

However, over or under dosing of a buffered fountain solution can cause certain problems, two of which are:

- i) Under-dosing – sensitive plates or insufficient desensitisation.
- ii) Overdosing – poor ink/water emulsion stability which can lead to excessive ink pull back into the damping system.

Conductivity

This therefore gives rise to the need for conductivity to be used as an accurate way of measuring the strength of the fountain solution.

Conductivity operates by measuring the ease with which an electric current is conducted through a solution. Some of the

current is carried by constituents of the fountain solution, hence the readings obtained relate to the number of these constituents available to carry the current. The higher the concentration of these constituents, the higher the conductivity.

Conductivity alone gives no indication of the performance of a damping solution. It is not a measure of surface tension, wettability, desensitising ability or any other characteristic. Each fountain solution additive will create its own conductivity reading depending on, and varying with, the working concentration.

Therefore, by knowing the relationship of conductivity versus concentration for a particular fountain additive, the concentration can be monitored and controlled accurately.

