

Best Practice – Trouble Shooting Fountain Solutions

1. Scope

This guide covers the interpretation, control and correction of fountain solution conditions for lithographic printing under optimised conditions.

This guide should be read in conjunction with the document **Best Practice - Fountain Solution Auditing**.

2. Optimisation of fountain solution conditions

The pH and conductivity measures for the fountain solution in the circulation system should be compared to the table/graph of results for the calibration mixture made as described in the document **Best Practice - Fountain Solution Auditing**.

The conductivity value in particular can be used to estimate the quantity of additive present and this should correspond to the quantity being dosed into the system.

If the values in the mixture in the circulation system do not :

- a) correspond to a normal temperature,
- b) correspond to a normal level of IPA for the additive type used,
- c) correspond to a normal level of fount additive (2-4)%,
- d) correspond to a normal level of pH or conductivity,
- e) give a level of pH and conductivity that correspond well to the calibration mixture at the prescribed additive dosing level within the limits described above,

the actions described in the following sections should be taken.

Temperature in the fount duct high

→ Increase the flow in the fount duct

Warning: By increasing the inflow you also have to increase the suction that takes fountain solution out of the fount duct (dependent on machine). If not a massive overflow could be created.

IPA unmonitored and very high (over 20 %)

→ Renew fountain solution at a level agreed with the customer (normal 10%, maximum 15%).

pH OK / Conductivity high

Fountain solution additive is overdosed

→ decrease dosing of fountain solution additive

→ **Renewing the fount is the best way to obtain a correct fountain solution**

Fountain Solution is too dirty

→ **Renew fount**

pH OK / Conductivity low

Too low dosing of fountain solution additive

→ Increase dosing of additive

→ If doser setting is accurate check pressure on doser. All common dosers require at least a pressure of 2 bar.

→ **Renewing the fount is the safest way to get a proper fountain solution**

The above information is given to the best of our knowledge but without liability to assist you in determining possible applications of our products. Since applications and conditions of use are beyond our control, we can assume no responsibility in connection with any use, whether the use is in accord with suggestions contained herein or not.

Best Practice

IPA is overdosed (may also be evident by smell)

- check IPA dosing
- decrease IPA dosing

→ **Renewing the fount is the safest way to get a proper fountain solution**

pH High / Conductivity low

To low dosing of Fountain Solution Additive

- Increase dosing of Additive
- If doser setting is accurate check pressure on doser. All common dosers require at least a pressure of 2 bar.

→ **Renewing the fount is the safest way to get a proper fountain solution**

Water is very soft or reverse osmosis water (with insufficient re-hardening) is used

- check water quality and re-harden with a suitable additive if necessary
- check fount additive is adapted for water conditions

pH High / Conductivity high

The fountain solution is depleted and usually the fount is very dirty.

→ **Renew fount**

Water is very hard

- check water quality and recommend water treatment (eg reverse osmosis) where necessary
- check fount additive is adapted for water conditions

pH low / Conductivity high

Fountain solution additive is overdosed

- decrease dosing of fountain solution additive
- if doser setting is accurate check the pressure on doser. All common dosers require at least a pressure of 2 bar.
- **Renewing the fount is the safest way to get a proper fountain solution.**