



PSI Repair Services, Inc.  
11900 Mayfield  
Livonia, Michigan 48150  
1-800-325-4774

We are proud to be an Equal Employment Opportunity and Affirmative Action employer, Including females, minorities, protected Veterans and those with disability.

## Company Information

Established in 1967, PSI Repair Services, Inc. is a privately owned company that offers a complete range of repair and engineering services to resolve poor performing or non-functional electronics, hydraulics, robotics and precision mechanical assemblies. PSI Repair Services proudly serves a wide range of industries and markets like **automotive, aerospace, defense/military, food and beverage, healthcare, public transportation, semiconductor and wind energy.**

### Core Competencies

PSI's staff of 100 employees has a repair team (6 engineers and 35 technicians) that is highly skilled at properly diagnosing failures on a system level and a discrete, complex component level. We will take informed and corrective actions to improve old designs with newer, more reliable technology.

The team has extensive experience and competence in repairing the following:

- Electronics and Printed Circuit Board
- Hydraulic Machinery
- Industrial and Commercial Robotics
- Motion Control and Motor Drives
- Power Electronics
- Process Control and Instrumentation

### Pricing Structure

Electronic repairs are generally flat rate pricing, mechanical units (such as motors) are priced on time and materials. We also offer volume repair discounts.

### Warranty

One year from shipment, coverage is for entire repaired unit not just replaced parts.

### Inbound/Outbound Logistics

Send the unit to PSI with your shipping paperwork and PSI does the rest. We will log in your unit, evaluate it and get a quotation to you. There is no fee for evaluation and no work is started until authorized with a purchase order from the customer. PSI does not require RMA's but we can issue them if they are need for tracking in the customer's system.

## Contact Information

General Manager: Mike Fitzpatrick  
[Michael.Fitzpatrick@psi-corp.com](mailto:Michael.Fitzpatrick@psi-corp.com)  
734-853-5275

Hours of Operation: 8am to 5 pm EST with 24 hour, 7 day a week support for critical repairs.

## Certifications

Business Certifications: ISO9001:2015  
Repair and Rework Certification:  
IPC 7711 and IPC 7721

## Business References

**Military:** Vertex Aerospace, Hill Air Force Base Tinker Air Force Base, Robins Air Force Base Naval Support Activity Mechanicsburg Defense Logistics Agency, NAVSUP Weapon Systems Support

**Automotive:** Stellantis, General Motors, Ford, Magna International, Brembo, Akebono, Bosch, Caterpillar,

**Semiconductor:** Samsung, Texas Instruments, Global Foundries, NXP Semiconductor

**Renewable Energy:** NextEra Energy, Avangrid Renewables, Clearway Energy Group ENEL Green Power, RWE Renewables Americas

### Differentiators

PSI specializes in repairing and re-designing devices other companies cannot because they lack the knowledge and expertise. Solving damaged or obsolete device problems is our strength and supporting our customers is our focus.



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## **Past Performance**

PSI has a history of providing superior engineering and repair service:

IGBT Upgrade – PSI reengineered an IGBT module with advanced fault protection, water-cooled heat sink with finned interior, heavy bus bars and balanced emitter circuit impedance, high voltage isolation, stronger mounting brackets, and PSI designed custom IGBT driver board. This resulted in more than doubling the life of the units and reducing downtime and the time need to change out these units in the field.

Siemens Yaw Module-Performed an upgrade with 30 Amp IGBT and recalibrated current sense resistors. Each module was tested on a custom stand with full motor load. Improved unit performance by increasing current handling at peak energy and better cooling.

VRCC Rotor Current Controller-PSI manufactures an improved, redesigned VRCC Rotor controller snubber board. The new design integrates mechanically secured capacitors to prevent damage due to vibration and failed solder joints. Our custom designed high voltage test fixture allows for full testing of inputs and outputs on all VRCC units.

AEBI Card- PSI successfully repairs AEBI cards and test them by simulating the input signals and looking for the correct output response. The customer-designed system allows PSI to verify full functionality of the unit. We have repaired over 3000 units to date.

Gamesa ABB ACS800 Inverter- PSI repairs both styles of ABB inverters used in Gamesa turbines. Preventative maintenance is performed by replacing all electrolytic capacitors, bearings, and degraded plastic insulation. Line reactors are hi-pot tested to verify insulation integrity. The IGBT modules are tested to their full voltage and current ratings.

Gamesa IGBT and Active Controller-PSI created custom test fixtures for the ABB IGBT and Active Crowbar units. These custom systems allow PSI to repair the IGBT/driver boards and Active Crowbars from Gamesa turbines that utilize ABB inverters. Other Gamesa ABB repairs include Green dot (Air Core) and Black dot (Iron Core) inverters as well as many of the control modules associated with this turbine.

RF Antennae – Customer was having issues with this unit failing and it was the biggest cause of downtime for the plant. The OEM tried a redesign but it did not solve the problem. The customer came to PSI looking for help. PSI reengineered the unit with higher temperature capacitors and a new RF chip with a larger range. The customer replaced nearly 1500 units in their facility and this eliminated the issue and downtime.