



Sumitomo Drive Technologies

WATER TREATMENT

WATER SYSTEMS. POWERED RIGHT



Why choose Sumitomo Drive Technologies for Water Treatment applications?

WE KNOW WATER TREATMENT

Water treatment facilities must operate 24 hours a day under severe conditions. Sumitomo Drive Technologies has been helping plants in the Americas minimize downtime by supplying reliable, high-efficiency drives with long life cycles. We have knowledge on the challenges this industry faces and have the solutions that deliver the lowest possible life cycle cost and the highest level of performance.

OUR SOLUTIONS

TAPER-GRIP® BUSHING

A simple **shaft-mounting device** that provides self-aligning, backlash-free torque transmission.

- Easy unit mounting and removal
- **Resistance** to fretting and corrosion
- Multiple stock bore sizes for quick delivery



HANSEN MIXER DRIVE

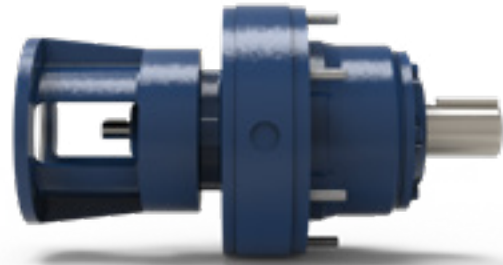
The Hansen mixer drive is an **application adapted** design, carefully upgraded to meet your **rigorous** demands.

- Multiple low-speed shaft sizes and bearing arrangements to handle virtually any load
- **Exceptional thermal ratings** with internal lubrication distribution lines
- Low-noise gearing
- Dedicated vertical housing with **cast-in drywell**

Cyclo® Technology

Cycloidal “**gearless**” speed reduction components operate in **compression**, not shear.

- High ratios in a small space envelope
- Shock loads **exceeding 500%** of their ratings
- **Universal mounting** arrangements



CUSTOM SOLUTIONS

Sumitomo Drive Technologies manufactures a **wide variety of enclosed gearing** designed to drive wastewater treatment equipment. Using our expertise, we've adapted our standard drive parts to suit the **harsh conditions** of each wastewater industry application. The result is a **comprehensive range** of our power transmission products tailored specifically for this industry.

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



■ **CYCLO® 6000** **C**

- **Efficient**
- Reliable performance
- 500% momentary shock load capacity



■ **HYPONIC®** **H**

- Maintenance-free
- **High-efficiency**
- Universal mounting



■ **CYCLO® BBB 4** **B4**

- Ductile iron housing
- **Multiple output** styles
- Taper-Grip® Bushing
- Available with drywell for mixer



■ **PARAMAX® 9000** **PX**

- Multiple reduction gearboxes
- **Broad ratio range** up to 500:1
- Offset parallel & right-angle configurations



■ **CYCLO® HBB** **HB**

- Parallel shaft
- Helical gearbox
- **Cast-iron** housing
- Taper-Grip® Bushing



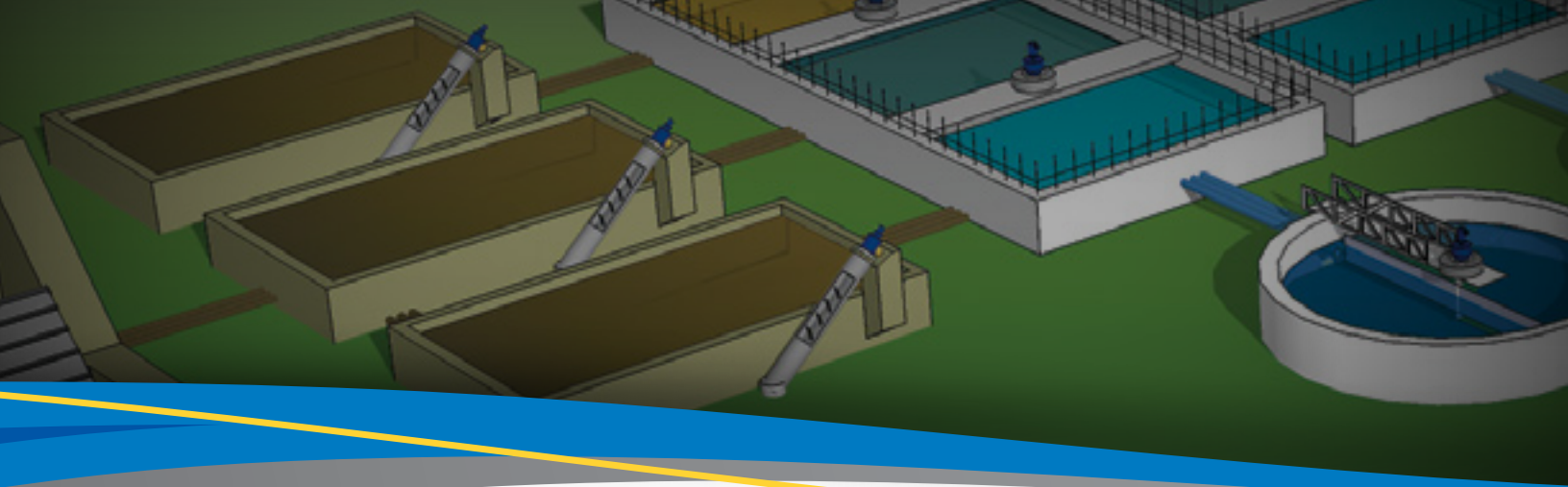
■ **HANSEN P4** **P4**

- Dedicated vertical housing with horizontal split line
- **Cast-in drywell**
- Bearing upgrade options to meet radial & axial load demands



■ **HSM (HELICAL SHAFT MOUNT)** **HS**

- Hollow shaft
- CEMA screw conveyor drive shaft options
- **Optimal performance**



■ WASTEWATER TREATMENT

Preliminary Treatment

Our power transmission products help transport water and solids through the preliminary screening and treatment processes (headworks).

Influent Pumping **P4 PX**

- **Large** quantities/**lows** heads
- Self-aligning spherical bearings
- Accommodates **heavy loads**

Screening **HB HS B4**

- **Unmatched** shockload capacity
- **Easy** to install
- **Easy** to maintain

Grit Collector/Classifier **C HB P4 PX**

- **Broad range** of ratios, power ratings, and inputs
- Product optimization
- **Reliable** performance

Primary & Secondary Treatment

After gravity sinks heavy solids, our products remove waste, aerate with biochemicals & clarify water.

Primary Settling Basins **C P4 PX B4**

- **Superior** sealing systems
- Optional grease lubrication
- **Protection** of components

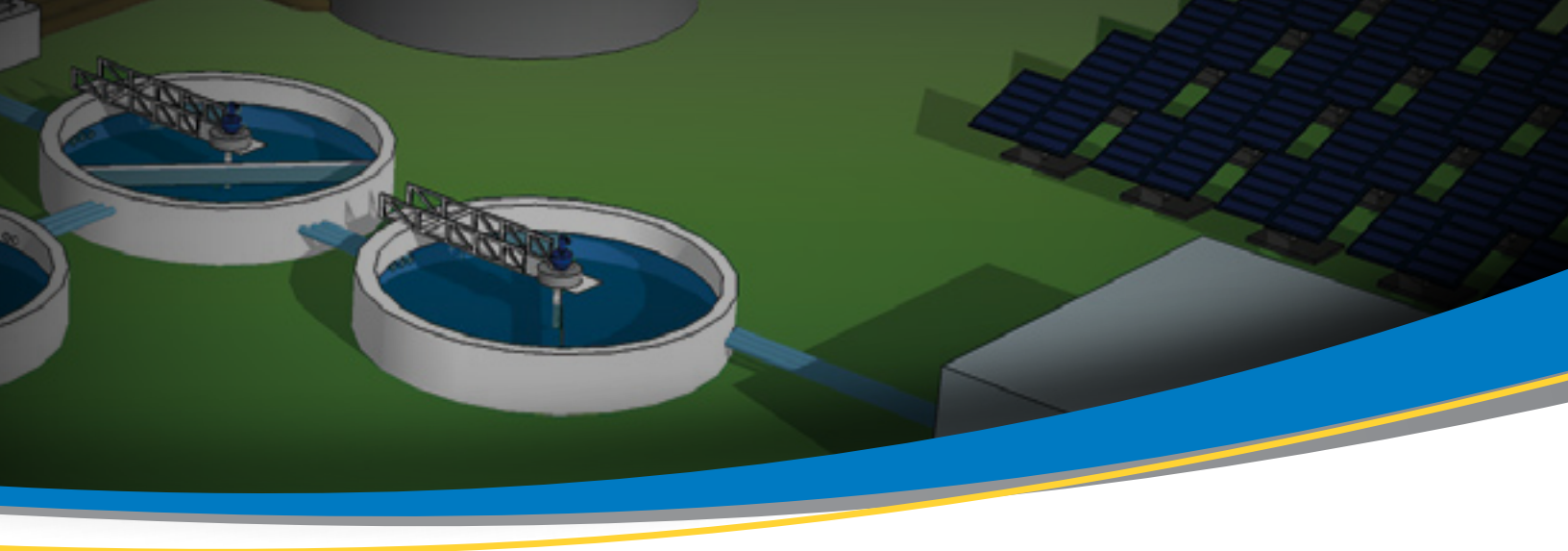
Aerator/Mixer **C P4 PX B4**

- **Dependable** operation
- Vertical housing
- Dry well

Clarifiers **C HB HS B4**

- **Long life**
- **Exceptional** performance
- Easy maintenance





Sludge Processing

Our units are optimized for even the most corrosive and demanding sludge processing applications.

Digesters **C** **HB** **HS** **B4** **P4** **PX**

- **Reliable** source
- Global standardization
- Large oil sumps

Sludge Dewatering **C** **HB** **HS** **B4** **P4** **PX**

- **Compact**
- Mounted Configurations
- **Efficient**

Conveyors **C** **HB** **HS** **B4** **P4** **PX**

- Optional sealing systems and coatings
- Resistant to harsh conditions
- **Reliable** performance

Power Generation

Optimizing the plant's operation with renewable energy results in environmental and economic benefits for the community.

Solar Trackers **C** **H**

- Grease lubrication
- **Maintenance-free**
- **High-efficiency**

Water treatment infrastructures are aging and we are ready to provide solutions for the challenges that facilities will be facing.



We meet the challenges that water treatment plants confront every day.



■ THE CHALLENGE:

Drinking water regulations are tightening, while your plant is under pressure to reduce costs. Your power transmission drives must deliver the highest level of performance at the lowest possible life-cycle cost.

Modernize your plant with Sumitomo Drive Technologies

■ OUTDATED EQUIPMENT PROBLEMS:

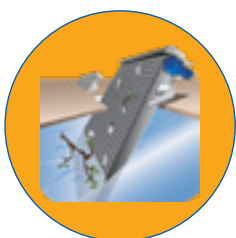
- **Low** efficiency.
- Oil **leakage**.
- **Obsolete** or **hard-to-source** parts.
- Frequent **maintenance** requirements
- **High-wear** components
- Large, **cumbersome units**

■ CLEAN WATER TREATMENT

Raw Water Screening

- Reliable drive screening
- Grease-lubricated
- Environmentally friendly

C HB B4



Rapid/Flash Mixing

- Increased efficiency
- Low-energy consumption
- Reliable Operation

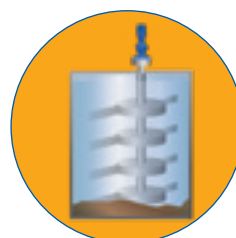
C B4 PX P4



Flocculation

- High-efficiency
- Reliable Operation
- High-shock capacities

C B4 HB P4



Filtration



Sumitomo Drive Technologies has the reliable solutions for any challenge faced.



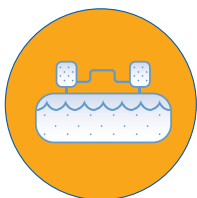
■ THE SOLUTION:

We manufacture a wide variety of speed reducers to meet the specialized needs of water treatment facilities. Recognized for high efficiency, we have durable solutions that provide reliability for your water treatment equipment. Using our expertise, we develop packages suited for your industry's demanding conditions.

■ OUR MODERN SOLUTIONS:

- **Cycloidal** speed reduction technology
- **High efficiency.**
- **Grease lubrication** option.
- **Integral**, compact torque limiter with **multiple set points**
- Transition baseplates for easy, **drop-in replacements**
- **Compact designs** with **high ratios** available

Disinfection



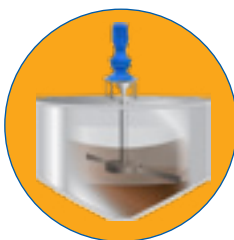
Water Storage, Distribution, & Consumption



Sludge Thickening

- Adjustable torque limiters
- Protection from overloads

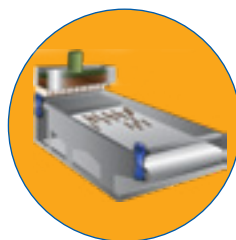
C HB HS B4 H



Sludge Dewatering

- Rugged bearing
- Forged steel components
- Durable

C HB HS B4 H



Sludge Disposal



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**

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

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)

● IP20



● IP66



Non-Switched

● IP66



Switched

● IP20



● IP55



● IP66



ENCLOSURES



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.

● 200% Overload for 4 Seconds

● 98% Efficiency

● Integral Brake Transistor



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

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!

Avoid catastrophic failure, minimize risk and increase machine uptime.

■ 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:
US.SumitomoDrive.com/CycloSmart



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

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

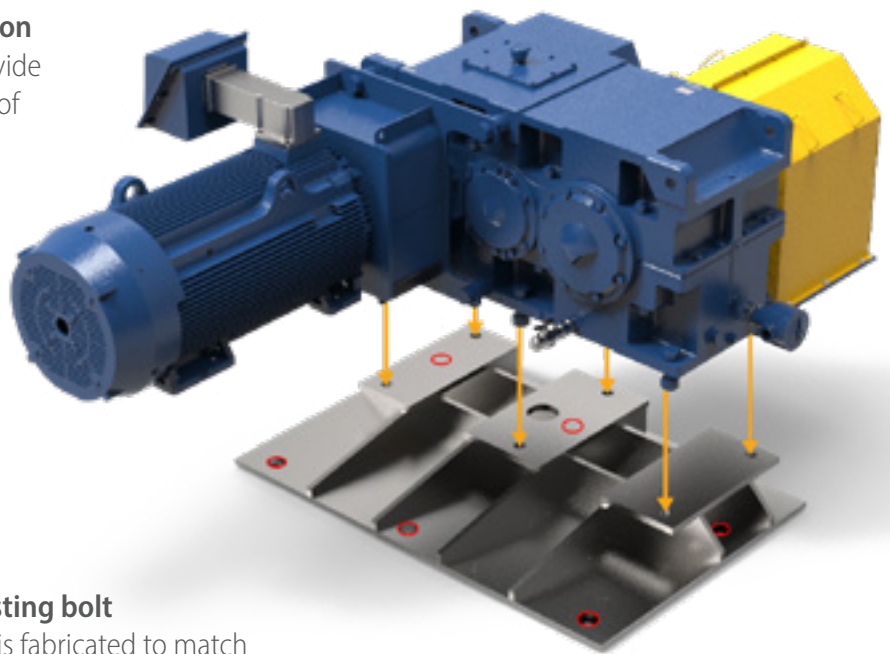
Match Existing Footprint

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.



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

DROP-IN

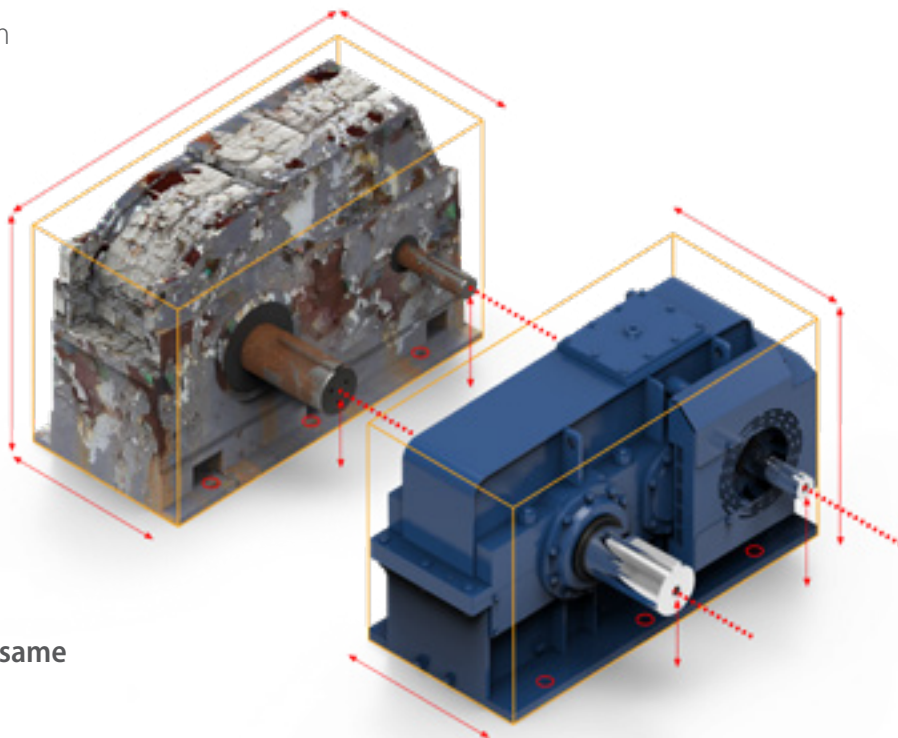
Match Existing Unit's Critical Dimensions

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!

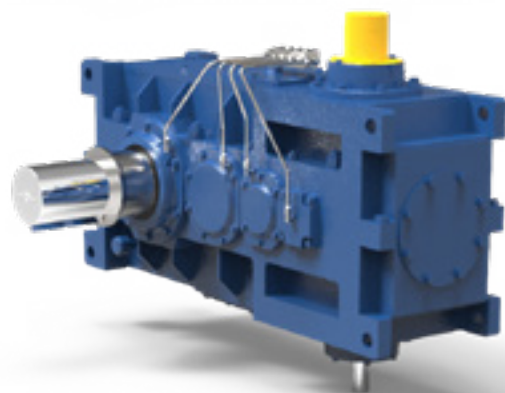
This product will literally drop-in to place; same footprint, same shaft positions!



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.





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**.



■ MARINE CITY, MI

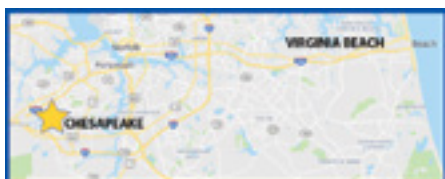
Manufacturing and Services

This facility handles gear **manufacturing and repairs** with a 10,000 sq ft **gear grinding center**.

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