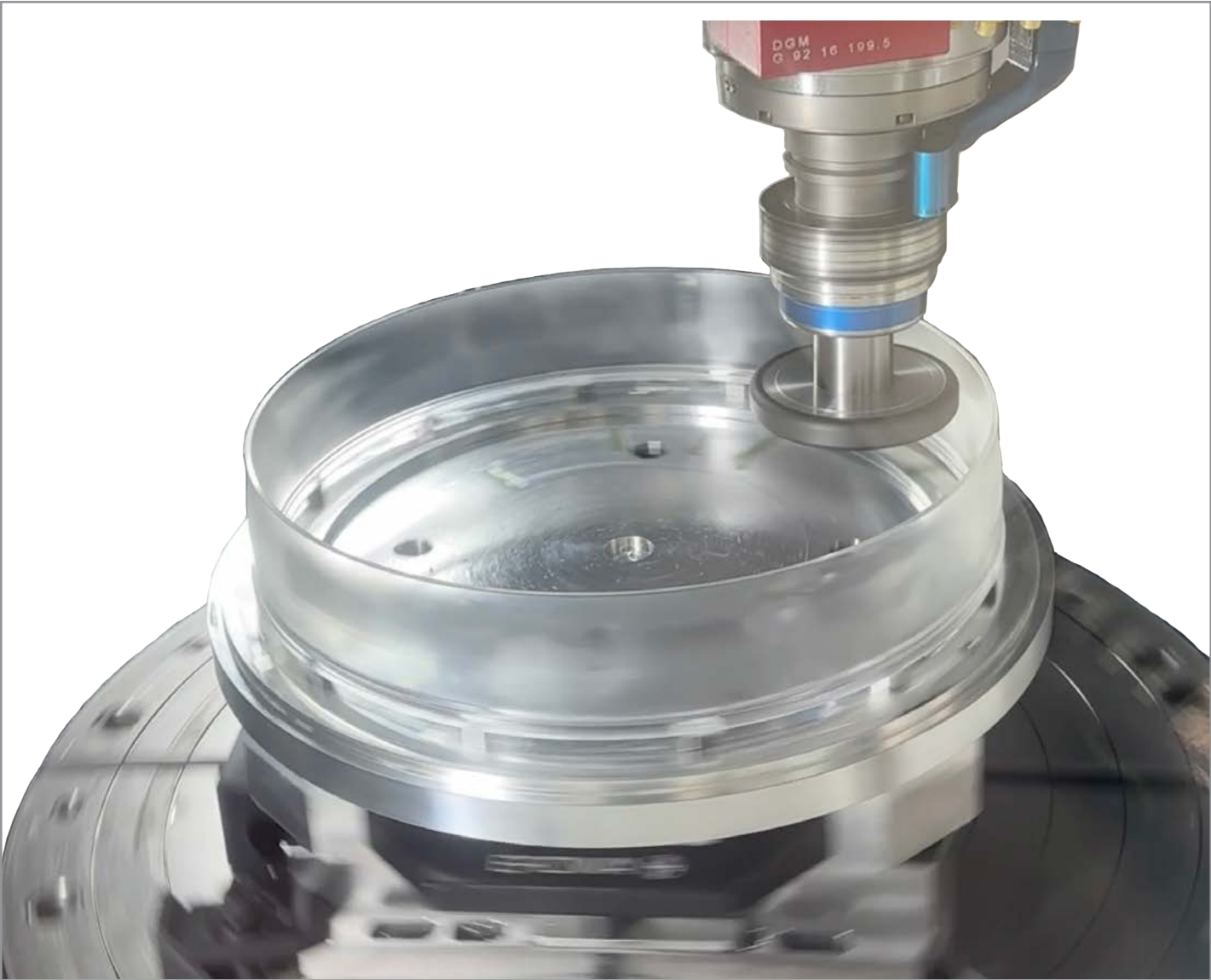
TURNING



PART NUMBER INDEX



Part Number	Page	Part Number	Page	Part Number	Page
14130	13	50010	30	69215	28
14131	13	50200	19	69245	28
14230	13	51330	18	71906	25
14231	13	51430	18	73010	25
15130	13	51525	19	73015	25
15131	13	51530	18	74000	24
15230	13	51705	29	75112	24
15231	13	52130	18	75490	25
16160	13	52200	19	75510	25
16161	13	52230	18	75515	25
16260	13	52525	19	75849	24
16261	13	52705	29	80030	35
24100	15	54595	19	81309	35
24200	15	55330	18	81310	35
24209	15	55430	18	81312	35
24211	15	55530	18	82400	35
24212	15	55595	19	82500	35
25100	15	56595	19	84750	34
25200	15	57705	29	84751	34
25211	15	58330	18	84870	34
25212	15	58430	18	84881	34
26100	15	58440	18	84890	34
26200	15	58530	18	86004	35
26211	15	58540	18	90400-3	43
26212	15	58595	19	90400-5	43
35000	30	62020	30	90470-5	43
37222	15	64850	30	96771	42
37223	15	64860	30	96772	42
43200	22	64950	30	96860	42
43210	22	64960	30	96870	42
43402	24	64970	30	96970	42
43500	24	65640	28	98074	41
43700	24	65659	28	98144	41
43800	24	69000	28	98154	41
46200	22	69113	28	98544	40
46210	22	69115	28	98554	40
46600	24	69145	28	98634	41
48300	22	69213	28		



Quartz ring machined on DMG MORI Ultrasonic 60 eVo.

All Rights Reserved. Blue Photon Technology & Workholding Systems LLC assumes no responsibility for any errors or omissions in this document. This document is for reference only and actual application will vary according to the application. Blue Photon has made every effort to ensure the accuracy of the product information in this document, however, we are not responsible for typographical discrepancies. Actual products may vary from those shown in photos.
2026 Product Catalog 10553 08.01.26 Revision 1

WORKHOLDING REDEFINED!



blue photon®

Technology & Workholding Systems LLC

Sales and Engineering Support

Blue Photon Technology & Workholding Systems LLC

994 Industrial Park Dr

Shelby, MI 49455

sales@BluePhotonGrip.com

Follow Us On Socials!

 YouTube



 LinkedIn



www.BluePhotonGrip.com • 855-777-2040