

# MAGNATECH

## ORBITAL WELDING SYSTEMS

### PIPELINER

#### Model 609

Orbital Weld Head for Multi-Pass  
GMAW/FCAW Pipe Welding



*Use with*

- *MPS-4000 Power Source*

# PIPELINER


## Orbital Weld Head for Multi-Pass GMAW/FCAW Pipe Welding

### Precision Tools for Perfect, Repeatable Welds

The Magnatech Pipeliner is designed to make pipe-to-pipe and pipe-to-fitting welds. Interchangeable guide rings mount the Head on the pipe, allowing a broad workpiece size range from 16.8–152 cm (6”–60”) and larger. The Pipeliner improves productivity by increasing duty cycle, reducing repair rates, and producing welds of consistent quality.

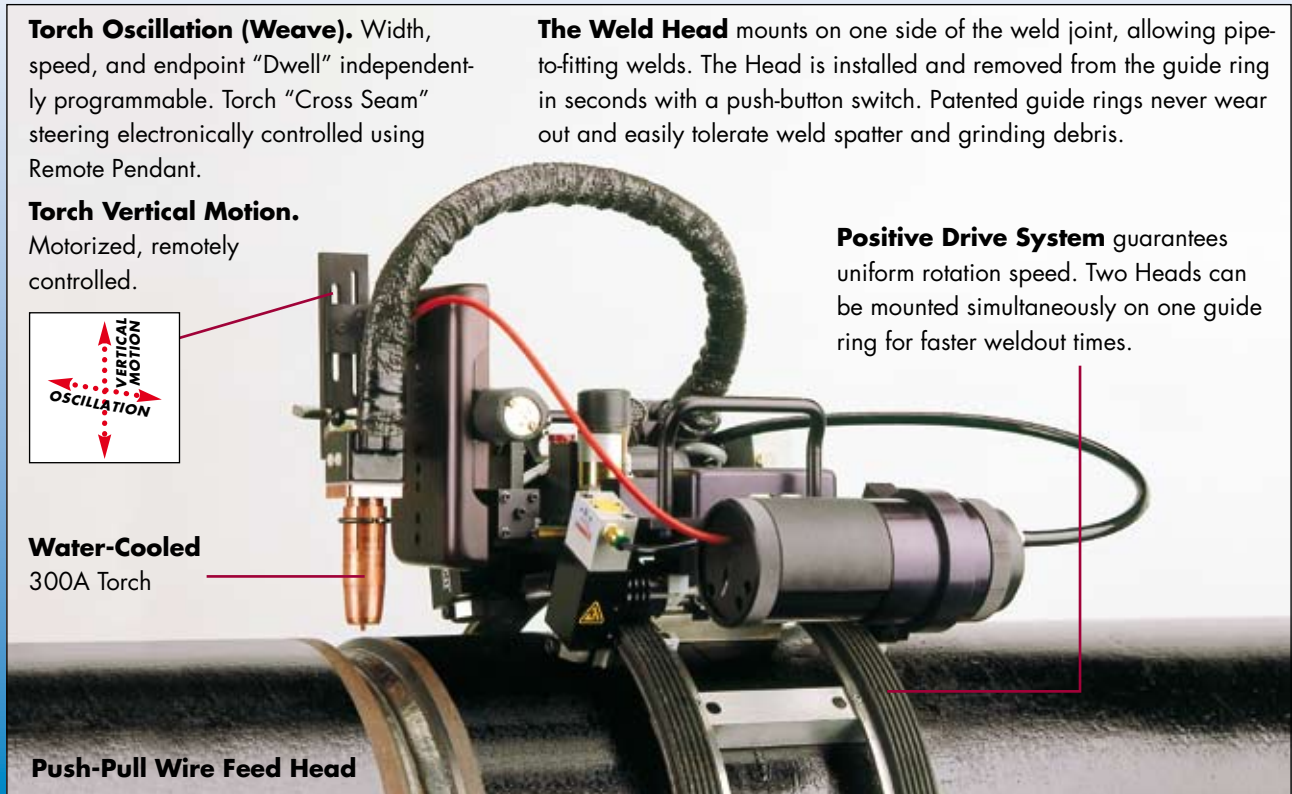
**Torch Oscillation (Weave).** Width, speed, and endpoint “Dwell” independently programmable. Torch “Cross Seam” steering electronically controlled using Remote Pendant.

**Torch Vertical Motion.** Motorized, remotely controlled.



**The Weld Head** mounts on one side of the weld joint, allowing pipe-to-fitting welds. The Head is installed and removed from the guide ring in seconds with a push-button switch. Patented guide rings never wear out and easily tolerate weld spatter and grinding debris.

**Positive Drive System** guarantees uniform rotation speed. Two Heads can be mounted simultaneously on one guide ring for faster weldout times.



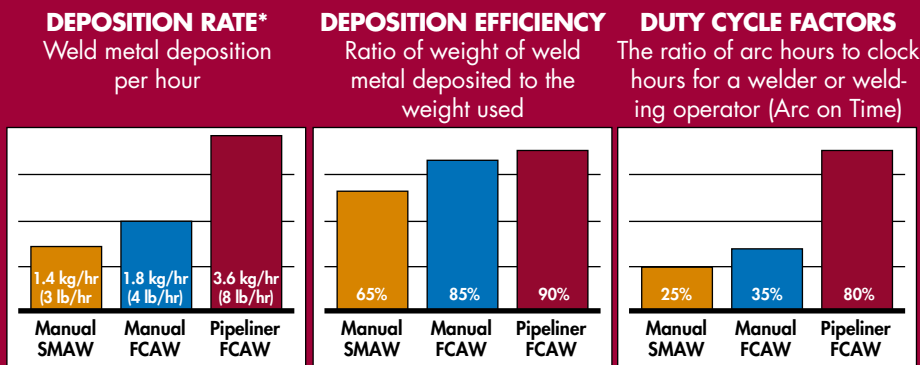
**Water-Cooled**  
300A Torch

**Push-Pull Wire Feed Head**

### Features

- Full Function Capability (Torch Rotation, Filler Wire Feed, Motorized Arc Gap Control, Electronic Oscillation)
- Broad Pipe Size Range with change of single component – the Guide Ring
- Water-Cooled Torch uses standard Expendables

### High Deposition Rate without Sacrificing Quality



- \*Based on Electrode Size:
- SMAW–4mm (5/32”) Electrode E6010
  - Manual FCAW–1.1mm (0.45”) Flux Core Electrode

Pipeliner Typical Parameters

- 24–26V; 220–260A
- 5.1–7.6m/min. (200–300 ipm)

The Pipeliner System welds pipe in all gravity positions - meeting both ASME IX and API 1104 code requirements.

## Options

- Pendular Torch Oscillation
- Torch Angle Bracket for Fillet/Socket Welds
- Extension Cables



**Optional Pendular Oscillator positioned for fillet welds**



**Optional Torch Angle Bracket for fillet and socket weld applications**

## Flx-Track™

In addition to welding pipework, the Pipeliner is also used for ID and OD welding on larger tanks, vessels, and ductwork.

- Flexible track allows mounting on complex curved surfaces
- Standard 2.3m (7-1/2') Track sections bolt together for longer lengths
- Magnetic or Vacuum attachment



**Pipeliner mounted on Flx-Track in 3.3m (11 ft.) diameter stainless steel duct**



**76cm (30") Gas Pipeline - Haradh Project, Saudi Arabia**



**Welding Steam Line - Slattery Project, NYC**



**Offshore Platform Topside Module - Swecomex Project, Mexico**

## Applications

- Gas, Oil, Water Pipelines
- Steam Piping
- Chemical
- Large Diameter Vessels
- Flowlines and Risers
- Offshore Platforms - Jackets and Topsides
- Tubular Structures, Piling



**27cm (10") Gas Pipeline - Estonia**



**76cm (30") Gas Pipeline - Bangkok, Thailand**

**120cm (48") Water Pipeline - Hidd Project, Bahrain**



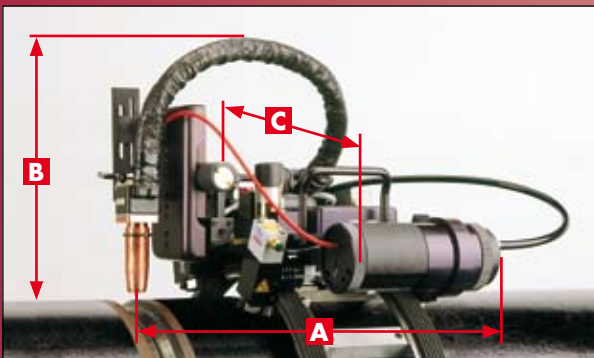
**15.2m (50') Diameter ID Weld Build-up - Refinery, Canada**



## Weld Head/Controls Specifications

<b>Application</b>	Pipe Size – 168 mm (6.625") and larger Pipe Wall Thickness – unlimited Flx-Track™ for welding on flat and curved surfaces		
<b>Oscillation Module (Linear)</b>	Oscillation Stroke Amplitude 0 – 5.1 cm (2") Oscillation Speed 0 – 254 cm/min. (100 ipm) Oscillation Dwell 0 – 1 second. Independently adjustable at both stroke endpoints Cross Seam Adjustment ± 2.5 cm (1.0")		
<b>Oscillation Module (Pendular)</b>	Oscillation Angular Stroke 0 – 15° Oscillation Speed 2.5 Hz maximum Oscillation Dwell 0 – 1 second. Independently adjustable at both stroke endpoints Cross Seam Adjustment ± 20°		
<b>Torch Vertical Motion Module</b>	Stroke: 6.6 cm (2.625") (motorized) Speed: 152 cm/min. (60 ipm) maximum		
<b>Tractor Module</b>	Poly-Track® Propulsion (Patented) Speed Capability 0 – 76.2 cm/min. (30 ipm). Higher speed motors available Travel Direction Switch selectable (on Head)		
<b>Wire</b>	Wire Diameter:	0.8 – 1.6mm (0.03 – 0.62")	
	Wire Feed Speed:	0.5 – 22m/min. (20 – 866 ipm)	
	Wire Spool Size:	15 kg (25/33 lb) WFOF, WFPP; 5 kg (10 lb) WFOH	
<b>Water-Cooled Torch</b>	Amperage Capability: 300 Amps Continuous. Uses standard components		
<b>Cable Length</b>	Wire Feeder on Head – 15m (50') Standard Wire Feeder Push-Pull – 8m (25') Standard Wire Feeder on Floor – 4.6m (15') Standard		
<b>Torch Adjustment Capability</b>	Torch Lead/Lag Adjustment:	± 15 degrees (manual)	
	Torch Tilt Adjustment:	± 10 degrees (manual)	
	Angle Bracket (Optional):	± 45 degrees (manual)	

## Dimensions/Weights



Model	Axial Length <b>A</b> <sup>1</sup>	Minimum Radial Clearance <b>B</b> <sup>2</sup>	Overall Width <b>C</b>	Weight <sup>3</sup>
609 WFOF	38.7cm (15.25")	24.8cm (9.75")	30.5cm (12")	9.8 kgs (21.5 lbs)
609 WFPP	37.5cm (14.75")	24.1cm (9.50")	41.3cm (16.25")	11.6 kgs (26.5 lbs)
609 WFOH	66.7cm (26.25")	26.7cm (10.5")	36.8cm (14.5")	14.4 kgs (31.75 lbs)

<sup>1</sup> Center of oscillation stroke

<sup>2</sup> Center of vertical stroke

<sup>3</sup> Weight without wire spool (WFOH). Includes 1.6 kg (3.5 lb.) of Torch Cable Weight (Partial)

Represented By:

## MAGNATECH

Headquarters: **MAGNATECH LLC**  
6 Kripes Road, P.O. Box 260, East Granby, CT 06026-0260  
Telephone: (+1) 860 653-2573 • Fax: (+1) 860 653-0486  
E-Mail: info@MagnatechLLC.com  
Web Site: www.MagnatechLLC.com

European Office: **MAGNATECH INTERNATIONAL B.V.**  
De Amer 24, 8253 RC Dronten, The Netherlands  
Telephone: (+31) 321 38 6670-79 • Fax: (+31) 321 31 4165  
E-Mail: info@Magnatech-International.com  
Web Site: www.Magnatech-International.com

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