

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-TopIN-CNV-4



Precision Link Series
Heavy-Duty IN-CNV-16

PARTS HANDLERS



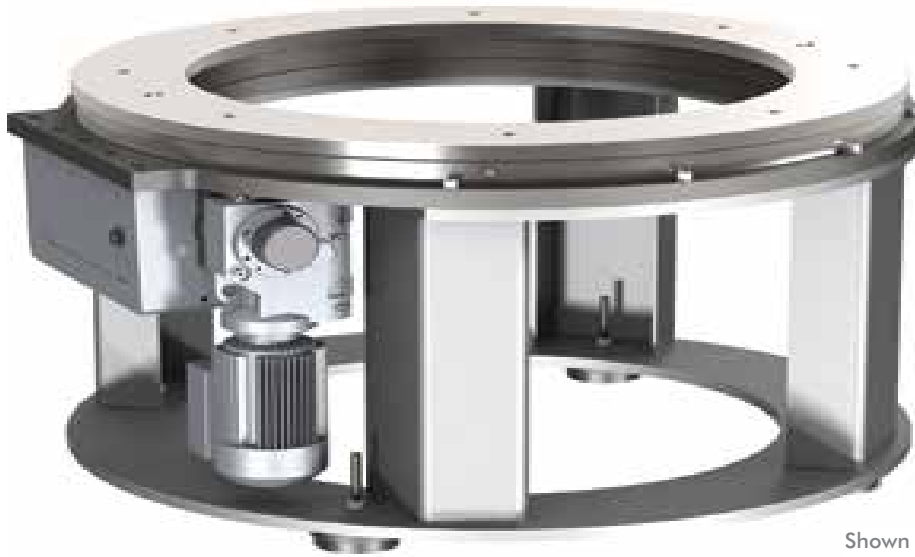
LPP Series
Linear Part Handlers IN-PRT-2



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

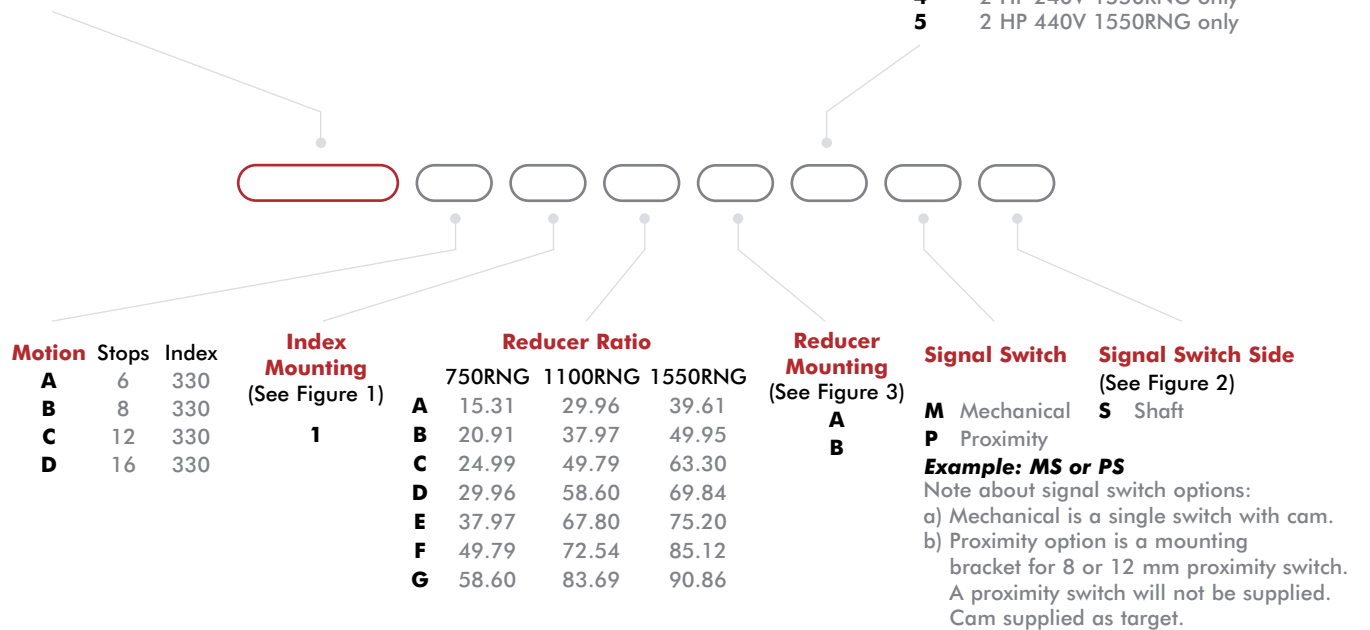
Ring Drive Dial Indexer | Features and Benefits | How to Order

Base Model Description

750RNG	w/ KH37 reducer & 1 HP AC motor (220/440V)
1100RNG	w/ KH37 reducer & 1 HP AC motor (220/440V)
1550RNG	w/ KH37 reducer & 1-1/2 HP AC motor (220/440V)

Control Description

1	1 HP 120V 750RNG & 1100RNG only
2	1 HP 240V 750RNG & 1100RNG only
3	1 HP 440V 750RNG & 1100RNG only
4	2 HP 240V 1550RNG only
5	2 HP 440V 1550RNG only



Motion	Stops	Index
A	6	330
B	8	330
C	12	330
D	16	330

Index Mounting (See Figure 1)
1

	Reducer Ratio		
	750RNG	1100RNG	1550RNG
A	15.31	29.96	39.61
B	20.91	37.97	49.95
C	24.99	49.79	63.30
D	29.96	58.60	69.84
E	37.97	67.80	75.20
F	49.79	72.54	85.12
G	58.60	83.69	90.86

Reducer Mounting (See Figure 3)
A
B

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

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.

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)

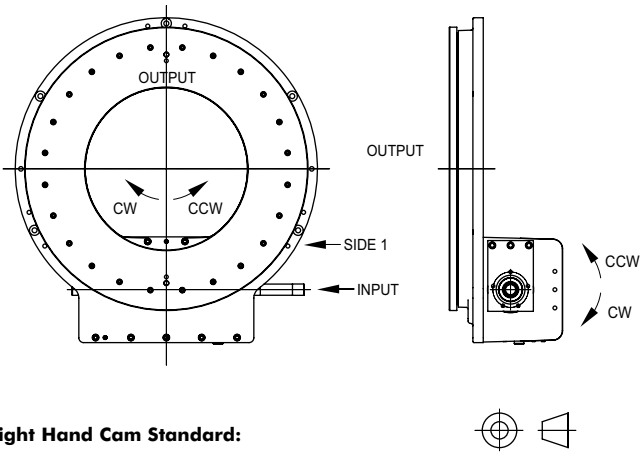
Modular shaft-mounted reducers for application flexibility and easy maintenance

Access to cam followers for easy inspection and replacement

Tapered roller bearings on camshaft

Input Shaft Configuration/Rotations (Figure 1)

Signal Switch Mounting Position (Figure 2)

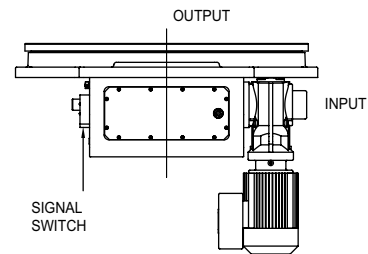


Right Hand Cam Standard:

CW Input Side 1, CCW Output

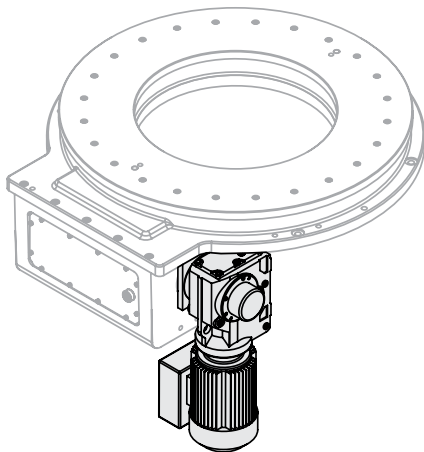
CCW Input Side 1, CW Output

NOTE: Input can be driven in either direction

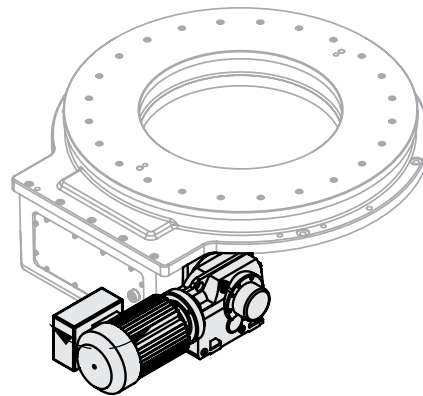


Gear Reducer Mounting Positions (Figure 3)

MOUNTING "A"

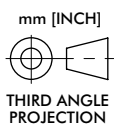
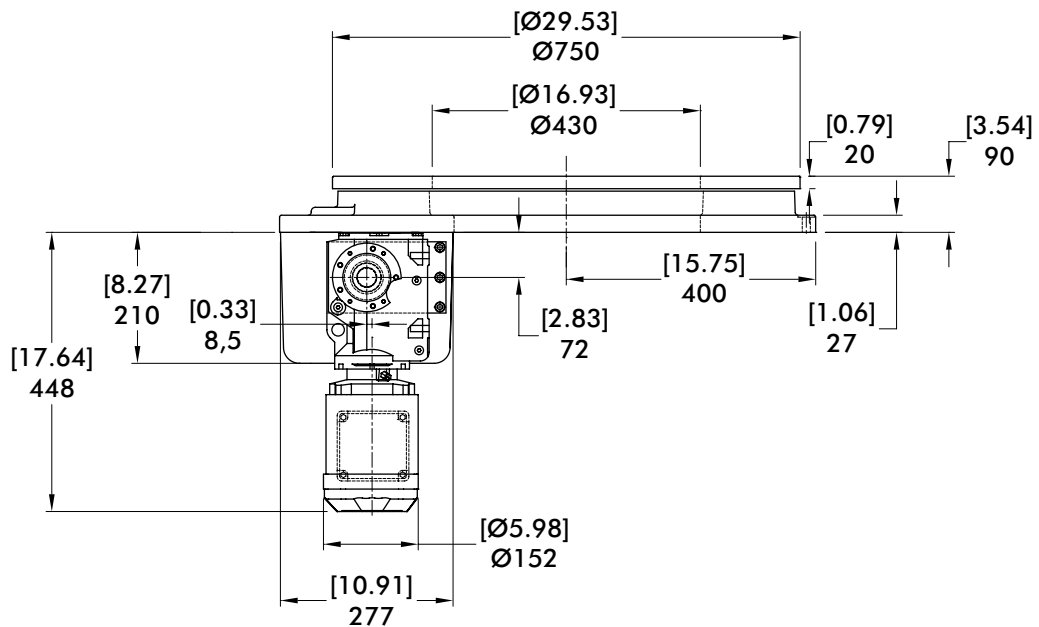
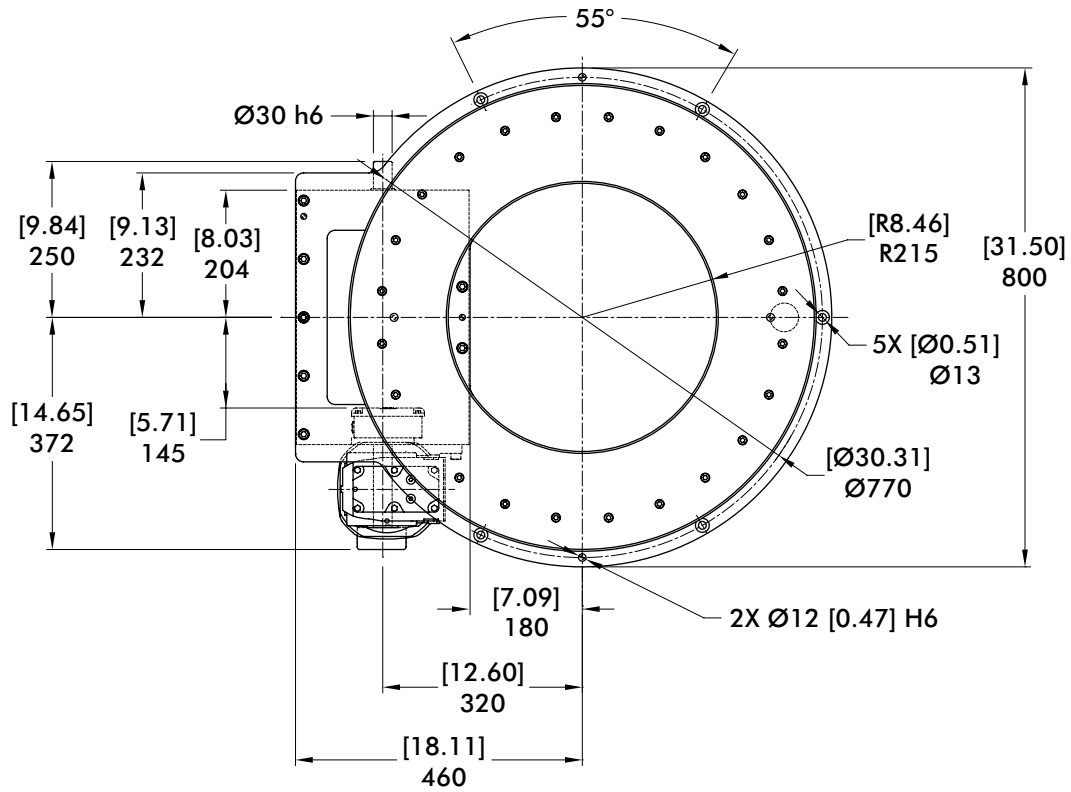


MOUNTING "B"



750RNG SERIES

Ring Drive Dial Indexer | Dimensions



Maximum Inertia x 1000 kg-cm ² [lb-in ²] 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 | Features | Optional Accessories | Technical Information

Maximum Inertia x 1000 kg-cm ² [lb-in ²] 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)

155ORNG SERIES

Ring Drive Dial Indexer | Features | Optional Accessories | Technical Information

Maximum Inertia x 1000 kg-cm ² [lb-in ²] 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)