

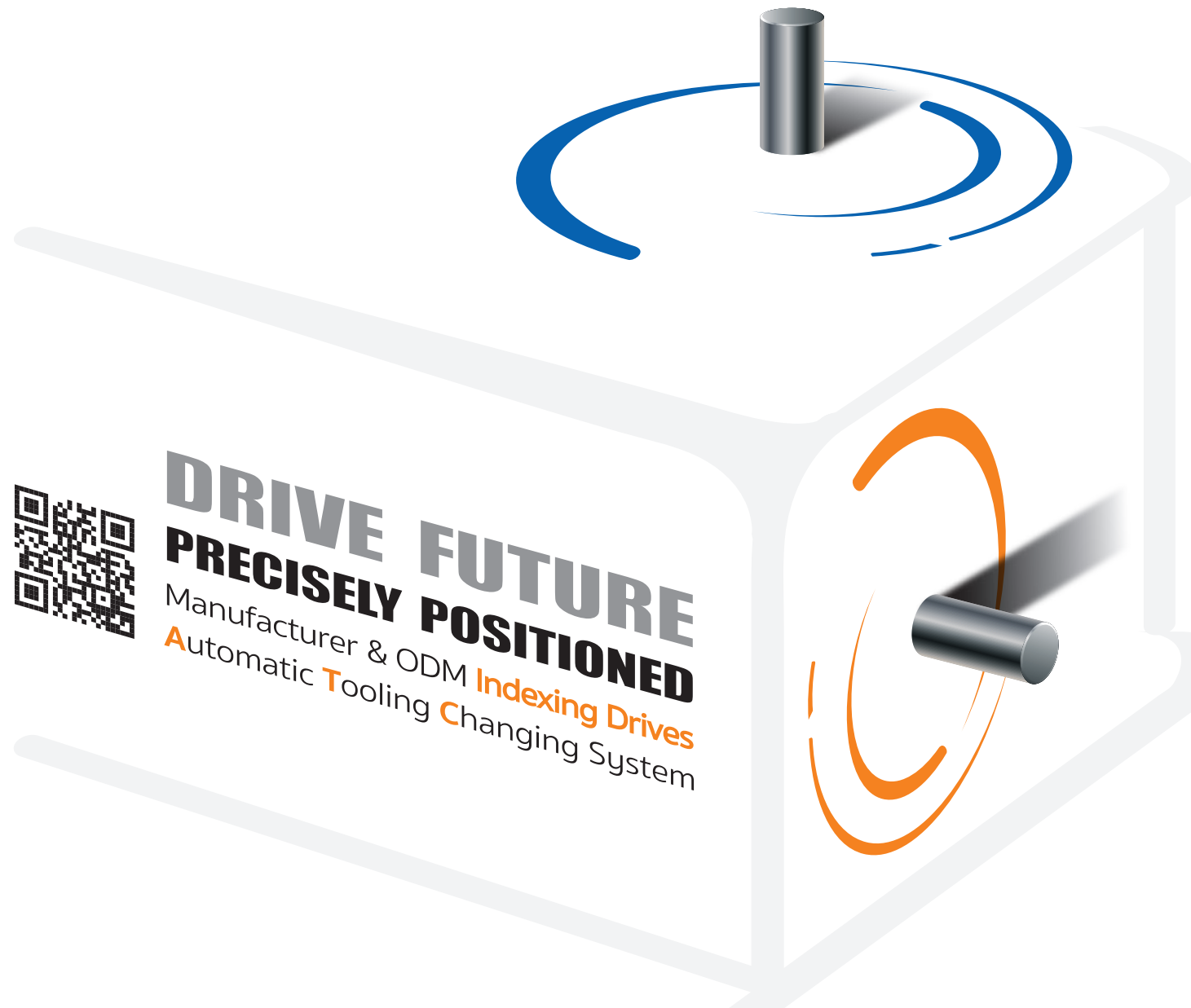


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**DRIVE FUTURE**  
**PRECISELY POSITIONED**  
Manufacturer & ODM **Indexing Drives**  
Automatic **T**ooling **C**hanging System

# Drives Future

## Siang Sheng Precision Machinery

Manufacturing Various Types of Indexing Device and Customized Optional Device

Repair Indexing Device of Different Brands

Design and Manufacture Various Cam

**Right To The Position Precisely**



The industrial revolution keeps moving on, the future will be an automation and technology-driven world. The driving equipment developed and manufactured by Siang Sheng Industrial Machinery remain high actuation and high stability despite of high R.P.M. and long run operation. We satisfy the demand of every customer in all aspects by enhancing rapid processing of **High Technology** and **24-hour** continuously **Automated Production** efficiency.

### Service to the position

Service first is the basic requirement of Siang Sheng Precision Machinery, good service only results feeling of ease and trust from customers.

### Attitude to the position

In order to enhance the economic efficiency of customer, the intelligent team of Siang Sheng Precision Machinery, all colleagues remain constantly improving, endeavor to complete the task entrusted by customers despite that they have been experienced in various professional fields over several decades, they always understand customer demand earlier than customer themselves.

Page 3 **Material to the position**

Page 3 **Equipment to the position**

Page 5 **Quality to the position**

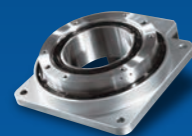
**As sophisticated you are, so Siang Sheng Precision Machinery persists that every steps have to be Precisely Positioned so to lead you to Drive The Future Together.**



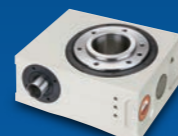
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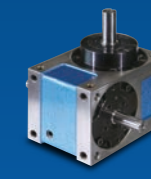
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**PC Series**



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# Equipment



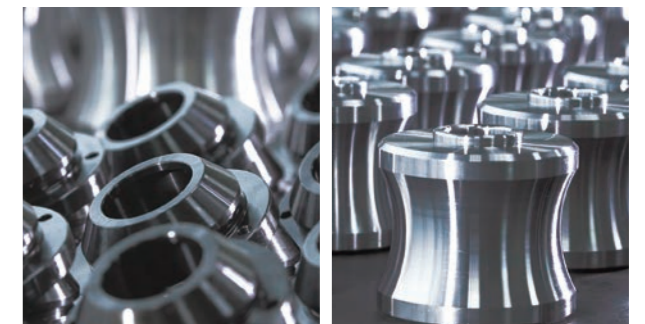
## Equipment to the position

Professional air conditioning plant and new high-tech processing equipment of various types, high-speed precision specific use of machine tools and Japanese and Germany made high-precision measuring instruments.



## Material to the position

For product quality control, Siang Sheng Precision Machinery never grabs huge profits by way of using low cost, poor-quality components, except those needle rollers and bearings of high precision imported from Japan, the rest of the assembly parts are one hundred percent made in Taiwan, because the real quality of the product relies on the assembly parts.





R&D

# Technology

## Mechanism

A simple set of one cam and turret provide various types of intermittent motions in demand.

## Transmission

Mechanism based on pause-transposition-pause motion. No need to lock on any parts to position when pausing.

## Motion

The precise design of mechanism results smooth transmission without causing any shockwaves and noises

## Index

The accuracy of Indexing drive relies on the coordination of the parts. The basic accuracy is  $\pm 30$  seconds. Higher accuracy is also procurable on demand.

## Performance

The special design of the cam curve reduces the impact between cam and roller during high-speed operations.

Curve: Provide various curves for all purpose: M.T CURVE, M.S CURVE, M.C.V CURVE...etc.



QC

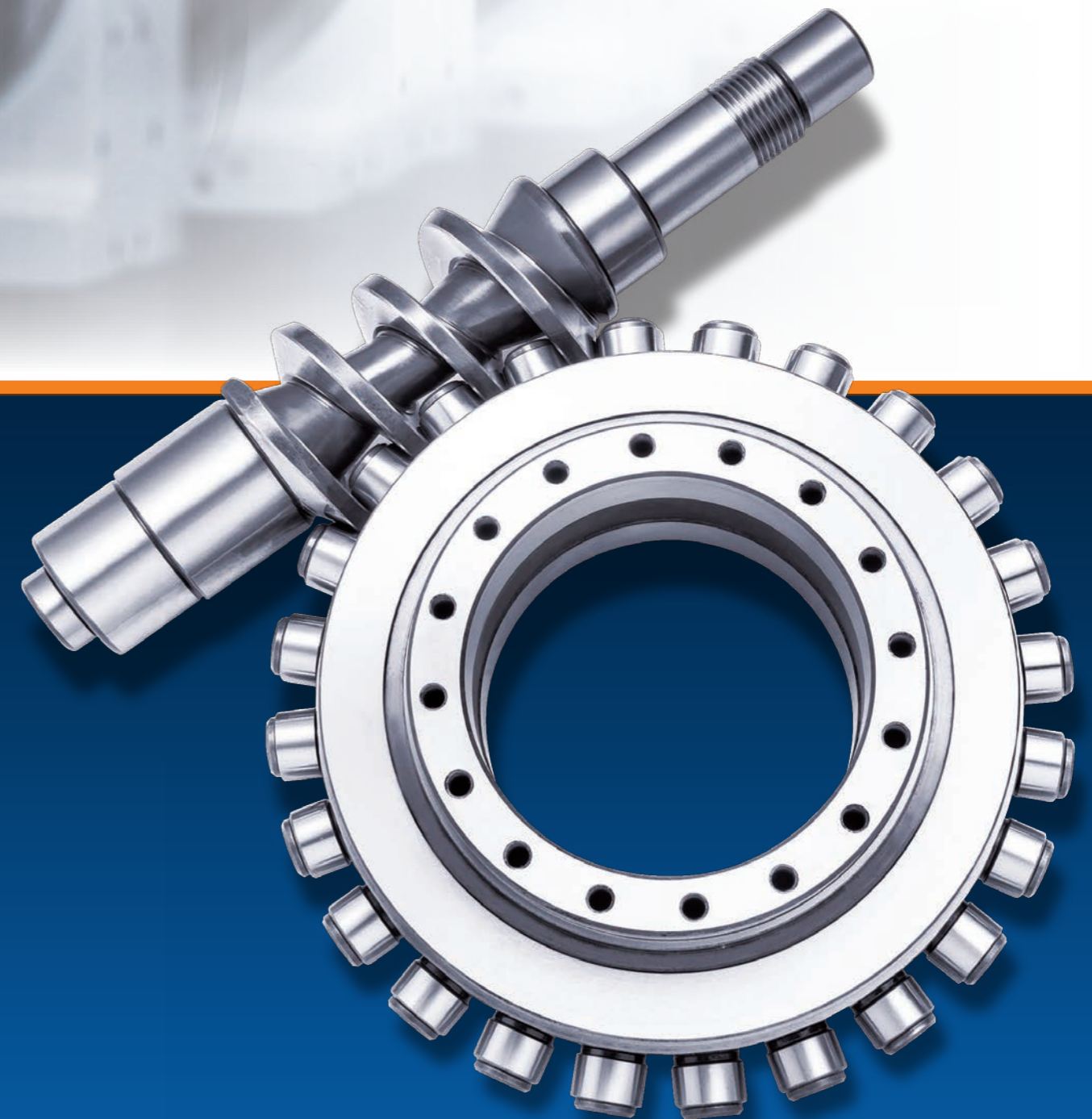
## Quality to the position

Siang Sheng Precision Machinery runs against the clock to ensure the quality of the manufactured indexing device, each in degree, minute, second, require precise positioning.

# AR Series

## Non-backlash Roller Cam Series

Highly precise prepressing radial bearings with vapor-pressure type brake locking are used to increase the locking pressure, thus ensuring resistance to cutting forces. An extremely accurate roller cam is highly efficient in any driving location, easily adjusts back clearance, and can rotate on line with a CNC machine or match a single-shaft controller for processing.



			AR-135	AR-160	AR-200	AR-250	AR-320
Table Diameter		mm	135	160	200	250	320
Center Height		mm	110	135	160	160	210
Spindle Hole		mm	Ø30H7/Ø15	Ø60H7/Ø45	Ø60H7/Ø45	Ø75H7/Ø70	Ø75H7/Ø70
T-slot Width		mm	12H7	12H7	12H7	12H7	14H7
Guide Key Width		mm	14H7	14H7	18H7	18H7	18H7
Servo Motor	Fanuc		$\alpha$ 2i	$\alpha$ 4i	$\alpha$ 4i	$\alpha$ 8i	$\alpha$ 12i
	Mitsubishi		HF75	HF104	HF104	HF154	HF204S
Total Speed Reduction Ratio			30	36	36	60	60
Max. Rotation Speed (3000rpm)		rpm	100	83.3	83.3	50	50
Output Rated Torque		kg/m	10	18	18	60	90
Resource	Pneumatic	kg/cm <sup>2</sup>	5	5	5		
	Hydraulic	kg/m				30	30
Output Braking Torque		sec	8	14	13	90	150
Indexing Accuracy		sec	40	20	20	20	20
Repeatability			4	4	4	4	4
Min. Increment			0.001°	0.001°	0.001°	0.001°	0.001°
Allowable Work Weight	Vertical	kg	20	70	70	100	150
	Horizontal	kg	45	140	140	250	350
Allowable Load (When Table is Clamped)		kgf	600	800	800	1400	2000
		Fx1 kgf-m	8	13	13	150	260
		Fx2 kgf-m	15	40	40	100	200
Allowable Work Inertia		kg-m <sup>2</sup>	0.1	0.48	0.48	1.95	3.7

# ATC Series

## ATC High-speed and Automatic Tool-changing Mechanism Series

- The output shaft has small inertia and structural volume, but large output, and it is capable of being combined with various actions.
- It has high precision and a wide range of indexing and is capable of meeting the design requirements of the machine, designing 50 to 90 degrees of the buckling tool angle, and arbitrarily matching high-speed action while being used as a dynamic curve.
- The grasping knife has stable and real speed, low noise and accurate buckling and slotting tools, which relatively improves the working accuracy and service life of the principal axis.



		SA301	SA402	SA502
<b>Tool Change Time</b>				
50Hz	sec	0.99	1.56	2.90
60HZ	sec	0.83	1.31	2.45
<b>Stroke of Arm Litting</b>	mm	A085	A115	A165
<b>Max. Load</b>	kg	4.5	8	20
<b>Weight</b>	kg	83	107	185
<b>Power</b>	kW	0.25 (1/3HP)	0.56 (3/4HP)	1.1 (1.5HP)
<b>Accuracy</b>				
positioning	deg	60°	60°	60°
Repeatability	deg	10°	10°	10°
Travel	mm	0.10	0.10	0.10



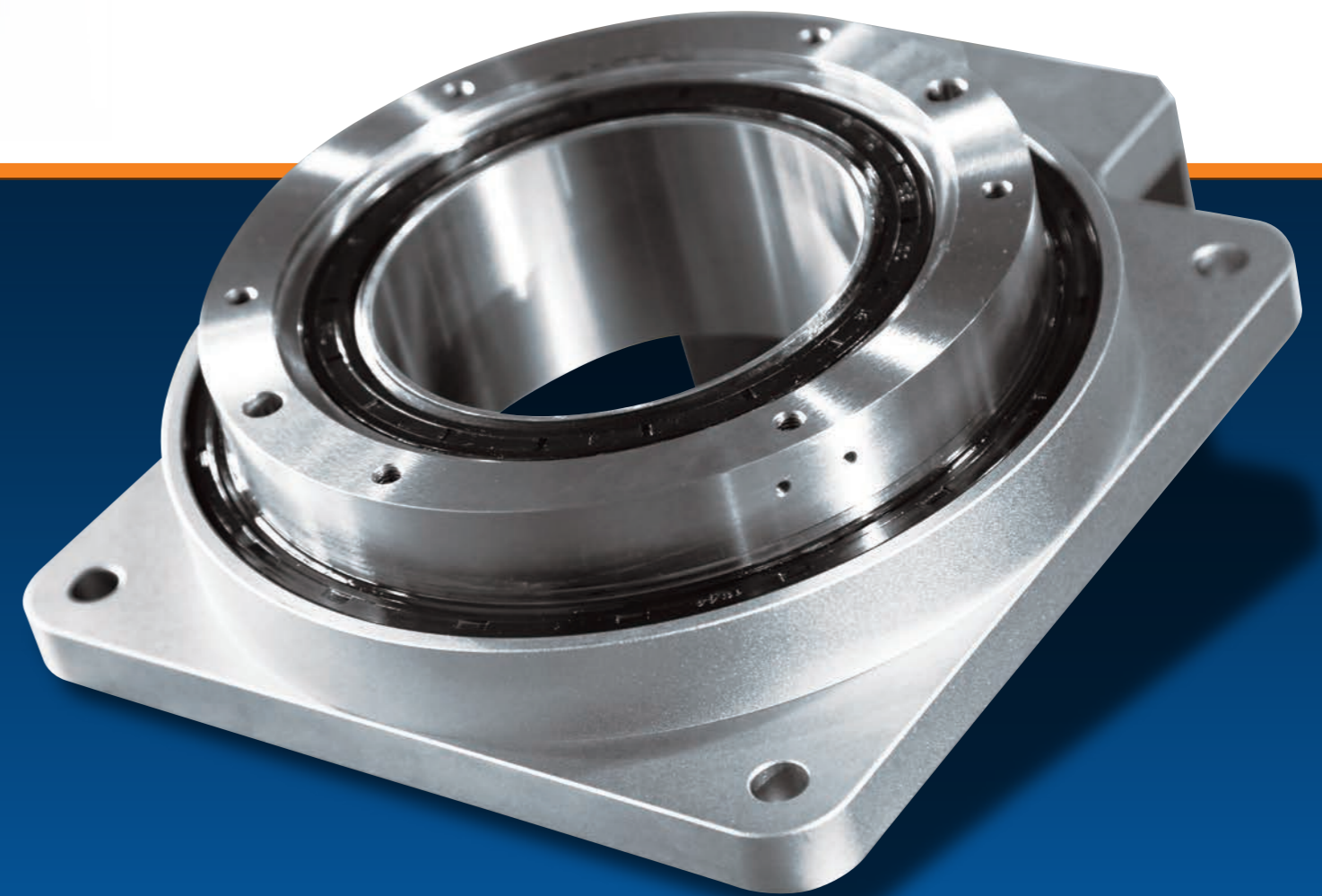


# HT Series

## Hollow Rotating Platform Series

The hollow rotating platform is a brand-new kind of rotating load device. Incorporating high transmission efficiency, high precision, high rigidity, and highcost performance, it combines the advantages of the servo motor, cam divider andDDmotor, obtaining a balance between these three products.

Compared with other similar transmission and location products, it not only can meet the point of 'direct load to carrying capacity', which is not achieved by the servo motor, but can also make up for the deficiency that the divider cannot achieve at any angle location, namely, 'achieving the location of any angle, and also compares favorably with the DD motor in precision. Furthermore, the cost is considerably less than that of the DD motor. Used together with the servo motor, it can completely meet your requirements from periphery positioning control.



		HT-62	HT-85	HT-130	HT-200
Model for Servo Motor	W	100	200~400	200~400	750
Permissible Torque	Nm	5	45	60	85
Permissible Speed	rpm	200	200	200	200
Ratio		1/5	1/5	1/5	1/10
Positioning Accuracy	sec	≤10	≤10	≤10	≤10
Repeatability	sec	±10	±10	±10	±10
Permissible Thrust Force	N	120	550	2000	4300
Permissible Load of Inertia	Nm	3	12	55	110
Parallelism of Rotating Table	μm	≤5	≤5	≤5	≤5
Weight	kg	0.8	1.7	3.0	10.5

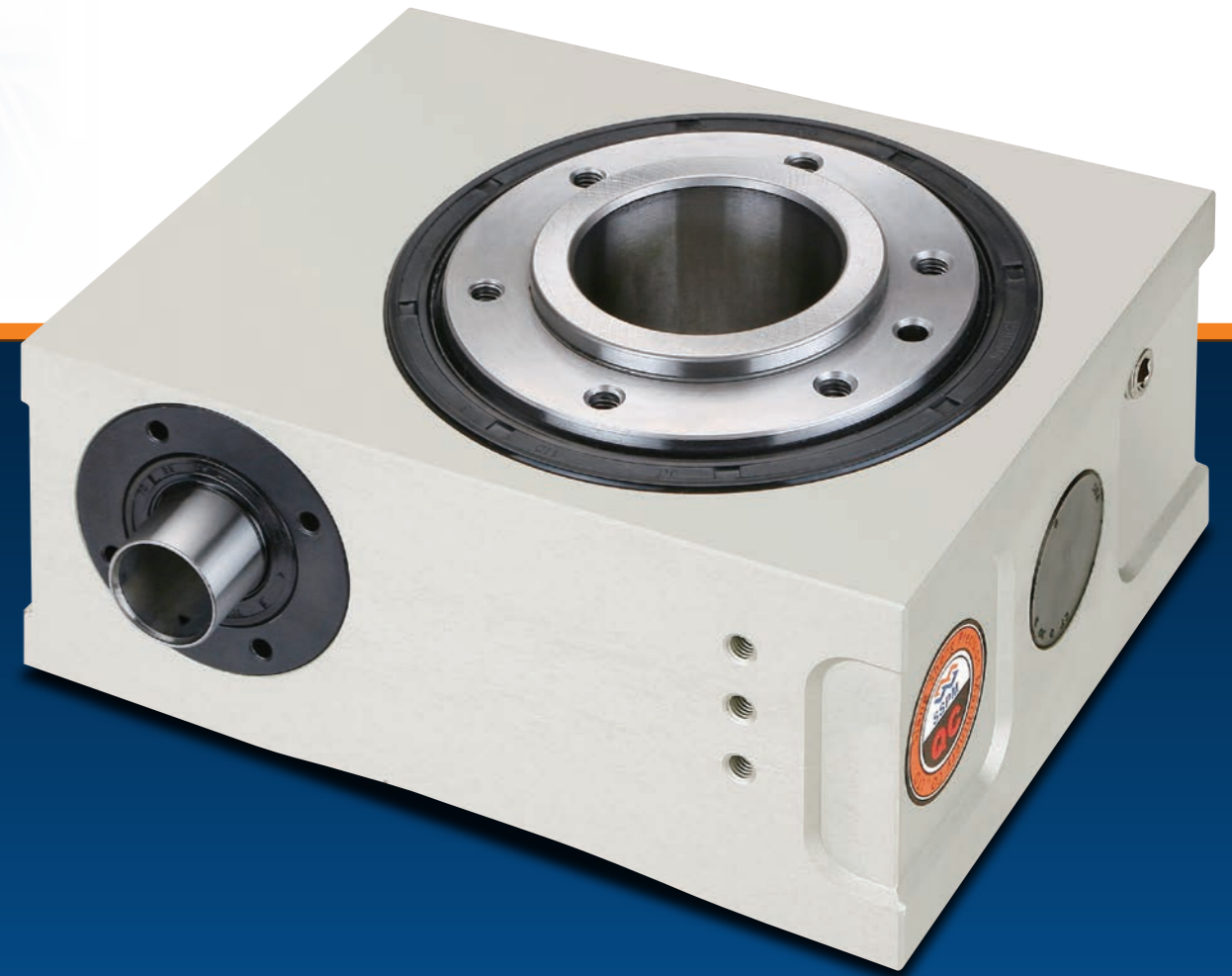




# RA Series

## The Zero Backlash Reducer

- The roller cam consists of an input cam shaft and a roller turret.
- The roller cam is designed with rolling contact, featuring high rigidity, high speed, and outstanding durability.
- Engagement between the roller and cam are preloaded to fully eliminate ultra-high precision feature.
- Besides, with rolling contact to transmit kinetic energy, energy consumption during drive can be dramatically reduced. This enables the roller cam to achieve over 90% of transmission efficiency.



Grease lubrication Type		RA-63	RA-80	RA-100
Ratio		20	20	20
Maximum Speed	rpm	3000	2500	2000
Permissible Speed	N.m	123	192	537
Positioning Accuracy	arc-sec	60	40	40
Repeatability	arc-sec	±7	±5	±5
Concentricity of Table	mm	±0.005	±0.005	±0.005
Parallelism of Table	mm	±0.005	±0.005	±0.005
Weight	kg	6.3	12.5	23

Oil lubrication Type		AR-63	AR-80	AR-100
Ratio		20	20	20
Maximum Speed	rpm	3000	3000	3000
Permissible Speed	N.m	152	237	661
Positioning Accuracy	arc-sec	60	40	40
Repeatability	arc-sec	±7	±5	±5
Concentricity of Table	mm	±0.005	±0.005	±0.005
Parallelism of Table	mm	±0.005	±0.005	±0.005
Weight	kg	6.3	12.5	23







### α Series Ultrathin Table Model

**CAM Box Spec (Center Distance):**  
70, 90, 110, 150, 190, 230, 330mm

**DA (Indexing Count):**  
16, 20, 24, 30, 32 (Single Track 1 Dwell)  
16, 20, 24, 30, 32 (Double Track 2 Dwell)

**Transmissive Horsepower Required:**  
DA070 (0.1 / 0.2), DA090 (0.2 / 0.4)  
DA0110 (0.4 / 7.5), DA150 (0.75 / 1.5)

**Input Shaft Transmission Speed:** 0 ~ 200rpm



### T Series Table Model

**CAM Box Spec (Center Distance):**  
80, 110, 140, 180, 210, 250mm

**DT (Indexing Count):**  
4, 5, 6, 8, 10, 12, 15, 16, 20, 24, 30, 32,  
40, 48, 60, 64, 72, 96

**RT (Precision Gear Reducer) :**  
4, 5, 6, 8, 10, 12, 16, 20, 24

**Input Shaft Transmission Speed:** 0 ~ 200rpm



### FH Series Integrated high-speed Interval and Lifting Mandril Mode

**Indexing Count:**  
Center Distance 80: 8, 12, 16  
Center Distance 120: 8, 12, 16

**Ascending Schedule:**  
Center Distance 80: Max. 10mm  
Center Distance 120: Max. 10mm

**Input Shaft Transmission Speed:**  
Center Distance 80: Max. 800rpm  
Center Distance 120: Max. 600rpm



### FN Series Up-Down Sway Model

**Indexing Count:**  
Center Distance 60 : 2, 3, 4, 6, 8  
Center Distance 80 : 2, 4, 6, 8, 10, 12  
Center Distance 100 : 2, 3, 4, 6, 8, 10, 12

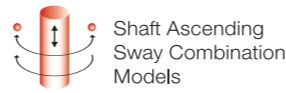
**Sway Angel:**  
Center Distance 60 : 0~180°  
Center Distance 80 : 0~90°  
Center Distance 100 : 0~90°

**Ascending Schedule:**  
Center Distance 60 : Max. 25mm  
Center Distance 80 : Max. 30mm  
Center Distance 100 : Max. 30mm

**Input Shaft Transmission Speed:**  
Center Distance 60 : Max. 200rpm  
Center Distance 80 : Max. 120rpm  
Center Distance 100 : Max. 120rpm



Shaft Ascending  
Indexing Combination  
Models



Shaft Ascending  
Sway Combination  
Models

### ADS Series High-speed Intermittent Spindle-separation Lift Mechanism

**Indexing Count:**

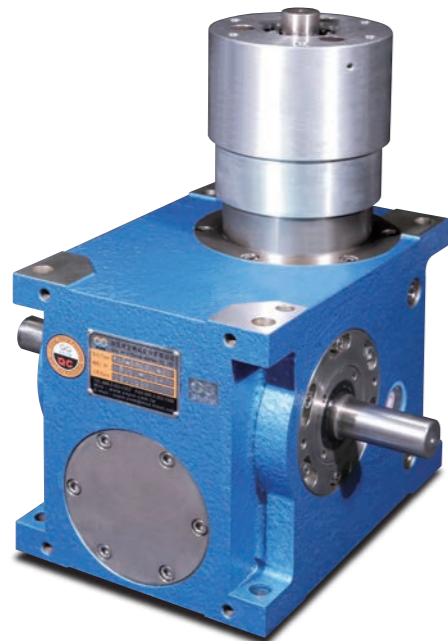
Center Distance 110 : 12~32

**Ascending Schedule:**

Center Distance 110 : Max. 20mm

**Input Shaft Transmission Speed:**

Center Distance 110 : Max. 450rpm



Shaft Ascending  
Indexing Combination  
Models



Flange Ascending  
Sway Combination  
Models

### MF Series Up-Down Flange Model

**Indexing Count:** 2~32mm

**Sway Angel:** 0~90°

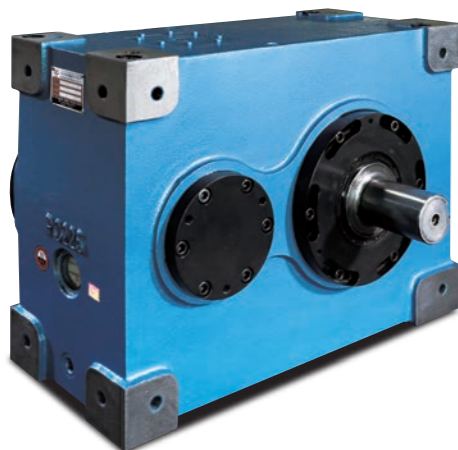
**Ascending Schedule:**

Center Distance 70 : Max. 30mm

Center Distance 80 : Max. 40mm

Center Distance 110: Max. 40mm

**Input Shaft Transmission Speed:** Max. 100rpm



Sway Type



Indexing Type

### PC Series Parallel indexing cam

**CAM Box Spec (Center Distance):**

50, 65, 80, 100, 125, 150, 200, 225, 250, 320mm

**PC (Indexing Count):** 1, 2, 3, 4, 6, 8

**PE (Sway Type) :** 15°, 30°, 45°

**Input Shaft Transmission Speed:** 0~300rpm



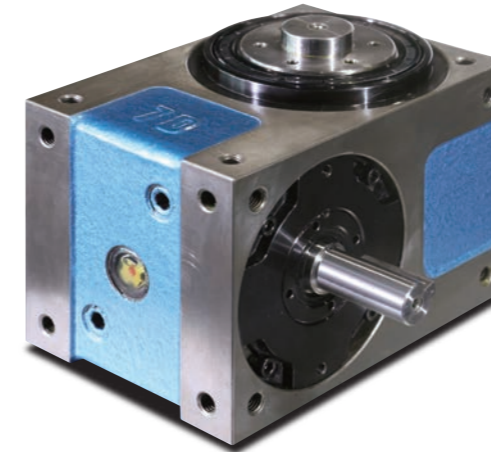
Sway Type



Precision  
Gear Reducer



Indexing Type



### F Series Flange Model

**CAM Box Spec (Center Distance):**

45, 60, 70, 80, 110, 140, 180, 250mm

**DF (Indexing Count):**

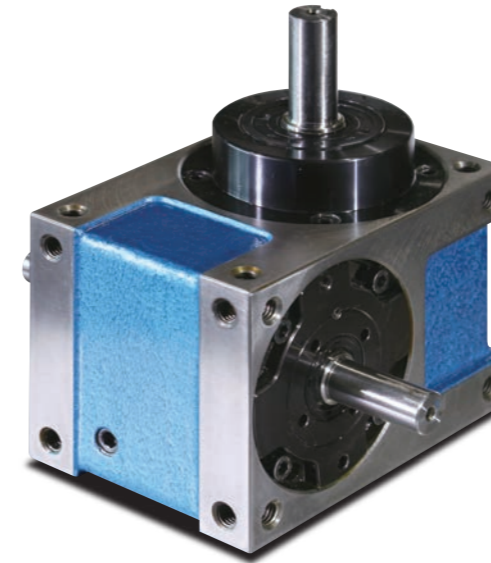
2, 3, 4, 5, 6, 8, 10, 12, 15, 16, 20, 24, 30, 32, 36, 40, 48

**EF (Sway Type) :** 5°, 10°, 15°, 30°, 45°, 60°, 90°

**RF (Precision Gear Reducer) :**

3, 4, 5, 6, 8, 10, 12

**Input Shaft Transmission Speed:** 0 ~ 700rpm



### S Series Shaft Types

**CAM Box Spec (Center Distance):**

25, 32, 45, 60, 70, 80, 110, 140, 180mm

**DS (Indexing Count):**

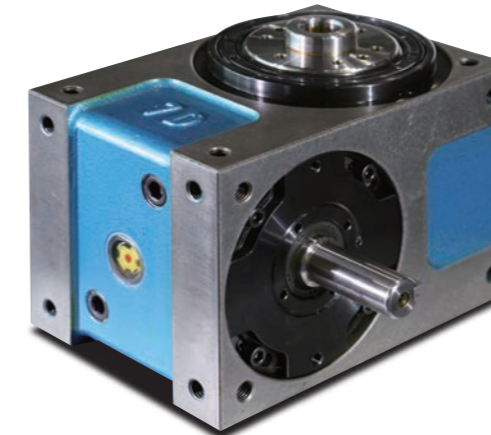
2, 3, 4, 5, 6, 8, 10, 12, 15, 16, 20, 24, 30, 32, 36, 40, 48

**ES (Sway Type) :** 5°, 10°, 15°, 30°, 45°, 60°, 90°

**RS (Precision Gear Reducer) :**

3, 4, 5, 6, 8, 10, 12

**Input Shaft Transmission Speed:** 0 ~ 700rpm



### H Series Hollow Flange Model

**CAM Box Spec (Center Distance):**

45, 60, 70, 80, 110, 140, 180, 250mm

**DH (Indexing Count):**

2, 3, 4, 5, 6, 8, 10, 12, 15, 16,

20, 24, 30, 32, 36, 40, 48

**EH (Sway Type) :** 5°, 10°, 15°, 30°, 45°, 60°, 90°

**RH (Precision Gear Reducer) :**

4, 5, 6, 8, 10, 12, 16, 20, 24

**Input Shaft Transmission Speed:** 0 ~ 700rpm