

# SWASTIK

ESTABLISHED 1937

75 years of  
EXCELLENCE  
1937-2012

## WASHING RANGES



**SWASTIK TEXTILE ENGINEERS PVT. LTD.**

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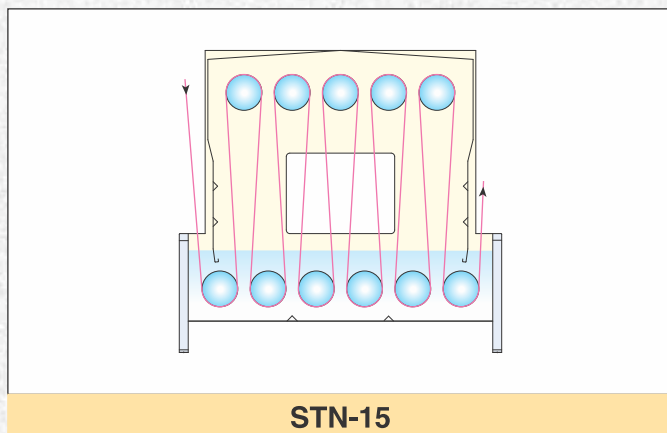
## SWASTIK WASHING AND DEVELOPING RANGES

SWASTIK offers a wide range of Open-Width and Combined Open-Width and Rope-Washing Ranges for Cotton, Synthetic and Blended Fabrics for Washing-of desized fabrics, Scoured and/or Bleached or Mercerised fabrics, Dyed Fabrics and for Developing dyed fabrics as well as After-Print Washing. Swastik also offers Relax Scouring and Washing machine for Viscose-Polyester and Polyester Fabrics.

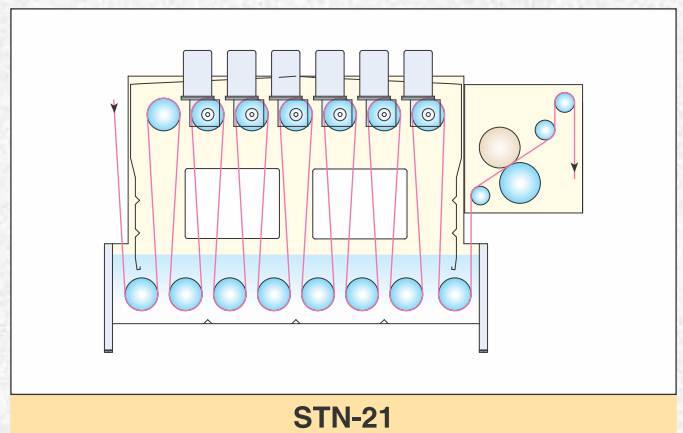
The Washing Range can be built using a combination of washing compartments.

### CLOSED SINGLE LOOP WASHER STN-15, STN-18, STN-21

- Closed Single Loop Washer STN-15, STN-18, STN-21.
- Closed Single Loop Washer with Stripper Roll STN-18, STN-22.
- Closed Double Loop Counter Threaded Washer STN-20, STN-25, STN-30.
- Closed Double Loop Counter Threaded Washer with / without pressure roller STN-20CP, STN-25CP, STN-30CP.
- Super Jet Washer T-850.
- Twin Reel Super Jet Washer T-1050.
- Conveyor (Dwell Zone) Washer CW 100 & CW 150.
- Open Width Closed Relaxing Tank.
- Hydro Jet Washer HJ-20 and HJW-20.
- Open Washers – ST-12, ST-15, ST-20.
- Rope Washer – Niagara.



STN-15



STN-21

### CLOSED SINGLE LOOP WASHER STN SERIES

This Open-Width Washing Compartment consists of a Stainless Steel Trough with low liquor contents. Partition can be provided to obtain effective Counter Current flow of Water and Fabrics. The washed fabric comes in contact with fresh water which improves washing efficiency. There is high liquor turbulence with quick liquor exchange resulting in effective removal of dissolved Chemicals and Impurities.

Top Rollers are fixed in bearings. Bottom rollers are fixed in bearings mounted outside the tank with mechanical seals or fixed in self lubricated bushes. All compartments are equipped with direct or indirect heating arrangement as required.

The washing compartments are equipped with medium pressure squeeze nips for intermediate compartment and heavy squeeze nip for high extraction at the delivery end. Rubber Rollers are made from special rubber compounds suitable to resist the chemicals or dyes used as required by process.



## **CLOSED DOUBLE LOOP COUNTER-CURRENT WASHER SERIES STN**

This is a highly efficient Open-Width Washer with double loop threading of fabrics where two adjacent fabric strands move in opposite directions, creating great turbulence which ensures very high washing efficiency.

The Trough can be provided with partitions to obtain Counter-Flow, wherein cleaner / washed fabric comes in contact with cleaner water as the fabric advances.

These compartments have all top rollers fixed in bearings, and on request, can be provided with Torque motors on individual or alternative rollers.

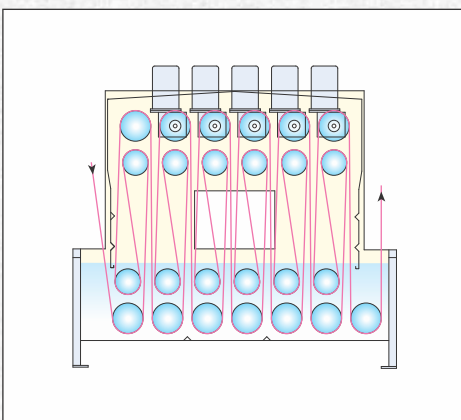
Bottom rollers are fixed in bearings mounted outside the tank with mechanical seals or fixed in self lubricated bushes. All compartments are equipped with direct or indirect heating arrangement as required.



**STN-25**

## **CLOSED DOUBLE LOOP COUNTER-CURRENT WASHER STN-CP SERIES**

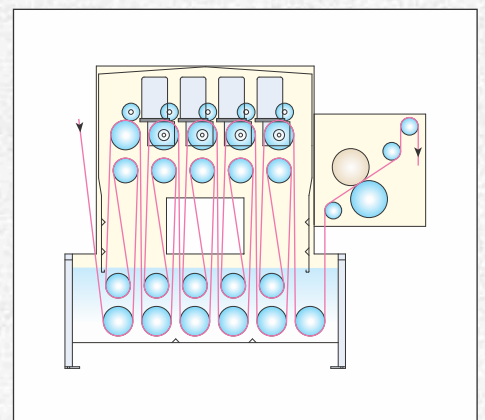
STN-CP is a wash tank where the fabrics passes two adjacent strands in opposite directions and gets squeezed just before leaving the last roller of the set. This movement of fabric in opposite directions creates high turbulence which, with the dip Squeeze arrangement, results in better washing results. Top Squeeze Rollers are covered with rubber to withstand temperature up to 95°C – 98°C. Top rollers are fixed in bearings and provided with Torque motors on individual or alternative rollers.



**STN-30**

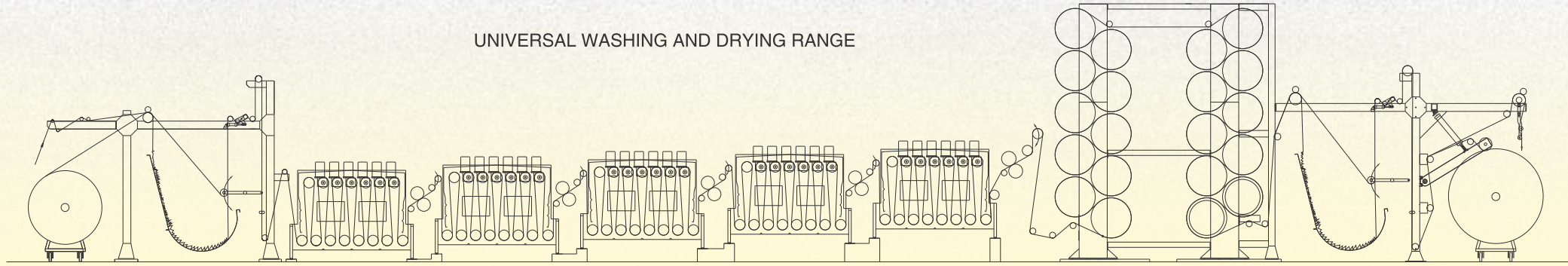


**STN-CP Series**

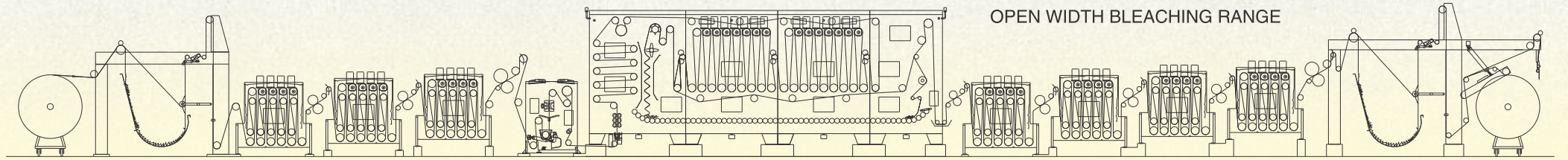


**STN-25 CP**

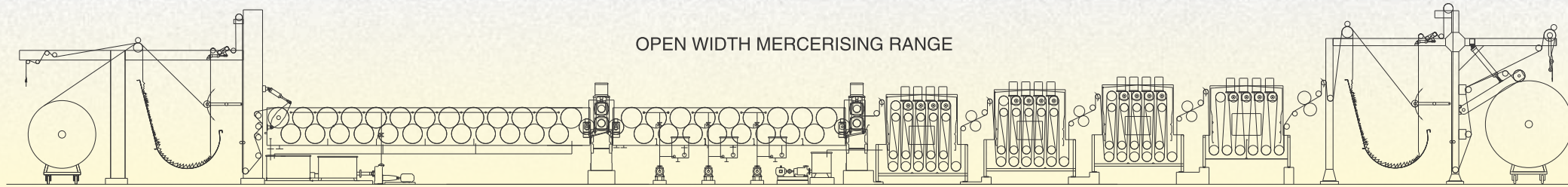
UNIVERSAL WASHING AND DRYING RANGE



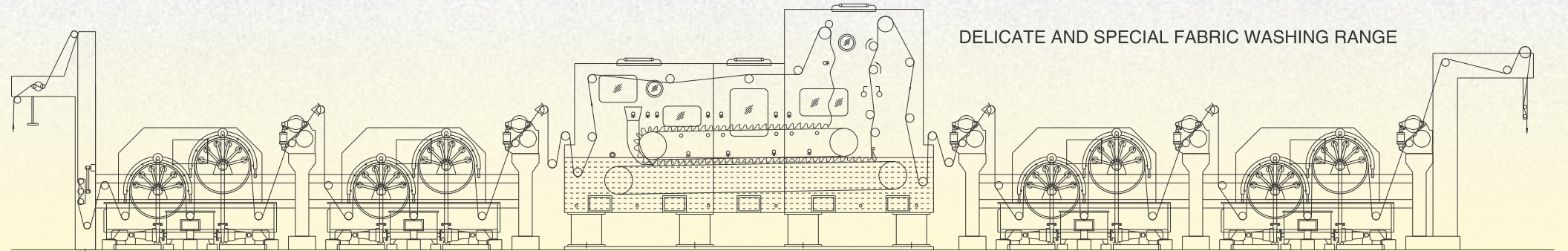
OPEN WIDTH BLEACHING RANGE



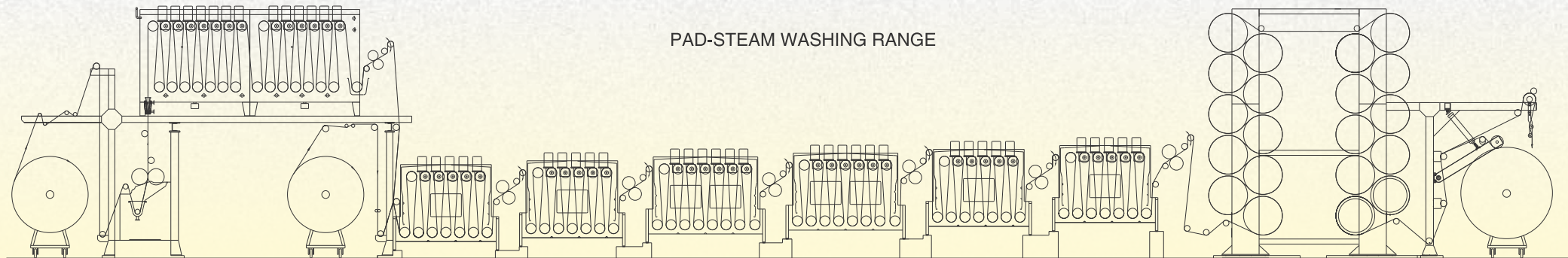
OPEN WIDTH MERCERISING RANGE



DELICATE AND SPECIAL FABRIC WASHING RANGE



PAD-STEAM WASHING RANGE



# SWASTIK



**SUPER JET WASHER**

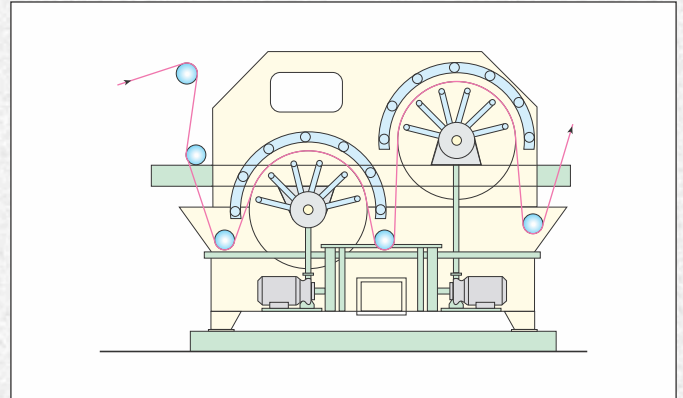
## **SUPER JET WASHER – T-850**

Fabricated from Stainless Steel and equipped with two high pressure pumps, Filter and re-circulation system.

The Super Jet Washer is ideal for removing unfixed colours and superfluous material from printed goods without dipping in to liquor. Both sides of the fabric are subjected to high pressure Fan Jets. Fabric is carried on a large diameter Stainless Steel reel running on bearings. The reel is fully synchronised with the following squeezer.

## **TWIN REEL SUPER JET WASHERT-1050**

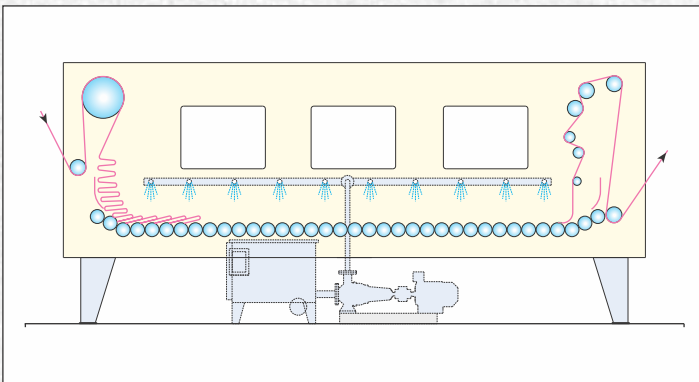
The Twin Reel Super Jet Washer housed in a single compartment is identical to the Super Jet Washer but has Two Reels. Both the reels have Fan Jets from inside and outside. Ideally suited for high production and for Relaxing and Scouring of heavy fabrics and are used for washing delicate fabrics and knit fabrics.



**TWIN REEL SUPER JET WASHER**

## **CONVEYOR WASHER - CW**

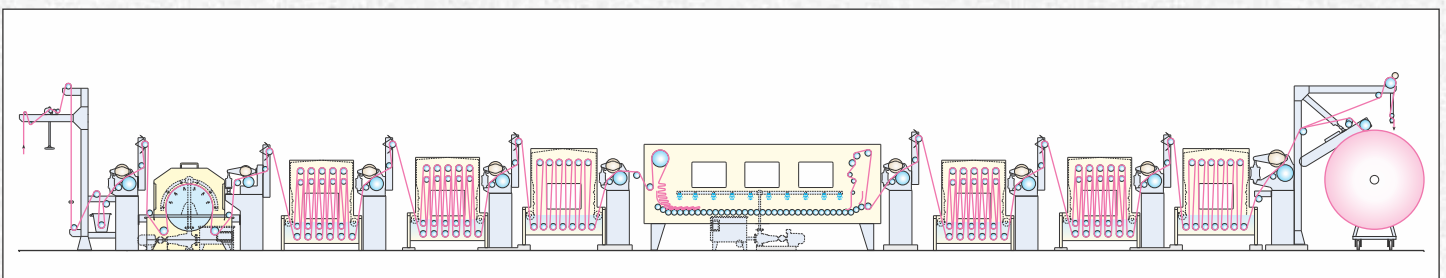
The fabric travels in small loops from one end to the other of the Roller Bed Conveyor and is subjected to a series of jet sprays. The unit is equipped with a high pressure pump with filter and is synchronised with the following squeezer. Conveyor Washer is ideal for loosening printing gums and thickening agents and their removal with final spray before squeezing or for relaxing the fabric. It is provided with centering and opening device before the outlet.



**CLOSED CONVEYOR WASHER**



**CLOSED CONVEYOR WASHER**



**UNIVERSAL OPEN-WIDTH WASHING RANGE**

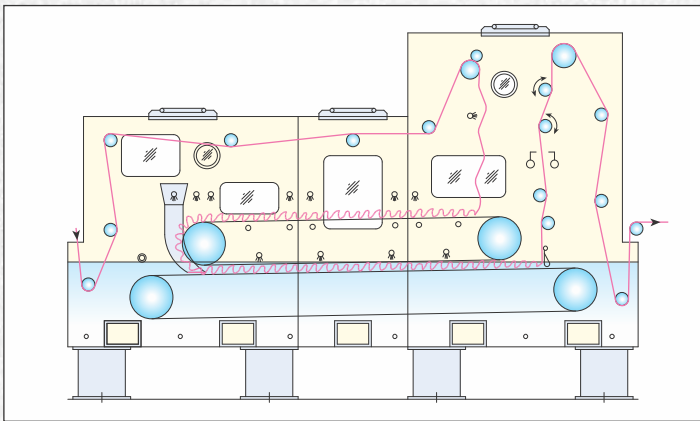
# WASHING RANGES

## OPEN-WIDTH CLOSED RELAXING TANK

Open-Width Closed Relax Washer is used for effective scouring process on two tiers of Stainless Steel wire mesh conveyors.

Suitable for all types of woven and knitted fabrics of 100% polyester; polyester blends; texturised PV suitings and dress material.

Fabric is piled on the top of the conveyor; with direct steam jet spray and pressurised hot water jet spray alternately which breaks the hardness of closely woven fabrics.



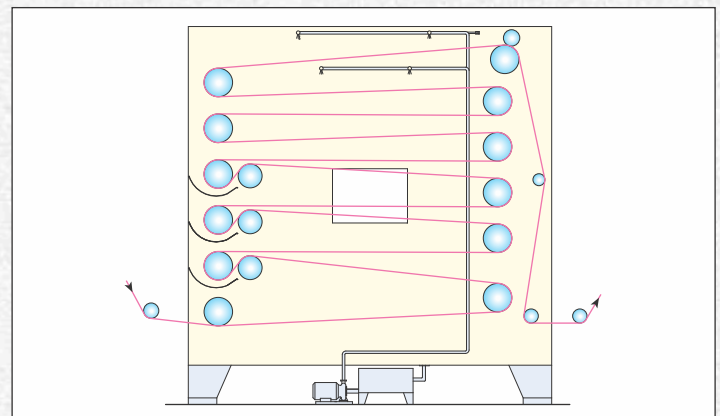
**RELAXING WASHER**

Fabric further moves on to the bottom conveyor which is immersed in hot water for treatment in relaxed form. Here the fabric runs in between the two conveyors where the fabric is processed in totally relaxed condition immersed in boiling water (95°-98°C).

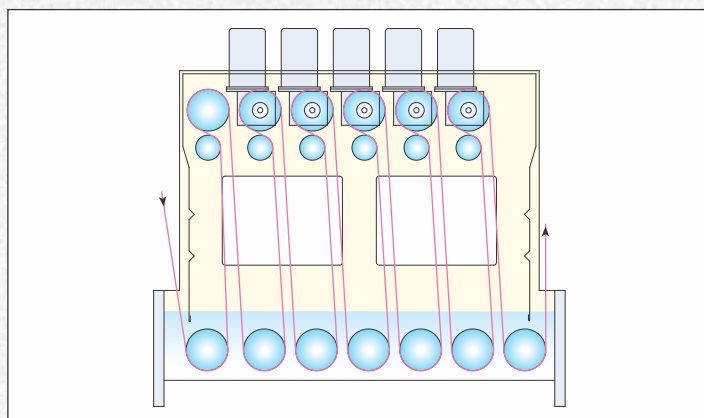
The combined effect of fabric movement in relaxed condition under hot water bath and powerful hot water jet spray on top and bottom side of the fabric on the top conveyor ensures optimum shrinkage which results in better feel, bulkiness, better finish and appearance of Polyester Viscose fabrics.

## HYDRO JET WASHER - HJ

This is a completely closed Washer with a very efficient fan Jet Spray Washing System. Water is sprayed on the uppermost passage and Water trickles down, getting squeezed between the fabric and roller surface. The squeezed liquor further trickles down on to the lower passage. Thus it is perfect Counter Current Washing, ideally suited for removing impurities and dissolved ingredients from fabric with minimum water consumption. Ideal for bleached or mercerised fabrics.



**HYDRO JET WASHER**



**STN-20 S**

## STN-20 S

Swastik Wash Tank STN-20 S, with Stripper Rollers, has Top Roll Drive with torque motors on alternate or all guide rollers except the first, for crease-free and tensionless drive system.

This tank is characterised by low water & steam consumption, with a high washing effect. It is recommended for delicate and for pile fabric.



**WASHING TANKS WITH VARIOUS CONTROLLERS**

## **ACCESSORIES AND CONTROLLERS**

The Washing Range can be equipped with the following:

- Flow controllers for water flow control
- Counter flow of water from the following tank to the previous tank with controlled overflow to drain
- A water level controller to conserve heat and water
- Temperature controllers for temperature control
- Heat recovery device to pre-heat the fresh inlet water using the heat from the drain
- Re-use of condensate outlet
- Load cell controller for precise tension controller
- Torque motor drive to the intermediate guide rollers for controlled tension working
- Acid dosing with pH control

## **AUTOMATION**

SWASTIK offers fully controlled machines with the most modern PLC controls systems which ensure optimum production. The level of control automation can be designed for specific requirements of individual customers. The PLC can also be connected to a Host computer or another PLC for networking data monitoring. Remote access of the control system is possible through the use of a Modem connected to the PLC.

Automatic operation and control with necessary sensors provide extremely efficient operation. Optimum temperature regulation, ideal water flow control, level control and automatic dosing systems for chemicals, soap and acid dosing for pH control ensures best washing results.

**FLOW METER**



**STEAM FLOW CONTROL VALVE**



## **DRYERS**

The washing Ranges can be equipped with Drying Machines like Cylinder Drying Range, Loop Dryer Conveyor Dryer etc. with / without 'J' Scray for continuous operation.

### **CYLINDER DRYER**

Cylinders Made in Stainless Steel and arranged on One, Two or Three stacks each of Six, Eight, Ten or Twelve Cylinders each, with individual or common drive. Drive to individual cylinder is by means of a Flat Belt or Chain and sprocket wheel. Main drive is from an AC motor with Frequency Controller. The machine can also be configured with each cylinder equipped with its individual motor or two cylinders with individual motors with a common frequency controller.

### **LOOP DRYER**

Washing Ranges for light and Delicate fabrics can be equipped with Loop Dryer, where the fabric is transported on Loop Rods, which travel from the entry end to exit end. Each Compartment can hold up to 30 metres fabric and has a air circulation from both top and bottom.

### **CONVEYOR DRYER**

Washing Ranges for Delicate Fabrics or Relaxed Fabrics can be equipped with a Conveyor Dryer, where the fabric is subjected to high velocity air from both top and bottom in case of single pass machine and on one side in case of two pass dryer. A teflon glass conveyor is provided to carry the fabric in tensionless and relaxed condition from the entry side to the delivery.