

Tecnorama: Quality first for automatic dispensing of liquid and solid dyestuffs and chemicals

Tecnorama develops and produces machinery for automatic dispensing of liquid and solid dyestuffs and chemicals for laboratory and bulk production - automatic dissolving system with automatic delivery to the different users - full automations of laboratories and small production by the combination between automatic dispensing machines with special robotized dyeing machines able to dye yarn, flock, fabric, knitwear textile materials.

In the textile sector, production capacity is over the effective demand of the market, while competition is growing. Many companies decided to face the crisis by delocalizing their production in countries with very low labour cost without restrictions of trade unions and/or of environmental legislations.

This strategy is no longer sufficient and the textile companies have understood that the survival in the global market is possible only by investing in quality and developing reliable and extremely efficient means and services both for the final product and for the production process. Investments are now primarily focused on those machineries and devices that allow improved quality and the corresponding savings in the entire production process.

Tecnorama, always sensitive to quality and productivity issues, conceived, planned and realized a significant number of equipments, to increase the quality level for both laboratory and production dyeing. The added value offered by Tecnorama is, beyond innovation of proposed solutions and encompasses the overall assistance and other services that clients can benefit in a fast and reliable way.

Technical staff of Tecnorama works in different cultural contexts, is highly specialized in helping the client from installation to training and offers economic solutions to eventual future needs. Those companies, who buy Tecnorama machines can rely on complete, professional and reliable assistance and service. Moreover, quality materials are continuously tested and compared with new technologies in order to offer the client the technologically superior machines for any dyeing process.

The R&D department of Tecnorama followed year after year evolution of the spectrometric analysis of the dye-bath and its applied technologies working in transmittance, i.e. equipment that analyse the spectrum of absorbed light of a dye in a coloured solution (absorbance). This analysis is essential for studying and optimizing dyeing processes and controlling principal qualitative characteristics, such as:

- ❖ The uniformity of dyeing.
- ❖ The reproducibility of dyeing.
- ❖ The compatibility of dyestuffs.
- ❖ Control of the degree of absorption of single dyestuffs.
- ❖ Optimization of the duration of processes.
- ❖ Energy savings.
- ❖ Water consumption (very important in particular during the dyeing processes with reactive dyestuffs).
- ❖ Optimization and savings by using auxiliary and chemical products.

These are just some examples of how the expert dyer can intervene in the dyeing processes, when he has obtained information from an analytical tool of this kind.

Equipments using transmittance technology should acquire information from the spectro-photometer - the shades of single dye solutions prepared at different concentrations obtaining correct information on chromatic properties. On the basis of this information, it may use algorithms and give correct analytical findings on the presence and concentration of dyestuffs.

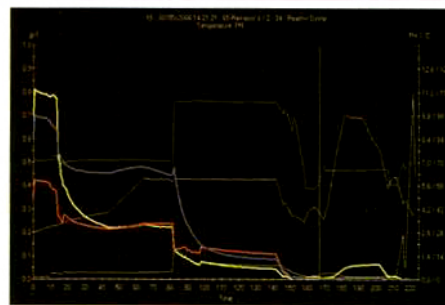
The Spectrody® is an innovative, original and highly accurate system developed by Tecnorama to analyse in transmittance, using an optical device, dye in solutions or dispersed dyes. This analytical tool can measure continuously and in real time, the presence of one or more dyestuffs in a liquid, recording the relative single concentrations present during each reading operation.

The Spectrody® can successfully be used in the laboratory dyeing machines (DOS&DYE Spectrody®) and in the bulk production (Spectrody® System). In both cases machines equipped with this system become "smart", i.e. they can save and provide all the information needed to have an in-depth knowledge of all technical aspects of the dyeing cycle and of the changes that occur inside the machine, in real time and with the utmost precision.

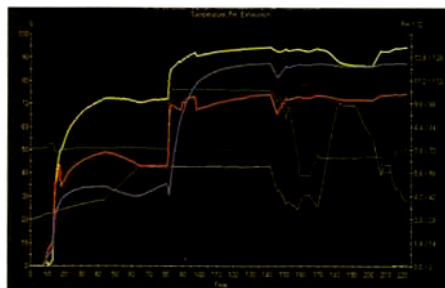
The Spectrody® system can be used to obtain a complete and true picture of what is happening during the entire dyeing cycle, step by step, e.g. the checking of the amounts of dyestuffs present in the bath at the start of the cycle, pH value, temperature and the exhaustion of single dyestuffs during the process conditions change, and finally the checking of amounts that are discharged during the various washing phases.

Simple comparative controls can also be performed, checking the yield of different batches of single dyestuffs and their dyeing compatibility, thus improving the quality of procurements and avoiding waste and errors. In other words, greater economic choice and a correct appraisal of dyestuffs on the market, without the risk of imprudent purchases besides time and resources savings and excellent process reproducibility.

Courtesy: Tecnorama. ♦



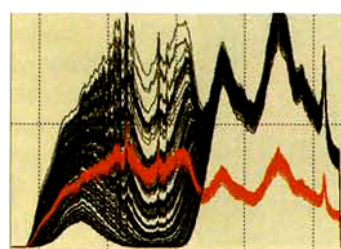
Concentration.



Exhaustion.



Spectrody®.



Calibration.