

## **Removal of tin deposits from plunger tips**

### **Cleaning during manufacturing process:**

An ultrasonic cleaner is used; probes are placed in an alcohol solution in a beaker. The beaker is then placed in an ultrasonic bath for a period of 10 to 30 minutes.

### **Tin contamination removal:**

#### **Option1 – AQL Cleaning plate and Ultrasonic brush:**

Place an AQL cleaning plate on the probe block and brush the probe tips with a standard, or preferably, ultrasonic toothbrush.

#### **Option2 - Acid Solution Process:**

In an application where deposits of tin are adhering to the plunger tips we suggest the use of a 'mild ' nitric acid. The gold plate on the probe is inert and will not react to the acid. Tin is a soft material and will transfer to the probes under most circumstances, but should be removed by the nitric acid.

Place the probes in a mild nitric acid solution in a beaker, then place the beaker in the ultrasonic.

The Micron probes are cleaned using a commercial grade ultrasonic cleaner. These machines use a piezoelectric crystal to agitate the cleaning solution.

### **Further data:**

Experimentation with nitric acid baths is currently being conducted further data on this cleaning process should be available soon. Every effort is made to accurately reproduce a contamination of tin deposits on the plunger tips of the Micron probes. It is however unlikely that we can reproduce the exact material that is being deposited under a production test environment at a customer location. Should it be necessary, customers can identify and supply a sample of the tin material being used at their facility.