

# PRECISION INDEXING SOLUTIONS

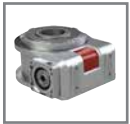
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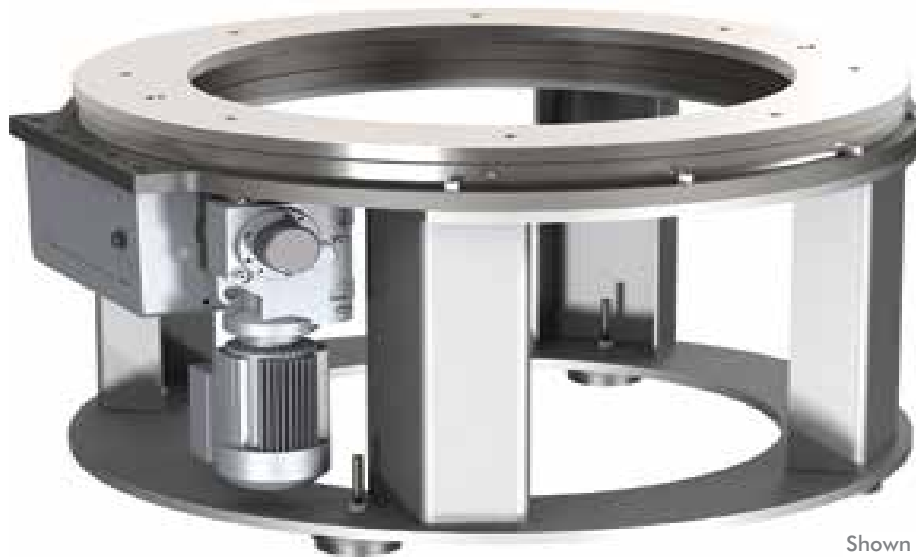
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# RING DRIVE DIAL INDEXER

Features | How To Order



Shown with optional base

## Work from Within

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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

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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

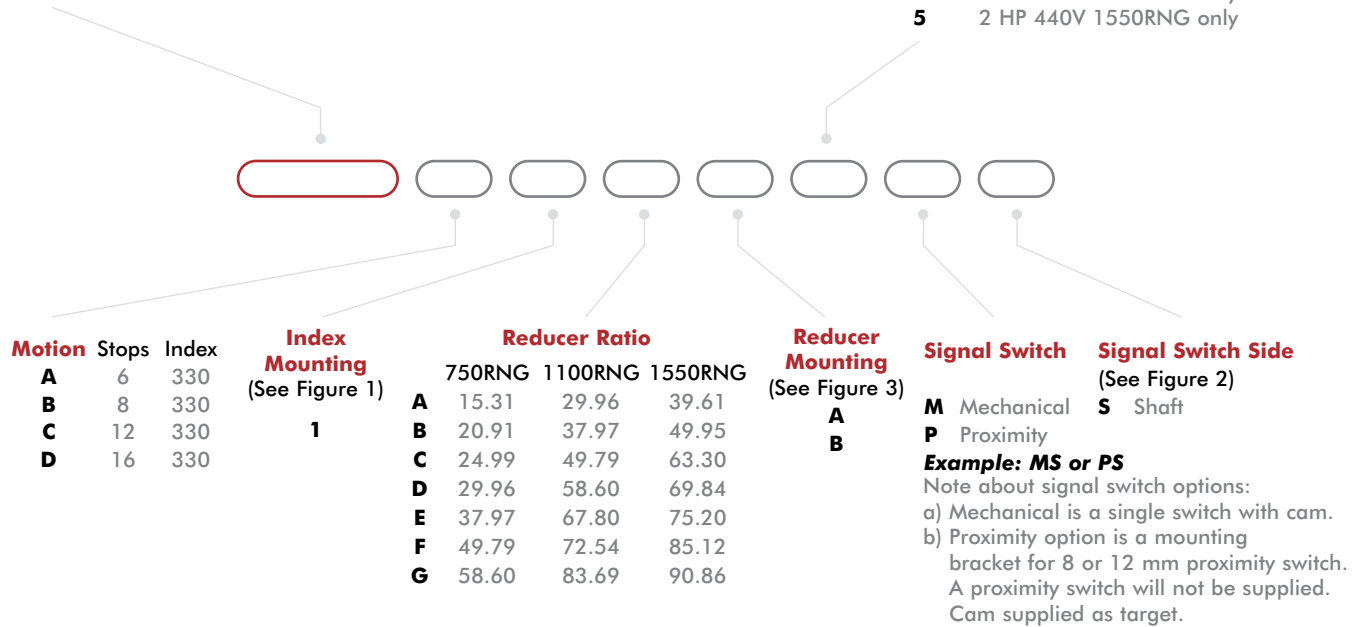
## Ring Drive Dial Indexer | Features and Benefits | How to Order

### 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
<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)
<b>1</b>

	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)
<b>A</b>
<b>B</b>

Signal Switch	Signal Switch Side (See Figure 2)
<b>M</b> Mechanical	<b>S</b> Shaft
<b>P</b> 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

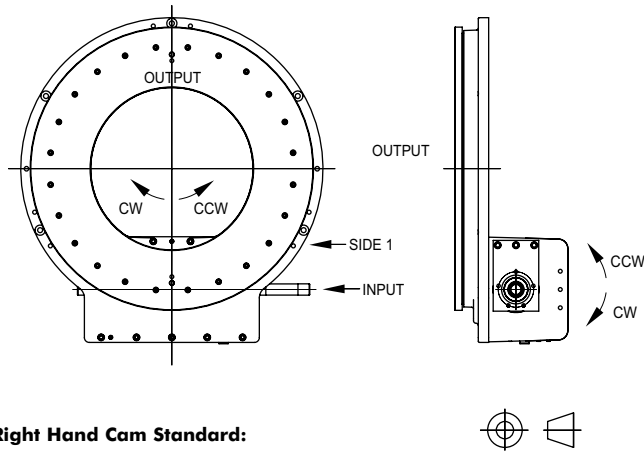
Sealed 4-point contact output bearing and large cam followers for superior accuracy and load capability (models 750RNG, 1100RNG and 1550RNG)

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)



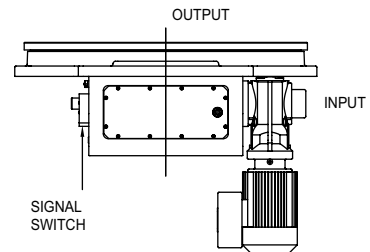
**Right Hand Cam Standard:**

CW Input Side 1, CCW Output

CCW Input Side 1, CW Output

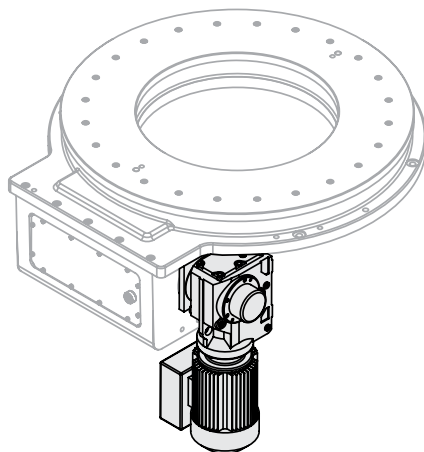
NOTE: Input can be driven in either direction

### Signal Switch Mounting Position (Figure 2)

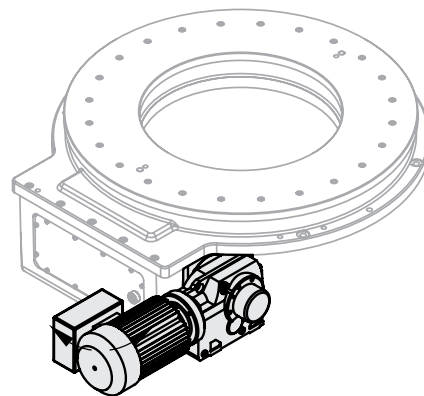


### Gear Reducer Mounting Positions (Figure 3)

MOUNTING "A"

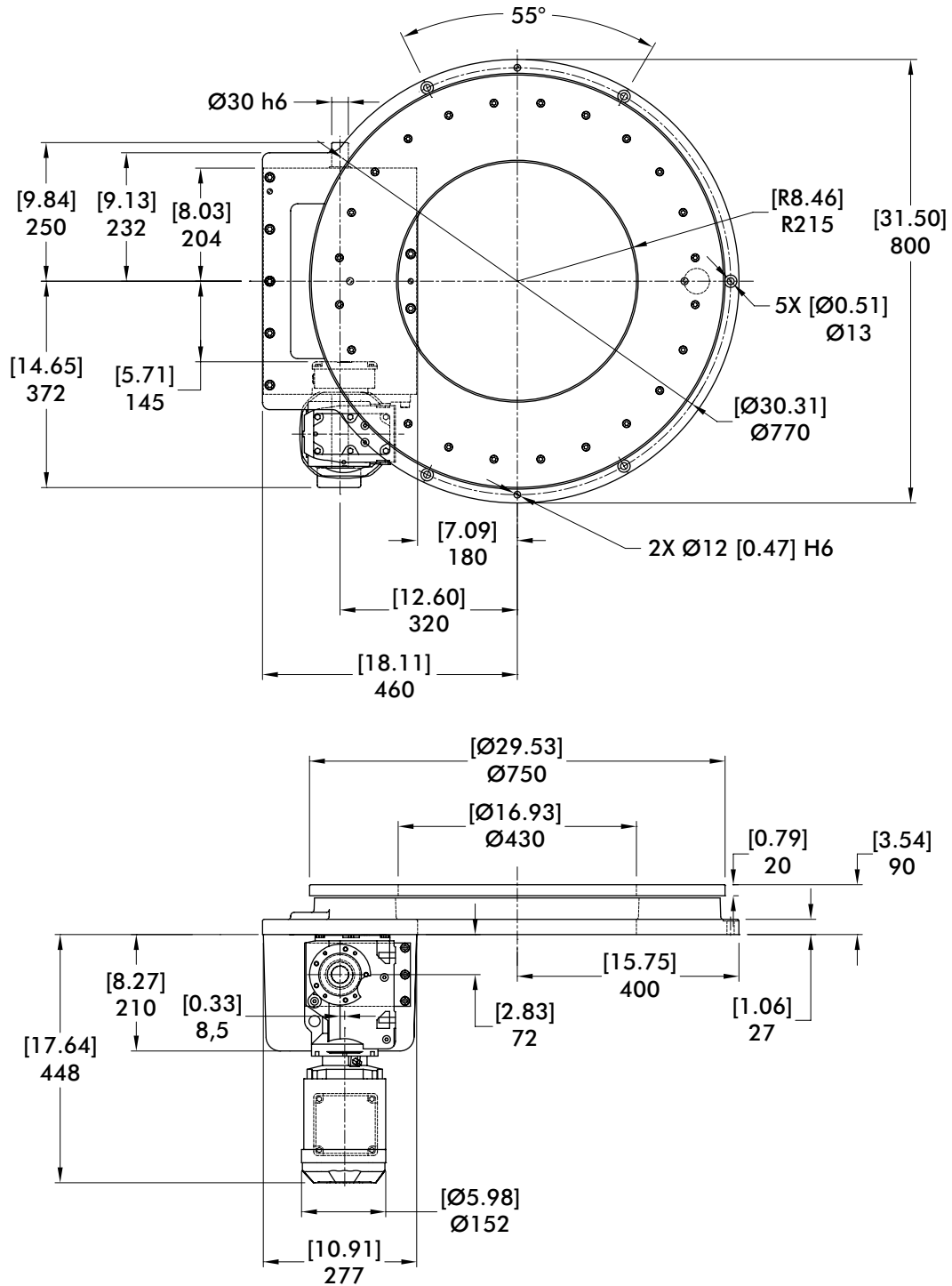


MOUNTING "B"



# 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

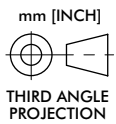
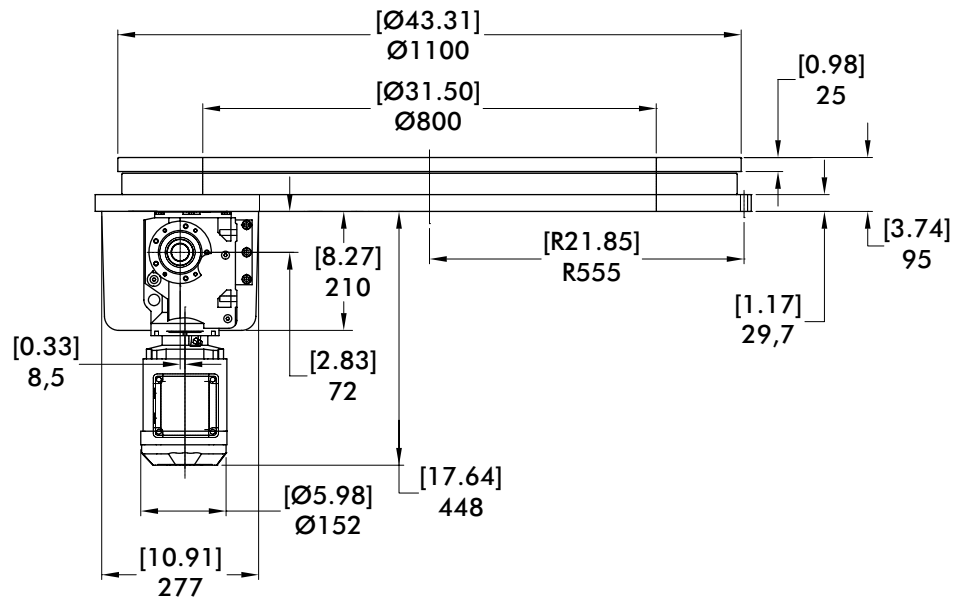
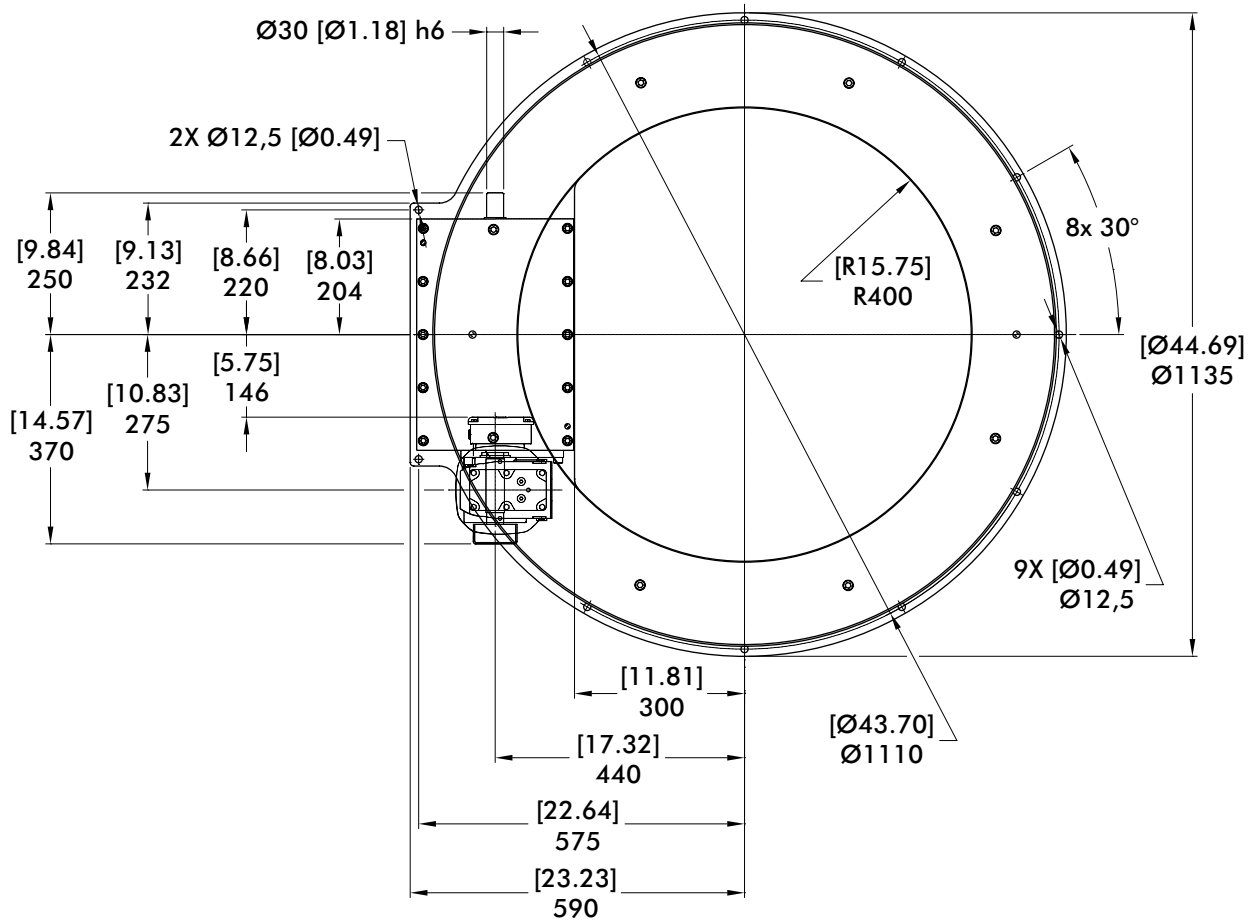
**Repeatability** ±15 arcsec / ±0,012 mm [±.0005 in] at 324 mm [12.75 in] Radius

### 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



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

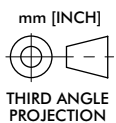
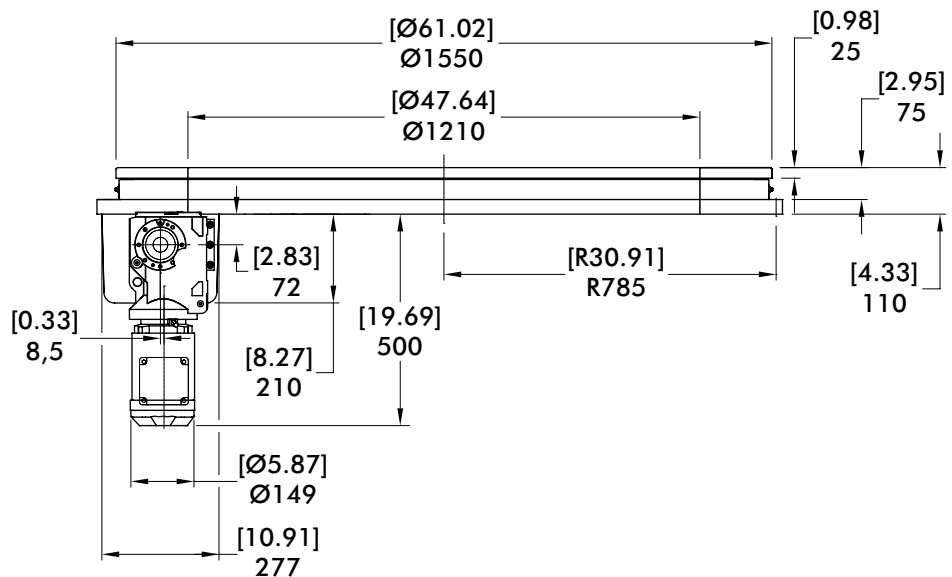
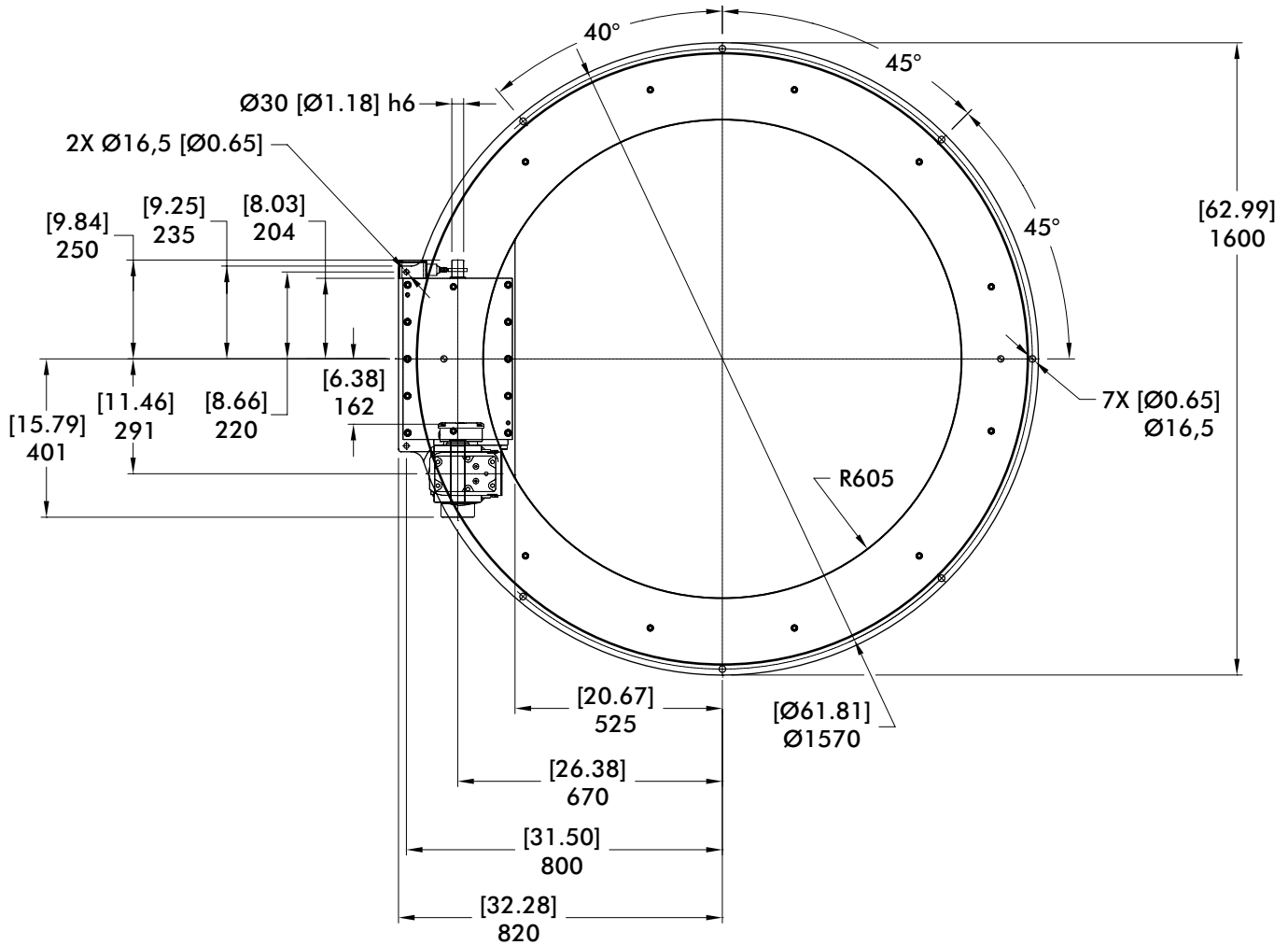
### Optional Accessories

- 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



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)