Semi-Automatic Soldering Machine for Wire & Connectors WPM-141

Model No. WPM-141



SPECIFICATIONS

Semi-Automatic Soldering Machine for Wire & Connectors WPM-141	
Voltage	AC220V/110V
Power	280W
Air Pressure	0.5-0.8MPa
Productivity	800-1200pcs/h
Dimension	810*510*460mm (L*W*H)
Temp Control Model	Constant Temperature
Soldering Material	Soldering Wire
Soldering Angle	90 degree

The WPM-141 is a bench-top semi-automatic soldering machine for one joint at a time: a wire or cable conductor into a terminal, a connector pin or a lug. The head is pneumatic, the solder is fed as wire, and the iron works at a fixed 90 degrees. Output is 800-1200 pcs/h from a 280 W machine on AC220V/110V at 0.5-0.8 MPa, with a footprint of 810 x 510 x 460 mm.

Hand soldering depends on three things the operator cannot hold constant: tip angle, dwell time and the amount of solder on the joint. Here the iron is carried on a slide with a pneumatic stroke, so the approach angle and depth are set by the fixture. The solder wire is driven by a motor at the top of the column in a set length per cycle, and the foot pedal starts the cycle, leaving both hands on the work. A flexible-duct fan is aimed at the joint to set the solder before the part is lifted, which is the step that usually distorts a hand-soldered terminal.

Against the WPM-121-AM, the 141 is the universal machine: it accepts any fixture built for it and is loaded by hand at 800-1200 pcs/h, while the 121-AM is dedicated to USB A male plugs with automatic feeding at 1000-1400 pcs/h. Against the WPM-904, the 141 is a contact iron with solder wire; the 904 heats the joint by high frequency in 0.3-0.6 s without a tip touching the work.

Key Features

1. 800-1200 pcs/h, roughly 3.0-4.5 s per joint including load and unload.

2. 280 W iron held at constant temperature, with the tip angle fixed at 90 degrees by the head mount.

3. Motor-driven solder wire feeder on the column, metering a set wire length per cycle instead of feeding by hand.

4. Pneumatic head stroke at 0.5-0.8 MPa air, giving the same travel and contact pressure on every cycle.

5. Foot-pedal actuation: the cycle starts with the foot, so both hands stay on the wire and the connector.

6. Flexible-duct cooling fan aimed at the joint, so the solder sets before the part leaves the fixture.

Technical Specifications

Parameter	Specification
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Applications

— Wire-to-terminal joints in wire harness sub-assembly, one conductor into a brass or tinned terminal.

— Connector pigtails: soldering conductor ends into plug shells before overmoulding or assembly.

— Home appliance internal wiring, including thermostat, switch and motor lead joints.

— Sensor and solenoid leads, where the joint has to be repeatable rather than fast.

— Audio, video and power cable connector soldering in small and medium batches.

Product Images



FAQ

What is the production capacity of the WPM-141 semi-automatic soldering machine?

The WPM-141 is designed for high-efficiency production, achieving a consistent output of 800 to 1200 pieces per hour. This makes it ideal for cable harness manufacturing and other industrial soldering applications requiring reliable throughput.

What types of components can the WPM-141 solder?

This machine is specifically engineered for precision soldering of wires and connectors, including applications like USB soldering. Its semi-automatic operation ensures consistent, high-quality joints for various connector types used in electronics and cable assembly.

How does the high-frequency welding technology benefit the soldering process?

The high-frequency (HF) welding technology provides rapid, localized heating for a clean and strong solder joint. This method minimizes thermal stress on components, reduces oxidation, and ensures consistent solder flow, leading to higher reliability and fewer defects in wire and connector soldering.

What are the key technical specifications and power requirements for the WPM-141?

The WPM-141 operates with a constant temperature control system, powered by a 280W unit. It supports dual voltage input (AC220V or AC110V), offering flexibility for different industrial power setups. These features ensure stable performance and energy-efficient operation.

Why is the WPM-141 suitable for industrial soldering equipment needs?

With its blend of high productivity (800-1200pcs/h), precision for delicate wire and connector soldering, and robust features like HF welding and constant temperature control, the WPM-141 reduces labor intensity, improves joint consistency, and boosts overall manufacturing efficiency in industrial settings.