Automatic Wire Coiling & Tying Machine for Cable Harness WPM-81M

Model No. WPM-81M3



SPECIFICATIONS

Model Number	WPM-81M
Finished Product Shapes	8 shapes, single tying
Wire/Cable Type	AC/DC/USB etc.
Wire Outer Diameter	⩽4 mm
Winding Part Distance	45-80 mm
Winding Length	⩽3 m (depending on wire size)
Winding Speed	Adjustable
Tying Outer Diameter	⩽20 mm
Wirehead Length	0-130 mm
Wire Tail Length	>0 mm
Productivity	1800 pcs./h (winding length=1m, turns=3)
Compressed Air Connection	0.55-0.65 MPa
Power Supply	110, 220 V (50-60 Hz)
Power	⩽2000 W
Dimension	1040*720*1540 mm
Weight	160 kg

The WPM-81M3 folds AC, DC and USB cable into an 8 shape and closes each coil with a single tie. It is set for 4 mm maximum wire diameter, a 45-80 mm winding part distance and cable lengths up to 3 m, with the tie closing at 20 mm outer diameter.

On a bench a 1 m USB lead takes three folds and one tie, and the operator's loop count drifts with the batch. The 81M3 holds turn count and tie position from piece to piece and is rated at 1800 pcs/h at 1 m winding length and 3 turns; the tie is applied inside the cycle, so the operator only loads the cable ends and lifts the finished coil.

It shares the 4 mm, 3 m, 20 mm and 1800 pcs/h envelope with the 40XL, so the choice between them is platform rather than throughput: the 81M3 sits on the 81 frame with an HMI panel and enclosed cabinet doors and runs the same spares as the 81M and 82M, while the 40XL is the standalone 40-series unit. For 6.2 mm cable step up to the 81M, for 10 mm to the 82M.

Key Features

1. 8-shape single-tie winding for small-gauge AC, DC and USB cable.

2. Coil width of 45-80 mm, matched to 0.5-3 m consumer leads.

3. Wire range up to 4 mm OD, covering USB, charging and small power cords.

4. Single tie at 20 mm maximum outer diameter, with wirehead length 0-130 mm adjustable.

5. Rated 1800 pcs/h at 1 m winding length and 3 turns.

6. HMI panel and enclosed cabinet on the 81 frame; 0.55-0.65 MPa air, 110/220 V, power under 2000 W, 160 kg.

Technical Specifications

Parameter	Specification
Model Number	WPM-81M3
Finished Product Shapes	8 shapes, single tying
Wire / Cable Type	AC / DC / USB, etc.
Wire Outer Diameter	⩽ 4 mm
Winding Part Distance	45 - 80 mm
Winding Length	⩽ 3 m (depending on wire size)
Winding Speed	Adjustable
Tying Outer Diameter	⩽ 20 mm
Wirehead Length	0 - 130 mm
Wire Tail Length	> 0 mm
Productivity	1800 pcs/h (winding length 1 m, 3 turns)
Compressed Air Connection	0.55 - 0.65 MPa
Power Supply	110 / 220 V (50 - 60 Hz)
Power	⩽ 2000 W
Dimensions	1040 x 720 x 1540 mm
Weight	160 kg

Applications

— Cable harness cell: USB and charging leads wound and single-tied before harness assembly.

— Power cord sets: 1-3 m cords folded to a 45-80 mm width for carton packing.

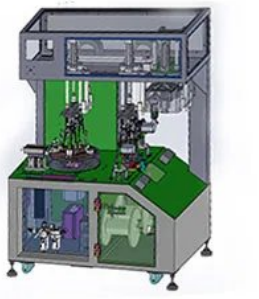
— DC adapter leads: output cables coiled to a fixed width so the plug stays clear of the tie.

— Consumer electronics OEM: 8-shape coils counted into poly bags on the same line.

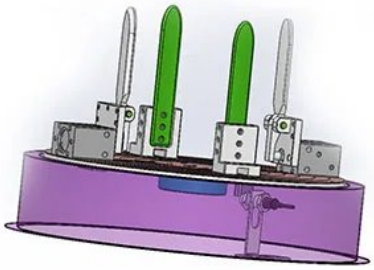
— Contract assembly: small-gauge AC, DC and USB runs changed over on one head.







Profile



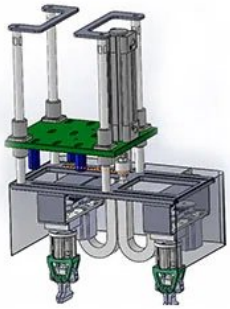
Winding Unit

The winding poles is made of stainless steel, and 1 kW servo motor is selected to ensure the fast and steady winding process.



Robot Claw

Made of stainless steel, the robot claw is powered by 750 W servo motor and the process is more steady compared with stepping motor.



Tying Unit

The part touching with wire is made of stainless steel with the fast tying speed of 0.8 s/time.

FAQ

What is the primary function of the WPM-81M Automatic Wire Coiling & Tying Machine?

The WPM-81M is an automated industrial machine designed for the efficient coiling and binding of cable harnesses. Its primary function is to automatically wind and secure wires with cable ties, streamlining the production process for cable assemblies. It is a key solution for automating repetitive wire bundling tasks in manufacturing.

What wire diameter and production speed can the WPM-81M handle?

The WPM-81M is engineered to process wires with a diameter of up to 4mm. It delivers high-speed production with a capacity of up to 1800 pieces per hour, making it an ideal choice for high-volume industrial cable harness manufacturing where efficiency and throughput are critical.

How many coil shapes can this automatic wire binding machine produce?

This versatile cable coiling machine can produce up to 8 different pre-set coil shapes. This flexibility allows manufacturers to create a variety of harness configurations to meet specific application requirements, all within a single, automated system.

What are the main benefits of using an automated machine like the WPM-81M for cable harness production?

The WPM-81M offers significant benefits including dramatically increased production speed and consistency, reduced labor costs and manual fatigue, minimized human error for uniform product quality, and improved workplace safety by automating a repetitive task. It represents a strong return on investment for businesses scaling their wire processing operations.

Is the WPM-81M suitable for integrating into an existing industrial production line?

Yes, the WPM-81M is designed as a robust piece of industrial cable machinery for seamless integration into existing manufacturing lines. Its automated operation and standardized output make it an excellent component for enhancing the automation and efficiency of a complete wire processing or cable harness assembly workflow.