



## **Tyre Retreading Machinery**

*a division of  
Marangoni Meccanica*



# CONSTRUCTOR 3000



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# CONSTRUCTOR 3000

The "Constructor 3000" is a fully automatic builder, developed for the cold retreading industry and designed to apply precured tread strips on truck, bus and light transport vehicle tyre casings.

The machine is able to carry out the following operations in automatic mode:

- Inflation and alignment of the buffed tyre on the hydraulically expanded chuck.
- Measurement of buffed circumference of the casing and of precured tread length to allow the automatic pre-selection of all parameters.
- If available, application and stitching of the pre-calendered cushion gum (semi-automatic operation with intervention of the operator).
- Alignment of the tread strip and correct positioning on the tyre.
- Tension control of the strip during the application on the tyre.
- Calculation of the splice up to a maximum stretching of 3%.

- Radial stitching of the tread with possible intermediate dwell on the shoulders.
- Tyre deflation at end of cycle.

The control interface between machine and operator is handled through a touch screen which guides the operator through the various production steps on the machine.

The functions carried out by the operator are:

- Loading and unloading of the tyre on the chuck.
- Loading the precured tread strip cut to length on the conveyor.
- If cushion gum applicator is available, preparation of the material, final cut of the precalendered cushion gum, removal of the polyethylene backing.
- Final stapling of the tread edges.

The machine can be equipped with a universal chuck for tyre sizes 19,5-22,5" x 210-230-300-340mm.

## MAIN FEATURES

- Servo assisted Cushion gum application (optional) & Centering unit
- Radial hydraulic stitching unit
- Hydraulically expandable chuck unit
- Conveyor roller with automatic lifter
- Precured Tread pattern positioned onto the roller conveyor to avoid contamination
- Circumference measuring device
- 1 chuck included 19,5" - 22,5" x 230 mm
- PC Touchscreen
- Possibility of online technical assistance

## TECHNICAL DATA

	<b>CONSTRUCTOR 3000</b>
Max. diameter of the tyre	1260 mm
Min. diameter of the tyre	600 mm
Max. width of the tread	450 mm
Minimum width of the tread	150 mm
Minimum diameter of the bead	15"
Maximum diameter of the bead	24,5"
Total installed power	10 kW
Power supply voltage	400/460 V
Auxiliary voltage	24Vdc
Supply frequency	50/60 Hz
Air supply pressure	8 bar
Average productivity*	10 tyres/hour (315/80R22,5)

\* Cycle without integrated cushion gum application. The average productivity depends also on the operator experience and skill.

## OVERALL DIMENSIONS AND WEIGHT

	<b>CONSTRUCTOR 3000</b>
Width	1600 mm
Height (from floor)	2200 mm
Length	5200 mm
Weight	2500 kg

Example layout of CONSTRUCTOR 3000

