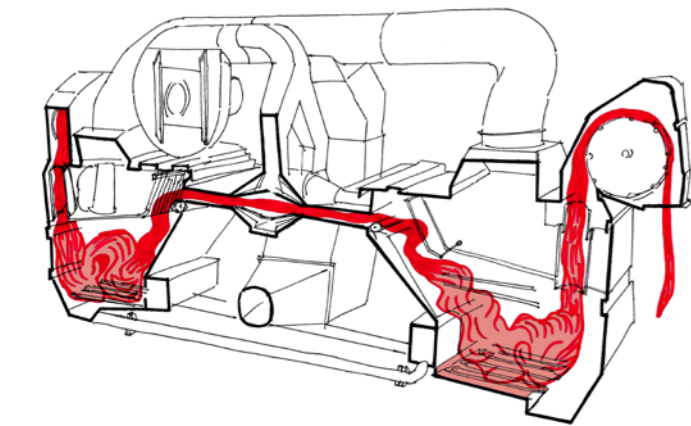


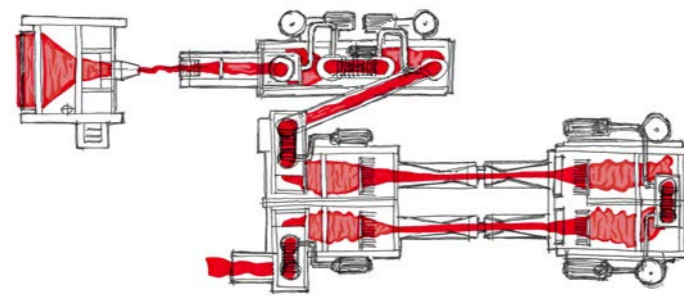


AIR JET FABRIC TRANSPORTATION

Fabric transportation is guaranteed by two air jets with back and forth motion every 30 seconds moving the fabric on 4 accumulation tanks with 4 smashing grids which multiply the mechanical effect and the action of the chemicals. The speed and impact energy is provided by a powerful centrifugal fan, managed by an inverter. Transportation with pure air ensures a defect free result, without creases and abrasions. The alternating motion ensures the frequency of action needed to make the process effective in a shorter permanence time and therefore in continuous mode.



WORKING PRINCIPLE



TOP VIEW OF SINGLE DREAMAIR + DETWISTER

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PENTEK
TEXTILE MACHINERY

DREAMAIR

LET YOURSELF BE A DREAMAIR!

DREAMAIR

DreamAIR was born upon the dream of performing all specialty wet finishing which require high mechanical action (*enzyming, caustification, 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 discontinuous 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. Here you have DreamAIR, the perfect cross between air jet and continuous washing range.

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.



WASHING RANGE HYDRAULICS

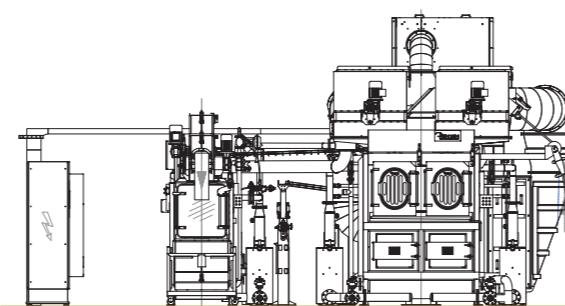
The hydraulics of the machine are managed as a continuous washing range, with continuous entry and exit of the water in counter-flow. At the same time, each of the 4 tanks is equipped with a recirculation pump, filter and heat-exchanger for temperature control. The wet fabric stands out of the bath and it is continuously permeated by water through soft-flow nozzles, while the intense action of the air makes the process effective.

CHEMICALS AUTOMATIC DOSING STATION

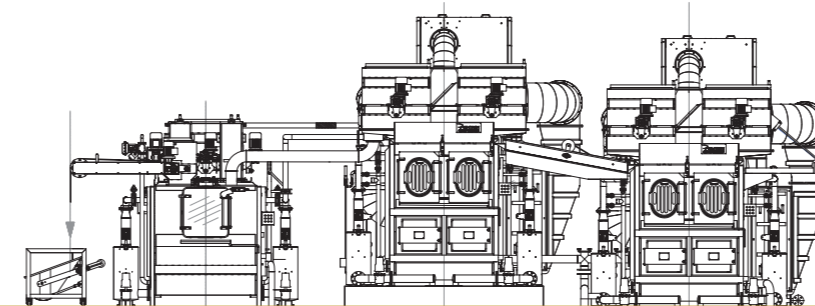
A dosing station with dedicated pumps to each product allows to perfectly dose each chemical (*enzymes, acetic acid, caustic soda, etc...*) for a constant product concentration. Water is automatically introduced together with the products based on liters per kg of fabric.

PROCESS AND RECIPE CONTROLS

The SIEMENS touch screen process control allows you to control and store recipes, with constant temperatures, permanence time, concentration of chemicals and PH, in order to guarantee an absolute constancy of effect.



SINGLE DREAMAIR LINE



DOUBLE DREAMAIR LINE

APPLICATIONS:

DreamAIR opens up new frontiers of finishing in the various fabric compositions and applications. Process can be carried out in the preparation step (*on pfd fabrics*) – such as fibrillation, caustification and/or enzyming – or on the dyed or printed fabrics for color fading, “garment effects” or biopolishing.

Denim & bottom weights:

Cotton enzyming on pfd or after dyeing, cotton/tencel fibrillation and defibrillation, delavè effects, tridimensional washdowns. Rinse wash on stretch denim for stability, bleaching and washdown overdyed.

Shirting & Linen:

Yarn dyed enzyming or linen blends enzyming, color fading on pigment prints.

Knits:

Tencel & blends or modal/pes fibrillation and de-fibrillation.

MODULARITY

DreamAIR continuous technology is based on modularity in order to cope with the production outputs and type of processes required. A line includes the air jet module DreamAIR performing chemical-physical processes plus an additional module, called WN for Washing and Neutralization steps, which works keeping fabric submerged in water. These are the possible combinations:

- **DreamAIR**
(4 vats and 2 channels divided for chemical process and rinsing)
- **DreamAIR + WN1**
(single line)
- **DreamAIR + WN2**
(4 vats for rinsing/neutralization)
- **Double DreamAIR**
(8 vats and 4 channels)
- **Double DreamAIR + WN2**
(double line)

DATA SHEET

	Single DREAMAIR	Double DREAMAIR
Average Production Speed:	8 -20 mt / min	16 -40 mt / min
Water Consumption:	from 10 to 20 lt/kg	from 10 to 20 lt/kg
Installed Thermal Power:	320 kW- 275.000 Kcal/h	640 kW - 550.000 Kcal/h
Maximum Water Temperature:	98° C	98° C
Steam Line for Water Heating:	DN20, PN16 (4 lines) – 6-8 Bar	DN20, PN16 (8 lines) – 6-8 Bar
Water Line for Cooling:	1" (4 lines)	1" (8 lines)
Available Water Inlets:	Hot + Cold + 1	Hot + Cold + 1
Chemical Dosing pumps:	Customized (max 6 pumps)	Customized (max 12 pumps)
Compressed Air Line:	3/8" - 6 bar	3/8" - 6 bar
Installed Electrical Power:	98 kw	196 kw
Average Electrical Consumption:	70 kw	140 kw