

# The Proper Method to Clean APC Fiber Optic Connectors

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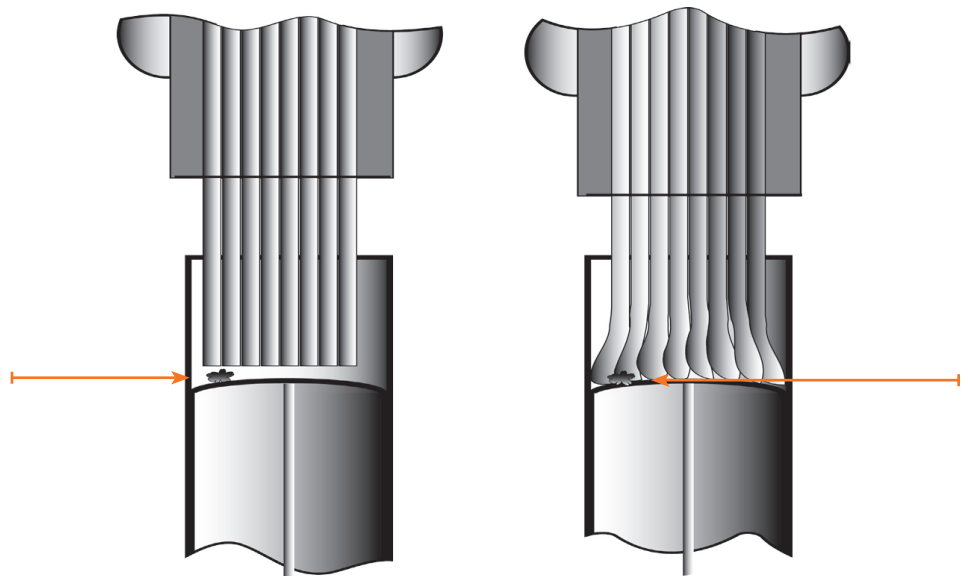
MicroCare Resources

This brief technical note explains the optimal technique for cleaning angled polished connectors, also known as APC fiber optic connectors.

Proper cleaning of APC fiber optic connectors in any environment can be difficult. In order to clean an APC connector the cleaner must be aligned at the 8° angle to ensure contact is made with the end-face. Or the material on the cleaner must be capable of conforming to the 8° angle of the end-face.

Automated port cleaning devices have a problem cleaning APC because they do not clean the entire end-face. Automated port cleaners (gun style, stick and click, push-to-clean or push button) have “floss” like material that wipes the end-face. They do wipe the center of the connector end-face including the contact area for a UPC (Ultra Physical Contact) polished connector. But they do not clean the entire connector end-face of an APC or UPC connector. This may result in contamination migrating to the core area.

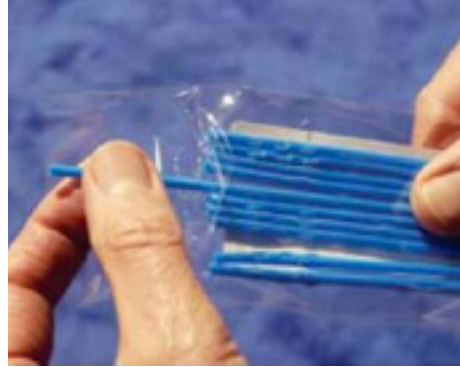
Most cleaning sticks consist of a fabric wrapped around a stick. Others consist of foam material attached to a stick (typically foam sticks, unless the foam is specially treated, is not considered an appropriate material for cleaning fiber optics components. Open cell foam by its nature is not clean enough for these types of optical applications). Sticklers™ patented fiber optic cleaning sticks have a fibrous molded cleaning head that cleans the entire connector end-face and conforms to the various polishing geometries including APC. The fibrous structure conforms to the geometry of a UPC polish and entraps particulate matter in its structure. The cleaning head also conforms to the 8° angle of an APC polish connector cleaning the entire end-face.



*This diagram shows how the fibrous structure conforms to the geometry of a UPC polish and entraps particulate matter in its structure. The cleaning head will also conform to the 8° angle of an APC polish connector cleaning the entire end-face.*



Below are step by step instructions for cleaning an APC connector within an alignment sleeve:



1) Remove a CleanStixx™ from the package.



2) Reseal the package to prevent re-contamination of remaining sticks.



3) Dampen (do not saturate) the end of the CleanStixx™ with Sticklers™ Fiber Optic Splice & Connector Cleaner.



4) Insert the stick into the alignment sleeve and rotate the stick 1/4 turn back and forth about 6 times varying the pressure (enough pressure should be intermittently exerted on the stick so that the user can feel some “give” in the spring behind the ferrule – this will assure good cleaning of the entire end-face).

5) Properly dispose of cleaning stick.

**About the Author:**

Harvey Stone, retired Sticklers Product Manager, worked nearly 20 years as a fiber optic product manager, project manager and telecommunications network specialist. Harvey holds a BA in physics from Bridgewater State College and spent a portion of his career as a math and science teacher. For more information, visit [www.microcare.com](http://www.microcare.com).



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