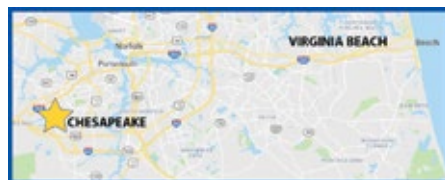


Sumitomo Drive Technologies

A global power transmission solutions provider, with facilities strategically located throughout the world, providing comprehensive products and services in your region.



HEADQUARTERS



4200 Holland Blvd
Chesapeake, VA 23323

Email: SMA.CustomerService@shi-g.com

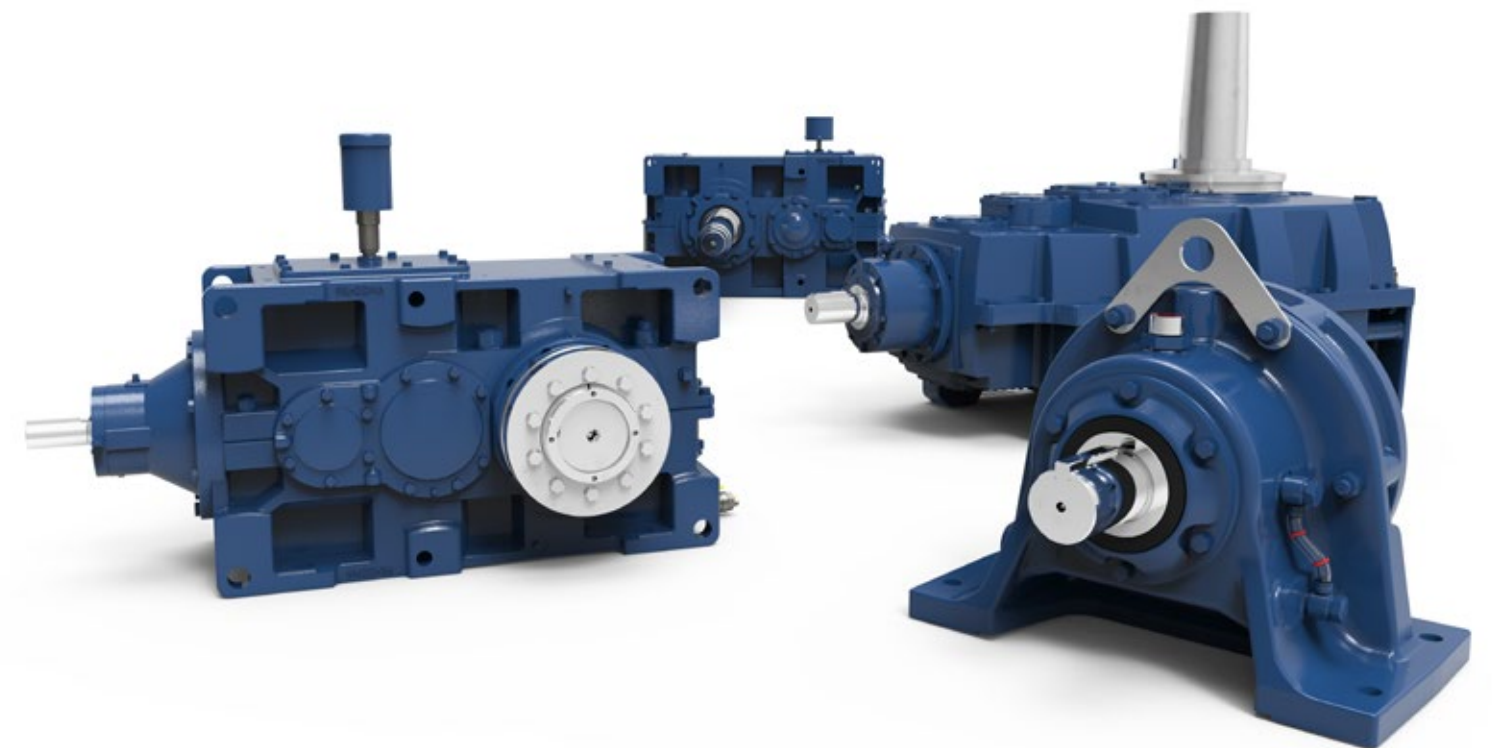
Phone: 757-485-3355

- ★ MANUFACTURING HUB & HEADQUARTERS
- ★ MANUFACTURING HUB
- ASSEMBLY & SERVICE
- SERVICE
- ▲ REGIONAL SALES OFFICE

Sumitomo Drive Technologies

FOREST PRODUCTS

INDUSTRY-LEADING DRIVES AND SOLUTIONS



Why choose Sumitomo Drive Technologies forest products for your applications?

We offer the toughest drives available to meet the harshest demands.

WE KNOW FOREST PRODUCTS

Forest Products plays an important role in our everyday needs. **Renewable materials** are an essential player in efforts to keep our planet clean. We see sustainable materials in our homes, the electricity that powers our homes, and the products we use every day in our homes.

Sumitomo Drive Technologies understands the importance renewable Forest Products have had in the past and shares the vision that the Forest Products Industry will play an **important role in the future**. We have the know-how, the tools, and the experience to grow with you.

With the addition of the Hansen product line, and significant fabrication and machining investments, Sumitomo Drive Technologies has positioned itself as a **self-reliant vendor** for your needs. We can take the guesswork out of your difficult application problems using our state of the art calculation programs. We can easily provide detailed calculations showing you gear ratings, bearing life and sump temperature.

From log handling to manufacturing and distribution of finished forest products, we can provide **gearbox solutions with lower operating costs**. We have local experienced employees and representatives ready to visit your site and walk through your application details. We pride ourselves on having the “dirtiest” salesmen in the industry.

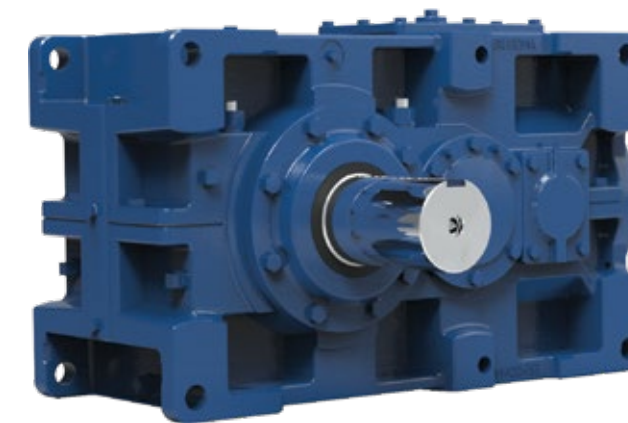
The Right Gearbox for the Right Job

We are interested in selling the **right gearbox for the application**—not just any gearbox in our inventory. Sumitomo Drive Technologies has the products that perform.

Standard large industrial gearboxes are **pre-engineered** and **manufactured** to be assembled from **our inventory**. Local engineering, manufacturing, and assembly allow us to customize these products to meet your needs.

Our large industrial gearboxes also have various **upgrades** and **performance monitoring products** to keep each gearbox in action. By following our preventative maintenance procedures, you ensure your gearbox lives a long life. If your gearbox has an issue, our **experienced network of aftermarket experts** are **always available**. Plus, with one of the longest warranties in the gearbox industry, your operation is well protected.

We ask the **right questions** to ensure you have the correct industrial gearbox for your **specific application**. Customer experience is our **top priority**, and we want to ensure that our customers can get the modifications or custom options they desire.



PARAMAX® 9000

LARGE INDUSTRIAL GEARBOXES

- AGMA Class 11+ Gearing
- Power Dense
- 25° Pressure Angle Gear Teeth
- Welded Steel and Ductile Housing Available



HANSEN VERTICAL P4

- Standard Drywell
- Horizontally Split Housing
- Maintenance Free Oil-Lock®
- Specific Bearings



HANSEN P4

- Rugged Housing
- Large Lube Capacity
- Modular Design
- Contactless High-Speed Seal



CYCLO® BBB 4

- Taper-Grip® Bushing
- Compact Design
- Multiple Input Styles



CYCLO® 6000

- Cycloidal Technology
- Optimal Efficiency
- Hi-Shock Overload Resistance
- Mill Duty Upgrades Available

Old gearboxes are high maintenance and use outdated technology and parts.

Modern gearing technology offers lower maintenance and safer operating options.



■ THE CHALLENGE: Obsolete Equipment

Repairing **obsolete** gearboxes is **impractical** and an **unreliable** practice that we see often. Outdated gearboxes can have many modifications throughout their life including ratio, handing, and HIGHER input speed. This can make **replacement difficult**.

■ INDUSTRY PROBLEMS:

- Older technology components.
- Made-to order gearing (**non-stock**).
- **Long delivery** for exact OEM replacement.
- **High** replacement **cost** for OEM design.
- **Lower** horsepower ratings than current design.
- Bearing bores are **difficult** to repair.



■ THE SOLUTION: Drop-In Units

We can engineer a **dimensional drop-in** with a higher service factor, lower cost, and quick delivery. A representative will provide **hands-on assistance** to provide solutions to the customer, including repair, horsepower interchange, ordering an OEM duplicate or a custom-engineered unit that could simply drop into the **existing footprint**.

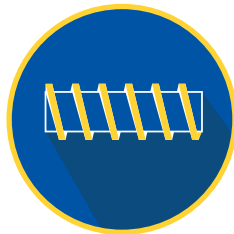
■ OUR PROBLEM SOLVERS:

- Sumitomo Drive Technologies offers many **custom solutions**.
- **Hands-on** assistance.
- Using industry-standard components for a **shorter lead time**.
- An **in-house** fabricated steel housing provided a drop-in solution.

Conveyor Belt



Screw Conveyor



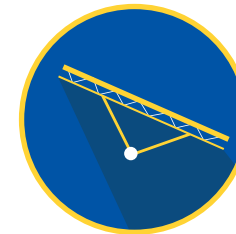
Mixer/Aerator/Flotation



Pulper



Radial Stacker



Kiln



Pump



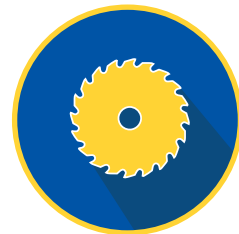
Log Carriage



Debarker



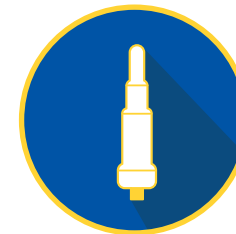
Chipper/Shredder



Winder



Digester



Rotary Airlock/Chip Meter



Roll Drive



OPTIDRIVE E3

Compliant with international standards.

GENERAL PURPOSE DRIVE

Compact, robust, and reliable general purpose drive.

Focused on ease of use, Optidrive E3 provides **unrivaled simplicity** of installation, connection, and commissioning, allowing the user to benefit from **precise motor control** and **energy savings** within minutes.

Available in **IP66/Nema 4X outdoor rating** with tough polycarbonate plastics specifically chosen to **withstand degradation** by ultraviolet (UV), greases, oils, and acids. Also, robust enough not to be brittle at -20°C (-4°F).

- 150% Overload for 60 Seconds
- 175% Overload for 2.5 Seconds
- 98% Efficiency



ENCLOSURES

FAST CONNECTION
5mm rising clamp terminals with captive screws.

KEYHOLE MOUNTS

QUICK REFERENCE
Integrated help card.

OPTISTICK SMART
This rapid Commissioning Tool allows copying, backup, and the restoring of drive parameters.



DUAL ANALOG INPUTS



INTEGRATED DISPLAY
Remote keypads provide real time operating information display and parameter access.

INTEGRATED CABLE MANAGEMENT

PLUGGABLE CONTROL TERMINALS

FANS
High quality long-life fans.

OPTIDRIVE P2 HIGH PERFORMANCE DRIVE

High-performance **variable frequency drive** for standard induction and permanent magnet motors. A **user-friendly interface** and high performance make it perfect for tackling the most demanding applications smoothly.

Extensive I/O and communications **interface capabilities** ensure the drive can be **integrated quickly and efficiently** into a wide variety of control systems.

Dedicated Hoist Mode Operation with motor holding brake control make it perfect for marine and elevator applications.

SPECS

- HP RATING**
Up to 400 HP (250 kW)
- POWER OPTIONS**
Single-Phase: 200-240V
3-Phase: 200-600V
- TORQUE**
Up to 200% (From Zero Speed)

- 200% Overload for 4 Seconds
- 98% Efficiency
- Integral Brake Transistor

*We take asset management seriously,
because we know you do.*

*Avoid catastrophic failure, minimize risk
and increase machine uptime.*

SYSTEM MANAGEMENT AND RELIABILITY TECHNOLOGY (SMART)

SMART is a range of products and reducer options that were developed to help end users in their **reliability** and **asset management** initiatives within their plant's daily operations.



Condition Monitoring

Fully customizable systems provide real time condition data of any piece of rotating equipment. Providing an accurate condition signal without the need for further analysis.

All Gearboxes

OPTIONS **

- Vibration + Temperature Input
- Vibration + Oil Level Input
- Vibration + Oil Condition

WE THINK!



Reliability Monitoring

These reducer option packages will help in the consistent collection of data. For Vibration analysis, as well as oil condition and cleanliness testing.

Large Industrial Gearboxes

OPTIONS*

- Opt 1: Machined Accelerometer Mounting Pads Only
- Opt 2: Opt 1 + Accelerometers Wired to Junction Box
- Opt 3: Opt 2 + Outputs to Customer PLC or DCS

YOU THINK!

■ CYCLOSMART® BENEFITS

- **Safe**
Monitor assets from the safety of your desk via networked connections.
- **Predictive**
Machine diagnostics for early warning and detection to avoid failure.
- **Optimization**
Customizable systems to meet many different application needs.
- **Expandable**
Multi-reducer monitoring.
- **Reliable**
Schedule machine downtime to avoid lost production.
- **Cost-Effective**
Lower overall ownership cost.

the **CHECK** 
ENGINE LIGHT for
SPEED REDUCERS

* All DriveSMART options include: Hydrosopic breather with 3mm filter, drain/fill connection for on-line filtration, and oil sample pitot tube port.

** All CycloSMART® systems are customizable with many different options for data monitoring. Examples are shown.

Learn more at:
US.SumitomoDrive.com/CycloSmart



Our team of factory-trained technicians has centuries worth of experience.

Connecting you to the Service you need.

AFTERMARKET

Our personnel are the **industry's most versed gearbox problem solvers**. We provide both standard and tailored services, for **maximum** gearbox life.

REPAIRS

Scheduled & Emergency Repair

Repair services for **all** your related gearbox needs and **24-72 hour turnaround** to the **original** factory specifications and **warranty** using Sumitomo Drive Technologies-manufactured parts.

Extended warranty programs are available upon request.

ROOT CAUSE INVESTIGATION

Product Support

Apply a **wide range** of approaches, tools and techniques to uncover the **causes** of your problems.

ON-SITE INSPECTIONS & MAINTENANCE

For Your Convenience

Most of the **services** offered and customized **training** can be performed **on location**.

EXPERTS IN SERVICE

Global Support, Local Service

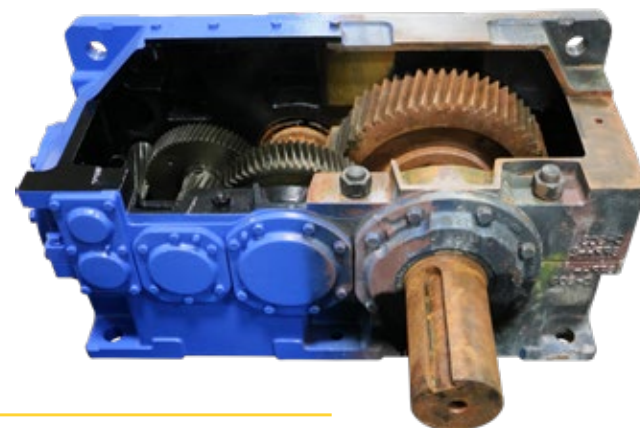
With a **vast network** of engineers and gearing experts, there's **no challenge** we can't tackle.

Our **Luftex facility**, a core part of our operation, brings **unmatched capabilities** and deep **expertise** in **custom** gearbox repair and service. Equipped with state-of-the-art technology, we're built to handle even the **largest** and most **complex** gearboxes.

Sumitomo Drive Technologies

LUFTEX

From custom gear manufacturing to on-site gearbox repair, count on the team at our **Luftex facility** to keep your operation **running smoothly**.



CUSTOM SOLUTIONS

Our **gearing engineers** can design upgrade options for existing units to increase performance or design complete **custom** drop-in replacement units that fit into an existing footprint and envelope.

ON-SITE SOLUTIONS

Our team of **experienced** technicians and engineers can travel to your location to complete your requested repairs and maintenance. These solutions can **minimize downtime** and get your operation back up and running.

SERVICE SOLUTIONS

Flexible Solutions for Your Business Needs

- Engineering Design and Analysis
- Reverse Engineering of Customer Components
- Design Upgrade Recommendations
- Disassembly and Evaluation of Gear Units
- NDT Inspections
- Manufacturing of Gear Components
- Full-Service Machine Shop
- On-Site Technical Support for Customer Repairs
- Field Service Rebuilds and Repairs
- Commissioning and Start-Up Services
- Root Cause Investigations
- Condition Monitoring

REPAIR AND REBUILD SOLUTIONS

Scheduled or emergency **repairs** can be completed **on time and within budget** by our Aftermarket team. Utilizing OEM parts and in-house machining and manufacturing capabilities allows us to meet your needs for a quality and timely repair.



email: SMA.Service@shi-g.com

phone: [757-485-3355](tel:757-485-3355)

web: US.SumitomoDrive.com

Retro-Fit units with transition bases allow us to match your existing footprint.

Custom drop-in units made to match existing unit's critical dimensions.

RETRO-FITS & DROP-INS

Whatever your requirements, **we have a solution** for you. Sumitomo Drive Technologies offers **customized bases** which allow our units to **match the footprint** of an array of existing applications and **drop-in gear drives** to **upgrade** and **replace** competitor units.

With a wide range of **options**, our **engineers** can replace your unit with **minimum impact** while delivering a **premier product** with **performance** and **reliability**.

RETRO-FIT

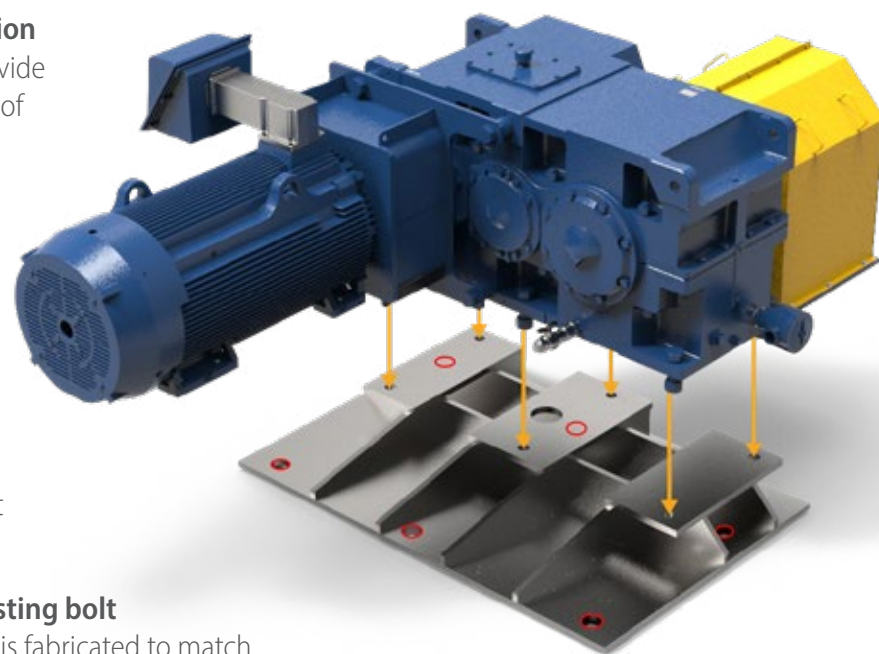
Match Existing Footprint

A **custom transition base** will position the new low-speed shaft to be in the **EXACT same position** as the original low-speed shaft. Our retro-fits provide an **excellent balance** between the cost savings of a standard gearbox and the benefits of minimal on-site modifications.

Typically, only relocating the motor mount is required for this option. We offer **motor mounting options** to help **minimize the impact** of relocating the motor mount, such as flanged motor adapter for c-face or d-flange motors.

Options might include a special low-speed shaft diameter or length and motor lantern.

The **red circles** in the diagram represent the **existing bolt pattern** of a customer's unit. The transition base is fabricated to match the height, **ensuring alignment** of the low-speed shaft to the machine shaft.



DROP-IN

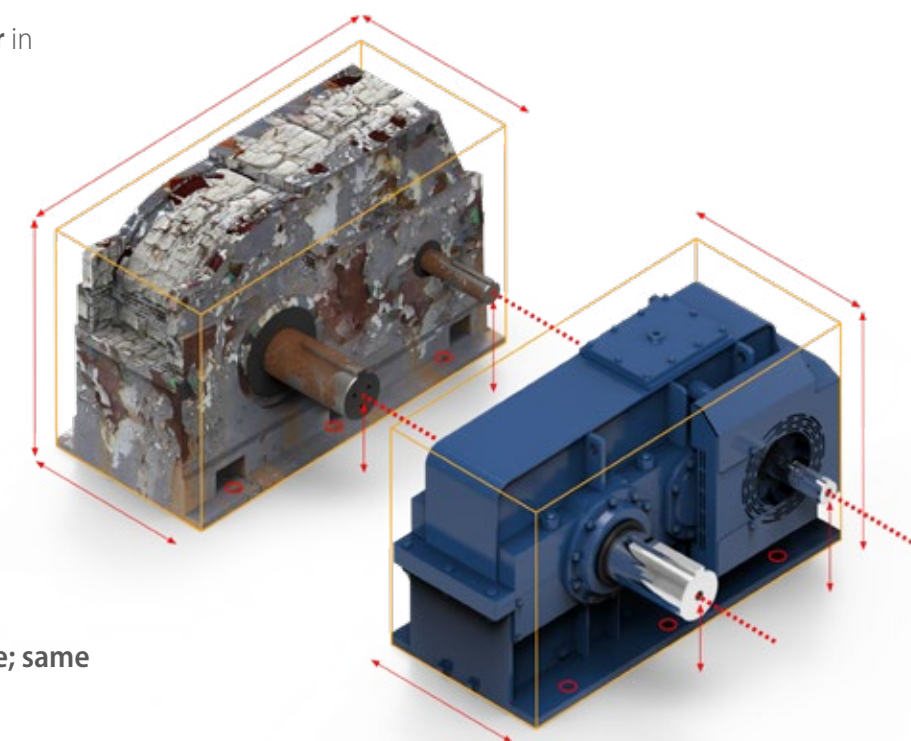
Match Existing Unit's Critical Dimensions

With **downtime** being such a **critical factor** in your operation, **let us install** one of our custom drop-in units.

Installation-ready units are designed specifically to **drop-in to existing applications** with ease. Our **expert engineers** understand that on-site modifications or re-engineering your system is not always an option.

These **stress-free replacements** can have your application back up and running in **no time**. We offer fabricated steel housings, custom baseplates, custom gearing and shafting, and more!

This product will literally drop-in to place; same footprint, same shaft positions!



SPECIALTY UNITS

For **non-standard gearing** and **custom ratios**, we offer special customized units to fit in **any application**.

From custom paint to intricate gearbox lubrication systems, **our team of engineers** will make sure all of your custom gearbox needs are met.

We have **exceptional** engineering and factory **capabilities** to support you on your gearbox needs.



Our factory capabilities support all of your gearbox needs.



WHY SUMITOMO?

The **history** of the Sumitomo Group started more than **400 years ago** when Masatomo Sumitomo opened a book and pharmacy store in the city of Kyoto, Japan. **Today**, the **Sumitomo Group** consists of more than **20 companies** who share the Sumitomo Emblem as well as many common values and ideals.

Devoted to Quality

In addition to one of the most **comprehensive product lines** of any power transmission company, we offer the most **reliable** and **highest quality** products available in the industry.

Whether it's product development or manufacturing processes, our **quality culture** resonates through our entire **global network**.

Committed to our Employees and the Community

We recognize our **employees** are our most valuable asset. They are the **driving force** behind our innovative products, our ability to support our customers, and our commitment to continuous process improvement.

We strive to be a **valuable member of society** and take pride in the contributions we make to our **communities** across North and South America.

Dedicated to Innovative Manufacturing

With more than a **century of expertise** in manufacturing, our global **capabilities** are **unmatched** in the industry.

We have manufacturing and assembly facilities on **every continent** and continue to make investments in our manufacturing technologies to maintain our position as a **leader in innovation**.

CENTERS OF EXCELLENCE

Our Centers of Excellence offer customers a **nationwide support network**. From **inventory distribution** to **manufacturing** to **assembly**, we have the team to ensure **high-quality, responsiveness, on-time delivery**, and **quick lead times**.



CHESAPEAKE, VA

Manufacturing, Support, Inventory, and Training

Our Western Hemisphere **headquarters** has **360,000 sq ft of manufacturing space**, and cutting-edge technology. Centralized inventory distribution with a **Foreign Trade Zone (FTZ)**, focused on **inventory optimization**, **motor assembly**, and hands-on **training** at our Power Institute.



VERONA, VA

Industrial Gearbox Production

Purpose-built facility specifically designed to handle the assembly of our **large industrial gearboxes**.



GLENDALE HEIGHTS, IL

Gearmotor Assembly and Support

Our Midwest facility is optimized for high volume solutions focusing on **small to medium gearmotors**.



LUFKIN, TX

Manufacturing and Services

This 32,000 sq ft facility handles gear **manufacturing**, gearbox **repairs**, and reverse **engineering**.