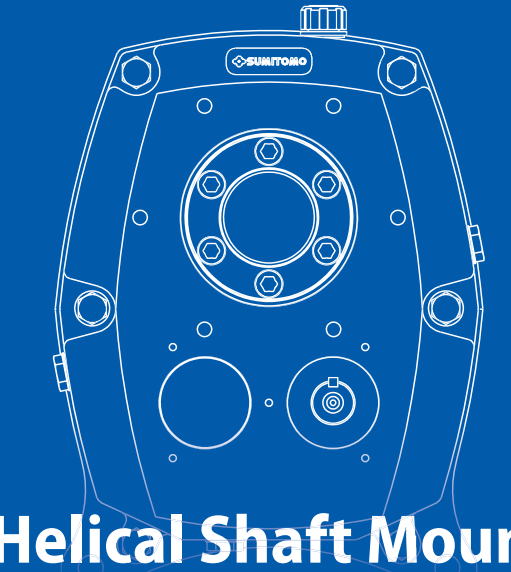


## Helical Shaft Mount

[www.sumitomodrive.com/HSM](http://www.sumitomodrive.com/HSM)



## Helical Shaft Mount

Helical Shaft Mounted Speed Reducer  
with CEMA Screw Conveyor Drive Option

### Straddle Mounted Integral Pinions and Gearing

All gearing is supported on both sides of the working surfaces to maximize ruggedness and reliability, while insuring accurate gear alignment for maximum life.

#### Carburized Gearing

Carburized gearing provides a strong gear surface with a resillient core to insure maximum shock resistance

#### 25° Pressure Angle Gearing

The 25° pressure angle of the HSM's gear teeth results in a broad tooth base for maximum strength

#### AGMA Standard Sizes

HSM's frame sizes conform to AGMA standards, saving space and reducing costs



### Helical Shaft Mount Applications

Perfect for screw conveyers, belt conveyers, bulk handling machinery and process equipment for:

Pulp, Paper, and Forestry  
Aggregate and Mining  
Construction

Grain and Agriculture  
Aquaculture  
Water Treatment  
Wastewater Treatment  
Baggage Handling



### Product Configurator: [www.sumitomodrive.com/Configurator](http://www.sumitomodrive.com/Configurator)

Want to explore other Sumitomo products for your application?

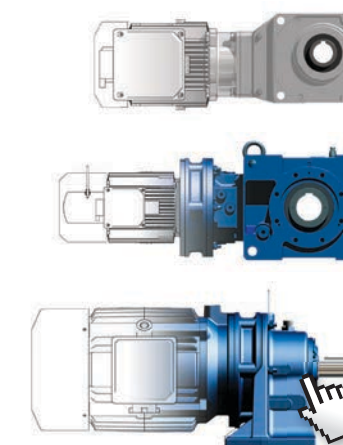
Sumitomo Drive Technologies' online product Configurator streamlines the selection process, enabling you to build our power transmission products for your specific application.



Available 24 hours a day, 7 days a week, registered users quickly receive results that include:

- Downloadable 2D and 3D CAD files
- Product Literature
- Technical Specification Sheet
- Product Ratings
- Request for Quote\*
- Quotations\*

This unique interactive tool is one more reason Sumitomo Drive Technologies is the world's premier power transmission and control solutions provider.



\*Not available for all markets and products

Configure your Sumitomo Products today at  
[www.sumitomodrive.com/Configurator](http://www.sumitomodrive.com/Configurator)

Sumitomo Machinery Corporation of America  
[www.sumitomodrive.com](http://www.sumitomodrive.com)

For facilities located in the Americas, please visit [www.sumitomodrive.com/locations](http://www.sumitomodrive.com/locations)  
For worldwide locations, please visit [www.sumitomodrive.com/worldwide](http://www.sumitomodrive.com/worldwide)  
Tel: 1-800-SM-CYCLO

### Sumitomo Americas

Sumitomo Machinery Corporation of America (SMA) is a subsidiary of Sumitomo Heavy Industries (SHI), the global leader in power transmission knowledge and innovation.

SMA began its operations in 1966 with a work force of ten people and an assembly facility of 5,000 ft<sup>2</sup> (465 m<sup>2</sup>). Today, our corporate headquarters in Chesapeake, VA (USA), combined with our strategic satellite locations throughout North, Central and South America occupy more than 500,000 ft<sup>2</sup> (46,500 m<sup>2</sup>) of office and manufacturing space. We ship thousands of drive products every month, adding to our North and South American installed base of more than five million units. SMA is committed to providing **Quality at Every Stage.**

#### USA - Headquarters & Manufacturing

4200 Holland Boulevard  
Chesapeake VA 23323  
Tel: 757-485-3355



# Helical Shaft Mount

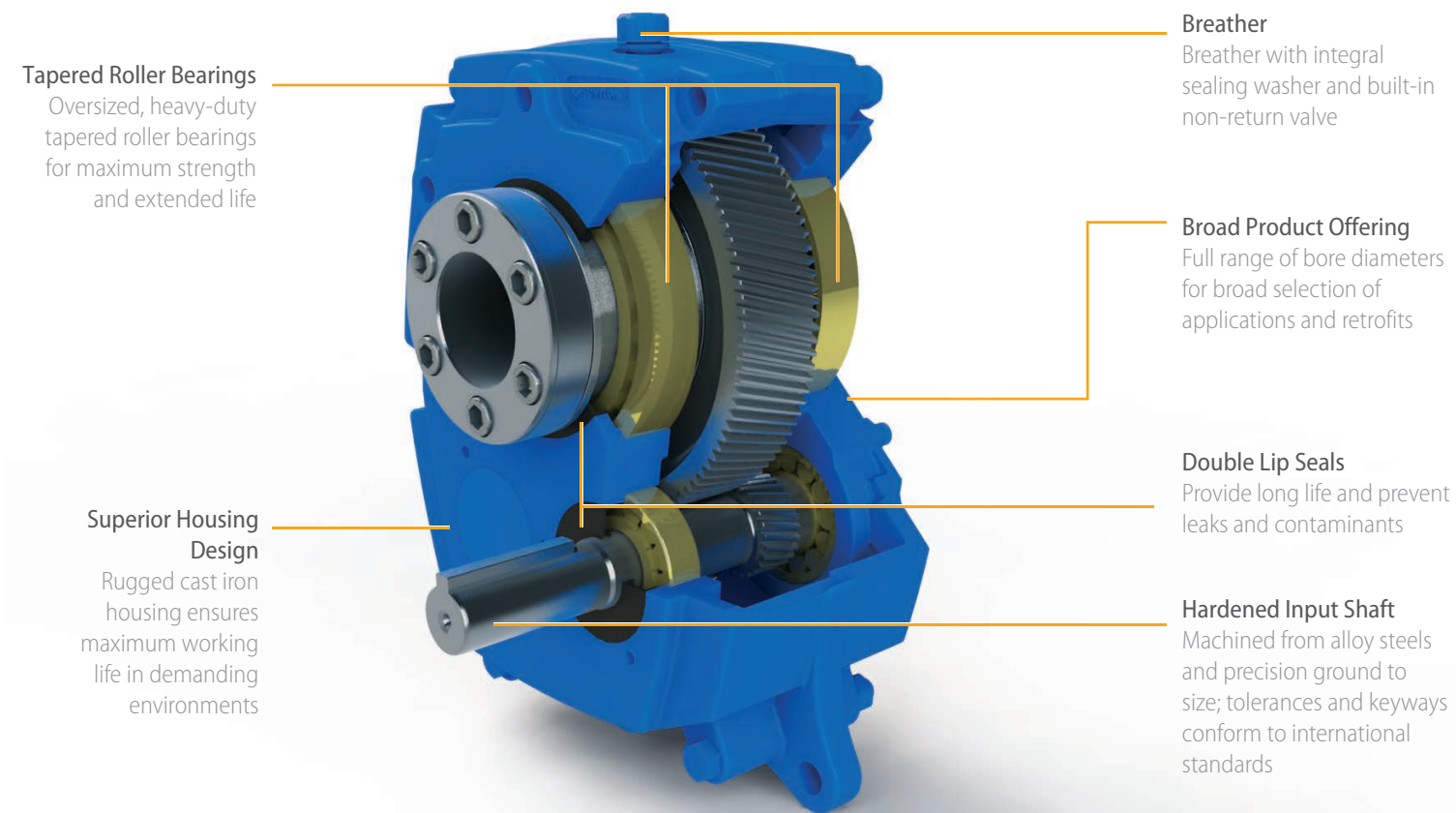
Helical Shaft Mounted Speed Reducer with CEMA Screw Conveyor Drive Option

Helical Shaft Mount uses **hardened 25° pressure angle gearing** for optimal performance in demanding applications

The Sumitomo Helical Shaft Mount (HSM) Speed Reducer provides simple and convenient equipment interface by mounting directly on the drive shaft. Featuring ratios from 5:1 to 25:1 and input power capacities more than 300 HP, the HSM uses Sumitomo's patented keyless Taper-Grip® Bushing for quick reducer mounting and removal.

## Features for the Helical Shaft Mount

- ▶ **Stronger Gears**  
Higher ratings resulting from a wider gear tooth face and a 25° pressure angle. The hardened alloy gearing is honed and shaved for low noise and to maximize service life
- ▶ **Integral Pinion**  
Robust, integrated input shafts and pinions providing reliability and durability
- ▶ **Taper-Grip® Bushing**  
Provides quick and easy mounting and removal of the unit
- ▶ **Industry Standard Sizes**  
HSM conforms to AGMA standard frame and bore sizes in both bushed and keyed hollow bore, making retrofits and drop-in replacements simple
- ▶ **Reduced Spare Inventory**  
Taper-Grip® Bushing and CEMA standard screw conveyor options significantly reduce spare parts inventory



**Tapered Roller Bearings**  
Oversized, heavy-duty tapered roller bearings for maximum strength and extended life

**Superior Housing Design**  
Rugged cast iron housing ensures maximum working life in demanding environments

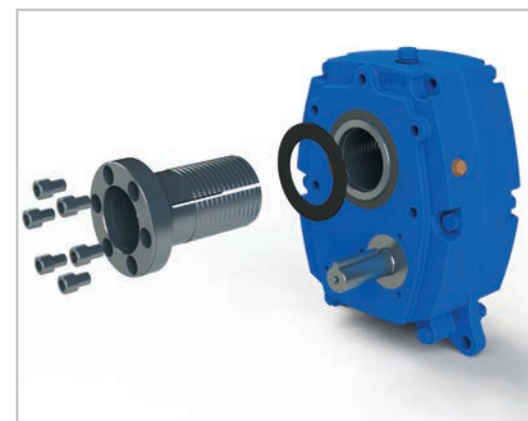
**Breather**  
Breather with integral sealing washer and built-in non-return valve

**Broad Product Offering**  
Full range of bore diameters for broad selection of applications and retrofits

**Double Lip Seals**  
Provide long life and prevent leaks and contaminants

**Hardened Input Shaft**  
Machined from alloy steels and precision ground to size; tolerances and keyways conform to international standards

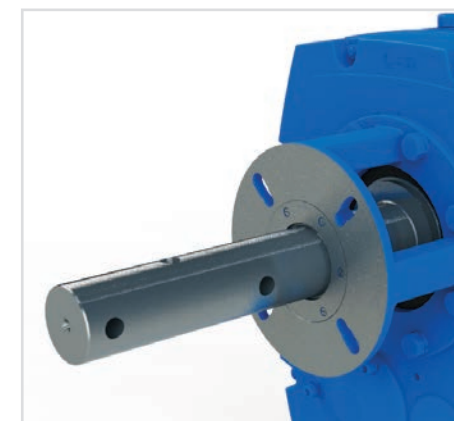
## Input and Output Options



### Keyless, Steel Taper-Grip® Bushing

The patented Sumitomo Taper-Grip® bushing system enhances the HSM value by offering a simple shaft-mounting device that provides self-aligning, backlash-free torque transmission to the driven shaft.

The unique design provides easy unit mounting and removal from the driven shaft, and resistance to fretting and corrosion. Multiple stock bore sizes available for quick delivery.



### CEMA Screw Conveyor Drive

This very compact design mounts directly and simply onto CEMA standard trough ends. The supplied lip seal and packing gland enable users to optimize the drive's sealing system.

### CEMA Standard Shafts

Both two hole and three-hole designs readily available in both carbon steel and stainless steel drive shafts.



Lip Seal



Packing Gland

## Helical Shaft Mount Frame Size Details

Frame Size*	MAXIMUM POWER		BORE DIAMETER
	Output Torque lb-ft (N-m)	Input Power HP (kW)	Taper-Grip® Bushing inch (mm)
107 C	380 (515)	15 (11)	1-3/16 to 1-7/16 (30 to 40)
115 D	599 (812)	23 (17)	1-7/16 to 1-15/16 (30 to 40)
203 E	944 (1280)	37 (26)	1-11/16 to 2-3/16 (40 to 55)
207 F	1,381 (1872)	54 (40)	1-15/16 to 2-7/16 (40 to 65)
215 G	2,388 (3238)	91 (68)	2-3/16 to 2-15/16 (50 to 75)
307 H	3,424 (4642)	125 (93)	2-7/16 to 3-7/16 (65 to 85)
315 J	5,270 (7145)	188 (140)	2-15/16 to 3-15/16 (75 to 100)
407 S	7,158 (9705)	262 (195)	3-7/16 to 4-7/16 (85 to 120)
415 K	9,426 (12780)	338 (252)	3-15/16 to 4-15/16 (90 to 125)
507 L	18,317 (24835)	267 (199)	4-7/16 to 5-7/16 (110 to 150)
608 M	32,407 (43938)	387 (289)	4-15/16 to 6-1/2 (125 to 190)

\* Frame size conforms to ANSI / AGMA 6109-A00 standards.

## Specifications Summary

<b>Sizes:</b>	107 to 608
<b>Torque Capacity:</b>	Up to 388,884 lb-in (43,938 N-m)
<b>HP Rating:</b>	1/4 to 300 HP (.19 to 224 kW)
<b>Ratio Range:</b>	5:1, 9:1, 15:1, 20:1, 25:1
<b>Mounting:</b>	Vertical, horizontal, and direct drive mounting configurations
<b>Housing:</b>	Cast iron case construction

## Additional Accessories



**Belt Guards**  
Offered in both rugged expanded metal designs or economical polymeric material.



**Backstops**  
Long lived and dependable sprag style backstops are externally accessible for quick and simple installation.



**Belt Drive and Motor Options**  
Modern "V" or traditional classic belt drives readily available. NEMA Premium Efficiency, Severe Duty or IEE841 motors readily available.



**Top Mounts**  
Two versions of robust, highly adjustable top mounts are available from stock.