Operations Manual
RC-100 Extruder Welder

Technical Data:

Output w/5 mm Rod	Up to 9 lbs per hr
Output w/4 mm Rod	Up to 7 lbs per hr
Welding materials	PE,PP
Welding range	20 mil to 2 inches thickness
Welding rod size	4 or 5 mm 5/32" or 3/16"
Welding w/o case	18 lbs
Drive Motor	8 [Amps] , 920 [Watt], 120 VAC
	4 [Amps] , 920 [Watt] , 240 VAC
Extruder Heater Band	800 [Watt] for 120 VAC or 240 VAC
Air Heater	1600 [Watt], 120 VAC
	1400 [Watt], 240 VAC

I. Welder Pre Heat Up Procedure:

1. Remove welder from shipping case
2. Make sure power supply is 240 volts or 120V depending on machine.
3. Recommended extension cord size 12 AWG.
4. Recommended maximum length of extension cord is 225 ft.
5. Recommended minimum size generator is 7 KW

II. Heat Up Procedure:

1. Plug welder into 240 V or 120 V (depending on welder) power supply: Turn on Pre Heat air blower by switching the power switch in the back of unit.
2. Set desired temperature set points on Temperature controller as follows:
   - **A. Rod Melting Temperature (Omron Controller)**
     1. Press the temperature indication-switching key to the set point (SP) now you can adjust temp. by pushing the up or down key.
     2. Pressing the temp indication switching key twice will show the alarm (AL) and can be adjusted. ***(PolyWeld sets all alarm to a minimum of 220°C if alarm is adjusted below factory set the welder may malfunction).***

NOTE: The temperature controller will not let the drill run until the extruder temperature has reached the low alarm value of 220 degree C.

B. Pre-Heat Air Temperature (Leister)

1. To control temperature on the blower turn red knob at the end of blower and adjust the temperature to your specification.

Note: Recommended temperature setting will vary depending on the type and thickness of the martial you are welding as well as ambient conditions and other variables.

Table of common materials used and their temperature set points.

Matrial	Extruder Temperture	Air Temperture
PE	265°C	Set Knob to #6
PP	250°C	Set Knob to #5

Warning

Be careful not to touch any metal parts of welder. Touching these parts with bare hand will cause severe burns!!!!

III. Welding Operation

A. After allowing 10 minutes for all temperature to equalize, pull trigger on drive motor to start motor,
B. Begin feeding welding rod (4mm or 5mm) into feed hole located on top right hand of barrel.
C. You may need to change Teflon welding shoe or modify it to fit your welding application.

Note: Make sure welding rod is dry and clean.

IV. Cool-down procedure.

A. Once you have finished welding for the day or are done welding for an hour or so, cool down the air heater unit in the flowing manner:
    1. Turn the red knob to #1 position.
    2. After wating approx 2 min. for the air to cool down now turn off the switch for the air heater.

B. Now simply unplug the entire welder.

Note: For maintenance purpose please discard of any plastic in Teflon shoe area. This will prevent a back up of plastic next time the welder is run.

V. General Information:

1. Avoid exposing the unit to moisture and never weld in the rain.
2. Drill motor and blower both produce sparks. Do not use unit in areas where flammable gases are present.