



# PA 350 S

**PERFORMARC™**  
ROBOTIC WELDING SYSTEM



(Previously PA 102S)

## Extremely High Productivity per Square Foot

- High-production, small-footprint system with the ability to fit anywhere in your manufacturing plant.
- Easy-to-slide teach access doors keep the system slim and allow for tight stacking to maximize production while minimizing required floor space.
- Extremely fast Panasonic AC servo positioner turns 180 degrees in under 2.2 seconds, minimizing index time and maximizing productivity.
- Can be coupled with optional Panasonic TAWERS™ robotic solutions for even greater production throughput.
- Can be coupled with optional Auto-Axcess® E with INSIGHT™ weld data monitoring system to provide comprehensive feedback on welding activity and productivity.

## Manufacturing Flexibility

- A fully welded frame, shipped to you completely pre-wired and pre-assembled, eliminates assembly time, getting you up and running in minutes.
- Easy to relocate. Just disconnect utilities, move to the new location and reconnect utilities. It is that simple.
- A standard platen design with bolt and dowel holes provides repeatable fixture mounting when multiple fixtures are exchanged on the same workcell.
- Integrated operator control panel and full color teach pendant provide full system control, diagnostics and programming capability in one central location.

## Personal Safety

- Designed to the most rigorous safety standards, ensuring that your investment is not only productive, but safe for your employees (ANSI RIA 15.06-1999, UL1740, NFPA 79 and CSA Z434 compliant).
- L-shaped light curtains at tested penetration distances, interlocked safety gates, dual channel safety circuit, rotating arc flash barrier and solid sheet metal wall panels are included in the safety features.
- Brake releases and servo power indicator lamps on the robot are standard for easier recovery.

## Long Term Support and Reliability

- PerformArc systems have been setting the standard in the welding industry for quality, reliability and productivity since 1996.
- Your PerformArc system is backed by Miller — you can count on us to be there for you today and tomorrow.
- 24/7/365 hotline provides customer service and parts support.

**Dimensional Specifications\***

|   |                                    |
|---|------------------------------------|
| Frame length                                | A 3988 mm (157")                   |
| Frame width                                 | B 1727 mm (68")                    |
| Frame height                                | C 2286 mm (90")                    |
| Platen height from floor                    | D 784 mm (30.875")                 |
| Overall platen size                         | E 381 mm (15") D<br>610 mm (24") W |
| Cell width including doors                  | F 1922 mm (75.681")                |
| Fixture maximum rotation height             | G 1000 mm (39.375")                |
| Cell front opening (max)                    | H 1422 mm (56")                    |
| Penetration distance (stopping calculation) | I 419 mm (16.5")                   |
| Rotation diameter                           | J 1524 mm (60")                    |
| Shipping weight                             | 1955 kg (4300 lb)                  |

\*Note: All dimensions are approximate.

**Standard Specifications**

**Fully integrated Miller Welding Automation total solution includes:**

- Panasonic 6 kg arc welding robot
- Panasonic latest generation 64-bit controller with teaching pendant utilizing Windows® CE
- Auto-Access® inverter arc welder
- Miller 4 drive roll wire feeder (dependent on your application)
- Tregaskiss™ 500 A air-cooled welding torch
- Panasonic high speed main indexing servo positioner 500 kg
- Miller designed and manufactured total productivity system

**System features include:**

- Integrated operator interface (E-Stop, Auto, Servo On, Mode Select, Table Load/Unload, Start)
- (2) Full open sliding doors for easy access to the teaching area
- TCP pointer and resident TCP check program
- Tip change monitor and maintenance program door for easy torch upkeep
- Arc start retry, arc overlapping, flying arc start, password protection
- Resume function, shifting functions, online help function

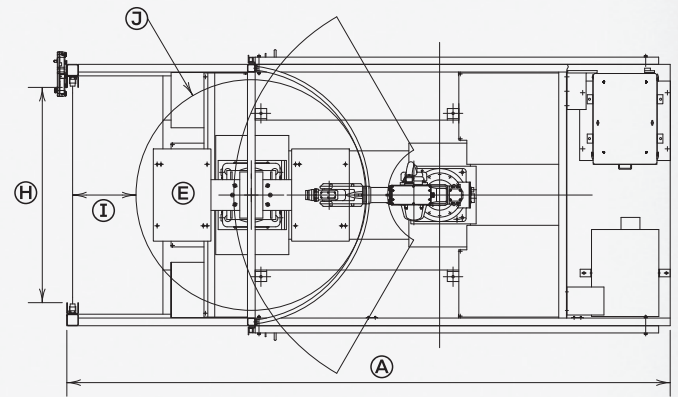
**General system information:**

- Integrated safety environment including (2) light curtains, (2) interlocked sliding teach access doors, arc screen barrier on main indexer, hard stop limits on robot
- Common mounting base for the entire system (robot, controls, positioner, enclosure)
- No assembly required, up and running shortly after placement
- Easy to move (forklift access from front and rear of cell)
- Designed for compliance to industry safety standards: ANSI RIA 15.06-1999, UL 1740, NFPA 79, CSA Z434

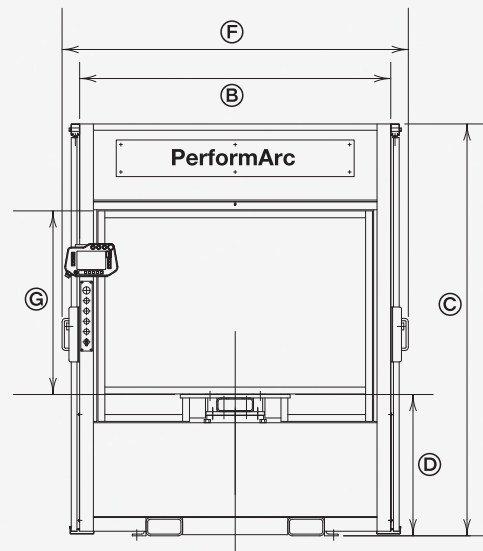
**Recommended System Options**

- Smartstart training and installation package
- Input power (208, 230, 575 VAC 3 phase — 480 VAC standard)
- BCD job select switch
- Operator task lights (1 at load position/1 at teach position)
- 110 VAC utility outlet
- Nozzle reaming station
- Through arc seam tracking
- High voltage touch sensing
- Water-cooled torch package
- Ethernet card
- PC tools (program viewer/editor/program management software)
- DTPS (simulation and off line programming software)
- WPMGR (Welding Process Manager) protection software
- Arc data monitor and oscilloscope software: includes data logging (WG Series Robots only)
- Automated electrical stickout control (WG Series Robots only)

**Top View**



**Front View**



**Positioner General Technical Specifications**

|   |   |
|---|---|
| Model                                   | Panasonic 500 kg Type II Servo Positioner |
| Motor type                              | Panasonic 1 kW AC Digital Servo           |
| Control type                            | Robot Servo Control                       |
| Payload (per side)                      | 159 kg (350 lb)                           |
| Payload offset (from positioner CL)     | 457 mm (18")                              |
| Rotation time (180 deg index)           | t<2.2 sec                                 |
| Through hole (for utility pass through) | 55 mm                                     |

**Robot Options**

|           |
|-----------|
| TA-1000WG |
| TA-1400WG |
| TA-1000G2 |
| TA-1400G2 |

**Welder Options**

|                            |                    |
|----------------------------|--------------------|
| Auto-Access 300 (Pulse/CV) | GB2-350 (CV)       |
| Auto-Access 450 (Pulse/CV) | HM3-500 (Pulse/CV) |
| Auto-Access 675 (Pulse/CV) | GX (CV)            |
|                            | BP2-300 (TIG)      |

