

IMPORTANCE OF Cleave Tool Cleaning and Maintenance

CLEANING AND MAINTENANCE

The Cleave Tool supplied with OFS's Termination Kits contains movable parts, wear items, and a diamond blade that require regular maintenance, care, or replacement in order to perform satisfactorily. Damage to the tool itself, to the fiber being cleaved, to the connectors being installed, and/or to the diamond blade itself can result if recommended procedures are not followed.

This damage can result in waste and increased expense, especially if the diamond blade requires replacement.

IMPORTANT

- The diamond blade must be cleaned; the gripper pads must be cleaned, kept oil-free, and replaced after wear
- The cleave-tool trigger must be depressed slowly
- Fiber must be kept perpendicular to the diamond blade

CLEAN THE GRIPPER PADS

In order for a cleave to be performed, tension must be maintained on the fiber. This tension is created by the spring and the gripper pads. If the gripper pads have any dirt or oil residues on them, the pads will likely slip along the fiber, preventing the correct tension from being applied. If the diamond blade contacts the glass optical fiber surface with the tension too low, the flaw may still be initiated and the glass may still break, but the contact can damage the diamond blade. The gripper pads and diamond blade should be cleaned after every 50 cleaves, or more frequently if needed or slippage is detected. Use the OFS Cleave Tool Cleaning Kit (OFS #P16247) which contains appropriate cleaning solvent, cleaning swabs, and instructions.

- Never use isopropyl alcohol to clean the gripper pads. Isopropyl alcohol will quickly and catastrophically deteriorate the gripper pad material.
- Never insert any tools, brushes, or swabs other than those recommended in the OFS Cleave Tool Cleaning Kit in the area of the diamond blade due to risk of damaging the expensive diamond.



PREVENT OILS FROM REACHING THE GRIPPER PADS

When handling glass optical fiber throughout the termination process, the operator should avoid touching the bare glass and HCS® fiber coated portions of the fiber, thus preventing finger oils from contaminating the glass fiber and eventually the gripper pads. One signal the gripper pads are potentially contaminated with oils is that the gripper pad assembly slides along the fiber when the tool attempts to apply and hold tension during the cleaving cycle.

REPLACE WORN GRIPPER PADS

The gripper pad material is a wear item on the tool. Over time a noticeable groove wears into the pad material where it grabs onto the glass optical fiber. When this groove is visible, the pads need to be replaced.

U WARNING

- Worn or contaminated gripper pads will slide along the fiber when the tool attempts to apply and hold tension during the cleaving cycle.
- Worn gripper pads will develop a noticeable groove in the pad material where it grabs the fiber.

PROTECT THE DIAMOND BLADE

The diamond blade is very strong when it is oriented in a perpendicular direction to the fiber contact. Take care with several steps in the termination process which, if performed incorrectly, can change this orientation and ruin the diamond blade.

- **Crimping step(s):** if a connector is not crimped properly, the fiber may move with respect to the connector and drag longitudinally along the blade when tension is applied.
- **Connector seating step:** If the connector is not fully seated when the gripper pads attempt to apply tension to the glass optical fiber, the cleave tool will first force the connector to fully seat, but this will cause the fiber to drag longitudinally, as well.
- Trigger actuation step: The slow actuation of the trigger and subsequent removal of the scrap fiber before trigger release are critical. In order for the diamond blade to do its job as a flaw initiator, the tool operator must depress the trigger slowly. Depressing the trigger too quickly will crash the diamond into the glass fiber and may brake the blade. Removing scrap fiber before releasing the trigger, allows the blade to return to its correct position without danger of contacting the scrap fiber at an angle off perpendicular.

Cleave Tool Cleaning Kit Instructions

OFS P/N #P16247

- 1 Moisten swab with the cleaning solution by spraying once at the head of swab.
 - To clean the diamond blade, use a cleaning solution moistened swab as shown.



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To clean the gripper pads, use a cleaning solution moistened swab. Rotate the moistened swab in between the gripper pads as shown. Dry the gripper pads by repeating the process with a dry swab.





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