The latest generation of Pipemaster controllers are the result of a new direction in power source design. The Pipemaster 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.

**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 pendant with 7.6 m (25') cable
- 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
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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).

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.

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)

STARTUP DISPLAY
Automatically create a new weld program
Simply fill in the blanks

SIMPLIFIED PROGRAMMING
Specifying the weld Head to be used from a “dropdown” 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.

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

SEALED MODULE
All critical electronics are mounted in a completely sealed (IP-65) slide-out module.
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**Weld Monitoring/QC**
Additional documentation and notes can be added to weld programs and QC records, providing traceability to individual drawings, projects, and customers.

**Sealed Module**
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**Options**
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PIPEMASTER 516

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

Output power
0 – 200 amps

Input power requirements
115/480 VAC, 1 or 3 Ø, 4.0 KVA, 50/60 Hz autoranging (no modifications necessary)

Internal memory capacity
100 weld programs

Units of measurement
Metric and Inch (selectable)

Program transfer
Solid state digital media (USB flash drive/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, user notes

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

<table>
<thead>
<tr>
<th>MODEL 515 POWER SOURCE</th>
<th>MODEL 905 CIRCULATOR</th>
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<tbody>
<tr>
<td>Length</td>
<td>48 cm (19&quot;)</td>
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<tr>
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<tr>
<td>Weight - Model 515</td>
<td>35 Kgs (77 Lbs)*</td>
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*115/230 VAC Input Model
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Weld current output/current pulsing, weld head rotation, weld head wire feed speed, electronic arc voltage

**Output power**
0 – 200 amps

**Input power requirements (rated load)**
115/480 VAC, 1 or 3 Ø, 4.0 KVA, 50/60 Hz autoranging (no modifications necessary)

**Internal memory capacity**
100 weld programs

**Units of measurement**
Metric and Inch (selectable)

**Program transfer**
Solid state digital media (USB flash drive/memory key)

**Language selection**
English, Spanish, German, French, others

**Settable override limits**
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**Water and gas flow switches**
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