

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

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# RNG SERIES

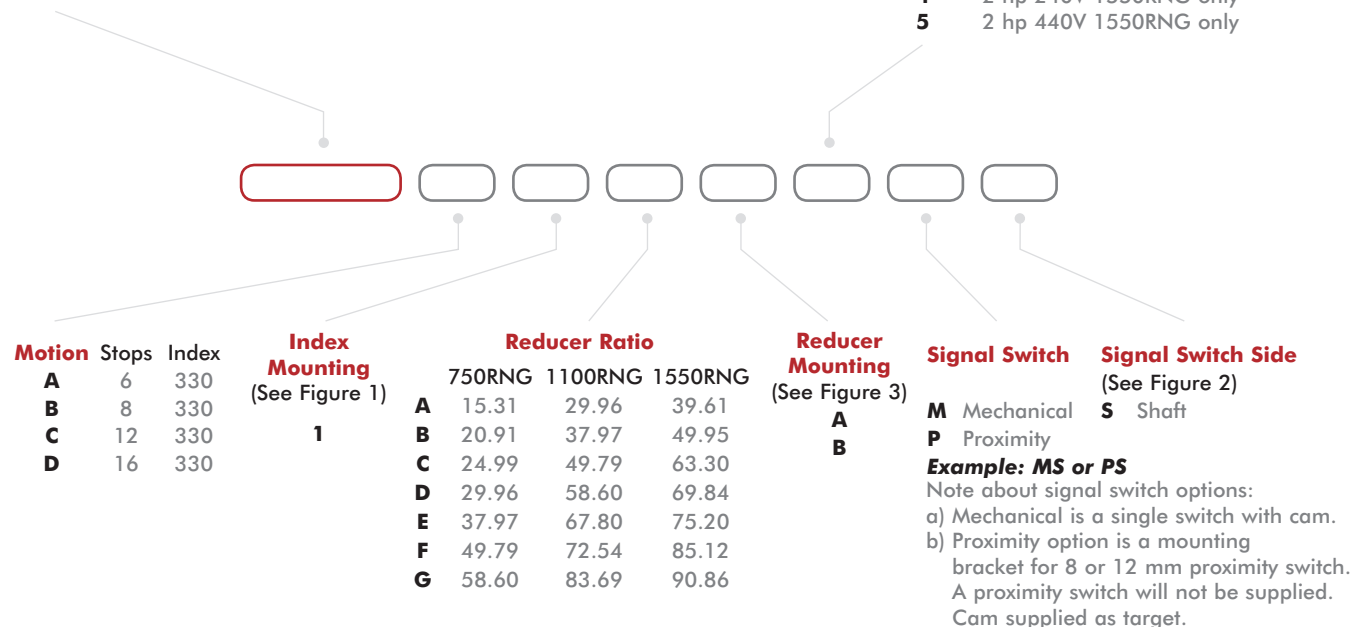
## Precision Indexing | How to Order

### Base Model Description

<b>750RNG</b>	w/ KH37 reducer & 1 hp AC motor (220/440V)
<b>1100RNG</b>	w/ KH37 reducer & 1 hp AC motor (220/440V)
<b>1550RNG</b>	w/ KH37 reducer & 1-1/2 hp AC motor (220/440V)

### Control Description

<b>1</b>	1 hp 120V 750RNG & 1100RNG only
<b>2</b>	1 hp 240V 750RNG & 1100RNG only
<b>3</b>	1 hp 440V 750RNG & 1100RNG only
<b>4</b>	2 hp 240V 1550RNG only
<b>5</b>	2 hp 440V 1550RNG only



Motion	Stops	Index
<b>A</b>	6	330
<b>B</b>	8	330
<b>C</b>	12	330
<b>D</b>	16	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:

- Mechanical is a single switch with cam.
- 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 DE-STA-CO sales representative for more information.

## 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

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

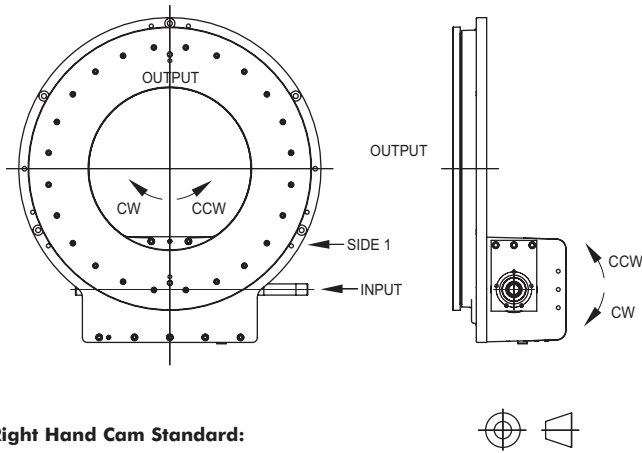
Sealed 4-point contact output bearing and large cam followers for superior accuracy and load capability (models 750RNG, 1100RNG and 1550RNG)

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)

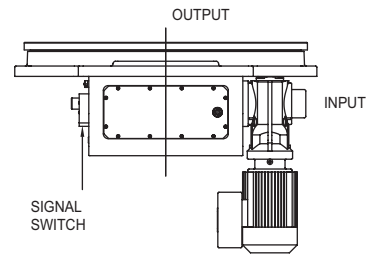


**Right Hand Cam Standard:**

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

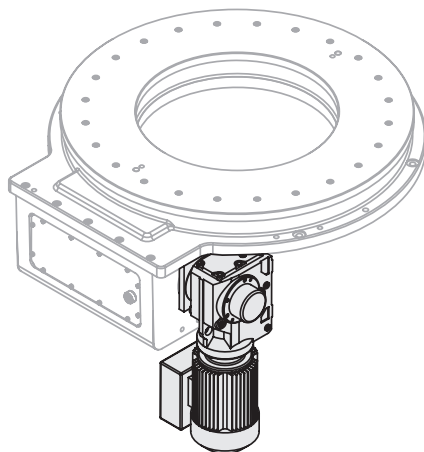
NOTE: Input can be driven in either direction

### Signal Switch Mounting Position (Figure 2)

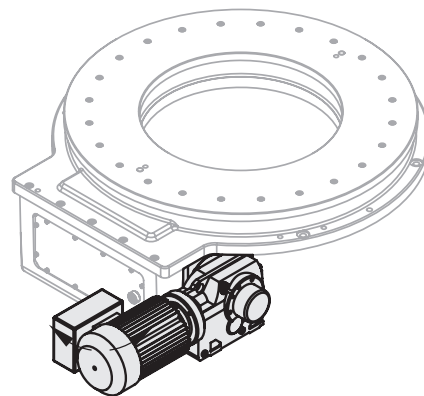


### Gear Reducer Mounting Positions (Figure 3)

MOUNTING "A"

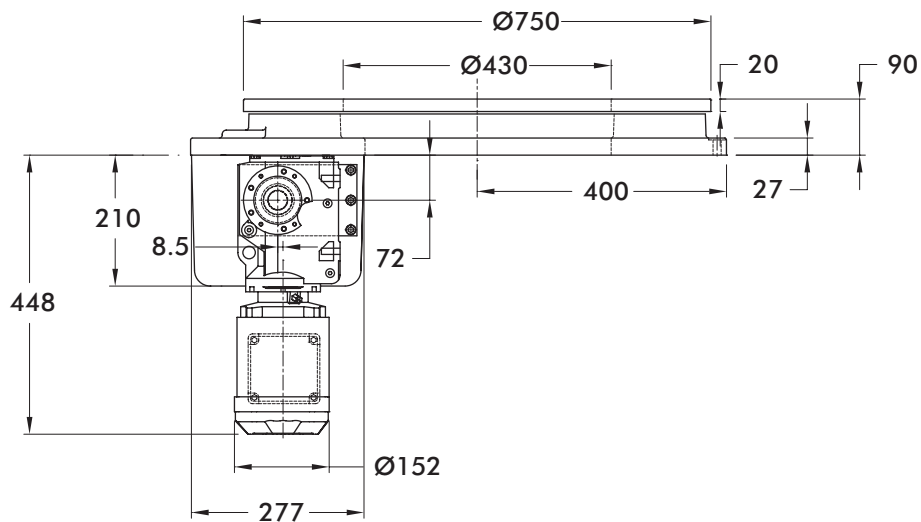
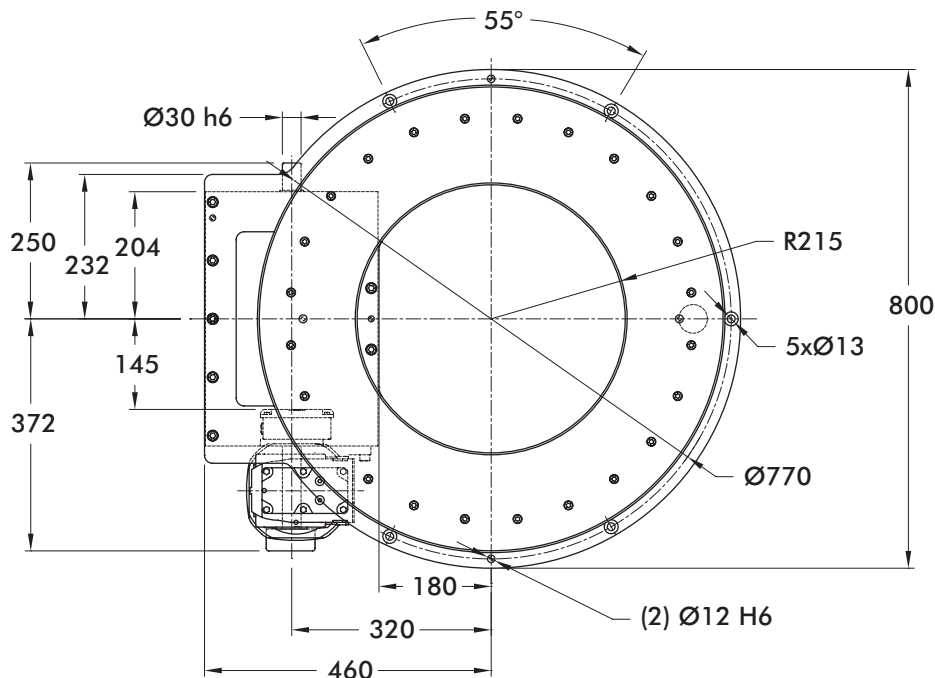


MOUNTING "B"



# CAMCO MDE SERIES

## Precision Indexing | Dimensions



Unless otherwise noted,  
all dimensions are in mm.

# CAMCO MDE SERIES

## Precision Indexing | Product Overview and Technical Specifications

Maximum Inertia x 1000 [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	17	58	124	292	565	791
8	3	47	121	238	537	1,022	1,424
12	36	134	300	564	1,237	2,328	3,233
16	81	255	550	1,019	2,217	4,156	5,765
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

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

Radial	25,740 N [5,580 lbs]
Axial	64,020 N [14,550 lbs]
Moment	6,915 Nm [61,200 in-lbs]

**Accuracy** ±60 arcsec / ±.047 mm at 324 mm Radius  
±.0019" at 12.75" Radius

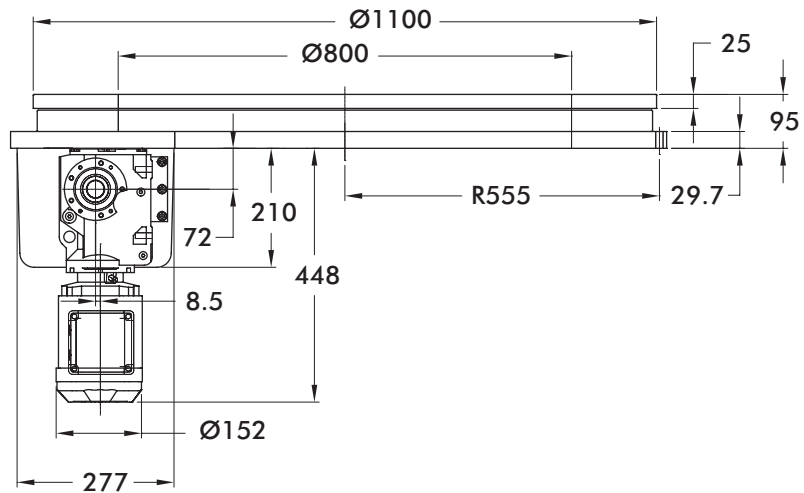
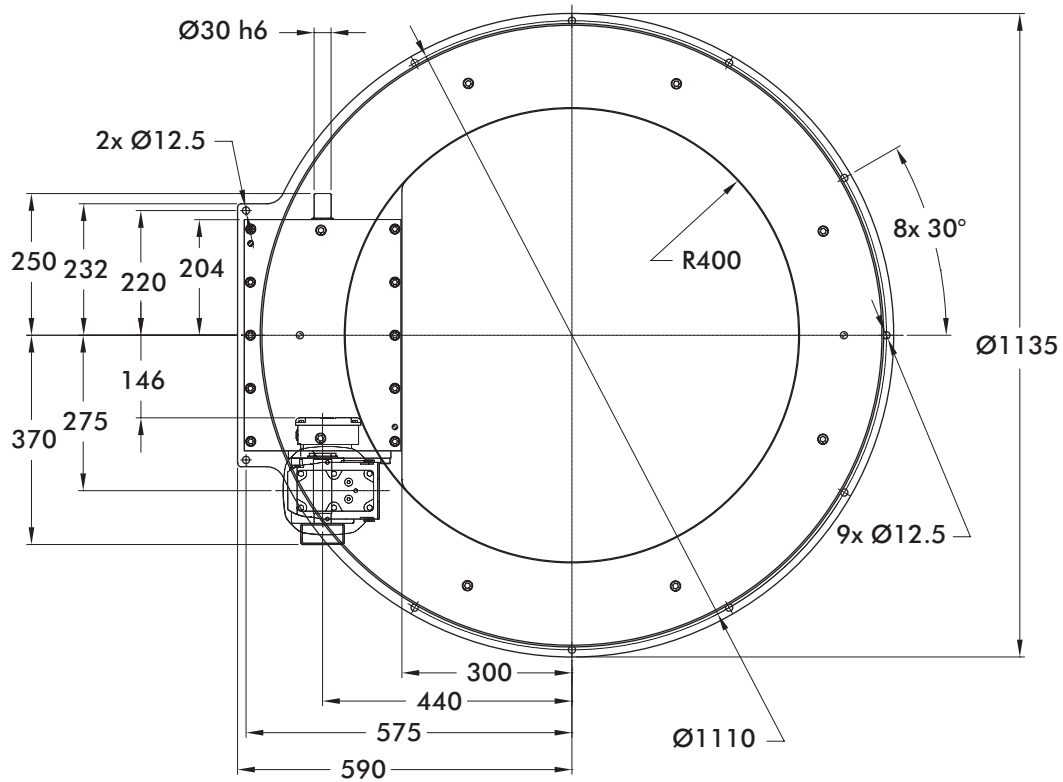
**Repeatability** ±15 arcsec / ±.012 mm at 324 mm Radius  
±.0005" at 12.75" Radius

### 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)

# CAMCO MDE SERIES

## Precision Indexing | Dimensions



Unless otherwise noted,  
all dimensions are in mm.

# CAMCO MDE SERIES

## Precision Indexing | Product Overview and Technical Specifications

Maximum Inertia x 1000 [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	56	378	497	724	999	1,157	1,570
8	170	743	954	1,357	1,847	2,127	2,861
12	496	1784	2,260	3,165	4,268	4,899	6,550
16	951	3,241	4,088	5,697	7,657	8,778	11,714
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 (800 mm Diameter)
- Cycle Cam and Limit Switch Mounted to Camshaft
- Right Hand Cam

### 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

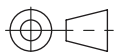
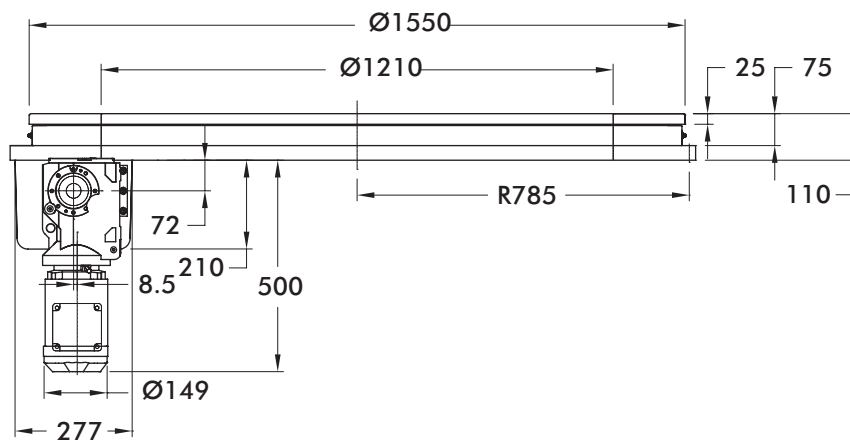
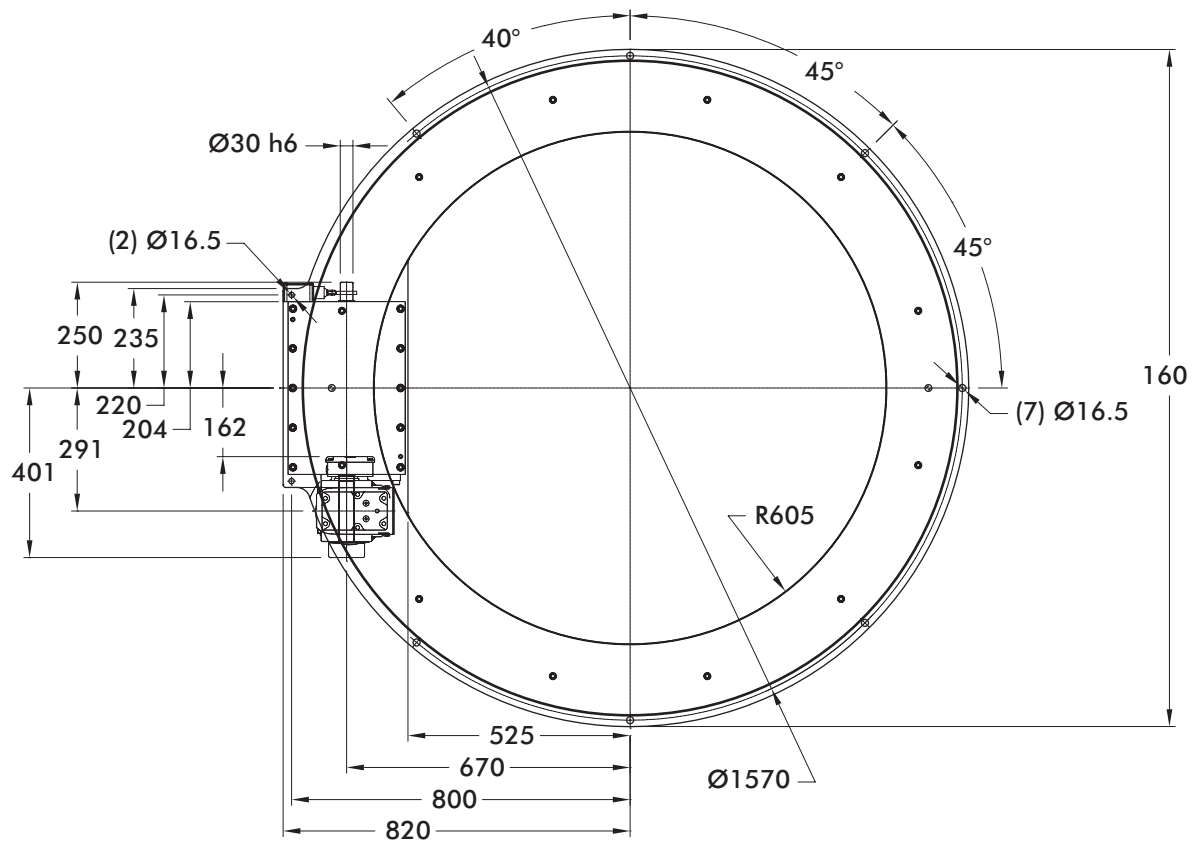
**Repeatability** ±9 arcsec / ±.010 mm at 448 mm Radius  
±.0004" at 17.65" Radius

### 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)

# CAMCO MDE SERIES

## Precision Indexing | Dimensions



Unless otherwise noted,  
all dimensions are in mm.



# CAMCO MDE SERIES

## Precision Indexing | Product Overview and Technical Specifications

Maximum Inertia x 1000 [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	232	766	1,730	2,180	2,582	3,405	3,928
8	678	1,628	3,342	4,142	4,857	6,320	7,248
12	1,954	4,091	7,946	9,748	11,356	14,647	16,737
16	3,743	7,542	14,395	17,598	20,458	26,307	30,023
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 (1210 mm Diameter)
- Cycle Cam and Limit Switch Mounted to Camshaft
- Right Hand Cam

### 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

### 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)