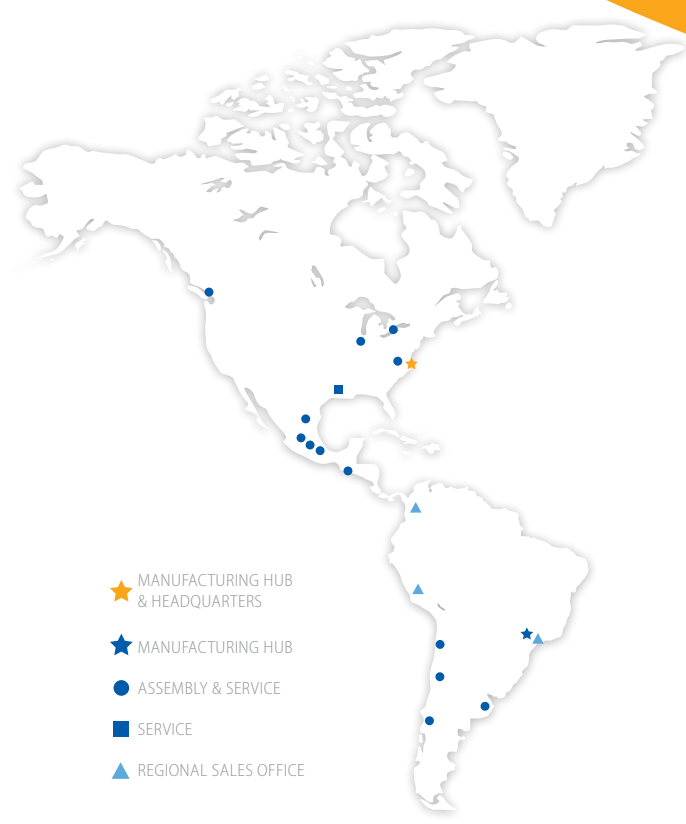




Sumitomo Drive Technologies

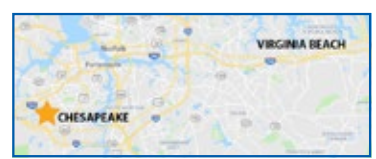


- ★ MANUFACTURING HUB & HEADQUARTERS
- ★ MANUFACTURING HUB
- ASSEMBLY & SERVICE
- SERVICE
- ▲ REGIONAL SALES OFFICE

### 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](mailto:SMA.CustomerService@shi-g.com)  
phone: 757-485-3355



 **Water Treatment**

# Why choose Sumitomo Drive Technologies for Water Treatment applications?

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

## 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.

### 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

### 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 loads
- Exceptional thermal ratings with internal lubrication distribution lines
- Low-Noise gearing
- Dedicated vertical housing with cast-in drywell

### 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

### Sumitomo's 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 Sumitomo power transmission products tailored specifically for this industry.



#### C CYCLO® 6000

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



#### P4 HANSEN P4 Gear Units

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



#### B4 CYCLO® BBB 4

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



#### PX PARAMAX® 9000

- Multiple reduction gearboxes
- Broad ratio range up to 500 to 1
- 26 Available Sizes
- Offset parallel and right-angle configurations



#### HB CYCLO® HBB

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



#### HS HSM (HELICAL SHAFT MOUNT)

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



#### H HYPONIC®

- Maintenance-free
- High efficiency
- Universal mounting

## Preliminary Treatment

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

### Influent Pumping **P4 PX**

- Large quantities/low 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, Sumitomo's products remove waste, aerate with biochemicals and 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

Sumitomo's 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 utilities will be facing.



WASTEWATER  
TREATMENT



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

Sumitomo has the reliable solutions for any challenge faced.

### 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
- Difficult to obtain spare/obsolete parts
- Frequent maintenance and repairs
- Many wearing components
- Large cumbersome units

### 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, Sumitomo develops packages suited for your industry's demanding conditions.

##### Sumitomo 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



# CLEANWATER TREATMENT

#### Raw Water Screening

- Reliable drive screening
- Grease-lubricated
- Environmentally friendly

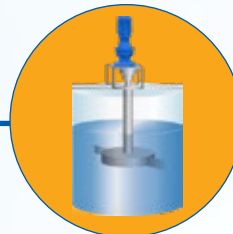
C HB B4 Y



#### Rapid/Flash Mixing

- Increased efficiency
- Low-energy consumption
- Reliable

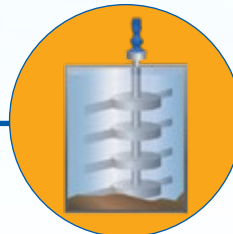
C B4 PX P4



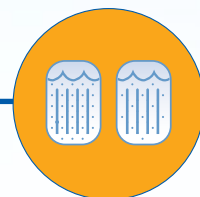
#### Flocculation

- High efficiencies
- Reliable
- High shock capacities

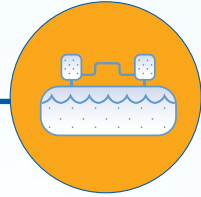
C B4 HB P4



#### Filtration



#### Disinfection



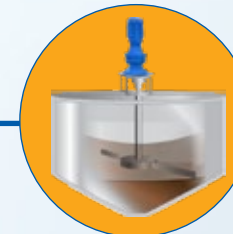
#### Water Storage, Distribution, and Consumption



#### Sludge Thickening

- Adjustable torque limiters
- Protection from overloads

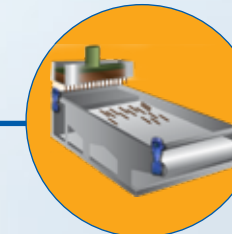
C HB HS B4 H



#### Sludge Dewatering

- Rugged bearing
- Forged steel components
- Durable

C HB HS B4 H



#### Sludge Disposal



# OPTIDRIVE E3

## 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 rigid 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 secs
- 175% Overload for 2.5 secs
- 98% Typical Efficiency


 Compliant with international standards.



## ENCLOSURES

### FAST CONNECTION

5mm rising clamp terminals with captive screws.

### KEYHOLE MOUNTS

### QUICK REFERENCE

Integrated help card.

### OPTISTICK SMART

A rapid commissioning tool that allows copying, backup, and the restoring of drive parameters.



### DUAL ANALOG INPUTS

## SPECS



**HP RATING**  
Up to 350 HP  
(250 kW)



**POWER OPTIONS**  
Single-Phase: 200-240V  
3-Phase: 200-600V



**TORQUE**  
Up to 200%  
(From Zero Speed)



### INTEGRATED DISPLAY

LED multi-language text display.

### 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.

Its 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 makes it perfect for marine and elevator applications.

- 200% Overload for 4 secs

- 98% Typical 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.



### 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: Oil sampling pitot tube, and Oil Breather package that incorporates oil fill and drain ports.

\*\* 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)*



*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 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

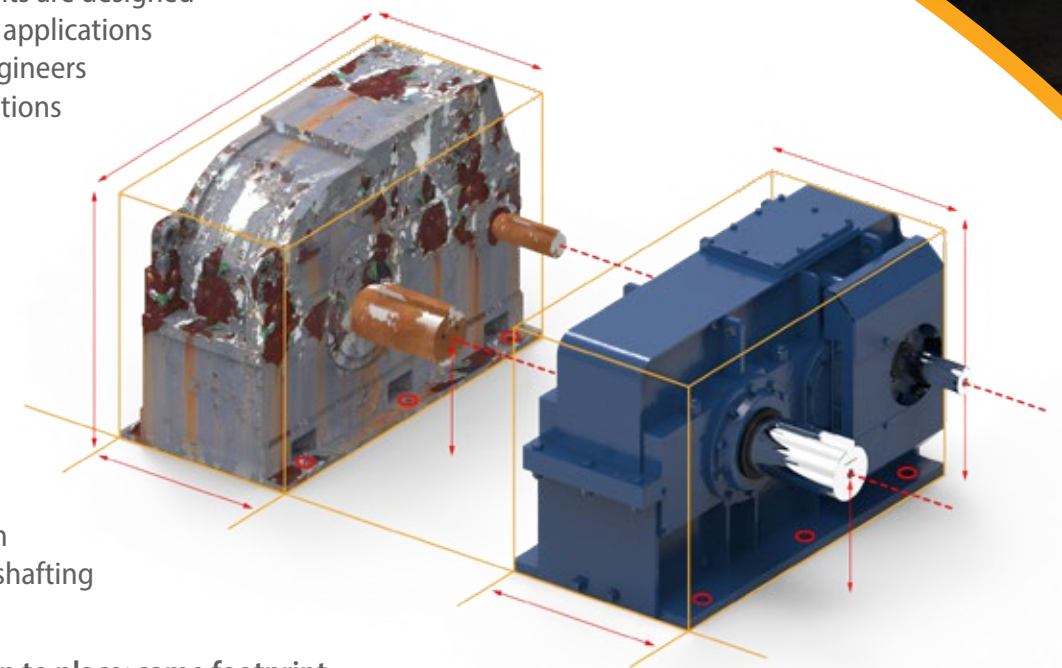
*Match existing unit's critical dimensions*

Sumitomo's installation-ready units are designed specifically to drop-in to existing applications with no problems. Our expert engineers understand that on-site modifications or re-engineering your system is not always an option.

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

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



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

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

## **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.

## **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**

This purpose-built facility is specifically designed to handle the assembly of our large industrial gearboxes.



### **Lufkin, TX**

#### **Manufacturing and Services**

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



### **Glendale Heights, IL**

#### **Gearmotor Assembly and Support**

Houses our state-of-the-art paint system for our SHIELD360® packages for Cyclo®, BuddyBox®, and Hyponic®.