

Centex

Technology, Innovation and Solutions

Råd for rens av fiber

Centex Knutsen Norge AS

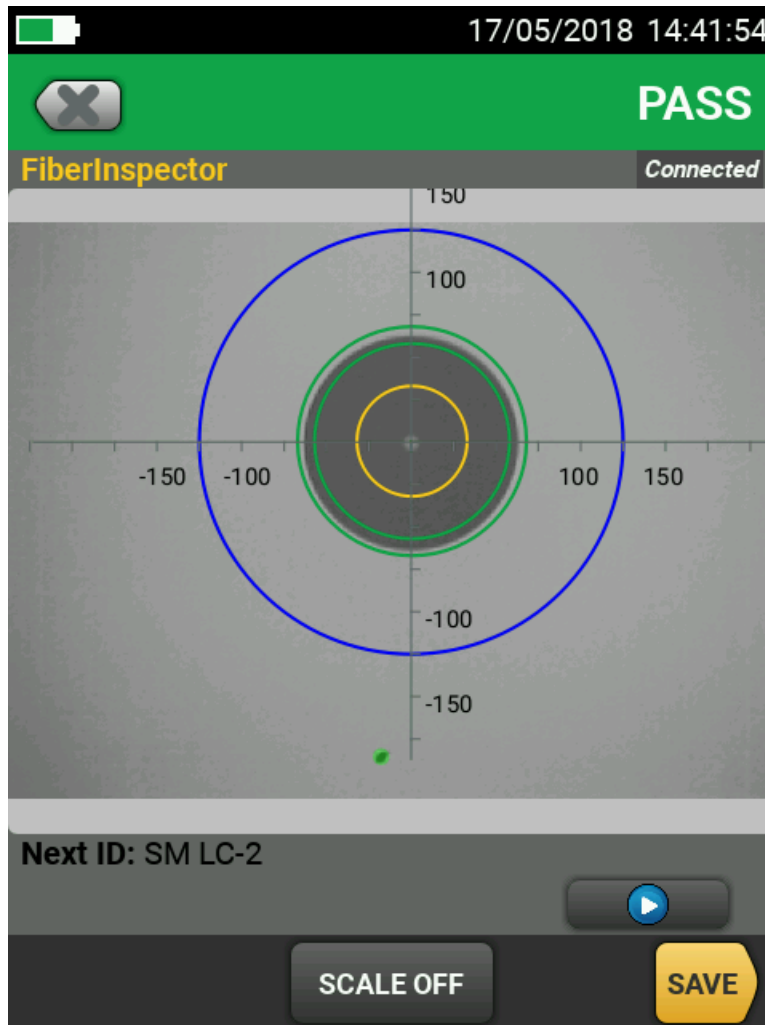
Tilbud@centex.no

Cleaning a Fibre Optic Solution



Before any testing of a Fibre Optic Solution can commence, there are up to 3 steps that need to be completed.

- **Step 1** – Inspect the Fibre Connectors for damage, dirt or any other foreign residue that will impact the through put of the signal.
 - ✓ This inspection is completed using a Video Scope.
 - ✓ Ensure you have the correct adaptor for the connector type (SC, LC, MPO/MTP®).
 - ✓ Best practice is to use a Video Scope with the capacity to analyse the connector.
 - This should also create a report you can add to your records.
 - ✓ If the inspection shows a clean connector, **DO NOT CLEAN**, connect the Fibre as required for testing.
 - Cleaning a clean connector could introduce dirt.
 - ✓ Below is a sample test report using the Fluke Networks® FiberInspector™ Video Scope connected to a DSX-5000 tester.



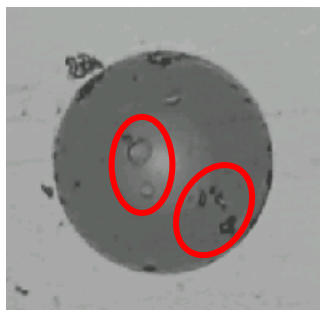
Cleaning a Fibre Optic Solution



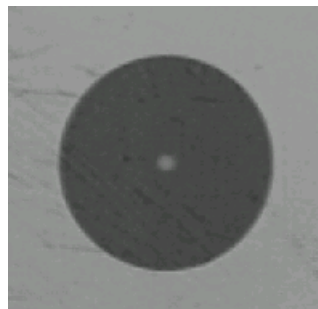
Step 2 is only required if Step 1 identifies a failed or dirty connector, for any reason, during inspection.

➤ **Step 2** – Clean the Fibre connector if it is found to be dirty or has any other foreign residue on it.

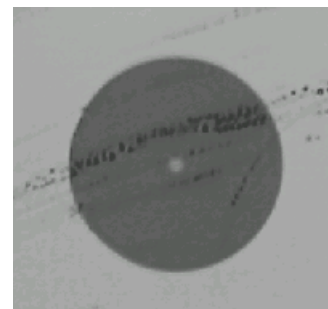
- ✓ If the connector is chipped or cracked, the connector must be replaced.
- ✓ Below are samples of inspected connectors.



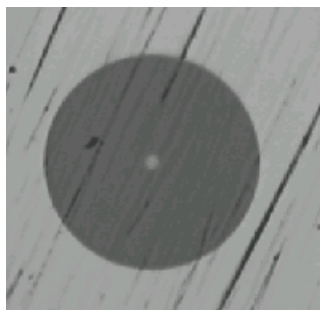
Chips are present on the end face of the connector



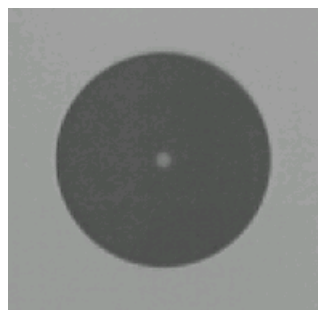
Residue left from cleaning with Alcohol



Residue left after touching the connector end face



Residue left from wiping on a shirt



Clean connector

- ✓ Cleaning the Fibre connector can be undertaken in a number of ways.
- ✓ Following are examples of the 3 main methods for cleaning Fibre connectors that **molex**[®] recommends.
 - Method 3 is the preferred method unless a deep clean is required.

Cleaning a Fibre Optic Solution



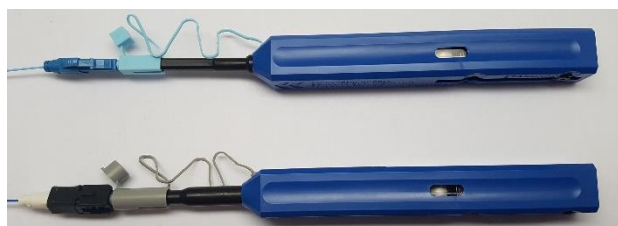
- **Method 1** – The first method is a wet clean. This is a good method to remove dry residue or stubborn dirt. Beware this method may leave a film behind which would require a second clean with an alternative method. This method of cleaning can be completed as follows:



Using a pre-packaged Alcohol wipe

Using a lint-free wipe which is dampened with Alcohol

- **Method 2** – The second method is a dry wipe using a lint-free wipe. This is good to remove residue and light dirt.
- **Method 3** – The third method is a dry clean similar to method 2 utilizing a cleaning tool sometimes called a 'One Click' cleaner. This is the preferred cleaning method by **molex**® for the following reasons:
 - ✓ Tools are available in a variety of configurations, SC; LC; MPO/MTP®
 - ✓ Adaptors on the tip retain the connector for cleaning
 - ✓ Removal of the adaptor allows cleaning of Fibre ports or connectors in a through adaptor installed in a Fibre tray.
 - Enabling the cleaning of installed connectors reduces the risk of damage to the Fibre and connector with opening the tray for cleaning.
 - ✓ Below are examples of the cleaning tools for SC and LC connectors.
 - These are suitable for cleaning the Angle Polished Connector (APC) version of SC and LC connectors.



Cleaning tools with connectors located in the tip adaptor for cleaning

molex® part numbers for the cleaners are
SC Connector cleaner AFR-00429
LC Connector cleaner AFR-00428



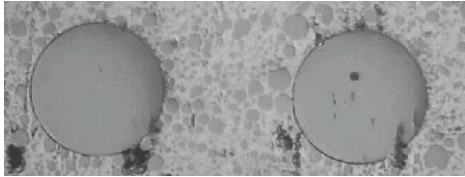
Cleaning tools with adaptor removed and the tip in a through adaptor for cleaning internal connector or a Fibre port requiring cleaning

Cleaning a Fibre Optic Solution

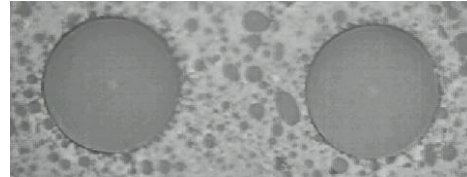


➤ Method 3 – Continued for the cleaning of MPO/MTP® connectors

- ✓ As previously mentioned, any chipped or cracked connectors must be replaced.
- ✓ Below are samples of inspected MPO/MTP® connectors.



Dirty MPO/MTP® connector



Clean MPO/MTP® connector

- ✓ Due to the width of the MPO/MTP® connector, the cleaning process is a more pronounced ‘wipe’ of the connector.
- ✓ If a wet clean is required, the wiping cloth in the tip could be moistened with Alcohol then insert the connector for a wet clean.
 - Then you may need to do a standard dry clean to remove any residue.



Cleaning tool with connector located in the tip adaptor for cleaning

molex® part number for the cleaner is
MPO/MTP® Connector cleaner AFR-00427

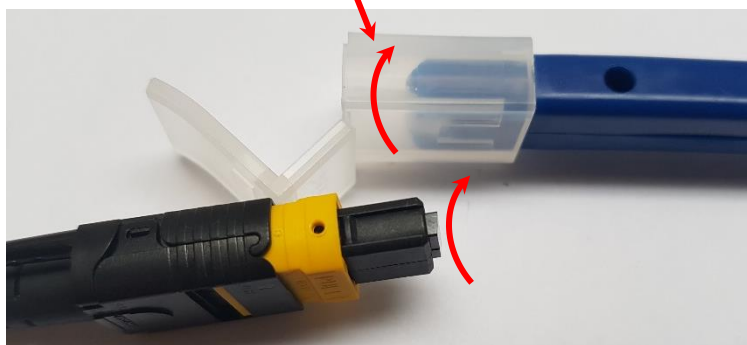


Cleaning tool with adaptor removed and the tip in a through adaptor for cleaning internal connector or a Fibre port requiring cleaning

Cleaning a Fibre Optic Solution



- ✓ **molex**[®] uses MPO/MTP[®] APC connectors as standard which requires additional considerations when cleaning.
- ✓ Note the directional arrow on the cleaner body which indicates the direction of operation for cleaning the connector.
 - Also note the resulting direction of rotation of the cleaning tip as shown.
- ✓ As the face of the APC connector is angled, it is important to clean in the correct direction as shown below.



- ✓ To ensure correct cleaning, our cleaner and adaptor are keyed for correct alignment as shown below.
 - This may not be the case with all MPO/MTP[®] cleaners.



➤ **Step 3** – Re-inspect the Fibre connectors that have been cleaned, and repeat cleaning if required, until connector is clean.

➤ **Now you can conduct the testing of the Fibre Optic Solution.**