

## Spin Disc Filtration

### General

As drycleaners explore new cleaning machine options and ways of reducing hazardous waste, we are frequently asked our opinion of spin disc filters. As you know, we do not manufacture or sell filters or cartridges and, as a matter of policy, make no specific recommendations as to manufacturer. The Fabritec system works well with any filtration method, as long as recommended procedures are followed.

While the spin disc filter is not new to our industry, the concept of operating such a filter without powder utilizing 30-40 micron discs is a more recent development. This unit presents two important advantages. First, since there are no additives, the filter itself does not contribute to hazardous waste. Secondly, the operator is not exposed to solvent vapors during regular filter maintenance.

Spin disc filter tests show little difference in performance between filters using the recommended amount of powder and powderless units. Overall results in these tests, using charge detergent, were generally poorer than the results of tests using Fabritec detergents.

Our own studies combined with the experiences of several licensees using these filters, have resulted in the following conclusions.

- 1) Excellent cleaning results can be obtained with spin disc filtration, with or without powder, using Fabritec detergent and the two bath counter current procedure.
- 2) There is no detectable difference in cleaning performance between those using powder and no-powder units. Thus, the advantage of the powderless units are made more attractive.
- 3) A minimum of 3 minutes milling following the detergent injection is mandatory before switching the unit to filtration.
- 4) All-carbon after filters are generally ineffective. The high distillation rate of the counter current process will maintain excellent solvent color.
- 5) It appears that powderless filters will need to be spun every 20-30 loads. This is an automated procedure, takes about 20 minutes and should present no production problems.
- 6) If properly maintained, major overhaul requiring disassembly, cleaning, disc replacement, etc., does not appear to be a frequent chore. We know of units in service 3 - 4 years without major service, that are still operating well.

A couple of points, learned from our experience in the field, are reported here.

- 1) Make sure the filter did, in fact, drain to the still. Depending on the pipe size, number of bends, etc., some filters drain without fail and some are prone to plugging up occasionally. It is especially important to monitor the draining when the spin cycle is run automatically by the card or microprocessor.
- 2) Never allow a filter to drain into a still that is above 175°F residue temp. This is to prevent fumes from entering the filter and damaging the discs.

In conclusion, it is our opinion that spin disc filters are a viable and, in some cases, desirable option to cartridge filters on today's machines employing Fabritec products and the 2 bath counter current system. Cartridge filtration will continue to be attractive to plants which have older equipment and/or limited distillation capacity. As environmental considerations become more stringent and costly, we would expect the powderless units to become increasingly popular.