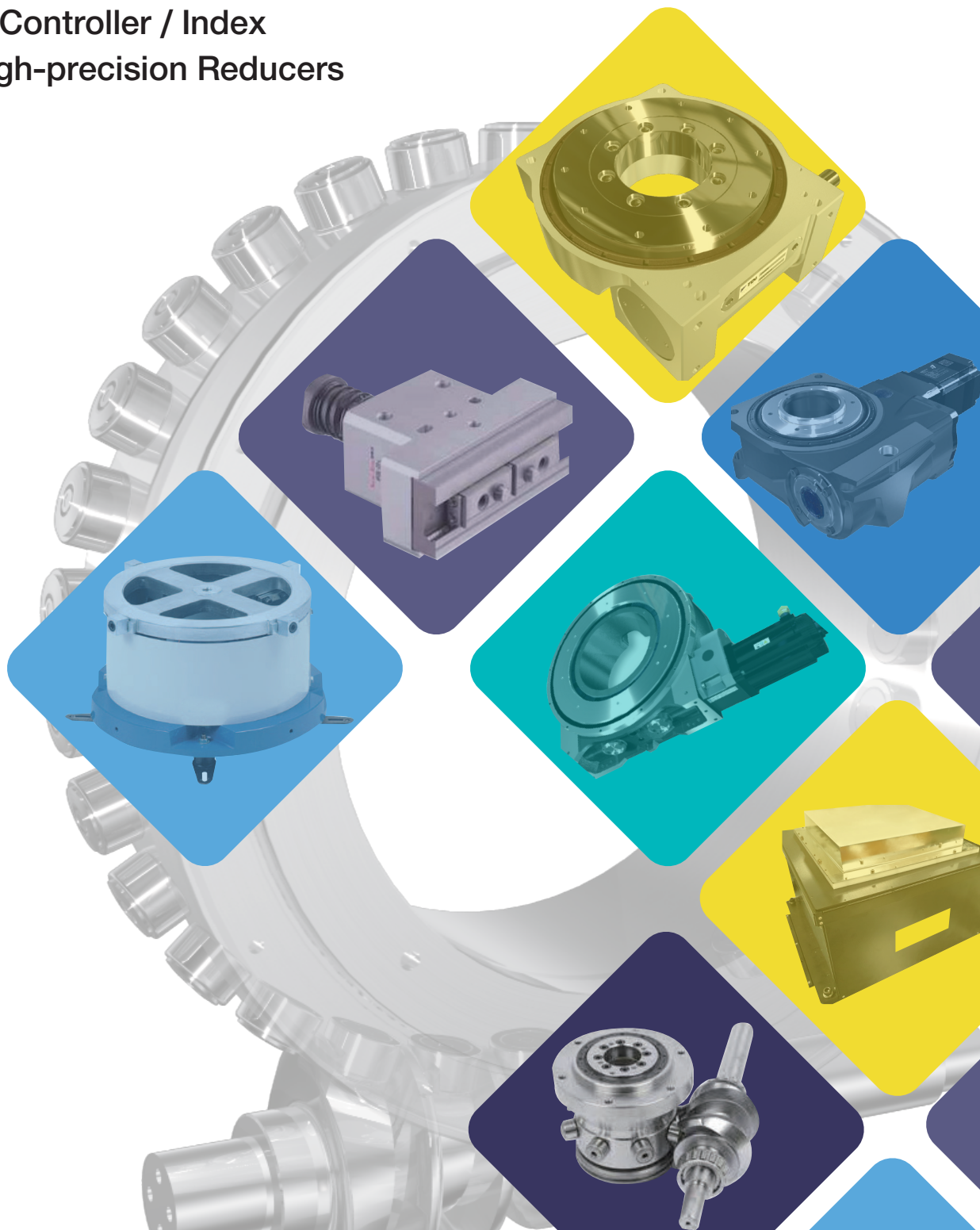


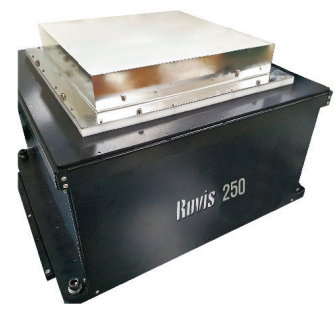
# HANSHIN

Experts in Handling System

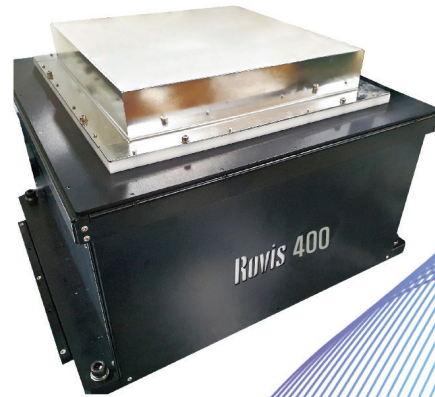
Flexible Feeder / Feeder /  
Vibrator&Controller / Index  
drive / High-precision Reducers



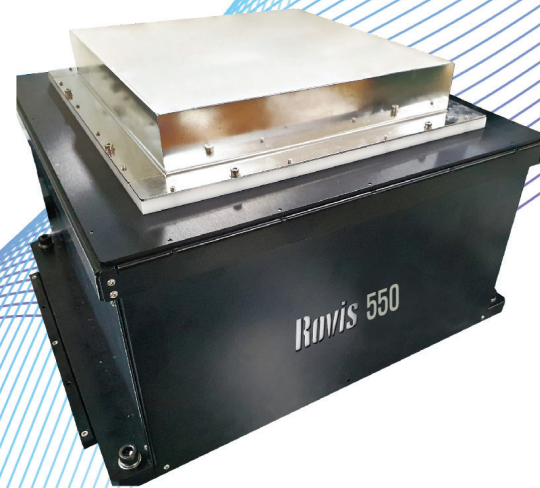
# Rovis Series



Rovis 250



Rovis 400



Rovis 550

MDM Technology  
MultiDirectional Movement

## All About Flexible

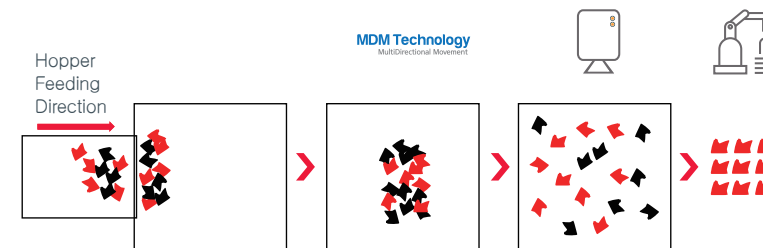
- ▶ Capable of handling parts that are difficult or impossible for conventional feeders to manage: 99% compatibility
- ▶ Capable of efficiently handling various types of parts with a single feeder.
- ▶ Utilizes MDM (Motion Drive Modulation) for intelligent part handling. Workpieces can move in "spread" or "gather" patterns, and flip optimally with precise vibration amplitude control - minimizing wear on parts.
- ▶ Designed for long-term continuous operation with no overheating issues.
- ▶ Platform geometry can be machined or modified as needed to match part characteristics.
- ▶ Enables quick changeovers between different parts.
- ▶ Easy environment setup using a dedicated touch interface.
- ▶ Supports simple integration with robots and vision systems through I/O or TCP/IP communication.
- ▶ Applied proprietary actuator (Patent pending)

# Rovis Series

Flexible feeding device

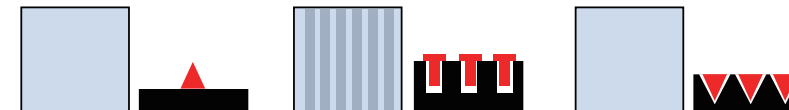
## Work Process

- ▶ The parts to be handled are supplied onto the Rovis platform typically using a hopper to feed an optimal quantity.
- ▶ The supplied parts are moved to the center, where controlled vibration at an optimal voltage is applied to flip the workpieces.
- ▶ Using a vision system, the parts aligned in the desired orientation are detected and then picked up by the robot.



## Hanshin MDM Technology

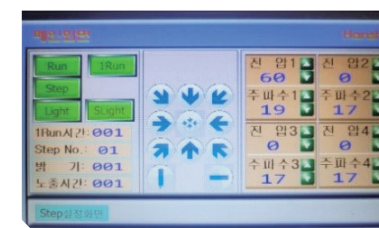
- ▶ The parts seated on the platform can be conveyed and flipped according to their intended application.
- ▶ The platform can be custom-machined to enable primary sorting of parts.
- ▶ MDM technology enables precise transportation of parts in the desired direction.



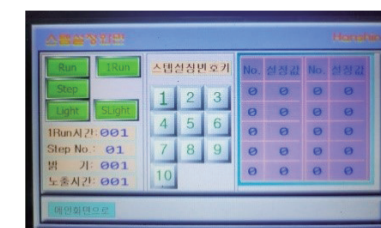
## Rovis Operating Convenience

- ▶ Rovis operates through two screens for output and recipe settings, reducing time loss from parameter configuration.

- Voltage/Frequency Settings (Individual transport direction settings available)
- Voltage: 0-100% (minimum resolution: 1%)
- Frequency: 0-100 Hz (minimum resolution: 1 Hz)
- Recipe Settings: Up to 10 recipes can be stored



Setting Screen 1



Setting Screen 2

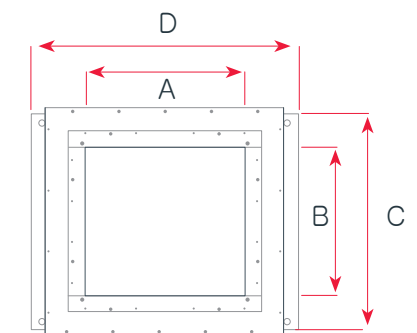
## Specification

Ref	Rovis 250	Rovis 400	Rovis 550
A	180	290	390
B	180	290	390
C	213.2	426	526
D	213.2	493	593
E	181.5+α	312.5+α	312.5+α
F	141.5	257.5	257.5

Separate control box: 210 × 176.6  
(excluding connector & cable protrusion)  
× 100



• Front View



• Top View

## Contact

Hanshin Group



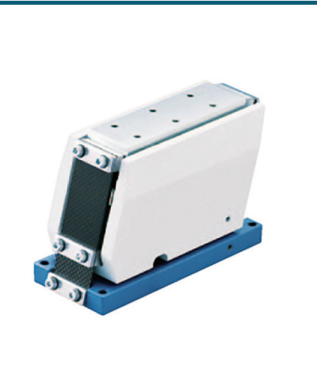

3, Mayuro 118beon-gil, Siheung-si, Gyeonggi-do, South Korea  
T. 031-499-9720~5  
F. 031-499-9726  
Web. www.hanshin-fa.co.kr



# Parts Feeder Vibrator & Controller

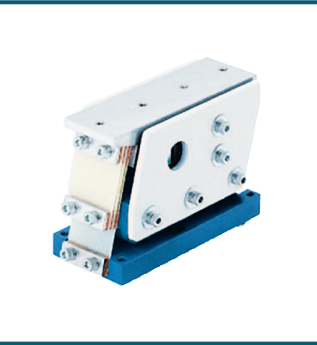
## PEF Piezo type Vibrator

- ▶ A lightweight, high-speed vibrator optimized for performance.
- ▶ An eco-friendly vibrator with lower power consumption than electronic types.

			
PEF-90/120/150/190 /230/300/390	PEF-L30AG/L75AG/ L150AG/L200AG/ L250AG	PEF-L5A/L15A/L25A/ L60A/L125A	AFC-T060TF AFC-T200TF

## MB Electro-magnetic Vibrator

- ▶ Optimized for handling large or heavy parts

			
MB150/230/300/390/460	ML-002r	CS-0/1/2	SDVC-31-M/L

### Specifications (사양)

Model PEF (PEF형식)	90A	120A	150A	190A	230A	300A	390B
Voltage input (입력전압) V	0~250						
Frequency input (입력주파수) Hz	60~300						
Current capacity (입력전류) mA	8	15	37	65	90	165	165
Oscillations (공진주파수) Hz ± 10Hz	225	240	223	210	165	152	112
Drive source (구동원)	Piezo resonator (압전소자)						
Fead direction (반송방향)	R, clockwise (시계방향); L, counterclockwise (반시계방향)						
Joint bowl (취부보울)	See next page for unfinished bowl dimension (다음 페이지 미가공볼 치수표 참조)						
Max. bowl size (허용 최대 보울)	Max. dia. (mm)	120	150	250	310	370	500
	Max. weight. (kg)	0.3	0.6	1.0	2	5	8
workpiece weight (중량) kg		0.2	0.4	0.8	1.5	2.5	3.0
Applicable temperature (사용온도) °C	0~40						
Applicable humidity (사용습도) %RH	10~90						
Machine weight (본체중량) kg	1.7	3.3	5.3	12.3	17.8	32.6	53
Applicable controller (적용컨트롤러)	AFC-T060TF		AFC-T200TF		AFC-T200TF		

N.B. : Workpiece weight is net stated in terms of capacity. For capacity see unfinished bowl dimension chart. 주 : 워크중량은 용량에 관계없습니다. 용량은 미가공 보울치수표를 참조하십시오.

### Specifications (사양)

Model PEF	Direct Type (직접취부방식)		Joint Spring Type (연결스프링 방식)			Rubber Mount Tupe (고무다리방식)				
	L5A	L15A	L25A	L60A	L125A	L30AG	L75AG	L150AG	L200AG	L250AG
Voltage input (입력전압) V	0~250									
Oscillations (입력주파수) Hz	60~300									
Current capacity (입력전류) mA	5	8	8	17	24	7	13	20	30	41
Frequency (공진주파수) Hz ± 10Hz	160	135	130	110	86	182	158	110	105	75
Drive source (구동원)	Piezo resonator (압전소자)									
Overall chute lenght (슈트전장) max (mm)	200	250	300	350	500	300	400	500	600	700
Chute width (슈트폭) max (mm)	12	20	22	33	45	20	34	45	48	50
Chute weight (슈트중량) max (kg)	0.2	0.3	0.5	1.2	2.5	0.6	1.5	3.0	4.0	5.0
Applicable temperature (사용온도) °C	0~40									
Applicable humidity (사용습도) %	10~90									
Weight (본체중량) kg	0.5	0.8	1.4	3.8	9	2	3.5	7	13	18
Applicable controller (적용컨트롤러)	AFC-T060TF		AFC-T200TF		AFC-T060TF		AFC-T200TF			

N.B. : Workpiece weight is net stated in terms of capacity. For capacity see unfinished bowl dimension chart. 주 : 워크중량은 용량에 관계없습니다. 용량은 미가공 보울치수표를 참조하십시오.

### 구동부 사양 Specifications of drive unit

형 식 Model		MB-150	MB-230	MB-300	MB-390	MB-460
미가공 보울 지름(원통 보울) Diameter of unwrought bowl (straight bowl) (ø)		150	230	300	390	460
구동부 질량 Mass of drive unit (kg)		8	24	40	78	127
입력 전압 Input voltage AC(V)		100/200	100/200	100/200	100/200	
허용 전류 Allowable current (A)		1.0/0.4	1.2/0.5	1.7/1.2	4.0/2.7	
입력 주파수 Input frequency (Hz)		50 / 60				
구동 파형 Drive waveform		전파 full wave			전파	전파
최대 에어 갭 Max. air gap (mm)		0.6			0.6	1.2
진동수 Frequency of vibrations	50Hz(회분)(cycles/min)	6000			6000	3000
	60Hz(회분)(cycles/min)	7200			7200	3600
마그넷 사용수 Number of magnets in use (개) (PCS)		1				
스프링 각도 spring angle		15°				
판스프링 재질 Material of leaf spring		스틸 (S)			s	c
최대 보울 지름(원통 보울) Max. diameter of bowl (straight bowl) (ø)		250	370	500	620	760
최대 보울 질량 Max. bowl mass (kg)		2	6	12	20	30
최대 작업 질량 Max. work mass (kg)		0.8	2.5	3.0	5.0	10.0
보울 클램프 사용 횟수 Number of bowl clamps in use (개) (PCS)		3				4

### 사양 Specifications

형 식 Model	ML-000j	ML-001j	ML-002j	ML-002r
구동부 질량 Mass (kg)	1.3	3.8	10.0	20.0
입력 전압 Input voltage AC (V)	100	200	100	200
허용 전류 Allowable current (A)	0.1	0.05	0.16	0.09
입력 주파수 Input frequency (Hz)	50 / 60			
구동 파형 Drive waveform	전파 full wave			
최대 에어 갭 Max. air gap mm	0.6			
진동수 Frequency of vibrations	6000			
	7200			
스프링 각도 spring angle	15°			
최대 활송장치 길이 Max. length of chute (mm)	200	300	500	600
최대 활송장치 폭 Max. width of chute (mm)	30	45	60	60
최대 활송장치 질량 Max. mass of chute (kg)	0.5	1.0	2.0	3.0



# ROLLER GEAR CAM INDEX

## INDXIA series

### HD SERIES



#### Product overview

- Output axis of the INDXIA HD series has straight shaft type and flange type that can be diversely applied depending on the purpose of the usage.
- Unique model of Hannz Motrol combining the shaft type and flange type
- Standardize the distance between Input and Output axes from 45mm to 170 mm (7 types)

### HA SERIES



#### Product overview

- INDXIA HA series are fixed hollow axis-type indexing drive which integrates compact flat housing and driving parts. Therefore, more compact facility is to be organized. The strength of unique structure of roller gear cam of our company is to be maintained but improved with convenience of users.
- As standard, a fixed hollow axis is mounted on the center of output flange 8 types of standardized distance between axes (input and output) of 70, 90, 110, 150, 190, 230, 330 and 450 mm

### HP SERIES

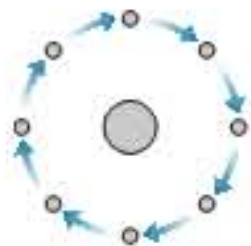


#### Product overview

- HP series is a dividing device of the parallel equipment.
- Roller gear cam device used for the INDXIA is comprised of vertical input and output axes that are appropriate for the high speed and massive load. This device is in parallel with the input and output axes that small number of stops including 1, 2 and 3 stops as the most "ideal parallel cam" for the straight delivery of conveyor.

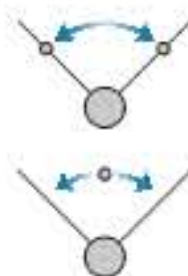
### Basic action

#### Indexing Drive



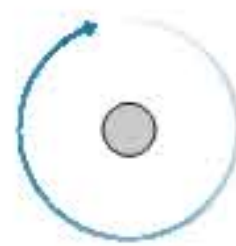
- Performs intermittent rotary motion, (Stop → Grading → Stop → Grading)
- One cycle of grading and stop in output shaft per rotation of input shaft
- Can be used as a core division system of rotary type automated machine equipped with rotary table
- Can be used as a division system of an inline automated machine for intermittent conveyor transfer

#### OSCILLATING DRIVE



- The output shaft performs reciprocating motion, using input shaft that rotates at a continuous velocity.
- Enables simple reciprocating motion, set the stop conditions in the middle position of motion and as well as set stop angle at your discretion to some degree.
- Can be used as work returning device, by installing oscillation arm onto output shaft and using roller and guide in order to change it into straight-line motion.

#### REDUCER TYPE



- Precision REDUCER TYPE
- Appropriate to reducer of a machine you want to get smooth rotation and higher torque with less back lash and delivery loss
- Can be used for random grading of final turret, through multi-grading the table.

# Pick & Place Unit

## INDXIA series

### HN SERIES



HN series feature a simple and compact design. The operating section is larger than the housing scale for flexible timing schemes.

#### Product characteristics

- Realize outstanding durability and high speed performance
- Features fully cam-operated system for high speed and reliability
- Simple and easy install and reliable performance over long hours of use

### HL SERIES



Combination of groove cam and roller gear cam is performed on the operation unit. It has more flexibility with timing schemes and wide rotating angles.

#### Product characteristics

- Specifications with much convenience
- Minimum to Max. lift : 20mm to 70mm, max oscillating angle of 180 degree
- Simple and easy install with reliable performance over long hours of use

### HI SERIES



It has the latest among the cam-type pick and place in the use of special cam as an index handler with high speed of 800/rotation.

#### Product characteristics

- Max input rpm is 600rpm
- Simple and easy install with reliable performance over long hours of use

### Basic Performance Example

#### Oscillating with Pick & Place



#### Turning with Pick & Place



#### Indexing with Pick & Place



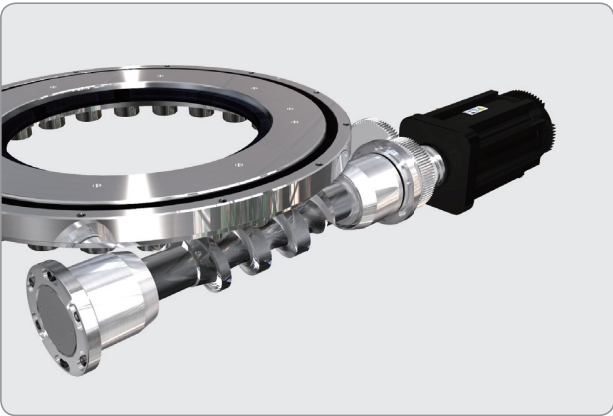
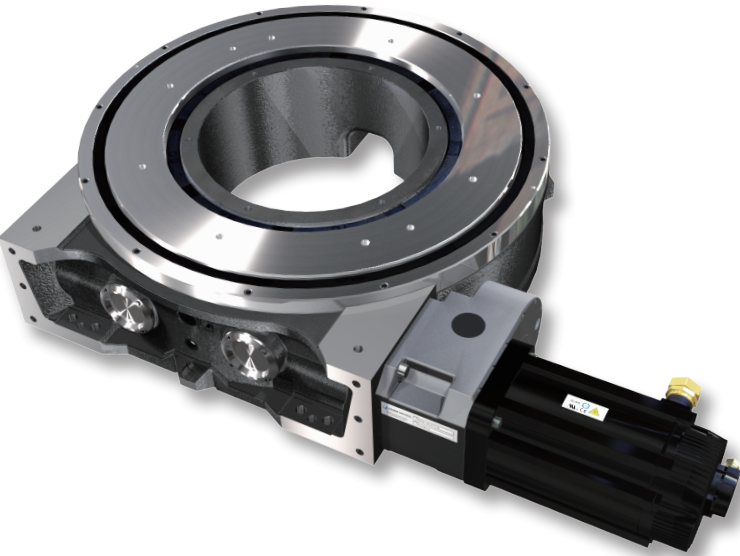
Hannz Motrol is currently lining up various types of device in a wide range of requirement including the rotation movement in the use of special cam device, compact drive, and two roller gear cam devices, fixed type in creating vertical movement, and also common type in the use of one roller gear cam and hole cam.



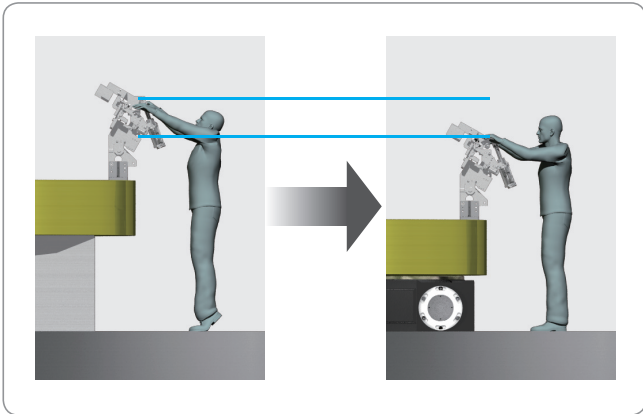
Heavy duty positioner

DynaStation

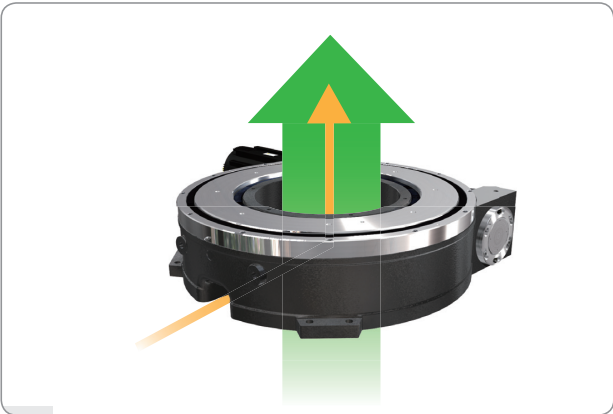
DSRseries



High performance positioner  
Barrel Cam type positioner



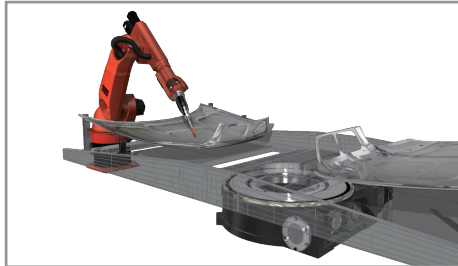
Compact design  
It is possible to improve the convenience of operation and realize high precision positioning



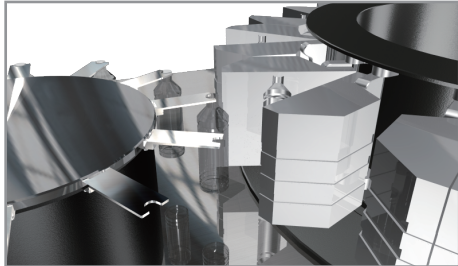
Large Hollow output table design  
It is easy to install wiring and piping

	DSR120	DSR160	DSR220	DSR300	DSR400	DSR500
ALLOWABLE MAX LOAD	2,000kg	3,000kg	7,500kg	10,000kg	15,000kg	20,000kg
Table Height	175mm	205mm	225mm	250mm	280mm	340mm
Table Diameter	Φ290mm	Φ375mm	Φ500mm	Φ700mm	Φ900mm	Φ1,136mm
Output hollow diameter	Φ130mm	Φ180mm	Φ255mm	Φ380mm	Φ500mm	Φ630mm
Recommended servo capacity	1.5kW	2.0kW	3.5kW	7.5kW	11.0kW	15.0kW
Standard reduction ratio	1/100	1/120	1/120	1/120	1/180	1/225
Repeatability	0.05mm(r=1,000mm)					

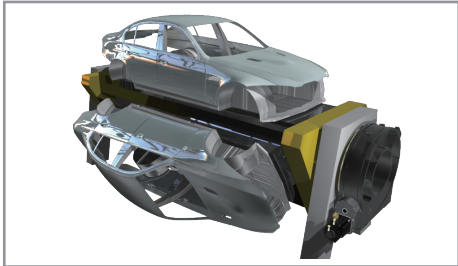
■ Application



Welding process 180° rotation.



Forming molds

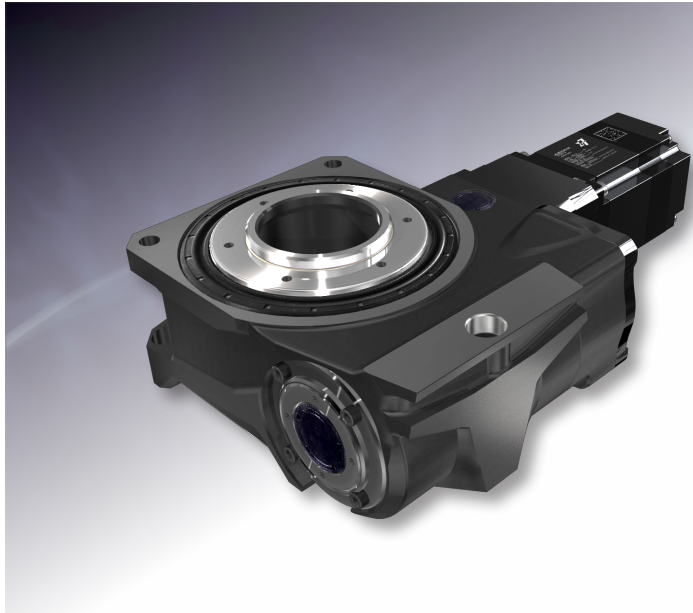


Assembly process

Zero Back lash High Precision Reducer

DynaStation

GTBseries

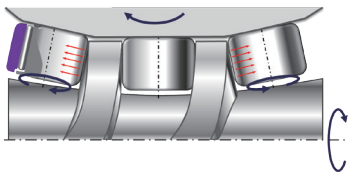


- Backlash “0” Mechanism
- High rigidity Housing
- Ratio Selection

Zero backlash mechanism without abrasion  
compact high-strength body

Roller gear cam reducer

The movement of the output is generated by the roller gear cam mechanism without backlash. with the preload, the roller gear cam makes a rolling contact, so it has zero backlash transfer characteristics as well as wear free and long term stable performance.



Black finish high-strength body

The housing achieves high rigidity and compact design by stress optimized design and high strength precision casting. The surface has a special black finish with excellent corrosion resistance.



Zero backlash mechanism without abrasion  
compact high-strength body

Stable vertical and plane installation

The product can be installed in any direction, either plane or vertical. It can be used for various installation methods. In addition, since the front and rear mounting positions are the same, it is possible to arrange the position of the motor and the position of the output hole variously.

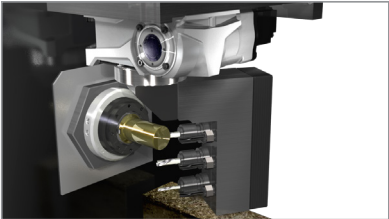


Reduction ratio select system (PAT.P)

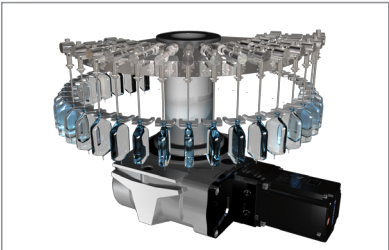
Product selection is available in two types : high ratio type for high torque and motor direct type for high accuracy.



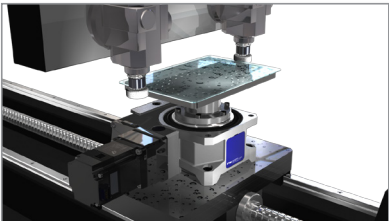
Applications



B-Axis for Machine tools



Tube Filling Machine



Glass grinding



Ultra-lightweight compact unit

# DynaStation DM9 series



Ultra-high-speed positioning

Ultra-lightweight flat design

Multi-joint & hollow structure

Experience SCARA-speed performance  
in a multi-joint robot!

DMX CAM Reduction Mechanism – Ideal for Multi-Joint Configurations and Hollow Compact Size, Same High Performance! Structures!

By downsizing the DMX-type barrel cam structure without compromising performance, we've achieved both high rigidity and high-speed motion. In the DM903 model, positioning time for a 90° rotation can reach as fast as 0.02 seconds. When applied to multi-joint robots, it delivers SCARA or parallel-link level speed performance.

When combined with various robot systems, the DM9 enables the creation of ultra-high-speed robots that take full advantage of the barrel cam structure's high-speed and high-precision characteristics. By achieving SCARA- or parallel-link-level speed within a multi-joint robot, it opens up new possibilities for diverse robotic system configurations and innovative production systems beyond conventional limits. Furthermore, the large-diameter hollow structure allows for a clean robot design, where cables and piping are neatly routed inside without external exposure.

High-precision horizontal turntable unit

# DM3 시리즈



Outstanding Positioning Accuracy

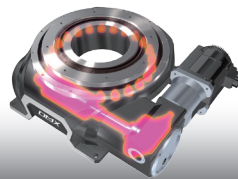
Dual DMX CAM Reduction System

Low-Profile Design with  
Large-Diameter Hollow Shaft

## Innovative Horizontal Turntable Unit



Low-Profile Design with  
Large-Diameter Hollow Shaft



Dual DMX CAM Reduction  
System

Zero Backlash & Exceptional  
Positioning Accuracy



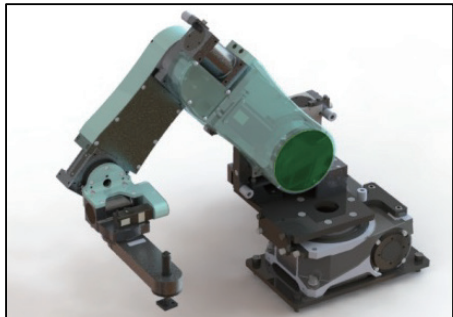
Fully Programmable Motion  
Patterns



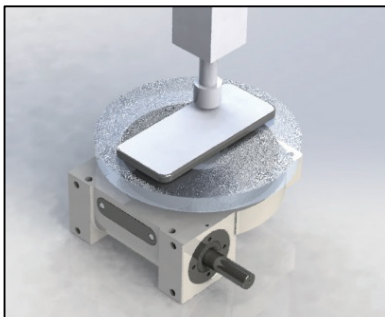
### Specification

Model	DM312	DM316	DM322	DM330
Allowable Load Capacity	3,500kg	5,000kg	9,000kg	13,000kg
Turntable Height	188mm	235mm	273mm	325mm
Turntable Diameter	Φ290mm	Φ375mm	Φ500mm	Φ700mm
Output Hollow Diameter	Φ140mm	Φ180mm	Φ255mm	Φ370mm
Recommended Servo Motor Capacity	1.5kW	2.0kW	3.5kW	7.5kW
Standard Reduction Ratio	1/150	1/180	1/180	1/180
Repeatability	0.05mm (r=1,000mm) 10arc.sec			

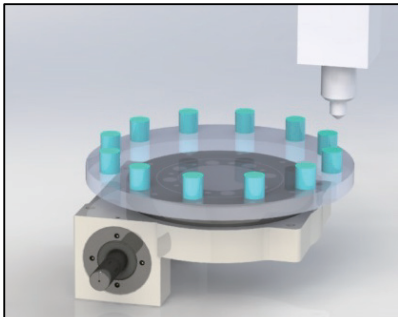
### Example



Robot joint drive



Inspection Systems



High-speed electronic component handling





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