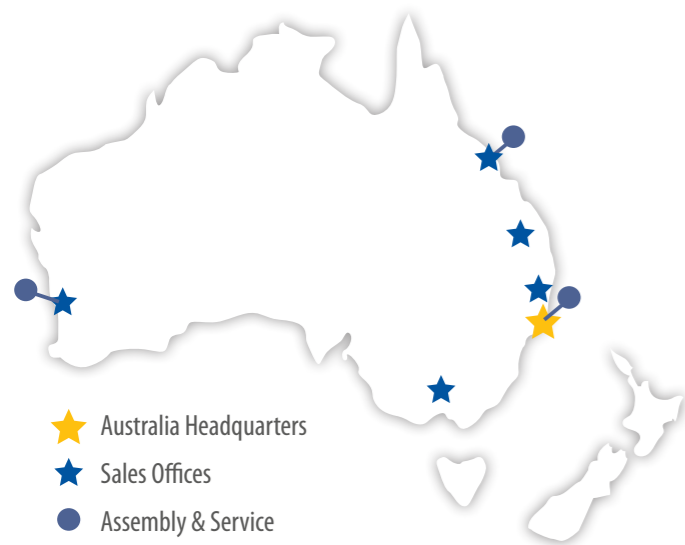


Sumitomo (SHI) Hansen Australia

Our extensive Australia and New Zealand network offers customers a wide regional 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.



Case Study
(Coal Handling)



Case Study
(Coal Mine)



Corporate Brochure



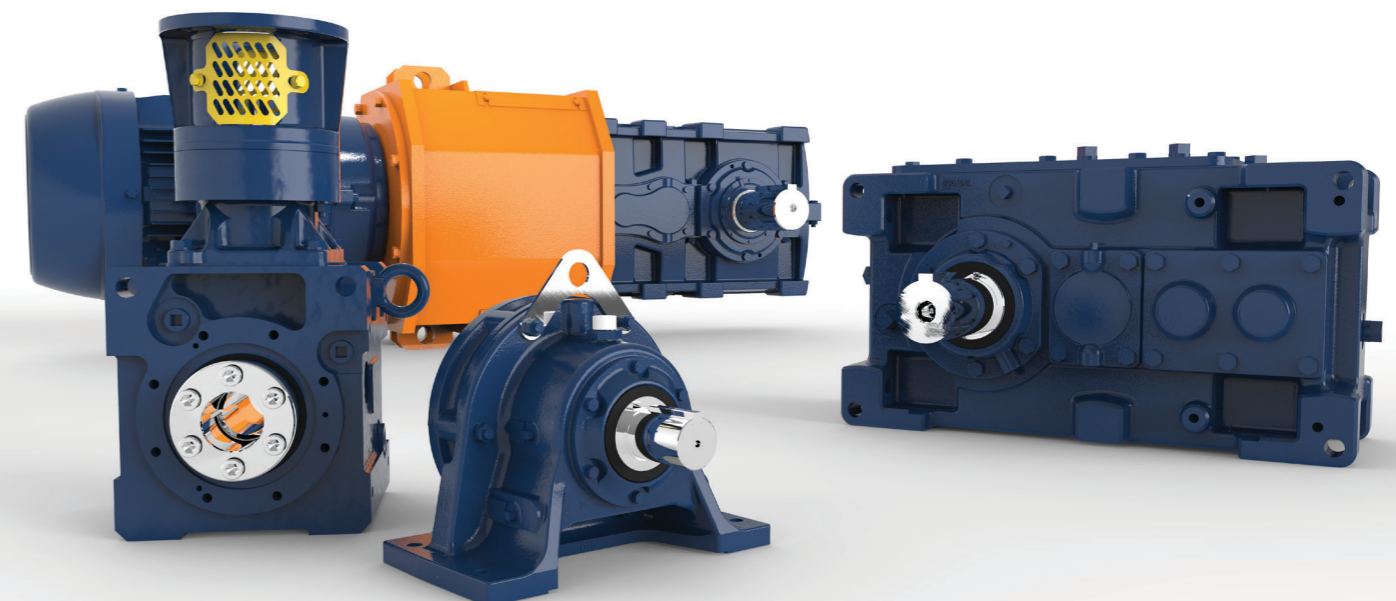
Hansen P4
Catalogue



Paramax® 9000
Catalogue



Mining



Why choose us for Mining applications?

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

We know the Mining Industry

The Mining industry plays a vital role in most of our everyday needs. Australia's miners produce more than 45 minerals used in the manufacture of products ranging from smartphones, electric cars, solar panels, glass and concrete, wind turbines and medical implants. We understand the harsh operating conditions, high shock loads, dirt, moisture and acidic environment that mandates tough, reliable, powerful and efficient product performance.

One of our primary origins was the Besshi copper mine, which started over 300 years ago and since then, we have harnessed this timeless experience to develop and increase our efforts in supporting the Mining Industry with a robust combination of products, people, production, programs, and perseverance. Sumitomo's presence on the global mining stage speaks volumes about our past, present, and future commitment to it.

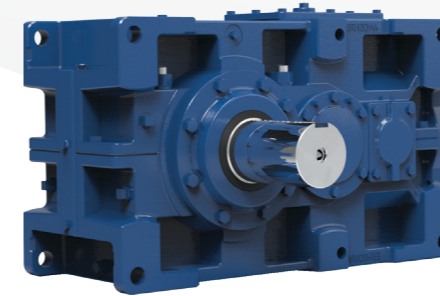
Our company is one of the world's leading suppliers of drive packages for the mining industry. Whether you're mining coal in the Bowen Basin or Hunter region, the gold fields in Kalgoorlie or iron ore mines in the Pilbara, Sumitomo has gearing and drive solutions to meet your needs. From overburden to ship loading and every application in between, our team of expert engineers worldwide combines knowledge and experience to design custom solutions that meet any demand. Mining applications and environments are tough, but our gearboxes are tougher. With so many ways to lower your total cost of ownership, let Sumitomo help keep your operation running effectively and efficiently.

The Right Gearbox for the Right Job

We are interested in selling the right gearbox for the application—not just any gearbox in our inventory. **Sumitomo Drive Technologies has the products that perform.**

Standard large industrial gearboxes are pre-engineered and manufactured to be assembled from our inventory. Local engineering, manufacturing, and assembly allows us to customize these products to meet your needs.

Our large industrial gearboxes also have various upgrades and performance monitoring products to keep each gearbox in action. By following our preventative maintenance procedures, you ensure your gearbox lives a long life. If your gearbox has an issue, our experienced network of aftermarket experts are always available. Plus, with one of the longest warranties in the gearbox industry, your operation is well protected. We ask the right questions to ensure you have the correct industrial gearbox for your specific application. Customer experience is our top priority, and we want to ensure that our customers can get the modifications or custom options they desire.

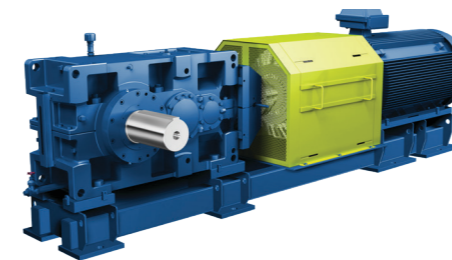


P PARAMAX® 9000

- AGMA Class 11+ Gearing
- Power Dense
- 25° Pressure Angle Gear Teeth
- Available in 26 sizes
- High housing thermal capacity



Product Configurator



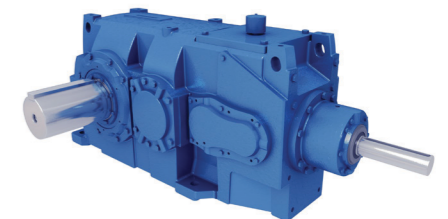
U PARAMAX® UCD

- Rugged Housing
- PX Gearing
- Competitive Drop In



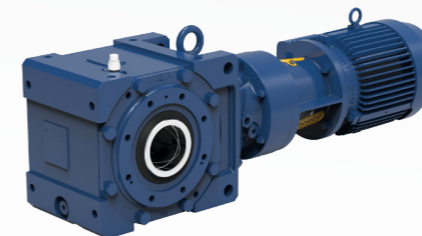
V HANSEN VERTICAL P4

- Standard Drywell
- Horizontally Split Housing
- Maintenance Free Oil-Lock®



P4 HANSEN P4

- Rugged Housing
- Large Lube Capacity
- Modular Design



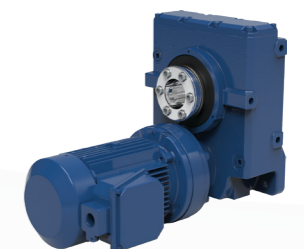
B4 CYCLO® BBB 4

- Taper-Grip® Bushing
- Compact Design
- Multiple Input Styles



C CYCLO® 6000

- Cycloidal Technology
- Optimal Efficiency
- Withstands 500% Shock Load



HB CYCLO® HBB

- Cycloidal Technology
- Splash Lubrication
- Modular Design

Built To Last
Paramax®

Built To Last
Hansen P4

Paramax® 9000

Distinguished by its robust & versatile design, and chosen for its ability to thrive in extreme conditions, this high quality and highly reliable Paramax® 9000 has operated throughout various applications tirelessly all over the world.

Paramax® Drive Packages for above and underground mining

Several of Sumitomo Paramax® Drive Packages have been operating as deep as 1.3km underground for years, together with Paramax® units above ground on the same mining site.

We have many underground projects hosting our complete Paramax® drive packages, consisting of: Paramax® 9000 series gearbox with axial fan, IEC Motor, Hydraulic braking system, stainless steel control panel, all on a swing base with stainless steel drip tray.

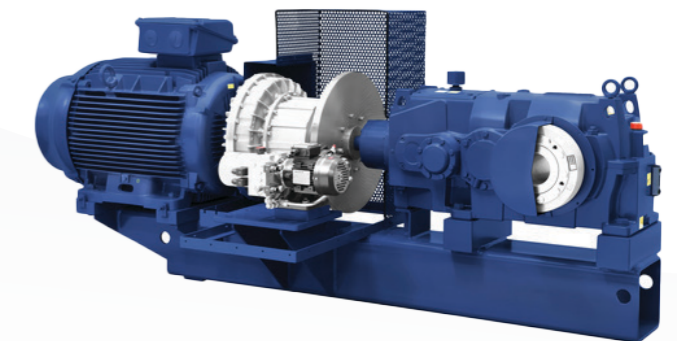


Hansen P4

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 state-of-the-art technology, provides remarkable power and performance.

Hansen P4 for above ground mining

Our dedicated Gearbox series for Mining applications has offered years of engineered solutions optimised for heavy-duty applications above ground. These customised standard and local partnerships with suppliers, fabricators, and OEMs enables us to offer optimal packaged solutions for Mining to withstand the harsh requirements of the applications.



Old gearboxes are high maintenance and use outdated technology and parts.

Modern gearing technology offers lower maintenance and safer operating options.

The Challenge:
Outdated technology and unsafe conditions

Older speed reducers use old technology involving multiple components to transmit torque. In doing so, this requires bulky safety covers required for safe operation to minimize pinch points and the subsequent dangers that come with it.

Obsolete Equipment Problems:

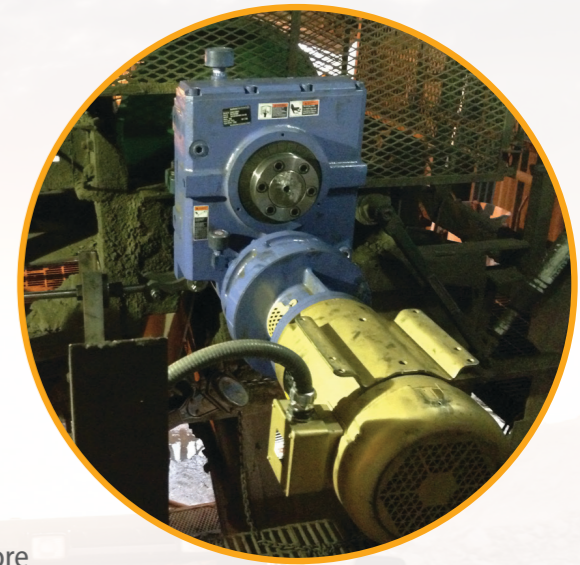
- Reduced operating efficiency
- Alignment concerns and issues
- Lubrication results in leaking oil and a dirty operating environment
- Worn and noisy components
- Difficult to repair and/or replace
- Higher shaft loads and bearing wear
- More wear parts to maintain

The Solution:
More efficient gearbox with the reduction needed to eliminate extra outdated components

Our gearboxes can be manufactured in many different ratios and various output shaft arrangements. We have an assortment of options to choose from to help you incorporate the total reduction of the gearbox and belt drive /chain drive combination into one simple, reliable, robust, and safe drive system. With Sumitomo powering your mining operation, you can expect reduced operation costs, increased efficiency, and a known brand to help you with your gearbox needs.

Sumitomo Problem Solvers:

- Sumitomo offers multiple sealing solutions
- Newer technology often means smaller units which mean less oil to store or worry about.
- New gearboxes come with new technology, new unit warranties and support.
- Sumitomo products are designed with current technologies for high capacity, high efficiency, low noise and reliable operation.



Conveyor Belt



P P4 C B4 HB

Screw Conveyor



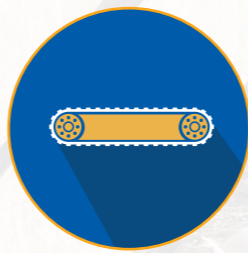
P C B4 HB

Bucket Elevator



P P4 C B4

Apron Feeder



P P4 C

Kiln



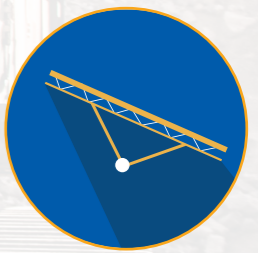
P P4 C

Slurry Pump



P4 P

Radial Stacker



P P4

Travel Drives



B4 HB P

Winches



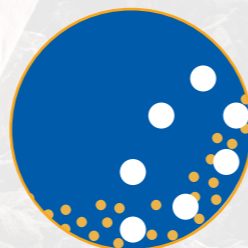
P C

Mixer/Aerator/Flotation



V P P4 C

Ball/SAG Mill



P P4

Crusher/Sizer



P C B4

Thickener



V P4 C

Feeder Breaker



P C B4

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









Load Testing up to 520 kW

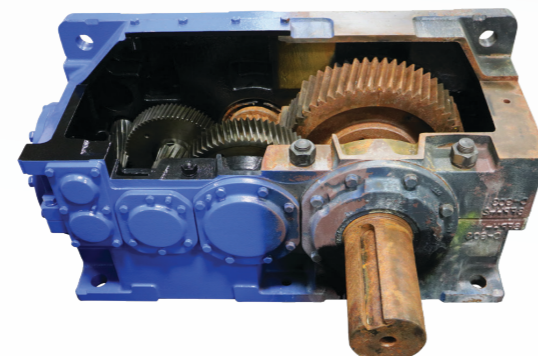
Connecting you to the Service you need

Experts in Service Global Support, Local Service

Our personnel are the industry's most versed gearbox problem solvers. We provide both standard and tailored services, for maximum gearbox life.

To maximise equipment reliability our gearbox services include:

-  Inspection and maintenance with comprehensive reporting
-  Full gearbox diagnostics and analysis
-  Performance testing, including load testing up to 520kW
-  Repairs, overhauls and gearbox upgrades
-  Design and supply new drop-in replacement gearboxes
-  Drive assembly upgrades – power upgrades and ratio changes
-  Lubrication and Monitoring solutions
-  Onsite Services



Repairs Scheduled & Emergency Repair

Repair services for all your related gearbox needs and a fast turnaround to the original factory specifications and warranty using Sumitomo-manufactured parts.

Extended warranty programs are available upon request.

Root Cause Investigation Product Support

We'll 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.

Custom Solutions

Our gearing engineers can design upgrade options for existing units to increase performance or design complete custom drop-in replacement units that fit into an existing footprint and envelope.

On-Site Solutions

Our team of experienced technicians and engineers can travel to your location to complete your requested repairs and maintenance. These solutions can minimize downtime and get your operation back up and running.

Repair and Rebuild Solutions

Scheduled or emergency repairs can be completed on time and within budget by our Aftermarket team. Delivering gearbox service and support across Australia, our two service facilities are fully accredited by a number of major mining companies. They are equipped with the latest tools and machinery to ensure the repair of your gearbox is completed to the highest standards.

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
- Full-Service Machine Shop
- On-Site Technical Support for Customer Repairs
- Field Service Rebuilds and Repairs
- Commissioning and Start-Up Services
- Root Cause Investigations
- Condition Monitoring



Retro-Fit units with transition bases allows 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.

Drop-In

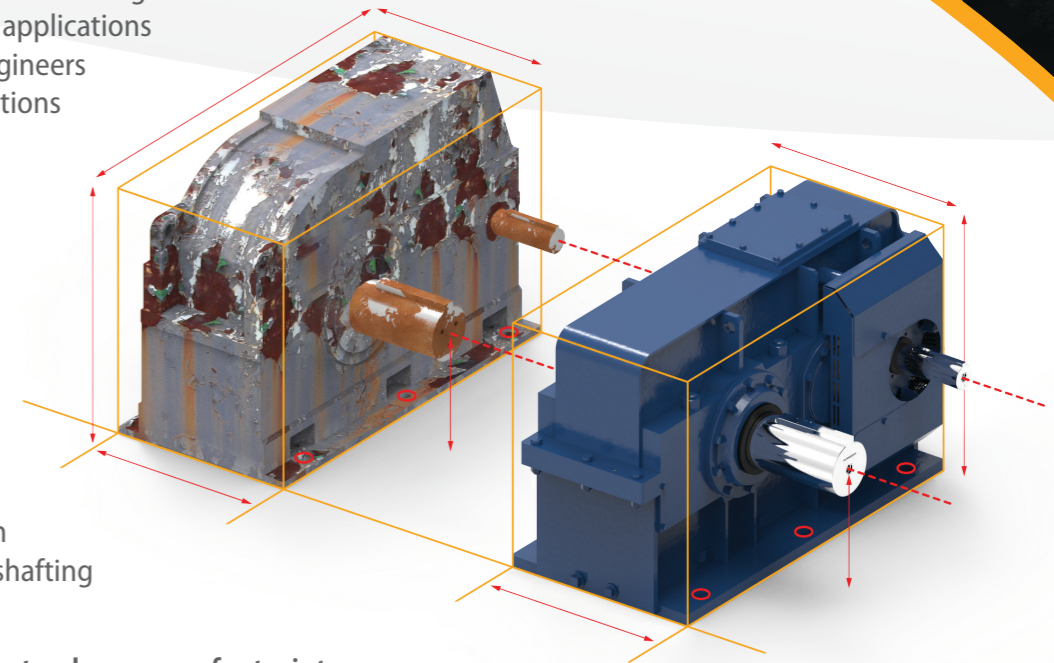
Match existing unit's critical dimensions

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!



Retro-Fit

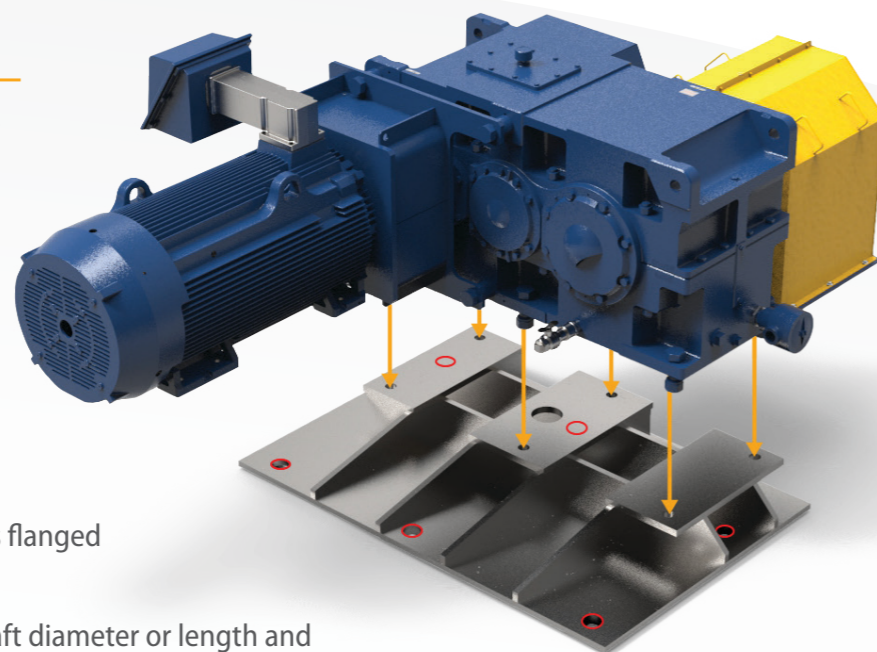
Match existing footprint

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.

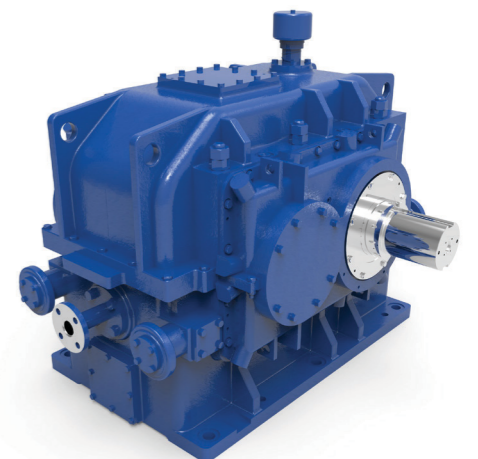
The red circles in the diagram represent the existing bolt pattern of a customer's unit. The transition base is fabricated to match the height, ensuring alignment of the low-speed shaft to the machine shaft.



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.



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



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).


 Compliant with international standards.



ENCLOSURES

- 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



POWER RATING
Up to 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