RNG Easy Access Dial Indexers

Additional Indexing Products:

- Servo Positioner
- Rotary Table

- RDM Dial Indexers

- RA Right Angle Drives

- RD HD Dial Indexers

- E-Series HD Drives

- MDE/HDE Indexers

- RSD Flexible Servo Drives

- RGS/RGD Shaft/Flange Drives

- Parallel Shaft/Flange Drives

- Rite-Link Conveyors

- Table-Top Modular Conveyors

- Heavy Duty Modular Conveyors

- LPP Linear Part Handles

- RPP Rotating Part Handlers

- Overload Clutches

- Custom Cams

Dimensions and technical information are subject to change without notice
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
Ring Drive Dial Indexer | Features and Benefits | How to Order

**Ring Drive Features**

**Great Design Flexibility**
- Available in three sizes: .75, 1.1 and 1.6 meter diameters
- 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

**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

Other Motions (stops and index periods) available. Contact your DESTACO sales representative for more information.
Input Shaft Configuration/Rotations (Figure 1)

Signal Switch Mounting Position (Figure 2)

Right Hand Cam Standard:

CW Input Side 1, CCW Output
CCW Input Side 1, CW Output

NOTE: Input can be driven in either direction

Gear Reducer Mounting Positions (Figure 3)
Unless otherwise noted, all dimensions are in mm.
### Output Bearing Capacity

<table>
<thead>
<tr>
<th>Loads carried during index:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Radial</strong> 25,740 N [5,580 lbs]</td>
</tr>
<tr>
<td><strong>Axial</strong> 64,020 N [14,550 lbs]</td>
</tr>
<tr>
<td><strong>Moment</strong> 6,915 Nm [61,200 in-lbs]</td>
</tr>
</tbody>
</table>

### Accuracy

| ±60 arcsec / ±.047 mm at 324 mm Radius |
| ±.0019” at 12.75” Radius |

### Repeatability

| ±15 arcsec / ±.012 mm at 324 mm Radius |
| ±.0005” at 12.75” Radius |

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

<table>
<thead>
<tr>
<th>Stops</th>
<th>0.468</th>
<th>0.617</th>
<th>0.764</th>
<th>0.915</th>
<th>1.160</th>
<th>1.521</th>
<th>1.791</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>0</td>
<td>17</td>
<td>58</td>
<td>124</td>
<td>292</td>
<td>565</td>
<td>791</td>
</tr>
<tr>
<td>8</td>
<td>3</td>
<td>47</td>
<td>121</td>
<td>238</td>
<td>537</td>
<td>1,022</td>
<td>1,424</td>
</tr>
<tr>
<td>12</td>
<td>36</td>
<td>134</td>
<td>300</td>
<td>564</td>
<td>1,237</td>
<td>2,328</td>
<td>3,233</td>
</tr>
<tr>
<td>16</td>
<td>81</td>
<td>255</td>
<td>550</td>
<td>1,019</td>
<td>2,217</td>
<td>4,156</td>
<td>5,765</td>
</tr>
</tbody>
</table>

### 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 (230 mm Diameter)
- Cycle Cam and Limit Switch Mounted to Camshaft
- Right Hand Cam

### 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 bases (see cover)
1100RNG SERIES

Ring Drive Dial Indexer | Dimensions

Unless otherwise noted, all dimensions are in mm.

Dimensions and technical information are subject to change without notice.
Output Bearing Capacity (loads carried during index):
- Radial: 159,940 N [36,350 lbs]
- Axial: 72,829 N [16,552 lbs]
- Moment: 16,879 Nm [149,376 in-lbs]

Accuracy:
- ±35 arcsec / ±.038 mm at 448 mm Radius
- ±.0015” at 17.65” Radius

Repeatability:
- ±9 arcsec / ±.010 mm at 448 mm Radius
- ±.0004” at 17.65” Radius

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 (800 mm Diameter)
- Cycle Cam and Limit Switch Mounted to Camshaft
- Right Hand Cam

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 bases (see cover)

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

<table>
<thead>
<tr>
<th>Stops</th>
<th>0.915</th>
<th>1.359</th>
<th>1.521</th>
<th>1.791</th>
<th>2.072</th>
<th>2.217</th>
<th>2.557</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>56</td>
<td>378</td>
<td>497</td>
<td>724</td>
<td>999</td>
<td>1,157</td>
<td>1,570</td>
</tr>
<tr>
<td>8</td>
<td>170</td>
<td>743</td>
<td>954</td>
<td>1,357</td>
<td>1,847</td>
<td>2,127</td>
<td>2,861</td>
</tr>
<tr>
<td>12</td>
<td>496</td>
<td>1,784</td>
<td>2,260</td>
<td>3,165</td>
<td>4,268</td>
<td>4,899</td>
<td>6,550</td>
</tr>
<tr>
<td>16</td>
<td>951</td>
<td>3,241</td>
<td>4,088</td>
<td>5,697</td>
<td>7,657</td>
<td>8,778</td>
<td>11,714</td>
</tr>
</tbody>
</table>

### Reducer Ratio

| Reducer Ratio | 29.96 | 37.97 | 49.79 | 58.60 | 67.80 | 72.54 | 83.69 |

Dimensions and technical information are subject to change without notice
### Output Bearing Capacity

(loads carried during index):
- **Radial**: 239,052 N [54,330 lbs]
- **Axial**: 76,635 N [17,417 lbs]
- **Moment**: 25,720 Nm [227,622 in-lbs]

### Accuracy

- **±25 arcsec / ±.039 mm at 648 mm Radius**
- **±.0015” at 25.51” Radius**

### Repeatability

- **±6 arcsec / ±.010 mm at 648 mm Radius**
- **±.0004” at 25.51” Radius**

### 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** (1210 mm Diameter)
- **Cycle Cam and Limit Switch Mounted to Camshaft**
- **Right Hand Cam**

### 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 bases** (see cover)

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

<table>
<thead>
<tr>
<th>Stops</th>
<th>Motion Time [seconds]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.210</td>
</tr>
<tr>
<td>6</td>
<td>232</td>
</tr>
<tr>
<td>8</td>
<td>678</td>
</tr>
<tr>
<td>12</td>
<td>1,954</td>
</tr>
<tr>
<td>16</td>
<td>3,743</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reducer Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>39.61</td>
</tr>
</tbody>
</table>

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