About GAM

Founded in 1990 by Gary A. Michalek, GAM is a U.S. owned and operated manufacturer of precision motion control components used in automation technology. We offer a broad product range of robotic and servo gear reducers, rack and pinion systems, servo couplings, linear mounting kits, and other specialized mechanical drive solutions. Our customers are in a wide variety of industries including aerospace, automotive, medical, material handling, energy, packaging, machine tool, robotics and semiconductor.

What makes us different?
1. Broad range of standard products
2. Collaboration and flexibility to provide customized solutions at a value to our customers
3. Excellent customer service — we are great to work with

Our mission is to be flexible and give great service!

We are the market leader, known for our flexibility to offer our customers the best solution to meet their unique application requirements. We are passionate about helping our customers and employees be successful! Our customer service is driven through the entire organization and our lean manufacturing enables us to deliver standard, modified, or customized products quickly, and at a price that is a value, no matter what quantity.

Capabilities
• Application Engineering: Upfront collaboration to understand customer requirements
• Design Engineering: Highly skilled team of engineers to develop standard, modified, and customized solutions
• U.S. Manufacturing: Flexible systems, state-of-the-art CNC equipment and assembly cells to bring the ideas to life
• Quality Control: Quality management system and dedicated staff to ensure products are produced to specification

Our Core Values
• Teamwork
• Action-Oriented
• Long-term Relationships
• Professionalism
• Fun
The GAM Advantage

Find the exact solution you are looking for at GAM!

GAM’s product range of gear reducers, rack and pinion, couplings, and other specialized mechanical drive solutions is one of the largest in the industry. Even with such a wide offering, we realize that you may not find a standard product that meets your exact requirements.

One of our greatest strengths is our ability to modify standard designs, provide completely customized solutions, and integrated product assemblies to meet your specific application requirements. Collaborate with GAM engineers to design the best solution to your application. And, because of our flexible manufacturing, we can cost-effectively produce small batches of customized product in short lead-times.

So if you can’t find what you are looking for, just ask!

A few examples of our customized solutions:

- **Standard GPL zero-backlash planetary gearbox in custom housing with integrated shrink disk connection.** Works with any servo motor and output mounting. Drops in for competitive direct drive motors.

- **Inline planetary gearbox with spline output shaft.** External tie rods reinforce against reversing or shock loads.

- **Robot 7th axis: Dyna Series right angle hypoid gearbox with additional external bearing support and adjustable pinion shaft length.** Eliminates in-house assembly. Just mount and go!

- **Flange output gearbox with special input shaft designed for explosion-proof application.**
**Highest Precision (<1 arcmin) - Gear Reducers - Robotics**

**GPL Planetary**
The GPL is the best performing zero-backlash robotic inline gearbox on the market
- Lowest backlash <0.1 arcmin, 10 times better than other zero-backlash gearboxes
- Vibration free with high positional accuracy for smooth tracking
- Revolutionary design maintains zero backlash over the life of the gearbox, no adjustment needed
- Torsional rigidity up to 1,359 Nm/arcmin with Torque capacity up to 3,000 Nm
- Radial load capacity up to 61,900 N
- Frame sizes from 180 to 330 mm
- Integrated pre-stage and motor mount

**GCL Cycloidal**
Robotic inline cycloidal gearbox with high impact resistance
- Lowest backlash <1 arcmin
- Impact resistance
  - 5x nominal torque withstands frequent start-stop impact loads
  - Torque capacity up to 4,900 Nm
- Frame sizes from 145 to 520 mm
- Integral pre-stage options available
- Drops in for most popular competitor gearboxes

**GSL Strain Wave**
Robotic strain wave (harmonic) inline gearbox with zero backlash and high torque density
- Lowest backlash <0.5 arcmin
- High repeatability and positional accuracy for fine positioning
- High reduction ratios in a single stage: 50:1 to 160:1
- High torque density with low inertia
- Torque capacity up to 160 Nm
- Compact, small gearbox with frame sizes from 11 to 40
- Multiple input configurations
- Integrated pre-stage and motor mount
- Drops in for popular competitor gearboxes

**High Precision - Rack & Pinion Systems**

**Helical Rack & Pinion Systems**
- High precision helical rack for smooth, quiet operation
- Precision pinions designed specifically for GAM gearboxes for optimized linear system performance
- GAM rack available separately or as part of a gearbox/pinion system

**Inline Systems**
Integrated gearbox-pinion systems

**Right Angle Systems**
Integrated gearbox-pinion systems
**High Precision (1-7 arcmin) - Gear Reducers - Motion Control**

**SPH Series**
High performance inline planetary helical gearbox for demanding applications
- Lowest backlash <1 arcmin
- Torque capacity up to 900 Nm
- Torsional rigidity up to 168 Nm/arcmin
- Radial load capacity up to 20,000 N
- Frame sizes from 50-180 mm

**Dyna Series**
High performance right angle hypoid gearbox for demanding applications
- Lowest backlash <2 arcmin
- Torque capacity up to 1,400 Nm
- Torsional rigidity up to 126 Nm/arcmin
- Radial load capacity up to 20,000 N
- Frame sizes from 55-190 mm

**Dyna-Lite Series**
Performance right angle hypoid gearbox for general applications
- Lowest backlash <6 arcmin
- Torque capacity up to 140 Nm
- Torsional rigidity up to 10 Nm/arcmin
- Radial load capacity up to 7,200 N
- Frame sizes from 55-90 mm
**Precision (8-15 arcmin) - Gear Reducers - Motion Control**

### EPL Series
Performance inline planetary gearbox for general applications
- Lowest backlash <8 arcmin
- Torque capacity up to 340 Nm
- Torsional rigidity up to 33 Nm/arcmin
- Radial load capacity up to 2,500 N
- Frame sizes from 30-118 mm

- **EPL-H** Hollow output
- **EPL-F** Flange output
- **EPL-A** Metric shaft output
- **EPL-W** Metric shaft output
- **EPL-X** NEMA output
- **SSP-W** Stainless Steel

### EPR Series
Performance right angle bevel planetary gearbox for general applications
- Lowest backlash <8 arcmin
- Torque capacity up to 340 Nm
- Torsional rigidity up to 33 Nm/arcmin
- Radial load capacity up to 2,500 N
- Frame sizes from 50-150 mm

- **EPR-H** Hollow output
- **EPR-F** Flange output
- **EPR-A** Metric shaft output
- **EPR-W** Metric shaft output
- **EPR-X** NEMA output

### PE Series
Basic performance inline planetary gearbox for general applications
- Lowest backlash <8 arcmin
- Torque capacity up to 210 Nm
- Torsional rigidity up to 17 Nm/arcmin
- Radial load capacity up to 2,500 N
- Frame sizes from 30-118 mm

- **PE-W** Metric shaft output
- **PE-N** NEMA output

### PER Series
Basic performance right angle bevel planetary gearbox for general applications
- Lowest backlash <8 arcmin
- Torque capacity up to 210 Nm
- Torsional rigidity up to 17 Nm/arcmin
- Radial load capacity up to 2,500 N
- Frame sizes from 50-118 mm

- **PER-W** Metric shaft output
- **PER-N** NEMA output

### Miniature VP Series
High-performance spiral bevel gearboxes for miniature applications, such as medical and semiconductor, when high performance is required and space is at a premium
- Highest precision, smallest bevel gearbox on the market
- Highest torque density for the size with torque capacity of 1.3-16 Nm
- 90% Efficiency
- Ratios 1:1 to 4:1
- Frame sizes from 27-45 mm

- **VP** Shaft or hollow output
- **VPC** with integrated motor mount

### V-Series
Performance spiral bevel gearbox for general applications
- Lowest backlash <15 arcmin
- Torque capacity up to 4,640 Nm
- Radial load capacity up to 34,200 N
- Frame sizes from 35-350mm
- Ratios 1:1 to 6:1
- VC Series ratios up to 100:1 on select models

- **VC-W** Shaft output with motor mount
- **V-DO** Dual shaft output / shaft input (more than 13 shaft configurations available)
Mechanical Drive Solutions

Bellows Couplings
- Zero backlash and high stiffness for all motion control applications
- Torque capacity up to 4,000 Nm

Elastomer Couplings
- Lower cost alternatives for applications with less precision requirements
- Torque capacity up to 2,000 Nm

Distance Couplings
- Drive shafts with customized lengths up to 20 ft
- Torque capacity up to 1,600 Nm

Safety Couplings
- Disengage when a specified torque level is reached to protect machine components
- Torque capacity up to 9,000 Nm

Direct Drive

Indirect Drive

Mounting Kits
- Connect any motor or gearbox to any actuator
- Torque capacity up to 150 Nm
Broadest automation product range on the market

GAM is your complete source for innovative products used in automation technology.

Robotic Gearboxes

Zero-backlash gearboxes for robotics and high-precision applications with revolutionary zero-backlash planetary, cycloidal, or strain-wave (harmonic) gearing.

Servo Gearboxes

In-line and right angle gearboxes for precision servo applications in a wide variety of configurations and frame sizes. Off-the-shelf or custom, GAM has the gearbox for your application.

Bevel Gearboxes

Precision spiral bevel gearboxes, from miniature to extremely large, with multiple shaft configuration options for servo or precision power transmission applications.

Servo Couplings

Bellows, elastomer, safety, or distance (line shaft) couplings are all zero-backlash and custom bored.

Rack & Pinion Systems

Helical rack and pinion pair with GAM gearboxes for optimal system performance in a complete linear system. GAM rack available separately.

Linear Mounts

Everything Between the Motor and the Actuator: GAM linear mounts make it easy to connect any motor to any actuator.

GAM, a U.S. company, is your complete source for robotic and servo gear reducers, rack and pinion systems, servo couplings, linear mounting kits, and other precision mechanical drive solutions used in automation technology.

With one of the largest product offerings in the motion control industry as well as the engineering expertise and manufacturing capabilities to develop customized solutions, GAM can help with your application.

U.S. manufacturing, being flexible to meet the needs of customer requests, and great service are what set us apart from the rest.

GAM Can.