



Penguin

YARN SPIRALER



PENGUIN Spiraling machine is used in the construction of spiral structure of yarn over rubber hose. Spiraling is done to increase the strength of rubber hose. The spiraled rubber hose can be used in production of low and medium pressure hoses.

The layout of the machine is compact which results in stable winding operation. The stability is achieved by keeping the shorter distance between winding points of two winding layers.

The controls of the machine are safe and precise monitoring the speed and other datas. Safety devices are incorporated ensuring safety of the operator and machine. For instant stop, the machine has pneumatic brake.

The machine is equipped with High torque motor and a HMI for easy input of parameters to the PLC. The machine has the ergonomic design of the HMI and the speed adjustment with a potentiometer to assist the operator in an easy way to use machine.

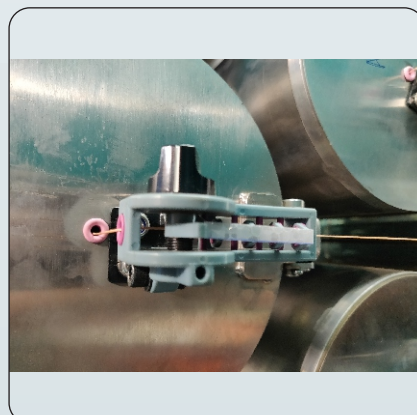
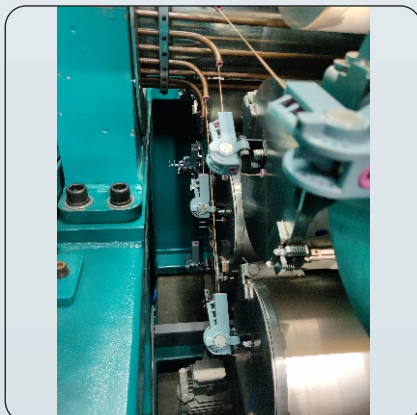
The machine is safely equipped with pneumatic brakes, which will assist the braking operation at the end of the operation, so as to keep the yarn in a controlled manner during starting and stopping. The air is safely stored in a reservoir, and hence, even if the air is dropped, there shall be enough air to stop the machine during that cycle.

Features



YARN SPIRALER

- Pneumatic brake for instant stop
- Two doors with either side accessibility
- Bobbins can be easily accessed
- Inlet and exit guide rollers
- 2 Heads of 36 bobbins each
- PLC for easy operation of the machine
- Human Machine Interface
- High torque motors to give a slow speed and high torque applications at very slow speed.
- The pitch is maintained with encoder
- The operation of the machine is controlled with PLC and the parameters can be input safely with an HMI.
- The safety elements in the machine includes, the pneumatic brake, safety relay at the panel, braking resistors and many other features.
- The pneumatic reservoirs acts to store the extra needed air, even if the compressed air requirement fails at any point of time.
- The pneumatic brake setting, of when to apply and when NOT to apply, is easily set able in the HMI screen.
- The stop motion of the yarn sensor, 2 numbers for each deck, will assist the operator to stop the machine immediately, if there is any breakage of yarn.
- The tower lamp will assist the operator to show the working status of the machine.
- Ergonomic design of the machine with HMI in an movable design, for easy access for the operator.



Specifications

Max. Spiraling diameter	75mm (via 120 mm)
Number of bobbins	Max. 36 / head & Double head / machine
Weight of bobbin	1.5Kg/piece
Bobbin volume	2300 cc
Speed of spiral head	310 rpm
Yarn static tension	30 - 150 g
Yarn dynamic tension	Within $\pm 10\%$ of set value
Center height of hose from floor	1150 ± 10 mm
Pneumatic pressure	6 Bar
Power required	23.5 kW
Electric Supply	AC 440V, 3 Phase
Overall dimension (L x B x H in mm)	3300 x 1550 x 2550



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