

# ITW CHEMTRONICS® Application Sheet

APS # QbE-FO

## Cleaning End Faces with the QbE® Cleaning System

### The Need For Cleaning

The need to clean the end face of fiber optic connections is well documented. Signal loss is directly related to soiled end faces. Cleaning the end face has been a topic of controversy. While some contend that a dry cleaning process is the best method, there are practical issues of removing dust and other contaminants that cannot be easily achieved with a "dry" technique. Excessive scrubbing of a dusty end face can result in scratches that increase reflectance, ultimately requiring additional polishing, or jumper replacement.

Choosing the right cleaning solution is slightly more complex than simply using isopropyl alcohol (also known as IPA). IPA, especially in highest purities, is hygroscopic (absorbs moisture from the air). Ambient moisture attracted to IPA can attach to the connector end face. The drying procedures for residual alcohol, and ultimately residual moisture, are difficult at best. IPA does not adequately clean some non-ionic contaminants and can leave a thin layer of surface residue. Since isopropyl alcohol is relatively slow to dry, it can attract more airborne contamination leaving the surface more contaminated than before cleaning. Using excessive amounts of isopropyl alcohol can contribute to signal loss and "haloing", which is believed to be residual alcohol and moisture contamination from inefficiently dried connectors.

### The Better Way

The ITW Chemtronics Fiber Optic Cleaning Process™ begins with an optical inspection of the surface to be cleaned. Light soils can be safely removed using the QbE® Cleaning System. Dust, air borne particles and other contaminants such as handling soils, grease or buffer gel from handling, are most safely removed using the combination of ElectroWash® PX Fiber Optic Cleaner and the QbE®. In those instances where optical inspection is not possible, the best practice method is to clean the end face with ElectroWash® PX. This assures that statically charged dust particles and complex soils are safely removed.

### **How to Clean the End Face:**

- Pull one QbE® Wipe over the Fiber-Safe™ neoprene platen
- Hold the end face at 90 degrees perpendicular to the platen
- Draw the end face lightly over the platen in a smooth linear motion
- Do not press too hard: Do not retrace your cleaning procedure in the same area.
- Do not use a figure-eight motion; do not use a "twist & turn" motion
- Check your work with a fiber scope or measuring device

### **If using a wet cleaning solution is necessary:**

- Lightly "spot" the QbE® wiper with Electro-Wash PX Fiber Optic Cleaner (ES810)
- Draw the end face from the solvent wetted area to the dry area
- Check your work with a fiberscope or measuring device.

### **Availability**

**Electro-Wash® PX Fiber Optic Cleaner**  
ES810      5 oz. aerosol

**QbE® Cleaning System**  
QbE®      200 wipe cleaning platform

**MANUFACTURED BY:**  
ITW CHEMTRONICS INC.  
8125 COBB CENTER DRIVE  
KENNESAW, GA 30152  
1-800-645-5244 / 770-424-4888  
[www.chemtronics.com](http://www.chemtronics.com)  
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**TECHNICAL HOT LINE 1-800-TECH-401**