

# SDP/SI

STOCK DRIVE PRODUCTS/STERLING INSTRUMENT

Web: [sdp-si.com](http://sdp-si.com)

Email: [sdp-sisupport@sdp-si.com](mailto:sdp-sisupport@sdp-si.com)

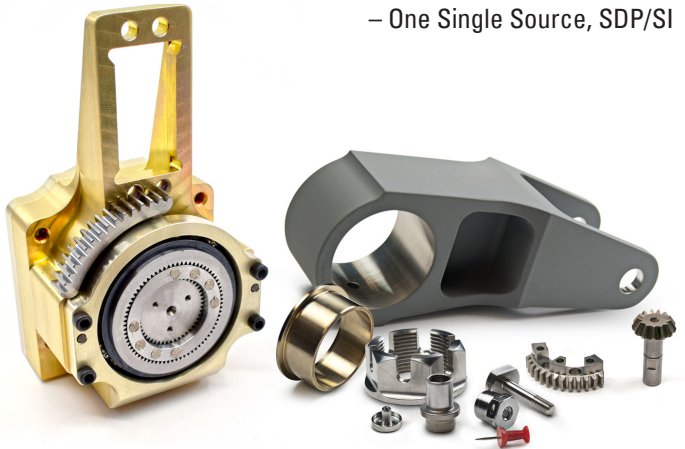
Phone: +1 516.328.3300

**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.

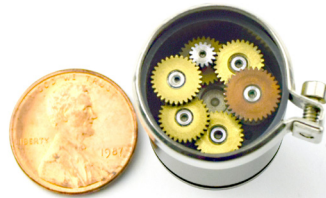
### We Make it Easy -

- Get the best pulley and belt combinations at our Center Distance Designer Tool - <https://sdp-si.com/tools/center-distance-designer.php>
- Download Design Data for Timing Belt and Pulley Drives



## Stock and Custom Mechanical Components

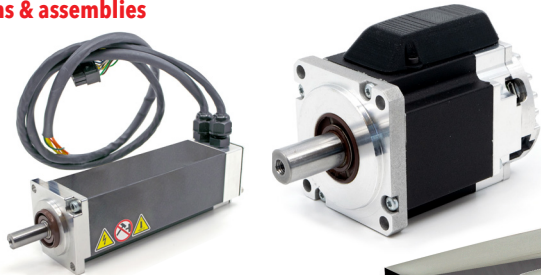
- Couplings and universal joints
- Bearings
- Speed reducers/increasers
- Clutches and brakes
- Shafting and shaft accessories



## 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



## Call Us! (516) 328-3300

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

Visit our website for product specifications, 3D CAD models, pricing, availability, part ordering 24/7, & request a catalog. <https://shop.sdp-si.com>

SDP/SI - A Designatronics, Inc. Company - 250 Duffy Avenue • Hicksville, New York 11801





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## **AVIATION, DEFENSE, & SPACE INDUSTRIES**

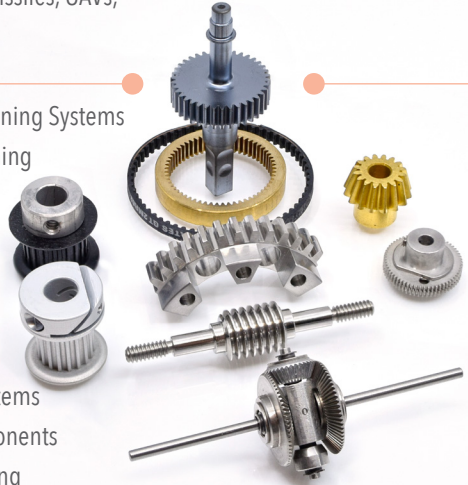
**SDP/SI High-Precision Gears | Mechanical Components & Assemblies**  
**AS9100 Registered.**

Applications span a variety of commercial & military jets, tanks, missiles, UAVs, robots, & satellites.

### **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

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



### **Comprehensive Engineered Solutions**

Design review • Manufacturing efficiency  
Customer support & project management

### **Key Mechanical Components & Customized Assemblies**

#### **Prototype to High-Volume Production**

Spur Gears • Anti-Backlash Gears • Miter Gears • Racks & Pinion Gears  
Internal Gears • Helical Gears • Bevel Gears • Worm Gears • Differentials  
Gearheads • Planetary Gearheads • Speed Reducers • Worm Drive Gearboxes

**ISO 7 Class 10000 Clean Room for assembly and testing**



**Make SDP/SI Your Engineering and Manufacturing Partner**





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## MEDICAL DEVICE & HEALTHCARE INDUSTRIES

### SDP/SI Mechanical Components & Customized Assemblies

Medical Applications Include:

- Minimally Invasive & Surgical Gear Drivers
- Pharmaceutical Processing & Packaging
- Therapeutic & Assisted Living Devices
- Medical & Dental Instruments
- Printing & Recording Devices
- Fitness Equipment
- Patient Positioning
- Robotic Surgery
- Pumps & Drives
- Drug Delivery

#### 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



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## 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





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## 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**

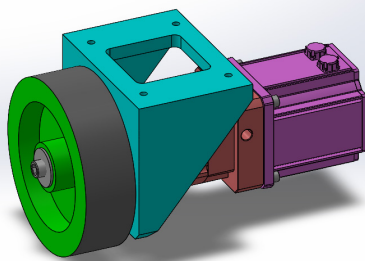
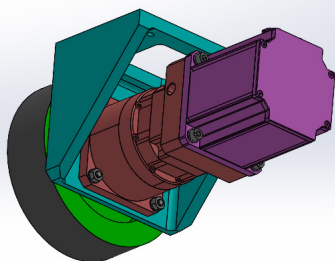
ITAR Compliant – DDTC Registered

Boeing BQMS Certified (**Sterling Instrument - SI**)

RoHS & R.E.A.C.H. Compliant

DFARS Compliant

NIST SP 800-171 Compliant



### BEARINGS

Ball  
Clip Type  
Housings  
Linear  
Needle  
Plastic  
Rod End  
Self-Clinching  
Sintered  
Sleeve  
Spherical  
Thrust  
Ultra-Precision



### LINEAR MOTION

Acme Lead Screws and Nuts  
Ball Screws  
Ball Nuts  
Linear Ball Bearings  
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  
Motor Controllers  
Stepper Motors



### VIBRATION AND SHOCK ABSORBING COMPONENTS

Bolt Mounts  
Bumpers  
Cylindrical Mounts  
ISO - Pads



### VIBRATION AND SHOCK ABSORBING COMPONENTS (cont.)

Finger-Flex Mounts  
Leveling Base Mounts  
Platemounts  
Ring Mounts  
Silicone Gel Tape, Chips, and Sheets  
Spring Suspension Mounts

### HARDWARE

Bushings  
Cap Screw Kit  
Dials  
Handcranks  
Handles  
Nuts  
Pins  
Retaining Rings  
Screws  
Set Screws  
Shims  
Spacers  
Springs  
Stand-Offs  
Threaded Rods  
Thumb Screw Knobs  
Washers



### UNIQUE COMPONENTS

Cams  
Constant Force Springs  
Electromechanical Limit Stops  
Feed Rollers  
Friction Drive Wheels  
Idlers  
Neg'ator® Spring Motor Assemblies  
Precision Geneva Mechanisms  
Spir'ator® Spring Powered Reels  
Spring-Powered Reels



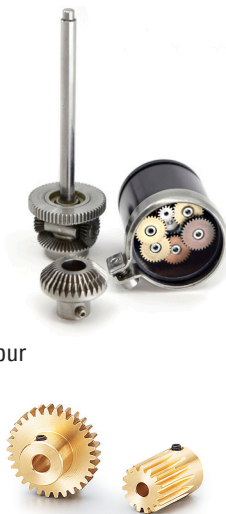


**SMALL POWER TRANSMISSION**

Timing Belts and Pulleys - Custom & Standard  
Ladder / Roller Chains & Sprockets  
Belt Clamp Kits  
Belt and Chain Tensioners  
Clutches and Brakes  
Fairloc® Hub Pulleys  
Flat Belts  
Idlers  
Posi-Drive System  
Pulley Stock  
Synchromesh Drive System  
Tension Testers  
V-Belts

**GEARING**

Anti-Backlash Assemblies  
Bevel and Miter  
Cluster Gears & Hubs  
Differentials  
Fairloc® Hub Type  
Gears and  
Gear Assemblies - Custom  
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

**SHAFTING & SHAFT ACCESSORIES**

Hardened and Ground Shafting  
Ball Splines  
Bore Reducers

**SHAFTING & SHAFT ACCESSORIES (cont.)**

Flexible Shaft Assemblies  
Gear and Dial Hubs  
Locking Hub Bushings  
Shaft Collars  
Shaft / Hub Clamps  
Shaft Reducers and Extenders  
Shaftloc®

**COUPLINGS**

Bellows  
Control-Flex  
Crowned Tooth Gear Type  
Disk with Split Hub  
Gargrip  
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

**UNIVERSAL JOINTS**

Economy Series  
Electrically Insulating  
Miniature  
Molded  
Double and Single Joint  
Telescoping



Get product specifications and helpful design calculations, **REQUEST YOUR CATALOG!**

[sdp-si.com/tools/download-papers.php](http://sdp-si.com/tools/download-papers.php)

## QUALITY BEARINGS & COMPONENTS



QUALITY BEARINGS & COMPONENTS

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Email: [qbcsupport@qbcbearings.com](mailto:qbcsupport@qbcbearings.com)

Phone: +1 888.276.4787

offers a comprehensive selection of bearings & linear motion products from major manufacturers. In addition to stock components, we provide bearing & power transmission monitoring & maintenance equipment, plus value-added services.

QBC is an authorized distributor for the most recognized names in bearings.

- Specialists in discontinued & hard to find bearings
- Custom bearings made for your specific application & environment
- Value added services including cleaning & lubrication

**Call Us! (516) 616-0436**

or submit a request for quote online.



NIPPON BEARING  
North America



*Linear Motion. Optimized.*

Stock ball bushing bearings and shafting  
- shafts can be custom cut to length.



Exclusive distributor of high-quality tools for maintenance & monitoring of bearings & other power transmission components.





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Phone: +1 646.396.GEAR

## Metric Gears for Industrial Applications – Stock and Custom

### QTC METRIC GEARS

offers an extensive selection of stock metric spur gears, bevel gears, helical gears, worm gears & worms, gear racks, & internal gears.

With over 20,000 configurations of standardized parts, we can meet the growing need for metric gears for both replacement & OEM quantities. Download product specifications, 3D CAD models, & place orders 24/7 at [www.qtcgears.com](http://www.qtcgears.com)



- Modules 0.5 thru 10
- CP2.5 thru 10
- Shop the "J Series" for quick customization
- Secondary operations
- Various surface treatments
- Custom capabilities  
**We can quote from your drawing or 3D CAD model**
- Engineering assistance

