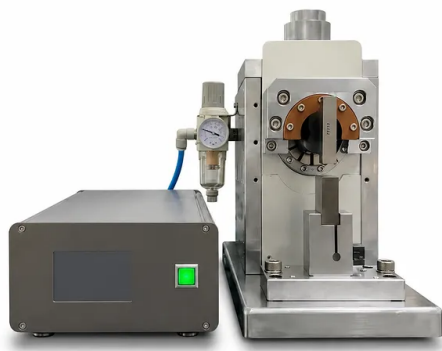


Ultrasonic Metal Welding Machine For Glove Box Use Battery Tab Cap Welding

Item Number: DH01



Introduction

Ultrasonic metal welding machine for glove box use, featuring 220V operation, 0.4-0.6MPa air supply, metric controls, and customizable welding tooling for battery research and advanced materials laboratories requiring compact, repeatable metal joining performance within controlled laboratory workflows.

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Application	Description	Key Benefit
Aluminum Tab to Battery Cap Welding	Weld 0.1 mm aluminum strip to a battery cap using a reference welding area of 1.5 x 3 mm. The welding die or horn can be customized for the required joint configuration.	Supports controlled joining of thin aluminum battery tabs while allowing the tooling to reflect the component design.
18650 Cylindrical Cell Assembly	Perform cap welding for 18650 cylindrical battery cells during laboratory cell fabrication or pilot process development.	Provides a dedicated point-welding solution for a widely used cylindrical cell format.
21700 Cylindrical Cell Assembly	Apply the welding process to cap-related assembly work for 21700 cylindrical cells and associated battery research procedures.	Helps battery R&D teams evaluate a common larger-format cylindrical cell workflow with purpose-selected tooling.
Glove Box Battery Research	Install and operate the compact generator and welding head as part of a controlled glove box-based cell assembly workflow, subject to facility integration and environmental requirements.	Combines a defined equipment footprint with specified electrical, pneumatic, and environmental conditions for planning enclosed laboratory processes.
Battery Materials Research	Use the unit for repeatable joining studies involving thin metal strips, caps, and related battery component interfaces.	Gives researchers a configurable platform for process trials where weld area and component geometry may change.
Academic and Advanced Materials Laboratories	Integrate the equipment into laboratory programs studying electrochemical cells, metal joining, or small-format component assembly.	Metric instrumentation, bilingual program support, and documented utilities simplify use across technical teams.

Parameter	Specification
Product Item Number	DH01
Equipment Type	Ultrasonic metal welding machine / point welding equipment
Primary Intended Use	Battery component point welding and metal joining
Glove Box Suitability	Designed for glove box use according to the supplied product keyword and application requirement; confirm final integration conditions before purchase
High-Power Generator Dimensions L x W x H	480 mm x 365 mm x 202 mm
Welding Head Dimensions L x W x H	420 mm x 180 mm x 290 mm at the maximum top end dimensions
Measuring Instrument Units	Metric units for all measuring instruments on the equipment
Electrical Voltage	220 V $\pm$ 10%
Required Air Source Pressure	0.4-0.6 MPa
Required Air Source Humidity	Less than 48%
Maximum Temperature	Not higher than 45°C

Parameter	Specification
Reference Welding Material	0.1 mm aluminum strip plus battery cap
Reference Welding Area	1.5 x 3 mm
Welding Tooling	Welding die or horn can be customized
Supported Battery Cap Formats	18650 and 21700 cylindrical cell caps
Transducer Emission Line Length	3 m between the transducer emission line and electrical control box
Program Language Requirement	Chinese and English
Installation Planning Consideration	Account for generator dimensions, welding head clearance, and the 3 m transducer connection when arranging the station