



Sumitomo Drive Technologies

**Sumitomo Drive Technologies**

Sumitomo, Hansen and Seisa. Three brands, one global power transmission solutions provider. Sumitomo Drive Technologies has facilities strategically located throughout the world, providing comprehensive products and services in your region.

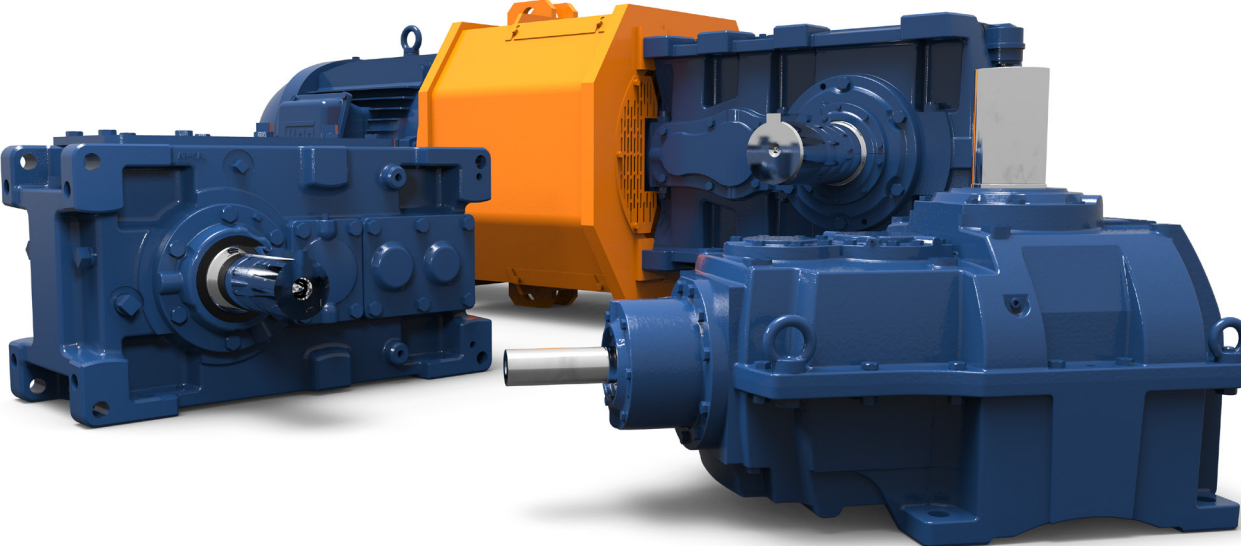


- ★ MANUFACTURING HUB
- ASSEMBLY & SERVICE
- SERVICE
- ▲ REGIONAL SALES OFFICE

Sumitomo Machinery Corporation of America  
[www.SumitomoDrive.com](http://www.SumitomoDrive.com)

For worldwide locations, please visit [www.sumitomodrive.com/worldwide](http://www.sumitomodrive.com/worldwide)  
Contact your local representative at [www.sumitomodrive.com/representative](http://www.sumitomodrive.com/representative)  
Tel: 1-800-SM-CYCLO (762-9256) 26.001.51.03 LG IND GB 2020

**Large Industrial Gearboxes**



*The widest range of standard catalogued large industrial gearboxes on the market.*

*A purpose-built facility for all of your large industrial gearbox needs.*

## Seriously Large Gearboxes

Paramax® offers a rugged, flexible, economical option with a robust, proven design. This allows for quick shipments, with a wide range of options for a reasonable price.

Hansen products offer an engineered solution to meet your applications most demanding needs. Hansen vertical gearboxes incorporate the best features that long-running and heavy-duty applications require.

### The Sumitomo Drive Technologies Standard

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.

Our Paramax® and Hansen brands offer the widest range of large industrial gearboxes on the market. Historically, we have supplied products that have outperformed our competition in the toughest of industries, such as forestry, steel, and mining.

With a reduced average lead time, sizeable domestic inventory and a staff of specialized engineers and manufacturers, customers are able to select from a wide range of products and options to solve their toughest problems.

### 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.

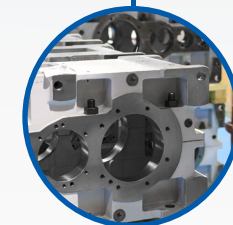
## Verona Facility

Our industrial gearbox facility is tucked along the industrial corridor of I-81 in the picturesque Shenandoah Valley of Virginia. This purpose-built facility was designed to efficiently handle the inventory, machining, assembly, quality control, and testing for our entire line of industrial gearboxes in the United States.



### Custom

**Purpose-Built Facility**  
Optimized to build over 100 large industrial gearboxes a month. There's little we can't handle.



### Inventory

**Dedicated Distribution Center**  
With centralized inventory to support the Western Hemisphere, we've got you covered.



### People

**A Wealth of Experience**  
Decades of experience make our gearbox team some of the best in the industry.



### Machining

**On-Site Machining Capabilities**  
With a full-service machine shop at our disposal, we keep costs and lead times down.



### Innovation

**Information Technology**  
With the latest software and technology we aim to provide a world-class customer experience.



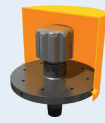
### Quality

**Rigorous Standards**  
American Made. ISO 9001 certified. Member of AGMA, PTDA, CSA, EASA. We don't compromise.

• Immersion Heater

• Creep Drive

• Heavy Duty Anti-Dust Breather

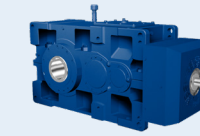
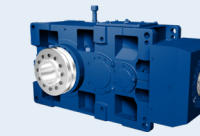
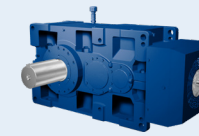


### ACCESSORIES

• Solid Shaft

• Shrink Disc

• Keyed Hollow Bore



### OUTPUTS

### SPLIT HOUSING

Standard in large frame sizes to allow easy maintenance. A large inspection port provides a window for gear inspection. Available in standard gray cast iron with ductile and fabricated steel options.

### TACONITE SEAL

This option features a dual-layer oil and grease sealing system.

### SLOW SPEED SHAFT

### CASE CARBURIZED & GROUND GEARING

High precision carburized gearing with a 25° pressure angle offers a thicker dedendum and higher strength ratings than the typical 20° pressure angle.

### HIGH TENSILE SHAFT

Strong shaft material optimized for extended operation in rugged environments.

### TIER 1 SUPPLIER ROLLER BEARING

High capacity bearings increase load capacity without increasing lead-time. Tapered, double-row spherical, or cylindrical roller bearings depending on size and configuration.

## PX PARAMAX® 9000

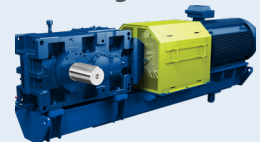
### PARALLEL & RIGHT ANGLE LARGE INDUSTRIAL GEARBOXES

Paramax® parallel and right angle drives are some of the largest and most durable power transmission systems operating in the world. The series features double, triple, quadruple reduction gearboxes, global standardization and availability, and support from our worldwide facilities.

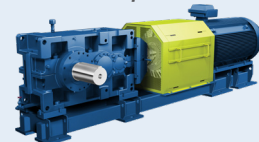
**Optional accessories:** Backstops, Motor Mount Options, Seal Upgrades, Heating & Cooling and Lubrication Solutions, Paint Upgrades, Storage and Packaging Options, and Complete Drive Package Solutions.

### DRIVE PACKAGE

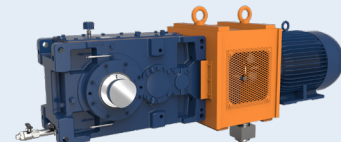
Swing Base



Baseplate



Motor Lantern



### SPECS



**HP RATING**  
Up to 5,230 HP  
(3,900 kW)



**DIAMETER**  
58mm to 360mm  
(Hollow & Solid)



**TORQUE**  
Up to 4.9 million lb•in  
(552 kN•m)

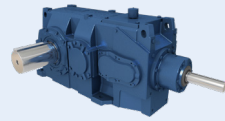


**RATIO RANGE**  
Up to 500:1  
Standard

• Vertical



• Horizontal

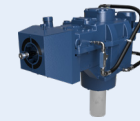


• Single-Stage



### VARIATIONS

• Extended Bearing



• Pilot or Flange Mount



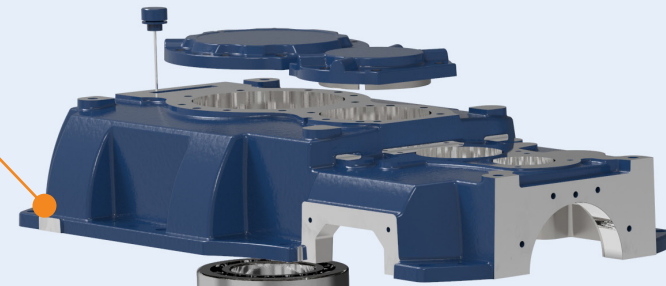
• Hollow Shaft



### OUTPUTS

### SPLIT HOUSING

Rugged, split housing for horizontal and vertical applications. Round housing tops help keep the unit free from debris.



## P4 HANSEN P4

### REMARKABLE POWER AND PERFORMANCE WITH LOW NOISE

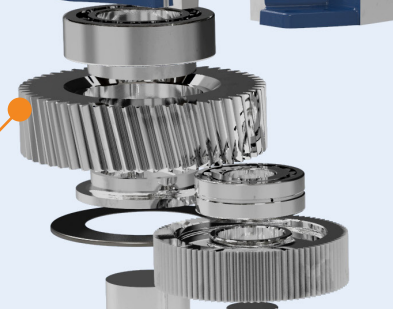
The Hansen P4 multi-stage gear unit is market leading in quality and technology, excelling in reliability and durability. The rugged housing, along with our commitment to innovating state-of-the-art technology, provides remarkable power and performance.

The unique Oil-Lock™ system offers a maintenance-free seal on high speed shaft extensions, designed to keep the oil in and dirt out.

Optional accessories: Backstops, Motor Mount Options, Multiple Sealing Upgrades, Various Heating, Cooling, and Lubrication Options, Heavy Duty Paint or Packaging Options, and Complete Drive Package Solutions.

### GEARS

High torque geometry in low-speed gears. Low-noise geometry in high-speed gears.



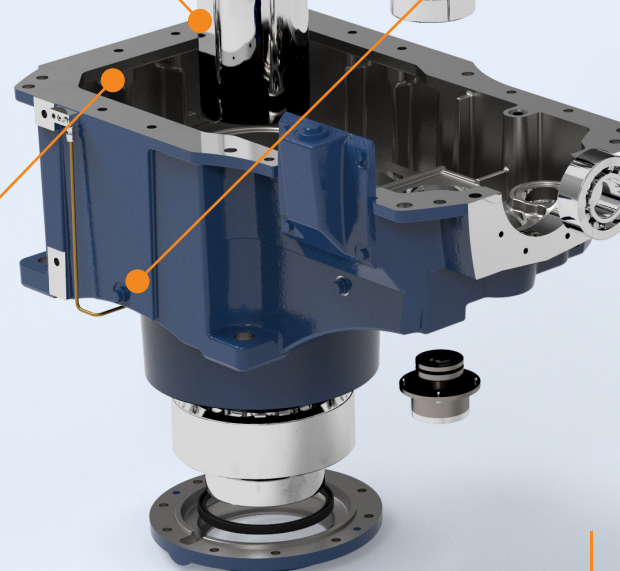
### PINION SHAFTS

Rigid standardized pinion shafts and housings for better lateral load distribution.



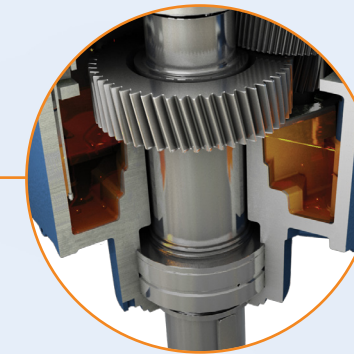
### SLOW-SPEED SHAFT

Shaft projections include captured keyways with rounded end key inserts to eliminate stress concentrations.



### INTERNAL HOUSING

Exceptional construction ensures bearings are lubricated at start-up to maximize reliability and life.

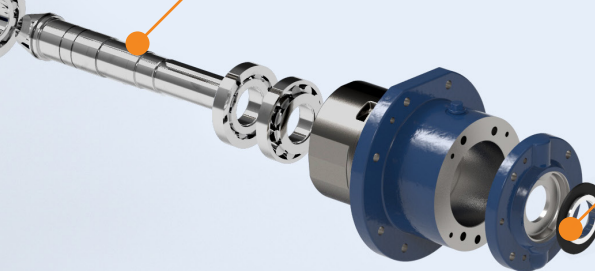


### INTEGRATED DRYWELL

Cast into 3 and 4 stage vertical housings mean this option provides a truly leak-proof low-speed shaft.

### HIGH-SPEED SHAFT

Extra long high-speed shaft projections suitable for interference-free coupling connections.



### MAINTENANCE-FREE OIL-LOCK®

Standard high-speed seal arrangement.

### VERTICAL SHAFT OPTIONS

Normal Solid Shaft

Oversized Solid Shaft

Extended Bearing Housing

Hollow Shaft - Keyed

Hollow Shaft - Shrink Disc

### SPECS



**HP RATING**  
Up to 14,080 HP  
(10,500 kW)



**DIAMETER**  
80mm to 400mm  
(Solid, Heavy-Duty,  
and Hollow)



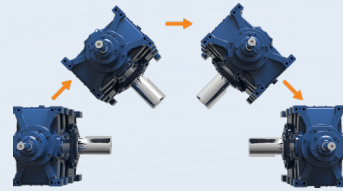
**TORQUE**  
Up to 9.7 million lb•in  
(1.1 million N•m)



**RATIO RANGE**  
Up to 630:1 (Custom  
ratios available)

• **Flippable Housing**

1 unit = 2 shaft assemblies,  
2 inspection covers and 2  
nameplates

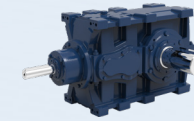


• **MOUNTING**

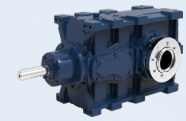
• **Rigid Moment Coupler**



• **Solid Shaft**



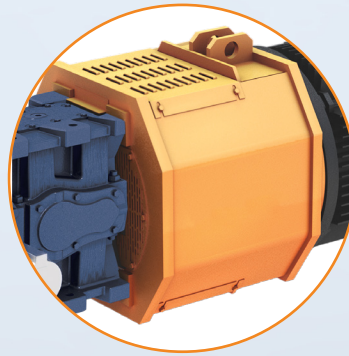
• **Hollow Shaft  
(Keyed or Shrink Disc)**



• **OUTPUTS**

**MOTOR LANTERN**

Flippable, alignment-free  
housing design with pilot for  
lantern housing.

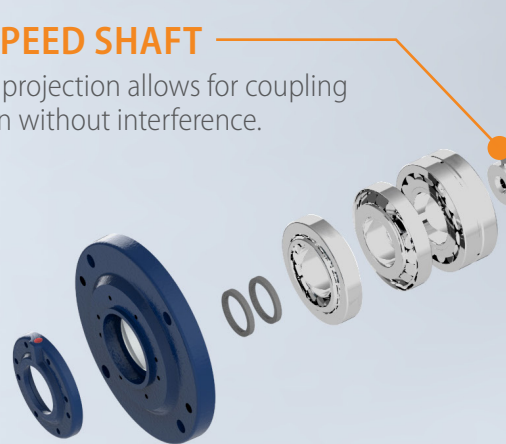


**EXTENDED TILT CAPABILITY**

Mounting can be varied by +/- 3 degrees  
without additional lubrication system modifications.

**HIGH SPEED SHAFT**

Extended projection allows for coupling  
installation without interference.



**RUGGED HOUSING**

Reinforced ribbing provides optimal strength in  
key areas. Designed to accommodate large motor  
mounting options. Pilot for motor lantern is standard.

**P4 GEARING**

Precision carburized and ground gearing delivers high  
capacity, optimum efficiency and quiet operation.

**TACONITE TYPE SEALS**

Optional taconite seal that is  
standard grease purgeable with  
internal drain-back allows for  
superior oil-flow to bearing  
while maximizing seal life.

**HANSEN P4 UNIMINER**

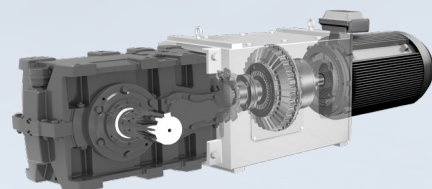
**DROP-IN REPLACEMENT FOR MOST OTHER ALIGNMENT-FREE DRIVES**

The Hansen P4 UniMiner features a **robust design** that offers **versatility** for different  
mounting positions. With a 'flippable' housing and horizontal split line, it's the ideal  
alignment-free drive package.

Hansen Industrial Gearboxes' P4 UniMiner gear units are **compact** and optimized for **mining**  
and other applications involving **bulk material handling**.

Optional accessories: Backstops, Heating and Cooling Options, and Complete Drive Package Solutions.

**OPTIONS**



Flexible or Hydro-Dynamic Couplings  
Motors including large heavy-duty  
Optional D-Flange or C-Face

**SPECS**



**HP RATING**  
Up to 2,300 HP  
(1,738 kW)



**DIAMETER**  
4 5/8 in to 7 1/2 in  
(Hollow & Solid)



**TORQUE**  
Up to 889,000 lb-in  
(100,445 N-m)



**RATIO RANGE**  
2 or 3 Stage  
10 to 71:1

*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 and 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

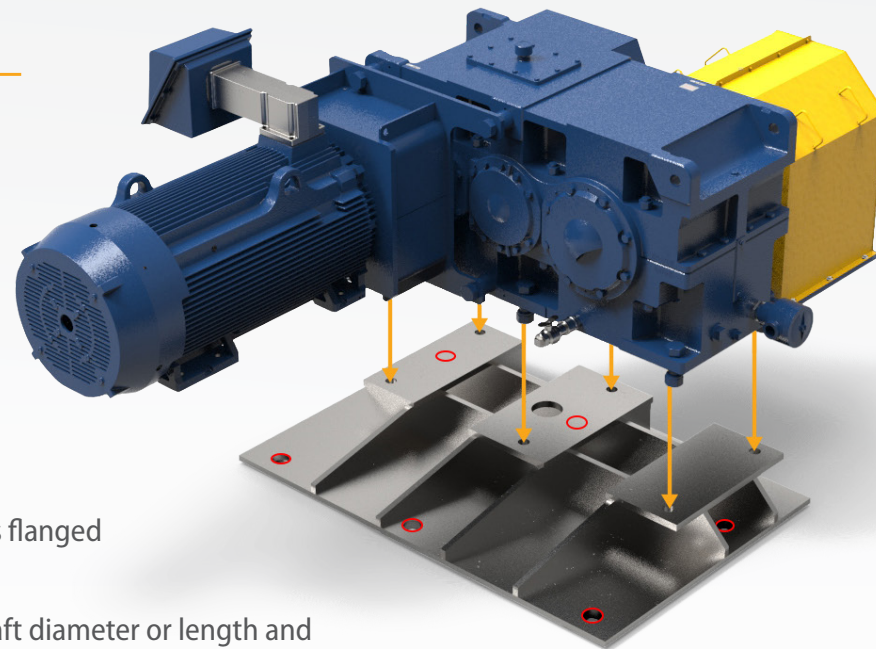
*Match existing footprint*

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 retrofits 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

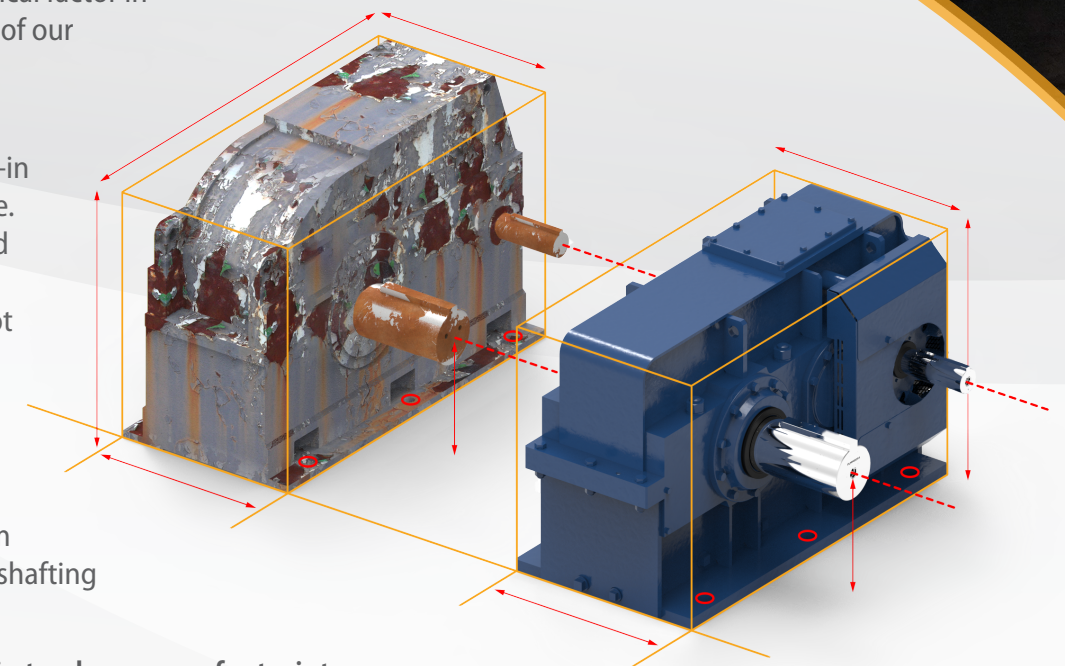
*Match existing unit's critical dimensions*

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.

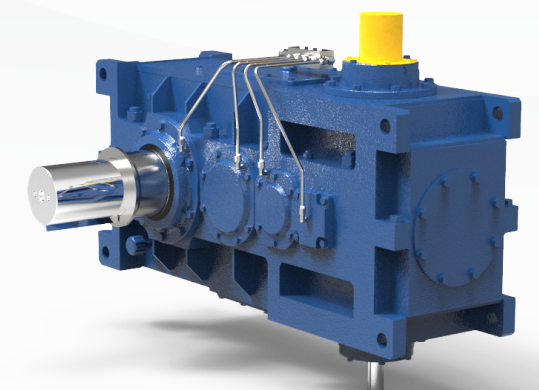
These stress-free units can have your application back up and running in no time. We offer fabricated steel housings, custom baseplates, custom gearing and shafting and more!

**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 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.



### 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!**



### 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!**

## 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: Hydroscopic 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: [SumitomoDrive.com/CycloSmart](http://SumitomoDrive.com/CycloSmart)



*Our factory capabilities support all of your gearbox needs.*

*The most reliable and highest quality products backed by a 400 year heritage.*

## Aftermarket

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

### Experts in Service

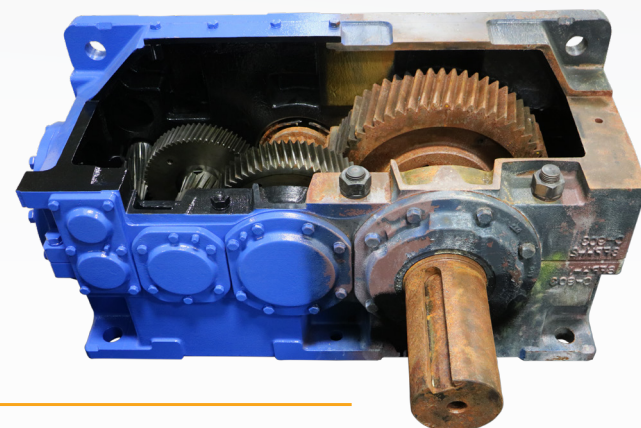
*Global Support, Local Service*



With a vast network of engineers and gearing experts, there is no problem we can't handle.

In addition to our extensive network, LUFTEX Gears Manufacturing and Services provides unmatched capabilities and expertise in the area of custom gearbox repair and service. With a 60-ton crane capacity and 41 ft hook height, no gearbox is too big for us to handle.

Whether custom gear manufacturing or on-site gearbox repair, let our team at LUFTEX keep your operation running.



## Why Sumitomo?

### Our 400 Year Heritage

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

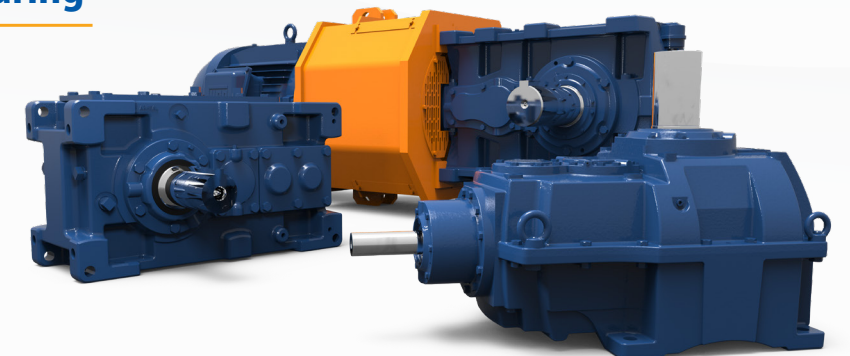
In addition to one of the most comprehensive product lines of any power transmission company, we offer the most reliable and highest quality products available in the industry. Whether it's product development or manufacturing processes, our quality culture resonates through our entire global network.

### 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.



### 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-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.

### Field Services

*For Your Convenience*

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

email: [SMA.Service@shi-g.com](mailto:SMA.Service@shi-g.com)

phone: 757-485-3355

web: [SumitomoDrive.com](http://SumitomoDrive.com)