

# DREAMAIR

MODULAR CONTINUOUS RANGE  
FOR CHEMICAL PROCESSES



LET YOUR  
CREATIVITY BLOOM!

**PENTEK**  
TEXTILE MACHINERY



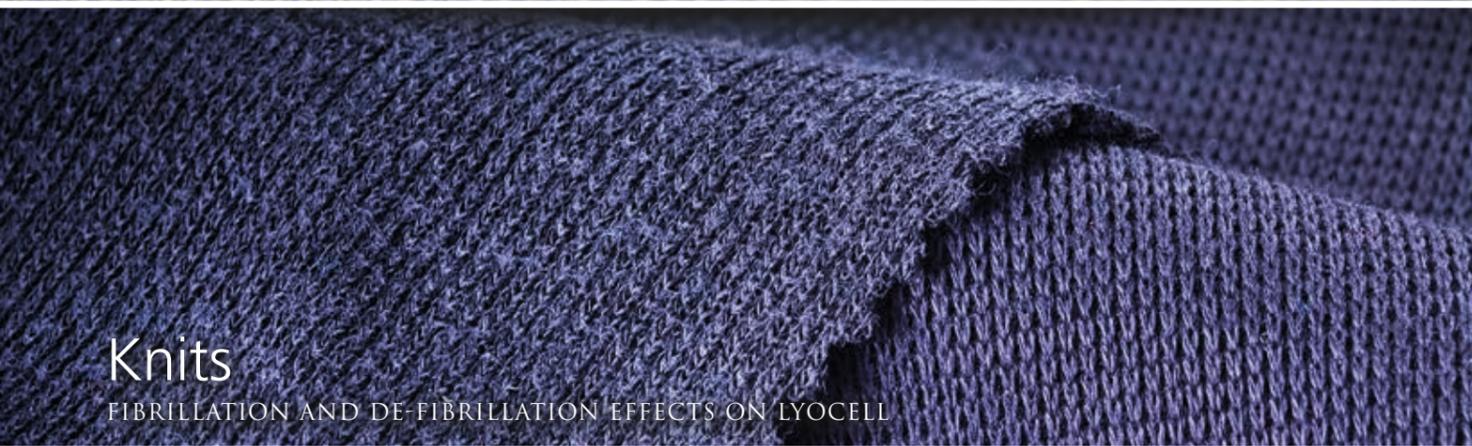
Womanswear  
FIBRILLATION AND DE-FIBRILLATION EFFECTS



Cotton & Lyocell  
ENZYMING ON PFD OR AFTER DYEING



Denim & Bottom Weights  
DENIM BLEACH EFFECT, RELAXING RINSE WASH



Knits  
FIBRILLATION AND DE-FIBRILLATION EFFECTS ON LYOCCELL



## SHOULD I GET IT? WHY?

DREAMAIR was born upon the dream of performing all specialty wet finishing which require high mechanical action (*enzyming, cautions, fibrillation, weight reduction, etc.*) in a continuous process, with total repeatability and safe from any crease marks, lusterings or abrasions.

In other terms the challenge was to overcome the limits of current discontinuos finishing equipments (*air tumblers, air flow dyeing equipments, rotary drum tumblers, etc.*) and give all sensitive finishers the chance to unchain their creativity and access to high end added value finishing in an industrial and safe mode.

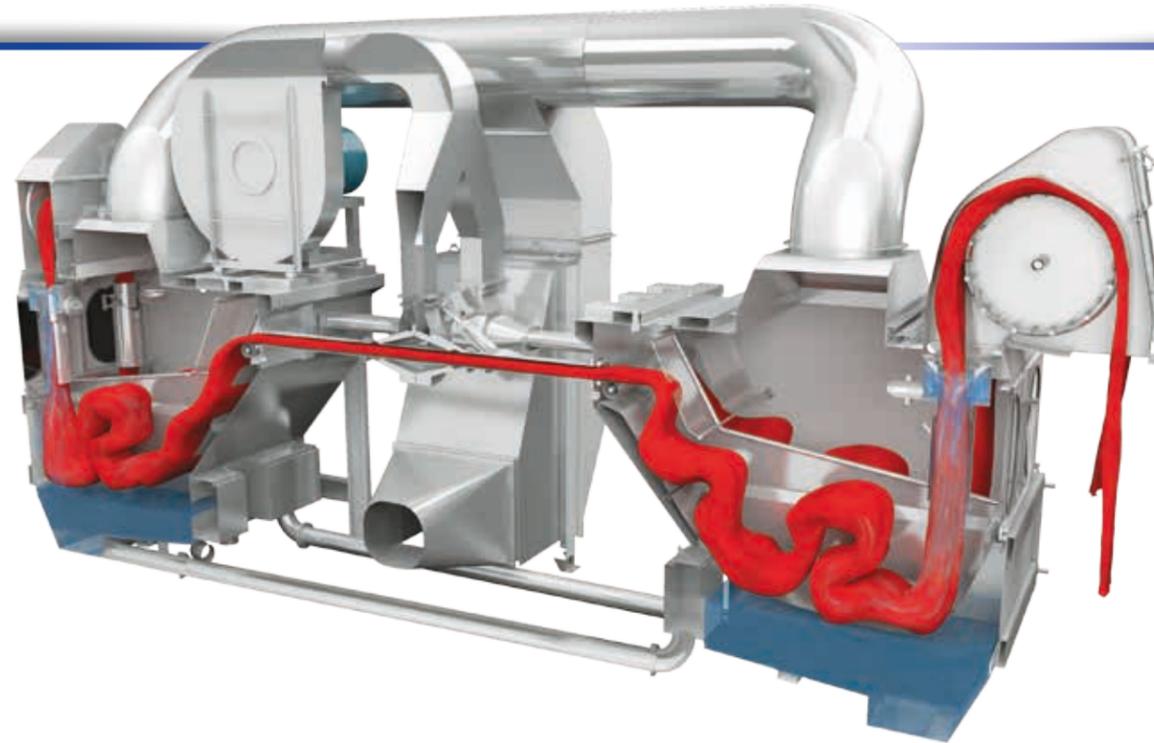
The combination of intense mechanical action with chemicals within a continuous process, moves forward the finishers creativity, setting DREAMAIR as the

new benchmark of added value finishing. DREAMAIR can perform all kind of chemical applications on various fabric compositions, structures and processes, from silky goods to shirting to denim and bottom weights up to the new cellulosic fibers (*lyocell, modal & blends*) and poliester, both on woven and knitwear.

A huge variety of potential solutions for anyone seeking to escape from the price battle and breath - for a while - the healing air of uniqueness:

LET YOURSELF  
BE A DREAMAIR!





## THE POWER OF WATER

### THE ACTION OF WATER

#### ZERO DEFECTS

4 overflow nozzles per module (2 of which against the stream) and a series of sprayers ensure a uniform penetration of water and chemicals.

#### EFFECTIVENESS

The water flows against the stream of the goods enhancing the washing performances and enabling a safe fabric rinsing.

### SAVINGS

#### WATER

Water consumption varies from 4 to 6 lt per kg fabric, with consistent water saving of **50-60% compared to conventional** discontinuous washings.

#### ENERGY

Power consumption per kg fabrics is **50% less** than conventional methods.

#### LABOR

Labor is reduced to standard control procedures.

### CHEMICALS

- Different types of dosing pumps for any chemical (f.i.: enzymes, acetic, detergents, soda).
- Optional kier separation for different chemical application in the two channels.
- Independent temperature control in each of the 4 vats.
- Saving of around **50%** of chemicals.

## THE POWER OF THE AIR

### AIR AS SOLELY MEAN OF TRANSPORTATION

#### ZERO DEFECTS

The exclusive air transportation system ensures no defects: no marks, no lusterings.

#### EFFECTIVENESS

The air pressure guarantees incomparable penetration of water and chemicals, resulting in higher washing effectiveness.

### MECHANICAL ACTION

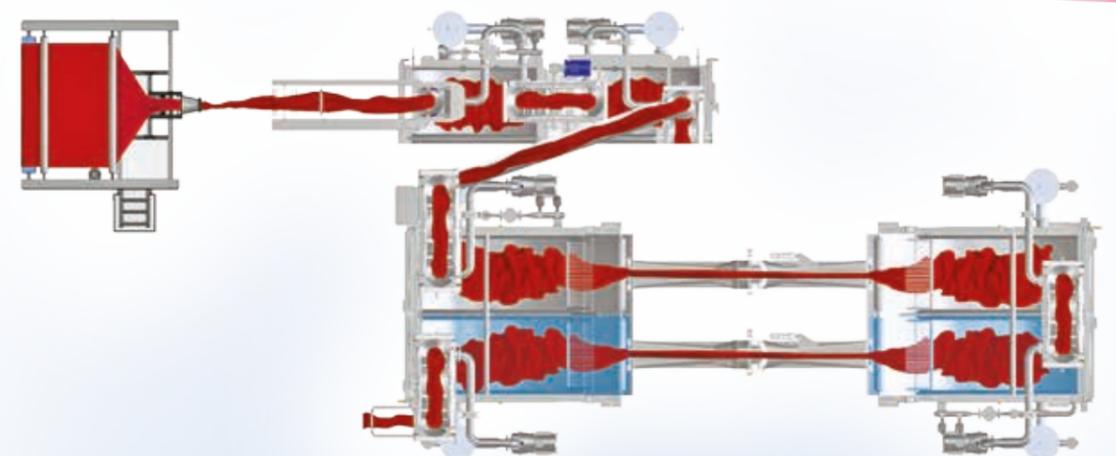
#### AGGRESSIVENESS

The combined action of air pressure and impact on stainless steel grids moves the fabric structure and maximize the performance of chemicals.

#### FREQUENCY

The alternated motion generates a high frequency of impacts (each 25-30 seconds), at least 6 times more than conventional discontinuous processes.

APPLICATION	EFFECTS / ADVANTAGES
 <b>WOMANSWEAR</b>	<ul style="list-style-type: none"> <li>• Peach skin effects on viscose blends</li> <li>• Fibrillation and defibrillation on modal &amp; lyocell blends</li> <li>• Silky touch on polyester</li> </ul>
 <b>COTTON &amp; LYOCELL</b>	<ul style="list-style-type: none"> <li>• Cotton enzyming on pfd and dyed goods</li> <li>• Slackin<sup>®</sup> Effect</li> <li>• Mill Wash Effect / Worn out</li> </ul>
 <b>DENIM &amp; BOTTOM WEIGHTS</b>	<ul style="list-style-type: none"> <li>• Slackin<sup>®</sup> Effect</li> <li>• Washdown overdyed, delavé</li> <li>• Denim bleach and rinse</li> <li>• Stretch fabric relaxing wash</li> </ul>
 <b>KNITS</b>	<ul style="list-style-type: none"> <li>• Silky touch on polyester (Syn_Silk)</li> <li>• Fibrillation / Defibrillation</li> </ul>





## 1 AIR JET TRANSPORTATION

The powerful action of the air through centrifugal blower, smashes the goods back and forth **every 25-35 seconds** in an alternated motion, thus enabling an intense mechanical action within a short permanence time, free from crease marks.

## 1 DOSING STATION

The whole setup is totally flexible with **customized** number of pumps for chemicals and auxiliary precision dosing (*caustic soda, enzymes, acetic acid, etc...*).

## 2 DYNAMIC NOZZLES

**4 overflows per module**, 2 in stream and 2 against the stream keep the fabric constantly wet with water & chemicals. The dynamic nozzles enable the fabric inversion (*international patent*).

## 2 HYDRAULICS

Each kier is equipped with its own pump, filter and heat exchanger for independent temperature control. Kiers can be splitted in two different channels to enable separate chemicals applications.

## PFD BIOPOLISHING

A high speed enzyming performance is guaranteed for pfd cotton and blends to achieve a perfectly clean surface with luxury look. This process enables absolute repeatability and minimal consumptions of water and chemicals (50% less) within a considerable speed (up to 15 m/min on single module and 30 m/min on double module).

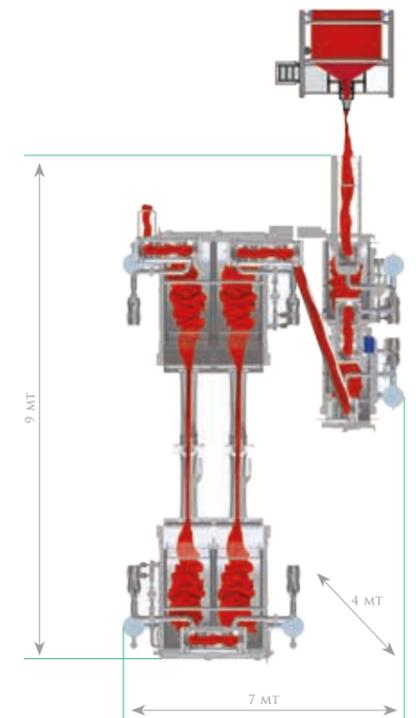
## DELAVÈ, ENZYMING, BLEACHING

Now you can achieve an uniform color fade on various dyestuffs, such as sulfurous, indigo and even in pigment prints or coatings, thanks to the continuous moving of the fabric rope without any mechanical traction. A perfect reproduction of garment finishing effects with uniform results.

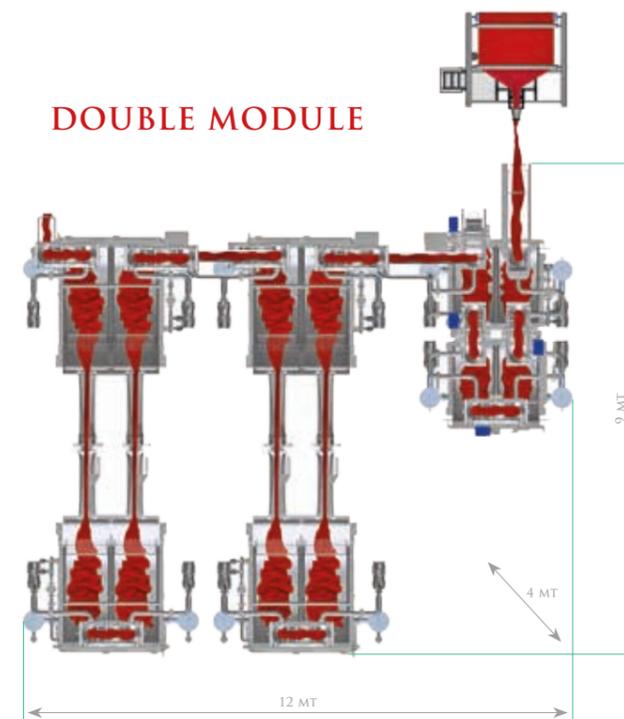
## FIBRILLATION, DEFIBRILLATION

Cellulosic fibers such as lyocell, modal, viscose and blends can finally be processed in continuous with absolute repeatability and many risks of crease marks thanks to the exclusive air transportation system.

## SINGLE MODULE



## DOUBLE MODULE



## DENIM RINSE AND RELAXING WASH FOR STRETCH FABRICS

The air transportation and related mechanical action plus the water temperature enable an intense fabric relaxation effect. Combining it with a continuous tumble drying process afterwards surprising fabric stability can be achieved both in weft and warp with increased stretchability.

## SYN-SILK: SILKY TOUCH IN POLYESTER

The aggressive mechanical impact generated by air transportation combined with the chemical action produces a notable silky touch of polyester yarns.

## Slackin® EFFECT

This new revolutionary effect on pdf fabrics through high caustic content (up to 24Be) process in relax mode, combined with an aggressive mechanical action during washing enables a total fabric stability, a consistent weight increase, a better colour grip and an exclusive handle. This process requires a double module to properly neutralize and reach a correct PH output.



## 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.

[WWW.PENTEK.IT](http://WWW.PENTEK.IT)

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