

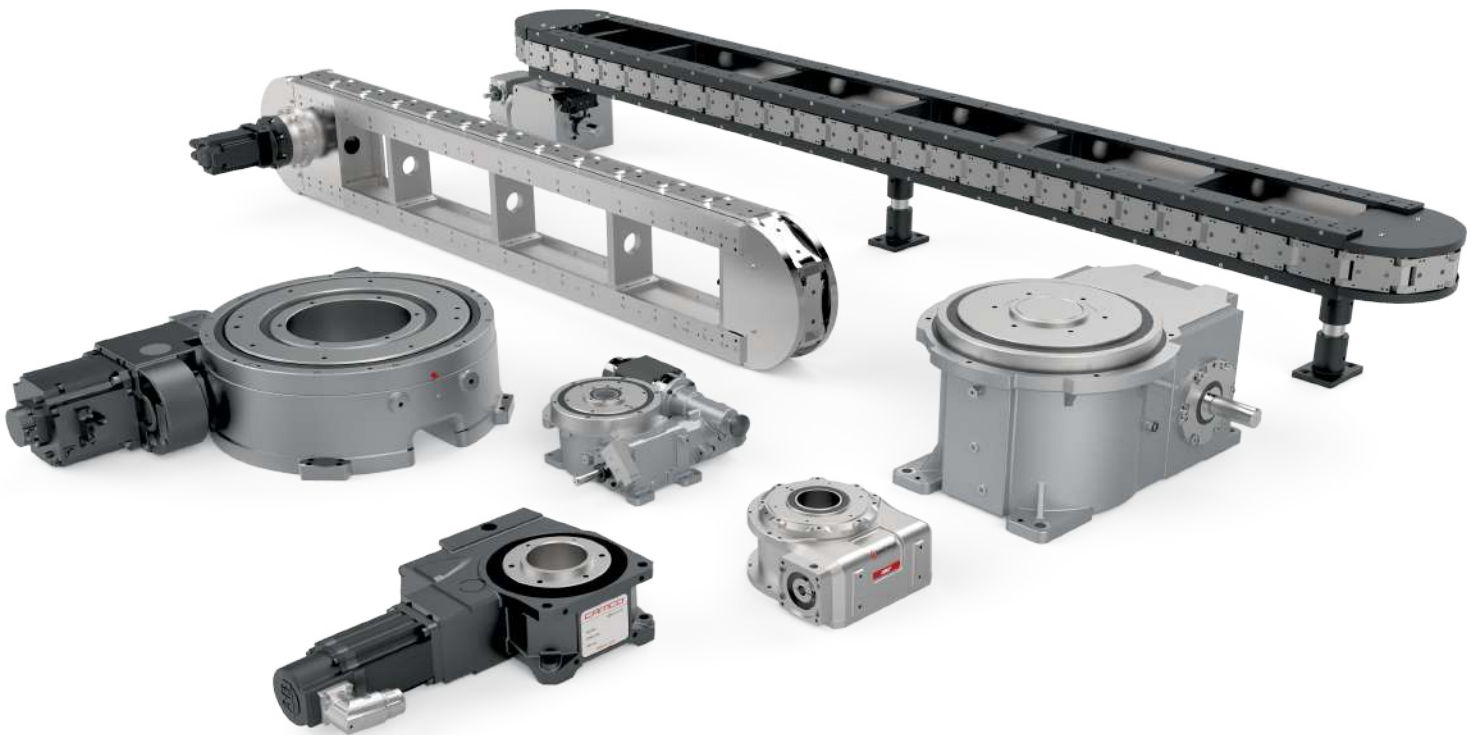
## Precision Indexing (IN)

01/30/2025



[info@cesehsa.com.mx](mailto:info@cesehsa.com.mx)

[cesehsa.com.mx](http://cesehsa.com.mx)



# Precision Indexing (IN)

01/30/2025

This catalog is a custom document and the products included is based on your unique selection from portions of complete catalogs that already exist. Please refer to our full catalogs for more information on products not included in this customized document.

## Table of Contents

|                                           |                   |
|-------------------------------------------|-------------------|
| <b>GTB Roller Gear Servo Positioner</b>   | <b>IN-SRV-1</b>   |
| <b>PGM Parallel Gear Servo Positioner</b> | <b>IN-SRV-19</b>  |
| <b>RSD Servo Indexers</b>                 | <b>IN-SRV-25</b>  |
| <b>RDM Dial Indexers</b>                  | <b>IN-MCH-1</b>   |
| <b>RD HD Dial Indexers</b>                | <b>IN-MCH-41</b>  |
| <b>E-Series HD Drives</b>                 | <b>IN-MCH-53</b>  |
| <b>RA Right Angle Drives</b>              | <b>IN-MCH-65</b>  |
| <b>RGS/RGD Shaft/Flange Drives</b>        | <b>IN-MCH-75</b>  |
| <b>Parallel Shaft/Flange Drives</b>       | <b>IN-MCH-95</b>  |
| <b>RNG Easy Access Dial Indexers</b>      | <b>IN-MCH-107</b> |
| <b>Overload Clutches</b>                  | <b>IN-CLU-1</b>   |
| <b>Custom Cams</b>                        | <b>IN-CAM-1</b>   |
| <b>Rite-Link Conveyors</b>                | <b>IN-CNV-1</b>   |
| <b>Table-Top Modular Conveyors</b>        | <b>IN-CNV-3</b>   |
| <b>Heavy Duty Modular Conveyors</b>       | <b>IN-CNV-15</b>  |
| <b>LPP Lineal Part Handles</b>            | <b>IN-PRT-1</b>   |
| <b>RPP Rotating Part Handlers</b>         | <b>IN-PRT-7</b>   |

## Table of Contents (continued)

# GTB SERIES

## Globoidal (Roller Gear) Servo Positioner | Table of Contents



### Features:

Destaco’s **CAMCO GTB Series** are lightweight, compact, high-accuracy programmable servo positioners.

The exceptional low profile high-torque output design supports the demands of high inertia load applications.

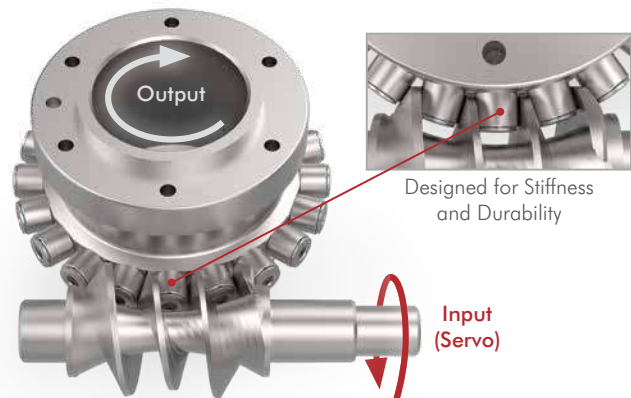
Available in four sizes, the GTB series units are lubricated for life and can be mounted in either horizontal or vertical orientations. The GTB Series feature the largest utility through hole diameter available for its size, making it ideal for space constrained machine applications.

| Table of Contents         | IN-SRV-# |
|---------------------------|----------|
| Features & Benefits ..... | 2        |
| How to Order .....        | 3        |
| Specifications .....      | 5        |
| Indexer Sizing .....      | 6        |
| GTB40 .....               | 7        |
| GTB63 .....               | 10       |
| GTB80 .....               | 13       |
| GTB100 .....              | 16       |



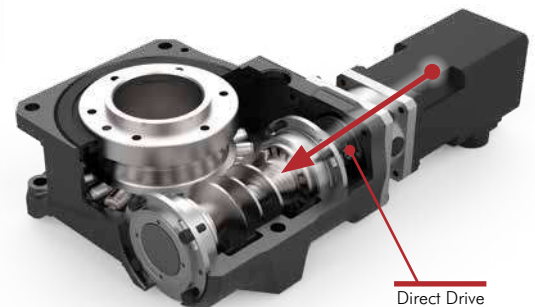
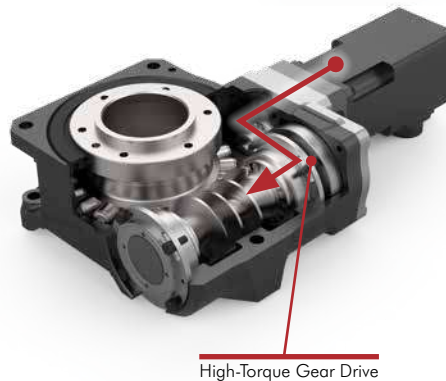
### Zero Backlash Roller Gear Cam Mechanism

Innovative roller gear design provides exceptionally smooth motion performance. The globoidal cam and output turret with integrated rollers are a preloaded system that delivers zero backlash for superior accuracy, stiffness and long term durability.



### Flexible Drive Options

Each GTB model can be ordered in two different drive options. The high-torque gear drive option is used for applications with large inertia requirements while maintaining a small motor size. The direct drive option provides zero backlash, high precision operation. Both options interface with an array of servo motor suppliers.



### Orientation Independent Mounting

GTB Series units can be mounted in any orientation for easy installation and machine standardization.

Install units in any configuration:

- Flat horizontal table mounting
- Vertical mounting
- Trunnion Mounting
- Inverted (upside down) mounting



Trunnion Mount



Table Mount

# GTB SERIES

## Globoidal (Roller Gear) Servo Positioner | How To Order

### GTB Series: How To Order

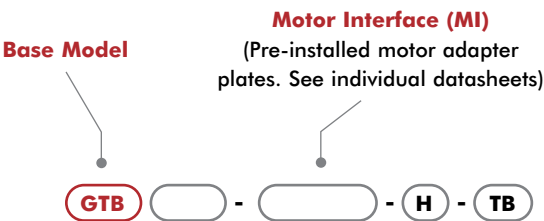
#### Globoidal (Roller Gear) Servo Positioner Base Unit

GTB Series units can be interfaced with wide variety of servo motor manufacturers. Use the MI code tables to identify the supported motors for each GTB unit. The MI code specifies the motor adapter plate that provides direct easy motor mounting to the GTB servo positioner.

The -H option for independent mounting orientation comes standard with every GTB series unit. The -T option for precision dial plate locating dowel hole and -B option for precision mounting dowel holes are also provided as standard.



GTB Series without motor installed



| Size | Supported Gear Ratios |
|------|-----------------------|
| 40   | 45:1                  |
|      | 15:1                  |
| 63   | 60:1                  |
|      | 20:1                  |
| 80   | 60:1                  |
|      | 20:1                  |
| 100  | 60:1                  |
|      | 20:1                  |

**Standard Features**

- H** Orientation independent mounting. Supports vertical, horizontal, trunnion applications
- T** Single output flange surface dowel hole for precision dial plate locating
- B** Precision placement housing dowel holes, 2 on top of unit, 2 on bottom of unit

**Easily Integrates with a Variety of Servo Motor Manufacturers**

|               |            |
|---------------|------------|
| Allen Bradley | Mitsubishi |
| AMK           | Panasonic  |
| Mitsubishi    | Sanyo      |
| FANUC         | SEW        |
| Keyence       | Siemens    |
| KUKA          | Yaskawa    |

Units are available in two different gear ratios based on Direct or Geared motor coupling. Contact Sales to determine what motors are supported for precision direct drive applications and geared drive high torque configurations.



**Gear Drive:**  
**High Inertia Applications**  
45:1 GTB40  
60:1 GTB63, GTB80, GTB100



**Direct Drive:**  
**Zero Backlash Precision Applications**  
15:1 GTB40  
20:1 GTB63, GTB80, GTB100

### GTB Series: How to Order configured System (Allen Bradley only)

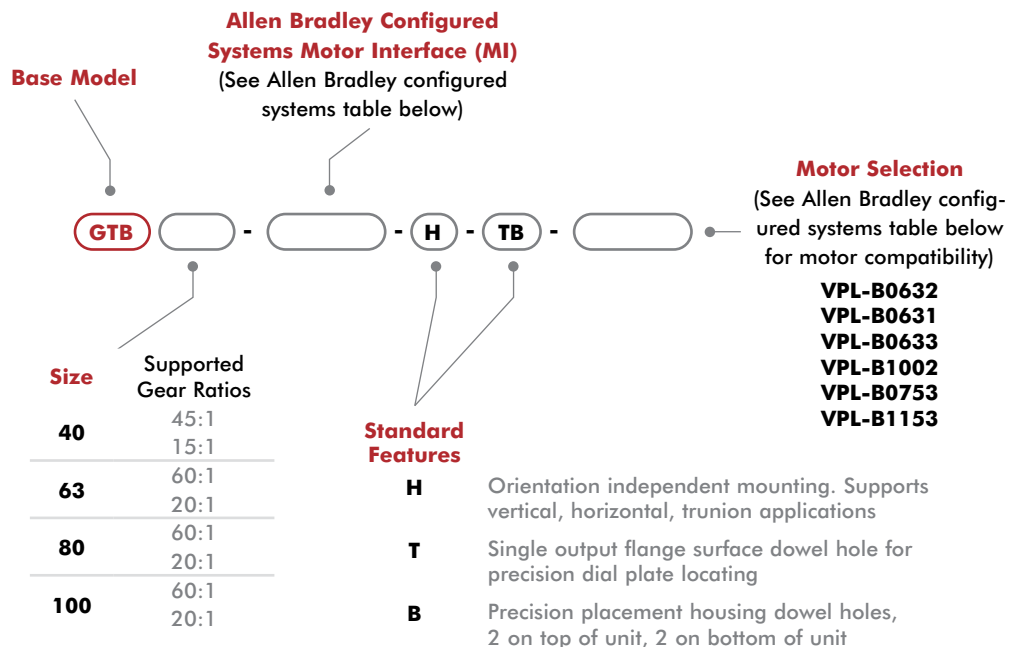
#### Servo Positioner Configured Systems

GTB Series units can be interfaced with wide variety of servo motor manufacturers. Use the MI code table to identify the supported motors for each GTB unit.

GTB series are also offered as a configured system when selecting Allen Bradley servo motors. The Allen Bradley servo motor will be installed to the GTB unit and shipped as a complete assembly. The GTB series and motor combinations are a matched pair that supports a variety of servo positioning rotary table applications. To use one of the configured systems you must verify the application requirements are within the operating parameters of the GTB unit and motor combination.



GTB Series with  
Allen Bradley Motor Installed\*



#### Allen Bradley Configured Systems

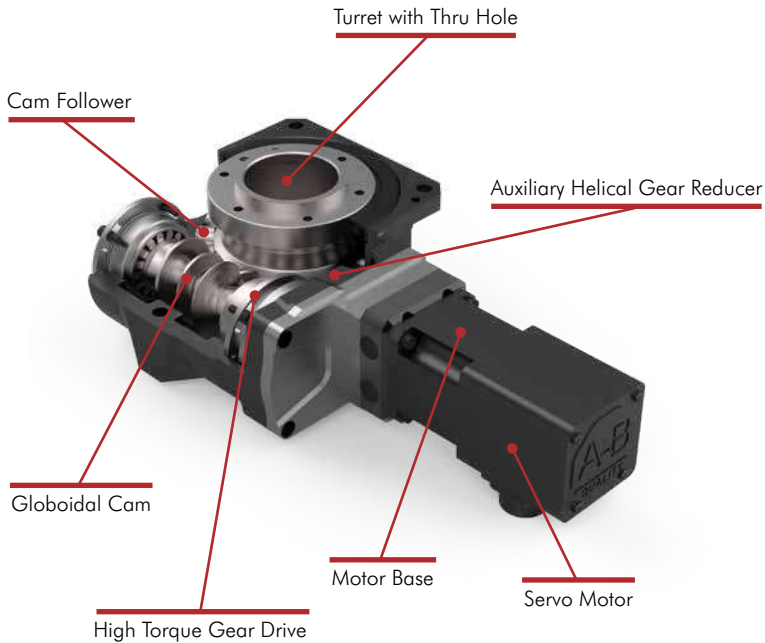
| Size | Base Part # | Allen Bradley MI Code # | Motor Coupling | Gear Ratio | Motor Vendor  | Allen Bradley Motor Part # | Motor Frame<br>mm [in] | Flange size<br>mm [in] | Shaft Ø<br>mm [in] |
|------|-------------|-------------------------|----------------|------------|---------------|----------------------------|------------------------|------------------------|--------------------|
| 40   | GTB40       | FDG20                   | Direct         | 15:1       | Allen Bradley | VPL-B0632                  | 60 [2.36]              | 63 [2.48]              | 9 [0.35]           |
|      | GTB40       | FGC20                   | Geared         | 45:1       |               | VPL-B0631                  |                        |                        |                    |
| 63   | GTB63       | GDP20                   | Direct         | 20:1       |               | VPL-B0633                  |                        |                        |                    |
|      | GTB63       | GGC22                   | Geared         | 60:1       |               | VPL-B0632                  |                        |                        |                    |
| 80   | GTB80       | HDP20                   | Direct         | 20:1       |               | VPL-B1002                  | 100 [3.94]             | 100 [3.94]             | 16 [0.63]          |
|      | GTB80       | HGD24                   | Geared         | 60:1       |               | VPL-B0753                  | 80 [3.15]              | 75 [2.95]              | 11 [0.43]          |
| 100  | GTB100      | JDG20                   | Direct         | 20:1       |               | VPL-B1153                  | 100 [3.94]             | 115 [4.53]             | 19 [0.75]          |
|      | GTB100      | JGE27                   | Geared         | 60:1       |               |                            |                        |                        |                    |

\* = Servo Positioner units are assembled, tested and shipped with the above recommended motor for best performance.

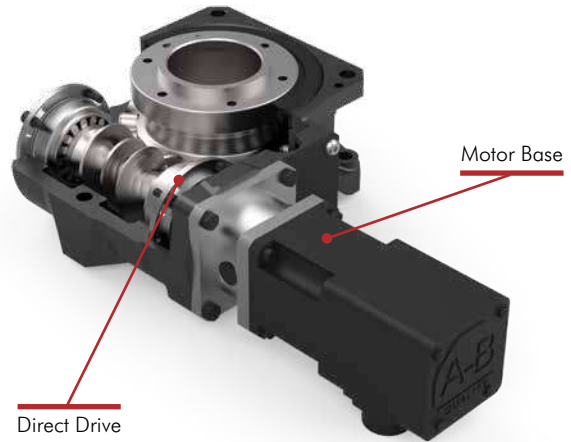
# GTB SERIES

## Globoidal (Roller Gear) Servo Positioner | Specifications

### High Torque Gear Drive: High Inertia Application



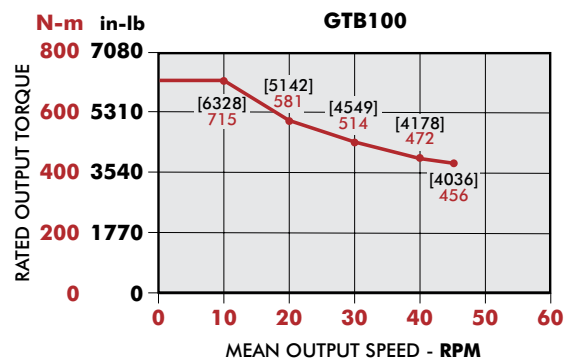
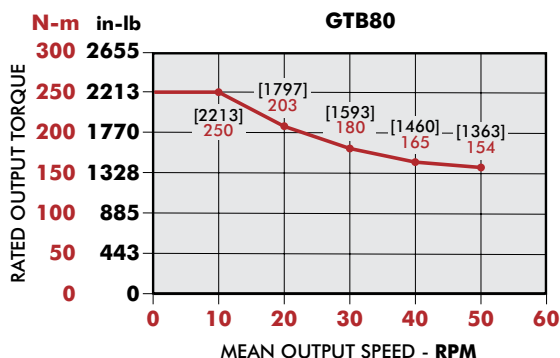
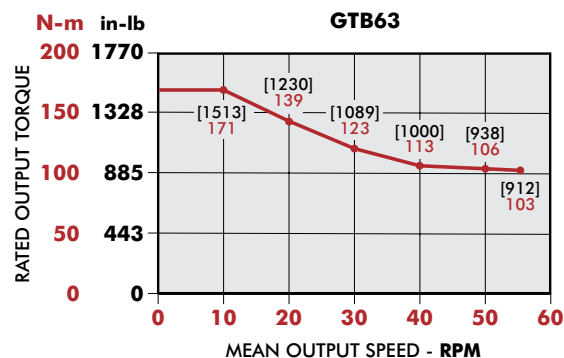
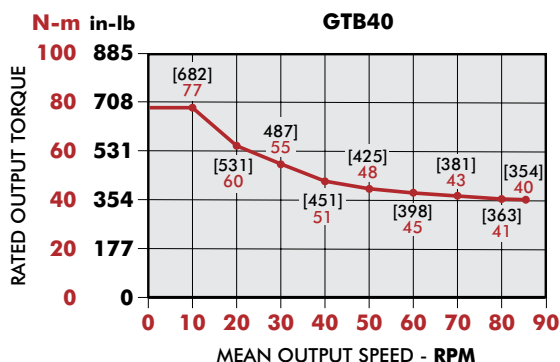
### Direct Drive: Zero Backlash Precision Applications



#### NOTE:

Motor brake must be applied for applications with gravity torque acting on output table (trunnion mounting) in the case of power loss. Follow the instruction manual for fitting and installing motor. Improper handling can cause damage or product malfunction.

| General Specifications       | Symbol              | Units                                                                            | GTB40           |                | GTB63            |                | GTB80            |                 | GTB100            |                 |
|------------------------------|---------------------|----------------------------------------------------------------------------------|-----------------|----------------|------------------|----------------|------------------|-----------------|-------------------|-----------------|
|                              |                     |                                                                                  | Direct          | Geared         | Direct           | Geared         | Direct           | Geared          | Direct            | Geared          |
| Motor Coupling               |                     |                                                                                  | Direct          | Geared         | Direct           | Geared         | Direct           | Geared          | Direct            | Geared          |
| Constant lead ratio          |                     |                                                                                  | 15:1            | 45:1           | 20:1             | 60:1           | 20:1             | 60:1            | 20:1              | 60:1            |
| Center distance              |                     | mm [in]                                                                          | 40 [1.57]       |                | 63 [2.48]        |                | 80 [3.15]        |                 | 100 [3.94]        |                 |
| Through hole diameter        | Ø                   | mm [in]                                                                          | 25 [0.98]       |                | 50 [1.97]        |                | 75 [2.95]        |                 | 85 [3.35]         |                 |
| Accuracy                     |                     | arc-sec                                                                          | 90 $\pm 45$     |                | 60 $\pm 30$      |                | 40 $\pm 20$      |                 | 40 $\pm 20$       |                 |
| Repeatability                |                     | arc-sec                                                                          | 20 $\pm 10$     |                | 14 $\pm 7$       |                | 10 $\pm 5$       |                 | 10 $\pm 5$        |                 |
| Allowable static torque      | T <sub>s</sub>      | N-m [in-lb]                                                                      | 176 [1558]      |                | 411 [3637]       |                | 600 [5310]       |                 | 1341 [11868]      |                 |
| Max start / stop torque      | T <sub>U</sub>      | N-m [in-lb]                                                                      | 94 [832]        |                | 210 [1859]       |                | 307 [2717]       |                 | 880 [7789]        |                 |
| Allow. mean output speed     | N <sub>m</sub>      | rpm                                                                              | 86              |                | 55               |                | 50               |                 | 45                |                 |
| Allow. ultimate output speed | N <sub>U</sub>      | rpm                                                                              | 100             |                | 70               |                | 60               |                 | 50                |                 |
| Allow. axial cap. on output  | P <sub>a</sub>      | N [lbs]                                                                          | 1100 [247]      |                | 1850 [416]       |                | 3632 [816]       |                 | 4100 [922]        |                 |
| Allow. radial cap. on output | P <sub>r</sub>      | N [lbs]                                                                          | 740 [166]       |                | 1500 [337]       |                | 3100 [697]       |                 | 3420 [769]        |                 |
| Allow. moment cap. on output | P <sub>moment</sub> | N-m [in-lb]                                                                      | 40 [354]        |                | 85 [752]         |                | 226 [2000]       |                 | 313 [2770]        |                 |
| Inertia moment on input axis | J                   | [lb-ft <sup>2</sup> ] x 10 <sup>-4</sup><br>kg-m <sup>2</sup> x 10 <sup>-4</sup> | [6.24]<br>0.263 | [4.03]<br>0.17 | [20.67]<br>0.871 | [9.49]<br>0.4  | [76.27]<br>3.214 | [36.07]<br>1.52 | [246.55]<br>10.39 | [96.82]<br>4.08 |
| Backlash                     |                     | arc-sec                                                                          | 0               | 25             | 0                | 15             | 0                | 15              | 0                 | 10              |
| Average efficiency           |                     | %                                                                                | 90              | 80             | 90               | 80             | 90               | 80              | 90                | 80              |
| Lubrication (Maint. Free)    |                     |                                                                                  | Grease          |                | Grease           |                | Grease           |                 | Grease            |                 |
| Weight                       |                     | [lbm]<br>kg                                                                      | [7.28]<br>3.3   | [7.72]<br>3.5  | [13.01]<br>5.9   | [13.67]<br>6.2 | [28.44]<br>12.9  | [31.09]<br>14.1 | [53.58]<br>24.3   | [55.57]<br>25.2 |

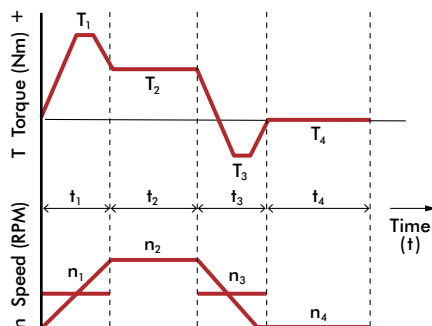


## Sizing GTB Series for an Application (Contact Destaco for sizing application support)

### 1. Load diagram

Check motion profile and resultant inertia torque.  
(Add working torque if applied).

Start and stop speed can be simplified to average speed within a segment.



### 2. Check key conditions

**Mean torque**  $T_{mean} = \sqrt{\frac{\frac{10}{3} \left( n_1 \cdot t_1 \cdot |T_1|^{\frac{10}{3}} + n_2 \cdot t_2 \cdot |T_2|^{\frac{10}{3}} + \dots + n_n \cdot t_n \cdot |T_n|^{\frac{10}{3}} \right)}{n_1 \cdot t_1 + n_2 \cdot t_2 + \dots + n_n \cdot t_n}} \text{ (N-m)}$

**Mean output speed**  $n_{mean} = \frac{n_1 \cdot t_1 + n_2 \cdot t_2 + \dots + n_n \cdot t_n}{t_1 + t_2 + \dots + t_n} \text{ (rpm)}$

**Max output speed**  $n_{max} \text{ (rpm)}$

### 3. Pre-selection

Choose a size that meets these criteria.

$T_{mean} < \text{Maximum rated output torque (N-m)}$

$n_{mean} < \text{Allowable mean output speed Nm (rpm)}$

$n_{max} < \text{Allowable ultimate output speed Nu (rpm)}$

### 4. Check specifications

**Start/stop torque**  $T_1 < \text{Maximum rated output torque (N-m)}$   
 $T_3 < \text{Maximum rated output torque (N-m)}$

**Operation condition factor** Smooth without any impact or sudden load  $f = 1.0$   
 Normal, but occasional emergency stop  $f = 1.5$   
 Operation with frequent impact or sudden load  $f = 3.0$

**Estimated lifetime**  $L_h = 12000 \left( \frac{T_{op}}{f \cdot T_{mean}} \right)^{\frac{10}{3}} \text{ (hours)}$

### 5. Selection complete

If above values don't satisfy requirements, go back to step 2 and 3 to re-select size.



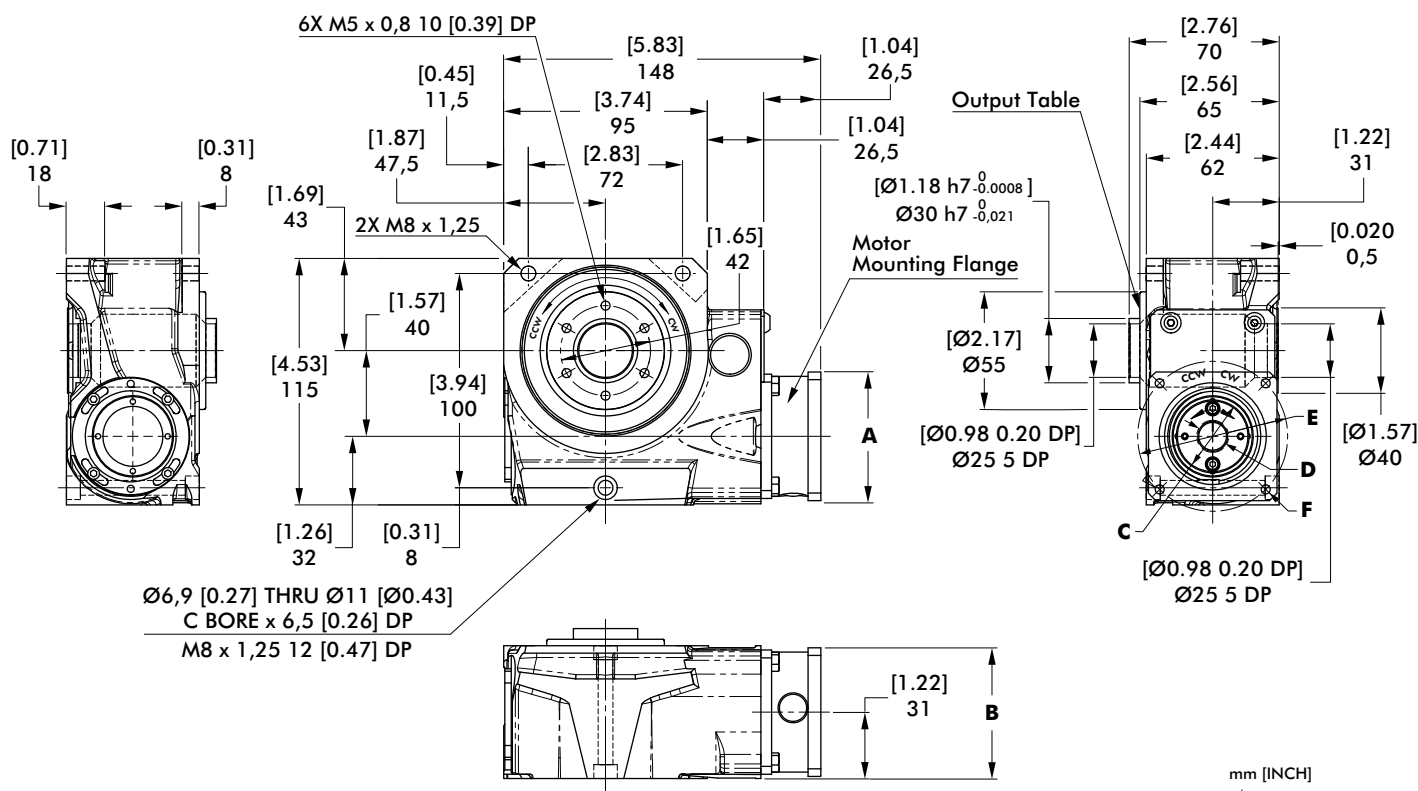


# GTB40 SERIES

## Globoidal (Roller Gear) Servo Positioner | Dimensions

**GTB40-FD** (Motor Frame Size □ = 60 [2.37])

Direct Drive: Zero Backlash Precision Applications: Ratio 15:1



Input/Output Rotation: CW/CCW

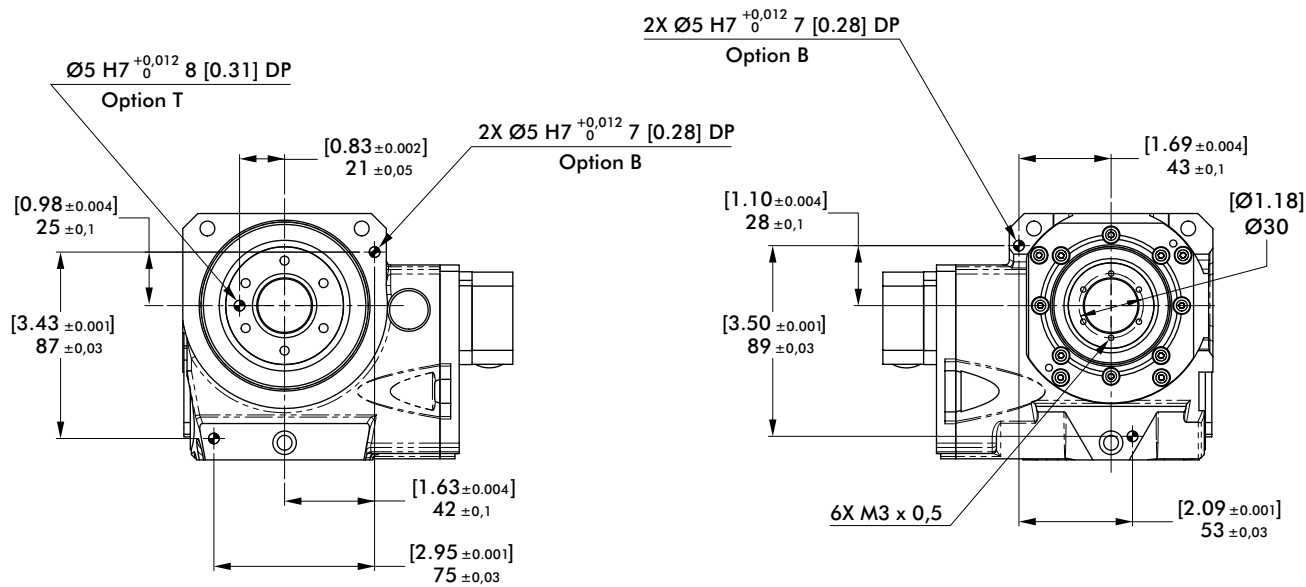
| MI CODE | A<br>Width<br>mm [in] | B<br>Height<br>mm [in] | C<br>Pilot Ø x Depth<br>mm [in] | D<br>Shaft Ø<br>mm [in] | E<br>Fixing Holes PCD<br>mm [in] | F<br>Fixing Holes Qty x Size<br>mm [in] |
|---------|-----------------------|------------------------|---------------------------------|-------------------------|----------------------------------|-----------------------------------------|
| FDA20   | 60 [2.36]             | 60 [2.36]              | Ø50 [1.97] x 4 [0.16]           | Ø14 [0.55]              | Ø70 [2.76]                       | 4X M5 THRU                              |
| FDB20   |                       |                        |                                 | Ø11 [0.43]              |                                  | 4X M4 THRU                              |
| FDC20   |                       |                        |                                 | Ø14 [0.55]              |                                  |                                         |
| FDD20   |                       |                        |                                 | Ø9 [0.35]               |                                  |                                         |
| FDE20   |                       |                        |                                 | Ø12 [0.47]              |                                  | 4X M5 THRU                              |
| FDF20   | 55 [2.17]             | 55 [2.17]              | Ø40 [1.57] x 4 [0.16]           | Ø9 [0.35]               | Ø63 [2.48]                       |                                         |
| FDG20   |                       |                        |                                 | Ø11 [0.43]              | Ø75 [2.95]                       |                                         |
| FDH20   | 55 [2.17]             | 55 [2.17]              | Ø40 [1.57] x 4 [0.16]           | Ø9 [0.35]               | Ø63 [2.48]                       | 4X M4 THRU                              |
| FDJ20   | 90 [3.54]             | 90 [3.54]              | Ø80 [3.15] X 4 [0.16]           | Ø16 [0.63]              | Ø100 [3.94]                      | 4X M6 THRU                              |

# GTB40 SERIES

## Globoidal (Roller Gear) Servo Positioner | Dimensions

### GTB40 Option Specifications

Dowel Hole Option -B, Housing -T: Output Table



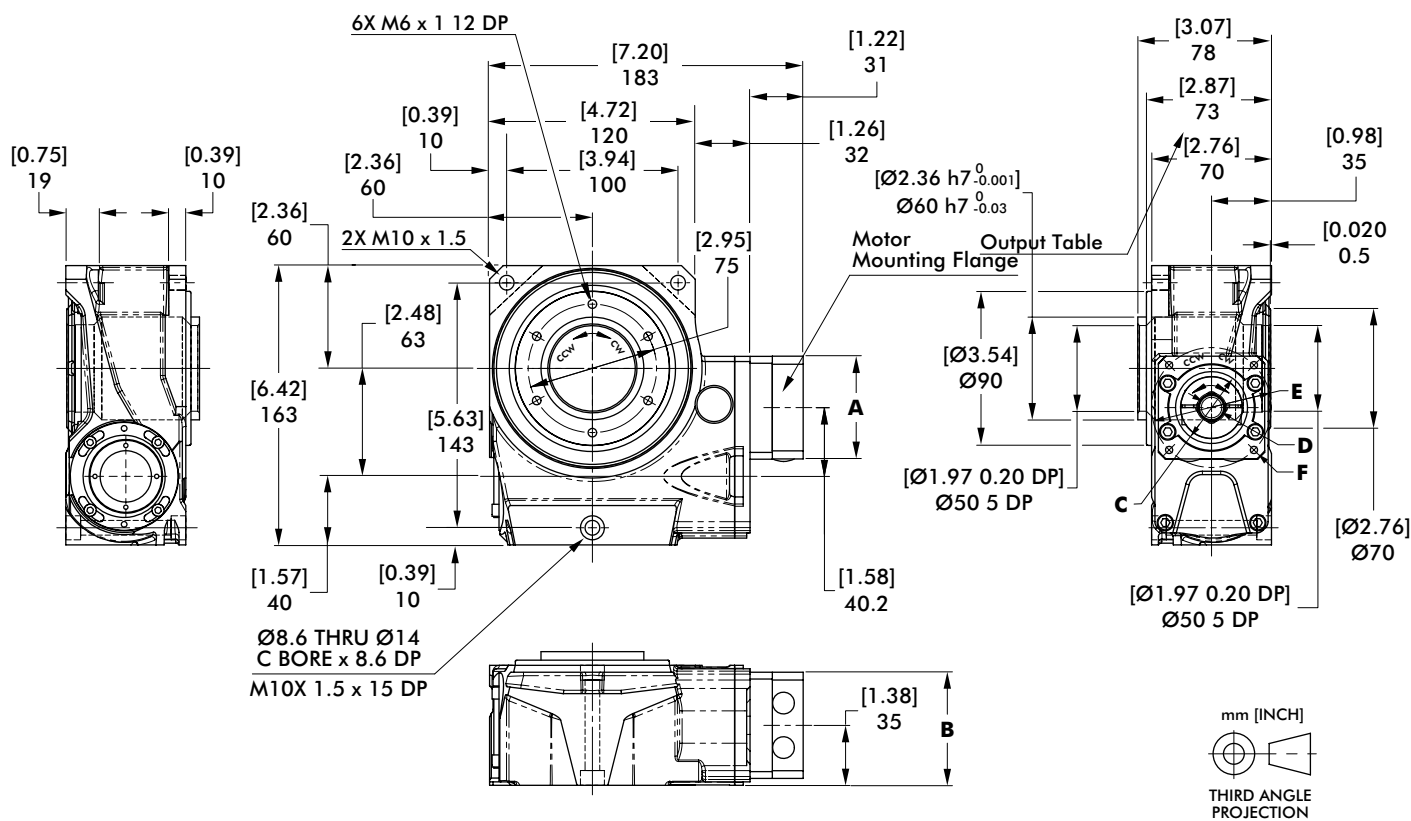


# GTB63 SERIES

## Globoidal (Roller Gear) Servo Positioner | Dimensions

**GTB-63-GG** (Motor Frame Size □ = 60 [2.37])

Gear Drive: High Inertia applications: Ratio 60:1



Input/Output Rotation: CW/CCW

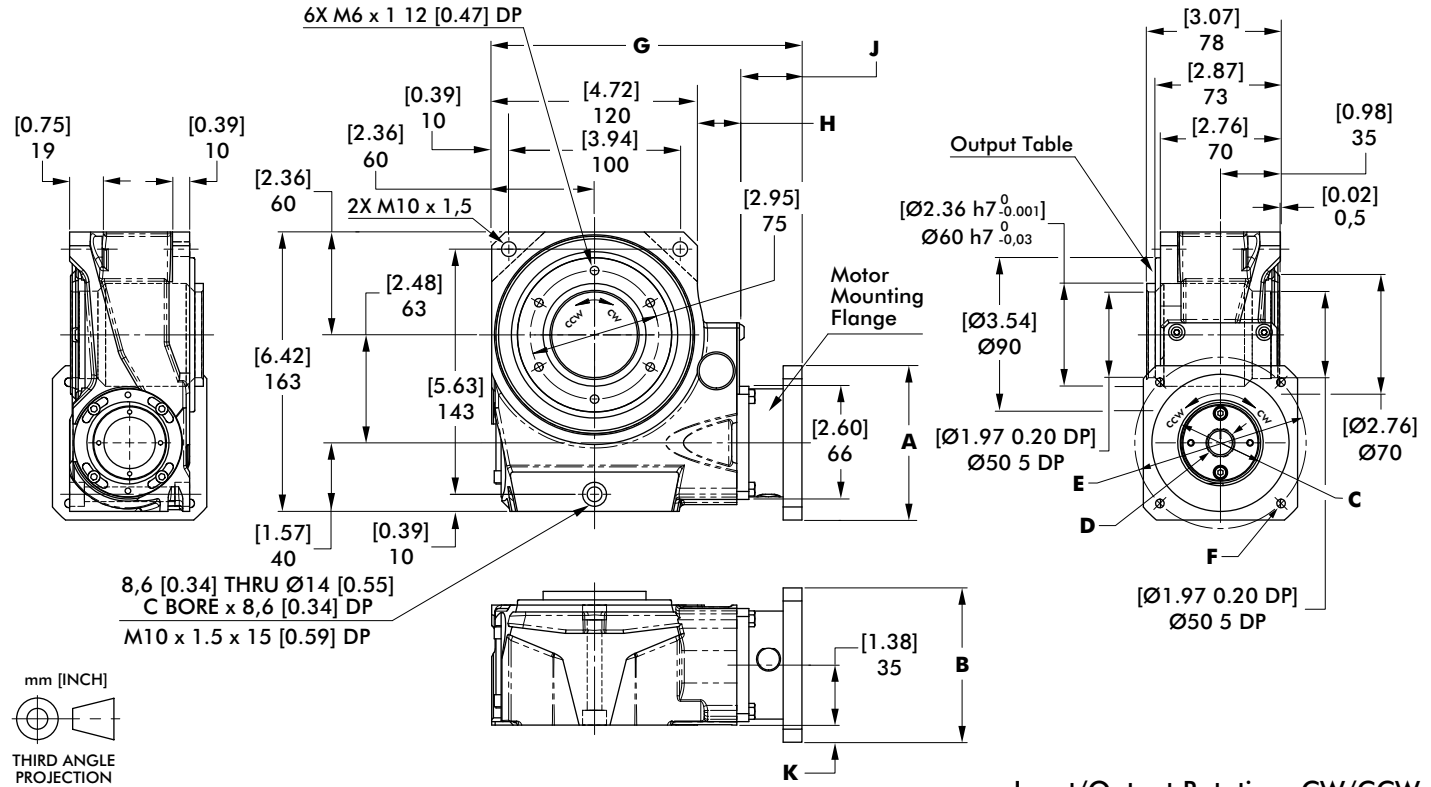
| MI CODE | A<br>Width<br>mm [in] | B<br>Height<br>mm [in] | C<br>Pilot Ø x Depth<br>mm [in] | D<br>Shaft Ø<br>mm [in] | E<br>Fixing Holes PCD<br>mm [in] | F<br>Fixing Holes Qty x Size<br>mm [in] |
|---------|-----------------------|------------------------|---------------------------------|-------------------------|----------------------------------|-----------------------------------------|
| GGA20   | 60 [2.36]             | 62 [2.44]              | Ø50 [1.97] x 5 [0.20]           | Ø14 [0.55]              | Ø70 [2.76]                       | 4X M5 x 14 [0.55] Deep                  |
| GGA22   |                       |                        |                                 | Ø9 [0.35]               |                                  |                                         |
| GGB20   |                       |                        |                                 | Ø14 [0.55]              |                                  |                                         |
| GGB21   |                       |                        |                                 | Ø11 [0.43]              |                                  |                                         |
| GGC22   |                       |                        |                                 | Ø9 [0.35]               |                                  |                                         |
| GGD23   | 70 [2.76]             | 70 [2.76]              | Ø50 [1.97] x 5 [0.20]           | Ø12 [0.47]              | Ø70 [2.76]                       | 4X M5 x 14 [0.55] Deep                  |
| GGE24   |                       |                        |                                 | Ø11 [0.43]              | Ø75 [2.95]                       |                                         |
| GGF22   |                       |                        |                                 | Ø9 [0.35]               | Ø63 [2.48]                       |                                         |
| GGG20   | 70 [2.76]             | 70 [2.76]              | Ø60 [2.36] x 5 [0.20]           | Ø14 [0.55]              | Ø75 [2.95]                       | 4X M6 x 16 [0.63] Deep                  |

# GTB63 SERIES

## Globoidal (Roller Gear) Servo Positioner | Dimensions

**GTB63-GD** (Motor Frame Size □ = 60 [2.36], 80 [3.15], 86 [3.39], 90 [3.54])

Direct Drive: Ratio 20:1



Input/Output Rotation: CW/CCW

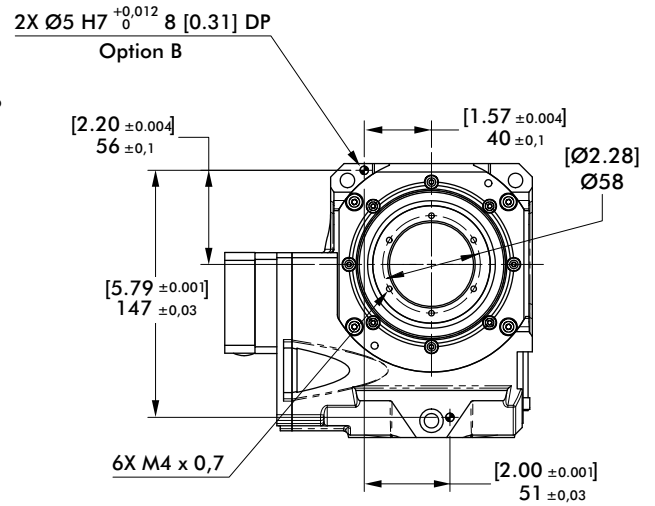
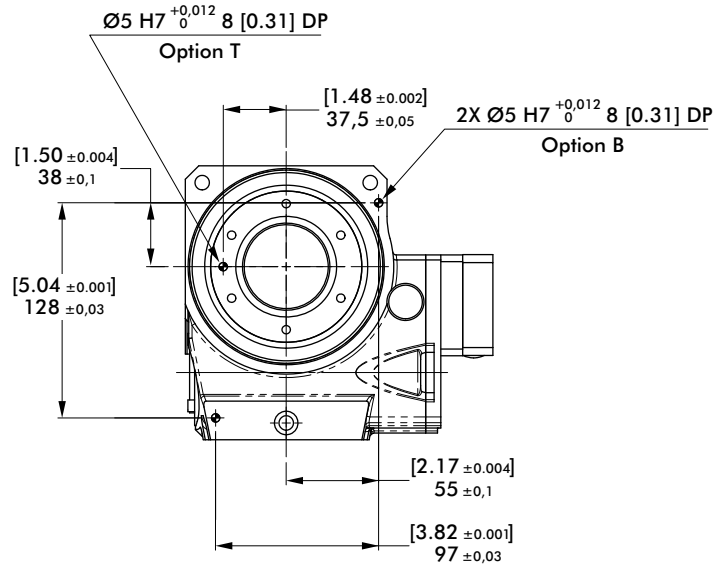
| MI CODE | A Width<br>mm [in] | B Height<br>mm [in] | C Pilot Ø x Depth<br>mm [in] | D Shaft Ø<br>mm [in] | E Fixing Holes PCD<br>mm [in] | F Fixing Holes Qty x Size<br>mm [in] |
|---------|--------------------|---------------------|------------------------------|----------------------|-------------------------------|--------------------------------------|
| GDA20   | 60 [2.36]          | 60 [2.36]           | Ø50 [1.97] x 4 [0.16]        | Ø14 [0.55]           | Ø70 [2.76]                    | 4X M5 THRU                           |
| GDB20   | 80 [3.15]          | 80 [3.15]           | Ø70 [2.76] x 4 [0.16]        | Ø19 [0.75]           | Ø90 [3.54]                    | 4X M6 THRU                           |
| GDC20   |                    |                     |                              | Ø14 [0.55]           |                               |                                      |
| GDD20   | 90 [3.54]          | 90 [3.54]           | Ø80 [3.15] x 6 [0.24]        | Ø16 [0.63]           | Ø100 [3.94]                   | 4X M6 THRU                           |
| GDE20   |                    |                     |                              |                      |                               |                                      |
| GDF20   | 60 [2.36]          | 60 [2.36]           | Ø50 [1.97] x 4 [0.16]        | Ø14 [0.55]           | Ø70 [2.76]                    | 4X M4 THRU                           |
| GDG20   |                    |                     |                              | Ø19 [0.75]           |                               | 4X M5 THRU                           |
| GDH20   | 80 [3.15]          | 80 [3.15]           | Ø70 [2.76] x 4 [0.16]        | Ø14 [0.55]           | Ø90 [3.54]                    |                                      |
| GDJ20   |                    |                     |                              | Ø16 [0.63]           |                               | 4X M6 THRU                           |
| GDK20   | 90 [3.54]          | 90 [3.54]           | Ø80 [3.15] x 6 [0.24]        | Ø10 [0.39]           | Ø100 [3.94]                   |                                      |
| GDL20   | 60 [2.36]          | 60 [2.36]           | Ø50 [1.97] x 4 [0.16]        | Ø12 [0.47]           | Ø70 [2.76]                    | 4X M5 THRU                           |
| GDM20   | 80 [3.15]          | 80 [3.15]           | Ø70 [2.76] x 4 [0.16]        | Ø16 [0.63]           | Ø90 [3.54]                    | 4X M6 THRU                           |
| GDN20   | 72 [2.83]          | 72 [2.83]           | Ø60 [2.36] x 4 [0.16]        | Ø14 [0.55]           | Ø75 [2.95]                    |                                      |
| GDP20   | 55 [2.17]          | 55 [2.17]           | Ø40 [1.57] x 5 [0.20]        | Ø9 [0.35]            | Ø63 [2.48]                    | 4X M5 THRU                           |
| GDQ20   |                    |                     |                              |                      |                               |                                      |
| GDR20   | 70 [2.76]          | 70 [2.76]           | Ø60 [2.36] x 4 [0.16]        | Ø11 [0.43]           | Ø75 [2.95]                    |                                      |



| Frame Size | G          | H           | J           | K         |
|------------|------------|-------------|-------------|-----------|
| 60         | 178 [7.01] | 24,5 [0.96] | 33,5 [1.32] | --        |
| 80         | 180 [7.09] |             | 35,5 [1.40] | 5 [0.20]  |
| 86         | 181 [7.13] |             | 36,5 [1.44] | 10 [0.39] |
| 90         |            |             |             |           |

### GTB63 Option Specifications

Dowel Hole Option **-B**, Housing **-T**: Output Table



## Globoidal (Roller Gear) Servo Positioner | Dimensions

### Gear Drive: High Inertia Applications: Ratio 60:1



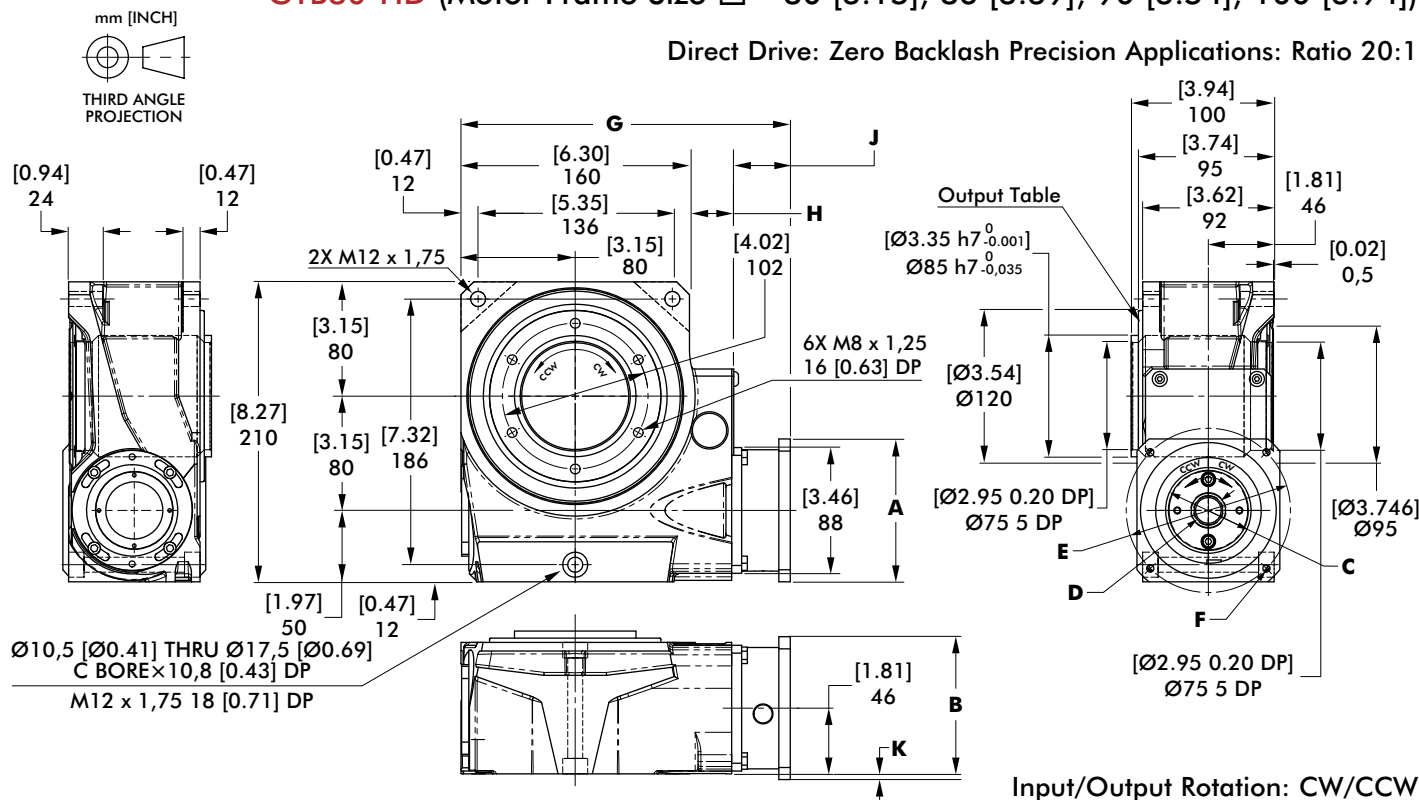
| MI CODE | A<br>Width<br>mm [in] | B<br>Height<br>mm [in] | C<br>Pilot Ø x Depth<br>mm [in] | D<br>Shaft Ø<br>mm [in] | E<br>Fixing Holes PCD<br>mm [in] | F<br>Fixing Holes Qty x Size<br>mm [in] |
|---------|-----------------------|------------------------|---------------------------------|-------------------------|----------------------------------|-----------------------------------------|
| HGA20   | 80 [3.15]             | 82 [3.23]              | Ø70 [2.76] x 4,5 [0.18]         | Ø19 [0.75]              | Ø90 [3.54]                       | 4X M6 THRU                              |
| HGA22   |                       |                        |                                 | Ø16 [0.63]              |                                  | 4X M6 x 17 [0.67] DEEP                  |
| HGB21   | 90 [3.54]             | 88 [3.46]              | Ø80 [3.15] x 7 [0.28]           | Ø14 [0.55]              | Ø100 [3.94]                      |                                         |
| HGB22   |                       |                        |                                 | Ø16 [0.63]              |                                  | 4X M6 x 17 [0.67] DEEP                  |
| HGB23   |                       |                        |                                 | Ø10 [0.39]              |                                  |                                         |
| HGC20   | 80 [3.15]             | 82 [3.23]              | Ø70 [2.76] x 4,5 [0.18]         | Ø19 [0.75]              | Ø90 [3.54]                       | 4X M5 x 14 [0.55] DEEP                  |
| HGD24   |                       |                        | Ø60 [2.36] x 3 [0.12]           | Ø11 [0.43]              | Ø75 [2.95]                       |                                         |
| HGE22   |                       |                        | Ø70 [2.76] x 4,5 [0.18]         | Ø16 [0.63]              | Ø90 [3.54]                       | 4X M6 THRU                              |
| HGF25   |                       |                        | Ø60 [2.36] x 4 [0.16]           | Ø14 [0.55]              | Ø75 [2.95]                       |                                         |
| HGG26   | 90 [3.54]             | 88 [3.46]              | Ø80 [3.15] x 4 [0.16]           | Ø16 [0.63]              | Ø100 [3.94]                      | 4X M6 x 15 [0.59] DEEP                  |
| HGG25   |                       |                        |                                 | Ø14 [0.55]              |                                  |                                         |
| HGH20   | 98 [3.86]             | 98 [3.86]              | Ø95 [3.74] x 4 [0.16]           | Ø19 [0.75]              | Ø115 [4.53]                      | 4X M8 x 22,5 [0.89] DEEP                |



| Frame Size | G          | H           | J           |
|------------|------------|-------------|-------------|
| 80         | 234 [9.21] | 41,5 [1.63] | 33 [1.30]   |
| 86         | 241 [9.49] | 45,5 [1.79] | 35,5 [1.40] |
| 90         |            |             |             |

**GTB80-HD** (Motor Frame Size □ = 80 [3.15], 86 [3.39], 90 [3.54], 100 [3.94])

Direct Drive: Zero Backlash Precision Applications: Ratio 20:1



| MI CODE | A<br>Width<br>mm [in] | B<br>Height<br>mm [in] | C<br>Pilot Ø x Depth<br>mm [in] | D<br>Shaft Ø<br>mm [in] | E<br>Fixing Holes PCD<br>mm [in] | F<br>Fixing Holes Qty x Size<br>mm [in] |
|---------|-----------------------|------------------------|---------------------------------|-------------------------|----------------------------------|-----------------------------------------|
| HDA20   | 80 [3.15]             | 80 [3.15]              | Ø70 [2.76] x 4,5 [0.18]         | Ø19 [0.75]              | Ø90 [3.54]                       | 4X M6 THRU                              |
| HDB20   | 90 [3.54]             | 90 [3.54]              | Ø80 [3.15] x 5,5 [0.22]         | Ø14 [0.55]              | Ø100 [3.94]                      |                                         |
| HDC20   |                       |                        |                                 | Ø16 [0.63]              |                                  |                                         |
| HDD20   | 100 [3.94]            | 100 [3.94]             | Ø95 [3.74] x 3,5 [0.14]         | Ø24 [0.94]              | Ø115 [4.53]                      | 4X M8 THRU                              |
| HDE20   | 80 [3.15]             | 80 [3.15]              | Ø70 [2.76] x 4,5 [0.18]         | Ø19 [0.75]              | Ø90 [3.54]                       |                                         |
| HDF20   | 100 [3.94]            | 100 [3.94]             | Ø95 [3.74] x 3,5 [0.14]         |                         | Ø115 [4.53]                      |                                         |
| HDG20   |                       |                        |                                 | Ø95 [3.74] x 7,5 [0.30] |                                  |                                         |
| HDH20   | 80 [3.15]             | 80 [3.15]              | Ø70 [2.76] x 4,5 [0.18]         | Ø16 [0.63]              | Ø90 [3.54]                       | 4X M6 THRU                              |
| HDJ20   | 90 [3.54]             | 90 [3.54]              | Ø80 [3.15] x 5,5 [0.22]         |                         | Ø100 [3.94]                      |                                         |
| HDK20   | 100 [3.94]            | 100 [3.94]             | Ø95 [3.74] x 3,5 [0.14]         | Ø22 [0.87]              | Ø115 [4.53]                      | 4X M8 THRU                              |
| HDL20   | 90 [3.54]             | 90 [3.54]              | Ø80 [3.15] x 5,5 [0.22]         | Ø10 [0.39]              | Ø100 [3.94]                      | 4X M6 THRU                              |
| HDM20   | 100 [3.94]            | 100 [3.94]             | Ø95 [3.74] x 7,5 [0.30]         | Ø22 [0.87]              | Ø115 [4.53]                      | 4X M8 THRU                              |
| HDN20   | 96 [3.78]             | 96 [3.78]              | Ø80 [3.15] x 4 [0.16]           | Ø19 [0.75]              | Ø100 [3.94]                      | 4X M6 THRU                              |
| HDP20   | 90 [3.54]             | 90 [3.54]              | Ø80 [3.15] x 3,5 [0.14]         | Ø16 [0.63]              |                                  | 4X M3 THRU                              |
| HDQ20   | 100 [3.94]            | 100 [3.94]             | Ø95 [3.74] x 3,5 [0.14]         | Ø19 [0.75]              |                                  | Ø115 [4.53]                             |
| HDR20   | 90 [3.54]             | 90 [3.54]              | Ø80 [3.15] x 3,5 [0.14]         | Ø14 [0.55]              | Ø100 [3.94]                      | 4X M6 THRU                              |
| HDS20   |                       |                        |                                 |                         |                                  |                                         |
| HDT20   | 114 [4.49]            | 114 [4.49]             | Ø110 [4.33] x 4 [0.16]          | Ø24 [0.94]              | Ø130 [5.12]                      | 4X M8 THRU                              |



60



86/90



100

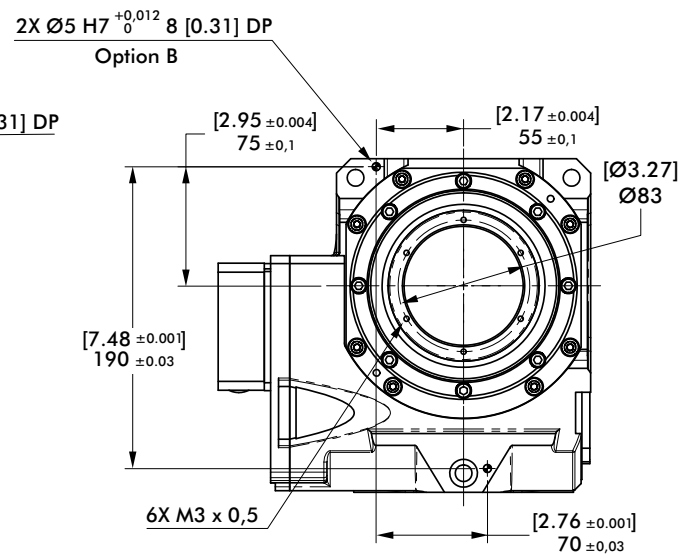
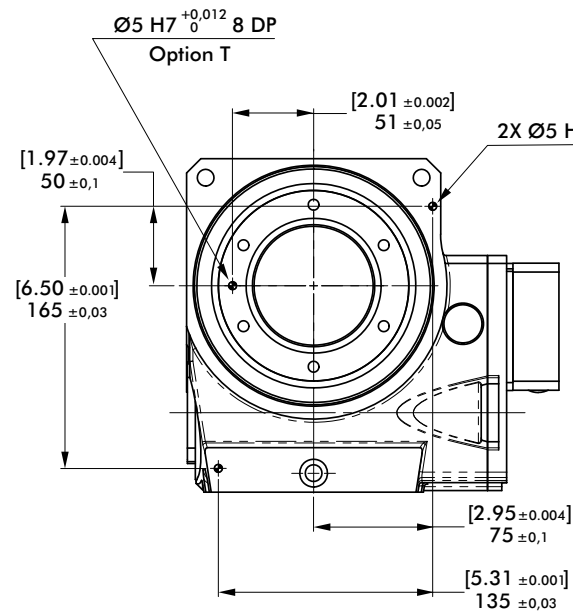
| Frame Size | G            | H         | J           | K        |
|------------|--------------|-----------|-------------|----------|
| 80         | 226,5 [8.92] | 31 [1.22] | 35,5 [1.40] | --       |
| 86         | 230,5 [9.07] |           | 39,5 [1.56] |          |
| 90         |              |           |             |          |
| 100        |              |           |             | 4 [0.16] |

# GTB80 SERIES

## Globoidal (Roller Gear) Servo Positioner | Dimensions

### GTB80 Option Specifications

Dowel Hole Option -B, Housing -T: Output Table

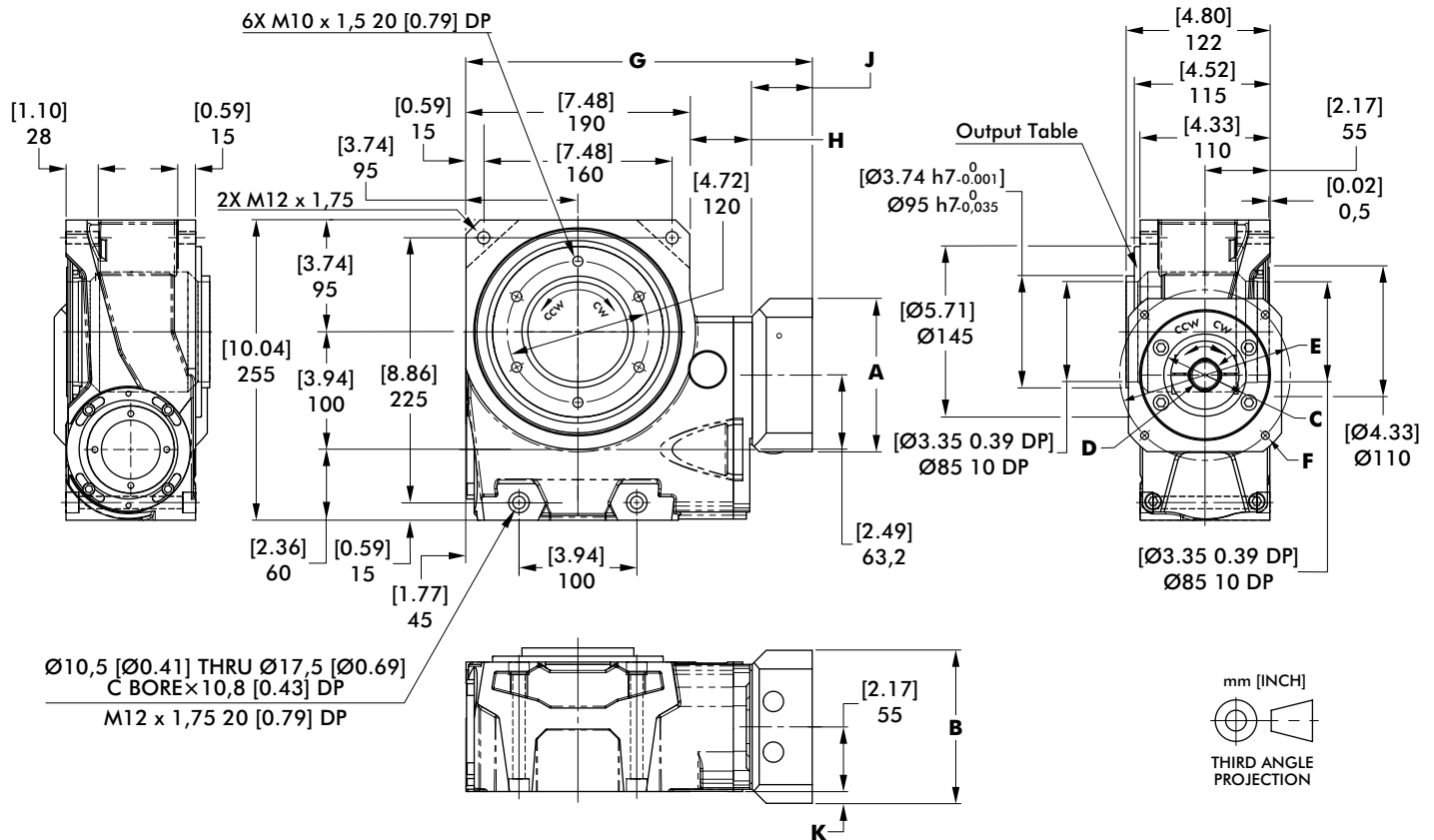


# GTB100 SERIES

## Globoidal (Roller Gear) Servo Positioner | Dimensions

**GTB100-JG** (Motor Frame Size □ = 90 [3.54], 100 [3.94], 130 [5.12])

Gear Drive: High Inertia applications: Ratio 60:1



Input/Output Rotation: CW/CCW

| MI CODE | A<br>Width<br>mm [in] | B<br>Height<br>mm [in] | C<br>Pilot Ø x Depth<br>mm [in] | D<br>Shaft Ø<br>mm [in] | E<br>Fixing Holes PCD<br>mm [in] | F<br>Fixing Holes Qty x Size<br>mm [in] |
|---------|-----------------------|------------------------|---------------------------------|-------------------------|----------------------------------|-----------------------------------------|
| JGA20   |                       |                        |                                 | Ø24 [0.94]              |                                  |                                         |
| JGA21   | 130 [5.12]            | 130 [5.12]             | Ø110 [4.33] x 7 [0.28]          | Ø19 [0.75]              | Ø145 [5.71]                      | 4X M8 x 22,5 [0.89] Deep                |
| JGA22   |                       |                        |                                 | Ø22 [0.87]              |                                  |                                         |
| JGB23   |                       |                        |                                 | Ø14 [0.55]              |                                  |                                         |
| JGB24   | 90 [3.54]             | 90 [3.54]              | Ø80 [3.15] x 9,5 [0.37]         | Ø16 [0.63]              | Ø100 [3.94]                      | 4X M6 x 17 [0.67] Deep                  |
| JGB25   |                       |                        |                                 | Ø10 [0.39]              |                                  |                                         |
| JGC20   | 100 [3.94]            | 100 [3.94]             | Ø95 [3.74] x 5,5 [0.22]         | Ø24 [0.94]              | Ø115 [4.53]                      |                                         |
| JGD26   | 90 [3.54]             | 90 [3.54]              | Ø80 [3.15] x 9,5 [0.37]         | Ø16 [0.63]              | Ø100 [3.94]                      |                                         |
| JGE22   |                       |                        |                                 | Ø22 [0.87]              |                                  |                                         |
| JGE27   | 100 [3.94]            | 100 [3.94]             | Ø95 [3.74] x 7,5 [0.30]         | Ø19 [0.75]              | Ø115 [4.53]                      | 4X M8 x 22,5 [0.89] Deep                |
| JGF27   | 96 [3.78]             | 96 [3.78]              | Ø80 [3.15] x 5 [0.20]           |                         | Ø100 [3.94]                      | 4X M6 x 17 [0.67] Deep                  |
| JGG20   | 114 [4.49]            | 114 [4.49]             | Ø110 [4.33] x 3,5 [0.14]        | Ø24 [0.94]              | Ø130 [5.12]                      | 4X M8 x 22,5 [0.89] Deep                |



90



100



130

| Frame Size | G           | H         | J         | K         |
|------------|-------------|-----------|-----------|-----------|
| 90         | 280 [11.02] | 51 [2.01] | 39 [1.54] | --        |
| 100        | 281 [11.06] | 53 [2.09] | 38 [1.50] |           |
| 130        | 280 [11.02] |           | 51 [2.01] | 10 [0.39] |



## Globoidal (Roller Gear) Servo Positioner | Dimensions

## Direct Drive: Zero Backlash Precision Applications: Ratio 20:1



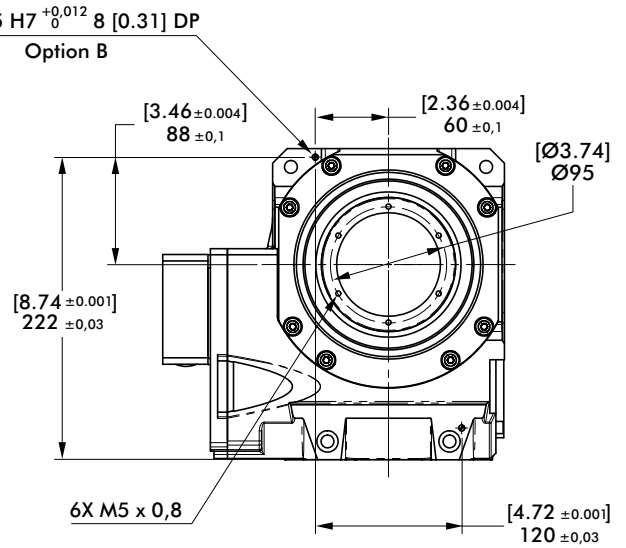
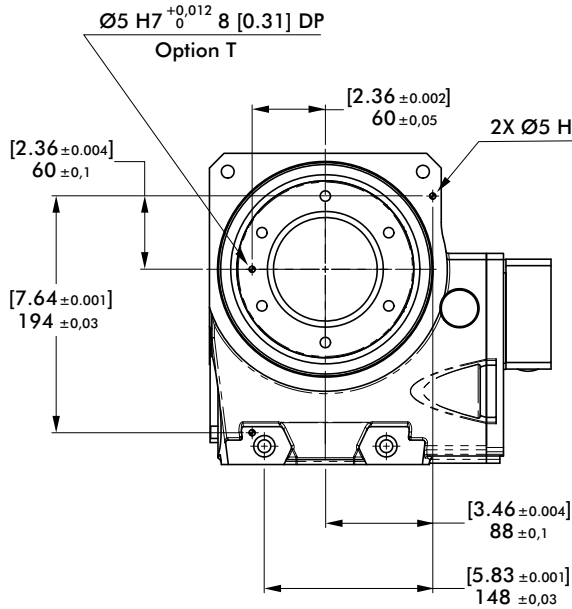
**DESTACO**  
a DOVER company

# GTB100 SERIES

## Globoidal (Roller Gear) Servo Positioner | Dimensions

### GTB100 Option Specifications

Dowel Hole Option **-B**, Housing **-T**: Output Table



# PGM SERIES

## Parallel Gear Servo Positioner | Table of Contents



### Features:

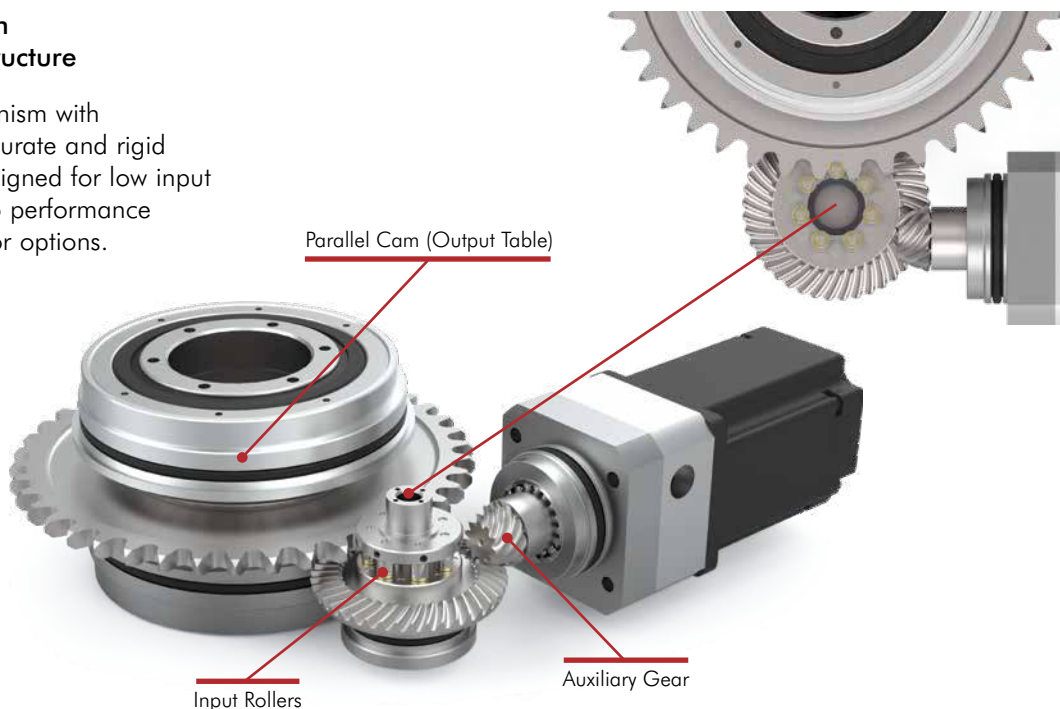
Destaco’s **CAMCO PGM Parallel Gear Reducers** is a precision servo reducer with parallel cam mechanism.

Light, accurate, and high cost performance offers easy to use character for wide range of applications. It features a pre-loaded precision parallel cam, low input inertia, through-hole design, integrated sealed tapered bearings, high performance grease and several motor options with integrated motor clamp system for easy fitting.

| Table of Contents         | IN-SRV-# |
|---------------------------|----------|
| Features & Benefits ..... | 20       |
| How to Order .....        | 21       |
| Specifications .....      | 22       |
| PGM40 .....               | 23       |

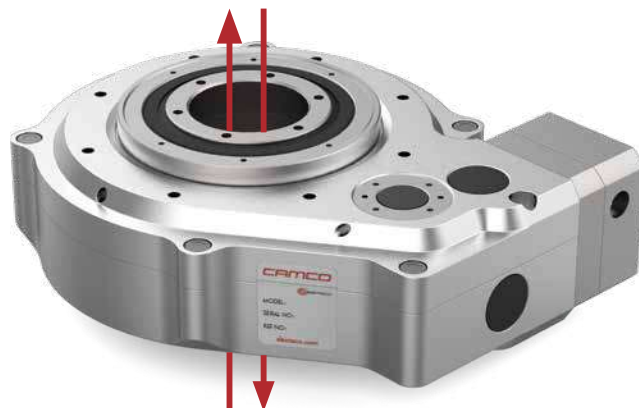
### Precision Servo Reducer with Pre-loaded Parallel Cam Structure

The PGM parallel cam mechanism with pre-loaded structure offers accurate and rigid indexing performance. It is designed for low input inertia and offers greater servo performance through a wide variety of motor options.



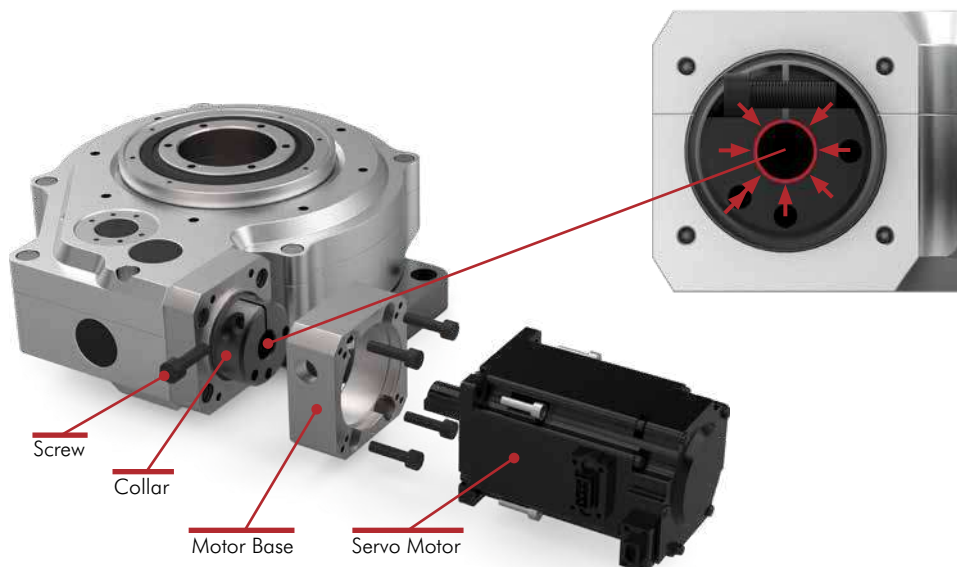
### Thru-hole Design

Large central opening through the center of the output shaft structure is suitable for wiring and piping.



### Integrated Motor Clamp System

The PGM offers a wide-variety of motor options that easily attach through the use of an integrated motor clamp.



# PGM SERIES

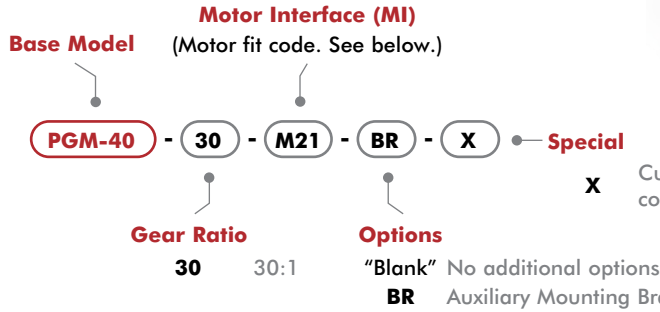
## Parallel Gear Servo Positioner | How To Order

### Parallel Gear Reducer Base Unit

PGM Series units can be interfaced with wide variety of servo motor manufacturers. Use the MI code tables to identify the supported motors for the PGM unit. Motors are ordered separately using the tables below.



PGM40 with Auxiliary Mounting Bracket. Motor not shown.



| Make / Series | Model     | mm [in]   | kW [HP]    | MI  |
|---------------|-----------|-----------|------------|-----|
| Panasonic     | A5 MSMD04 | 50 [1.97] | 0,4 [0.54] | M21 |
|               | A5 MSME04 | 50 [1.97] | 0,4 [0.54] | M21 |
|               | A5 MHMD04 | 50 [1.97] | 0,4 [0.54] | M21 |
|               | A6 MSMF04 | 50 [1.97] | 0,4 [0.54] | M21 |
|               | A6 MHMF04 | 50 [1.97] | 0,4 [0.54] | M21 |

| Make / Series | Model          | mm [in]   | kW [HP]     | MI  |
|---------------|----------------|-----------|-------------|-----|
| ABB           | ESM06X-201-302 | 50 [1.97] | 0.2 [0.27]  | M22 |
|               | ESM06X-401-302 | 50 [1.97] | 0.4 [0.54]  | M22 |
| FANUC         | β βiS1/6000    | 50 [1.97] | 0.5 [0.67]  | M22 |
|               | SV SV-M020     | 50 [1.97] | 0.2 [0.27]  | M22 |
| Keyence       | SV SV-M040     | 50 [1.97] | 0.4 [0.54]  | M22 |
|               | SV2 SV2-M020   | 50 [1.97] | 0.2 [0.27]  | M22 |
|               | SV2 SV2-M040   | 50 [1.97] | 0.4 [0.54]  | M22 |
| Mitsubishi    | J3 HF-KP23     | 50 [1.97] | 0.2 [0.27]  | M22 |
|               | J3 HF-KP43     | 50 [1.97] | 0.4 [0.54]  | M22 |
|               | J3 HF-MP23     | 50 [1.97] | 0.2 [0.27]  | M22 |
|               | J3 HF-MP43     | 50 [1.97] | 0.4 [0.54]  | M22 |
|               | J4 HG-KR23     | 50 [1.97] | 0.2 [0.27]  | M22 |
|               | J4 HG-KR43     | 50 [1.97] | 0.4 [0.54]  | M22 |
|               | J4 HG-MR23     | 50 [1.97] | 0.2 [0.27]  | M22 |
|               | J4 HG-MR43     | 50 [1.97] | 0.4 [0.54]  | M22 |
| Sanyo         | R2 R2AA06020F  | 50 [1.97] | 0.2 [0.27]  | M22 |
|               | R2 R2AA06040F  | 50 [1.97] | 0.4 [0.54]  | M22 |
|               | R2 R2AA06040H  | 50 [1.97] | 0.4 [0.54]  | M22 |
| Yaskawa       | Σ5 SGMAV-02A   | 50 [1.97] | 0.2 [0.27]  | M22 |
|               | Σ5 SGMAV-04A   | 50 [1.97] | 0.4 [0.54]  | M22 |
|               | Σ5 SGMAV-06A   | 50 [1.97] | 0.55 [0.74] | M22 |
|               | Σ5 SGMJV-02A   | 50 [1.97] | 0.2 [0.27]  | M22 |
|               | Σ5 SGMJV-04A   | 50 [1.97] | 0.4 [0.54]  | M22 |
|               | Σ5 SGMJV-06A   | 50 [1.97] | 0.6 [0.80]  | M22 |
|               | Σ7 SGM7J-02A   | 50 [1.97] | 0.2 [0.27]  | M22 |
|               | Σ7 SGM7J-04A   | 50 [1.97] | 0.4 [0.54]  | M22 |
|               | Σ7 SGM7J-06A   | 50 [1.97] | 0.6 [0.80]  | M22 |
|               | Σ7 SGM7A-02A   | 50 [1.97] | 0.2 [0.27]  | M22 |
|               | Σ7 SGM7A-04A   | 50 [1.97] | 0.4 [0.54]  | M22 |
|               | Σ7 SGM7A-06A   | 50 [1.97] | 0.6 [0.80]  | M22 |

### Easily Integrates with a Variety of Servo Motor Manufacturers

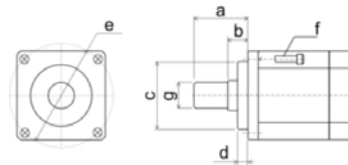
ABB Allen Bradley  
FANUC Keyence  
Mitsubishi Panasonic  
Sanyo Yaskawa

□ = Motor Frame Size

| Make / Series | Model          | mm [in]   | kW [HP]     | MI  |
|---------------|----------------|-----------|-------------|-----|
| Allen Bradley | VPL VPL-A0632F | 55 [2.17] | 0,39 [0.52] | M23 |
|               | VPL VPL-B0632F | 55 [2.17] | 0,37 [0.50] | M23 |
|               | VPL VPL-B0632T | 55 [2.17] | 0,54 [0.72] | M23 |

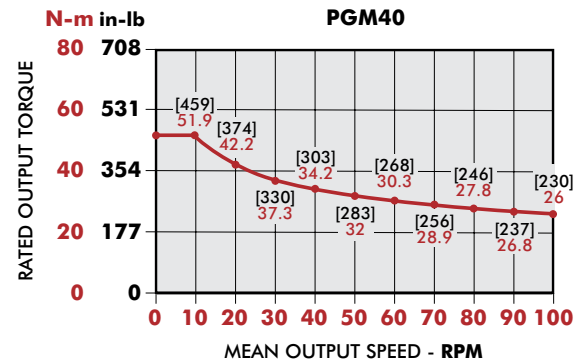
| Make / Series | Model          | mm [in]   | kW [HP]     | MI  |
|---------------|----------------|-----------|-------------|-----|
| Allen Bradley | VPL VPL-A0752C | 70 [2.76] | 0,49 [0.66] | M24 |
|               | VPL VPL-A0752E | 70 [2.76] | 0,66 [0.89] | M24 |
|               | VPL VPL-B0752E | 70 [2.76] | 0,67 [0.90] | M24 |
|               | VPL VPL-B0752F | 70 [2.76] | 0,8 [1.07]  | M24 |
|               | VPL VPL-B0752M | 70 [2.76] | 0,81 [1.09] | M24 |

| Motor Interface (MI) [in] mm |             |         |        |         |        |    |
|------------------------------|-------------|---------|--------|---------|--------|----|
| MI                           | a           | b       | c      | d       | e      | f  |
| M21                          | [0.91-1.22] | [≤0.16] | [1.97] | [≤0.20] | [2.76] | M4 |
| M22                          | 23-31       | ≤4      | 50     | ≤5      | 70     | M5 |
| M23                          | [0.79]      | [0.07]  | [1.57] | [0.08]  | [2.48] |    |
| M24                          | 20          |         | 40     |         | 63     |    |
|                              | [0.91]      |         | [2.36] |         | [2.95] |    |
|                              | 23          |         | 60     |         | 75     |    |



**Note:** Follow the instruction manual for motor fitting and installing. Improper handling can cause damages and malfunction.

| General Specifications          | Symbol            | Units                                                                            | PGM40            |
|---------------------------------|-------------------|----------------------------------------------------------------------------------|------------------|
| Axis distance                   |                   | mm [in]                                                                          | 101 [3.98]       |
| Output hollow dia.              |                   | mm [in]                                                                          | 50 [1.97]        |
| Gear ratio                      | i                 |                                                                                  | 30               |
| Max start / stop torque         | T <sub>U</sub>    | N-m [in-lb]                                                                      | 63,9 [566]       |
| Allowable mean output speed     | N <sub>m</sub>    | rpm                                                                              | 100              |
| Allowable ultimate output speed | N <sub>U</sub>    | rpm                                                                              | 150              |
| Inertia moment on input axis    | J                 | [lb-ft <sup>2</sup> ] x 10 <sup>-4</sup><br>kg.m <sup>2</sup> x 10 <sup>-4</sup> | [10.63]<br>0,448 |
| Backlash                        |                   | sec                                                                              | 60               |
| Allowable axial Load on output  | P <sub>a</sub>    | N [lbs]                                                                          | 1415 [318]       |
| Allowable radial Load on output | P <sub>r</sub>    | N [lbs]                                                                          | 2172 [488]       |
| Allowable moment Load on output | P <sub>mean</sub> | N-m [in-lb]                                                                      | 102 [903]        |
| Lubrication (Maintenance Free)  |                   |                                                                                  | Grease           |
| Weight                          |                   | kg [lbs]                                                                         | 6,7 [14.77]      |



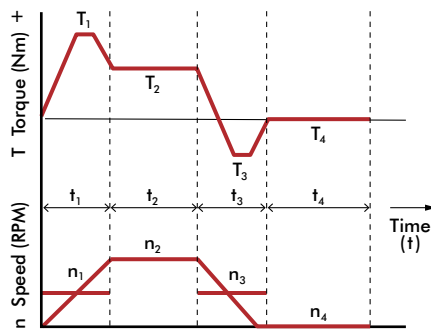
## Sizing PGM Series for an Application

(Contact Destaco for sizing application support)

### 1. Load diagram

Check motion profile and resultant inertia torque.  
(Add working torque if applied).

Start and stop speed can be simplified to average speed within a segment.



### 2. Check key conditions

$$\text{Mean torque } T_{\text{mean}} = \sqrt{\frac{\frac{10}{3} \left( n_1 \cdot t_1 \cdot |T_1| \frac{10}{3} + n_2 \cdot t_2 \cdot |T_2| \frac{10}{3} + \dots + n_n \cdot t_n \cdot |T_n| \frac{10}{3} \right)}{n_1 \cdot t_1 + n_2 \cdot t_2 + \dots + n_n \cdot t_n}} \quad (\text{N-m})$$

$$\text{Mean output speed } n_{\text{mean}} = \frac{n_1 \cdot t_1 + n_2 \cdot t_2 + \dots + n_n \cdot t_n}{t_1 + t_2 + \dots + t_n} \quad (\text{rpm})$$

$$\text{Max output speed } n_{\text{max}} \quad (\text{rpm})$$

### 3. Pre-selection

Choose a size that meets these criteria.

- $T_{\text{mean}} < \text{Maximum rated output torque (N-m)}$
- $n_{\text{mean}} < \text{Allowable mean output speed } N_m \text{ (rpm)}$
- $n_{\text{max}} < \text{Allowable ultimate output speed } N_u \text{ (rpm)}$

### 4. Check specifications

**Start/stop torque**  $T_1 < \text{Maximum rated output torque (N-m)}$   
 $T_3 < \text{Maximum rated output torque (N-m)}$

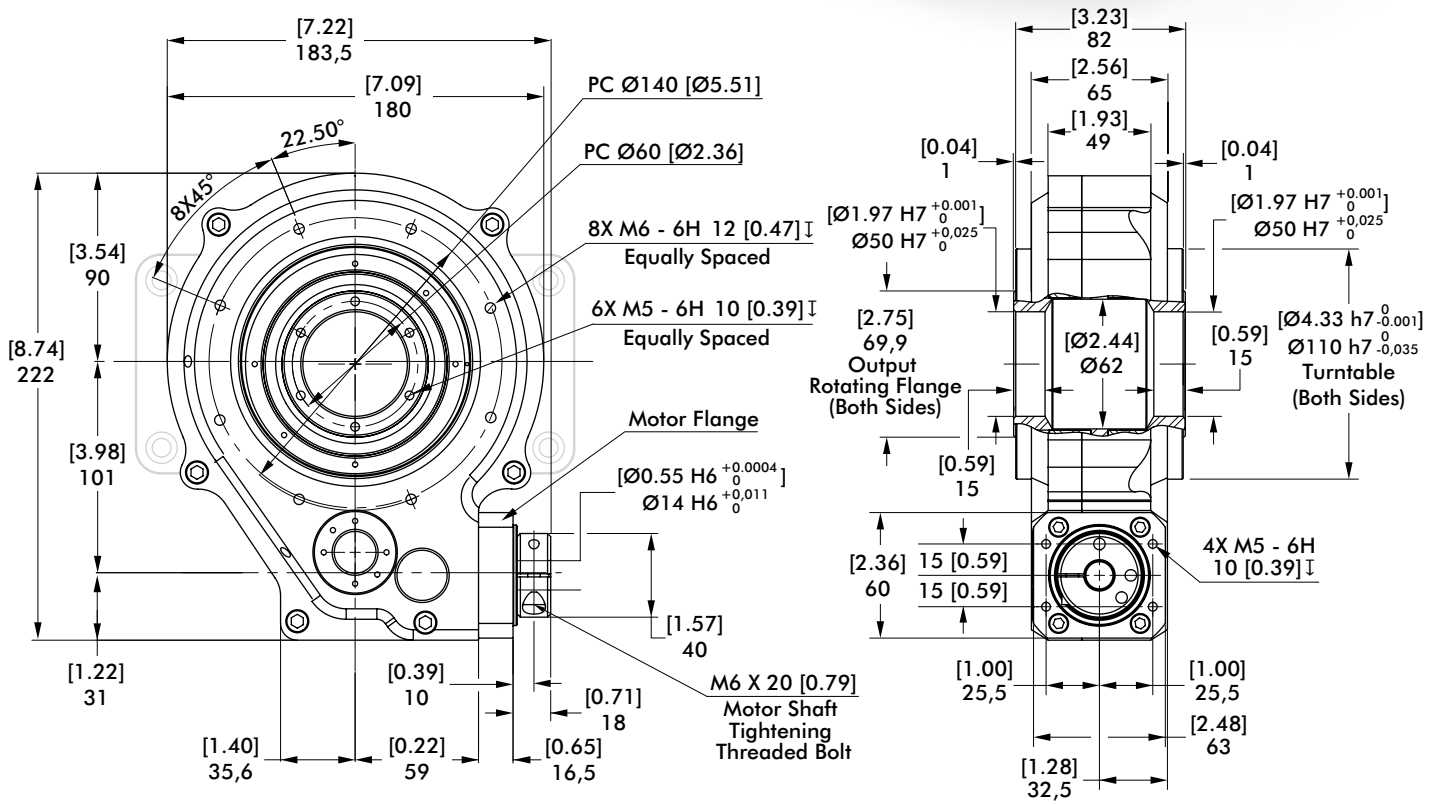
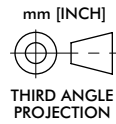
**Operation condition factor**  
 Smooth without any impact or sudden load  $f = 1.0$   
 Normal, but occasional emergency stop  $f = 1.5$   
 Operation with frequent impact or sudden load  $f = 3.0$

$$\text{Estimated lifetime } L_h = 12000 \left( \frac{T_{\text{op}}}{f \cdot T_{\text{mean}}} \right)^{\frac{10}{3}} \quad (\text{hours})$$

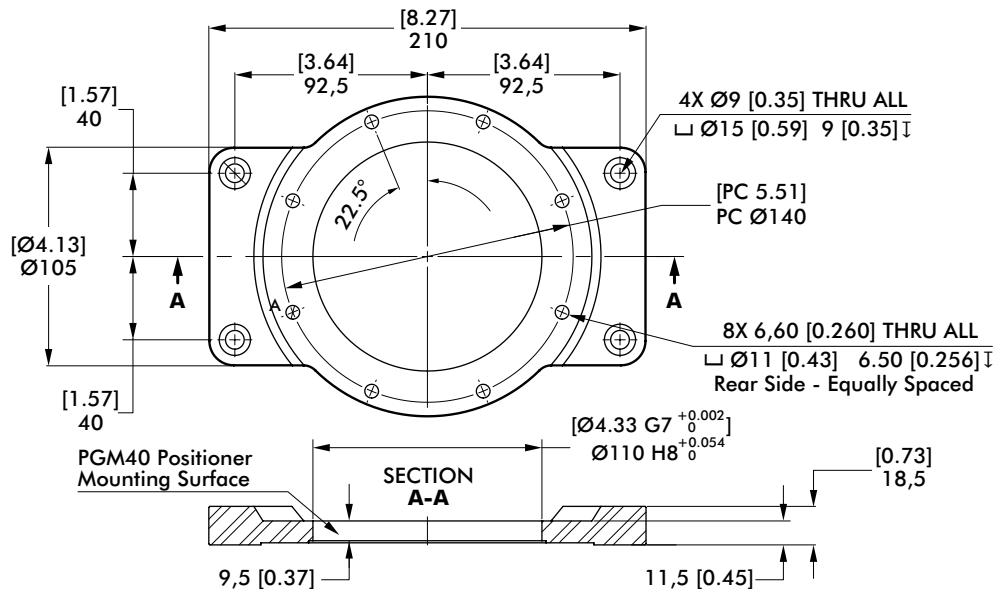
### 5. Selection complete

If above values don't satisfy requirements, go back to step 2 and 3 to re-select size.





### Optional Fixture Bracket







# RSD SERIES

## Rotary Servo Drive | Product Overview



Flange output



Shaft output



Internal shrink disk output



Shrink disk output

### Smarter Indexing

The **CAMCO RSD Rotary Servo Drive** is a zero-backlash, cam-actuated drive compatible with industry-standard servo motors for precise control, efficiency and flexibility.

Universal mounting

Maintenance-free operation

Large output bearing for greater overturning moment capacity

Large thru-hole for accessory lines (electric, pneumatic, etc.)

IP-65 rating

Class 100 rated with Med-Redi preparation

### Features

Designed to accept a variety of servo motors

Preloaded system

- Zero backlash
- High accuracy
- Smooth motion
- Quiet operation
- High speed

Indexing flexibility

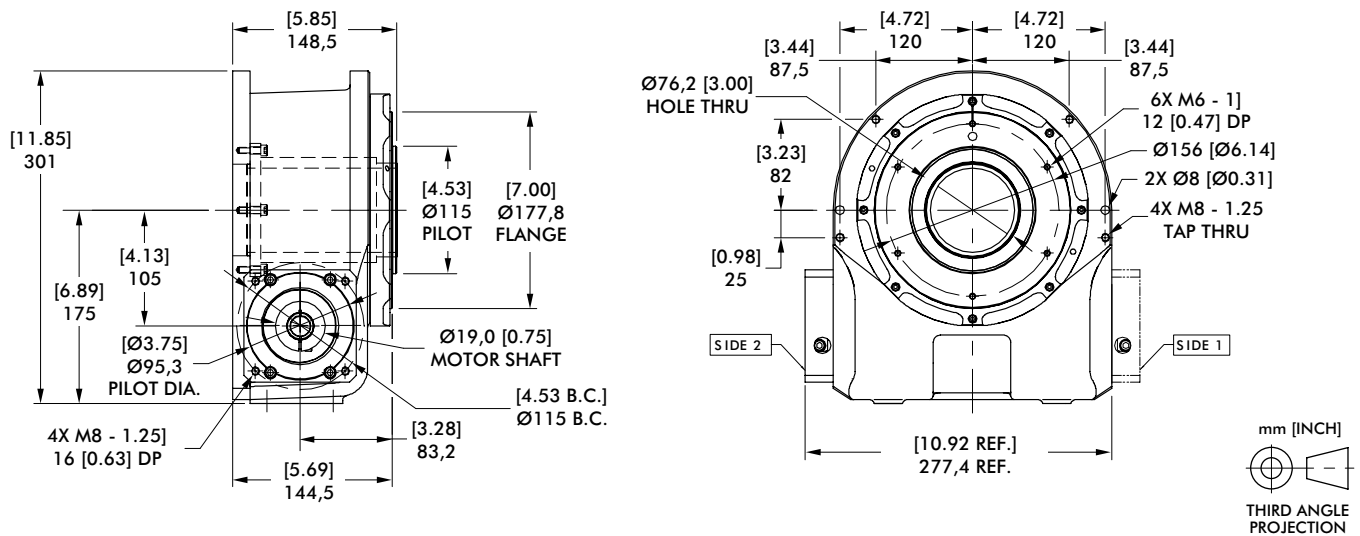
- Run different parts on the same indexer
- Variable indexing: reversing, sorting, vary distance with each index

4:1 to 18:1 ratios in a single stage

# 115RSD SERIES

## Rotary Servo Drive | Dimensions

Flange Output



\* Also available with 40 mm [1.57 in] bore.

| Specifications                               | Units                                      | Standard Ratios  |                | Other Available Ratios |                |                |                |                |                |                |
|----------------------------------------------|--------------------------------------------|------------------|----------------|------------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Single Reduction Ratio                       | -                                          | 8:1              | 16:1           | 4:1                    | 5:1            | 6:1            | 9:1            | 12:1           | 15:1           | 18:1           |
| Maximum Torque Capacity                      | [in-lb]<br>N-m                             | [3540]<br>400    | [3755]<br>424  | [2950]<br>333          | [3195]<br>361  | [3355]<br>379  | [3595]<br>406  | [3695]<br>418  | [3740]<br>423  | [3770]<br>426  |
| Maximum Inertia on Output Dial               | [lb-ft <sup>2</sup> ]<br>kg-m <sup>2</sup> | [1622]<br>68     | [6488]<br>273  | [406]<br>17            | [634]<br>27    | [912]<br>38    | [2053]<br>87   | [3649]<br>154  | [5702]<br>240  | [8211]<br>346  |
| Unit Output Inertia Reflected at Input Shaft | [lb-ft <sup>2</sup> ]<br>kg-m <sup>2</sup> | [0.44]<br>0,05   | [0.33]<br>0,04 | [0.94]<br>0,11         | [0.73]<br>0,08 | [0.55]<br>0,06 | [0.40]<br>0,05 | [0.43]<br>0,05 | [0.34]<br>0,04 | [0.31]<br>0,03 |
| Stiffness                                    | in-lb/arcmin<br>N-m/arcmin                 | [169]<br>19,1    | [179]<br>20,2  | [141]<br>15,9          | [153]<br>17,3  | [160]<br>18,1  | [172]<br>19,4  | [177]<br>20    | [179]<br>20,2  | [180]<br>20,3  |
| Input Torque of Unit Only                    | N-m [in-lb]                                | 2,26 [20]        |                |                        |                |                |                |                |                |                |
| Maximum Axial Load                           | kN [lbf]                                   | 10 [2270]        |                |                        |                |                |                |                |                |                |
| Maximum Radial Load                          | kN [lbf]                                   | 4 [910]          |                |                        |                |                |                |                |                |                |
| Maximum Offset Load (Overturning Moment)     | N-m [in-lb]                                | 359 [3180]       |                |                        |                |                |                |                |                |                |
| Output Face Flatness                         | TIR mm [in]                                | 0,05 [0.002]     |                |                        |                |                |                |                |                |                |
| Axial Run-Out                                | mm [in]                                    | 0,04 [0.0015]    |                |                        |                |                |                |                |                |                |
| Accuracy                                     | arc seconds                                | ±30              |                |                        |                |                |                |                |                |                |
| Repeatability                                | arc seconds                                | ±7               |                |                        |                |                |                |                |                |                |
| Torsional Backlash                           | arc seconds                                | 0                |                |                        |                |                |                |                |                |                |
| Operating Temperature Range                  | C° [F°]                                    | 60 [140] Minimum |                |                        |                |                |                |                |                |                |

# PRECISION INDEXING SOLUTIONS

## Features and Benefits

The **CAMCO RDM Series** is a line of cam-operated rotary index drives, designed to move a wide array of products and components smoothly and with precision. Preloaded for no backlash, they have the capacity for handling high loads and speeds with controlled acceleration and deceleration for repeatable, accurate positioning.

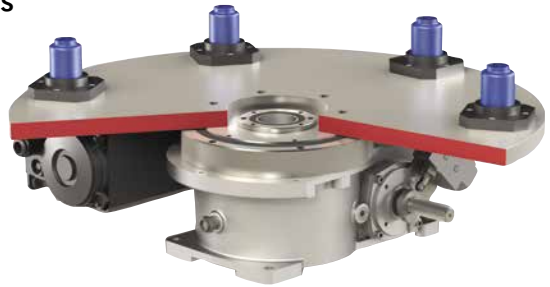
- High precision, hardened cams available in standard and special motions
- Superior accuracy at the working radius when compared to a traditional indexer
- Sealed 4-point contact output bearing and large cam followers for superior accuracy and load capacity
- 60 Station capacity, ideal for multi-part automatic assembly machines
- Center through hole accommodates machine utilities
- Servo-driven solutions available for complex or variable indexing profiles
- Optional Output Overload Clutch available



## Application Examples

### Cycle on Demand Indexer with Fixed Number of Stations

- RDM indexer with user controlled variable dwell time
- Single index cycle with user controlled variable dwell time
- Index time is controlled by varying frequency setting of inverter drive
- 60 or 30 indexing cycles per minute using an AC or DC motor and drive respectively
- Increased productivity cycle rates with an Output Clutch-Brake option



### Cambot Flexible Pick and Place Solutions

- Servo driven indexer supporting high moment capacity payloads
- Large output flange for mounting a custom end-effector solution
- Integrate Destaco's versatile grippers, slides and vacuum products for pick and place actuation



# CAMCO XPRESS PROGRAM

601RDM and 902RDM Series

Destaco continues to offer excellent service to our customers by providing the most common models of our **Camco RDM Series** as fast as you need them.



## Base Models

Please contact your Destaco Camco Sales Team to learn more features of the RDM Series and details of the Xpress Program.



**601RDM**  
Load Capacity:  
Radial: 945 lbs  
Thrust/Axial: 2360 lbs



**902RDM**  
Load Capacity:  
Radial: 3540 lbs  
Thrust/Axial: 7000 lbs  
with Standard Torque and  
Detector Plate Settings



| Stops     | Motion    | Reducer           | Ratio | Motor                                                      | Optional Controller                                                                                                                | Clutch  |
|-----------|-----------|-------------------|-------|------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|---------|
| (M)601RDM | (M)902RDM |                   |       |                                                            |                                                                                                                                    |         |
| 2         | 2         |                   | 10:1  |                                                            |                                                                                                                                    |         |
| 4         | 4         | 270               | 15:1  | 601RDM<br>W/0.33HP<br>230/460V<br>or 90/180V<br>DC Motor   | Allen Bradley<br>PowerFlex 523 / 525<br><small>(Allen Bradley, PowerFlex are registered<br/>brands of Rockwell Automation)</small> | (M)7.8D |
| 6         | 6         | 330               | 20:1  | 902RDM<br>W/1HP, 56C<br>230/460V<br>or 90/180V<br>DC Motor |                                                                                                                                    |         |
| 8         | 8         |                   | 25:1  |                                                            |                                                                                                                                    |         |
| 12        | 12        | 902RDM<br>R225 SE | 30:1  |                                                            |                                                                                                                                    |         |
| 16        |           |                   | 40:1  |                                                            |                                                                                                                                    |         |
|           |           |                   | 50:1  |                                                            |                                                                                                                                    |         |
|           |           |                   | 60:1  |                                                            |                                                                                                                                    |         |
|           |           |                   |       |                                                            |                                                                                                                                    |         |
|           |           |                   |       |                                                            | Camco Vari-Pak                                                                                                                     |         |



# RDM SERIES

## Rotary Index Drive | How To Order

| Base Model*    |                 | Option Tables Page # | Index Mounting (See Figure 1) | Reducer/Motor (Table 1)                                                   | Reducer Mounting (See Figure 2) | Cycling Sensor (See Figure 3) | Description             |
|----------------|-----------------|----------------------|-------------------------------|---------------------------------------------------------------------------|---------------------------------|-------------------------------|-------------------------|
| Imperial       | Metric          |                      |                               |                                                                           |                                 |                               |                         |
| N/A            | <b>80RDM</b>    | <b>5</b>             | <b>1</b>                      | <b>RM2E</b>                                                               | <b>0</b> = No Reducer           | <b>0</b> = No Sensors         |                         |
| <b>601RDM</b>  | <b>M601RDM</b>  | <b>11</b>            | <b>2</b>                      | Note: Set Reducer Mounting option to 0 when Reducer/Motor option is 0000. | <b>A</b>                        | <b>A</b>                      | Single Cam w/PNP Prox   |
| <b>902RDM</b>  | <b>M902RDM</b>  | <b>17</b>            | <b>3</b>                      |                                                                           | <b>B</b>                        | <b>B</b>                      | Single Cam w/NPN Prox   |
| N/A            | <b>1100RDM</b>  | <b>23</b>            | <b>4</b>                      |                                                                           | <b>C</b>                        | <b>C</b>                      | Dual Cam w/PNP Prox     |
| <b>1305RDM</b> | <b>M1305RDM</b> | <b>29</b>            | <b>5</b>                      |                                                                           | <b>D</b>                        | <b>D</b>                      | Dual Cam w/NPN Prox     |
| <b>1800RDM</b> | <b>M1800RDM</b> | <b>35</b>            | <b>6</b>                      |                                                                           | <b>E</b>                        | <b>E</b>                      | Single Cam/Prox Bracket |
|                |                 |                      |                               |                                                                           | <b>F</b>                        | <b>F</b>                      | Dual Cam/Prox Bracket   |
|                |                 |                      |                               |                                                                           | <b>G</b>                        | <b>G</b>                      | Single Cam, w/Mech LS   |
|                |                 |                      |                               |                                                                           | <b>H</b>                        | <b>H</b>                      | Dual Cam, w/Mech LS     |

\*Right Hand Cam only

**Example Order Code:** 601RDM - C - 1 - P - RM2E - 000 - C - L - A - 40EA - A02

| Motion    | Description        | Center Post                  | Code     | Description                             |
|-----------|--------------------|------------------------------|----------|-----------------------------------------|
| <b>A</b>  | 2-Stop-330         | <b>All Sizes</b>             | <b>0</b> | No Reducer                              |
| <b>B</b>  | 3-Stop-330         |                              | <b>P</b> | Center Post                             |
| <b>C</b>  | 4-Stop-270         | <b>902<br/>1100<br/>1305</b> | <b>T</b> | Tool Plate Mounting Holes               |
| <b>D</b>  | 4-Stop-330         |                              | <b>B</b> | Center Post + Tool Plate Mounting Holes |
| <b>E</b>  | 6-Stop-270         |                              |          |                                         |
| <b>F</b>  | 6-Stop-330         |                              |          |                                         |
| <b>G</b>  | 8-Stop-270         |                              |          |                                         |
| <b>H</b>  | 8-Stop-330         |                              |          |                                         |
| <b>I</b>  | 12-Stop-270        |                              |          |                                         |
| <b>J</b>  | 12-Stop-330        |                              |          |                                         |
| <b>K</b>  | 16-Stop-270        |                              |          |                                         |
| <b>L</b>  | 16-Stop-330        |                              |          |                                         |
| <b>M</b>  | 8:1 Constant-Lead  |                              |          |                                         |
| <b>N</b>  | 12:1 Constant-Lead |                              |          |                                         |
| <b>P</b>  | 16:1 Constant-Lead |                              |          |                                         |
| <b>R*</b> | 24:1 Constant-Lead |                              |          |                                         |

\*Models 601, 902, 1100 only.

**Motor Brake Settings (Table 2)**

**Reducer Gear Ratio (Table 3)**

**Output Clutch (Table 4)**

**Motor Control (Table 5)**

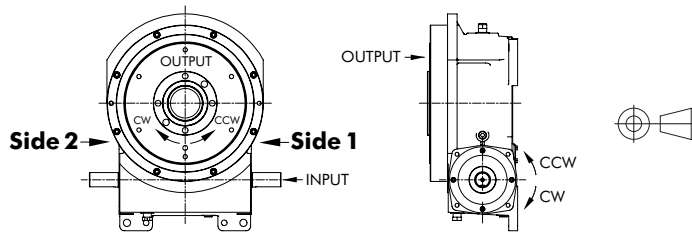
## Input Shaft Configuration/Rotation

### Relative Rotation for Right Hand Cam:

**Side 1:** CW Input, CCW Output

**Side 2:** CCW input, CW Output

NOTE: Input can be driven in either direction. Reducer, Motor and adapter plates can be mounted on either side 1 or side 2 to drive input.

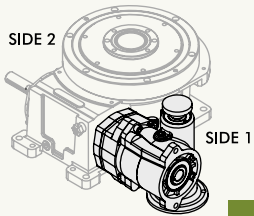
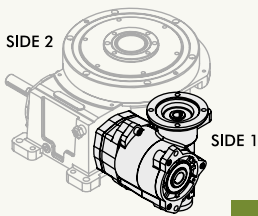
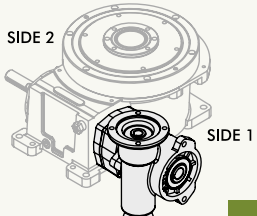
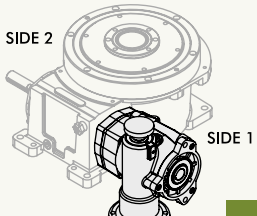
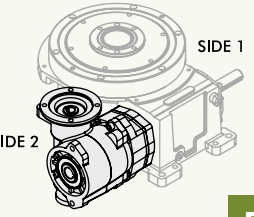
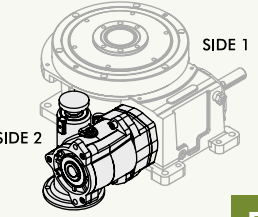
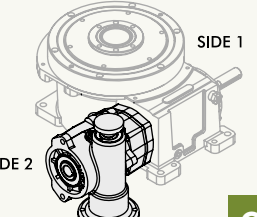
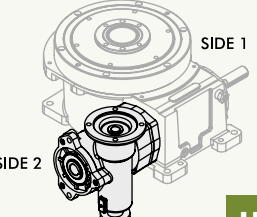
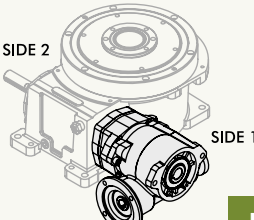
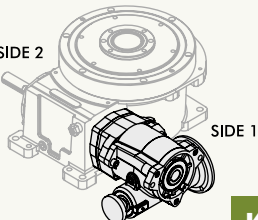
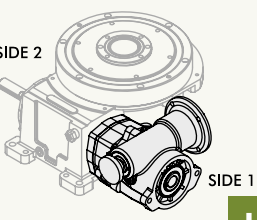
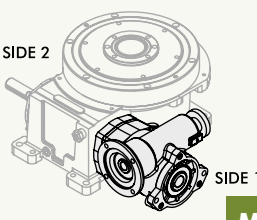
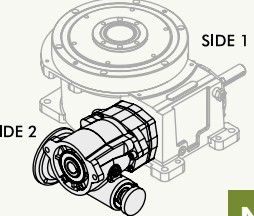
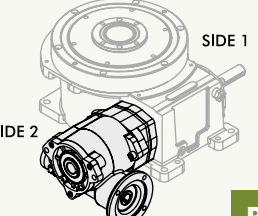
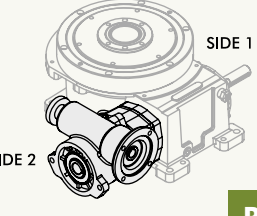
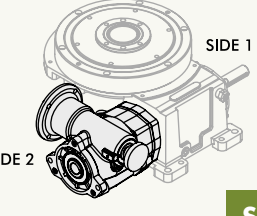


## Index Mounting (Figure 1)

| OVOI<br>(output vertical, over input) | OVUI<br>(output vertical, under input) | OHOI<br>(output horizontal, over input) | OHUI<br>(output horizontal, under input) | H-S1-UP<br>(output horizontal, side 1 up) | H-S2-UP<br>(output horizontal, side 2 up) |
|---------------------------------------|----------------------------------------|-----------------------------------------|------------------------------------------|-------------------------------------------|-------------------------------------------|
|                                       |                                        |                                         |                                          |                                           |                                           |
| 1                                     | 2                                      | 3                                       | 4                                        | 5                                         | 6                                         |

Other Motions (stops and index periods) available. Contact your DESTACO sales representative for more information.

### Gear Reducer Mounting Positions (Figure 2)

|        |  | Mounting "A"                                                                        |                                                                                     | Mounting "B"                                                                         |                                                                                       |
|--------|--|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|        |  | Right Hand                                                                          | Left Hand                                                                           | Right Hand                                                                           | Left Hand                                                                             |
| SIDE 1 |  |    |    |    |    |
|        |  | <b>A</b>                                                                            | <b>B</b>                                                                            | <b>C</b>                                                                             | <b>D</b>                                                                              |
| SIDE 2 |  |    |    |    |    |
|        |  | <b>E</b>                                                                            | <b>F</b>                                                                            | <b>G</b>                                                                             | <b>H</b>                                                                              |
|        |  | Mounting "C"                                                                        |                                                                                     | Mounting "D"                                                                         |                                                                                       |
|        |  | Right Hand                                                                          | Left Hand                                                                           | Right Hand                                                                           | Left Hand                                                                             |
| SIDE 1 |  |  |  |  |  |
|        |  | <b>J</b>                                                                            | <b>K</b>                                                                            | <b>L</b>                                                                             | <b>M</b>                                                                              |
| SIDE 2 |  |  |  |  |  |
|        |  | <b>N</b>                                                                            | <b>P</b>                                                                            | <b>R</b>                                                                             | <b>S</b>                                                                              |

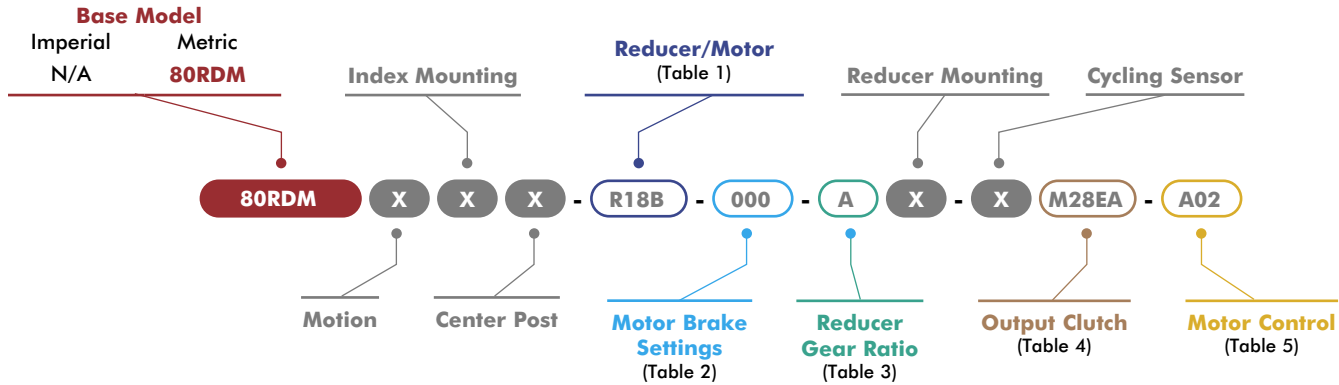
### Cycling Sensor Options (Figure 3)

| Single Cam with<br>(A) PNP or (B) NPN<br>Proximity Sensor                                                        | Dual Cam with<br>(A) PNP or (B) NPN<br>Proximity Sensor                                                          | Single Cam<br>with Proximity<br>Sensor Bracket                                                      | Dual Cam<br>with Proximity<br>Sensor Bracket                                                         | Single Cam<br>with Mechanical<br>Limit Switch                                                         | Dual Cam<br>with Mechanical<br>Limit Switch                                                           |
|------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
|  <p><b>A</b><br/><b>B</b></p> |  <p><b>C</b><br/><b>D</b></p> |  <p><b>E</b></p> |  <p><b>F</b></p> |  <p><b>G</b></p> |  <p><b>H</b></p> |



# 80RDM SERIES

## Rotary Index Drive | How To Order



X = See Page 3 for option information.

### 1 Reducer/Motor Options

| Code                        | Description                                |
|-----------------------------|--------------------------------------------|
| 0000                        | No Reducer or Motor*                       |
| <b>R180 Motors</b>          |                                            |
| R18X                        | R180 Adapter only*                         |
| R18A                        | R180 Reducer                               |
| R18B                        | R180 Reducer with 0.33HP 230/460V AC Motor |
| R18C                        | R180 Reducer with 0.33HP 90V DC Motor      |
| R18D                        | R180 Reducer with 0.33HP 180V DC Motor     |
| <b>STM RMI-28/40 Motors</b> |                                            |
| RM1A                        | RMI-28 Adapter only*                       |
| RM1B                        | STM RMI-28/LFB/IEC56-B14 Reducer           |
| RM1C                        | STM RMI-28/LFB with 0.09kW Motor           |
| RM2A                        | RMI-40 Adapter only*                       |
| RM2B                        | STM RMI-40/LFB/IEC63-B14 Reducer           |
| RM2C                        | STM RMI-40/LFB/IEC71-B14 Reducer           |
| RM2D                        | STM RMI-40/LFB with 0.18kW Motor           |
| RM2E                        | STM RMI-40/LFB with 0.25kW Motor           |

\*All Reducer/Motor adapters require Gear Ratio option to be 0.

### 2 Motor Brake

| Code | Description |
|------|-------------|
| 000  | No Brake    |

### 3 Reducer Gear Ratios\*

| Code | Description                      |
|------|----------------------------------|
|      | <b>R180</b> <b>STM RMI-28/40</b> |
| 0    | N/A                              |
| A    | 10:1                             |
| B    | 15:1                             |
| C    | 20:1                             |
| D    | 25:1                             |
| E    | 30:1                             |
| F    | 40:1                             |
| G    | 50:1                             |
| H    | 60:1                             |

\*All Reducer/Motor adapters require Gear Ratio option to be 0.  
Select Gear ratio column based on the reducer type selected.

### 4 Output Clutch & Settings

| Code  | Description                   |
|-------|-------------------------------|
| 0000  | No Output Overload Clutch     |
| M28DA | M2.8D W/54 Nm, Standard*      |
| M28DB | M2.8D W/96 Nm, Standard*      |
| M28DC | M2.8D W/147 Nm, Standard*     |
| M28DD | M2.8D W/249 Nm, Standard*     |
| M28DE | M2.8D W/350 Nm, Standard*     |
| M28DF | M2.8D W/45 Nm, Standard*      |
| M28DG | M2.8D W/79 Nm, Standard*      |
| M28DH | M2.8D W/124 Nm, Standard*     |
| M28DJ | M2.8D W/203 Nm, Standard*     |
| M28DK | M2.8D W/54 Nm, Thru-Hole      |
| M28DL | M2.8D W/96 Nm, Thru-Hole      |
| M28DM | M2.8D W/147 Nm, Thru-Hole     |
| M28DN | M2.8D W/249 Nm, Thru-Hole     |
| M28DP | M2.8D W/350 Nm, Thru-Hole     |
| M28DQ | M2.8D W/45 Nm, Thru-Hole      |
| M28DR | M2.8D W/79 Nm, Thru-Hole      |
| M28DS | M2.8D W/124 Nm, Thru-Hole     |
| M28DT | M2.8D W/203 Nm, Thru-Hole     |
| M28EA | M2.8D W/54 Nm, Standard, EZ*  |
| M28EB | M2.8D W/96 Nm, Standard, EZ*  |
| M28EC | M2.8D W/147 Nm, Standard, EZ* |
| M28ED | M2.8D W/249 Nm, Standard, EZ* |
| M28EE | M2.8D W/350 Nm, Standard, EZ* |
| M28EF | M2.8D W/45 Nm, Standard, EZ*  |
| M28EG | M2.8D W/79 Nm, Standard, EZ*  |
| M28EH | M2.8D W/124 Nm, Standard, EZ* |
| M28EJ | M2.8D W/203 Nm, Standard, EZ* |
| M28EK | M2.8D W/54 Nm, Thru-Hole, EZ  |
| M28EL | M2.8D W/96 Nm, Thru-Hole, EZ  |
| M28EM | M2.8D W/147 Nm, Thru-Hole, EZ |
| M28EN | M2.8D W/249 Nm, Thru-Hole, EZ |
| M28EP | M2.8D W/350 Nm, Thru-Hole, EZ |
| M28EQ | M2.8D W/45 Nm, Thru-Hole, EZ  |
| M28ER | M2.8D W/79 Nm, Thru-Hole, EZ  |
| M28ES | M2.8D W/124 Nm, Thru-Hole, EZ |
| M28ET | M2.8D W/203 Nm, Thru-Hole, EZ |

\* Cannot be used with center post option P

### 5 Motor Control

| Code | Description             |
|------|-------------------------|
| 000  | NO MOTOR CONTROL        |
| A01  | (AC) PowerFlex 523 1HP  |
| A02  | (AC) PowerFlex 525 1HP  |
| A03  | (AC) PowerFlex 525 1HP  |
| A04  | (AC) PowerFlex 525 1HP  |
| A05  | (AC) PowerFlex 525 1HP  |
| A06  | (AC) PowerFlex 525 1HP  |
| D01  | (DC) Varipak 1HP 90VDC  |
| D02  | (DC) Varipak 1HP 90VDC  |
| D03  | (DC) Varipak 2HP 180VDC |
| D04  | (DC) Varipak 2HP 180VDC |

| Maximum Inertia x 1000 kg-cm <sup>2</sup> [lb-in <sup>2</sup> ] for standard package |                       |         |          |          |           |           |           |
|--------------------------------------------------------------------------------------|-----------------------|---------|----------|----------|-----------|-----------|-----------|
| Stops                                                                                | Motion Time [seconds] |         |          |          |           |           |           |
|                                                                                      | 0.458                 | 0.611   | 0.764    | 0.917    | 1.222     | 1.528     | 1.833     |
| 2                                                                                    | 0 [0]                 | 3 [1]   | 6 [2]    | 15 [5]   | 29 [10]   | 47 [16]   | 67 [23]   |
| 3                                                                                    | 3 [1]                 | 9 [3]   | 20 [7]   | 32 [11]  | 61 [21]   | 94 [32]   | 138 [47]  |
| 4                                                                                    | 6 [2]                 | 18 [6]  | 38 [13]  | 67 [23]  | 135 [46]  | 217 [74]  | 304 [104] |
| 6                                                                                    | 15 [5]                | 38 [13] | 82 [28]  | 126 [43] | 246 [84]  | 401 [137] | 559 [191] |
| 8                                                                                    | 20 [7]                | 44 [15] | 73 [25]  | 114 [39] | 222 [76]  | 372 [127] | 559 [191] |
| 12                                                                                   | 50 [17]               | 99 [34] | 167 [57] | 258 [88] | 497 [170] | 559 [191] | 559 [191] |
| 16                                                                                   | 47 [16]               | 91 [31] | 152 [52] | 231 [79] | 448 [153] | 559 [191] | 559 [191] |
| Reducer Ratio                                                                        |                       |         |          |          |           |           |           |
|                                                                                      | 15                    | 20      | 25       | 30       | 40        | 50        | 60        |

Contact your DESTACO sales representative for more information.

### Features

- R180 Reducer (Ratios from 15:1 to 60:1)
  - Double Extended Worm Shaft (Input)
  - Worm Shaft Handwheel
- Double Extended Camshaft (Input Shaft)
- Center Thru Hole (Ø70 mm [Ø2.76 in.])
- 1/3 HP AC Drive Package with Inverter Duty Motor and IM-pAC AC Drive (up to 60 cpm)
- Cycle Cam and Limit Switch Mounted to Camshaft
- Right Hand Cam
- Universal Mounting Capability

### Output Load Capacity (loads carried during index):

|              |                      |
|--------------|----------------------|
| Radial       | 3358 N [755 lbs]     |
| Thrust/Axial | 8385 N [1885 lbs]    |
| Moment       | 213 N-m [1885 in-lb] |

### Typical Application Dial Diameter:

203 mm [8 in] to 711 mm [28 in]

### Accuracy

±44 arcsec / ±0,08 mm [±.003in]  
at 355,6 mm [14in] Radius

### Repeatability

±11 arcsec / ±0,018 mm [±.0007in]  
at 355,6 mm [14in] Radius

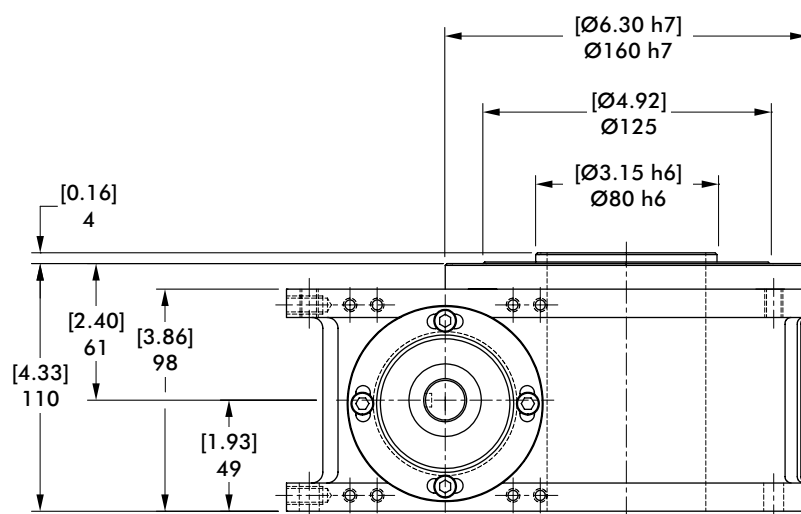
### Optional Accessories

- 1/3 HP DC Motor
- Varipak DC Motor Control (up to 30 cpm)
- Output Mechanical Overload Clutch
  - See Page 9
- EZ Mount Dial Adapter
- Stationary Center Post
- Dual Cam and Limit Switch
- Electric Clutch-Brake
- Left Hand Cam

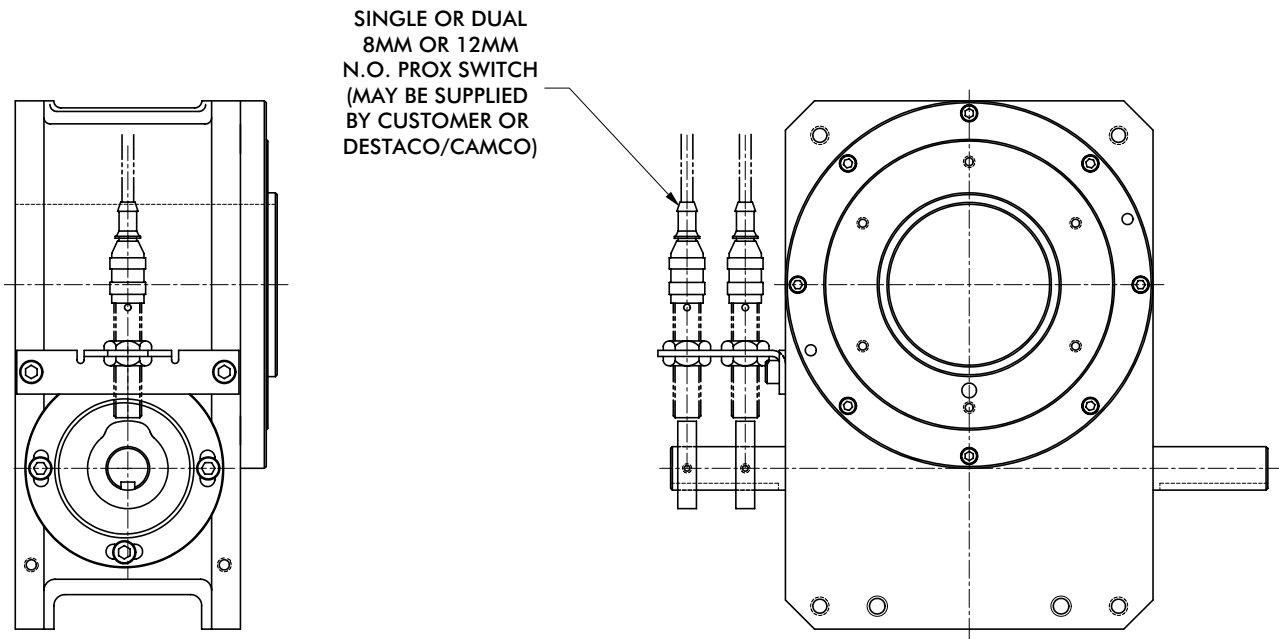


## Rotary Index Drive | Dimensions

### THIRD ANGLE PROJECTION

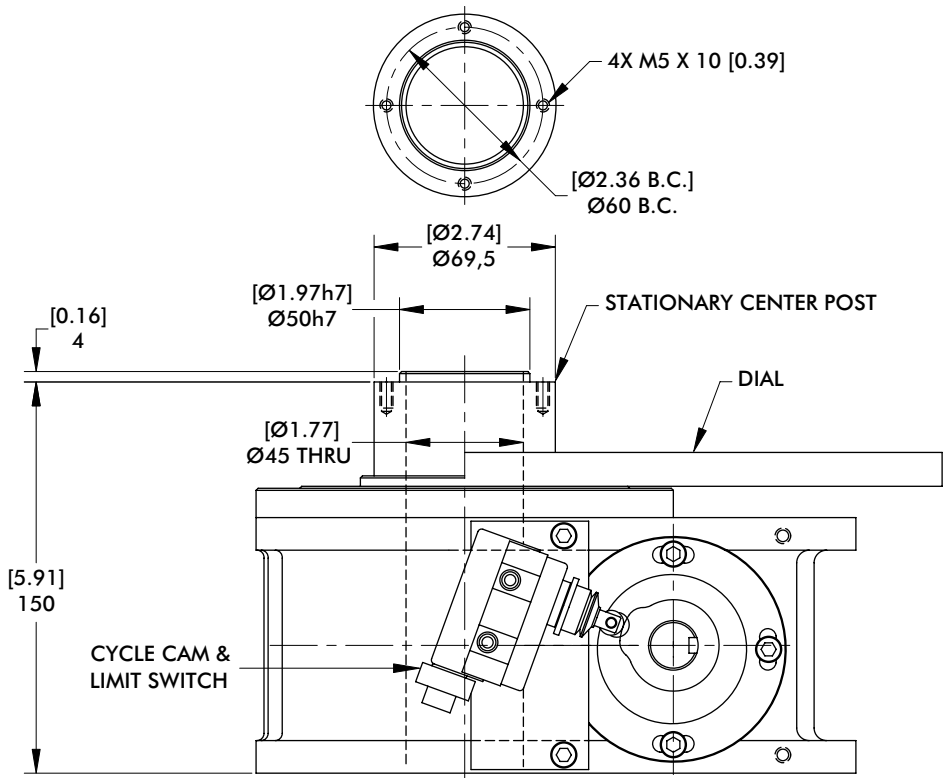


Proximity Switch



mm [INCH]  
THIRD ANGLE  
PROJECTION

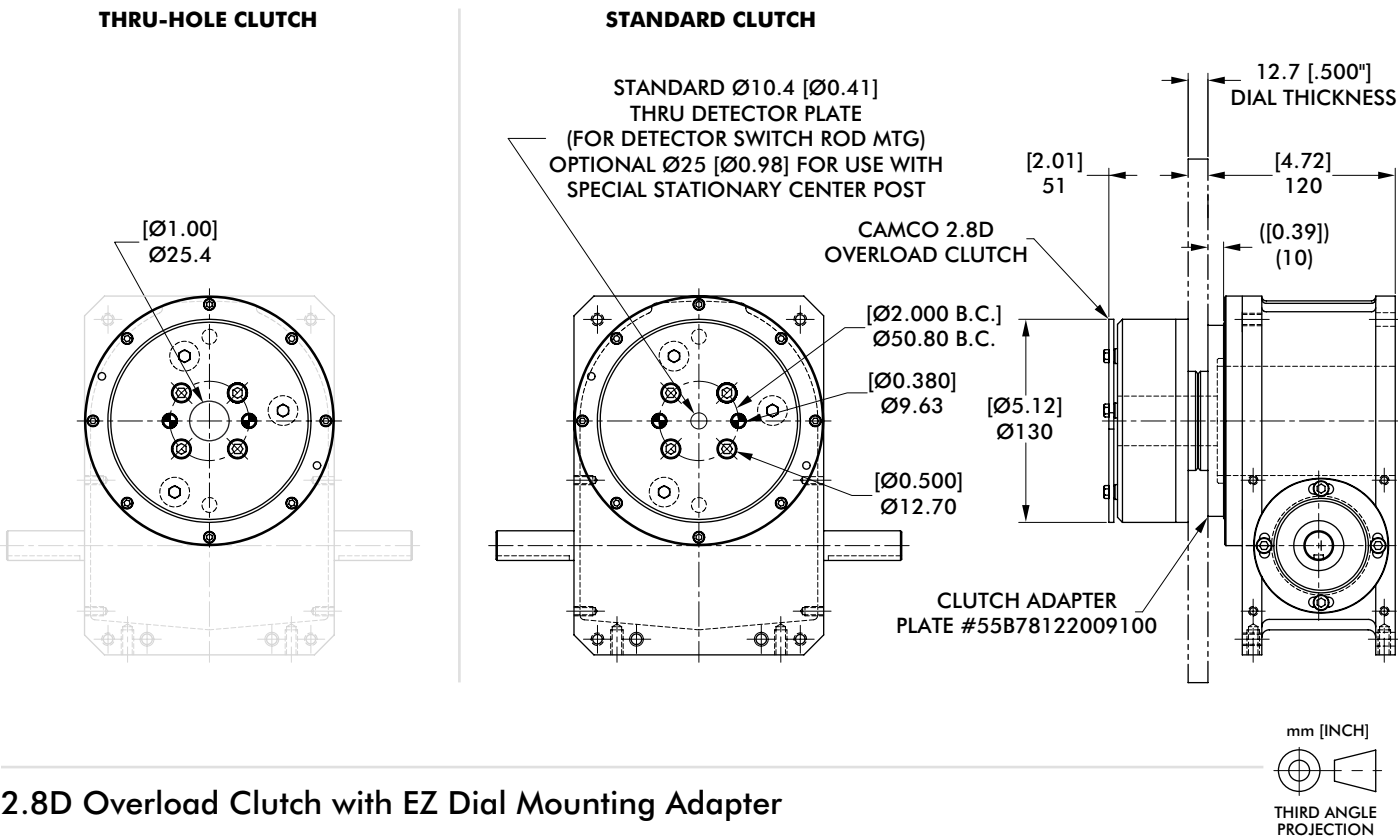
Center Post



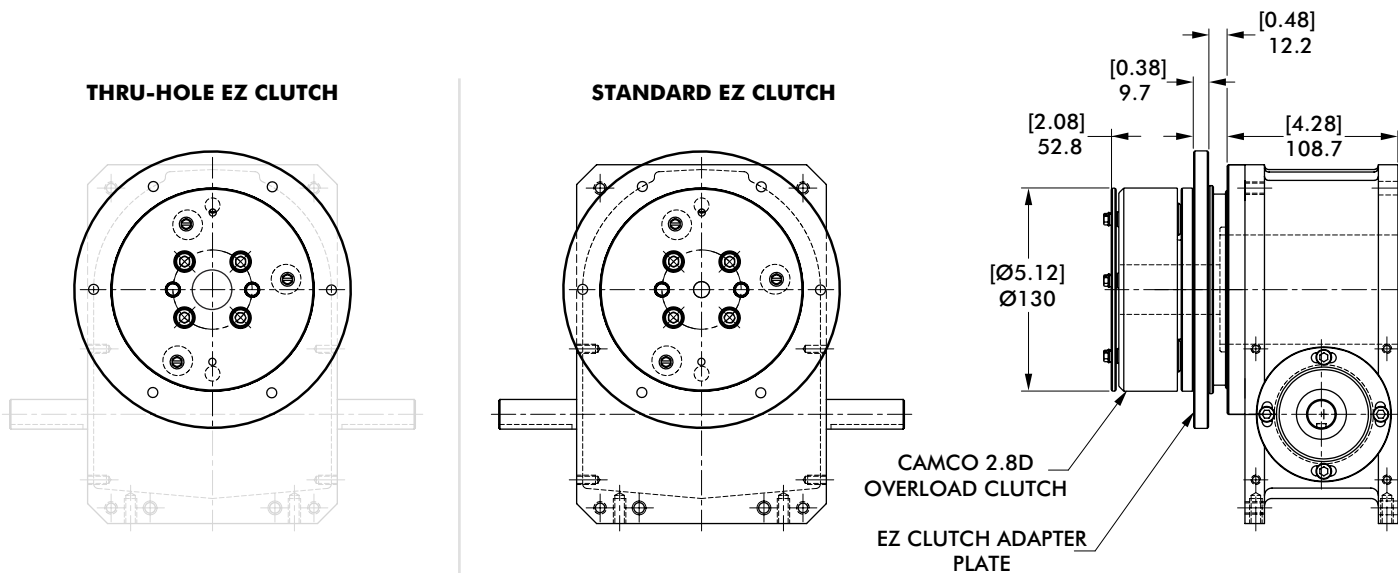
# 80RDM SERIES

## Rotary Index Drive | Dimensions

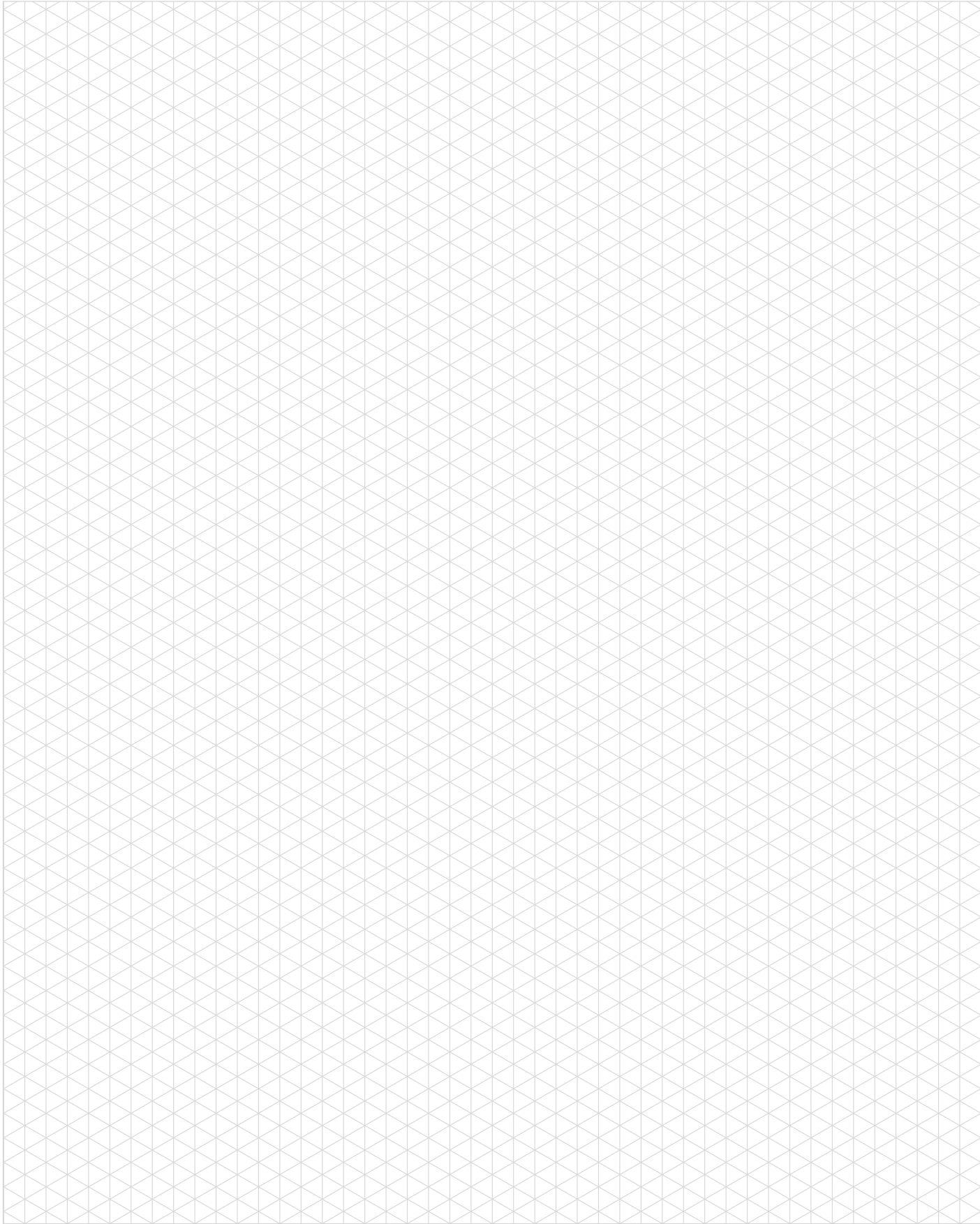
### 2.8D Overload Clutch



### 2.8D Overload Clutch with EZ Dial Mounting Adapter



| Model | Internal Inertia kg-m <sup>2</sup> [lb-in <sup>2</sup> ] | Torque Setting N-m [in-lb]                                                                    |
|-------|----------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| 2.8D  | 0,0085 [29]                                              | 45, 54, 79, 96, 124, 147, 203, 249, 350<br>[400, 480, 700, 850, 1100, 1300, 1800, 2200, 3100] |







| Maximum Inertia x 1000 kg-cm <sup>2</sup> [lb-in <sup>2</sup> ] for standard package |                       |           |           |            |            |            |            |
|--------------------------------------------------------------------------------------|-----------------------|-----------|-----------|------------|------------|------------|------------|
| Stops                                                                                | Motion Time [seconds] |           |           |            |            |            |            |
|                                                                                      | 0.458                 | 0.611     | 0.764     | 0.917      | 1.222      | 1.528      | 1.833      |
| 2                                                                                    | 0 [0]                 | 3 [1]     | 6 [2]     | 15 [5]     | 32 [11]    | 50 [17]    | 70 [24]    |
| 3                                                                                    | 3 [1]                 | 9 [3]     | 20 [7]    | 35 [12]    | 82 [28]    | 123 [42]   | 170 [58]   |
| 4                                                                                    | 6 [2]                 | 18 [6]    | 38 [13]   | 67 [23]    | 152 [52]   | 228 [78]   | 310 [106]  |
| 6                                                                                    | 15 [5]                | 41 [14]   | 82 [28]   | 149 [51]   | 328 [112]  | 492 [168]  | 667 [228]  |
| 8                                                                                    | 29 [10]               | 73 [25]   | 149 [51]  | 263 [90]   | 582 [199]  | 875 [299]  | 1188 [406] |
| 12                                                                                   | 64 [22]               | 167 [57]  | 337 [115] | 597 [204]  | 1314 [449] | 1399 [478] | 1399 [478] |
| 16                                                                                   | 117 [40]              | 296 [101] | 600 [205] | 1056 [361] | 1399 [478] | 1399 [478] | 1399 [478] |
| Reducer Ratio                                                                        |                       |           |           |            |            |            |            |
|                                                                                      | 15                    | 20        | 25        | 30         | 40         | 50         | 60         |

Other Motions (stops and index periods) available. Contact your DESTACO sales representative for more information.

### Features

- R180 Reducer (Ratios from 15:1 to 60:1)
  - Double Extended Worm Shaft (Input)
  - Worm Shaft Handwheel
- Double Extended Camshaft (Input Shaft)
- Center Thru Hole (Ø44,45 [Ø1.75 in.])
- 1/3 HP AC Drive Package with Inverter Duty Motor and IM-pAC AC Drive (up to 60 cpm)
- Cycle Cam and Limit Switch Mounted to Camshaft
- Right Hand Cam

### Output Load Capacity (loads carried during index):

|              |                      |
|--------------|----------------------|
| Radial       | 4204 N [945 lbs]     |
| Thrust/Axial | 10498 N [2360 lbs]   |
| Moment       | 373 N-m [3305 in-lb] |

### Typical Application Dial Diameter:

305 mm [12 in] to 914 mm [36 in]

### Accuracy

±39 arcsec / ±0,08 mm [±.003in]  
at 457,2 mm [18in] Radius

### Repeatability

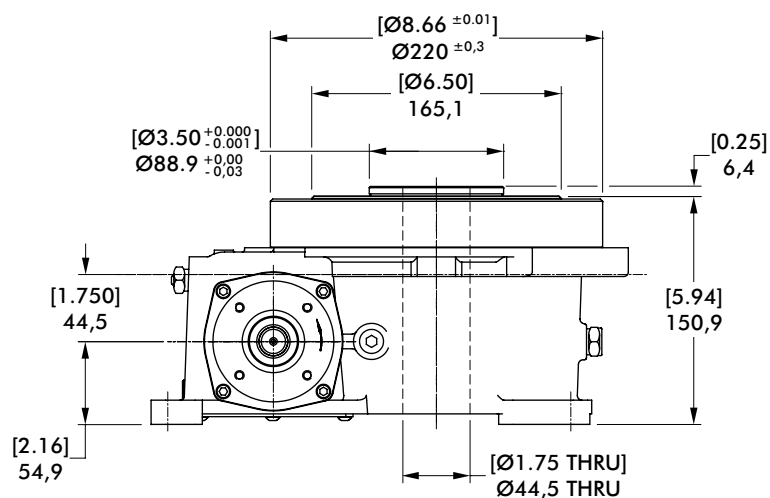
±10 arcsec / ±0,023 mm [±.0009in]  
at 457,2 mm [18in] Radius

### Optional Accessories

- 1/3 hp DC Motor
- Varipak DC Motor Control (up to 30 cpm)
- Output Mechanical Overload Clutch
  - See Page 15
- EZ Mount Dial Adapter
- Stationary Center Post
- Dual Cam and Limit Switch
- Relief in Dwell for shot-pin applications
- Left Hand Cam



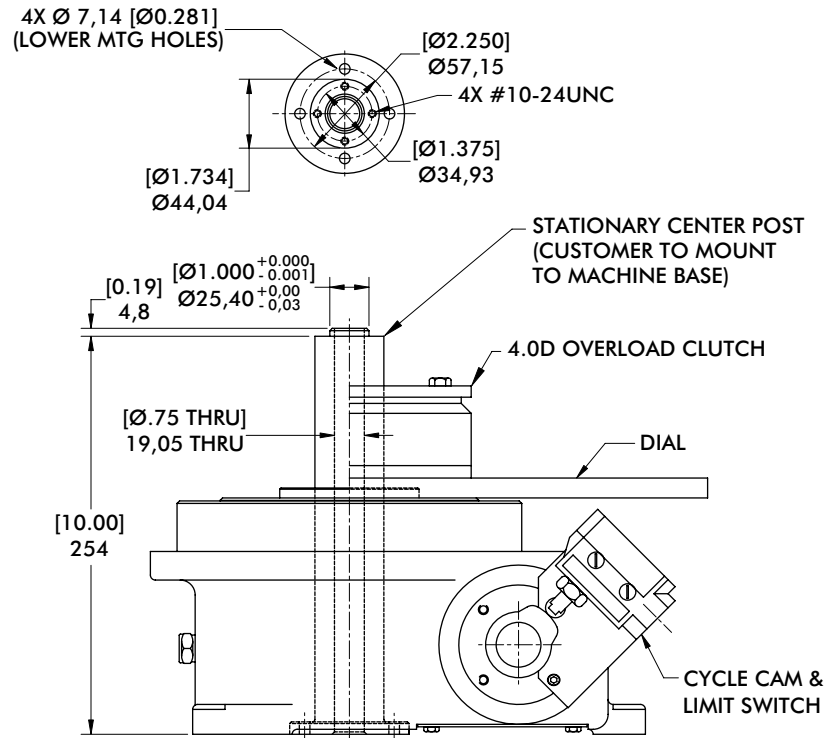
## Rotary Index Drive | Dimensions



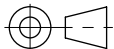
# 601RDM SERIES

Rotary Index Drive | Dimensions

Proximity Switch

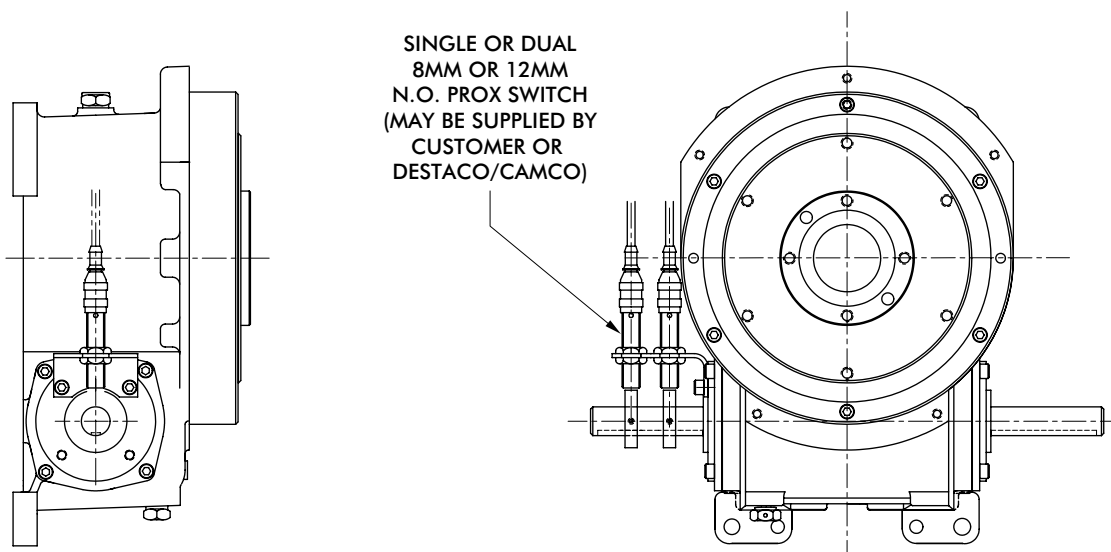


mm [INCH]



THIRD ANGLE  
PROJECTION

Center Post

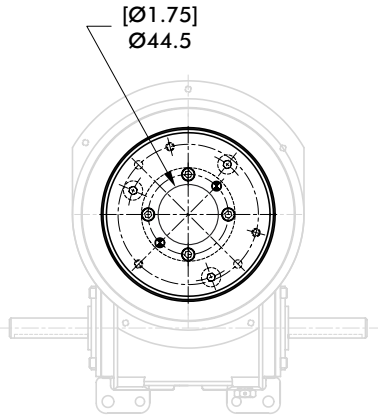


# 601RDM SERIES

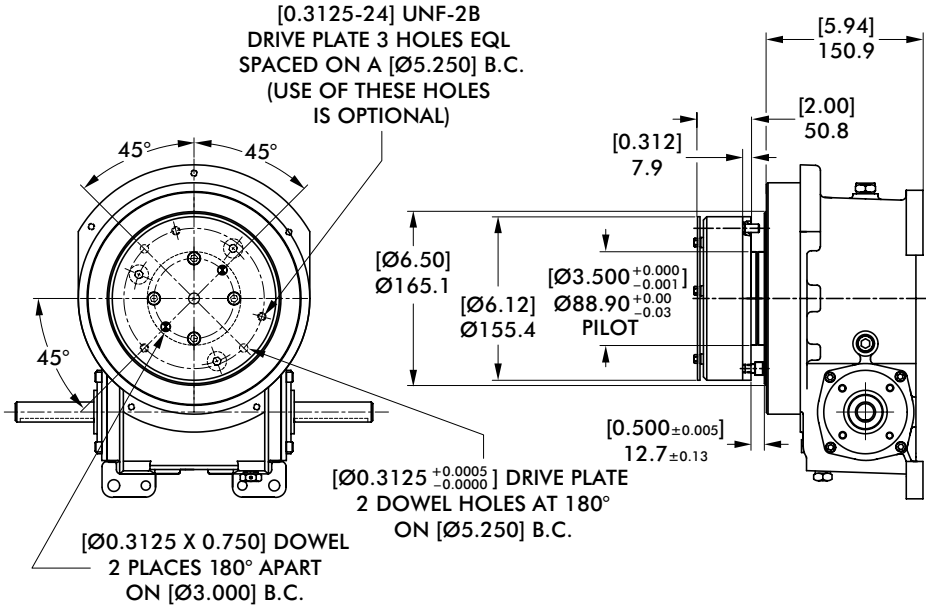
## Rotary Index Drive | Dimensions

### 4.0D Overload Clutch

#### THRU-HOLE CLUTCH



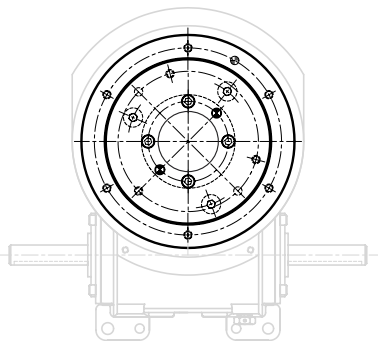
#### STANDARD CLUTCH



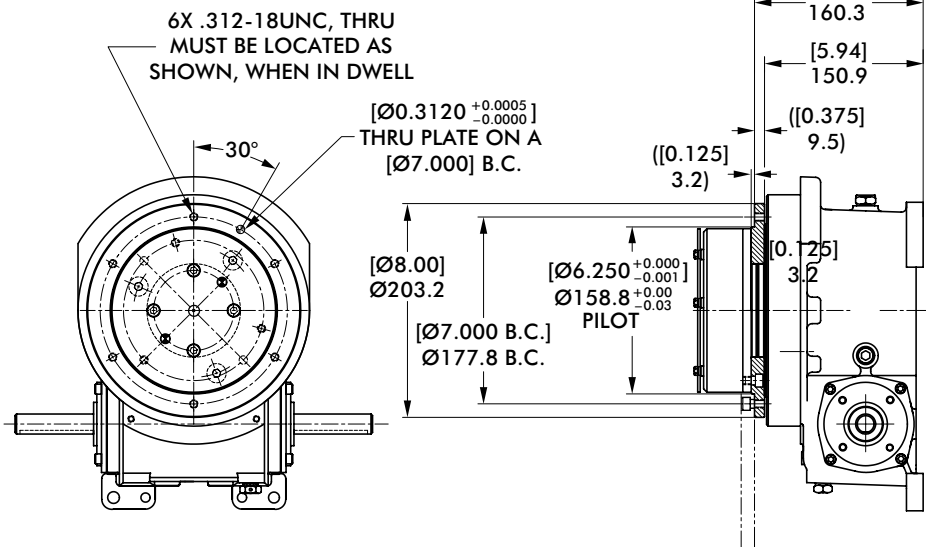
mm [INCH]  
THIRD ANGLE  
PROJECTION

### 4.0D Overload Clutch with EZ Dial Mounting Adapter

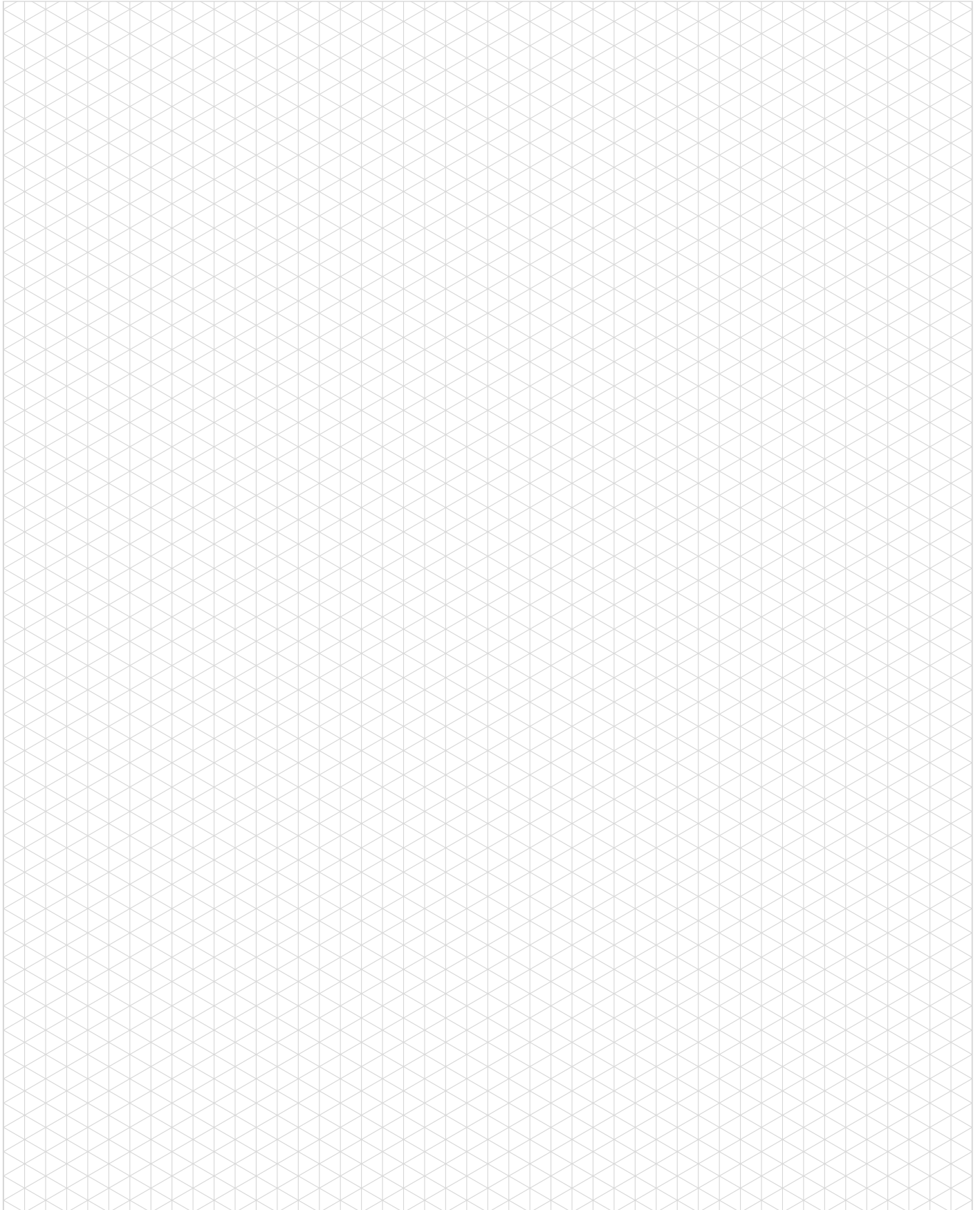
#### THRU-HOLE EZ CLUTCH



#### STANDARD EZ CLUTCH



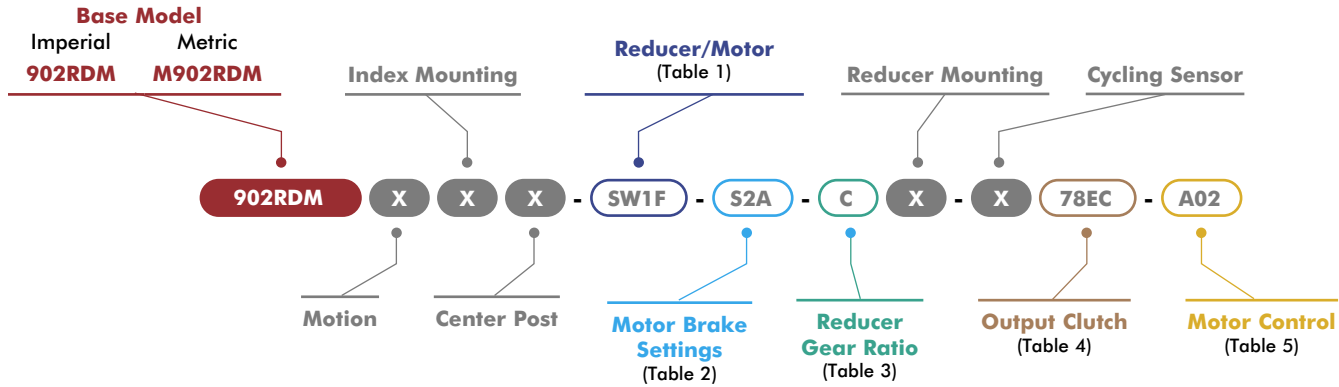
| Model | Internal Inertia kg-m <sup>2</sup> [lb-in <sup>2</sup> ] | Torque Setting N-m [in-lb]                                                |
|-------|----------------------------------------------------------|---------------------------------------------------------------------------|
| 4.0D  | 0,0202 [69]                                              | 47, 70, 85, 130, 198, 333, 452<br>[420, 620, 750, 1150, 1750, 2950, 4000] |





# 902RDM SERIES

## Rotary Index Drive | How To Order



X = See Page 3 for option information.

### 1 Reducer/Motor Options

| Code                        | Description                                                         |
|-----------------------------|---------------------------------------------------------------------|
| 0000                        | No Reducer or Motor*                                                |
| <b>R225 Motors</b>          |                                                                     |
| R2XX                        | R225 Adapter only*                                                  |
| R2SA                        | R225 Reducer 56 ADAPTER & CPLG, Single Extended Worm                |
| R2SB                        | R225 Reducer 145TC ADAPTER & CPLG, Single Extended Worm (No Motor)  |
| R2SC                        | R225 Reducer with 0.5HP 56C 230/460V AC Motor, Single Extended Worm |
| R2SD                        | R225 Reducer with 1.0HP 56C 230/460V AC Motor, Single Extended Worm |
| R2SE                        | R225 Reducer with 1.0HP 56C 90V DC Motor, Single Extended Worm      |
| R2SF                        | R225 Reducer with 1.0HP 56C 180V DC Motor, Single Extended Worm     |
| R2DA                        | R225 Reducer 56 ADAPTER & CPLG, Double Extended Worm                |
| R2DB                        | R225 Reducer 145TC ADAPTER & CPLG, Double Extended Worm (No Motor)  |
| R2DC                        | R225 Reducer with 0.5HP 56C 230/460V AC Motor, Double Extended Worm |
| R2DD                        | R225 Reducer with 1.0HP 56C 230/460V AC Motor, Double Extended Worm |
| R2DE                        | R225 Reducer with 1.0HP 56C 90V DC Motor, Double Extended Worm      |
| R2DF                        | R225 Reducer with 1.0HP 56C 180V DC Motor, Double Extended Worm     |
| <b>SEW KH37 Motors</b>      |                                                                     |
| SW1E                        | KH37 Adapter only*                                                  |
| SW1F                        | SEW KH37DRN80M4/.75Kw Motor/Brake Motor (60Hz, 230/460V)            |
| SW1G                        | SEW KH37DRN80M4/.75Kw Motor/Brake Motor (50Hz, 400V)                |
| SW1H                        | SEW KH37DRN80M4/.75Kw Motor/Brake Motor (60Hz, 575V)                |
| SW1J                        | SEW KH37DRN90L4/1.5Kw Motor/Brake Motor (60Hz, 230/460V)            |
| SW1K                        | SEW KH37DRN90L4/1.5Kw Motor/Brake Motor (50Hz, 400V)                |
| SW1L                        | SEW KH37DRN90L4/1.5Kw Motor/Brake Motor (60Hz, 575V)                |
| <b>STM RMI-63/70 Motors</b> |                                                                     |
| RM4A                        | STM RMI-63 Adapter only*                                            |
| RM4B                        | STM RMI-63 IEC80-B14 Reducer                                        |
| RM4C                        | STM RMI-63 IEC90-B14 Reducer                                        |
| RM4D                        | STM RMI-63 Reducer with .75kW Motor                                 |
| RM4E                        | STM RMI-63 Reducer with 1.5kW Motor                                 |
| RM5A                        | STM RMI-70 Adapter only*                                            |
| RM5B                        | STM RMI-70 IEC80-B14 Reducer                                        |
| RM5C                        | STM RMI-70 IEC90-B14 Reducer                                        |
| RM5D                        | STM RMI-70 Reducer with .75kW Motor                                 |
| RM5E                        | STM RMI-70 Reducer with 1.5kW Motor                                 |

\*All Reducer/Motor adapters require Gear Ratio option to be 0.

### 2 Motor Brake\*

| Code | Description    |
|------|----------------|
| 000  | No Brake       |
| S1A  | 1.69 Nm (BE05) |
| S1B  | 2.49 Nm (BE05) |
| S1C  | 3.50 Nm (BE05) |
| S2A  | 4.97 Nm (BE1)  |
| S2B  | 7.01 Nm (BE1)  |
| S2C  | 9.94 Nm (BE1)  |
| S3A  | 9.94 Nm (BE2)  |
| S3B  | 14.01 Nm (BE2) |
| S3C  | 20.00 Nm (BE2) |

\*SEW Motor brake setting options only. All other motors use option code 000.

### 3 Reducer Gear Ratios\*

| Code | Description |          |                  |
|------|-------------|----------|------------------|
|      | R225        | SEW KH37 | STM<br>RMI-63/70 |
| 0    | N/A         | N/A      | N/A              |
| A    | 10:1        | 10.49:1  | 10:1             |
| B    | 15:1        | 15.31:1  | 15:1             |
| C    | 20:1        | 20.19:1  | 20:1             |
| D    | 25:1        | 29.96:1  | 28:1             |
| E    | 30:1        | 37.97:1  | 40:1             |
| F    | 40:1        | 49.79:1  | 49:1             |
| G    | 50:1        | 58.60:1  | 56:1             |
| H    | 60:1        | 67.80:1  | 70:1             |

\*All Reducer/Motor adapters require Gear Ratio option to be 0.  
Select Gear ratio column based on the reducer type selected.

### 4 Output Clutch & Settings

| <b>902RDM Imperial Clutch Models</b> |                                 | <b>M902RDM Metric Clutch Models</b> |                              |
|--------------------------------------|---------------------------------|-------------------------------------|------------------------------|
| Code                                 | Description                     | Code                                | Description                  |
| 0000                                 | No Output Overload Clutch       | 0000                                | No Output Overload Clutch    |
| 78DA                                 | 7.8D/3200 In-Lb, Standard*      | M78DA                               | M7.8D/360 Nm, Standard*      |
| 78DB                                 | 7.8D/7200 In-Lb, Standard*      | M78DB                               | M7.8D/815 Nm, Standard*      |
| 78DC                                 | 7.8D/10000 In-Lb, Standard*     | M78DC                               | M7.8D/1130 Nm, Standard*     |
| 78DD                                 | 7.8D/1400 In-Lb, Standard*      | M78DD                               | M7.8D/160 Nm, Standard*      |
| 78DE                                 | 7.8D/1700 In-Lb, Standard*      | M78DE                               | M7.8D/192 Nm, Standard*      |
| 78DF                                 | 7.8D/2600 In-Lb, Standard*      | M78DF                               | M7.8D/295 Nm, Standard*      |
| 78DG                                 | 7.8D/4200 In-Lb, Standard*      | M78DG                               | M7.8D/475 Nm, Standard*      |
| 78DH                                 | 7.8D/5000 In-Lb, Standard*      | M78DH                               | M7.8D/566 Nm, Standard*      |
| 78DJ                                 | 7.8D/3200 In-Lb, Thru-Hole      | M78DJ                               | M7.8D/360 Nm, Thru-Hole      |
| 78DK                                 | 7.8D/7200 In-Lb, Thru-Hole      | M78DK                               | M7.8D/815 Nm, Thru-Hole      |
| 78DC                                 | 7.8D/10000 In-Lb, Thru-Hole     | M78DC                               | M7.8D/1130 Nm, Thru-Hole     |
| 78DM                                 | 7.8D/1400 In-Lb, Thru-Hole      | M78DM                               | M7.8D/160 Nm, Thru-Hole      |
| 78DN                                 | 7.8D/1700 In-Lb, Thru-Hole      | M78DN                               | M7.8D/192 Nm, Thru-Hole      |
| 78DP                                 | 7.8D/2600 In-Lb, Thru-Hole      | M78DP                               | M7.8D/295 Nm, Thru-Hole      |
| 78DQ                                 | 7.8D/4200 In-Lb, Thru-Hole      | M78DQ                               | M7.8D/475 Nm, Thru-Hole      |
| 78DR                                 | 7.8D/5000 In-Lb, Thru-Hole      | M78DR                               | M7.8D/566 Nm, Thru-Hole      |
| 78EA                                 | 7.8D/3200 In-Lb, Standard, EZ*  | M78EA                               | M7.8D/360 Nm, Standard, EZ*  |
| 78EB                                 | 7.8D/7200 In-Lb, Standard, EZ*  | M78EB                               | M7.8D/815 Nm, Standard, EZ*  |
| 78EC                                 | 7.8D/10000 In-Lb, Standard, EZ* | M78EC                               | M7.8D/1130 Nm, Standard, EZ* |
| 78ED                                 | 7.8D/1400 In-Lb, Standard, EZ*  | M78ED                               | M7.8D/160 Nm, Standard, EZ*  |
| 78EE                                 | 7.8D/1700 In-Lb, Standard, EZ*  | M78EE                               | M7.8D/192 Nm, Standard, EZ*  |
| 78EF                                 | 7.8D/2600 In-Lb, Standard, EZ*  | M78EF                               | M7.8D/295 Nm, Standard, EZ*  |
| 78EG                                 | 7.8D/4200 In-Lb, Standard, EZ*  | M78EG                               | M7.8D/475 Nm, Standard, EZ*  |
| 78EH                                 | 7.8D/5000 In-Lb, Standard, EZ*  | M78EH                               | M7.8D/566 Nm, Standard, EZ*  |
| 78EJ                                 | 7.8D/3200 In-Lb, Thru-Hole, EZ  | M78EJ                               | M7.8D/360 Nm, Thru-Hole, EZ  |
| 78EK                                 | 7.8D/7200 In-Lb, Thru-Hole, EZ  | M78EK                               | M7.8D/815 Nm, Thru-Hole, EZ  |
| 78EC                                 | 7.8D/10000 In-Lb, Thru-Hole, EZ | M78EC                               | M7.8D/1130 Nm, Thru-Hole, EZ |
| 78EM                                 | 7.8D/1400 In-Lb, Thru-Hole, EZ  | M78EM                               | M7.8D/160 Nm, Thru-Hole, EZ  |
| 78EN                                 | 7.8D/1700 In-Lb, Thru-Hole, EZ  | M78EN                               | M7.8D/192 Nm, Thru-Hole, EZ  |
| 78EP                                 | 7.8D/2600 In-Lb, Thru-Hole, EZ  | M78EP                               | M7.8D/295 Nm, Thru-Hole, EZ  |
| 78EQ                                 | 7.8D/4200 In-Lb, Thru-Hole, EZ  | M78EQ                               | M7.8D/475 Nm, Thru-Hole, EZ  |
| 78ER                                 | 7.8D/5000 In-Lb, Thru-Hole, EZ  | M78ER                               | M7.8D/566 Nm, Thru-Hole, EZ  |

\*Cannot be used with center post options P and B.

### 5 Motor Control

| Code | Description            |
|------|------------------------|
| 000  | NO MOTOR CONTROL       |
| A01  | 120V 1Ph               |
| A02  | (AC) PowerFlex 523 1HP |
| A03  | 240V 1Ph               |
| A04  | 480V 3Ph               |
| A05  | 120V 1Ph               |
| A06  | (AC) PowerFlex 525 1HP |
| A07  | 240V 1Ph               |
| A08  | 480V 3Ph               |
| A09  | (AC) PowerFlex 523 2HP |
| A10  | 240V 3Ph               |
| D01  | (AC) PowerFlex 525 2HP |
| D02  | 480V 3Ph               |
| D03  | (DC) Varipak 1HP 90VDC |
| D04  | 240V 3Ph               |
| D05  | 480V 3Ph               |
| D06  | Uni-Directional        |
| D07  | Bi-Directional         |
| D08  | Uni-Directional        |
| D09  | Bi-Directional         |

| Maximum Inertia x 1000 kg-cm <sup>2</sup> [lb-in <sup>2</sup> ] for standard package |                       |           |            |            |             |             |             |
|--------------------------------------------------------------------------------------|-----------------------|-----------|------------|------------|-------------|-------------|-------------|
| Stops                                                                                | Motion Time [seconds] |           |            |            |             |             |             |
|                                                                                      | 0.458                 | 0.611     | 0.764      | 0.917      | 1.222       | 1.528       | 1.833       |
| 2                                                                                    | 3 [1]                 | 9 [3]     | 20 [7]     | 35 [12]    | 76 [26]     | 117 [40]    | 161 [55]    |
| 3                                                                                    | 12 [4]                | 32 [11]   | 67 [23]    | 120 [41]   | 246 [84]    | 369 [126]   | 509 [174]   |
| 4                                                                                    | 23 [8]                | 59 [20]   | 120 [41]   | 214 [73]   | 439 [150]   | 661 [226]   | 907 [310]   |
| 6                                                                                    | 53 [18]               | 129 [44]  | 263 [90]   | 462 [158]  | 945 [323]   | 1419 [485]  | 1952 [667]  |
| 8                                                                                    | 94 [32]               | 234 [80]  | 468 [160]  | 825 [282]  | 1683 [575]  | 2528 [864]  | 3474 [1187] |
| 12                                                                                   | 214 [73]              | 530 [181] | 989 [338]  | 1425 [487] | 2531 [865]  | 3956 [1352] | 5701 [1948] |
| 16                                                                                   | 380 [130]             | 916 [313] | 1481 [506] | 2130 [728] | 3790 [1295] | 5923 [2024] | 8528 [2914] |
| Reducer Ratio                                                                        |                       |           |            |            |             |             |             |
|                                                                                      | 15                    | 20        | 25         | 30         | 40          | 50          | 60          |

Other Motions (stops and index periods) available. Contact your DESTACO sales representative for more information.

### Features

- R225 Reducer (Ratios from 15:1 to 60:1)
- Single Extended wormshaft (Standard)
- Double Extended Camshaft (Input Shaft)
- Center Thru Hole (Ø57,15 mm [Ø2.25 in.])
- 1 HP AC Drive Package with Inverter Duty Motor and IM-pAC AC Drive (up to 60 cpm)
- Cycle Cam and Limit Switch Mounted to Camshaft
- Right Hand Cam

### Output Load Capacity (loads carried during index):

|              |                        |
|--------------|------------------------|
| Radial       | 15747 N [3540 lbs]     |
| Thrust/Axial | 31138 N [7000 lbs]     |
| Moment       | 2443 N-m [21620 in-lb] |

### Typical Application Dial Diameter:

508 mm [20 in] to 1219 mm [48 in]

### Accuracy

±27 arcsec / ±0,08 mm [±.003in]  
at 609,6 mm [24in] Radius

### Repeatability

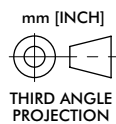
±7 arcsec / ±0,020 mm [±.0008in]  
at 609,6 mm [24in] Radius

### Optional Accessories

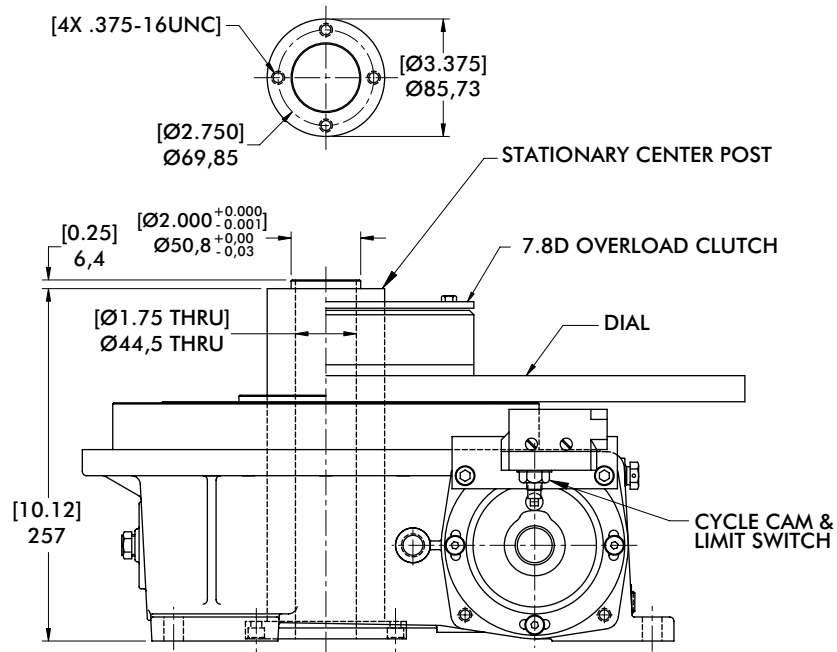
- 1 hp DC Motor
- Varipak DC Motor Control (up to 30 cpm)
- Output Mechanical Overload Clutch  
– See Page 21
- EZ Mount Dial Adapter
- Stationary Center Post
- Dual Cam and Limit Switch
- Base Riser Blocks
- Electric Clutch-Brake
- Left Hand Cam
- Relief in Dwell for shot-pin applications



## Rotary Index Drive | Dimensions

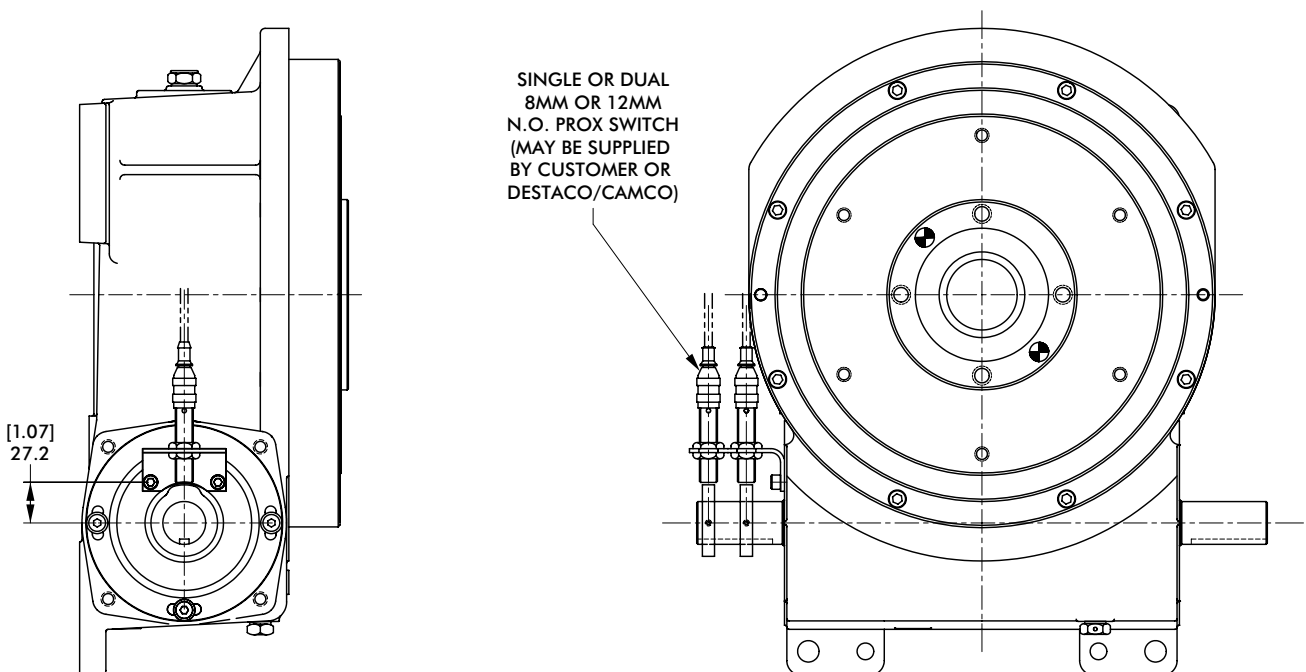


### Center Post



mm [INCH]  
THIRD ANGLE  
PROJECTION

### Proximity Switch

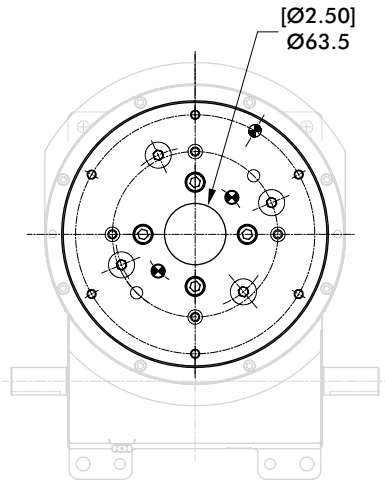


# 902RDM SERIES

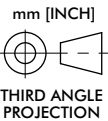
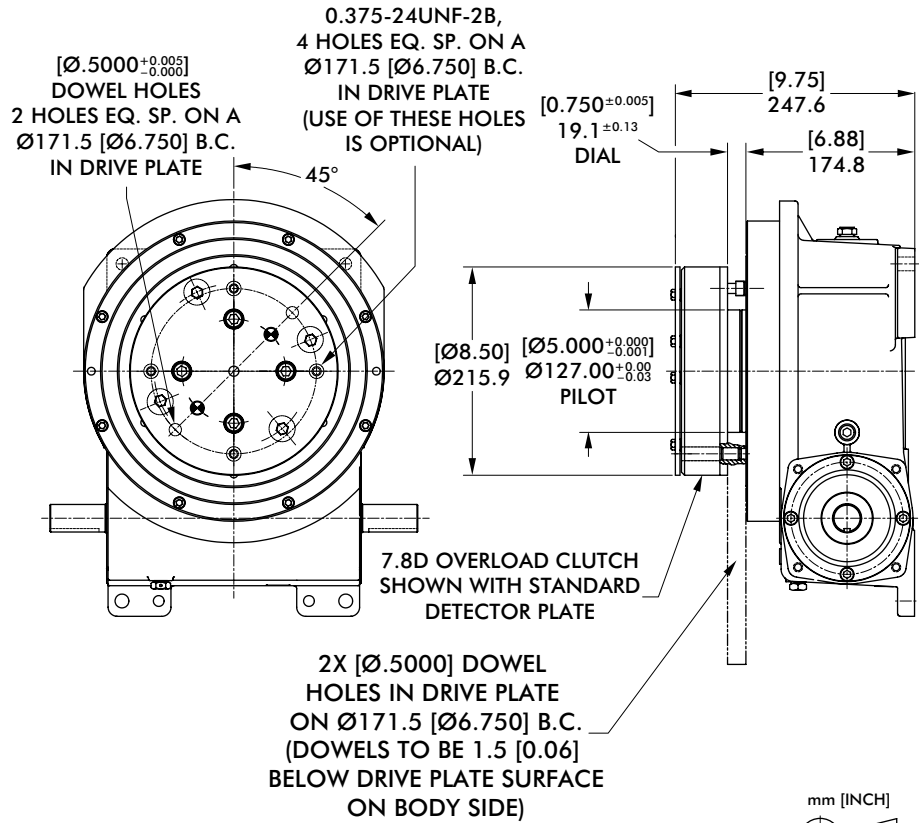
## Rotary Index Drive | Dimensions

### 7.8D Overload Clutch

#### THRU-HOLE CLUTCH

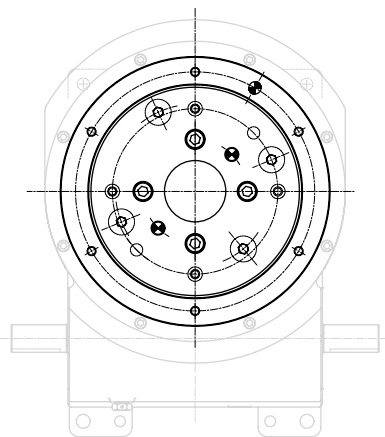


#### STANDARD CLUTCH

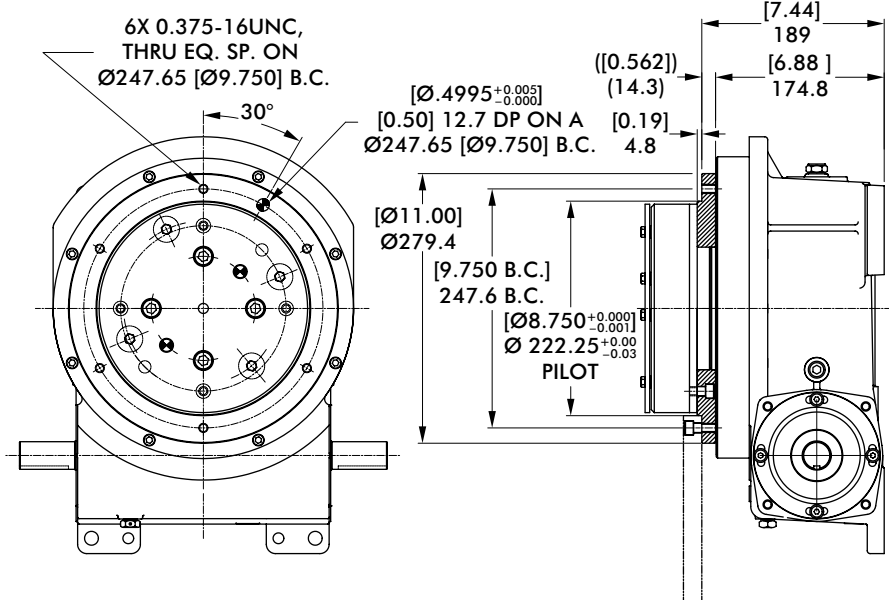


### 7.8D Overload Clutch with EZ Dial Mounting Adapter

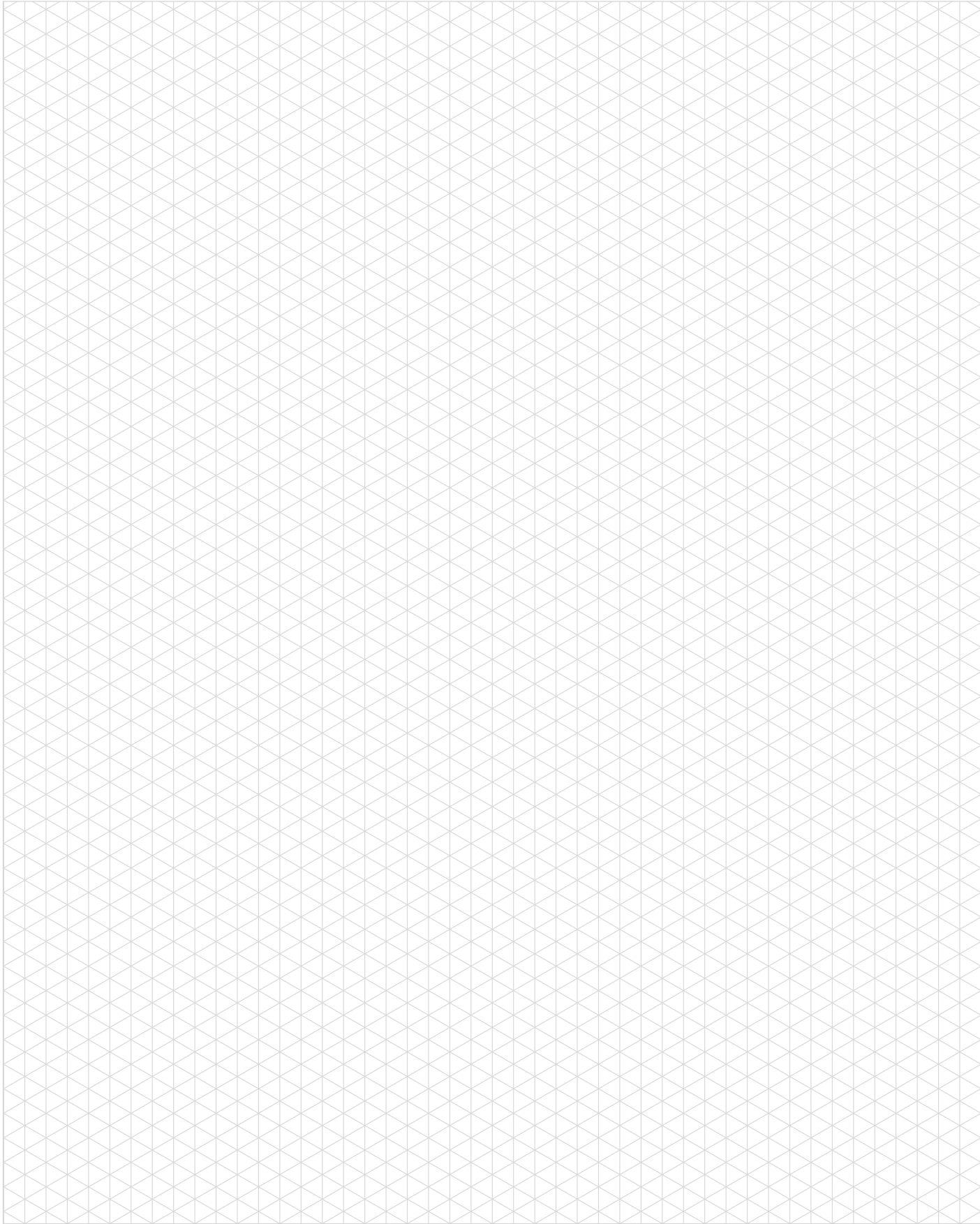
#### THRU-HOLE EZ CLUTCH



#### STANDARD EZ CLUTCH



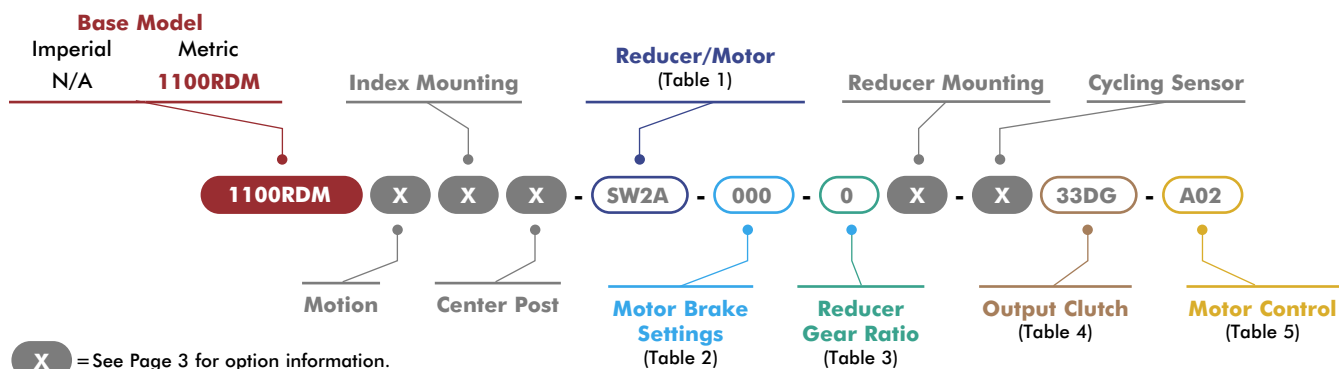
| Model | Internal Inertia kg-m <sup>2</sup> [lb-in <sup>2</sup> ] | Torque Setting N-m [in-lb]                                                                   |
|-------|----------------------------------------------------------|----------------------------------------------------------------------------------------------|
| 7.8D  | 0,0778 [266]                                             | 158, 192, 294, 362, 475, 565, 813, 1130<br>[1400, 1700, 2600, 3200, 4200, 5000, 7200, 10000] |





# 1100RDM SERIES

## Rotary Index Drive | How To Order



### 1 Reducer/Motor Options

| Code                     | Description                                                    |
|--------------------------|----------------------------------------------------------------|
| 0000                     | No Reducer or Motor*                                           |
| <b>7300C Motors</b>      |                                                                |
| CD1A                     | Indexer with 7300C Adapter*                                    |
| CS1B                     | CONE DRIVE 7300C W/56C Reducer, SE Worm                        |
| CS1C                     | CONE DRIVE 7300C W/145TC Reducer, SE Worm                      |
| CS1D                     | CONE DRIVE 7300C Reducer w/ 1.0HP AC 56C Motor, SE Worm        |
| CS1E                     | CONE DRIVE 7300C Reducer w/ 2.0HP AC 145TC Motor, SE Worm      |
| CS1F                     | CONE DRIVE 7300C Reducer w/ 1.0HP 90V DC 56C Motor, SE Worm    |
| CS1G                     | CONE DRIVE 7300C Reducer w/ 1.0HP 180V DC 56C Motor, SE Worm   |
| CS1H                     | CONE DRIVE 7300C Reducer w/ 2.0HP 180V DC 143TC Motor, SE Worm |
| CD1B                     | CONE DRIVE 7300C w/ 56C Reducer, DE Worm                       |
| CD1C                     | CONE DRIVE 7300C W/145TC Reducer, DE Worm                      |
| CD1D                     | CONE DRIVE 7300C Reducer w/ 1.0HP AC 56C Motor, DE Worm        |
| CD1E                     | CONE DRIVE 7300C Reducer w/ 2.0HP AC 145TC Motor, DE Worm      |
| CD1F                     | CONE DRIVE 7300C Reducer w/ 1.0HP 90V DC 56C Motor, DE Worm    |
| CD1G                     | CONE DRIVE 7300C Reducer w/ 1.0HP 180V DC 56C Motor, DE Worm   |
| CD1H                     | CONE DRIVE 7300C Reducer w/ 2.0HP 180V DC 143TC Motor, DE Worm |
| <b>SEW KH47 Motors</b>   |                                                                |
| SW2A                     | Indexer with KH47 Adapter*                                     |
| SW2B                     | SEW KH47DRN80M4/.75Kw Motor/Brake Motor (60Hz, 230/460V)       |
| SW2C                     | SEW KH47DRN80M4/.75Kw Motor/Brake Motor (50Hz, 200/400V)       |
| SW2D                     | SEW KH47DRN80M4/.75Kw Motor/Brake Motor (60Hz, 575V)           |
| SW2E                     | SEW KH47DRN90L4/1.5Kw Motor/Brake Motor (60Hz, 230/460V)       |
| SW2F                     | SEW KH47DRN90L4/1.5Kw Motor/Brake Motor (50Hz, 200/400V)       |
| <b>SEW KH57 Motors</b>   |                                                                |
| SW3A                     | Indexer with KH57 Adapter*                                     |
| SW3B                     | SEW KH57DRN80M4/.75Kw Motor/Brake Motor (60Hz, 230/460V)       |
| SW3C                     | SEW KH57DRN80M4/.75Kw Motor/Brake Motor (50Hz, 200/400V)       |
| SW3D                     | SEW KH57DRN80M4/.75Kw Motor/Brake Motor (60Hz, 575V)           |
| SW3E                     | SEW KH57DRN90L4/1.5Kw Motor/Brake Motor (60Hz, 230/460V)       |
| SW3F                     | SEW KH57DRN90L4/1.5Kw Motor/Brake Motor (50Hz, 200/400V)       |
| SW3G                     | SEW KH57DRN90L4/1.5Kw Motor/Brake Motor (60Hz, 575V)           |
| <b>STM RMI-85 Motors</b> |                                                                |
| RM6A                     | Indexer with RMI-85 Adapter*                                   |
| RM6B                     | STM RMI-85/LFB/IEC90-B14 Reducer only                          |
| RM6C                     | STM RMI-85/LFB/IEC100-B14 Reducer only                         |
| RM6D                     | STM RMI-85/LFB/1.1kW Reducer and Motor                         |
| RM6E                     | STM RMI-85/LFB/2.2kW Reducer and Motor                         |

\*All Reducer/Motor adapters require Gear Ratio option to be 0.

### 2 Motor Brake\* 3 Reducer Gear Ratios\*

| Code | Description    |
|------|----------------|
| 000  | No Brake       |
| S1A  | 1.69 Nm (BE05) |
| S1B  | 2.49 Nm (BE05) |
| S1C  | 3.50 Nm (BE05) |
| S2A  | 4.97 Nm (BE1)  |
| S2B  | 7.01 Nm (BE1)  |
| S2C  | 9.94 Nm (BE1)  |
| S3A  | 9.94 Nm (BE2)  |
| S3B  | 14.01 Nm (BE2) |
| S3C  | 20.00 Nm (BE2) |
| S4A  | 20.00 Nm (BE5) |
| S4B  | 28.02 Nm (BE5) |
| S4C  | 40.00 Nm (BE5) |
| S4D  | 55.03 Nm (BE5) |

| Code | Description |             |             |               |
|------|-------------|-------------|-------------|---------------|
|      | 7300C       | SEW<br>KH47 | SEW<br>KH57 | STM<br>RMI-85 |
| 0    | N/A         | N/A         | N/A         | N/A           |
| A    | 10:1        | 10.56:1     | 9.59:1      | 10:1          |
| B    | 15:1        | 15.86:1     | 15.22:1     | 15:1          |
| C    | 20:1        | 19.58:1     | 19.34:1     | 20:1          |
| D    | 25:1        | 29.32:1     | 30.28:1     | 28:1          |
| E    | 30:1        | 39.61:1     | 38.49:1     | 40:1          |
| F    | 40:1        | 48.95:1     | 48.89:1     | 49:1          |
| G    | 50:1        | 63.30:1     | 60.81:1     | 56:1          |
| H    | 60:1        | 69.84:1     | 69.12:1     | 70:1          |

\*All Reducer/Motor adapters require Gear Ratio option to be 0.

Select Gear ratio column based on the reducer type selected.

\*SEW Motor brake setting options only. All other motors use option code 000.

### 4 Output Clutch & Settings

| Code | Description                       |
|------|-----------------------------------|
| 0000 | No Output Overload Clutch         |
| 33DA | 33D/960 Nm, Standard Clutch*      |
| 33DB | 33D/1470 Nm, Standard Clutch*     |
| 33DC | 33D/1865 Nm, Standard Clutch*     |
| 33DD | 33D/2260 Nm, Standard Clutch*     |
| 33DE | 33D/2655 Nm, Standard Clutch*     |
| 33DF | 33D/2880 Nm, Standard Clutch*     |
| 33DG | 33D/3500 Nm, Standard Clutch*     |
| 33DH | 33D/960 Nm, Thru-Hole Clutch      |
| 33DJ | 33D/1470 Nm, Thru-Hole Clutch     |
| 33DK | 33D/1865 Nm, Thru-Hole Clutch     |
| 33DL | 33D/2260 Nm, Thru-Hole Clutch     |
| 33DM | 33D/2655 Nm, Thru-Hole Clutch     |
| 33DN | 33D/2880 Nm, Thru-Hole Clutch     |
| 33DP | 33D/3500 Nm, Thru-Hole Clutch     |
| 33EA | 33D/960 Nm, Standard Clutch, EZ*  |
| 33EB | 33D/1470 Nm, Standard Clutch, EZ* |
| 33EC | 33D/1865 Nm, Standard Clutch, EZ* |
| 33ED | 33D/2260 Nm, Standard Clutch, EZ* |
| 33EE | 33D/2655 Nm, Standard Clutch, EZ* |
| 33EF | 33D/2880 Nm, Standard Clutch, EZ* |
| 33EG | 33D/3500 Nm, Standard Clutch, EZ* |
| 33EH | 33D/960 Nm, Thru-Hole Clutch, EZ  |
| 33EJ | 33D/1470 Nm, Thru-Hole Clutch, EZ |
| 33EK | 33D/1865 Nm, Thru-Hole Clutch, EZ |
| 33EL | 33D/2260 Nm, Thru-Hole Clutch, EZ |
| 33EM | 33D/2655 Nm, Thru-Hole Clutch, EZ |
| 33EN | 33D/2880 Nm, Thru-Hole Clutch, EZ |
| 33EP | 33D/3500 Nm, Thru-Hole Clutch, EZ |

\* Cannot be used with center post options P and B.

### 5 Motor Control

| Code | Description               |
|------|---------------------------|
| 000  | NO MOTOR CONTROL          |
| A01  | 120V 1Ph                  |
| A02  | (AC) PowerFlex 523 1HP    |
| A03  | 480V 3Ph                  |
| A04  | 120V 1Ph                  |
| A05  | (AC) PowerFlex 525 1HP    |
| A06  | 480V 3Ph                  |
| A07  | 240V 3Ph                  |
| A08  | (AC) PowerFlex 523 2HP    |
| A09  | 480V 3Ph                  |
| A10  | (AC) PowerFlex 525 2HP    |
| A11  | 240V 3Ph                  |
| A12  | (AC) PowerFlex 523 3HP    |
| A13  | 480V 3Ph                  |
| A14  | (AC) PowerFlex 525 3HP    |
| A15  | 240V 1Ph                  |
| A16  | (AC) PowerFlex 523 5HP    |
| A17  | 480V 3Ph                  |
| A18  | (AC) PowerFlex 525 5HP    |
| D01  | 600V 3Ph                  |
| D02  | (DC) Varipak 1HP 90VDC    |
| D03  | Uni-Directional           |
| D04  | (DC) Varipak 2HP 180VDC   |
| D05  | Bi-Directional            |
|      | (DC) Cycletrol 3HP 180VDC |
|      | Uni-Directional           |
|      | Bi-Directional            |

| Maximum Inertia x 1000 kg-cm <sup>2</sup> [lb-in <sup>2</sup> ] for standard package |                       |            |            |             |             |              |              |
|--------------------------------------------------------------------------------------|-----------------------|------------|------------|-------------|-------------|--------------|--------------|
| Stops                                                                                | Motion Time [seconds] |            |            |             |             |              |              |
|                                                                                      | 0.458                 | 0.611      | 0.764      | 0.917       | 1.222       | 1.528        | 1.833        |
| 2                                                                                    | 3 [1]                 | 15 [5]     | 32 [11]    | 64 [22]     | 176 [60]    | 342 [117]    | 518 [177]    |
| 3                                                                                    | 18 [6]                | 38 [13]    | 79 [27]    | 152 [52]    | 401 [137]   | 775 [265]    | 1171 [400]   |
| 4                                                                                    | 38 [13]               | 79 [27]    | 161 [55]   | 304 [104]   | 790 [270]   | 1525 [521]   | 2297 [785]   |
| 6                                                                                    | 88 [30]               | 179 [61]   | 351 [120]  | 664 [227]   | 1703 [582]  | 3283 [1122]  | 4940 [1688]  |
| 8                                                                                    | 161 [55]              | 325 [111]  | 632 [216]  | 1185 [405]  | 3035 [1037] | 5838 [1995]  | 7916 [2705]  |
| 12                                                                                   | 369 [126]             | 735 [251]  | 1428 [488] | 2672 [913]  | 6833 [2335] | 12563 [4293] | 16932 [5786] |
| 16                                                                                   | 658 [225]             | 1314 [449] | 2543 [869] | 4138 [1414] | 7781 [2659] | 11884 [4061] | 16019 [5474] |
| Reducer Ratio                                                                        |                       |            |            |             |             |              |              |
|                                                                                      | 15.86                 | 19.58      | 24.06      | 29.32       | 39.61       | 48.95        | 56.83        |

Other Motions (stops and index periods) available. Contact your DESTACO sales representative for more information.

### Features

- KH47 Reducer and AC Motor with Optional Brake
- Double Extended Camshaft (Input Shaft)
- Center Thru Hole (Ø130 mm [Ø5.1 in.])
- AC drive package with Inverter Duty Motor and Inverter Drive (up to 60 cpm)
- Cycle Cam and Limit Switch Mounted to Camshaft
- Right Hand Cam

### Output Load Capacity (loads carried during index):

|              |                        |
|--------------|------------------------|
| Radial       | 13789 N [3100 lbs]     |
| Thrust/Axial | 35586 N [8000 lbs]     |
| Moment       | 3240 N-m [28674 in-lb] |

### Typical Application Dial Diameter:

508 mm [20 in] to 1524 mm [60 in]

### Accuracy

±22 arcsec / ±0.08 mm [±.003in]  
at 76 mm [30in] Radius

### Repeatability

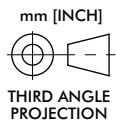
±5 arcsec / ±0.020 mm [±.0008in]  
at 762 mm [30in] Radius

### Optional Accessories

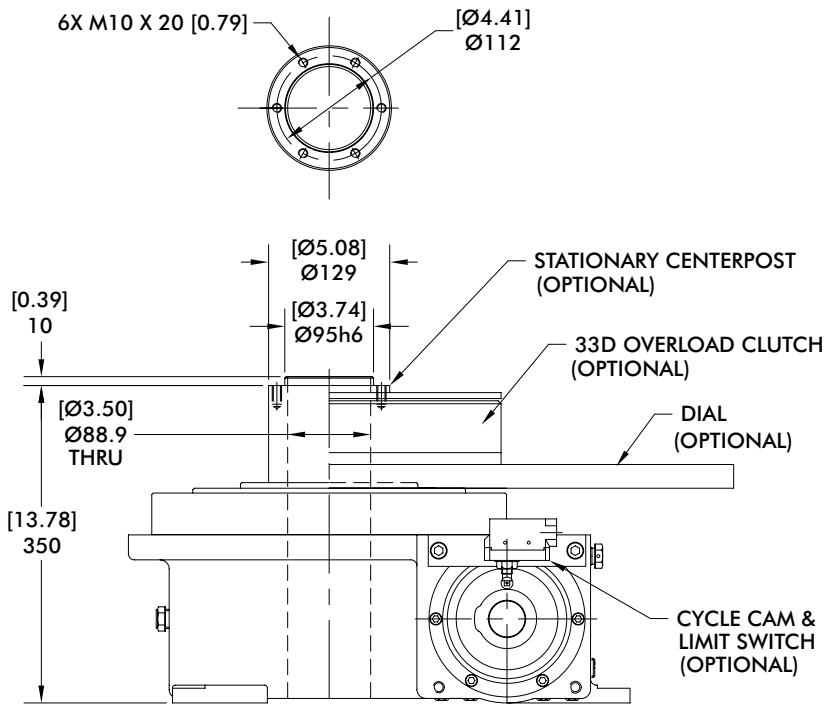
- 7300C Reducer (Ratios from 15:1 to 60:1)
- 1.5 HP DC motor
- Varipak DC Motor Control (up to 30 cpm)
- Output Mechanical Overload Clutch  
– See Page 27
- EZ Mount Dial Adapter
- 7350C Heavy Duty Reducer (Ratios from 10:1 to 60:1)
- Stationary Center Post
- Dual Cam and Limit Switch
- Left Hand Cam
- Relief in Dwell for shot-pin applications



## Rotary Index Drive | Dimensions



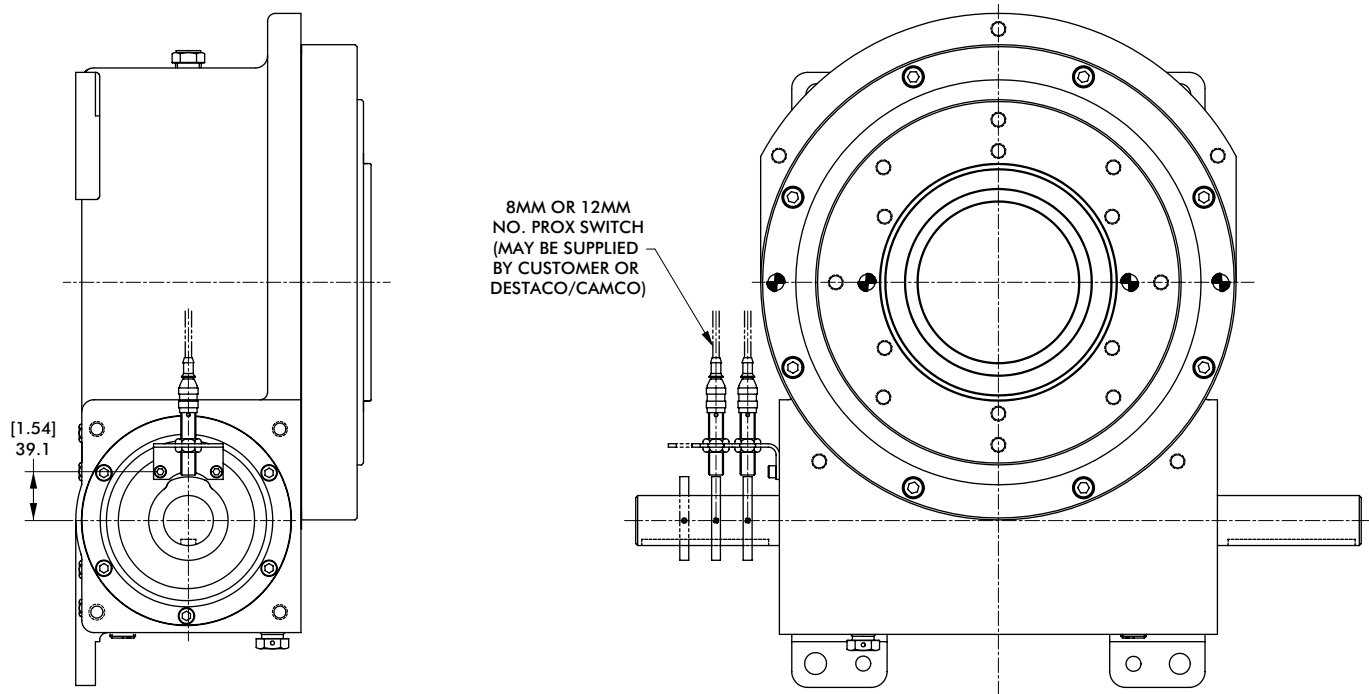
Center Post



mm [INCH]

THIRD ANGLE  
PROJECTION

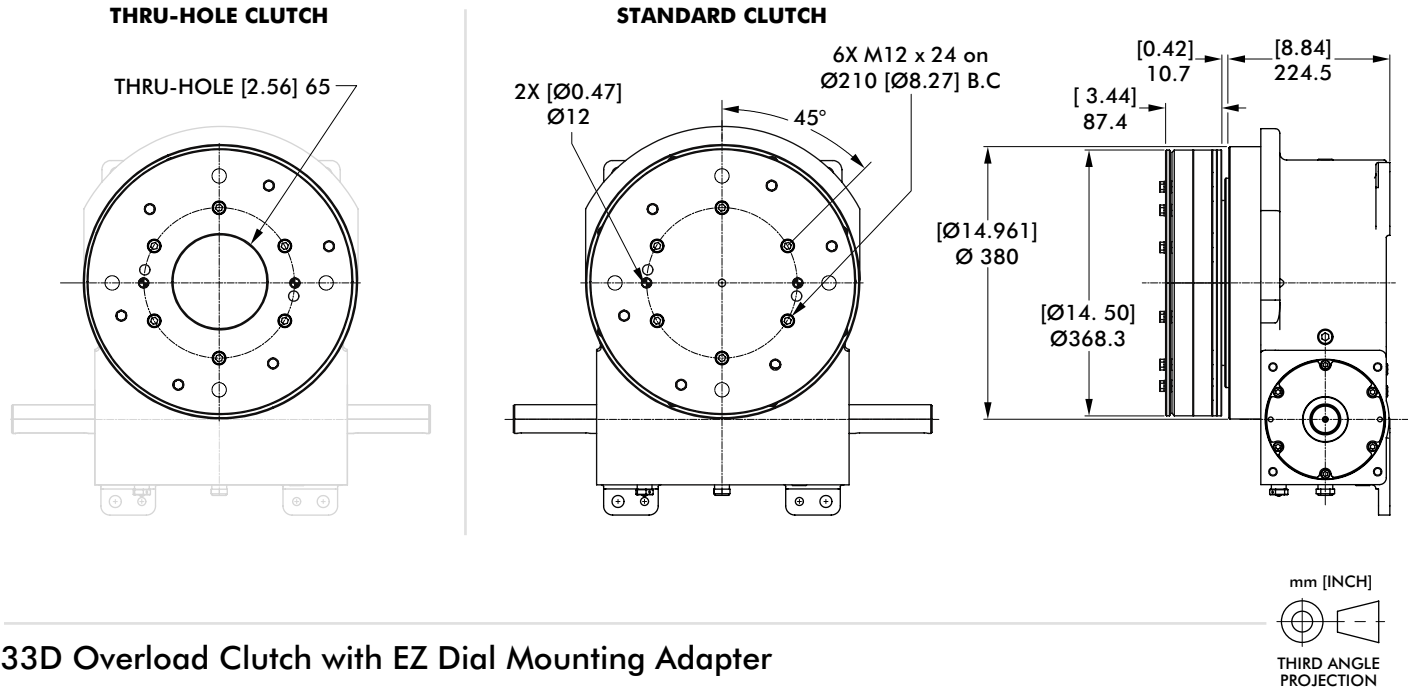
Proximity Switch



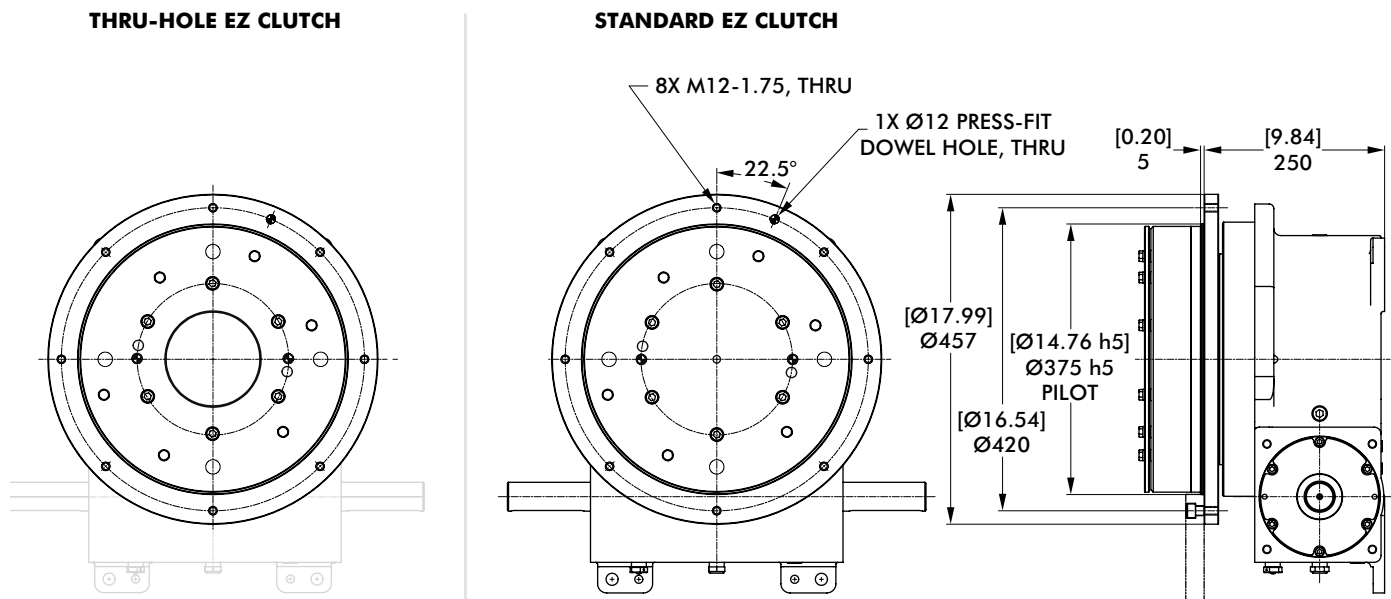
# 1100RDM SERIES

## Rotary Index Drive | Dimensions

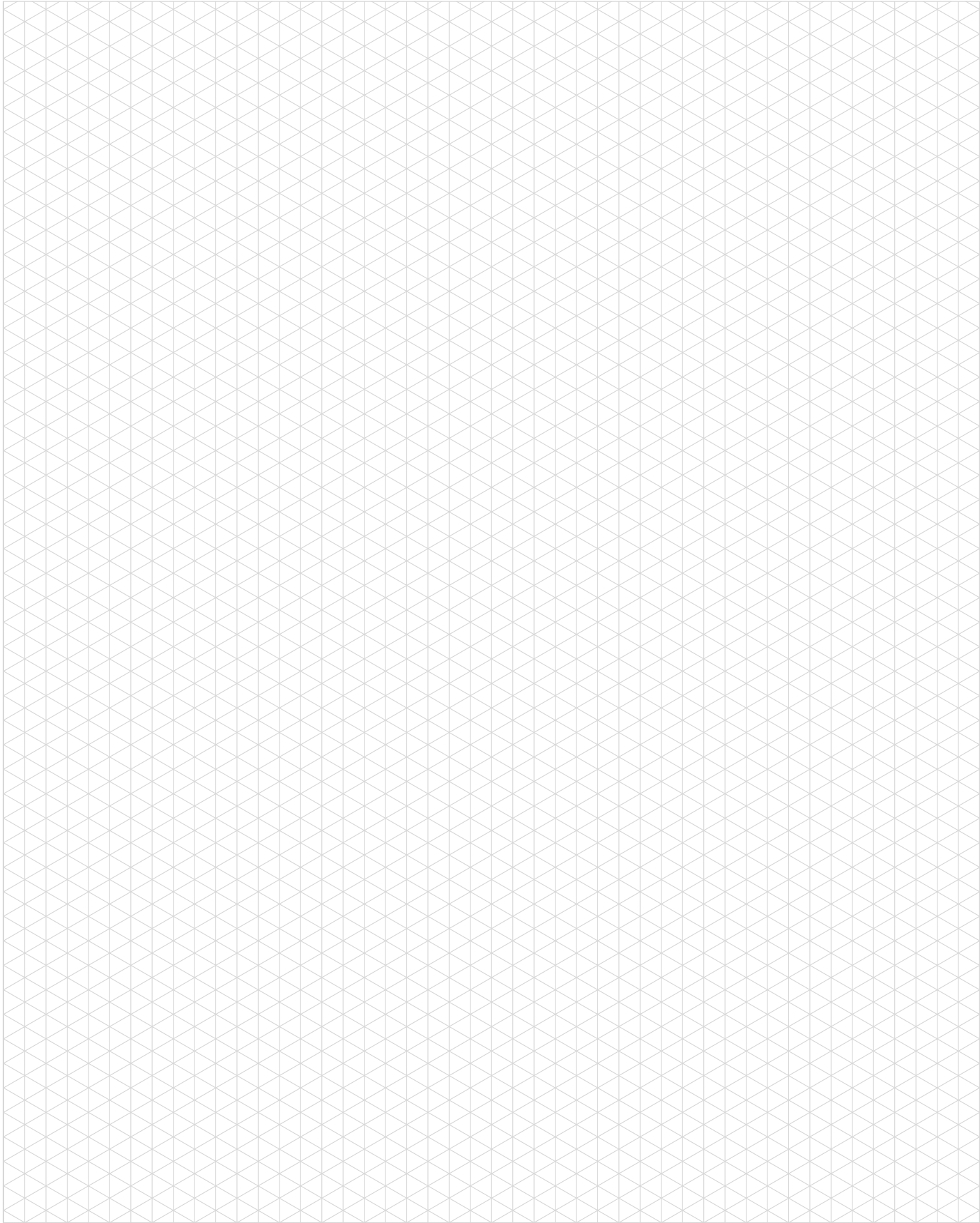
### 33D Overload Clutch



### 33D Overload Clutch with EZ Dial Mounting Adapter



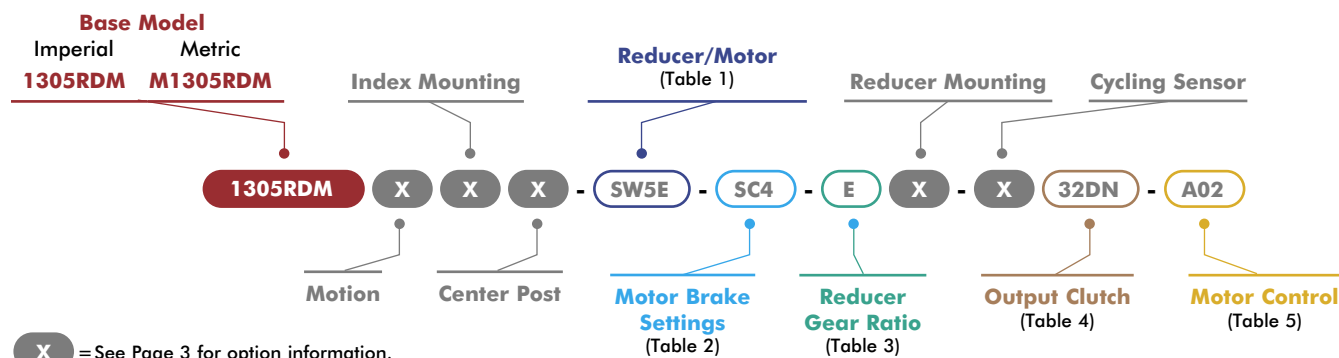
| Model | Internal Inertia kg-m <sup>2</sup> [lb-in <sup>2</sup> ] | Torque Setting N-m [in-lb]                           |
|-------|----------------------------------------------------------|------------------------------------------------------|
| 33D   | 0,852 [2910]                                             | 960, 1469, 2260, 2881<br>[8500, 13000, 20000, 25500] |





# 1305RDM SERIES

## Rotary Index Drive | How To Order



### 1 Reducer/Motor Options\*

| Code                      | Description                                                    |
|---------------------------|----------------------------------------------------------------|
| 0000                      | No Reducer or Motor*                                           |
| <b>7350C Motors</b>       |                                                                |
| CD2A                      | Indexer with 7350C Adapter*                                    |
| CS2B                      | CONE DRIVE 7350C W/56C Reducer, SE Worm                        |
| CS2C                      | CONE DRIVE 7350C W/145TC Reducer, SE Worm                      |
| CS2D                      | CONE DRIVE 7350C Reducer w/ 1.0HP AC 56C Motor, SE Worm        |
| CS2E                      | CONE DRIVE 7350C Reducer w/ 2.0HP AC 145TC Motor, SE Worm      |
| CS2F                      | CONE DRIVE 7350C Reducer w/ 1.0HP 90V DC 56C Motor, SE Worm    |
| CS2G                      | CONE DRIVE 7350C Reducer w/1.0HP 180V DC 56C Motor, SE Worm    |
| CS2H                      | CONE DRIVE 7350C Reducer w/2.0HP 180V DC 143TC Motor, SE Worm  |
| CD2B                      | CONE DRIVE 7350C w/ 56C Reducer, DE Worm                       |
| CD2C                      | CONE DRIVE 7350C W/145TC Reducer, DE Worm                      |
| CD2D                      | CONE DRIVE 7350C Reducer w/ 1.0HP AC 56C Motor, DE Worm        |
| CD2E                      | CONE DRIVE 7350C Reducer w/ 2.0HP AC 145TC Motor, DE Worm      |
| CD2F                      | CONE DRIVE 7350C Reducer w/ 1.0HP 90V DC 56C Motor, DE Worm    |
| CD2G                      | CONE DRIVE 7350C Reducer w/ 1.0HP 180V DC 56C Motor, DE Worm   |
| CD2H                      | CONE DRIVE 7350C Reducer w/ 2.0HP 180V DC 143TC Motor, DE Worm |
| <b>SEW KH67 Motors</b>    |                                                                |
| SW4A                      | Indexer with KH67 Adapter*                                     |
| SW4B                      | SEW KH67DRN80M4 Reducer with 0.75Kw Motor (60Hz, 230/460V)     |
| SW4C                      | SEW KH67DRN80M4 Reducer with 0.75Kw Motor (50Hz, 400V)         |
| SW4D                      | SEW KH67DRN80M4 Reducer with 0.75Kw Motor (60Hz, 575V)         |
| SW4E                      | SEW KH67DRN90L4 Reducer with 1.5Kw Motor (60Hz, 230/460V)      |
| SW4F                      | SEW KH67DRN90L4 Reducer with 1.5Kw Motor (50Hz, 400V)          |
| SW4G                      | SEW KH67DRN90L4 Reducer with 1.5Kw Motor (60Hz, 575V)          |
| <b>SEW KH77 Motors</b>    |                                                                |
| SW5A                      | Indexer with KH77 Adapter*                                     |
| SW5B                      | SEW KH77DRN80M4 Reducer with 0.75Kw Motor (60Hz, 230/460V)     |
| SW5C                      | SEW KH77DRN80M4 Reducer with 0.75Kw Motor (50Hz, 400V)         |
| SW5D                      | SEW KH77DRN80M4 Reducer with 0.75Kw Motor (60Hz, 575V)         |
| SW5E                      | SEW KH77DRN90L4 Reducer with 1.5Kw Motor (60Hz, 230/460V)      |
| SW5F                      | SEW KH77DRN90L4 Reducer with 1.5Kw Motor (50Hz, 400V)          |
| SW5G                      | SEW KH77DRN90L4 Reducer with 1.5Kw Motor (60Hz, 575V)          |
| <b>STM RMI-110 Motors</b> |                                                                |
| RM7A                      | Indexer with RMI-110 Adapter*                                  |
| RM7B                      | STM RMI-110/LFB/IEC90-B14 Reducer only                         |
| RM7C                      | STM RMI-110/LFB/IEC100-B14 Reducer only                        |
| RM7D                      | STM RMI-110/LFB/1.1kW Reducer and Motor                        |
| RM7E                      | STM RMI-110/LFB/2.2kW Reducer and Motor                        |

\*All Reducer/Motor adapters require Gear Ratio option to be 0.

### 2 Motor Brake\* 3 Reducer Gear Ratios\*

| Code | Description       | Code | Description |
|------|-------------------|------|-------------|
| 000  | (NO BRAKE/NO SEW) |      |             |
| S1A  | 1.69 Nm (BE05)    |      |             |
| S1B  | 2.49 Nm (BE05)    |      |             |
| S1C  | 3.50 Nm (BE05)    |      |             |
| S2A  | 4.97 Nm (BE1)     |      |             |
| S2B  | 7.01 Nm (BE1)     |      |             |
| S2C  | 9.94 Nm (BE1)     |      |             |
| S3A  | 9.94 Nm (BE2)     |      |             |
| S3B  | 14.01 Nm (BE2)    |      |             |
| S3C  | 20.00 Nm (BE2)    |      |             |
| S4A  | 20.00 Nm (BE5)    |      |             |
| S4B  | 28.02 Nm (BE5)    |      |             |
| S4C  | 40.00 Nm (BE5)    |      |             |
| S4D  | 55.03 Nm (BE5)    |      |             |

| Code | Description |
|------|-------------|
| 0    | N/A         |
| A    | 10:1        |
| B    | 15:1        |
| C    | 20:1        |
| D    | 28:1        |
| E    | 40:1        |
| F    | 49:1        |
| G    | 56:1        |
| H    | 70:1        |

| Code        | Description |
|-------------|-------------|
| 7350C       | SEW KH67    |
| SEW KH67    | SEW KH77    |
| SEW KH77    | STM RMI-110 |
| STM RMI-110 |             |
| N/A         | N/A         |
| 10:1        | 9.66:1      |
| 15:1        | 15.19:1     |
| 20:1        | 20.25:1     |
| 28:1        | 29.27:1     |
| 40:1        | 40.04:1     |
| 49:1        | 51.18:1     |
| 56:1        | 58.34:1     |
| 70:1        | 73.99:1     |

\*All Reducer/Motor adapters require Gear Ratio option to be 0.  
Select Gear ratio column based on the reducer type selected.

\*SEW Motor brake setting options only. All other motors use option code 000.

### 4 Output Clutch & Settings

| 1305RDM Imperial Clutch Models |                                | M1305RDM Metric Clutch Models |                             |
|--------------------------------|--------------------------------|-------------------------------|-----------------------------|
| Code                           | Description                    | Code                          | Description                 |
| 0000                           | No Output Overload Clutch      | 0000                          | No Output Overload Clutch   |
| 32DA                           | 32D/8500 In-Lb, Standard*      | M32DA                         | M32D/960 Nm, Standard*      |
| 32DB                           | 32D/13000 In-Lb, Standard*     | M32DB                         | M32D/1470 Nm, Standard*     |
| 32DC                           | 32D/20000 In-Lb, Standard*     | M32DC                         | M32D/2260 Nm, Standard*     |
| 32DD                           | 32D/31000 In-Lb, Standard*     | M32DD                         | M32D/3500 Nm, Standard*     |
| 32DE                           | 32D/16500 In-Lb, Standard*     | M32DE                         | M32D/1865 Nm, Standard*     |
| 32DF                           | 32D/25500 In-Lb, Standard*     | M32DF                         | M32D/2880 Nm, Standard*     |
| 32DG                           | 32D/23500 In-Lb, Standard*     | M32DG                         | M32D/2655 Nm, Standard*     |
| 32DH                           | 32D/8500 In-Lb, Thru-Hole      | M32DH                         | M32D/960 Nm, Thru-Hole      |
| 32DJ                           | 32D/13000 In-Lb, Thru-Hole     | M32DJ                         | M32D/1470 Nm, Thru-Hole     |
| 32DK                           | 32D/20000 In-Lb, Thru-Hole     | M32DK                         | M32D/2260 Nm, Thru-Hole     |
| 32DL                           | 32D/31000 In-Lb, Thru-Hole     | M32DL                         | M32D/3500 Nm, Thru-Hole     |
| 32DM                           | 32D/16500 In-Lb, Thru-Hole     | M32DM                         | M32D/1865 Nm, Thru-Hole     |
| 32DN                           | 32D/25500 In-Lb, Thru-Hole     | M32DN                         | M32D/2880 Nm, Thru-Hole     |
| 32DP                           | 32D/23500 In-Lb, Thru-Hole     | M32DP                         | M32D/2655 Nm, Thru-Hole     |
| 32EA                           | 32D/8500 In-Lb, Standard, EZ*  | M32EA                         | M32D/960 Nm, Standard, EZ*  |
| 32EB                           | 32D/13000 In-Lb, Standard, EZ* | M32EB                         | M32D/1470 Nm, Standard, EZ* |
| 32EC                           | 32D/20000 In-Lb, Standard, EZ* | M32EC                         | M32D/2260 Nm, Standard, EZ* |
| 32ED                           | 32D/31000 In-Lb, Standard, EZ* | M32ED                         | M32D/3500 Nm, Standard, EZ* |
| 32EE                           | 32D/16500 In-Lb, Standard, EZ* | M32EE                         | M32D/1865 Nm, Standard, EZ* |
| 32EF                           | 32D/25500 In-Lb, Standard, EZ* | M32EF                         | M32D/2880 Nm, Standard, EZ* |
| 32EG                           | 32D/23500 In-Lb, Standard, EZ* | M32EG                         | M32D/2655 Nm, Standard, EZ* |
| 32EH                           | 32D/8500 In-Lb, Thru-Hole, EZ  | M32EH                         | M32D/960 Nm, Thru-Hole, EZ  |
| 32EJ                           | 32D/13000 In-Lb, Thru-Hole, EZ | M32EJ                         | M32D/1470 Nm, Thru-Hole, EZ |
| 32EK                           | 32D/20000 In-Lb, Thru-Hole, EZ | M32EK                         | M32D/2260 Nm, Thru-Hole, EZ |
| 32EL                           | 32D/31000 In-Lb, Thru-Hole, EZ | M32EL                         | M32D/3500 Nm, Thru-Hole, EZ |
| 32EM                           | 32D/16500 In-Lb, Thru-Hole, EZ | M32EM                         | M32D/1865 Nm, Thru-Hole, EZ |
| 32EN                           | 32D/25500 In-Lb, Thru-Hole, EZ | M32EN                         | M32D/2880 Nm, Thru-Hole, EZ |
| 32EP                           | 32D/23500 In-Lb, Thru-Hole, EZ | M32EP                         | M32D/2655 Nm, Thru-Hole, EZ |

\* Cannot be used with center post options P and B.

### 5 Motor Control

| Code | Description             |
|------|-------------------------|
| 000  | NO MOTOR CONTROL        |
| A01  | 120V 1Ph                |
| A02  | (AC) PowerFlex 523 1HP  |
| A03  | 480V 3Ph                |
| A04  | 120V 1Ph                |
| A05  | (AC) PowerFlex 525 1HP  |
| A06  | 480V 3Ph                |
| A07  | 240V 3Ph                |
| A08  | (AC) PowerFlex 523 2HP  |
| A09  | 480V 3Ph                |
| A10  | (AC) PowerFlex 525 2HP  |
| A11  | 240V 3Ph                |
| A12  | (AC) PowerFlex 523 3HP  |
| A13  | 480V 3Ph                |
| A14  | (AC) PowerFlex 525 3HP  |
| A15  | 240V 1Ph                |
| A16  | (AC) PowerFlex 523 5HP  |
| A17  | 600V 3Ph                |
| A18  | (AC) PowerFlex 525 5HP  |
| D01  | (DC) Varipak 1HP 90VDC  |
| D02  | Uni-Directional         |
| D03  | Bi-Directional          |
| D04  | (DC) Varipak 2HP 180VDC |
| D05  | Uni-Directional         |
|      | Bi-Directional          |

| Maximum Inertia x 1000 kg-cm <sup>2</sup> [lb-in <sup>2</sup> ] for standard package |                       |            |             |             |              |              |              |
|--------------------------------------------------------------------------------------|-----------------------|------------|-------------|-------------|--------------|--------------|--------------|
| Stops                                                                                | Motion Time [seconds] |            |             |             |              |              |              |
|                                                                                      | 0.458                 | 0.611      | 0.764       | 0.917       | 1.222        | 1.528        | 1.833        |
| 2                                                                                    | 0 [0]                 | 12 [4]     | 38 [13]     | 76 [26]     | 140 [48]     | 214 [73]     | 298 [102]    |
| 3                                                                                    | 6 [2]                 | 32 [11]    | 76 [26]     | 146 [50]    | 258 [88]     | 389 [133]    | 538 [184]    |
| 4                                                                                    | 29 [10]               | 94 [32]    | 208 [71]    | 380 [130]   | 664 [227]    | 995 [340]    | 1367 [467]   |
| 6                                                                                    | 73 [25]               | 211 [72]   | 451 [154]   | 822 [281]   | 1419 [485]   | 2119 [724]   | 2909 [994]   |
| 8                                                                                    | 138 [47]              | 383 [131]  | 811 [277]   | 1469 [502]  | 2528 [864]   | 3775 [1290]  | 5180 [1770]  |
| 12                                                                                   | 325 [111]             | 878 [300]  | 1841 [629]  | 3319 [1134] | 5706 [1950]  | 8510 [2908]  | 11670 [3988] |
| 16                                                                                   | 585 [200]             | 1571 [537] | 3280 [1121] | 5908 [2019] | 10155 [3470] | 15138 [5173] | 20754 [7092] |
| Reducer Ratio                                                                        |                       |            |             |             |              |              |              |
|                                                                                      | 15                    | 20         | 25          | 30          | 40           | 50           | 60           |

Other Motions (stops and index periods) available. Contact your DESTACO sales representative for more information.

### Features

- 7300C Reducer (Ratios from 15:1 to 60:1)
- Double Extended Camshaft (Input Shaft)
- Center Thru Hole (Ø127 mm [Ø5.00 in.])
- 2 HP AC Drive Package with Inverter Duty Motor and Inverter Drive (up to 60 cpm)
- Cycle Cam and Limit Switch Mounted to Camshaft
- Right Hand Cam

### Output Load Capacity (loads carried during index):

|              |                        |
|--------------|------------------------|
| Radial       | 20684 N [4650 lbs]     |
| Thrust/Axial | 51822 N [11650 lbs]    |
| Moment       | 4579 N-m [40528 in-lb] |

### Typical Application Dial Diameter:

508 mm [20 in] to 1829 mm [72 in]

### Accuracy

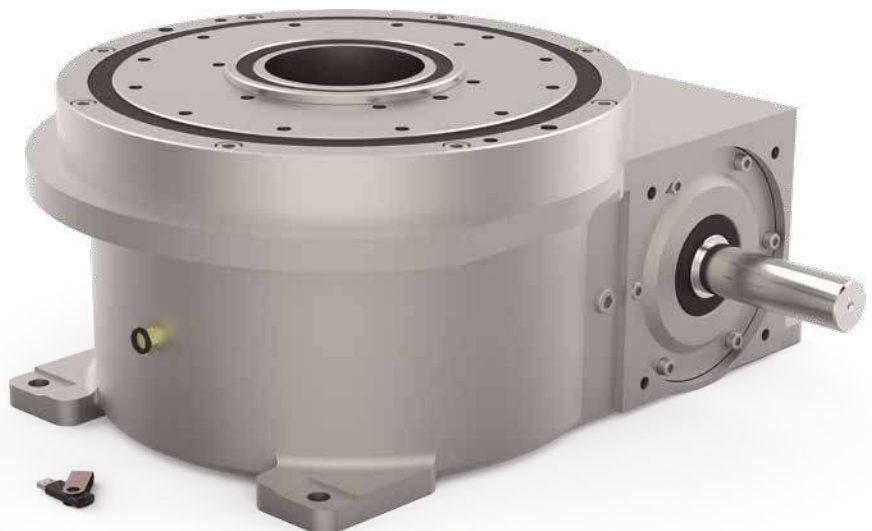
±38 arcsec / ±0,18 mm [±.007in]  
at 914,4 mm [36in] Radius

### Repeatability

±10 arcsec / ±0,05 mm [±.002in]  
at 914,4 mm [36in] Radius

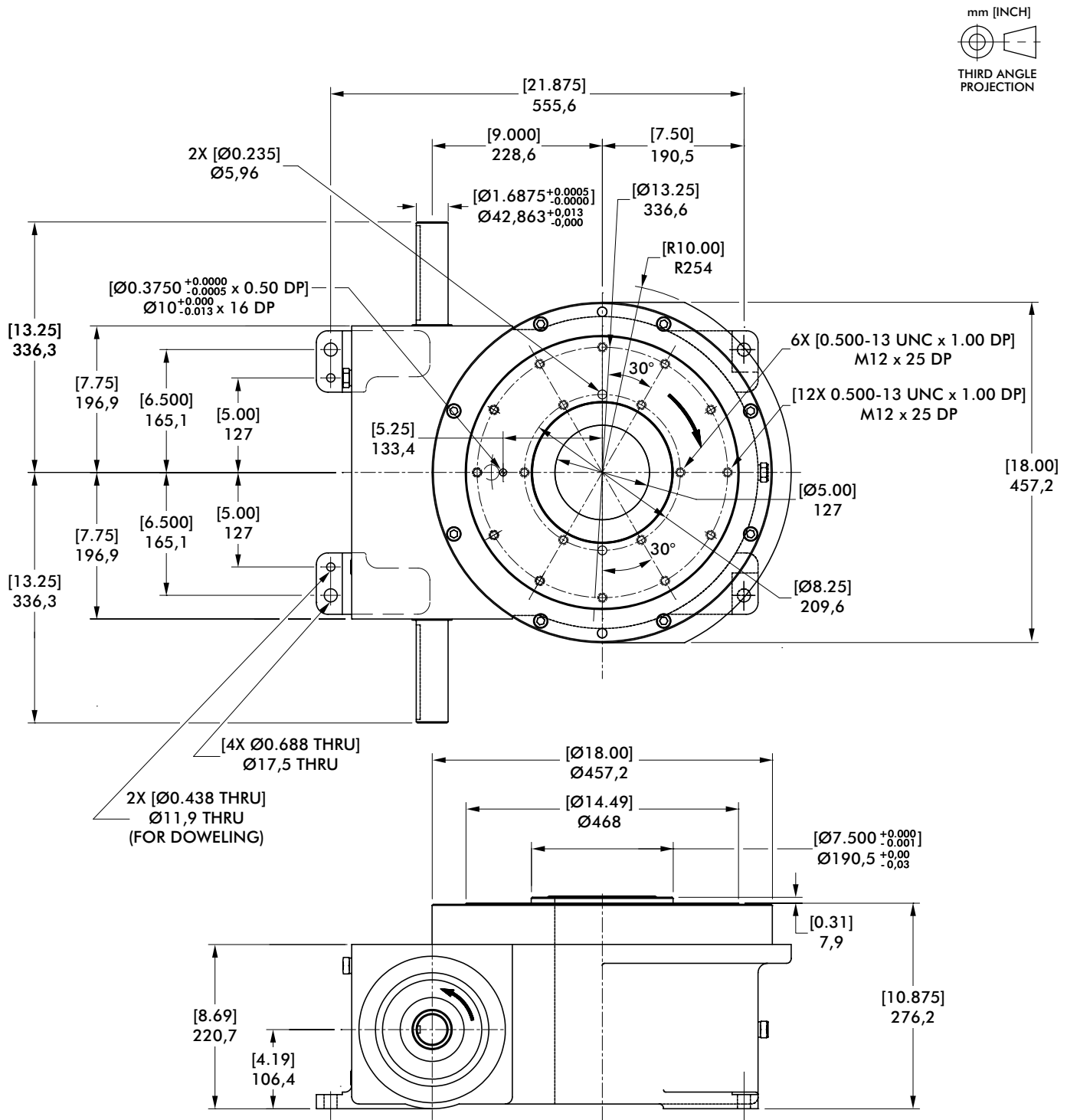
### Optional Accessories

- 2 hp DC Motor
- Varipak DC Motor Control (up to 30 cpm)
- 7350C Heavy Duty Reducer (Ratios from 10:1 to 60:1)
- Output Mechanical Overload Clutch  
– See Page 33
- EZ Mount Dial Adapter
- Stationary Center Post
- Dual Cam and Limit Switch
- Base Riser Blocks
- Electric Clutch-Brake
- Left Hand Cam
- Relief in Dwell for shot-pin applications

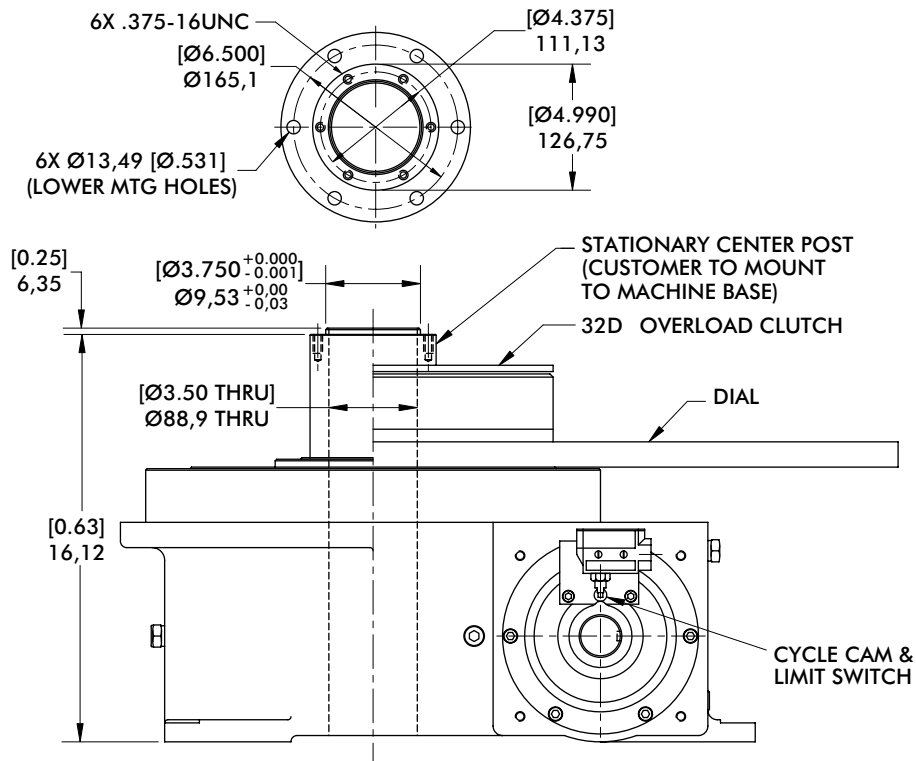


# 1305RDM SERIES

## Rotary Index Drive | Dimensions

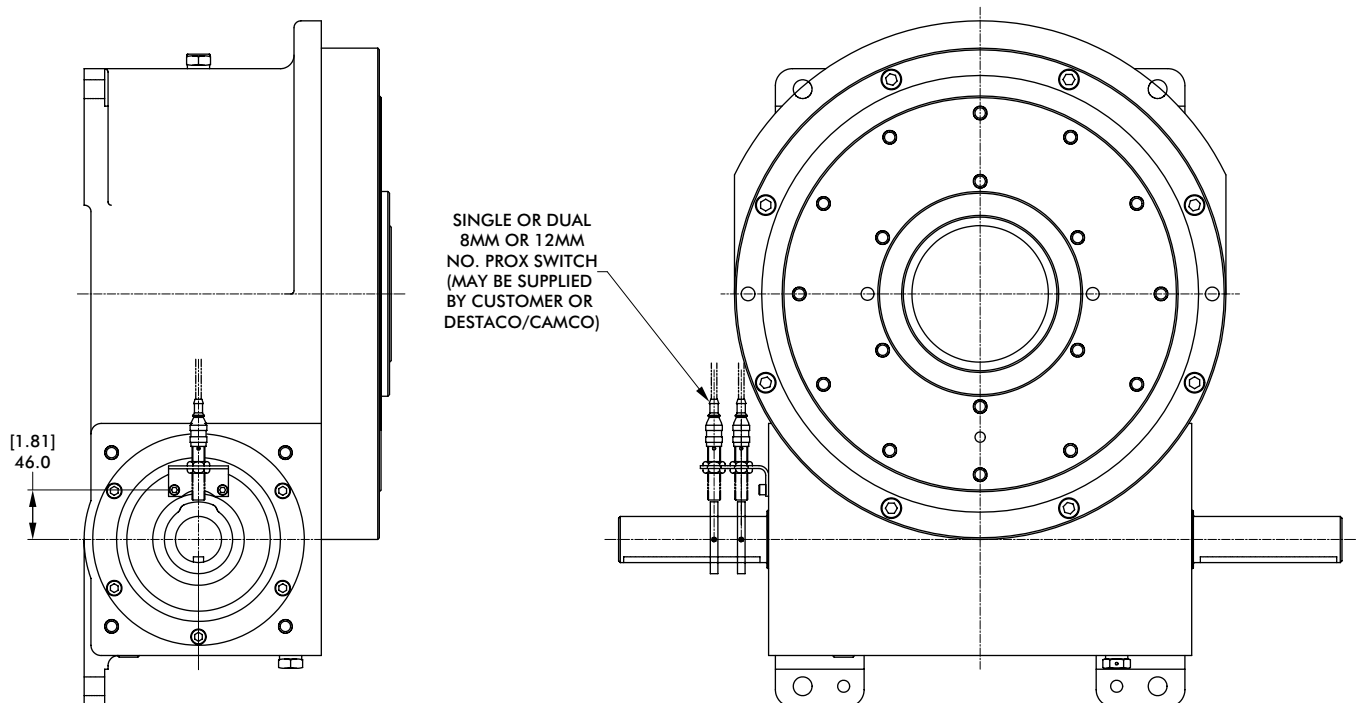


### Center Post



mm [INCH]  
THIRD ANGLE  
PROJECTION

### Proximity Switch

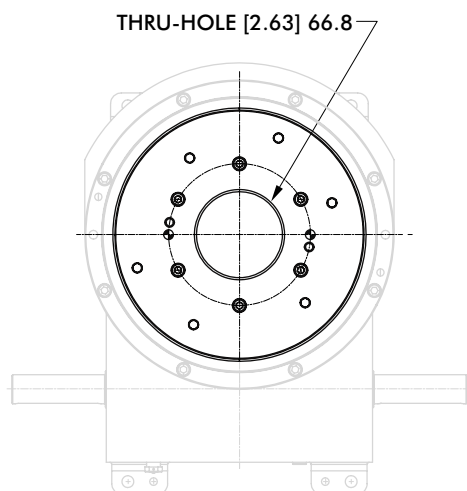


# 1305RDM SERIES

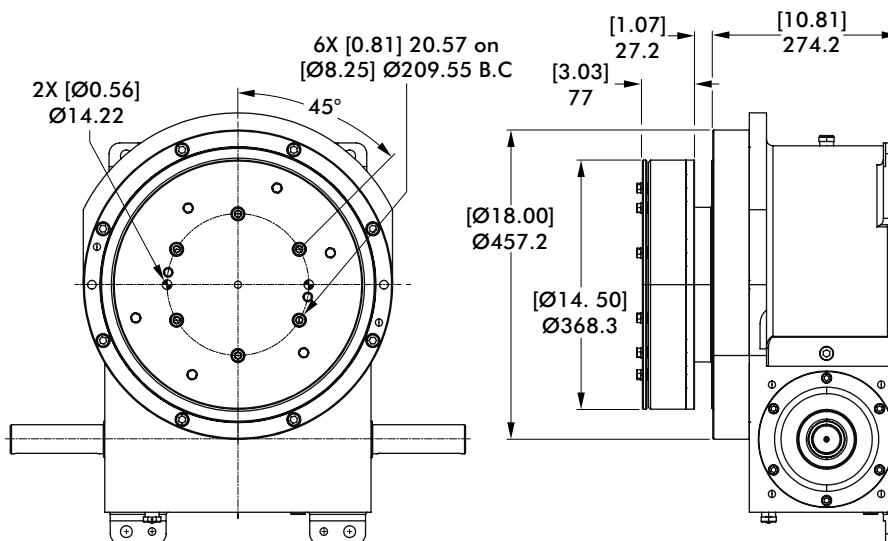
## Rotary Index Drive | Dimensions

### 32D Overload Clutch

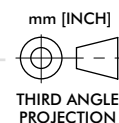
#### THRU-HOLE CLUTCH



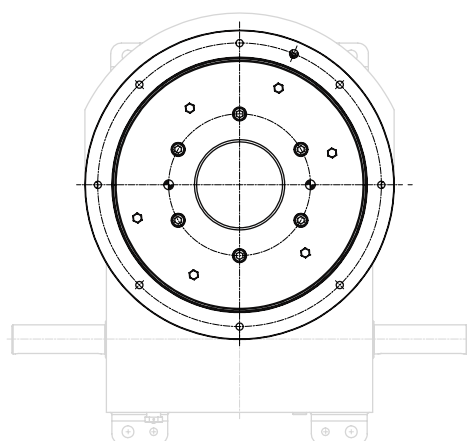
#### STANDARD CLUTCH



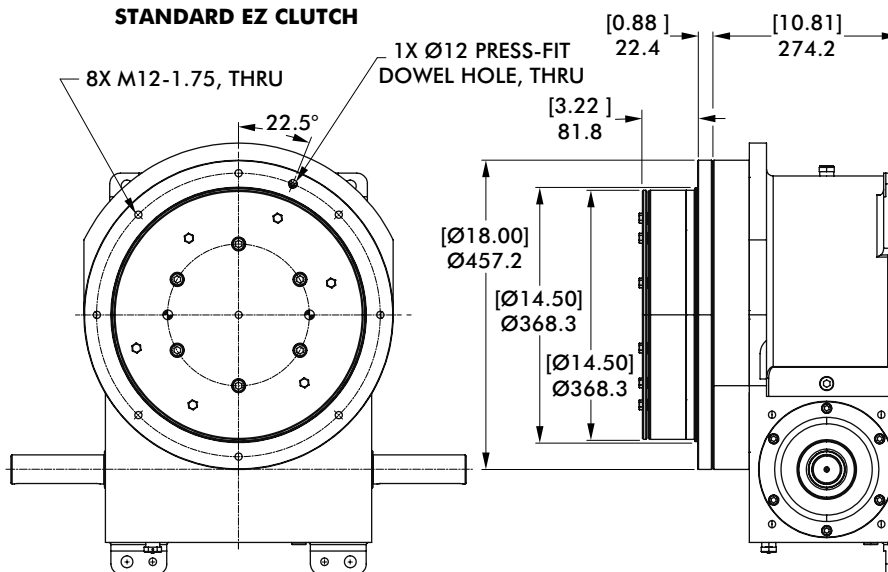
### 32D Overload Clutch with EZ Dial Mounting Adapter



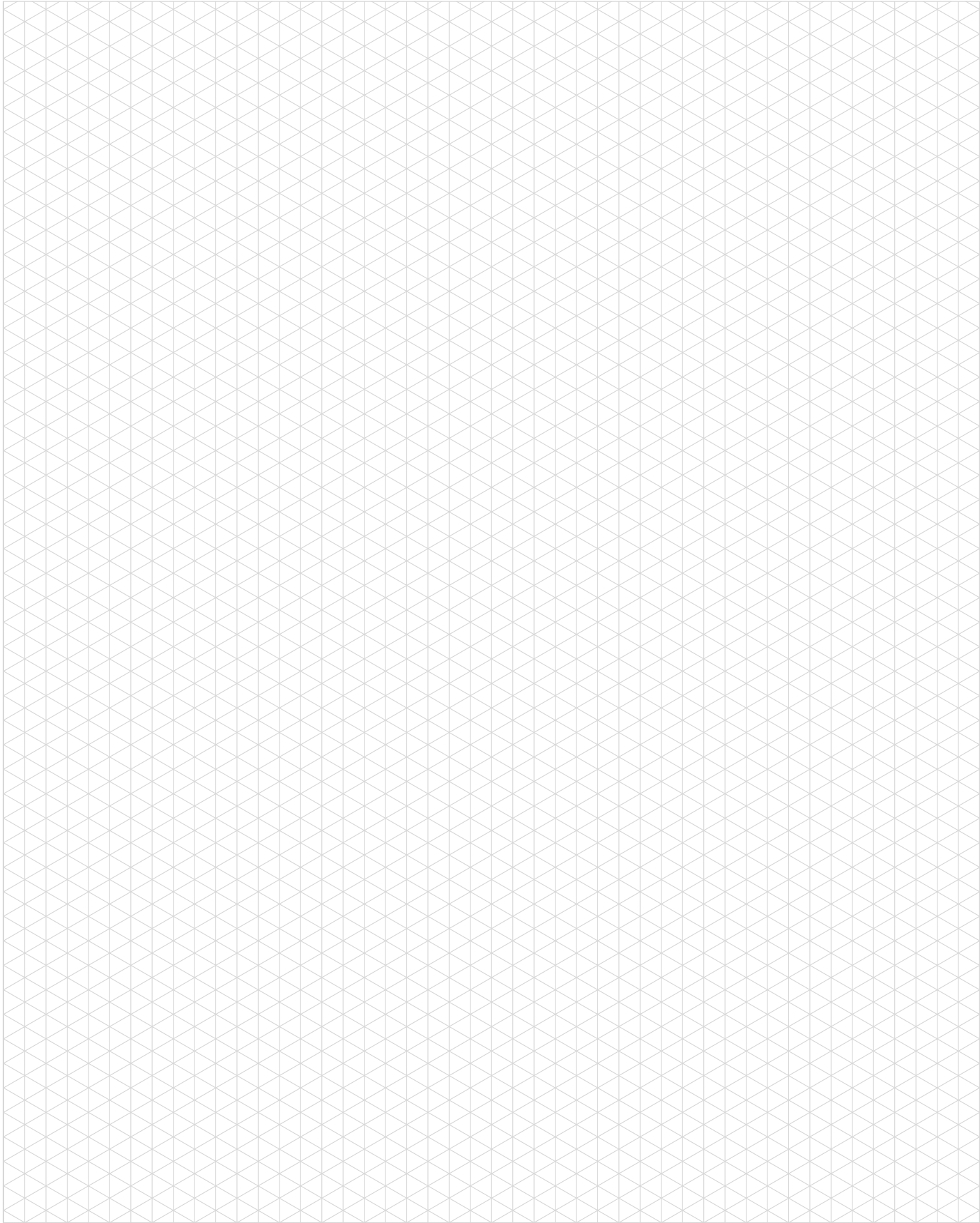
#### THRU-HOLE EZ CLUTCH



#### STANDARD EZ CLUTCH



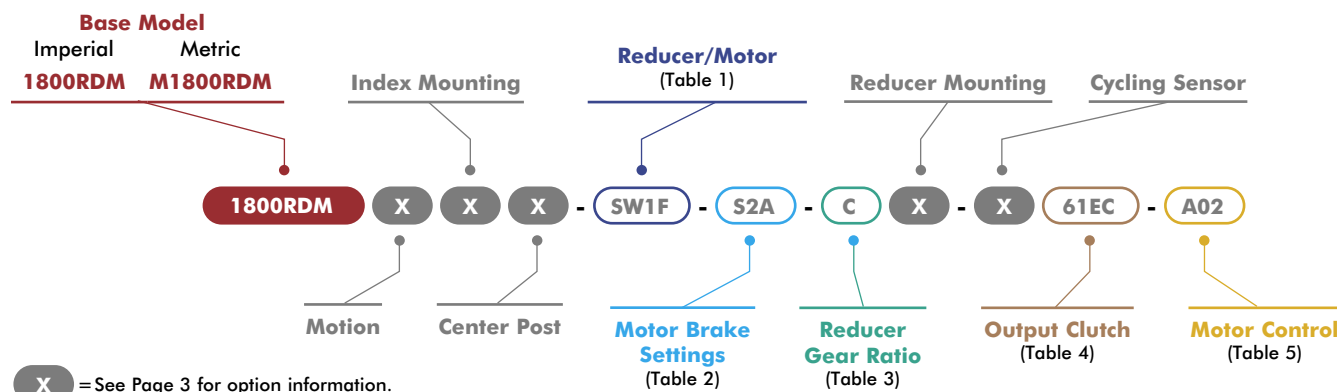
| Model | Internal Inertia kg-m <sup>2</sup> [lb-in <sup>2</sup> ] | Torque Setting N-m [in-lb]                           |
|-------|----------------------------------------------------------|------------------------------------------------------|
| 32D   | 0,852 [2910]                                             | 960, 1469, 2260, 3503<br>[8500, 13000, 20000, 31000] |





# 1800RDM SERIES

## Rotary Index Drive | How To Order



### 1 Reducer/Motor Options

| Code                      | Description                                                            |
|---------------------------|------------------------------------------------------------------------|
| 0000                      | No Reducer or Motor*                                                   |
| <b>7400C Motors</b>       |                                                                        |
| CD3A                      | Indexer with 7400C Adapter*                                            |
| CS3B                      | CONE DRIVE 7400C W/145TC Reducer, SE Worm                              |
| CS3C                      | CONE DRIVE 7400C W/182TC Reducer, SE Worm                              |
| CS3D                      | CONE DRIVE 7400C Reducer w/ 2.0HP AC 145TC Motor, SE Worm              |
| CS3E                      | CONE DRIVE 7400C Reducer w/ 3.0HP AC 182TC Motor, SE Worm              |
| CS2F                      | CONE DRIVE 7400C Reducer w/2.0HP 180V DC 143TC Motor, SE Worm          |
| CS2G                      | CONE DRIVE 7400C Reducer w/3.0HP 180V DC 145TC Motor, SE Worm          |
| CD3B                      | CONE DRIVE 7400C W/145TC Reducer, DE Worm                              |
| CD3C                      | CONE DRIVE 7400C W/182TC Reducer, DE Worm                              |
| CD3D                      | CONE DRIVE 7400C Reducer w/2.0HP AC 145TC Motor, DE Worm               |
| CD3E                      | CONE DRIVE 7400C Reducer w/3.0HP AC 182TC Motor, DE Worm               |
| CD2F                      | CONE DRIVE 7400C Reducer w/ 2.0HP 180V DC 143TC Motor, DE Worm         |
| CD2G                      | CONE DRIVE 7400C Reducer w/ 3.0HP 180V DC 145TC Motor, DE Worm         |
| <b>SEW KH77 Motors</b>    |                                                                        |
| SW5A                      | Indexer with KH77 Adapter*                                             |
| SW5H                      | SEW KH77DRN100L4 Reducer with 2.2Kw Motor (60Hz, 230/460V)             |
| SW5J                      | SEW KH77DRN100L4 Reducer with 2.2Kw Motor (50Hz, 400V)                 |
| SW5K                      | SEW KH77DRN100L4 Reducer with 2.2Kw Motor (60Hz, 575V)                 |
| SW5L                      | SEW KH77DRN100L4 Reducer with 3.7Kw Motor (60Hz, 230/460V)             |
| SW5M                      | SEW KH77DRN100L4 Reducer with 3.7Kw Motor (50Hz, 400V)                 |
| SW5N                      | SEW KH77DRN100L4 Reducer with 3.7Kw Motor(60Hz, 575V)                  |
| <b>SEW KH87 Motors</b>    |                                                                        |
| SW6A                      | Indexer with KH87 Adapter*                                             |
| SW6B                      | SEW KH87DRN100L4 Reducer with 2.2Kw Motor/Brake Motor (60Hz, 230/460V) |
| SW6C                      | SEW KH87DRN100L4 Reducer with 2.2Kw Motor/Brake Motor (50Hz, 400V)     |
| SW6D                      | SEW KH87DRN100L4 Reducer with 2.2Kw Motor/Brake Motor (60Hz, 575V)     |
| SW6E                      | SEW KH87DRN100L4 Reducer with 3.7Kw Motor/Brake Motor (60Hz, 230/460V) |
| SW6F                      | SEW KH87DRN100L4 Reducer with 3.7Kw Motor/Brake Motor (50Hz, 400V)     |
| SW6G                      | SEW KH87DRN100L4 Reducer with 3.7Kw Motor/Brake Motor (60Hz, 575V)     |
| <b>STM RMI-150 Motors</b> |                                                                        |
| RM8A                      | Indexer with RMI-150 Adapter*                                          |
| RM8B                      | STM RMI-150/LFB/IEC100-B14 Reducer Only                                |
| RM8C                      | STM RMI-150/LFB/IEC112-B14 Reducer Only                                |
| RM8D                      | STM RMI-150/LFB Reducer with 2.2kW Motor                               |
| RM8E                      | STM RMI-150/LFB Reducer with 4.0kW Motor                               |

\*All Reducer/Motor adapters require Gear Ratio option to be 0.

### 2 Motor Brake\* 3 Reducer Gear Ratios\*

| Code | Description    |
|------|----------------|
| 000  | No Brake       |
| S1A  | 1.69 Nm (BE05) |
| S1B  | 2.49 Nm (BE05) |
| S1C  | 3.50 Nm (BE05) |
| S2A  | 4.97 Nm (BE1)  |
| S2B  | 7.01 Nm (BE1)  |
| S2C  | 9.94 Nm (BE1)  |
| S3A  | 9.94 Nm (BE2)  |
| S3B  | 14.01 Nm (BE2) |
| S3C  | 20.00 Nm (BE2) |
| S4A  | 20.00 Nm (BE5) |
| S4B  | 28.02 Nm (BE5) |
| S4C  | 40.00 Nm (BE5) |
| S4D  | 55.03 Nm (BE5) |

| Code | Description |          |          |             |
|------|-------------|----------|----------|-------------|
|      | 7400C       | SEW KH77 | SEW KH87 | STM RMI-150 |
| 0    | N/A         | N/A      | N/A      | N/A         |
| A    | 10:1        | 9.56:1   | 10.00:1  | 10:1        |
| B    | 15:1        | 15.84:1  | 14.45:1  | 15:1        |
| C    | 20:1        | 20.25:1  | 19.45:1  | 20:1        |
| D    | 25:1        | 29.27:1  | 31.39:1  | 28:1        |
| E    | 30:1        | 40.04:1  | 36.52:1  | 40:1        |
| F    | 40:1        | 51.18:1  | 49.16:1  | 49:1        |
| G    | 50:1        | 58.34:1  | 63.00:1  | 56:1        |
| H    | 60:1        | 73.99:1  | 70.46:1  | 70:1        |

\*All Reducer/Motor adapters require Gear Ratio option to be 0.

Select Gear ratio column based on the reducer type selected.

\*SEW Motor brake setting options only. All other motors use option code 000.

### 4 Output Clutch & Settings

| <b>1800RDM Imperial Clutch Models</b> |                              | <b>M1800RDM Metric Clutch Models</b> |                           |
|---------------------------------------|------------------------------|--------------------------------------|---------------------------|
| Code                                  | Description                  | Code                                 | Description               |
| 0000                                  | No Output Overload Clutch    | 0000                                 | No Output Overload Clutch |
| 61DA                                  | 61D, W/23000 In-Lb, SDP*     | M61DA                                | M61D, W/2600 Nm, SDP*     |
| 61DB                                  | 61D, W/36000 In-Lb, SDP*     | M61DB                                | M61D, W/4070 Nm, SDP*     |
| 61DC                                  | 61D, W/44000 In-Lb, SDP*     | M61DC                                | M61D, W/4970 Nm, SDP*     |
| 61DD                                  | 61D, W/50000 In-Lb, SDP*     | M61DD                                | M61D, W/5650 Nm, SDP*     |
| 61DE                                  | 61D, W/60000 In-Lb, SDP*     | M61DE                                | M61D, W/6780 Nm, SDP*     |
| 61DF                                  | 61D, W/23000 In-Lb, THDP     | M61DF                                | M61D, W/2600 Nm, THDP     |
| 61DG                                  | 61D, W/36000 In-Lb, THDP     | M61DG                                | M61D, W/4070 Nm, THDP     |
| 61DH                                  | 61D, W/44000 In-Lb, THDP     | M61DH                                | M61D, W/4970 Nm, THDP     |
| 61DJ                                  | 61D, W/50000 In-Lb, THDP     | M61DJ                                | M61D, W/5650 Nm, THDP     |
| 61DK                                  | 61D, W/60000 In-Lb, THDP     | M61DK                                | M61D, W/6780 Nm, THDP     |
| 61EA                                  | 61D, W/23000 In-Lb, SDP, EZ* | M61EA                                | M61D, W/2600 Nm, SDP, EZ* |
| 61EB                                  | 61D, W/36000 In-Lb, SDP, EZ* | M61EB                                | M61D, W/4070 Nm, SDP, EZ* |
| 61EC                                  | 61D, W/44000 In-Lb, SDP, EZ* | M61EC                                | M61D, W/4970 Nm, SDP, EZ* |
| 61ED                                  | 61D, W/50000 In-Lb, SDP, EZ* | M61ED                                | M61D, W/5650 Nm, SDP, EZ* |
| 61EE                                  | 61D, W/60000 In-Lb, SDP, EZ* | M61EE                                | M61D, W/6780 Nm, SDP, EZ* |
| 61EF                                  | 61D, W/23000 In-Lb, THDP, EZ | M61EF                                | M61D, W/2600 Nm, THDP, EZ |
| 61EG                                  | 61D, W/36000 In-Lb, THDP, EZ | M61EG                                | M61D, W/4070 Nm, THDP, EZ |
| 61EH                                  | 61D, W/44000 In-Lb, THDP, EZ | M61EH                                | M61D, W/4970 Nm, THDP, EZ |
| 61EJ                                  | 61D, W/50000 In-Lb, THDP, EZ | M61EJ                                | M61D, W/5650 Nm, THDP, EZ |
| 61EK                                  | 61D, W/60000 In-Lb, THDP, EZ | M61EK                                | M61D, W/6780 Nm, THDP, EZ |

\* Cannot be used with center post option P.

### 5 Motor Control

| Code | Description               |
|------|---------------------------|
| 000  | NO MOTOR CONTROL          |
| A01  | 120V 1Ph                  |
| A02  | (AC) PowerFlex 523 1HP    |
| A03  | 480V 3Ph                  |
| A04  | 120V 1Ph                  |
| A05  | (AC) PowerFlex 525 1HP    |
| A06  | 480V 3Ph                  |
| A07  | 240V 3Ph                  |
| A08  | 480V 3Ph                  |
| A09  | 240V 3Ph                  |
| A10  | (AC) PowerFlex 525 2HP    |
| A11  | 480V 3Ph                  |
| A12  | (AC) PowerFlex 523 3HP    |
| A13  | 240V 1Ph                  |
| A14  | (AC) PowerFlex 525 3HP    |
| A15  | 480V 3Ph                  |
| A16  | (AC) PowerFlex 523 5HP    |
| A17  | 600V 3Ph                  |
| A18  | (AC) PowerFlex 525 5HP    |
| D01  | (DC) Varipak 1HP 90VDC    |
| D02  | Uni-Directional           |
| D03  | Bi-Directional            |
| D04  | (DC) Varipak 2HP 180VDC   |
| D05  | Uni-Directional           |
|      | Bi-Directional            |
|      | (DC) Cycletrol 3HP 180VDC |



| Maximum Inertia x 1000 kg-cm <sup>2</sup> [lb-in <sup>2</sup> ] for standard package |                       |            |             |             |              |               |               |
|--------------------------------------------------------------------------------------|-----------------------|------------|-------------|-------------|--------------|---------------|---------------|
| Stops                                                                                | Motion Time [seconds] |            |             |             |              |               |               |
|                                                                                      | 0.458                 | 0.611      | 0.764       | 0.917       | 1.222        | 1.528         | 1.833         |
| 2                                                                                    | 0 [0]                 | 0 [0]      | 23 [8]      | 79 [27]     | 266 [91]     | 533 [182]     | 749 [256]     |
| 3                                                                                    | 0 [0]                 | 32 [11]    | 120 [41]    | 255 [87]    | 720 [246]    | 1381 [472]    | 1917 [655]    |
| 4                                                                                    | 3 [1]                 | 91 [31]    | 249 [85]    | 495 [169]   | 1332 [455]   | 2523 [862]    | 3488 [1192]   |
| 6                                                                                    | 56 [19]               | 243 [83]   | 577 [197]   | 1097 [375]  | 2871 [981]   | 5390 [1842]   | 7439 [2542]   |
| 8                                                                                    | 132 [45]              | 462 [158]  | 1056 [361]  | 1984 [678]  | 5133 [1754]  | 9616 [3286]   | 13257 [4530]  |
| 12                                                                                   | 351 [120]             | 1100 [376] | 2435 [832]  | 4518 [1544] | 11606 [3966] | 21690 [7412]  | 29881 [10211] |
| 16                                                                                   | 656 [224]             | 1987 [679] | 4360 [1490] | 8065 [2756] | 20666 [7062] | 38593 [13188] | 53152 [18163] |
| Reducer Ratio                                                                        |                       |            |             |             |              |               |               |
|                                                                                      | 15                    | 20         | 25          | 30          | 40           | 50            | 60            |

Other Motions (stops and index periods) available. Contact your DESTACO sales representative for more information.

### Features

- 7400C Reducer (Ratios from 15:1 to 60:1)
- Double Extended Camshaft (Input Shaft)
- Center Thru Hole (Ø165,1 mm [Ø6.50 in.])
- 2 or 3 HP AC Drive Package with Inverter Duty Motor and Inverter Drive (up to 60 cpm)
- Cycle Cam and Limit Switch Mounted to Camshaft
- Right Hand Cam

### Output Load Capacity (loads carried during index):

|              |                        |
|--------------|------------------------|
| Radial       | 26022 N [5850 lbs]     |
| Thrust/Axial | 61166 N [14650 lbs]    |
| Moment       | 7696 N-m [68119 in-lb] |

### Typical Application Dial Diameter:

660 mm [26 in] to 1829 mm [96 in]

### Accuracy

±27 arcsec / ±0,15 mm [±.006in]  
at 1219,2 mm [48in] Radius

### Repeatability

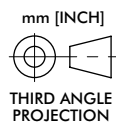
±7 arcsec / ±0,041 mm [±.0016in]  
at 1219,2 mm [48in] Radius

### Optional Accessories

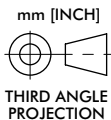
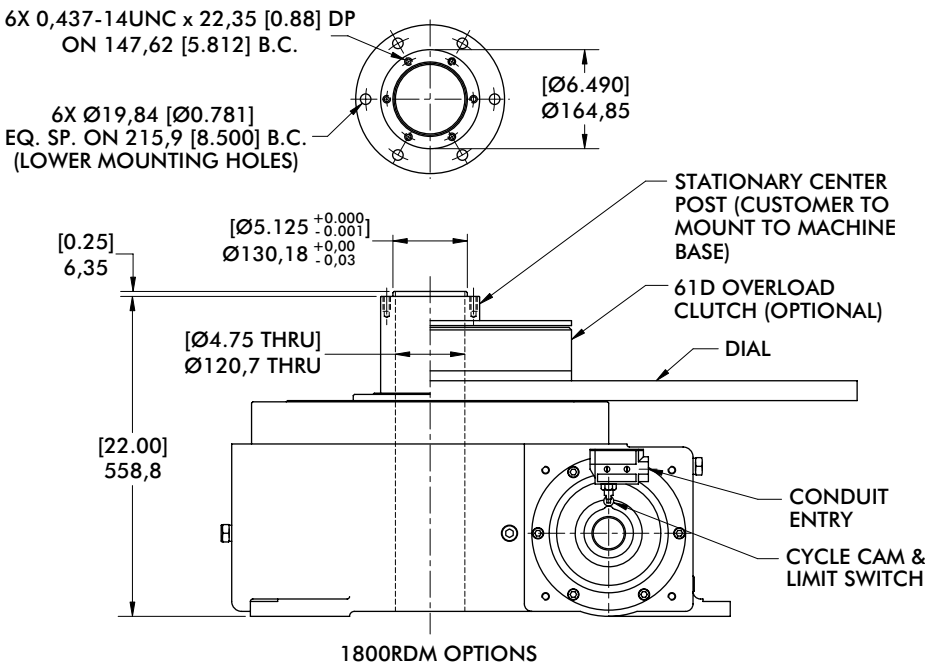
- 2 hp DC Motor with Varipak DC Motor Control (up to 30 cpm)
- 3 hp DC Motor
- 7500C Heavy Duty Reducer (Ratios from 10:1 to 60:1)
- Output Mechanical Overload Clutch – See Page 39
- EZ Mount Dial Adapter
- Stationary Center Post
- Dual Cam and Limit Switch
- Base Riser Blocks
- Electric Clutch-Brake
- Left Hand Cam
- Relief in Dwell for shot-pin applications



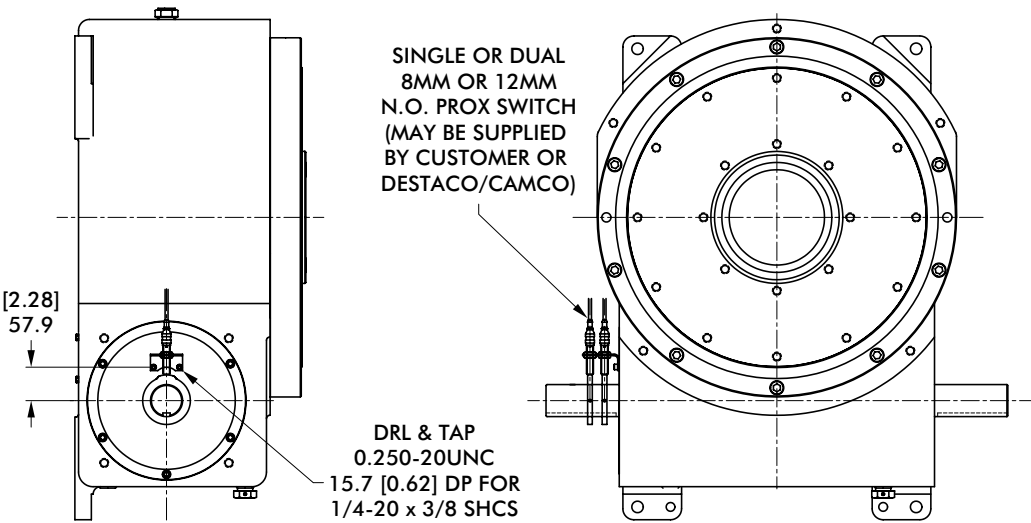
## Rotary Index Drive | Dimensions



Center Post



Proximity Switch

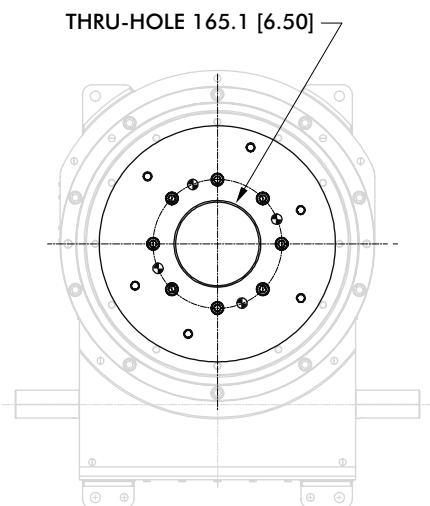


# 1800RDM SERIES

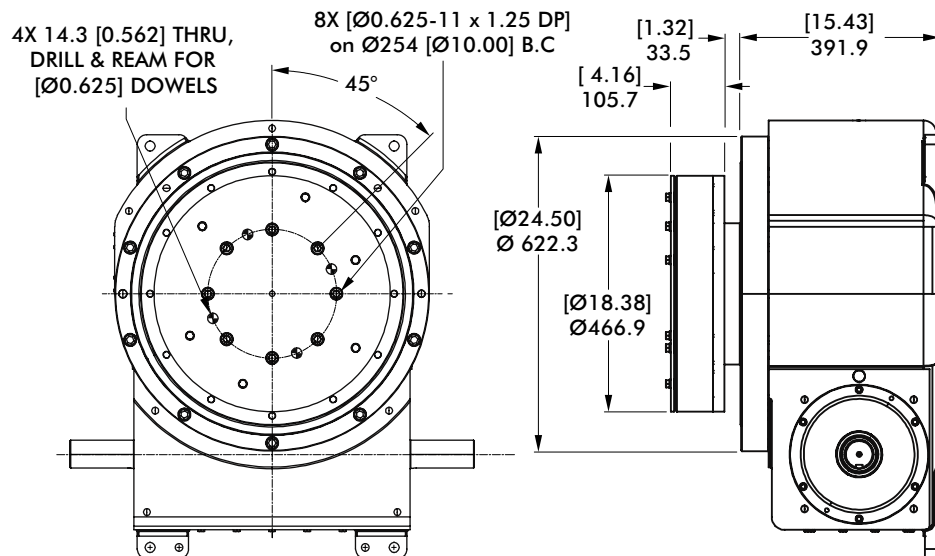
## Rotary Index Drive | Dimensions

### 61D Overload Clutch

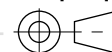
#### THRU-HOLE CLUTCH



#### STANDARD CLUTCH



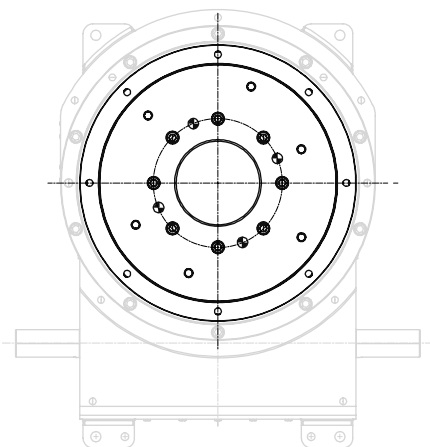
mm [INCH]



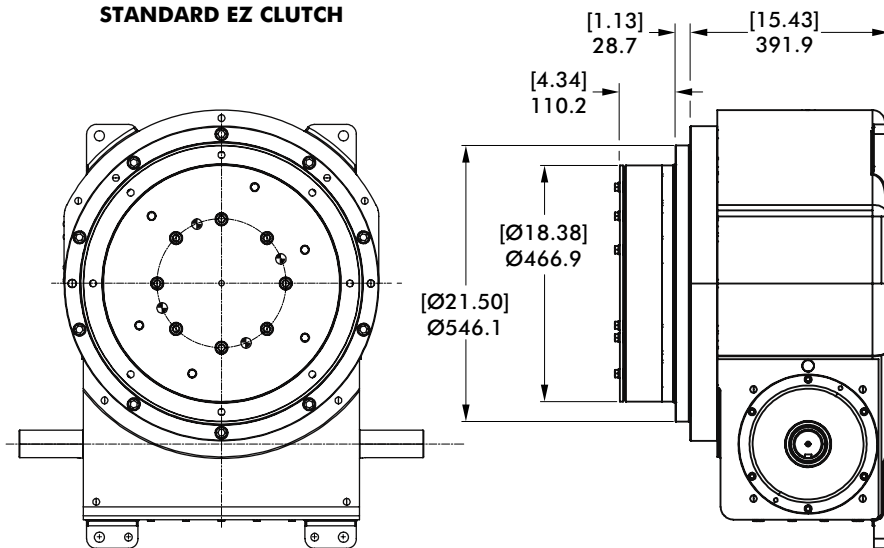
THIRD ANGLE PROJECTION

### 61D Overload Clutch with EZ Dial Mounting Adapter

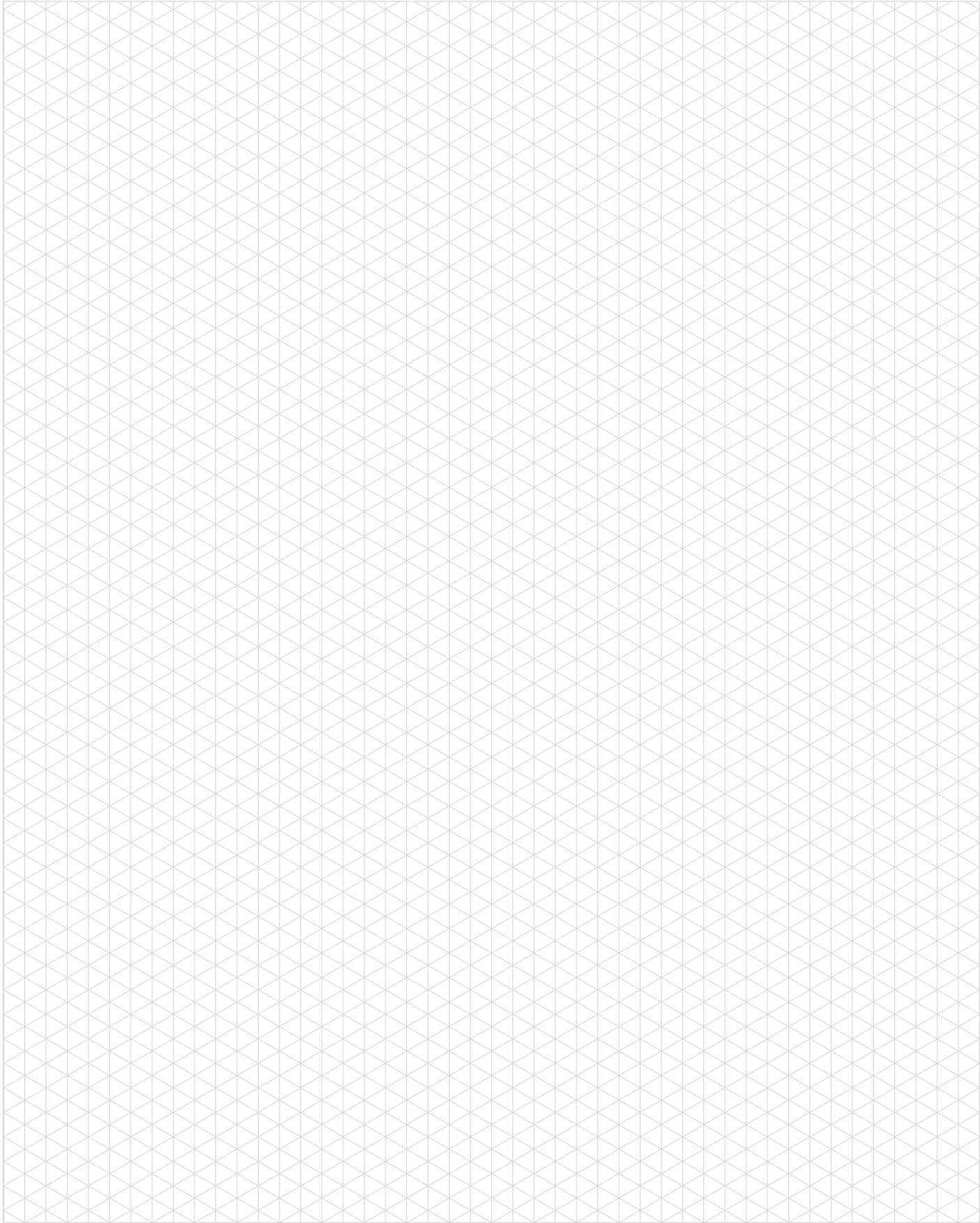
#### THRU-HOLE EZ CLUTCH



#### STANDARD EZ CLUTCH



| Model | Internal Inertia kg-m <sup>2</sup> [lb-in <sup>2</sup> ] | Torque Setting N-m [in-lb]                                          |
|-------|----------------------------------------------------------|---------------------------------------------------------------------|
| 61D   | 1,434 [4900]                                             | 2599, 4067, 4971, 5649, 6779<br>[23000, 36000, 44000, 50000, 60000] |



# PRECISION INDEXING SOLUTIONS

## Table of Contents

### INDEXERS

#### Servo Positioners



**GTB Series**  
Globoidal (Roller Gear)  
Servo Positioner.....IN-SRV-1



**RSD Series**  
Rotary Servo Drives.....IN-SRV-39

#### Mechanical Indexers



**RDM Series**  
Rotary Index Drive ..... IN-MCH-2



**RD Series**  
Roller Dial Index Drive..... IN-MCH-18



**E Series**  
Heavy-Duty Index Drive ..... IN-MCH-30



**RA Series**  
Right Angle Index Drive ..... IN-MCH-42



**RGD/RGS Series**  
Roller Gear Index Drive ..... IN-MCH-52



**P Series**  
Parallel Shaft/Flange Drive.... IN-MCH-72



**RNG Series**  
Ring Drive Dial Indexer.....IN-MCH-84

### OVERLOAD CLUTCHES



**Overload Clutches**  
Output Overload..... IN-CLU-1

### CUSTOM CAMS



**Custom Cams**  
Cam Design Solutions ..... IN-CAM-1

### CONVEYORS



**Rite-Link Series**  
Thin-Profile.....IN-CNV-1



**Precision Link Series**  
Table-Top .....IN-CNV-4



**Precision Link Series**  
Heavy-Duty ..... IN-CNV-16

### PARTS HANDLERS



**LPP Series**  
Linear Part Handlers ..... IN-PRT-2



**RPP Series**  
Rotary Part Handlers ..... IN-PRT-8





Features:

**CAMCO Roller Dial Index Drives** have a robust, flexible design with superior load capabilities. Other features include:

Short camshaft motion periods, due to oversized roller gear cam design, are well suited for continuous running applications or for special motion requirements such as oscillating motions

Universal mounting including a horizontal mounting ideal for trunnion applications

Option Center Thru-Hole facilitates passage of electrical wiring, pneumatic lines or mechanical linkages

Optional Stationary Center Post with thru-hole provides mounting for upper tool plate

Table of Contents

|                    |    |
|--------------------|----|
| How to Order ..... | 3  |
| 425RD .....        | 5  |
| 800RD .....        | 7  |
| 1301RD .....       | 9  |
| 1801RD .....       | 11 |

# RD SERIES

## Roller Dial Index Drives | How To Order

**Base Model** Description kW [HP]

**425RD** w/ R180 reducer & 0.25 [1/3] AC motor (220/440V)

**800RD** w/ 7300C reducer & 1.49 [2] AC motor (220/440V)

**1301RD** w/ 7350C reducer & 1.49 [2] AC motor (220/440V)

**1801RD** w/ 7500C reducer & 2.24 [3] AC motor (220/440V)

**Control** (only available with these models)

**1** 1 HP 120V 425RD only

**2** 1 HP 240V 425RD only

**3** 1 HP 440V 425RD only

**4** 2 HP 240V 800RD & 1301RD only

**5** 2 HP 440V 800RD & 1301RD only

**6** 3 HP 240V 1801RDM only

**7** 3 HP 440V 1801RDM only

**Motion** Stops Index Period

**A** 2 330

**B** 3 330

**C** 4 330

**D** 6 330

**E** 8 330

**F** 12 330

**G** 16 330\*

\*1301RD & 1801RD

**Index Mounting**  
(See Figure 1)

**1**

**2**

**3**

**4**

**5**

**6**

**Reducer Ratio**

**A** 15

**B** 20

**C** 25

**D** 30

**E** 40

**F** 50

**G** 60

**Reducer Mounting**  
(See Figure 4)

**A** **J**

**B** **K**

**C** **L**

**D** **M**

**E** **N**

**F** **P**

**G** **R**

**H** **S**

**Signal Switch** **Signal Switch Side**  
(See Figure 2)

**M** Mechanical **R** Reducer

**P** Proximity **S** Shaft

**Example: MR, MS, PR or PS**

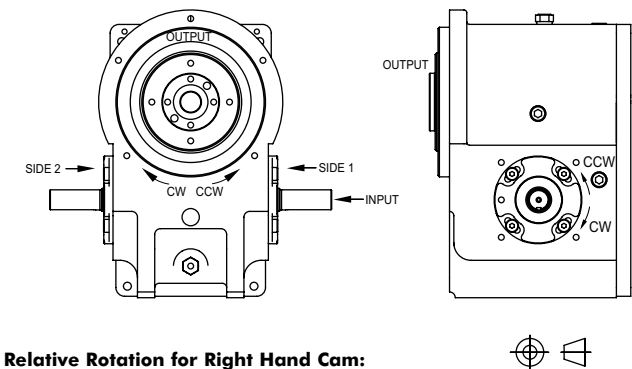
Note about signal switch options:

a) Mechanical is a single switch with cam.

b) Proximity option is a mounting bracket for 8 or 12 mm proximity switch. A proximity switch will not be supplied. Cam supplied as target.

Other Motions (stops and index periods) available. Contact your DESTACO sales representative for more information.

### Input Shaft Configuration/Rotation (Figure 1)

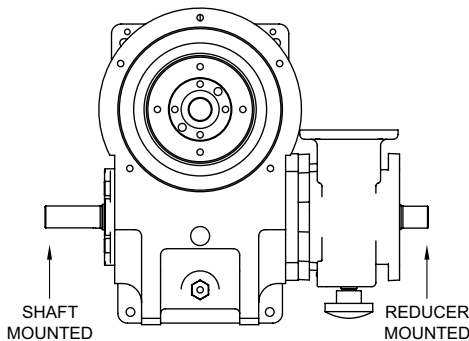


#### Relative Rotation for Right Hand Cam:

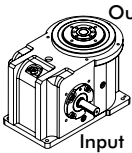
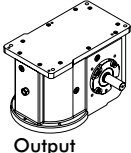
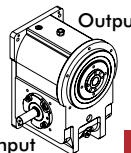
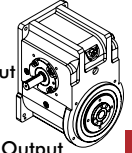
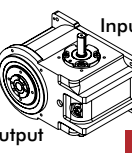
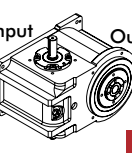
CW Input Side 1 CCW Output  
CCW Input Side 2 CWW Output

NOTE: Input can be driven in either direction

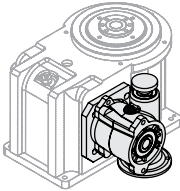
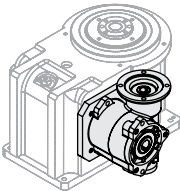
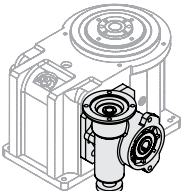
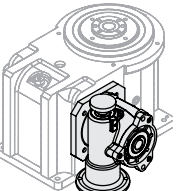
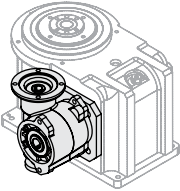
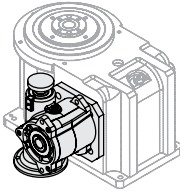
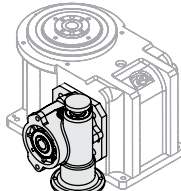
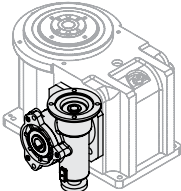
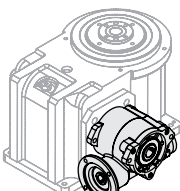
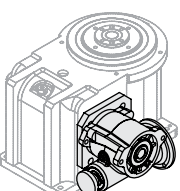
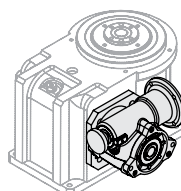
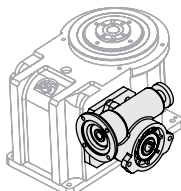
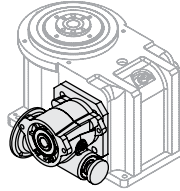
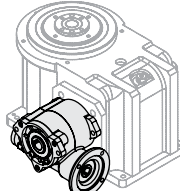
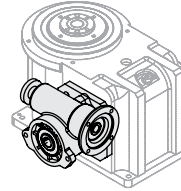
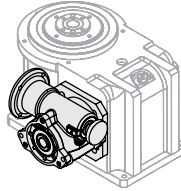
### Signal Switch Mounting Position (Figure 2)



## Roller Dial Index Drives | Input/Output Orientation (Figure 3)

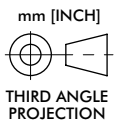
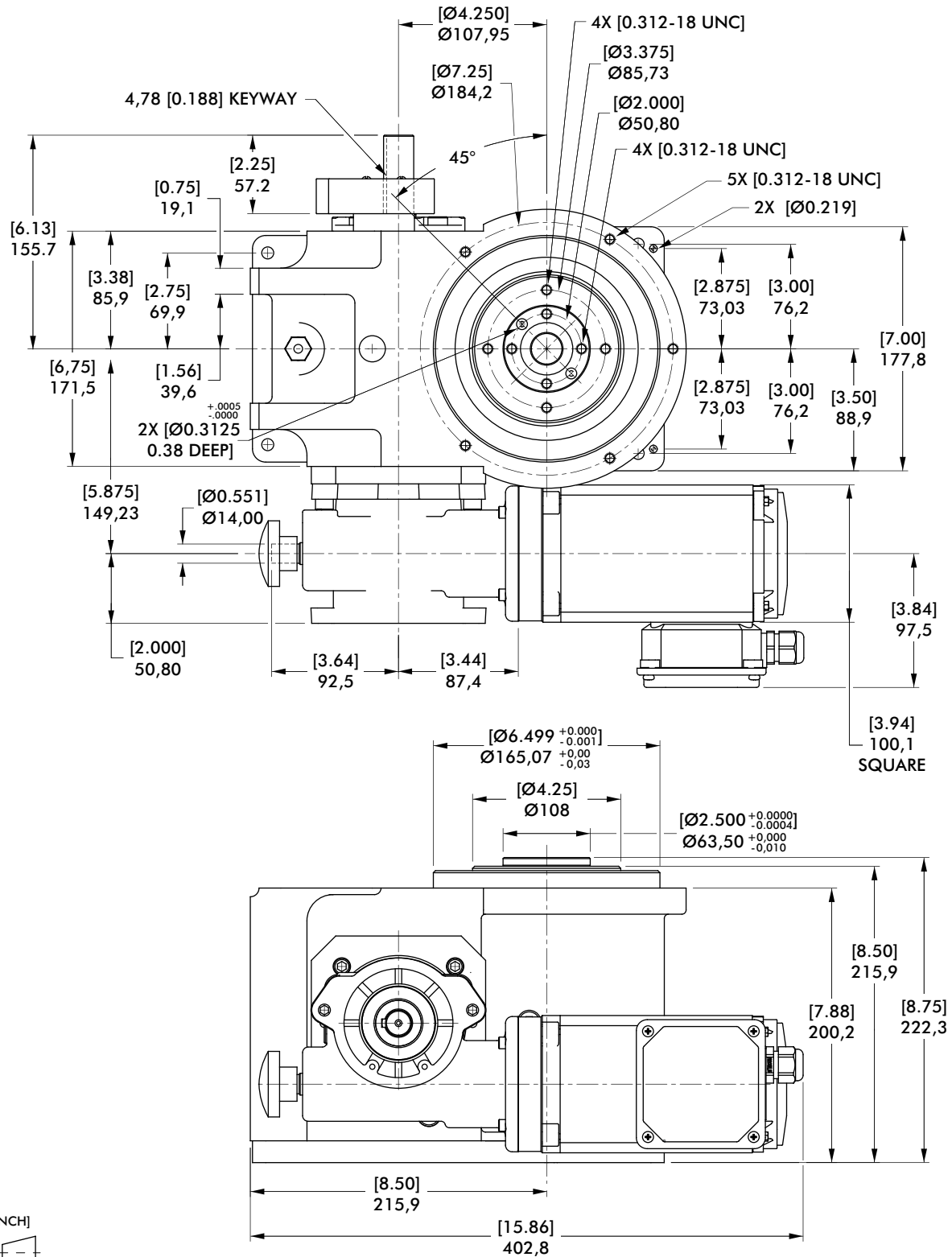
| OVOI<br>(output vertical, over input)                                                      | OVUI<br>(output vertical, under input)                                                     | OHOI<br>(output horizontal, over input)                                                    | OHUI<br>(output horizontal, under input)                                                    | H-S1-UP<br>(output horizontal, side 1 up)                                                    | H-S2-UP<br>(output horizontal, side 2 up)                                                    |
|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
|  <b>1</b> |  <b>2</b> |  <b>3</b> |  <b>4</b> |  <b>5</b> |  <b>6</b> |

## Gear Reducer Mounting Positions (Figure 4)

| Mounting "A"                                                                                                  |                                                                                              | Mounting "B"                                                                                  |                                                                                                |
|---------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| RD Worm                                                                                                       | LD Worm                                                                                      | RD Worm                                                                                       | LD Worm                                                                                        |
| <b>SIDE 1</b><br> <b>A</b>   |  <b>B</b>   |  <b>C</b>   |  <b>D</b>   |
| <b>SIDE 2</b><br> <b>E</b> |  <b>F</b> |  <b>G</b> |  <b>H</b> |
| Mounting "C"                                                                                                  |                                                                                              | Mounting "D"                                                                                  |                                                                                                |
| RD Worm                                                                                                       | LD Worm                                                                                      | RD Worm                                                                                       | LD Worm                                                                                        |
| <b>SIDE 1</b><br> <b>J</b> |  <b>K</b> |  <b>L</b> |  <b>M</b> |
| <b>SIDE 2</b><br> <b>N</b> |  <b>P</b> |  <b>R</b> |  <b>S</b> |

# 425RD SERIES

## Roller Dial Index Drives | Dimensions



| Maximum Inertia x 1000 kg-cm <sup>2</sup> [lb-in <sup>2</sup> ] for standard package |                       |          |          |           |           |           |           |
|--------------------------------------------------------------------------------------|-----------------------|----------|----------|-----------|-----------|-----------|-----------|
| Stops                                                                                | Motion Time [seconds] |          |          |           |           |           |           |
|                                                                                      | 0.458                 | 0.611    | 0.764    | 0.917     | 1.222     | 1.528     | 1.833     |
| 2                                                                                    | 0 [0]                 | 3 [1]    | 6 [2]    | 12 [4]    | 32 [11]   | 47 [16]   | 64 [22]   |
| 3                                                                                    | 3 [1]                 | 6 [2]    | 18 [6]   | 32 [11]   | 73 [25]   | 108 [37]  | 146 [50]  |
| 4                                                                                    | 3 [1]                 | 15 [5]   | 29 [10]  | 56 [19]   | 129 [44]  | 193 [66]  | 263 [90]  |
| 6                                                                                    | 12 [4]                | 32 [11]  | 70 [24]  | 129 [44]  | 293 [100] | 439 [150] | 457 [156] |
| 8                                                                                    | 20 [7]                | 59 [20]  | 126 [43] | 231 [79]  | 457 [156] | 457 [156] | 457 [156] |
| 12                                                                                   | 47 [16]               | 132 [45] | 260 [89] | 398 [136] | 430 [147] | 430 [147] | 430 [147] |
| Reducer Ratio                                                                        |                       |          |          |           |           |           |           |
|                                                                                      | 15                    | 20       | 25       | 30        | 40        | 50        | 60        |

### Features

- R180 Reducer (ratios from 15:1 to 60:1)
  - Double Extended Worm Shaft (Input)
  - Worm Shaft Handwheel
- Double Extended Camshaft (Input Shaft)
- 1/3 HP AC Drive Package with Inverter Duty Motor and IM-pAC AC Drive (up to 60 cpm)
- R225 Reducer with 1 HP AC or DC Motor (ratios of 5:1 to 60:1)
- Cycle Cam and Limit Switch Mounted to Camshaft
- Right Hand Cam

### Optional Accessories

- 1/3 hp DC Motor
- Varipak DC Motor Control (up to 30 cpm)
- 2.8D Output Overload Clutch
  - Available Settings (in-lbs): 400, 480, 700, 850, 1100, 1300, 1800, 2200, 3100
- Center Thru Hole (0.81 in. Diameter)
- Stationary Center Post
- Dual Cam and Limit Switch
- Left Hand Cam
- Relief in Dwell for shot-pin applications
- Universal Mounting Capability
- Custom Dial Plate

### Output Load Capacity (loads carried during index):

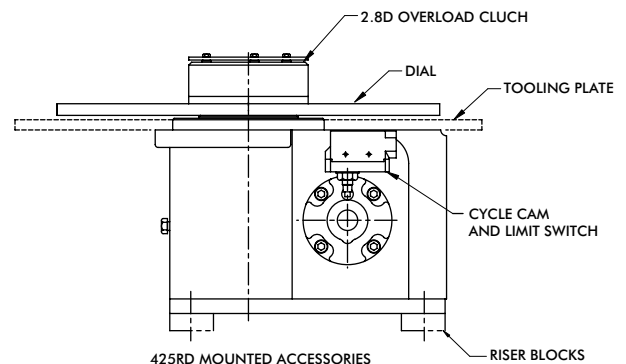
Radial 12010 N [2700 lbs]  
 Thrust/Axial 717 N [1600 lbs]  
 Moment 655 N-m [5800 in-lbs]

### Accuracy

±47 arcsec / ±0,025 mm [±.0027 in]  
 at 304,8 mm [12 in] Radius

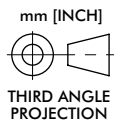
### Repeatability

±12 arcsec / ±0,018 mm [±.0007 in]  
 at 304,8 mm [12 in] Radius



Unless otherwise noted,  
all dimensions are in inches.

## Roller Dial Index Drives | Dimensions



| Maximum Inertia x 1000 kg-cm <sup>2</sup> [lb-in <sup>2</sup> ] for standard package |                       |           |            |            |             |             |             |
|--------------------------------------------------------------------------------------|-----------------------|-----------|------------|------------|-------------|-------------|-------------|
| Stops                                                                                | Motion Time [seconds] |           |            |            |             |             |             |
|                                                                                      | 0.458                 | 0.611     | 0.764      | 0.917      | 1.222       | 1.528       | 1.833       |
| 2                                                                                    | 6 [2]                 | 23 [8]    | 50 [17]    | 94 [32]    | 161 [55]    | 243 [83]    | 334 [114]   |
| 3                                                                                    | 20 [7]                | 56 [19]   | 117 [40]   | 211 [72]   | 366 [125]   | 547 [187]   | 755 [258]   |
| 4                                                                                    | 38 [13]               | 102 [35]  | 211 [72]   | 380 [130]  | 653 [223]   | 977 [334]   | 1343 [459]  |
| 6                                                                                    | 88 [30]               | 231 [79]  | 480 [164]  | 857 [293]  | 1475 [504]  | 2204 [753]  | 3026 [1034] |
| 8                                                                                    | 158 [54]              | 416 [142] | 855 [292]  | 1525 [521] | 2625 [897]  | 3605 [1232] | 3605 [1232] |
| 12                                                                                   | 360 [123]             | 913 [312] | 1528 [522] | 2324 [794] | 3383 [1156] | 3383 [1156] | 3383 [1156] |
| Reducer Ratio                                                                        |                       |           |            |            |             |             |             |
|                                                                                      | 15                    | 20        | 25         | 30         | 40          | 50          | 60          |

### Features

- 7300C Reducer (Ratios from 15:1 to 60:1)
  - Double Extended Worm Shaft (Input)
  - Motor Adapter and Coupling
- Double Extended Camshaft (Input Shaft)
- 1 HP AC Drive Package with Inverter Duty Motor and IM-pAC AC Drive (up to 60 cpm)
- Cycle Cam and Limit Switch Mounted to Camshaft
- Right Hand Cam

### Optional Accessories

- 7350C Reducer (ratios from 5:1 to 60:1) with 1 hp AC or DC Motor
- 1 hp DC Motor
- Varipak DC Motor Control (up to 30 cpm)
- Output Overload Clutch model 7.8D
  - Available Settings (in-lbs): 1400, 1700, 2600, 3200, 4200, 5000, 7200, 10,000
- Output Overload Clutch model 18D
  - Available Settings (in-lbs): 5000, 7000, 7800, 10,000, 12,000, 16,000, 19,000, 21,000, 27,000, 42,000, 45,000
- Center Thru Hole (2.50 in. Diameter)
- Stationary Center Post
- Dual Cam and Limit Switch
- Left Hand Cam
- Relief in Dwell for shot-pin applications
- Universal Mounting Capability
- Custom Dial Plate

### Output Load Capacity (loads carried during index):

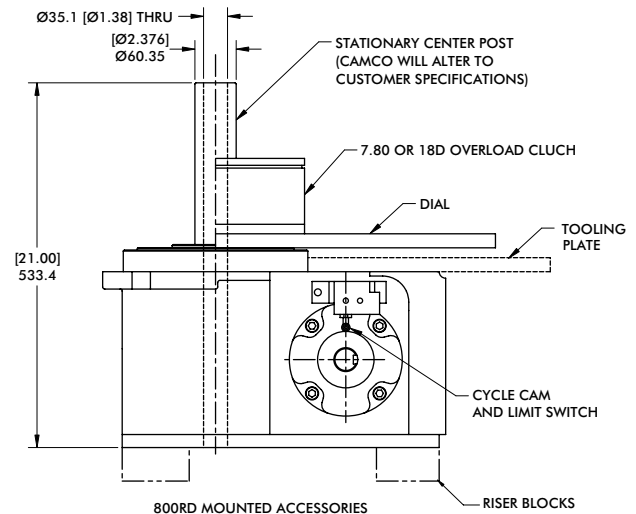
Radial 22139 N [4977 lbs]  
 Thrust/Axial 15840 N [3561 lbs]  
 Moment 2531 N-m [22398 in-lbs]

### Accuracy

±30 arcsec / ±0,102 mm [±.004 in]  
 at 609,6 mm [24 in] Radius

### Repeatability

±8 arcsec / ±0,023 mm [±.0009 in]  
 at 609,6 mm [24 in] Radius



Unless otherwise noted,  
all dimensions are in inches.



## Roller Dial Index Drives | Dimensions



| Maximum Inertia x 1000 kg-cm <sup>2</sup> [lb-in <sup>2</sup> ] for standard package |                       |            |             |             |              |              |              |
|--------------------------------------------------------------------------------------|-----------------------|------------|-------------|-------------|--------------|--------------|--------------|
| Stops                                                                                | Motion Time [seconds] |            |             |             |              |              |              |
|                                                                                      | 0.458                 | 0.611      | 0.764       | 0.917       | 1.222        | 1.528        | 1.833        |
| 2                                                                                    | 0 [0]                 | 15 [5]     | 44 [15]     | 85 [29]     | 149 [51]     | 228 [78]     | 316 [108]    |
| 3                                                                                    | 12 [4]                | 47 [16]    | 108 [37]    | 199 [68]    | 348 [119]    | 524 [179]    | 720 [246]    |
| 4                                                                                    | 29 [10]               | 91 [31]    | 196 [67]    | 360 [123]   | 626 [214]    | 939 [321]    | 1288 [440]   |
| 6                                                                                    | 76 [26]               | 214 [73]   | 454 [155]   | 822 [281]   | 1419 [485]   | 2122 [725]   | 2912 [995]   |
| 8                                                                                    | 140 [48]              | 386 [132]  | 814 [278]   | 1472 [503]  | 2531 [865]   | 3778 [1291]  | 5183 [1771]  |
| 12                                                                                   | 325 [111]             | 881 [301]  | 1844 [630]  | 3321 [1135] | 5709 [1951]  | 8513 [2909]  | 11673 [3989] |
| 16                                                                                   | 588 [201]             | 1574 [538] | 3283 [1122] | 5911 [2020] | 10158 [3471] | 15141 [5174] | 20757 [7093] |
| Reducer Ratio                                                                        |                       |            |             |             |              |              |              |
|                                                                                      | 15                    | 20         | 25          | 30          | 40           | 50           | 60           |

### Features

- 7350C Reducer (Ratios from 15:1 to 60:1)
  - Double Extended Worm Shaft (Input)
  - Motor Adapter and Coupling
- Double Extended Camshaft (Input Shaft)
- 2 HP AC Drive Package with Inverter Duty Motor and Inverter Drive (up to 60 cpm)
- Cycle Cam and Limit Switch Mounted to Camshaft
- Right Hand Cam

### Optional Accessories

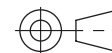
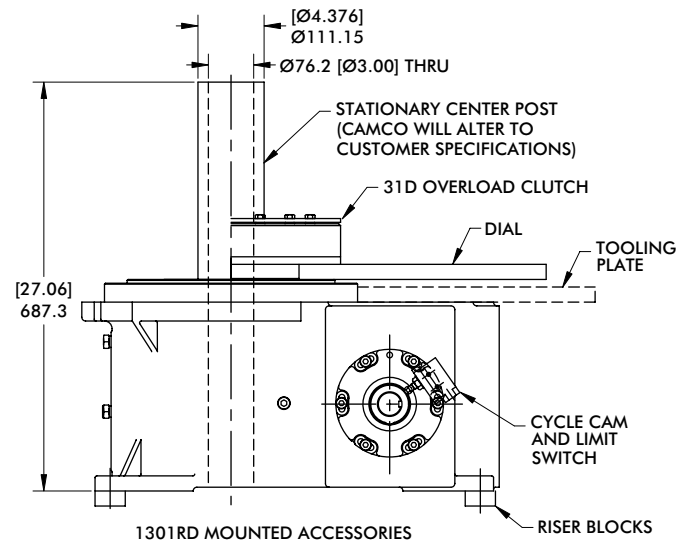
- 7400C Reducer (Ratios from 5:1 to 60:1) with Motor Adapter and Coupling
- 2 hp DC Motor
- Varipak DC Motor Control (up to 30 cpm)
- Output Overload Clutch model 31D
  - Available Settings (in-lbs): 8500, 13,000, 20,000, 31,000
- Center Thru Hole (4.75 in. Diameter)
- Stationary Center Post
- Dual Cam and Limit Switch
- Left Hand Cam
- Relief in Dwell for shot-pin applications
- Universal Mounting Capability
- Custom Dial Plate

### Output Load Capacity (loads carried during index):

Radial 70282 N [15800 lbs]  
 Thrust/Axial 48041 N [10800 lbs]  
 Moment 12315 N-m [109000 in-lbs]

**Accuracy** ±39 arcsec / ±0,173 mm [±.0068 in] at 914,4 mm [36 in] Radius

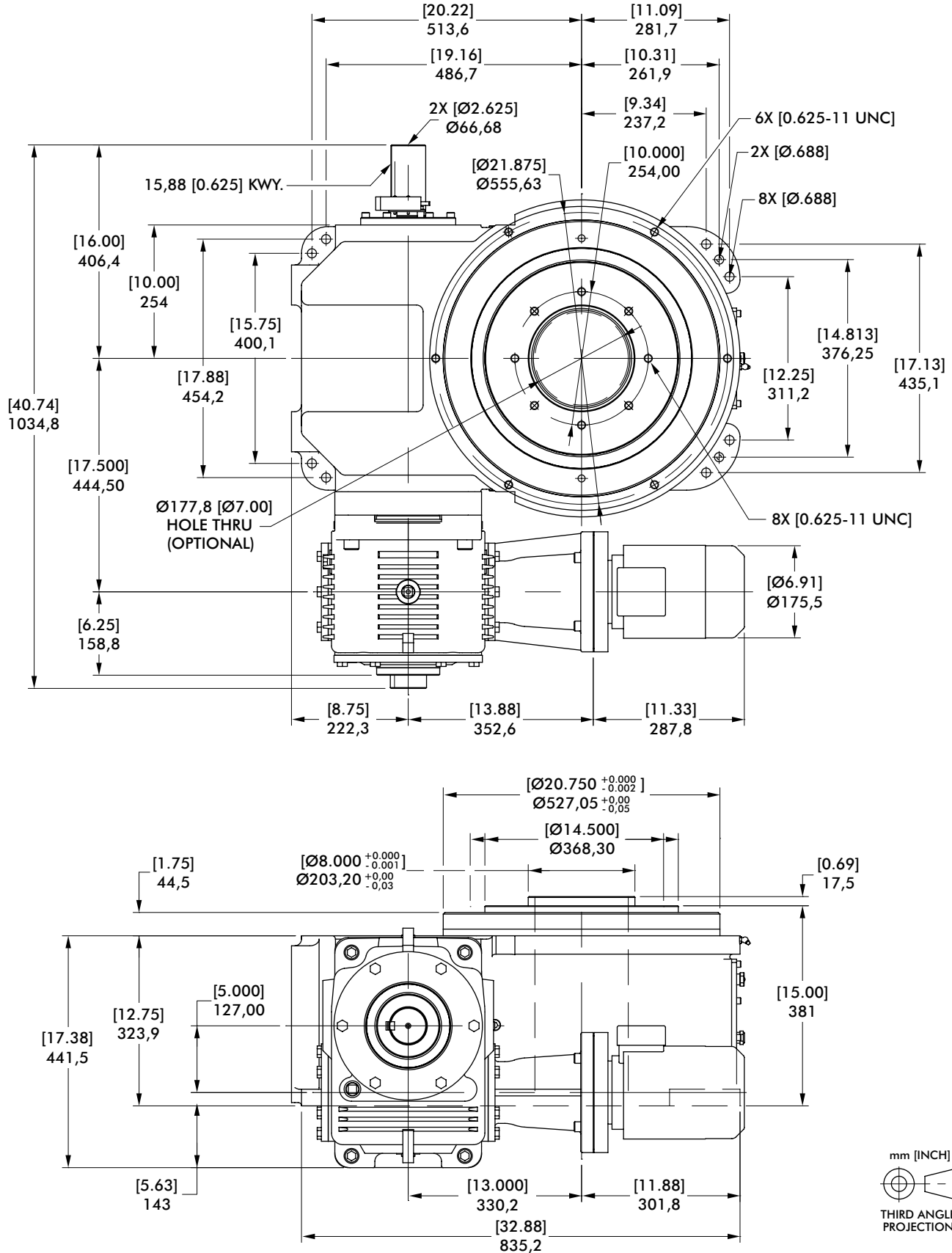
**Repeatability** ±10 arcsec / ±0,043 mm [±.0017 in] at 914,4 mm [36 in] Radius



Unless otherwise noted,  
all dimensions are in inches.

# 1801RD SERIES

## Roller Dial Index Drives | Dimensions



| Maximum Inertia x 1000 kg-cm <sup>2</sup> [lb-in <sup>2</sup> ] for standard package |                       |             |               |               |                |                |                 |
|--------------------------------------------------------------------------------------|-----------------------|-------------|---------------|---------------|----------------|----------------|-----------------|
| Stops                                                                                | Motion Time [seconds] |             |               |               |                |                |                 |
|                                                                                      | 0.458                 | 0.611       | 0.764         | 0.917         | 1.222          | 1.528          | 1.833           |
| 2                                                                                    | 0 [0]                 | 15 [5]      | 53 [18]       | 114 [39]      | 319 [109]      | 670 [229]      | 1,206 [412]     |
| 3                                                                                    | 6 [2]                 | 50 [17]     | 129 [44]      | 252 [86]      | 673 [230]      | 1,393 [476]    | 2,487 [850]     |
| 4                                                                                    | 26 [9]                | 114 [39]    | 269 [92]      | 512 [175]     | 1,340 [458]    | 2,748 [939]    | 4,893 [1,672]   |
| 6                                                                                    | 79 [27]               | 266 [91]    | 600 [205]     | 1,121 [383]   | 2,894 [989]    | 5,914 [2,021]  | 10,515 [3,593]  |
| 8                                                                                    | 158 [54]              | 492 [168]   | 1,083 [370]   | 2,010 [687]   | 5,159 [1,763]  | 10,529 [3,598] | 18,708 [6,393]  |
| 12                                                                                   | 372 [127]             | 1,121 [383] | 2,455 [839]   | 4,542 [1,552] | 11,627 [3,973] | 23,710 [8,102] | 42,114 [14,391] |
| 16                                                                                   | 679 [232]             | 2,010 [687] | 4,384 [1,498] | 8,091 [2,765] | 20,690 [7,070] | 42,17 [1,441]  | 56,933 [19,455] |
| Reducer Ratio                                                                        |                       |             |               |               |                |                |                 |
|                                                                                      | 15                    | 20          | 25            | 30            | 40             | 50             | 60              |

### Features

- 7500C Reducer (Ratios from 15:1 to 60:1)
  - Double Extended Worm Shaft (Input)
  - Motor Adapter and Coupling
- Double Extended Camshaft (Input Shaft)
- 3 HP AC Drive Package with Inverter Duty Motor and Inverter Drive (up to 60 cpm)
- Cycle Cam and Limit Switch Mounted to Camshaft
- Right Hand Cam

### Output Load Capacity (loads carried during index):

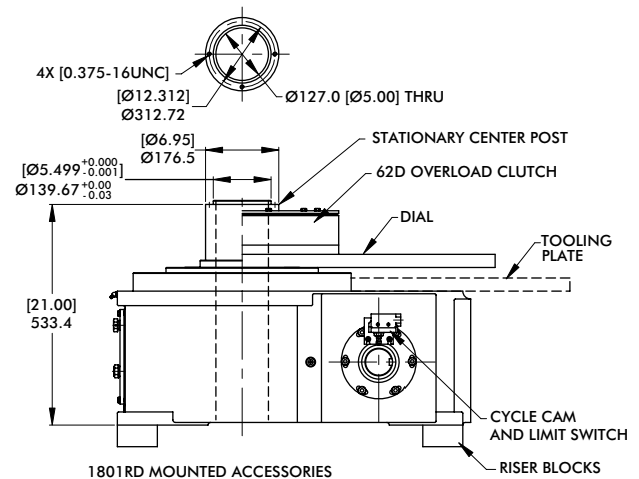
Radial 65, 834 N [14,800 lbs]  
 Thrust/Axial 56,048 N [12,600 lbs]  
 Moment 12,089 N-m [107,000 in-lbs]

**Accuracy** ±27 arcsec / ±.160 mm [±.0063 in]  
 at 1,219.2 mm [48 in] Radius

**Repeatability** ±7 arcsec / ±.041 mm [±.0016 in]  
 at 1,219.2 mm [48 in] Radius

### Optional Accessories

- 7600C or 7700C Reducer (Ratios from 5:1 to 60:1) with Motor Adapter and Coupling
- 3 hp DC Motor
- Output Overload Clutch model 62D
  - Available Settings (in-lbs): 23,000, 36,000, 44,000, 50,000, 60,000
- Center Thru Hole (7.00 in. Diameter)
- Stationary Center Post
- Dual Cam and Limit Switch
- Left Hand Cam
- Relief in Dwell for shot-pin applications
- Custom Dial Plate



Unless otherwise noted,  
all dimensions are in inches.

# PRECISION INDEXING SOLUTIONS

## Table of Contents

### INDEXERS

#### Servo Positioners



**GTB Series**  
Globoidal (Roller Gear)  
Servo Positioner.....IN-SRV-1



**RSD Series**  
Rotary Servo Drives.....IN-SRV-39

#### Mechanical Indexers



**RDM Series**  
Rotary Index Drive ..... IN-MCH-2



**RD Series**  
Roller Dial Index Drive..... IN-MCH-18



**E Series**  
Heavy-Duty Index Drive ..... IN-MCH-30



**RA Series**  
Right Angle Index Drive ..... IN-MCH-42



**RGD/RGS Series**  
Roller Gear Index Drive ..... IN-MCH-52



**P Series**  
Parallel Shaft/Flange Drive.... IN-MCH-72



**RNG Series**  
Ring Drive Dial Indexer.....IN-MCH-84

### OVERLOAD CLUTCHES



**Overload Clutches**  
Output Overload..... IN-CLU-1

### CUSTOM CAMS



**Custom Cams**  
Cam Design Solutions ..... IN-CAM-1

### CONVEYORS



**Rite-Link Series**  
Thin-Profile.....IN-CNV-1



**Precision Link Series**  
Table-Top .....IN-CNV-4



**Precision Link Series**  
Heavy-Duty ..... IN-CNV-16

### PARTS HANDLERS



**LPP Series**  
Linear Part Handlers ..... IN-PRT-2



**RPP Series**  
Rotary Part Handlers ..... IN-PRT-8



**Features:**

The **CAMCO E-Series Heavy Duty Index Drive** is ideal for heavy-duty rotary dial applications with features including:

Large output mounting surface supported by a 4-point contact bearing providing superior thrust and moment capacity

Large center thru-hole to accommodate stationary center post, electrical wiring and air or hydraulic lines

Complete motorized drive package with reducer and AC inverter drive to suit most applications

Precision cam with preloaded cam followers for maximum accuracy

Durable welded steel housing

Preloaded “center rib” design for smooth acceleration and deceleration with precision positioning

**Table of Contents**

|                    |    |
|--------------------|----|
| How to Order ..... | 3  |
| 750E.....          | 5  |
| 950E.....          | 7  |
| 1150E.....         | 9  |
| 1550E.....         | 11 |

# E-SERIES

## Heavy Duty Index Drive | How To Order

**Base Model**

**750E** w/ KH87 reducer & 12.5 HP AC motor (220/440V)

**950E** w/ KH87 reducer & 15 HP AC motor (220/440V)

**1150E** w/ KH107 reducer & 25 HP AC motor (220/440V)

**1550E** w/ KH127 reducer & 30 HP AC motor (220/440V)

**Control** (only available with these models)

**1** 15 HP 240V 750E & 950E only

**2** 15 HP 440V 750E & 950E only

**3** 25 HP 240V 1150E only

**4** 25 HP 440V 1150E only

**5** 30 HP 240V 1550E only

**6** 30 HP 440V 1550E only

**Motion**

**A** 2 330

**B** 3 330

**C** 4 330

**D** 6 330

**E** 8 330

**F** 12 330

**G** 16 330

**Index Mounting**  
(See Figure 1)

**1**

**2**

**3**

**4**

**5**

**6**

**Reducer Ratio**

|          | 750E  | 950E  | 1150E  | 1550E |
|----------|-------|-------|--------|-------|
| <b>A</b> | 14.50 | 29.00 | 40.19  |       |
| <b>B</b> | 19.95 | 42.33 | 54.07  |       |
| <b>C</b> | 24.92 | 49.90 | 70.95  |       |
| <b>D</b> | 31.39 | 52.17 | 81.98  |       |
| <b>E</b> | 44.02 | 66.52 | 89.89  |       |
| <b>F</b> | 49.16 | 73.30 | 110.18 |       |
| <b>G</b> | 63.00 | 82.61 | 122.98 |       |

**Reducer Mounting**  
(See Figure 3)

**A**

**Signal Switch**

**M** Mechanical

**P** Proximity

**Example: MS or PS**

Note about signal switch options:

a) Mechanical is a single switch with cam.

b) Proximity option is a mounting bracket for 8 or 12 mm proximity switch. A proximity switch will not be supplied. Cam supplied as target.

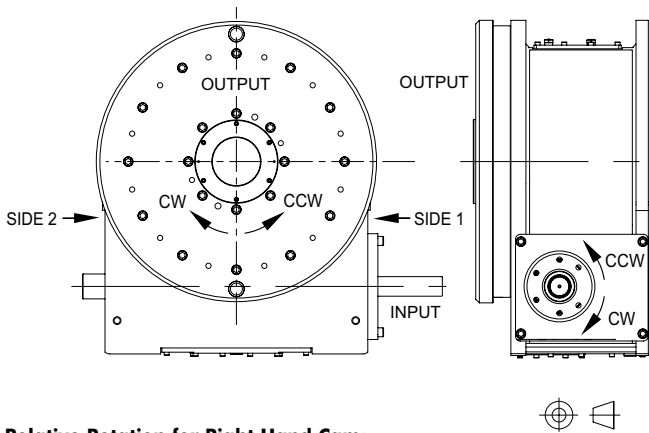
**Signal Switch Side**  
(See Figure 2)

**S** Shaft

Other Motions (stops and index periods) available. Contact your DESTACO sales representative for more information.



Input Shaft Configuration/Rotations (Figure 1)

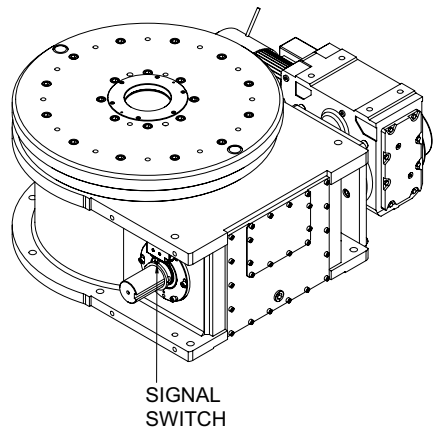


**Relative Rotation for Right Hand Cam:**

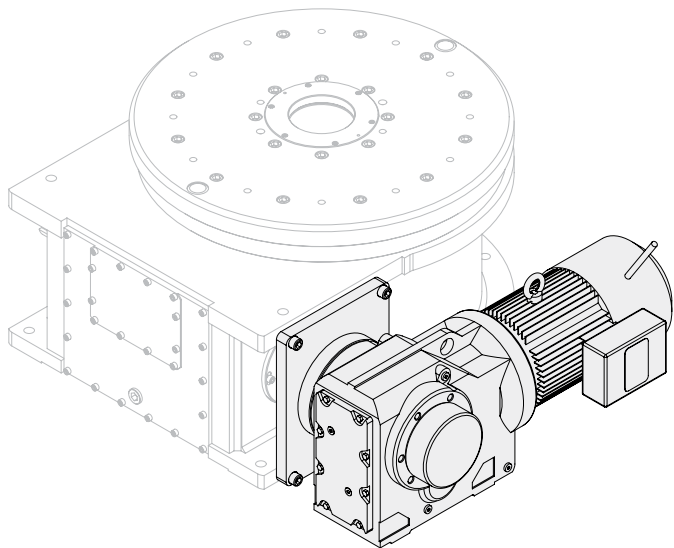
CW Input Side 1 CCW Output  
CCW Input Side 2 CWW Output

NOTE: Input can be driven in either direction

Signal Switch Mounting Position (Figure 2)

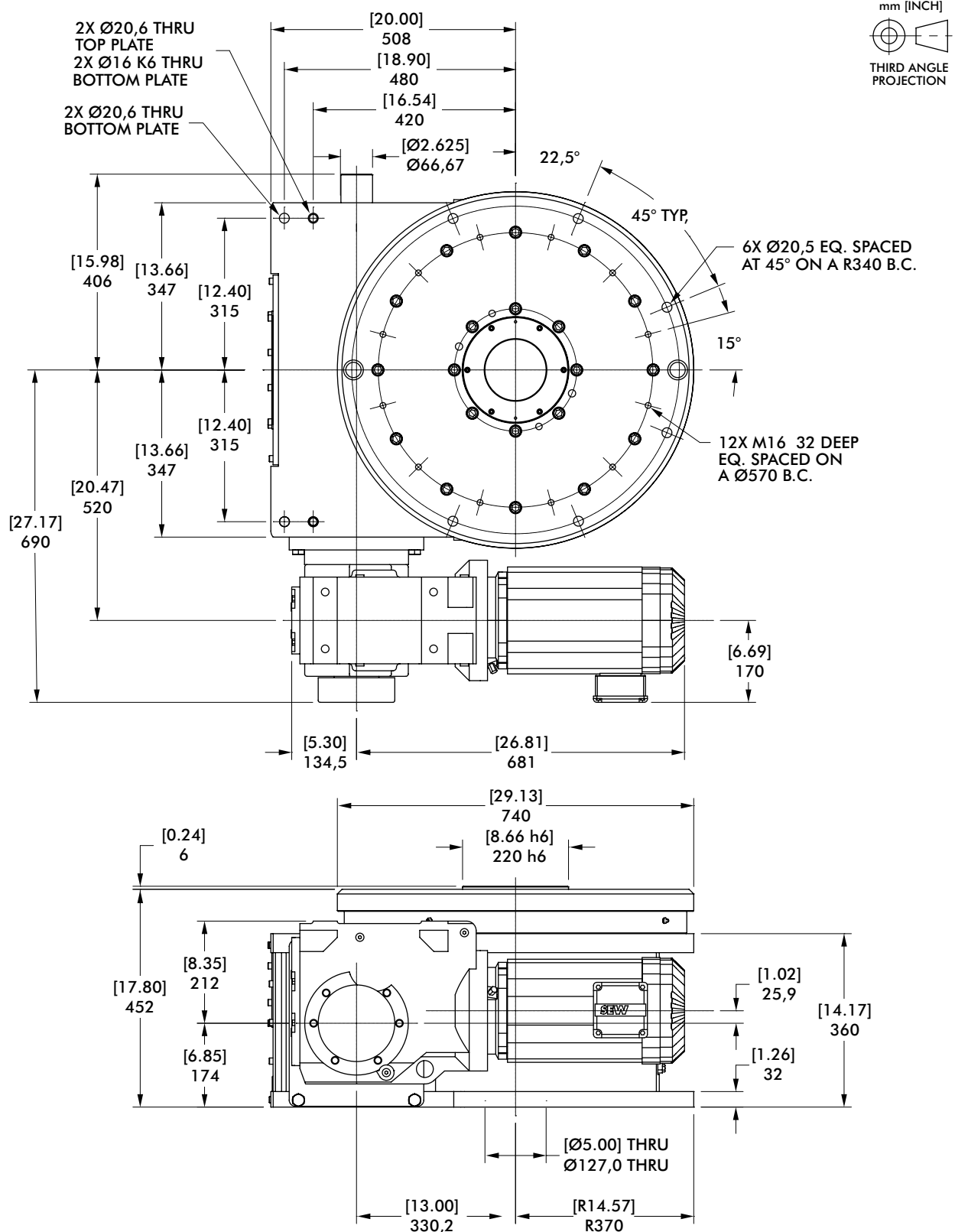


Gear Reducer Mounting Position (Figure 3)



# 750E SERIES

## Heavy Duty Index Drive | Dimensions



| Maximum Inertia x 1000 [lb-in <sup>2</sup> ] kg-cm <sup>2</sup> for standard package |                       |                |                 |                 |                  |                  |                  |
|--------------------------------------------------------------------------------------|-----------------------|----------------|-----------------|-----------------|------------------|------------------|------------------|
| Stops                                                                                | Motion Time [seconds] |                |                 |                 |                  |                  |                  |
|                                                                                      | 0.44                  | 0.59           | 0.76            | 0.96            | 1.35             | 1.50             | 1.93             |
| 2                                                                                    | [0]<br>0              | [27]<br>79     | [105]<br>307    | [254]<br>743    | [751]<br>2198    | [987]<br>2888    | [1647]<br>4820   |
| 3                                                                                    | [14]<br>41            | [98]<br>287    | [257]<br>752    | [562]<br>1645   | [1577]<br>4615   | [2058]<br>6023   | [3407]<br>9970   |
| 4                                                                                    | [67]<br>196           | [231]<br>676   | [542]<br>1586   | [1140]<br>3336  | [3128]<br>9154   | [4072]<br>11916  | [6714]<br>19648  |
| 6                                                                                    | [191]<br>559          | [542]<br>1586  | [1209]<br>3538  | [2491]<br>7290  | [6756]<br>19771  | [8781]<br>25697  | [14447]<br>42278 |
| 8                                                                                    | [372]<br>1089         | [931]<br>2724  | [1677]<br>4908  | [2841]<br>8314  | [5587]<br>16350  | [6968]<br>20391  | [11444]<br>33490 |
| 12                                                                                   | [886]<br>2593         | [2291]<br>6704 | [4840]<br>14164 | [8195]<br>23982 | [16116]<br>47162 | [20100]<br>58821 | [33010]<br>96600 |
| 16                                                                                   | [1351]<br>3954        | [2717]<br>7951 | [4837]<br>14155 | [8254]<br>24154 | [16263]<br>47592 | [20283]<br>59356 | [33311]<br>97481 |
| Reducer Ratio                                                                        |                       |                |                 |                 |                  |                  |                  |
|                                                                                      | 14.45                 | 19.45          | 24.92           | 31.39           | 44.02            | 49.16            | 63.00            |

### Features

- KH87 Gear Reducer with Brake-motor
- Double Extended Camshaft (Input shaft)
- Center Thru Hole (Ø127 mm [Ø5 in])
- Cycle Cam and Limit Switch
- Right Hand Cam

### Optional Accessories

- Left Hand Cam
- Relief in Dwell for Shot-Pin applications
- Dual Cam & limit Switch
- KH97 Gear Reducer with Brake-motor
- Stationary Center Post
- Visual Disk Dwell Indicator

### Output Load Capacity (loads carried during index):

|              |                           |
|--------------|---------------------------|
| Radial       | 129888 N [29200 lbs]      |
| Thrust/Axial | 186825 N [42000 lbs]      |
| Moment       | 46830 N-m [414500 in-lbs] |

### Typical Application Dial Diameter:

1397 mm to 2794 mm [55 in to 110 in]

### Accuracy

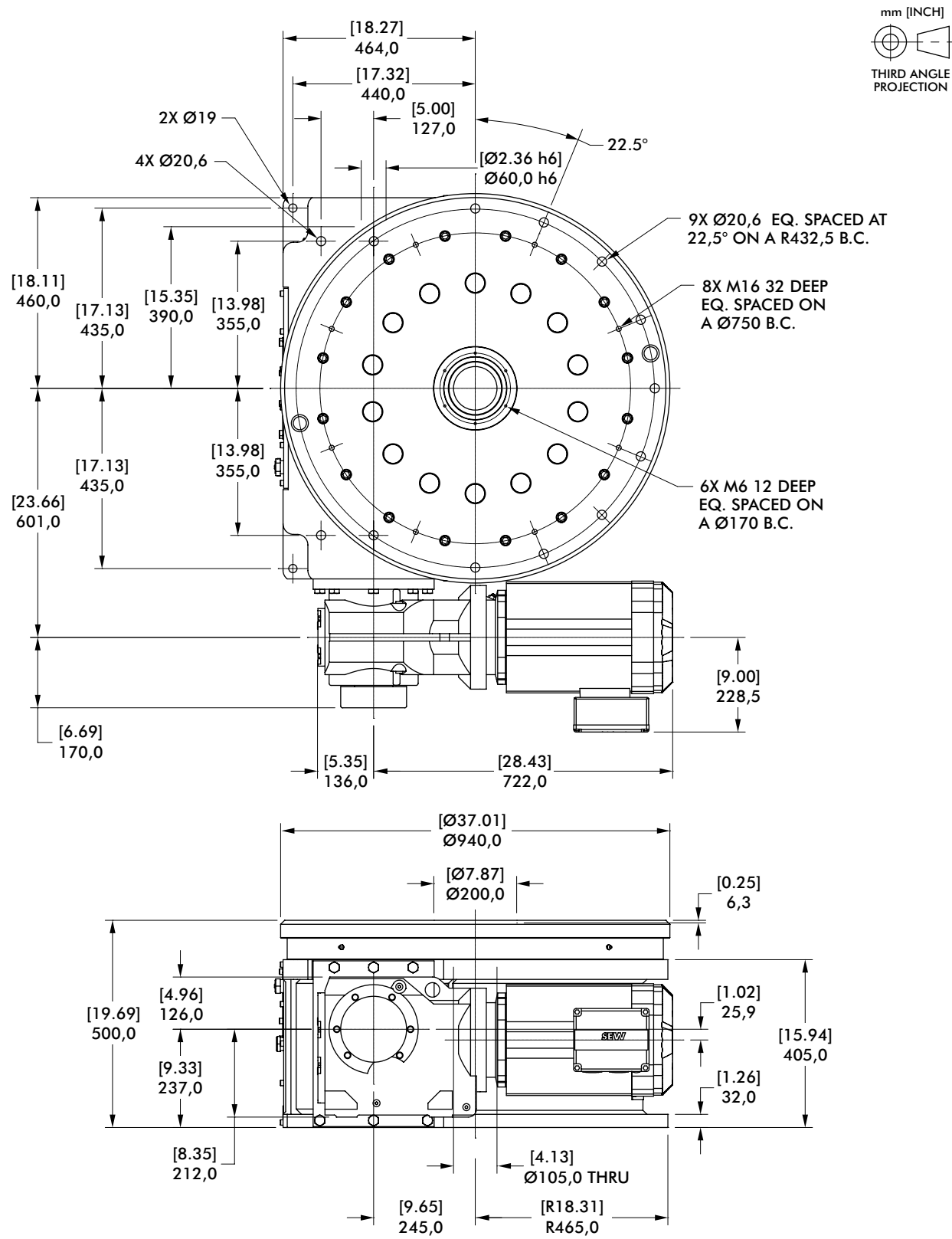
±27 arcsec / ±.0,05 mm [±.002 in]  
at 381 mm [15in] Radius

### Repeatability

±7 arcsec / ±.0,013 mm [±.0005 in]  
at 381 mm [15in] Radius

# 950E SERIES

## Heavy Duty Index Drive | Dimensions



| Maximum Inertia x 1000 [lb-in <sup>2</sup> ] kg-cm <sup>2</sup> for standard package |                       |                |                 |                  |                  |                  |                   |
|--------------------------------------------------------------------------------------|-----------------------|----------------|-----------------|------------------|------------------|------------------|-------------------|
| Stops                                                                                | Motion Time [seconds] |                |                 |                  |                  |                  |                   |
|                                                                                      | 0.44                  | 0.59           | 0.76            | 0.96             | 1.35             | 1.50             | 1.93              |
| 2                                                                                    | [0]<br>0              | [0]<br>0       | [61]<br>179     | [224]<br>656     | [619]<br>1811    | [833]<br>2438    | [1433]<br>4194    |
| 3                                                                                    | [0]<br>0              | [59]<br>173    | [250]<br>732    | [619]<br>1811    | [1507]<br>4410   | [1989]<br>5821   | [3337]<br>9765    |
| 4                                                                                    | [16]<br>47            | [205]<br>600   | [564]<br>1650   | [1252]<br>3664   | [2911]<br>8519   | [3810]<br>11150  | [6329]<br>18521   |
| 6                                                                                    | [187]<br>547          | [634]<br>1855  | [1479]<br>4328  | [3102]<br>9078   | [7013]<br>20523  | [9135]<br>26733  | [15073]<br>44110  |
| 8                                                                                    | [412]<br>1206         | [1169]<br>3421 | [2603]<br>7617  | [5287]<br>15472  | [11478]<br>33589 | [14315]<br>41891 | [23511]<br>68803  |
| 12                                                                                   | [1025]<br>3000        | [2729]<br>7986 | [5956]<br>17430 | [10793]<br>31585 | [23621]<br>69124 | [30484]<br>89208 | [53172]<br>155602 |
| 16                                                                                   | [1290]<br>3775        | [2647]<br>7746 | [4753]<br>13909 | [8147]<br>23841  | [17305]<br>50641 | [21582]<br>63157 | [35445]<br>103726 |
| Reducer Ratio                                                                        |                       |                |                 |                  |                  |                  |                   |
|                                                                                      | 14.45                 | 19.45          | 24.92           | 31.39            | 44.02            | 49.16            | 63.00             |

### Features

- KH87 Gear Reducer with Brake-motor
- Double Extended Camshaft (Input shaft)
- Center Thru Hole (Ø105 mm [Ø4.13 in])
- Cycle Cam and Limit Switch
- Right Hand Cam

### Optional Accessories

- Left Hand Cam
- Relief in Dwell for Shot-Pin applications
- Dual Cam & limit Switch
- KH97 Gear Reducer with Brake-motor
- Stationary Center Post
- Visual Disk Dwell Indicator

### Output Load Capacity (loads carried during index):

|              |                            |
|--------------|----------------------------|
| Radial       | 233976 N [52600 lbs]       |
| Thrust/Axial | 337397 N [75850 lbs]       |
| Moment       | 110438 N-m [977500 in-lbs] |

### Typical Application

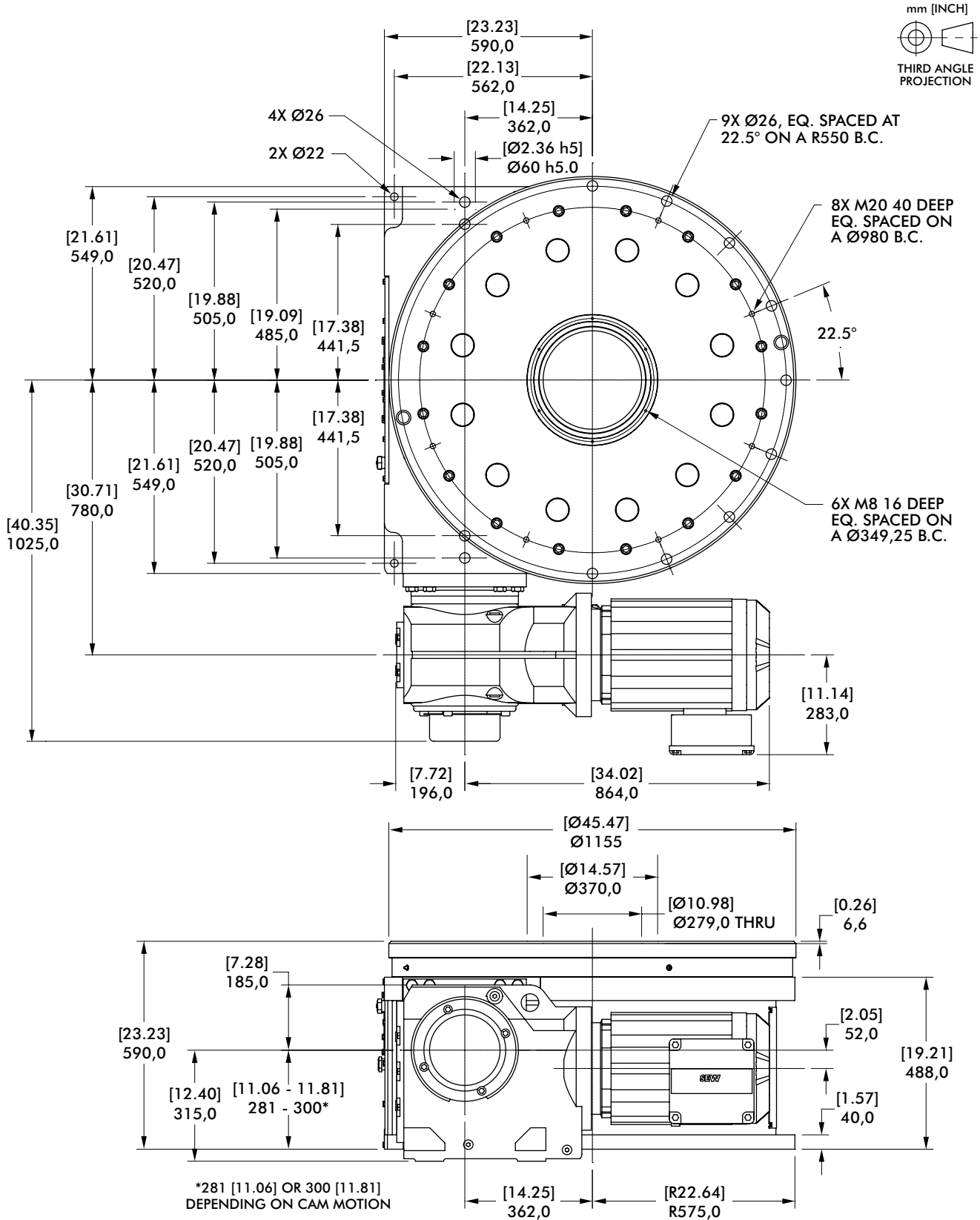
**Dial Diameter:** 1778 mm to 3556 mm [70 in to 140 in]

**Accuracy** ±29 arcsec / ±0,058 mm [±.0023 in]  
at 762 mm [30in] Radius

**Repeatability** ±6 arcsec / ±0,015 mm [±.0006 in]  
at 762 mm [30in] Radius

# 1150E SERIES

## Heavy Duty Index Drive | Dimensions



| Maximum Inertia x 1000 kg-cm <sup>2</sup> [lb-in <sup>2</sup> ] for standard package |                       |                   |                   |                    |                    |                    |                    |
|--------------------------------------------------------------------------------------|-----------------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|
| Stops                                                                                | Motion Time [seconds] |                   |                   |                    |                    |                    |                    |
|                                                                                      | 0.89                  | 1.29              | 1.52              | 1.75               | 2.03               | 2.24               | 2.52               |
| 2                                                                                    | [134]<br>392          | [1141]<br>3339    | [2093]<br>6125    | [3329]<br>9742     | [4746]<br>13889    | [5835]<br>17076    | [7501]<br>21951    |
| 3                                                                                    | [698]<br>2043         | [2965]<br>8677    | [5108]<br>14948   | [7887]<br>23080    | [11077]<br>32416   | [13526]<br>39582   | [17275]<br>50554   |
| 4                                                                                    | [1445]<br>4229        | [5474]<br>16019   | [9284]<br>27169   | [14225]<br>41628   | [19896]<br>58224   | [24249]<br>70962   | [30915]<br>90470   |
| 6                                                                                    | [3780]<br>11062       | [12845]<br>37590  | [21419]<br>62680  | [32537]<br>95216   | [45296]<br>132554  | [55090]<br>161215  | [70088]<br>205105  |
| 8                                                                                    | [6581]<br>19259       | [21959]<br>64261  | [36502]<br>106819 | [54381]<br>159140  | [73624]<br>215453  | [89397]<br>261611  | [113548]<br>332286 |
| 12                                                                                   | [15621]<br>45713      | [50221]<br>146967 | [82944]<br>242727 | [123772]<br>362206 | [167569]<br>490373 | [203468]<br>595428 | [258436]<br>756286 |
| 16                                                                                   | [27975]<br>81866      | [61083]<br>178753 | [84884]<br>248404 | [111420]<br>326059 | [150846]<br>441435 | [183162]<br>536005 | [232645]<br>680812 |
| Reducer Ratio                                                                        |                       |                   |                   |                    |                    |                    |                    |
|                                                                                      | 29.00                 | 42.33             | 49.90             | 57.17              | 66.52              | 73.30              | 82.61              |

### Features

- KH107 Gear Reducer with Brake-motor
- Double Extended Camshaft (Input shaft)
- Center Thru Hole (Ø278 mm [Ø10.94 in])
- Cycle Cam & limit Switch
- Right Hand Cam

### Optional Accessories

- Left Hand Cam
- Relief in Dwell for Shot-Pin applications
- Dual Cam & limit Switch
- KH127 Gear Reducer with Brake-motor
- Stationary Center Post
- Visual Disk Dwell Indicator

### Output Load Capacity (loads carried during index):

|              |                             |
|--------------|-----------------------------|
| Radial       | 262556 N [59025 lbs]        |
| Thrust/Axial | 380189 N [85470 lbs]        |
| Moment       | 165968 N-m [1469000 in-lbs] |

### Typical Application

**Dial Diameter:** 2286 mm to 4572 mm [90 in to 180 in]

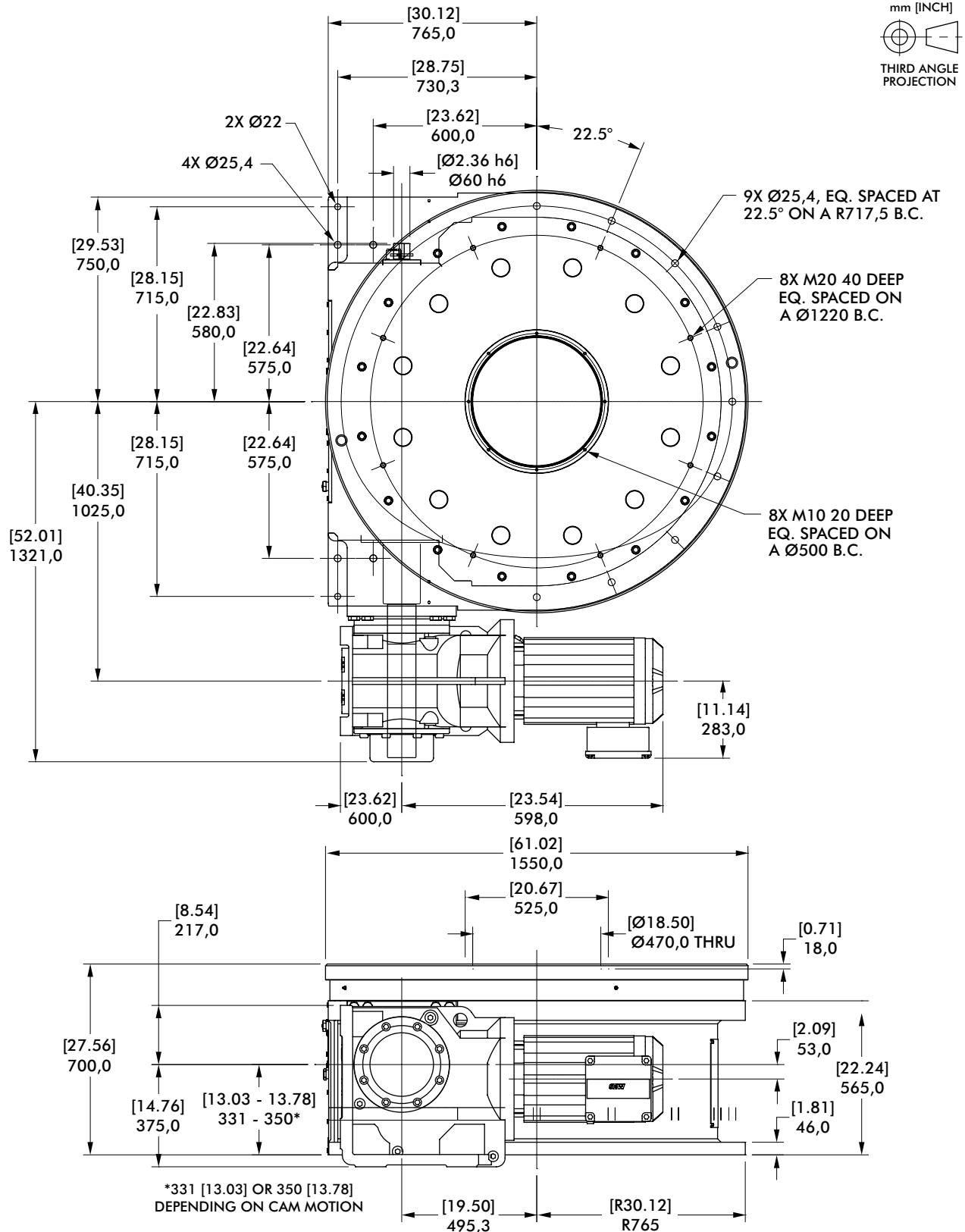
**Accuracy** ±16 arcsec / ±0,05 mm [±.002 in]  
at 635 mm [25in] Radius

**Repeatability** ±4 arcsec / ±0,013 mm [±.0005 in]  
at 635 mm [25in] Radius



# 1550E SERIES

## Heavy Duty Index Drive | Dimensions



| Maximum Inertia x 1000 kg-cm <sup>2</sup> [lb-in <sup>2</sup> ] for standard package |                       |                    |                     |                     |                     |                       |                      |
|--------------------------------------------------------------------------------------|-----------------------|--------------------|---------------------|---------------------|---------------------|-----------------------|----------------------|
| Stops                                                                                | Motion Time [seconds] |                    |                     |                     |                     |                       |                      |
|                                                                                      | 1.23                  | 1.65               | 2.17                | 2.50                | 2.75                | 3.37                  | 3.74                 |
| 2                                                                                    | [0]<br>0              | [1926]<br>5636     | [6208]<br>18167     | [10388]<br>30399    | [13740]<br>40209    | [21944]<br>64217      | [26735]<br>78237     |
| 3                                                                                    | [1811]<br>5300        | [6814]<br>19940    | [17561]<br>51390    | [28054]<br>82097    | [36466]<br>106714   | [57057]<br>166971     | [69084]<br>202167    |
| 4                                                                                    | [4396]<br>12864       | [13172]<br>38546   | [32028]<br>93727    | [50439]<br>147605   | [65198]<br>190795   | [101324]<br>296514    | [122426]<br>358267   |
| 6                                                                                    | [11290]<br>33039      | [30132]<br>88178   | [70615]<br>206647   | [110143]<br>322322  | [141829]<br>415048  | [219391]<br>642025    | [264696]<br>774605   |
| 8                                                                                    | [22185]<br>64922      | [57289]<br>167650  | [132712]<br>388368  | [195668]<br>572602  | [235249]<br>688432  | [1034294]<br>[353436] | [436753]<br>1278112  |
| 12                                                                                   | 146334<br>[50005]     | 366888<br>[125372] | [287302]<br>840760  | 1303461<br>[445415] | 1674364<br>[572159] | 2582270<br>[882406]   | 3038949<br>[1038461] |
| 16                                                                                   | 263112<br>[89910]     | 603493<br>[206224] | 1039120<br>[355085] | 1387320<br>[474071] | 1667952<br>[569968] | 2505914<br>[856314]   | 3038949<br>[1038461] |
| Reducer Ratio                                                                        |                       |                    |                     |                     |                     |                       |                      |
|                                                                                      | 40.19                 | 54.07              | 70.95               | 81.98               | 89.89               | 110.18                | 122.48               |

### Features

- KH127 Gear Reducer with Brake-motor
- Double Extended Camshaft (Input shaft)
- Center Thru Hole (Ø470 mm [Ø18.50 in])
- Cycle Cam and Limit Switch
- Right Hand Cam

### Optional Accessories

- Left Hand Cam
- Relief in Dwell for Shot-Pin applications
- Dual Cam & limit Switch
- KH157 Gear Reducer with Brake-motor
- Stationary Center Post
- Visual Disk Dwell Indicator

### Output Load Capacity (loads carried during index):

|              |                             |
|--------------|-----------------------------|
| Radial       | 367423 N [82600 lbs]        |
| Thrust/Axial | 533786 N [120000 lbs]       |
| Moment       | 328094 N-m [2904000 in-lbs] |

### Typical Application

**Dial Diameter:** 2997 mm to 5994 mm [118 in to 236 in]

**Accuracy** ±12 arcsec / ±0,043 mm [±.0017 in]  
at 762 mm [30in] Radius

**Repeatability** ±3 arcsec / ±0,010 mm [±.0004 in]  
at 762 mm [30in] Radius

# PRECISION INDEXING SOLUTIONS

## Table of Contents

### INDEXERS

#### Servo Positioners



**GTB Series**  
Globoidal (Roller Gear)  
Servo Positioner.....IN-SRV-1



**RSD Series**  
Rotary Servo Drives.....IN-SRV-39

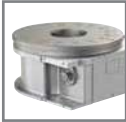
#### Mechanical Indexers



**RDM Series**  
Rotary Index Drive ..... IN-MCH-2



**RD Series**  
Roller Dial Index Drive..... IN-MCH-18



**E Series**  
Heavy-Duty Index Drive ..... IN-MCH-30



**RA Series**  
Right Angle Index Drive ..... IN-MCH-42



**RGD/RGS Series**  
Roller Gear Index Drive ..... IN-MCH-52



**P Series**  
Parallel Shaft/Flange Drive.... IN-MCH-72



**RNG Series**  
Ring Drive Dial Indexer.....IN-MCH-84

### OVERLOAD CLUTCHES



**Overload Clutches**  
Output Overload..... IN-CLU-1

### CUSTOM CAMS



**Custom Cams**  
Cam Design Solutions ..... IN-CAM-1

### CONVEYORS



**Rite-Link Series**  
Thin-Profile.....IN-CNV-1



**Precision Link Series**  
Table-Top .....IN-CNV-4



**Precision Link Series**  
Heavy-Duty ..... IN-CNV-16

### PARTS HANDLERS



**LPP Series**  
Linear Part Handlers ..... IN-PRT-2



**RPP Series**  
Rotary Part Handlers ..... IN-PRT-8

# RIGHT ANGLE INDEX DRIVES

Features | Table of Contents



## Features:

**CAMCO Right Angle Index Drives** are ideal for dial applications or actuation-type applications such as driving a linkage or in-line conveyor.

Fixed center distance between input and output

Hardened, ground barrel cam

Compact design requiring minimum use of floor space.

Preloaded “rib-centered” design with modified-sine motion provides smooth acceleration and deceleration with precision positioning.

Universal mounting available on RA models.

## Table of Contents

|                    |   |
|--------------------|---|
| How to Order ..... | 3 |
| 400RA .....        | 5 |
| 512RA .....        | 7 |
| 662RA .....        | 9 |

# RA SERIES

## Right Angle Index Drive | How to Order

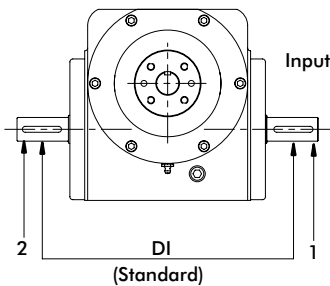
### Indexer Ordering Procedure

1. Model
2. Input Shaft Configuration
  - Side 1
  - Side 2
  - Double Input – DI (Standard)
4. Indexer Mounting Position: 1-6
5. Indexer Housing Mounting Holes: Side 1-6  
(more than one side can be selected)

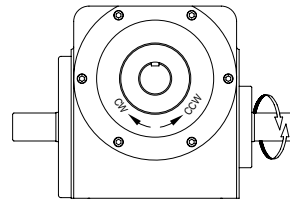
### Reducer Ordering Procedure

1. Model
2. Ratio: 5:1, 10:1, 15:1, 20:1, 25:1, 30:1, 40:1, 50:1, 60:1
3. Motor Adapter
4. Reducer Input Shaft Extension:  
Single Input (SE) or Double Input (DE)
5. Mounting (see diagram below)

### Input Shaft Configuration (Top View)



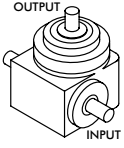
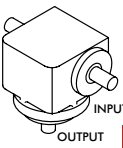
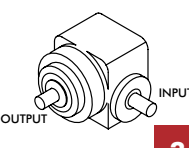
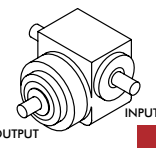
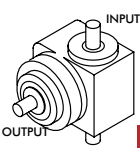
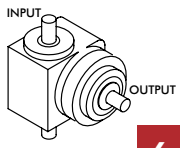
### Input Shaft Rotation



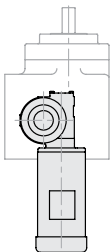
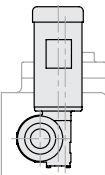
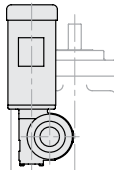
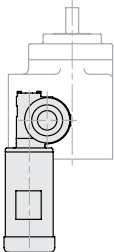
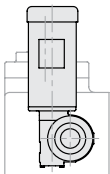
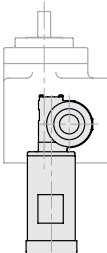
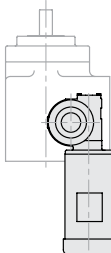
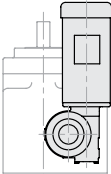
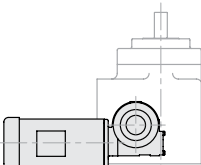
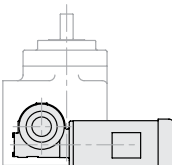
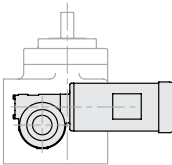
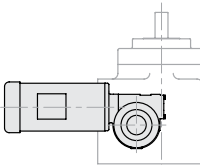
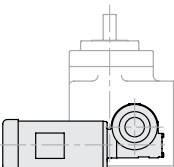
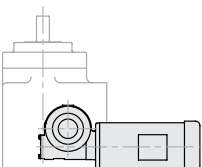
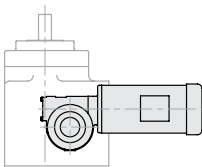
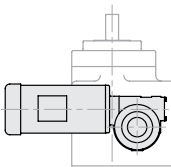
#### Relative Rotation for Right Hand Cam:

CW Input Side 1 CCW Output  
CCW Input Side 2 CCW Output

NOTE: Input can be driven in either direction

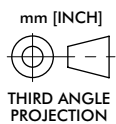
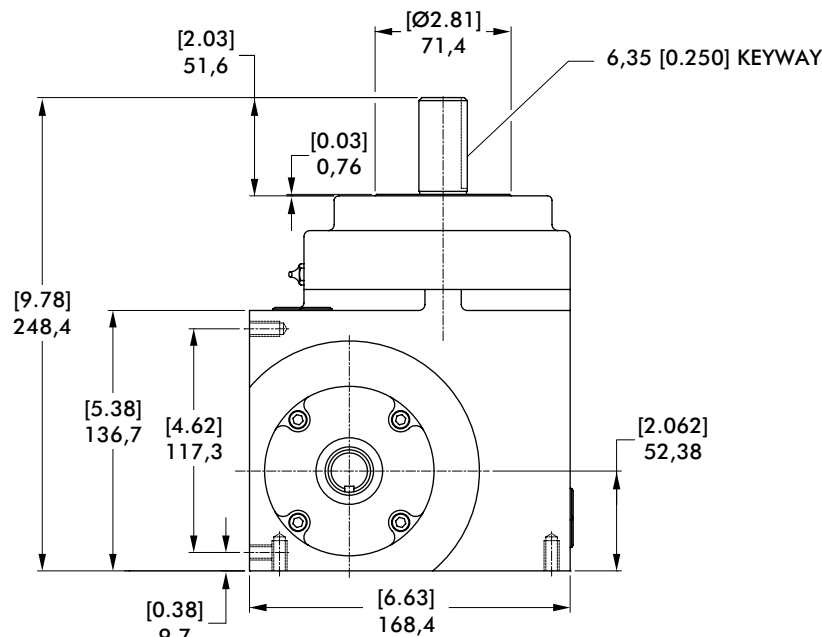
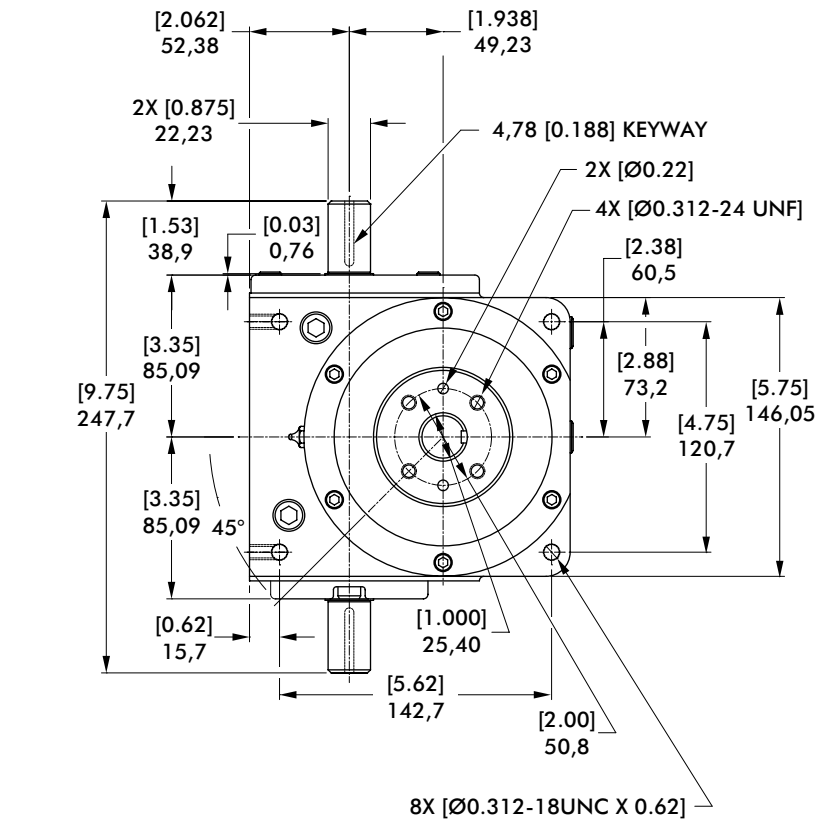
| OVOI<br>(output vertical, over input)                                                      | OVUI<br>(output vertical, under input)                                                     | OHOI<br>(output horizontal, over input)                                                    | OHUI<br>(output horizontal, under input)                                                    | H-S1-UP<br>(output horizontal, side 1 up)                                                    | H-S2-UP<br>(output horizontal, side 2 up)                                                    |
|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
|  <b>1</b> |  <b>2</b> |  <b>3</b> |  <b>4</b> |  <b>5</b> |  <b>6</b> |

## Gear Reducer Mounting Positions

| Mounting "A" |                                                                                     |                                                                                     |                                                                                      | Mounting "B"                                                                          |  |    |  |
|--------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|--|----|--|
| RH           |                                                                                     | LH                                                                                  |                                                                                      | RH                                                                                    |  | LH |  |
| SIDE 1       |    |    |    |    |  |    |  |
|              | A                                                                                   | B                                                                                   | C                                                                                    | D                                                                                     |  |    |  |
| SIDE 2       |  |  |  |  |  |    |  |
|              | E                                                                                   | F                                                                                   | G                                                                                    | H                                                                                     |  |    |  |
| Mounting "C" |                                                                                     |                                                                                     |                                                                                      | Mounting "D"                                                                          |  |    |  |
| RH           |                                                                                     | LH                                                                                  |                                                                                      | RH                                                                                    |  | LH |  |
| SIDE 1       |  |  |  |  |  |    |  |
|              | J                                                                                   | K                                                                                   | L                                                                                    | M                                                                                     |  |    |  |
| SIDE 2       |  |  |  |  |  |    |  |
|              | N                                                                                   | P                                                                                   | R                                                                                    | S                                                                                     |  |    |  |

# 400RA SERIES

## Right Angle Index Drive | Dimensions





| 400RA Indexer Capacities |              |        |                                                   |                                                              |                   |
|--------------------------|--------------|--------|---------------------------------------------------|--------------------------------------------------------------|-------------------|
| Stops                    | Index Period | Motion | B <sub>10</sub> Capacity<br>at 50 RPM N-m [in-lb] | Internal<br>Inertia kg-cm <sup>2</sup> [lb-in <sup>2</sup> ] | Model             |
| 2                        | 330          | ms     | 67 [595]                                          | 44 [15]                                                      | 400RA2H20-330     |
| 3                        | 270          | ms     | 180 [1591]                                        | 44 [15]                                                      | 400RA3H24-270     |
| 4                        | 270          | ms     | 210 [1858]                                        | 44 [15]                                                      | 400RA4H24-270     |
|                          | 180          | ms     | 237 [2098]                                        | 44 [15]                                                      | 400RA4H24-180     |
| 6                        | 270          | ms     | 193 [1711]                                        | 44 [15]                                                      | 400RA6H24-270     |
|                          | 120          | ms     | 229 [2024]                                        | 44 [15]                                                      | 400RA6H24-120     |
| 8                        | 270          | ms     | 224 [1987]                                        | 44 [15]                                                      | 400RA8H24-270     |
|                          | 120          | ms     | 266 [2354]                                        | 44 [15]                                                      | 400RA8H24-120     |
| 12                       | 270          | ms     | 146 [1290]                                        | 44 [15]                                                      | 400RA12H20-270    |
|                          | 120          | ms     | 177 [1568]                                        | 44 [15]                                                      | 400RA12H20-120    |
| 16                       | 270          | ms     | 161 [1426]                                        | 44 [15]                                                      | 400RA16H20-270 II |
|                          | 180          | ms     | 333 [2947]                                        | 44 [15]                                                      | 400RA16H24-180 II |
| 24                       | 270          | ms     | 185 [1640]                                        | 44 [15]                                                      | 400RA24H20-270 II |
|                          | 180          | ms     | 214 [1894]                                        | 44 [15]                                                      | 400RA24H20-180 II |

Other Motions (stops and index periods) available. Contact your DESTACO sales representative for more information.

### Features

- R180 Reducer (ratios from 15:1 to 60:1)
  - Double Extended Worm Shaft (Input)
  - Worm Shaft Handwheel
- Double Extended Camshaft (Input Shaft)
- 1/3 HP AC Drive Package with Inverter Duty Motor and IM-pAC AC Drive (up to 60 cpm)
- Cycle Cam and Limit Switch Mounted to Camshaft
- Right Hand Cam

### Output Load Capacity (loads carried during index):

Radial 3603 N [810 lbs]  
 Thrust/Axial 6254 N [1406 lbs]  
 Moment 183 N-m [1620 in-lb]

**Accuracy** ±48 arcsec / ±0,178 mm [±.0007 in]  
 at 76,2 [3 in] Radius

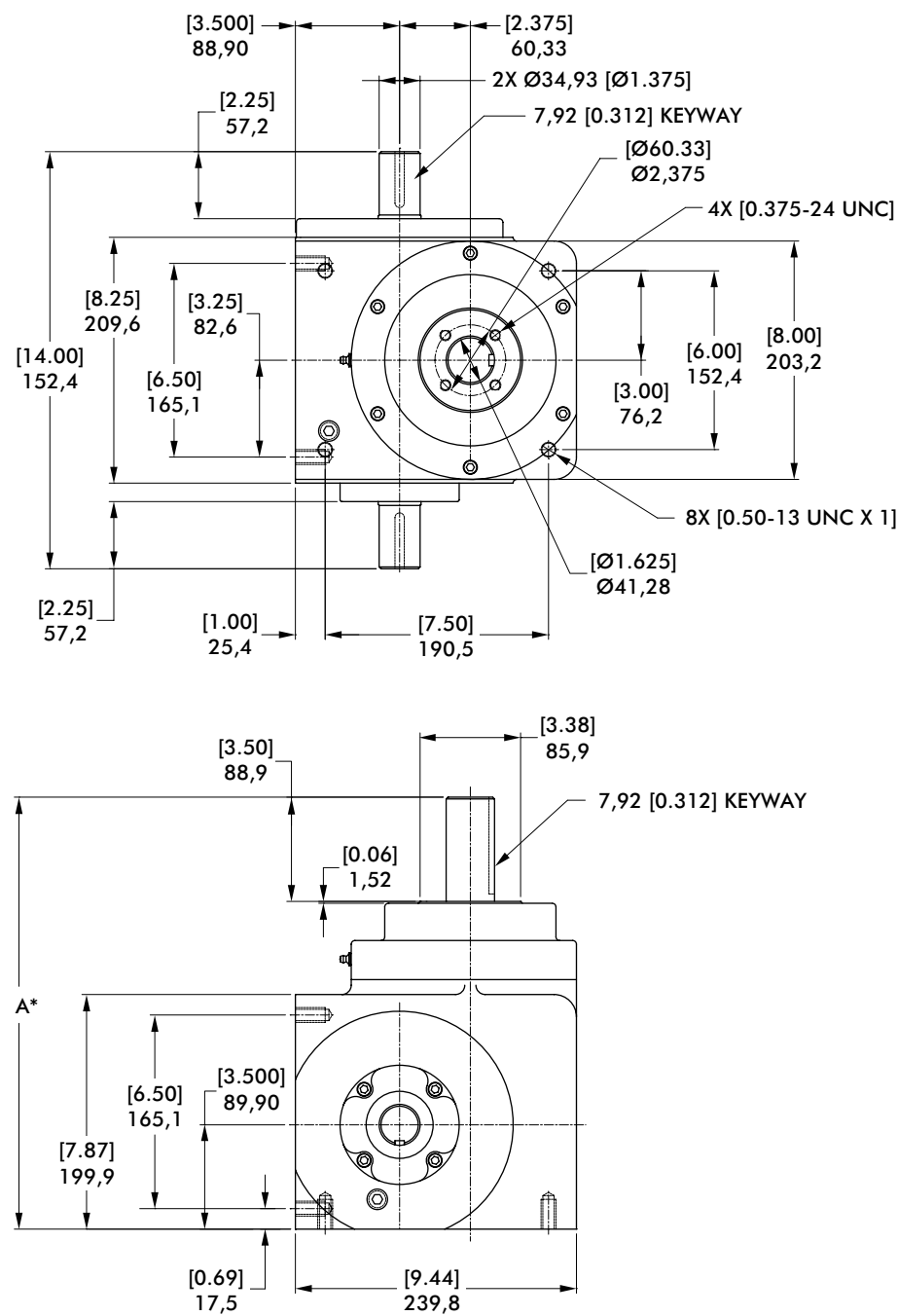
**Repeatability** ±12 arcsec / ± 0,051 mm [±.0002 in]  
 at 76,2 [3 in] Radius

### Optional Accessories

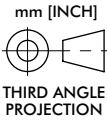
- 1/3 hp DC motor
- R225 Reducer (ratios from 10:1 to 60:1)
  - 1 hp DC Motor
  - 56C Motor Adapter and Coupling
- Varipak DC Motor Control (up to 30 cpm)
- Output Overload Clutch Models: 2.3F, 2.3FC, 2.3S, 2.3C, 2.3FC-SD, 2.3S-SD, 2.3C-SD
  - Available Settings (in-lb): 400, 600, 700, 850, 1000, 1300, 1800, 2000, 2300
- Dual Cycle Cam and Limit Switch
- Finished cover for ceiling mount or tooling plate mounting
- Left Hand Cam
- Relief in Dwell for shot-pin applications

# 512RA SERIES

## Right Angle Index Drive | Dimensions



\*See table on top of page 8 for dimensions



| 512RA Indexer Capacities |              |        |                                                   |                                                              |                        |               |
|--------------------------|--------------|--------|---------------------------------------------------|--------------------------------------------------------------|------------------------|---------------|
| Stops                    | Index Period | Motion | B <sub>10</sub> Capacity at 50 RPM<br>N-m [in-lb] | Internal Inertia<br>kg-cm <sup>2</sup> [lb-in <sup>2</sup> ] | Model                  | A             |
| 2                        | 270          | msc.33 | 233 [2061]                                        | 132 [45]                                                     | 512RA2H32-270 MSC.33   | 379,2 [14.93] |
| 3                        | 270          | ms     | 267 [2360]                                        | 132 [45]                                                     | 512RA3H32-270          | 368,3 [14.50] |
|                          | 180          | msc.33 | 322 [2852]                                        | 132 [45]                                                     | 512RA3H32-180 MSC 0.33 | 379,2 [14.93] |
| 4                        | 270          | ms     | 306 [2710]                                        | 132 [45]                                                     | 512RA4H32-270          | 368,3 [14.50] |
|                          | 120          | msc.33 | 412 [3648]                                        | 132 [45]                                                     | 512RA4H32-120 MSC 0.33 | 379,2 [14.93] |
| 6                        | 270          | ms     | 295 [2613]                                        | 132 [45]                                                     | 512RA6H32-270          | 368,3 [14.50] |
|                          | 120          | ms     | 359 [3179]                                        | 132 [45]                                                     | 512RA6H32-120          | 368,3 [14.50] |
| 8                        | 270          | ms     | 358 [3172]                                        | 132 [45]                                                     | 512RA8H32-270          | 368,3 [14.50] |
|                          | 120          | ms     | 430 [3802]                                        | 132 [45]                                                     | 512RA8H32-120          | 368,3 [14.50] |
| 12                       | 270          | ms     | 309 [2738]                                        | 132 [45]                                                     | 512RA12H28-270         | 368,3 [14.50] |
|                          | 120          | ms     | 359 [3176]                                        | 132 [45]                                                     | 512RA12H28-120         | 379,2 [14.93] |

Other Motions (stops and index periods) available. Contact your DESTACO sales representative for more information.

### Features

- R225 Reducer (ratios from 10:1 to 60:1)  
– 56C Motor Adapter and Coupling
- Double Extended Camshaft (Input Shaft)
- 1 HP AC Drive Package with Inverter Duty Motor and Inverter Drive (up to 60 cpm)
- Cycle Cam and Limit Switch Mounted to Camshaft
- Right Hand Cam

### Output Load Capacity (loads carried during index):

|              |                       |
|--------------|-----------------------|
| Radial       | 8834 N [1,986 lbs]    |
| Thrust/Axial | 10129 N [2,277 lbs]   |
| Moment       | 785 N-m [6,951 in-lb] |

### Accuracy

±37 arcsec / ±0,028 mm [±.0011 in]  
at 152,4 [6 in] Radius

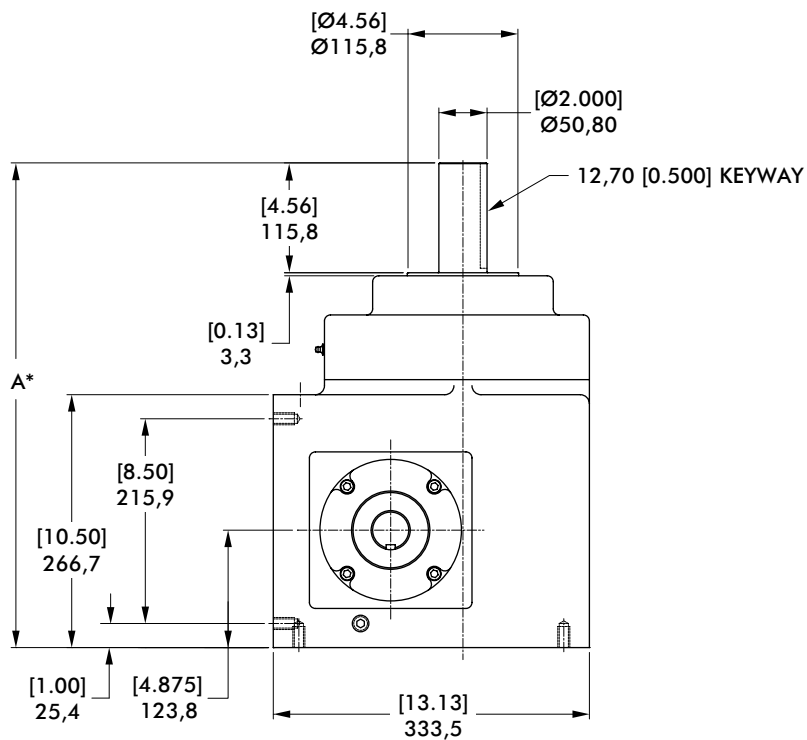
### Repeatability

±9 arcsec / ± 0,008 mm [±.0003 in]  
at 152,4 [6 in] Radius

### Optional Accessories

- 1 hp DC motor
- Varipak DC Motor Control (up to 30 cpm)
- Output Overload Clutch Models: 6.0F, 6.0FC, 6.0S and 6.0C, 6.0C-SD, 6.0FC-SD, 6.0S-SD  
– Available Settings (in-lb): 670, 825, 1100, 1400, 1700, 2000, 2300, 2500, 3000, 3800, 4000, 5000, 6000
- Dual Cycle Cam and Limit Switch
- Finished cover for ceiling mount or tooling plate mounting
- Left Hand Cam
- Relief in Dwell for shot-pin applications

## Right Angle Index Drive | Dimensions



mm [INCH]



THIRD ANGLE  
PROJECTION

| 512RA Indexer Capacities |              |        |                                                  |                                                              |                        |               |
|--------------------------|--------------|--------|--------------------------------------------------|--------------------------------------------------------------|------------------------|---------------|
| Stops                    | Index Period | Motion | B <sub>0</sub> Capacity at 50 RPM<br>N-m [in-lb] | Internal Inertia<br>kg-cm <sup>2</sup> [lb-in <sup>2</sup> ] | Model                  | A             |
| 2                        | 270          | msc.33 | 738 [6534]                                       | 503 [172]                                                    | 512RA2H32-270 MSC.33   | 379,2 [14.93] |
| 3                        | 270          | ms     | 668 [5913]                                       | 495 [169]                                                    | 512RA3H32-270          | 368,3 [14.50] |
|                          | 180          | msc.33 | 694 [6146]                                       | 495 [169]                                                    | 512RA3H32-180 MSC 0.33 | 379,2 [14.93] |
| 4                        | 270          | ms     | 780 [6903]                                       | 503 [172]                                                    | 512RA4H32-270          | 368,3 [14.50] |
|                          | 120          | msc.33 | 876 [7751]                                       | 503 [172]                                                    | 512RA4H32-120 MSC 0.33 | 379,2 [14.93] |
| 6                        | 270          | ms     | 648 [5734]                                       | 495 [169]                                                    | 512RA6H32-270          | 368,3 [14.50] |
|                          | 120          | ms     | 853 [7551]                                       | 495 [169]                                                    | 512RA6H32-120          | 368,3 [14.50] |
| 8                        | 270          | ms     | 812 [7187]                                       | 503 [172]                                                    | 512RA8H32-270          | 368,3 [14.50] |
|                          | 120          | ms     | 1015 [8987]                                      | 503 [172]                                                    | 512RA8H32-120          | 368,3 [14.50] |
| 12                       | 270          | ms     | 509 [4504]                                       | 483 [165]                                                    | 512RA12H28-270         | 368,3 [14.50] |
|                          | 120          | ms     | 625 [5536]                                       | 483 [165]                                                    | 512RA12H28-120         | 379,2 [14.93] |

Other Motions (stops and index periods) available. Contact your DESTACO sales representative for more information.

### Features

- 7300C Reducer (ratios from 5:1 to 60:1)
  - Motor Adapter and Coupling
- Double Extended Camshaft (Input Shaft)
- 1 or 2 HP AC Drive Package with Inverter Duty Motor and Inverter Drive (up to 60 cpm)
- Varipak DC Motor Control (up to 30 cpm)
- Cycle Cam and Limit Switch Mounted to Camshaft
- Right Hand Cam

### Output Load Capacity (loads carried during index):

|              |                      |
|--------------|----------------------|
| Radial       | 12642 N [2842 lbs]   |
| Thrust/Axial | 23304 N [5239 lbs]   |
| Moment       | 334 N-m [2959 in-lb] |

### Accuracy

±36 arcsec / ±0,025 mm [±.001 in]  
at 152,4 [6 in] Radius

### Repeatability

±9 arcsec / ± 0,008 mm [±.0003 in]  
at 152,4 [6 in] Radius

### Optional Accessories

- 1 hp DC motor
- 7350C Reducer (ratios from 5:1 to 60:1)
  - Motor Adapter and Coupling
- 2 hp DC Motor with Varipak DC Motor Control (up to 30 cpm)
- Output Overload Clutch Models: 11F, 11FC, 11FC-SD
  - Available Settings (in-lb): 2300, 4000, 6000, 8500, 11,000
- Dual Cycle Cam and Limit Switch
- Finished cover for ceiling mount or tooling plate mounting
- Left Hand Cam
- Relief in Dwell for shot-pin applications

# PRECISION INDEXING SOLUTIONS

## Table of Contents

### INDEXERS

#### Servo Positioners



**GTB Series**  
Globoidal (Roller Gear)  
Servo Positioner.....IN-SRV-1



**RSD Series**  
Rotary Servo Drives.....IN-SRV-39

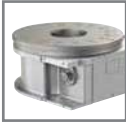
#### Mechanical Indexers



**RDM Series**  
Rotary Index Drive ..... IN-MCH-2



**RD Series**  
Roller Dial Index Drive..... IN-MCH-18



**E Series**  
Heavy-Duty Index Drive ..... IN-MCH-30



**RA Series**  
Right Angle Index Drive ..... IN-MCH-42



**RGD/RGS Series**  
Roller Gear Index Drive ..... IN-MCH-52



**P Series**  
Parallel Shaft/Flange Drive.... IN-MCH-72



**RNG Series**  
Ring Drive Dial Indexer.....IN-MCH-84

### OVERLOAD CLUTCHES



**Overload Clutches**  
Output Overload..... IN-CLU-1

### CUSTOM CAMS



**Custom Cams**  
Cam Design Solutions ..... IN-CAM-1

### CONVEYORS



**Rite-Link Series**  
Thin-Profile.....IN-CNV-1



**Precision Link Series**  
Table-Top .....IN-CNV-4



**Precision Link Series**  
Heavy-Duty ..... IN-CNV-16

### PARTS HANDLERS



**LPP Series**  
Linear Part Handlers ..... IN-PRT-2



**RPP Series**  
Rotary Part Handlers ..... IN-PRT-8

# ROLLER GEAR INDEX DRIVE

Precision Indexing | Table of Contents



## Features:

The **CAMCO Roller Gear Index Drives** are robust, versatile units suitable for a wide variety of applications.

Available with a flange (RGD) or shaft (RGS) output

All six surfaces are machined for universal mounting

Optional center thru-hole in flange version facilitates passage of electrical wiring, pneumatic lines or mechanical linkages

Short camshaft motion periods, due to oversized cam design, are well suited for continuous running applications or for special motion requirements such as oscillating motions

## Table of Contents

|                     |    |
|---------------------|----|
| How to Order .....  | 3  |
| 40RGD/40RGS .....   | 5  |
| 50RGD/50RGS .....   | 7  |
| 70RGD/70RGS .....   | 9  |
| 80RGD/80RGS .....   | 11 |
| 110RGD/110RGS ..... | 13 |
| 350RGD/350RGS ..... | 15 |
| 500RGD/500RGS ..... | 17 |
| 600RGD/600RGS ..... | 19 |



# RGD/RGS SERIES

## Roller Gear Index Drive | How To Order

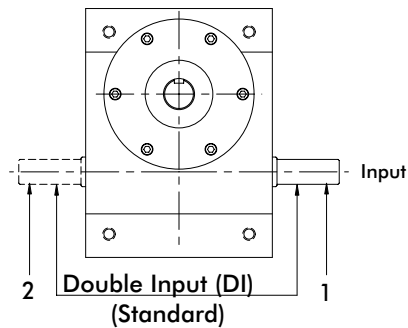
### Indexer Ordering Procedure

1. Model
  2. Input Shaft Configuration
    - Side 1
    - Side 2
    - Double Input – DI (Standard)
  3. Cam Lead (Helix)
    - Right Hand (Standard)
    - Left Hand
- NOTE: Input may rotate in either direction to achieve desired direction of output rotation.
4. Indexer Mounting Position: 1-6
  5. Indexer Housing Mounting Holes: Side 1-6 (more than one side can be selected)

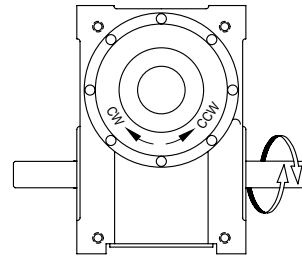
### Reducer Ordering Procedure

1. Model
2. Ratio
  - 10:1, 15:1, 20:1, 25:1, 30:1, 40:1, 50:1, 60:1
3. Motor Adapter
4. Reducer Input Shaft Extension
  - Single Input (SE) or Double Input (DE)
5. Mounting
  - Mounting Position A, B, C, or D
  - Mounted on Indexer Side 1 or Side 2
6. Input Shaft Orientation
  - Left or Right (See Diagram Below)

### Input Shaft Configuration (Top View)



### Input Shaft Rotation

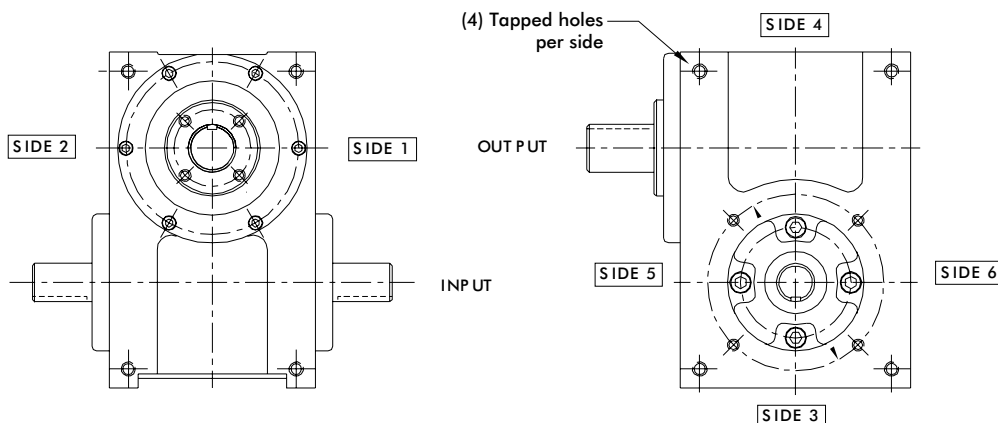


#### Relative Rotation for Right Hand Cam:

CW Input Side 1 CCW Output  
CCW Input Side 2 CCW Output

NOTE: Input can be driven in either direction

### Indexer Housing Mounting Holes

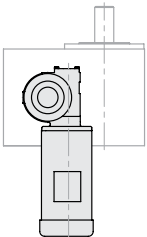
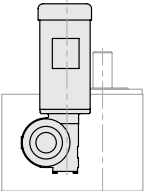
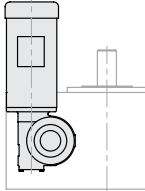
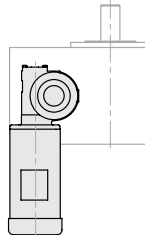
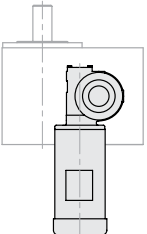
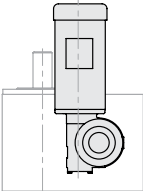
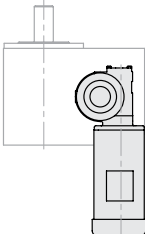
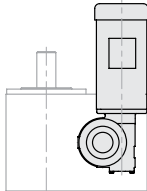
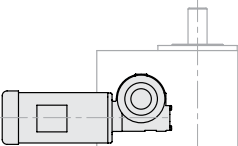
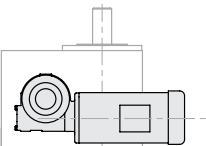
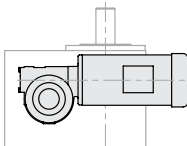
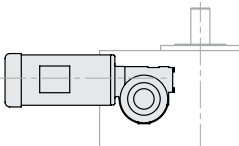
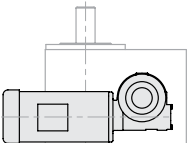
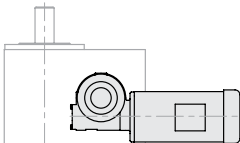
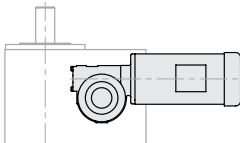
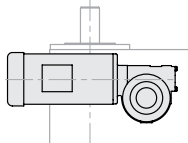


# RGD/RGS SERIES

## Roller Gear Index Drive | Indexer Mounting Position

| OVUI<br>(output vertical,<br>over input) | OVUI<br>(output vertical,<br>under input) | OHOI<br>(output horizontal,<br>over input) | OHUI<br>(output horizontal,<br>under input) | H-S1-UP<br>(output horizontal,<br>side 1 up) | H-S2-UP<br>(output horizontal,<br>side 2 up) |
|------------------------------------------|-------------------------------------------|--------------------------------------------|---------------------------------------------|----------------------------------------------|----------------------------------------------|
| <br>1                                    | <br>2                                     | <br>3                                      | <br>4                                       | <br>5                                        | <br>6                                        |

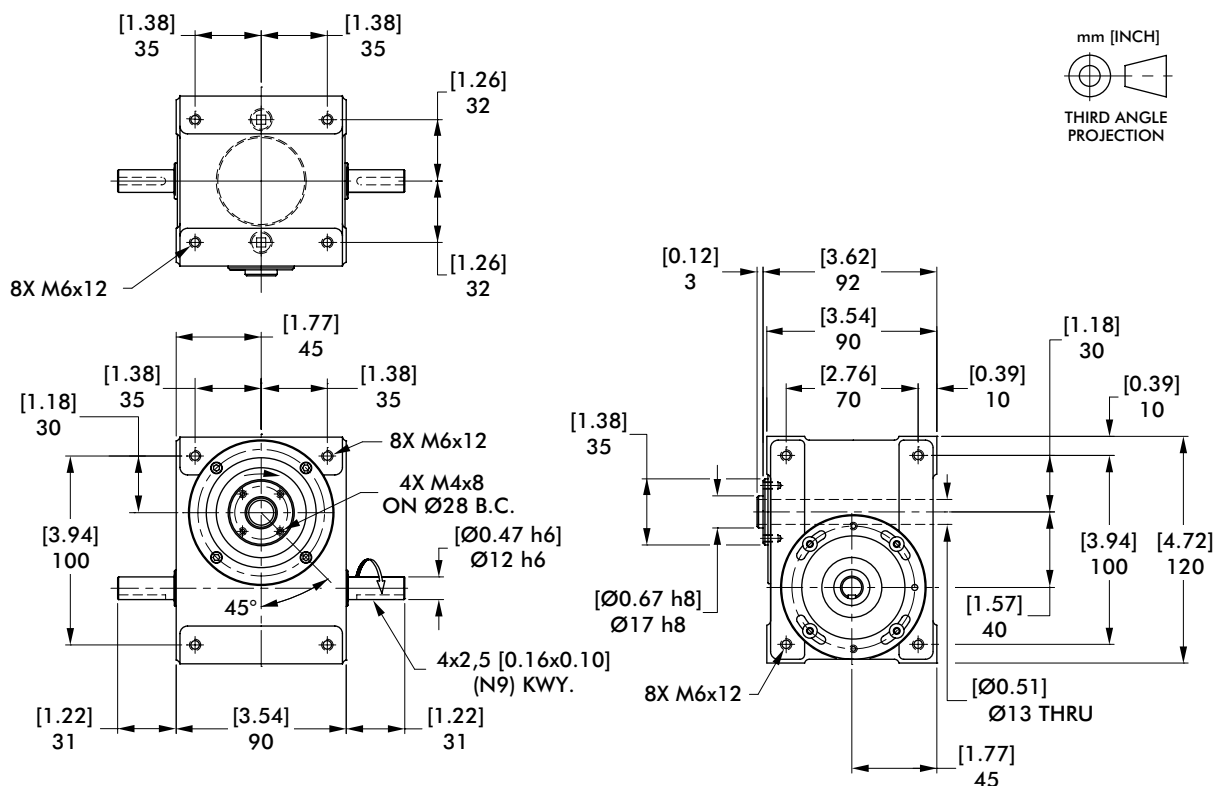
Gear Reducer Mounting Positions (Figure 4)

| Mounting "A" |                                                                                     |                                                                                     |                                                                                      | Mounting "B"                                                                          |  |    |  |
|--------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|--|----|--|
| RH           |                                                                                     | LH                                                                                  |                                                                                      | RH                                                                                    |  | LH |  |
| SIDE 1       |    |    |    |    |  |    |  |
|              | A                                                                                   | B                                                                                   | C                                                                                    | D                                                                                     |  |    |  |
| SIDE 2       |  |  |  |  |  |    |  |
|              | E                                                                                   | F                                                                                   | G                                                                                    | H                                                                                     |  |    |  |
| Mounting "C" |                                                                                     |                                                                                     |                                                                                      | Mounting "D"                                                                          |  |    |  |
| RH           |                                                                                     | LH                                                                                  |                                                                                      | RH                                                                                    |  | LH |  |
| SIDE 1       |  |  |  |  |  |    |  |
|              | J                                                                                   | K                                                                                   | L                                                                                    | M                                                                                     |  |    |  |
| SIDE 2       |  |  |  |  |  |    |  |
|              | N                                                                                   | P                                                                                   | R                                                                                    | S                                                                                     |  |    |  |

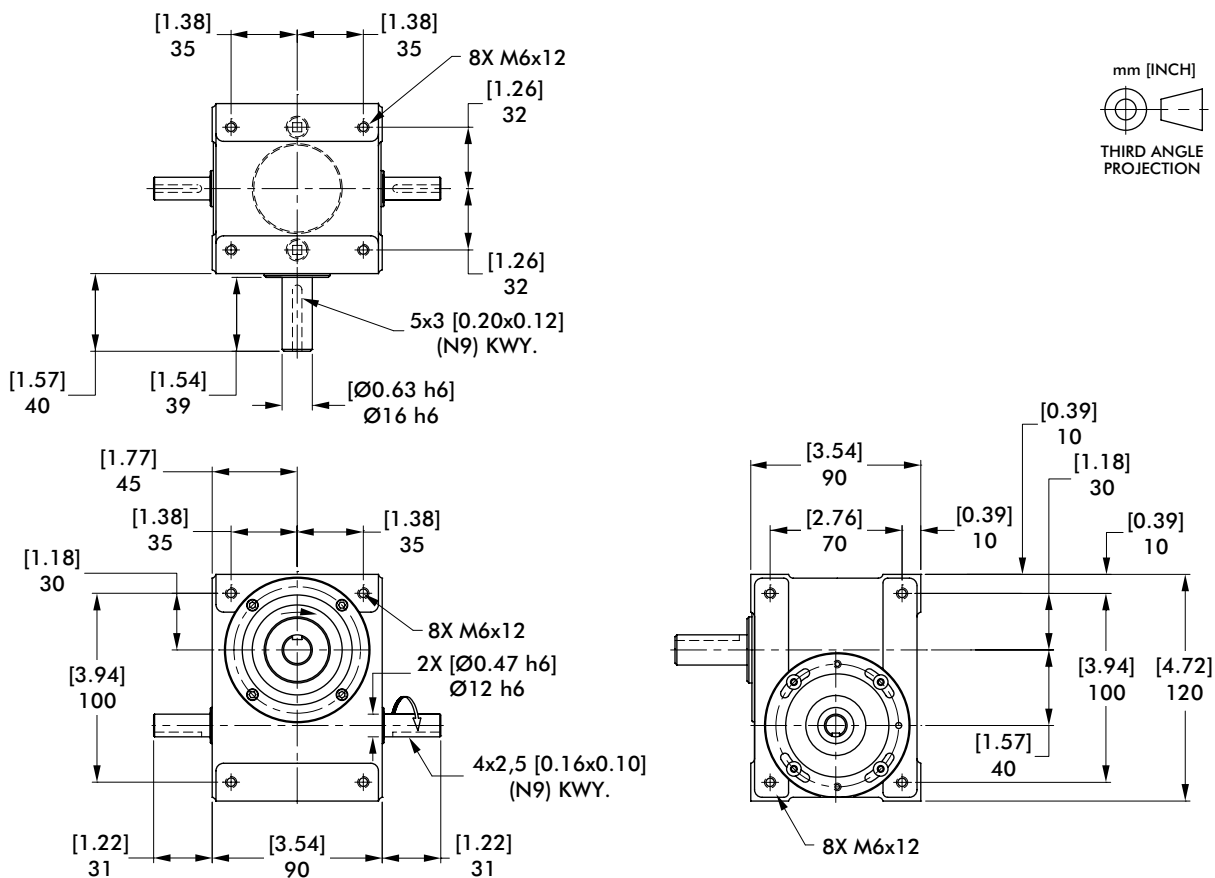
# 40RGD/40RGS SERIES

## Roller Gear Index Drive | Dimensions

### 40RGD



### 40RGS



# 40RGD/40RGS SERIES

Roller Gear Index Drive | Features | Optional Accessories | Technical Information

| 40RGD/40RGS Indexer Capacities |              |        |                                               |                                                               |                                                               |                        |
|--------------------------------|--------------|--------|-----------------------------------------------|---------------------------------------------------------------|---------------------------------------------------------------|------------------------|
| Stops                          | Index Period | Motion | B <sub>0</sub> Capacity at 50 RPM N-m [in-lb] | RGD Internal Inertia kg-cm <sup>2</sup> [lb-in <sup>2</sup> ] | RGS Internal Inertia kg-cm <sup>2</sup> [lb-in <sup>2</sup> ] | Model                  |
| 2                              | 270          | ms     | 17 [150]                                      | 0,9 [0.3]                                                     | 1,2 [0.4]                                                     | 40RG(D/S)2H12-270      |
| 3                              | 270          | ms     | 21 [187]                                      | 0,9 [0.3]                                                     | 1,2 [0.4]                                                     | 40RG(D/S)3H12-270      |
| 4                              | 270          | ms     | 24 [214]                                      | 1,2 [0.4]                                                     | 1,2 [0.4]                                                     | 40RG(D/S)4H12-270      |
|                                | 180          | ms     | 25 [225]                                      | 1,2 [0.4]                                                     | 1,2 [0.4]                                                     | 40RG(D/S)4H12-180      |
| 6                              | 270          | ms     | 22 [193]                                      | 0,9 [0.3]                                                     | 1,2 [0.4]                                                     | 40RG(D/S)6H12-270      |
|                                | 90           | ms     | 24 [216]                                      | 0,9 [0.3]                                                     | 1,2 [0.4]                                                     | 40RG(D/S)6H12-90       |
| 8                              | 270          | ms     | 24 [216]                                      | 1,2 [0.4]                                                     | 1,2 [0.4]                                                     | 40RG(D/S)8H12-270      |
|                                | 90           | ms     | 28 [249]                                      | 1,2 [0.4]                                                     | 1,2 [0.4]                                                     | 40RG(D/S)8H12-90       |
| 12                             | 270          | ms     | 14 [124]                                      | 0,9 [0.3]                                                     | 1,2 [0.4]                                                     | 40RG(D/S)12H9-270      |
|                                | 90           | ms     | 16 [139]                                      | 0,9 [0.3]                                                     | 1,2 [0.4]                                                     | 40RG(D/S)12H9-90       |
| 16                             | 270          | ms     | 29 [254]                                      | 1,2 [0.4]                                                     | 1,2 [0.4]                                                     | 40RG(D/S)16H12-270 II  |
|                                | 120          | ms     | 35 [312]                                      | 1,2 [0.4]                                                     | 1,2 [0.4]                                                     | 40RG(D/S)16H12-120 II  |
| 24                             | 180          | ms     | 20 [173]                                      | 0,9 [0.3]                                                     | 1,2 [0.4]                                                     | 40RG(D/S)24H9-180 II   |
|                                | 120          | ms     | 37 [326]                                      | 0,9 [0.3]                                                     | 1,2 [0.4]                                                     | 40RG(D/S)24H12-120 III |

Other Motions (stops and index periods) available. Contact your DESTACO sales representative for more information.

## Features

- Fully Metric
- Universal Mounting: mounting holes on any of 6 sides
- Center Through Hole (Ø13 mm [Ø.50 in]) in RGD model.
- Right Hand Cam

## Optional Accessories

- STM RMI28 Gear Reducer (ratios from 7:1 to 100:1) with
  - IEC56B14 Motor Adapter
  - 1/12 HP AC Motor and Inverter Drive (up to 60 cpm)
- Single or Dual Cycle Cam and Limit Switch
- Left Hand Cam
- Relief in Dwell for shot-pin applications

## Output Load Capacity (loads carried during index):

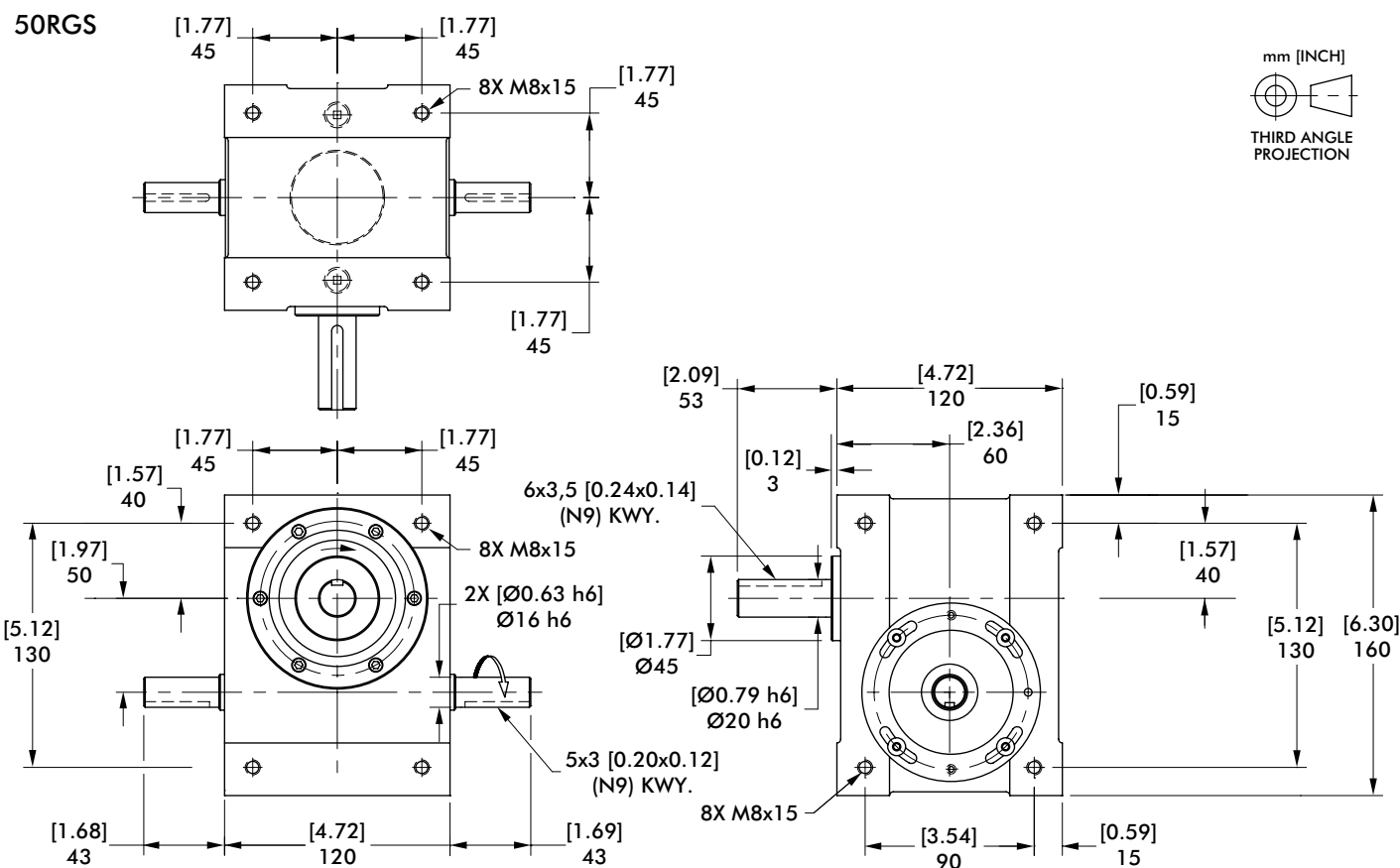
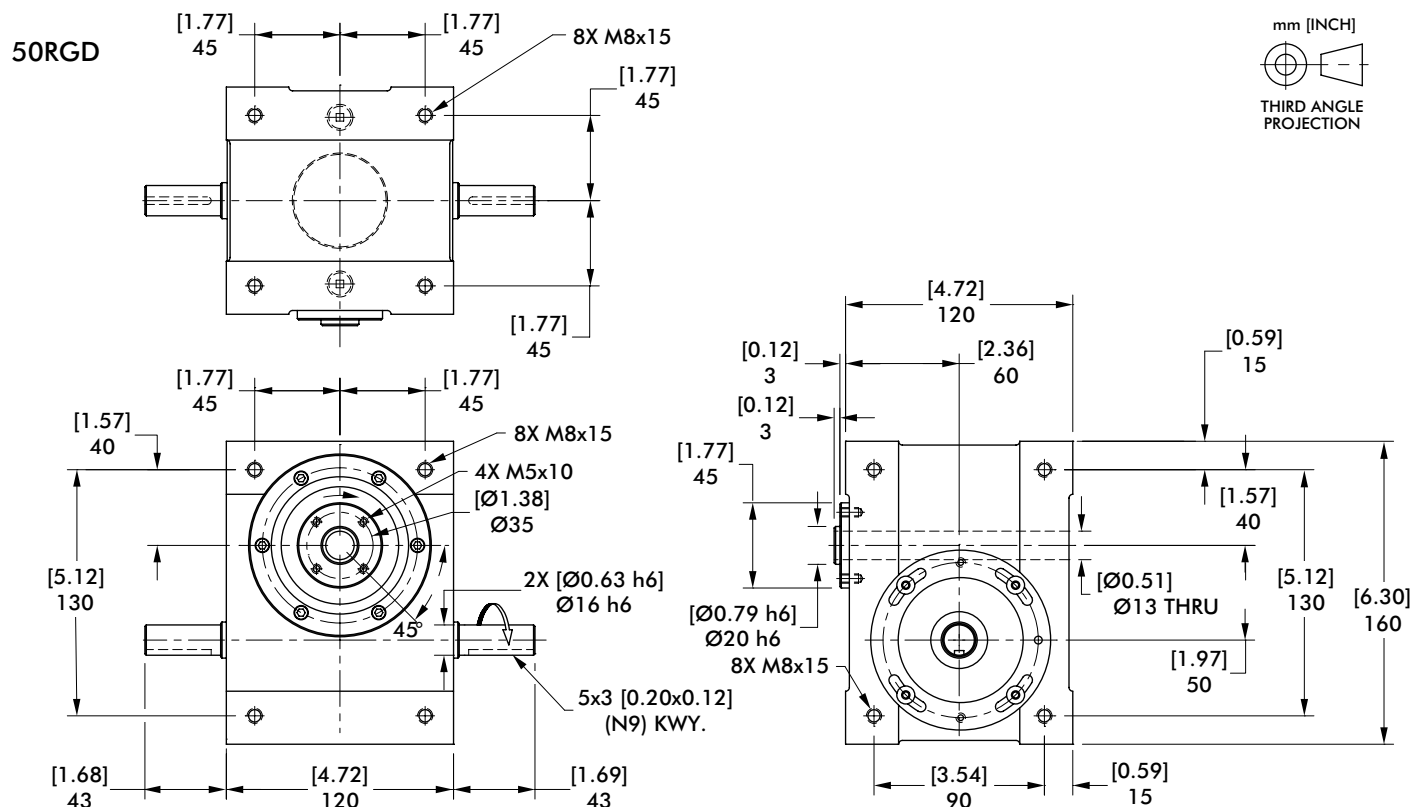
|              | RGD                | RGS                |
|--------------|--------------------|--------------------|
| Radial       | 4924 N [1107 lbs]  | 916 N [206 lbs]    |
| Thrust/Axial | 3519 N [791 lbs]   | 2189 N [492 lbs]   |
| Moment       | 86 N-m [762 in-lb] | 46 N-m [405 in-lb] |

**Accuracy** ±90 arcsec / ±0,033 mm [±.0013 in] at 76,2 mm [3 in] Radius

**Repeatability** ±22 arcsec / ±0,008 mm [±.0003 in] at 76,2 mm [3 in] Radius

# 50RGD/50RGS SERIES

## Roller Gear Index Drive | Dimensions



# 50RGD/50RGS SERIES

Roller Gear Index Drive | Features | Optional Accessories | Technical Information

| 40RGD/40RGS Indexer Capacities |              |        |                                               |                                                               |                                                               |                       |
|--------------------------------|--------------|--------|-----------------------------------------------|---------------------------------------------------------------|---------------------------------------------------------------|-----------------------|
| Stops                          | Index Period | Motion | B <sub>0</sub> Capacity at 50 RPM N-m [in-lb] | RGD Internal Inertia kg-cm <sup>2</sup> [lb-in <sup>2</sup> ] | RGS Internal Inertia kg-cm <sup>2</sup> [lb-in <sup>2</sup> ] | Model                 |
| 2                              | 270          | msc.50 | 70 [621]                                      | 4,1 [1.4]                                                     | 4,7 [1.6]                                                     | 50RG(D/S)2H18-270     |
| 3                              | 270          | ms     | 32 [287]                                      | 3,8 [1.3]                                                     | 4,4 [1.5]                                                     | 50RG(D/S)3H14-270     |
|                                | 180          | ms     | 34 [300]                                      | 3,8 [1.3]                                                     | 4,4 [1.5]                                                     | 50RG(D/S)3H14-180     |
| 4                              | 270          | ms     | 37 [326]                                      | 4,1 [1.4]                                                     | 4,4 [1.5]                                                     | 50RG(D/S)4H14-270     |
|                                | 180          | ms     | 40 [351]                                      | 4,1 [1.4]                                                     | 4,4 [1.5]                                                     | 50RG(D/S)4H14-180     |
| 6                              | 270          | ms     | 68 [606]                                      | 4,1 [1.4]                                                     | 4,7 [1.6]                                                     | 50RG(D/S)6H18-270     |
|                                | 90           | ms     | 83 [734]                                      | 4,1 [1.4]                                                     | 4,7 [1.6]                                                     | 50RG(D/S)6H18-90      |
| 8                              | 270          | ms     | 38 [336]                                      | 4,1 [1.4]                                                     | 4,4 [1.5]                                                     | 50RG(D/S)8H14-270     |
|                                | 90           | ms     | 46 [403]                                      | 4,1 [1.4]                                                     | 4,4 [1.5]                                                     | 50RG(D/S)8H14-90      |
| 12                             | 270          | ms     | 31 [275]                                      | 4,1 [1.4]                                                     | 4,4 [1.5]                                                     | 50RG(D/S)12H12-270    |
|                                | 90           | ms     | 37 [329]                                      | 4,1 [1.4]                                                     | 4,4 [1.5]                                                     | 50RG(D/S)12H12-90     |
| 16                             | 180          | ms     | 51 [447]                                      | 4,1 [1.4]                                                     | 4,4 [1.5]                                                     | 50RG(D/S)16H14-180 II |
| 24                             | 180          | ms     | 42 [374]                                      | 4,1 [1.4]                                                     | 4,4 [1.5]                                                     | 50RG(D/S)24H12-180 II |
|                                | 120          | ms     | 46 [409]                                      | 4,1 [1.4]                                                     | 4,4 [1.5]                                                     | 50RG(D/S)24H12-120 II |

Other Motions (stops and index periods) available. Contact your DESTACO sales representative for more information.

## Features

- Fully Metric
- Universal Mounting: mounting holes on any of 6 sides
- Center Through Hole (Ø15 mm [Ø.59 in]) in RGD model.
- Right Hand Cam

## Output Load Capacity (loads carried during index):

|              | RGD                  | RGS                |
|--------------|----------------------|--------------------|
| Radial       | 7896 N [1775 lbs]    | 1686 N [379 lbs]   |
| Thrust/Axial | 4115 N [925 lbs]     | 2424 N [545 lbs]   |
| Moment       | 178 N-m [1572 in-lb] | 89 N-m [791 in-lb] |

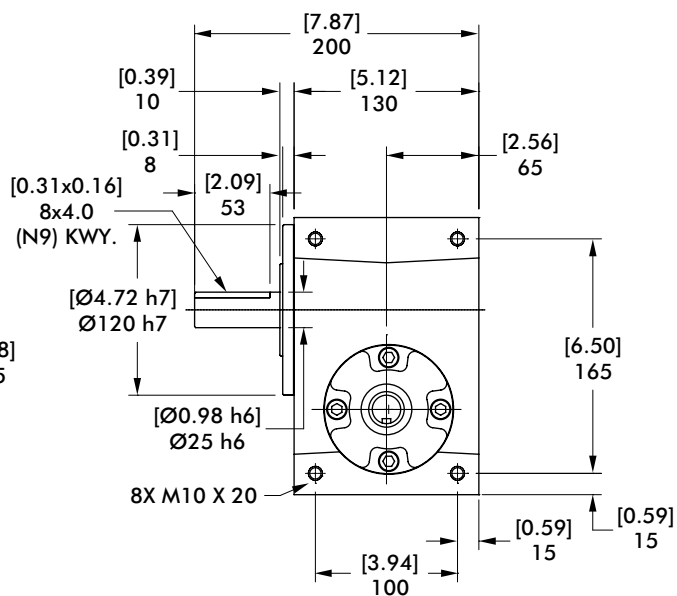
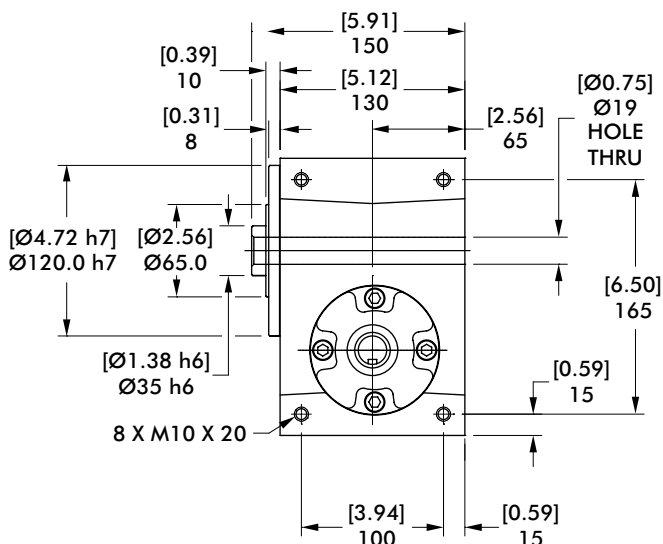
**Accuracy** ±73 arcsec / ±0,028 mm [±.0011 in] at 76,2 mm [3 in] Radius

**Repeatability** ±18 arcsec / ±0,008 mm [±.0003 in] at 76,2 mm [3 in] Radius

## Optional Accessories

- R180 Reducer (Ratios from 15:1 to 60:1)
  - Double Extended Worm Shaft (Input)
  - Worm Shaft Handwheel
- 1/3 HP AC Drive Package with Inverter Duty Motor and IM-pAC AC Drive (up to 60 cpm)
- Cycle Cam and Limit Switch Mounted to Camshaft
- Right Hand Cam
- Universal Mounting Capability

## Roller Gear Index Drive | Dimensions

[illegible]



# 70RGD/70RGS SERIES

Roller Gear Index Drive | Features | Optional Accessories | Technical Information

| 40RGD/40RGS Indexer Capacities |              |        |                                               |                                                               |                                                               |                       |
|--------------------------------|--------------|--------|-----------------------------------------------|---------------------------------------------------------------|---------------------------------------------------------------|-----------------------|
| Stops                          | Index Period | Motion | B <sub>0</sub> Capacity at 50 RPM N-m [in-lb] | RGD Internal Inertia kg-cm <sup>2</sup> [lb-in <sup>2</sup> ] | RGS Internal Inertia kg-cm <sup>2</sup> [lb-in <sup>2</sup> ] | Model                 |
| 2                              | 270          | ms     | 66 [585]                                      | 20,5 [7]                                                      | 23,4 [8]                                                      | 70RG(D/S)2H20-270     |
|                                | 180          | ms     | 63 [562]                                      | 20,5 [7]                                                      | 23,4 [8]                                                      | 70RG(D/S)2H18-180     |
| 3                              | 270          | ms     | 81 [720]                                      | 20,5 [7]                                                      | 23,4 [8]                                                      | 70RG(D/S)3H20-270     |
|                                | 180          | ms     | 85 [753]                                      | 20,5 [7]                                                      | 23,4 [8]                                                      | 70RG(D/S)3H20-180     |
| 4                              | 270          | ms     | 93 [821]                                      | 26,3 [9]                                                      | 29,3 [10]                                                     | 70RG(D/S)4H20-270     |
|                                | 120          | msc,33 | 125 [1107]                                    | 29,3 [10]                                                     | 29,3 [10]                                                     | 70RG(D/S)4H18-120     |
| 6                              | 270          | ms     | 159 [1406]                                    | 26,3 [9]                                                      | 29,3 [10]                                                     | 70RG(D/S)6H24-270     |
|                                | 90           | msc,33 | 238 [2110]                                    | 26,3 [9]                                                      | 29,3 [10]                                                     | 70RG(D/S)6H24-90      |
| 8                              | 270          | ms     | 96 [853]                                      | 26,3 [9]                                                      | 29,3 [10]                                                     | 70RG(D/S)8H20-270     |
|                                | 90           | ms     | 120 [1063]                                    | 26,3 [9]                                                      | 29,3 [10]                                                     | 70RG(D/S)8H20-90      |
| 12                             | 270          | ms     | 53 [470]                                      | 29,3 [10]                                                     | 29,3 [10]                                                     | 70RG(D/S)12H14-270    |
|                                | 90           | ms     | 66 [584]                                      | 29,3 [10]                                                     | 29,3 [10]                                                     | 70RG(D/S)12H14-90     |
| 24                             | 180          | ms     | 72 [635]                                      | 29,3 [10]                                                     | 29,3 [10]                                                     | 70RG(D/S)24H14-180 II |

Other Motions (stops and index periods) available. Contact your DESTACO sales representative for more information.

## Features

- Fully Metric
- Universal Mounting: mounting holes on any of 6 sides
- Center Through Hole (Ø19 mm [Ø.75 in]) in RGD model.
- Right Hand Cam

### Output Load Capacity (loads carried during index):

|              | RGD                  | RGS                  |
|--------------|----------------------|----------------------|
| Radial       | 12602 N [2833 lbs]   | 2491 N [560 lbs]     |
| Thrust/Axial | 9893 N [2224 lbs]    | 3567 N [802 lbs]     |
| Moment       | 410 N-m [3626 in-lb] | 175 N-m [1545 in-lb] |

**Accuracy** ±50 arcsec / ±0,020 mm [±.0008 in] at 76,2 mm [3 in] Radius

**Repeatability** ±13 arcsec / ±0,005 mm [±.0002 in] at 76,2 mm [3 in] Radius

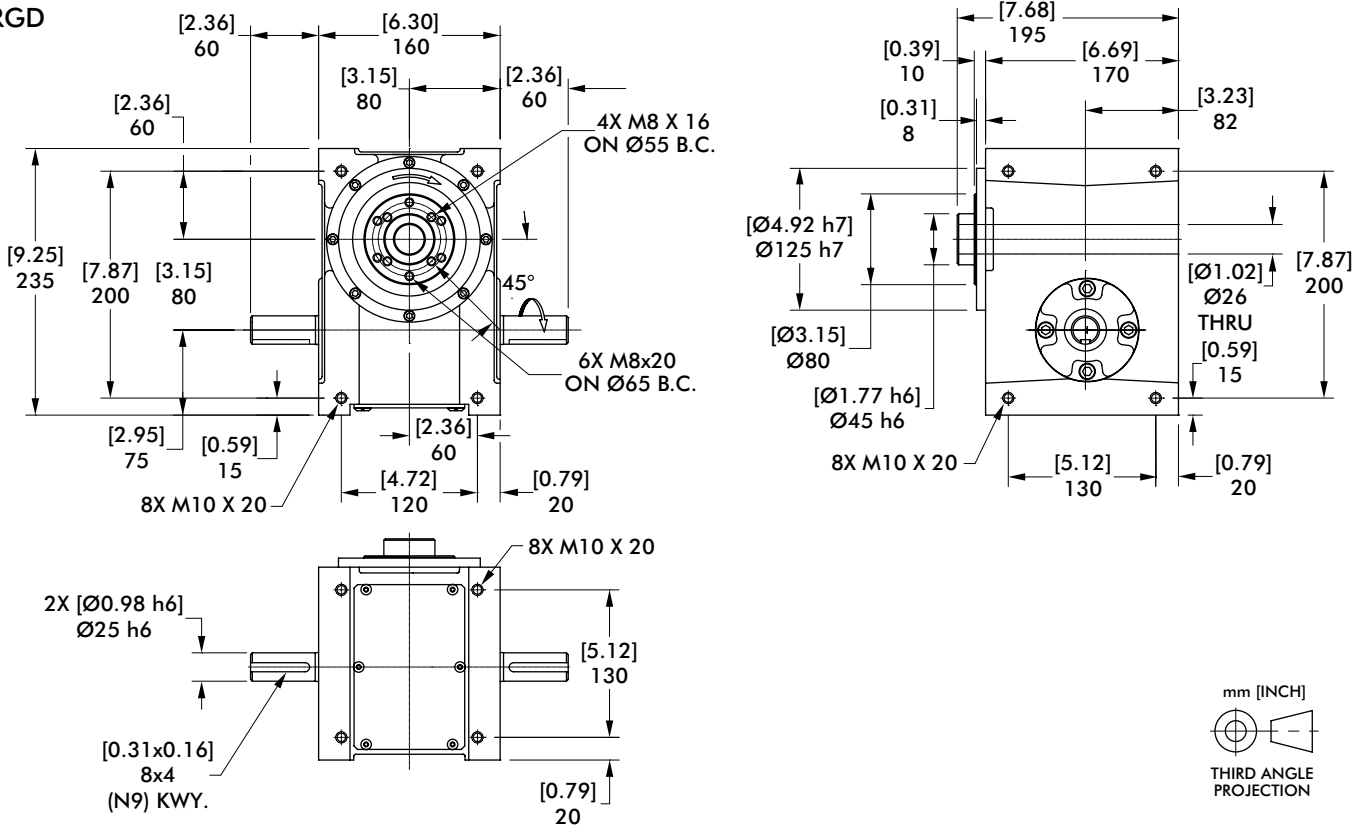
## Optional Accessories

- R180 Reducer (Ratios from 5:1 to 60:1)
- 1/3 HP AC Drive Package with Inverter Duty Motor and Inverter Drive (up to 60 cpm)
- 1/3 HP DC Motor with Varipak DC Motor Control (up to 30 cpm)
- Single or Dual Cycle Cam and Limit Switch
- Left Hand Cam
- Relief in Dwell for shot-pin applications

# 80RGD/80RGS SERIES

## Roller Gear Index Drive | Dimensions

### 80RGD



# 80RGD/80RGS SERIES

Roller Gear Index Drive | Features | Optional Accessories | Technical Information

| 40RGD/40RGS Indexer Capacities |              |        |                                               |                                                               |                                                               |                    |
|--------------------------------|--------------|--------|-----------------------------------------------|---------------------------------------------------------------|---------------------------------------------------------------|--------------------|
| Stops                          | Index Period | Motion | B <sub>0</sub> Capacity at 50 RPM N-m [in-lb] | RGD Internal Inertia kg-cm <sup>2</sup> [lb-in <sup>2</sup> ] | RGS Internal Inertia kg-cm <sup>2</sup> [lb-in <sup>2</sup> ] | Model              |
| 2                              | 330          | ms     | 129 [1144]                                    | 46,8 [16]                                                     | 49,7 [17]                                                     | 80RG(D/S)2H24-330  |
|                                | 270          | msc.33 | 157 [1388]                                    | 46,8 [16]                                                     | 49,7 [17]                                                     | 80RG(D/S)2H24-270  |
| 3                              | 270          | ms     | 161 [1422]                                    | 46,8 [16]                                                     | 49,7 [17]                                                     | 80RG(D/S)3H24-270  |
|                                | 180          | ms     | 171 [1513]                                    | 46,8 [16]                                                     | 49,7 [17]                                                     | 80RG(D/S)3H24-180  |
| 4                              | 270          | ms     | 188 [1663]                                    | 61,5 [21]                                                     | 61,5 [21]                                                     | 80RG(D/S)4H24-270  |
|                                | 180          | msc.33 | 269 [2377]                                    | 61,5 [21]                                                     | 61,5 [21]                                                     | 80RG(D/S)4H24-180  |
| 6                              | 270          | ms     | 172 [1524]                                    | 52,7 [18]                                                     | 55,6 [19]                                                     | 80RG(D/S)6H28-270  |
|                                | 90           | msc.50 | 262 [2323]                                    | 52,7 [18]                                                     | 55,6 [19]                                                     | 80RG(D/S)6H28-90   |
| 8                              | 270          | ms     | 196 [1733]                                    | 61,5 [21]                                                     | 61,5 [21]                                                     | 80RG(D/S)8H24-270  |
|                                | 90           | msc.33 | 332 [2937]                                    | 61,5 [21]                                                     | 61,5 [21]                                                     | 80RG(D/S)8H24-90   |
| 12                             | 270          | ms     | 114 [1011]                                    | 58,5 [20]                                                     | 58,5 [20]                                                     | 80RG(D/S)12H18-270 |
|                                | 90           | msc.60 | 195 [1725]                                    | 58,5 [20]                                                     | 58,5 [20]                                                     | 80RG(D/S)12H18-90  |

Other Motions (stops and index periods) available. Contact your DESTACO sales representative for more information.

## Features

- Fully Metric
- Universal Mounting: mounting holes on any of 6 sides
- Center Through Hole (Ø26 mm [Ø1.02 in]) in RGD model.
- Right Hand Cam

## Optional Accessories

- R180 Reducer (Ratios from 5:1 to 60:1)
- 1/3 HP AC Drive Package with Inverter Duty Motor and Inverter Drive (up to 60 cpm)
- 1/3 HP DC Motor with Varipak DC Motor Control (up to 30 cpm)
- Single or Dual Cycle Cam and Limit Switch
- Left Hand Cam
- Relief in Dwell for shot-pin applications

### Output Load Capacity (loads carried during index):

|              | RGD                  | RGS                  |
|--------------|----------------------|----------------------|
| Radial       | 21,307 N [4790 lbs]  | 5289 N [1189 lbs]    |
| Thrust/Axial | 15435 N [3470 lbs]   | 5542 N [1246 lbs]    |
| Moment       | 852 N-m [7544 in-lb] | 302 N-m [2669 in-lb] |

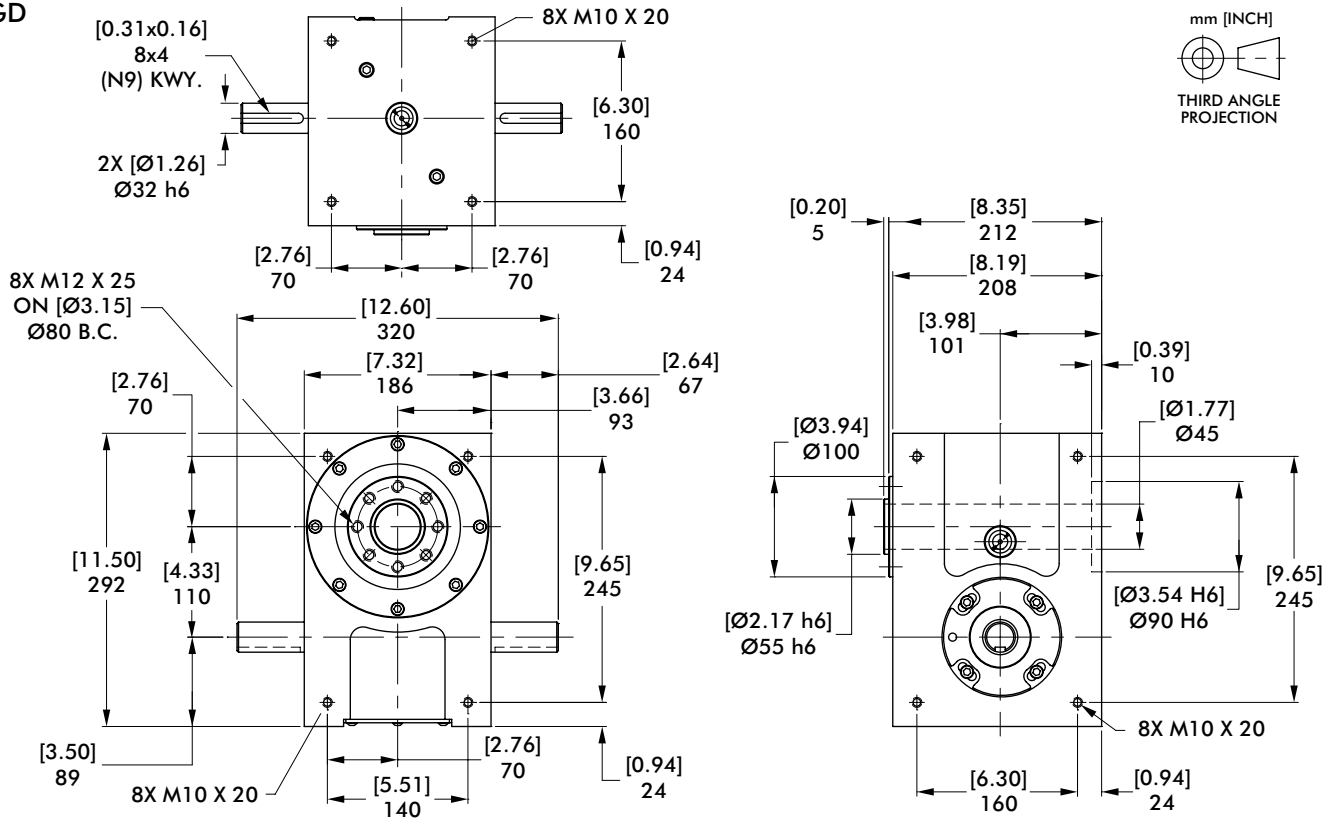
**Accuracy** ±48 arcsec / ±0,018 mm [±.0007 in] at 76,2 mm [3 in] Radius

**Repeatability** ±12 arcsec / ±0,005 mm [±.0002 in] at 76,2 mm [3 in] Radius

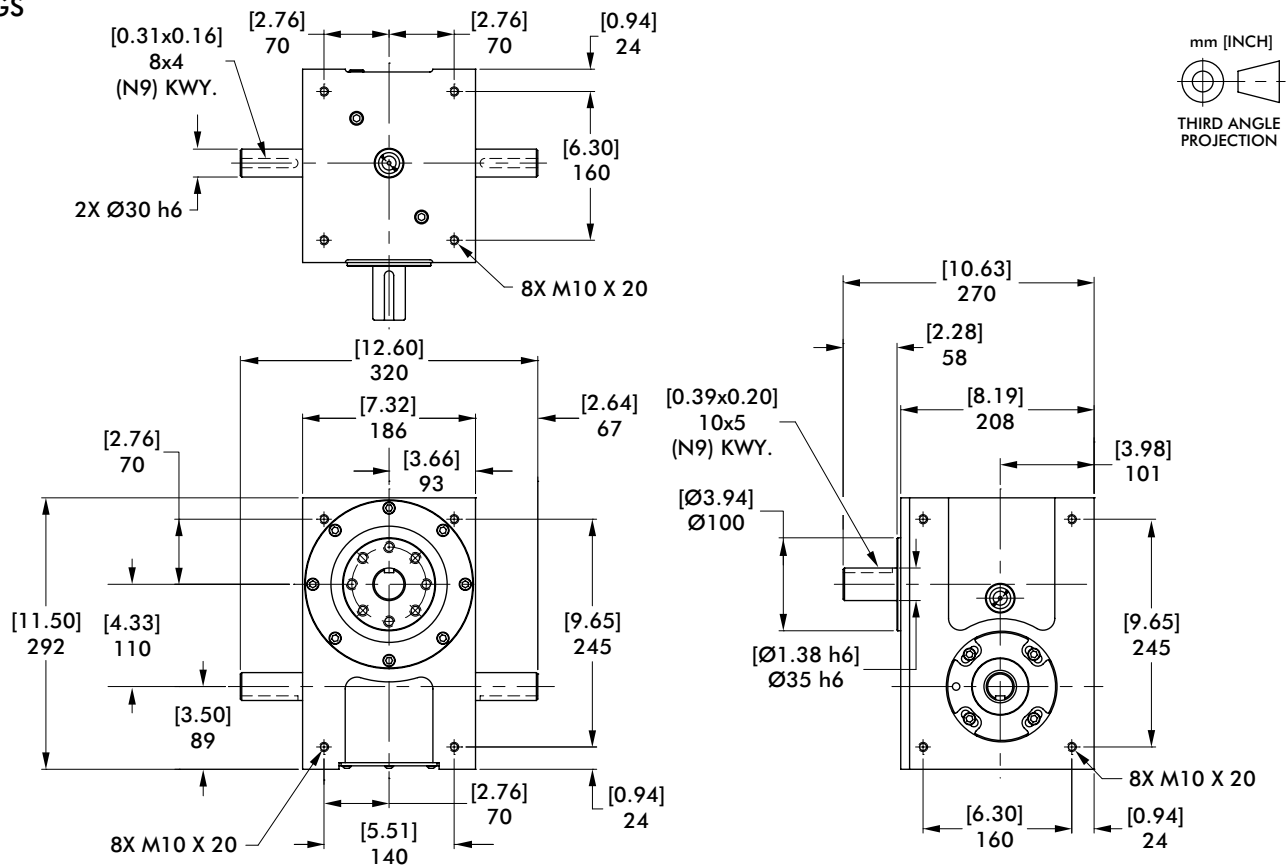
# 110RGD/110RGS SERIES

## Roller Gear Index Drive | Dimensions

### 110RGD



### 110RGS



# 110RGD/110RGS SERIES

Roller Gear Index Drive | Features | Optional Accessories | Technical Information

| 110RGD/110RGS Indexer Capacities |              |        |                                               |                                                               |                                                               |                        |
|----------------------------------|--------------|--------|-----------------------------------------------|---------------------------------------------------------------|---------------------------------------------------------------|------------------------|
| Stops                            | Index Period | Motion | B <sub>e</sub> Capacity at 50 RPM N-m [in-lb] | RGD Internal Inertia kg-cm <sup>2</sup> [lb-in <sup>2</sup> ] | RGS Internal Inertia kg-cm <sup>2</sup> [lb-in <sup>2</sup> ] | Model                  |
| 2                                | 300          | msc.33 | 596 [5271]                                    | 149,2 [51]                                                    | 163,9 [56]                                                    | 110RG(D/S)2H40-300     |
|                                  | 270          | msc.50 | 692 [6126]                                    | 149,2 [51]                                                    | 163,9 [56]                                                    | 110RG(D/S)2H40-270     |
| 3                                | 270          | ms     | 634 [5609]                                    | 149,2 [51]                                                    | 163,9 [56]                                                    | 110RG(D/S)3H40-270     |
|                                  | 180          | msc.50 | 885 [7829]                                    | 149,2 [51]                                                    | 163,9 [56]                                                    | 110RG(D/S)3H40-180     |
| 4                                | 270          | ms     | 371 [3282]                                    | 140,5 [48]                                                    | 161,0 [55]                                                    | 110RG(D/S)4H32-270     |
|                                  | 180          | msc.33 | 469 [4147]                                    | 140,5 [48]                                                    | 161,0 [55]                                                    | 110RG(D/S)4H32-180     |
| 6                                | 270          | ms     | 834 [7378]                                    | 152,2 [52]                                                    | 204,8 [70]                                                    | 110RG(D/S)6H48-270     |
|                                  | 120          | msc.33 | 918 [8127]                                    | 149,2 [51]                                                    | 163,9 [56]                                                    | 110RG(D/S)6H40-120     |
| 8                                | 270          | ms     | 389 [3440]                                    | 140,5 [48]                                                    | 161,0 [55]                                                    | 110RG(D/S)8H32-270     |
|                                  | 120          | ms     | 469 [4149]                                    | 140,5 [48]                                                    | 161,0 [55]                                                    | 110RG(D/S)8H32-120     |
| 12                               | 270          | ms     | 318 [2815]                                    | 137,5 [47]                                                    | 161,0 [55]                                                    | 110RG(D/S)12H28-270    |
|                                  | 120          | ms     | 380 [3367]                                    | 131,7 [45]                                                    | 149,2 [51]                                                    | 110RG(D/S)12H24-120    |
| 16                               | 270          | ms     | 182 [1610]                                    | 131,7 [45]                                                    | 155,1 [53]                                                    | 110RG(D/S)16H20-270    |
|                                  | 120          | ms     | 225 [1992]                                    | 131,7 [45]                                                    | 155,1 [53]                                                    | 110RG(D/S)16H20-120    |
| 24                               | 270          | ms     | 412 [3650]                                    | 131,7 [45]                                                    | 149,2 [51]                                                    | 110RG(D/S)24H24-270 II |
|                                  | 180          | ms     | 467 [4134]                                    | 131,7 [45]                                                    | 149,2 [51]                                                    | 110RG(D/S)24H24-180 II |

Other Motions (stops and index periods) available. Contact your DESTACO sales representative for more information.

## Features

- Fully Metric
- Universal Mounting: mounting holes on any of 6 sides
- Center Through Hole (Ø45 mm [Ø1.77 in]) in RGD model.
- Right Hand Cam

## Optional Accessories

- KH37 Reducer
  - Ratios from 5.36:1 to 106.38:1 (consult factory for exact ratios available)
  - 1 HP AC Drive Package with Inverter Duty Motor and Inverter Drive (up to 60 cpm)
- Single or Dual Cycle Cam and Limit Switch
- Left Hand Cam
- Relief in Dwell for shot-pin applications

## Output Load Capacity (loads carried during index):

|               | RGD                    | RGS               |
|---------------|------------------------|-------------------|
| Radial        | 24968 N [5613 lbs]     | 8256 N [1156 lbs] |
| Thrust/Axial  | 19621 N [4411 lbs]     | 9132 N [2053 lbs] |
| Moment in-lb] | 1248 N-m [11050 in-lb] | 479 N-m [4238     |

**Accuracy** ±30 arcsec / ±0,023 mm [±.0009 in] at 152,4 mm [6 in] Radius

**Repeatability** ±8 arcsec / ±0,005 mm [±.0002 in] at 152,4 mm [6 in] Radius



# 350RGD/350RGS SERIES

Roller Gear Index Drive | Features | Optional Accessories | Technical Information

| 350RGD/350RGS Indexer Capacities |              |        |                                               |                                                               |                                                               |                     |
|----------------------------------|--------------|--------|-----------------------------------------------|---------------------------------------------------------------|---------------------------------------------------------------|---------------------|
| Stops                            | Index Period | Motion | B <sub>e</sub> Capacity at 50 RPM N-m [in-lb] | RGD Internal Inertia kg-cm <sup>2</sup> [lb-in <sup>2</sup> ] | RGS Internal Inertia kg-cm <sup>2</sup> [lb-in <sup>2</sup> ] | Model               |
| 1                                | 330          | msc.50 | 200 [1774]                                    | 22,5 [7.7]                                                    | 28,4 [9.7]                                                    | 350RG(D/S)1H24-330  |
| 2                                | 270          | ms     | 141 [1244]                                    | 22,5 [7.7]                                                    | 28,4 [9.7]                                                    | 350RG(D/S)2H24-270  |
|                                  | 180          | msc.67 | 231 [2047]                                    | 22,5 [7.7]                                                    | 28,4 [9.7]                                                    | 350RG(D/S)2H24-180  |
| 3                                | 270          | ms     | 173 [1530]                                    | 22,5 [7.7]                                                    | 28,4 [9.7]                                                    | 350RG(D/S)3H24-270  |
|                                  | 180          | ms     | 181 [1601]                                    | 22,5 [7.7]                                                    | 28,4 [9.7]                                                    | 350RG(D/S)3H24-180  |
| 4                                | 300          | ms     | 192 [1701]                                    | 23,7 [8.1]                                                    | 29,6 [10.1]                                                   | 350RG(D/S)4H24-300  |
|                                  | 180          | ms     | 226 [2001]                                    | 23,7 [8.1]                                                    | 29,6 [10.1]                                                   | 350RG(D/S)4H24-180  |
| 6                                | 270          | ms     | 182 [1615]                                    | 22,5 [7.7]                                                    | 28,4 [9.7]                                                    | 350RG(D/S)6H24-270  |
|                                  | 90           | ms     | 233 [2063]                                    | 22,5 [7.7]                                                    | 28,4 [9.7]                                                    | 350RG(D/S)6H24-90   |
| 8                                | 270          | ms     | 208 [1840]                                    | 23,7 [8.1]                                                    | 29,6 [10.1]                                                   | 350RG(D/S)8H24-270  |
|                                  | 90           | ms     | 307 [2716]                                    | 23,7 [8.1]                                                    | 29,6 [10.1]                                                   | 350RG(D/S)8H24-90   |
| 12                               | 270          | ms     | 128 [1132]                                    | 23,1 [7.9]                                                    | 29,0 [9.9]                                                    | 350RG(D/S)12H20-270 |
|                                  | 90           | ms     | 167 [1476]                                    | 23,1 [7.9]                                                    | 29,0 [9.9]                                                    | 350RG(D/S)12H20-90  |

Other Motions (stops and index periods) available. Contact your DESTACO sales representative for more information.

## Features

- Universal Mounting: mounting holes on any of 6 sides
- Center Through Hole (Ø19.05 mm [Ø.75 in]) in RGD model.
- Right Hand Cam Standard

## Optional Accessories

- R180 Reducer (Ratios from 5:1 to 60:1)
  - 1/3 HP AC Drive Package with Inverter Duty Motor and Inverter Drive (up to 60 cpm)
  - 1/3 HP DC Motor with Varipak DC Motor Control (up to 30 cpm)
- R225 Reducer (Ratios from 5:1 to 60:1)
  - 56C Motor Adapter and Coupling
  - 1 HP AC Drive Package with Inverter Duty Motor and Inverter Drive (up to 60 cpm)
  - 1 HP DC Motor with Varipak DC Motor Control (up to 30 cpm)
- Single or Dual Cycle Cam and Limit Switch
- Relief in Dwell for shot-pin applications
- Left Hand Cam
- Relief in Dwell for shot-pin applications

## Output Load Capacity (loads carried during index):

|              | RGD                  | RGS                  |
|--------------|----------------------|----------------------|
| Radial       | 8607 N [1935 lbs]    | 8042 N [1808 lbs]    |
| Thrust/Axial | 6254 N [1406 lbs]    | 3496 N [786 lbs]     |
| Moment       | 273 N-m [2419 in-lb] | 357 N-m [3164 in-lb] |

**Accuracy** ±41 arcsec / ±0,030 mm [±.0012 in] at 152,4 mm [6 in] Radius

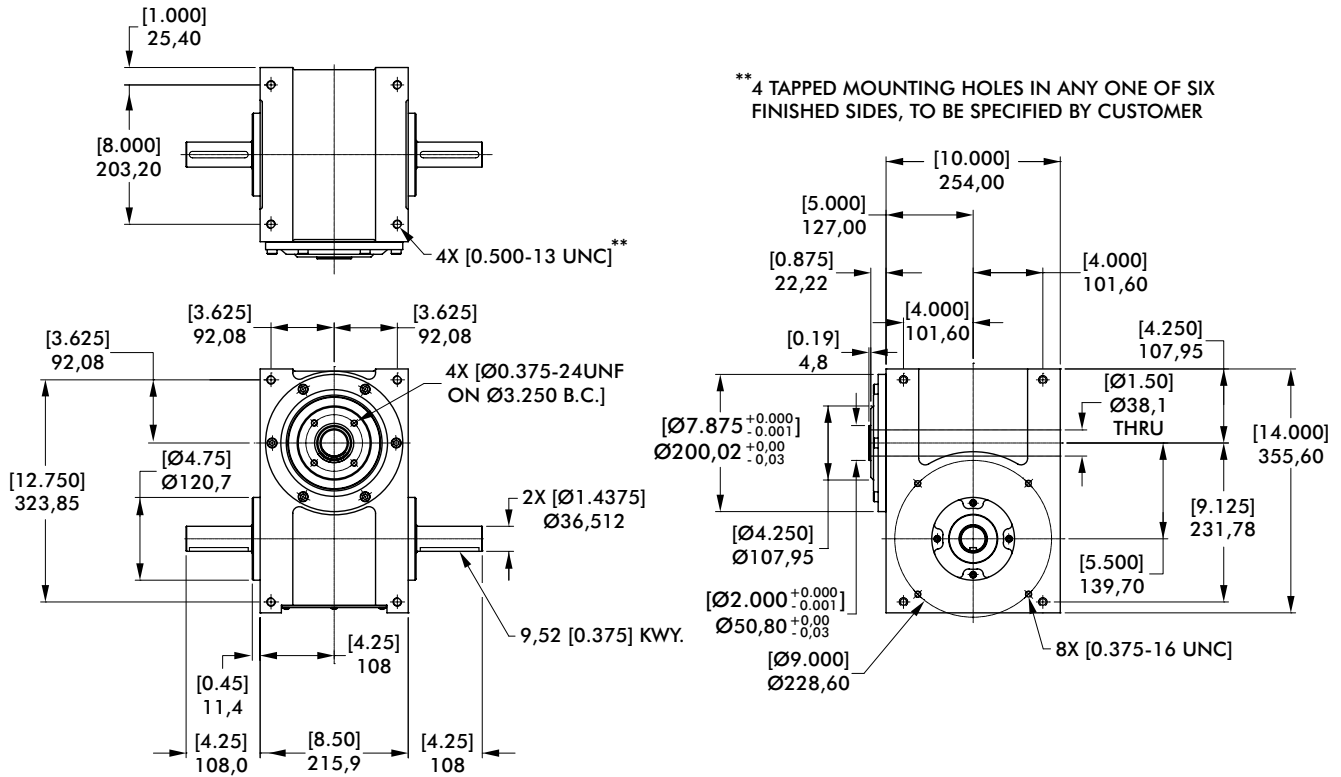
**Repeatability** ±10 arcsec / ±0,008 mm [±.0003 in] at 152,4 mm [6 in] Radius



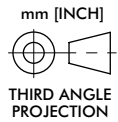
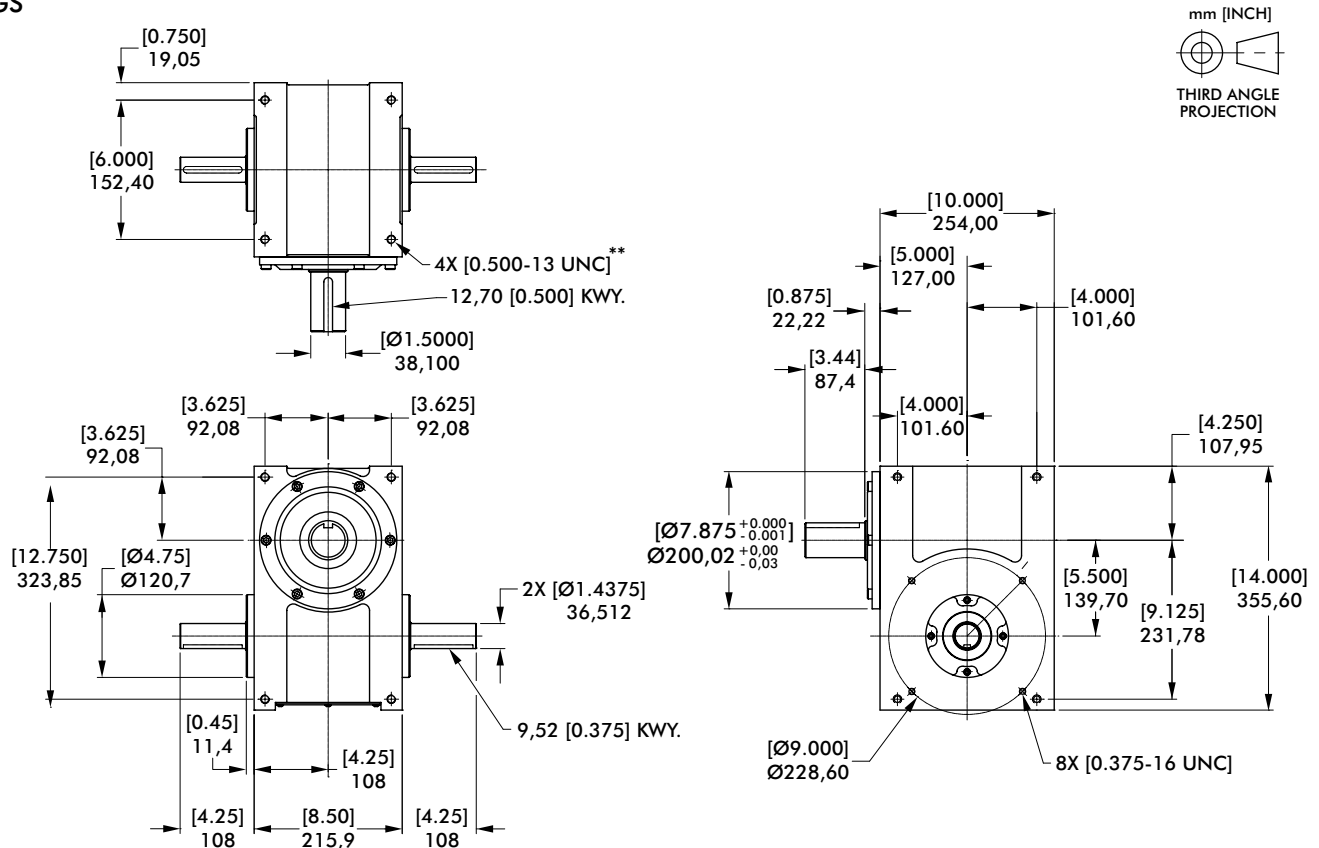
# 500RGD/500RGS SERIES

## Roller Gear Index Drive | Dimensions

### 500RGD



### 500RGS



# 500RGD/500RGS SERIES

Roller Gear Index Drive | Features | Optional Accessories | Technical Information

| 500RGD/500RGS Indexer Capacities |              |        |                                                |                                                               |                                                               |                     |
|----------------------------------|--------------|--------|------------------------------------------------|---------------------------------------------------------------|---------------------------------------------------------------|---------------------|
| Stops                            | Index Period | Motion | B <sub>10</sub> Capacity at 50 RPM N-m [in-lb] | RGD Internal Inertia kg-cm <sup>2</sup> [lb-in <sup>2</sup> ] | RGS Internal Inertia kg-cm <sup>2</sup> [lb-in <sup>2</sup> ] | Model               |
| 1                                | 330          | msc.60 | 765 [6767]                                     | 181,4 [62]                                                    | 131,7 [45]                                                    | 500RG(D/S)1H40-330  |
| 2                                | 270          | ms     | 497 [4400]                                     | 181,4 [62]                                                    | 131,7 [45]                                                    | 500RG(D/S)2H40-270  |
| 3                                | 270          | ms     | 595 [5265]                                     | 181,4 [62]                                                    | 131,7 [45]                                                    | 500RG(D/S)3H40-270  |
|                                  | 180          | ms     | 645 [5706]                                     | 181,4 [62]                                                    | 131,7 [45]                                                    | 500RG(D/S)3H40-180  |
| 4                                | 270          | ms     | 692 [6121]                                     | 193,1 [66]                                                    | 140,5 [48]                                                    | 500RG(D/S)4H40-270  |
|                                  | 120          | msc.20 | 440 [3892]                                     | 175,6 [60]                                                    | 122,9 [42]                                                    | 500RG(D/S)4H32-120  |
| 6                                | 270          | ms     | 617 [5464]                                     | 181,4 [62]                                                    | 131,7 [45]                                                    | 500RG(D/S)6H40-270  |
|                                  | 90           | ms     | 781 [6909]                                     | 181,4 [62]                                                    | 131,7 [45]                                                    | 500RG(D/S)6H40-90   |
| 8                                | 270          | ms     | 695 [6151]                                     | 193,1 [66]                                                    | 140,5 [48]                                                    | 500RG(D/S)8H40-270  |
|                                  | 90           | ms     | 929 [8219]                                     | 193,1 [66]                                                    | 140,5 [48]                                                    | 500RG(D/S)8H40-90   |
| 12                               | 270          | ms     | 296 [2616]                                     | 169,7 [58]                                                    | 117,1 [40]                                                    | 500RG(D/S)12H28-270 |
|                                  | 90           | ms     | 390 [3449]                                     | 169,7 [58]                                                    | 117,1 [40]                                                    | 500RG(D/S)12H28-90  |

Other Motions (stops and index periods) available. Contact your DESTACO sales representative for more information.

## Features

- Universal Mounting: mounting holes on any of 6 sides
- Center Through Hole (Ø38.1 mm [Ø1.50 in]) in RGD model.
- Right Hand Cam Standard

## Optional Accessories

- 1 hp AC Drive Package with Inverter Duty Motor and Inverter Drive (up to 60 cpm)
- 1 hp DC Motor with Varipak DC Motor Control (up to 30 cpm)
- Single or Dual Cycle Cam and Limit Switch
- Output Overload Clutch Models: 11S, 11C, 11F, 11C-SD, 11S-SD, 11FC-SD
  - Available Settings (in-lbs): 2300, 4000, 6000, 8500, 11000
- Left Hand Cam
- Relief in Dwell for shot-pin applications
- Left Hand Cam

## Output Load Capacity (loads carried during index):

|              | RGD                  | RGS                    |
|--------------|----------------------|------------------------|
| Radial       | 17811 N [4004 lbs]   | 16756 N [3767 lbs]     |
| Thrust/Axial | 12273 N [2759 lbs]   | 6374 N [1433 lbs]      |
| Moment       | 961 N-m [8509 in-lb] | 1464 N-m [12959 in-lb] |

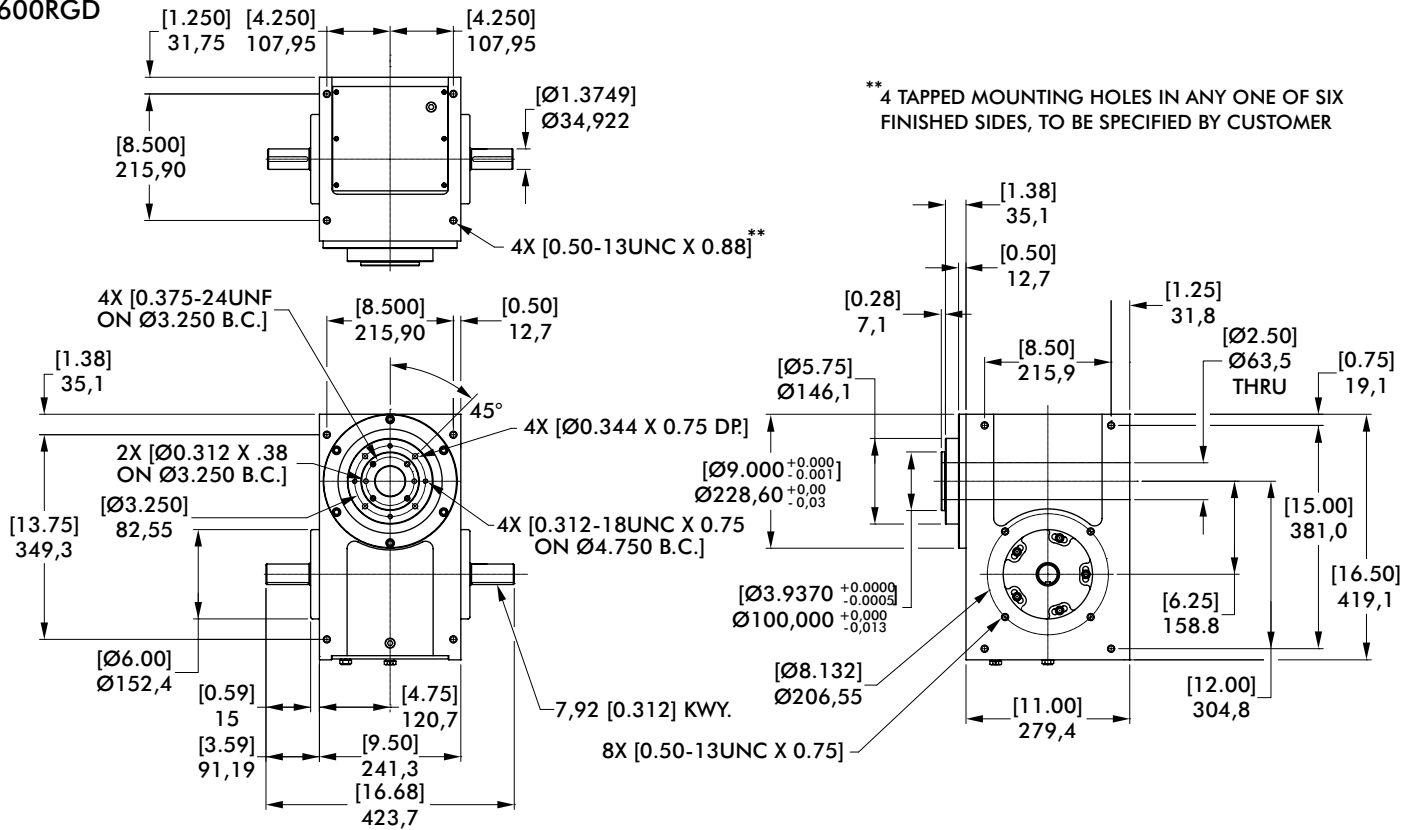
**Accuracy** ±29 arcsec / ±0,020 mm [±.0008 in] at 152,4 mm [6 in] Radius

**Repeatability** ±7 arcsec / ±0,005 mm [±.0002 in] at 152,4 mm [6 in] Radius

# 600RGD/600RGS SERIES

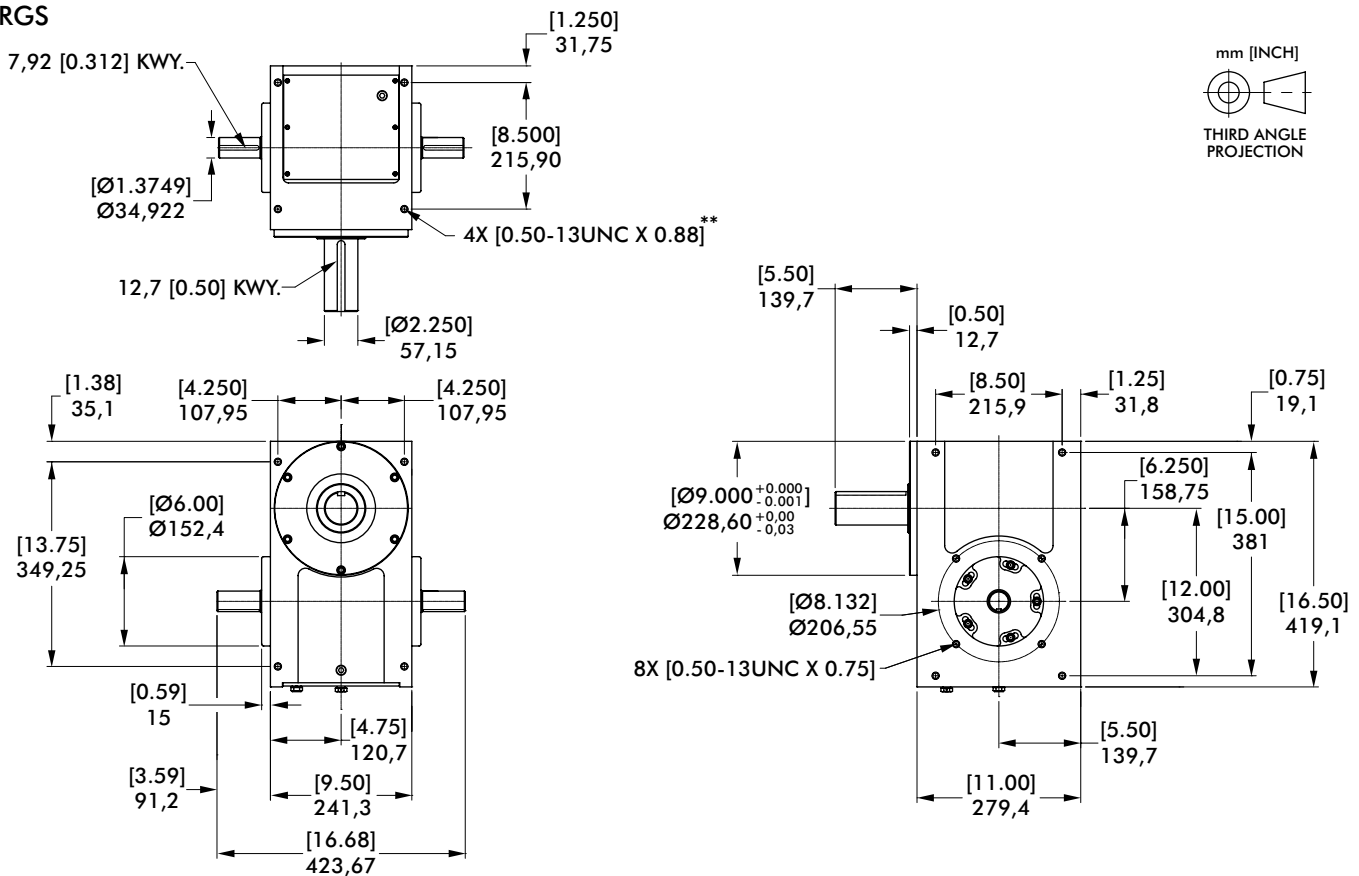
## Roller Gear Index Drive | Dimensions

### 600RGD



\*\* 4 TAPPED MOUNTING HOLES IN ANY ONE OF SIX FINISHED SIDES, TO BE SPECIFIED BY CUSTOMER

### 600RGS



mm [INCH]  
THIRD ANGLE PROJECTION

# 600RGD/600RGS SERIES

Roller Gear Index Drive | Features | Optional Accessories | Technical Information

| 600RGD/600RGS Indexer Capacities |              |        |                                               |                                                               |                                                               |                        |
|----------------------------------|--------------|--------|-----------------------------------------------|---------------------------------------------------------------|---------------------------------------------------------------|------------------------|
| Stops                            | Index Period | Motion | B <sub>0</sub> Capacity at 50 RPM N-m [in-lb] | RGD Internal Inertia kg-cm <sup>2</sup> [lb-in <sup>2</sup> ] | RGS Internal Inertia kg-cm <sup>2</sup> [lb-in <sup>2</sup> ] | Model                  |
| 2                                | 300          | ms     | 736 [6516]                                    | 749,2 [256]                                                   | 400,9 [137]                                                   | 600RG(D/S)2H48-300     |
| 3                                | 270          | ms     | 899 [7955]                                    | 749,2 [256]                                                   | 400,9 [137]                                                   | 600RG(D/S)3H48-270     |
|                                  | 180          | ms     | 991 [8769]                                    | 749,2 [256]                                                   | 400,9 [137]                                                   | 600RG(D/S)3H48-180     |
| 4                                | 270          | ms     | 763 [6749]                                    | 728,7 [249]                                                   | 383,4 [131]                                                   | 600RG(D/S)4H40-270     |
|                                  | 180          | ms     | 845 [7477]                                    | 728,7 [249]                                                   | 383,4 [131]                                                   | 600RG(D/S)4H40-180     |
| 6                                | 270          | ms     | 936 [8286]                                    | 749,2 [256]                                                   | 400,9 [137]                                                   | 600RG(D/S)6H48-270     |
|                                  | 90           | ms     | 1211 [10715]                                  | 749,2 [256]                                                   | 400,9 [137]                                                   | 600RG(D/S)6H48-90      |
| 8                                | 270          | ms     | 783 [6928]                                    | 714 [244]                                                     | 368,7 [126]                                                   | 600RG(D/S)8H40-270     |
|                                  | 90           | ms     | 1010 [8936]                                   | 714 [244]                                                     | 368,7 [126]                                                   | 600RG(D/S)8H40-90      |
| 12                               | 270          | ms     | 462 [4091]                                    | 714 [244]                                                     | 368,7 [126]                                                   | 600RG(D/S)12H32-270    |
|                                  | 90           | ms     | 615 [5444]                                    | 714 [244]                                                     | 368,7 [126]                                                   | 600RG(D/S)12H32-90     |
| 16                               | 270          | ms     | 1079 [9553]                                   | 728,7 [249]                                                   | 383,4 [131]                                                   | 600RG(D/S)16H40-270 II |
|                                  | 90           | ms     | 1381 [12224]                                  | 728,7 [249]                                                   | 383,4 [131]                                                   | 600RG(D/S)16H40-90 II  |

Other Motions (stops and index periods) available. Contact your DESTACO sales representative for more information.

## Features

- Universal Mounting: mounting holes on any of 6 sides
- Center Through Hole (Ø63.5 mm [Ø2.50 in]) in RGD model.
- Right Hand Cam Standard

## Optional Accessories

- 7300C or 7350C Reducer (Ratios from 5:1 to 60:1)
- 1 or 2 hp AC Drive Package with Inverter Duty Motor and Inverter Drive (up to 60 cpm)
- 1 or 2 hp DC Motor with Varipak DC Motor Control (up to 30 cpm)
- Single or Dual Cycle Cam and Limit Switch
- Output Overload Clutch Models: 11FM, 11SM  
– Available Settings (in-lbs): 2300, 4000, 6000, 8500, 11000
- Left Hand Cam
- Relief in Dwell for shot-pin applications
- Left Hand Cam

## Output Load Capacity (loads carried during index):

|              | RGD                    | RGS                    |
|--------------|------------------------|------------------------|
| Radial       | 25208 N [5667 lbs]     | 17028 N [3828 lbs]     |
| Thrust/Axial | 15693 N [3528 lbs]     | 15698 N [3529 lbs]     |
| Moment       | 1841 N-m [16292 in-lb] | 2085 N-m [18451 in-lb] |

**Accuracy** ±40 arcsec / ±0,028 mm [±.0011 in]  
at 152,4 mm [6 in] Radius

**Repeatability** ±10 arcsec / ±0,008 mm [±.0003 in]  
at 152,4 mm [6 in] Radius

# PRECISION INDEXING SOLUTIONS

## Table of Contents

### INDEXERS

#### Servo Positioners



**GTB Series**  
Globoidal (Roller Gear)  
Servo Positioner.....IN-SRV-1



**RSD Series**  
Rotary Servo Drives.....IN-SRV-39

#### Mechanical Indexers



**RDM Series**  
Rotary Index Drive ..... IN-MCH-2



**RD Series**  
Roller Dial Index Drive..... IN-MCH-18



**E Series**  
Heavy-Duty Index Drive ..... IN-MCH-30



**RA Series**  
Right Angle Index Drive ..... IN-MCH-42



**RGD/RGS Series**  
Roller Gear Index Drive ..... IN-MCH-52



**P Series**  
Parallel Shaft/Flange Drive.... IN-MCH-72



**RNG Series**  
Ring Drive Dial Indexer.....IN-MCH-84

### OVERLOAD CLUTCHES



**Overload Clutches**  
Output Overload..... IN-CLU-1

### CUSTOM CAMS



**Custom Cams**  
Cam Design Solutions ..... IN-CAM-1

### CONVEYORS



**Rite-Link Series**  
Thin-Profile.....IN-CNV-1



**Precision Link Series**  
Table-Top .....IN-CNV-4



**Precision Link Series**  
Heavy-Duty ..... IN-CNV-16

### PARTS HANDLERS



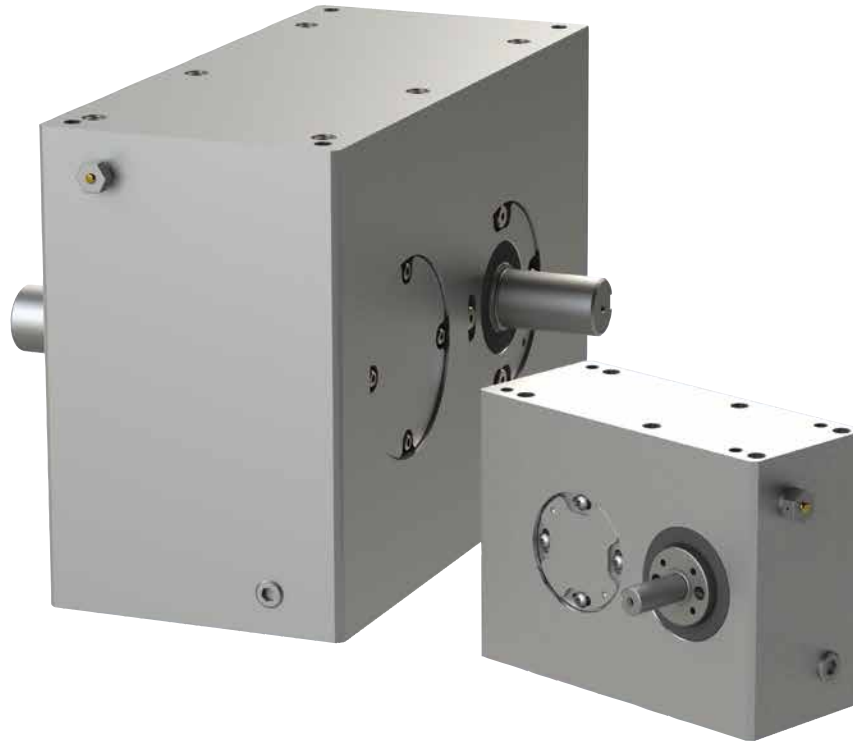
**LPP Series**  
Linear Part Handlers ..... IN-PRT-2



**RPP Series**  
Rotary Part Handlers ..... IN-PRT-8

# PARALLEL SHAFT/FLANGE DRIVES

Features | Table of Contents



## Features:

**Camco Parallel Index Drives** are ideal for high-speed applications or for actuation-type applications such as driving a linkage or a conveyor.

Hardened and ground conjugate cams

Yoke-mounted, preloaded cam followers are non-reversing for high capacity and speed capability

Whole or fractional stops, oscillating and complex custom motions are available

Long transfer distances achieved with simple linkages

Preloaded, tapered roller bearings for rigidity and backlash-free operation

## Table of Contents

|                    |    |
|--------------------|----|
| How to Order ..... | 3  |
| 250P .....         | 5  |
| 387P .....         | 7  |
| 512P .....         | 9  |
| 662P .....         | 11 |

# P SERIES

## Parallel Shaft/Flange Drives | How To Order

### Indexer Ordering Procedure

1. Input Assembly: Right, Left or Double (DE)
2. Output Assembly: Right, Left or Double (DE).
  - Flanged output is primary output. For Double Output, specify whether flanged output is on right or left side.

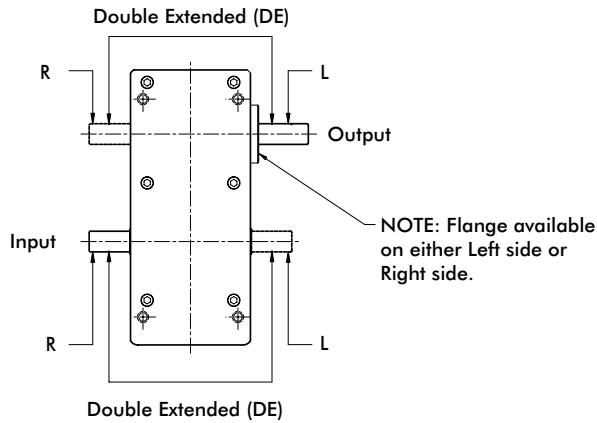
NOTE: Input may rotate in either direction to achieve desired direction of output rotation.

3. Mounting Position: 1-6

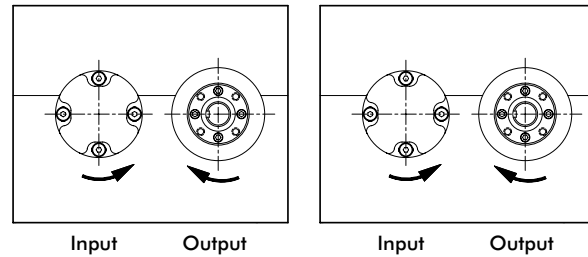
### Reducer Ordering Procedure

1. Model
2. Ratio: 5:1, 10:1, 15:1, 20:1, 25:1, 30:1, 40:1, 50:1, 60:1
3. Motor Adapter
4. Reducer Input Shaft Extension: Single Input (SE) or Double Input (DE)
5. Mounting (see diagram below)

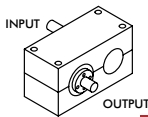
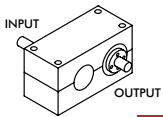
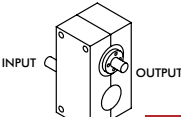
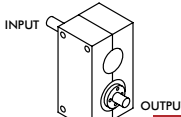
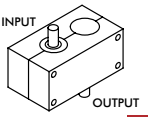
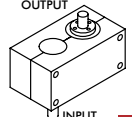
### Position of Shafts (Top View)



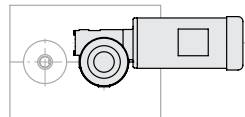
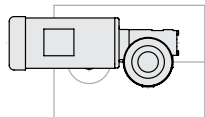
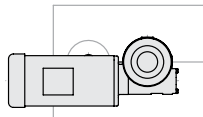
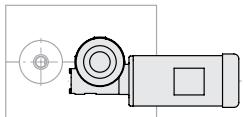
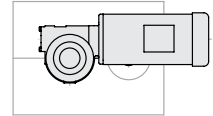
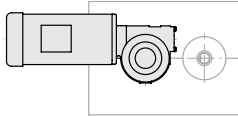
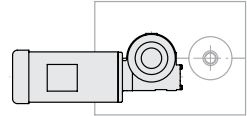
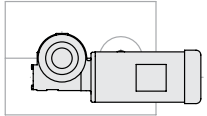
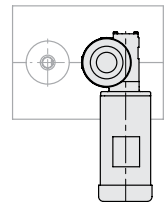
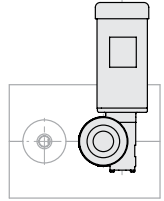
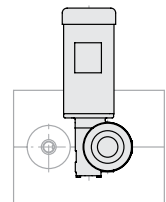
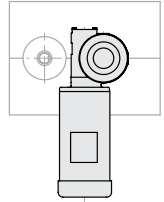
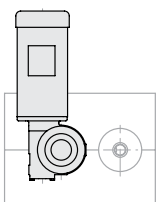
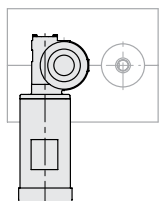
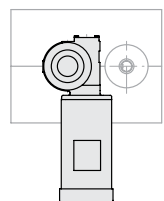
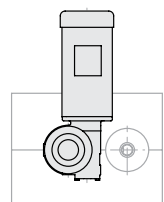
### Input/Output Shaft Rotation





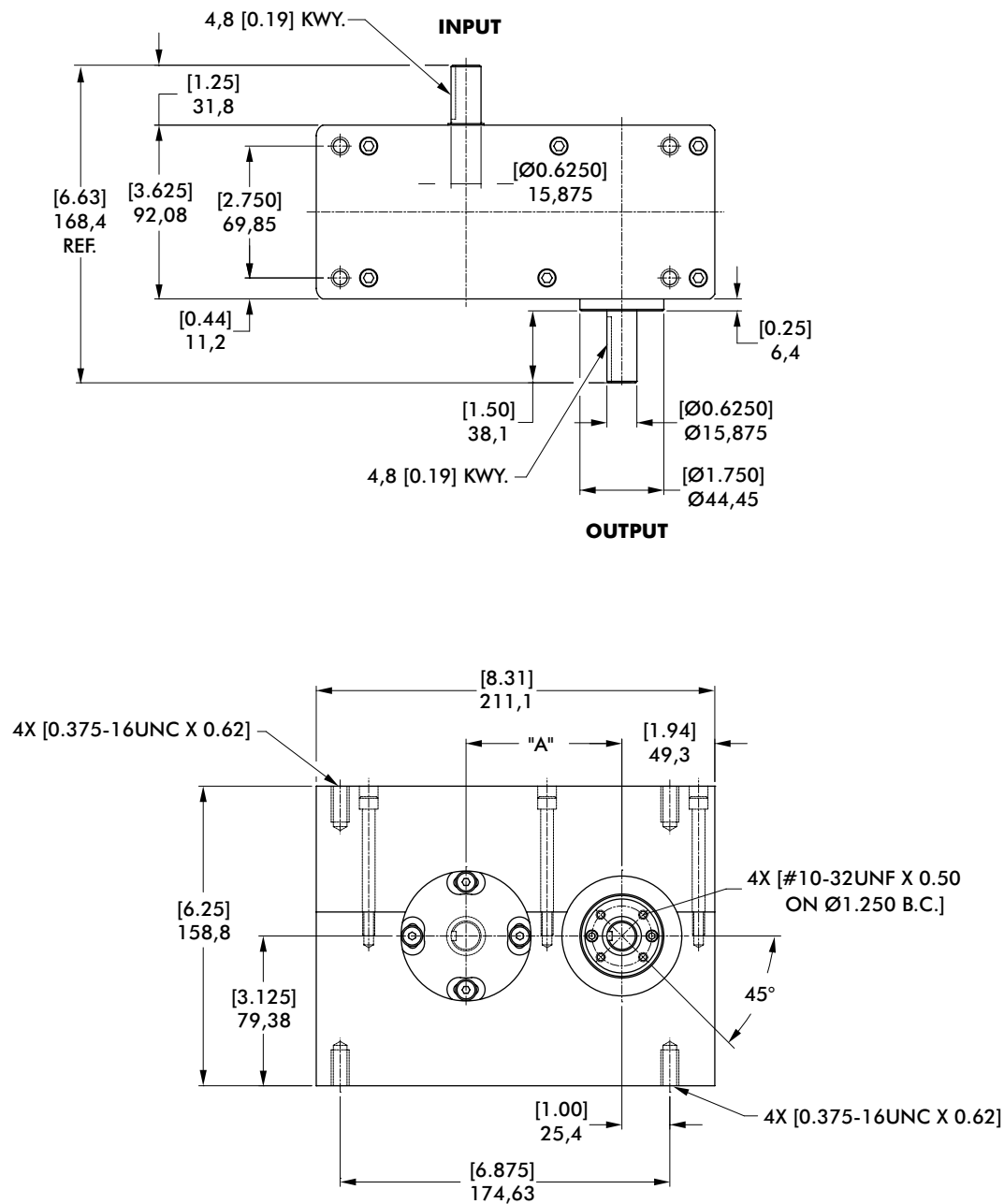
| OHEI<br>(output horizontal, even with input)                                                  | OHEI<br>(output horizontal, even with input)                                                  | OHOI<br>(output horizontal, over input)                                                       | OHUI<br>(output horizontal, under input)                                                       | VD<br>(output vertical down)                                                                    | VU<br>(output vertical up)                                                                      |
|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| <br><b>1</b> | <br><b>2</b> | <br><b>3</b> | <br><b>4</b> | <br><b>5</b> | <br><b>6</b> |

Gear Reducer Mounting Positions (Figure 4)

| Mounting "A" |                                                                                                 |                                                                                                 |                                                                                                  | Mounting "B"                                                                                      |  |    |  |
|--------------|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|--|----|--|
| RH           |                                                                                                 | LH                                                                                              |                                                                                                  | RH                                                                                                |  | LH |  |
| SIDE R       | <br><b>A</b>   | <br><b>B</b>   | <br><b>C</b>   | <br><b>D</b>   |  |    |  |
|              |                                                                                                 |                                                                                                 |                                                                                                  |                                                                                                   |  |    |  |
| SIDE L       | <br><b>E</b> | <br><b>F</b> | <br><b>G</b> | <br><b>H</b> |  |    |  |
|              |                                                                                                 |                                                                                                 |                                                                                                  |                                                                                                   |  |    |  |
| Mounting "C" |                                                                                                 |                                                                                                 |                                                                                                  | Mounting "D"                                                                                      |  |    |  |
| RH           |                                                                                                 | LH                                                                                              |                                                                                                  | RH                                                                                                |  | LH |  |
| SIDE R       | <br><b>J</b> | <br><b>K</b> | <br><b>L</b> | <br><b>M</b> |  |    |  |
|              |                                                                                                 |                                                                                                 |                                                                                                  |                                                                                                   |  |    |  |
| SIDE L       | <br><b>N</b> | <br><b>P</b> | <br><b>R</b> | <br><b>S</b> |  |    |  |
|              |                                                                                                 |                                                                                                 |                                                                                                  |                                                                                                   |  |    |  |

# 250P SERIES

## Parallel Shaft/Flange Drives | Dimensions



mm [INCH]



THIRD ANGLE  
PROJECTION

| 250P Indexer Capacities |              |        |                                               |                                                           |                 |                    |
|-------------------------|--------------|--------|-----------------------------------------------|-----------------------------------------------------------|-----------------|--------------------|
| Stops                   | Index Period | Motion | B <sub>2</sub> Capacity at 50 RPM N-m [in-lb] | Internal Inertia kg-cm <sup>2</sup> [lb-in <sup>2</sup> ] | Model           | "A" Center mm [in] |
| 1                       | 300          | msc.50 | 50 [444]                                      | 8,8 [3]                                                   | 250P1H20-300    | 82,6 [3.25]        |
| 1.5                     | 270          | msc.33 | 54 [481]                                      | 5,9 [2]                                                   | 250P1.5H20-270  | 82,6 [3.25]        |
| 2                       | 270          | ms     | 49 [433]                                      | 8,8 [3]                                                   | 250P2H20-270    | 82,6 [3.25]        |
|                         | 180          | msc.33 | 62 [546]                                      | 8,8 [3]                                                   | 250P2H20-180    | 82,6 [3.25]        |
| 3                       | 270          | ms     | 66 [582]                                      | 5,9 [2]                                                   | 250P3H20-270    | 69,9 [2.75]        |
|                         | 120          | ms     | 74 [653]                                      | 5,9 [2]                                                   | 250P3H20-120    | 82,6 [3.25]        |
| 4                       | 270          | ms     | 65 [571]                                      | 8,8 [3]                                                   | 250P4H20-270    | 69,9 [2.75]        |
|                         | 90           | msc.25 | 88 [782]                                      | 8,8 [3]                                                   | 250P4H20-90     | 82,6 [3.25]        |
| 6                       | 270          | ms     | 100 [888]                                     | 5,9 [2]                                                   | 250P6H20-270 II | 69,9 [2.75]        |
|                         | 180          | msc.33 | 235 [2078]                                    | 8,8 [3]                                                   | 250P6H24-180 II | 69,9 [2.75]        |
| 8                       | 270          | ms     | 95 [843]                                      | 8,8 [3]                                                   | 250P8H20-270 II | 69,9 [2.75]        |
|                         | 120          | ms     | 112 [993]                                     | 8,8 [3]                                                   | 250P8H20-120 II | 82,6 [3.25]        |

Other Motions (stops and index periods) available. Contact your DESTACO sales representative for more information.

### Features

- Single Input Shaft and Single Output Shaft
- Output horizontal even with input Mounting
- R180 Reducer (ratios from 15:1 to 60:1)
  - Double Extended Worm (input) Shaft
  - Worm Shaft Handwheel
- 1/3 or 1 HP AC Drive Package with Inverter Duty Motor and Inverter Drive (up to 60 cpm)
- Single Cycle Cam and Limit Switch

### Output Load Capacity (loads carried during index):

|              |                    |
|--------------|--------------------|
| Radial       | 1406 N [316 lbs]   |
| Thrust/Axial | 1397 N [314 lbs]   |
| Moment       | 45 N-m [395 in-lb] |

### Accuracy

±77 arcsec / ±0,028 mm [±.0011 in]  
at 76,2 mm [3 in] Radius

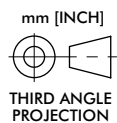
### Repeatability

±19 arcsec / ±0,008 mm [±.0003 in]  
at 76,2 mm [3 in] Radius

### Optional Accessories

- 1/3 hp DC motor
- Varipak DC Motor Control (up to 30 cpm)
- R225 Reducer (ratios from 10:1 to 60:1)
  - 1 hp AC or DC drive package
  - 56C Motor Adapter and Coupling
- Output Overload Clutch Models: .39F, .39FC, .39S and .39C, .39C-SD, .39FC-SD, .39S-SD
  - Available Settings (in-lb): 160, 210, 270, 320, 390
- Dual Cycle Cam and Limit Switch
- Oscillating motion
- Double Input Shaft
- Double Output Shaft
- Output and Input Vertical Mounting

## Parallel Shaft/Flange Drives | Dimensions



| 387P Indexer Capacities |              |        |                                               |                                                           |                    |                    |
|-------------------------|--------------|--------|-----------------------------------------------|-----------------------------------------------------------|--------------------|--------------------|
| Stops                   | Index Period | Motion | B <sub>0</sub> Capacity at 50 RPM N-m [in-lb] | Internal Inertia kg-cm <sup>2</sup> [lb-in <sup>2</sup> ] | Model              | "A" Center mm [in] |
| 1                       | 300          | msc.66 | 156 [1385]                                    | 41,0 [14]                                                 | 387P1H28-300       | 122,22 [4.812]     |
| 1.33                    | 315          | msc.10 | 120 [1062]                                    | 38,0 [13]                                                 | 387P1.33H28-315    | 122,22 [4.812]     |
| 1.5                     | 300          | ms     | 124 [1099]                                    | 38,0 [13]                                                 | 387P1.5H28-300     | 122,22 [4.812]     |
| 2                       | 270          | msc.33 | 202 [1788]                                    | 41,0 [14]                                                 | 387P2H32-270       | 122,22 [4.812]     |
|                         | 180          | msc.33 | 237 [2095]                                    | 41,0 [14]                                                 | 387P2H32-180       | 122,22 [4.812]     |
| 2.67                    | 270          | msc.33 | 245 [2171]                                    | 41,0 [14]                                                 | 387P2.67H28-270 II | 122,22 [4.812]     |
| 3                       | 270          | ms     | 181 [1601]                                    | 38,0 [13]                                                 | 387P3H28-270       | 101,60 [4.000]     |
|                         | 120          | msc.33 | 234 [2067]                                    | 41,0 [14]                                                 | 387P3H28-120       | 122,22 [4.812]     |
| 4                       | 270          | ms     | 181 [1605]                                    | 41,0 [14]                                                 | 387P4H28-270       | 101,60 [4.000]     |
|                         | 90           | msc.33 | 250 [2214]                                    | 41,0 [14]                                                 | 387P4H28-90        | 122,22 [4.812]     |
| 6                       | 270          | ms     | 276 [2445]                                    | 38,0 [13]                                                 | 387P6H28-270 II    | 101,60 [4.000]     |
|                         | 180          | ms     | 278 [2463]                                    | 38,0 [13]                                                 | 387P6H28-180 II    | 122,22 [4.812]     |
| 8                       | 270          | ms     | 269 [2378]                                    | 41,0 [14]                                                 | 387P8H28-270 II    | 101,60 [4.000]     |

Other Motions (stops and index periods) available. Contact your DESTACO sales representative for more information.

### Features

- Single Input Shaft and Single Output Shaft
- Output horizontal even with input Mounting
- R225 Reducer (ratios from 10:1 to 60:1)
  - 56C Motor Adapter and Coupling
- 1 HP AC Drive Package with Inverter Duty Motor and Inverter Drive (up to 60 cpm)
- Single Cycle Cam and Limit Switch

### Output Load Capacity (loads carried during index):

|              |                      |
|--------------|----------------------|
| Radial       | 3981 N [895 lbs]     |
| Thrust/Axial | 2567 N [577 lbs]     |
| Moment       | 183 N-m [1620 in-lb] |

### Accuracy

±50 arcsec / ±0,018 mm [±.0007 in]  
at 76,2 mm [3 in] Radius

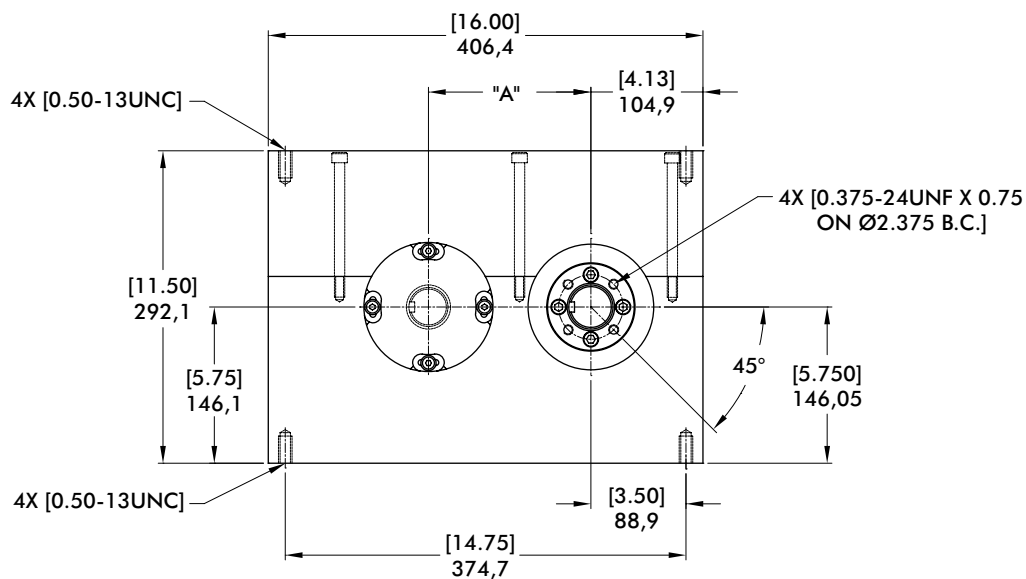
### Repeatability

±12 arcsec / ±0,005 mm [±.0002 in]  
at 76,2 mm [3 in] Radius

### Optional Accessories

- 1 hp DC motor
- Varipak DC Motor Control (up to 30 cpm)
- R260 Reducer (ratios from 5:1 to 60:1)
  - 1 hp AC or DC drive package
  - 56C Motor Adapter and Coupling
- Output Overload Clutch Models: 2.3F, 2.3FC, 2.3S and 2.3C, 2.3C-SD, 2.3FC-SD, 2.3S-SD
  - Available Settings (in-lb): 400, 600, 700, 850, 1000, 1300, 1800, 2000, 2300
- Dual Cycle Cam and Limit Switch
- Oscillating motion
- Double Input Shaft
- Double Output Shaft
- Output and Input Vertical Mounting

## Parallel Shaft/Flange Drives | Dimensions



THIRD ANGLE  
PROJECTION

| 512P Indexer Capacities |              |        |                                               |                                                           |                    |                    |
|-------------------------|--------------|--------|-----------------------------------------------|-----------------------------------------------------------|--------------------|--------------------|
| Stops                   | Index Period | Motion | B <sub>0</sub> Capacity at 50 RPM N-m [in-lb] | Internal Inertia kg-cm <sup>2</sup> [lb-in <sup>2</sup> ] | Model              | "A" Center mm [in] |
| 1                       | 330          | msc.75 | 728 [6441]                                    | 184,4 [63]                                                | 512P1H48-330       | 151,87 [5.979]     |
| 1.33                    | 330          | msc.33 | 557 [4928]                                    | 178,5 [61]                                                | 512P1.33H48-330    | 151,87 [5.979]     |
| 1.5                     | 330          | ms     | 549 [4860]                                    | 184,4 [63]                                                | 512P1.5H48-330     | 151,87 [5.979]     |
|                         | 270          | msc.33 | 494 [4373]                                    | 178,5 [61]                                                | 512P2H40-270       | 151,87 [5.979]     |
| 2                       | 180          | msc.50 | 612 [5416]                                    | 178,5 [61]                                                | 512P2H40-180       | 151,87 [5.979]     |
|                         | 120          | msc.50 | 467 [4131]                                    | 178,5 [61]                                                | 512P2H40-120       | 151,87 [5.979]     |
| 3                       | 300          | msc.33 | 804 [7116]                                    | 178,5 [61]                                                | 512P2.67H40-300 II | 151,87 [5.979]     |
|                         | 180          | ms     | 617 [5462]                                    | 163,9 [56]                                                | 512P3H40-180       | 151,87 [5.979]     |
| 4                       | 270          | ms     | 635 [5619]                                    | 178,5 [61]                                                | 512P4H40-270       | 123,39 [4.858]     |
|                         | 120          | ms     | 706 [6252]                                    | 178,5 [61]                                                | 512P4H40-120       | 151,87 [5.979]     |
| 6                       | 270          | ms     | 939 [8315]                                    | 163,9 [56]                                                | 512P6H40-270 II    | 123,39 [4.858]     |
|                         | 180          | ms     | 933 [8261]                                    | 163,9 [56]                                                | 512P6H40-180 II    | 151,87 [5.979]     |
| 8                       | 270          | ms     | 948 [8387]                                    | 178,5 [61]                                                | 512P8H40-270 II    | 123,39 [4.858]     |
|                         | 180          | ms     | 892 [7894]                                    | 178,5 [61]                                                | 512P8H40-180 II    | 151,87 [5.979]     |

Other Motions (stops and index periods) available. Contact your DESTACO sales representative for more information.

### Features

- Single Input Shaft and Single Output Shaft
- Output horizontal even with input Mounting
- R225 Reducer (ratios from 10:1 to 60:1)
  - 56C Motor Adapter and Coupling
- 1 HP AC Drive Package with Inverter Duty Motor and Inverter Drive (up to 60 cpm)
- Single Cycle Cam and Limit Switch

### Output Load Capacity (loads carried during index):

|              |                      |
|--------------|----------------------|
| Radial       | 12077 N [2715 lbs]   |
| Thrust/Axial | 6112 N [1374 lbs]    |
| Moment       | 785 N-m [6951 in-lb] |

### Accuracy

±37 arcsec / ±0,013 mm [±.0005 in]  
at 76,2 mm [3 in] Radius

### Repeatability

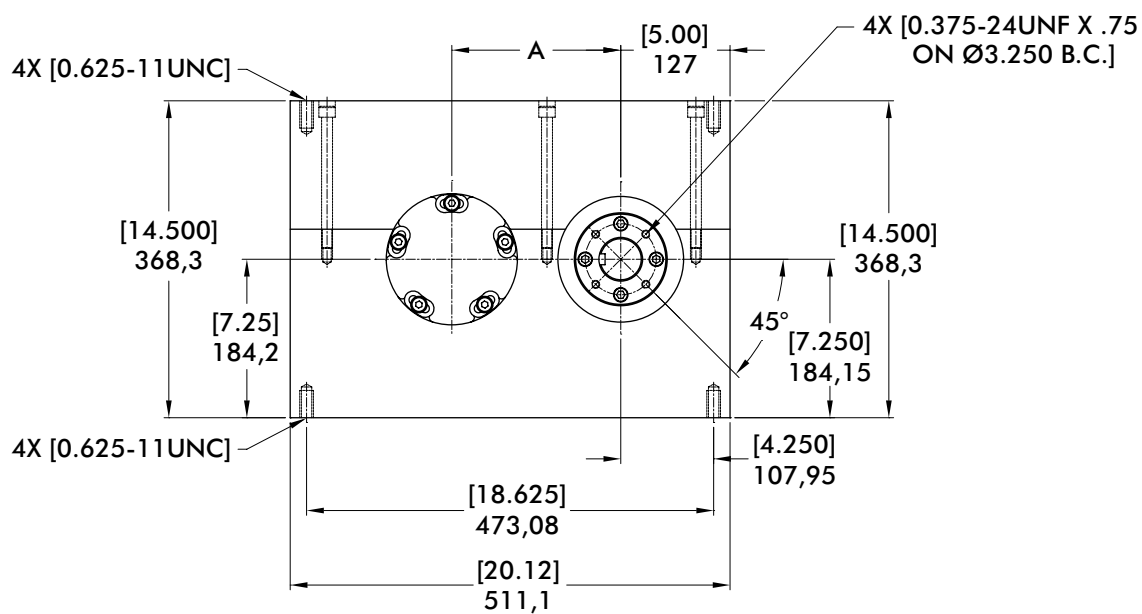
±9 arcsec / ±0,003 mm [±.0001 in]  
at 76,2 mm [3 in] Radius

### Optional Accessories

- 1 hp DC motor
- Varipak DC Motor Control (up to 30 cpm)
- R260 Reducer (ratios from 5:1 to 60:1)
  - 1 hp AC or DC drive package
  - 56C Motor Adapter and Coupling
- Output Overload Clutch Models: 6.0F, 6.0FC, 6.0S and 6.0C, 6.0C-SD, 6.0FC-SD, 6.0S-SD
  - Available Settings (in-lb): 670, 825, 1100, 1400, 1700, 2000, 2300, 2500, 3000, 3800, 4000, 5000, 6000
- Dual Cycle Cam and Limit Switch
- Oscillating motion
- Double Input Shaft
- Double Output Shaft
- Output and Input Vertical Mounting



## Parallel Shaft/Flange Drives | Dimensions



THIRD ANGLE  
PROJECTION

| 662P Indexer Capacities |              |        |                                                |                                                           |                 |                    |
|-------------------------|--------------|--------|------------------------------------------------|-----------------------------------------------------------|-----------------|--------------------|
| Stops                   | Index Period | Motion | B <sub>10</sub> Capacity at 50 RPM N-m [in-lb] | Internal Inertia kg-cm <sup>2</sup> [lb-in <sup>2</sup> ] | Model           | "A" Center mm [in] |
| 1                       | 330          | msc.50 | 658 [5824]                                     | 403,8 [138]                                               | 662P1H48-330    | 196,32 [7.729]     |
| 1.33                    | 330          | msc.20 | 1171 [10368]                                   | 971,6 [332]                                               | 662P1.33H64-330 | 196,32 [7.729]     |
| 1.5                     | 270          | msc.33 | 1425 [12617]                                   | 895,5 [306]                                               | 662P1.5H64-270  | 196,32 [7.729]     |
| 2                       | 270          | msc.33 | 770 [6811]                                     | 529,7 [181]                                               | 662P2H48-270    | 196,32 [7.729]     |
|                         | 180          | msc.50 | 1329 [11760]                                   | 597,0 [204]                                               | 662P2H56-180    | 196,32 [7.729]     |
| 3                       | 270          | ms     | 954 [8446]                                     | 485,8 [166]                                               | 662P3H48-270    | 168,35 [6.628]     |
|                         | 180          | ms     | 961 [8506]                                     | 485,8 [166]                                               | 662P3H48-180    | 196,32 [7.729]     |
| 4                       | 270          | ms     | 989 [8752]                                     | 529,7 [181]                                               | 662P4H48-270    | 168,35 [6.628]     |
|                         | 120          | ms     | 1100 [9738]                                    | 529,7 [181]                                               | 662P4H48-120    | 196,32 [7.729]     |
| 6                       | 270          | ms     | 1463 [12946]                                   | 485,8 [166]                                               | 662P6H48-270 II | 168,35 [6.628]     |
|                         | 180          | ms     | 1453 [12863]                                   | 485,8 [166]                                               | 662P6H48-180 II | 196,32 [7.729]     |
| 8                       | 270          | ms     | 1476 [13060]                                   | 529,7 [181]                                               | 662P8H48-270 II | 168,35 [6.628]     |
|                         | 120          | msc.33 | 1783 [15780]                                   | 529,7 [181]                                               | 662P8H48-120    | 196,32 [7.729]     |

Other Motions (stops and index periods) available. Contact your DESTACO sales representative for more information.

### Features

- Single Input Shaft and Single Output Shaft
- Output horizontal even with input Mounting
- R225 Reducer (ratios from 10:1 to 60:1)
  - 56C Motor Adapter and Coupling
- 1 HP AC Drive Package with Inverter Duty Motor and Inverter Drive (up to 60 cpm)
- Single Cycle Cam and Limit Switch

### Output Load Capacity (loads carried during index):

|              |                        |
|--------------|------------------------|
| Radial       | 17415 N [3915 lbs]     |
| Thrust/Axial | 9083 N [2042 lbs]      |
| Moment       | 1464 N-m [12959 in-lb] |

### Accuracy

±36 arcsec / ±0,025 mm [±.001 in]  
at 76,2 mm [3 in] Radius

### Repeatability

±9 arcsec / ±0,008 mm [±.0003 in]  
at 152,4 mm [6 in] Radius

### Optional Accessories

- 7350C or 7400C Reducer (ratios from 5:1 to 60:1) with Motor Adapter and Coupling
- 1 hp DC Motor
- Output Overload Clutch Models: 11F, 11FC, 11FC-SD
  - Available Settings (in-lb): 2300, 4000, 6000, 8500, 11000
- Dual Cycle Cam and Limit Switch
- Electric Clutch-Brake
- Air Clutch-Brake
- Oscillating motion
- Double Input Shaft
- Double Output Shaft
- Output and Input Vertical Mounting

# PRECISION INDEXING SOLUTIONS

## Table of Contents

### INDEXERS

#### Servo Positioners



**GTB Series**  
Globoidal (Roller Gear)  
Servo Positioner.....IN-SRV-1



**RSD Series**  
Rotary Servo Drives.....IN-SRV-39

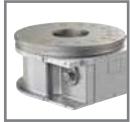
#### Mechanical Indexers



**RDM Series**  
Rotary Index Drive ..... IN-MCH-2



**RD Series**  
Roller Dial Index Drive..... IN-MCH-18



**E Series**  
Heavy-Duty Index Drive ..... IN-MCH-30



**RA Series**  
Right Angle Index Drive ..... IN-MCH-42



**RGD/RGS Series**  
Roller Gear Index Drive ..... IN-MCH-52



**P Series**  
Parallel Shaft/Flange Drive.... IN-MCH-72



**RNG Series**  
Ring Drive Dial Indexer.....IN-MCH-84

### OVERLOAD CLUTCHES



**Overload Clutches**  
Output Overload..... IN-CLU-1

### CUSTOM CAMS



**Custom Cams**  
Cam Design Solutions ..... IN-CAM-1

### CONVEYORS



**Rite-Link Series**  
Thin-Profile.....IN-CNV-1



**Precision Link Series**  
Table-Top .....IN-CNV-4



**Precision Link Series**  
Heavy-Duty ..... IN-CNV-16

### PARTS HANDLERS



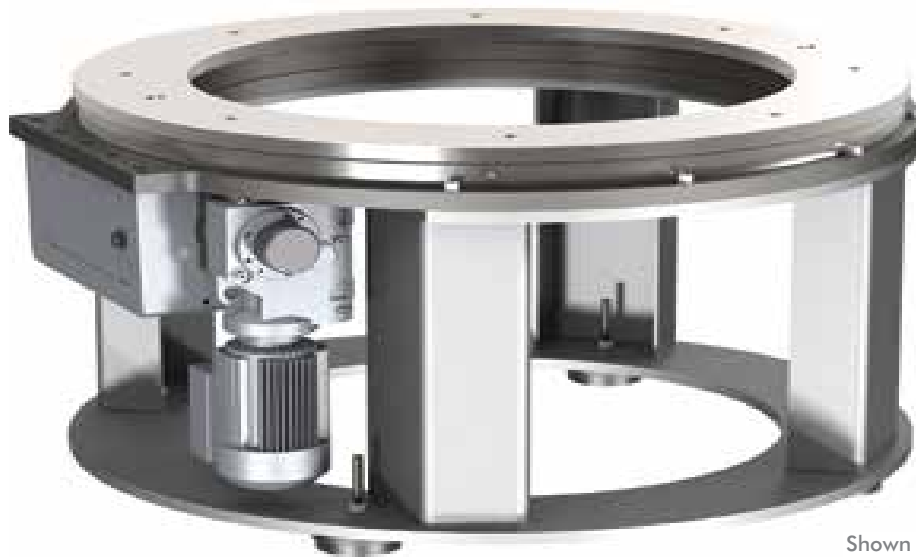
**LPP Series**  
Linear Part Handlers ..... IN-PRT-2



**RPP Series**  
Rotary Part Handlers ..... IN-PRT-8

# RING DRIVE DIAL INDEXER

Features | How To Order



Shown with optional base

## Work from Within

The **CAMCO Ring Drive** offers easy-to-integrate automation that fits easily into your operations.

Minimize machine footprint: Mount your equipment inside the through-hole of the CAMCO Ring Drive.

Easily tool the ring drive: Attach fixtures directly to the dial ring, eliminating the need for an additional dial plate.

Best technical support and service: Worldwide access to our global network.

## Applications

Printing and decorating machines

Rotary automatic assembly machines

Ideal for assembly systems requiring a large number of tooling stations

The Ring Drive can replace a small conveyor

## Table of Contents

|                    |   |
|--------------------|---|
| How to Order ..... | 3 |
| 750RNG .....       | 5 |
| 1100RNG .....      | 7 |
| 1550RNG .....      | 9 |

Licensed under U.S. Patent No. 5,950,503

# RNG SERIES

## Ring Drive Dial Indexer | Features and Benefits | How to Order

**Base Model**  
**750RNG**  
**1100RNG**  
**1550RNG**

Description  
w/ KH37 reducer & 1 HP AC motor (220/440V)  
w/ KH37 reducer & 1 HP AC motor (220/440V)  
w/ KH37 reducer & 1-1/2 HP AC motor (220/440V)

**Control**  
**1**  
**2**  
**3**  
**4**  
**5**

Description  
1 HP 120V 750RNG & 1100RNG only  
1 HP 240V 750RNG & 1100RNG only  
1 HP 440V 750RNG & 1100RNG only  
2 HP 240V 1550RNG only  
2 HP 440V 1550RNG only

**Motion**  
**A**  
**B**  
**C**  
**D**

Stops  
6  
8  
12  
16

Index  
330  
330  
330  
330

**Index Mounting**  
(See Figure 1)  
**1**

**Reducer Ratio**  

|          | 750RNG | 1100RNG | 1550RNG |
|----------|--------|---------|---------|
| <b>A</b> | 15.31  | 29.96   | 39.61   |
| <b>B</b> | 20.91  | 37.97   | 49.95   |
| <b>C</b> | 24.99  | 49.79   | 63.30   |
| <b>D</b> | 29.96  | 58.60   | 69.84   |
| <b>E</b> | 37.97  | 67.80   | 75.20   |
| <b>F</b> | 49.79  | 72.54   | 85.12   |
| <b>G</b> | 58.60  | 83.69   | 90.86   |

**Reducer Mounting**  
(See Figure 3)  
**A**  
**B**

**Signal Switch**  
**M** Mechanical  
**P** Proximity  
**Example: MS or PS**  
Note about signal switch options:  
a) Mechanical is a single switch with cam.  
b) Proximity option is a mounting bracket for 8 or 12 mm proximity switch. A proximity switch will not be supplied. Cam supplied as target.

**Signal Switch Side**  
(See Figure 2)  
**S** Shaft

Other Motions (stops and index periods) available. Contact your DESTACO sales representative for more information.

## Ring Drive Features

### Great Design Flexibility

Available in three sizes (Ø): .75 m [29.53 in], 1.1 m [43.31 in] and 1.6 m [62.99 in]

Complete motorized drive package with reducer and AC inverter drive to suit most applications

Dial Ring can be removed for machining to mounting your tooling and fixtures.

Large center through-hole to accommodate auxiliary equipment

60 station capability, ideal for multiple part automatic assembly machines

Steel Dial Ring or optional Aluminum Ring

Broad range of motions/drive packages

### Robust And Reliable

Superior accuracy, similar to a precision link conveyor - your work station is located over the cam for maximum accuracy.

High precision, hardened cams available in standard and special motions

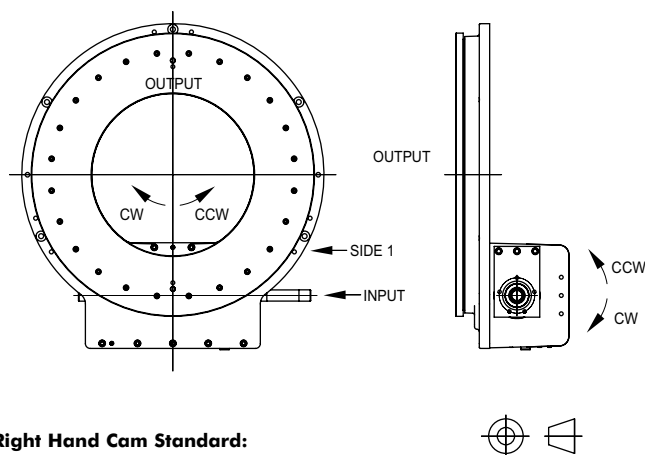
Sealed 4-point contact output bearing and large cam followers for superior accuracy and load capability (models 750RNG, 1100RNG and 1550RNG)

Modular shaft-mounted reducers for application flexibility and easy maintenance

Access to cam followers for easy inspection and replacement

Tapered roller bearings on camshaft

### Input Shaft Configuration/Rotations (Figure 1)



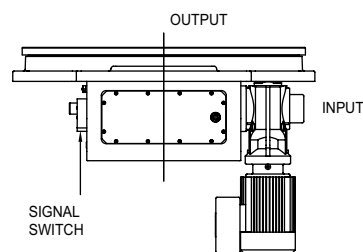
#### Right Hand Cam Standard:

CW Input Side 1, CCW Output

CCW Input Side 1, CW Output

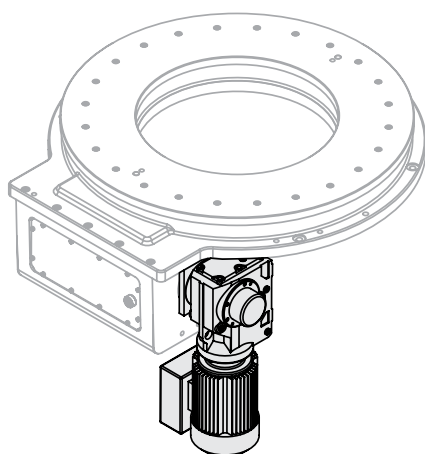
NOTE: Input can be driven in either direction

### Signal Switch Mounting Position (Figure 2)

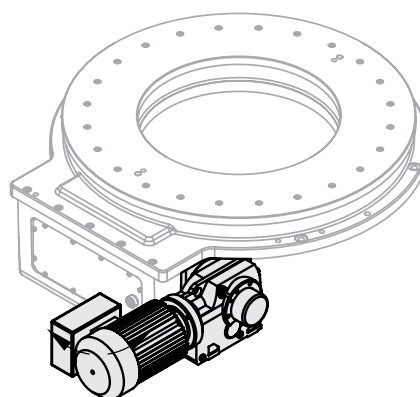


### Gear Reducer Mounting Positions (Figure 3)

#### MOUNTING "A"

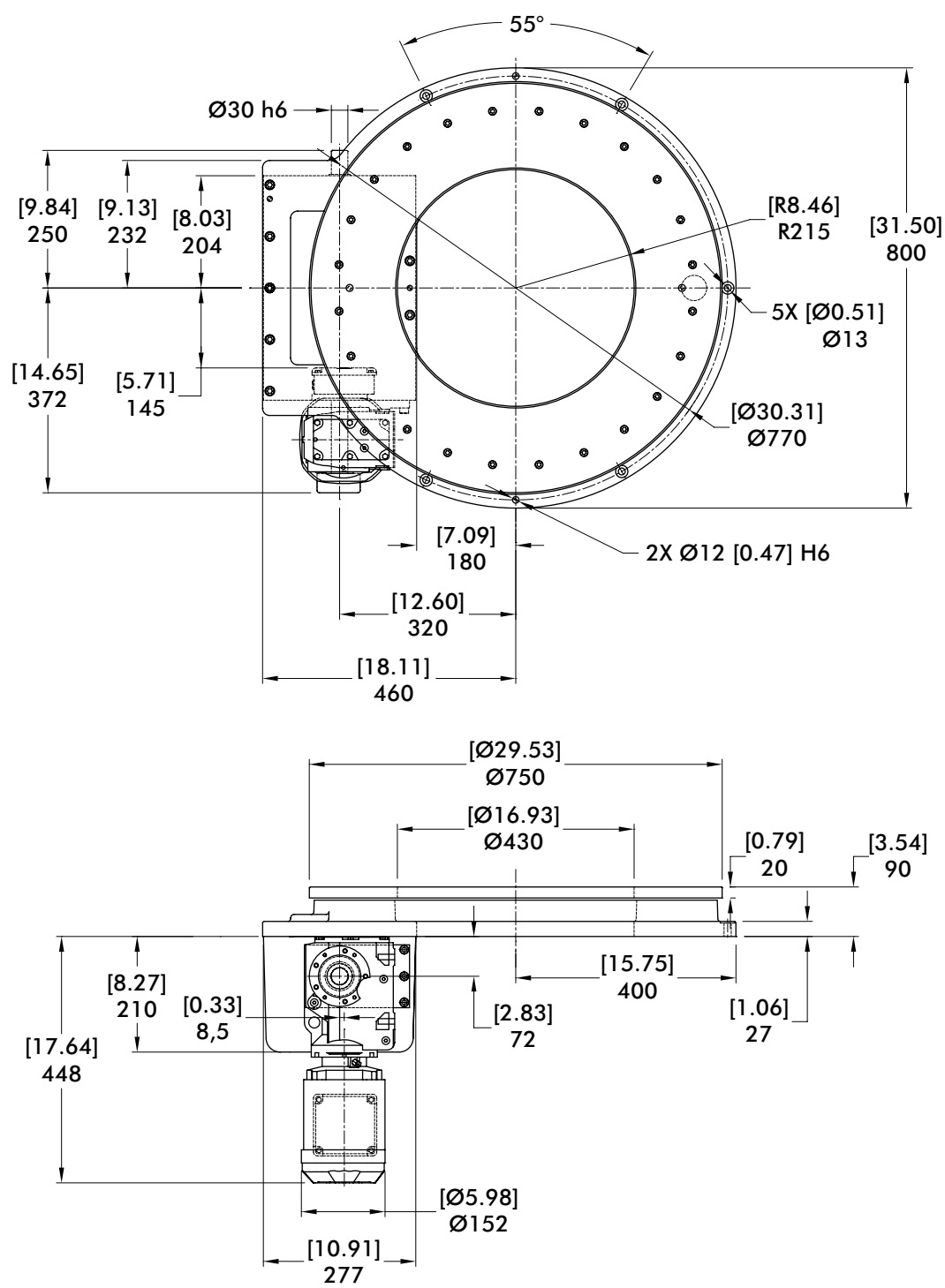


#### MOUNTING "B"

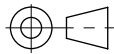


# 750RNG SERIES

## Ring Drive Dial Indexer | Dimensions



mm [INCH]



THIRD ANGLE  
PROJECTION

| Maximum Inertia x 1000 kg-cm <sup>2</sup> [lb-in <sup>2</sup> ] for standard package |                       |           |            |             |             |              |              |
|--------------------------------------------------------------------------------------|-----------------------|-----------|------------|-------------|-------------|--------------|--------------|
| Stops                                                                                | Motion Time [seconds] |           |            |             |             |              |              |
|                                                                                      | 0.468                 | 0.617     | 0.764      | 0.915       | 1.160       | 1.521        | 1.791        |
| 6                                                                                    | 0 [0]                 | 50 [17]   | 170 [58]   | 363 [124]   | 855 [292]   | 1653 [565]   | 2315 [791]   |
| 8                                                                                    | 9 [3]                 | 138 [47]  | 354 [121]  | 696 [238]   | 1571 [537]  | 2991 [1022]  | 4167 [1424]  |
| 12                                                                                   | 105 [36]              | 392 [134] | 878 [300]  | 1650 [564]  | 3620 [1237] | 6813 [2328]  | 9461 [3233]  |
| 16                                                                                   | 237 [81]              | 746 [255] | 1610 [550] | 2982 [1019] | 6488 [2217] | 12162 [4156] | 16871 [5765] |
| Reducer Ratio                                                                        |                       |           |            |             |             |              |              |
|                                                                                      | 15.31                 | 20.19     | 24.99      | 29.96       | 37.97       | 49.79        | 58.60        |

### Features

- KH37 Reducer (Ratios from 15.31:1 to 58.6:1)
- 1 HP AC Drive Package with Inverter Duty Motor and IM-pAC AC Drive (up to 60 cpm)
- Double Extended Camshaft (Input Shaft)
- Center Thru Hole (Ø230 mm [Ø9.05 in])
- Cycle Cam and Limit Switch Mounted to Camshaft
- Right Hand Cam

### Output Bearing Capacity (loads carried during index):

|        |                         |
|--------|-------------------------|
| Radial | 25740 N [5580 lbs]      |
| Axial  | 64020 N [14550 lbs]     |
| Moment | 6915 N-m [61200 in-lbs] |

**Accuracy** ±60 arcsec / ±0,047 mm [±.0019 in] at 324 mm [12.75 in] Radius

**Repeatability** ±15 arcsec / ±0,012 mm [±.0005 in] at 324 mm [12.75 in] Radius

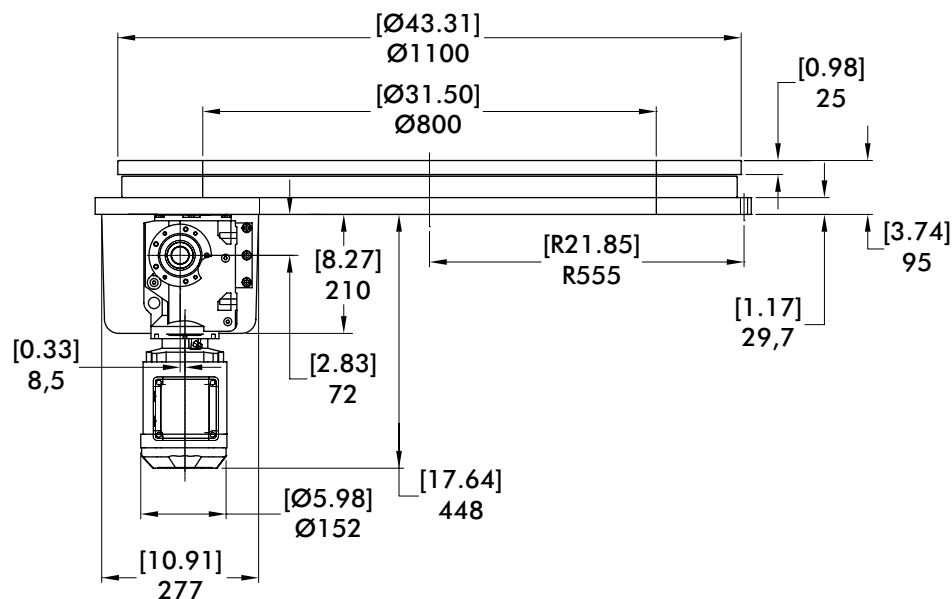
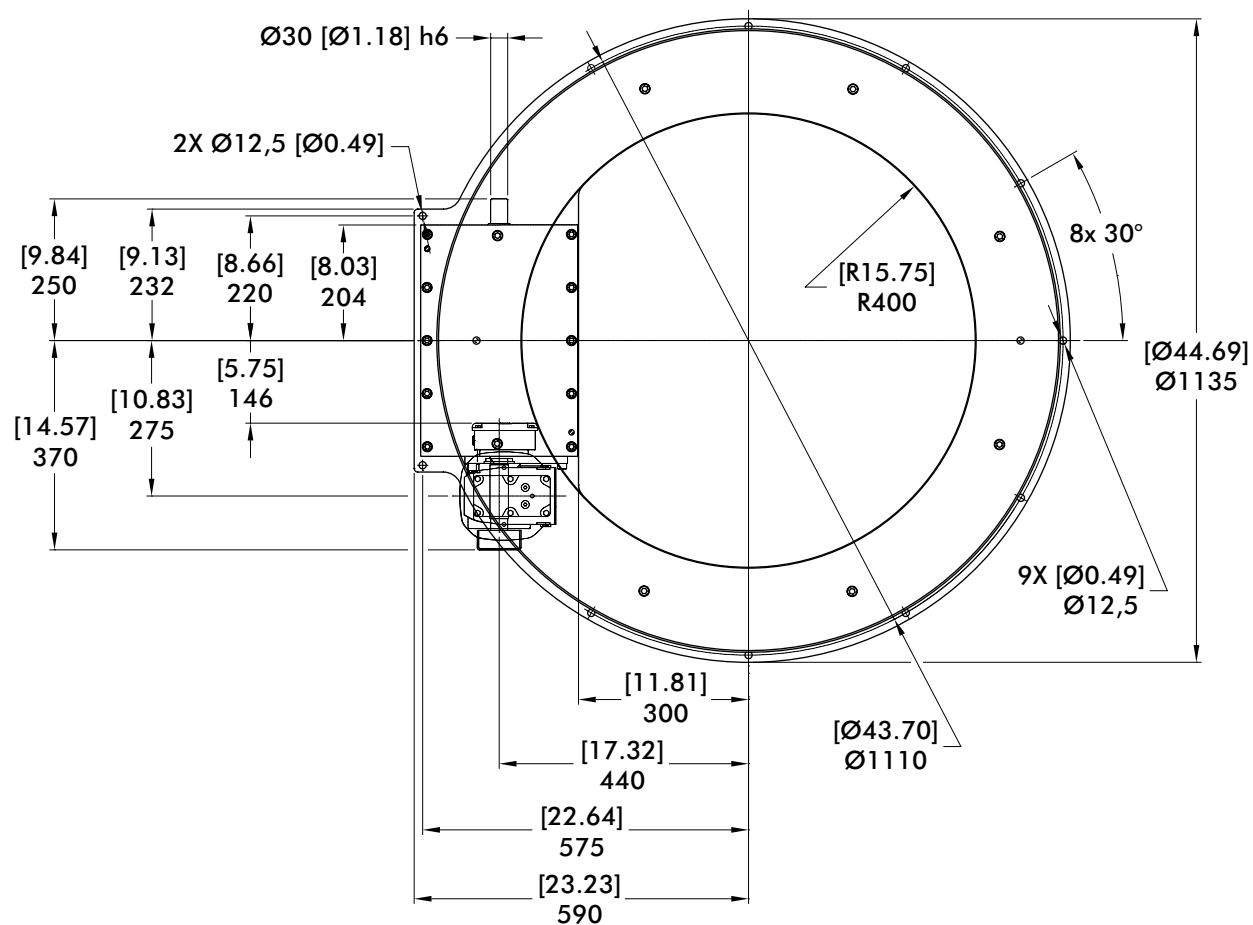
### Optional Accessories

- KH47 Reducer
- 2 HP AC Drive Package with Inverter Duty Motor and Commander SK AC Drive (up to 60 cpm)
- Dual Cam and Limit Switch
- Left Hand Cam
- AC brake Motor
- Aluminum dial ring
- Servo motor drive package with precision planetary reducer for applications requiring flexibility or fewer than 6 stations
- Custom dials & tooling plates
- Machined base (see pg. IN-MCH-84)

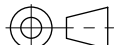


# 1100RNG SERIES

## Ring Drive Dial Indexer | Dimensions



mm [INCH]



THIRD ANGLE  
PROJECTION

| Maximum Inertia x 1000 kg-cm <sup>2</sup> [lb-in <sup>2</sup> ] for standard package |                       |             |              |              |              |              |               |
|--------------------------------------------------------------------------------------|-----------------------|-------------|--------------|--------------|--------------|--------------|---------------|
| Stops                                                                                | Motion Time [seconds] |             |              |              |              |              |               |
|                                                                                      | 0.915                 | 1.359       | 1.521        | 1.791        | 2.072        | 2.217        | 2.557         |
| 6                                                                                    | 164 [56]              | 1106 [378]  | 1454 [497]   | 2119 [724]   | 2923 [999]   | 3386 [1157]  | 4594 [1570]   |
| 8                                                                                    | 497 [170]             | 2174 [743]  | 2792 [954]   | 3971 [1357]  | 5405 [1847]  | 6224 [2127]  | 8372 [2861]   |
| 12                                                                                   | 1451 [496]            | 5221 [1784] | 6614 [2260]  | 9262 [3165]  | 12490 [4268] | 14336 [4899] | 19168 [6550]  |
| 16                                                                                   | 2783 [951]            | 9484 [3241] | 11963 [4088] | 16672 [5697] | 22407 [7657] | 25688 [8778] | 34280 [11714] |
| Reducer Ratio                                                                        |                       |             |              |              |              |              |               |
|                                                                                      | 29.96                 | 37.97       | 49.79        | 58.60        | 67.80        | 72.54        | 83.69         |

### Features

- KH37 Reducer (Ratios from 29.96:1 to 83.69:1)
- 1 HP AC Drive Package with Inverter Duty Motor and IM-pAC AC Drive (up to 60 cpm)
- Double Extended Camshaft (Input Shaft)
- Center Thru Hole (Ø800 mm [Ø31.50 in])
- Cycle Cam and Limit Switch Mounted to Camshaft
- Right Hand Cam

### Output Bearing Capacity (loads carried during index):

|        |                           |
|--------|---------------------------|
| Radial | 159940 N [36350 lbs]      |
| Axial  | 72829 N [16552 lbs]       |
| Moment | 16879 N-m [149376 in-lbs] |

**Accuracy** ±35 arcsec / ±0,038 mm [±.0015 in] at 448 mm [17.65 in] Radius

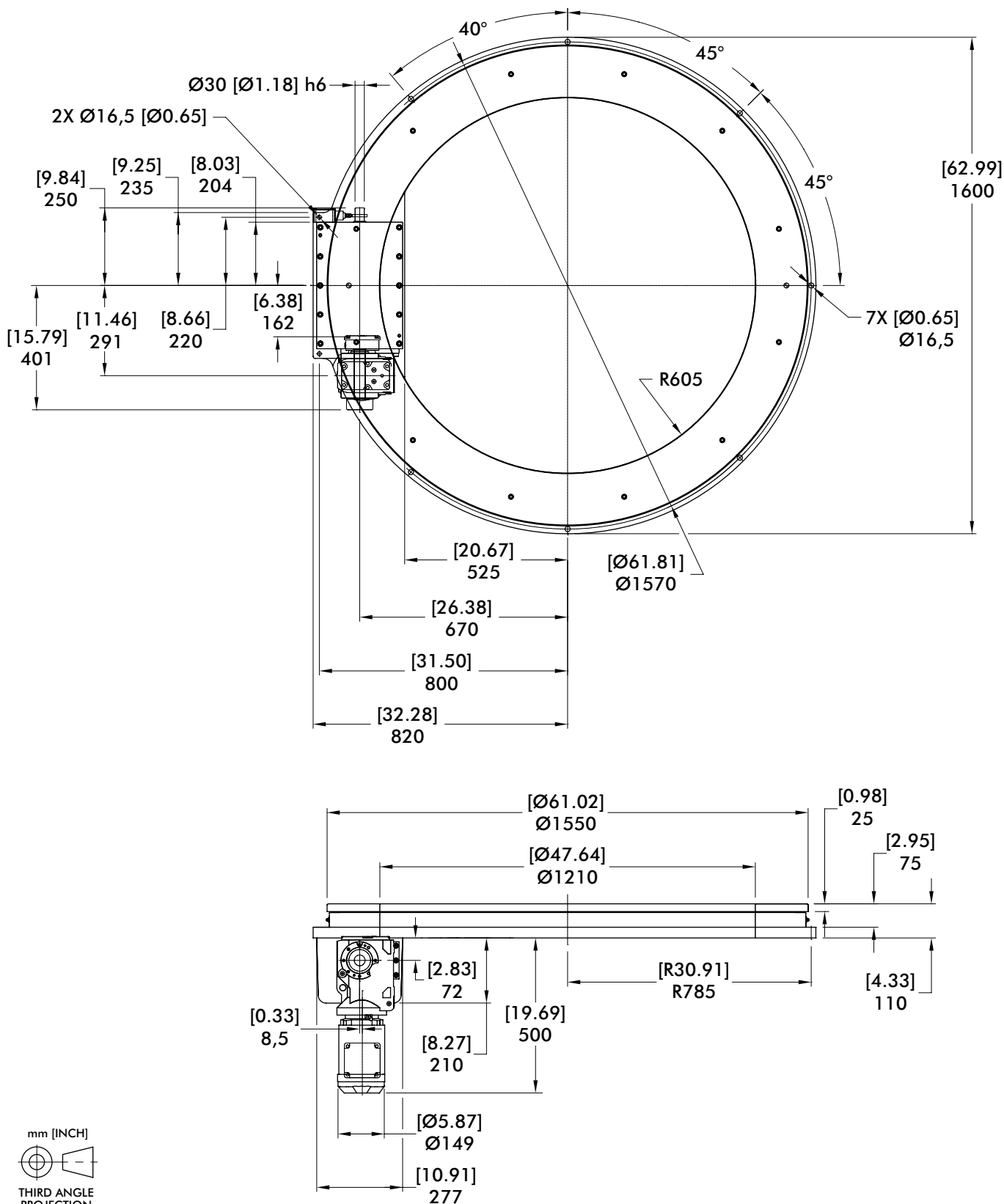
**Repeatability** ±9 arcsec / ±0,010 mm [±.0004 in] at 448 mm [17.65 in] Radius

### Optional Accessories

- KH47 Reducer
- 2 HP AC Drive Package with Inverter Duty Motor and Commander SK AC Drive (up to 60 cpm)
- Dual Cam and Limit Switch
- Left Hand Cam
- AC brake Motor
- Aluminum dial ring
- Servo motor drive package with precision planetary reducer for applications requiring flexibility or fewer than 6 stations
- Custom dials & tooling plates
- Machined base (see pg. IN-MCH-84)

# 1550RNG SERIES

## Ring Drive Dial Indexer | Dimensions



mm [INCH]

THIRD ANGLE  
PROJECTION

| Maximum Inertia x 1000 kg-cm <sup>2</sup> [lb-in <sup>2</sup> ] for standard package |                       |              |               |               |               |               |               |
|--------------------------------------------------------------------------------------|-----------------------|--------------|---------------|---------------|---------------|---------------|---------------|
| Stops                                                                                | Motion Time [seconds] |              |               |               |               |               |               |
|                                                                                      | 1.210                 | 1.496        | 1.934         | 2.134         | 2.298         | 2.601         | 2.776         |
| 6                                                                                    | 679 [232]             | 2242 [766]   | 5063 [1730]   | 6380 [2180]   | 7556 [2582]   | 9964 [3405]   | 11495 [3928]  |
| 8                                                                                    | 1984 [678]            | 4764 [1628]  | 9780 [3342]   | 12121 [4142]  | 14214 [4857]  | 18495 [6320]  | 21211 [7248]  |
| 12                                                                                   | 5718 [1954]           | 11972 [4091] | 23253 [7946]  | 28527 [9748]  | 33232 [11356] | 42863 [14647] | 48979 [16737] |
| 16                                                                                   | 10954 [3743]          | 22071 [7542] | 42125 [14395] | 51499 [17598] | 59868 [20458] | 76985 [26307] | 87859 [30023] |
| Reducer Ratio                                                                        |                       |              |               |               |               |               |               |
|                                                                                      | 39.61                 | 48.95        | 63.30         | 69.84         | 75.20         | 85.12         | 90.86         |

### Features

- KH47 Reducer (Ratios from 39.61:1 to 90.866:1)
- 2 HP AC Drive Package with Inverter Duty Motor and IM-pAC AC Drive (up to 60 cpm)
- Double Extended Camshaft (Input Shaft)
- Center Thru Hole (Ø1210 mm [Ø47.64 in])
- Cycle Cam and Limit Switch Mounted to Camshaft
- Right Hand Cam

### Output Bearing Capacity (loads carried during index):

|        |                           |
|--------|---------------------------|
| Radial | 239052 N [54330 lbs]      |
| Axial  | 76635 N [17417 lbs]       |
| Moment | 25720 N-m [227622 in-lbs] |

**Accuracy** ±25 arcsec / ±0,039 mm [±.0015 in] at 648 mm [25.51 in] Radius

**Repeatability** ±6 arcsec / ±0,010 mm [±.0004 in] at 648 mm [25.51 in] Radius

### Optional Accessories

- Dual Cam and Limit Switch
- Left Hand Cam
- AC brake Motor
- Aluminum dial ring
- Servo motor drive package with precision planetary reducer for applications requiring flexibility or fewer than 6 stations
- Custom dials & tooling plates
- Machined base (see pg. IN-MCH-84)

# PRECISION INDEXING SOLUTIONS

## Table of Contents

### INDEXERS

#### Servo Positioners



**GTB Series**  
Globoidal (Roller Gear)  
Servo Positioner.....IN-SRV-1



**RSD Series**  
Rotary Servo Drives.....IN-SRV-39

#### Mechanical Indexers



**RDM Series**  
Rotary Index Drive ..... IN-MCH-2



**RD Series**  
Roller Dial Index Drive..... IN-MCH-18



**E Series**  
Heavy-Duty Index Drive ..... IN-MCH-30



**RA Series**  
Right Angle Index Drive ..... IN-MCH-42



**RGD/RGS Series**  
Roller Gear Index Drive ..... IN-MCH-52



**P Series**  
Parallel Shaft/Flange Drive.... IN-MCH-72



**RNG Series**  
Ring Drive Dial Indexer.....IN-MCH-84

### OVERLOAD CLUTCHES



**Overload Clutches**  
Output Overload..... IN-CLU-1

### CUSTOM CAMS



**Custom Cams**  
Cam Design Solutions ..... IN-CAM-1

### CONVEYORS



**Rite-Link Series**  
Thin-Profile.....IN-CNV-1



**Precision Link Series**  
Table-Top .....IN-CNV-4



**Precision Link Series**  
Heavy-Duty ..... IN-CNV-16

### PARTS HANDLERS



**LPP Series**  
Linear Part Handlers ..... IN-PRT-2



**RPP Series**  
Rotary Part Handlers ..... IN-PRT-8

# OVERLOAD CLUTCHES

Features | Table of Contents



## Features:

**CAMCO Output Overload Clutches** are designed to protect your indexing equipment from costly downtime due to overload or jam conditions by quickly disengaging the drive system.

Easily Mounted to CAMCO index drives

Single Position reset to maintain accuracy and machine timing

Precision hardened and ground plungers and drive plate

Overload Detector plate provides actuation for overload detector switch

Variety of Models for all applications

Standard & custom torque settings

## Table of Contents

|                |    |
|----------------|----|
| Overview ..... | 3  |
| D .....        | 5  |
| F .....        | 6  |
| S .....        | 7  |
| F .....        | 8  |
| C .....        | 9  |
| S-SD .....     | 10 |
| FC-SD .....    | 11 |
| C-SD .....     | 12 |

# OVERLOAD CLUTCHES

## Mounting Overview

**CAMCO Output Overload Clutches** quickly disengage the drive system in overload or jam conditions, protecting indexers from costly downtime. A variety of models are available in standard and custom torque settings. An overload detector plate provides actuation for the overload detector switch, and the clutch's single-position reset function maintains accuracy and machine timing.

- Standard and custom torque settings
- Single-position reset maintains timing, accuracy
- Range of models for all applications
- Rigid, backlash-free design

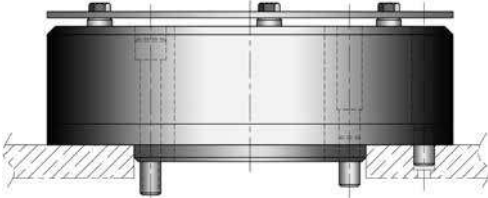


| Indexer Type                                                | Clutch Type                          |
|-------------------------------------------------------------|--------------------------------------|
| RDM                                                         | D (Flange Mounted Body)              |
| RD                                                          |                                      |
| Roller Gear (RGS / RGD)<br>Parallel (P)<br>Right Angle (RA) | F (Flange to Flange)                 |
|                                                             | FC (Flange to Shaft)                 |
|                                                             | FC-SD (Flange to Shaft, Shrink-Disk) |
|                                                             | S (Shaft to Flange)                  |
|                                                             | S-SD (Shaft to Flange, Shrink-Disk)  |
|                                                             | C (Shaft to Shaft Mounting)          |
|                                                             | C-SD (Shaft to Shaft, Shrink-Disk)   |

### CAMCO Output Overload Clutches

#### D Clutch: Flange-Mounted Body

For CAMCO Index Drives with large dial mounting surfaces. The dial plate rests directly on the index drive output flange, providing stability and accuracy.



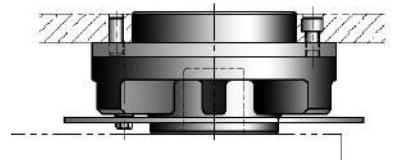
### CAMCO Output Overload Clutches

#### F Clutch: Flange-Mounted Body

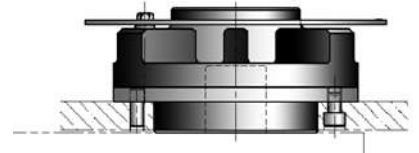
F clutches are designed to mount a dial/sprocket/flanged component to a shaft output CAMCO index drive. These clutches will flange mount to the output shaft, providing a rigid, compact, and accurate connection with the driven member.

F clutches may be mounted in two positions, "A" (right, top) or "B" (right, bottom). Mounting "B" provides greater rigidity and overhung loading and should be used whenever high loads are exerted on driven members.

A Mounting



B Mounting



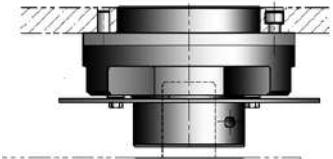
#### S & S-SD Clutch: Shaft to Flange

S clutches are designed to mount on CAMCO index drives without output flanges. The combination of key and clamped hub design provides a rigid and backlash-free connection.

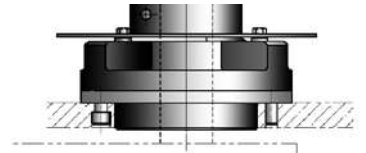
S clutches may be mounted two positions, "A" or "B." Mounting "B" provides greater rigidity and overhung loading and should be used whenever high loads are exerted on driven members.

The S-SD clutch employs a shrink disk to connect to the shaft.

A Mounting

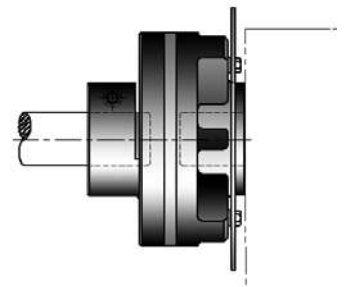


B Mounting



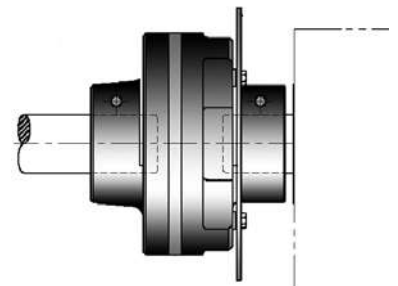
#### FC & FC-SD Clutch: Flange to Shaft

FC clutches are designed to mount on CAMCO index drives with flanged output shafts. These clutches will flange mount to the output shaft, providing a rigid, compact and accurate connection. The FC-SD clutch employs a shrink disk to connect to the shaft.



#### C Clutch: Shaft to Shaft

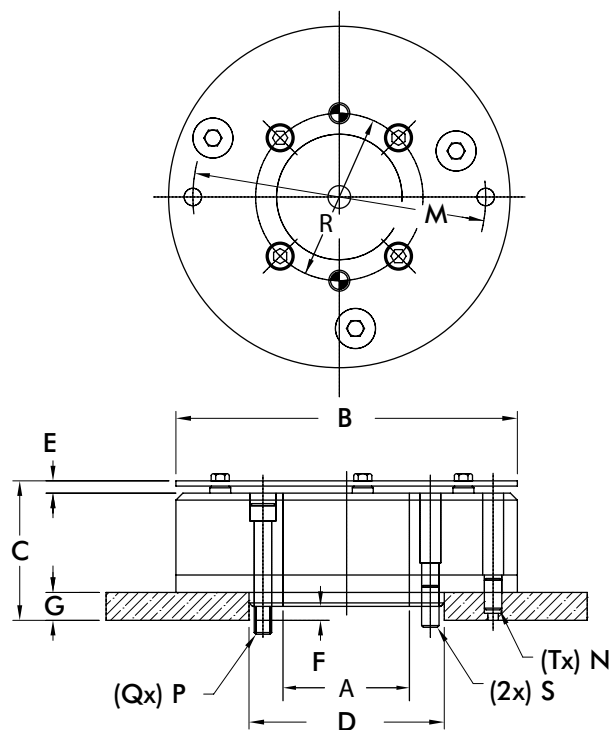
C clutches are designed to mount on CAMCO index drives without output flanges. These clutches are used whenever a positive connection is required between two shafts. The C-SD clutch employs shrink disks at both ends to connect to the shafts.





# D TYPE FLANGE-MOUNTED BODY

## Overload Clutches | Dimensions and Technical Information



“D” Type clutches are designed to mount on CAMCO Index Drives with large dial mounting surfaces. The dial plate rests directly on the index drive output flange, providing stability and accuracy.

### D Type Dimensions

| Model    | A    | B     | C    | D      | E      | F     | G     | M      | N     | P       | Q | R     | S        | T |
|----------|------|-------|------|--------|--------|-------|-------|--------|-------|---------|---|-------|----------|---|
| 2.8D     | 1.00 | 5.12  | 2.50 | 2.500  | 0.22   | 0.250 | 0.500 | 4.250  | 0.312 | .312-18 | 4 | 2.00  | 0.31     | 2 |
| 4.0D     | 2.25 | 6.12  | 2.50 | 3.500  | 0.22   | 0.250 | 0.500 | 5.250  | 0.312 | .312-18 | 4 | 3.00  | 0.31     | 2 |
| 7.8D     | 3.41 | 8.50  | 2.88 | 5.000  | 0.25   | 0.188 | 0.750 | 6.750  | 0.500 | .500-20 | 4 | 4.25  | 0.50     | 2 |
| 18D      | 2.62 | 10.25 | 4.53 | 5.000  | 0.31   | 0.188 | 1.000 | 8.250  | 0.625 | .500-20 | 4 | 4.25  | 0.50     | 2 |
| 31D      | 5.25 | 14.50 | 4.03 | 9.000  | 0.34   | -     | 1.000 | 11.750 | 0.750 | .500-20 | 6 | 8.25  | 0.50     | 4 |
| 32D      | 5.25 | 14.50 | 4.03 | 9.000  | 0.34   | -     | 1.000 | 11.750 | 0.750 | .500-13 | 6 | 8.25  | 0.50     | 4 |
| 33D (mm) | 133  | 368   | 102  | 228.6  | 8.4*** | -     | 25    | 298.5  | 20    | M12     | 6 | 210   | 12       | 4 |
| 61D      | 7.25 | 18.38 | 5.40 | 11.000 | 0.34   | -     | 1.250 | 16.000 | 0.750 | .625-11 | 8 | 10.00 | .625 (4) | 4 |

\* Dimension increases .06 during overload

\*\* Dimension increases .09 during overload

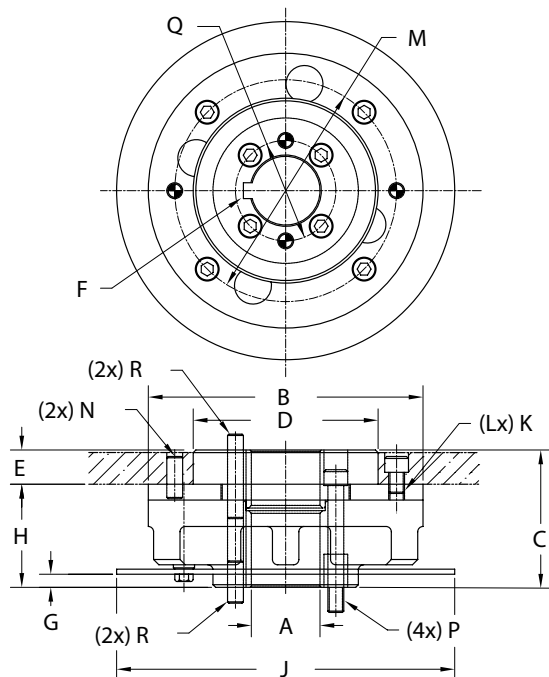
\*\*\* Dimension increases .12 during overload

### D Type Specifications

| Model | Internal Inertia | Torque Setting                                | Index Drive          |
|-------|------------------|-----------------------------------------------|----------------------|
| 2.8D  | 29               | 400 480 700 850 1100 1300 1800 2200 3100      | 425RD                |
| 4.0D  | 69               | 420 620 750 1150 1750 2950 4000               | 601RDM               |
| 7.8D  | 266              | 1400 1700 2600 3200 4200 5000 7200 10000      | 902RDM 663RAD 900RAD |
| 18D   | 743              | 5000 7000 7800 10,000 13000 15000 20000 25000 | 900RAD               |
| 31D   | 2910             | 8500 13000 20000 31000                        | 1200RAD              |
| 32D   | 2910             | 8500 13000 20000 31000                        | 1305RDM              |
| 33D   | 2910             | 8500 13000 20000 25500                        | 1100RDM              |
| 61D   | 4900             | 23000 36000 44000 50000 60000                 | 1800RDM              |

# F TYPE SHAFT TO FLANGE MOUNTING

## Overload Clutches | Dimensions and Technical Information



IMC "F" type clutches are designed to mount on IMC index drives. These clutches will flange mount to the output shaft, providing a rigid, compact, and accurate connection with the driven member.

### F Type Dimensions

| Model | A      | B     | C    | D     | E    | F      | G      | H    | J    | K       | L | M     | N     | P       | Q    | R    |
|-------|--------|-------|------|-------|------|--------|--------|------|------|---------|---|-------|-------|---------|------|------|
| .39F  | 0.625  | 3.38  | 2.19 | 2.375 | 0.41 | 0.1875 | .22†   | 1.78 | 4.75 | 10-32   | 4 | 2.875 | 0.25  | 10-32   | 1.25 | 0.25 |
| 2.3F  | 1.000* | 5.12  | 2.78 | 3.5   | 0.56 | 0.25   | .22†   | 2.22 | 6.5  | 5/16-24 | 4 | 4.25  | 0.312 | 5/16-24 | 2    | 0.31 |
| 6.0F  | 1.625  | 6.5   | 3.25 | 4.375 | 0.81 | 0.375  | .31††  | 2.44 | 8    | 3/8-24  | 4 | 5.25  | 0.375 | 3/8-24  | 2.38 | 0.38 |
| 11F   | 2      | 8.5   | 3.72 | 5.75  | 0.81 | 0.5    | .38††  | 2.91 | 10   | 3/8-24  | 4 | 6.75  | 0.5   | 3/8-24  | 3.25 | 0.5  |
| 25F   | 2.75   | 10.25 | 4.97 | 7.125 | 1.06 | 0.625  | .38††† | 3.91 | 12   | 1/2-13  | 6 | 8.25  | 0.625 | 1/2-20  | 4.25 | 0.63 |

\* Also 1.250

† Dimension decreases .06 during overload

†† Dimension decreases .09 during overload

††† Dimension decreases .12 during overload

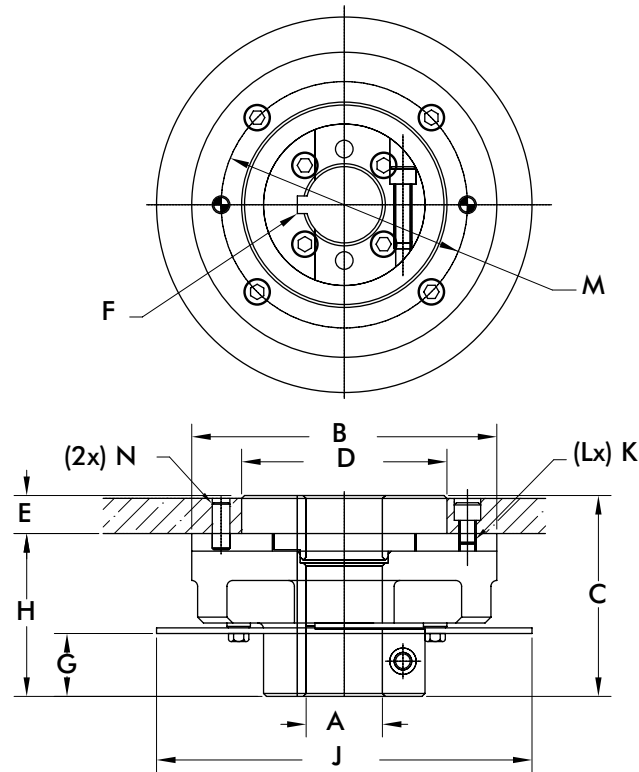
†††† Dimension decreases 1.5 mm during overload

### F Type Specifications

| Model | Internal Inertia | Torque Setting                                                     | Index Drive              |
|-------|------------------|--------------------------------------------------------------------|--------------------------|
| .39F  | 5                | 160 210 270 320 390                                                | 250P                     |
| 2.3F  | 32               | 400 600 700 850 1000 1300 1800 2000 230                            | 387P 350RGS/RGD<br>400RA |
| 6.0F  | 87               | 670 825 1100 1400 1700 2000 2300 2<br>500 3000 3800 4000 5000 6000 | 512P 512RA               |
| 11F   | 340              | 2300 4000 6000 8500 11000                                          | 662P 662RA               |
| 25F   | 842              | 5000 7000 10000 13000 15000 20000 25000                            | 900P                     |

# S TYPE SHAFT TO FLANGE MOUNTING SERIES

## Overload Clutches | Dimensions and Technical Information



IMC "S" type clutches are designed to mount on CAMCO index drives without output flanges. The combination of key and clamped hub design provides a rigid and backlash-free connection.

### S Type Dimensions

| Model | A        | B     | C    | D     | E    | F     | G       | H    | J     | K       | L | M    | N     |
|-------|----------|-------|------|-------|------|-------|---------|------|-------|---------|---|------|-------|
| .39S  | 0.6250   | 3.38  | 2.63 | 2.375 | 0.40 | 0.187 | .66†    | 2.22 | 4.75  | 10-32   | 4 | 2.88 | 0.250 |
| 2.3S  | 1.0000** | 5.12  | 3.31 | 3.500 | 0.56 | 0.250 | .75†    | 2.75 | 6.50  | 5/16-24 | 4 | 4.25 | 0.312 |
| 6.0S  | 1.6250   | 6.50  | 4.28 | 4.375 | 0.81 | 0.375 | 1.34††  | 3.47 | 8.00  | 3/8-24  | 4 | 5.25 | 0.375 |
| 11S   | 2.0000   | 8.50  | 5.00 | 5.750 | 0.81 | 0.500 | 1.69††  | 4.19 | 10.00 | 3/8-24  | 4 | 6.75 | 0.500 |
| 25S   | 2.5000   | 10.25 | 6.25 | 7.125 | 1.06 | 0.625 | 1.66††† | 5.19 | 12.00 | 1/2-13  | 6 | 8.25 | 0.625 |

\* Dimensions in millimeters

\*\* Also 1.2500

† Dimension decreases .06 during overload

†† Dimension decreases .09 during overload

††† Dimension decreases .12 during overload

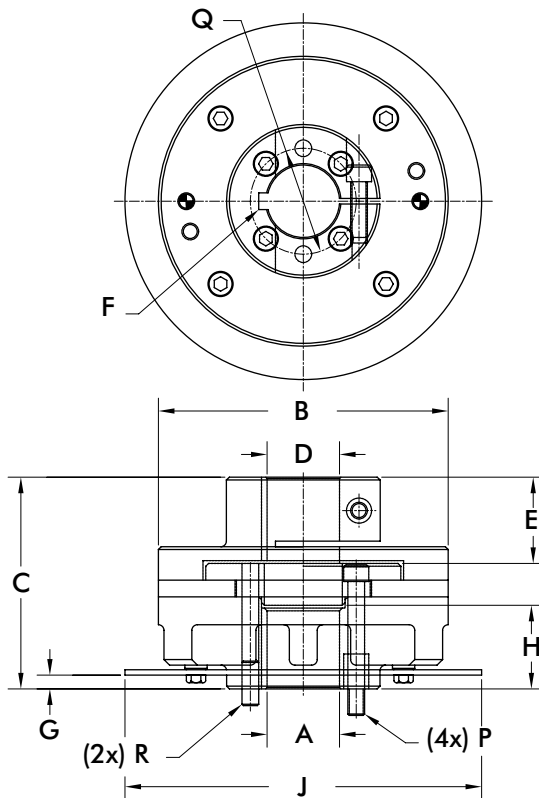
†††† Dimension decreases 1.5 mm during overload

### S Type Specifications

| Model | Internal Inertia | Torque Setting                                                    | Index Drive           |
|-------|------------------|-------------------------------------------------------------------|-----------------------|
| .39S  | 5                | 160 210 270 320 390                                               | 250P                  |
| 2.3S  | 31               | 400 600 700 850 1000 1300 1800 2000 2300                          | 387P 350RGS/RGD 400RA |
| 6.0S  | 83               | 670 825 1100 1400 1700 2000 2300<br>2500 3000 3800 4000 5000 6000 | 512P 512RA            |
| 11S   | 320              | 2300 4000 6000 8500 11000                                         | 500RGD/RGS 662RA 662P |
| 25S   | 803              | 5000 7000 10000 13000 15000 20000 25000                           | 700RGS                |

# FC TYPE FLANGE TO SHAFT MOUNTING SERIES

## Overload Clutches | Dimensions and Technical Information



"FC" type clutches are designed to mount on CAMCO index drives. These clutches will flange mount to the output shaft, providing a rigid, compact and accurate connection.

### FC Type Dimensions

| Model        | A        | B    | C    | D     | E    | F     | G     | H    | J     | P       | Q    | R    |
|--------------|----------|------|------|-------|------|-------|-------|------|-------|---------|------|------|
| <b>.39FC</b> | 0.6250   | 3.38 | 3.03 | 0.625 | 1.06 | 0.187 | .22†  | 1.41 | 4.75  | 10-32   | 1.25 | 0.25 |
| <b>2.3FC</b> | 1.0000** | 5.12 | 3.81 | 1.000 | 1.28 | 0.250 | .22†  | 1.75 | 6.50  | 5/16-24 | 2.00 | 0.31 |
| <b>6.0FC</b> | 1.6250   | 6.50 | 4.75 | 1.625 | 1.94 | 0.375 | .31†† | 1.88 | 8.00  | 3/8-24  | 2.38 | 0.38 |
| <b>11FC</b>  | 2.0000   | 8.50 | 5.72 | 2.000 | 2.38 | 0.500 | .38†† | 2.25 | 10.00 | 3/8-24  | 3.25 | 0.38 |

\* Dimensions in millimeters

\*\* Also 1.2500

† Dimension decreases .06 during overload

†† Dimension decreases .09 during overload

††† Dimension decreases .12 during overload

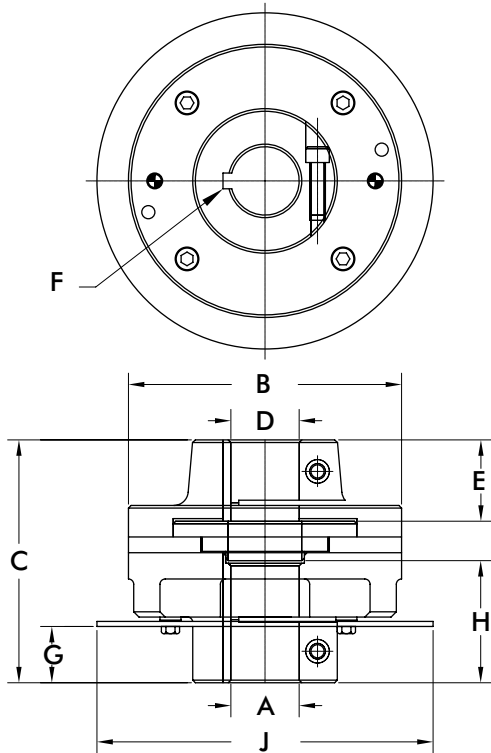
†††† Dimension decreases 1.5 mm during overload

### FC Type Specifications

| Model        | Internal Inertia | Torque Setting                                                    | Index Drive           |
|--------------|------------------|-------------------------------------------------------------------|-----------------------|
| <b>.39FC</b> | 7                | 160 210 270 320 390                                               | 250P                  |
| <b>2.3FC</b> | 43               | 400 600 700 850 1000 1300 1800 2000 2300                          | 387P 350RGS/RGD 400RA |
| <b>6.0FC</b> | 118              | 670 825 1100 1400 1700 2000 2300<br>2500 3000 3800 4000 5000 6000 | 512P 512RA            |
| <b>11FC</b>  | 456              | 2300 4000 6000 8500 11000                                         | 662P 662RA            |

# C TYPE SHAFT TO SHAFT MOUNTING SERIES

## Overload Clutches | Dimensions and Technical Information



"C" type clutches are designed to mount on CAMCO index drives without output flanges. These clutches are used whenever a positive connection is required between two shafts.

### C Type Dimensions

| Model | A        | B    | C    | D     | E    | F     | G     | H    | J     | P       | Q    | R    |
|-------|----------|------|------|-------|------|-------|-------|------|-------|---------|------|------|
| .39C  | 0.6250   | 3.38 | 3.03 | 0.625 | 1.06 | 0.187 | .22†  | 1.41 | 4.75  | 10-32   | 1.25 | 0.25 |
| 2.3C  | 1.0000** | 5.12 | 3.81 | 1.000 | 1.28 | 0.250 | .22†  | 1.75 | 6.50  | 5/16-24 | 2.00 | 0.31 |
| 6.0C  | 1.6250   | 6.50 | 4.75 | 1.625 | 1.94 | 0.375 | .31†† | 1.88 | 8.00  | 3/8-24  | 2.38 | 0.38 |
| 11C   | 2.0000   | 8.50 | 5.72 | 2.000 | 2.38 | 0.500 | .38†† | 2.25 | 10.00 | 3/8-24  | 3.25 | 0.38 |

\* Dimensions in millimeters

\*\* Also 1.2500

† Dimension decreases .06 during overload

†† Dimension decreases .09 during overload

††† Dimension decreases .12 during overload

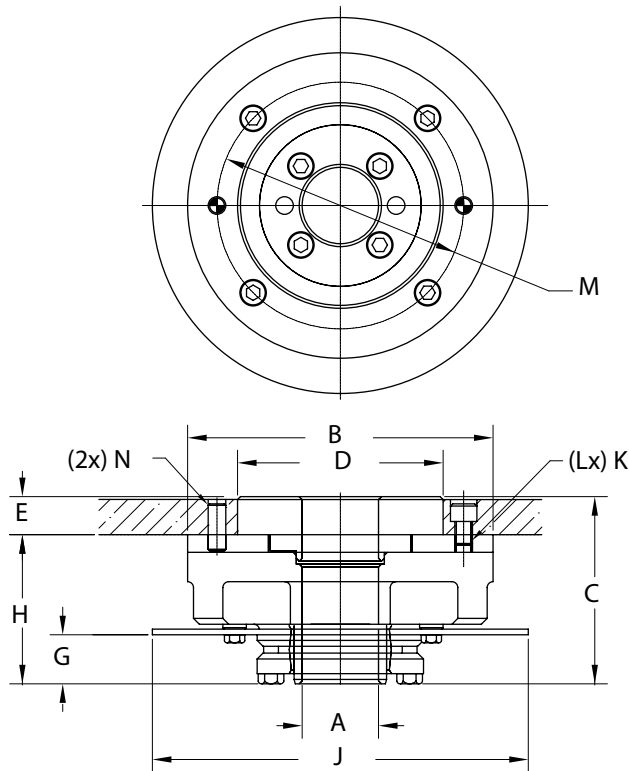
†††† Dimension decreases 1.5 mm during overload

### C Type Specifications

| Model | Internal Inertia | Torque Setting                                                    | Index Drive           |
|-------|------------------|-------------------------------------------------------------------|-----------------------|
| .39C  | 7                | 160 210 270 320 390                                               | 250P                  |
| 2.3C  | 44               | 400 600 700 850 1000 1300 1800 2000 2300                          | 387P 350RGS/RGD 400RA |
| 6.0C  | 122              | 670 825 1100 1400 1700 2000 2300<br>2500 3000 3800 4000 5000 6000 | 512P 512RA            |
| 11C   | 476              | 2300 4000 6000 8500 11000                                         | 500RGD/RGS 662P       |

# S-SD TYPE SHAFT TO FLANGE, SHRINK-DISK MOUNTING SERIES

## Overload Clutches | Dimensions and Technical Information



"S-SD" type clutches are designed to mount on CAMCO index drives without output flanges. The shrink disk design converts clamp loads from multiple high strength locking screws to radial gripping force through the use of circular wedges, providing the highest capacity mechanical interference connection available.

### S-SD Type Dimensions

| Model         | A      | B    | C    | D     | E    | F      | G    | H     | J       | K | L    | N     |
|---------------|--------|------|------|-------|------|--------|------|-------|---------|---|------|-------|
| <b>.39-SD</b> | 0.6250 | 3.38 | 2.62 | 2.375 | 0.40 | .66†   | 2.22 | 4.75  | 10-32   | 4 | 2.88 | 0.250 |
| <b>2.3-SD</b> | 1.0000 | 5.12 | 3.31 | 3.500 | 0.56 | .75†   | 2.75 | 6.50  | 5/16-24 | 4 | 4.25 | 0.312 |
| <b>6.0-SD</b> | 1.6250 | 6.50 | 3.98 | 4.375 | 0.81 | 1.04†† | 3.17 | 8.00  | 3/8-24  | 4 | 5.25 | 0.375 |
| <b>11-SD</b>  | 2.0000 | 8.50 | 4.38 | 5.750 | 0.82 | 1.06†† | 3.56 | 10.00 | 3/8-24  | 4 | 6.75 | 0.500 |

\* Dimensions in millimeters

† Dimension decreases .06 during overload

†† Dimension decreases .09 during overload

††† Dimension decreases .12 during overload

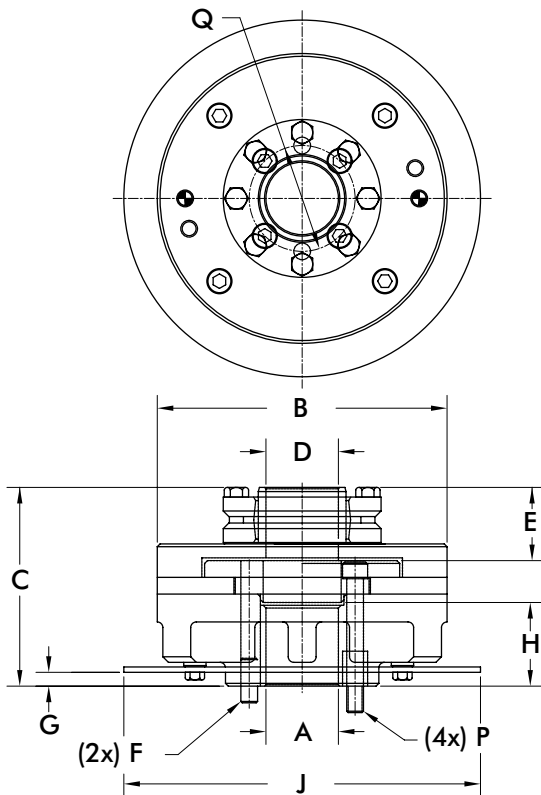
†††† Dimension decreases 1.5 mm during overload

### S-SD Type Specifications

| Model         | Internal Inertia | Torque Setting                                                    | Index Drive           |
|---------------|------------------|-------------------------------------------------------------------|-----------------------|
| <b>.39-SD</b> | 5                | 160 210 270 320 390                                               | 250P                  |
| <b>2.3-SD</b> | 32               | 400 600 700 850 1000 1300 1800 2000 2300                          | 387P 350RGS/RGD 400RA |
| <b>6.0-SD</b> | 87               | 670 825 1100 1400 1700 2000 2300<br>2500 3000 3800 4000 5000 6000 | 512P 512RA            |
| <b>11-SD</b>  | 340              | 2300 4000 6000 8500 11000                                         | 500RGD/RGS 662P       |

# FC-SD TYPE FLANGE TO SHAFT, SHRINK-DISK MOUNTING SERIES

## Overload Clutches | Dimensions and Technical Information



“FC-SD” type clutches are designed to mount on CAMCO index drives with output flanges. The shrink disk design converts clamp loads from multiple high strength locking screws to radial gripping force through the use of circular wedges, providing the highest capacity mechanical interference connection available.

### FC-SD Type Dimensions

| Model    | A      | B    | C    | D     | E    | F    | G     | H    | J     | P       | Q    |
|----------|--------|------|------|-------|------|------|-------|------|-------|---------|------|
| .39FC-SD | 0.6250 | 3.38 | 3.00 | 0.625 | 1.03 | 0.25 | .22†  | 1.41 | 4.75  | 10-32   | 1.25 |
| 2.3FC-SD | 1.0000 | 5.12 | 3.81 | 1.000 | 1.27 | 0.31 | .22†  | 1.75 | 6.50  | 5/16-24 | 2.00 |
| 6.0FC-SD | 1.6250 | 6.50 | 4.46 | 1.625 | 1.64 | 0.38 | .31†† | 1.88 | 8.00  | 3/8-24  | 2.38 |
| 11FC-SD  | 2.0000 | 8.50 | 5.06 | 2.000 | 1.75 | 0.38 | .38†† | 2.25 | 10.00 | 3/8-24  | 3.25 |

\* Dimensions in millimeters

† Dimension decreases .06 during overload

†† Dimension decreases .09 during overload

††† Dimension decreases .12 during overload

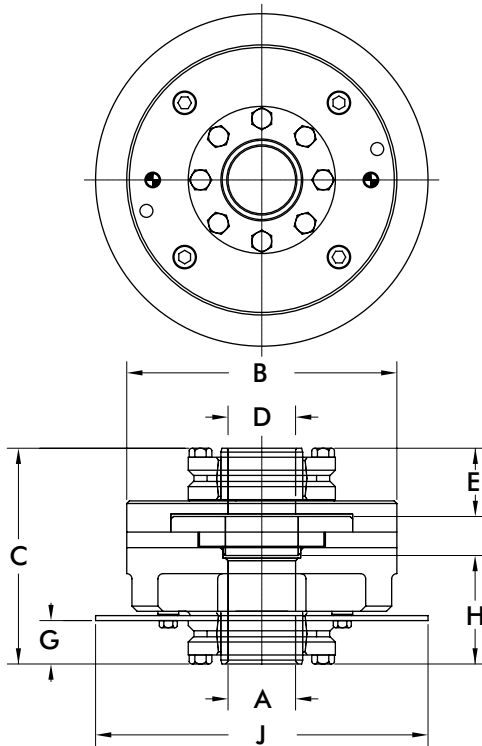
†††† Dimension decreases 1.5 mm during overload

### FC-SD Type Specifications

| Model    | Internal Inertia | Torque Setting                                                    | Index Drive           |
|----------|------------------|-------------------------------------------------------------------|-----------------------|
| .39FC-SD | 7                | 160 210 270 320 390                                               | 250P                  |
| 2.3FC-SD | 34               | 400 600 700 850 1000 1300 1800 2000 2300                          | 387P 350RGS/RGD 400RA |
| 6.0FC-SD | 118              | 670 825 1100 1400 1700 2000 2300<br>2500 3000 3800 4000 5000 6000 | 512P 512RA            |
| 11FC-SD  | 456              | 2300 4000 6000 8500 11000                                         | 500RGD/RGS 662P 662RA |

# C-SD TYPE SHAFT TO SHAFT, SHRINK-DISK MOUNTING SERIES

## Overload Clutches | Dimensions and Technical Information



“C-SD” type clutches are designed to mount on CAMCO index drives without output flanges. The shrink disk design converts clamp loads from multiple high strength locking screws to radial gripping force through the use of circular wedges, providing the highest capacity mechanical interference connection available.

### C-SD Type Dimensions

| Model          | A      | B    | C    | D     | E    | G      | H    | J     |
|----------------|--------|------|------|-------|------|--------|------|-------|
| <b>.39C-SD</b> | 0.6250 | 3.38 | 3.44 | 0.625 | 1.03 | .66†   | 1.84 | 4.75  |
| <b>2.3C-SD</b> | 1.0000 | 5.12 | 4.34 | 1.000 | 1.28 | .75†   | 2.28 | 6.50  |
| <b>6.0C-SD</b> | 1.6250 | 6.50 | 5.19 | 1.625 | 1.64 | 1.04†† | 2.61 | 8.00  |
| <b>11C-SD</b>  | 2.0000 | 8.50 | 5.75 | 2.000 | 1.75 | 1.06†† | 2.93 | 10.00 |

\* Dimensions in millimeters

† Dimension decreases .06 during overload

†† Dimension decreases .09 during overload

††† Dimension decreases .12 during overload

†††† Dimension decreases 1.5 mm during overload

### C-SD Type Specifications

| Model          | Internal Inertia | Torque Setting                                                    | Index Drive           |
|----------------|------------------|-------------------------------------------------------------------|-----------------------|
| <b>.39C-SD</b> | 7                | 160 210 270 320 390                                               | 250P                  |
| <b>2.3C-SD</b> | 44               | 400 600 700 850 1000 1300 1800 2000 2300                          | 387P 350RGS/RGD 400RA |
| <b>6.0C-SD</b> | 122              | 670 825 1100 1400 1700 2000 2300<br>2500 3000 3800 4000 5000 6000 | 512P 512RA            |
| <b>11C-SD</b>  | 476              | 2300 4000 6000 8500 11000                                         | 500RGD/RGS 662P 662RA |



# CUSTOM CAMS

## Product Overview



**CAMCO Custom Cams** serve as an economical alternative to “in house” cam design, engineering and manufacturing. Backed by over 100 years of experience, we offer cams in a comprehensive range of configurations, tolerances and materials.

Our designers employ the most advanced computer technology available for detailed kinematic studies and dynamic analysis. In addition to common dimensional inspection, we perform computerized contour measurements with sophisticated, unique inspection equipment in both 2D and 3D.

Our commitment to applied engineering allows us to respond quickly to complicated manufacturing issues with specialized solutions that are precise, economical and engineered to your exacting specifications. Alternative materials, milling, and grinding techniques are explored to provide the best solution for your application at the most economical price.

To assist in your in-house cam design, you can download Clyde H. Moon’s “Cam Design Manual for Engineers, Designers, and Draftsman” from the DESTACO website, [www.destaco.com](http://www.destaco.com).

**Custom Cams are available in a variety of styles:**

|                                                                                                                                                                                                                                                                  |                                                                                      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| <p><b>Plate Cams</b><br/>Popular, economical design used in low speed applications.</p>                                                                                                                                                                          |    |
| <p><b>Globoidal Cams</b><br/>Complex, tapered rib globoidal cams, commonly known as roller gear cams, are the heart of IMC's indexers. Controlled follower preloads increase follower life, speeds and accuracy for the ultimate solution in motion control.</p> |    |
| <p><b>Face-Grooved Cams</b><br/>Medium speed cams using a groove slightly larger than the follower diameter providing minimal running clearance and reduced backlash.</p>                                                                                        |  |
| <p><b>Conjugate Cams</b><br/>Dual cams controlling preloaded followers which provide higher speed capabilities and better accuracy.</p>                                                                                                                          |  |
| <p><b>Barrel Cams</b><br/>Cylindrical cams which can be provided as an end cam, grooved type with minimal follower clearance or as a ribbed type utilizing preloaded followers for increased life and accuracy.</p>                                              |  |

# RITE-LINK SERIES

## Features and Benefits

### Right Sized Conveying

The **CAMCO Rite-Link Conveyor** is a thin-profile, preassembled, precision link system offering maintenance free accuracy and durability for industrial conveying applications.

Precision positioning requiring higher precision or speed than roller chain can provide

Material conveying (industrial or medical): for example, narrow cleat or bucket conveyor for constant speed applications. The conveyor can be mounted for either over/under or carousel operation

### Features:

#### Assembly

- Fully designed, assembled and tested for your application
- Can be used in an over/under or carousel configuration

#### Size

- Slim, compact design with narrow links accommodates oversized tooling
- Easy to integrate
- Servo-friendly for flexible indexing with CAMCO RSD rotary servo drive

#### Accuracy

- Precision motion from the trusted industry leader
- More accurate and stable than roller chain

#### Operation

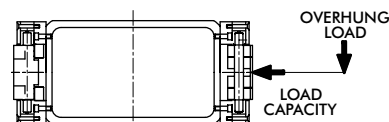
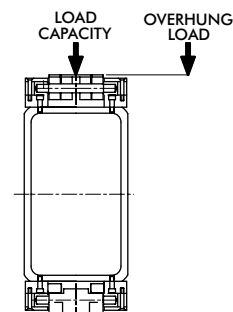
- High operation speeds
- No lubrication needed
- Energy efficient
- Cost Effective

**NEW**



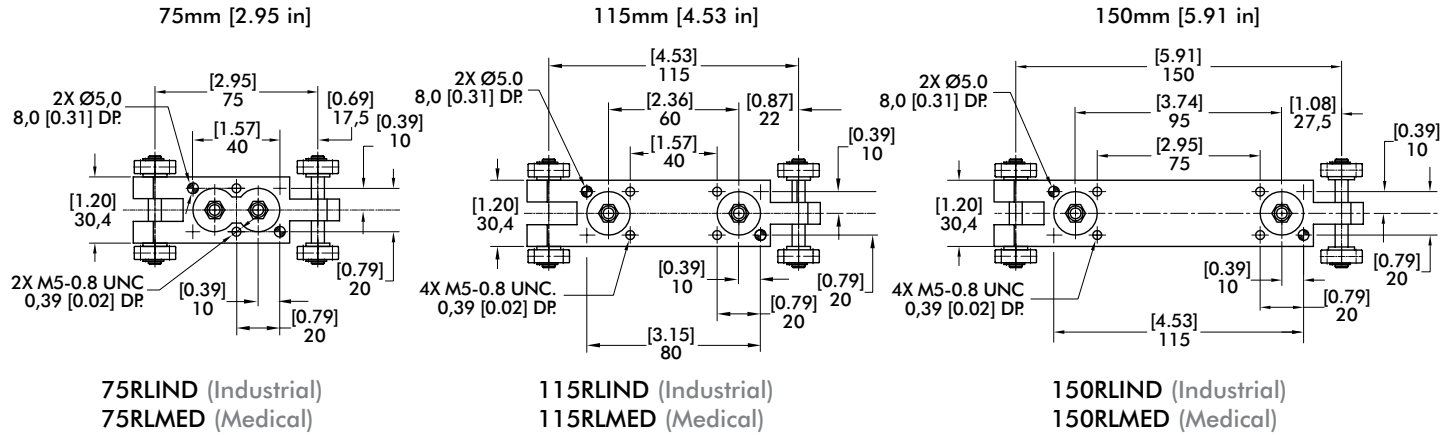
| Maximum Load               | Units       | 75RL...  | 115RL... | 150RL... |
|----------------------------|-------------|----------|----------|----------|
| Max Load per Link          | kg [lbm]    | 4 [8.82] |          |          |
| Max Overhung Load per Link | N-m [in-lb] | 0,57 [5] |          |          |

\* shipping/clearance dimensions

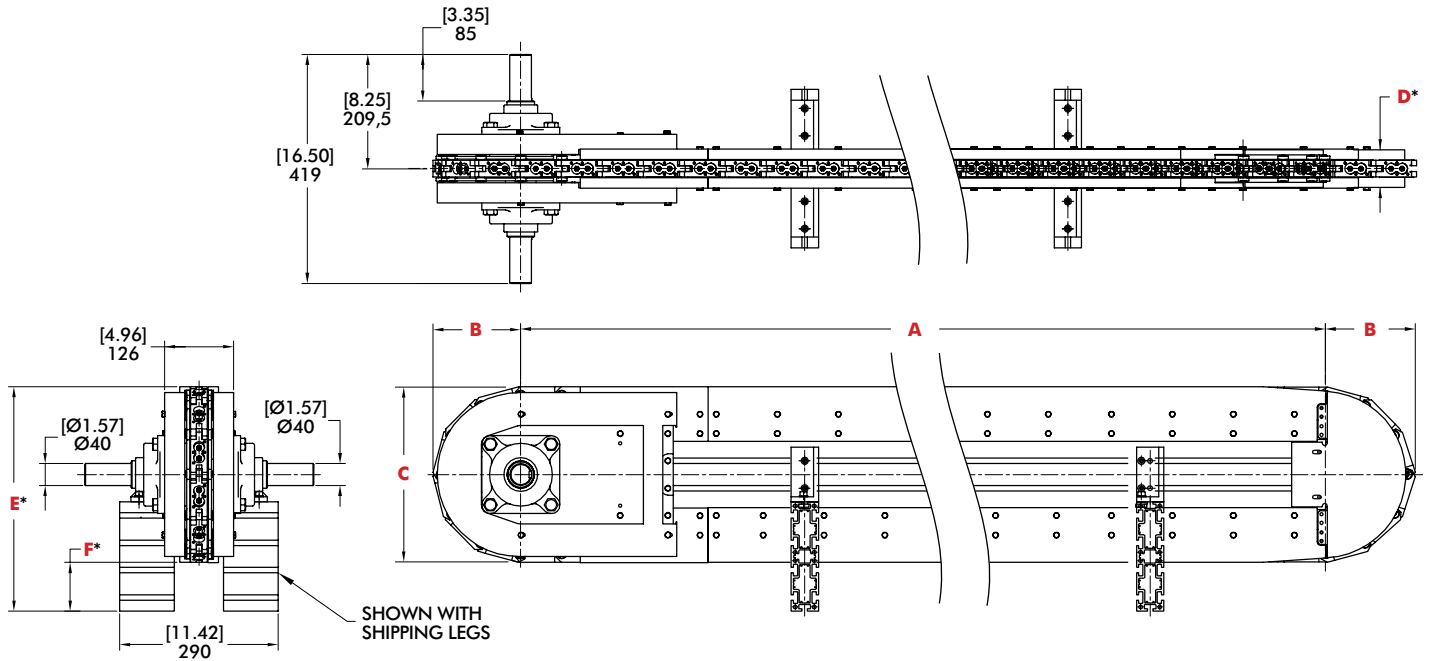


# RITE-LINK SERIES

## Link Dimensions



## Standard Centers Dimensions



## Technical Information

| Dimensions                         | Units   | 75RL...      | 115RL...      | 150RL...     |
|------------------------------------|---------|--------------|---------------|--------------|
| <b>A</b> Standard Center Distances |         |              |               |              |
| Option 1                           | m [ft]  | 1,2 [3.94]   | 1,38 [4.53]   | 1,2 [3.94]   |
| Option 2                           |         | 2,1 [6.89]   | 2,30 [7.55]   | 2,1 [6.89]   |
| Option 3                           |         | 3 [9.84]     | 3,22 [10.56]  | 3 [9.84]     |
| Option 4                           |         | 3,9 [12.80]  | 4,14 [13.58]  | 3,9 [12.80]  |
| Option 5                           |         | 4,8 [15.75]  | 5,06 [16.60]  | 4,8 [15.75]  |
| <b>B</b>                           | mm [in] | 162,5 [6.40] | 166 [6.54]    | 162,5 [6.40] |
| <b>C</b>                           | mm [in] | 320 [12.60]  | 332 [13.07]   | 332 [13.07]  |
| <b>D*</b>                          | mm [in] | 78,1 [3.07]  | 78,1 [3.07]   | 78,1 [3.07]  |
| <b>E*</b>                          | mm [in] | 411 [16.18]  | 466,2 [18.35] | 416 [16.38]  |
| <b>F*</b>                          | mm [in] | 89 [3.50]    | 133,8 [5.27]  | 84 [3.31]    |

\* shipping/clearance dimensions

# PRECISION INDEXING SOLUTIONS

## Table of Contents

### INDEXERS

#### Servo Positioners



**GTB Series**  
Globoidal (Roller Gear)  
Servo Positioner.....IN-SRV-1



**RSD Series**  
Rotary Servo Drives.....IN-SRV-39

#### Mechanical Indexers



**RDM Series**  
Rotary Index Drive ..... IN-MCH-2



**RD Series**  
Roller Dial Index Drive..... IN-MCH-18



**E Series**  
Heavy-Duty Index Drive ..... IN-MCH-30



**RA Series**  
Right Angle Index Drive ..... IN-MCH-42



**RGD/RGS Series**  
Roller Gear Index Drive ..... IN-MCH-52



**P Series**  
Parallel Shaft/Flange Drive.... IN-MCH-72



**RNG Series**  
Ring Drive Dial Indexer.....IN-MCH-84

### OVERLOAD CLUTCHES



**Overload Clutches**  
Output Overload..... IN-CLU-1

### CUSTOM CAMS



**Custom Cams**  
Cam Design Solutions ..... IN-CAM-1

### CONVEYORS



**Rite-Link Series**  
Thin-Profile.....IN-CNV-1



**Precision Link Series**  
Table-Top .....IN-CNV-4



**Precision Link Series**  
Heavy-Duty ..... IN-CNV-16

### PARTS HANDLERS



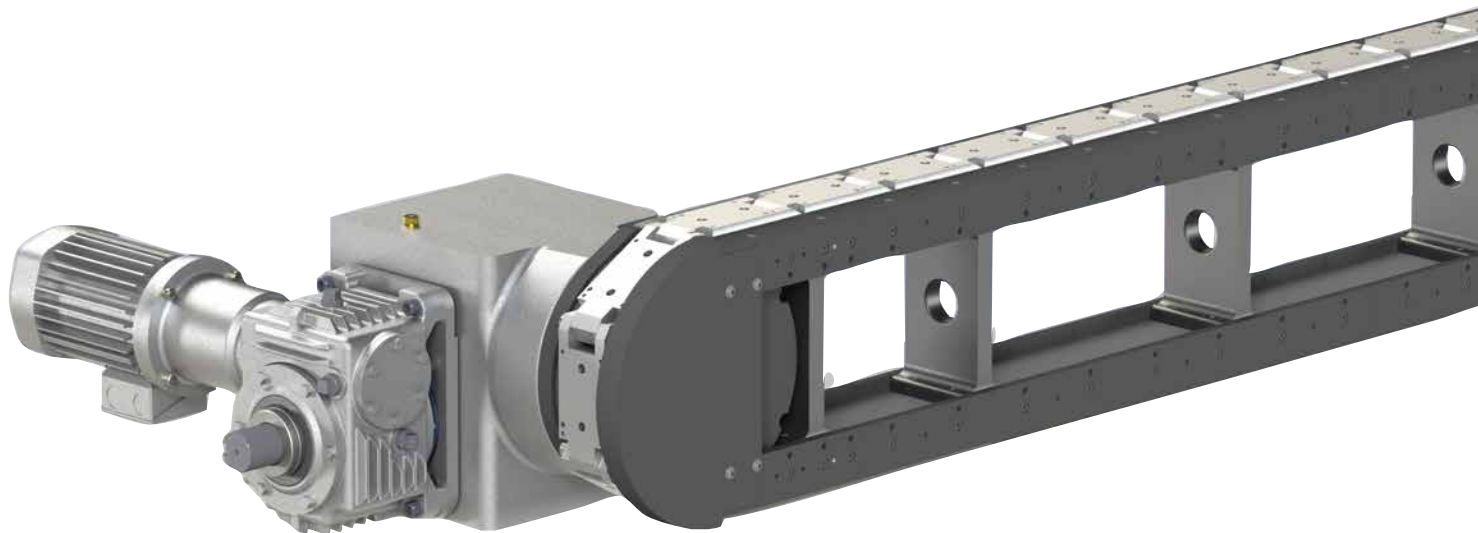
**LPP Series**  
Linear Part Handlers ..... IN-PRT-2



**RPP Series**  
Rotary Part Handlers ..... IN-PRT-8

# TABLE-TOP MODULAR CONVEYORS

Features | How To Order



## Features:

**CAMCO Modular Table Top Precision Link Conveyors** are ideal for linear transfer applications with features including:

- Modular frame design in fixed increment lengths facilitates quick assembly and delivery.
- Table-Top or Base mounted
- Available in carousel or over-under style
- Precision positioning of parts for assembly or manufacturing processes
- High-speed station-to-station parts transfer
- Precision links with roller bearing cam followers for smooth transfer and long life.
- Link lengths of 3.0", 4.5", and 6.0" meet most application requirements
- Open frame design for pass-through of belting, linkages, electric and air supply components.
- Optional bases, line shafts & tooling plates
- Complete with motorized index drive system including overload protection.

## Table of Contents

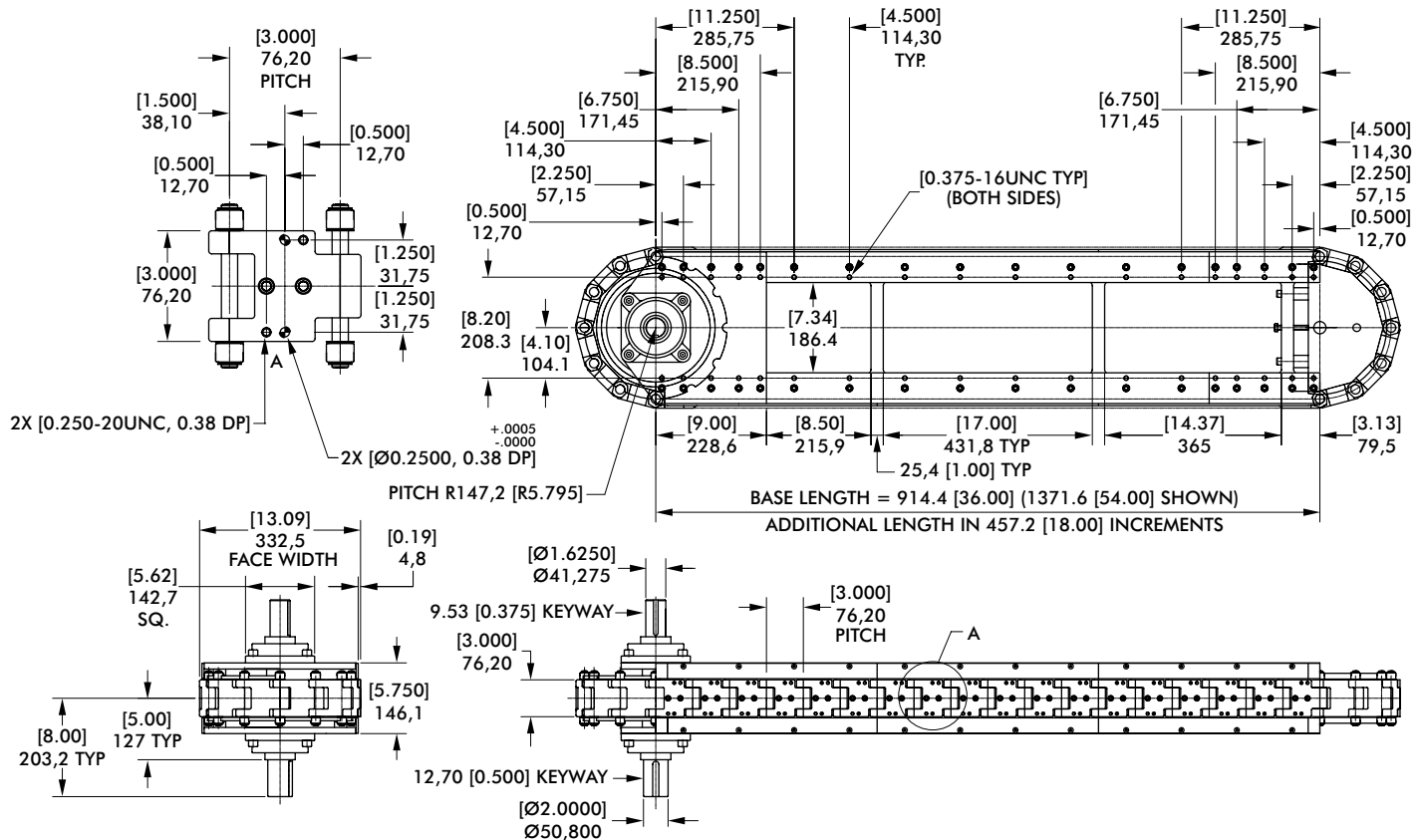
|                        |   |
|------------------------|---|
| 3.0 Inch .....         | 3 |
| 4.5 Inch .....         | 5 |
| 6.0 Inch .....         | 7 |
| Conveyor Options ..... | 9 |



# 3.0 INCH SERIES

## Table-Top Modular Conveyors | Dimensions and Configurations

### Modular Conveyor (module only)



### Modular Conveyor (drive package)

#### Standard Drive Package

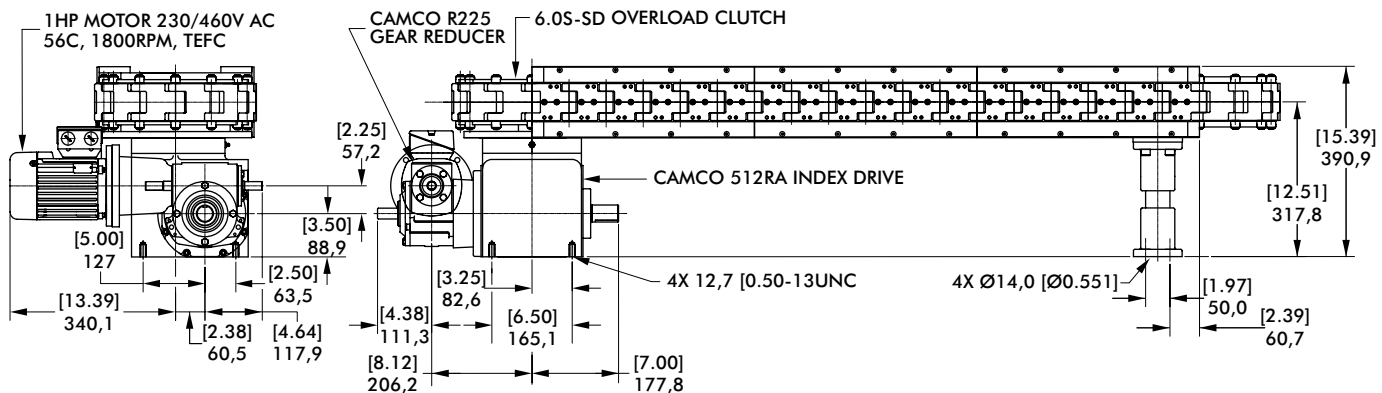
- 512RA Index Drive
- R225 Gear Reducer
- 6.0FC-SD Overload Clutch (Shaft Drive)
- 6.0S-SD Overload Clutch (Direct Drive)
- 1 HP high-cycling, performance AC Motor
- IM-pAC Motor Control

#### Heavy-Duty Drive Package

- 662RA Index Drive
- 7300C Gear Reducer
- 11FC-SD Overload Clutch (Shaft Drive)
- 6.0-SD Overload Clutch (Direct Drive)
- 1 HP high-cycling, performance AC Motor
- IM-pAC Motor Control

| Index Distance<br>mm [in] | Indexer<br>Stops |
|---------------------------|------------------|
| 76,2 [3.00]               | 12               |
| 152,4 [6.00]              | 6                |
| 228,6 [9.00]              | 4                |
| 304,8 [12.00]             | 3                |

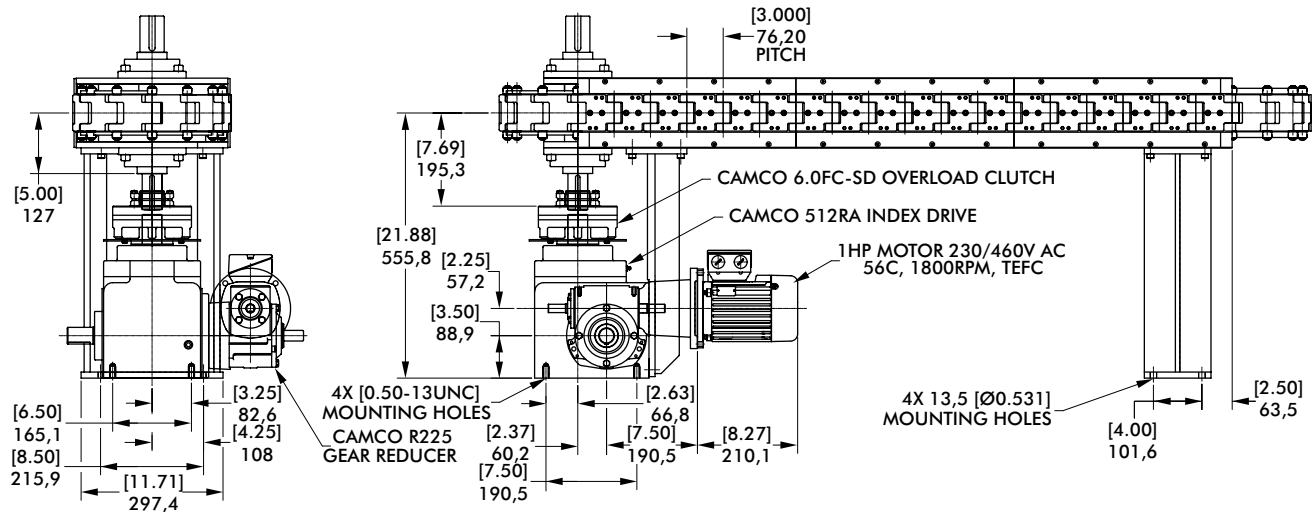
### Direct Drive Carousel



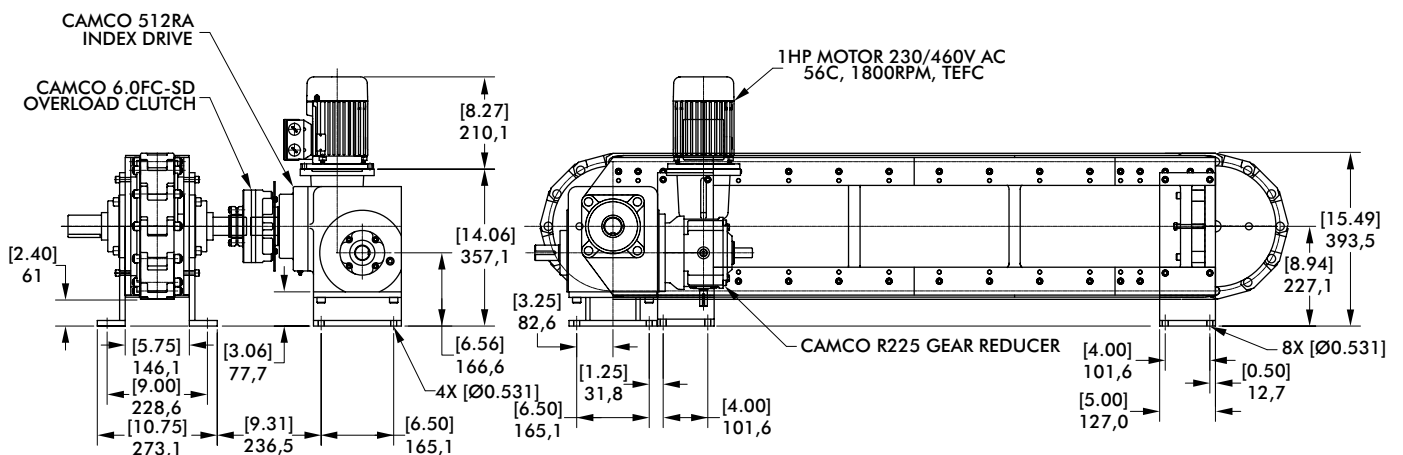
# 3.0 INCH SERIES

## Table-Top Modular Conveyors | Configurations

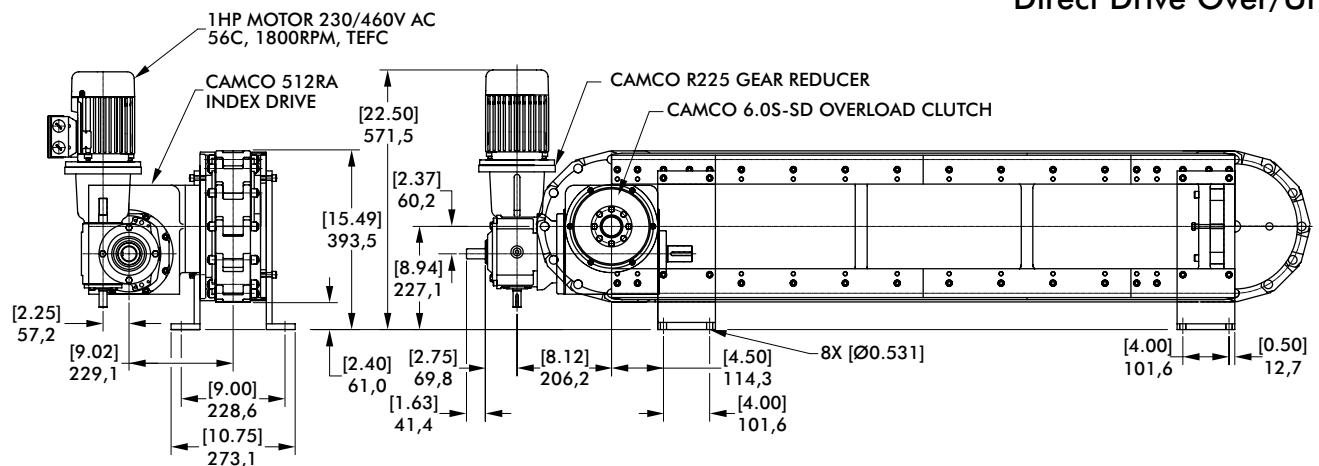
### Shaft Drive Carousel



### Shaft Drive Over/Under



### Direct Drive Over/Under

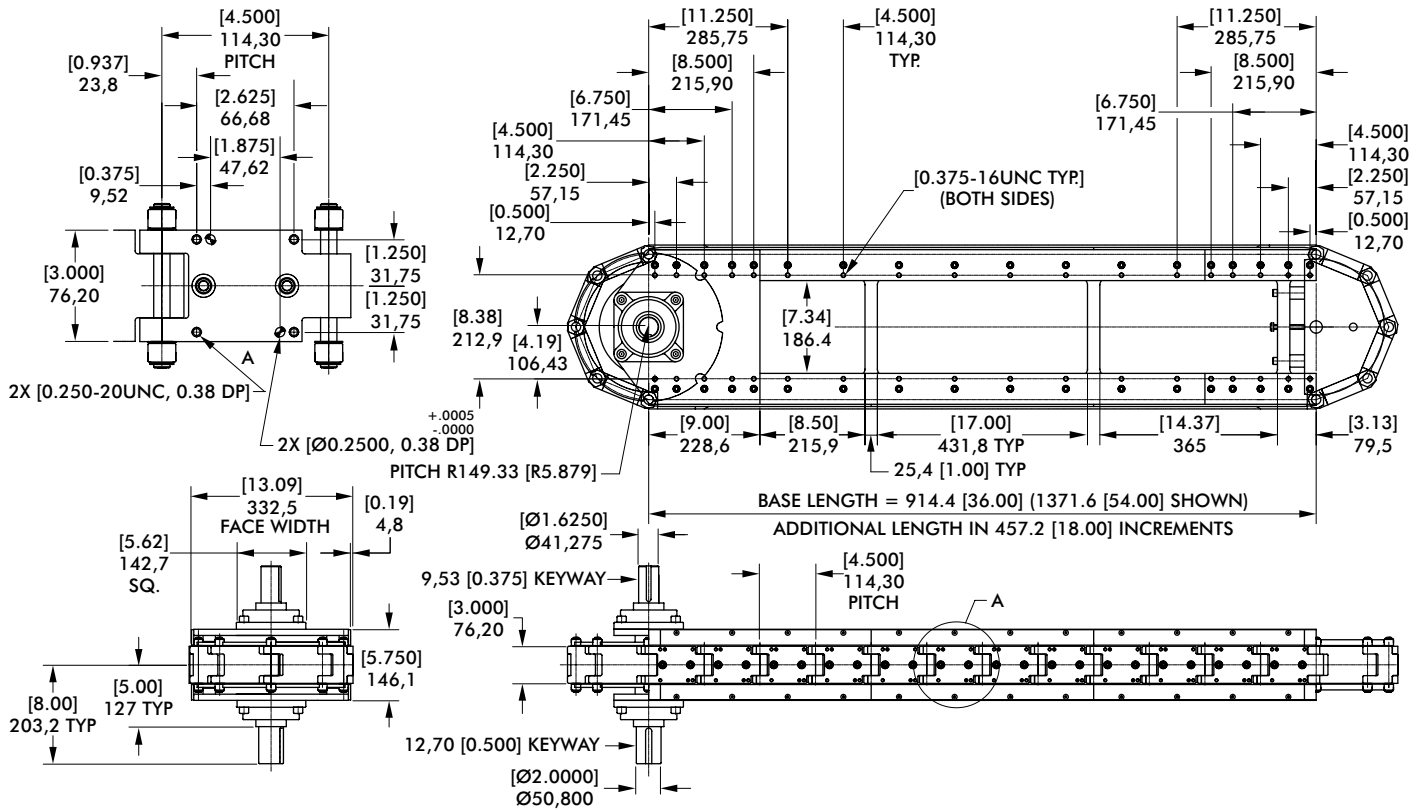




# 4.5 INCH SERIES

## Table-Top Modular Conveyors | Dimensions and Configurations

### Modular Conveyor (module only)



### Modular Conveyor (drive package)

#### Standard Drive Package

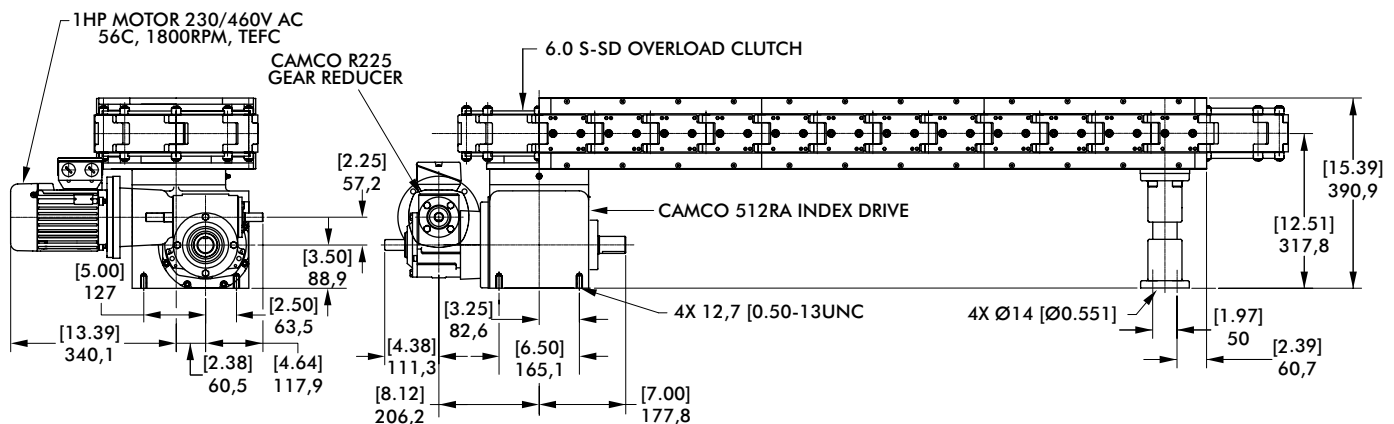
- 512RA Index Drive
- R225 Gear Reducer
- 6.0FC-SD Overload Clutch (Shaft Drive)
- 6.0S-SD Overload Clutch (Direct Drive)
- 1 HP high-cycling, performance AC Motor
- IM-pAC Motor Control

#### Heavy-Duty Drive Package

- 662RA Index Drive
- 7300C Gear Reducer
- 11FC-SD Overload Clutch (Shaft Drive)
- 6.0-SD Overload Clutch (Direct Drive)
- 1 HP high-cycling, performance AC Motor
- IM-pAC Motor Control

| Index Distance<br>mm [in] | Indexer<br>Stops |
|---------------------------|------------------|
| 76,2 [4.50]               | 8                |
| 228,6 [9.00]              | 4                |
| 457,2 [18.00]             | 2                |

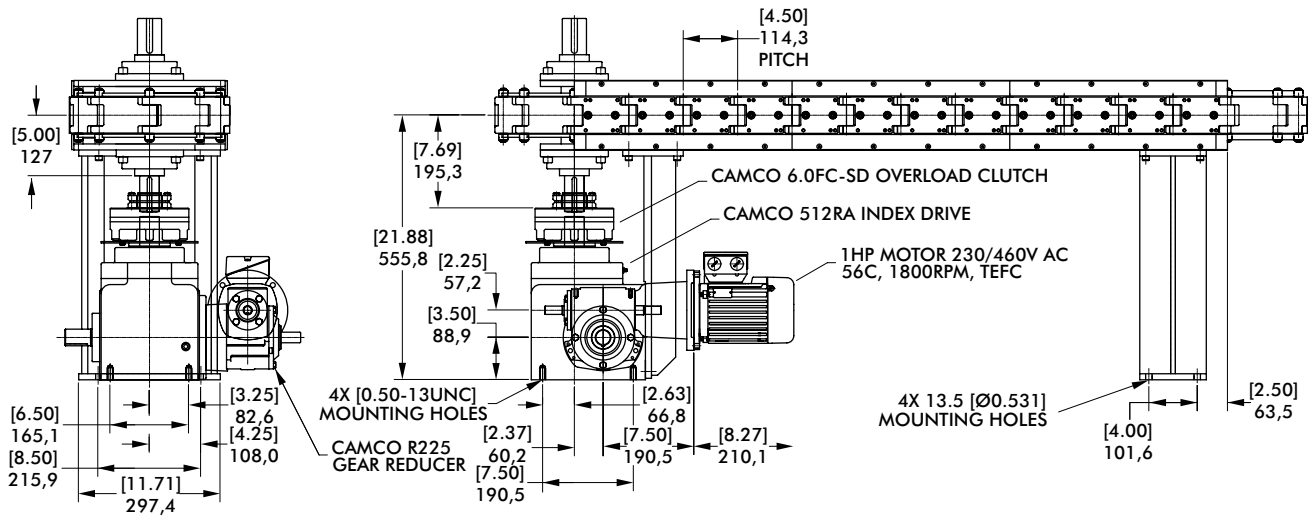
### Direct Drive Carousel



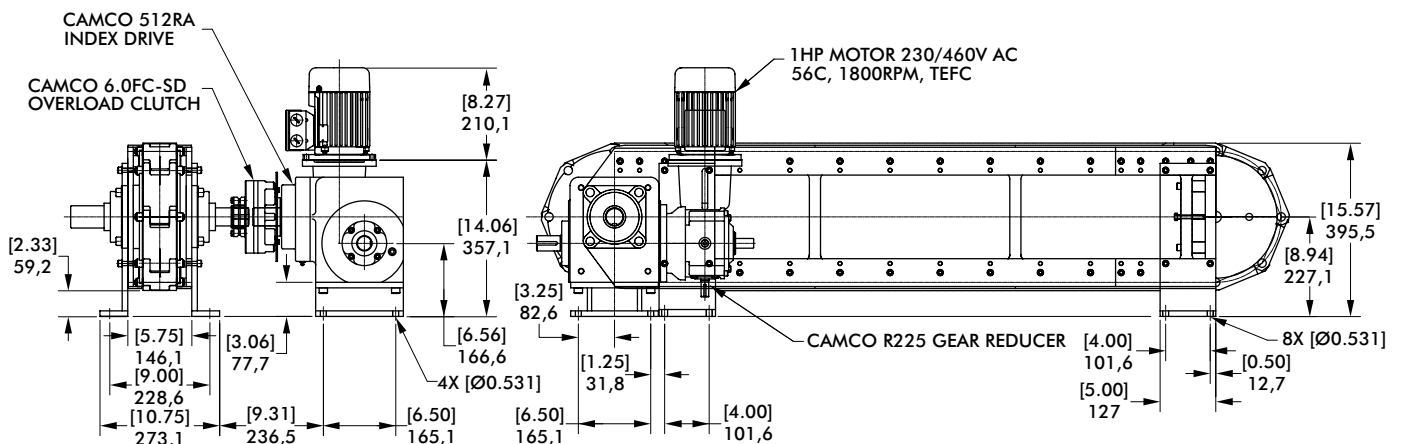
# 4.5 INCH SERIES

## Table-Top Modular Conveyors | Configurations

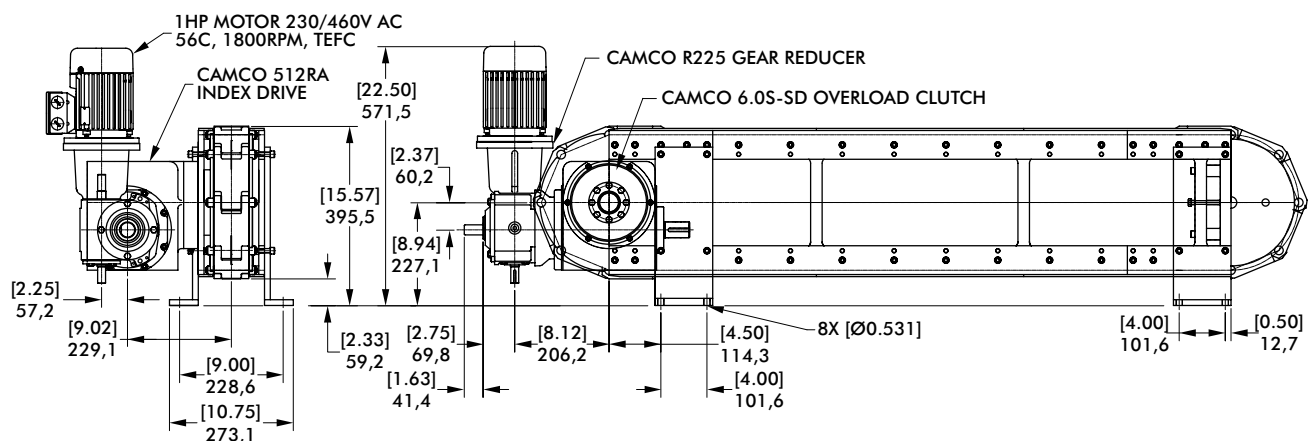
### Shaft Drive Carousel



### Shaft Drive Over/Under



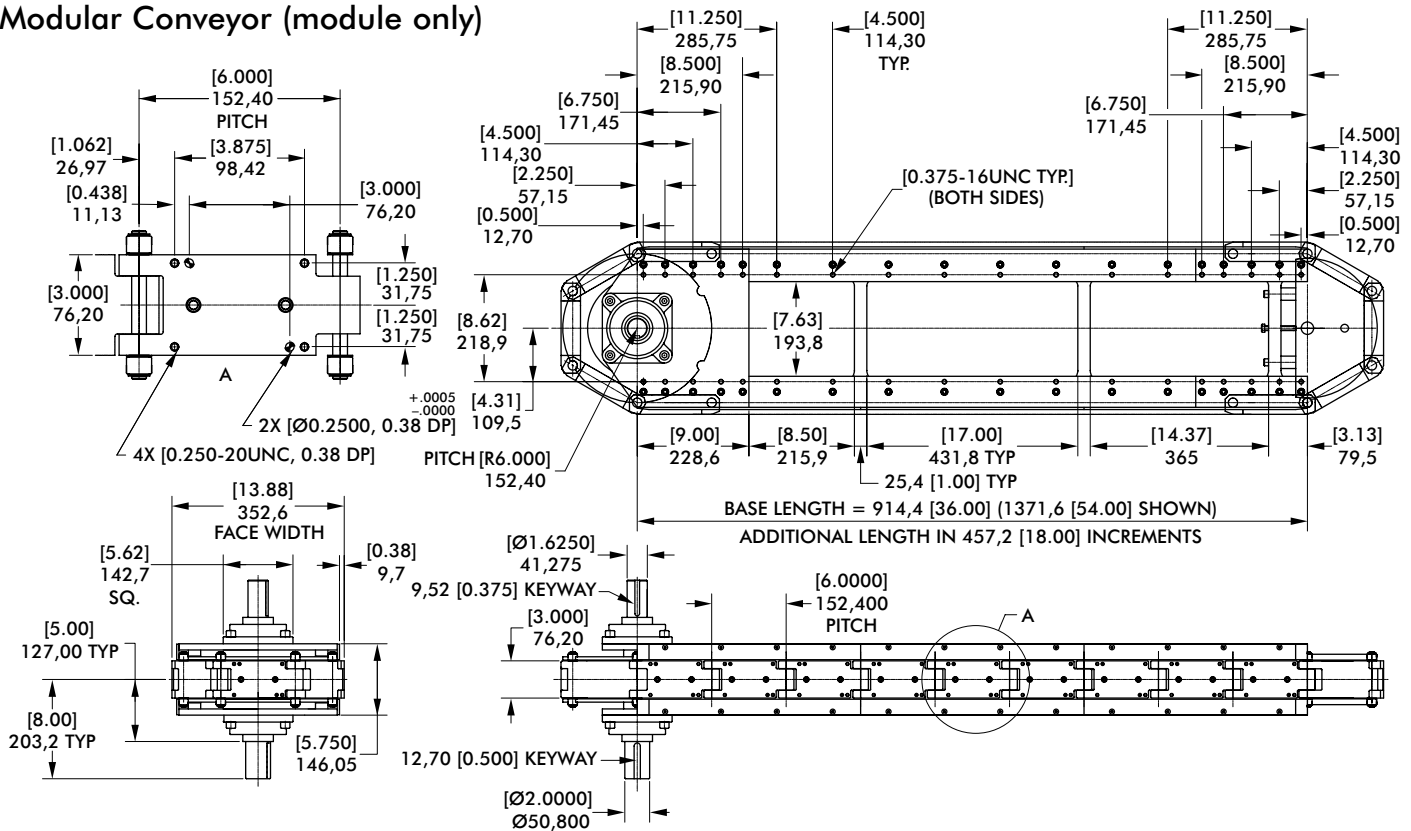
### Direct Drive Over/Under



# 6.0 INCH SERIES

## Table-Top Modular Conveyors | Dimensions and Configurations

### Modular Conveyor (module only)



### Modular Conveyor (drive package)

#### Standard Drive Package

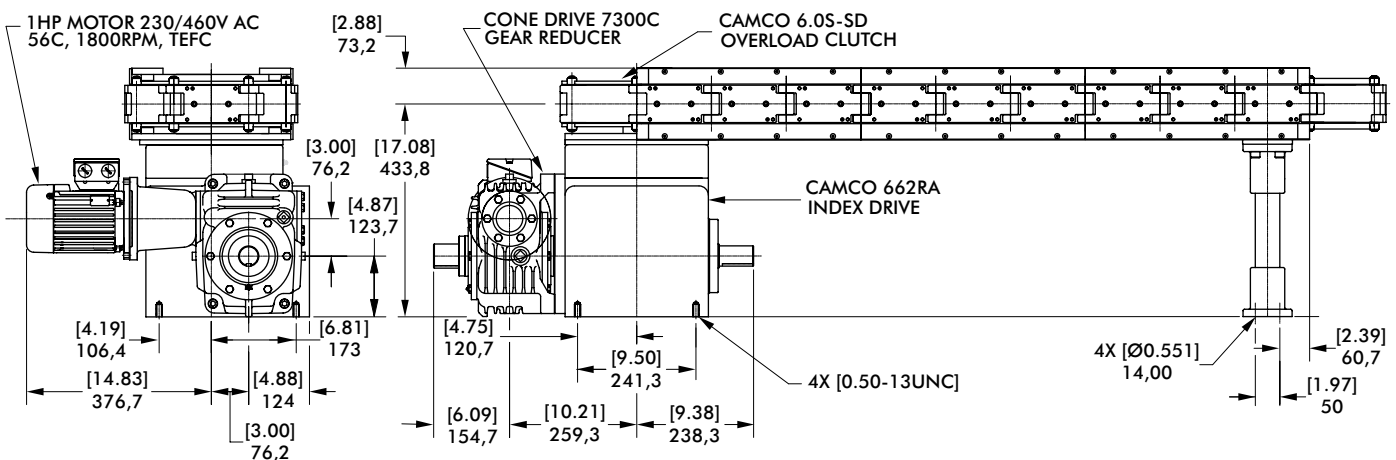
- 662RA Index Drive
- 7300C Gear Reducer
- 11FC-SD Overload Clutch (Shaft Drive)
- 6.0S-SD Overload Clutch (Direct Drive)
- 1 HP high-cycling, performance AC Motor
- IM-pAC Motor Control

#### Heavy-Duty Drive Package

- 800RD Index Drive
- 7300C Gear Reducer
- 25FC-SD Overload Clutch
- 1 HP high-cycling, performance AC Motor
- IM-pAC Motor Control

| Index Distance<br>mm [in] | Indexer<br>Stops |
|---------------------------|------------------|
| 152,4 [6.00]              | 6                |
| 304,8 [12.00]             | 3                |
| 457,2 [18.00]             | 2                |

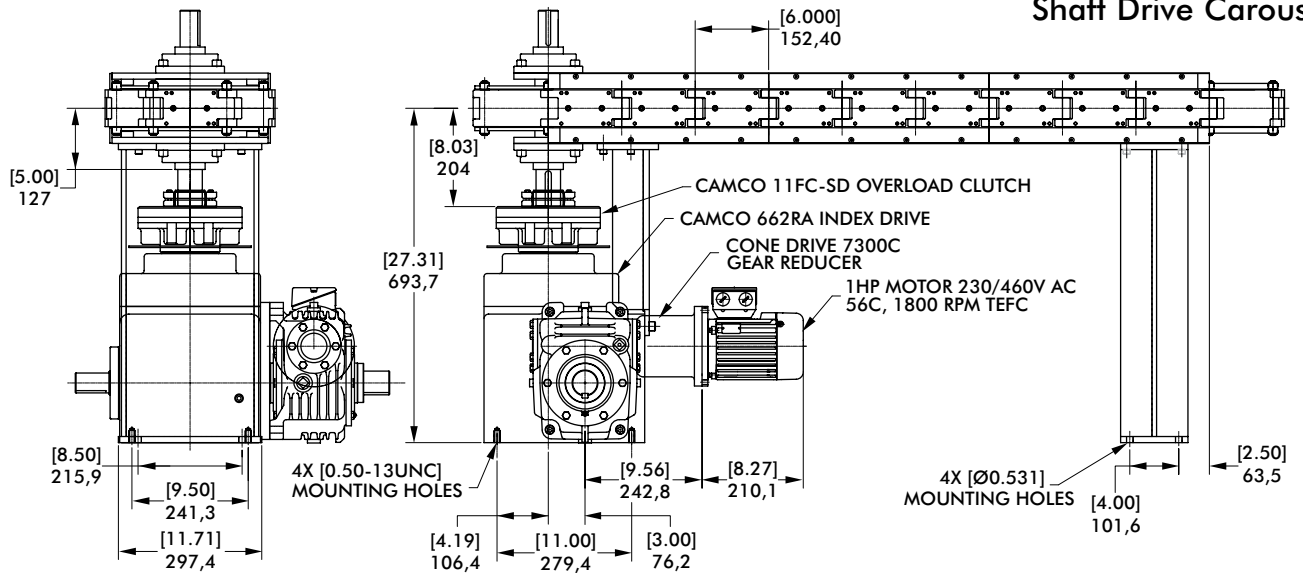
### Direct Drive Carousel



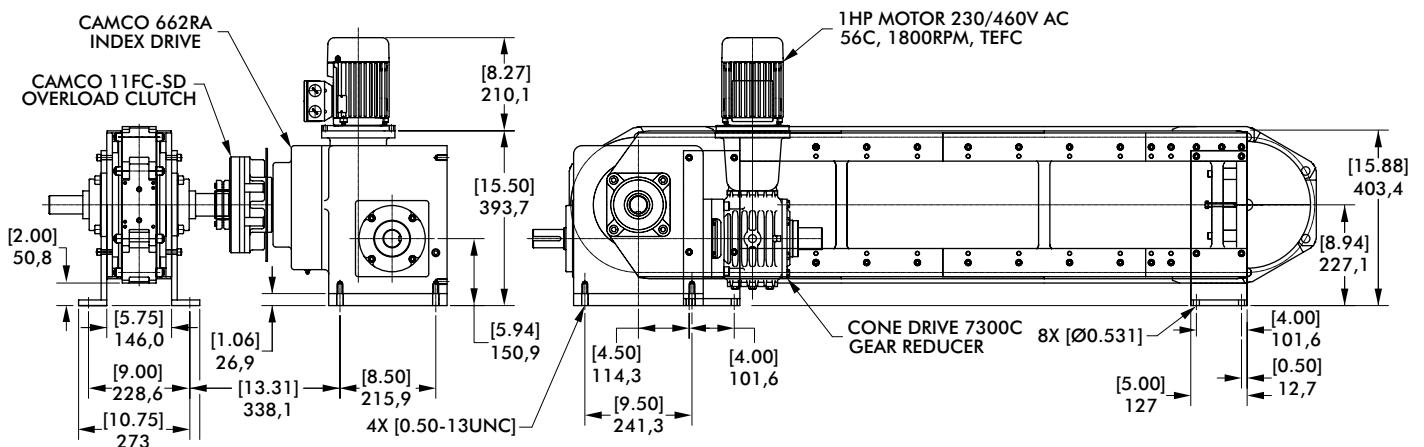
# 6.0 INCH SERIES

## Table-Top Modular Conveyors | Configurations

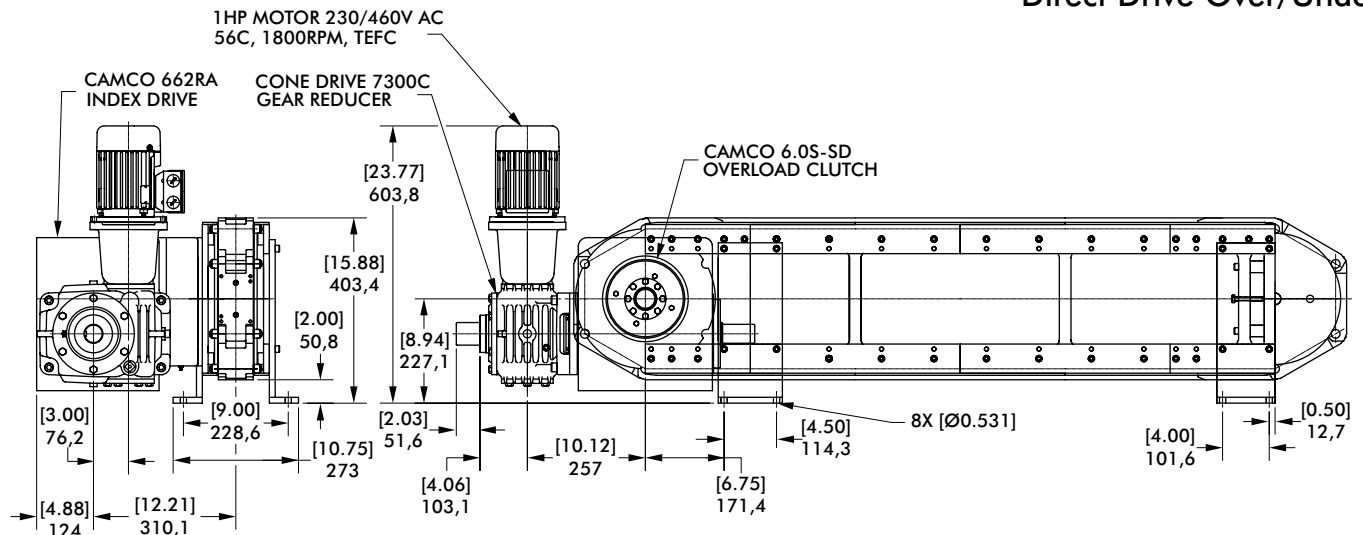
### Shaft Drive Carousel



### Shaft Drive Over/Under

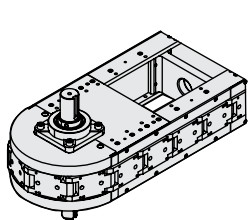


### Direct Drive Over/Under

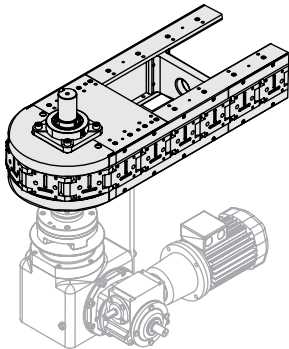


# TABLE-TOP MODULAR CONVEYORS

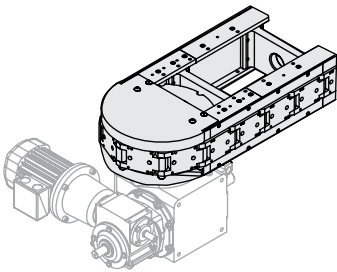
## Conveyor Types



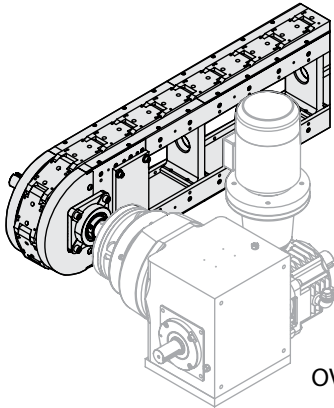
MODULE ONLY



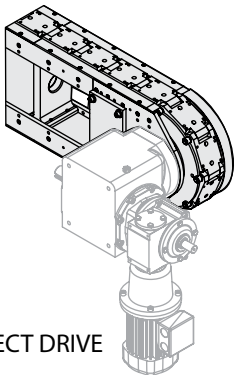
CAROUSEL-SHAFT DRIVEN



CAROUSEL-DIRECT DRIVEN

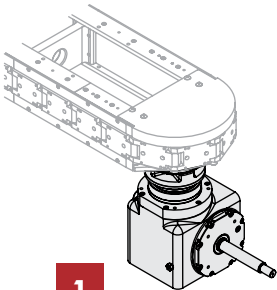


OVER-UNDER SHAFT DRIVEN

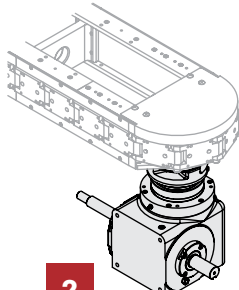


OVER-UNDER DIRECT DRIVE

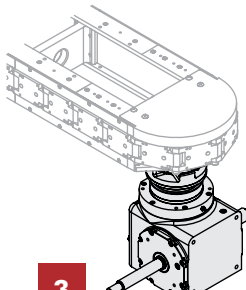
## Carousel Indexer Position



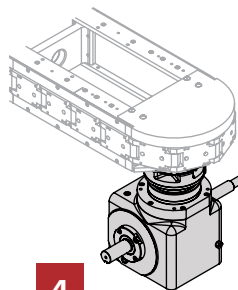
1



2



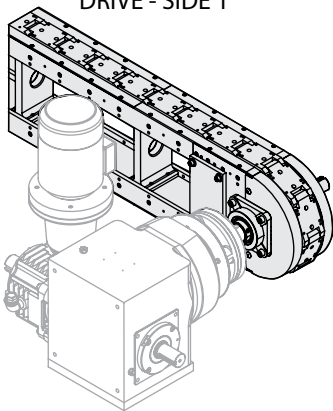
3



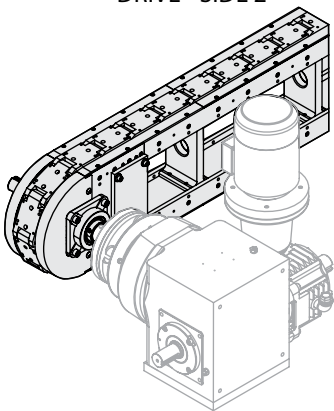
4

## Over/Under Side

DRIVE - SIDE 1



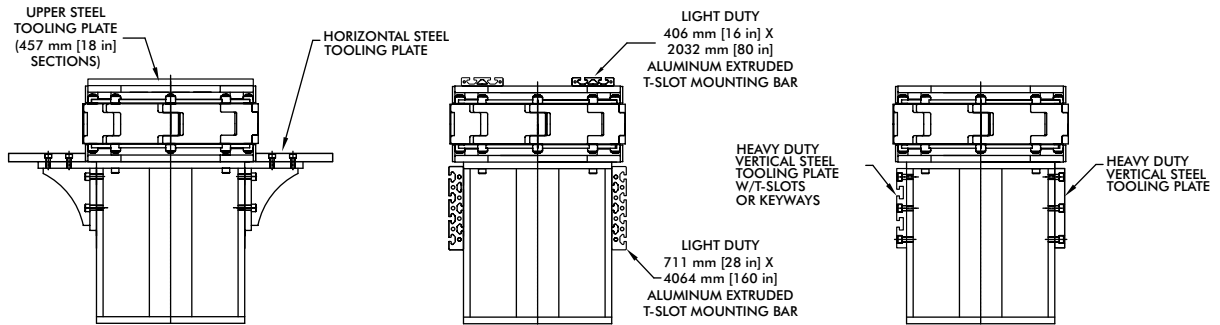
DRIVE - SIDE 2



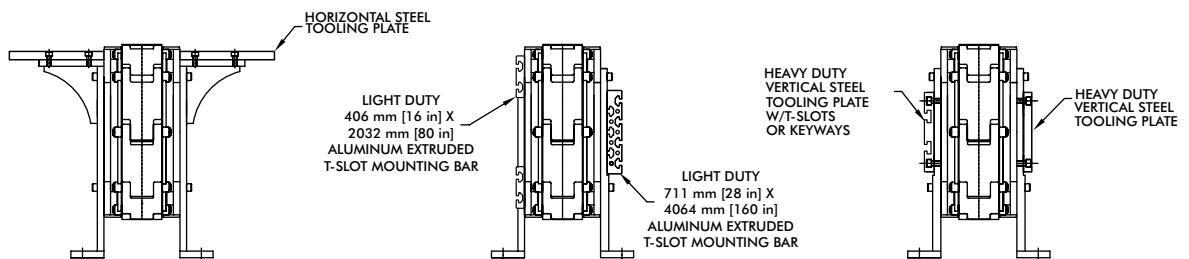
# TABLE-TOP MODULAR CONVEYORS

## Options

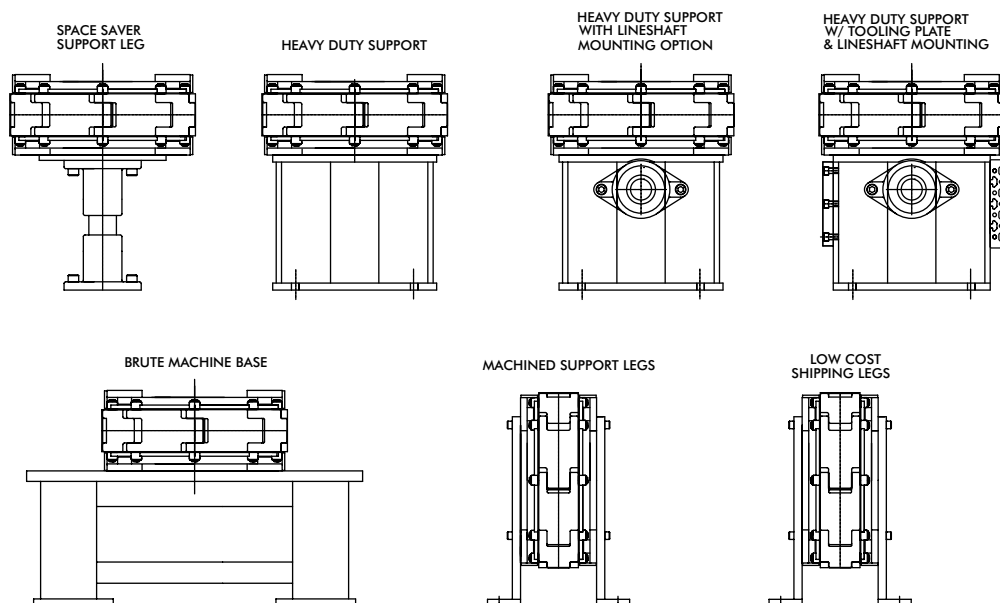
### Tooling Plate Options Carousel



### Tooling Plate Options Over/Under



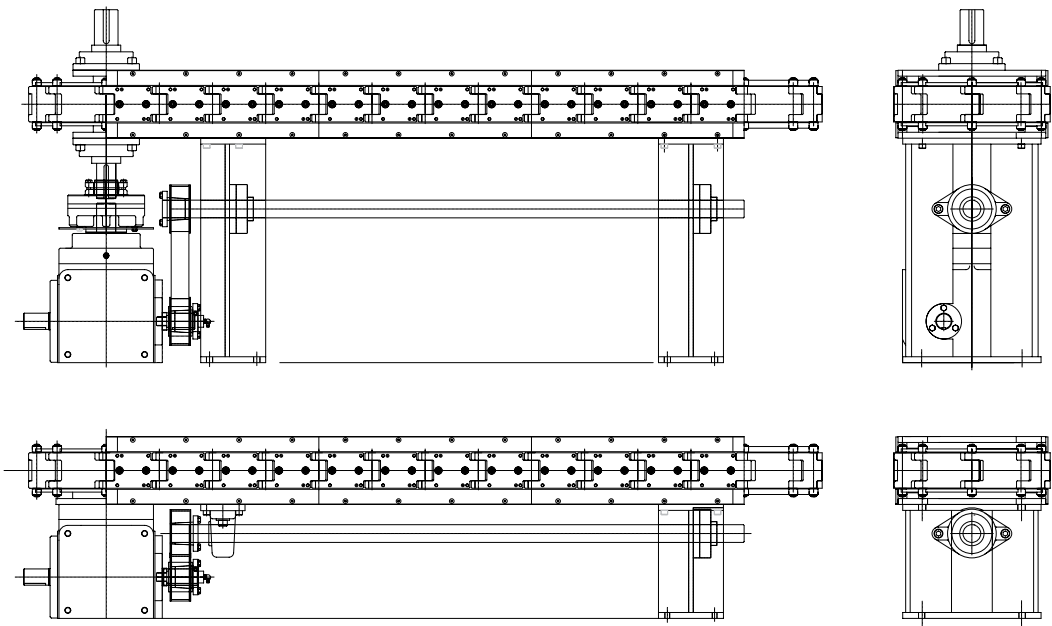
### Support Leg Options



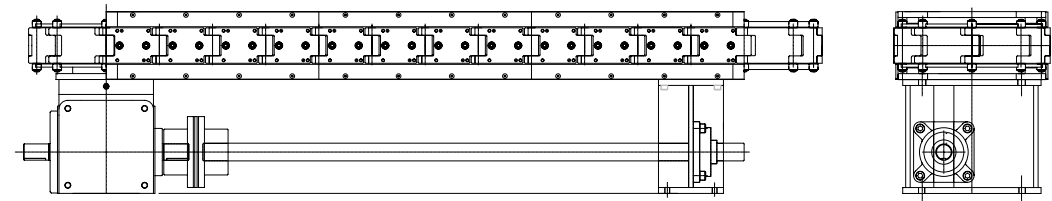
# TABLE-TOP MODULAR CONVEYORS

## Options

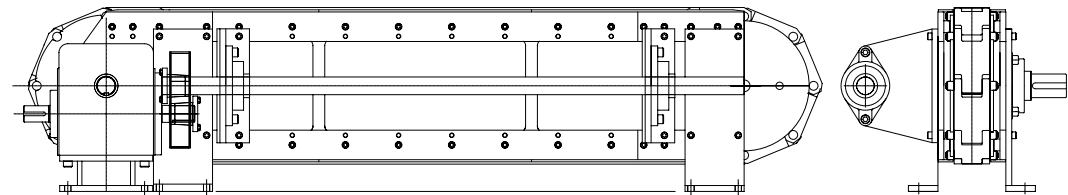
### Lower Lineshaft Options Belt Driven



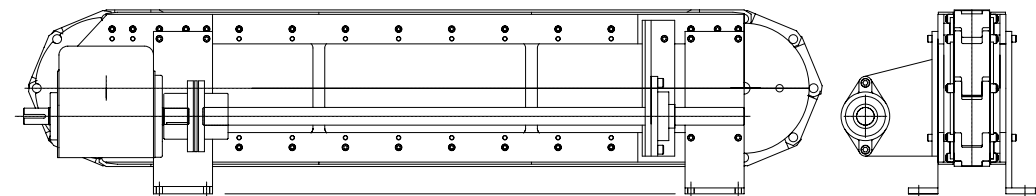
### Lower Lineshaft Options Direct Driven



### Drive Side Lineshaft Options Belt Driven

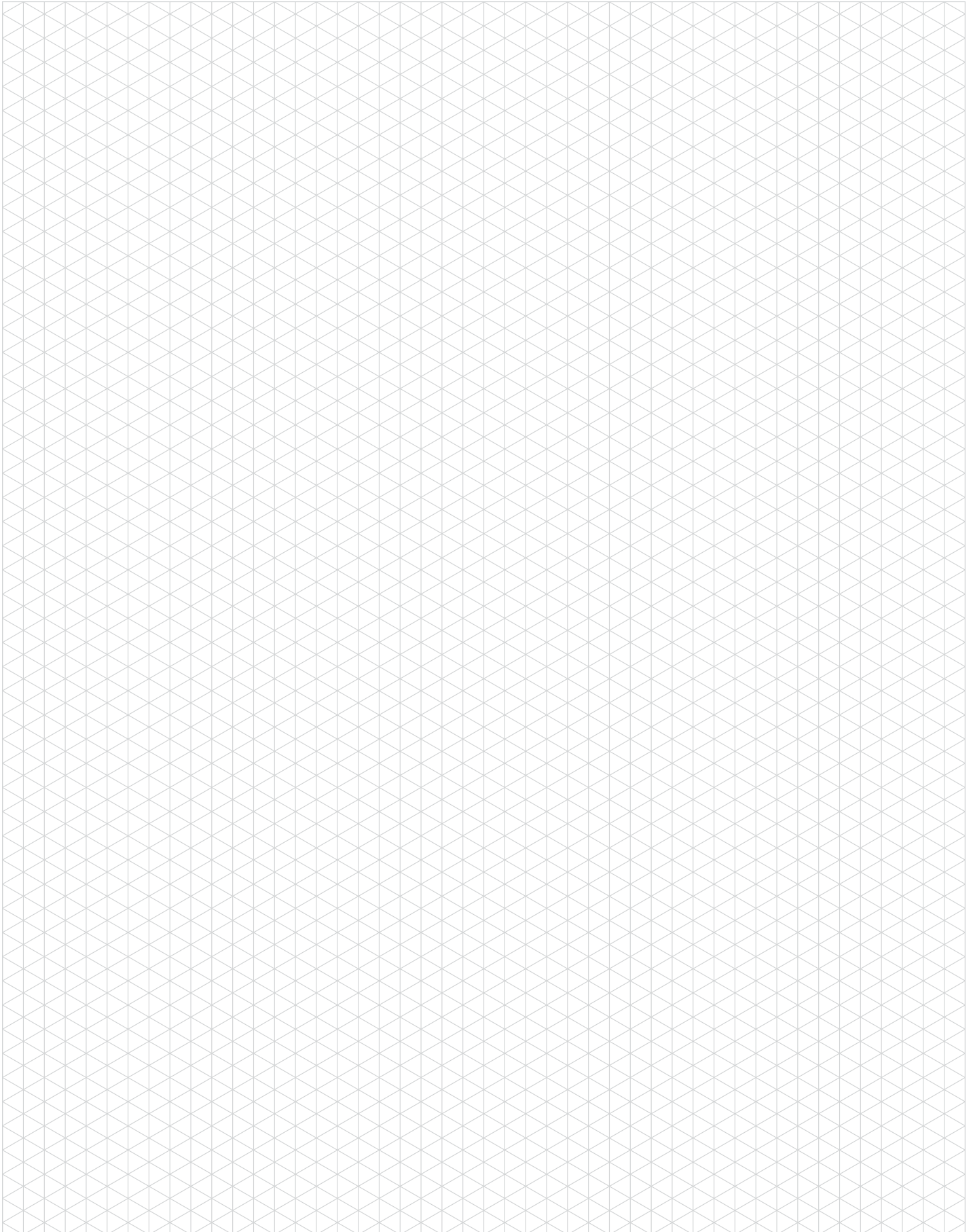


### Drive Side Lineshaft Options Direct Driven





# TABLE-TOP MODULAR CONVEYORS





# PRECISION INDEXING SOLUTIONS

## Table of Contents

### INDEXERS

#### Servo Positioners



**GTB Series**  
Globoidal (Roller Gear)  
Servo Positioner.....IN-SRV-1



**RSD Series**  
Rotary Servo Drives.....IN-SRV-39

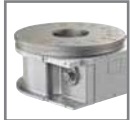
#### Mechanical Indexers



**RDM Series**  
Rotary Index Drive ..... IN-MCH-2



**RD Series**  
Roller Dial Index Drive..... IN-MCH-18



**E Series**  
Heavy-Duty Index Drive ..... IN-MCH-30



**RA Series**  
Right Angle Index Drive ..... IN-MCH-42



**RGD/RGS Series**  
Roller Gear Index Drive ..... IN-MCH-52



**P Series**  
Parallel Shaft/Flange Drive.... IN-MCH-72



**RNG Series**  
Ring Drive Dial Indexer.....IN-MCH-84

### OVERLOAD CLUTCHES



**Overload Clutches**  
Output Overload..... IN-CLU-1

### CUSTOM CAMS



**Custom Cams**  
Cam Design Solutions ..... IN-CAM-1

### CONVEYORS



**Rite-Link Series**  
Thin-Profile.....IN-CNV-1



**Precision Link Series**  
Table-Top .....IN-CNV-4



**Precision Link Series**  
Heavy-Duty ..... IN-CNV-16

### PARTS HANDLERS



**LPP Series**  
Linear Part Handlers ..... IN-PRT-2



**RPP Series**  
Rotary Part Handlers ..... IN-PRT-8

# HEAVY DUTY MODULAR CONVEYORS

Features | Table of Contents



## Features:

**CAMCO Heavy Duty Precision Link Conveyors** combine excellent accuracy with high load capacity to provide the versatility needed to meet virtually any automated assembly or manufacturing challenge.

Standard link lengths of 6.0", 9.0" and 12"

Over/Under and Carousel configurations

Precision links with roller bearing cam followers for smooth transfer and long life

Provided with heavy-duty legs and a precision machined base designed to hold large loads and maintain system accuracy

Available with adjustable soft machine mounts to accommodate inconsistent on-site flooring

Customize length and height and add optional line shafts or tooling plates to fit your application

## Table of Contents

|                            |   |
|----------------------------|---|
| How to Order .....         | 3 |
| Conveyor Options .....     | 4 |
| 6.0 Inch Heavy Duty .....  | 5 |
| 9.0 Inch Heavy Duty .....  | 7 |
| 12.0 Inch Heavy Duty ..... | 9 |

# HEAVY DUTY MODULAR CONVEYORS

## How To Order

### Required Information

- **Link Size:** 1.5, 2.0, 3.0, 4.5, 6.0, 9.0 or 12.0 inch
- **Type:** Table Top or Heavy Duty
- **Style:** Over/Under or Carousel
- **Length:** Standard per catalog or Custom, expressed as center distance, in inches
- **Height:** Standard per catalog or Custom, in inches

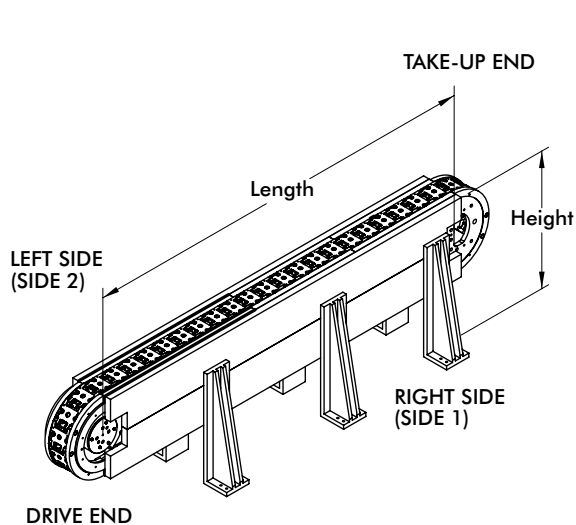
### Required Information when ordering Drive Package

- **Type:** Standard, Alternate, Heavy-Duty or Special
- **Drive Side:** 1 or 2 (for Over/Under)
- **Index Distance:** In inches
- **Indexer Model:** Specific model number or special

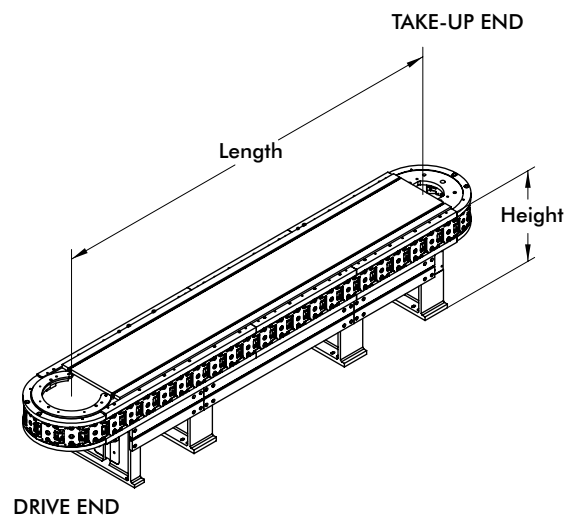
### Technical Assistance

All Precision Link Conveyor applications are verified by a CAMCO sales agent using the CAMCO Sizing Program.

Your CAMCO agent is available to make all sizing calculations for you.



OVER/UNDER

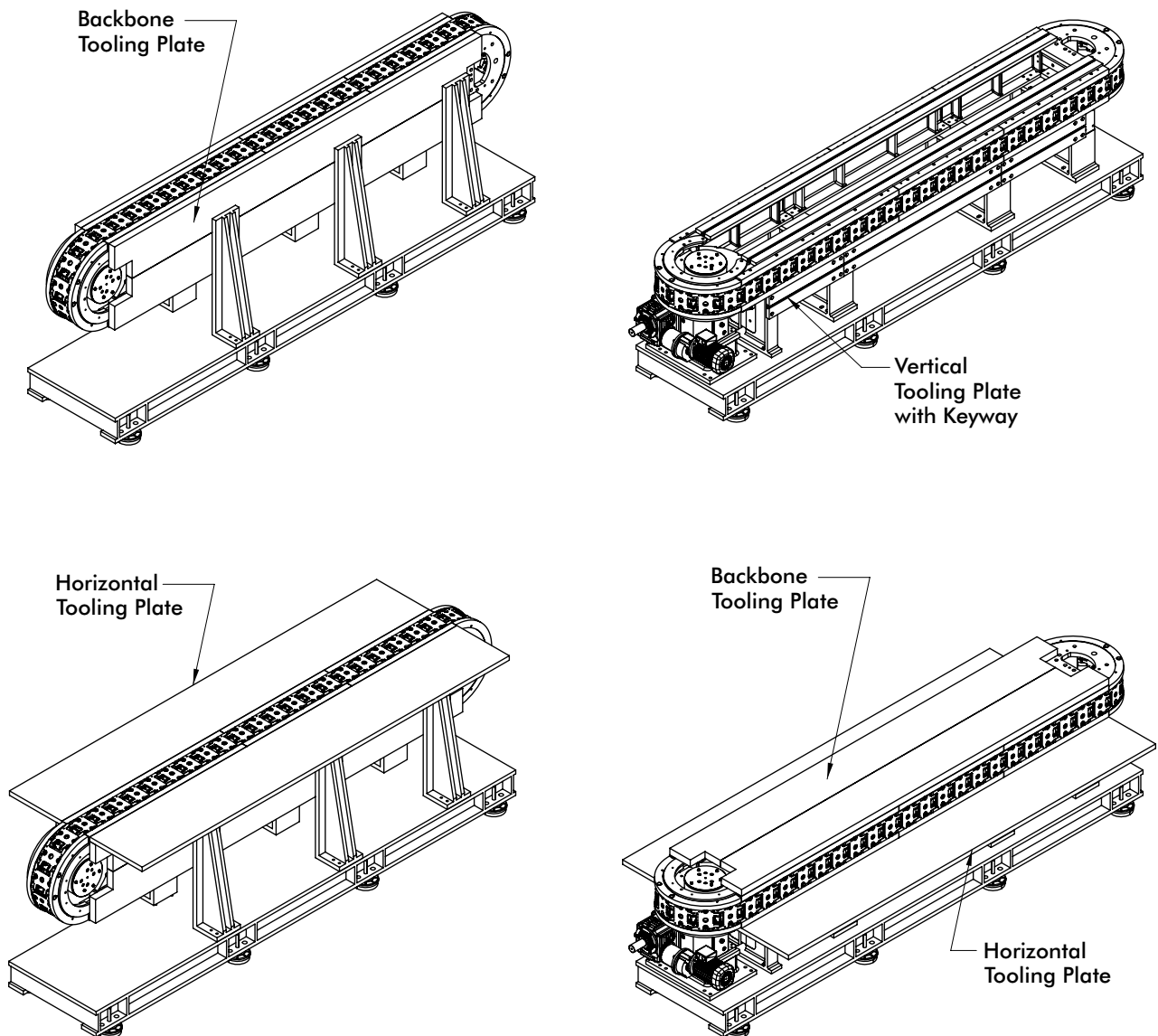


CAROUSEL

# HEAVY DUTY MODULAR CONVEYORS

## Options

CAMCO offers a wide variety of standard and custom options on all precision link conveyors. Tooling plates and conveyor mainframes can be ordered with custom hole configurations or burnouts. Other standard options include timing chains, timing belts and extended lineshafts. Standard drive package options include CAMCO indexers with AC motors and clutch-brakes, DC motors or servo motors. CAMCO's special Indexer output overload clutches are highly recommended to protect the indexer, link assembly and tooling.



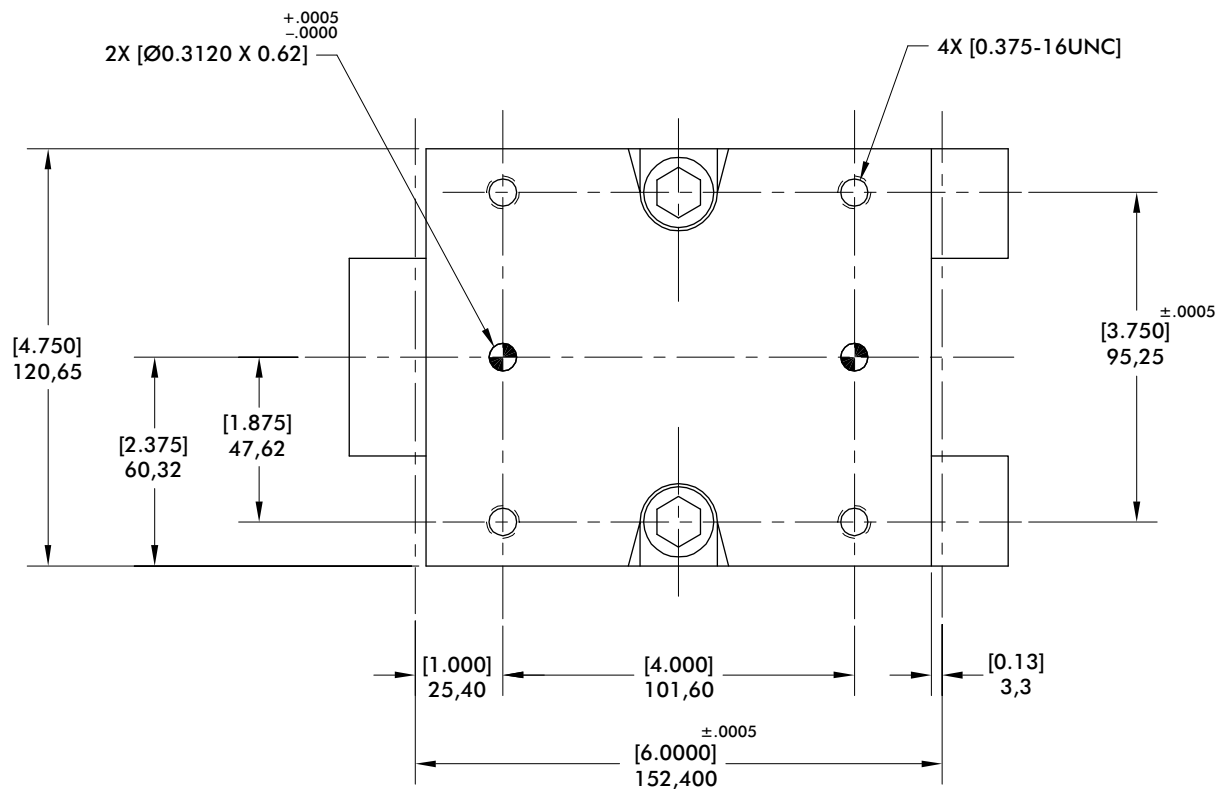
### Using Cambot Parts Handlers with Precision Link Conveyors

Cambot linear pick-and-place parts handlers have custom cam motions incorporated into each unit, providing complex synchronize timings for your application. They can be mounted onto the backbone tooling plates of the conveyor. Cambot linear pick-and-place parts handlers can be belt driven off a common line shaft for perfect synchronization. See the Rotary Parts Handler section (page IN-RPP-2) for other possible configurations, such as a rotary pick-and-place device loading parts from a continuous line conveyor to a CAMCO index drive conveyor.

# 6.0 INCH HEAVY DUTY SERIES

## Heavy Duty Modular Conveyors | Dimension

Link



### Modular Conveyor (drive package)

#### Standard Drive Package

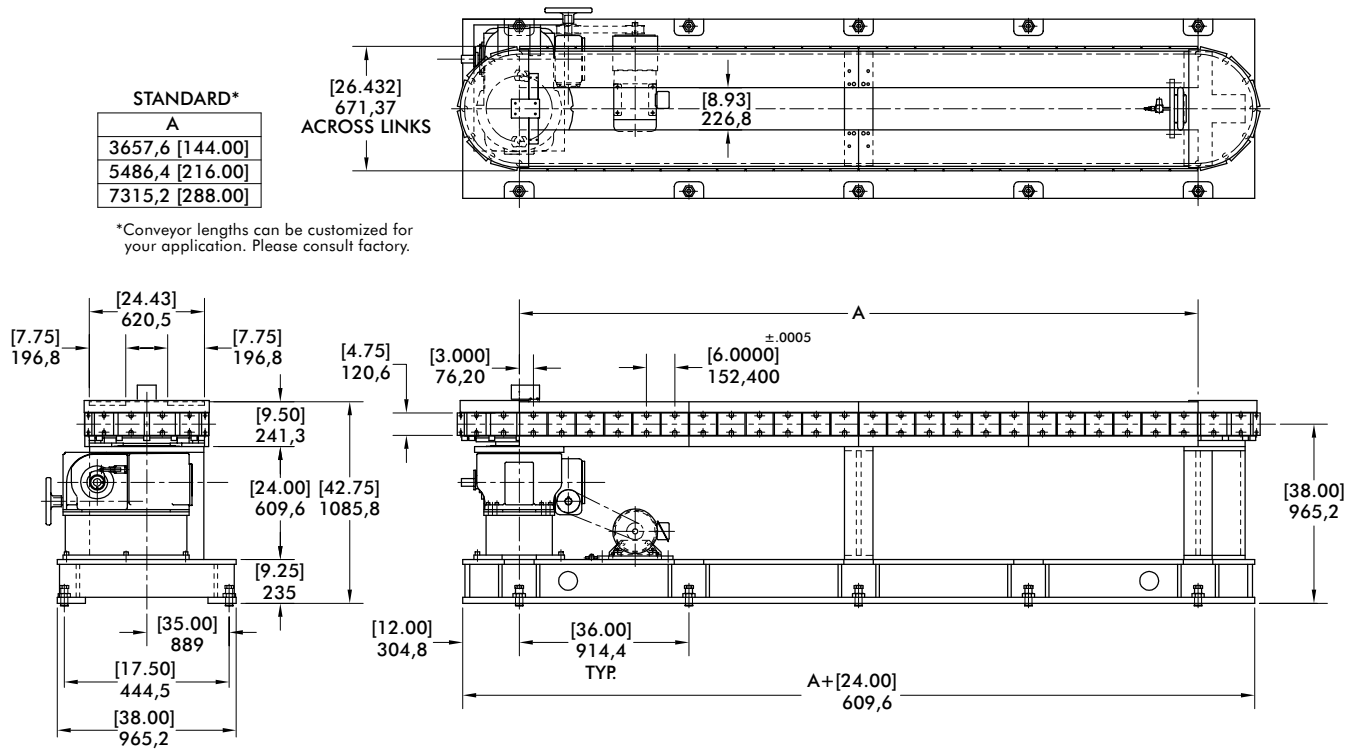
- 1301RD Intermittor
- 73500C Reducer
- 5 HP AC Motor
- MDB-1125 Air Clutch-Brake
- Cycle Cam & Limit Switch

| Index Distance<br>mm [in] | Indexer<br>Stops |
|---------------------------|------------------|
| 152,4 [6.00]              | 12               |
| 304,8 [12.00]             | 6                |
| 457,2 [18.00]             | 4                |
| 609,6 [24.00]             | 3                |

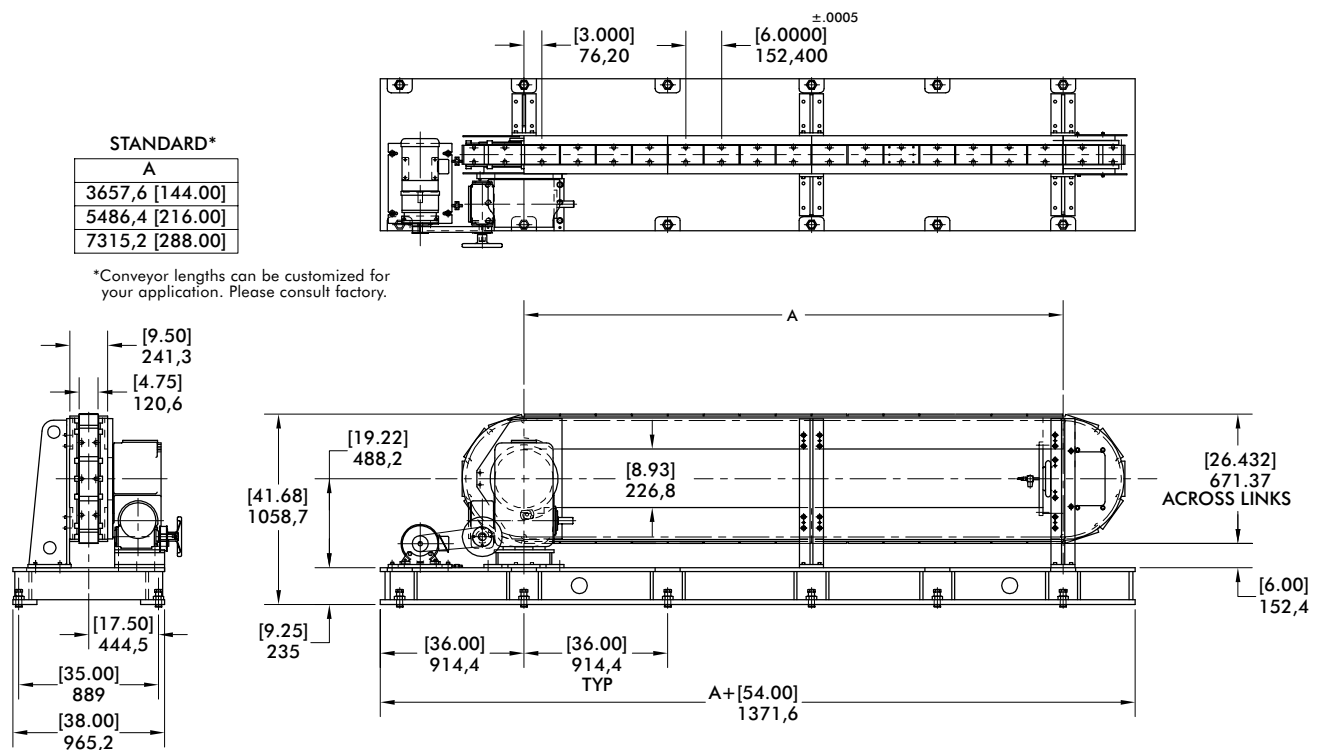
# 6.0 INCH HEAVY DUTY SERIES

## Heavy Duty Modular Conveyors | Configurations

### Carousel



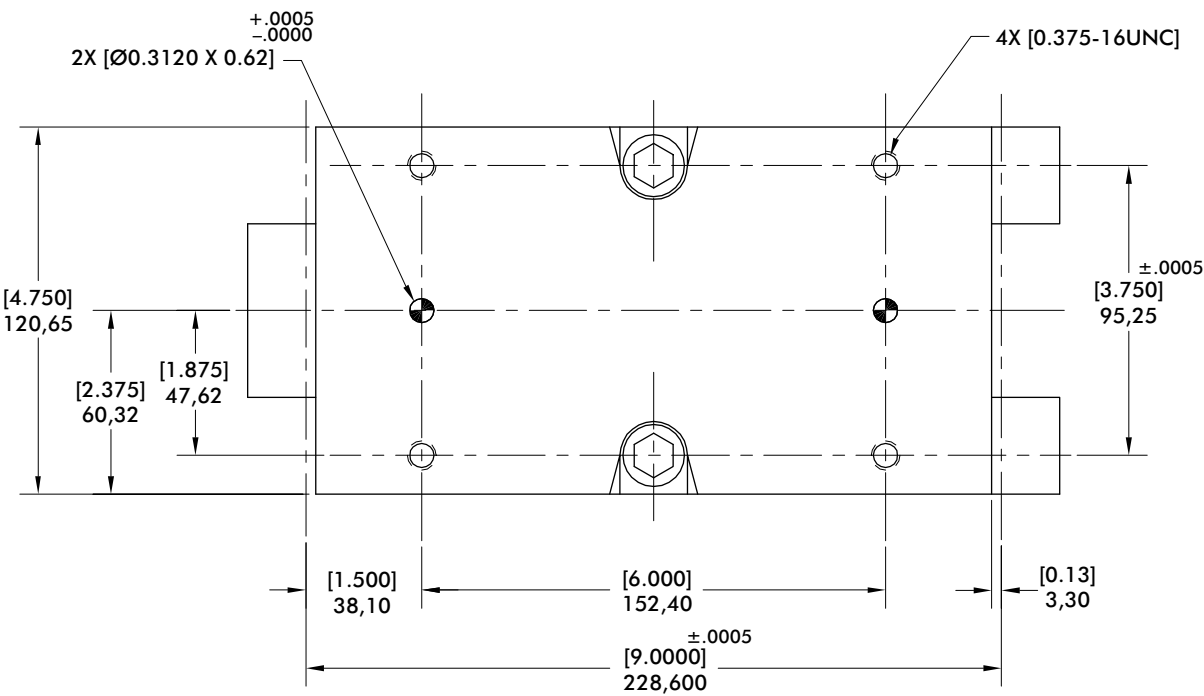
### Over/Under



# 9.0 INCH HEAVY DUTY SERIES

## Heavy Duty Modular Conveyors | Dimensions

Link



### Modular Conveyor (drive package)

#### Standard Drive Package

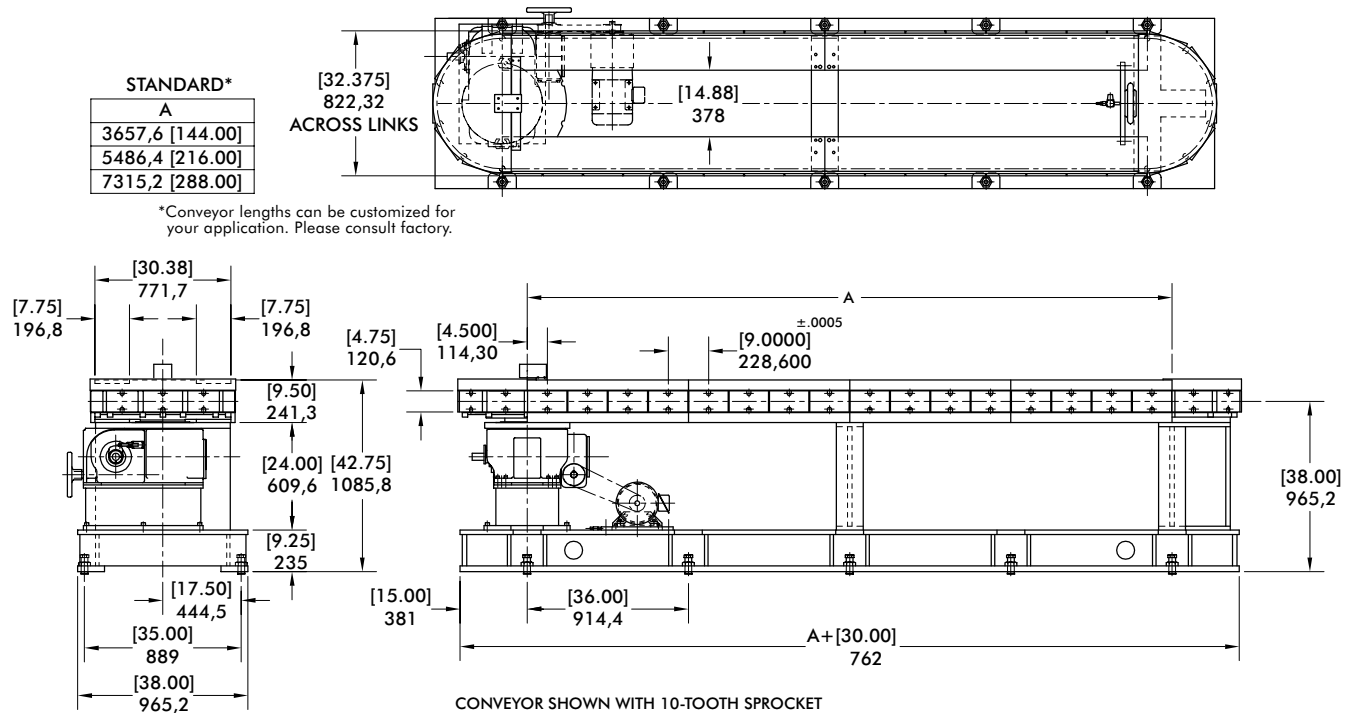
- 1301RD Intermittor
- 73500C Reducer
- 5 HP AC Motor
- MDB-1125 Air Clutch-Brake
- Cycle Cam & Limit Switch

| Index Distance<br>mm [in] | Indexer<br>Stops |
|---------------------------|------------------|
| 228,6 [9.00]              | 12               |
| 457,2 [18.00]             | 6                |
| 914,4 [27.00]             | 4                |
| 609,6 [36.00]             | 3                |

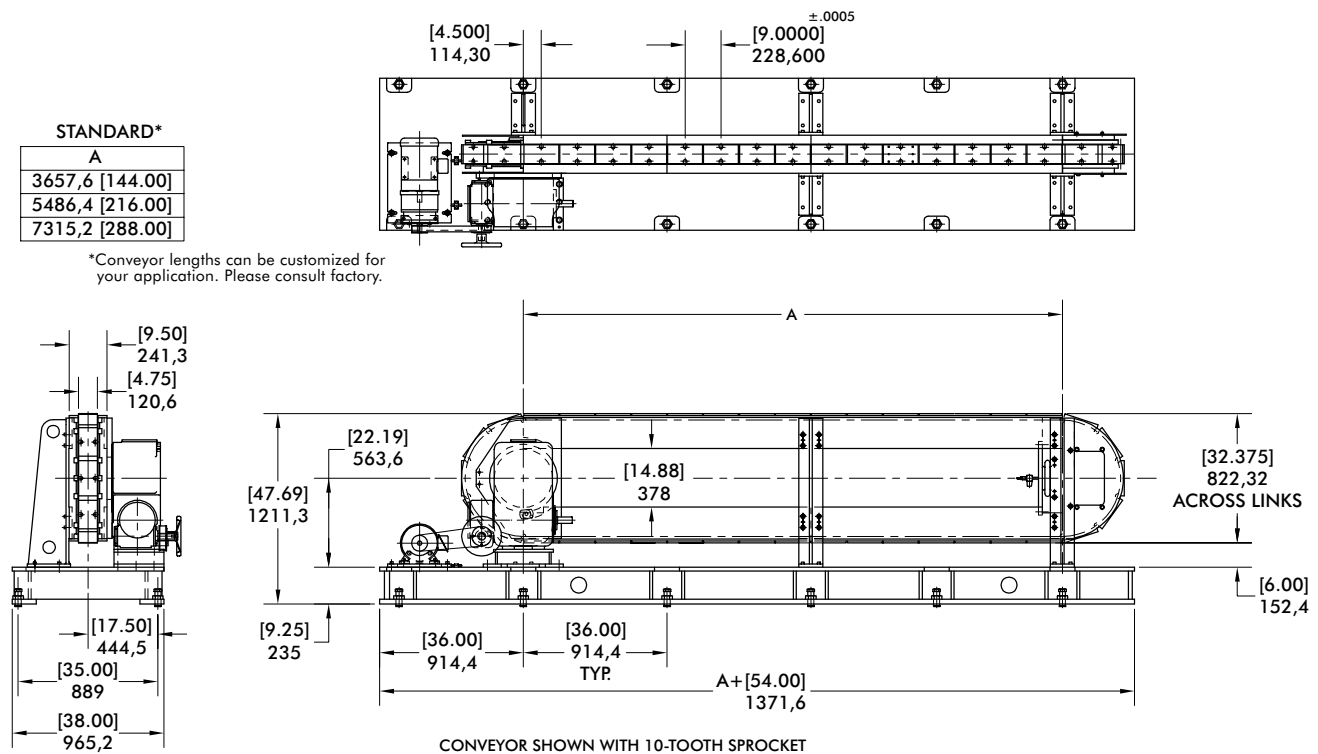
# 9.0 INCH HEAVY DUTY SERIES

## Heavy Duty Modular Conveyors | Configurations

### Carousel



### Over/Under

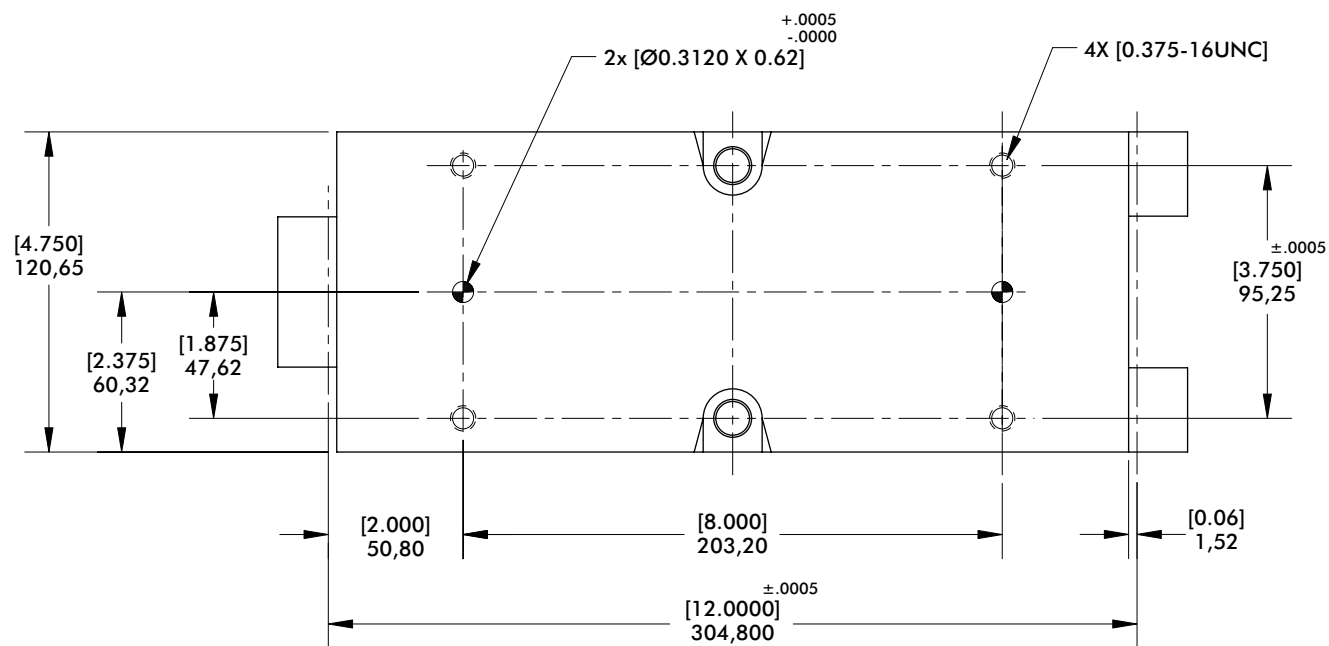




# 12.0 INCH HEAVY DUTY SERIES

## Heavy Duty Modular Conveyors | Dimensions

Link



### Modular Conveyor (drive package)

#### Standard Drive Package

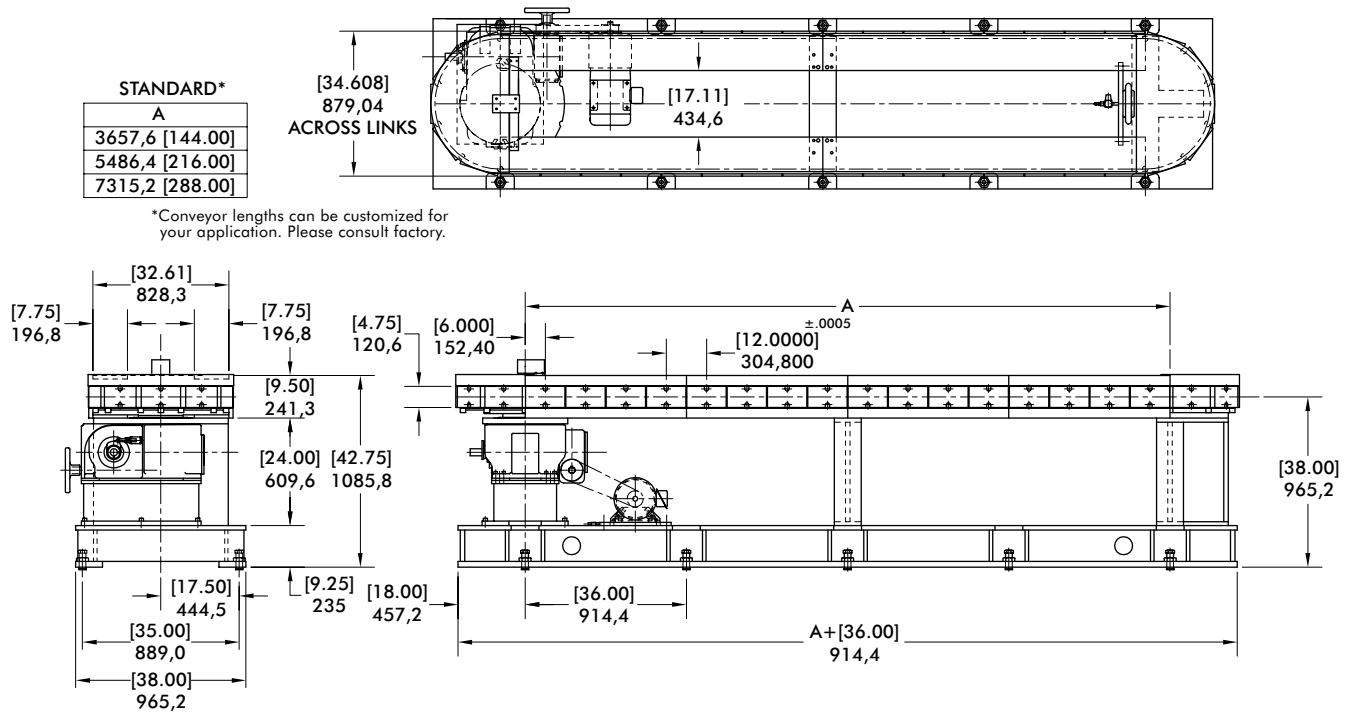
- 1301RD Intermittor
- 7500C Reducer
- 5 HP AC Motor
- MDB-1125 Air Clutch-Brake
- Cycle Cam & Limit Switch

| Index Distance<br>mm [in] | Indexer<br>Stops | Sprocket     |
|---------------------------|------------------|--------------|
| 304,8 [12]                | 8, 10, 12        | 8T, 10T, 12T |
| 609,6 [24]                | 4, 5, 6          | 8T, 10T, 12T |
| 914,4 [36]                | 4                | 12T          |
| 1219,2 [48]               | 2, 3             | 8T, 12T      |

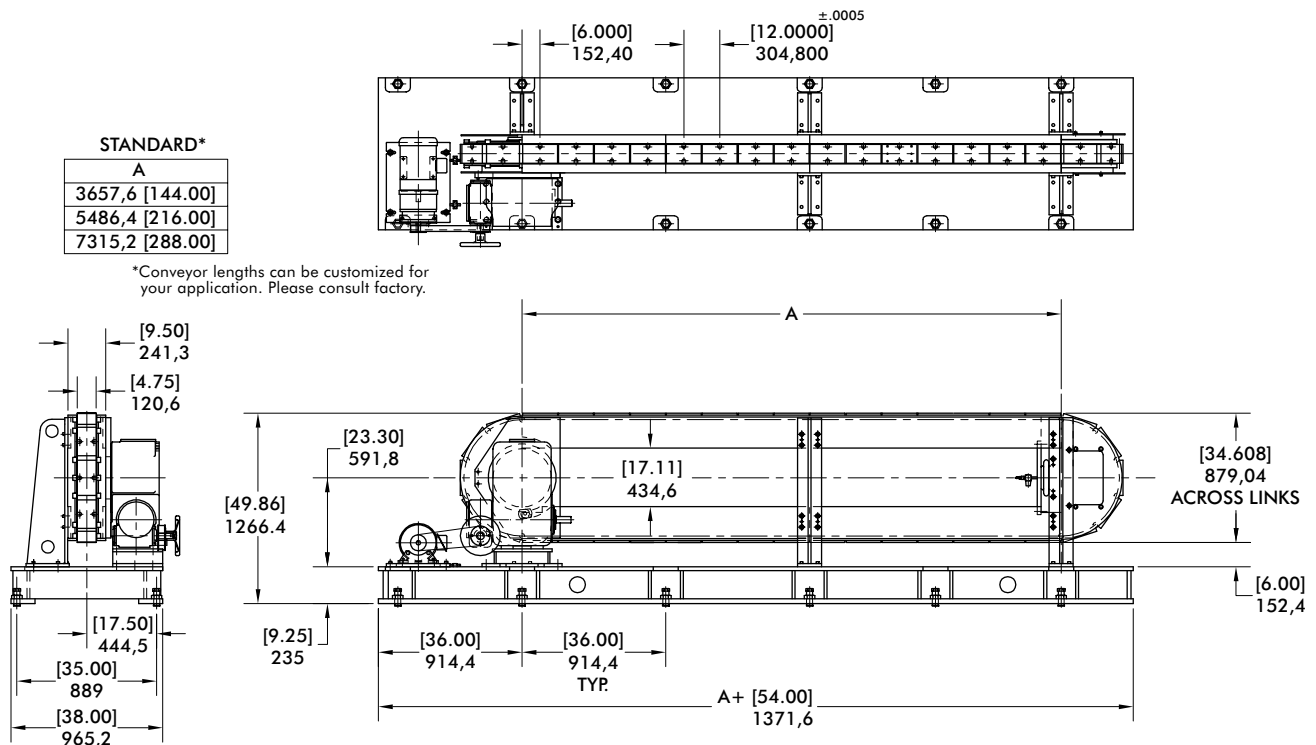
# 12.0 INCH HEAVY DUTY SERIES

## Heavy Duty Modular Conveyors | Configurations

### Carousel

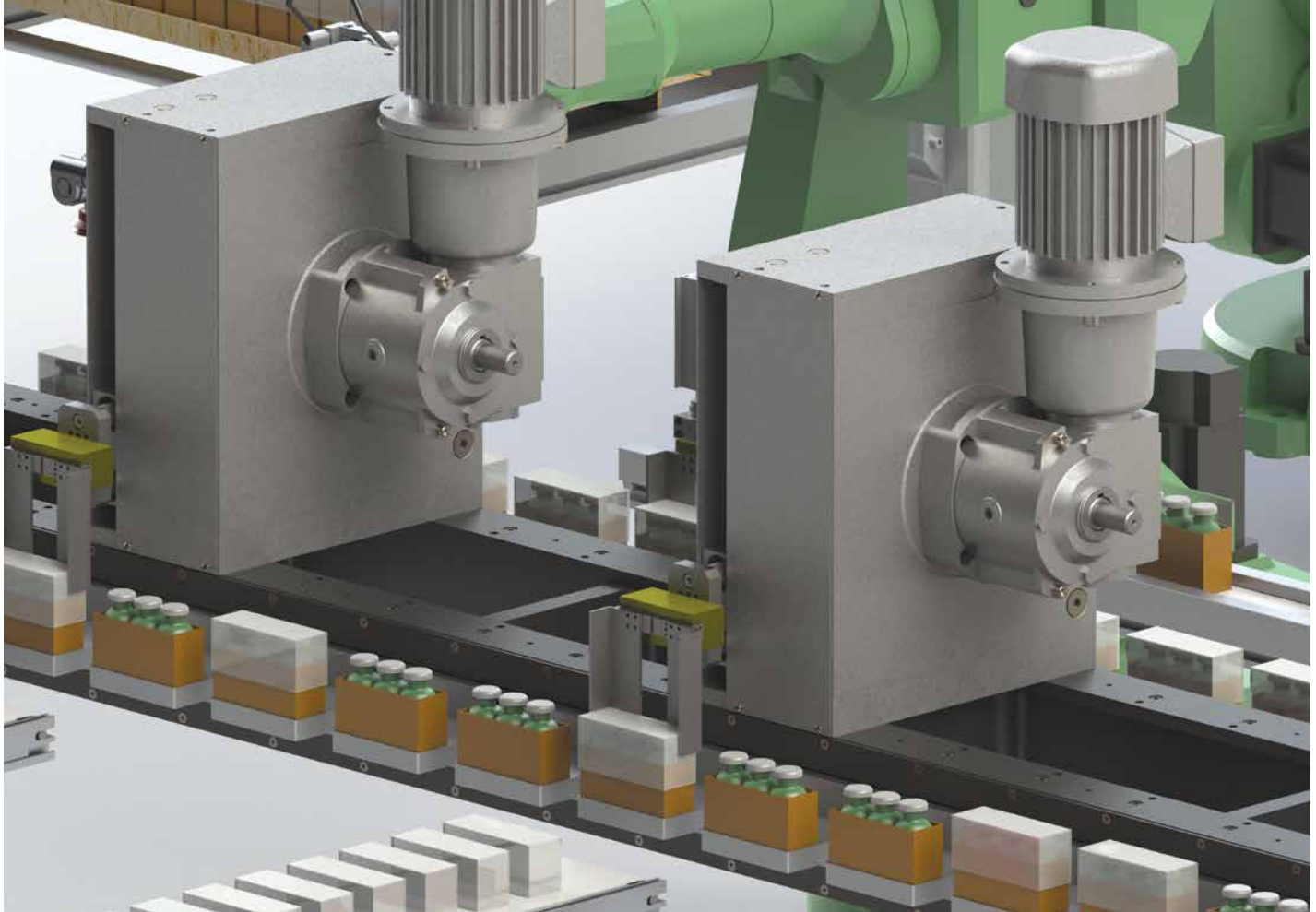


### Over/Under



# LINEAR PART HANDLER

## Gripper Mounting Accessory



### Indexer driving a conveyor and Linear Part Handlers

- Operation can be asynchronous (cycle on demand) – a single index followed by a variable dwell time, or the operation can be continuous.
- Index motion time is changed by changing the motion profile of the servo motor.
- Dwell time is variable. Single axis servo or multiple axis servo controllers can be used.
- More than 60 cycles per minute – maximum cycle rate can be determined by your application engineer.



**Features:**

**CAMCO Cambot® Linear Parts Handlers**, combined with other DESTACO products, offer a low maintenance, cost-effective solution for a complete parts handling package.

Cost effective design for low-cost operation

- Reliable CAMCO mechanical cam design
- Lubed for Life

Easy integration with other DESTACO products for one-stop shopping

- Camco Modular Precision Link Conveyors and Ring Drives
- DESTACO Vacuum products
- Robohand Direct Connect™ Grippers (no adapter plates) and E-Gripper

Customized for your application

- Input shaft available on either side for ease of integration
- Line shaft drive or gear reducer and motor drive package for synchronous or asynchronous operation

Standard or custom strokes and timing designed for your specific requirements

**Applications:**

Automated production systems with small parts transfer such as consumer products, electronics, and medical device assembly and test.

**Table of Contents**

|                              |   |
|------------------------------|---|
| How to Order .....           | 3 |
| M100/M150 .....              | 5 |
| Gripper Mounting Block ..... | 6 |

# LINEAR PART HANDLER

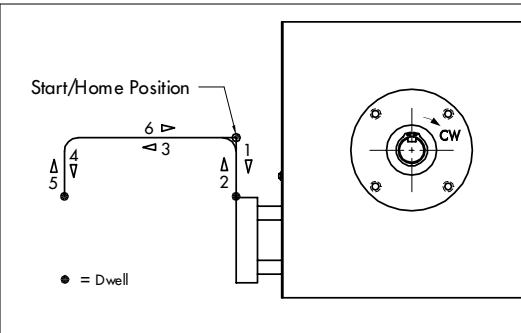
## How To Order

### LPP Ordering Procedure

- 1. Model
- 2. Lift (Vertical) Stroke
- 3. Transfer (Horizontal) Stroke

| Standard Strokes: Lift x Transfer mm [in] |                        |
|-------------------------------------------|------------------------|
| M100                                      | M150                   |
| 15.0 [0.59] x 100 [3.94]                  | 15 [0.59] x 150 [5.91] |
| 45 [1.77] x 100 [3.94]                    | 45 [1.77] x 150 [5.91] |
| 65 [2.56] x 20 [0.79]                     | 75 [2.95] x 50 [1.97]  |
| 65 [2.56] x 60 [2.36]                     | 75 [2.95] x 110 [4.33] |
| 65 [2.56] x 100 [3.94]                    | 75 [2.95] x 150 [5.91] |

### 4. Output Sequence (Standard or Custom)

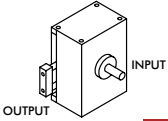
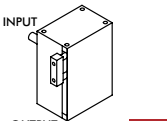
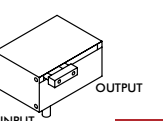
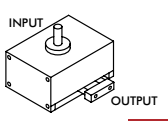
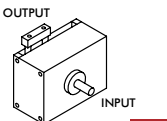
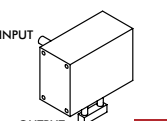


### 5. Drive Page including Gear Reducer, Motor, and AC Drive

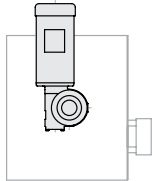
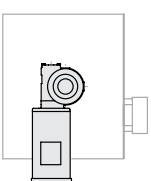
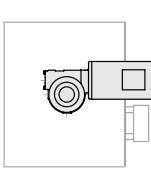
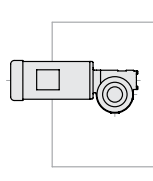
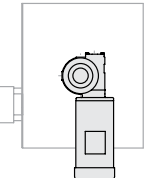
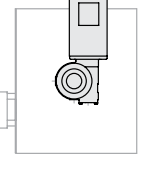
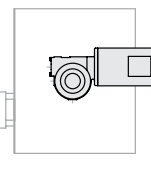
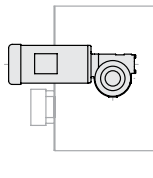
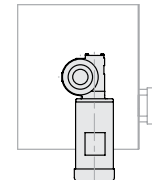
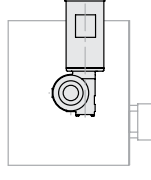
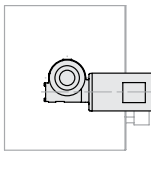
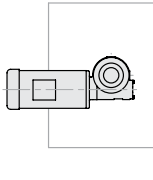
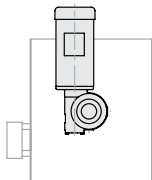
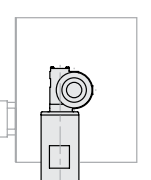
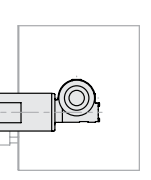
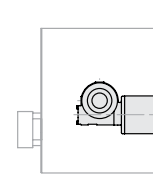
| Model | Gear Reducer | AC Motor | 1 hp AC Drive Input Voltage (select 1) |         |         |
|-------|--------------|----------|----------------------------------------|---------|---------|
| M100  | R180         | 1/3 hp   | 120 VAC                                | 240 VAC | 480 VAC |
| M150  | R225         | 3/4 hp   | 120 VAC                                | 240 VAC | 480 VAC |

# LINEAR PART HANDLER

## Mounting Position

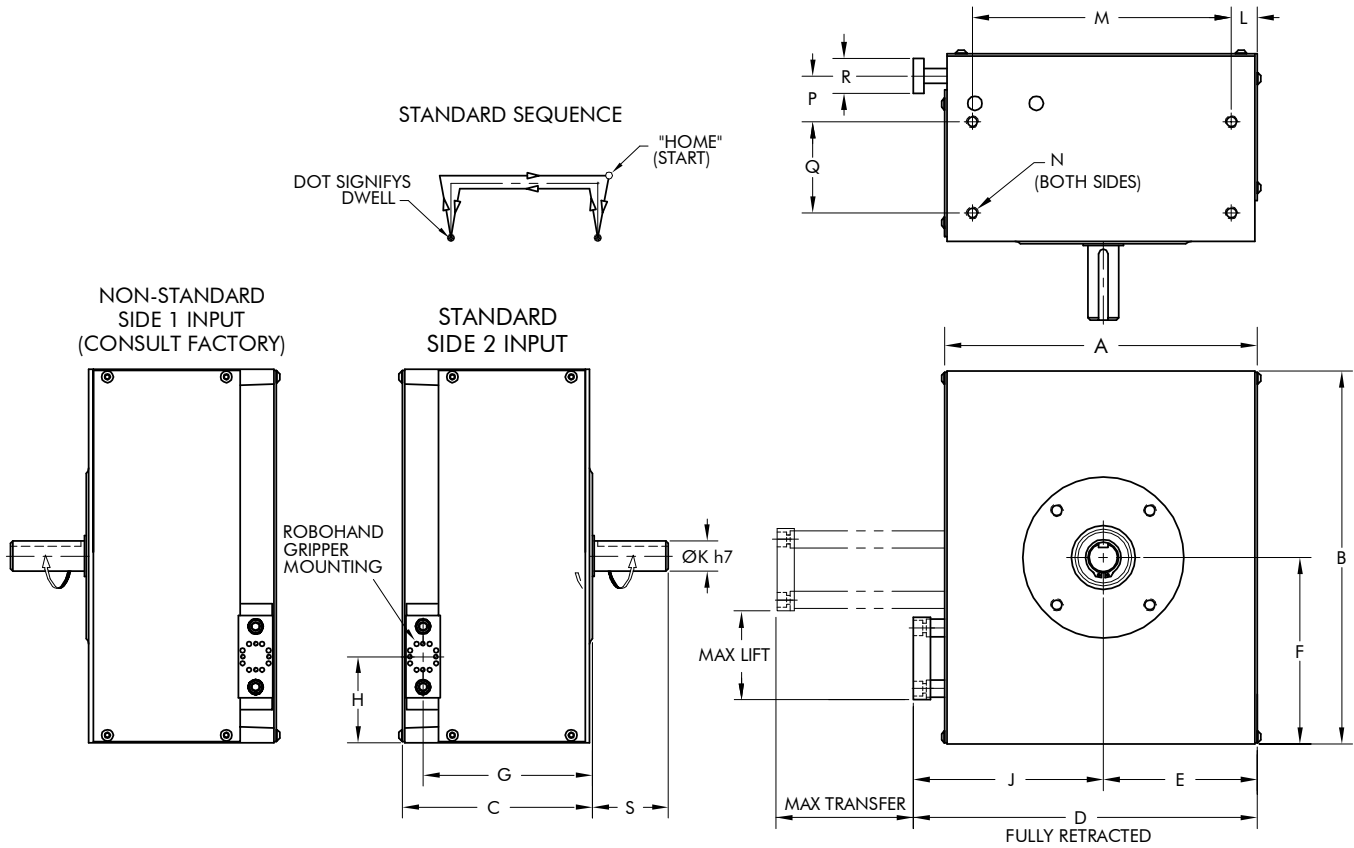
| OHUI<br>(output horizontal,<br>under input)                                                   | OHOI<br>(output horizontal,<br>over input)                                                    | OHID<br>(output horizontal,<br>input down)                                                    | OHIU<br>(output horizontal,<br>input up)                                                       | VU<br>(output vertical<br>up)                                                                   | VD<br>(output vertical<br>down)                                                                 |
|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| <br><b>1</b> | <br><b>2</b> | <br><b>3</b> | <br><b>4</b> | <br><b>5</b> | <br><b>6</b> |

## Gear Reducer Mounting Positions

| Mounting "A" |                                                                                                 |                                                                                                 |                                                                                                  | Mounting "B"                                                                                      |  |    |  |
|--------------|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|--|----|--|
| RH           |                                                                                                 | LH                                                                                              |                                                                                                  | RH                                                                                                |  | LH |  |
| SIDE 1       | <br><b>A</b>   | <br><b>B</b>   | <br><b>C</b>   | <br><b>D</b>   |  |    |  |
|              |                                                                                                 |                                                                                                 |                                                                                                  |                                                                                                   |  |    |  |
| SIDE 2       | <br><b>E</b> | <br><b>F</b> | <br><b>G</b> | <br><b>H</b> |  |    |  |
|              |                                                                                                 |                                                                                                 |                                                                                                  |                                                                                                   |  |    |  |
| Mounting "C" |                                                                                                 |                                                                                                 |                                                                                                  | Mounting "D"                                                                                      |  |    |  |
| RH           |                                                                                                 | LH                                                                                              |                                                                                                  | RH                                                                                                |  | LH |  |
| SIDE 1       | <br><b>J</b> | <br><b>K</b> | <br><b>L</b> | <br><b>M</b> |  |    |  |
|              |                                                                                                 |                                                                                                 |                                                                                                  |                                                                                                   |  |    |  |
| SIDE 2       | <br><b>N</b> | <br><b>P</b> | <br><b>R</b> | <br><b>S</b> |  |    |  |
|              |                                                                                                 |                                                                                                 |                                                                                                  |                                                                                                   |  |    |  |

# M100/M150 SERIES

## Linear Part Handler | Dimensions and Technical Information



| Model | A                | B                | C               | D                | E               | F               | G               | H              | J               | K              | L              | M                | N       | P              | Q              | R              | S              |
|-------|------------------|------------------|-----------------|------------------|-----------------|-----------------|-----------------|----------------|-----------------|----------------|----------------|------------------|---------|----------------|----------------|----------------|----------------|
| M100  | [9.88]<br>251.0  | [11.42]<br>290.0 | [5.71]<br>145.0 | [11.01]<br>279.7 | [4.84]<br>123.0 | [5.71]<br>145.0 | [5.12]<br>130.0 | [2.56]<br>65.0 | [6.18]<br>157.0 | [0.98]<br>25.0 | [0.47]<br>12.0 | [8.86]<br>225.0  | 4 x M8  | [1.57]<br>40.0 | [2.56]<br>65.0 | [1.00]<br>25.4 | [1.97]<br>50.0 |
| M150  | [13.07]<br>332.0 | [15.75]<br>400.0 | [6.69]<br>170.0 | [14.41]<br>366.0 | [6.30]<br>160.0 | [7.87]<br>200.0 | [5.83]<br>148.0 | [3.54]<br>90.0 | [8.11]<br>206.0 | [1.18]<br>30.0 | [0.59]<br>15.0 | [11.81]<br>300.0 | 4 x M10 | [1.57]<br>40.0 | [3.15]<br>80.0 | [2.01]<br>51.0 | [2.17]<br>55.0 |

### Technical Specifications

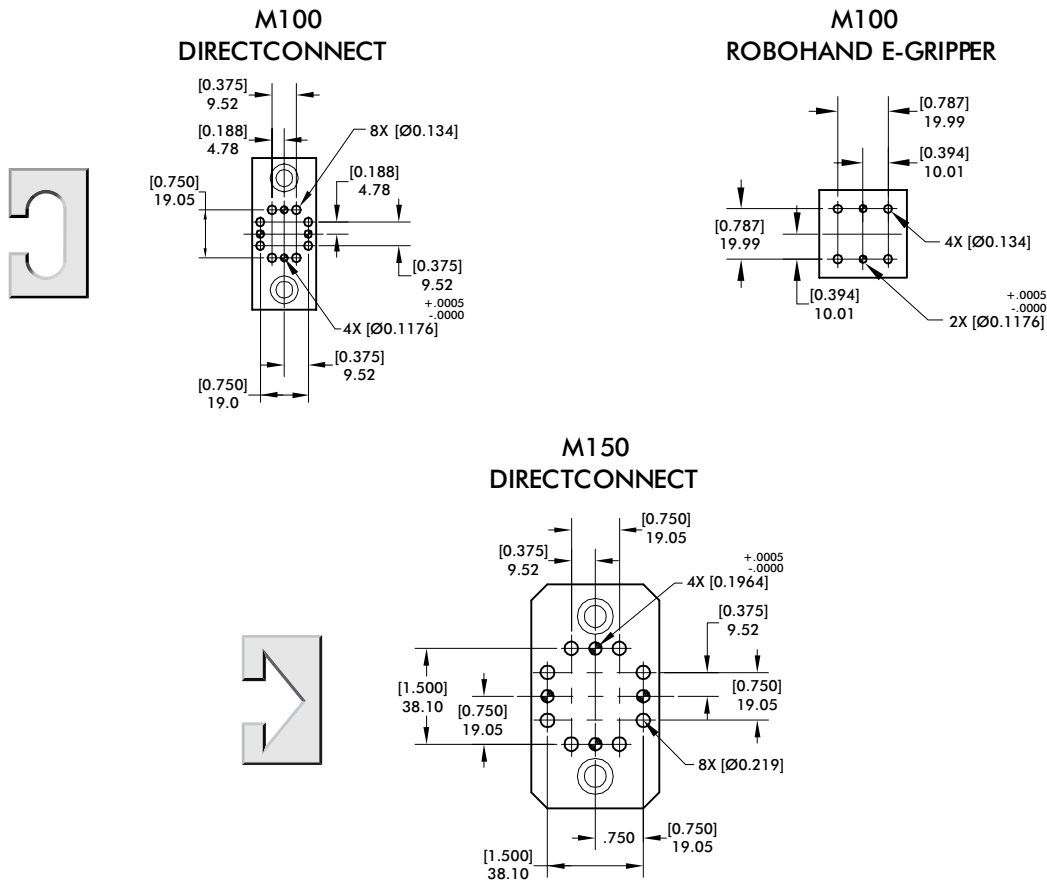
| Model | Maximum Lift<br>mm [in] | Maximum Transfer<br>mm [in] | Capacity at 30 rpm<br>kg [lb] | Capacity at 60 rpm<br>kg [lb] |
|-------|-------------------------|-----------------------------|-------------------------------|-------------------------------|
| M100  | 65.0 [2.56]             | 100.0 [3.94]                | 8 [18]                        | 3.6 [8]                       |
| M150  | 75.0 [2.95]             | 150.0 [5.91]                | 18 [40]                       | 9 [20]                        |

| Model | Lift                  |                       | Transfer              |                       |
|-------|-----------------------|-----------------------|-----------------------|-----------------------|
|       | Accuracy              | Repeatability         | Accuracy              | Repeatability         |
| M100  | ±.13 mm<br>[±.005 in] | ±.03 mm<br>[±.001 in] | ±.08 mm<br>[±.003 in] | ±.03 mm<br>[±.001 in] |
| M150  | ±.20 mm<br>[±.008 in] | ±.08 mm<br>[±.003 in] | ±.08 mm<br>[±.003 in] | ±.03 mm<br>[±.001 in] |

# M100/M150 SERIES

Linear Part Handler | Accessories

## Gripper Mounting Block



## RoboHand DirectConnect Grippers & Rotaries

Consult the DESTACO Automation Catalog or your local sales representative for information about these items.

| Model       | E-Gripper            | DPDS/DPDL                                        | DPG                                              | DPP                                                  | DPW                                                  | DCT                           | DRF                                          |
|-------------|----------------------|--------------------------------------------------|--------------------------------------------------|------------------------------------------------------|------------------------------------------------------|-------------------------------|----------------------------------------------|
| <b>M100</b> | RPE-100M<br>RPE-101M | DPDS-047M<br>DPDS-056M<br>DPDL-047M<br>DPDL-056M | N/A                                              | DPP-10M-06<br>DPP-10M-12<br>DPP-14M-15<br>DPP-14M-25 | DPW-250M-1<br>DPW-250M-2                             | DCT-12M<br>DCT-16M<br>DCT-20M | N/A                                          |
| <b>M150</b> | N/A                  | DPDS-088M<br>DPDS-125M<br>DPDL-088M<br>DPDL-125M | DPG-10M-1<br>DPG-10M-2<br>DPG-10M-3<br>DPG-10M-4 | DPP-20M-25<br>DPP-20M-28<br>DPP-28M-31<br>DPP-28M-50 | DPW-375M-1<br>DPW-375M-2<br>DPW-500M-1<br>DPW-500M-2 | DCT-25M                       | DRF/DRG-075M<br>DRF/DRG-094M<br>DRF/DRG-106M |



# ROTARY PART HANDLER

## Product Overview

## INDEXERS

### Servo Positioners



**GTB Series**  
Globoidal (Roller Gear)  
Servo Positioner.....IN-SRV-1



**RSD Series**  
Rotary Servo Drives.....IN-SRV-39

### Mechanical Indexers



**RDM Series**  
Rotary Index Drive ..... IN-MCH-2



**RD Series**  
Roller Dial Index Drive..... IN-MCH-18



**E Series**  
Heavy-Duty Index Drive ..... IN-MCH-30



**RA Series**  
Right Angle Index Drive ..... IN-MCH-42



**RGD/RGS Series**  
Roller Gear Index Drive ..... IN-MCH-52



**P Series**  
Parallel Shaft/Flange Drive.... IN-MCH-72



**RNG Series**  
Ring Drive Dial Indexer.....IN-MCH-84

## OVERLOAD CLUTCHES



**Overload Clutches**  
Output Overload..... IN-CLU-1

## CUSTOM CAMS



**Custom Cams**  
Cam Design Solutions ..... IN-CAM-1

## CONVEYORS



**Rite-Link Series**  
Thin-Profile.....IN-CNV-1



**Precision Link Series**  
Table-Top .....IN-CNV-4



**Precision Link Series**  
Heavy-Duty ..... IN-CNV-16

## PARTS HANDLERS



**LPP Series**  
Linear Part Handlers ..... IN-PRT-2



**RPP Series**  
Rotary Part Handlers ..... IN-PRT-8



**Features:**

The **CAMCO RPP Cambot® Rotary Parts Handler** is designed for high precision and high capacity. This proven design can be used in a wide variety of industries including automotive, packaging and electronics among others. The RPP can be combined with other CAMCO products such as index drives and precision conveyors for a complete, automated system. The RPP is ideal for pick and place applications with features including:

Rugged and precise cam operated mechanisms engineered for a minimum of 8000 hours of maintenance-free life.

Hardened and ground cams drive both the lift and rotary axes.

Preloaded precision cam followers eliminate backlash and ensure smooth movement.

Preloaded taper roller bearings on the camshaft (Input Shaft).

Four-point contact preloaded roller bearing on the rotary axis.

All bearings are lubricated by an oil bath.

One-piece lift arm.

Ball bushings (recirculating-ball type) support the main lift shaft and turn the large output surface and ride on hardened shafts for stability and stiffness.

Manufactured in a fully integrated application, design, manufacturing and inspection environment.

**Table of Contents**

|                      |   |
|----------------------|---|
| How to Order .....   | 3 |
| 300RPP .....         | 5 |
| 500RPP .....         | 7 |
| Timing Diagrams..... | 9 |

# ROTARY PART HANDLER

## How to Order

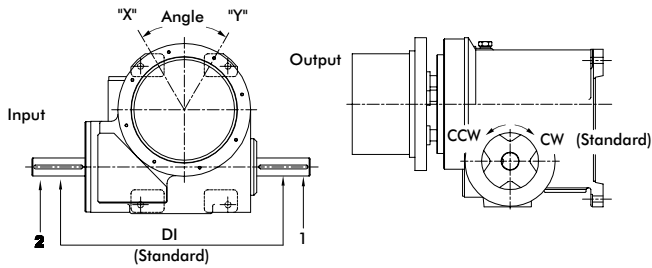
### RPP Ordering Procedure

1. Model
2. Rotary Motion (degrees)
  - Oscillator or indexer
  - Oscillator: Home at X or Y
  - Indexer: CW or CCW index
3. Lift (inches)
4. Input Shaft: Side 1, Side 2 or Double Input (DI)
5. Mounting Position: 1-6

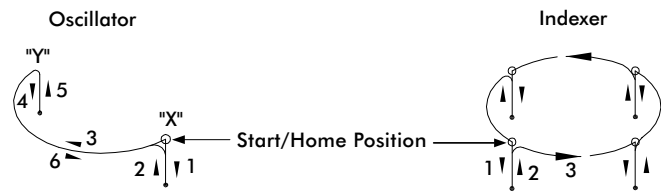
### Reducer Ordering Procedure

1. Reducer Model, Ratio and Mounting Position
2. Motor Adaptor Model
3. Motor size

## Input Shaft Configuration



## Standard Output Sequence

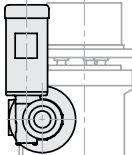
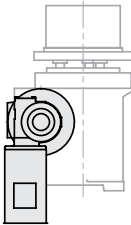
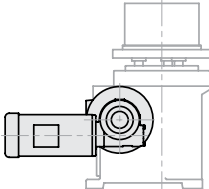
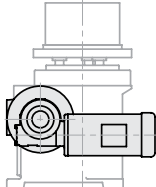
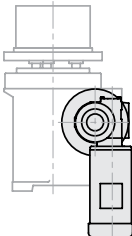
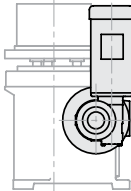
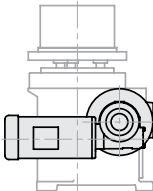
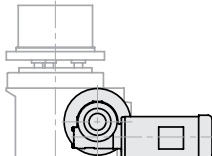
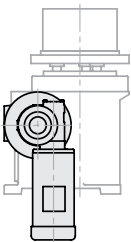
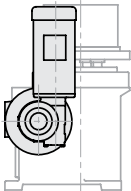
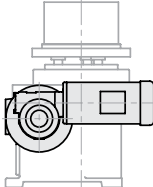
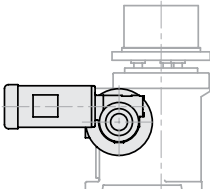
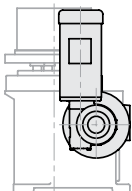
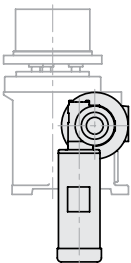
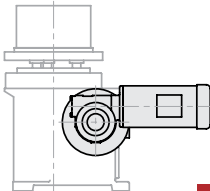
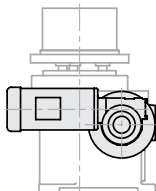


# ROTARY PART HANDLER

## Mounting Position

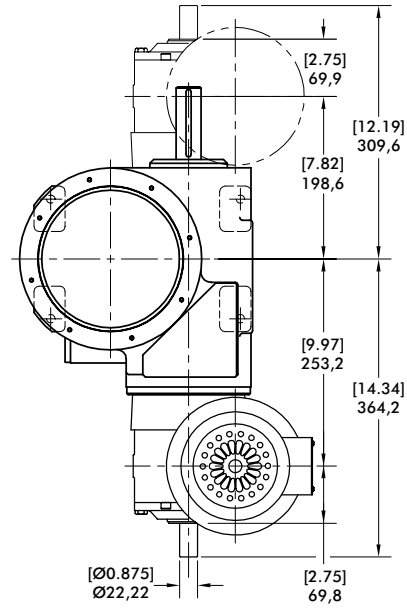
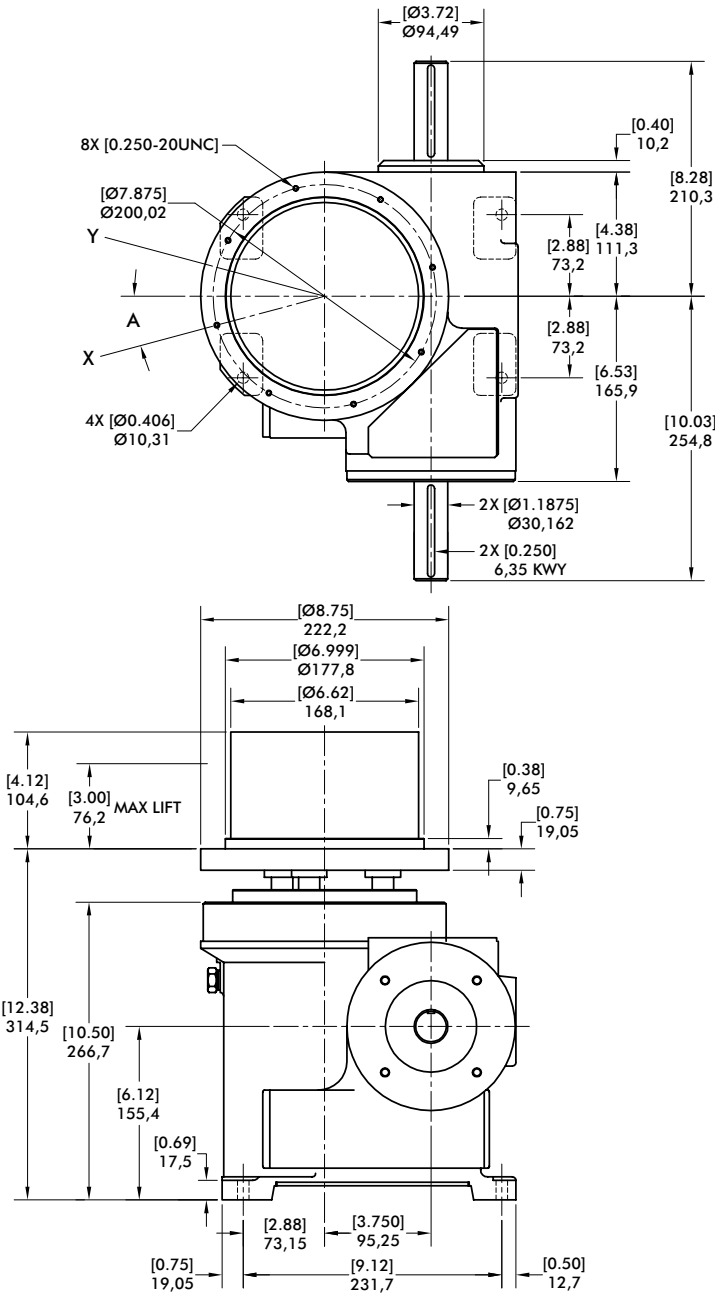
| OVUI<br>(output vertical,<br>over input) | OVUI<br>(output vertical,<br>under input) | OHOI<br>(output horizontal,<br>over input) | OHUI<br>(output horizontal,<br>under input) | H-S1-UP<br>(output horizontal,<br>side 1 up) | H-S2-UP<br>(output horizontal,<br>side 2 up) |
|------------------------------------------|-------------------------------------------|--------------------------------------------|---------------------------------------------|----------------------------------------------|----------------------------------------------|
| <br>1                                    | <br>2                                     | <br>3                                      | <br>4                                       | <br>5                                        | <br>6                                        |

## Gear Reducer Mounting Positions

| Mounting "A" |                                                                                                 |                                                                                                 |                                                                                                  | Mounting "B"                                                                                      |        |                                                                                                 |                                                                                                 |                                                                                                  |                                                                                                   |
|--------------|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|--------|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| RH           |                                                                                                 | LH                                                                                              |                                                                                                  | RH                                                                                                |        | LH                                                                                              |                                                                                                 |                                                                                                  |                                                                                                   |
| SIDE 1       | <br><b>A</b>   | <br><b>B</b>   | <br><b>C</b>   | <br><b>D</b>   | SIDE 2 | <br><b>E</b> | <br><b>F</b> | <br><b>G</b> | <br><b>H</b> |
|              | Mounting "C"                                                                                    |                                                                                                 |                                                                                                  |                                                                                                   |        | Mounting "D"                                                                                    |                                                                                                 |                                                                                                  |                                                                                                   |
| RH           |                                                                                                 | LH                                                                                              |                                                                                                  | RH                                                                                                |        | LH                                                                                              |                                                                                                 |                                                                                                  |                                                                                                   |
| SIDE 1       | <br><b>J</b> | <br><b>K</b> | <br><b>L</b> | <br><b>M</b> | SIDE 2 | <br><b>N</b> | <br><b>P</b> | <br><b>R</b> | <br><b>S</b> |

# 300RPP SERIES

## Rotary Part Handler | Configurations



1HP MOTOR  
90V A.C. 1750 RPM

56C MOTOR  
ADAPTOR

R225 GEAR  
REDUCER

| Indexing Motion |         |              |                   |
|-----------------|---------|--------------|-------------------|
| Rotation        | Angle A | Lift mm [in] | Model             |
| 120°            | 0°      | 25,4 [1]     | 300RPP120H24-1H24 |
|                 |         | 50,8 [2]     | 300RPP120H24-2H24 |
| 90°             | 15°     | 25,4 [1]     | 300RPP90H24-1H24  |
|                 |         | 50,8 [2]     | 300RPP90H24-2H24  |
|                 |         | 76,2 [3]     | 300RPP90H24-3H24  |
| 60°             | 0°      | 25,4 [1]     | 300RPP60H24-1H24  |
|                 |         | 50,8 [2]     | 300RPP60H24-2H24  |
|                 |         | 76,2 [3]     | 300RPP60H24-3H24  |
| 45°             | 22.5°   | 25,4 [1]     | 300RPP45H24-1H24  |
|                 |         | 50,8 [2]     | 300RPP45H24-2H24  |
|                 |         | 76,2 [3]     | 300RPP45H24-3H24  |

| Oscillating Motion |         |              |                 |
|--------------------|---------|--------------|-----------------|
| Rotation           | Angle A | Lift mm [in] | Model           |
| 180°               | 0°      | 25,4 [1]     | 300RPP2H24-1H24 |
|                    |         | 50,8 [2]     | 300RPP2H24-2H24 |
|                    |         | 76,2 [3]     | 300RPP2H24-3H24 |
| 120°               | 0°      | 25,4 [1]     | 300RPP3H24-1H24 |
|                    |         | 50,8 [2]     | 300RPP3H24-2H24 |
|                    |         | 76,2 [3]     | 300RPP3H24-3H24 |
| 90°                | 0°      | 25,4 [1]     | 300RPP4H24-1H24 |
|                    |         | 50,8 [2]     | 300RPP4H24-2H24 |
|                    |         | 76,2 [3]     | 300RPP4H24-3H24 |
| 60°                | 0°      | 25,4 [1]     | 300RPP6H24-1H24 |
|                    |         | 50,8 [2]     | 300RPP6H24-2H24 |

### Features

- Standard Indexing or Oscillating Motion
- R225 Reducer (Ratios from 5:1 to 60:1)  
— 56C Motor Adapter and Coupling
- 1 HP AC Drive Package with Inverter Duty Motor and Inverter Drive (up to 60 cpm)

### Optional Accessories

- 1 HP DC Motor
- Varipak DC Motor Control (up to 30 cpm)

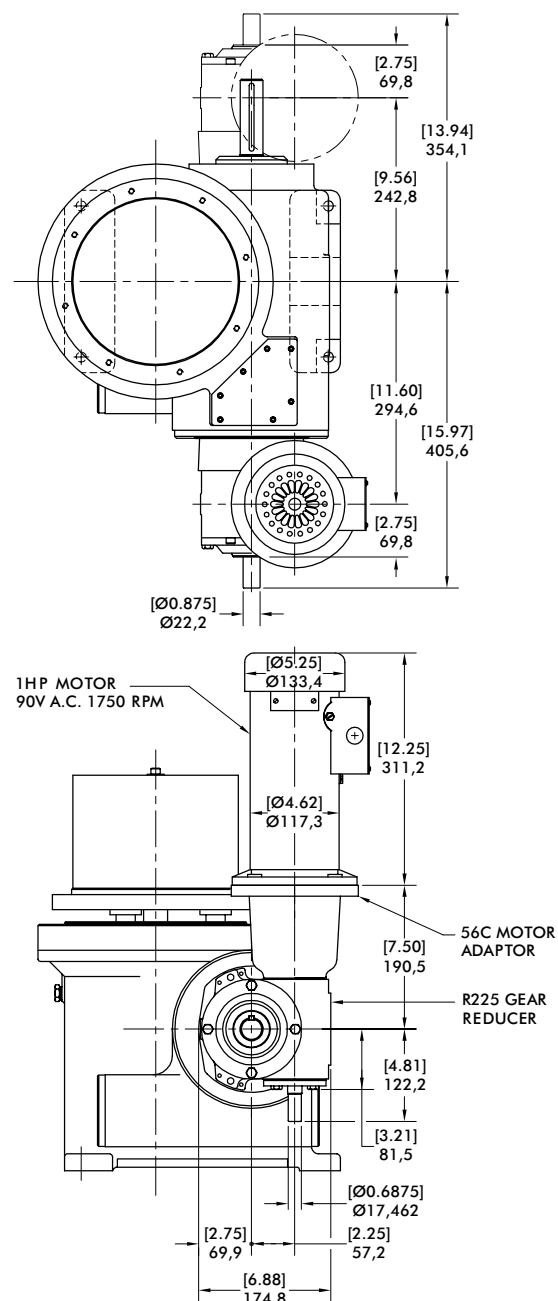
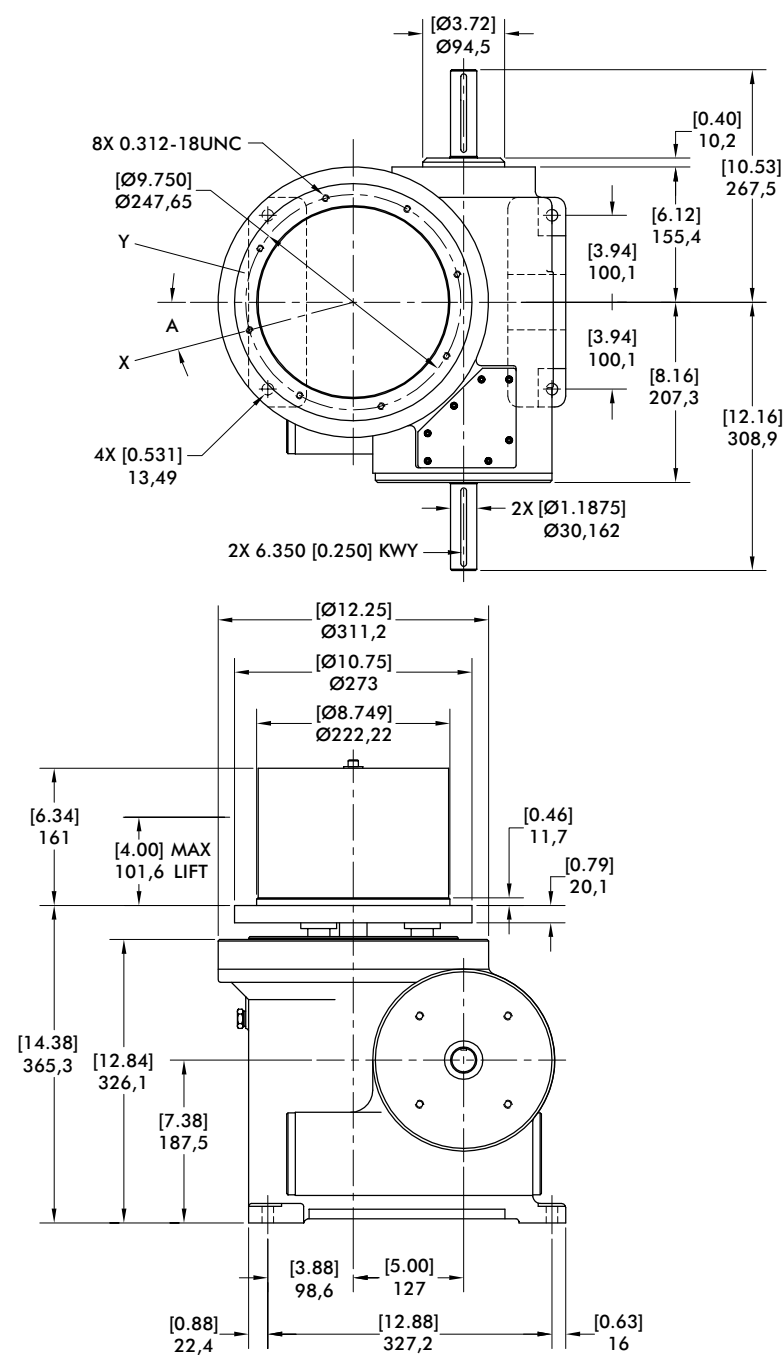
### Capacity:\*

|                 |                                                    |
|-----------------|----------------------------------------------------|
| Maximum Mass    | 68,04 kg [150 lbm]                                 |
| Maximum Inertia | 4975 kg-cm <sup>2</sup> [1700 lb-in <sup>2</sup> ] |

\* Note: These values are for speeds of less than 30 rpm, the minimum cam time for rise and rotation, and are for reference only. Each application must be reviewed and approved by CAMCO Engineering.

# 500RPP SERIES

## Rotary Part Handler | Configurations



| Indexing Motion |         |              |                 |
|-----------------|---------|--------------|-----------------|
| Rotation        | Angle A | Lift mm [in] | Model           |
| 180°            | 0°      | 50,8 [2]     | 500RPP2H32-2H32 |
|                 |         | 76,2 [3]     | 500RPP2H32-3H32 |
|                 |         | 101,6 [4]    | 500RPP2H32-4H32 |
| 120°            | 0°      | 50,8 [2]     | 500RPP3H32-2H32 |
|                 |         | 76,2 [3]     | 500RPP3H32-3H32 |
|                 |         | 101,6 [4]    | 500RPP3H32-4H32 |
| 90°             | 0°      | 50,8 [2]     | 500RPP4H32-2H32 |
|                 |         | 76,2 [3]     | 500RPP4H32-3H32 |
|                 |         | 101,6 [4]    | 500RPP4H32-4H32 |
| 60°             | 0°      | 50,8 [2]     | 500RPP6H32-2H32 |
|                 |         | 76,2 [3]     | 500RPP6H32-3H32 |
|                 |         | 101,6 [4]    | 500RPP6H32-4H32 |

| Oscillating Motion |         |              |                   |
|--------------------|---------|--------------|-------------------|
| Rotation           | Angle A | Lift mm [in] | Model             |
| 120°               | 0°      | 50,8 [2]     | 500RPP120H32-2H32 |
|                    |         | 76,2 [3]     | 500RPP120H32-3H32 |
| 90°                | 15°     | 50,8 [2]     | 500RPP90H32-2H32  |
|                    |         | 76,2 [3]     | 500RPP90H32-3H32  |
|                    |         | 101,6 [4]    | 500RPP90H32-4H32  |
| 60°                | 0°      | 50,8 [2]     | 500RPP60H32-2H32  |
|                    |         | 76,2 [3]     | 500RPP60H32-3H32  |
|                    |         | 101,6 [4]    | 500RPP60H32-4H32  |
| 45°                | 22.5°   | 50,8 [2]     | 500RPP45H32-2H32  |
|                    |         | 76,2 [3]     | 500RPP45H32-3H32  |
|                    |         | 101,6 [4]    | 500RPP45H32-4H32  |

### Features

- Standard Indexing or Oscillating Motion
- R225 Reducer (Ratios from 5:1 to 60:1)  
— 56C Motor Adapter and Coupling
- 1 hp AC Drive Package with Inverter Duty Motor and Inverter Drive (up to 60 cpm)

### Optional Accessories

- 1 hp DC Motor
- Varipak DC Motor Control (up to 30 cpm)

### Capacity:\*

|                 |                                                    |
|-----------------|----------------------------------------------------|
| Maximum Mass    | 81,65 kg [180 lbm]                                 |
| Maximum Inertia | 9204 kg-cm <sup>2</sup> [3145 lb-in <sup>2</sup> ] |

### Capacity:\*

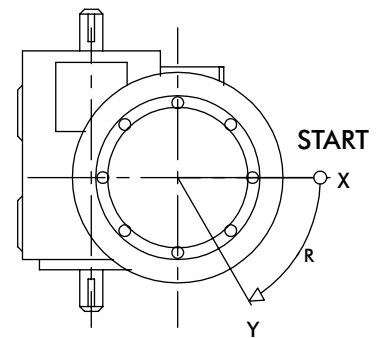
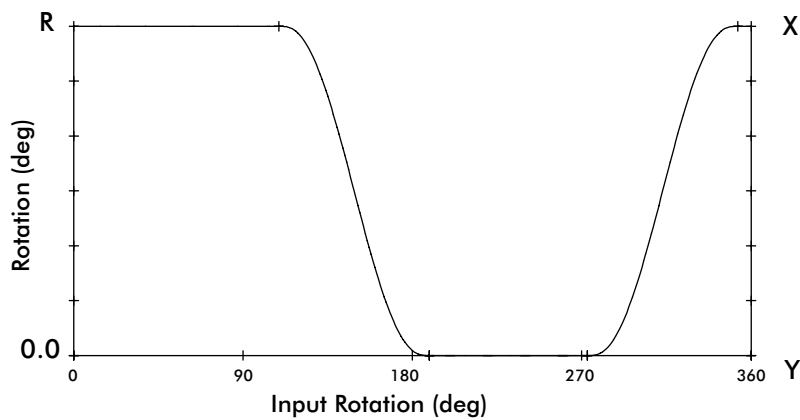
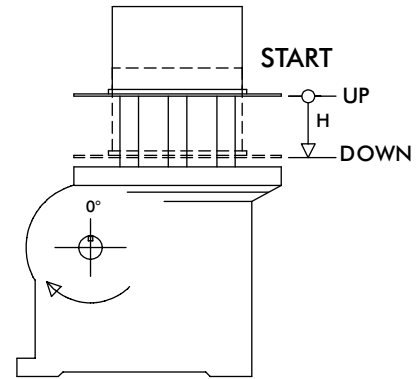
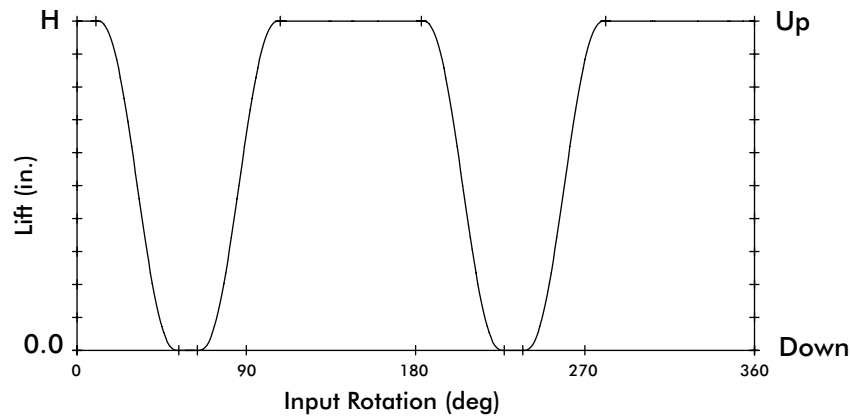
|                 |                         |
|-----------------|-------------------------|
| Maximum Mass    | 180 lbs                 |
| Maximum Inertia | 3415 lb-in <sup>2</sup> |

\* Note: These values are for speeds of less than 30 rpm, the minimum cam time for rise and rotation, and are for reference only. Each application must be reviewed and approved by CAMCO Engineering.



# ROTARY PART HANDLER

## Oscillator Timing Diagram

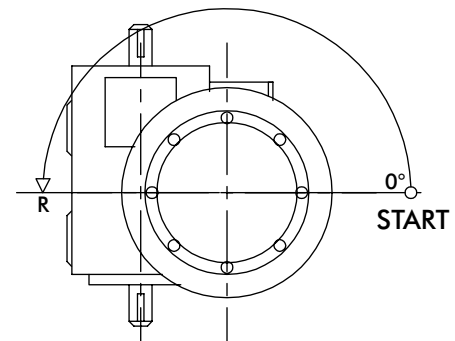
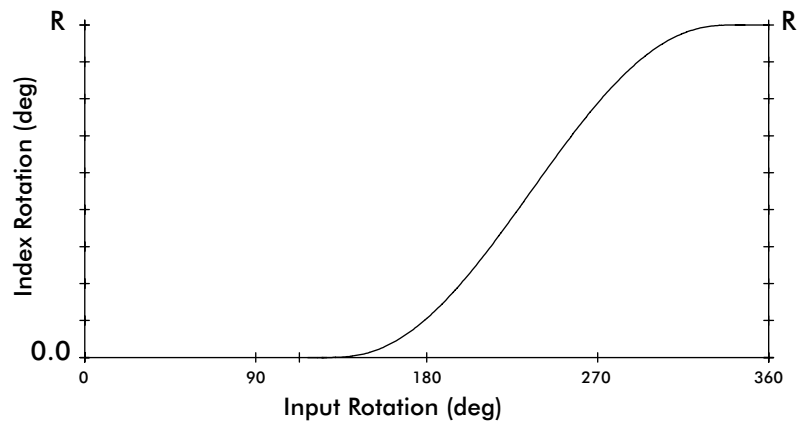
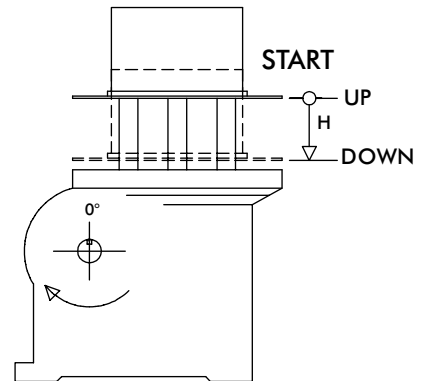
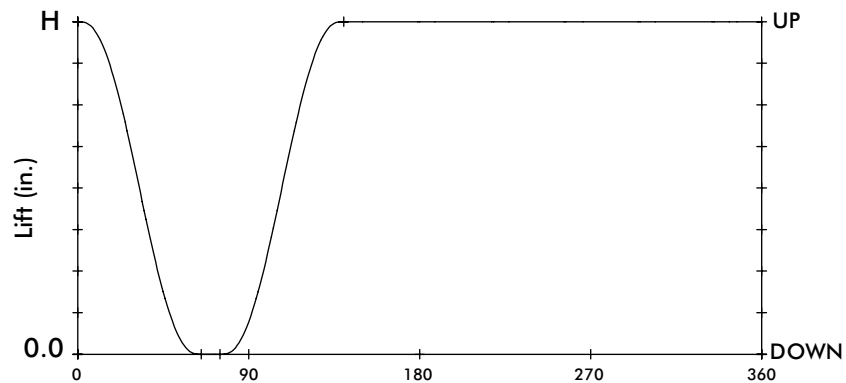


## Motion Options

- Standard starting position (home) at time 0 is at maximum rise (up) and at the X rotary position.
- The standard sequence can be mirrored in either the lift, rotary or both:
  - The mirrored lift starts in the zero elevation or down position
  - The mirrored rotary motion starts at Y.
- Custom motion times are also available – consult your Sales Agent for more information.

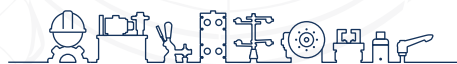
# ROTARY PART HANDLER

## Indexer Timing Diagram



### Motion Options

- Standard starting position (home) at time 0 is at maximum rise (up) and at the start of a counter-clockwise index (right-hand cam helix).
- The standard sequence can be mirrored in either the lift, rotary or both:
  - The mirrored lift starts in the zero elevation or down position
  - The mirrored rotary motion is a clockwise index (left-hand helix)
- Custom motion times are also available – consult your Sales Agent for more information.



inf @ /CESEHSA.com.mx

