



# servo solutions



SPECIALISTS IN THE REPAIR OF HIGH-TECH  
SERVO MOTORS AND SERVO DEVICES SINCE 2001

“OUR NAME DEFINES OUR SERVICE”

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# ABOUT US

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At **Servo Solutions, Inc.**, we understand that production needs require accuracy, speed, and reliability.

Servo Solutions is an agile servo motor repair service based in Westmont, Illinois. Since 2001, we have supported the industrial automation aftermarket, specializing in the repair of high-tech servo motors and servo-driven actuators.

With over 100 years of collective experience in electrical manufacturing and repair, our team is ready to solve your servo motor problems and minimize downtime.

Our customers rely on our ability to deliver fast, reliable repairs. We offer a complete range of engineered solutions, using every resource available, with the highest degree of service.

Repairs are backed by a 1-year warranty on parts and labor.

## OUR SERVICES INCLUDE:

- AC/DC servo motor repair
- Servo driven linear actuators
- Spindle motor repair
- Gearbox repair
- Washdown motor protection



## MECHANICAL AND ELECTRICAL INSPECTIONS

- Complete electrical and mechanical diagnostic evaluation
- Failure analysis
- Surge comparison and micro ohm resistance testing of motor windings
- Accurate measurements using digital bore gauges with accuracy to 50 microns
- Component reconditioning and/or replacement where appropriate
- Full recondition with final testing to OEM standards

# SPECIALTY REPAIR SERVICES

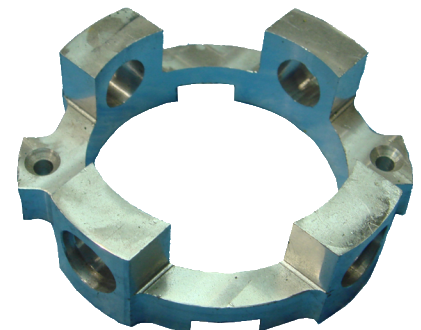
## SERVO BRAKE REPAIR

- Permanent magnet and spring type brake repair
- Friction material, spline replacement, and disc plate resurfacing
- Coil winding and magnet replacement
- Refurbished to meet or exceed torque ratings of OEM specifications



## PRECISION MACHINING

- Finite element analysis software for both mechanical and magnetic design and verification
- Digital bore gauges with accuracy to 50 microns
- CNC milling
- Surface grinding
- Small order fabrication
- Obsolete part fabrication
- OEM part re-design, replacement fabrication and repair
- Magnetic rotor and shaft replacement
- Stainless steel seal surface replacement
- Bearing housing repair



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## FEEDBACK ALIGNMENT, TESTING AND ENCODER REPAIR

- Feedback tested and aligned using the TB1 (The Box One) servo motor feedback tester
- ⇒ Equipment designed and manufactured by Servo Solutions, Inc.
- Additional testing equipment manufactured by Stegmann and Heidenhain
- Analysis of encoder signals including sine and square wave, absolute, serial, EnDat, SSI, TTL, HTL and DSL
- In house bearing replacement, code wheel cleaning and phasing adjustment repairs



## MAGNET TESTING AND REPAIR

- **Magnet replacement re-magnetizing**
- ⇒ Our technicians utilize engineering software, including FEA analysis, for magnetic and mechanical design/redesign.
- ⇒ Custom built high power magnetizer for de-mag/re-magnetization of rare earth materials. Magnet recharging system of up to 30,000 amps.
- ⇒ Materials include alnico, ferrite, neodymium, and samarium cobalt.
- **Balancing**
- ⇒ One of a kind non-magnetic balancing machine with static field dissipation built in to prevent electronic error.
- ⇒ Designed and built by our engineering department.
- **Kevlar banding**
- **Magnet rotor rebuilding capabilities**
- **Output shaft repair and re-manufacture**



# SERVO LINEAR ACTUATOR REPAIR

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- Full electrical evaluation, motor and feedback data taken, initial inspection of actuator components
- Full mechanical tear down, cleaning and inspection of internal components
- Replacement of worn components, new bearings, motor bench tested
- Stator rewinding service: Re-wound with class H magnet wire, and potted with class F epoxy encapsulation.
- Rebuild and/or replace roller screw assemblies.
- Motor Feedback Testing: Encoder replacement or repair, with alignment.
- Rotor rebuilding: We rebuild rotors, re-magnetize, band rotating assemblies with Kevlar and balance magnetic rotors.
- Part fabrication: Full machine shop services with CNC milling and 3D printing capabilities.
- Repair of motor driven actuator systems: ball screw, lead screw, belt and roller screw driven mechanisms.
- Support for Exlar Legacy products
- 1-year warranty on parts and labor



# SALES AND SERVICE

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## Servo and Spindle Motors

- ABB
- Allen Bradley
- Baldor
- Baumuller
- Bosch Rexroth
- B&R Industrial Automation
- CMC
- Control Techniques
- Custom Servo Motor
- Electrocraft
- Elwood-Gettys
- Emerson
- Exlar
- Fanuc
- Glentek
- Indramat
- Inland
- KEB
- Kollmorgen
- Lenze
- Mitsubishi
- Moog
- MTS
- Nachi
- Pacific Scientific
- Panasonic
- Parker
- Peerless Winsmith
- Perske
- Reliance
- Rexroth Indramat
- Sanyo Denki
- SEM
- SEW
- Siemens
- Toshiba
- Yaskawa
- Plus many more!

## Evaluation Fee

Servo Solutions, Inc. charges an inspection fee.

The fee covers electrical and mechanical evaluation to determine the root cause of failure.

Evaluation fees are non-refundable and included in the total repair price.

## Emergency Service

Expedited repairs available for an additional fee.

Contact us at (630)-963-5400 for further information.

## Encoder Sales and Service

- Accu-Coder
- BEI
- Fanuc
- Heidenhain
- Mitsubishi
- Renco
- Stegmann
- Tamagawa
- Yaskawa
- Plus many more!

## Linear Actuators

- Allen Bradley
- Exlar
- Parker

## Motors Gearmotors and Gearboxes

- Baldor
- Leeson
- Lenze
- SEW-EURODRIVE
- Sterling
- Sumitomo
- WEG



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