

Achieving fully automatic operation, including bobbin switching, end treatment, and adjustment of winding shape

Bobbin Auto-switching-type Rewinding Machine

RWBB-01H-AU



●The product in the photo is a prototype.

Automatic switching possible even for an ultra-fine wire from now on!

Expert rewinding techniques are required for rewinding in a finishing process such as rewinding from a large bobbin for processing in a factory to a small bobbin for shipping. We can meet the need to reproducibly produce a stable winding shape with a better unwinding property with high efficiency without depending on the proficiency of the operator, while preventing the winding from collapsing during delivery to customers!

This is a bobbin auto-switching-type rewinding machine. It has fully automatic operation with many useful features for rewinding operations, including an auto-traverse function, which automatically adjusts the winding shape, a bobbin edge detection function, which detects the error of each bobbin, a correction function for a bobbin's corner R, and a taper tension function, which suppress the unwinding failure in the innermost layer.

In addition, the use of our excellent lower tension control technology enables the rewinding operation with the bobbin auto-switching function at high speeds even for ultra-fine wire.



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Operations are fully automated from tying the beginning to sticking the end.

Just press the start button after attaching a material to the unwinding shaft and setting it to the setting position. No annoying adjustment for winding is required.

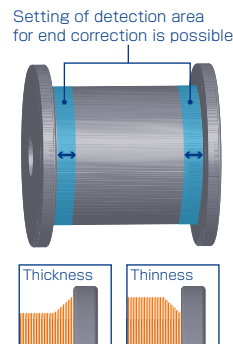


Four functions to achieve expert winding

Auto-traverse function

The flat winding shape from the beginning to end is achieved by automatically detecting the thickness of the winding at both ends of the bobbin and adjusting the position and speed for traverse in order to suppress the collapse of the winding shape during delivery and the unwinding failure.

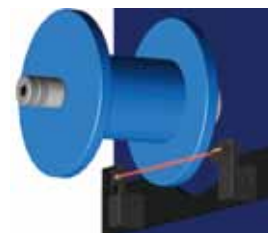
The very small dancer fluctuation with our high-precision dancer control makes it possible to distinguish a fluctuation between the normal operation and winding shape failure and detect a slight unevenness.



Automatic bobbin edge detection function

The installing error when switching bobbins and the error in each bobbin can be automatically corrected by detecting the actual winding width of the bobbin using a sensor.

The winding width is measured during the return to origin, so no operation is required. It is possible to average the errors within a full circuit by detecting four positions while rotating the bobbin in 90° increments.

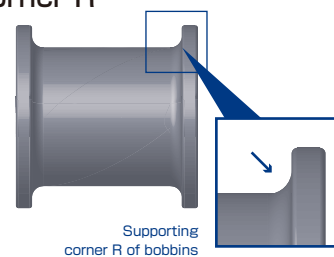


*This drawing is only for the purpose of illustration.

Correction function for bobbin's corner R

The corner R shape seen in pressed bobbins causes winding failures in the initial winding layer. Performing a winding operation without considering this shape causes an unwinding failure in the following process because of wire overlapping.

Our correction function for the corner R automatically calculates the proper traverse position so as to achieve a good winding shape along with the R shape by just setting the basic winding width, corner R dimensions, and material diameter.



Taper tension function

To prevent winding tightness, it is possible to wind tightly in the inner layer and loosely in the outer layer.

The tension can be set in multiple stages according to the winding length. Thus, a winding operation with any tension curve is possible.

Specifications

Type	RWBB-01H-AU		Tension	30~500cN
Wire Materials	Cu, Stainless steel, Steel		Traverse Pitch	~1mm/rev
Wire Diameter	φ0.03~φ0.1mm		Traverse Width	~160mm
Spool Size	Rewinding	Max. Flange Diameter φ280mm Max. Overall Width 220mm	Speed	~500m/min (MAX2000rpm)
	Winding	Max. Flange Diameter φ200mm Max. Overall Width 134mm	The bobbin edge detection function	One-point detection/Four-point detection (selectable from maximum width/minimum width/average width)

Inquiry

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We offer testing by using various demonstration machines.