



## Internal Welding Machine

### Proven Technology

The CRC-Evens Internal Welding Machine (IWM) is a combination internal clamp and automatic multi head internal root pass welding system. This machine is available in two variations; one for barge or offshore applications and one for land or standard pipeline right of way.

A self contained low voltage electrical source provides power for the shielding gas, air control valves, ring drive and wire feed motors. The pneumatic system, also self contained, operates the travel motors, brakes, drive wheels, aligners, and front and rear clamping shoes. Manipulation of the internal welder is controlled by an operator at the end of a 40'/80' Reach Rod by a control box or by the

master control box located on the nose cone. The lightweight tubular Reach Rod contains the control cable, all welding leads, air line, gas charge hose, and battery charge cable.

The welding heads are located symmetrically around the rotating ring and perform the root pass welding from the inside. The number of welding heads on the IWM varies between four and eight depending on the machine's size (most machines have six or eight).

The CRC-Evens IWM is the most productive system for pipeline root pass welding. On a 36" pipeline, the root pass welding arc time less than one minute. The internal root pass technique is also more tolerable to pipe mismatch (high/low) than any other external root pass technique.

### Internal Welding Machine

#### Features

- ▶ Multi-welding heads
- ▶ No root gap
- ▶ Fully automatic welding
- ▶ Internal root pass

#### Benefits

- ▶ High production rates
- ▶ Quick accurate alignment
- ▶ No copper contamination
- ▶ More tolerance to high/low

## Specifications

### General Operational Specifications

Ring Drive Travel Speed	0-50 IPM
Wire Travel Speed	100-500 IPM
Shield Gas Flow	50-100 CFM
Shield Gas Pressure	Min 500 PSI Max 2,000 PSI
Air System Pressure	Min 170 PSI Max 210 PSI

### Size Dependent Specifications

Welder Size	24"	26-28"	30-34"	36-48"	56-60"
N° of Weld Heads	4	4	4, 6	4, 6, 8	6
Travel Speed in ft/sec	4	4	4	3	2
Travel Speed in cm/sec	122	122	122	91	61

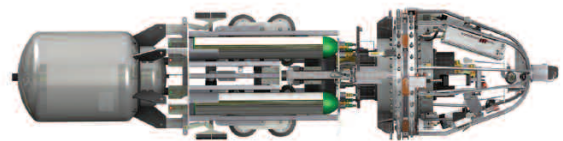
### Weight and Dimensions

Machine Type	Length		Weight W/O Batteries	
	inch	cm	lbs	kg
24"	156	396	1,700	771
26"-28"	165	419	1,700	771
30"-32"	172	437	1,700	771
34"-36"	204	518	3,050	1,383
38"-48"	197	500	3,050	1,383
42"-44"	189	480	4,600	2,087
46"-48"	207	526	5,400	2,449
48"-50"	207	526	5,800	2,631
56"-60"	209	531	7,400	3,357



### System Requirements

Air System	70 CFM of 200 PSI Air
Electrical System	24 VDC (Two 12 volt batteries in series)
Charging System	Battery charges 12, 24, and 36 volts
Shielding Gas	Mixed gas as project requires



### ! Disclaimer

Although great care has been taken in compiling the information contained in this catalogue, CRC-Evans does not accept responsibility for the consequences of any errors, nor for the effects of any subsequent changes made by the various sources of data.

Dimensions and weights provided for reference only. Dimensions, specifications and weights can vary depending upon final configuration of the equipment. Please contact CRC-Evans to confirm final weights and dimensions prior to shipment.



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