



***FOUNTAIN SOLUTION RECIRCULATION SYSTEM MAINTENANCE  
CAUSE, EFFECT & SOME RECOMMENDATIONS***

**Spray Powder:** Spray Powder gets into everything as it gets air-born and lands almost every where through out the pressroom. When the fountain solution recirculation system is left open, spray powder builds up in the system itself causing a mottle look to an otherwise clear looking fountain solution. It will eventually clog some lines. Spray powder is meant to be used on the printed sheet to maintain spacing, not in the fountain solution.

**Ink:** As ink breaks down (emulsifies), varnishes, solvents, pigments, cobalt and manganese driers leach out into the fountain solution and change the fountain solutions benefits. As well, some inks may have calcium's in them, causing a radical pH and conductivity drift. When this happens we usually see the color of the fountain solution water is starting to become the same shade of ink being used.

**Paper Coating, Lint & Paper Dust:** The fountain solutions and second step alcohol replacements used contain a blend of solvents and surfactants (wetting agents) which allow more water to be absorbed into the paper. This causes paper lint, coating and calcium's to deposit into the fountain solution and through-out the entire recirculation system. The deposits reach the fountain pans and return lines as well as building up in the tank itself. pH drift and conductivity spikes are a direct result. These materials can neutralize the positive benefits of fountain solution. This can be seen in the recirculation system in the form of a milky white material lying in the fountain pans, return lines, filters and the water will take dirty milky appearance. A build up of these paper coatings, paper lint, and calcium's will shorten the life of fountain solution.

**Solvents:** Metering roller cleaners and roller washes can drip into the fountain solution and recirculate throughout the entire fountain solution recirculation system. Roller wash may be alkaline or contain wetting agents and therefore weaken the fountain solution causing scumming or cause a loss of water balance.

*WORLDWIDE MANUFACTURING & TECHNICAL SUPPORT*

**ALLIED PRESSROOM PRODUCTS**

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## ALLIED RECOMMENDATIONS

- 1.) To ensure long term maintenance of the fountain solution recirculation system, place an **Allied Muck Trapper** Fount Filter into the recirculation tank. **Allied Muck Trapper** is a patent pending dual gradient filter. At 4"X 9", it is designed to last months wicking up emulsified inks, trapping both tiny and larger contaminates with-in the walls.
- 2.) Once a month do a "quick" cleaning of the entire fountain solution recirculation system by adding **Allied Powder Systems Kleener** ( PATENT No. 6,631,682 m) directly to the dirty fountain tank water and allow to recirculate for 20-30 minutes . This cleans out the entire fountain solution recirculation system including; fountain tanks, fountain pans and the recirculation return lines. It also shocks and re acidifies the fount system. Removes problems before the occur.
- 3.) While the fount solution recirculation system is being cleaned as in #2 above, wash up ink rollers so they are ink free. Apply **Allied Relief** to remove all the calcium and surfactant build up.  
Once calcium are in the rollers, the rollers act as a mill and grind them further into the rollers, causing hardening of the rollers until the calcium's are removed.  
Surfactant's, once built up with-in the rollers, get squeezed out a little at a time, attaching to the plate image and attracting water , not ink to the image(blinding). Surfactant build up with-in the roller system can cause ink to over emulsify.
- 4.) Consider using **Allied Spray Powder Pouch** with Dispensing Spout eliminate or reduce airborne powder from getting onto rollers, blankets and in recirculation system

*More detailed information on the above is available. Contact Allied or your local Allied Supplier.*

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