

Dual Station Vacuum Automatic Electrolyte Filling Machine

Item Number: YZ15



Introduction

Dual-station vacuum automatic electrolyte filling equipment for lithium battery production integrates two 16 dual-head pumps, automated positioning, vacuum processing, PLC control, safety protection, and fault alarms for controlled repeatable cell filling in demanding manufacturing workflows every day.

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Application	Description	Key Benefit
Lithium Battery Electrolyte Filling	Introduces electrolyte into lithium battery cells using the integrated filling system, nozzle mechanism, positioning hardware, and vacuum process configuration.	Combines the core filling, vacuum, movement, and control functions in one dedicated unit.
Battery Cell Pilot Production	Supports electrolyte filling during pilot-scale cell preparation where cell type and process conditions may be evaluated.	Production capability can be considered according to the actual cell type and process.
Battery Process Development	Provides a defined equipment configuration for establishing and reviewing vacuum-assisted electrolyte filling sequences.	Integrated PLC controls, touch-screen operation, and programmed fault functions support organized process operation.
Cell Manufacturing Workstations	Serves as a dedicated electrolyte-filling station within a lithium battery production workflow.	The compact machine body incorporates the filling, vacuum, positioning, and control assemblies required for the operation.
Vacuum-Based Cell Filling Processes	Applies the included vacuum system and vacuum piping to cell-filling workflows requiring vacuum process support.	A dedicated vacuum system is supplied rather than relying on an external vacuum arrangement within the listed configuration.
Controlled Nozzle Filling Operations	Uses the filling nozzle mechanism, automatic displacement mechanism, and battery positioning mechanism for the filling stage.	Aligns the specified mechanical subsystems around a repeatable equipment sequence.
Battery Manufacturing Equipment Integration	Supports deployment where single-phase electrical power and compressed process gas are available.	Uses single-phase AC220V, 50Hz input power and a 0.3-0.6MPa compressed-gas source.

Parameter	Specification
Site-Facing Identifier	YZ15
Equipment Type	Dual-station vacuum automatic electrolyte filling machine
Primary Application	Lithium battery electrolyte filling
Input Power Supply	Single-phase AC220V, 50Hz
Compressed Power Gas Source	0.3-0.6MPa
Coating Color	Silver
Production Capacity	Related to cell type and process
Equipment Weight	120KG
Equipment Dimensions (mm)	L1100W550H900
Filling Chamber Valve Mechanism	None
Positive Pressure System	None
Vacuum System	1 set

Parameter	Specification
Automatic Displacement Filling Mechanism	1 set
Filling System	1 set, including 2 x 16 dual-head filling pumps
Battery Positioning Mechanism	1 set
Filling Nozzle Mechanism	1 set
Weighing System	None
Machine Body	1 set
Control System	1 set
Flow-Pull System	None
Automatic Weighing Manipulator	None
PLC and Expansion Modules	Panasonic
Touch Screen	Weinview
Electric Cylinder and Electric Cylinder Drive	Airtac
Pneumatic Cylinder	Airtac
Alarm System: Fault Stop	Built into program
Alarm System: Fault Indication	Built into program

Functional Area	Included Configuration
Filling Process	Filling system, filling-pump piping, two 16 dual-head filling pumps, and filling nozzle mechanism
Vacuum Process	One vacuum system and vacuum piping system
Cell Handling	One battery positioning mechanism and one automatic displacement filling mechanism
Controls	One control system with Panasonic PLC and expansion modules, plus Weinview touch screen
Motion and Pneumatics	Airtac electric cylinders, electric-cylinder drives, and pneumatic cylinders
Safety and Alerts	Safety protection device, program-integrated fault stop, and program-integrated fault indication
Machine Structure	One complete machine body with silver coating

Item	Specification Status
Filling Chamber Valve Mechanism	Not included
Positive Pressure System	Not included
Weighing System	Not included
Flow-Pull System	Not included
Automatic Weighing Manipulator	Not included