PRECISION INDEXING SOLUTIONS

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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.

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Input Shaft Configuration/Rotation (Figure 1)

Signal Switch Mounting Position (Figure 2)

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
**Gear Reducer Mounting Positions (Figure 4)**

<table>
<thead>
<tr>
<th>Mounting “A”</th>
<th>Mounting “B”</th>
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<tbody>
<tr>
<td>RD Worm</td>
<td>RD Worm</td>
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<tr>
<td>LD Worm</td>
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<td>K</td>
<td>R</td>
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<tr>
<td>P</td>
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</table>
### 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

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### Maximum Inertia x 1000 kg-cm² [lb-in²] for standard package

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<tr>
<th>Stops</th>
<th>0.458</th>
<th>0.611</th>
<th>0.764</th>
<th>0.917</th>
<th>1.222</th>
<th>1.528</th>
<th>1.833</th>
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### Reducer Ratio

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<th>Reducer Ratio</th>
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<tbody>
<tr>
<td>15</td>
</tr>
</tbody>
</table>

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**Unless otherwise noted, all dimensions are in inches.**
**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**

\[ \pm 30 \text{ arcsec} / \pm 0.102 \text{ mm} \ [\pm.004 \text{ in}] \] at 609.6 mm [24 in] Radius

**Repeatability**

\[ \pm 8 \text{ arcsec} / \pm 0.023 \text{ mm} \ [\pm.0009 \text{ in}] \] at 609.6 mm [24 in] Radius

**Maximum Inertia x 1000 kg-cm² [lb-in²] for standard package**

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Dimensions and technical information are subject to change without notice.
### 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

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**Maximum Inertia x 1000 kg-cm² [lb-in²] for standard package**

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**Dimensions and technical information are subject to change without notice**

**IN-MCH | 26**

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Unless otherwise noted, all dimensions are in inches.

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**1301RD SERIES**

Roller Dial Index Drives | Product Overview | Technical Information | Optional Accessories
1801RD SERIES
Roller Dial Index Drives | Dimensions

Dimensions and technical information are subject to change without notice.
Maximum Inertia x 1000 kg-cm² [lb-in²] for standard package

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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**

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**

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

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