SW-D Series
Ultrasonic Welder

High-speed • automation machine type line up to support reliable “Monozukuri” (manufacturing)

SW-D series has 5 models of 20kHz〜48.5kHz, 600W/900W with various control mode and monitoring function, which is applicable to wide variety of work. It is the high-end ultrasonic welder with Ethernet capability and tractability.

Selectable Oscillation Mode

Welding at optimum parameter
- Peak power control
- Energy control
- Timer control
- Continuous oscillation control
- External sensor control

Real-time Monitoring

OK/NG judgement of welding
- Peak power value
- Energy value
- Frequency
- Oscillation time
- External sensor value (3ch)

Portable Controller

Easy setting with remote control
- Parameter setting
- Welding result display
- LCD touch panel
- small size/ light weight
- Detachable and to be used with multiple unit

External connection, IoT adaptability

For centralized data management
For high demand of automation
- LAN (Ethernet)
- RS-232C
- External analog
- I/O
- CF card (Front)

Supreme Controllability

High-speed and stable welding
- Auto-frequency tracking (Digital ATHMOS)

Selectable based on application
- Multi-stage oscillation function
- Pre-pressure oscillation, etc.
- Additional time
- After burst

Others

Ease of use
- AC100-240V multi-power source
- LED error display
- Power label
- Error type

Robustness
- Overcurrent protection, large ventilation fan

Application Examples

20kHz
- Food Cutting
- Cloth Cutting
- Sun Visor

27kHz
- Welding of Unwoven Fabric
- Mask
- Tea Bag

39kHz
- Welding of Insulator
- Caulking of Large Boss
- Battery Separator

48kHz
- Film Cutting
- Caulking of Small Boss
- ~Φ0.2

SW-D Series

SW-D900S-20
SW-D900S-27
SW-D900S-39
SW-D600S-39
SW-D600S-48

Oscillator & Horn

NIPPON AVIONICS CO., LTD.
### SW-D Series Ultrasonic Welder

<table>
<thead>
<tr>
<th>Model</th>
<th>SW-D900S-20</th>
<th>SW-D900S-27</th>
<th>SW-D900S-39</th>
<th>SW-D600S-39</th>
<th>SW-D600S-48</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Output Power</td>
<td>900W (In continuous: 400W)</td>
<td>600W (In continuous: 300W)</td>
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<td></td>
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</tr>
<tr>
<td>Frequency</td>
<td>20kHz</td>
<td>27kHz</td>
<td>39kHz</td>
<td>39kHz</td>
<td>48.5kHz</td>
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<tr>
<td>Oscillation Method</td>
<td>Digital ATHMOS</td>
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<tr>
<td>Amplitude Adjustment</td>
<td>30~100% (1% step)</td>
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</tr>
<tr>
<td>Oscillation Control Mode</td>
<td>Timer/Energy/Peak Power/External Sensor/Continuous</td>
<td></td>
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<tr>
<td>Monitor Function (Pass/Fail Judgement)</td>
<td>Frequency/Oscillation Time/Energy/Peak Power/External Sensor</td>
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<tr>
<td>Parameter Memory</td>
<td>31</td>
<td></td>
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<tr>
<td>Interface</td>
<td>I/O/ Analog/RS-232C/LAN/CF Card</td>
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<tr>
<td>Input Power</td>
<td>Single Phase AC100~240V ± 10%</td>
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<tr>
<td>Power Consumption</td>
<td>1,350VA</td>
<td>900VA</td>
<td></td>
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<tr>
<td>Operating Temperature</td>
<td>5~50°C (No freezing)</td>
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<tr>
<td>Operating Humidity</td>
<td>Less than 90% (No condensation)</td>
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<tr>
<td>Dimensions</td>
<td>W150×D370×H310mm (Including protrusions)</td>
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<tr>
<td>Weight</td>
<td>Approx. 8.5kg</td>
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</table>

※Specifications and appearance are subject to change without notice for improvement.

#### Portable Controller

![Portable Controller](image)

**Portable Controller UA-C01**

<table>
<thead>
<tr>
<th>Model</th>
<th>UA-C01</th>
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<tbody>
<tr>
<td>LCD</td>
<td>Size 3.5 inch TFT LCD</td>
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<td>Resolution W320×H240</td>
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<td>Color 4,096 colors</td>
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<tr>
<td>Touch Panel</td>
<td>Method RESISTANCE FILM TYPE</td>
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<td></td>
<td>Color 320×240</td>
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<td>Buzzer available</td>
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<tr>
<td>Language</td>
<td>English</td>
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<tr>
<td>Power Input</td>
<td>Supplied From Welding</td>
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<tr>
<td>Cable Length</td>
<td>1.5m</td>
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**NIPPON AVIONICS CO., LTD.**

**URL** [https://www.avio.co.jp/english/](https://www.avio.co.jp/english/)

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**WARNINGS & CAUTIONS**

- Before using this product, please carefully read the provided Operation Manual "WARNINGS" & "CAUTIONS" section to ensure proper operation.
- Please do not place the product in high temperature, high humidity or high inert gas environments.

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As of March 2021