

Sumitomo Drive Technologies **Product Showcase**



We offer a comprehensive lineup of high quality power transmission products.

For any of your power transmission needs, we have the right product for you.

Robust, Reliable, Efficient



G CYCLO[®] 6000

- Up to **235 HP** (175 kW)
- 1/2in to 7in (Solid Shaft)
- Up to **603,000 lb•in** (68,130 N•m)
- 3:1 up to 658,503:1



HYPONIC®

- Up to **15 HP** (11 kW)
- 3/4in to 2in (Hollow & Solid)
- Up to **13,100 lb•in** (1,480 N•m)
- 5:1 up to 1,440:1



B4 CYCLO® BBB 4

- Up to **100 HP** (75 kW)
- 1in to 4-15/16in (Hollow & Solid)
- Up to **159,983 lb•in** (18,076 N•m)
- 11:1 up to 26,000:1 and greater

No Matter the Application



MOTION Control

- Zero mechanical backlash
- Up to 138mm (Hollow Bore)
- Up to **265,522 lb•in** (30,000 N•m)
- 29:1 up to 283:1



HB CYCLO® HBB

- Up to **40 HP** (30 kW)
- 1-3/16in to 6-1/2in (Hollow Bore)
- Up to **75,800 lb•in** (8,564 N•m)
- 11:1 up to 26,492:1



HS HELICAL Shaft Mount

- Up to 300 HP (224 kW)
- **107** to **608** (Hollow Bore)
- Up to **388,884 lb•in** (43,938 N•m)
- 5:1, 9:1, 14:1, 20:1, 25:1



INVERTERS E3 & P2

- Up to **350 HP** (250 kW)
- 200 to 600V (Single & 3-Phase)
- Up to 200% (From Zero Speed)
- Up to 200% Overload (4 secs)



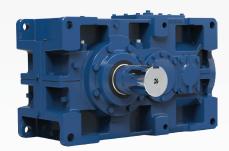
BH BBB-H

- Up to **15 HP** (11 kW)
- 1in to 2-3/16in (Hollow)
- Up to **9,028 lb•in** (1,020 N•m)
- 5:1 up to 20:1



FORTRESS®

- Up to **2 HP** (1.5 kW)
- 3/4in to 1-7/16in (Hollow & Solid)
- Up to **1,970 lb•in** (223 N•m)
- 7:1 up to 60:1



PARAMAX® 9000

- Up to **5,230 HP** (3,900 kW)
- 58mm to 360mm (Hollow & Solid)
- Up to **4.9m lb•in** (552,000 N•m)
- Up to 500:1 Standard



P4 HANSEN P4

- Up to **14,080 HP** (10,500 kW)
- **3.15in** to **15.75in** (*Solid Shaft*)
- Up to **9.7m lb•in** (1.1m N•m)
- Up to 630:1 (and custom ratios)



U UNIMINER

- Up to **2,300 HP** (1,738 kW)
- 4-5/8in to 7-1/2in (Hollow & Solid)
- Up to **889,000 lb•in** (100,445 N•m)
- **10:1** to **71:1** (and custom ratios)











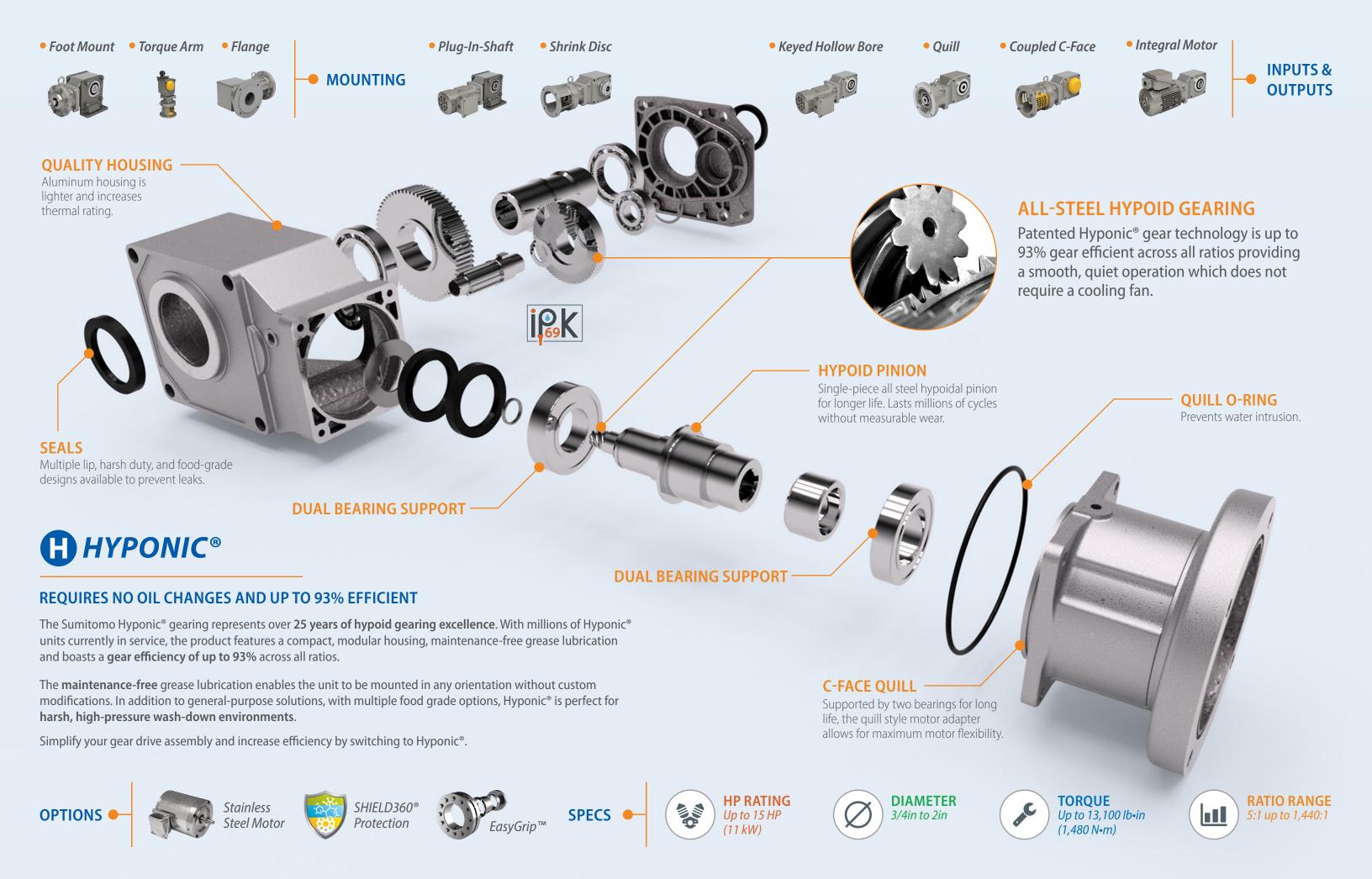


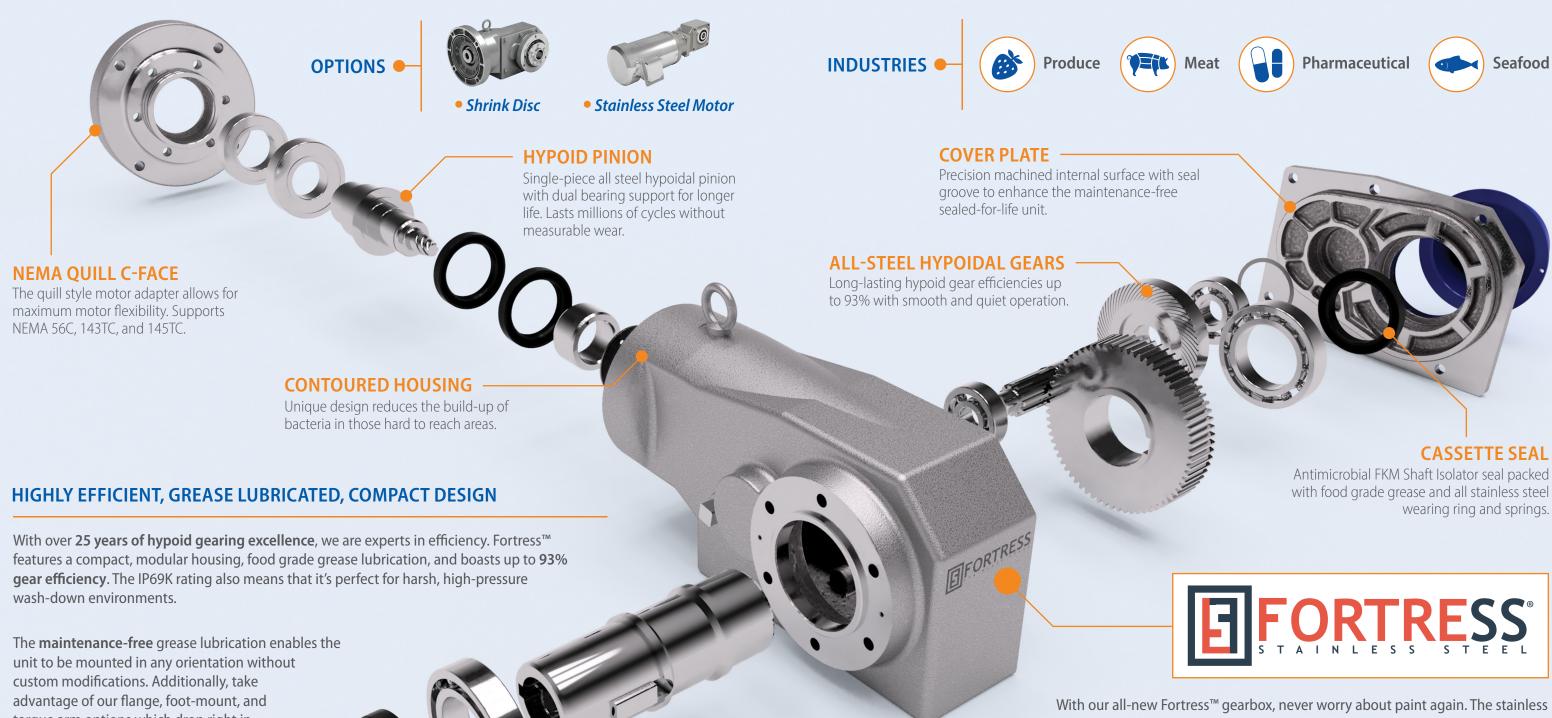












torque arm options which drop right in, allowing you to conveniently replace those

old, inefficient gearboxes.

Simplify your gear drive assembly, increase switching to Fortress™.

your efficiency, and protect your operation by













Flange Mount

Our cutting-edge in-house laser etching technology ensures a cleaner finish by eliminating the need for

an attached nameplate. This, coupled with our patented hypoid gear technology, means you have a cooler



operating, more efficient, cleaner, and maintenance-free operation.

steel cast 304 housing offers resistance to the most caustic environments and the

unique contour design reduces the build-up of bacteria in those hard to reach areas.



Foot Mount

Torque Arm



























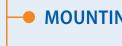
Taper-Grip® **Bushing**

















COE









Disc





DUCTILE IRON HOUSING

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

OPTIONAL TACONITE SEAL ASSEMBLY

Heavy-duty, fortified, grease purgeable system withstands the most demanding applications.



Resist axial and radial loads simultaneously.



Prevent leaks and exclude contaminants.



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

B4 CYCLO® BEVEL BUDDYBOX® 4

RIGHT ANGLE SPIRAL BEVEL WITH CYCLO® OR PLANETARY INPUTS

A robust, state-of-the-art, mid-sized family of speed reducers and gearmotors. The Cyclo® BBB4 has a unique combination of features that result in a highly reliable, efficient, and durable gearbox. The all-steel internal construction, Cyclo® or planetary gear inputs and the ductile iron housing, provide unmatched ruggedness.

Also available as a mixer drive with an integrated drywell and space-saving footprint.

CYCLO® DISC

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

MOBIL SHC™ GEAR HI-SHOCK 150

- High-Performance Synthetic Lubricant
- Available for Cyclo® Products
- Extends the Life up to 3 Times
- Available 3-Year Warranty



















Hollow Shaft

• Keyed Hollow Bore

Taper-Grip® Bushing

Gearmotor

Brakemotor

Ouill

C-Face

























LONG LIFE BEARINGS

Oversized, heavy-duty bearings for maximum strength and service life.



MOBIL SHC™ GEAR HI-SHOCK 150

- High-Performance Synthetic Lubricant
- Available for Cyclo® Products
- Extends the Life up to 3 Times
- Available 3-Year Warranty

HELICAL GEARING

Hardened-steel gearing.

HB CYCLO® HELICAL BUDDYBOX®

INNOVATIVE SHAFT MOUNTED DRIVE SOLUTIONS FOR DEMANDING APPLICATIONS

The Cyclo® HBB combines the quiet, efficient, and reliable performance of the Cyclo® input with the rugged helical gear output. The modular design provides a compact, efficient product and the most flexible range of output speed and torque combinations available.

The simple splash lubrication system extends the life of the unit and the highly efficient design has no thermal **limitations** which eliminates the need for an external fan.

DOUBLE OUTPUT SEALS

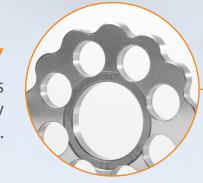
TAPER-GRIP BUSHING®

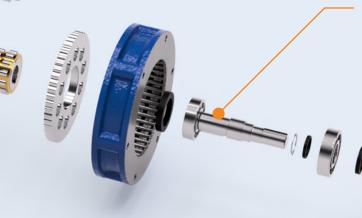
Our patented Taper-Grip® bushing system offers simple shaft mounting and provides self-aligning, backlash-free torque transmission to the driven shaft.

MONOBLOC HOUSING

Cast iron housing is strong, corrosion resistant, and sound dampening. Monobloc design eliminates leaks at housing split.

CYCLOIDAL TECHNOLOGY

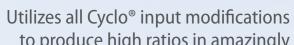






HIGH SPEED SHAFT





to produce high ratios in amazingly small spaces.







HP RATING Up to 40 HP (30 kW)

















HARDENED STEEL GEARING













QUALITY HOUSING

Aluminum housing is lighter and increases thermal capacity.





BEVEL PINION & HELICAL GEARING

A combination of power and speed. Up to 97% gear efficient across all ratios providing a smooth, quiet operation which does not require a cooling fan.

BEVEL PINION

Single-piece all steel bevel pinion for longer life. Lasts millions of cycles without measurable wear.



EXTREMELY EFFICIENT AND COMPACT WITH LOW REDUCTION RATIOS

BH BEVEL BUDDYBOX® H SERIES

The combination of a **Bevel Input** and a **Helical Output** make this unit **extremely efficient** with the capacity for input speeds up to 3,600 rpm. Dependable hardened steel gearing inside a lightweight, compact housing allows for easy installation with less load on the head shaft. Aluminum construction provides high thermal capacity.

The maintenance-free grease lubrication enables the unit to be mounted in any orientation without custom modifications. The **greater efficiency** of the BBB-H allows for use of a **smaller motor**, resulting in the same performance with much lower operating costs. Its power and speed make this unit perfect for airport baggage handling and general conveying applications.



Supported by two bearings for long life, the quill style motor adapter allows for maximum motor flexibility.











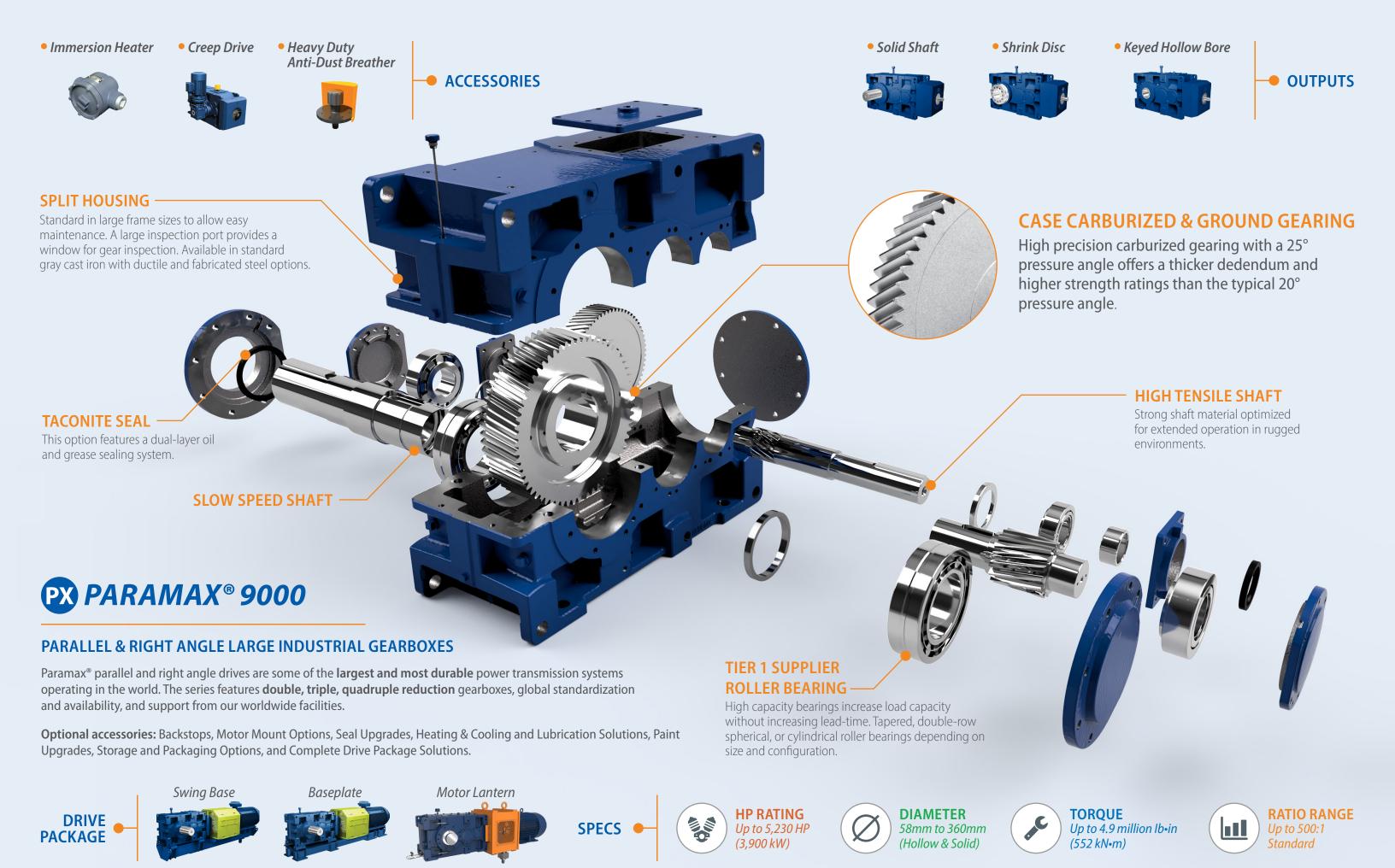












Single-Stage



Normal Solid Shaft Hollow Shaft - Shrink Disc

VERTICAL SHAFT **OPTIONS**

Extended Bearing



Pilot or Flange MountHollow Shaft





SPLIT HOUSING

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

GEARS -

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

PINION SHAFTS -

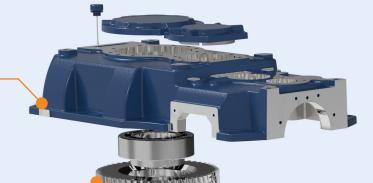
Rigid standardized pinion shafts and housings for better lateral load distribution.

SLOW-SPEED SHAFT

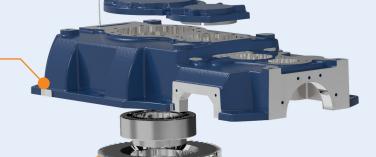
Shaft projections include captured keyways with rounded end key inserts to eliminate stress concentrations.

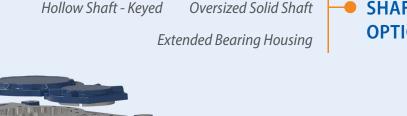
INTERNAL HOUSING

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











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.



INTEGRATED DRYWELL

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



UniMiner Flippable housing and horizontal *split line make the ideal alignment-free* drive package for mining



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)

















Coupling

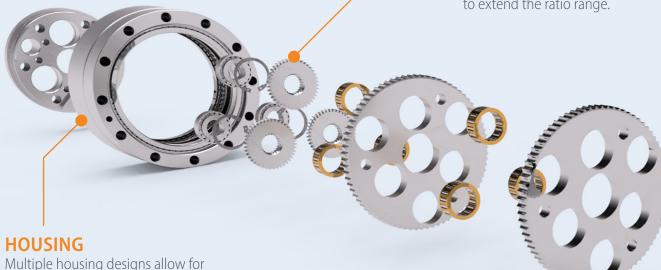
Clamp Ring





PLANETARY PRE-STAGE

Integrated triple spur gear prestage to extend the ratio range.



SUN GEAR PINION

Input shaft driving the planetary prestage. Available in all input styles.

MC MOTION CONTROL

versatile mounting options and a solution that easily integrates into your machine.

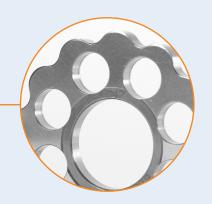
HIGH PRECISION POINT TO POINT AND TRAVERSE MOVEMENT

The Fine Cyclo® product series are high precision cycloidal gearboxes with zero backlash. These single and double stage gearboxes are highly compact in design, provide long life, and can be optimally integrated into your application. High torsion combined with their low moments of inertia, create ideal solutions for highly dynamic tasks.

A Series - High precision point to point movement. Single stage with high acceleration torque and bearing capacity.

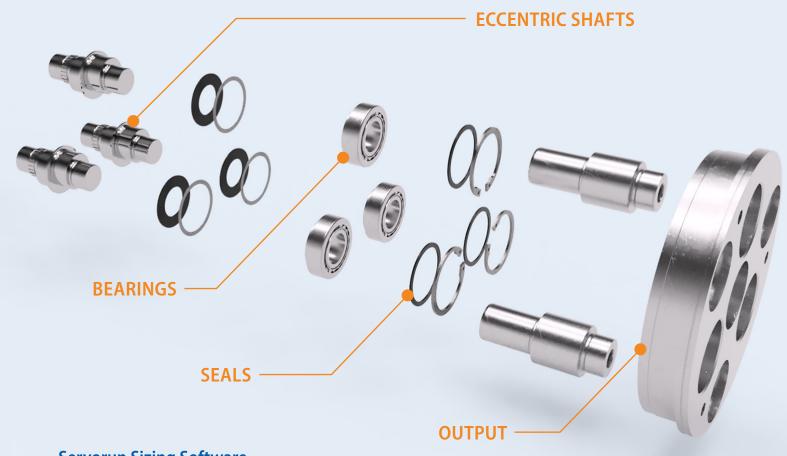
C Series - Large hollow shaft with high precision point to point movement. Fully sealed, single stage gearbox.

UA Series - Highly efficient traverse movement. Double stage gearbox with a planetary 1st stage and cycloidal 2nd.



CYCLO® DISC

The same proven Cyclo® technology found in our industrial reducers, designed and optimized for precision applications where zero backlash is required.



Servorun Sizing Software

As part of our support in the design phase of new applications, our sizing software Servorun verifies the gearbox selection as well as motor suitability.







Cyclo® Servo 6000











OPTIDRIVE E3







• IP20













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).





INTEGRATED DISPLAY

LED or 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.

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.







Altax®

Using our Cyclo® technology, the exceptionally robust Altax[®] line is compact and low noise. All models are maintenance free with grease lubrication. Altax® caters to a broad range of applications.

Torque: Up to 4,054 lb•in (458 N•m)

Ratio: Up to 1,003:1 HP: Up to 5 HP (3.7 kW)

Rhytax[®]

Right-angle shaft speed reducer. Helical gearing provides low noise and high efficiency in a compact body. It has enhanced optional installation methods: foot, flange, and hollow shaft.

Torque: Up to 74,789 lb•in (8,450 N·m)

Ratio: Up to 545:1 HP: Up to 60 HP (45 kW)



Provides a simple and convenient equipment interface by mounting directly on the drive shaft. Uses our patented Taper-Grip® Bushing for quick reducer mounting and removal.

Torque: Up to 388,884 lb•in (43,938 N·m)

Ratio: 5:1, 9:1, 14:1, 20:1, 25:1 HP: Up to 300 HP (224 kW)

Custom Gear Drives

Custom Mill, Planetary, and High-Speed Drives available in a wide range of configurations. Tough, compact, and application specific designs for unique applications including API requirements.

Torque: Up to 6,515,000 lb•in (736,000 N·m)

Ratio: Up to 1,400:1 Custom ratios available

Variators

Beier® Variator offers mechanical stepless speed control with high capacity and long life. Ideal for low horsepower, high torque applications requiring variable speed such as packaging machines.

Torque: Up to 603,620 lb•in (68,200 N·m)

Ratio: Up to 10:1

HP: Up to 200 HP (150 kW)

Motors

EP.NA motors are high performance, exceptionally cool running long lived motors with corona resistant insulation.

- UL, CSA,DOE Compliant
 Inverter Ready, 10:1 Turndown
- NEMA Premium Efficient
 Up to 74 HP (55 kW)

Encoders

Two standard incremental types

- 1) For non-brakemotors: AV32 magnetic type.
- 2) For brakemotors, or other uses: HS25A optical design.

Vibration: 5 to 2,000 Hz Shock: 50G, 11 mS duration

Speed: 6,000 RPM Ingress Rating: IP65

applications. All couplings are manufactured to the highest specifications, and meet the most rigorous material specifications.

Complete line of couplings for a wide range of

Torque: Up to 57m lb•in (6.4m N•m)

Couplings

Bore Size: Up to 35in Type: Flexible, Grid and Disc

Additional Services



Online product configurator streamlines the selection process, enabling you to build our power transmission products for your specific application.

www.SumitomoDrive.com/Configurator



Same day, 1-day, and 2-day shipping on many of our standard products. For more information about Quick Ship, please consult your Sumitomo representative. www.SumitomoDrive.com/QuickShip

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.



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.

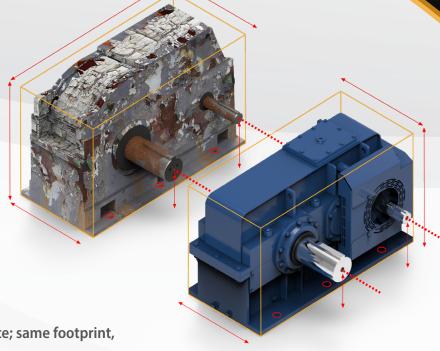
Installation-ready units are designed specifically to drop-in to existing applications with ease. Our expert engineers understand that on-site modifications or re-engineering your system is not always an option.

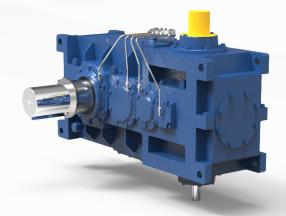
These stress-free units can have your application back up and running in no time. We offer fabricated steel housings, custom baseplates, custom gearing and shafting and more!

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

aCHECK ENGINE LIGHT ₹ 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

Expandable

Multi-reducer monitoring

Reliable

Schedule machine downtime to avoid lost production

Cost-Effective

Lower overall ownership cost



Our factory capabilities support all of your gearbox needs.



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 Sumitomomanufactured 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 (1)

For Your Convenience

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

phone: 757-485-3355

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.



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 250,000 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®.











Gearmotor Assembly and Support Our West Coast location offers repairs and supplies gearmotor products to U.S. customers.











