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# MECHANIZED ORBITAL WELDER MOW II



**The MOW II is an industry leading mechanized welding system.** The MOWII system offers digital control and monitoring of all critical weld parameters, and features through-the-arc tip-to-work distance and weld seam tracking.

The MOW II is a modular system capable of being configured in single-torch, dual-torch and tandem-torch configurations and supports flux-core-arc, gas-metal-arc and pulse-gas-metal-arc welding to meet the demands of today's high strength steels. One weld station is capable of performing an external root pass as well as the regular hot, fill and cap pass welding.

The MOW II system consists of an external welder, torch assembly, pendant control, voltage control, current control, and remote mounted wire feeders. The welding process is controlled by a hand-held pendant that can be field programmed with multiple welding procedures quickly and securely.

The MOW II system features weld data monitoring allowing the user to wirelessly monitor and store real-time weld data. This information can be retained in spreadsheet or graph format for further breakdown and analysis.

Feature	Benefit
• Digital signal processor and micro processor control	• Consistent weld quality and weld data traceability
• Increased deposition rate	• Higher production rates
• Ease of operation	• Expedited training process
• Narrow-gap joint design	• Less weld material required
• Consistent weld properties	• Quality, repeatable welds

## Welding Power Supplies Supported

Fronius TPS Series
Lincoln 350 PRO, DC 400
Miller 456MP, XMT304
Contact RMS for other power source support



## Mechanical & Electrical Specifications

Physical Dimensions (Dual Torch)		Horizontal & Vertical	
Length	394mm (15.5")	Horizontal Adjustment	Uses Digital Stepper
Width	419mm (16.5")	Vertical Adjustment	Uses Digital Stepper
Height	337mm (13 1/4")	Vertical Axis Stroke	2.0"
Weight	20.4 kg (45 lbs)	Horizontal Axis Stroke	1.5"
Operating Temperature Range	-50°C – +50°C (-60°F – +120°F)	Head Angle Adjustment	+/- 15 deg.
Oscillation		Welding Wire	
Oscillation Motor (DC Brush-type)	Controlled via digital encoder	Wire Spool Weight	15kg (33lbs)
Oscillation Rate	0 bpm – 300 bpm	Wire Feed	350 ipm – 750 ipm
Oscillation Width	0 – 1"	Wire Stop Delay	0 – 1000 ms
Dwell Time (Side Independent)	0 – 1 sec per side	Crater Fill Time	0 – 1000 ms
Travel		Controls	
Travel Motor (DC Brushless)	Controlled via Hall Effect	Voltage/Amperage	Automatic
Travel Speed	5-55 ipm	Communications	CAN
Travel Speed Adjustment (via pot)	0 - 100% Linear	Parameter Memory	1 - 32 procedure records
		Tilt Sensor	+/- 1% Accurate
Power		System Power	
Generator Requirements	70kVA Output 480V 60hz		120V-240V to DC 28V

## ADDITIONAL FEATURES

- ✓ The MOW II system features through-the-arc tip-to-work distance tracking that maintains a constant amperage or voltage, as well as horizontal seam tracking that centers the tip in the weld bevel.
- ✓ The MOW II system comes equipped with an easy to use remote control pendant that allows the user to modify weld specifications such as oscillation width, dwell time, travel speed, start and stop positions on the fly. The weld procedures can also be set and secured easily to prevent any unwanted changes to the parameters.
- ✓ The MOWII system monitors and displays all critical weld parameters including: wire feed speed, voltage, amperage, and travel speed. The monitor is wirelessly accessible allowing for remote upload and download of weld parameters, as well as access to real time weld data logging. The user can identify and correct any welding issues quickly and easily.

## Programmable Welding Parameters

<ul style="list-style-type: none"> <li>▪ System Mode (Single, Dual or Tandem Torch)</li> <li>▪ Direction of Travel</li> <li>▪ Pipe Diameter</li> <li>▪ Technician Security Code</li> <li>▪ Torch to Torch Distance</li> <li>▪ Head to Head Distance</li> <li>▪ Procedure Name</li> <li>▪ Procedure Enable / Disable</li> <li>▪ Welding Process (GMAW, PGMAW, FCAW)</li> <li>▪ Travel Speed, Limits &amp; Direction</li> <li>▪ Synergic Line</li> <li>▪ Dual Torch Pulse Synchronization</li> <li>▪ Hot Start Voltage</li> </ul>	<ul style="list-style-type: none"> <li>▪ Inclinator Start &amp; Stop</li> <li>▪ Oscillation Width &amp; Limits</li> <li>▪ Oscillation Rate &amp; Limits</li> <li>▪ Oscillation Dwell &amp; Limits</li> <li>▪ Vertical Tracking Enable / Disable</li> <li>▪ Vertical Tracking Setpoint ( Amperage or Voltage)</li> <li>▪ Horizontal Tracking Enable / Disable</li> <li>▪ Vertical and Horizontal Tracking Correction Speed</li> <li>▪ Wirefeed Speed, Limits &amp; Stop Delays</li> <li>▪ Arc Length Correction Setpoint &amp; Limits</li> <li>▪ Dynamic &amp; Pulse Correction Setpoints</li> <li>▪ Crater Fill Time</li> <li>▪ Gas Type (Dual Gas Supported)</li> </ul>
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