4-Axis Automatic Glue Dispenser Robot for Wire Harness Manufacturing WPM-332

Model No. WPM-332



SPECIFICATIONS

Model Number	WPM-332
Type	4-Axis Automatic Dispensing Robot
Pressure Adjustment Range	0.05-0.9MPa
Axes Control	X, Y, Z, and Rotation
Features	Pressure Regulating Valve, Manual Glue Button, Emergency Stop, Reset Switch
Application	Wire/Cable Harness Manufacturing, Adhesive Dispensing

The WPM-332 is a four-axis automatic dispensing robot for wire and cable harness manufacturing. It controls X, Y, Z and rotation, and its air supply is set through a pressure regulating valve with a declared adjustment range of 0.05-0.9 MPa. The front panel carries a manual glue button, an emergency stop and a reset switch, and the head is programmed from a hand-held teaching pendant.

Adhesive behaviour changes more with pressure than with almost any other setting. A low-viscosity cyanoacrylate that runs at 0.05 MPa will flood a connector cavity at the top of the range, while a filled or thixotropic adhesive needs the upper end of the range before it will move at all. The 0.05-0.9 MPa regulating valve lets the same machine cover both, with the gauge read at the panel rather than guessed. The manual glue button serves a separate purpose: it fires the valve outside the program, so the needle can be primed, a bead checked on scrap, or a single part touched up without stopping production to write a one-point program. The emergency stop cuts the cycle and the reset switch returns the machine to the start of the program. Four valve stations are mounted on the cross beam, fed from one regulated manifold, so the air setting applies to all of them at once.

The WPM-331 shares the four-axis layout and adds closed-loop motors and a 320 x 240 LCD teaching box, but states no pressure range. The WPM-333 is three-axis and standalone with CAD import. The WPM-334 is a desktop machine with an R axis and a 0.01 ml shot. The WPM-332 is the unit in the family specified around pressure control and manual intervention, which is what a shop running several adhesive types on one line needs.

Key Features

1. Pressure adjustment range of 0.05-0.9 MPa through a regulating valve, covering thin cyanoacrylate and filled structural adhesive on the same head.

2. Four axes - X, Y, Z and rotation - with the rotary axis indexing the part so a bead follows a corner or a circular seat.

3. Manual glue button on the panel fires the valve outside the program, for priming the needle, checking a bead on scrap or touching up one part.

4. Emergency stop and reset switch on the front panel, with the reset returning the head to the program start position.

5. Four valve stations on the cross beam fed from a single regulated air manifold, so one gauge setting governs the whole head.

6. Hand-held teaching pendant with display and keypad for point teaching, mounted on the machine base between jobs.

Technical Specifications

Parameter	Specification
Model	WPM-332
Machine type	Four-axis automatic dispensing robot
Pressure adjustment range	0.05-0.9 MPa
Axes control	X, Y, Z and rotation
Panel controls	Pressure regulating valve, manual glue button, emergency stop, reset switch
Air supply	Regulated, single manifold to four valve stations
Application	Wire and cable harness manufacturing, adhesive dispensing

Applications

— Harness connector sealing: a metered bead of sealant around the wire entry of a connector housing, at a pressure set for the compound in use.

— Terminal fixing: adhesive dots on crimp seats and ferrule pockets where a mechanical retainer is not used.

— Cable jacket repair and bonding: a bead along a split or a joint on thick cable, laid with the rotary axis following the jacket curve.

— Enclosure gaskets: formed-in-place gasket compound run along a flange path on control boxes and junction housings.

— Label and component bonding: adhesive applied to flat mounting pads before a bracket or tag is pressed on, using the manual button for single-piece work.

FAQ

What are the key features of the WPM-332 4-Axis Automatic Glue Dispenser Robot?

The WPM-332 features high-precision 4-axis (XYZ and rotation) motion control for complex adhesive paths, adjustable pressure regulation from 0.05 to 0.9MPa for consistent bead consistency, and an integrated emergency stop for operator safety. It is engineered specifically for reliable, repeatable adhesive application in wire harness manufacturing.

How does the 4-axis design benefit wire harness manufacturing?

The 4-axis design (X, Y, Z, and a rotational axis) allows the robot to precisely apply glue to wire bundles and connectors from multiple angles and on complex three-dimensional shapes. This ensures complete, uniform coverage for potting, sealing, or strain relief in harness assemblies, improving product reliability and speeding up production compared to manual or less flexible automated methods.

What types of adhesives can the WPM-332 dispense?

The WPM-332 is designed for industrial-grade adhesives commonly used in electronics and wire harness assembly, including silicones, epoxies, UV-curable adhesives, and hot melts. Its precise pressure regulation and valve control ensure consistent dispensing of materials with a wide range of viscosities, making it a versatile solution for various bonding and sealing applications.

Is the WPM-332 suitable for high-volume production environments?

Yes, the WPM-332 is built for industrial high-volume production. Its automatic, programmable operation eliminates manual inconsistencies, significantly increases throughput, and reduces material waste. The robust construction and reliable precision ensure continuous operation with minimal downtime, making it an ideal investment for scaling wire harness manufacturing output.

How does the precision dispensing capability improve product quality?

The robot's precision XYZ-axis control and fine pressure regulation guarantee accurate glue bead placement and volume every cycle. This eliminates common issues like under-dispensing (which can lead to failure) or over-dispensing (causing mess and waste), resulting in higher-quality, more reliable wire harnesses with consistent performance and improved longevity.