

High-Voltage Wire Termination Ultrasonic Welding Workstation BWT-X

Introduction

This high-voltage wire termination ultrasonic welding equipment utilizes Branson's new BWT-X series ultrasonic metal welding machine. Thanks to its unique, innovative mechanical design and precision manufacturing, the BWT-X guarantees exceptional welding capabilities and excellent welding quality. The welding workstation uses a modular design, allowing different functional modules to be added as required depending on product types, facilitating agile development of the welding requirements for connectors.

With over 40 years of experience in metal welding, Branson continues to lead in the design of high-end ultrasonic metal welding solutions. Large cross-section high-voltage wire coupling are commonly used in the fast-charging systems for new energy vehicles and charging stations. To meet increasingly complex welding challenges, Branson has continued to refine its technology to offer faster, cleaner, and more dependable welding solutions for advanced industrial assembly.



Product Characteristics

- **Modular welding workstation design**, with each module stand-alone installed and quickly replaceable based on terminal design
- This specially engineered ultrasonic welding system offers multiple welding modes and extensive data connectivity, supporting quality assurance and data capture for a wide range of welding applications
- Wide Wire Cross-Section Range with up to 120mm² ideal for a wide variety of automotive, industrial, and aerospace applications
- **Modular welding stack technologies** expand the system's versatility, making it suitable for a wide range of applications
- The innovative **welding head mechanism** allows rapid model changes and ensures the safety of maintenance personnel
- The multifunctional HMI allows workstation control from a unified screen, offers MES and SPC connectivity for end-to-end transparency in production and quality control

Product Features

- High-precision distance sensors help maintain precise height/distance control during welding to ensure the accuracy of welding
- Minimal power consumption with energy-efficient ultrasonic stack
- Offers MES and SPC connectivity for end-to-end transparency in production and quality control
- The multifunctional HMI User-Friendly Intuitive touchscreen with multilingual support
- Recipe management and customizable welding profiles

Functional Modules

- Wire termination clamping fixture
- Multifunctional HMI

For more information:
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Welding Head Compatibility Design

- Includes dual-push full-wave metal welding stack assembly
- Includes single-push high-power full-wave metal welding stack assembly
- Includes side-mounted half-wave welding stack assembly

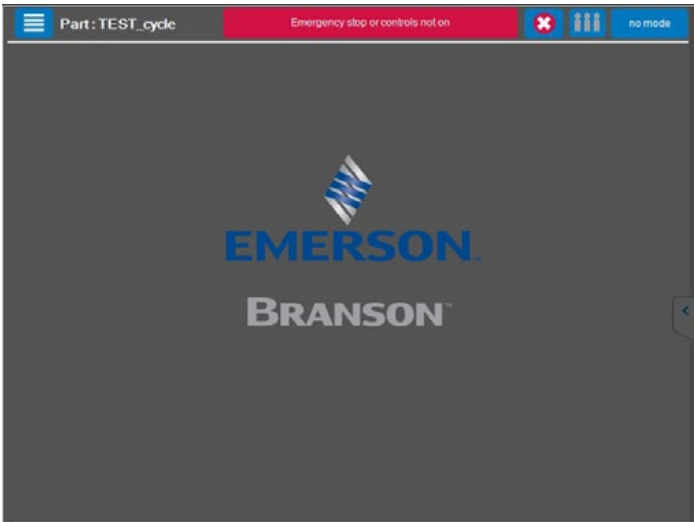
Product Specifications

System Information and Capabilities	
Machine Dimensions (length x width x height)	1600 X 1100 X 2500 (mm), Operator arm not included
Total Workstation Weight	1200 kg (including frame)
Operating Voltage	Three Phase 380 V
Working Air Supply Pressure	Minimum 0.6 Mpa, 87 Psi
Filter Precision	5 µm
Cylinder Diameter	Φ125 mm
Maximum Stroke	100 mm
Operating Temperature	5-50 °C
Operation Humidity	30 %-90 %

Welder Performance	
Welder Valid Stroke	20-95 mm
Welder Available Pressure Range	0.1-0.55 Mpa, 14.5-80 Psi
Welder Downspeed	10-110 m/s
Welder Output Pressure Range	300-6500 N

Production Interface

Displays detailed production data, weld parameter and graphs.



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