

# Banner Hot Air Welder

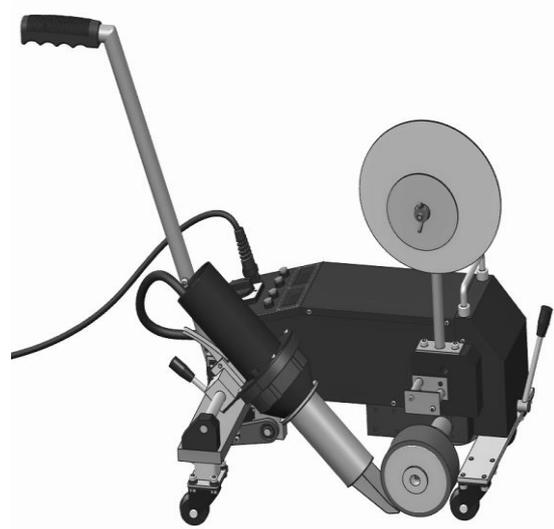
## JC-4200-PM

## User Manual

**Automatic Overlap Banner Welder**



**Automatic Tape welder**



**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**

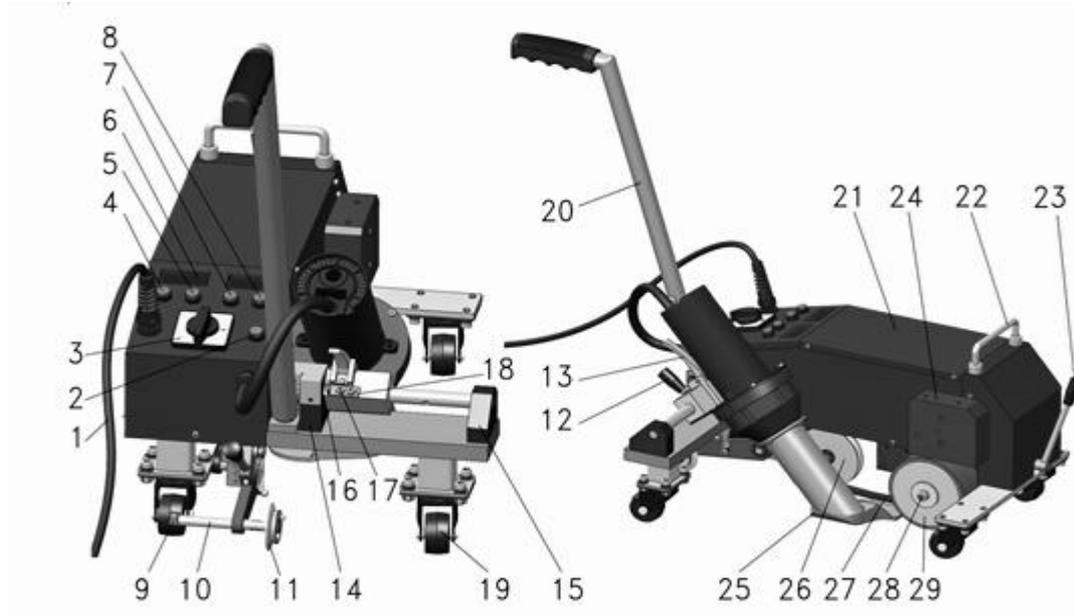
1. Unplug the tools before opening it to avoid of being hurt by exposed wires or component inside the machine with power
2. Incorrect use of it can cause fire and explosion hazard because of high temperature, especially near combustible materials and explosive gases.
3. Don't touch heater tube and nozzle 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 (220V).  
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.

**iii. Technical Parameters**

Voltage	220	V
Frequency	50	Hz
power	4200	W
Temperature	50~620°C (122~1148°F)	
Welding speed	1~10	m/min
Welding width	40	mm
Size( L*W*H)	531*337*300	mm
Weight	20	kg

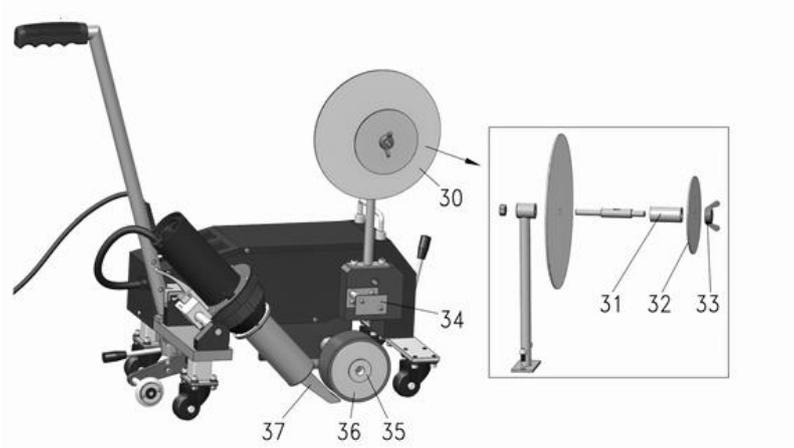
**iv. Description**

1. The description of Automatic Overlap Banner Welder



1.	Power cord	11	Guide wheel	21	Outer shell
2.	Moving switch	12	Control handle of guide wheel	22	Lift handle
3	ON/ OFF switch	13	Position handle of hot air blower	23	Lift lever
4	Temperature setting knob (+)	14	Fixed set ( left) of hot air blower	24	Clump weight
5	Temperature setting knob (-)	15	Fixed set ( right ) of hot air blower	25	Overlap hot air nozzle
6	LCD display screen	16	Micro switch	26	Belt wheel
7	Speed setting knob (-)	17	Adjusting screw	27	Circular silica belt
8	Speed setting knob (+)	18	Baffle of micro switch	28	Pressure roller fixed screw
9	Guide wheel nut	19	Universal wheel	29	Overlap Pressure roller
10	Guide wheel shaft sleeve	20	Guide Handle		

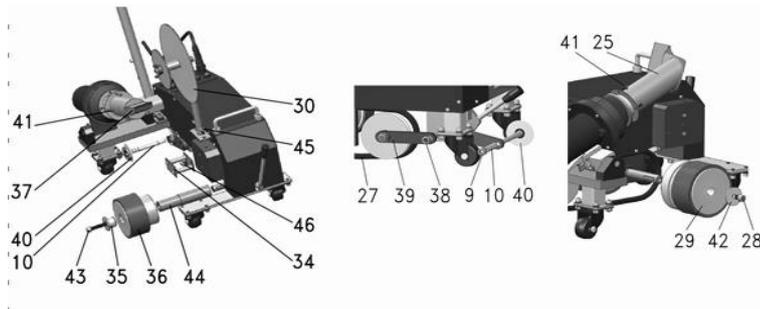
2. The description of Automatic Tape Welder



30.	Tape fixed set	33.	Disc Nut	36.	Tape pressure roller
31.	Tape fixed cover	34.	Tape limit set	37.	Tape hot air nozzle
32.	Tape circular disc	35.	Pressure roller stopper		

v. How to change Overlap Banner Welder to Tape Welder

1. Loosen belt wheel fix nut( 38 ), take down belt wheel set ( 39 )、 circular silica belt ( 27 );
2. Loosen pressure roller fixed screw ( 28 ), take down gasket ( 42 ) and overlap Pressure roller ( 29 ), assemble the drive shaft coupling cover ( 44 )、 tape pressure roller ( 36 )、 pressure roller stopper ( 35 ) and inner hexagon screw ( 43 ) in proper cord;
3. Loosen hot air nozzle fixed screw ( 41 ), take down overlap hot air nozzle ( 25 ), and then replace into tape hot air nozzle ( 37 );
4. Loosen guide wheel nut ( 9 ), take down guide wheel shaft sleeve ( 10 ) and guide wheel set ( 40 ), reassemble guide wheel set as the below pictures show;
5. Assemble tape limit set ( 34 ) and tape fixed set ( 30 ).



**vi. How to change Tape Welder to Overlap Banner Welder**

1. Loosen screw ( 45 ), take down tape fixed set ( 30 );
2. Loosen screw ( 46 ), take down tape limit set ( 34 );
3. Loosen inner hexagon screw ( 43 ), take down pressure roller stopper ( 35 )、 tape pressure roller ( 36 ) and drive shaft coupling cover ( 44 ), then assemble overlap Pressure roller ( 29 )、 gasket ( 42 ) and pressure roller fixed screw ( 28 ) in proper cord;
4. Loosen hot air nozzle fixed screw ( 41 ), take down tape hot air nozzle ( 37 ), and replace into overlap hot air nozzle ( 25 );
5. Loosen guide wheel nut ( 9 ), take down guide wheel shaft sleeve ( 10 ) and guide wheel set ( 40 ), reassemble guide wheel set as the above pictures show;
6. Assemble belt wheel set ( 39 ), tighten belt wheel fix nut( 38 ), then assemble circular silica belt ( 27 ).

**vii. Welding parameters setting**

1. Welding temperature setting:

Using bottoms Temperature setting knob+  and Temperature setting knob-  on the panel 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 setting:

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.

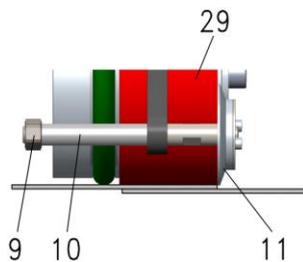
### viii. Positioning the welder

#### 1. Automatic Overlap Banner Welder

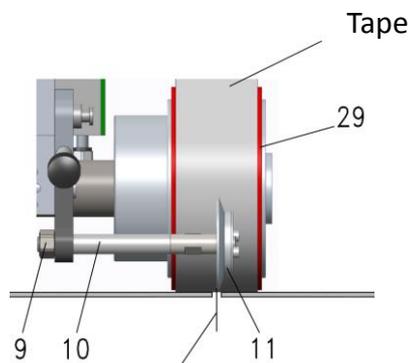
Keep both the edge of upper membrane and the side of guide wheel in the same cord of the overlap pressure roller, shown as Figure 1.

#### 2. Automatic Tape Banner Welder

Put the tape in the center of tape pressure roller, and the center of tape should be put in the seam place of lower membrane. Meanwhile, keep the side of guide wheel in the same cord of the seam place of lower membrane, shown as Figure 2.



**Figure 1**



The centre of Tape ( seam place)

**Figure 2**

### ix. Welding process

1. Setting the welding parameters according to the data of welding test.
2. Please wait the actual temperature value reaching the setting value.
3. Positioning the welder
4. Lift the lift lever (23) to land down the roller
5. Press the control handle of guide wheel (12 ) to land down guide wheel ( 11 )
6. Lift the position handle of hot air blower (13) to lower down the hot air nozzle, then move hot air nozzle to left and place it. The machine would start walking and welding automatically.
7. To observe the relative position of Guide wheel (11). You can adjust the position by flip the guide handle (20) if it deviates from the position.
8. When the welder walks into the end of material, lift up position handle of hot air blower (13), move the hot air nozzle to the right until it cannot move, spin up and lock it.

9. After finish the welding job, press the temperature setting knob-  to make the hot air blower in a cold blowing condition for 5 mins in order to cool the nozzle. Then to power off the welder. If you want to keep the welding temperature data, before you power off the welder, you can press down both  to cold the hot air nozzle in 5 mins. And press both  when you restart the welder.

**x. Fault diagnosis and solved ways**

The fault performance	Caused reasons	Solved ways
Welder cannot walk when hot air nozzle at the right place	Micro switch is not in right place	Move the hot air nozzle to the left and put it in place, then loosen adjusting screw (17); Move baffle of micro switch ( 18 ) , to place micro switch ( 16 ) in the right position
The position between hot air nozzle and drive roller is not right		Adjust the fixed set ( left) of hot air blower(14) and fixed set ( right ) of hot air blower( by adjusting the screw under the fixed set of hot air blower)

**xi. Routine maintenance**

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