

Two-axis winding machine

Introduction



This 2-axis horizontal winding machine enables precise, segmented presetting of critical parameters—including tape feed length, torque, tape tension, angular velocity, and linear speed—while maintaining constant control over tension, angular velocity, and linear speed during continuous operation. It supports up to two feed lines and accommodates a maximum single-strand tape tension of 50 N (customizable upon request), with tape width compatibility ranging from 4 mm to 12 mm. The system can be configured for specialized magnet winding applications or enhanced with various sensors to function as a professional in-line testing station. Equipped with an intuitive user interface, the machine ensures straightforward operation and provides real-time monitoring of key process data—such as tension, speed, and turn count—alongside precise, on-the-fly adjustments to tension and speed settings.

Functions

- 1.Integrated touchscreen interface;
- 2.Forward/reverse guide tape;
- 3.Precise control of length, tension, and linear speed;
- 4.Tension preload protection;
- 5.Abnormal tension alarm;

Applications

Designed specifically for university laboratories, research institutions, and high-tech enterprises; suitable for general-purpose programmable winding processes.It supports simultaneous winding of 1 to 2 tape strands, with adjustable tension ranging from 1 to 100 N and flexible speed control to suit various processes. Powered by 220 V AC supply, the unit delivers a maximum power of 5500 W.

Parameters

Tape width	4-12 mm
Spool weight	Within 10 kg
Linear velocity	0-30 cm/s
Tape tension	0-50 N
Take-up torque	0-50 N*m
Dimensions	2.3*1.1*1.8 m
Power	5500 W
Current	25 A
Control interface	Lan port & USB port
Control system	PLC & Touchscreen