

# MODEL 73 SMALL-BORE I.D. PIPE WELD HEAD



The Model 73 weld head is designed to make butt weld, cladding and weld overlay repairs by remote control on the inside diameters (I.D.) of piping and specialized valve systems. The Model 73 is a smaller version of the industry standard Model 43 weld head for applications in reduced diameters.

The standard weld head is equipped with an AVC (Arc Voltage Control), Torch Oscillation (weaving), onboard Wire Feeder, and Travel for use in small diameters. The weld head can also be equipped with a remote arc viewing system and remote controlled wire feed manipulator (wire up/down and in/out) that allow adjustment of the filler wire to electrode relationship.

- Small-bore I.D. weld head, with 250 amp GTAW torch
- Range from 5.160" I.D. to 20" I.D. (131 to 508 mm I.D.) with direct-view color TV cameras
- Pneumatically operated cylinders that center and position the weld head
- Extremely fast mount/dismount times
- Automatic arc voltage control
- Cross-seam steering
- Synchronized torch oscillation and pulsed wire feed
- Built-in wire feeder and wire spool holder

ARC MACHINES, INC.	AMI is an ISO Certified Company	www.arcmachines.com

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# MODEL 73 SMALL-BORE I.D. PIPE WELD HEAD

The Arc Machines' Model 73 is an inside diameter welding head for I.D. cladding or welding of pipe joints. It is a rugged, field-proven weld head for use in small diameter pipe and other limited radial clearance applications.

#### **Options include:**

- 1" AVC stroke (25mm) to allow use in 5.160" (131 mm) I.D.
- 2" AVC stroke (50mm) to allow use in 5.66" (144 mm) or larger I.D.
- Large Selection of Torches: Torches are available for limited reach welding inside diameters as small as 1.125" I.D. (special applications).
- Remote torches with motorized wire feed manipulators and video options available

#### The Arc Machines Model 73 Offers:

- Servo-controlled rotation
- Servo-controlled AVC
- Servo-controlled synchronized wire feed
- Servo-controlled torch oscillation and dwell
- Electronically controlled torch steering
- Model 215 and 415 versions available
- Water-cooled body for use in pre-heated pipes
- Adaptable to a wide range of special purpose torch options

## **Technical Data**

Process: Arc Voltage Control:	GTAW (TIG) 2.00" (50mm)	Torch Oscillation Amplitude, max:	1.00" (25mm)
Ale voltage control.	[or 1" (25mm) optional]	Wire Manipulator Adj.:	Vertical & Horizontal
Travel Speeds:	0.05 to 1.0 RPM	Filler Wire:	0.030" (0.8mm)
Wire Feed Speeds:	5 to 200 IPM		or 0.025" (0.6mm)
	(13 - 500cm/min.)	Wire Spool:	2 lb. or 4" standard spool
Torch:	Water-cooled, 250 ADC 100% duty cycle torch tilt ( ±15°)	Weight Including Remote Vision:	(1 kg. or 100mm Ø spool) 40 lbs. (less cables)
Tungsten Size:	3/32" or 1/8" (2,4 or 3,2 mm Ø)		
Torch Cross-seam Steering Range:	1.88" (47mm) [or .88 (22mm) at max. osc.]		

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