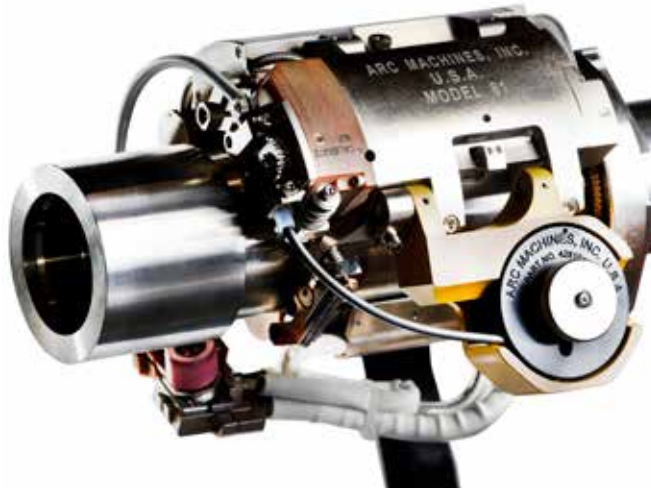


Model 81

SMALL-DIAMETER PIPE WELD HEAD



THE WIDEST RANGE OF ORBITAL WELDING EQUIPMENT IN THE WORLD

The Model 81 is a full function orbital pipe weld head featuring programmable Arc Voltage Control, Torch Oscillation, onboard Wire Feeder and Travel in a very compact package.

The Model 81 in its standard configuration will weld pipe from 1.9" (48 mm) OD to 5.563" (142 mm) OD with as little as 1.750" (45 mm) radial clearance and 6.325" (161 mm) axial clearance.

The Model 81 is used in a wide variety of applications that require high quality welding results in applications with limited axial and radial clearances. Common uses for the Model 81 include shipbuilding and high-pressure steam piping in fossil fuel power plants and many other applications.

INDUSTRY

- Nuclear
- Power Generation
- Shipyards
- Offshore
- Oil and Gas
- Chemical



MODEL 81 WELD HEAD IN AVC/TILT VERSION WELDING INSIDE THE MUD DRUM

FEATURES

The unique clamping assembly of the Model 81 weld head increases production rates by minimizing the mounting and dismounting times of the weld head to as little as 30 seconds each.

- Servo-controlled rotation
- Servo-controlled AVC
- Servo-controlled synchronized wire feed
- Servo-controlled torch oscillation
- Motorized torch steering
- Water-cooled body for use in pre-heated pipes

Visit arcmachines.com for more information.

Model 81

SMALL-DIAMETER PIPE WELD HEAD

QUICK SPECS	
Pipe OD Range	1.9" - 5.563" (48 mm - 141 mm)
Torch Oscillation Stroke	0.31" (7.87 mm)
Wire Feed Speed	1.0 - 100 IPM (25 - 2540 mm/min.)
Travel Speeds	0.1 - 10 IPM (2.5 - 250 mm/min.)
AVC Stroke	0.750" (2.4 or 3.2 mm Ø)
Filler Wire Size	0.030" or 0.035" (0.8 or 0.9 mm Ø)
Wire Spool	0.5 lb. special spool (0.2 kg) other sizes available
Weight	6 lbs. (2.7 kg) (less cables)
Tungsten Size	3/32" or 1/8" (2.4 mm or 3.2 mm Ø)
Axial Clearance	6.325" (160 mm) minimum
Radial Clearance	1.75" (45 mm) minimum
Torch	Water-cooled, 200 A DC 100% Duty Cycle (standard)
Torch Cross-Seam Steering Range	0.31" (8 mm) motorized 0.25" (6.35 mm) manual
Torch Adjustments	Lead / lag +/-15° Tilt in / out +/-15°

OPTIONAL HARDWARE

- 200 A torch with direct-view cameras, to monitor leading and trailing edges of the weld puddle in hazardous environments
- AVC tilt, to allow the AVC motion of the torch to work in the same plane as the torch tilt, to weld flanges, sockets and similar joints
- AVC/OSC: interchange with torch tilt used for mud drum and superheater header welding
- Adapter kits, for 1/2" (12.7 mm) pipe through 1.90" (48.26 mm) OD
- Spool holder, for larger, 4" (101.6 mm) spools
- Remote-controlled, motorized torch tilt

COMPATIBLE AMI POWER SUPPLIES

MODEL 317
Versatile Welding Power Supply



MODEL 415 WDR
Programmable Heavy Duty
Power Supply



AMI

AN ESAB® BRAND

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