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# Roof Waterproofing Membrane Welding Machine

## JC-GM-PLUS

### User Manual



Please read this manual carefully before using this machine and keep it properly for future reference.

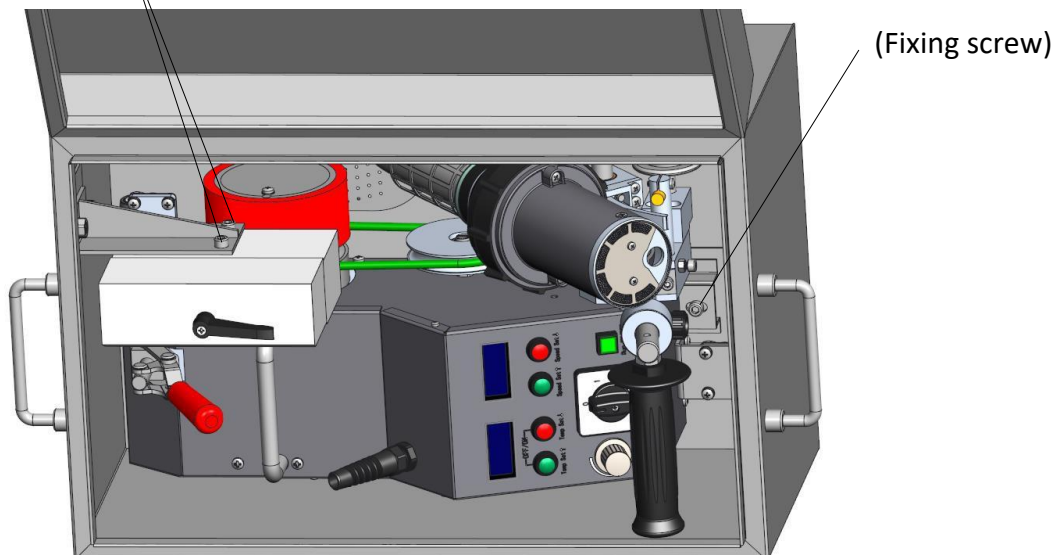
### i. Applications

It can be applicable for welding PVC-P, PE, TPO, ECB, CSPE, EPDM, PVDF and other Coated fabric covering, foil and homogeneous or coating sealing film and PE coating fabric.

### ii. Notice

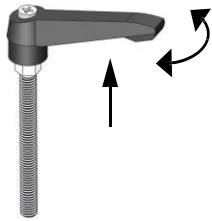
1. Unplug the tools before opening it to avoid of being hurt by exposed wires or component inside the machine with power
2. Incorrect use of it can cause fire and explosion hazard because of high temperature, especially near combustibile materials and explosive gases.
3. Don't touch heater tube and nozzle when they are hot. They may cause burns. Don't point hot air flow in the direction of people or animals.
4. The voltage rating stated on the welder must correspond to line/mains voltage (120V).  
The drop cable / wire with protective earthed conductors can only be used.
5. To ensure operator safety and reliable operation of equipment, the power supply must be installed power supply and leakage protection at the construction site.
6. It must be running at the correct use of manipulation of the operator, or they may cause a fire or explosion caused by high temperature.
7. Don't use welder in the water, or on a muddy construction site, to avoid flooding, rain or moisture.

(Fixing screw)

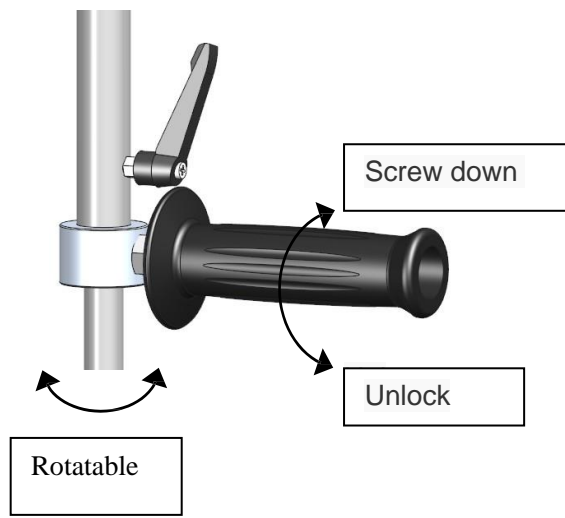


- In order to prevent the machine from being damaged during transportation, the machine is fixed in the steel packing box with screws. When using the machine for the first time, it is necessary to loosen three machine fixing screws and take them out to remove the machine from the packing box, as shown in the figure above

The handle can be pulled up and rotated, rotating so that the handle is at different angles.



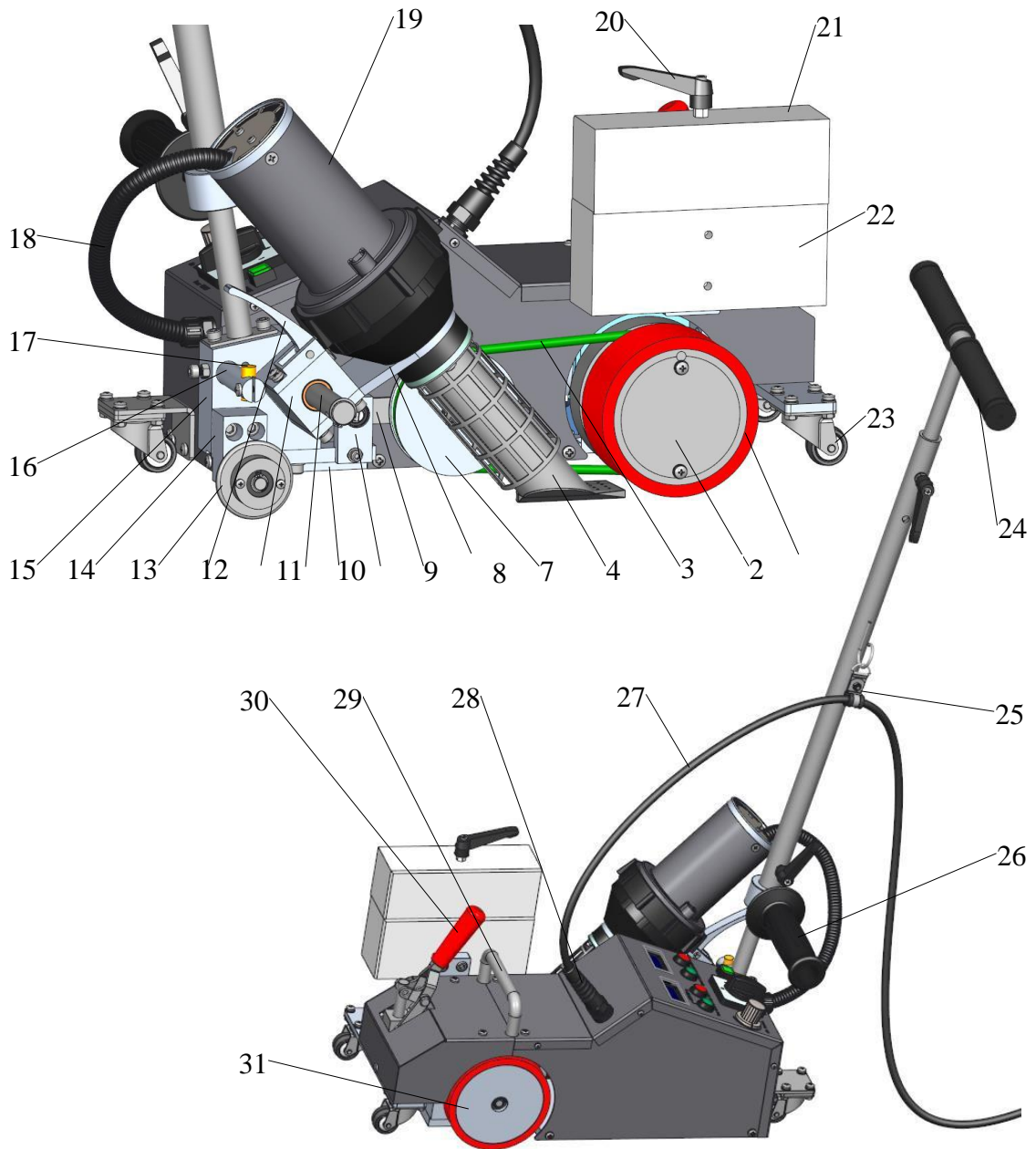
Power cord should be clamped on the hook to prevent cable joints from loosening.



**Technical Parameters**

Voltage	120	V
Frequency	50	Hz
power	2000	W
Temperature	0~620°C (32~1148°F)	
Welding speed	1~12	m/min
Welding width	30/40	mm
Size( L*W*H)	520*275*815	mm
Weight	22	kg

iii. Description





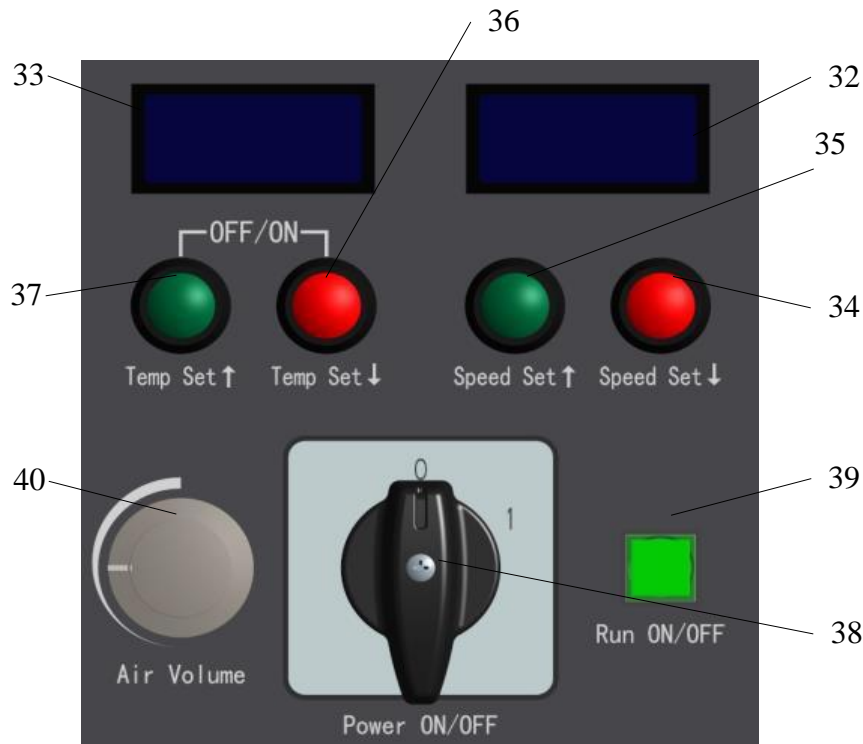
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1.	Drive silica roller	11	Hot gun fixed slider	21.	Counterweight block 1
2.	Drive roller	12	Hot gun positioning handle	22.	Counterweight block
3.	Round belt	13	Guide wheel	23.	Universal wheel
4.	Nozzle	14	Guide wheel support block	24.	Handrail
5.	Pulley	15	Hot Gun Fixed Seat	25.	Clamp
6.	Hot Gun Fixed Plate	16	Locator Fixed Column	26.	Movable handle
7.	Pulley connecting rod	17	Laser Line Locator	27.	General power line
8.	Belt wheel fixing block	18	Hot gun power cord	28.	Cable connector
9.	Floor Plate	19	Gun	29.	Handle
10.	Guide	20	Handle screw	30.	Lifting handle
31.	Side wheel				

## iv. Controller Panel



- ON/OFF switch (38) is used for open the main power of the welder.
- Open ON/OFF switch (38), LCD display is shown as figure 1, the hot air blower is under natural wind without heating.
- Press the button (37) and (36), the screen shows as Figure 2 and the hot air blower starts to heat until to the setting temperature.
- If press the bottoms (37) and (36) at the same time, LCD display shows as figure 1, the hot air blower is under natural wind without heating.
- When the welding nozzle is at the right position, press the moving switch (39) and the welder starts to move and weld. It will stop move if you press the moving switch again.
- When the welder starts to move, the LCD display shows as figure 3.
- The knob (40) is used to adjust the air flow of the air gun, increase the air flow by rotating clockwise, and reduce the air flow by rotating counter-clockwise.



Figure 1



Figure 2



Figure 3

## VI. Welding parameters setting

### 1. Welding temperature

Using bottoms Temperature setting knob+



and Temperature setting knob-



on the to set the required temperature. You can set the temperature according to the welding materials and the ambient temperature. LCD display will show the set temperature and the current actual temperature.

### 2. Welding speed:

Using bottoms Speed setting knob+



and Speed setting knob-



on

the panel to set the required speed according to the welding temperature. LCD display will show the set speed and the current actual speed.

### 3. Air volume:



Using the button on the panel to set the air volume, increase the air volume clockwise and reduce the air volume counterclockwise. When the ambient temperature is too low and the current temperature can not reach the set temperature, the air volume can be reduced appropriately.



- The machine has a memory function parameters, namely when you use the welder next time, the welder will automatically use the last set of parameters without having to re-set parameters.

**VII. Positioning the welder**

Pressure Lift lever (30) to lift machine, move it to welding position (the edge of upper membrane should keep in the same alignment with Drive silica roller (1) and the edge of Guide wheel (13), as shown in figure 4.

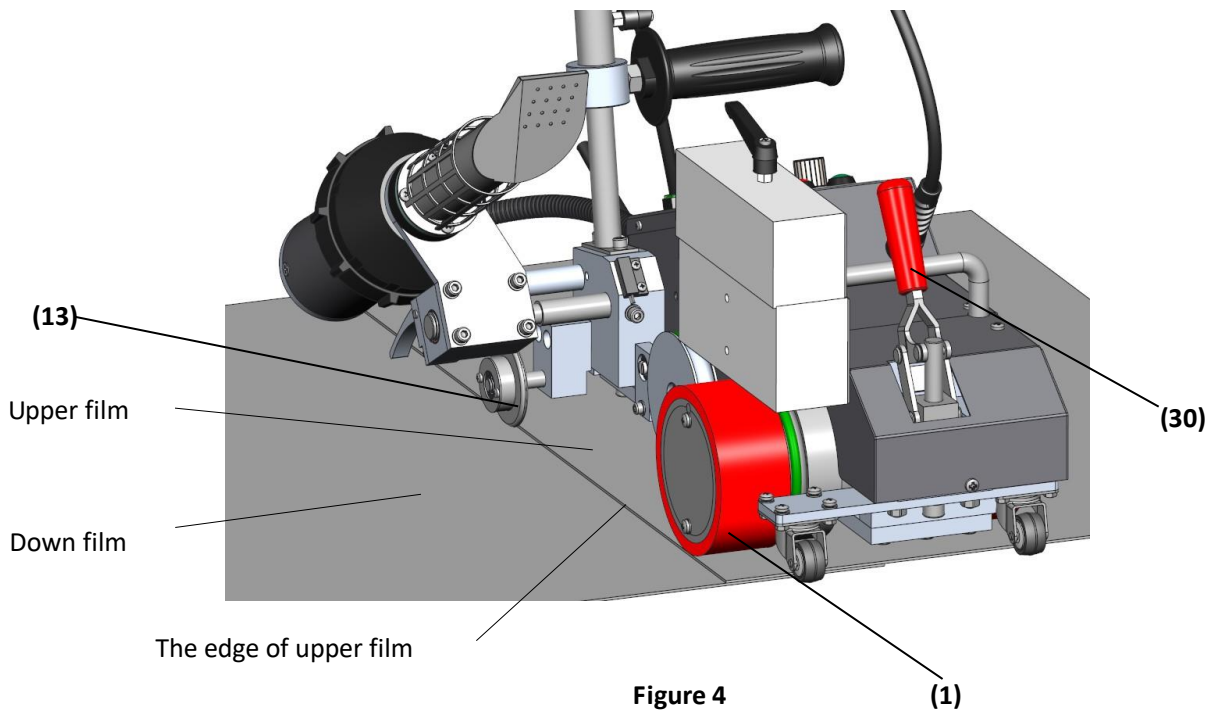
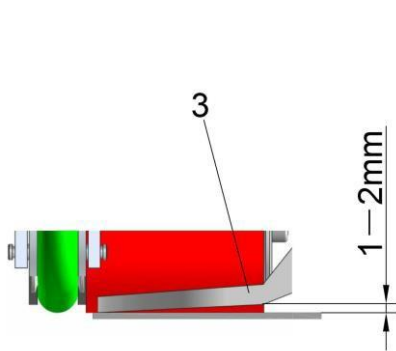


Figure 4

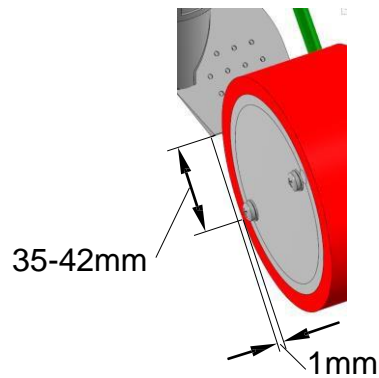
(1)

**VI. Using Condition**

1. The distance between hot air nozzle and ground should be shown as figure 5 ( We have adjusted the distance ) .
2. The distance between hot air nozzle and Drive roller should be shown as figure 6 ( We have adjusted the distance ) . You can adjust Hot air nozzle adjusting screw figure 7 if the distance is not right.

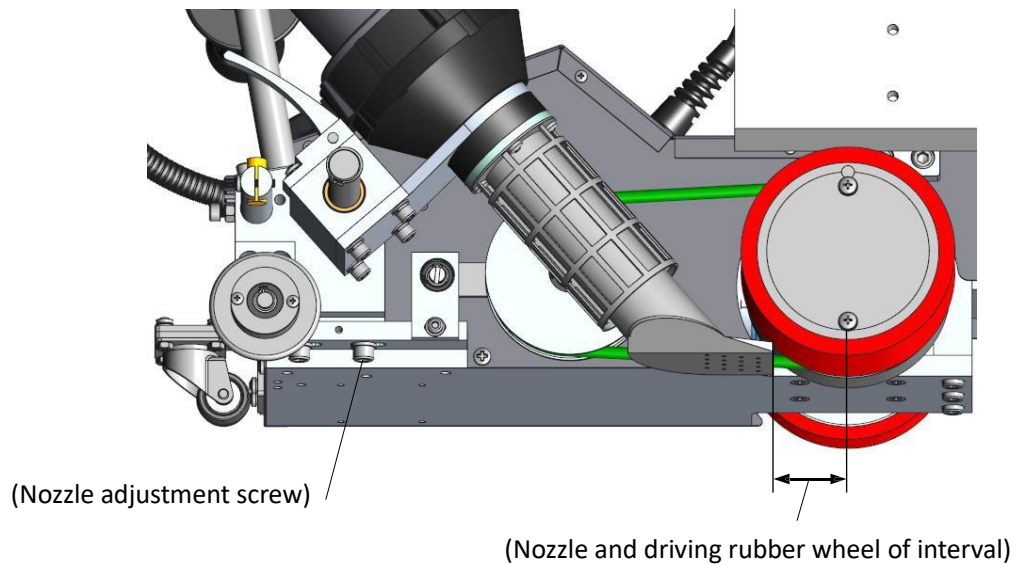


**Figure 5**



**Figure 6**

图6



**Figure 4**

**VI. Welding steps**

1. Setting welding parameters (see above).
2. When the temperature reaches the set value.
3. Welding machine positioning.
4. Pull up the positioning handle (12) of the air gun, lift the air gun (19), lower the air nozzle (4) and make it close to the submerged membrane. Move the air gun to the left to insert the air nozzle into the overlap membrane and make the air nozzle in place. At this time, the welding machine will walk automatically for welding.
5. Always pay attention to the position of the guide wheel (13) and adjust it by touching the handle (24) lightly if it deviates from the position.
6. Pull up the positioning handle (12) of the air gun after welding, move the air nozzle to the right until it stops, and rotate upward until it is locked.



7. After welding, press the button on the control panel at the same time

and make the air gun in the state of blowing cold air to cool the air nozzle.



8. Turn off the power supply with the power switch.

**VI. Routine maintenance**

Use steel brush to clean the hot air nozzle.  
Clean the air inlet at the back of the hot air blower

