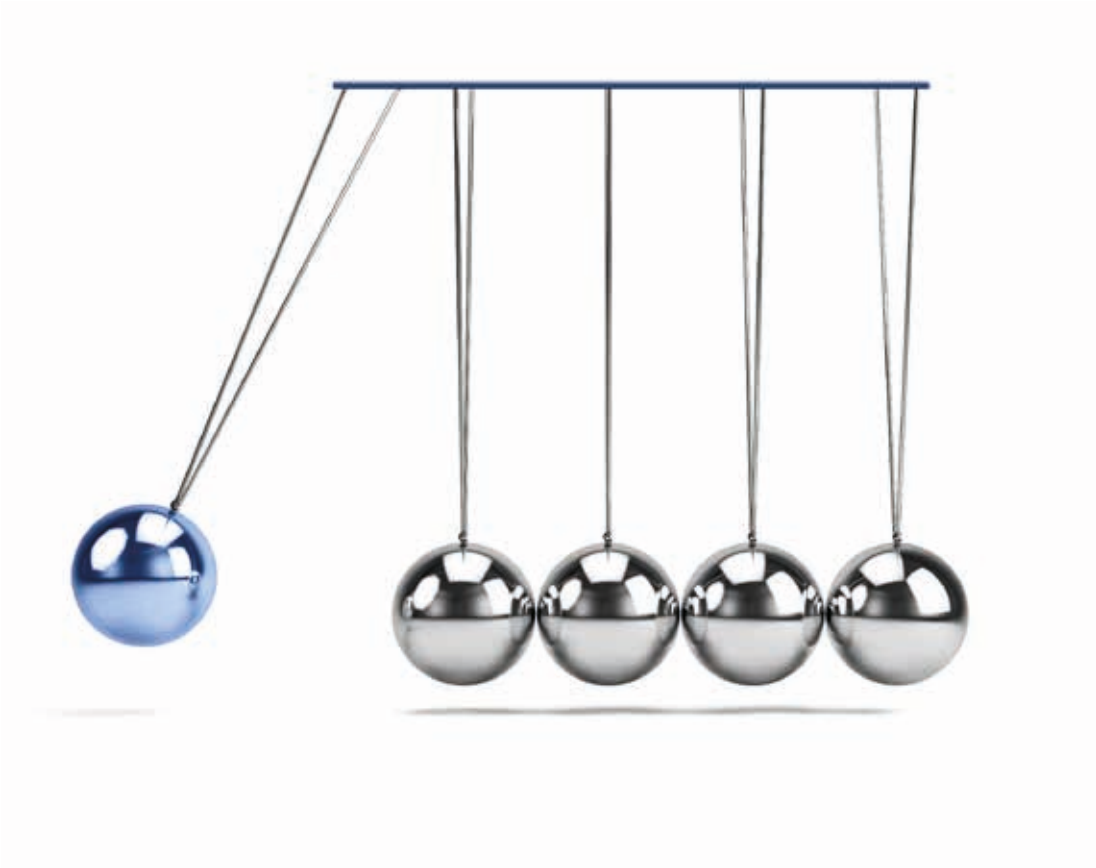
Wanny

MODULAR CONTINUOUS
WASHING RANGE IN ROPE FORM



LET YOUR FABRIC FLOW
IN CONTINUOUS!

PENTEK
TEXTILE MACHINERY

PREPARATION
bleaching, optical brightening, biopolishing

WASHING AFTER PRINTING
reactives, vats and disperses

WASHING AFTER DYEING
reactive soaping, polyester reduction wash, yarn dyed scouring, wool scouring

Wanny

Wanny Sprint

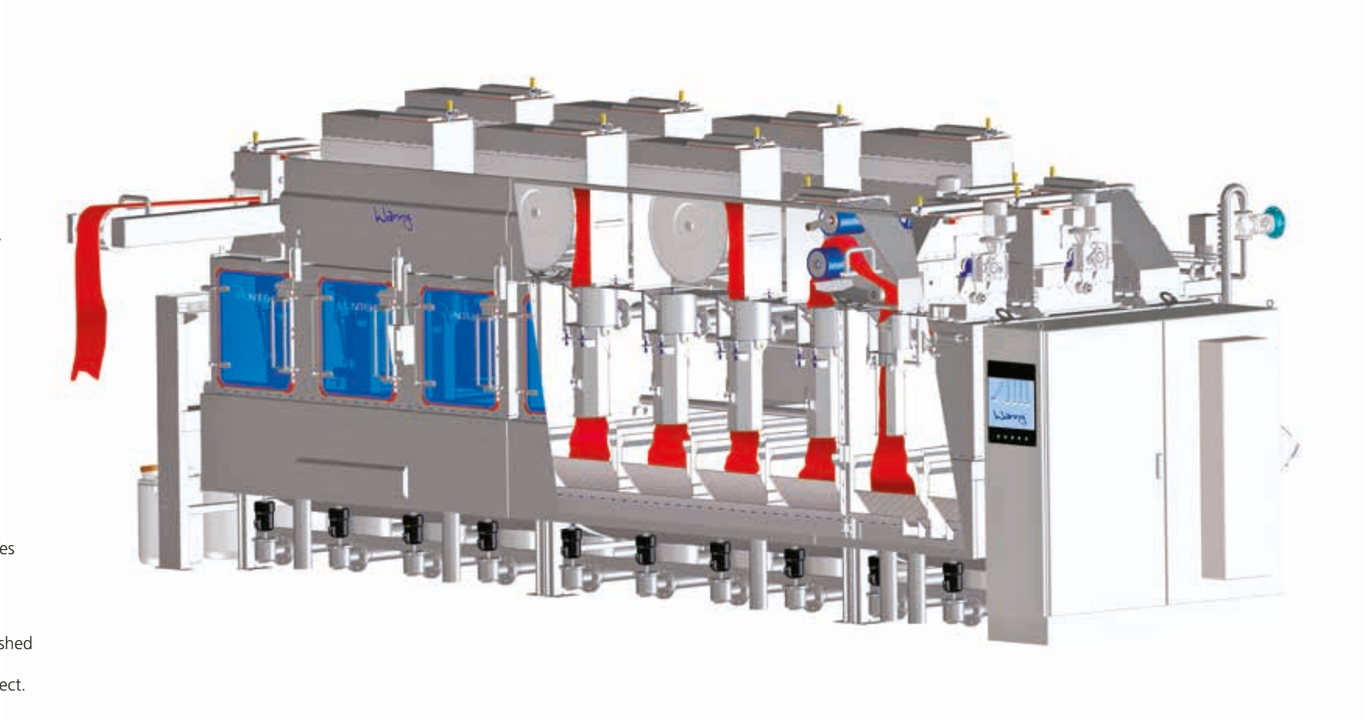
SHOULD I GET IT?
WHY?

WANNY idea comes from the need of performing in continuous all the chemical processes traditionally executed in batch dyeing units, in a trouble-free and repeatable way, without any abrasions, crease marks or unevenness.
Suitable for both knits and wovens, WANNY is the ideal tool for the preparation step, before printing or dyeing. It's also perfect after printing and after dyeing to remove the residual chemicals or colors before the finishing step.

In terms of washing processes, particularly on knitted goods, WANNY enhances the final quality of the product thanks to its gentle action in rope form, by avoiding undesired tensions, often resulting in a bad performance on stability and handle.
The key of Wanny's operation lies in the fabric's back and forth motion and the related handling of the fabric inside the machine. This kind of motion enables to reduce the processing time, thanks to the very high frequency of fabric passages through the overflow nozzles *(from 5 to 10 times more than a discontinuous machine)*. The dwell time and the intense exchange between water+chemicals and fabric enable chemical treatments that would be impossible in conventional continuous washing ranges *(enzymatic biopolishing, optical whitening, reduction baths and obviously knit bleaching)*. At the same time, the exchange frequency guarantees maximum efficiency in soaping processes with extremely low water consumptions.
Its modularity - 3 options available - gives total versatility in production speed, while embracing the widest range of processes.

LET YOUR FABRIC FLOW IN CONTINUOUS!

OUR EXCLUSIVE FEATURES



1 ALTERNATED MOTION

The exclusive system of fabric back-and-forth motion multiplies the active time of the process (water/fabric exchange in the nozzles) with a substancial reduction in the processing time, thus enabling a continuous operation even for processes normally available only in discontinuous equipment.

2 ACTIVE WASH

FREQUENCY

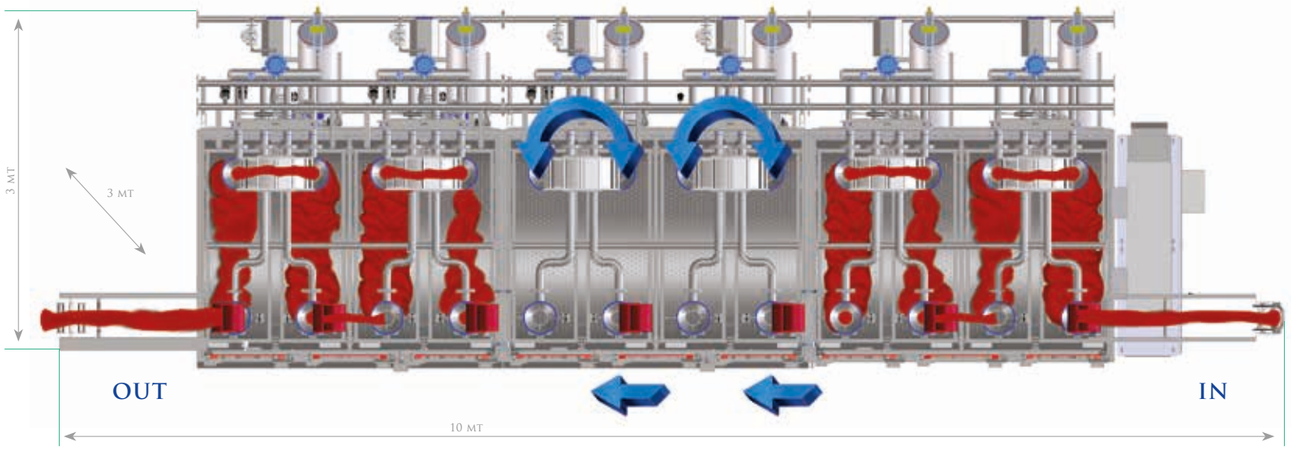
The back-and-forth motion ensures a number of passages through the overflow from 5 to 10 times higher than the usual continuous or discontinuous solutions now available on the marketplace.

COUNTER-FLOW NOZZLES

During the back-and-forth motion, the fabric is washed alternatively in its flow and counter-flow direction, resulting in a very efficient and intense washing effect.

3 TUBOLAR, OPEN WIDTH AND WOVENS

The size of the nozzles and the continuous movement of the fabric allow the processing for both open width goods (either knits or wovens) and tubular knits, without creases, abrasions or defects.



BUILD UP YOUR LINE

1 QUICK MODULE

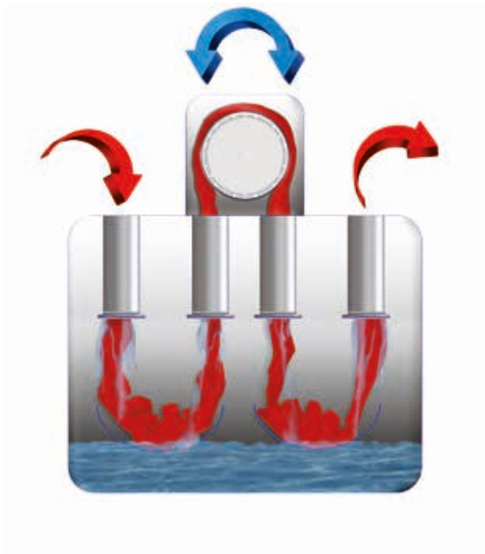
Designed for washing after printing in order to remove and drain off the binders and the color in excess. It is composed of 2 channels, each one with 2 vats and 8 overflow nozzles, where the fabrics moves along in its characteristic back and forth motion. The QUICK module provides an intense and very frequent water / fabric exchange, through a double number of nozzles with a narrower diameter and 2 soft squeezing units. Fabrics are not submerged in water.

2 CHEM MODULE

Designed for chemical processes (bleach, optical whitening, antipilling and reduction wash), CHEM Module is composed by 4 vats and 8 nozzles with counter-flow bath with a single drain. A higher water level allows enough dwell time for the fabric to react with the chemicals while inside each vat.

3 WASH MODULE

The WASH module is designed to perform rinsing and neutralizing processes with a higher intensity of water recirculation. Composed by 4 vats and 8 nozzles, it can be further divided in a 2 x 2 configura-tion with double water / chemicals entry and double drain. This expands the possibility to dose a higher number of chemicals and can also work in a standard 4 vats counter-flow setup but with lower water levels.



WANNY Sprint model is equipped by the presence of a special and extremely innovative module named QUICK. This module enables three great advantages in washing after printing processes:

a FABRIC OUT OF THE BATH

the low level excludes problems of colors stepping back from bath to fabric again.

b INTENSE WASHING POWER

through 8 nozzles: 4 along the fabric stream and 4 against the stream, thanks to the low content of water and high refresh ratio.

c FABRIC ON THE MOVE

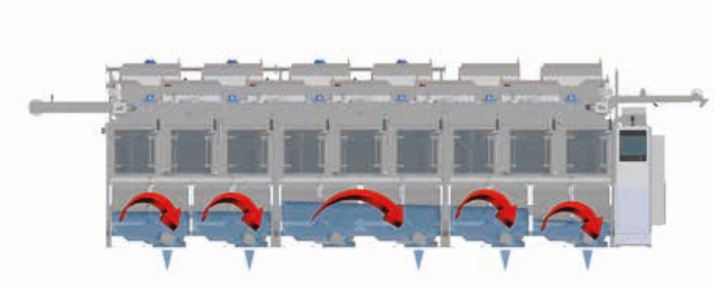
fabric is always moving along the vats in a back and forth motion without idle time in the vats.

ANTI-BALLOON DEVICE (ABS LEVEL)

The special feature of keeping low levels in counter-flow is suggested for very dense and almost waterproof fabrics, such as nylon, polyester and synthetics - both printed or plain dyed -, in order to overcome the unpleasant presence of water sacks which could jeopardize the correct back and forth motion.

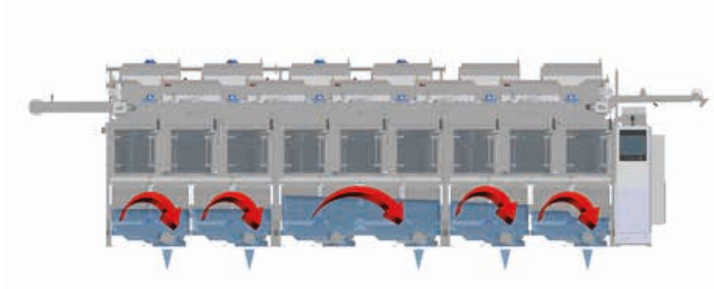
WASHING OF REACTIVE PRINTS

In case of a setup without QUICK Module we can occasionally perform a reactive prints wash by keeping low levels in the first module with a high refresh to wash down the color; a high level in the soaping with single drain and a final rinsing and neutralizing step in the WASH module with double water entries and double drain to enable a high water refresh of the bath.



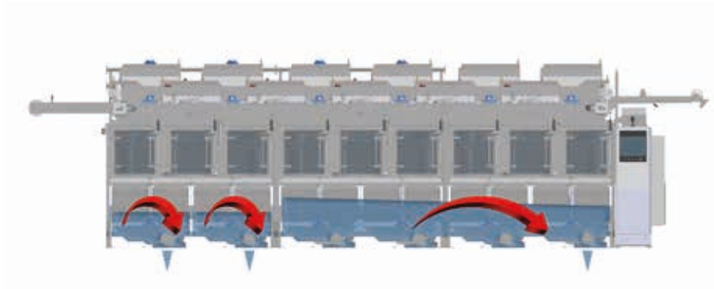
REACTIVE SOAPING

Reactive soaping requires a low level in the first vat with indipendent drain and a high refresh for the first color wash down. A second middle level and a high level instead in the CHEM module with a single drain for the soaping step. At last, a WASH module provides the neutralization and rinsing step with middle levels, double water entries and double drain to guarantee a high refresh of the bath.



CHEMICAL PROCESSES

Bleaching, biopolishing and polyestere reduction wash do require a total fabric immersion in the water. Wanny enables to manage the bath levels in counter-flow with a single drain, followed by a WASH module to rinse and neutralize the goods with medium levels and possibly double drain in order to guarantee a high refresh of the bath.



1 DYNAMIC NOZZLES

8 dynamic nozzles per module (4 along the stream and 4 in counter-flow) provide a continuous permeation of water and also provide the signal to the PLC for fabric alternated motion (international patent).

2 INDIPENDENT CHANNELS

Each channel is equipped with its own inverter driven pump, filter and heat-exchanger. Temperature control is independent on each channel.

3 PROCESS AUTOMATION

SIEMENS control panel enables to edit, store and recall a huge number of recipes with all processing parameters, including consumption figures, fabric loading and unloading.

1 DOSING STATION

The whole setup is totally flexible with customized number of pumps for precision dosing of chemicals and auxiliary products (caustic soda, enzymes, acetic acid, peroxide, reducing agents, detergents, optical bright etc…).

2 PH AND REDOX SENSORS

The unit can be equipped with PH and Redox sensors to read in real time the status of the bath and automatically set the chemical dosing to enable a perfect control of the process as well as great costs savings.

1 HEAT RECOVERY

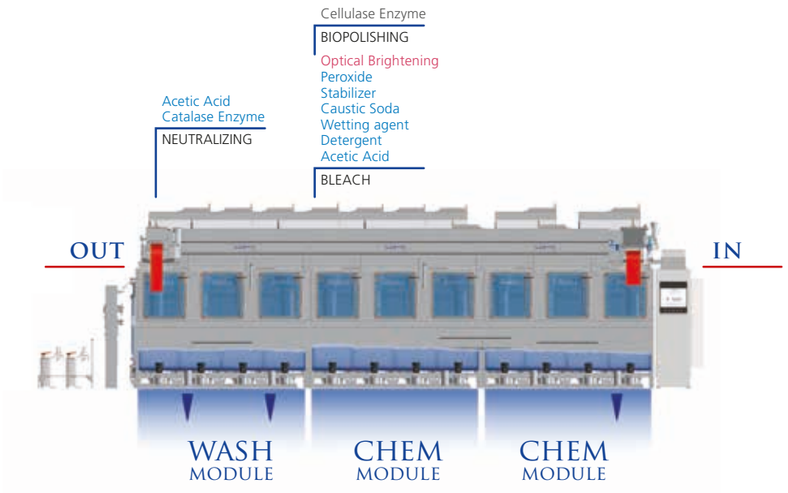
The unit can be optionally equipped with a heat recovery system for the drained water. This option is extremely useful for high temperature processes (such as bleaching, soaping, etc…). This feature enables a substantial costs cut off within the nowadays logic of a sustainable process.

2 WATER RECYCLING

Both in after printing and chemical processes, it is a common practice - whenever possible - to recover the final rinsing water for the first step of the process in order to cut off the water consumption per kg of fabric. The water recycling can take place within compatible PH status and temperature.

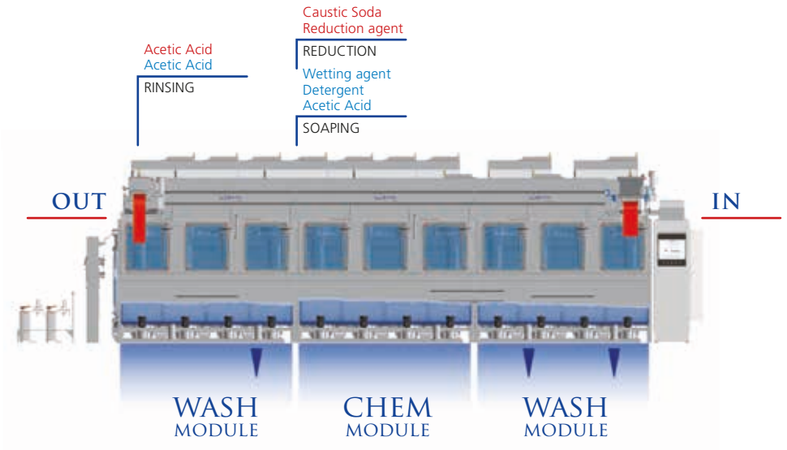
CHEMICAL PROCESSES

- Pre-Bleach
- Optical Brightening
- Biopolishing



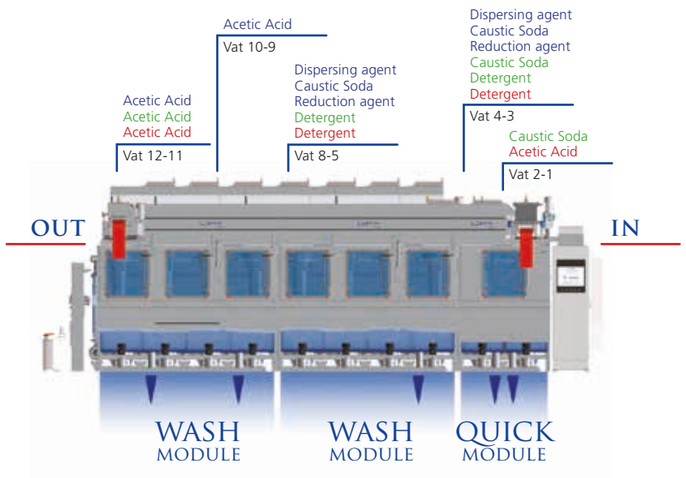
WASHING AFTER DYEING

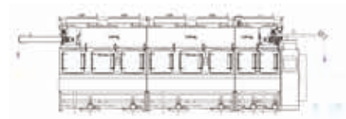
- Soaping
- Reduction wash
- Yarn dyed scouring
- Rapid Wash for wool & blends



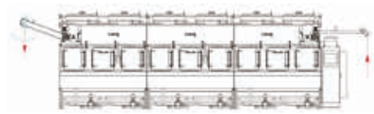
WASHING AFTER PRINTING

- Reactive Printing
- Acid
- Disperse Printing

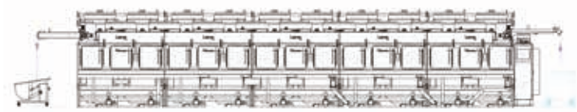




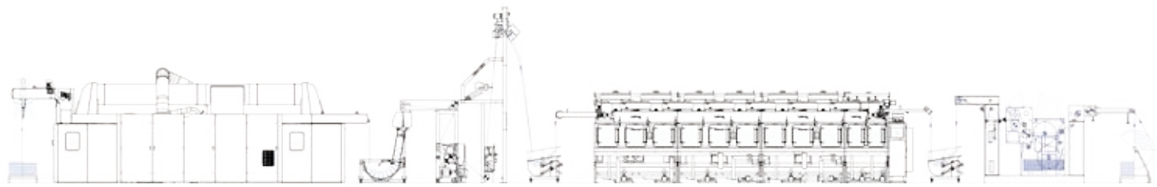
WASHING AFTER PRINTING



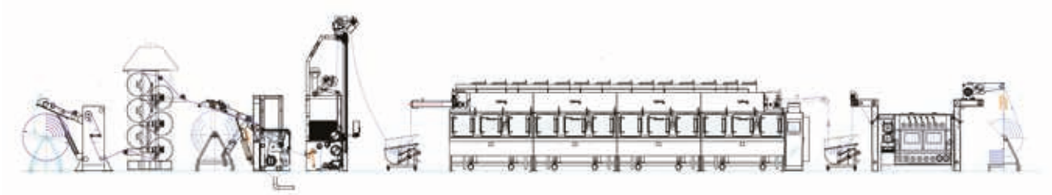
REDUCTION WASH



BLEACHING / PREPARATION FOR PRINTING OR DYEING



WASHING AFTER PRINTING + TUMBLING LINE



OPTICAL BRIGHTENING LINE FOR WOVEN FABRICS

ENAIRGY

Continuous drying, steaming and tumbling equipment in open width and rope form.

DREAMAIR

Continuous range for enzyming and chemical processes in rope form.

WANNY

Continuous modular overflow.

DESAIR

Continuous drying, steaming and tumbling equipment for tubular and open width knits.

POWAIR

Continuous open width dryer & tumbler for higher productivity.

TEMPO

Continuous modular drying and shrinking line in rope form.

FOULARD

Squeezing and impregnation mangles with 2 or 3 rollers.

FLYAIR

Continuous Tumbler in rope form.

PENTAIR

Discontinuous washing, drying, steaming and tumbling equipment.

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