

# Automated Jet Dyeing

Tecnorama says its new DOS&DYE JETFLOW is a completely automated system, devised to carry out the dyeing of small lots of knitwear or fabrics. It claims this is the first system really capable of executing multiple-dye programmes in an automatic sequence, using jet/overflow machines, without requiring any manual intervention.

To obtain this result, it has been necessary to conceive a new dyeing machine that allows a rapid and automatic loading/unloading of the fabric from the dyeing machine. Tecnorama has patented its solution, which requires the pressurised jetflow dyeing machine to be equipped with a special removable basket, in which the fabric has already been placed. This basket is devised to be easily replaceable in the dyeing machine, using a robotised system.

The dyeing autoclave is

devised in such a way that, when the machine is open, it can receive a basket or permit its removal, and when the machine is closed it acts as a normal pressurised machine. A 'park', situated close to the dyeing machines, is used to house the baskets containing materials to be processed, as well as materials already dyed.

During the parking phase the fabric materials are manually loaded and unloaded to and from the baskets, while the dyeing machines can continue to work.

The DOS&DYE JETFLOW system consists of the DYERAMA JETFLOW, used in combination with systems for the automated dispensing of dyestuffs and chemicals, both solid and liquid, which are capable of automatically sending the various products and dyestuffs in the right amounts and in the real time required by the various programmes in execution in each dyeing machine. Tecnorama says



the system can work with complete autonomy for many hours, without requiring the intervention of any operator. It can be used and managed in such a way that, using a single daily work shift, the system can operate 24 hours a day, seven days a week, including weekends and bank holidays.

The entire system is managed by a PC, running software developed Tecnorama, which claims it resolves the problems that have arisen with the growing demand for ever smaller lots, repeated over short intervals of

time, and for ever quicker deliveries.

This has become impossible and extremely costly using traditional manual systems, where the use of plants reaches, in most cases, only 30-40% of their productive potentiality. "With the DOS&DYE® JETFLOW we have finally bridged a gap in a sector, that of fabric and knitwear dyeing, where no one had previously succeeded in completely automating the entire work cycle, including dyeing machine loading and unloading operations," says the company.