A Leader in Comprehensive Mechanical Solutions for Critical Motion Control Applications

We provide design, engineering, manufacturing and assembly services to the aerospace, military and medical sectors. Sterling Instrument offers production of precision gears, high-quality machined parts and build-to-print custom parts and assemblies.

Industrial Automation
- Stratasys
- Flextronics
- Datacard Corp.
- Oerlikon Metco
- Fastenal
- 3D Systems
- John Deere
- ACCO Brands
- Hewlett Packard
- Stature Electric / Allied Motion

Medical Equipment
- Siemens Healthcare Diagnostics
- Abbott Laboratories
- NXStage Medical Inc.
- Intuitive Surgical
- Draeger Medical Systems Inc.
- Siemens Medical Solutions
- Braun Medical Incorporated
- Becton Dickinson
- Dynex Technologies
- Baxa Corporation
- Advanced Microscopy Group
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Aerospace & Defense
- Boeing
- Kearfott Guidance
- Lockheed Mart
- Raytheon Co.
- Curtiss Wright
- L3 Wescam
- Magellan Aerospace
- C4 Advanced Tactical Systems

Space & Satellites
- Boeing
- NASA
- Northrop Grumman Corp.
- Lockheed Martin

Robotics
- Robotex
- Intuitive Surgical
- Google
- Icor Technical
- Carnegie Mellon University

Web: sdp-si.com
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Phone: +1 516.328.3300
SDP/SI creates precision gears, superior mechanical components, & customized solutions for:

- Medical Device & Healthcare
- Aviation, Defense, & Space Industries
- Robotics and Industrial & Warehouse Automation
- Oil and Gas
- Specialized Commercial Products

Originally created in 1950 to be “the supermarket of stock components” for the design engineer, SDP/SI has proven themselves to be much more. As a trusted partner to OEMs around the world we provide project management, engineering expertise & precision manufacturing from prototype to production. With world-class quality we specialize in small power transmission & motion control applications.

- CNC manufacturing and precision gear cutting
- Assembly of subassemblies for integration into larger systems
- Prototype to production
- Engineer to engineer assistance & design review
- Manage long-term agreements
- ISO 9001 + AS9100 certified
- AGMA member
SDP/SI offers the industry’s most comprehensive selection of mechanical & electromechanical components

**Gears and Gear Assemblies**
- Spur gears
- Bevel gears
- Gearboxes
- Gear racks
- Anti-backlash assemblies
- Worms and worm gears

Stock gears available for immediate delivery
Download Design Data for Gearing

**Synchronous Timing Belt & Pulley Drive Systems**
- Stock timing belts and pulleys
- Customized drive components
- Secondary operations performed
- Timing belts cut in-house to meet your specified width requirements.

*We Make it Easy* -
- Get the best pulley and belt combinations at our Center Distance Designer Tool - [https://sdp-si.com/tools/center-distance-designer.php](https://sdp-si.com/tools/center-distance-designer.php)

Download Design Data for Timing Belt and Pulley Drives

**Stock and Custom Mechanical Components**
- Couplings and universal joints
- Bearings
- Speed reducers/increasers
- Clutches and brakes
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**SDP/SI Partners with Nidec MOTION CONTROL**

**Extensive selection of servo motor systems & assemblies**
- Brushless DC motors & DC geared motors
- AGV geared motors and wheel kits
- Controllers
- Integrated motor drive controllers
- Frameless motors

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Our engineers can help configure the best combination of motor, mechanical transmission, and controller to meet your most stringent performance and reliability requirements.

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- Antenna Positioning
- Cargo Movers
- Door Releases
- Fuel Control
- Instrumentation
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- Stabilization Systems
- Structural Components
- Weapons Targeting

Our Customers Include:
- Boeing
- Curtiss Wright
- GE Aviation Systems
- Honeywell
- Israel Aerospace
- Kearfott Guidance
- L3 Wescam
- Lockheed Martin
- Magellan Aerospace
- NASA
- Northrop Grumman Corp.
- Raytheon Co.
- Robinson Helicopter

Make SDP/SI Your Engineering and Manufacturing Partner
Our Customers Include:

- Medtronic
- Moog, Inc.
- Intuitive Surgical
- Siemens Healthcare
- Abbott Laboratories
- NxStage Medical, Inc.
- Instrumentation Labs
- Hologic Surgical Products
- Drager Medical Systems, Inc.

Precision Gears, Mechanical Components & Molded Parts

- Non-Corrosive Plastics
- High-Density Polymers
- Flexible Elastomeric Materials
- *Wide Variety of Alloys* – such as Stainless Steel, Titanium, & Aluminum
- High-Resolution Plastic
- 3D Printing for Prototypes

Make SDP/SI Your Engineering and Manufacturing Partner
USA Manufacturer - World Class Quality
96,000 sq. ft. – Over 170 Machines

Precision gear and superior mechanical component manufacturer, assembly. Gears | Splines | Worm Gears | Gear Racks | Gearboxes | Differentials | Timing Belt Pulleys | Shafts | Couplings | Universal Joints
Machined & Molded Mechanical Components

Machining capabilities in a variety of materials:
Gear Cutting: 16 DP to 200 DP
Turning: 1/8” to 8” OD
Milling: 8” to 20”

Operations include:
• CNC Swiss Turning, Multiple Spindle, 9-Axis
• CNC Lathe (Mill-Turn), Multiple Spindle, 5-Axis
• CNC Milling & Machining Centers, 4- & 5-Axis with automation
• Gear Cutting:
  CNC Bevel
  CNC Hobbing
  CNC Shaping
  Coniflex Bevel Gear Generators
  Rack Cutting
• Rapid tooth cutting only capabilities – send us your blanks!
• Timing belts precision cut to customized widths – high volume
• Extremely high accuracy and tight tolerance machining
• Lights out manufacturing
• Shopfloor robotics
• Grinding and deburring
• 3D printing for prototype and low-rate production
• ISO 7 Class 10000 Clean Room for assembly
Benefit from our Experience & Product Knowledge

SDP/SI engineers assist with individual components to entire drive assemblies for thousands of applications.

Aerospace | Medical Devices | Surgical Robotics
Aviation | Defense | Robotics

- Comprehensive customized solutions
- Engineer to engineer support, resulting in:
  - Improved efficiency
  - Ease of assembly
  - Noise reduction
  - Smaller size, fewer parts
  - Optimum manufacturability
  - Designed for improved field service
- Custom subassemblies for integration into larger systems
- Modifications and secondary operations
- Partner on substantial, long-term projects

Our Certifications
ISO 9001:2015 + AS9100D Certified
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Boeing BQMS Certified (Sterling Instrument - SI)
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DFARS Compliant
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Ball
Clip Type
Housings
Linear
Needle
Plastic
Rod End
Self-Clining
Sintered
Sleeve
Spherical
Thrust
Ultra-Precision

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Ball Nuts
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Linear Frelon® Lined Bearings
Linear Guide Systems
Linear Plain Bearings
Miniature
Mounting Blocks
Precision Shafting

MOTORS, GEARHEADS, AND MOTION CONTROL
AGV Geared Motors
AGV Assemblies & Kits
DC Brushless Servo Motors
DC Brushless Frameless Motors
Gearheads - Spur and Planetary
Gearmotors
Integrated Motor Controllers
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- Pulley Stock
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**GEARING**

- Anti-Backlash Assemblies
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- Fairloc® Hub Type
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- Gearboxes
- Helical
- Internal
- Molded and Nonmetallic Spur
- Pinions and Pinion Shafts
- Racks
- Right-Angle Bevel
- Right-Angle Helical
- Speed Reducers
- Splines and Splined Bushings
- Spur
- Spur Gear Stock
- Worms and Worm Gears

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- Locking Hub Bushings
- Shaft Collars
- Shaft / Hub Clamps
- Shaft Reducers and Extenders
- Shaftloc®

**COUPLINGS**

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- Control-Flex
- Crowned Tooth Gear Type
- Disk with Split Hub
- Geargrip
- Heavy Duty Flexible
- Helical
- Jaw
- “K” Type
- Magnetic Disk
- Modular Bellows
- Neo-Flex
- Oldham
- Plastic
- Sleeve
- Spider Type
- Spline Type
- Torque Tube
- Fairloc® Shaft Couplings
- Multijawed

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