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STRONGER BONDS START HERE!

PREPARING PARTS FOR SUCCESSFUL BLUE PHOTON FIXTURING

Follow these simple steps to ensure proper part bonding.

CRITICAL DETAIL

ALL surfaces with adhesive contact **MUST BE THOROUGHLY CLEANED** using a lint free disposable paper towel and **ONLY 96% or higher strength isopropyl alcohol**.

CLEAN GRIPPERS AND PART

STEP 1:

Use compressed air to remove any water or coolant from grippers.



STEP 2:

Apply alcohol to a clean towel and clean grippers with a twisting motion.



STEP 3:

Repeat the cleaning process on the area of your part that will have contact with adhesive.

- The cleaning towel should not have any signs of discoloration after cleaning.



APPLY ADHESIVE

STEP 4:

Check adhesive expiration date!



STEP 5:

Apply BlueGrip™ adhesive to the center of gripper.

- Dispense approximately 1/8" high drop of adhesive to ensure complete coverage of gripper face.
- Any adhesive that is applied beyond the gripper face will not cure and will, therefore, be wasted.
- If adhesive does not cover the entire gripper face when the part is loaded, there will be a loss in holding power and results may be inconsistent.
- Recommended adhesive gaps are .030" -- .040" to ensure optimal bonding strength. Gaps should never be less than .020" or greater than .120".



MAINTENANCE AND TROUBLESHOOTING

Please see the reverse side for maintenance and troubleshooting details.

MAINTENANCE GUIDELINES AND TROUBLESHOOTING

EQUIPMENT MAINTENANCE

GRIPPERS

To maintain consistent light strength, periodically clean the bottom of your grippers (where light enters) with isopropyl alcohol.

LIGHT HEADS

To maintain consistent light strength, periodically clean your light heads with isopropyl alcohol.



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TROUBLESHOOTING

PROBLEM	POTENTIAL CAUSE	SOLUTION
WEAK ADHESIVE BOND	Insufficient UV light or intensity to cure adhesive fully.	Ensure that light heads are fully inserted into gripper mounting hole so that light does not escape. Check UV output with Radiometer.
	Expired adhesive.	Replace expired adhesive with in-date adhesive.
	Gripper is damaged or unclean.	Thoroughly clean grippers and workpiece with isopropyl alcohol. Inspect grippers to ensure they are free of defects. Replace damaged grippers.
INCONSISTENT RESULTS OR PART DISLODGING DURING MACHINING	Grippers are not all exposed to UV light.	Verify that light heads are fully inserted into gripper mounting hole and all grippers are exposed to full UV light.
	Incorrect gap between workpiece and gripper.	Verify that the gap between the gripper face and the workpiece is within required specifications.
	Incorrect amount of adhesive applied.	Ensure that the entire gripper face is covered with adhesive and the gap between the gripper face and workpiece is completely filled.
	Gripper positioning is incorrect.	Reposition grippers to more evenly support workpiece.
	Number of grippers is inadequate to counteract machine forces.	Add additional grippers.
	Grippers and/or workpiece not cleaned properly.	Clean gripper head and workpiece thoroughly with 96%+ strength isopropyl alcohol. Allow time for cleaner to evaporate.
	Bond joint temperature too high.	Bond joint temperature can weaken the bond. Take steps to cool the adhesive joint.
	Material not compatible.	Consult Blue Photon to confirm adhesive compatibility with your material.
	Workpiece to transfer tool locating not repeatable.	Workpiece loading to nesting points must be repeatable. Check bond station and transfer tool/part clamping.
Loose gripper(s).	Ensure that each gripper is tight; tighten to 20ft-lbs for large grippers, 15ft-lbs for medium grippers, and 10ft-lbs for small grippers.	

