

# Model 79 Series

FULL-FUNCTION, PRECISION WELD HEADS  
WITH OR WITHOUT FILLER WIRE

**AMI**<sup>®</sup>  
AN ESAB<sup>®</sup> BRAND



## THE WIDEST RANGE OF ORBITAL WELDING EQUIPMENT IN THE WORLD

The Model 79 series of high durability, “full function” weld heads are designed for fabrication shop and field process pipe welding applications. The Model 79 weld heads have a unique integral clamping system which gives each weld head the ability to adjust for different pipe and tubing diameters in seconds, thereby eliminating the requirement for specific sized guide rings. The M79 weld head series can accommodate a range of pipe sizes from 0.75" OD to 6.625" OD (19 mm to 170 mm) and wall thicknesses up to 0.75" (19 mm).

## INDUSTRY

- Nuclear
- Power Generator
- Shipyard
- Offshore
- Oil and Gas

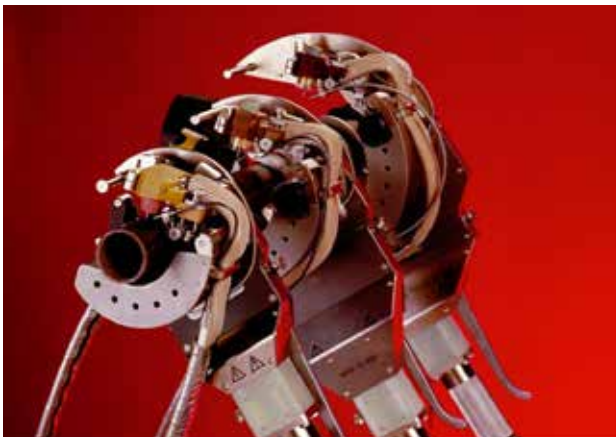
## FEATURES

- Arc Voltage Control (AVC) for precise arc gap control
- Programmable oscillation and precision wire feeder with wire guide positioned
- Integral clamping system with the ability to adjust for different pipe and tubing diameters in seconds
- Clamping mechanism allows automatic centering of the weld head on the pipe
- Water cooled torch for 100% Duty Cycle operation

## OPTIONAL HARDWARE

- Motorized wire manipulators
- Direct-view cameras

The Model 79 series is compatible with a variety of joint designs such as “J” prep and square butt, and will weld materials ranging from stainless or carbon steels to exotic alloys such as Hastelloy™, Inconel™, and Monel™ as well as all other TIG weldable materials.



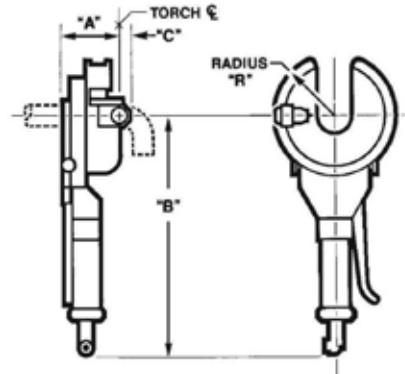
MODEL 79 ASSEMBLY AND A ROTOR ASSEMBLY

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DIMENSIONS					
Weld Head Model No.	Tube/Pipe OD Range	Dimensions			
		A	B	C	R
79-2375	0.75"-2.375" 19 mm - 61 mm	4.50" * 114 mm	16.25" 413 mm	0.63" 16 mm	3.43" 87 mm
79-3500	1.00" - 3.50" 25 mm - 90 mm	4.50" * 114 mm	19.25" 490 mm	0.63" 16 mm	4.25" 108 mm
79-4500	1.90" - 4.50" 48 mm - 114 mm	4.50" * 114 mm	19.25" 490 mm	0.63" 16 mm	5.25" 133 mm
79-6625	2.00" - 6.625" 50 mm - 170 mm	4.50" * 114 mm	19.25" 490 mm	0.63" 16 mm	6.31" 160 mm
79-1500	0.625" - 1.500" 16 mm - 38 mm	4.86" * 123 mm	16.62" 22 mm	0.68" 17 mm	2.75" 57 mm



\* With cross-seam "in" all the way

TECHNICAL SPECS					
					
	Model 79-2375	Model 79-3500	Model 79-4500	Model 79-6625	Model 79-1500
Tube/Pipe OD	0.75" - 2.375" (19 mm - 61 mm)	1.00" - 3.50" (25 mm - 90 mm)	1.90" - 4.50" (48 mm - 114 mm)	2.00" - 6.625" (50 mm - 170 mm)	0.625" - 1.500" (16 mm - 38 mm)
Wall Thickness	up to 0.44" (11 mm)	up to 0.044" (11 mm)	up to 0.675" (17 mm)	up to 0.75" (19 mm)	up to 0.68" (17 mm)
Rotation Speed	0.1 - 5.0 RPM	0.05 - 2.0 RPM	0.05 - 2.0 RPM	0.05 - 2.0 RPM	0.05 - 10.0 RPM
Torch Adjustments					
Lead / Lag	+/- 5°	+/- 10°	+/- 10°	+/- 10°	+/- 10°
Cross-seam	+/- 0.25" (6.35 mm)	+/- 0.375" (9.53 mm)	+/- 0.375" (9.53 mm)	+/- 0.375" (9.53 mm)	+/- 0.30" (7.6 mm)
Tilt in / Tilt out	15° / 45°	15° / 45°	15° / 45°	15° / 45°	15° / 15°
Wire Feeder	Integral, cable-mounted 5 - 100 IPM	On-board 5 - 100 IPM	On-board 5 - 100 IPM	On-board 5 - 100 IPM	On-board 5 - 100 IPM
Wire Spool Size	2 lbs., 4" standard spool (0.9 kg, 101.6 mm)	Low-profile standard 2 lbs., (4") optional spool	2 lbs., 4" standard spool (0.9 kg, 101.6 mm)	2 lbs., 4" standard spool (0.9 kg, 101.6 mm)	2 lbs., 4" standard spool (0.9 kg, 101.6 mm)
Filler Wire Size	0.030" or 0.035" (0.762 mm or 0.889 mm)	0.030" or 0.035" (0.762 mm or 0.889 mm)	0.030" or 0.035" (0.762 mm or 0.889 mm)	0.030" or 0.035" (0.762 mm or 0.889 mm)	0.020" or 0.030" (0.5 mm or 0.76 mm)
Weight (less cables)	11 lbs. (5 kg)	14 lbs. (6.35 kg)	16 lbs. (7.25 kg)	22 lbs. (10 kg)	14 lbs. (6.35 kg)
Torch (water-cooled)	200A continuous Duty Cycle	200A continuous Duty Cycle	200A continuous Duty Cycle	200A continuous Duty Cycle	250A continuous Duty Cycle

\* Compatible Power Supplies: Model 227 and Model 415



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MANAGEMENT SYSTEMS