Daily ALSPEK H Maintenance

1. Probe Cleaning Procedure

a) Immediately after removing the probe from the melt, when the probe is still red hot, gently unscrew sensor one turn using metal grips. Sensor does not need to be removed completely; loosening prevents sticking of sensor threads

b) Allow probe to cool to room temperature then fully unscrew the sensor

c) Use pliers to remove any loose aluminium from the tip of the probe

d) Clean the ceramic threads using a wire brush

e) Abrade the silicon ceramic threads using a strip of 120 grit silicon carbide paper

f) Remove dust by blowing ceramic threads

g) Gently abrade the thermocouple tip using 400 grit silicon carbide paper. This is to remove the thin oxide layer on the end of the thermocouple. Please minimise abrasion of thermocouple tip. Excessive abrasion will damage thermocouple.

h) Inspect the ceramic insulator. If the end is black or discoloured then replace the ceramic insulator

i) Now test probe according to "Probe Testing Procedure"

2. Probe Testing Procedure

a) Connect probe to ALSPEK H analyser

b) Navigate to "Diagnostics" screen

c) Screw black "short circuit" cap onto probe

d) Ensure that the "Impedance" reading is less than 0.10 k ohms. If not then repeat cleaning procedure

e) Screw white "open circuit" cap onto probe

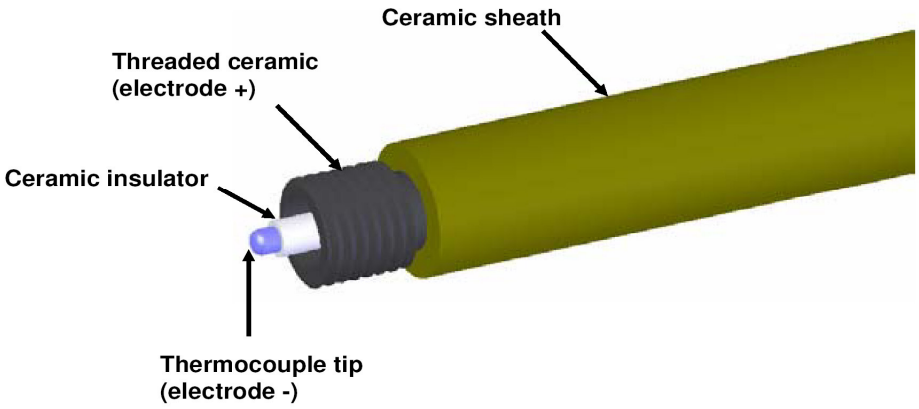
f) Ensure that the "Impedance" reading is greater then 48.0 k ohms. If not then replace ceramic insulator

g) Remove "open circuit" cap

h) Blow out any loose debris from sensor cap and re-fit sensor onto probe

i) The probe is now ready for use

Note: If problems persist after completing this maintenance procedure then replace sensor



Warning

Do not leave sensor exposed to ambient humidity for longer than 12h. If sensor will not be used for a long period of time then remove sensor from probe and store in a sealed plastic bag containing desiccant.