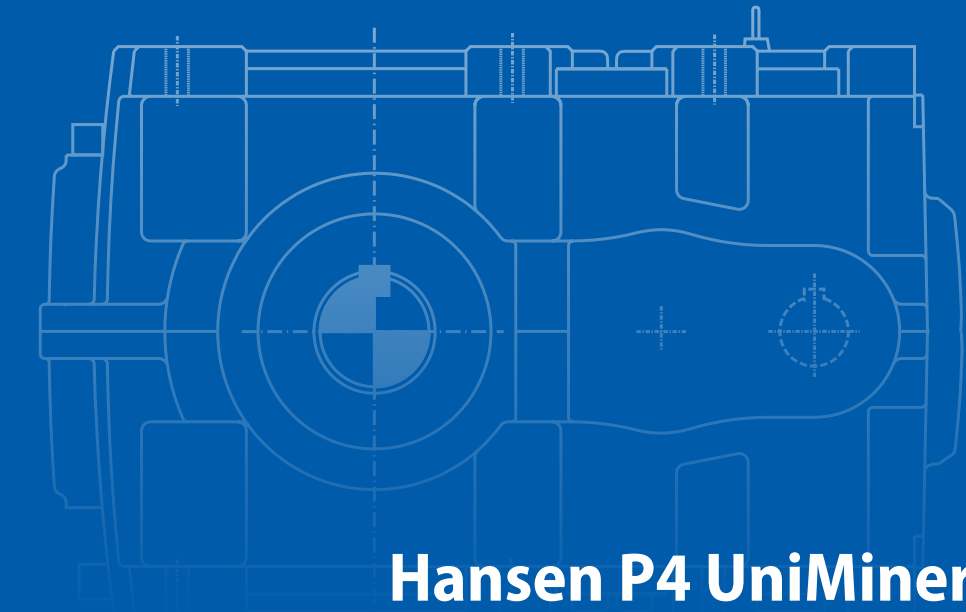


Hansen P4 UniMiner

www.sumitomodrive.com/UniMiner



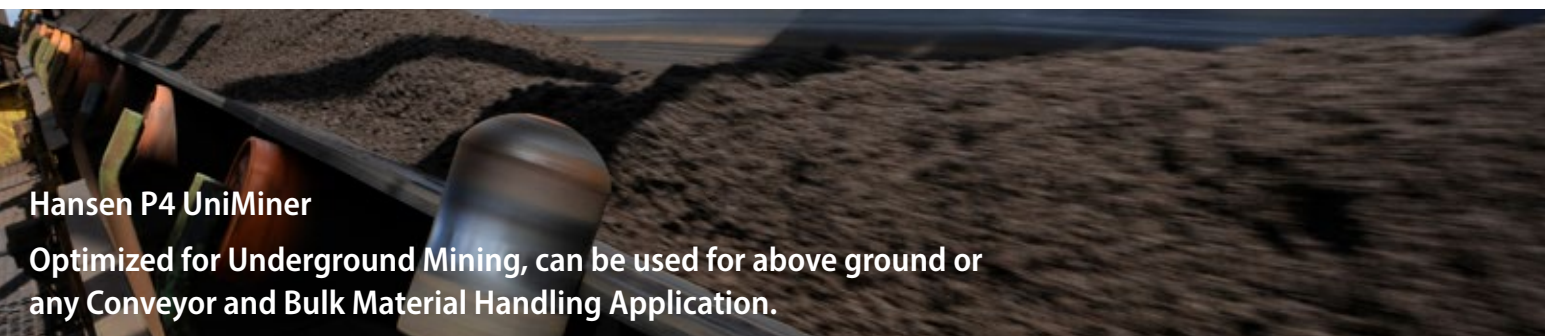
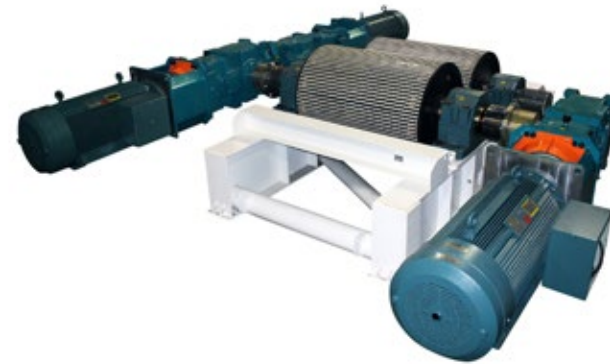
Hansen P4 UniMiner

Customer Spotlight: West River Conveyors Finds Success in the Hansen P4 UniMiner

West River Conveyors & Machinery Company is a leader in custom-built, custom-designed belt drives for coal and potash applications, and is one of Sumitomo-Hansen's largest P4 UniMiner drive consumers.

Sumitomo-Hansen's P4 UniMiner drives are used on many of our customer's belt drives based on the flexibility of the drive and high customer satisfaction of the products. Customers find benefit in the universal and flippable mounting features of the P4 UniMiner, eliminating the need to buy reducers specifically oriented for each installation. This is a great advantage to users wanting to purchase spares for future change outs where one reducer covers all orientations.

"The design layouts and features of the P4 UniMiner Drive work well with our application", states Jerry Roulett, President of West River. "The selection of sizes and offerings available per HP and RPM for the Hansen P4 UniMiner Drives fit the needs of our applications perfectly. "We have had great customer acceptance with the P4 UniMiner. Customers who have installed our drives in their operations will speak highly about the quality of the reducers. We've been using Hansen P4 UniMiners on our belt drives for over a decade now."



Hansen P4 UniMiner

Optimized for Underground Mining, can be used for above ground or any Conveyor and Bulk Material Handling Application.

P4 UniMiner for Severe Duty Applications:

Bucket Elevators

Stackers

Reclaimers

Conveyor Drives

Crushers



Comprehensive Product Support



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

Sumitomo Drive Technologies offers the most comprehensive support team for every aspect of the gear drive life cycle, from installation to maintenance, diagnostics and repair.

www.sumitomodrive.com/ProductSupport

Sumitomo's Product Support division ensures maximum uptime along with:

- Factory certified repair centers located throughout the Americas
- Expedited service
- 24 hour on-call service
- Field service and repair
- Technical support and maintenance recommendations
- Certified warranty on Sumitomo repaired gear drives
- Dedicated resources for customer support:
 - Service parts
 - Repair services
- Improved reliability of existing drives
 - Reduced down-time
 - Reduced maintenance costs
 - Repair Hansen and Sumitomo brands
- Maintenance seminars and surveys available upon request
 - Recommended service parts and service parts management
 - Recommended maintenance intervals
- Installed base management
- Custom "drop-in" replacements

◆ Sumitomo Machinery Corporation of America

www.sumitomodrive.com

For facilities located in the Americas, visit www.sumitomodrive.com/locations

For worldwide locations, visit www.sumitomodrive.com/worldwide

Tel: 1-800-SM-CYCLO



Hansen P4 UniMiner

The Hansen P4 UniMiner features a robust design that offers versatility for different mounting positions. With a 'flippable' housing and horizontal split line, the P4 UniMiner is the ideal alignment-free drive package.

Hansen Industrial Gearboxes' P4 UniMiner gear units are compact and optimized for mining and other applications involving bulk material handling. The P4 UniMiner allows for a variety of different mounting arrangements to fit the needs of the many unique and often inconvenient configurations frequently found in mining operations. The split Hansen gear housing design also makes the unit easy to service without having to remove the equipment. The P4 UniMiner is engineered and assembled in Virginia, USA.

Features of P4 UniMiner Gear Units

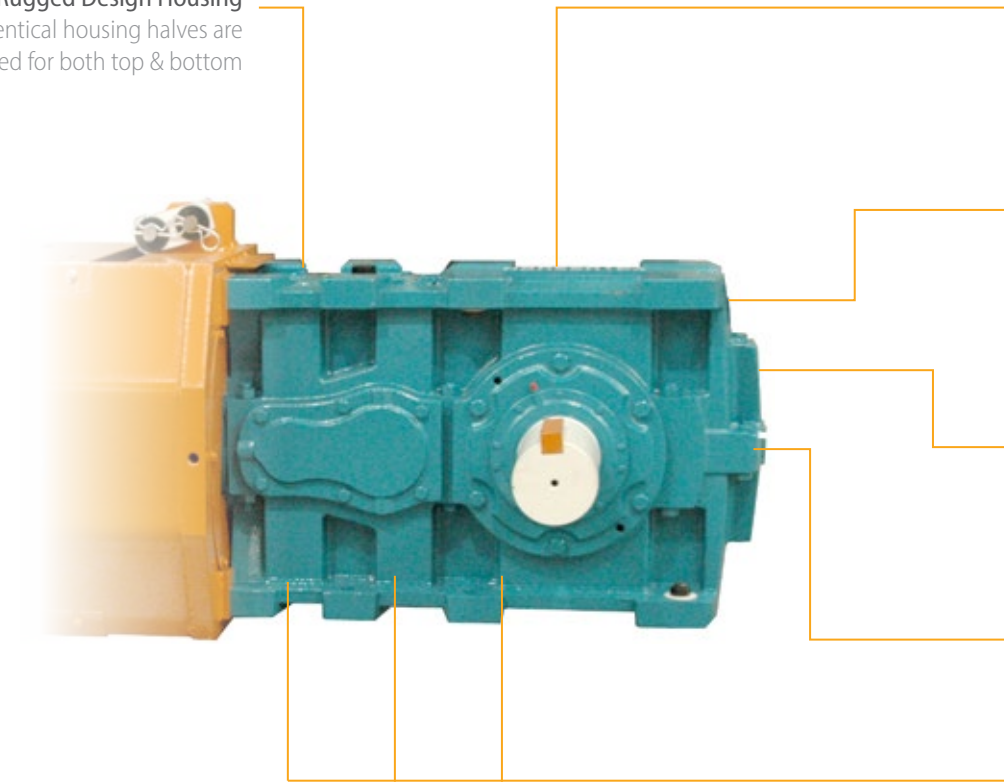
- Symmetrical, Flippable Design**
A flippable, alignment-free housing design with pilot for lantern housing
- Rugged Design**
Heavy duty seals, breathers and standard epoxy painting system withstand the harshest environments
- Horizontal Split Housing**
Horizontal split housing and accessible covers for service-on-the-spot inspection and maintenance
- Variety of Accessories & Packages**
Wide variety of motor installation accessories include: lantern housings, scoop brackets, common bases, and belt drive arrangements
- Consolidation of Required Spare Units**
The symmetrical, flippable housing of the P4 UniMiner allows for standardization and consolidation of required spares

Specifications Summary

Sizes:	5 Sizes C - G in M series; 2 Sizes G - H in Z series
Torque Capacity:	Up to 889,000 lb-in (100,445 N-m)
HP Rating:	Up to 2330 HP (up to 1738 kW)
Ratio Range:	8:1 to 71:1 (custom ratios available)
Housing:	Grey cast iron (standard) Ductile Iron (optional)

Rugged Design Housing

Identical housing halves are used for both top & bottom



P4 Gearing

Precision carburized and ground gearing delivers high capacity with optimum efficiency and quiet operation

Multiple Mounting Arrangements

Including: Alignment Free Adapter, Scoop Mount, Adjustable Top Mounts, Swing-Base and Foundation Mounted Bed Plates

Extended Tilt Capability

UniMiner mounting can be varied by +/- 3° without requiring additional lubrication system modifications

Housing Dowell Pins

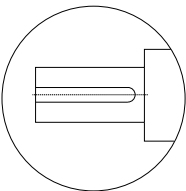
Provide exact alignment and ease of maintenance

Reinforced Ribbing

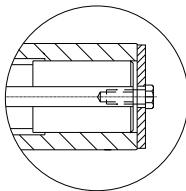
Provides optimal strength in key areas

Output Options

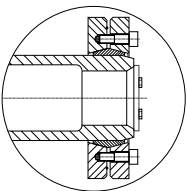
The P4 UniMiner offers a variety of output options, including Solid Shaft with Rigid Coupling, Keyed Hollow Bore and Hollow Bore with Shrink Disc.



Solid (Standard) Rigid-Rigid



Keyed Hollow Shaft

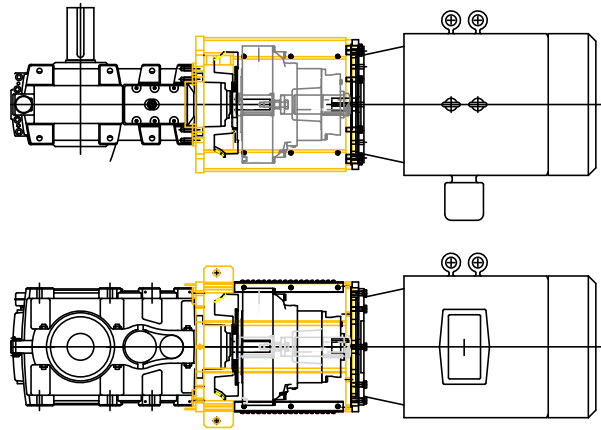


Shrink Disc

P4 UniMiner is a Drop-In Replacement

The Hansen P4 UniMiner is a drop-in replacement for most other alignment-free drives, including the 405, 425, 2090 and Model R.

Update your outdated gearbox installation with the P4 UniMiner and reduce your required on-hand spares at the same time. Sumitomo provides engineered solutions for large industrial gearboxes and their accessory components, creating a packaged solution to fit your exact needs.

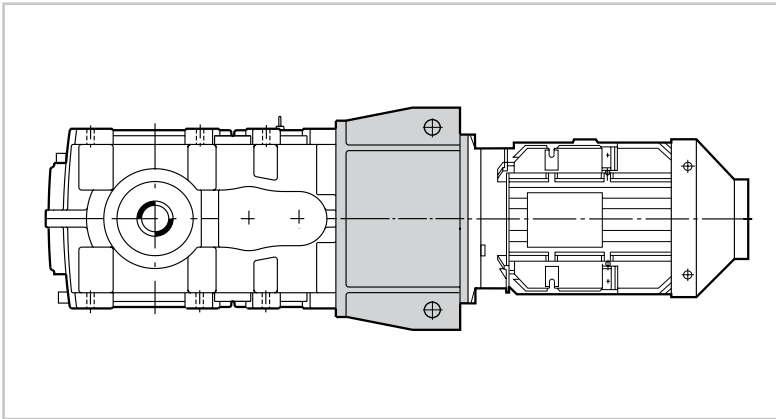


Accessory Options

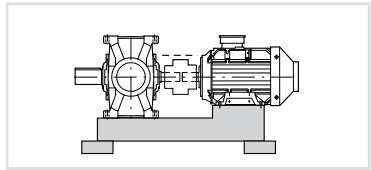
Unlimited selection of Power Transmission Components

Sumitomo offers a wide variety of accessories, components and options to customize the P4 UniMiner to your specific application, including:

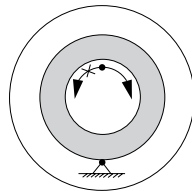
- Couplings of any type
- Brakes
- Backstops
- V-Belts & Sheaves
- Clutches
- Torque Limitation Devices
- Maintenance-Free seal designs
- Auxiliary Drives
- Cooling Options



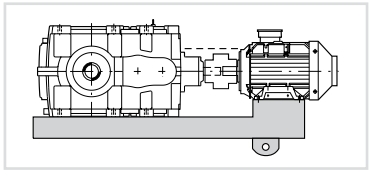
Motor Lantern



Bed Plate



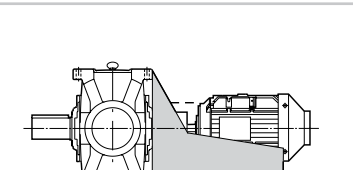
Backstop



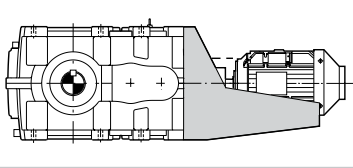
Swing Base



Flexible or Hydro-Dynamic Couplings



Motor Scoop



Motor Scoop Couplings

Rugged enough for underground duty ,
UniMiner is a **drop-in replacement**
for most other alignment-free drives.

Hansen P4 UniMiner Gear Units Frame Size Details

Frame Size		POWER		BORE RANGE	RATIOS
		Max Torque lb-in (N·m)	Max Motor Power HP (kW)	Solid Shaft inch (mm)	Ratio Range*
Z Series	Size H	889,000 (100,445)	2330 (1737)	7.500 (190.5)	Right Angle: 8:1 to 71:1 **
	Size G	663,000 (75,000)	1980 (1476)	7.000 (177.8)	
M Series	Size G	550,000 (62,000)	1150 (858)	7.000 (177.8)	Parallel: 10:1 to 40:1 Right Angle: 10:1 to 31.5:1
	Size F	405,000 (46,000)	810 (604)	6.250 (158.75)	
	Size E	284,000 (32,000)	660 (492)	5.500 (139.7)	
	Size D	202,000 (23,000)	420 (313)	5.000 (127.0)	
	Size C	126,000 (14,000)	275 (205)	4.625 (117.5)	

* Custom ratios available. Consult factory for more information

** Some ratios not available in all configurations. Consult factory for more information