ELECTRONIC, HYDRAULIC, MECHANICAL, AND FLUID PROCESS REPAIR SERVICES

SunSource
For over 85 years, SunSource has provided quality components, designed and engineered systems, and maintained a high level of customer service to the mobile hydraulic and industrial markets. We are dedicated to further strengthening our capabilities to serve our customers by providing a broader array of repair services of industrial hydraulics, fluid process equipment and electronic components. Our associates are committed to providing the products, services and support our customers expect, for a long successful relationship.

We are proud to offer you these great services:

- Free evaluations
- Emergency services available
- Experienced factory trained technicians
- 12 month in-service warranty on the entire unit
- Free pick-up and delivery service in most areas
- System testing of all repairs (where applicable)
- Failure Analysis and Test Reporting
- On-Line order status tracking and reporting
- Remanufactured and surplus spares available

SunSource Family of Companies
SunSource is focused on providing the highest quality, prompt, and economical repair services. No other service and repair organization can offer you more diverse repair capabilities and experience that has made SunSource one of the most successful organizations in the industry.

As an ISO 9001:2008 certified repair facility, you can rest assured that your repair will be performed by factory trained, professional technicians with years of experience and an uncompromising attention to detail. We are so confident in their abilities, and our processes, that we provide a industry leading operational warranty with every repair.
ELECTRONIC REPAIR

DRIVES

Our Electronics Repair Department specializes in industrial drive components and their applications. We have the expertise and equipment to clean, check and dynamically test your component to replicate its malfunction, and the skilled technicians to fix it. Once the unit is approved for completion it is repaired and load tested on one of our custom built test stand to simulate your application under working conditions.

We service all major brands including: Allen Bradley, Reliance, GE, Fanuc, Indramat, Siemens, ABB, Mitsubishi, Yaskawa and many more.
PLCs
PLCs have become the nerve center of the modern manufacturing facility, and it only takes one board failure to bring production to a halt. SunSource not only offers emergency repair service but in many cases we can offer an exchange board for immediate delivery. Whether you have an I/O card, Processor or Power Supply, our standard 3-5 day service covers all major brands of PLCs including: Allen Bradley, GE, Modicon, Texas Instruments, Reliance, Mitsubishi, and Siemens.

All PLCs are closed loop, system tested on the matching rack to ensure a quality repair.

HMIs, INDUSTRIAL COMPUTERS, & TOUCH SCREENS
The convenience of Human Machine Interface control panels has made them indispensable on the plant floor. Unfortunately, they are one of the most fragile components in your entire system. SunSource has a staff of trained technicians who will clean, static-check, and test your HMI to ensure the highest quality repair.

LCD UPGRADES
We offer energy-efficient LCD displays for legacy CRT monitors.

We provide expert service to the following brands: Allen Bradley, Eaton, Fanuc, Siemens, Toshiba, Xycom and more.

ENCODERS
SunSource has experience with over 150 brands of encoders, pulse coders, pulse generators, resolvers and tachometers. We can offer complete electrical and mechanical repair on your encoders; all repairs are fully tested.
WELDERS & WELD CONTROLS

Our certified technicians can repair your welder, or weld controller, and bring your equipment back up to full OEM-specifications. With our load testing capabilities and our attention to detail we can ensure your unit's peak performance.

We provide expert service to the following welder and weld control brands: Miller, Lincoln, Yaskawa Motoweld, ESAB, Panasonic, OTC Daihen, WTC Weltronic, Dengensha, and Robotron.

LIGHT CURTAINS

All light curtains are thoroughly evaluated and rigorously tested by our experienced technicians. After the initial test, every unit is then duration tested for at least 8 hours to verify the proper operation of the unit before it's returned to you.

Common brands include: STI, Sick Optic, Banner, Dolan Jenner, and many more.

TEACH PENDANTS

When your teach pendants fail, you need them repaired fast, so your vital equipment isn’t sitting idle any longer than necessary. We system test your teach pendant on the matching robotic controller. We stock many replacement membranes, E-stops, and displays for prompt service.

POWER SUPPLIES

A failure in a power supply can stop an entire line. Rely on SunSource to clean, static-check, and load test your power supply. Upon your approval repair time is usually 10 days or less and emergency service is always available.
ROBOTICS REPAIR

SunSource has over 20 robotic manipulators and controllers to be able to system test your robotic components. Devices such as teach pendants, servo amplifiers, power supplies, and control boards are closed loop system tested on the exact same type robotic system that you use in your manufacturing process. This allows us to not only verify that the original problem with the unit has been corrected, but also verify all other working parameters.

A Sample of the Robots We Service

<table>
<thead>
<tr>
<th>ABB S2</th>
<th>Comau C3G</th>
<th>Fanuc RJ</th>
<th>Kawasaki FS Series</th>
<th>Kuka KR 150</th>
<th>Motoman ERC</th>
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<td>Comau C5G</td>
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<tr>
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<td>Comau Smart S2</td>
<td>Fanuc RJ 3iB</td>
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<td>Motoman NX</td>
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Our Robotic Fleet is Dedicated to Test the Following:

- CPU/Power Supplies and I/O Cards
- Servo Drives/Multi Axis Amplifiers
- Servo Motors
- Teach Pendants
- Wrist Assemblies
HYDRAULIC REPAIR

PUMPS & MOTORS
We service hundreds of hydraulic pumps every week. Every unit is completely disassembled and evaluated so that we can identify possible root causes of failure. Damaged parts are replaced or remanufactured, and the unit is rebuilt. The final product is load tested to confirm that it performs to OEM-specific standards before being painted and packaged for return.

Widely recognized as the aftermarket leader in Oilgear repairs and exchanges, we stock hundreds of rebuilt Oilgear pumps to meet the needs of our customers. We strive to have a rebuilt Oilgear pump on the way to you in 1-2 days, and all rebuilt exchanges carry a 2-year operational warranty.

VALVES
SunSource specializes in repairing all major brands of servo valves, proportional valves, and directional valves. Our skilled technicians average over 15 years experience and will thoroughly test, evaluate, and repair your valve to OEM specifications in under 5 working days. If your need is critical, SunSource can offer emergency turnaround. All valves are static and dynamically system tested.
CYLINDERS/ACTUATORS

SunSource can repair and remanufacture all of your hydraulic cylinders. Our in-house machining department cuts down the lead time of repairs significantly, and allows us to produce parts for your damaged cylinders. We have the capability to manufacture new rods, pistons, bushings, and tubes. Every cylinder we repair leaves our facilities operating like a brand new cylinder.

Our experienced technicians can repair cylinders up to 32 ft. in length and 36 in. diameter, up to 40,000 lbs. in weight. Whether it is repair work or manufacturing a new unit, fast turn around and quality work is our objective for all customers.

All incoming units are thoroughly inspected, cleaned, diagnosed, and repaired by skilled technicians, who average over 20 years of experience. A typical repair of a precision actuator includes such work as: grinding and chroming the rod, honing the tube, installing new seals, calibrating the LVDT and testing the actuator with its servo valves.
MECHANICAL REPAIR

GEAR BOXES
Rely on SunSource when it comes to remanufacturing gear boxes, and rotary drives. Our customers have come to expect the same level of quality and service that we have delivered throughout three decades of hydraulic and electronic component repair.

Common manufacturers include: Falk, Rexnord, Flender, SEW, Dodge and many more.

SERVO MOTORS
SunSource has been focusing on servo and spindle motor repair as a core competency since day one. Every incoming unit is thoroughly cleaned, inspected, diagnosed, and repaired by skilled technicians. Our in-house machining and rewind capabilities allow us to provide, high-quality and expedient delivery. All motors are closed loop system tested, under load, to meet or exceed OEM specifications.

Common manufacturers include: Allen Bradley, Indramat, Yaskawa, Siemens, Mitsubishi, Modicon and many more.

BALLSCREWS
SunSource specializes in remanufacturing precision ballscrew assemblies as well as manufacturing from print or reverse engineering. We will evaluate your ballscrew to identify possible misalignment, excessive load, or heat related issues. We pride ourselves with very prompt deliveries and emergency service is always available to help get your machine back up and running.

SPINDLES
As our reputation for quality and service has grown, so too have our capabilities. We have the equipment to analyze, balance, remanufacture, and test nearly every brand of spindle on the market today.
FLUID PROCESS REPAIR

The SunSource Fluid Process Division proudly serves the Automotive, Biofuels/Ethanol, CAFO Biogas, Chemical, Industrial, Sanitary, Food & Beverage, Pharmaceutical, Pulp & Paper, OEM, Municipal Water & Wastewater Treatment Markets. We have several facilities available to service and repair your pump and related equipment. Our repair operations are fully equipped with machinery capable of handling every step of the process, including:

- Complete Refurbish and Reconditioning
- Machining & Welding
- Dynamic Balancing
- Fabrication & Assembly
- Pump and Motor Alignment
- Part Reproduction for Damaged or Obsolete Part Replacement

FLUID PROCESS PUMPS

- ANSI Pumps
- Double Suction Pumps
- Multi Stage Pumps

VERTICAL & HORIZONTAL PUMPS

- High Temp / Hot Oil Pumps
- Boiler Feed Pumps
- Slurry Pumps
- Vertical Turbine Pumps

POSITIVE DISPLACEMENT PUMPS

- Progressing Cavity Pumps
- Screw Pumps
- Sanitary Pumps
- Paint Pumps

**CENTRIFUGAL PUMPS**
SunSource has the capability to remanufacture your centrifugal pump to like new condition – any size, any brand. We offer complete inspection of shaft, frame, bearings, packing, stuff box, impeller, volute, and front cover to ensure a high quality repair.

We service all brands of pumps including: Goulds, Flowserve, Worthington, Ingersoll-Rand, Byron Jackson, Johnson, NOV - Mission, Gardner Denver, Gorman-Rupp, O'Drill-MCM.

**VACUUM PUMPS**
We understand the value of keeping your equipment running, so when you are having issues with your vacuum pump, you can rely on SunSource to service your unit to minimize your downtime. We specialize in multiple kinds of vacuum pumps found throughout the manufacturing industries including rotary vane, liquid ring, scroll, piston and lobe.

We service all brands of pumps including: Gardner Denver, Nash, BOC Edwards, Kinney, Leybold, Stokes, Varian, Siemens, Somarakis, and many more.

**BLOWERS**
SunSource specializes in many types of blower reconditioning, including Positive Displacement, and Centrifugal. We provide in-house machining and dynamic balancing equipment to ensure peak performance of your unit.

We specialize in the repair of these brands: Roots, Siemens, Dresser, Leybold, and many more.

- Machining
- Welding
- Parts Washing
- Sand Blasting

**NOV - Mission • Gardner Denver • Nash • Siemens • Dresser**
The company behind the SunSource Advantage

As a national distributor with local presence, SunSource has a unique and dominant position as a full-service resource for the industrial and mobile fluid power industry. We distribute a broad range of components, but SunSource is much more than a distributor just supplying fluid power products. We realize that our customers need more. Along with high quality products, we provide a commitment to high quality customer service and technically sound, cost-effective solutions.

The decisions you make every day affect your company’s bottom line, so finding the right partners is a top priority. When your success depends on the success of others, it becomes critical to develop strong, lasting partnerships with suppliers you can trust to provide the support your company needs for a competitive advantage. Dependable, knowledgeable, efficient service helps you focus your energy on activities that help sell your product – and help your company succeed.

– For more information, please contact your local SunSource representative.

National Repair Solutions

- Nationwide Network of Facilities
- Extensive Range of Repair Capabilities
- Single Source and Point of Contact
- System Testing to Meet or Exceed OEM Specifications