

What is the working principle of an automatic pigtail dispensing machine



Article Overview

An automatic pigtail dispensing machine operates by transporting liquid from a storage source to a dispensing valve, which is precisely controlled to deposit material along a programmed trajectory using motion control and feedback systems.

Working Principle

The automatic pigtail dispensing machine functions through a combination of liquid transport, valve actuation, and motion control:

- **Liquid Transport:** The liquid material is moved from a storage tank or pressure barrel through hoses to the dispensing valve. This ensures a continuous supply of material to the dispensing point (Chencai Machine) .
- **Valve Control:** The dispensing valve is actuated by air pressure or electrical current, allowing the liquid to be released in controlled amounts. Different types of valves, such as positive displacement pumps, spray valves, jet valves, or stream pumps, are used depending on the viscosity and precision requirements of the material (ITWEAE) .
- **Motion Control:** The machine's movement platform is controlled by a computer or servo system to follow a preset trajectory, which can be linear, circular, or arc-shaped. This ensures the dispensing occurs at precise locations and speeds, improving accuracy and consistency (Chencai Machine) .
- **Feedback and Adjustment:** Vision systems or sensors monitor the position and quality of the dispensed material. Feedback allows real-time adjustments to maintain high precision and reduce errors (Chencai Machine)

Article Content

Design and Implementation of Automatic Fluid Dispensing System

Abstract - The automatic fluid dispenser introduces a systematic and efficient alternative to manual fluid dispensing and expensive

Fully automatic dispensing machine

Our fully automatic machines are suitable for fully automated series production for various dispensing applications. Automation

What are Pigtails | Piping Glossary

What are Pigtails? A pigtail is a coiled or looped section of tubing used in piping and instrumentation

Automatic Dispensing Mechanisms: A Comprehensive Overview

Understanding the principles, types, applications, and challenges of automatic dispensing mechanisms is crucial for engineers,

Design and Functioning of Automated Medicine Dispensing Module

This project was aimed to build a machine which provides medicinal aid to patients in a hospital. Upon observing and understanding

What is The Working Principle of The Automatic

January 8, 2025. View our blog about What is The Working Principle of The Automatic Adhesive Potting

Pigtail Machine | Morita & Company

STEP 3 PIG TAIL Pigtail Machine End of coil spring is formed as pigtail shape. Our machine performs to forming pigtail shape

Improving dispensing with valves

These systems work by filling an industrial syringe or barrel with the liquid material (Figure 1). A pulse of air, controlled by the

Automating Adhesive Dispense Systems

Automation plays a crucial role in reducing manual overhead and enhancing the efficiency of adhesive dispense operations. By

Pigtail Connectors Guide

In this article, we will delve into the definition of pigtail connectors, their working principles, types, and how

What is pigtail syphon? What is a pigtail syphon used for ...

A pigtail siphon, also known simply as a pigtail, is a type of siphon tube commonly used in industrial piping systems to

Exploring The Pigtail Connector And Its Applications

How Pigtail Connectors Work Pigtail connectors function as intermediary components that enable the seamless

Working Principle, Operation, and Maintenance of Dispensing Machines ...

Working Principle and Operation of Dispensing Machines Working Principle: Dispensing machines primarily utilize

The Principle, Characteristics And Advantages Of Automatic

In short, the automatic dispensing machine is an efficient, precise and flexible dispensing equipment, which can meet the dispensing

Dispensing machines and dispensing equipment | bdtronic

Fully automatic dispensing equipment solves all types of dispensing tasks - bonding, sealing, potting, applying thermally conductive

Manual Vs. Semi-Automated Vs. Automated Material Dispensing

Manual dispensing of adhesives or other materials involves the use of handheld equipment and a human operator to

What is a Dispensing Machine? Easy Operation & Principles ...

Learn how a dispensing machine works, including its operating principles, usage process, safety precautions, and key

Pressure Gauge Water Traps and Pigtail Siphons

Many industrial processes utilize high-pressure steam for direct heating, performing mechanical work, combustion

Dispensing Machine Selection Guide: Working Principles, Machine

This guide provides a complete technical overview to help factories understand dispensing machine working

Glue Dispensing: Process, Techniques & Quality Applications

Glue dispensing is a precise process used in various industries to apply adhesives efficiently and accurately. It involves using a glue

Automated Dispensing Systems | Nordson EFD

We consider factors like movement complexity, vision system performance, post-dispense inspection, and working

Basics of Automated Dispensing for Electronics Manufacturing

Automated dispensing of electronic materials in fluidic form is employed across the full range of electronics manufacturing, from

What are Water trap and Pigtail siphons?

Water traps and pigtail siphons are types of siphon devices used in industrial instrumentation and process control

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