



Tyre Retreading Machinery

*a division of
Marangoni Meccanica*



BLACK CONSTRICTOR 3000



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BLACK CONSTRICTOR 3000

The BLACK CONSTRICTOR 3000 is a new machine developed to allow on the same hydraulically expandable chuck the cushion gum application by means of a vertical extruder using a strip-winding method, and the application of the pre-cured tread.

The machine is designed for the top retreaders focusing on truck, bus and light transport tyres.

The whole process is automatic, the only functions carried out by the operator are:

- Loading and unloading of the tyre on the chuck.
- Selection of the program on the operator panel.
- Finishing (stapling) of the pre-cured tread application before stitching.

MAIN FEATURES

- Cold feed vertical extruder, diameter 40 mm
- Automatic feeding system of the extruder
- N.1 tempering unit
- Pressure transducer on the head of cushion gum extruder
- Laser measuring device to detect buffed profile before cushion gum application
- Conveyor roller with automatic lifter
- Application in full automatic mode of all kinds of pre-cured strips
- 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 hydraulic stitching of the tread with possible intermediate dwell on the shoulders.

OVERALL DIMENSIONS AND WEIGHT

BLACK CONSTRICTOR 3000	
Width	2720 mm
Height (from floor)	2400 mm
Length	8050 mm
Weight	5200 kg

While the machine is running the operator can prepare the pre-cured tread for the next tyres.

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 application of the cushion gum by the method of strip winding grants a high flexibility because different profiles and thicknesses can be set. This method enables also the filling of craters (up to a max hole size of 20x2mm). An important advantage is that with this kind of application there is also no need to apply cement.

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

TECHNICAL DATA

BLACK CONSTRICTOR 3000	
Max. diameter of the tyre	1260 mm
Min. diameter of the tyre	600 mm
Max. width of the tread	450 mm
Min. width of the tread	150 mm
Min. diameter of the bead	15"
Max. diameter of the bead	24,5"
Total installed power	32 kW
Power supply voltage	400/460 V
Auxiliary voltage	24Vdc / 10 Vdc / 230 Vca
Supply frequency	50/60 Hz
Air supply pressure	8 bar
Average productivity*	13-15 tyres/hour (315/80R22,5)

* Full cycle incl. cushion gum application. The average productivity depends also on the operator experience and skill.

Example layout of BLACK CONSTRICTOR 3000

