Gator 2
Automatic Butt Fusion Welder

The Gator 2 range of machines have been designed and developed for use on gas and water pressure polyethylene pipe networks.

The best possible control of the joining process is achieved through an integral computer which controls and monitors all jointing parameters: time, temperature, pressure, movement and sequence.

The welding process will not continue if any of these parameters are not within the specified limits specified by the selected welding standard. Designed and manufactured to meet or exceed GIS/PL2-3:2006 and ISO 12176-1:2012.

**FEATURES**

- 21 internationally approved butt welding standards including ISO 21307
- Manufactured to ISO 12176 part 3 and part 4 compliant
- Electronic trim stops protect against over trimming
- Large backlit display with simple user multilingual interface
- Fast clamp system to improve productivity
- Data recording of 2,000 weld records
- High quality electrohydraulic pump, motor, valves and control circuit

**Optional**

- CalderSafe Mobile QA System
- Control Point and Joint Manager
The Control Panel

**Fully Automatic Features**

1. Machine sequencing
2. Trim and feathering cycle
3. Pipe slippage check
4. Static and dynamic drag measurement
5. Heater plate temperature control
6. Initial bead up distance control
7. Heater retraction
8. Pressure control at bead up, soak, fusion, and cool time
9. Out of specification early warnings

**Operator Contribution**

1. Input pipe, operator details and project details
2. Inspect and approve trim

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**Continuously Monitored**

- Temperature (°C)
- Movement (mm)
- Pressure (bar)
- Time (secs)
- Trimmer Current (Amps)
- Heater Continuity (Ω)
- Pipe Slippage (mm)
- Oil Level (ml)

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**Preprogrammed Parameters**

1. 21 internationally approved welding standards containing specified: Heater Temperatures, Fusion Pressures, Soak Times and Cooling Times
2. Data management systems
3. Diagnostic routines
The Gator 2 Detail

Put simply, the best fully automatic butt fusion machine in the world.

Chassis
- Light, compact and sturdy construction built to resist bending under heavy loads.
- Displacement transducer produces correct bead size at any ambient temperature.
- Fast clamp system to improve productivity and reliability.
- Z link system to provide symmetrical heater pull off, reducing dwell time.
- Removal of fourth clamp to facilitate welding of long spigot fittings such as elbows and tees.
- Lightweight, tough composite plastic liners for 250mm diameter and below.
- Full range of aluminium liners.

Trimmer
- Hard anodised low friction discs.
- Low maintenance.
- Curved blades on smaller machines for optimum cut.
- Electronic trim stops for protection against over trimming.
- Quarter turn quick release fasteners.
- Tough and reliable trimmer motor.
- Auto trim cycle software developed to provide maximum material removal whilst protecting motor.
- Auto feather off feature, leaves pipe ends perfectly smooth and square.

Controller
- Powerful pump motor helps to keep power pack cool under heavy loads.
- High quality hydraulic pump and solenoid valves.
- Auto oil level check.
- Anti drip hydraulic hose connectors.
- Tough stainless steel and ABS protective enclosure with ergonomically designed carry handles.
- Protective computer lid.
- Cable tidy.
- Input power monitor.

Computer
In addition to the features on the previous page:
- Company logo on screen.
- Intuitive menu selection options.
- Selected weld parameters can be ‘locked off’ by supervisors.
- Service and calibration notifications.
- Software upgrades via USB.
- Large bright display with tough polycarbonate protective screen.

Gator
- Can be connected to printer/scanner.
- ISO 12176 part 3 and part 4 compliant.
- Energy management system to automatically ‘switch off’ elements of the machine when not required.
- Tough military waterproof cable connectors.

Heater
- Large thermal capacity reduces temperature drop on pipe contact.
- Super fast auto retraction for minimising dwell time - typically under two seconds.
- Tough ABS ‘zero contact’ reflective heater guards for optimum energy efficiency, safety and contamination free joints.
- Replaceable and easily removed surface heater plates.
- Dual thermocouple temperature sensors. Machine will not operate unless both sensors are reading desired temperature.
- Quarter turn quick release fasteners.
## Technical Specification

<table>
<thead>
<tr>
<th></th>
<th>Gator 2 180</th>
<th>Gator 2 250</th>
<th>Gator 2 315</th>
<th>Gator 2 400</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range (mm)</td>
<td>63 - 180</td>
<td>63 - 250</td>
<td>90 - 315</td>
<td>200 - 400</td>
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<tr>
<td>Nominal Input Voltage (V)</td>
<td>110</td>
<td>220</td>
<td>110</td>
<td>220</td>
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<tr>
<td>Input Frequency (Hz)</td>
<td>50/60</td>
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<td>50/60</td>
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<tr>
<td>Generator Rating (KVA)</td>
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<td>4.0</td>
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<tr>
<td><strong>Chassis</strong></td>
<td>39*</td>
<td>19</td>
<td>45*</td>
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<tr>
<td><strong>Height (mm)</strong></td>
<td>305</td>
<td>740</td>
<td>370</td>
<td>490</td>
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<tr>
<td><strong>Length (mm)</strong></td>
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<td><strong>Width (mm)</strong></td>
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<td>255</td>
<td>510</td>
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<tr>
<td><strong>Weight (kg)</strong></td>
<td>39*</td>
<td>19</td>
<td>45*</td>
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<tr>
<td><strong>Total Weight (kg)</strong></td>
<td>117.5*</td>
<td>134*</td>
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*Weights excluding protective cradle.

### Data Output

<table>
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<tr>
<th>Printer</th>
<th>Thermal paper</th>
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<tbody>
<tr>
<td>USB Memory Device</td>
<td>Text file/Joint Manager</td>
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<tr>
<td>Bluetooth</td>
<td>CalderSafe Mobile QA System</td>
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* Control Point and Joint Manager available upon request.

### Code

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<th>Code</th>
<th>Description</th>
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<tr>
<td>G180110AF</td>
<td>Gator Automatic Butt Fusion 180mm 110v supply</td>
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<td>G250110AF</td>
<td>Gator Automatic Butt Fusion 250mm 110v supply</td>
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<tr>
<td>G315110AF</td>
<td>Gator Automatic Butt Fusion 315mm 110v supply</td>
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<tr>
<td>G400110AF</td>
<td>Gator Automatic Butt Fusion 400mm 110v supply</td>
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<tr>
<td>G180220AF</td>
<td>Gator Automatic Butt Fusion 180mm 220v supply</td>
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<tr>
<td>G400220AF</td>
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<tr>
<td>705899</td>
<td>Bluetooth thermal printer</td>
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<tr>
<td>704504</td>
<td>Barcode scanner for ISO standard traceability</td>
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