

PIPEMASTER

Model 516

Programmable Controller
For Orbital Weld Heads



Use with

- *Orbital Tube Weld Heads*
- *Orbital Pipe Weld Heads*
- *Tube-Tubesheet Heads*
- *Weld Lathes*

PIPEMASTER Model 516

Programmable Controller For Orbital Weld Heads

Revolutionary, Not Evolutionary

The latest generation of Pipemaster Controllers are the result of a new direction in power source design. The Model 516 brings the benefits of digital technology to the orbital welding customer: unparalleled accuracy, repeatability, and reliability. Digital technology forever eliminates the need for periodic weld Head calibration – motor speeds and response characteristics remain accurate and stable regardless of wear, and weld Heads can be interchanged without time-consuming calibration.

Designed to be used with many commercially available weld power sources, the Model 516 allows systems with a wide range of output amperage to meet specific application requirements.

Software upgrades can be sent as e-mail attachments and loaded using a standard USB portable flash drive “memory key” (provided). The Model 516 is “internet ready” for future enhancements such as a web-based diagnostic service.

Features

- Multi-pass welding of pipes/tubes/tubesheets
- Full function capability (torch rotation, filler wire feed, electronic arc gap control, electronic oscillation)
- Operates all models* of Magnatech weld Heads (GTAW process)
- Current programming and pulsing controlled by Pipemaster Controller – not the power supply
- Amperage Output determined by power source selection
- Autoranging power input eliminates all internal modifications
- Up to 100 levels per program (time-based programs)
- Stores 100 weld programs internally
- AutoProgram automatically generates procedures*
- Programming and operation guided by simple prompts
- Teach mode allows rapid program development
- Programmable “override limits” provide supervisory control
- Weld parameter monitoring/out-of-limits reporting for QA/QC purposes*
- Transfer programs and QC data to PC using USB flash drive “Memory Key”
- AutoTack automatically generates tack weld programs*
- Large color LCD Pendant display
- Stainless steel case
- Help Files provide immediate information/assistance
- Password protection of key functions
- Waterproof Remote Pendant
- Auto rewind feature unwraps cable at weld completion
- All weld Head functions capable of synchronization with pulsed current output
- Selectable Position or Time-based* programming
- Integral switch prevents welding without torch gas flow
- Bluetooth Printer Option
- Detachable coolant recirculator with integral flow switch protection
- Meets applicable NEMA, CE, CSA standards



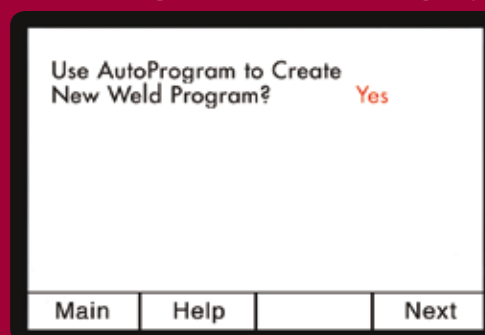
AutoProgram*

Programming is simple and intuitive by manual entry or new AutoProgram which self-generates procedures.

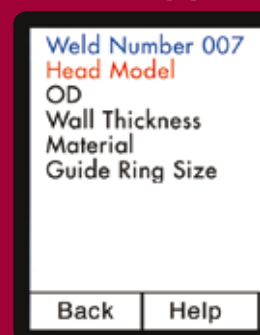
Startup display



...automatically create a new weld program



...simply fill i



* Future Availability

Options

- Detachable coolant recirculator mounts beneath Controller with integral flow switch protection
- Cart with bottle rack
- Extension cables
- Rugged storage/shipping case
- Freestanding Bluetooth printer
- Data-logging system for Amps, Volts, Travel Speed, Wire Speed, and Gas Flow (available for certain weld Head models only)



Remote Pendant

This handheld control is used to both program and remotely operate the controller. Designed to withstand hard use, the pendant incorporates a completely sealed, waterproof silicone rubber panel keypad, impervious to grinding debris and weld spatter. The color LCD display is protected by a tempered glass shield. The intuitive switch layout allows the welder to make program override corrections without lifting his hood. A gasketed storage box for the Pendant is located behind a hinged panel on the front of the Controller.



Coolant Recirculator

Detachable coolant recirculator mounts beneath the controller with integral flow switch protection.



Teach Mode

Teach Mode speeds program development. Approximate parameter values are entered (or an existing program copied).

A test weld is then made in Teach Mode. Changes made during welding are temporarily stored and can be "saved" as a new weld program.

Programmable Overrides Provide Supervisory Control

The welder may override programmed parameters but only within preset limits. Password protected override limits are set for each parameter (0-100% of programmed value).

Simplified Programming

Entering the weld Head to be used from a "drop-down" menu automatically selects the preferred programming mode – position or time. Time-based programming* is generally preferred for weld Heads making simple fusion welds. Multipass pipe weld Heads are operated using position-based programming, eliminating calculations to determine when parameter changes must be made. A sensor in the weld Head provides position information. All welding parameters may be changed at each level.

Sealed Module

All critical electronics are mounted in a completely sealed (IP-65) slide-out module.

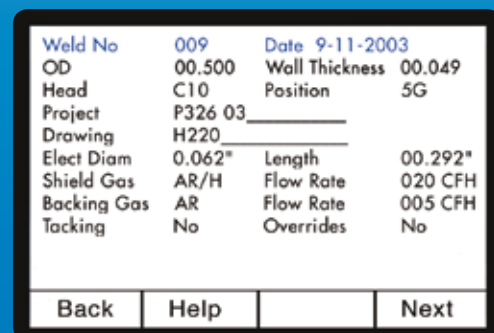
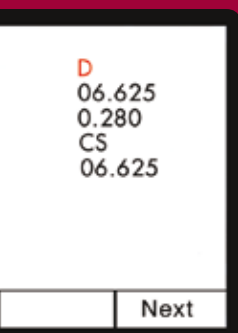


Weld Monitoring/QC*

Additional documentation and notes can be added to weld programs and QC records, providing traceability to individual drawings, projects, and customers

...on the blanks

...for a perfect weld, every time



* Future Availability

Specifications

Application	For use with many Magnatech weld Head models* (GTAW process), Welding Lathes, and dedicated Weld Systems
Functions Controlled	Weld Current Output/Current Pulsing, Weld Head Rotation, Weld Head Wire Feed Speed, Electronic Arc Voltage Control, Electronic Torch Oscillation, Electronic Torch Cross-Seam Adjustment
Output Power	Power Source dependent
Input Power Requirements (Rated Load)	110 – 230 VAC, 1 Ø, 4.0 KVA, 50/60 Hz Autoranging (No modifications necessary)
Protection Level	Controller IP-23; Pendant IP-65
Internal Memory Capacity	100 Weld Programs
Units of Measurement	Metric and Inch (selectable)
Program Transfer	Solid State Digital Media (Disk-on-Key, Memory Key)
Language (Selection)	English, Spanish, German, French, others
Settable Override Limits	Individually scalable overrides on each function 0 – 100%
Water and Gas Flow Switches	Standard. Prevent damage to equipment and workpiece
Data Recording/Printout	Operator ID, Weld ID Number, Program Number, Material, OD, Wall Thickness, Date, Time, Weld Head Model, Project, Drawing, Programmed Parameters
Printer	(Optional) Freestanding. Bluetooth. Integral rechargeable battery with charger. IP-54 Rating
QC-Parameter Monitoring/* Recording/Printout	Records actual parameters and deviations from preprogrammed limits
Arc Start Type	High Voltage Impulse
Operating/Storage Temperature	Operating: -18 to 50°C (0 to 120°F) Storage: -25 to 60°C (-20 to 140°F)
Humidity	To 98% RH (Non-Condensing)

Dimensions/Weights

	Model 516 Power Source	Model 905 Circulator
Length	48cm (19")	48cm (19")
Width	35cm (14")	35cm (14")
Height	43cm (17")	27cm (11")
Weight	41 Kgs (91 Lbs)	15 Kgs (34 Lbs)
Weight - Model 515	35 Kgs (77 Lbs)*	15 Kgs (34 Lbs)*

*115/230 VAC Input Model

The Pipemaster Power Supply can be used with many Weld Head models



D/T Model Pipe Weld Heads



T-Head



424, 425, 426 Series Tube-to-Tubesheet Weld Heads

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

W-76 5/05