





# **YARN** CONDITIONING

MACHINE















JOGSON Yarn Conditioning / Heat Setting Machine is designed with an objective to restore natural properties of yarns i.e. to improve elasticity & strength, regaining moisture level, improving hydrophilic properties, removing snarling & curling effects, Twist Setting.

This dual purpose machine is ideal to treat all natural and synthetic yarns i.e. Cotton, Viscose, Lycra, Blends, Wool, Polyester, Nylon, Acrylic and Silk in the form of Cone, Loose Fiber, Hanks, Muffs, Tops, Narrow Fabrics, etc.

It is offered with various types of yarn carrier trolley like: Creel Type Trolley to Carry Cones, Bobbins, Trolley with Hangers for Loose Yarn, Hanks, socks and Cage type trolley for Loose Fiber, hand gloves, etc. Automatic platform for loading / unloading of yarn carrier trolley is also available as option.



#### **SUITABLE MATERIALS**















**Fabrics** 

**MODELS** 

	JYC	25	50	100	150	300	500	750	1000	1200	1500	1800	2000
	Batch (Kg)	25	50	100	150	300	500	750	1000	1200	1500	1800	2000
E	lectric Load (Kw)	2	2	2.5	2.5	4.5	8	12.5	12.5	16	16	16	20

- We reserve our rights to make any changes without prior notice
- Batch capacity of the machine may vary according to the material i.e. Polyester, Cotton, Viscose, Silk, Tape, etc.
- Electric load mentioned above is of vacuum pump fitted with electric motor
- Scope of delivery and technical specification of the product supplied shall be in accordance with the contract



## Process Control

The entire process of conditioning starts from material loading, Locking of front door then Vacuum is first created upto 740 mm Hg by water ring vacuum pump to remove the air & impurities from the yarn. This improves penetration by steam & lack of O<sup>2</sup> prevents oxidation. Dry steam is then injected in the machine along its entire length ensuring an even distribution of temperature. Vacuum is recreated to remove excess moisture from the yarn.

External Steam Heating of the Machine through Limpet Coil ensures no steam condensation which also helps to maintain the temperature. When Cooling is required for the machine, same Limpet Coil can work with water. Multiple Vacuum, Steam & water cooling cycle are possible by linking two or more programs.



## Technical Data

- Design pressure -1 to + 1 bar
- Maximum design temperature 130°C
- Heating gradient 25°C 130°C approx at 5°C /min. (Dry saturated steam pressure at 7 bar)
- Average steam consumption per kg. of yarn 0.25-0.50 kg. at 7 kg./cm2
- Water consumption (During the vacuum pump operation) at 1 bar is upto 15 Ltrs/min.
- Compressed air requirement 6-7 kg./cm2
- Max vacuum up 720 mm Hg

# **Advantages**

- · Twist setting, shrinkage set of yarn
- Reduction in snarling
- Improved dye fixation & affinity
- Improved weaving & knitting performance, fewer needle breaks
- · Higher elongation & strength of yarn
- · Free from electrostatic charges
- Easy to operate, low maintenance cost and energy efficient
- · Uniform moisture regain

#### Salient Features



- Machine body & all parts in contact with the yarn are made of AISI-SS 304, highly corrosion resistant
- · Insulated external with mineral wool to maintain vacuum pressure which helps in producing cold saturated steam at low temperature
- Low temperature yarn conditioning from 45°C and heat setting upto 120°C
- Maintenance free mono block vacuum pump, ensures upto 95% vacuum gain and homogeneous absorption of moistur
- Direct & indirect heating
- Jacket cooling (Optional)
- Pneumatic operated door lock / unlock with safety interlock as per International Standard
- Variable loading of yarn
- Provided with condensation protection sheet to avoid water droplet on the yarn
- Installed with pressure switch to release the excess pressure through pressure release valve
- Installation at floor level, saves space and requires min. civil
- Control panel with JOGSON process controller TPR-33 or PLC based touch screen programmer

#### Optional Features



- · Motorised loading / unloading platform
- SS 304 / 316 vessel



# OUR **PRODUCT RANGE**



**MULTIPOT DYEING** MACHINE



**VERTICAL TUBULAR DYEING** MACHINE



**VERTICAL DYEING** MACHINE



HORIZONTAL TUBULAR DYEING MACHINE



HORIZONTAL VESSEL DYEING MACHINE



**MULTICOLOR SPACE DYEING** MACHINE



**GLYCERIN BATH BEAKER DYEING** MACHINE



YARN CONDITIONING **MACHINE** 



**HYDRO EXTRACTOR** 



**HOT AIR DRIER** 



INDUSTRIAL WASHING MACHINE



**TUMBLER DRIER** 



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