

PRODUCT  
RANGE



Cone Drive is a world leader in precision motion control technology. We work with our customers every step of the way - from design specs to the final solution - to create highly precise, highly specific products that keep our customers' technology at the forefront of their industry. Cone Drive offers engineering support, unique solutions, and innovative technology across a breadth of industries and products to drive your company forward.



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# HIGH PERFORMANCE RIGHT ANGLE DRIVE - NEMA

High Performance - NEMA

## FEATURES

- DOUBLE ENVELOPING WORM GEARING
- **5 YEAR WARRANTY**
- 300% OVERLOAD
- FAN AND WATER COOLING OPTIONS

## SPECS

|                  |  |
|------------------|--|
| CENTER DISTANCES | 1.5" - 24"   |
| OUTPUT TORQUE    | Up to 2.9 million lb. in.  |
| GEAR RATIOS      | 5:1 to 70:1 in single reduction,<br>Up to 3600:1 in double reduction |
| INPUT OPTIONS    | Solid, Single or Double extended, NEMA adaptor                       |
| OUTPUT OPTIONS   | Solid, Hollow, Shrink Disc   |
| BACKLASH OPTIONS | Standard, Low, Absolute Zero   |



# HIGH PERFORMANCE RIGHT ANGLE DRIVE - SERVO

High Performance - Servo

## FEATURES

- DOUBLE ENVELOPING WORM GEARING
- **5 YEAR WARRANTY**
- 300% OVERLOAD
- EXACT RATIOS

## SPECS

|                  |  |
|------------------|--|
| CENTER DISTANCES | 3.00", 3.50", 4.00", 5.00",<br>6.00", 7.00", 8.00"                   |
| OUTPUT TORQUE    | Up to 120,000 lb. in.  |
| GEAR RATIOS      | 5:1 to 70:1 in single reduction,<br>Up to 4900:1 in double reduction |
| INPUT OPTIONS    | Fits any servo motor   |
| OUTPUT OPTIONS   | Solid, Hollow, Shrink Disc   |
| BACKLASH OPTIONS | Zero to 15 arc minutes   |





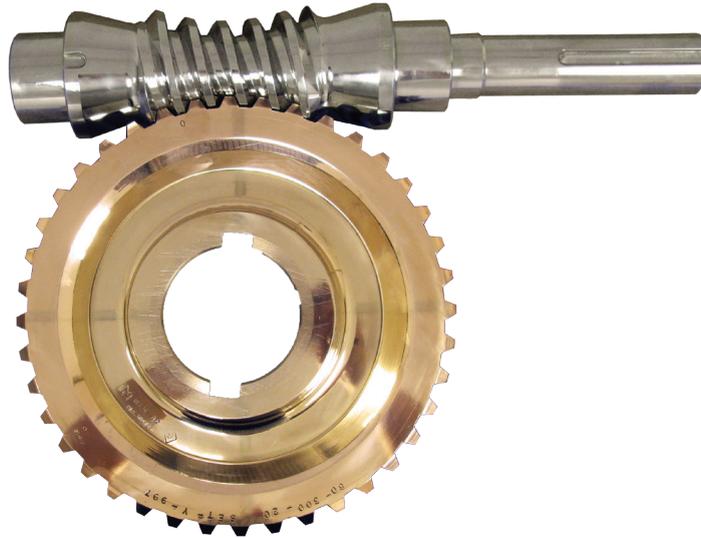
# HIGH PERFORMANCE GEAR SETS

## FEATURES

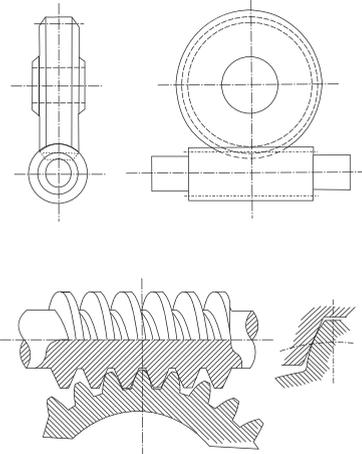
- SUPPLIED IN MATCHING SETS
- GREATER DURABILITY AND RELIABILITY
- 300% SHOCK LOAD
- **5 YEAR WARRANTY**
- CUSTOM RATIOS AVAILABLE
- INCH OR METRIC SIZES

## SPECS

|                  |  |
|------------------|--|
| SIZES            | From 1.50" - 54"   |
| GEAR RATIOS      | From 5:1 to 70:1   |
| INPUT OPTIONS    | Single or Double Extended and Custom Designed  |
| OUTPUT OPTIONS   | Solid, Hollow, or Flange Type  |
| MATERIAL OPTIONS | Gears available in standard tin bronze or aluminum bronze. Worms are hardened steel or optional stainless. |

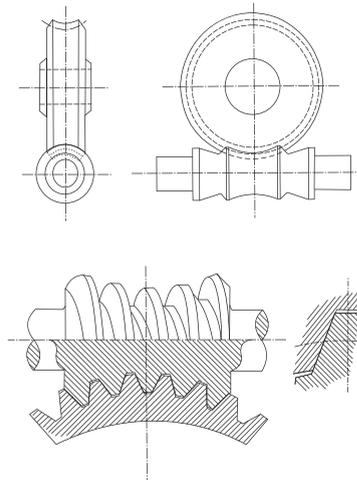


**Cylindrical worm gearing**



The mesh of common straight worm gearing provides one to 1½ gear teeth in contact with the worm.

**Double-enveloping worm gearing**



The Cone Drive double-enveloping design provides more tooth contact - up to **eight times** more than straight worms.



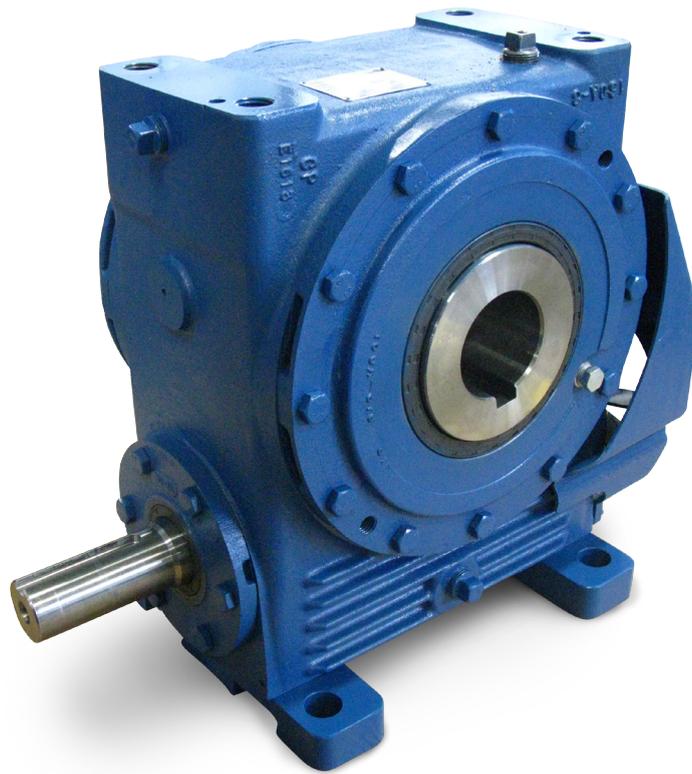
# UNIVERSAL RIGHT ANGLE DRIVE

## FEATURES

- NEMA AND SERVO MOTOR ADAPTATION
- NO LEAK DRY WELL DESIGN
- DIRECT DIMENSIONAL REPLACEMENT AGAINST RENOLD, RADICON, AND FLENDER
- **5 YEAR WARRANTY**
- FAN COOLING
- FLANGE MOUNT

## SPECS

|                  |   |
|------------------|---|
| CENTER DISTANCES | 100, 125, 160, 200                              |
| OUTPUT TORQUE    | Up to 78,600 lb. in.                            |
| GEAR RATIOS      | 5:1 to 70:1 in single reduction,                |
| INPUT OPTIONS    | Solid, NEMA or SERVO, Single or Double extended |
| OUTPUT OPTIONS   | Solid, Hollow, Standard dry well option         |





# PRECISION RIGHT ANGLE DRIVE

Precision Right Angle Drive

## FEATURES

- DOUBLE ENVELOPING WORM GEARING
- DOUBLE SEALS THROUGHOUT
- **5 YEAR WARRANTY**
- IP 65 RATED
- VENT-FREE AND SEALED FOR LIFE
- ALUMINUM CONSTRUCTION

## SPECS

|                  |   |
|------------------|---|
| SIZES            | 38, 51, 64, 76, 89mm  |
| OUTPUT TORQUE    | Up to 7,800 lb-in   |
| GEAR RATIOS      | 5, 6, 7, 8, 9, 10, 15, 20, 25, 30, 40, 50, 60                           |
| INPUT OPTIONS    | Solid Shaft, Servo Motor Mount  |
| OUTPUT OPTIONS   | Solid Shaft, Keyed Hollow Shaft, Shrink Disc Hollow Shaft, Direct Mount |
| BACKLASH OPTIONS | Standard, Low, Absolute Zero  |



# MIDRANGE RIGHT ANGLE DRIVE

Midrange Right Angle Drive

## FEATURES

- DOUBLE ENVELOPING WORM GEARING
- **5 YEAR WARRANTY**
- DOUBLE SEALS THROUGHOUT
- VENT-FREE AND SEALED FOR LIFE
- IP 65 RATED
- FLANGE MOUNT
- CAST IRON CONSTRUCTION

## SPECS

|                  |   |
|------------------|---|
| SIZES            | 1.50", 2.00", 2.50", 3.00", 3.50"                         |
| OUTPUT TORQUE    | Up to 7,800 lb-in   |
| GEAR RATIOS      | 5, 6, 7, 8, 9, 10, 15, 20, 25, 30, 40, 50, 60             |
| INPUT OPTIONS    | Any Servo or Stepper Motor                                |
| OUTPUT OPTIONS   | Solid Shaft, Keyed Hollow Shaft, Shrink Disc Hollow Shaft |
| BACKLASH OPTIONS | Standard or Low   |





## RIGHT ANGLE DRIVE - NEMA

### FEATURES

- HOLLOW BORE STANDARD FOR MAXIMUM FLEXIBILITY
- GUARANTEE MOTOR REMOVAL WITH PATENTED FRET FREE MOTOR BUSHING
- COMPLETE MOUNTING ACCESSORIES
- DIMENSIONALLY INTERCHANGEABLE WITH OTHER MANUFACTURERS
- LIGHTWEIGHT ALUMINUM CONSTRUCTION
- CONEX® DOUBLE ENVELOPING WORM GEARING
- **2 YEAR WARRANTY**

NEMA

### SPECS

|                |                                  |
|----------------|----------------------------------|
| SIZES          | 1.33" - 3.54"                    |
| OUTPUT TORQUE  | Up to 4,500 lb-in                |
| GEAR RATIOS    | Up to 3600:1 in double reduction |
| INPUT OPTIONS  | Solid shaft, NEMA                |
| OUTPUT OPTIONS | Solid or Hollow Shaft            |



## RIGHT ANGLE DRIVE - SERVO

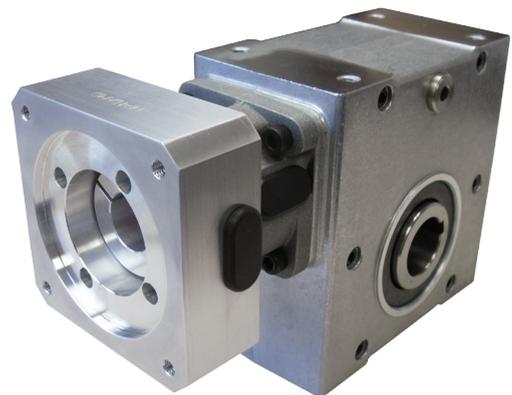
### FEATURES

- LIGHTWEIGHT ALUMINUM CONSTRUCTION
- VERSATILE MOUNTING OPTIONS
- TROUBLE-FREE SERVO MOTOR MOUNTING
- DOUBLE SEALED INPUT
- **2 YEAR WARRANTY**
- CONEX® DOUBLE ENVELOPING GEARING

Servo

### SPECS

|                      |  |
|----------------------|--|
| CENTER DISTANCES     | 1.33", 1.54", 1.97", 2.38", 3.00", 3.54" |
| SERVO MOTOR CAPACITY | Up to 7.5 KW                             |
| GEAR RATIOS          | 5, 7.5, 10, 15, 20, 25, 30, 40, 50, 60   |
| OUTPUT OPTIONS       | Solid or Hollow Shaft (single or double) |





# STAINLESS STEEL RIGHT ANGLE DRIVE

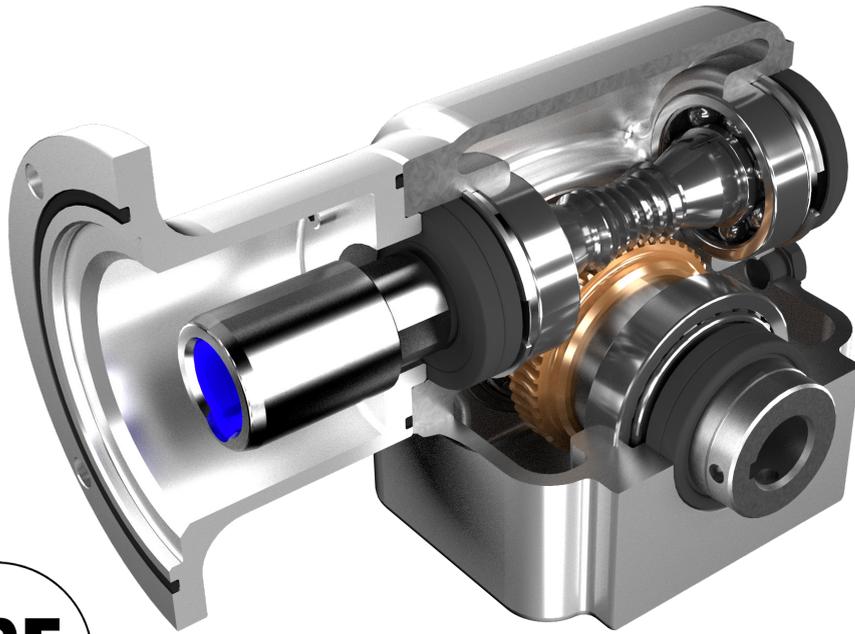
## FEATURES

- IP69K RATED
- LIFE-TIME LUBRICATION WITH FOOD-GRADE OIL
- DOUBLE-ENVELOPING WORM GEARING
- INCH OR METRIC SHAFTS
- DOUBLE INPUT & OUTPUT SEALS
- ASEPTIC DESIGN
- GUARANTEE MOTOR REMOVAL WITH PATENTED FRET-FREE MOTOR BUSHING
- DOUBLE WORM BEARINGS
- NSF & A3 CERTIFIED
- **5 YEAR WARRANTY**
- LASER ETCHED NAMEPLATE

## SPECS

|                  |   |
|------------------|---|
| CENTER DISTANCES | 1.54", 1.75", 1.97", 2.38", 3.00"             |
| NEMA FRAMES      | Up to 184TC frame                             |
| OUTPUT TORQUE    | Up to 6,660 lb-in                             |
| GEAR RATIOS      | From 5:1 to 60:1, single reduction            |
| OUTPUT OPTIONS   | Solid or Hollow Shaft in inch or metric sizes |
| MATERIAL         | 316 Stainless Steel                           |

Stainless Steel Right Angle Drive



COMPONENT





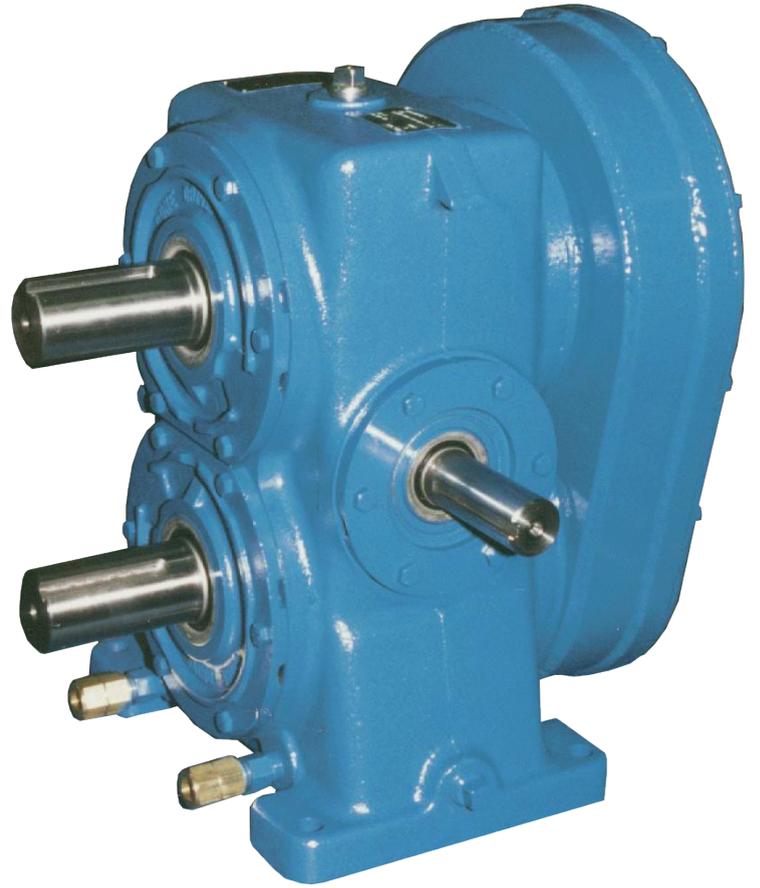
## FEATURES

- HIGH TORQUE CAPACITY WITH NO INCREASE IN SIZE
- ABILITY TO WITHSTAND HIGH STARTING AND STOPPING LOADS
- **5 YEAR WARRANTY**
- 300% SHOCK LOAD
- FAN OR WATER COOLING OPTIONS

## SPECS

|                  |   |
|------------------|---|
| CENTER DISTANCES | 2" - 24"  |
| OUTPUT TORQUE    | Up to 2,900,000 lb-in   |
| GEAR RATIOS      | Up to 4,900:1<br>Unequal ratio Pinch Roll available                   |
| INPUT OPTIONS    | Solid shaft (single or double extended),<br>NEMA flange (56C - 256TC) |
| OUTPUT OPTIONS   | Solid or Hollow Shaft in inch or metric sizes                         |







# HELICAL WORM & GEARMOTOR

## FEATURES

- DOUBLE ENVELOPING WORM GEARING
- **5 YEAR WARRANTY**
- 300% OVERLOAD
- WATER COOLING OPTION

## SPECS

|                  |  |
|------------------|--|
| CENTER DISTANCES | 2.50" - 10"  |
| OUTPUT TORQUE    | Up to 175,000 lb-in  |
| GEAR RATIOS      | From 5:1 up to 280:1   |
| INPUT OPTIONS    | Solid shaft, Standard NEMA C-face, D-flange, or Sugar Scoop      |
| OUTPUT OPTIONS   | Solid or Hollow Shaft, Shrink Disc, Flange Mount, and Torque Arm |





## FEATURES

- MOTOR ADAPTATION
- ULTRA-LOW TO ZERO BACKLASH
- STANDARD & CUSTOM RATIOS
- CONE DRIVE OPTIMIZED TOOTH PROFILES
- HIGH EFFICIENCY/ HIGH RATIOS
- BACK-DRIVEABLE
- DIRECT DEMENSIONAL REPLACEMENT AGAINST INDUSTRY STANDARDS
- MADE IN THE USA
- **2 YEAR WARRANTY**

## SPECS

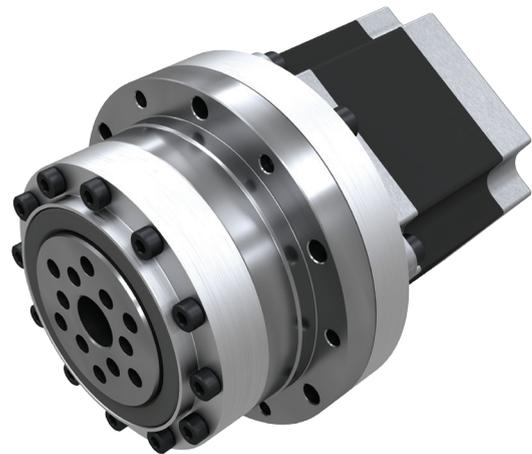
|                |  |
|----------------|--|
| SIZES          | 11-45, Custom                              |
| INPUT ADAPTERS | Servo, Stepper, AC, Air, Hydraulic, Manual |
| GEAR RATIOS    | 50, 80, 100, 120, 160, Custom              |
| OUTPUT OPTIONS | Solid, Hollow, or Custom                   |



## HARMONIC COMPONENT SETS



## HARMONIC GEARHEAD





# PRECISION INLINE DRIVE

Precision Inline Drive

## FEATURES

- COMPACT DESIGN & UNIVERSAL HOUSING
- PRECISION BEARINGS AND PRECISION GROUND GEARING
- 3 ARC-MINUTE BACKLASH
- **5 YEAR WARRANTY**

## SPECS

|                |                                 |
|----------------|---------------------------------|
| SIZES (TYPE S) | 60, 90, 115, 140, 180, 220      |
| (TYPE N)       | 60, 75, 100, 140, 180, 210, 240 |
| OUTPUT TORQUE  |                                 |
| (TYPE S)       | Up to 13,275 lb-in              |
| (TYPE N)       | Up to 21,240 lb-in              |
| GEAR RATIOS    | Up to 100:1 in two stages       |
| INPUT OPTIONS  | Fits any servo motor            |
| OUTPUT OPTIONS | Output with or without keyway   |



# INLINE DRIVE

Inline Drive

## FEATURES

- UNIVERSAL HOUSING
- QUIET & SMOOTH
- FAST AND ERROR FREE MOTOR ASSEMBLY
- 5 ARC-MINUTE BACKLASH
- **5 YEAR WARRANTY**

## SPECS

|               |   |
|---------------|---|
| SIZES         | 50, 70, 90, 120, 155, 205, 235                    |
| OUTPUT TORQUE | Up to 13,275 lb-in                                |
| GEAR RATIOS   | From 3:1 in a single stage to 100:1 in two stages |
| INPUT OPTIONS | Fits Servo or Stepper motors                      |



# SLEWING DRIVE

Slewing Drive

## FEATURES

- LOW PROFILE DESIGN
- OPTIONAL PLANETARY OR WORM GEAR DRIVEN SPUR ROTATION DRIVE
- CAPABLE OF COMBINED TITLTING, RADIAL AND AXIAL LOADS
- STRONG SHOCK RESISTANCE, LONG LIFE PERFORMANCE
- SMOOTH ROTATION, HIGHLY ADAPTABLE
- COST EFFICIENT & RELIABLE
- SEALED DRIVE OPTIONS
- **2 YEAR WARRANTY**

## SPECS

|                    |  |
|--------------------|--|
| SIZES              | 7", 9", 12", 14", 17", 21", 25"                        |
| RATIO              | 47, 62, 79, 86, 104, 90, 104                           |
| OUTPUT TORQUE      | Up to 60 kNm (44,220 lb-ft)                            |
| HOLDING TORQUE     | Up to 158 kNm (116,535 lb-ft)                          |
| OVERTURNING MOMENT | Up to 310 kNm (228,644 lb-ft)                          |
| OUTPUT OPTIONS     | Standard bolt circle diameters published for each size |
| HOUSING OPTIONS    | Open, Closed, High Strength                            |

# SLEWING BEARING

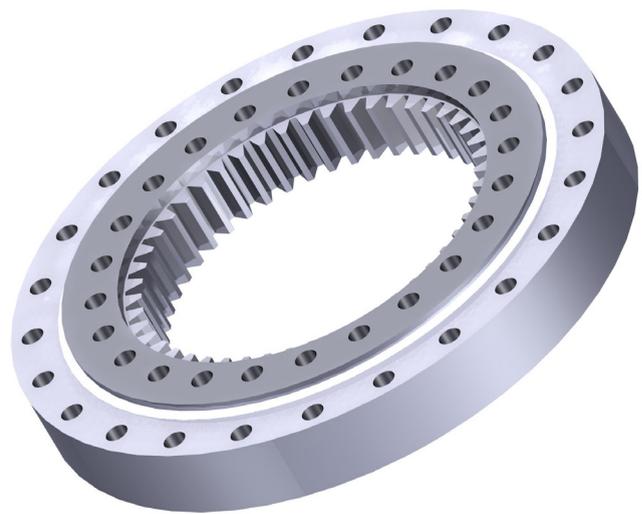
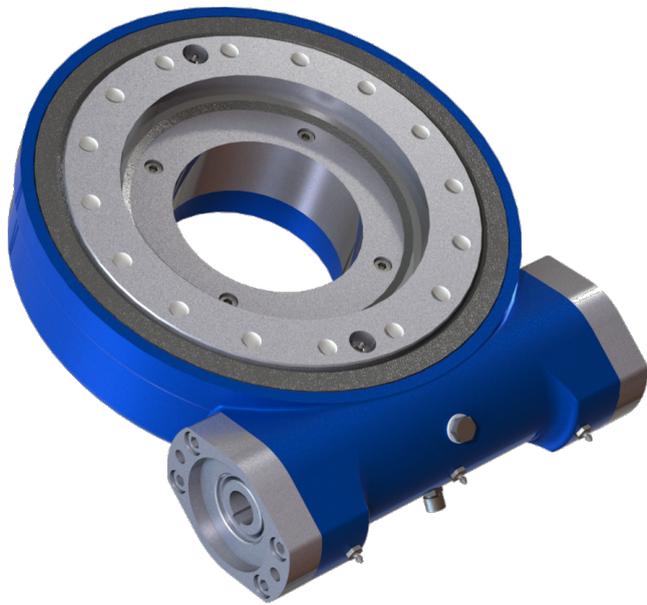
Slewing Bearing

## FEATURES

- LOW PROFILE DESIGN
- CAPABLE OF COMBINED TILTING, RADIAL, AND AXIAL LOADS
- STRONG SHOCK RESISTANCE, LONG LIFE PERFORMANCE
- SMOOTH ROTATION
- HIGHLY ADAPTABLE
- COST EFFICIENT & RELIABLE
- PROTECTED BEARING
- **2 YEAR WARRANTY**

## SPECS

|        |   |
|--------|---|
| SIZES  | 224mm (8.82") - 800mm (31.5") ball pitch diameter bearing     |
| STYLES | Slew Ring, Slew Ring External Teeth, Slew Ring Internal Teeth |





## CUSTOM ASSEMBLY

### Capabilities

We recognize that ready-made products are not always the best solution. Our product range is engineered to enable a high degree of flexibility. From product modifications to full customization services, our experienced engineering and application support teams are available to work with you. Our engineers can recommend the best possible gearing solution to minimize the total cost of ownership.

#### Customizable Options Include:

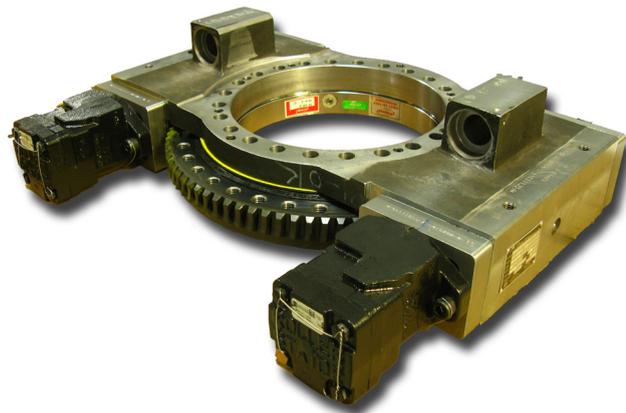
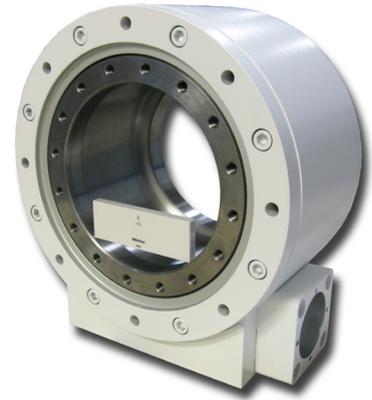
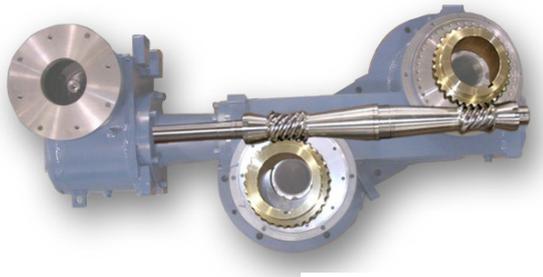
- Ratio
- Shaft Diameters
- Shaft Lengths
- Materials
- Bearings
- Housings
- Design to Specification



## CUSTOM GEAR SETS

### Capabilities

|             |   |
|-------------|---|
| SIZES       | Custom sizes ranging from 1.25" CD - 54" CD   |
| GEAR RATIOS | Custom ratios available from 3:1 to 300:1 in a single stage   |
| BACKLASH    | As low as Absolute Zero   |
| MATERIALS   | Gears available in tin bronze, aluminum bronze, or ductile iron. Worms available carbon steel, stainless, and plastics. |



# GLOBAL LOCATIONS



**Cone Drive Operations, Inc.**  
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