



coniver

Concept Invention !!

COMPLETE SOLUTION FOR KNITTED PROCESSING INDUSTRY



TUBULAR PADDER | TUBULAR COMPACTOR | RELAX DRYER | SLITTER | OPEN WIDTH PADDER |
OPEN WIDTH COMPACTOR

Indian Machine at International Standard

TUBULAR PADDER

Vattahalvirutti

Fully Automated

Turn Table

De-Twister

J-Box

Squeezer -1

Squeezer -2

Spreader

Plaiter

Technical Data

Features	Details
Machine Structure	SS/MS
Material Type	Tubular Knitted fabrics
Material State	Wet on Wet
Web Working width (WW)	1000 - 3400 mm
Roller Width (RW)	1200 - 3600 mm
Squeezing Roller Diameter	250 mm (For RW up to 2600 mm) 300 mm (For RW up to 3600 mm)
Compressed Air Pressure	8 bar
Maximum Mechanical Speed	60 - 100 m/min (With type of Plaiter)
Overstretch Range	Up to 25%
Power Requirement	3*230 / 400 V - 50 Hz (Other rating available on demand)

*Subject to new innovations



VattahalVirutti is an ideal hydro discharge and overstretch machine designed to superior quality for the tubular knitwear finishing segment. Unlike the age-old centrifugal or squeezer, wherein only hydro extraction and folding was the sole process, VattahalVirutti the discharge and overstretch machine is designed for continuous untwisting, untangling, draining, spreading and wet compacting of knitted fabrics in a single process.

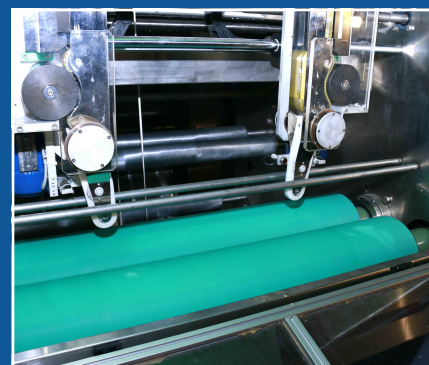
Squeeze Rollers

Extract water from the fabric in order to equalise moisture throughout the fabric by Anti-deflection roller. Squeezing efficiency upto 65-70%.

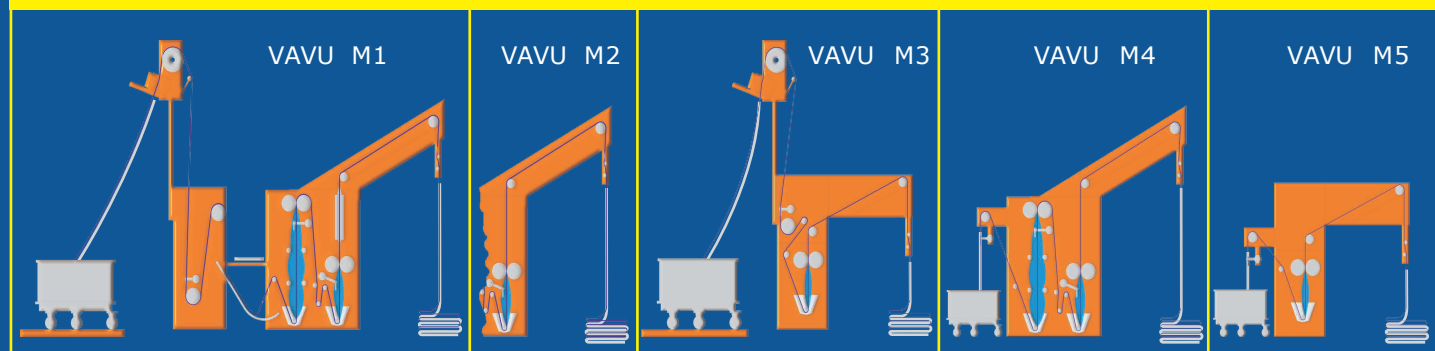


Magnetic Spreader

Expansion of the fabric using newly developed, continuously adjustable magnetic spreaders. Wet compacting in a single operation. Straight forward handling and savings on operation personnel. No change of spreader needed for different widths. This raises productivity,



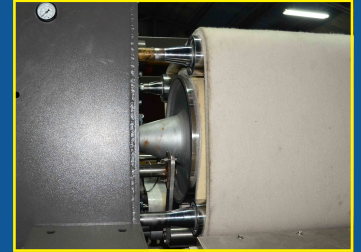
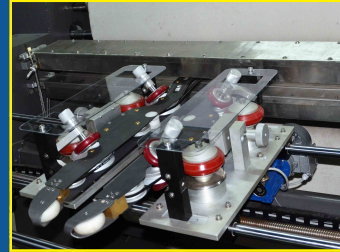
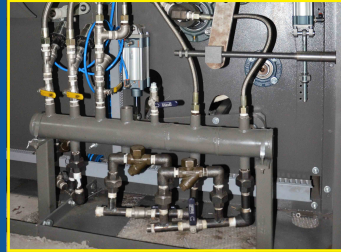
VattahalVirutti is being offered in five different customized variants after studying the industrial needs. The premium version of VattahalVirutti the hydro discharge and overstretch machine is designed for super quality wet compaction with wet-on-wet impregnation of knitted fabrics. All the variants of VattahalVirutti is equipped with automated process control for precision quality.



TUBULAR COMPACTOR

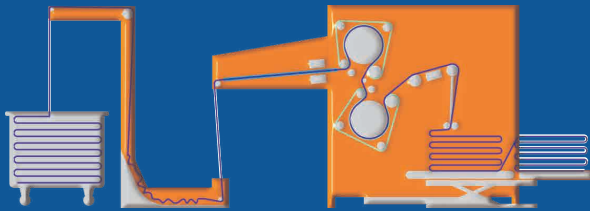
Meruugeettri

Meruugeettri Our Compactor is designed for the finishing of tubular knitted fabrics in fold to stabilise the dimension. In doing so, the fabric will be spread, steamed on both faces, compacted and pressed both sides by specially designed pair of felt and heating rollers, cooled by means of suction chamber and plaited to precision. All production parameters would be stored in the PLC and machine control can be accessed and operated by a fully automated console system with an access by touch panel as well as through network.



Magnetic Spreader The fabric is spread by an Aero dynamically designed magnetic spreader (permanent magnet), by which the fabric can be Spread Stepless even while running the machine. The spreader accessories are easy to manage and operation friendly.

Steaming & Cooling The fabric is steamed on both faces by two steam boxes with fine spraying and intercepting electro valve. The upper steam box is equipped with a special anti-condensation device and the box can be lifted pneumatically in order to facilitate fabric threading. Fabric cooling is achieved by means of a fan through suction chamber with mesh cover for perfect distribution of the cooling air. It helps to reduce weight loss too. This chamber is connected to a centrifugal suction fan.



Compaction

Compacting and pressing unit, which consists of chrome plated smoothing roller and a specially designed felt belt with a high surface elasticity. These felts are made of special structure of sandwich to provide maximum fabric shrinkage and to withstand extreme humidity and temperature conditions. Shoes are placed at the entry of both compacting unit is made of Teflon to avoid condensate formation and fabric wetting.

Technical Data

Features	Details
Machine Structure	MS
Material Type	Tubular Knitted fabrics
Working widths (WW)	1400/1600/1800mm
Heated Roller Dia	500mm
Machine Speed	3-50 m/min
Steam Consumption	50 - 200 kg/hr
Power Requirement	3*230 / 400 V - 50 Hz (Other rating available on demand)
Power Consumption	12 kW



Fully Automated

Entry System (optional steam box)

Feed control J Box

Magnetic Spreader

Steaming Box

Compacting zone-1

Load cell

Compacting zone-2

Cooling zone

Load cell

Precision Plaiter/Rolling

*Subject to new innovations

RELAX DRYER

Kattrulartti



Fully Automated

Humidity control
Over Feeder
Single Pass

Multi Pass
Thermic Oil

Steam
Gas

Technical Data

Features	Details
Machine Structure	MS (SS Nozzles)
Material Type	Tubular Knitted fabrics + Simple Open Entry
Processing Method	Multi track
Web Working width (WW)	2000 - 3200 mm
Total Width	WW + 2800 mm
Length of Drying Chamber	2.2 m / Chamber(C)
No of Chambers (NOC)	KAT M1 - min 2C+ NOC as customer choice KAT M2 - min 3C+ NOC as customer choice
Total Machine Length	(2.2 m * No of Chamber) + 4.2 m
Evaporation Capacity	200 to 240 kgs/hr/ DC
Mechanical Speed	0-50 m/min
Fabric Over Feeding	0-50%
Heating Source	Thermic Oil/ Steam/ Direct Gas
Power Requirement	3*230 / 400 V - 50 Hz (Other rating available on demand)

*Subject to new innovations

Kattrulartti is designed for tensionless shrinkage and relax drying of knitted fabrics in a wide variety of versions as Kattrulartti series, which can be chosen depending on the need and performance subject to the environmental conditions with heating source of choice as Thermic oil, Steam or Gas. The Kattrulartti series are designed with care for shrinking, relaxing and tensionless drying of knitted tubular and open-width fabrics. Fabric guidance and feeding can be done in multi line threading system and drying process can take place at a single or multi treatment level.

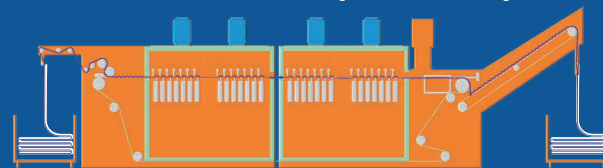
Automation Fully indigenized automation, in-house programming to the customer need with optional domestic language customization and touch screen interaction at state of the art interface for automatic control and process regulation. Independent of machine operator with large decision making ability in preparation and adjustment functions. Data transmission and communication link for PC based performance assessments. Remote maintenance, service and support for round the globe through internet.



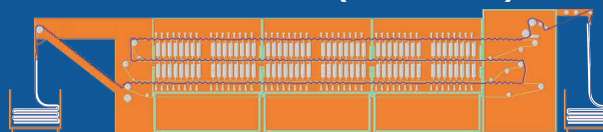
Machine variants are supplied to suit required working widths of 2000 mm to 3200 mm. Kattrulartti (KAT M1) is a single pass relax dryer designed for shrinkage controlled relax drying of tubular knitted fabric where as the Kattrulartti (KAT M2) is multi-pass edition. Our Machines are designed to state of the art technology, considering the current Industrial need of eco-friendly environmental conditions.

Split slide jet The treatment is done by the generous air flow arranged on both sides of the fabric through conveyor belts by a specially designed split slide concept nozzle. The nozzles are positioned opposite between the nozzles on the other side.

KAT M1 - 7.5 KW+(15KW*NOC)



KAT M2 - 10.0 KW+(15KW*NOC)



Turn Table | De-Twister
Sitter Basket
Rope Squeezer
Spreader
Plaiter

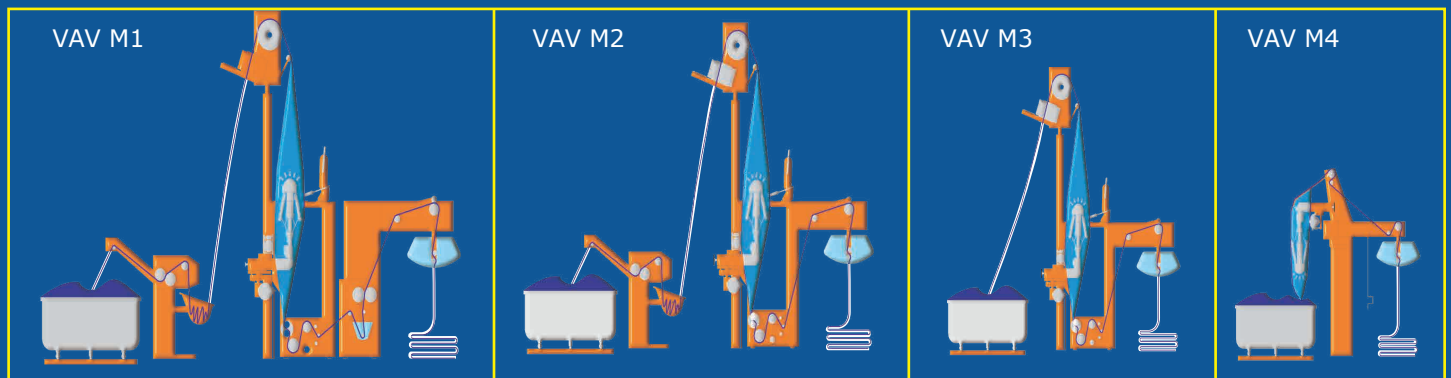
Technical Data

Features	Details
Machine Structure	SS/MS
Material Type	Tubular Knitted fabrics
Material State	Dry, Spun Dry, Squeezed
Tubular web Diameter	350 - 830 mm
Web Working width (WW)	1080 - 3400 mm
Roller Width (RW)	1200 - 3600 mm
Squeezing Roller Diameter	250 mm (For RW up to 2600 mm) 300 mm (For RW up to 3600 mm)
Compressed Air Pressure	8 bar
Max Web Speed	120 m /min (Variably for type of Web)
Maximum Mechanical Speed	80 - 100 m/min (With type of Plaiter)
Operating temperature	+10 to +50 Deg. C
Power Requirement	3*230 / 400 V - 50 Hz (Other rating available on demand)

*Subject to new innovations



Automatic de-twister with sensors for fabric rope, consisting of a motorised roller, an idle pulley and a stabilised feeler. The signal from the feeler is picked up by proximity switches. Fabric rope engagement is by means of rotary opening rollers. Entirely made of stainless steel, it is equipped with a three-phase AC motor, with pulley rotation by means of an inverter



Slitter Basket

A handwheel is the controller of the round basket diameter that can be expanded from 350 mm to 830 mm, so as to facilitate the spreading of the material & prevent harmful permanent weft distortions. The tubular web can be slitted at a maximum speed of 90m/min depending upon the type of the web.

Spreading Unit

The slitter can be supplied with a double spreading unit to ensure that the fabric is perfectly smoothed out before it is plaited. The two stainless steel rollers come with a wide range of channel profiles, adaptable to the application requested & type of fabric to be processed. Angular orientation can be modified by means of a handwheel or a crank, both of which can be operated manually



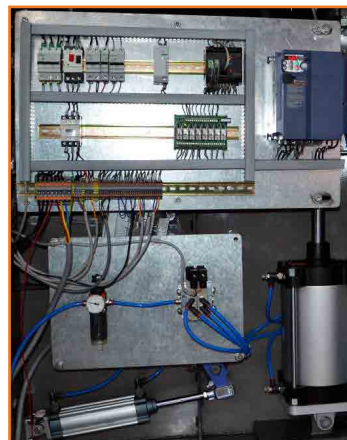
AkalTira Thiravaniikki is an open width padding machine designed for the knitted finishing process after washing and dyeing. Its outstanding compact design is very adaptive to suit any existing machines like, SLITTER, STENTER & DRYER. The strong SS construction housing makes the machine long lasting and results are consistent even after many years. High productive and user friendly machine and require very less maintenance.



Technical Data

Features	Details
Machine Structure	SS 304
Material Type	Open Width Knitted Fabric
Working widths (WW)	2400//2800mm
Roller Dia	300mm
Machine Speed	3-130 m/min
Installed Power	7.5 Kw/Unit + Add ons
Power Requirement	3*230 / 400 V - 50 Hz (Other rating available on demand)
Air Consumption	40 CFM

*Subject to new innovations



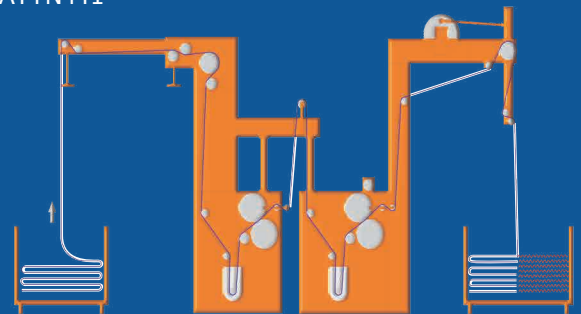
Various combinations of machine

These machines are versatile and can be attach with any machine or can be supplied as standalone. The machine can be equiped with Turn Table | Rope Squeezer | De-Twister at the entry as well

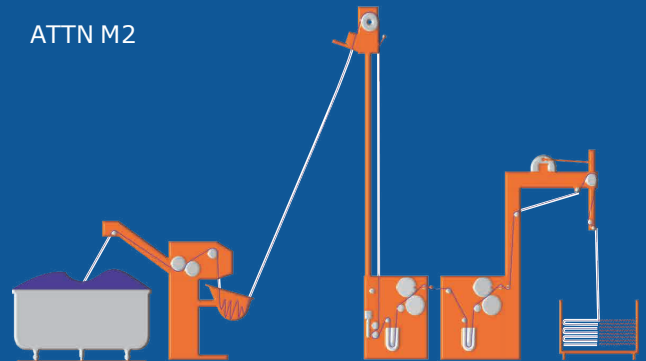
The machine also can also be provided with latest enzyme wash auto cleaning device to enhance the squeezing effect and result.

The machine can be attached to any existing Stenter, pin frame entry Relax Dryer or Slitter for continuos process.

ATTN M1



ATTN M2



OPEN WIDTH COMPACTOR

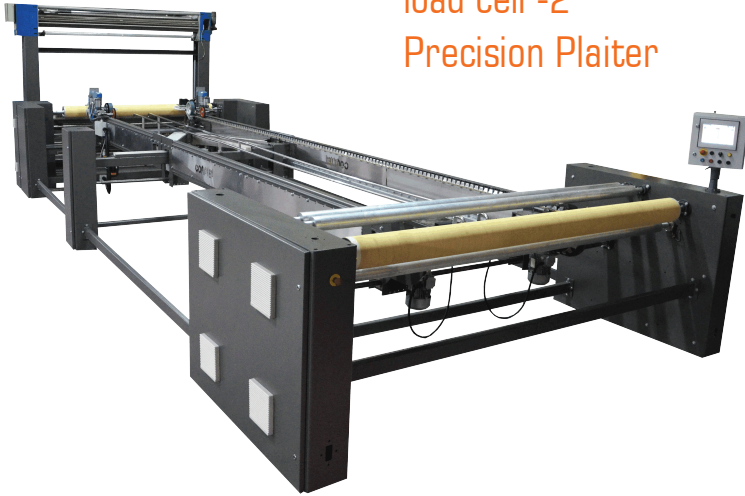
AkalTira Meruugeettri

Fully Automated

Entry Stream box
Advanced Spreader
SS Chain 9M

Non Stop Winder

Compacting Zone-1
load cell -1
Compacting Zone-2
load cell -2
Precision Plaiter



Technical Data

Features	Details
Machine Structure	MS/ (SS Tentering)
Material Type	Open Width Knitted Fabric
Working widths (WW)	2400//2800mm
Heated Roller Dia	400mm/600mm
Machine Speed	3-50 m/min
Steam Consumption	50 - 400 kg/hr
Power Requirement	3*230 / 400 V - 50 Hz (Other rating available on demand)
Power Consumption	30 kW

*Subject to new innovations

AkalTirai Meruugeettri

is designed for the finishing of Open width knitted fabrics in fold to stabilise the dimension in doing so, the fabric will be spread, steamed by the tentering entry unit and, compacted and pressed by specially designed pair of felt and heating rollers, cooled by means of suction chamber and plaited to normal plaiter or precision plaiter. All production parameters would be stored in the PLC and machine control can be accessed and operated by a fully automated console system with an access by touch panel.



Tentering and Steaming The fabric is spread, pinned, and steamed at the tentering frame, the conical and parallel tentering units ensure the width stabilization of the fabric. The well carfted steaming unit increases the moisture in the fabric which ensures the good compaction. The width can be set seamlessly by screw rods and its measured, monitored and controlled. The pinning devices with uncurlers make sure the wastage on the edges while pinning is as low as possible. The over feed percentile cane be set as needed by the process at the operator consol.

Load Cell Technology

The load cell technology is given at exit of the tenter, between the felts and before cooling devices. We use the state of art technology to measure and excute a very precise control of the speed which ensures the lowest tension on the fabric.

Compaction Zone

Compacting and pressing unit, which consists of chrome plated smoothing roller and a specially designed felt belt with a high surface elasticity. These felts are made of special structure of sandwich to provide maximum fabric shrinkage and to withstand extreme humidity and temperature conditions. Shoes are placed at the entry of both compacting unit is made of Teflon to avoid condensate formation and fabric wetting.





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