

# WEDGE WELDER

## TOP QUALITY

*Infinite Zone specializes in supplying comprehensive solutions for geomembrane and HDPE liner installation projects:*



**IZ-900**

**1MM TO 3MM**

*We view every client relationship as a long-term partnership. Your success is our success, which is why we're committed to providing ongoing support long after the initial sale.*



**CONTACT NOW**

[www.wedgeweldingmachine.com](http://www.wedgeweldingmachine.com)

**+971-52-3831878**

CITY BAY BUSINESS CENTER  
ABU HAIL - DEIRA DUBAI

## TECHNICAL DATA SHEET

### IZ-900

#### GEOMEMBRANE WELDING MACHINE



#### Material thickness

- 1mm thick to 3mm thick

#### Colorway



### IZ-900

- |                       |                                                            |
|-----------------------|------------------------------------------------------------|
| • Model               | : iZ-900                                                   |
| • Voltage             | : 220V                                                     |
| • Frequency           | : 50/60 Hz                                                 |
| • Power               | : 2100W                                                    |
| • Welding Speed       | : 1 - 7 m/min                                              |
| • Heating Temperature | : 50 - 550 °C                                              |
| • Welding Pressure    | : 100-1000N                                                |
| • Material Thickness  | : 1.0 mm-3.0 mm (single layer film thickness)              |
| • Overlap width       | : 12 cm                                                    |
| • Weld seam width     | : 16mm * 2 pieces, cavity 12mm                             |
| • Weld strength       | : >95% base material (tensile strength in shear direction) |
| • Overall weight      | : 13.0 Kg                                                  |
| • Digital display     | : Dual display of temperature and speed                    |
| • Certificate         | : CE                                                       |
| • Warranty            | : 1 Year                                                   |

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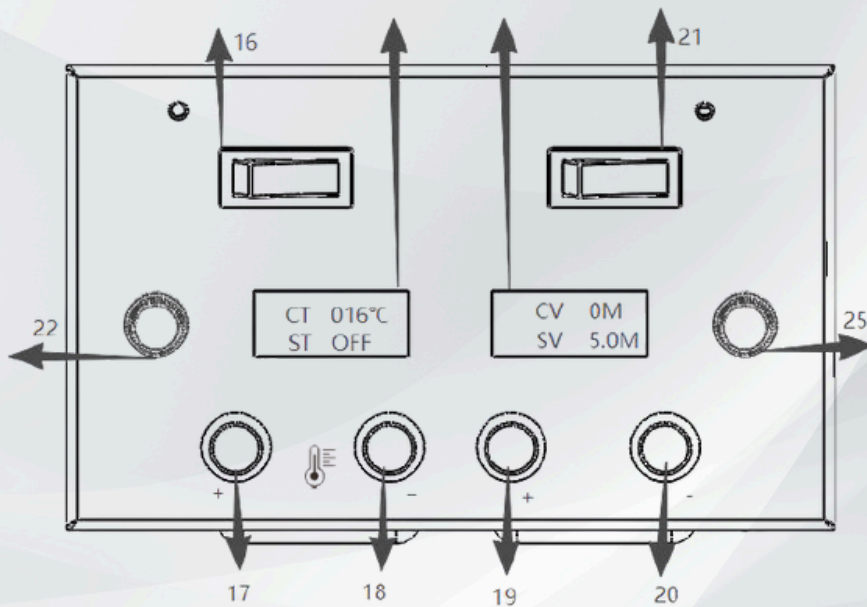
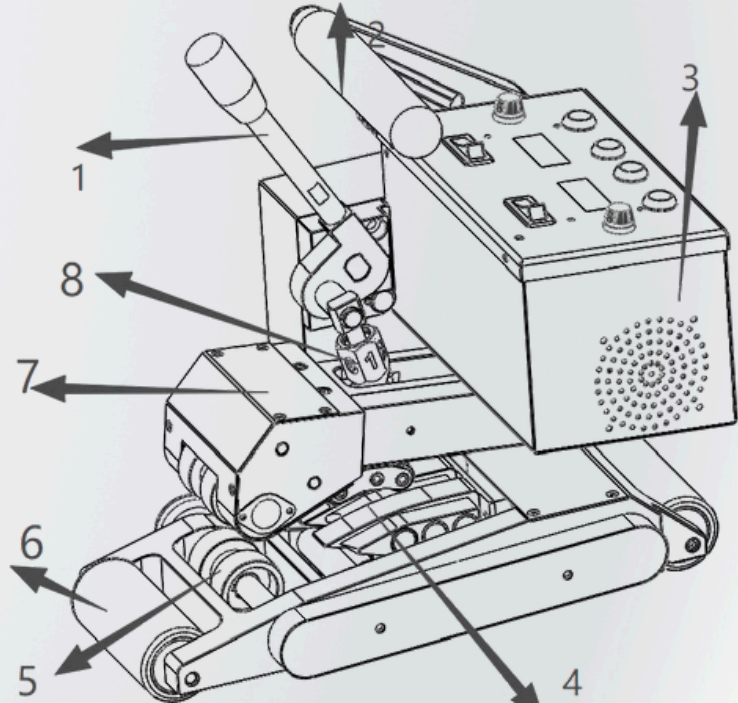
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## TECHNICAL DATA SHEET

### IZ-900

#### MAIN PARTS

- 1 Pressure handle
- 2 Operating handle
- 3 Electric box
- 4 Heating plate
- 5 Pressure wheel
- 6 Casters
- 7 Swinging the head
- 8 Pressure adjustment nut



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## TECHNICAL DATA SHEET

# PRESSURE ADJUSTMENT

### IZ-900

**Adjustment position:**

The pressure adjustment part is the pressure adjustment nut (9) located between the pressure rod and the upper pressure arm.

It is necessary to set the correct pressure to achieve high-quality welding results. It is also important to provide sufficient traction for the driving wheels at the same time, which can prevent the welding machine from burning through the film material. When the driving wheel loses traction and rotates over the film material, this situation occurs: the welding machine stays in place, burns through the film material on both sides of the hot wedge, and in severe cases, it will be pulled into the driving wheel.

**Attention: Pressure regulation for welding thin materials**

This type of material requires less pressure. Excessive pressure can cause material to fracture from the edge of the weld due to shear effects.

1. Rotate the pressure adjustment nut (9) clockwise for several turns, lift the pressure arm and prepare to start adjusting.
2. Take a section of material to be welded and place one end (a layer of material) between the driving wheels, about 3cm. Press the pressure rod down to the correct position, and at this point, the material can move in the middle of the pressure wheel without resistance.
3. Rotate the nut (9) counterclockwise until the upper drive wheel comes into contact with the material and cannot be turned by hand. This is the zeroing step for adjusting pressure.
4. Lift the pressure arm and disengage the upper drive wheel. Rotate counterclockwise one more full turn.
5. Place the material to be welded between the drive wheels again (fold the material in half and place it again, with two layers of material thickness) until the pressure rod is pressed down to the correct position. Drag the membrane material to confirm if the pressure is sufficient. If the material can be dragged or directly extracted from the drive wheel, it is necessary to loosen the drive wheel and turn the adjusting nut counterclockwise by one-third of a turn.

**Attention:**

After setting the pressure correctly, pressing the pressure rod may be a bit laborious but still feels smooth. Reiterating that sufficient traction is essential to avoid burning materials. Please remember: the thicker the material, especially the rough facial mask material, the greater the pressure should be.

**Set the position of the heating plate:**

Press the pressure arm down to the stroke limit position, and set the distance between the heating plate tip and the driving wheel to be slightly larger than the thickness of the film material. If the tip is too close to the driving wheel, the driving wheel will clamp the heating plate tip when pressing down, causing a decrease in welding pressure. In addition, after the welding is completed, the welding machine automatically drives out of the membrane material, and the pressure wheel will crush the heating plate. The distance between the tip of the heating plate and the driving wheel is adjusted by adjusting the two M5 hex screws at the rear end of the heating plate.

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# QUALITY ASSURANCE

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*The warranty does not include vulnerable parts (such as hot wedges, bearings, chains, rollers, appearance parts, etc.); Excluding defects or damages caused by improper handling or maintenance; It also does not include abnormal use and unauthorized modification; Damage caused by falling or being crushed is not covered by the warranty!*

## PRODUCT QUALIFICATION CERTIFICATE

*All technical indicators of this product have been inspected and found to be qualified*

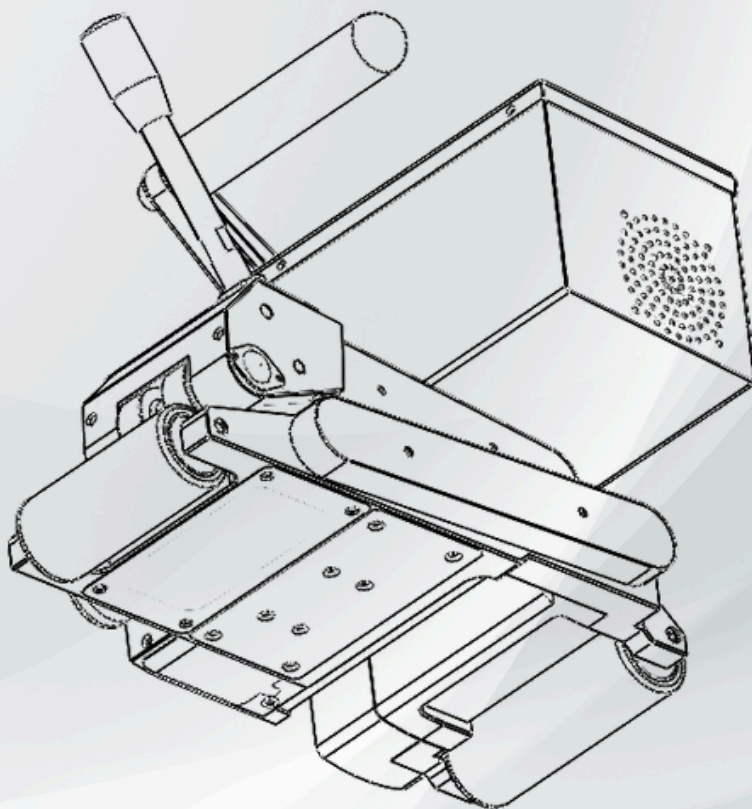
Equipment model:

Body number:

Inspector:

Inspection time:

Fujian Bortte Plastic Welding Technology Co., Ltd



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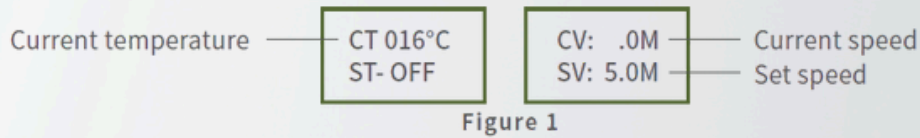
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# TECHNICAL DATA SHEET

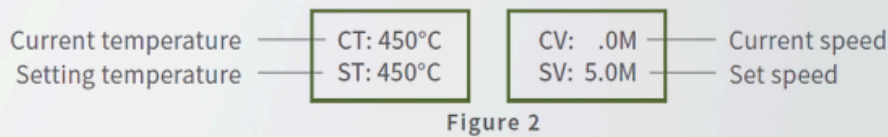
## OPERATION STEPS

### IZ-900

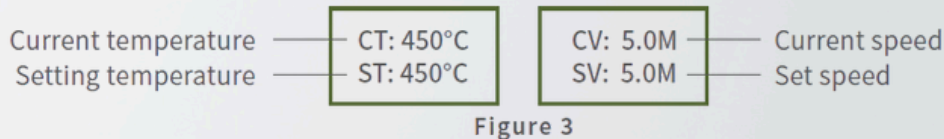
1. Connect the power supply, lift the pressure handle (1) upwards, and the pressure wheel (5) will automatically separate



2. Turn on the power switch (16), and the LCD screen will display as shown in Figure 1. At this time, the hot wedge has not started heating.



3. Press the temperature button (17), and the LCD screen will display as shown in Figure 2. At this time, the wedge knife will start heating until the actual temperature is equal to the set temperature.



4. Turn on the motor switch (21), and the LCD screen will display as shown in Figure 3. Set the required welding speed through the speed button (19) (20). (It is recommended to keep the motor in the starting state when the welding machine is turned on. This can avoid overheating at a certain position of the driving wheel, which may cause difficulties in starting welding.)

5. Place the welding machine in the position to be welded, remove the upper layer of film material, and expose the lower layer of material. Put the lower layer material into the welding machine, between the lower guide wheel and the bottom of the hot wedge, and reach the driving wheel.

6. At the same time, it is necessary to move the welding machine back and forth, place the upper layer of material between the upper guide wheel and the top of the hot wedge, and reach the driving wheel. Place the two layers of materials in place.

7. Press the pressure handle (1), place the pressure wheel (5) and hot wedge (4) in place, and start automatic welding. If the driving wheel clamps the material and burns it through, please quickly open the pressure arm and push the welding machine forward by about 10cm. (If there is membrane material entangled in the driving wheel, it needs to be cleaned) Leave the overheated area and press the pressure arm again to start welding.

8. Observe the welding marks on the film material and the position of the upper and lower film materials at any time, and adjust in a timely manner if there is any deviation. If there is any foreign object blocking or sinking, please handle it in advance or suspend welding.

9. When a film material is T-shaped overlapped with another already welded film material, cut off the overlapping head on the side of the hot wedge tightly against the weld mark. (The length is the same as the overlap width of the welding machine)

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### OPERATION STEPS

#### IZ-900

9. When a film material is T-shaped overlapped with another already welded film material, cut off the overlapping head on the side of the hot wedge tightly against the weld mark. (The length is the same as the overlap width of the welding machine)

10. After completing the welding, lift the pressure handle (1) upwards, reset the pressure wheel (5) and hot wedge (4), and move the machine away from the welding position.

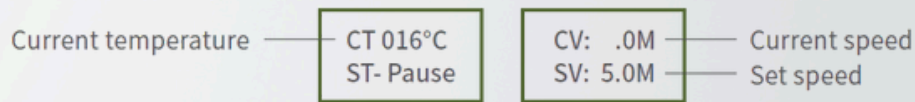


Figure 4

11. Turn off the motor switch (21) and simultaneously press buttons (17) and (18) as shown in Figure 4, or press the temperature (18) - button to "OFF" to stop heating the hot wedge. (This operation can be ignored)

12. Turn off the power switch.

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## TECHNICAL DATA SHEET

# COMMON FAULTS AND TROUBLESHOOTING

### IZ-900

| Phenomenon                                                                                            | Reason                                                          | Exclusion method                                               |
|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|----------------------------------------------------------------|
| Screen not lit or screen dim                                                                          | Power failure or low voltage                                    | Check the power supply voltage and power cord                  |
|                                                                                                       | The power fuse is broken                                        | Replace the 10A fuse                                           |
|                                                                                                       | Power switch faulty                                             | Replace the power switch                                       |
| The motor does not rotate                                                                             | Motor fuse broken                                               | Replace the 1.5A fuse                                          |
|                                                                                                       | Motor switch faulty                                             | Replace the motor switch                                       |
|                                                                                                       | Motor failure                                                   | Replacing the motor                                            |
|                                                                                                       | The motor drive board is damaged                                | Replacing the driver board                                     |
|                                                                                                       | The degree button is broken/<br>the button lead is open circuit | Replace speed button/check leads                               |
| The motor cannot adjust speed<br>or overspeed                                                         | The motor drive board is damaged                                | Replacing the driver board                                     |
| The buzzer makes abnormal<br>noises, and the motor speed<br>control interface displays fault<br>codes | 001: Excessive motor load<br>or stuck rotor                     | Adjusting the tightness of the structure                       |
|                                                                                                       | 003: Loose Hall connection wire                                 | Tighten or replace the Hall connector wire                     |
|                                                                                                       | 003: Motor damaged or motor<br>connection wire open circuit     | Replace the motor or check the motor<br>connection wires       |
| Hot wedge not heated                                                                                  | Electric heating tube faulty                                    | Replace the hot wedge knife assembly/<br>electric heating tube |
|                                                                                                       | The heating drive board is damaged                              | Replacing the driver board                                     |

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## TECHNICAL DATA SHEET

# COMMON FAULTS AND TROUBLESHOOTING

## IZ-900

| Phenomenon                                                                                  | Reason                                                                                               | Exclusion method                                                    |
|---------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| Hot wedge braised red wine                                                                  | Thermocouple malfunction                                                                             | Replacing thermocouples                                             |
|                                                                                             | The heating drive board is damaged                                                                   | Replacing the driver board                                          |
| The buzzer makes abnormal noises,<br>The temperature control interface displays fault codes | 002: Continuous for more than 10 seconds, the temperature exceeds the abnormal temperature by 600 °C | Check if the thermocouple and temperature control board are damaged |
|                                                                                             | 003: The temperature will remain the same for 20 consecutive seconds                                 | Check the connection of the electric heating tube                   |
|                                                                                             | 005: Thermocouple open circuit                                                                       | Check thermocouple connections                                      |
| The screen displays "CT: 016 °<br>CST: Pause"                                               | Temperature paused heating                                                                           | Press and hold both heating buttons simultaneously to start heating |
| Display mosaic garbled characters on the screen                                             | Damaged display screen or display board                                                              | Replace the main control board of the display screen                |

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## TECHNICAL DATA SHEET

# MAINTENANCE AND REPAIR

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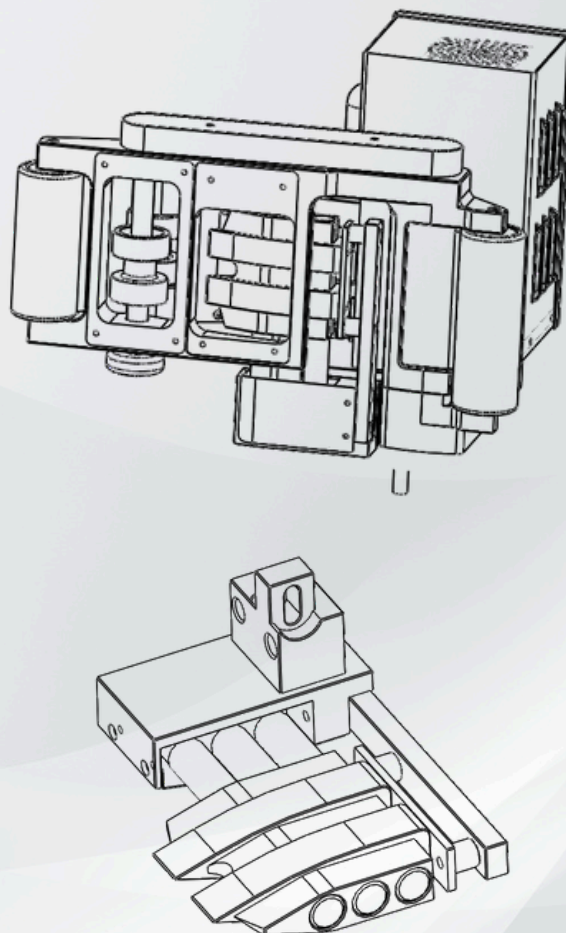
*After welding, please clean the sand and debris on the drive wheel and hot wedge in a timely manner; And carefully observe whether there are any loose screws; And component detachment; And add oil to the parts that need lubrication!*

*The device has not been used for a long time or is damp. Please turn on and preheat for 30 minutes before use!*

*Maintenance and upkeep must be carried out by professional personnel. Before disassembling and assembling the welding machine, please consult the welding machine manufacturer. After maintenance, please ensure that all screws are tightly installed and install all shields and machine covers.*

*The equipment can only be repaired by the Bote after-sales service center. The service center will provide correct and reliable repair services within 24 hours.*

*Must use genuine spare parts from Bote and repair according to the circuit diagram and spare parts list.*



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