Automatic Copper Brazing Machine with Robotic Arm - WPM-155

Model No. WPM-155



SPECIFICATIONS

Model Number	WPM-155
Air Pressure	0.5-1.0MPa
Voltage	AC220V/50Hz
Maximum Power (Main Engine)	3.4kW
Power (Main Engine)	1.5kW
Maximum Power (Brazing Machine)	20kW
Cooling Hydraulic Pressure	0.2MPa
Influent Temperature:	
Speed	8 seconds/piece
Dimensions	2100mm x 900mm x 2100mm
Floor Space	5020mm x 2100mm

The WPM-155 is an automatic high-frequency brazing cell for copper workpieces. A robotic arm takes the part from the feed, presents it to the brazing head and releases it to the unload side on an 8 second cycle, with a 20 kW brazing power supply driving the joint. Two vibratory bowl feeders on the machine base supply the mating components, and the brazing head is mounted on a vertical slide above the work table.

Hand brazing of copper terminals depends on how long the operator holds the torch and how much wire is fed, which shows up as cold joints or burnt insulation at the end of a shift. The WPM-155 fixes the sequence: the part is clamped, the induction head descends to a set height, brazing wire is fed, and the joint is held until the braze flows before the part indexes out. Air pressure is regulated between 0.5 and 1.0 MPa, and the brazing transformer is water cooled at 0.2 MPa with inlet temperature below 40 degrees C.

Compared with the hand-held WPM-15-80AB induction units, the WPM-155 trades portability for repeatability: coil position, dwell and wire feed are set once and repeated at 8 seconds per piece. It is a floor-standing cell - the machine measures 2100 x 900 x 2100 mm and needs 5020 x 2100 mm of floor space for the feeders and operator access - so it suits a dedicated line rather than job-shop work.

Key Features

1. 8 seconds per piece cycle, set by the machine rather than by operator pace.

2. 20 kW brazing power supply, with a main engine rated 1.5 kW continuous and 3.4 kW maximum.

3. Robotic arm handles load, braze position and unload, so the operator only loads the fixture.

4. Two vibratory bowl feeders on the base plate present the mating components to the pick position.

5. Water-cooled brazing head: cooling hydraulic pressure 0.2 MPa, influent temperature below 40 degrees C.

6. Runs on AC220V/50Hz with 0.5-1.0 MPa shop air; machine 2100 x 900 x 2100 mm, total floor space 5020 x 2100 mm.

Technical Specifications

Parameter	Specification
Model Number	WPM-155
Voltage	AC220V / 50Hz
Speed	8 seconds/piece
Max. power (main engine)	3.4 kW
Power (main engine)	1.5 kW
Max. power (brazing machine)	20 kW
Air pressure	0.5-1.0 MPa
Cooling hydraulic pressure	0.2 MPa
Influent temperature	below 40 degrees C
Dimensions	2100 x 900 x 2100 mm
Floor space	5020 x 2100 mm

Applications

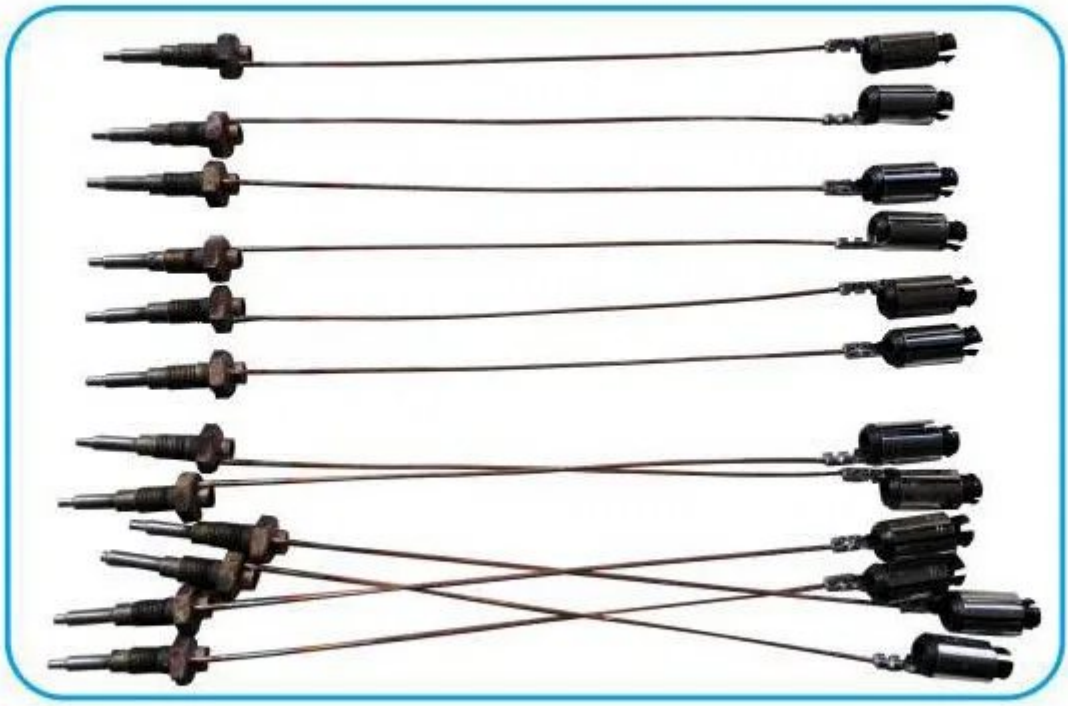
— Cable harness: brazing copper wire to ring and fork terminals before insulation sleeving.

— Appliance wiring: brazing stranded copper leads to brass terminals on heating elements and switches.

— Switchgear and contactors: joining copper braid to contact pads at a fixed heat input.

— Automotive harness: brazing battery cable lugs and ground straps in volume.

— Copper tube assemblies: brazing small-diameter tube fittings where flame would anneal the whole part.



FAQ

What are the power specifications of the WPM-155 Automatic Copper Brazing Machine?

The WPM-155 has a main engine power of 1.5KW and a maximum main engine power of 3.4KW, while the brazing machine reaches a maximum power of 20KW. It runs on AC220V/50Hz.

How fast does the WPM-155 brazing machine operate?

The WPM-155 runs at a speed of 8 seconds/piece. That cycle time supports steady output in automated copper brazing with its robotic arm.

What air pressure and cooling conditions does the WPM-155 require?

The WPM-155 needs an air pressure of 0.5-1.0MPA and a cooling hydraulic pressure of 0.2MPa. The influent temperature should be less than 40°C to keep cooling effective.

What floor space does the WPM-155 require?

The WPM-155 has a machine dimension of 2100mm*900mm*2100mm and requires a floor space of 5020mm*2100mm. The larger floor allowance leaves room for the robotic arm and its work envelope.

What is the WPM-155 designed for?

The WPM-155 is an automatic copper brazing machine built around a robotic arm. With a brazing machine maximum power of 20KW and a speed of 8 seconds/piece, it targets automated copper joining in volume production.