



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
- ▲ REGIONAL SALES OFFICE



Global Headquarters,
Tokyo, Japan

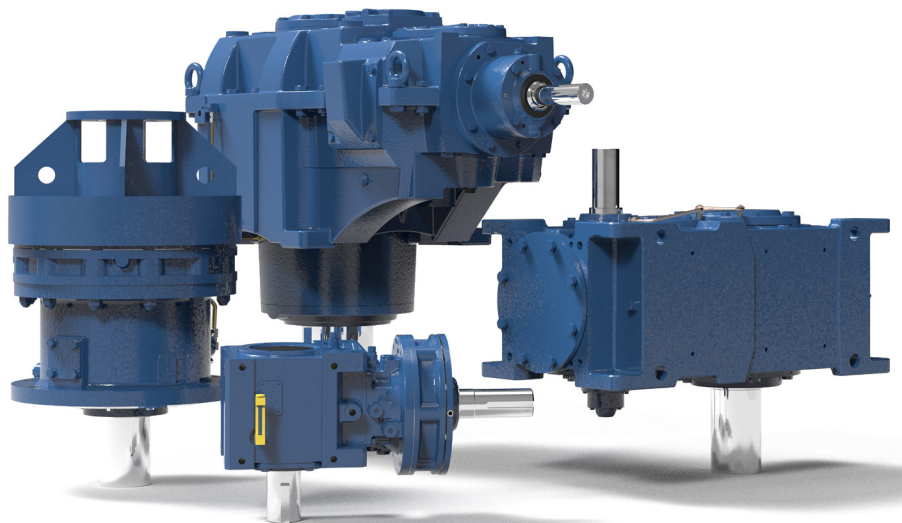
www.sumitomodrive.com

For worldwide locations, please visit www.sumitomodrive.com/worldwide
Contact your local representative at www.sumitomodrive.com/representative
Tel: 1-844-SM-CYCLO (762-9256)

Brochure 01.H07.002



Mixer Drives





SPLIT HOUSING

Rugged, split housing for horizontal and vertical applications. Round housing tops help keep the unit free from debris. Stepped housing design means a small mounting footprint.

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.

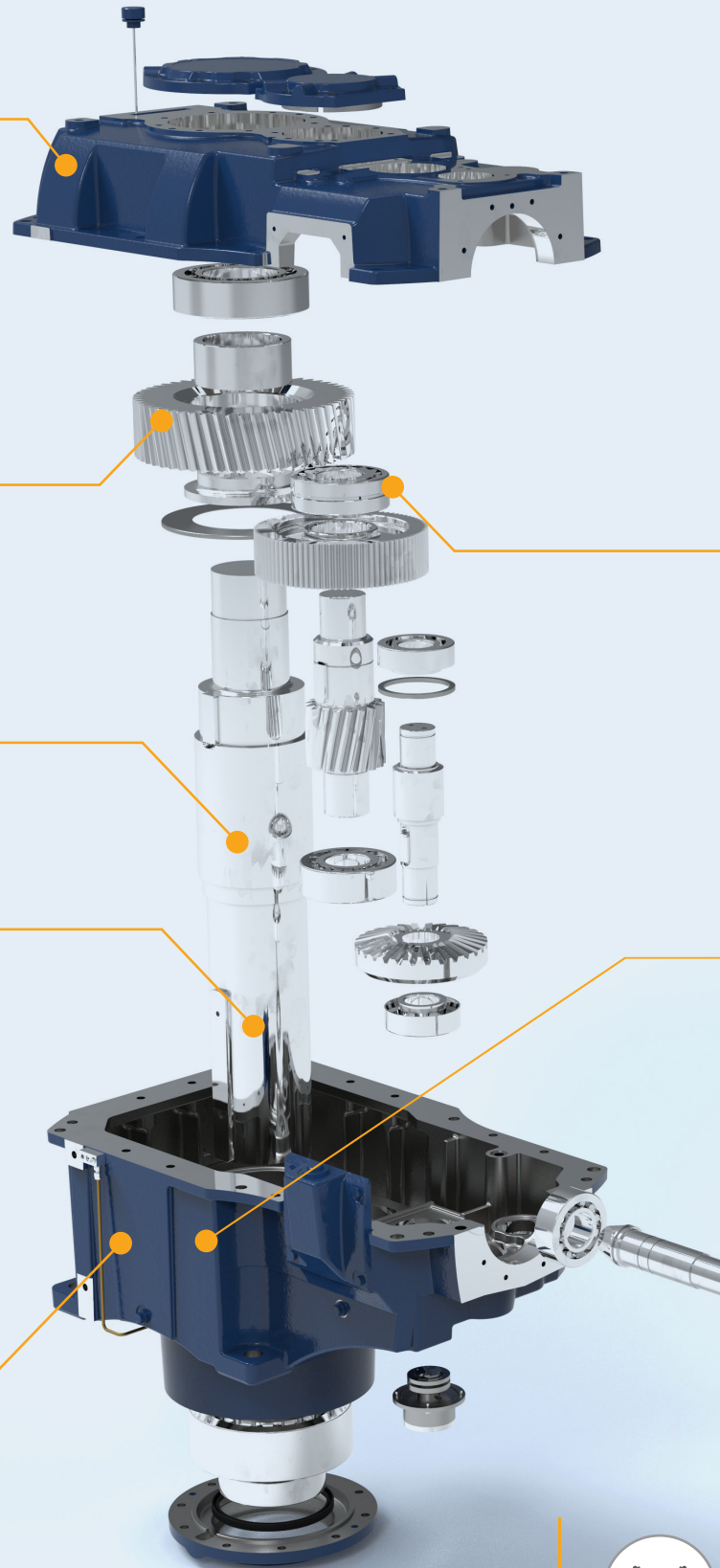
SLOW-SPEED SHAFT

Shaft projections include captured keyways with rounded end key inserts to eliminate stress concentrations. Standard low-speed shaft upgrades include:

- Reinforced Solid Shaft
- Extended Bearing Housing
- Hollow Shaft with Shrink Disc
- Hollow Shaft with Keyway.

INTERNAL POCKETS

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



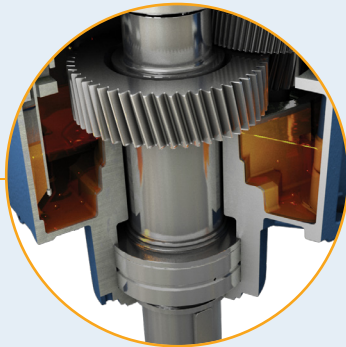
P4 HANSEN P4

The Hansen P4 offers high radial and axial load carrying capabilities, with a dedicated vertical housing. Its exclusive design offers the ability to increase shaft size to handle larger loads without increasing the unit's case size. The P4 is a highly customizable gearbox with standardized industrial gear units that feature low noise and minimum weight. The split gear housing design also makes the unit easy to service without having to remove the equipment.

The Hansen P4 vertical gearbox is available in 17 different sizes, with up to 9,700,000 lb·in. output torque. It offers two, three, and four stages and reduction ratios between 6.4:1 and 500:1. The housings are available with a parallel or right-angle shaft configuration, with either a solid or hollow low-speed shaft.

LOW SPEED BEARINGS

Standard arrangement includes spherical roller bearings for combined axial and radial shaft loads. Bearing Upgrades are available for the most demanding mixer shaft loads.

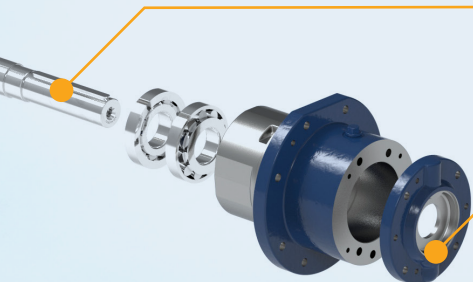


INTEGRATED DRYWELL

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 are suitable for interference-free coupling connections.



MAINTENANCE-FREE OIL-LOCK®

Standard high-speed seal is a dynamic non-contact seal arrangement. Non-contact seals are maintenance-free and will not damage the shaft during operation.

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)

INDUSTRIES



Chemical



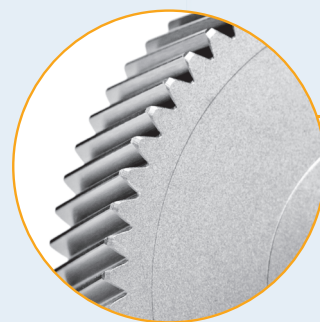
Mining



Water Treatment

CASE CARBURIZED GEARING

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



AVAILABLE SPLIT HOUSING

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

PX PARAMAX® 9000

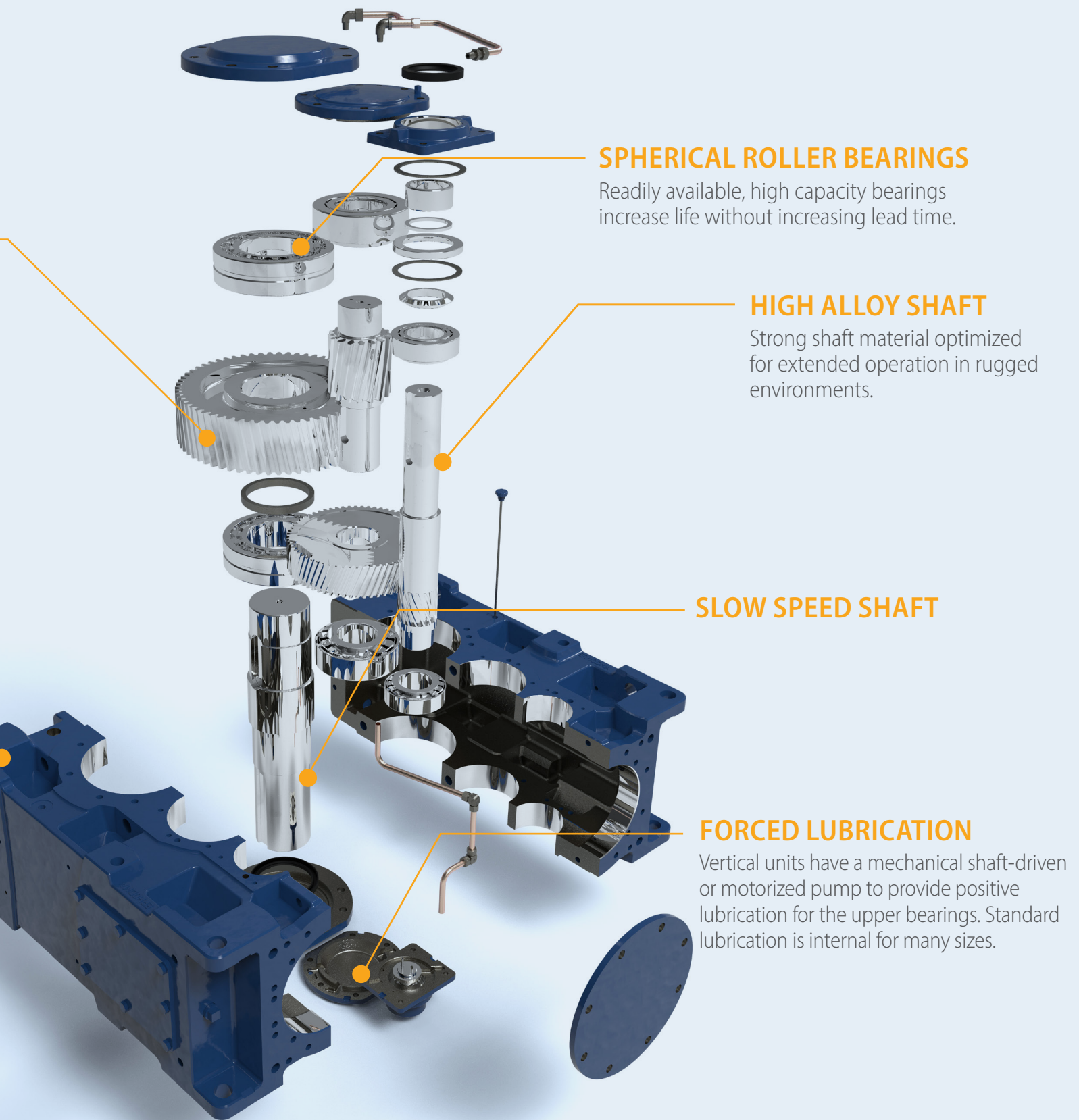
Built upon seventy years of Sumitomo excellence, Paramax® 9000 vertical mixer drives are some of the largest and most durable power transmission systems operating in the world. The Paramax® 9000 product line features double, triple and quadruple reduction gearboxes, global standardization and 26 frame sizes.

SPECS



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





SPHERICAL ROLLER BEARINGS

Readily available, high capacity bearings increase life without increasing lead time.

HIGH ALLOY SHAFT

Strong shaft material optimized for extended operation in rugged environments.

SLOW SPEED SHAFT

FORCED LUBRICATION

Vertical units have a mechanical shaft-driven or motorized pump to provide positive lubrication for the upper bearings. Standard lubrication is internal for many sizes.

DIAMETER
58mm to 360mm
(Hollow & Solid)



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



RATIO RANGE
Up to 500:1
Standard

INDUSTRIES



Food & Beverage



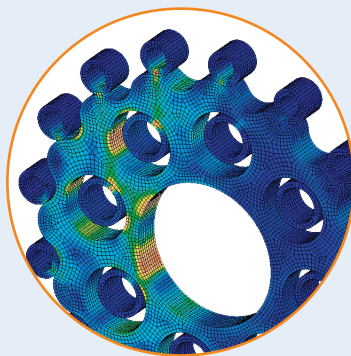
Wastewater



Plastics

C-FACE MOTOR ADAPTER

Fabricated steel with a wide variety of input options available.



500% MOMENTARY SHOCK LOAD

The Cyclo® design spreads the load across 2/3 of the reduction components, enabling the units to absorb and dissipate shocks better than typical concentric drives.

RING GEAR HOUSING

High power density, all reduction contained in compact ring gear housing.

HOUSING

Rugged, shock-resistant cast iron housing. Optional ductile iron housing also available.

CYCLO® 6000 MIXER DRIVE

The revolutionary Cyclo® design is remarkably efficient at all ratios. We offer multiple output flange styles and extended base designs. Oil leaks are eliminated by a combination of dual output seals with seal collars and grease lubrication or shaft-driven lubrication pumps. The extremely compact design minimizes space requirements while providing the capability to resist the bending loads inherent to mixing applications.

SPECS





* Rating applies to specific products.

CYCLO® DISC

All reduction components are fully hardened, vacuum degassed bearing grade steel for consistent, reliable performance.

SLOW-SPEED SHAFT

LUBRICATION PUMP

insures lubricant get all the way to the top bearings and minimizes the amount of oil required to maximize the unit's life.

TANDEM SEALS

Wear sleeves and pressure-rated seals to prevent leaks.

HP RATING
Up to 200 HP
(150 kW)



DIAMETER
Up to 7.5 inch
(190mm)



TORQUE
Up to 383,000 lb•in
(42,273 N•m)



RATIO RANGE
Up to 119:1 (Single)
Up to 7569:1 (Double)
Up to 658,503:1 (Triple)

INDUSTRIES



Cosmetics



Chemical



Pharmaceutical

DUCTILE IRON HOUSING

Twice as strong as cast iron, making it one of the most rugged bevel gearboxes on the market.

DRYWELL ASSEMBLY

An optional additional protection against oil leaks, as the output bearings are grease lubricated.

TAPERED BEARINGS

Resist axial and radial loads simultaneously.

TANDEM DUAL LIP SEALS

Prevent leaks and exclude contaminants.



* Rating applies to specific products.

SPECS



HP RATING
Up to 60 HP
(45 kW)



DIAMETER
Up to 4.75 inch
(130 mm) (Solid)
Up to 4.25 inch
(120 mm)
(Hollowed)



TORQUE
Up to 159,983 lb•in
(17,400 N•m)



ONE PIECE PINION

Oversized, single-piece pinion provides a robust solution capable of 300% momentary shock-load. Designed and manufactured in the USA.

100% HARDENED STEEL COMPONENTS

Provide long life, smooth operation, and superior strength.

BEARING

CYCLO® DISC

All rotating components are fully hardened, vacuum degassed bearing grade steel for consistent, reliable performance.

HIGH-SPEED SHAFT

B4 CYCLO® Bevel BuddyBox® 4



RATIO RANGE
*Up to 26,000:1
and greater*

The power-dense Cyclo® Bevel BuddyBox 4 (BBB4) is a robust state-of-the-art, mid-sized family of right-angle gearboxes. Robust tapered output bearings and tandem output seals yield efficient and reliable mixer drives. Cyclo® technology, integrated into innovative products, generates the most complete range of solutions available.

OPTIDRIVE E3



Compliant with international standards.

GENERAL PURPOSE DRIVE

Compact, robust, and reliable general purpose drive.

Focused on ease of use, Optidrive E3 provides **unrivalled 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

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)

• IP20



• IP66



Switched

• IP66



Non-Switched

• IP20



• IP55



• IP66



ENCLOSURES

Select Language
Español
Deutsch
▶ English

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



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

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.





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

Drop-In

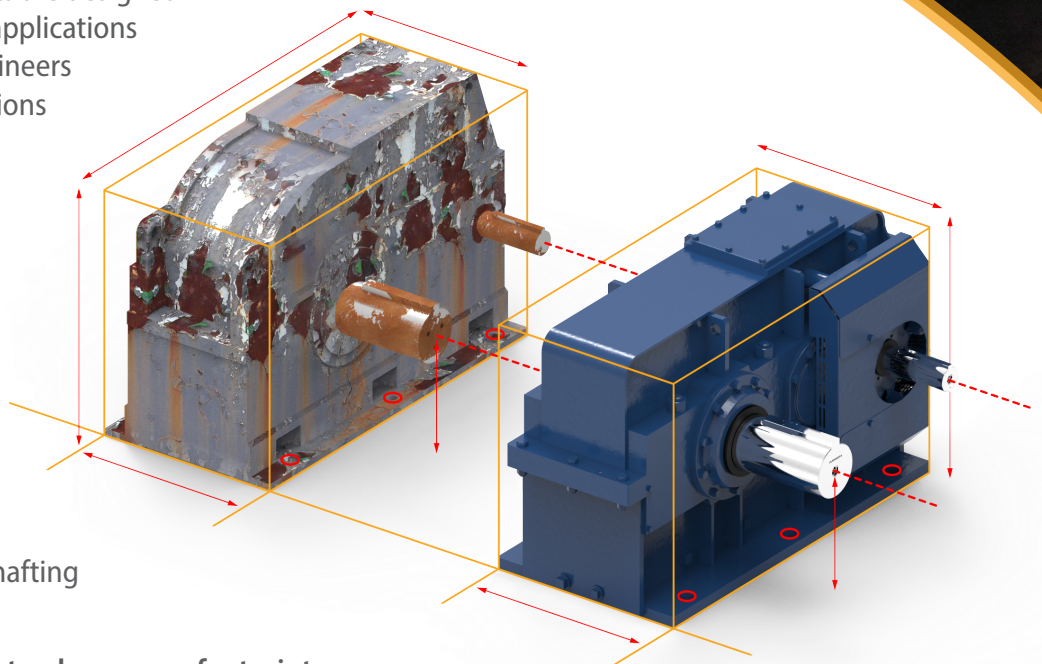
Match existing unit's critical dimensions

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!

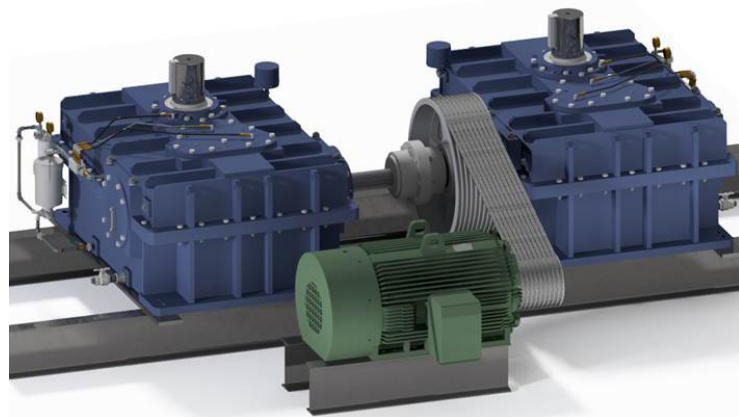
This product will literally drop-in to place; same footprint, same shaft positions!



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

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





*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.



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!

Learn more at: SumitomoDrive.com/CycloSmart

* 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.

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

Aftermarket Service and Repair

SMC's Service personnel are the industry's most versed gearbox problem solvers. Sumitomo's Aftermarket Group provides both standard and tailored services, for maximum gearbox life, overall operational performance and product throughout.

Sumitomo further realizes that gearbox maintenance programs effectively administered, can translate into longer intervals between servicing, that lead to less planned and unplanned downtime, less man-machine interaction for enhanced worker safety, reduced parts inventory and the ability to redirect manpower to other plant areas that may need greater attention.

Flexible Solutions for Your Business Needs

SERVICE SOLUTIONS

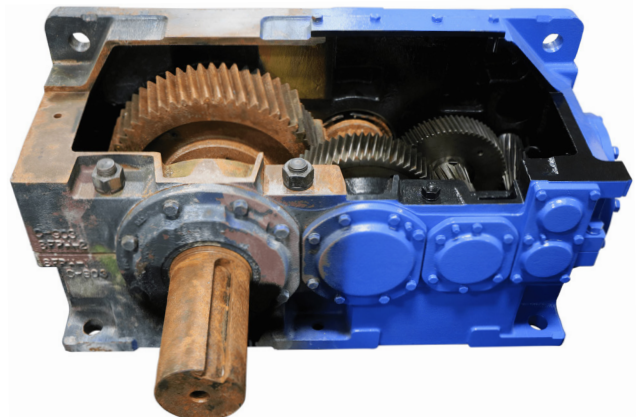
- Engineering Design and Analysis
- Reverse Engineering of Customer Components
- Design Upgrade Recommendations
- Disassembly and Evaluation of Gear Units
- NDT Inspections
- Manufacturing of Gear Components
- On-Site Technical Support for Customer Repairs
- Field Service Rebuilds and Repairs
- Commissioning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



Serviced and repaired right here in Canada

SUPPORT SOLUTIONS

- Parallel shaft units (All Reductions)
- Right-Angle Industrial
- All Hansen and Paramax® Reducers Replacement



Learn more by scanning this QR Code!

