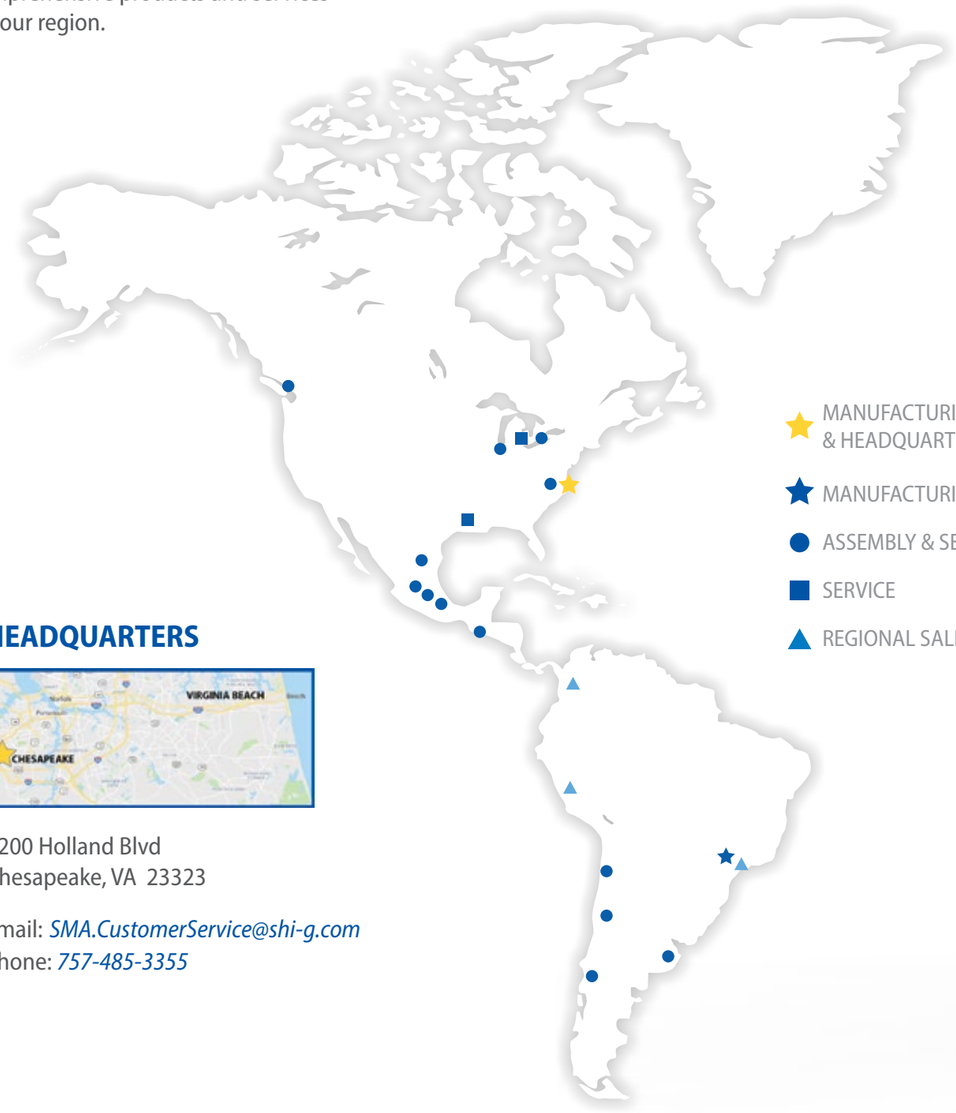


Sumitomo Drive Technologies

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



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

HEADQUARTERS

4200 Holland Blvd
Chesapeake, VA 23323

Email: *SMA.CustomerService@shi-g.com*
Phone: *757-485-3355*

Sumitomo Drive Technologies

GRAIN

INDUSTRY-LEADING DRIVES AND SOLUTIONS



Why choose Sumitomo Drive Technologies for Grain applications?

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

WE KNOW THE GRAIN INDUSTRY

The grain industry is a **widely diverse** industry with facilities ranging from small country elevators that may run a few hours a week to extensive, continuous production facilities consuming hundreds of thousands of bushels a day. Likewise, the products produced are **enormous**, ranging from food ingredients and animal feeds to fuel.



Cyclo® Technology

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

- High ratios in a small space envelope.
- 500% momentary shock load capacity.
- Universal mounting arrangements.

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.

Screw Conveyor Drives

We offer **unique** solutions to withstand a variety of harsh conditions with optimal performance.

- CEMA standard screw conveyor options.
- High torque density and compact size.
- Drop-In replacement for all AGMA style units.

Hansen Desolventizer Toaster Drives

The DT Drive is an **application adapted** design, carefully upgraded to meet the rigorous demands.

- Robust thrust bearing arrangement.
- Housing machined for additional high thrust support.
- Lubrication maintenance and monitoring design considerations.



CYCLO® BBB4 Screw Conveyor Drive

Right-angle, rugged ductile iron housing option allows for **maximum mounting flexibility**.

- **Maintenance-free** options available
- **No** V-belt drives or associated guards to replace
- **Double** output seals for a virtually leak-free operation



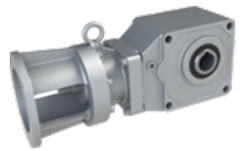
CYCLO® 6000

- Cycloidal Technology
- Optimal Efficiency
- Maintenance-Free



HANSEN DT Drive

- Dedicated Vertical Housing
- Low-Noise Gearing
- High Thrust Bearing Arrangement



HYPONIC®

- 93% Efficiency
- Maintenance-Free
- Large Ratio Range



PARAMAX® 9000

- AGMA Class 11+ Gearing
- Power Dense
- Integral Backstops



CYCLO® HBB

- Cycloidal Technology
- No Thermal Limits
- Taper-Grip® Bushing



HELICAL Shaft Mount

- Taper-Grip® Bushing
- Compact Design
- CEMA SCD available

We meet the challenges that the grain industry faces every day.

We have the reliable solutions to meet any demand.



THE CHALLENGE: Variation

Each type of facility and grain has **unique** operational, dimensional, and power requirements and various grain handling systems. The net result is a very **disparate population** of gear reducers throughout the industry. Given this dissimilar mix of products, it is challenging to find one provider that can serve **all** the power transmission needs of the grain industry.

INDUSTRY PROBLEMS:

- **Low** efficiency
- Oil **leakage**
- **Difficult** to obtain parts / spare units
- **Oversized** products
- **Frequent** maintenance and repairs
- **Complex** power trains
- **Hard to manage** support from multiple providers
- **Limited** mounting options available



THE SOLUTION: One Provider

We manufacture a **comprehensive lineup** of speed reducers and gearmotors specifically designed to meet the needs of service in the grain industry. With more than 50 years of experience, Sumitomo Drive Technologies is a **complete modern solution** providing highly efficient, dependable solutions for the most difficult applications.

OUR PROBLEM SOLVERS:

- **Dedicated vertical drives** with Hansen P4 product
- **Maintenance-free** options available
- Readily available **modular** design concepts throughout product range
- **Compact**, space-saving, and energy **efficient** designs
- **Elimination** of sheaves, belts, bushings, and guards
- **Quiet**, power-dense units with wide ratio availability
- **Comprehensive** support for all of our products
- **Maximum** mounting flexibility
- Retro-fit, Drop-In, and Custom **options**

Storage & Conveying



Cleaning



Flaking



Pulverizing



Toasting



Squeezing



Extruding

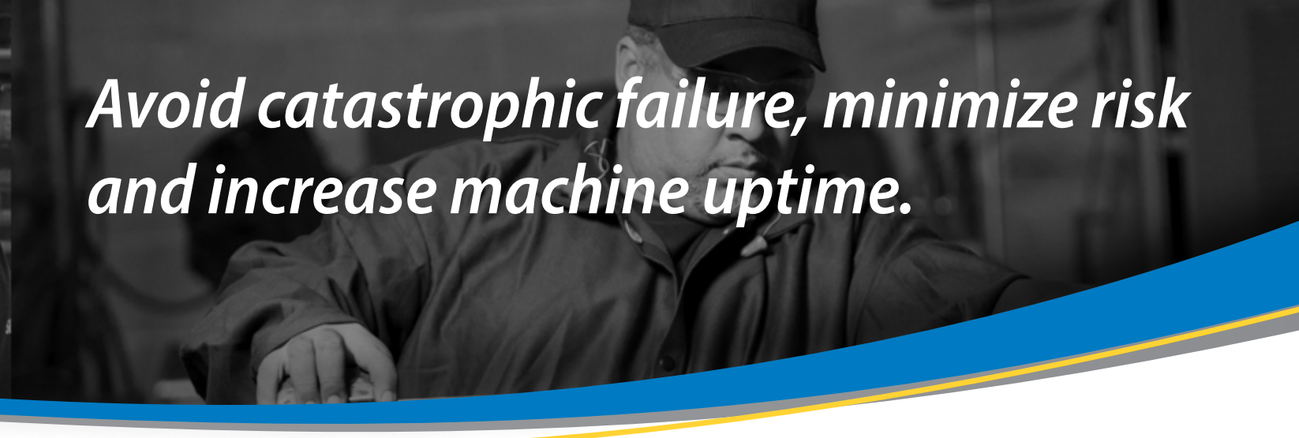


Cooling





From transition bases to custom units, we'll have you back up and running.



Avoid catastrophic failure, minimize risk and increase machine uptime.

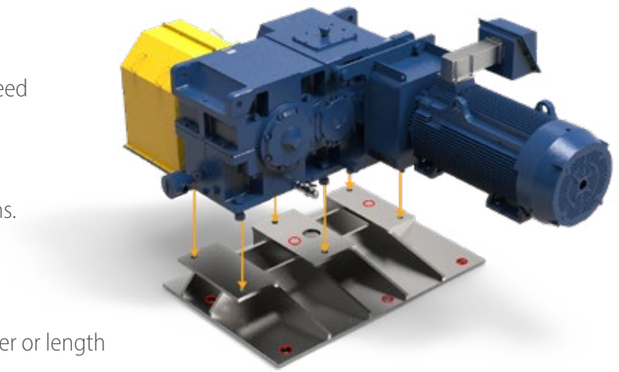
RETRO-FITS & DROP-INS

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.

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



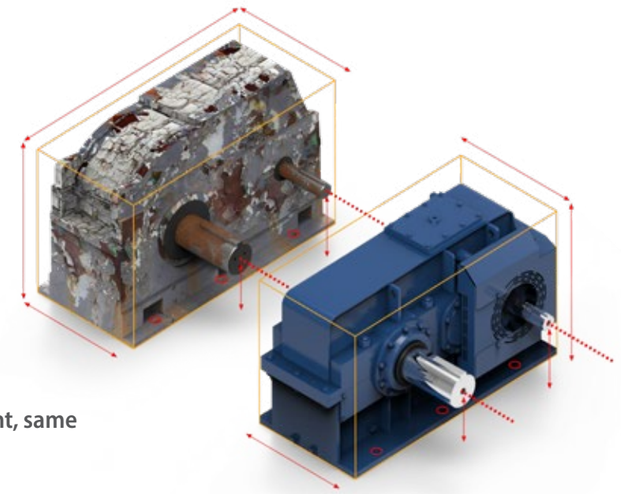
DROP-IN
Match Existing Unit's Critical Dimensions

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.

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!



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.

CycloSMART®

Condition Monitoring
Fully customizable accurate real time condition data of any piece of rotating equipment.

DriveSMART

Reliability Monitoring
Aids consistent collection of data. For vibration analysis, oil condition, and cleanliness testing.*

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



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

US.SumitomoDrive.com/CycloSmart

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*

- *IP20*
- *IP66* — *Non-Switched*
- *IP66* — *Switched*
- *IP20*
- *IP55*
- *IP66*

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.

NFC
Bluetooth

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.

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)*

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*



Our factory capabilities support all of your gearbox needs.

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

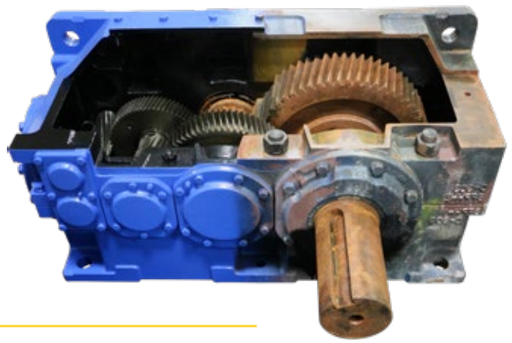
Most of the **services** offered and customized **training** can be performed **on location**.

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** and **Riverside** facilities are a core part of our operation. They bring **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.

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



email: *SMA.Service@shi-g.com* **phone:** *757-485-3355* **web:** *US.SumitomoDrive.com*

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.