



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.



Sumitomo Machinery Corporation of America

www.SumitomoDrive.com

For worldwide locations, please visit www.sumitomodrive.com/worldwide
Contact your local representative at www.sumitomodrive.com/representative
Tel: 1-800-SM-CYCLO (762-9256)

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



C 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



H 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



MC 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)
- 40mm to 55mm (Hollow & Solid)
- Up to 9,028lb·in (1,020 N·m)
- 5:1 up to 20:1



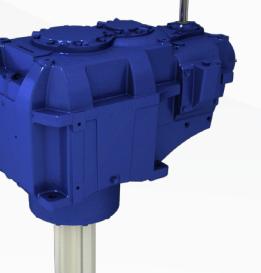
F FORTRESS®

- 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



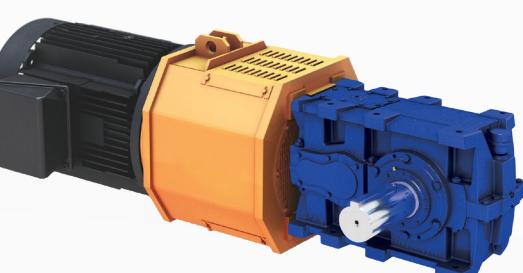
PX PARAMAX® 9000

- Up to 5,230 HP (3,900 kW)
- 5mm to 360mm (Hollow & Solid)
- Up to 4.9m lb·in (553,626 N·m)
- 6.3:1 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 2,330 HP (1,738 kW)
- 7.5in to 4.625in (Hollow & Solid)
- Up to 889,000 lb·in (100,445 N·m)
- 8:1 to 71:1 (and custom ratios)



C CYCLO® 6000

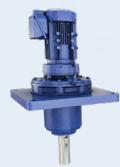
UNMATCHED RELIABILITY & EXCEPTIONAL PERFORMANCE

Cyclo® speed reducers and gearmotors are the premier in-line drives. The revolutionary Cyclo® design provides quiet, efficient, and reliable performance exceeding that of involute tooth gear designs.

Unlike geared designs, the Cyclo®'s reduction components operate in compression rather than shear, which results in exceptionally rugged and **shock resistant performance**.

The Cyclo® technology coupled with innovative product options and accessories offer the most extensive range of application solutions available.

OPTIONS



Overhead Drive



Mixer Drive

SPECS



HP RATING
Up to 235 HP
(175 kW)



DIAMETER
1/2in to 7in
(Solid Shaft)



TORQUE
Up to 603,000 lb·in
(68,130 N·m)



RATIO RANGE
3:1 up to 658,503:1

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

• Foot Mount



• Flange



• Shrink Disc



• Keyed Hollow Bore



• Integral Motor



• Quill



• Coupled C-Face



• Plug-In-Shaft



INPUTS & OUTPUTS

QUALITY HOUSING

Aluminum housing is lighter and increases thermal rating

SEALS

Multiple lip, harsh duty, and food grade designs available to prevent leaks

H HYPONIC®

REQUIRES NO OIL CHANGES AND UP TO 93% EFFICIENT

The Sumitomo Hyponic® gearing represents over 25 years of hypoid gearing excellence. With millions of Hyponic® units currently in service, the product features a compact, modular housing, maintenance-free grease lubrication and boasts a gear efficiency of up to 93% across all ratios.

The maintenance-free grease lubrication enables the unit to be mounted in any orientation without custom modifications. In addition to general-purpose solutions, with multiple food grade options, Hyponic® is perfect for harsh, high-pressure wash-down environments.

Simplify your gear drive assembly and increase efficiency by switching to Hyponic®.

OPTIONS



Stainless Steel Motor



SHIELD360® Protection



Easy-Grip™

SPECS



HP RATING
Up to 15 HP
(11 kW)



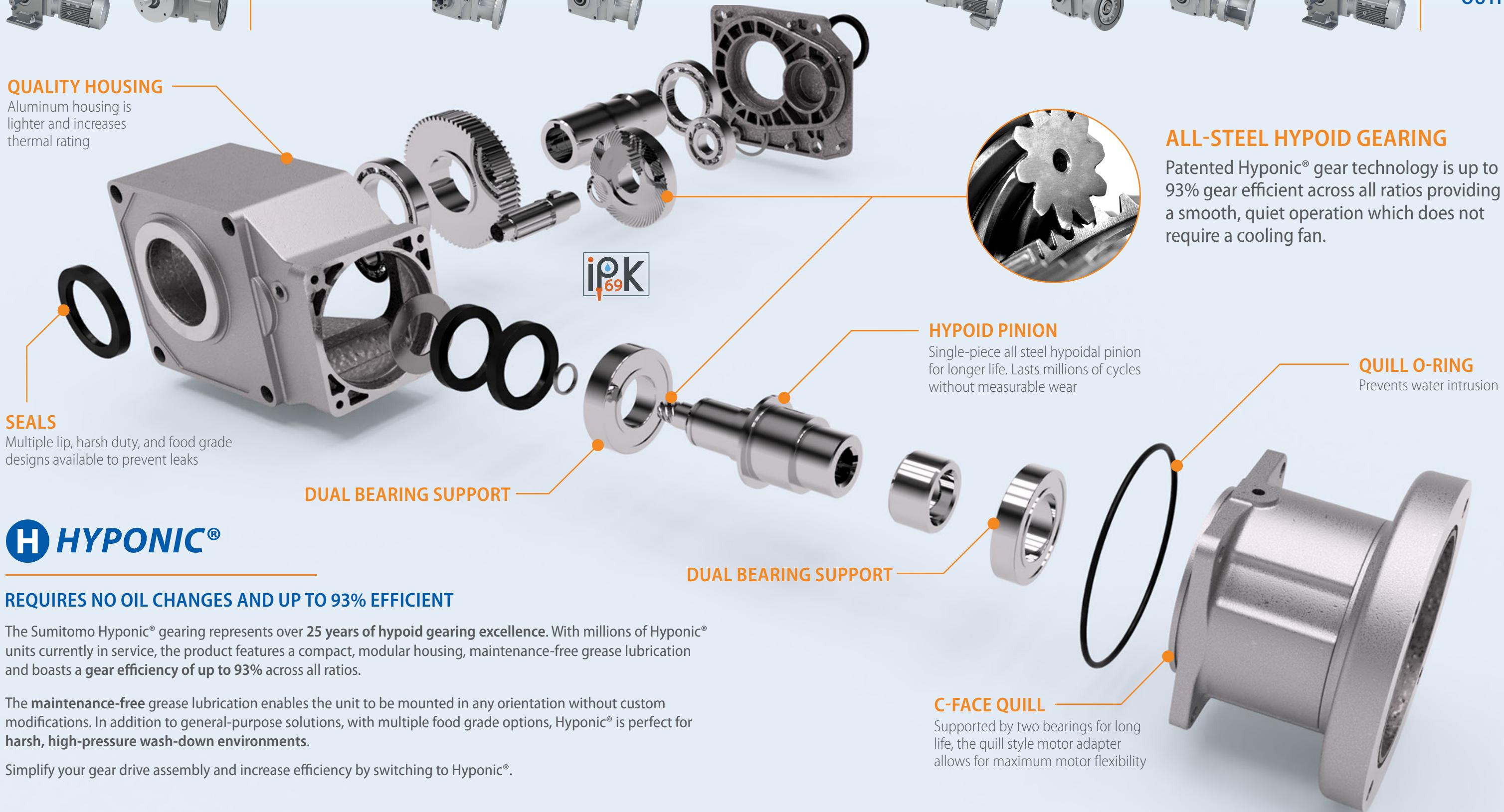
DIAMETER
3/4in to 2in

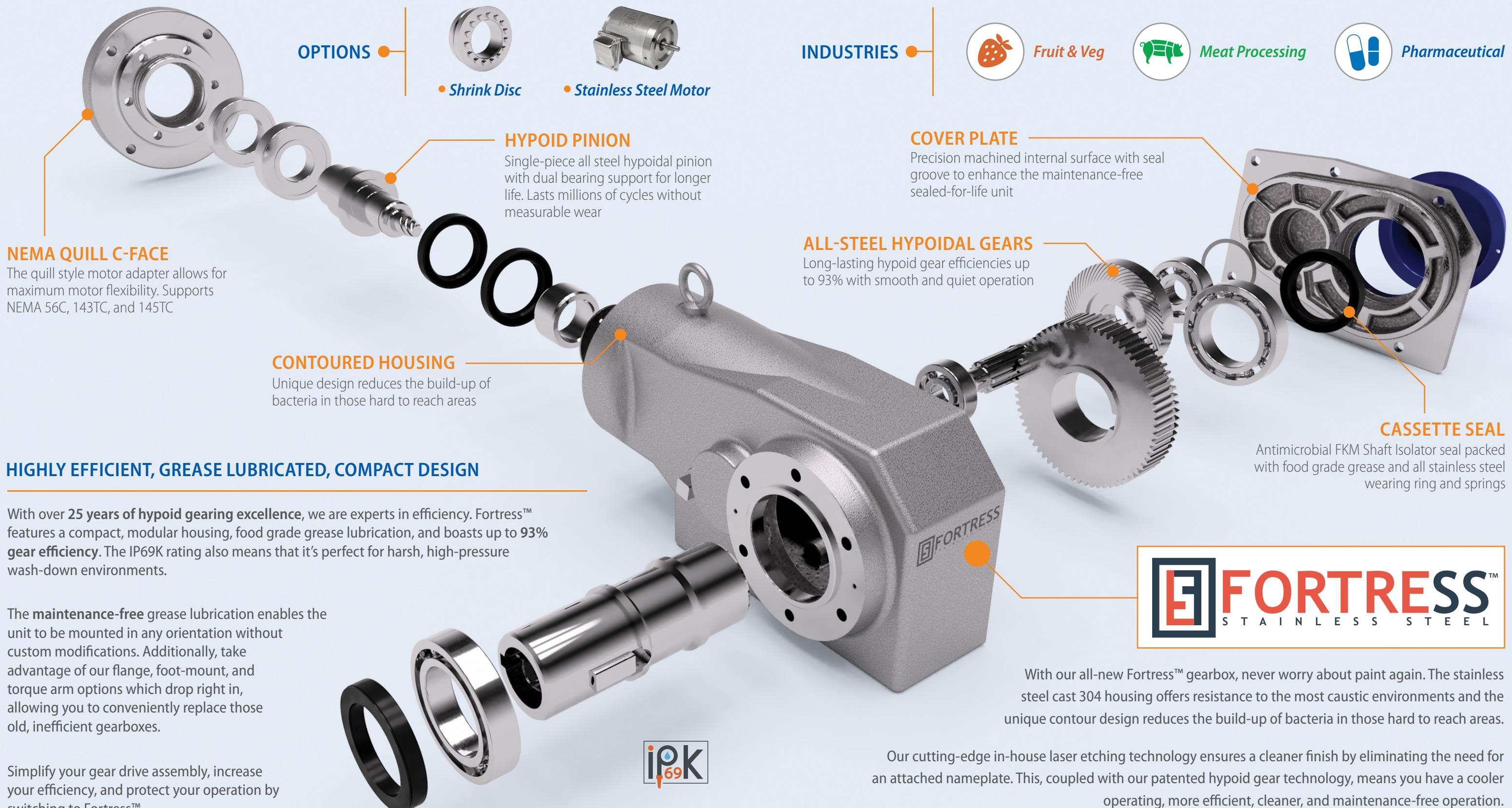


TORQUE
Up to 13,100 lb·in
(1,480 N·m)



RATIO RANGE
5:1 up to 1,440:1





• Flange

• Foot

• U Face



MOUNTING

• Taper-Grip® Bushing

• Shrink Disc

• Keyed Hollow Bore

• Solid Shaft

• Integral Motor

• Quill

• C-Face

INPUTS &
OUTPUTS

OPTIONAL TACONITE
SEAL ASSEMBLY

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

DUCTILE IRON HOUSING

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



TAPERED BEARINGS

Resist axial and radial loads simultaneously

•

TANDEM DUAL LIP SEALS

Prevent leaks and exclude contaminants



* Rating applies to specific products.

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.

BBBH design available for **low ratio options**.

ONE PIECE PINION

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

CYCLO® DISC

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

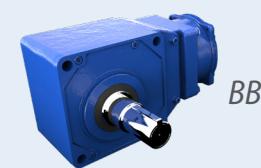
MOBIL SHC™ GEAR HI-SHOCK 150

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

OPTIONS



Screw
Conveyor



BBBH



Mixer

SPECS



HP RATING
Up to 100 HP
(75 kW)



DIAMETER
1in to 4-15/16in
(Hollow & Solid)



TORQUE
Up to 159,983 lb-in
(18,076 N·m)

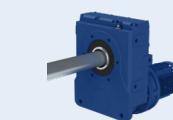


RATIO RANGE
11:1 up to 26,000:1
and greater

• Flange Mount

• Face Mount

• Hollow Shaft



MOUNTING

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

LONG LIFE BEARINGS

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



MONOBLOC HOUSING

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



HELICAL GEARING

Hardened-steel gearing



CYCLOIDAL TECHNOLOGY

Utilizes all Cyclo® input modifications to produce high ratios in amazingly small spaces.



OPTIONS



CEMA Screw Conveyor Drive



Lip Seal

SPECS



HP RATING
Up to 40 HP
(30 kW)



DIAMETER
1-3/16in to 6 1/2in
(Hollow Bore)



TORQUE
Up to 75,800 lb-in
(8,564 N·m)



RATIO RANGE
11:1 up to 26,492:1

• Taper-Grip® Bushing

• Gearmotor

• Brakemotor

• Quill

• C-Face



INPUTS & OUTPUTS

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

HIGH SPEED SHAFT

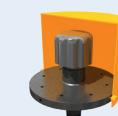
- Immersion Heater



- Creep Drive



- Heavy Duty Anti-Dust Breather



ACCESSORIES

- Solid Shaft



- Shrink Disc



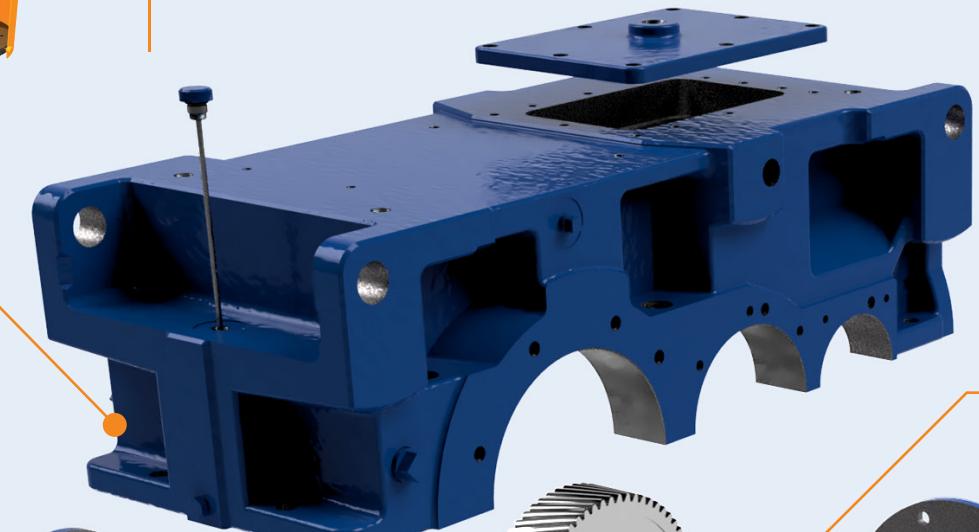
- Keyed Hollow Bore



OUTPUTS

SPLIT HOUSING

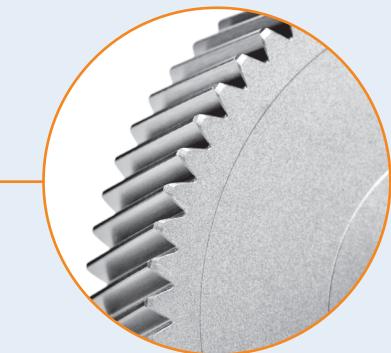
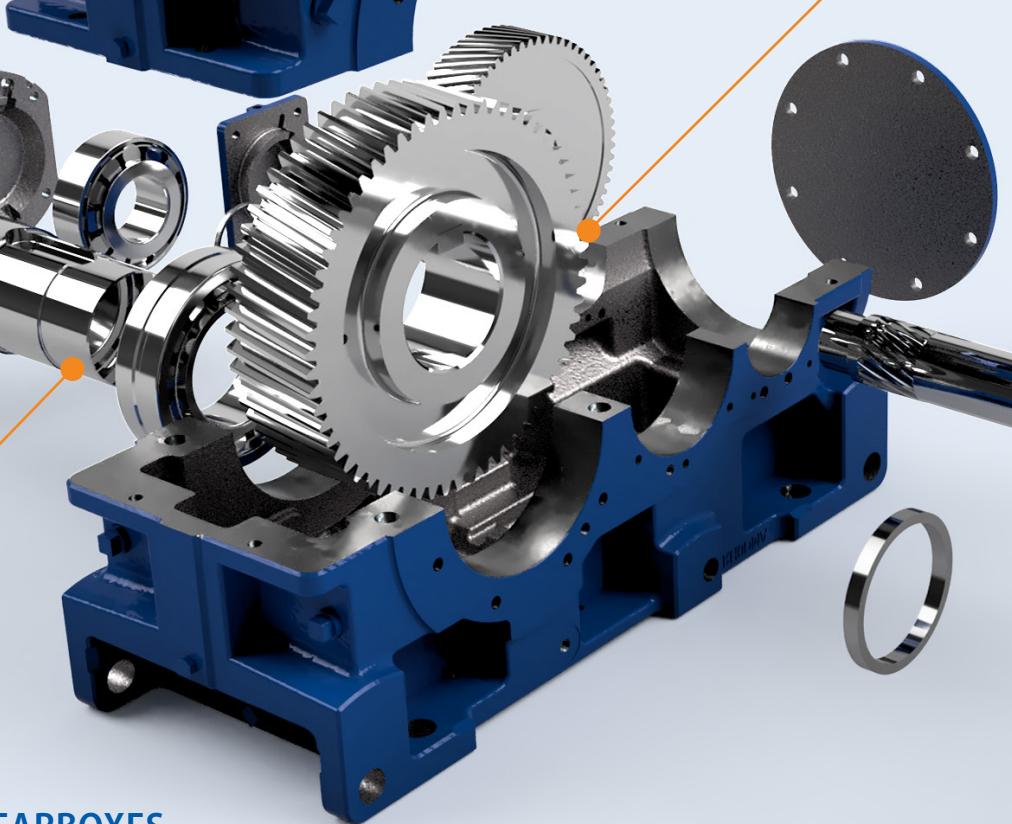
Standard in large frame sizes to allow easy maintenance. A large inspection port provides a window for gear inspection. Available in standard gray cast iron with ductile and fabricated steel options.



TACONITE SEAL

This option features a dual-layer oil and grease sealing system.

SLOW SPEED SHAFT



CASE CARBURIZED & GROUND GEARING

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

PX PARAMAX® 9000

PARALLEL & RIGHT ANGLE LARGE INDUSTRIAL GEARBOXES

Paramax® parallel and right angle drives are some of the **largest and most durable** power transmission systems operating in the world. The series features **double, triple, quadruple reduction** gearboxes, global standardization and availability, and support from our worldwide facilities.

Optional accessories: Backstops, Motor Mount Options, Seal Upgrades, Heating & Cooling and Lubrication Solutions, Paint Upgrades, Storage and Packaging Options, and Complete Drive Package Solutions.

TIER 1 SUPPLIER ROLLER BEARING

High capacity bearings increase load capacity without increasing lead-time. Tapered, double-row spherical, or cylindrical roller bearings depending on size and configuration.



DRIVE PACKAGE



SPECS



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



DIAMETER
58mm to 360mm
(Hollow & Solid)



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



RATIO RANGE
Up to 500:1
Standard

- Vertical Mixer
- Multi-Stage
- Single-Stage



VARIATIONS

- Hollow Shaft - Shrink Disc
- Normal Solid Shaft
- Hollow Shaft - Keyed
- Oversized Solid Shaft
- Extended Bearing Housing

VERTICAL SHAFT OPTIONS

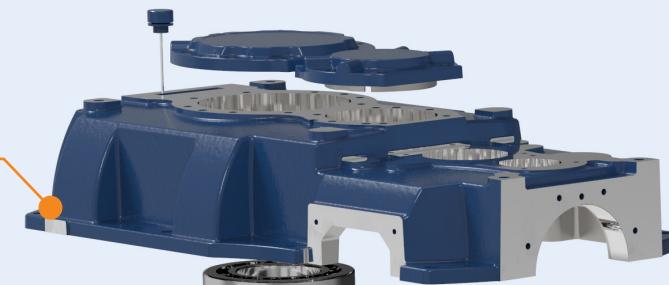
- Drop Bearing
- Pilot or Flange Mount
- Hollow Shaft



OUTPUTS

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 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.

INTERNAL HOUSING

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

OPTIONS



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)



RATIO RANGE
Up to 630:1 (Custom ratios available)

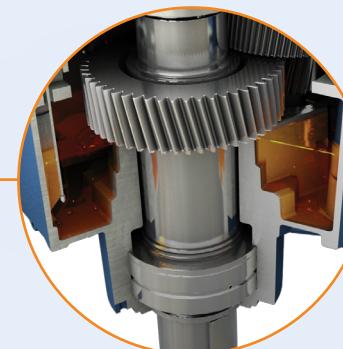
P4 HANSEN P4

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 low-speed 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.

• A-Series



• C-Series



• UA-Series

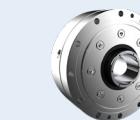


• SERIES

• Output Shaft



• Hollow Shaft



• Keyed



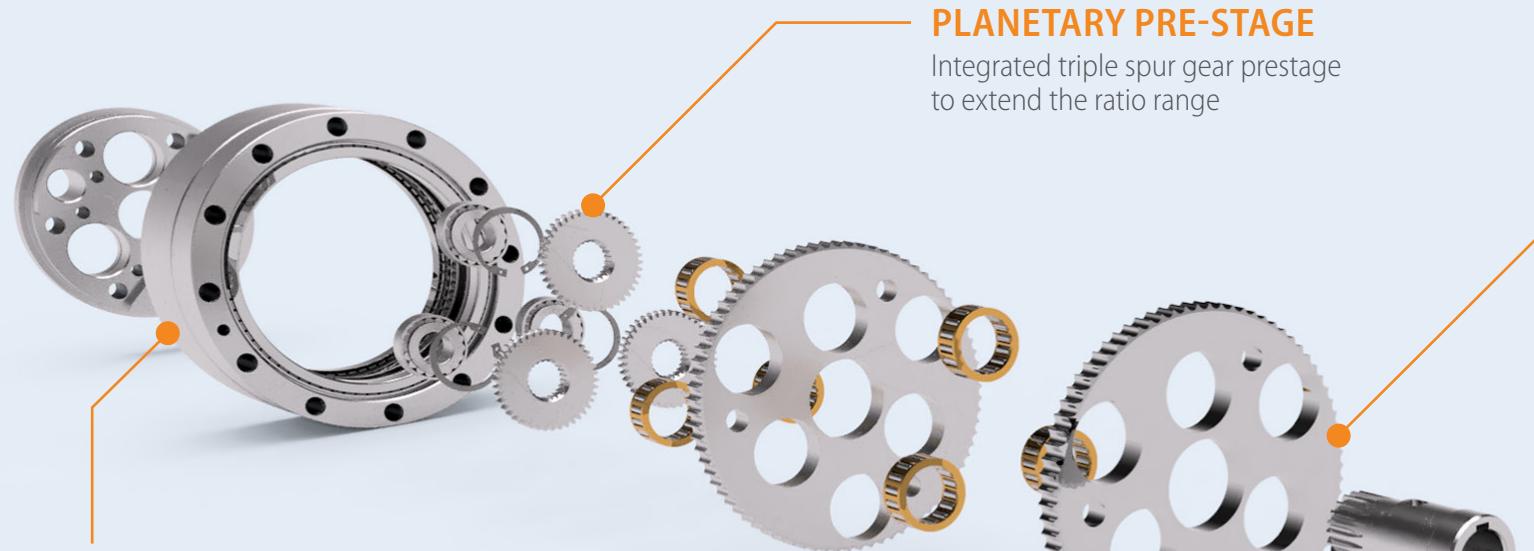
• Coupling



• Clamp Ring



INPUTS & OUTPUTS



HOUSING

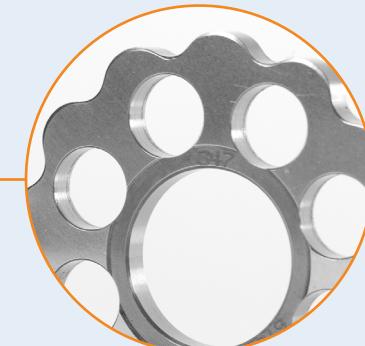
Multiple housing designs allow for versatile mounting options and a solution that easily integrates into your machine

PLANETARY PRE-STAGE

Integrated triple spur gear prestage to extend the ratio range

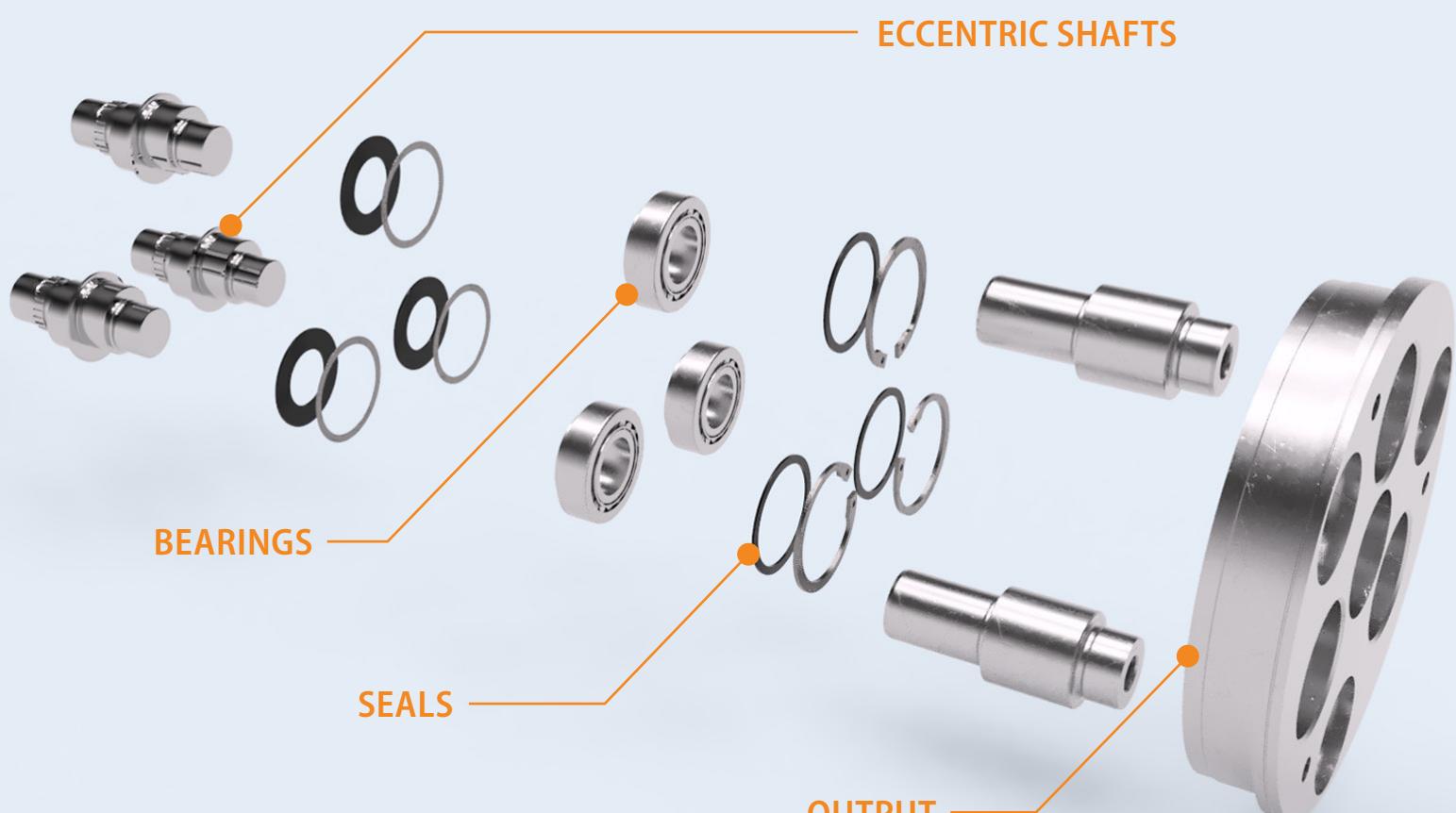
SUN GEAR PINION

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



CYCLO® DISC

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



MC MOTION CONTROL

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.

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.

OPTIONS



IB-Series



Cyclo® Servo 6000

SPECS



NOM TORQUE
Up to 106,209 lb-in
(12,000 N·m)



DIAMETER
Up to 138mm
(Hollow Bore)



ACCEL TORQUE
Up to 265,522 lb-in
(30,000 N·m)



RATIO RANGE
29:1 to 283:1

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 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 secs**
- **175% Overload for 2.5 secs**
- **98% Typical Efficiency**

FAST CONNECTION

5mm rising clamp terminals with captive screws.

KEYHOLE MOUNTS

OPTISTICK SMART

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)

Compliant with international standards.



• **IP20**



• **IP66**



• **IP66**



• **IP20**



• **IP55**



• **IP66**



ENCLOSURES

Select Language
Español
Deutsch
English

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.

- **200% Overload for 4 secs**

- **98% Typical Efficiency**

- **Integral Brake Transistor**



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)



Helical Shaft Mount

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

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

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

Encoders

Two standard incremental types

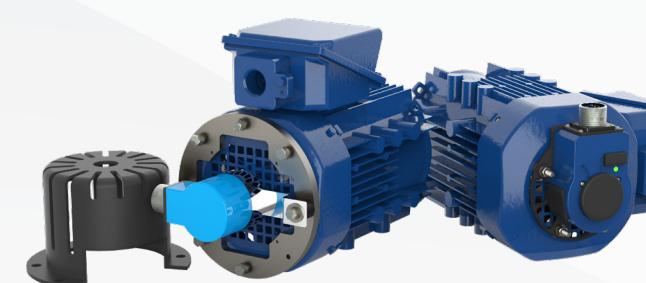
- 1) For non-brakemotors: AV32 magnetic type.
- 2) For brakemotors, or other uses: HS25A optical design.

Vibration: 5 to 2,000 Hz

Speed: 6,000 RPM

Shock: 50G, 11 mS duration

Ingress Rating: IP65



Couplings

Complete line of couplings for a wide range of applications. All couplings are manufactured to the highest specifications, and meet the most rigorous material specifications.

Torque: Up to 57m lb-in
(6.4m N·m)



Bore Size: Up to 35in

Type: Flexible, Grid and Disc

Additional Services

Configurator

Quick SHIP

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

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

*Avoid catastrophic failure, minimize risk
and increase machine uptime.*

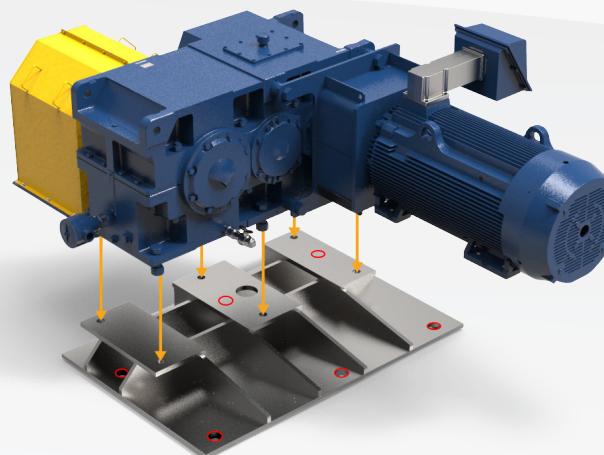
Retro-Fits and Drop-Ins

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 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.



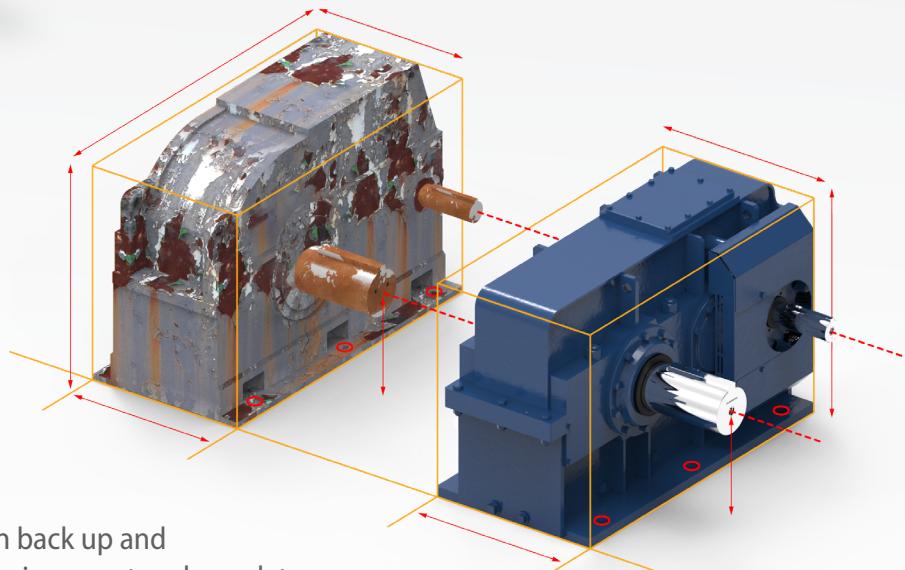
Drop-In

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-into existing applications with ease.

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!

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 plants daily operations.



Condition Monitoring

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



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**

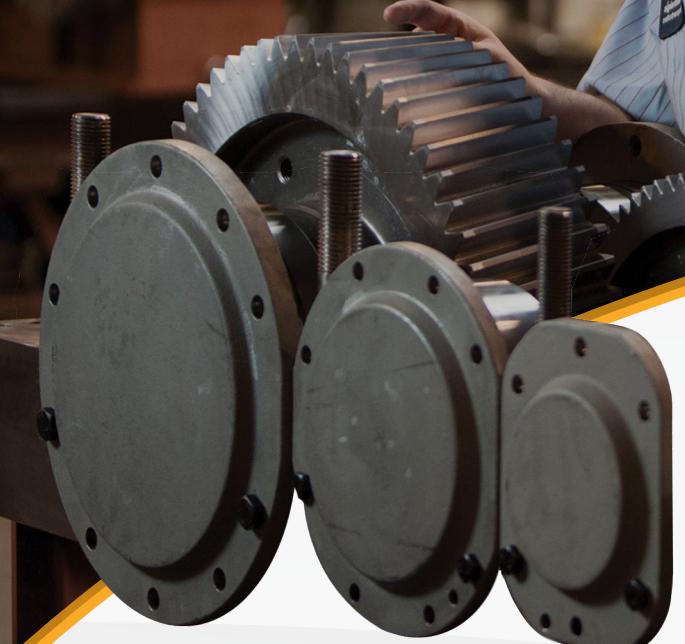
Lower overall ownership cost.



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

SumitomoDrive.com/CycloSmart

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 Sumitomo-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.

Field Services

For Your Convenience

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

email: SMA.Service@shi-g.com

phone: [757-485-3355](tel:757-485-3355)

web: SumitomoDrive.com

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

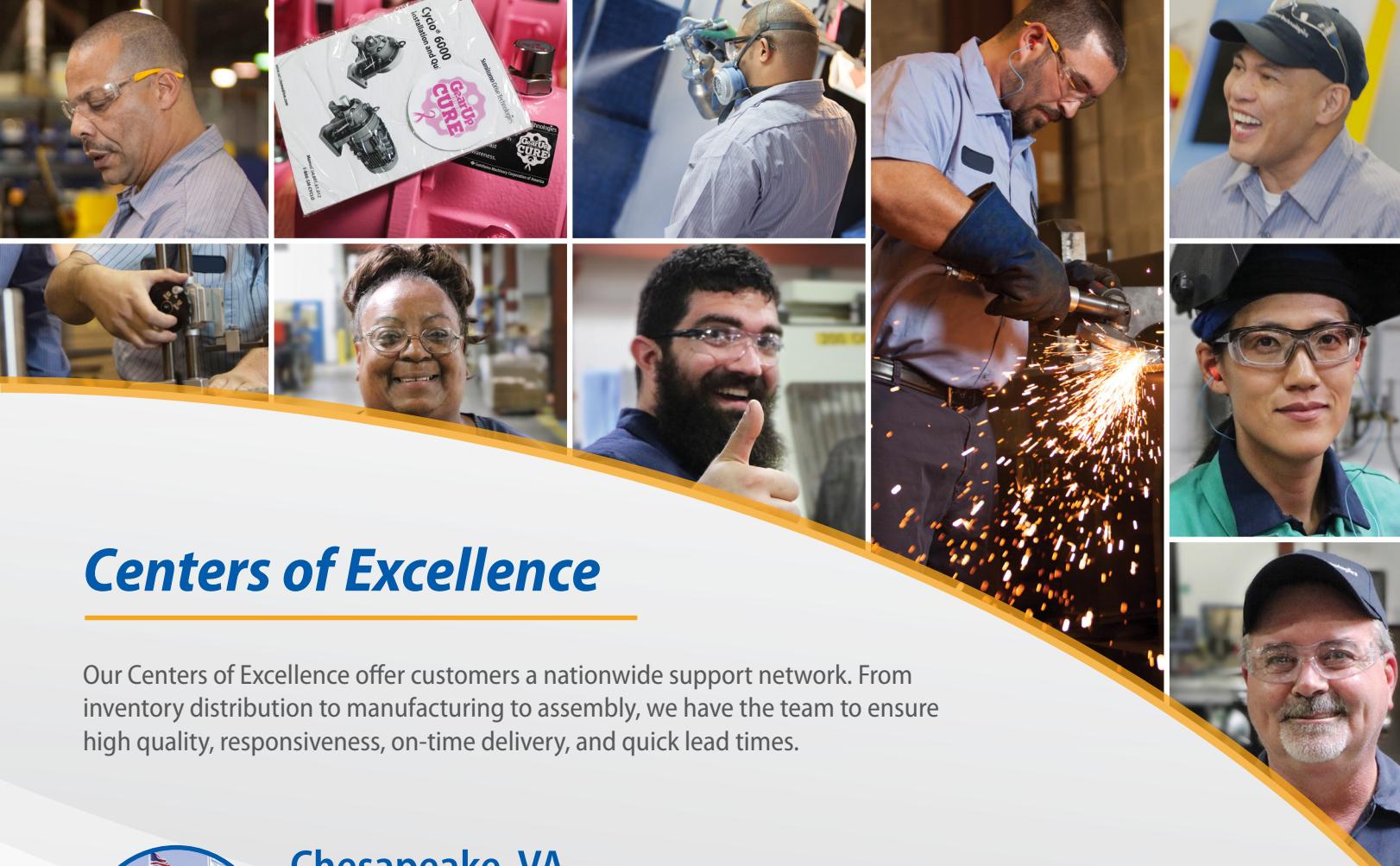
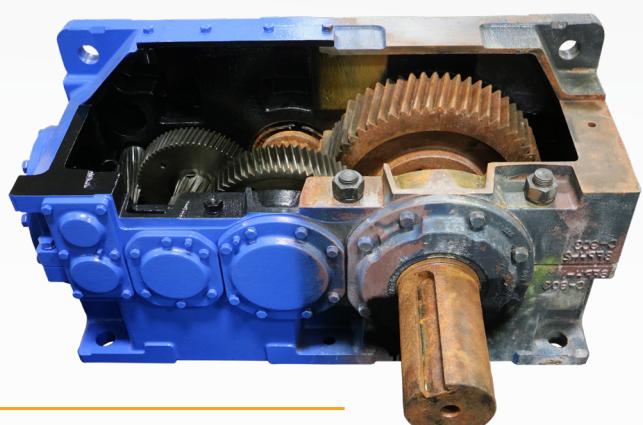
Global Support, Local Service



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.



Glendale Heights, IL

Gearmotor Assembly and Support

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



Lufkin, TX

Manufacturing and Services

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



Corona, CA

Gearmotor Assembly and Support

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