Well prepared into the future

by

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As times are rough in the textile industry, economic efficiency and quality are the factors that need to be continuously improved to maintain chances in the market also in the future. A starting-point is the automation of the chemical and auxiliaries supply.

Incorrect quantities or product selection errors are common causes for failures in textile dyeing. Delayed preparation of dyes and chemicals unnecessarily extend process times. Some projects have been realised in the past to improve this situation.

It is a matter of concern as only part solutions often did not solve the complex problem area. Additionally, communication problems may arise when connecting controllers and in the exchange of data between the different systems.

Using a unique system that covers the liquid chemicals supply, supply of solids as well as the automatic dissolving and supply of dyes together with a common overhead controller system and data structure, the dyer is well prepared for the future.

The MPS system (multi product supply) of Thies serves all these areas and offers a unique control system ranging from the machine controller to the overhead system for the co-ordination of all processes in a dyehouse.

With the MPS-L system (liquids) all liquid chemicals that are commonly used in a dyehouse can automatically be transferred in controlled quantities to a defined destination. Due to its modular structure the MPS-L system can be adjusted in steps of ten as required. The circumstances on site can easily be considered for the installation of the modules. The automated system is usefully supplemented with a manual function.

The chemical quantities are volumetric measured. A high quality pump is installed to transfer also chemicals with higher viscosity. The delivered products are pumped through an individual distribution pipe to their destination.

High precision and reproducibility have a positive effect on the dyeing result. The product specific adjustment allows the accurate transfer of chemicals that are difficult to handle.

The MPS-D (dissolving) is mainly used for the dissolving of dyestuffs. The dyestuff, which has been poured into a weighing facility, will be automatically dissolved, (programme controlled) and is transported to the dyeing machine. The process is absolutely dust-free within a sealed system. Dissolving temperature, time and the water quantity are dependent on the type and quantity of dyestuff. The MPS-D system is available in a line of tank sizes from 100 to 600 litres. The minimum quantity possible for a system is approx. 1/10 of the tank volume. This enables an optimum adjustment to various dyeing machine sizes. The MPS-D system can be completed with a warm water preparation, saving process times for heating and, as it incorporates its own pressure pump, delivering the water pressure required for cleaning.
Using the MPS-S system (solids), solids such as salt, hydro, soda ash, etc. usually used in a dye house, can automatically be transported to each dyeing machine. In basic execution the system consists of a solids storage rank, discharge device, weighing and mixing tank and distribution line to the dyeing machine. The design will be tailor made for each customer and depends on the consumption and the size of packing units. The filling of the solids storage tanks can be designed either for filling from sacks, big-bag or direct blow-in from a silo truck. To ensure that the solids remain dry and pourable, special protection is provided ensuring that any moisture ingress is impossible. A scale in the weighing and mixing tank records the solids quantity. Here the solids are mixed with a minimum quantity of water and pumped to the dyeing machine. Liquor returned from the dyeing machine can be used to minimise an increase of the liquor ratio.

The MPS Product Family from Thies GmbH & Co. offers an all-round solution for the automatic service with chemicals and auxiliaries in a dye house. Together with the controller system it builds a homogenous unit for the entire dyeing field.

Advantages

Time saving:
- No waiting times by avoiding delays for preparation.
- Less correction shading required due to accuracy and reproducibility.

Cost saving
- Purchase of bulk production quantities (big-bag, silo truck).
- No personnel required for filling and transport.

Quality improvement
- No product handling errors
- No false or surplus quantities
- Precision and reproducibility

Environmental protection and work safety
- No mispouring
- No handling by operators required
- No physical contact with the products

This system, which is prepared for the future, considerably increases the productivity and quality within a dye house. Hopefully developments in the chemicals and auxiliaries production will be intensified to design even better automated products. With a lower range of the physical product properties, supply systems could be even more efficient.

NEWS

WOOL FOR NONWOVENS

The Australian Wool Development organisation Australian Wool Innovation has launched a $6 m three year R&D project aimed at developing new nonwoven fabrics made from wool. The concept is an attempt to create new fabrics for: ‘surfwear, sportswear, protective apparel and interior textiles.’ The project will be under the control of the Wool Research Organisation of New Zealand which envisages developing at least four new fabrics every year of which at least one will be commercialised. Nonwovens, it is noted, is the fastest growing area of the textile industry and last in the past decade expanded at a rate of 10% per annum.

MARKET MOVEMENTS

A global fibre consulting service has been created in the United States by Chemical Market Associates Inc. It is styled The Global Fibers & Feedstocks Consulting Service and in addition to advising on various aspects of the synthetic fibre market it also offers monthly study of prices and market information in the United States, West Europe and the Far East. All major man-made fibres are included by the organisation and a copy of the first report is available through the web from: www.cmaiglobal.com.

ALPARGATAS BANKRUPT

The largest denim manufacturer in Argentina, Alpargatas, is the latest victim of that country’s financial crisis. The company has filed for bankruptcy protection from its creditors.

ENTER DIANIX

The DyStar range of disperse dyestuffs will in future be marketed under the brand name Dianix. This will apply to about 200 products and will embrace the former BASF Dispersol and Palanil dyes.