



PRASHANT GROUP

World's Fastest  
Robotic Sectional Warper

ROBOWARP PB 9



THE NEW GENERATION SECTIONAL WARPERS



## Ultimate Solution for Quality Warp Production



In today's textiles business, demand for highest productivity with stringent quality parameters is being raised day by day. Textile weaving operation has to manage the varied combination of product mix with shortest possible lead period. In such a scenario, warp preparation division also comes under acute pressure.

To facilitate the same, we introduce Fully Automatic Sectional Warping Machine, **ROBOWARP PB 9**, which offers excellent flexibility as well as optimized productivity while maintaining the highest standard of warp quality.

### ENDLESS WARPING

No need to cut section.

Automatic section advancing.

Precise yarn separation.

Automatic measurement for section width and pitch determination by laser sensor.

Sizing lease by Robotics during continuous operation to divide warp sheet in maximum 8 layers.

### HIGHEST PRODUCTIVITY

New Concept by 3 axis robot ensures accurate and high speed positioning.

Fast and completely automatic insertion of lease.

Optimized yarn use offers much shorter creel set-up and change over time.

Ergonomically designed operation.

### SUPERB FLEXIBILITY

Possible to prepare small width section (7 mm) with minimum No. of yarns.

Suitable to warp all kinds of yarns. Cotton, Multi & Mono filaments, Silk, Woolen, Polyester, Cavler, Acrylic, etc.

Possibilities to programme different width of section.

## Innovative Concept In Sectional Warping

In the era of technological enhancement, ROBOT can perform, repeatedly precise jobs better than human beings. Various manual functions required in the conventional sectional warping needs to be replaced by such technological advancement to cater the today's highly changing fashion trends.

The newly developed ROBOWARP PB 9 with its reed headstock integrated into the machine superstructure allows optimum production speeds. Thanks to its innovative control system.

The new generation machine brings a new dimension to the sectional warping process, whilst guaranteeing efficient production combined with the highest warp quality. It is also ideal for sampling up to 50 meters of warp.

ROBOWARP PB 9 allows warps to be produced economically using the smallest quantities of yarn, yet offering the capabilities of higher production length.

Sections down to a minimum of 7 mm can be warped and economic warp production achieved with greatly reduced bobbin numbers in the creel. The optimized yarn use and new part-creel mode offer shorter setting-up times compared with conventional warping machines.

The ergonomic design of the ROBOWARP PB 9 ensures simplicity and fast operation. In combination with process control measure provides economic and high quality production of short, medium and longer warp length.

## A Leader Exceeds All Previous Technology

### PERFECT WARP QUALITY

Application of Feeler Roller (guided by Pneumatic closed loop A/c Servo Drive) on reed head-stock for precise, uniform, compact tidy warping.

Optical monitoring of the thread separation at the warping reed during automatic insertion of the split cords (which are simply placed in the warping drum as part of the setting-up process) is extended in scope by the optical positional check of the separation slider.



Laser-aided feed determination ensures highest warp quality and at the same time offering the possibility to carry out complicated samples by functional way.

Cylindrical package build-up and the correct placement of the split cords, ensures perfect warp quality.



### HIGH TECH LEASING DEVICE

Fully automatic, fast and precise, new pneumatic leasing device is not fixed to the floor but is the part of the machine, and is located in the machine superstructure.

By separating the thread guidance from the leasing reeds, this device provides the basis for optimized working when changing lots.

A laser control allows the perfect separation of yarn during leasing. Leasing comb with eyelet board allows smooth yarn passage with a significant reduction in yarn break.

Auto section tension control feature provides correct package built up over the warp width and a constant thread tension over warp length.

Option of independent use from both sides of creel by reserve carriage for the 2nd series of combs, allows to prepare the next warp while the machine is working. Leasing combs perfectly designed for quick yarn insertion.

### SOLID STRUCTURE

The solid structure of machine allows installation in small space. The machine is equipped with strong and functional Cradle type beamer.

Beam donning and doffing device are integral part of compact and ergonomic structure.

The main data input console and functional buttons for warping and beaming operations are easy to access.



### FINEST QUALITY WEAVER BEAMS

Entire machine operations are controlled by Multi-axis 'SIEMENS' high tech servo drives and motion sensors resulting in the finest quality weaver beams for all kinds of yarns.

# *New benchmark in Sectional Warping*

## OUTSTANDING TECHNICAL PARAMETERS

Maximum warping speed	: 800 m/min	Working width available	: 2200 mm & 3600 mm
Minimum section width	: 7 mm (Depending upon yarn quality)	Maximum yarn wound dia.	: 950 mm
Maximum section width	: 300 mm	Maximum beam flange dia.	: 1000 mm (Accommodation 1250 mm)
Minimum yarn package	: 12 – 24 ends.	Maximum beam tension	: 6000 N
Maximum creel ends	: 672 ends (Pitch : 240 x 240 mm - 8 tier)	Maximum beaming speed	: 200 m/min
Time for thread separation	: 9 seconds per lease by robotics.	Cone angle	: 8.5°

## OPTIONAL ATTACHMENT

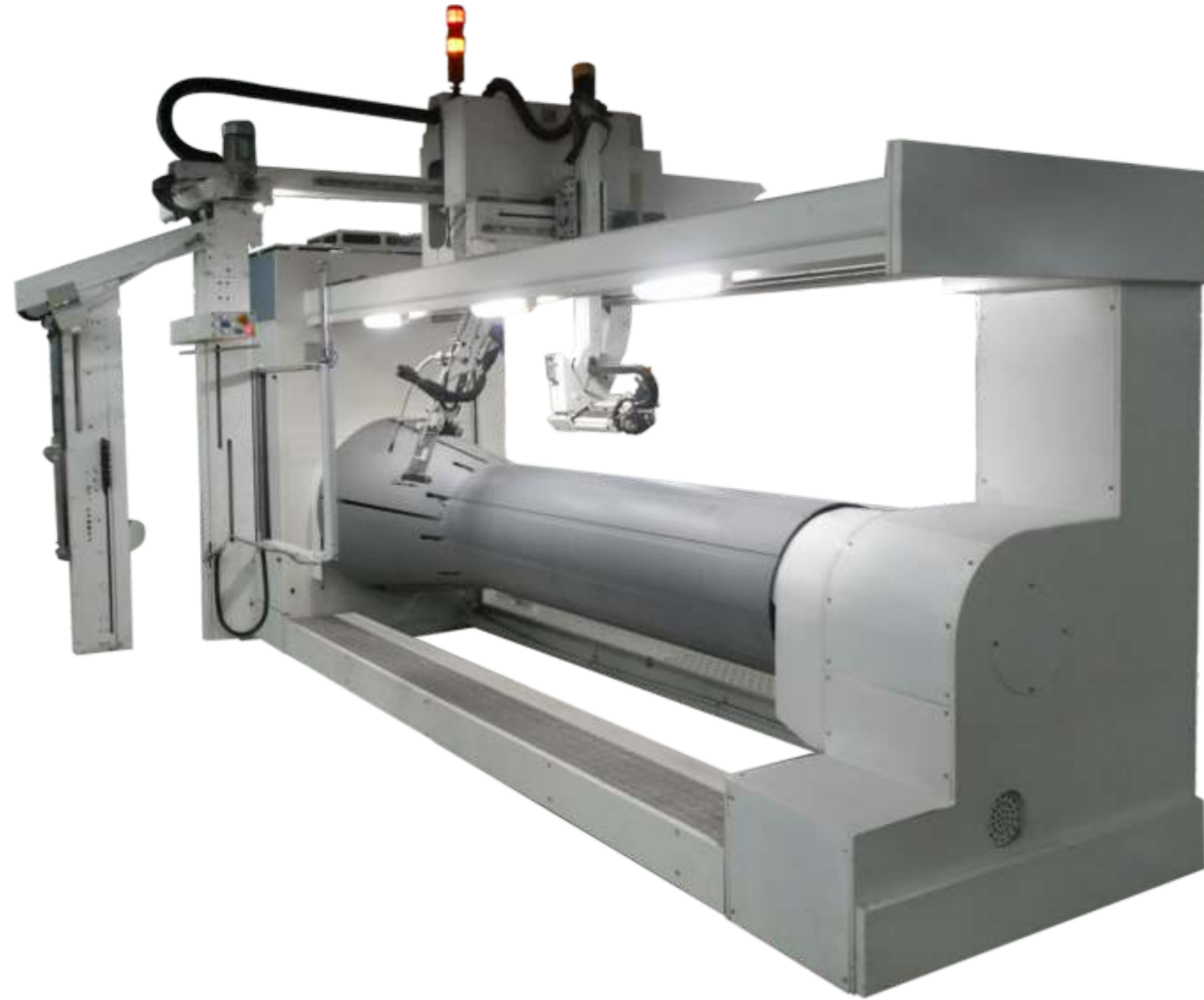
Motorized waxing device with lowering vat.



**ROBOWARP PB 9**

# Ideal Solution for Short and Medium Warp

## ROBOWARP PB 5



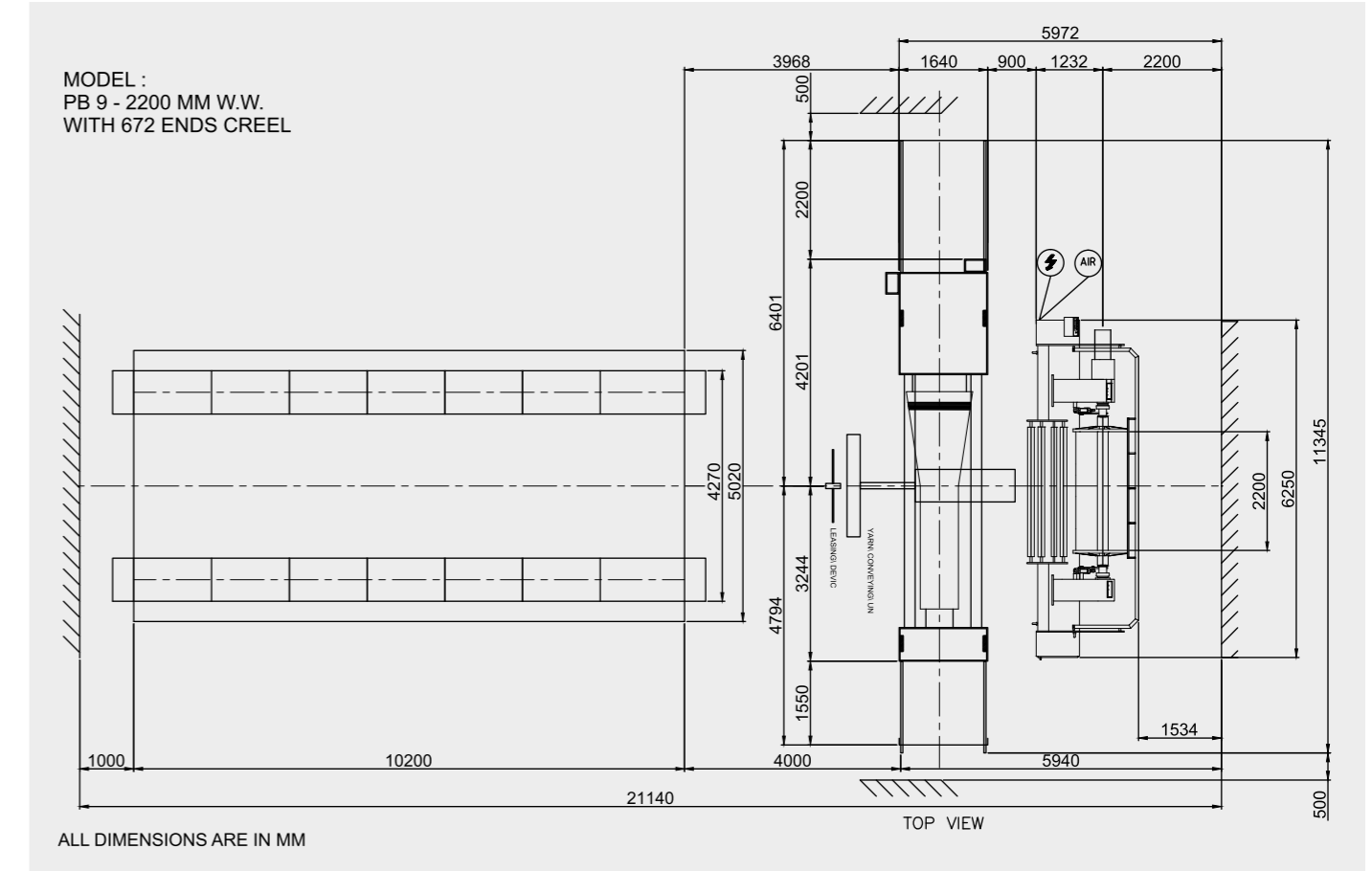
### OUTSTANDING TECHNICAL PARAMETERS

Maximum warping speed	: 800 m/min
Minimum section width	: 4 mm (Depending upon yarn quality)
Maximum section width	: 150 mm
Minimum yarn package	: 12 – 24 ends.
Maximum Creel Ends	: 480 ends (2 creels of 240 ends) (Pitch : 240 x 240 mm - 8 tier)
Time for thread separation	: 7 seconds per lease by robotics.
Working width available	: 2200 mm & 3600 mm
Maximum yarn wound dia.	: 700 mm
Maximum beam flange dia.	: 1000 mm
Maximum beam Tension	: 4500 N
Maximum beam Speed	: 200 m/min
Cone Angle	: 9.46°

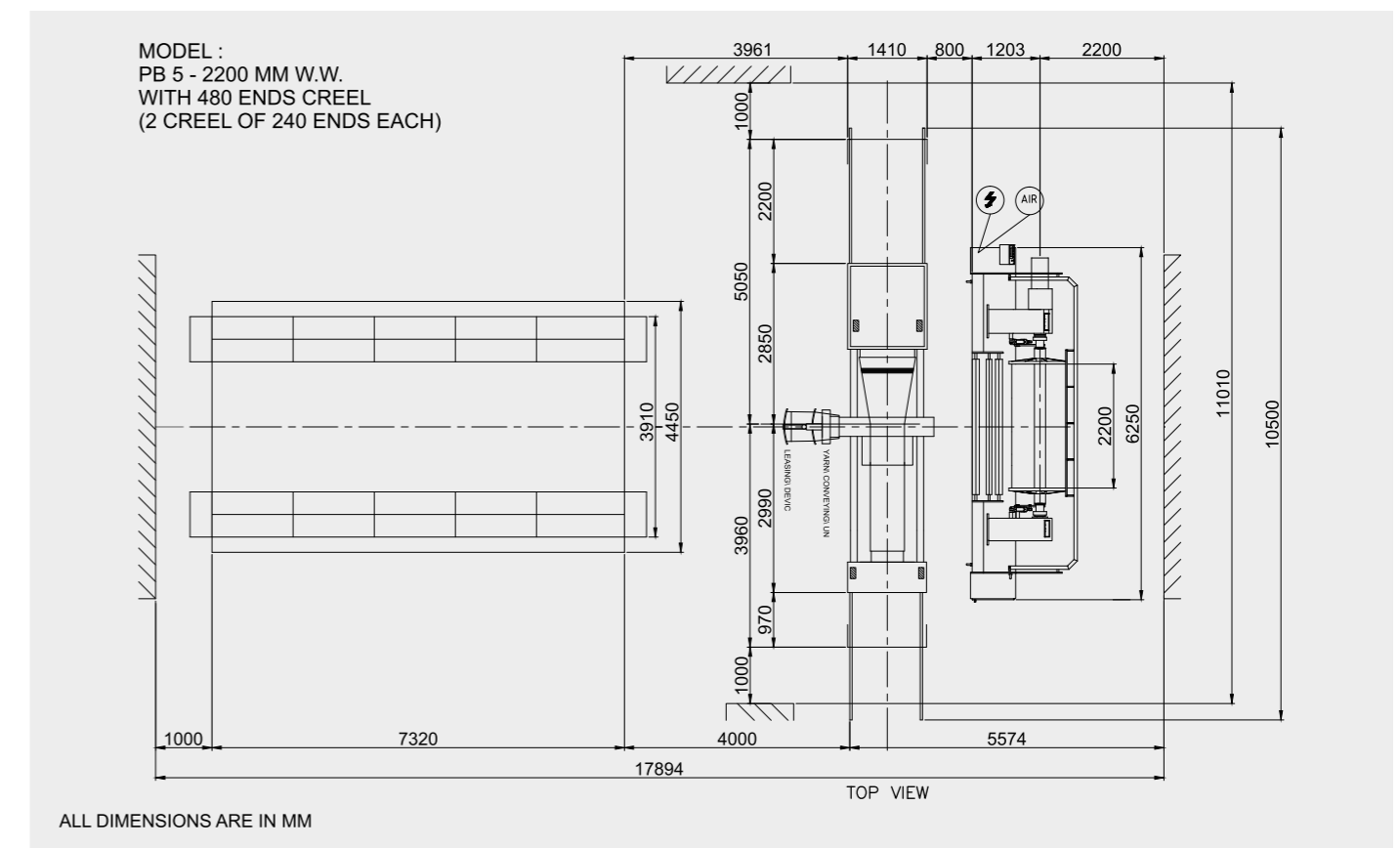
### SALIENT FEATURES

- Auto section advancing (no need to cut section)
- Lease insertion by 3 axis robot
- Precise and quick yarn separation with optical monitoring
- Endless warping
- Superb flexibility with highest productivity
- Ergonomically designed operation
- Optimized yarn use

## ROBOWARP PB 9



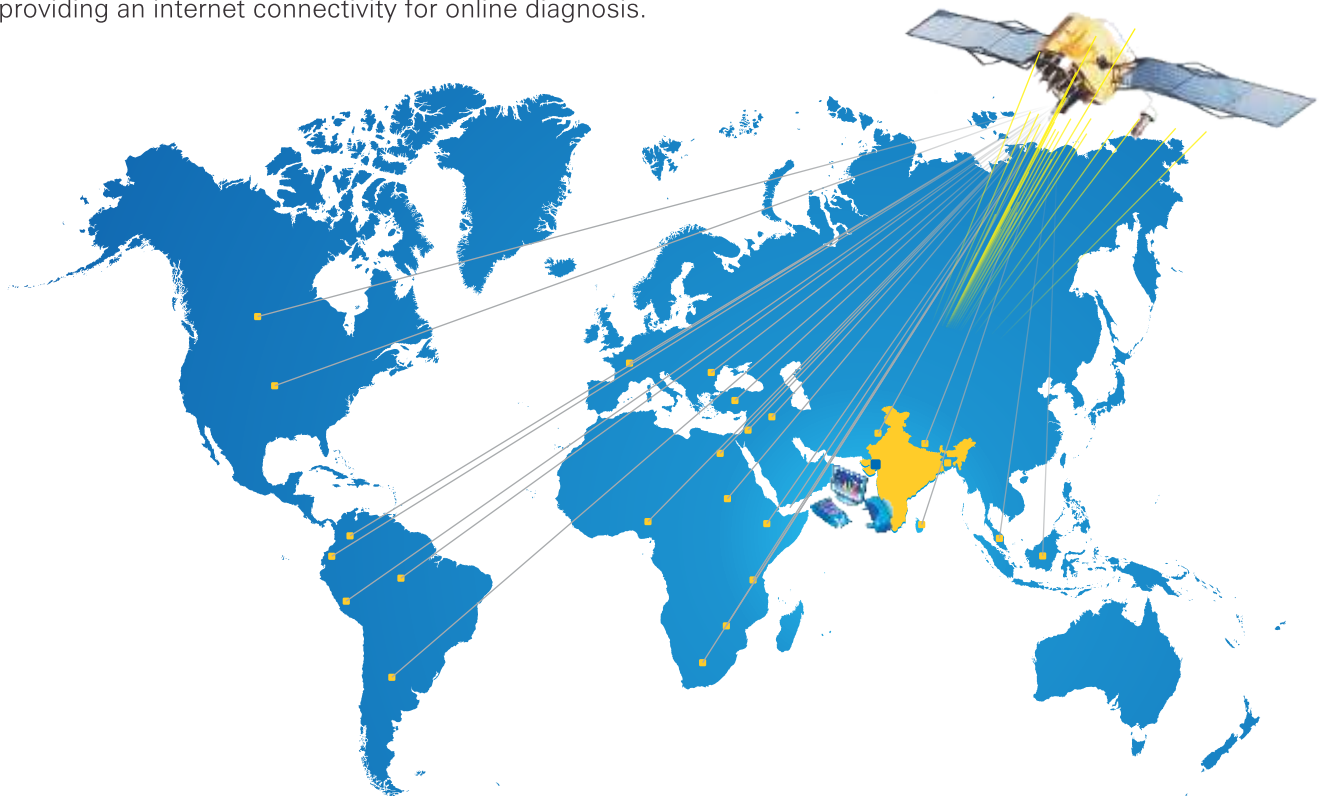
## ROBOWARP PB 5



Specifications are subject to change due to continuous technical developments.

## Remote Sensing Facility

Machine can be linked with our Head Office by providing an internet connectivity for online diagnosis.



## Assembly and Testing



## R & D Center



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