



# CWP-1800-SA Circle Welder



The **CWP-1800-SA Programmable Circle Welder** is designed for single or multipass welding of couplings or nozzles. This machine uses a microprocessor to control the rise and fall through encoder positioning. Photo shown with optional Flux Recovery System installed.

## Features:

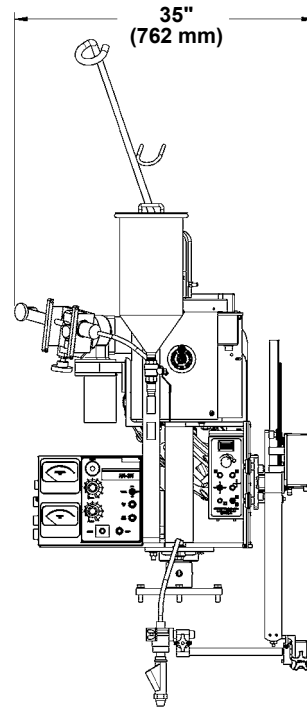
- Wire feeder with one set of drive rolls.
- 1/12 HP P.M. motor and rotational speed control.
- 600 AMP gun & cable assembly.
- 50 ft. (15 m) power cable.
- 50 ft. (15 m) gas shielding hose.
- 50 ft. (15 m) weld cable.
- Quick disconnects for all cables.
- Pre and post flow gas controls.
- Wire reel adaptor for 60 lb. (27 kg) spools.
- Adjustable vertical and horizontal torch positioning system.
- Brushes and collector rings for welding current, rated at 600 AMPS 100% duty cycle.
- Brushes and collector rings for all controls, eliminates cable and hose wrap.
- Rise and fall is controlled by motorized drive and encoder positioning.

## Technical Data:

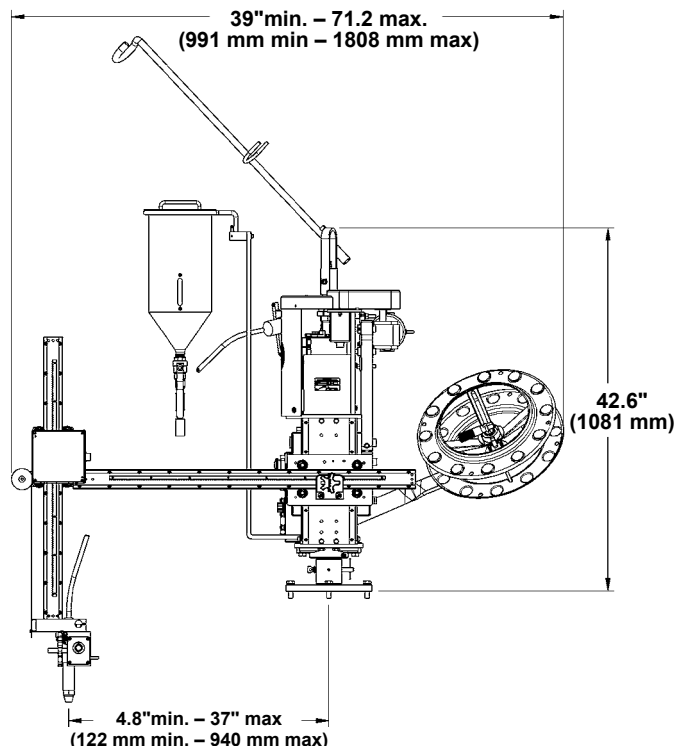
<b>Control Voltage:</b>	115 VAC
<b>Weld Amperage:</b>	0-1200 amps
<b>Weld Voltage:</b>	0-60 Volts
<b>Wire Sizes:</b>	1/16"-7/32" (1.6-5.6 mm)
<b>Rotation Speed:</b>	.2-2.2 rpm
<b>Welding Diameter:</b>	10"-50" (254-1270 mm)
<b>Height:</b>	43" (1092 mm)
<b>Net Weight:</b>	360 lbs. (163.6 kg)
<b>Shipping Weight:</b>	490 lbs. (222.3 kg)

The CWP-1800-SA may be used with any constant voltage power source with connections for 115 VAC and weld contactor. The machine may also be used for MIG or flux cored processes.

## **FRONT ELEVATION**



## **SIDE ELEVATION**



## **Programming:**

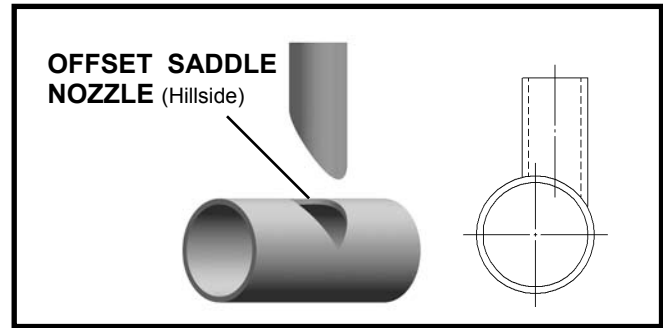
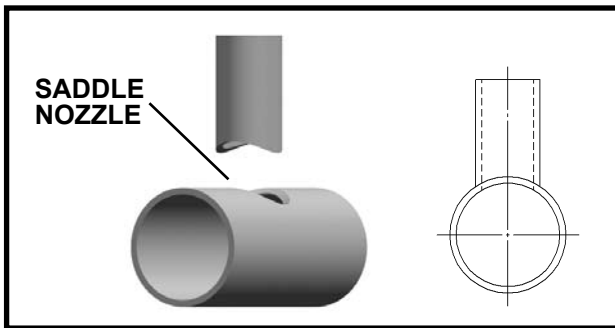
Dimensions and Program parameter data are entered on the built in terminal, with keypad and text display.

The alpha keys used are listed below with their functions:

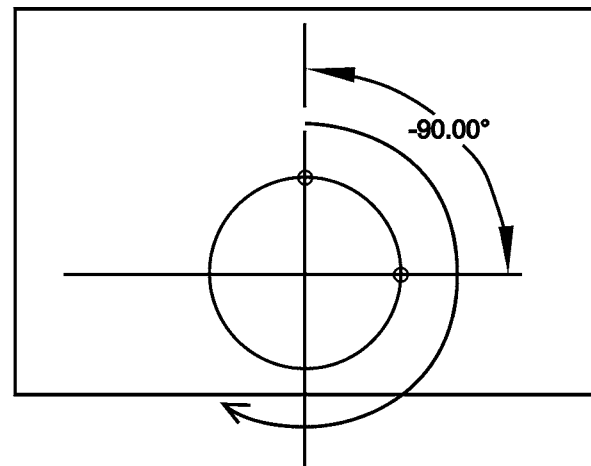
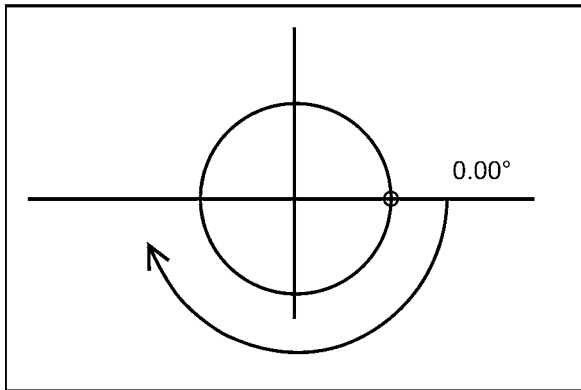
- A: To enter all dimensions
- B: To enter the time delay for puddle build-up
- C: To change the Program No. ( switch to a different number) from 0 to 99
- D: To display all the programmed parameters for the current program
- E: To enter the number of passes the gun goes around the joint
- F: To enter the start angle, so the weld can be started at the preferred point around the joint

### **DATA REQUIRED FOR PROGRAM:**

1. Small diameter (nozzle size)
2. Large diameter (main pipe)



3. Offset distance between centerlines of main pipe and nozzle, if any
4. Overlap Angle (additional rotation after 1 or more complete passes)
5. Start Angle : to specify the start point angle around the joint



Besides the above, background parameters that are retained for all programs, and are set individually, are:

1. Time Delay, from when the arc starts until the gun starts moving.
2. No. of passes : if a multiple pass weld is required. If 0 or nothing entered, the default is one rotation.

When entering Diameter values, the inside or outside diameter or anything in between can be used. The machine will move along a path where those diameters intersect. Usually the ID of the nozzle and the OD of the main pipe are used. This allows for a bevel on the nozzle so the nozzle ID fits the OD of the main pipe.