Fabric Dyeing invented new!
Lowest processing cost and best quality fabric

LOWEST
Water Energy
Different process for better quality at lower cost
The DYEW A process is different and simple.
- Open fabric
- Optional: heat setting
- Roll fabric onto perforated beam
- Bleach, dye, softening and hydroextract in open width form
- Finishing on stenter / dryer and compactor

The patented machine
The beam with the rolled fabric is insert into DYEW A. While the beam is being rotated at high speed, water, chemicals and dyes are sprayed to the inside of the beam and the centrifugal force presses the fluid through the fabric.

If one process step is finished the beam continues to rotate, spraying is stopped and the fabric is hydroextracted. As hydroextracting reduces the amount of contaminated water inside of the fabric, less water and chemicals are being used in the following step.
Economics
No other dyeing machine (continues nor discountious) can dye knitted fabric at lower cost then DYEWA, because all costs (water, energy, chemicals and manpower) are greatly reduced.

Water consumption
Each time before refilling the machine for rinsing the fabric, it is hydro-extracted so that big parts of colored water inside the fabric is drained. As rinsing is a dilution process, less contaminated water means less clean water to get the same result.

Reactive fabric dyeing including beaching can be done with less then 20 liter per kg fabric. For fabric made of synthetic fibres or full white processes the consumption is less then 15 liters per kg fabric.

Energy consumption
Energy consumption goes hand in hand with water consumption. As water consumption is 30-40% less then on other dyeing machines, the savings of steam used per kg fabric are approx. the same.

Bleaching and dyeing of cotton fabric can be done with less then 1.1 kg steam and 0.15 kWh electric energy.

The amount of electrical energy is very low, because no high pressure pump is required.

Chemical consumption
The amount of chemicals and salt is 30 – 40 % lower then on hydraulic or air jet-dyeing machines.

Loading / Unloading
The unloading and loading can be done within 4 minutes.

Dyehouse Automation
Other discontinuous dyeing machines and also cold pad batch dyeing installation requires constant supervision. In case of the DYEWA process, once the fabric is rolled onto the beam, no manpower is required anymore. Loading, bleaching, dyeing and unloading can be done fully automatic.
High flexibility
DYEWA dyes cotton or polyester knit fabric and their blends. Also difficult Lycra blends of Cotton, Rayon, Nylon and Modal fabrics in open width form can be processed.

No stretch
The supports around the wound fabric support the complete roll, so that the fabric is not being stretched during all process steps. The roll however is able to shrink in width.

No hairyness
There is no increase of hairyness during processing at all. During the whole process, bleaching, dyeing and hydroextracting the fabric is kept in rolled form and is therefore not exposed to friction and stretch because of loading / unloading, rolling / unrolling, pressing, hydroextracting and opening the fabric. The result on DYEA is a flat and clean surface so that bio-polishing is not required.
After bleaching and dyeing on DYEA the fabric can be directly finished by unrolling in front of the stenter frame or dryer.

LAB-PRO GmbH
Dorfstrasse 19, CH-4806 Wikon/Switzerland
Tel.: +41 62 745 16 00 info@lab-pro.ch
Fax: +41 62 745 16 01 www.lab-pro.ch