pluvia
CONTINUOUS PRETREATMENT MACHINES

CIRCUM DYE

Rope Washing Machine After Dyeing

HIGH PRODUCTIVITY

%40–50

CAPACITY INCREASE

ENERGY EFFICIENCY

%50–80

WATER SAVING

%50–80

STEAM SAVING

%30–50

ELECTRICITY SAVING

HIGH QUALITY

LESS PEELING

HIGHER FASTNESS

LOGIC OF WASHING SYSTEM

CAPACITY INCREASE

When the washing steps in the dyeing process is carried out with Pluvia, total dyeing process is shortened by 3 hours. Around 40% capacity increase is achieved.

WATER SAVING

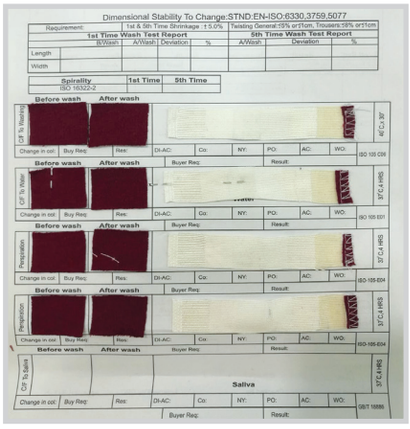
Water consumption of Pluvia is 7-10 lt/kg.
Conventional dyeing machines consume 30-50 lt/kg water.

STEAM SAVING

Steam consumption of Pluvia is 0,5 kg/kg.
Conventional dyeing machines consume 2-3 kg/kg steam.

ELECTRICITY SAVING

Electricity consumption of Pluvia is 0,03 kW/kg.
Conventional dyeing machines consume 0,06 - 0,1 kW/kg.



LESS PEELING

Pluvia washing speed 35-50 mpm. There is no peeling, no elongation.
With conventional dyeing machines, the fabric speed is around 300-450 mpm which causes mechanical wear on the fabric.

HIGHER FASTNESS

Pluvia effectively washes, by penetrating water through fabric.
Hence, the washing fastnesses value increases.
With conventional dyeing machines the fabric passes only once with 300-450 mpm speed through nozzle in every 2-3 minutes in dyeing machine.

PLUVIA CIRCUM ROPE WASHING MACHINE AFTER DYEING

AREA OF USE & DESIGN PARAMETERS

- Compact and modular design for knitted and woven fabric
- Capable of washing almost all types of printed fabrics and fibers like cotton, regenerated fibers, polyester and blends
- Wide washing range from 40-900 GSM fabrics from silk to towel
- High washing efficiency with 60 m³/h continuous water flow rate in each chamber
- 300 liter water and 25 kg fabric storage capacity for each chamber
- Closed-loop type heat exchanger for each chamber
- Static or automatic filter for each chamber
- Double dosing inlet points for chemicals in each chamber
- Automatic washing nozzles in each chamber for cleaning the chambers

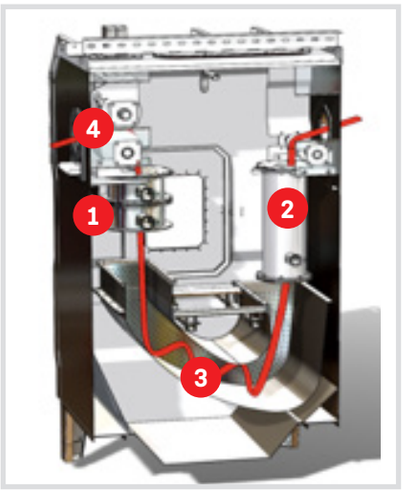
PLUVIA CIRCUM CONSUMPTIONS			
	WASHING AFTER DYEING	WASHING AFTER PRINTING	WASHING YARN DYED FABRICS
Water Consumption	7 - 10 l/kg	20 - 30 l/kg	5 - 7 l/kg
Steam Consumption	0,25 - 0,35 kg/kg	1,5 - 2,5 kg/kg	0,1 - 0,25 kg/kg
Electricity Consumption	0,03 - 0,07 kW/kg	0,06 - 0,10 kW/kg	0,02 - 0,05 kW/kg

SYSTEM OF MACHINE

1. MULTI STAGE NOZZLE
Each chamber is equipped with a two-stage nozzle which provides the required pressure and flow rate for the washing proses. Nozzles are designed to be seamless in order to prevent turbulence which causes fabric spinning and rotation.

2. WATER TUBE
It is designed to rinse out of the fabric just before leaving the chamber. The design geometry ensures maximum fabric-water contact time for best washing effect.

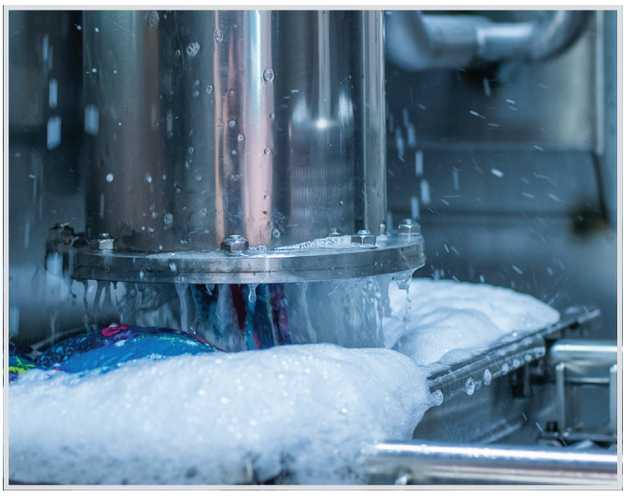
3. ELECTROPOLISHED J-BOX
All the fabric-contacting surfaces are electropolished for smoother movement of the fabric. Rubbing effects are eliminated by high quality J-Box surfaces.



4. NIPPING AND TRANSFER CYLINDERS
Nipping forces can be adjusted by the operator with 0.01 bar precision. Cylinder rubbers are specially produced for proper nipping forces. The nipping cylinders can be disabled if required.

COUNTER-FLOW SYSTEM
Adjustable counter-flow system, allowing various grouping of the chambers according to the process needs.

WASTE WATER HEAT RECOVERY SYSTEM
Built-in waste water heat recovery system reducing the energy consumptions at least by %30.



AUTOMATION SYSTEM & SOFTWARE

SOFTWARE

Pluvia has a software easy to use.
Software codes are shared with customers.

WATER FEEDING SYSTEM

Water consumption is precisely controlled, based on the fabric weight and machine speed.

CHEMICAL DOSAGE CONTROL

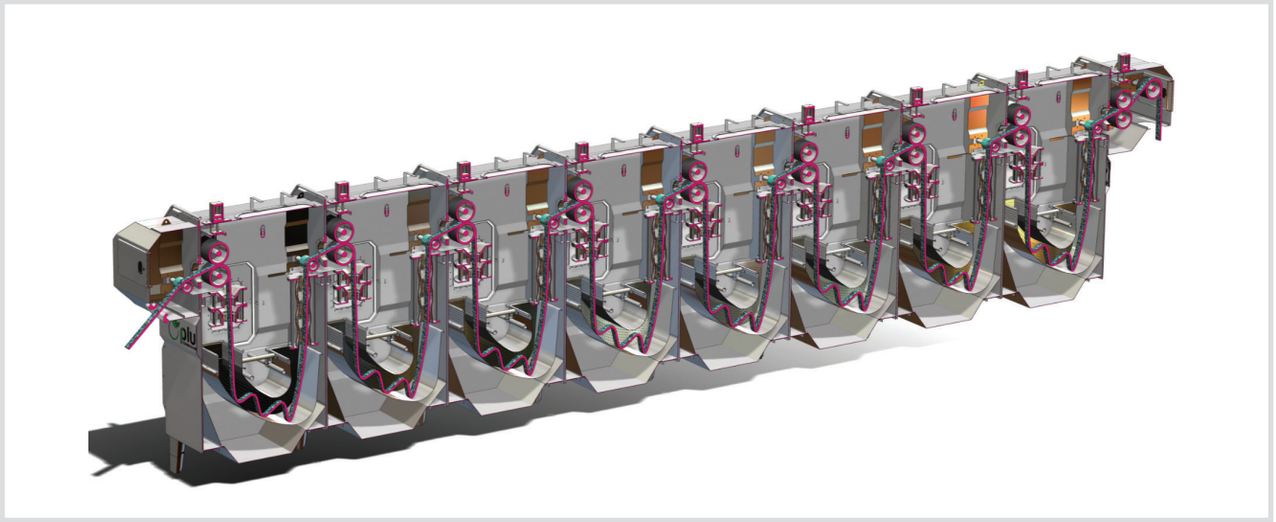
Chemical dosage rate is precisely controlled, based on the fabric weight or water flow rate.

SPEED SYNCHRONIZATION

Precise speed synchronization with Load Cell controlled J-Box and frequency controlled drive cylinders provides tension and elongation free fabric flow.

PRODUCTION AND PRODUCTIVITY RECORDS

Batch-wise automatic recording of process parameters such as speed and consumptions, temperatures etc.



PLUVIA CIRCUM ROPE WASHING MACHINE AFTER DYEING

MATERIAL

Completely stainless stell.
Pluvia uses state-of-the-art equipments and brands.

SETUP

Easy setup with built-in foundation structure and built-in pipelines.

MAINTENANCE

Quick and easy service and maintenance by universally available standard parts and equipments.
Easy maintenance through large windows located on both front and back side of the chamber.

PLUVIA CIRCUM DIMENSIONS			
CHAMBERS	LENGTH (mm)	WIDTH (mm)	HIGHT (mm)
6	10.000	3.000	2.500
8	12.500		

TACHYON

SIMPLE | SMART | EFFICIENT

SIMPLE | SMART | EFFICIENT