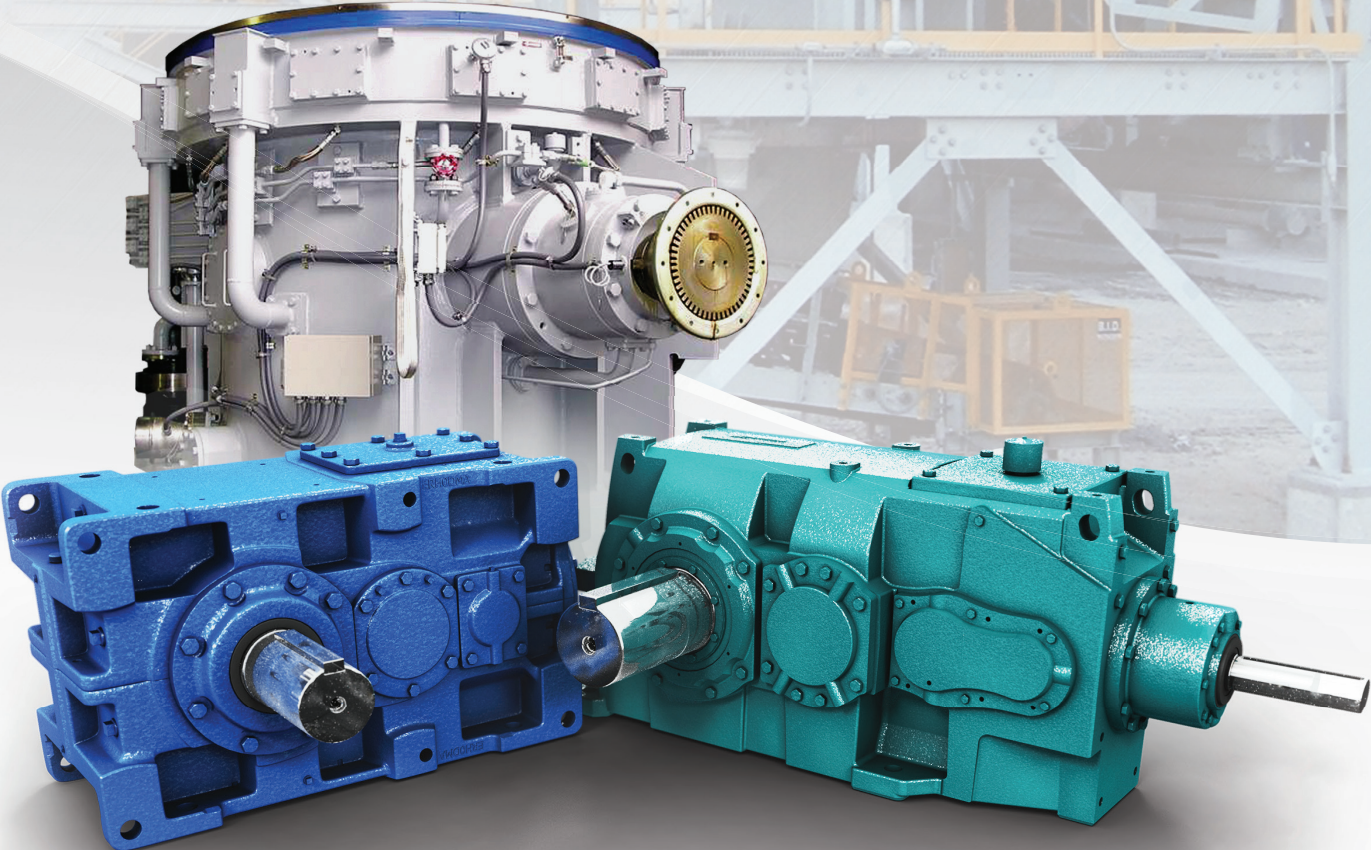


Cement Industry

Reliable Power Transmission Drives

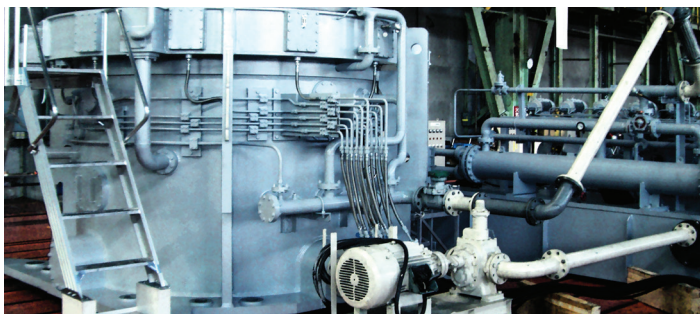




Sumitomo Drive Technologies: Reliable Power Transmission and Control Solutions



Paramax conveyor drive



Vertical mill drive

Sumitomo Drive Technologies is the brand name for the Power Transmissions and Controls (PTC) Division of Sumitomo Heavy Industries Ltd.

With a history of over 80 years in the industry, Sumitomo Drive Technologies provides technology, solution, products and services related to power transmission and controls throughout the world.

We manufacture gearboxes and geared motors ranging from 6W to 60MW under three prominent brand names - "Sumitomo Drive Technologies", "Hansen" and "SEISA", providing solutions for an array of applications in industries including Mining, Mineral Processing, Bulk Material Handling, Conveying, Cement, Steel and Metals, Agriculture, Fertilizers, Chemicals, Rubber, Food and Beverages, Automobiles, Electronics, Packaging and many more.

Our twelve (12) manufacturing facilities are complemented by thirty-five (35) stock, assembly, engineering and service centers across the globe. From North and South America to Europe, Africa, Middle East, North Asia, South East Asia to Australia and New Zealand; we are guided by our philosophy to be closer to our customers in order to provide better service and quicker deliveries.

Sumitomo Drive Technologies offers products and services from three highly experienced companies as one Industrial Power Transmission Solutions provider to our valued customers.

The integration of three companies -Sumitomo, SEISA and Hansen - each having leadership in different sectors of the industry, is part of our comprehensive strategy to strengthen the brand portfolio and creating our group's profile as the leading industrial power transmission solutions provider in the world. Together, our companies offer the highest quality, innovative products and services for any power transmission needs.

 **Sumitomo Heavy Industries, Ltd.**

SEISA

 **Hansen**[®]
industrial gearboxes



Sumitomo offers the toughest Gearmotors and Speed Reducers to meet the harsh demands of Cement Industry.

The Cement Industries place heavy demands on power transmission drives.

Tough operating conditions, high shock loads, dirt, moisture, and acidic environments take a large toll on the equipment that keeps your operation moving.

Your power transmission drives must be tough, reliable, and efficient. Strength, power, and performance are not optional. For these reasons, you rely on Sumitomo Drive Technologies for your power transmission products.

Recognized as a global leader in power transmission knowledge and innovation, the un-matched strength of our product range, application experience, and global presence establishes Sumitomo as the premiere power transmission solution provider. With installations in more than 35 countries worldwide, Sumitomo products are the preferred choice by some of the largest companies in the mining industry. Whatever your mining application, we understand the unique challenges you face, and we have reliable, durable solutions that deliver the lowest possible lifecycle cost and the highest level of performance.

For 30 years, Sumitomo (SHI) Cyclo Drive Asia Pacific Pte. Ltd. and other our regional office has been supplying some of the most durable, reliable and efficient power transmission drives to cement plants throughout the Asia Pacific, Australia, India and maximize plant uptime, improve process efficiencies.

It's no secret that the cement industry places heavy demands on power transmission drives. Dust, high shock loads, and tough operating conditions all take a toll on the equipment that keeps your operation thriving.

Your power transmission drives must be durable, reliable and efficient. This isn't an option; this must be the standard. Sumitomo (SHI) Cyclo Drive Asia Pacific understands the challenges you face, which is why the solutions we offer are designed to withstand the harshest conditions while delivering the highest level of performance. Distinguished for their robust design, easy installation and low maintenance, our drives minimize your costs while maximizing plant uptime. Small wonder that so many industry leaders rely on Sumitomo (SHI) Cyclo Drive Asia Pacific to meet their power transmission requirements.

We can help you save record amounts of energy without compromise

We understand that your profitability depends on maintaining efficient operations. We can help.

Sumitomo's products are recognized for their compact designs, light weight, and for providing the desired torque to meet the demands of 24/7 operations. Cement manufacturing requires high durability as abrasion, corrosion; high temperatures and intense pressures are constant challenge.

- The **Paramax**® product line offers the toughest and most reliable gear drives available in the market. It features double, triple and quadruple reduction gearboxes, global standardization and 26 frame sizes. An optional auxiliary inching drive is available to allow conveyors to run loaded at reduced operating speeds during inspection and maintenance.
- Available in 19 different sizes with two, three or four-gear stages, the **Hansen P4** excels in low noise, low vibration and high torque gear geometry. The excellent construction of the Hansen P4, together with the commitment to apply state-of-the-art gear technology, leads to remarkable power and performance.
- ■ **Seisa** products are recognized as the leaders in mill applications. This product line can be found in cement plants worldwide driving raw mills, clinkers, gypsums and other mill applications. It offers simple construction, high reliability and low installation cost.
- The **Cyclo**® 6000 is Sumitomo's gearless gearbox. Unlike conventional gears with teeth that grind, wear and break, this unique design results in high efficiency, quiet operation and shock load capacities of up to 500%.
- The **Cyclo**® BBB4 offers 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. The Cyclo® BBB4 is also available with hollow shaft or CEMA screw conveyor drive shaft options.
- **Cyclo**® HBB drives combine the advantages of the Cyclo® with helical gears to yield a high torque range in an offset parallel configuration. The Cyclo® HBB is also available with hollow shaft or CEMA screw conveyor drive shaft options.
- **HSM** reducers are available with hollow shaft or CEMA screw conveyor drive shaft options. It features keyless steel Taper-Grip® Bushing for easy mounting.

Blending and Storage Silo



Kiln



Limestone Quarry and Crushing plant



Coal Mill Building



Cooler



Bucket Elevator



Gypsum Storage



Product Key



■ CYCLO® 6000

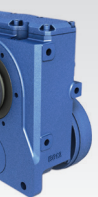
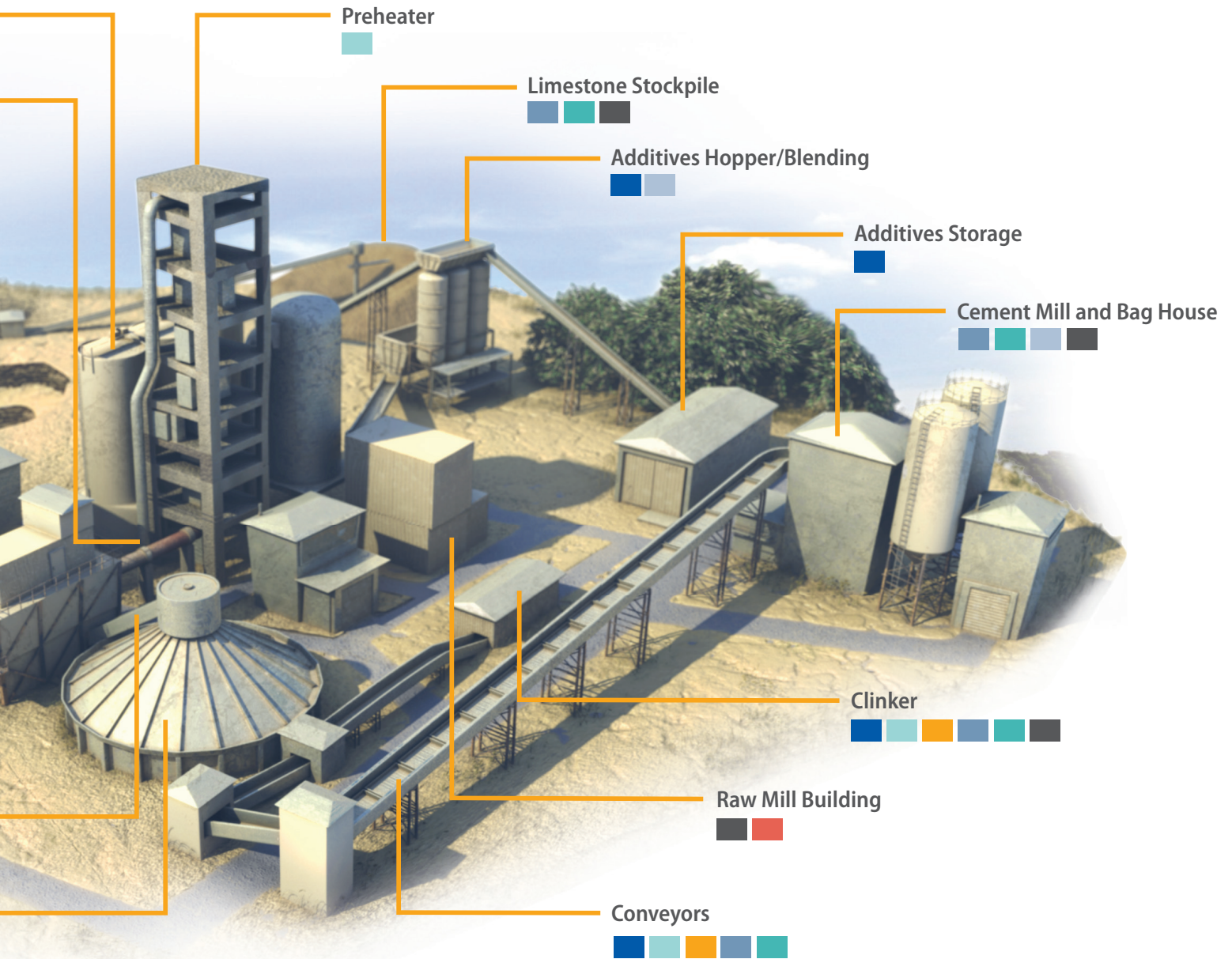


■ BBB4



■

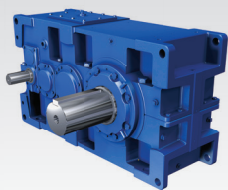
Cement Plant



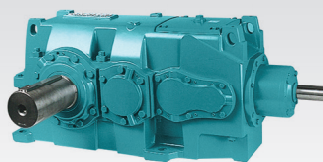
HBB



HSM



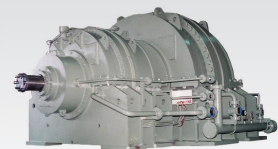
Paramax 9000



Hansen P4



Seisa Roller Mill



Seisa Ball Mill



For 30 years, Sumitomo (SHI) Cyclo Drive Asia Pacific Pte. Ltd. and other our regional office has been supplying some of the most durable, reliable and efficient power transmission drives to cement plants throughout the Asia Pacific, Australia, India and maximize plant uptime, improve process efficiencies.

It's no secret that the cement industry places heavy demands on power transmission drives. Dust, high shock loads, and tough operating conditions all take a toll on the equipment that keeps your operation thriving.

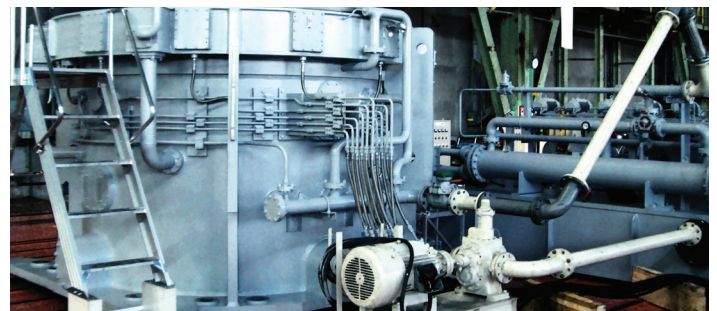
Your power transmission drives must be durable, reliable and efficient. This isn't an option; this must be the standard. Sumitomo (SHI) Cyclo Drive Asia Pacific understands the challenges you face, which is why the solutions we offer are designed to withstand the harshest conditions while delivering the highest level of performance. Distinguished for their robust design, easy installation and low maintenance, our drives minimize your costs while maximizing plant uptime. Small wonder that so many industry leaders rely on Sumitomo (SHI) Cyclo Drive Asia Pacific to meet their power transmission requirements.

Sumitomo (SHI) Cyclo Drive Asia Pacific

Sumitomo (SHI) Cyclo Drive Asia Pacific (SCA) is a subsidiary of Sumitomo Heavy Industries (SHI), a global leader in power transmission knowledge and innovation. With installations worldwide, SCA develops products that are the preferred choice of some of the largest companies in the cement industry in the region..



Paramax conveyor drive

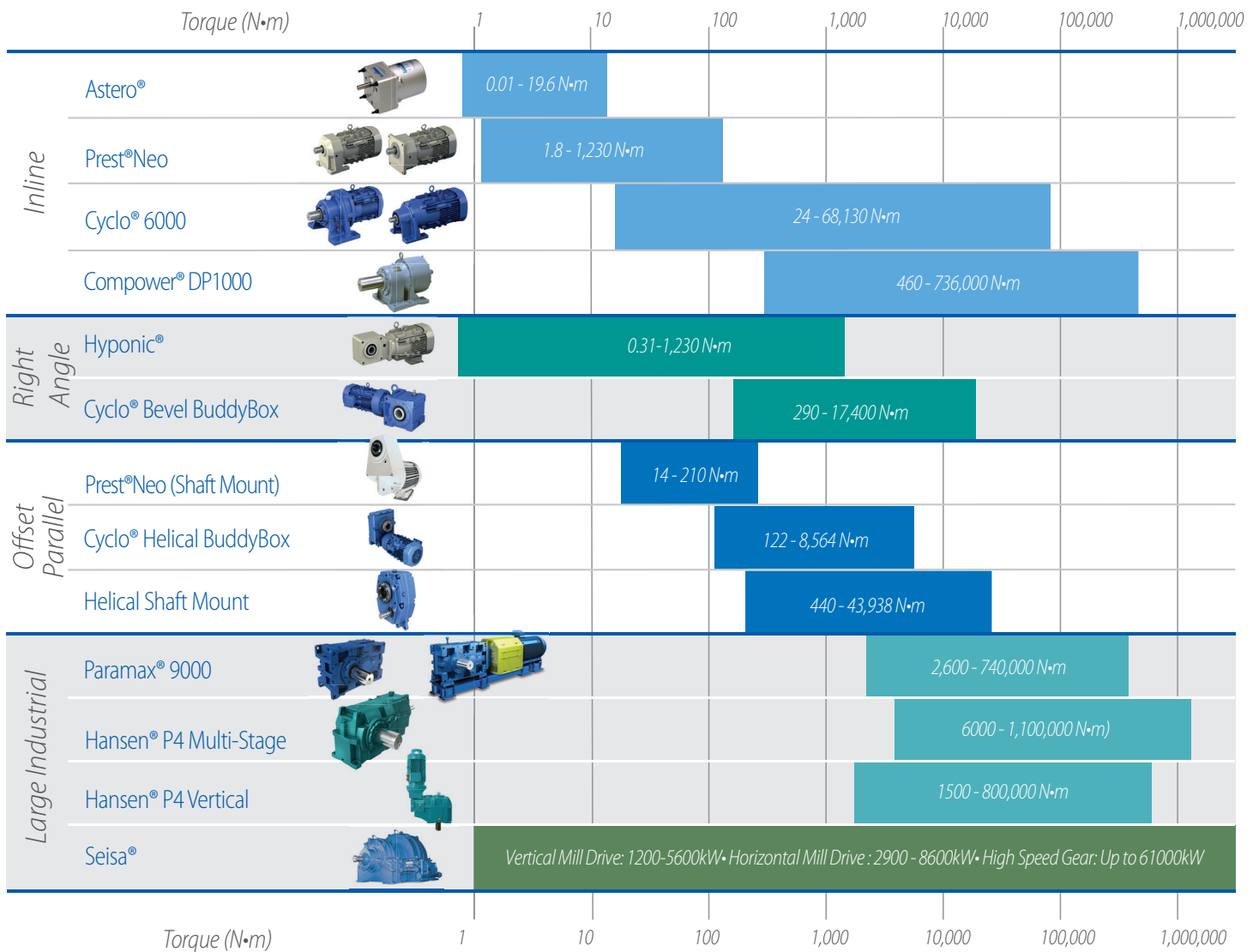


Vertical mill drive



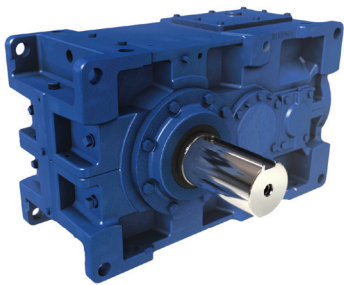
Torque Ranges

Sumitomo offers a comprehensive lineup of premier power transmission products to keep customers' operations performing at their best. This includes the broadest range of the most reliable and highest quality speed reducers, gearmotors and large industrial gearboxes available in the industry.





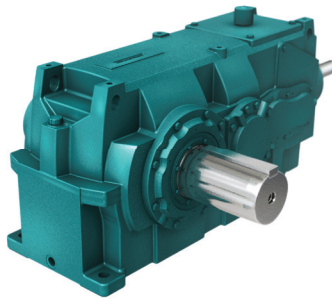
Paramax® 9000 Series



The Paramax® 9000 is distinguished by its robust and versatile design. Both parallel and right-angle Paramax® offer reliability and long service life, even in tough operating conditions.

- Sizes:** 26 sizes
- Torque Rating:** 2,600 - 570,000 N.m
- Power Rating:** 5 to 5,000 HP
(3.7 kW - 3,729 kW)
- Ratio Range:** 6.3:1 to 500:1
- Housing:** Cast Iron (*Standard*)
Ductile & Fabricated Steel (*Optional*)
Monoblock or Split Housing

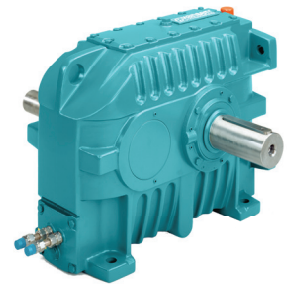
Hansen® P4



The performance of both parallel and right-angle Hansen P4 Multi Stage gear units is characterized by low noise and weight, extreme environmental tolerance and exceptional reliability.

- Sizes:** 19 sizes
- Torque Rating:** Up to 11,00 kN.m
- Power Rating:** 135 HP to 5,364 HP
(100 kW - 4,000 kW)
- Ratio Range:** 6.3:1 to 630:1
- Housing:** Dedicated Vertical & Horizontal Housings
Nodular (or ductile) & Cast Iron Split Housing

Single Stage Gear Units



Single-stage gear units come in a parallel horizontal configuration, with shafts interchangeably sharing a horizontal or vertical plane.

- Sizes:** 8 sizes
- Torque Rating:** 133,000 N.m
- Power Rating:** 375 to 14,080 HP
(280 kW - 10,500 kW)
- Ratio Range:** 1.25:1 to 5.6:1
- Housing:** Custom ratios within 1% of requested value
Monoblock or Split Housing
Horizontal or Vertical





SEISA® Extra Large Conveyor Drives



SEISA® offers extra-large conveyor drives to meet your specifications. These custom gearboxes are available in parallel and right-angle shaft configurations. SEISA gearboxes utilize the rugged power of spiral bevel and helical gearing components.

- Sizes:** 5 standard sizes
(other sizes available)
- Torque Rating:** 356,040 N·m and higher
- Power Rating:** standard 675 to 18,800 HP
(500 kW - 14,029 kW)
- Ratio Range:** 8:1 to 90:1 (other ratios available)
- Housing:** Fabricated Steel-Horizontal Split

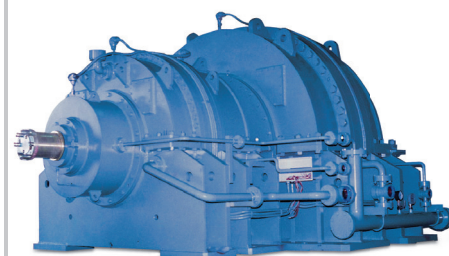
SEISA® High Speed Drives



SEISA® high speed gear boxes are developed for optimum strength with low noise. They can be manufactured to special application-specific layouts. Standard options include turning device, lubrication/cooling units, vibration monitoring, etc.

- Sizes:** 14 standard sizes
(other sizes available)
- Power Rating:** Up to 80,000kW
- Ratio Range:** Up to 11:1 (single stage)
- Housing:** Fabricated Steel-Horizontal Split

SEISA® Planetary Drives



SEISA® Planetary drives are used in several mining and material handling applications. Available in standard as well as custom built sizes in horizontal or vertical mounting. Gears are designed to 25° pressure angle, precisely machined, carburised, hardened and ground.

- Sizes:** 26 standard sizes
(other sizes available)
- Torque Rating:** 6930 kN·m and higher
- Ratio Range:** Available in 2, 3, 4, 5-Stage gearings
- Housing:** Fabricated Steel





Sumitomo's unique Cyclo[®] technology offers quiet, efficient and reliable operation with high torque density and compact size.

Cycloidal "Gearless" Speed Reduction

Torque transmitting parts roll, rather than grind, providing quiet, efficient and reliable performance.

Superior Materials

52100 bearing grade steel rotating components, hardened to 58 Rockwell C for unmatched durability and reliability.

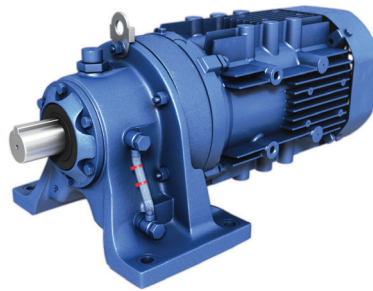
Long Life and High Shock Load Capacity

The Cyclo[®] input has two-thirds of its reduction components in contact at all times, resulting in exceptionally rugged, shock-resistant performance.

Product Support

Sumitomo's Product Support offers scheduled repair services as a one-stop-shop for all your related gearbox needs. For emergency repairs, we offer a 24 to 72-hour turnaround. Please consult your representative for product eligibility.

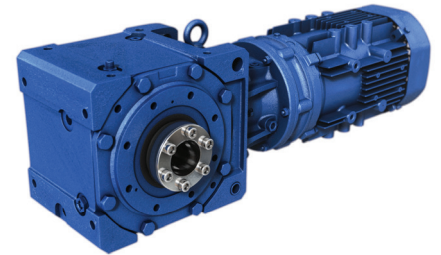
Cyclo[®] 6000 Series



Sumitomo's Cyclo[®] 6000 speed reducer and gearmotors provide quiet, efficient and reliable performance. With over 500% momentary shock load capacity, Cyclo[®] is ideal for any of your mining applications.

Sizes:	23 sizes
Torque Rating:	6.2 - 68,130 N.m
Power Rating:	1/10 to 235 HP (0.1 kW - 175 kW)
Ratio Range:	3:1 to 119:1 (single) 121:1 to 7,569:1 (double) 8041:1 to 658,503:1 (triple)
Housing:	Cast Iron

Cyclo[®] Bevel BuddyBox[®] 4 Series

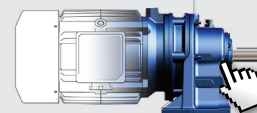


The Cyclo[®] Bevel BuddyBox[®] (Cyclo[®] BBB) 4 Series combines the advantages of the Cyclo[®] drive with bevel gears to yield a high torque range in a right-angle shaft configuration. This yields an extremely robust design with high overload reserves.

Sizes:	6 sizes
Torque Rating:	225 - 13,400 N.m
Power Rating:	1/8 to 100 HP (0.1 kW - 75 kW)
Ratio Range:	11:1 to 26,000 and greater
Housing:	Ductile Iron

Product Configurator: www.sumitomodrive.com/Configurator

Sumitomo Drive Technologies' online product Configurator streamlines the selection process, enabling you to build **our power transmission products for your specific application.**

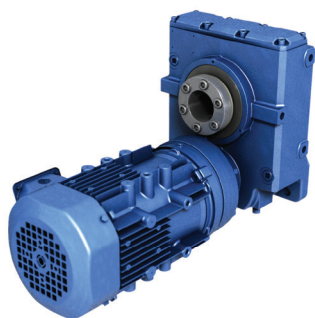


Configure your Sumitomo Drive Technologies products today at www.sumitomodrive.com/Configurator





Cyclo® Helical BuddyBox®



Cyclo® Helical BuddyBox® (Cyclo® HBB) drives combine the advantages of the Cyclo® with helical gears to yield a high torque range in an offset parallel configuration.

- Sizes:** 6 sizes
- Torque Rating:** 104 - 11,600 N.m
- Power Rating:** 1/4 to 40 HP
(0.2 kW - 30 kW)
- Ratio Range:** 11:1 to 26,000 and greater
- Housing:** Cast Iron

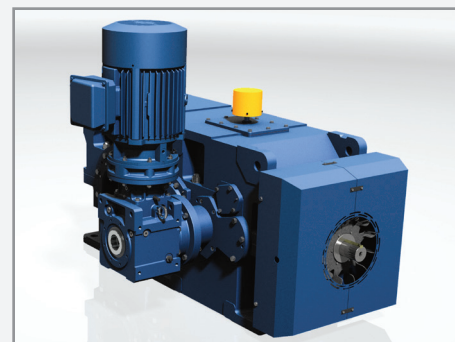
Helical Shaft Mount (HSM)



Helical Shaft Mount (HSM) drives offer high performance. The helical gears feature carburized teeth at a 25-degree pressure angle and wide gearfaces, enabling high-efficiency torque output and maximum ratings for shaft-mount configurations.

- Sizes:** AGMA 107 to 608
- Torque Rating:** 440 - 44,000 N.m
- Power Rating:** 1/4 to 300 HP
(.2 kW - 225 kW)
- Ratio Range:** 5:1, 14:1, 20:1, 25:1
- Housing:** Cast Iron

Inching and Creep Drive Capabilities



Both the Paramax® 9000 Series and the Hansen P4 Series offer options to incorporate an inching or creep drive designed to handle your full load operational needs.

Our standard Cyclo® or Cyclo® BBB products are mounted to the industrial gearbox to achieve slow operational speeds.

An overrunning clutch engages to achieve the slow speeds required for maintenance or inspection, and disengages for normal operating speeds.

Conveyors subject to harsh weather conditions with intermittent operation can benefit from using inching or creep drives.

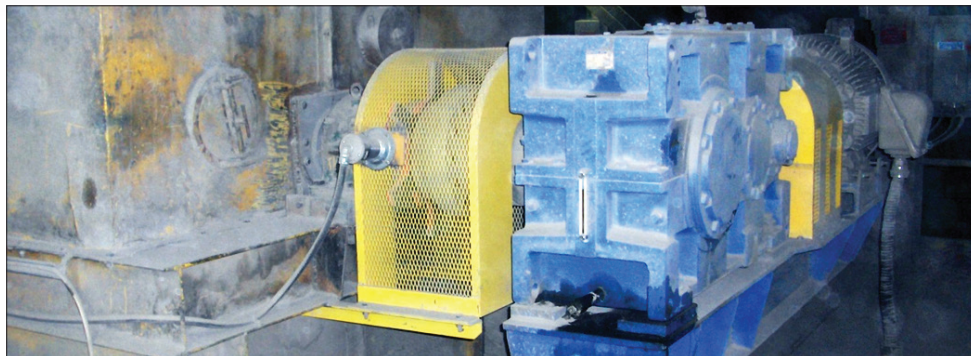
Inching and creep drives are sized to maximize the performance of your driven equipment.



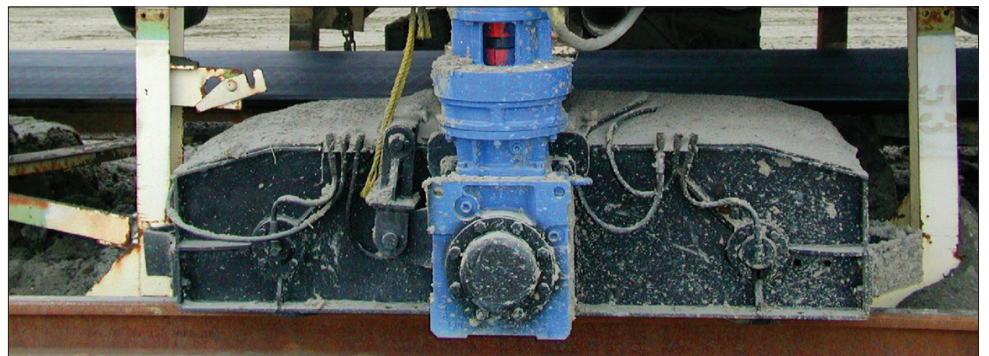


Applications

Bucket Elevators



Travel Drives

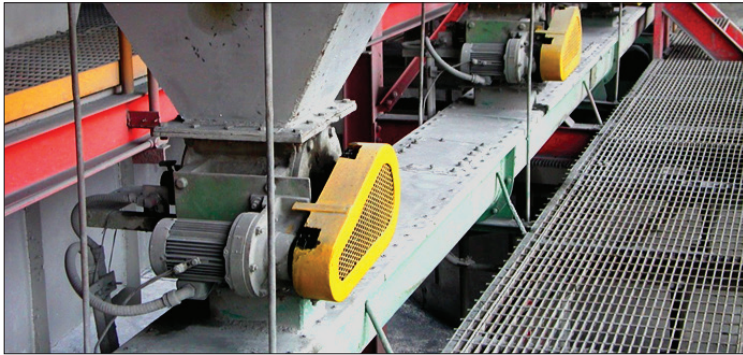


Conveyor Drives





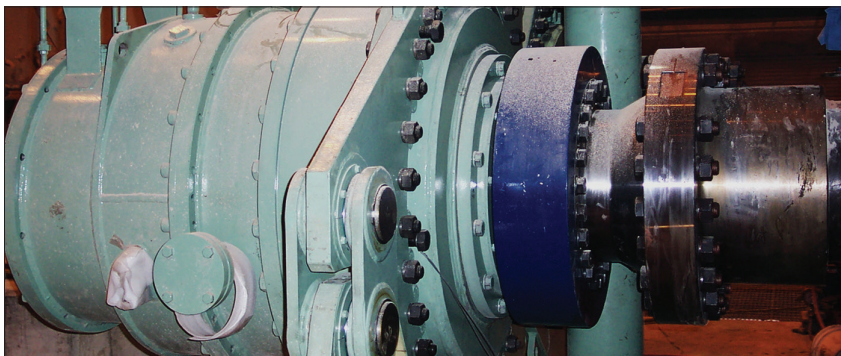
Metering Drives



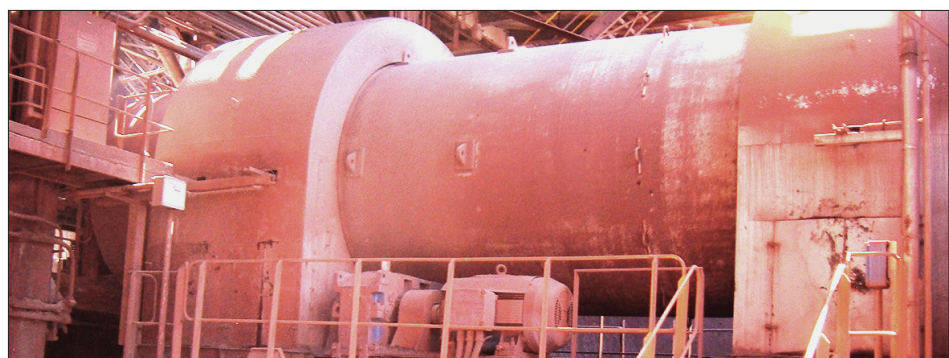
Bucket Wheel Drive



Sizing/Crushing



Kilns



Comprehensive Aftermarket Services

Our regional presence at major industrial cities in Asia-Pacific, (including Australia and India) is catered to your before-and-aftermarket services needs.



We provide repairs, service parts, technical sales, and field service support.

We offer the most comprehensive support teams in the region for every aspect of the gear lifecycle, from installation to maintenance, diagnosis and repair.

Retrofits and Custom-Built Units

Talk to us for retrofits or custom-built speed reducers of any kind.

We provide a competitive and comprehensive solution with a quick delivery to minimise your downtime.

Our Engineering Service Centers in the region offer a wide range of services including and not limited to:

- Factory certified repair centres located throughout Asia Pacific.
- Application upgrades: Lube systems, sealing systems, etc.
- Expedited service
- 24 hour on-call service
- Field service
- Technical support and maintenance recommendations
- Dedicated resources for customer support:
 - Service parts
 - Repair services
- Improved reliability of existing drives
 - Reduced down-time
 - Reduced Maintenance costs
 - Repair Hansen, Sumitomo and other brands
- Maintenance seminars and surveys available upon request
 - Recommended service parts and service parts management
 - Recommended maintenance intervals
- Custom "drop-in" replacements



What our customers say?

“The challenge of designing and installing an elevated conveyor system in such a long tunnel was demanding but our design has proved completely successful. Of course, in the industries that we serve, reliability is all-important, that’s why we chose Sumitomo for this application.”

- Conveyor Systems for Mining

“The decision to use Sumitomo gearboxes was fairly easy. They offer extreme durability and reliability, which are vitally important as in our operations – we are one of the five busiest quarries in the UK - we cannot afford breakdowns. Over the last few years, Sumitomo has become our preferred supplier of gearboxes: we already had a number of Sumitomo gearboxes in New Cliffe Hill quarry and have found the performance and backup to be exceptional. We also benefit from commonality of spares and the fact that Sumitomo holds larger spares locally; however, we have had no requirement to call on them as yet.”

-Quarry, United Kingdom

Sumitomo Paramax industrial reducers drive the underground conveyors at one of the largest and oldest soda ash facilities in North America. The facility, an underground trona mine and a surface refining plant that processes the ore into soda ash, operates around the clock, 365 days a year. The company mines more than 4.5 million tons-per-year of trona ore. When the company sought to replace their current reducers, Sumitomo offered Paramax, their premier industrial gearbox. The product’s compact size, parts availability, worldwide support, and continued success of the Paramax units for nearly a decade has lead this company to specify only Sumitomo reducers for their future conveyor systems.

- Soda Ash Facility, North America

We like working with Sumitomo very much and have a lot of faith in their gearboxes.

-Global Mineral Processing Equipment Manufacturer

Reliable Power Transmission Solutions for Cement Industry

We aim to provide quick delivery and fast technical service to our valued customers from our nine (9) well established Engineering & Service Centers in the Asia Pacific region; each with comprehensive stock, assembly, before and after sales technical support capabilities.



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Sydney, Australia
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Melbourne, Australia
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Pune, India
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Jakarta, Indonesia
Tel: +62 21 2961 2100



Manila, Philippines
Tel: +63 2 584 4921



Kuala Lumpur, Malaysia
Tel: +60 3 5121 0455



Chonburi, Thailand
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Ho Chi Minh, Vietnam
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