



1409 4th Street
Nisku, AB T9E 7M9
Phone: 780-955-3907



RMS
Welding Systems



979 Drennan Road
Conroe, Texas 77303
Phone: 713-400-8660

INTERNAL WELDING MACHINE IWM



The RMS Welding Systems Internal Welding Machine (IWM) is a combination internal line up clamp and mechanized multi head internal welding machine.

The IWM produces the root pass weld from the inside; utilizing four to eight welding heads, depending on the pipe diameter, which are located symmetrically around a rotating ring. Welding is carried out in the vertical down position.

The machine relies on pneumatic and electrical systems and is controlled by a single operator via the control box at the end of a reach rod. The reach rod tube contains communication, gas, welding and air charging leads.

Move and set-up time for the machine varies with operator skills but is generally 1.5 to 2 minutes. Arc time is approximately 1 minute for 30" – 42" pipe, which leads to a weld-to-weld cycle time of 2.5 to 3.0 minutes.

Sample Arc Times

Pipe Diameter	Welding Heads	Arc Time
24"	4	1.2 min
30"	6	1.0 min
36"	8	0.9 min
42"	8	1.1 min
48"	8	1.2 min

Feature	Benefit
• Single operator	• Less skilled labour
• Mechanized welding	• Less potential for weld error
• Multiple welding heads	• Higher production rates
• Internal root pass	• More tolerant of high/low
• No root gap	• Quick & accurate alignment



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Internal Welding Machine				
General Specifications				
Welding Head				
Welding Wire Spool Size	3.5 lbs		1.59 kg	
Welding Wire Speed	200 - 500 ipm		5,085 - 12,700 mm per min	
Rotating Ring Travel Speed	20 - 35 ipm		508 - 890 mm per min	
Travel Speed	5' - 6.5' per sec		1.5 - 2 meters per sec	
Air System				
Maximum System Pressure	220 psi		16 bar	
Air System Operating Pressure	140 - 170 psi		10 - 12 bar	
Drive Motors	4 - Drive Motors			
Electrical System	24 (VDC)			
Size Dependent Specification				
Internal Welding Machine Size	22" - 26"	28" - 32"	34" - 50"	
Number of Weld Heads	4	6	8	

Machine Dimensions					
Pipe Diameter		Length		Weight	
22" - 26"		168"	4,300 mm	1,800 lbs	800 kg
28" - 32"		168"	4,300 mm	2,300 lbs	1,050 kg
34" - 38"		188"	4,800 mm	3,200 lbs	1,450 kg
40" - 44"		178"	4,500 mm	4,800 lbs	2,200kg
46" - 50"		206"	5,250 mm	5,800 lbs	2,650 kg