
Full-automatic Rewinding Machine



1. Introduction

The rewinding machine is an auxiliary equipment of the braiding machine, which is used to rewind the metal wires onto the braiding bobbin orderly and evenly.

The traditional rewinding machine is semi-automatic type, by which the bobbin loading, unloading, clamping, and wire cutting all need to be operated manually, and the number of rewinding heads is generally only up to 3. The operators need to do frequent bobbin loading and unloading work during the machine is running, which greatly increase labor cost and low working efficiency.

In order to solve the problems existing in the traditional rewinding machines, our company has developed a new type of full-automatic rewinding machine with very simple structure and adopts a 2.2kW variable frequency motor. The bobbin loading, clamping, doubling, end clamping, wire cutting, and bobbin unloading are all completed automatically by the program control set by the PLC, which can replace manual operation, realize automatic production and reduce cost and increase efficiency. The rewinding machine adopts a four-axis parallel structure, which makes multiple bobbins can run at high speed at the same time to improve the efficiency of rewinding production. The traversing system uses a servo motor to drive a high-precision ball screw and tracks the change of the frequency conversion motor speed automatically through the feedback signal of the encoder to ensure the constant pitch traversing. With the function of wire breaking and fault alarm, the alarm lamp flashes and stops automatically when any end or many ends of wires breaking, and the rest of rewinding heads can continue to work. The form of the pay-off rack can be passive type, motorized type, static plate, etc. according to the wire diameter.

2. Features

The automatic rewinding machine we provide has the following characteristics:

- (1) Automatic stop when the payoff wire broken or no payoff, the bobbins have the automatic braking device;
- (2) It will automatically stop when the metal wires are rewinded to the set numbers which ensures the same capacity of each bobbin;
- (3) Frequency control is used to control the rewinding speed on the touch screen steplessly;
- (4) Adopting the precise traversing device, the traversing is neat and the tension of the wire doubling is stable, which improves the quality of the wire arrangement.
- (5) Electronic meter counter is used to ensure the high precision.

3. Main Technical Parameters

The main technical parameters of automatic rewinding machine are shown in the following table:

Rewinding material	Copper wires, aluminum magnesium alloy wires, etc.
Number of rewinding heads	1 ~ 4
Bobbin size (mm)	$\phi 75 \times \phi 22 \times 70$
Max. Bobbin speed (rpm)	3000 (Stepless)
Number of wires per rewinding head (wire)	2 ~ 10
Single wire diameter(mm)	0.05 ~ 0.25
Rewinding pitch (mm)	0.1 ~ 3.0
Bobbin stocking (pc)	92 (According to customers' requirements)

Product link : <https://www.linttop.com/full-automatic-rewinding-machine.html>