

Zero Backlash high precision Reducer

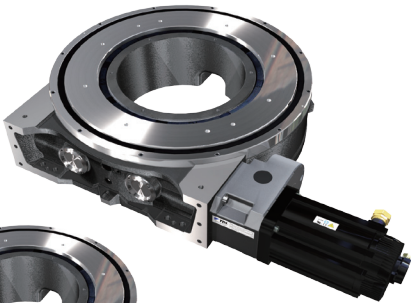
Heavy duty positioner

DynaStation® DSRseries



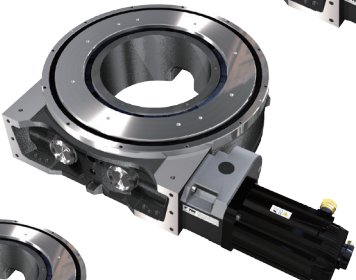
DSR500

MAX Load 20,000kg
Power 15kW



DSR400

MAX Load 15,000kg
Power 11kW



DSR300

MAX Load 10,000kg
Power 7.5kW



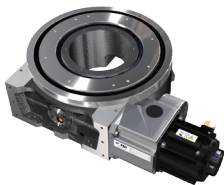
DSR220

MAX Load 7,500kg
Power 3.5kW



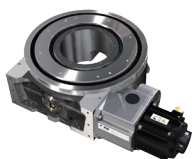
DSR160

MAX Load 3,000kg
Power 2.0kW



DSR120

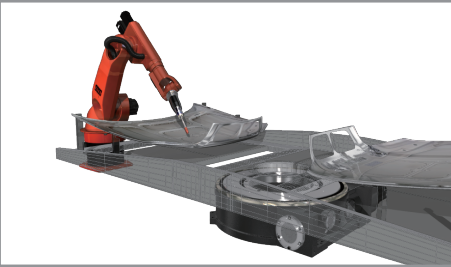
MAX Load 2,000kg
Power 1.5kW



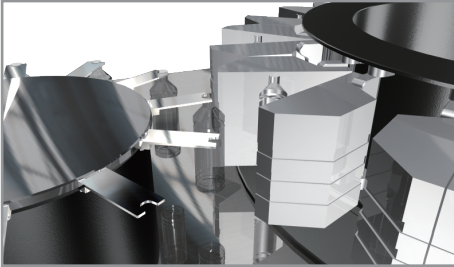
DynaStation® DSRseries

	DSR120	DSR160	DSR220	DSR300	DSR400	DSR500
ALLOWABLE MAX LOAD	2,000kg	3,000kg	7,500kg	10,000kg	15,000kg	20,000kg
SPIRAL TABLE HEIGHT	175mm	205mm	225mm	250mm	280mm	340mm
Spiral 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 gear ratio	1/100	1/120	1/120	1/120	1/180	1/225
Repeatability	0.05mm (r=1,000mm)					

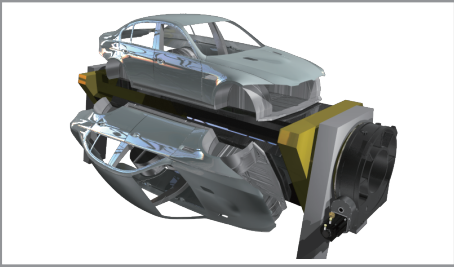
■ Application examples



Welding process 180degree rotation.



Forming molds output accuracy



Assembly process vertical index

■ Product code chart

	Type	Size	—	Reduction gear ratio	—	Motor position	Connector position	Installation position	—	Option
Ordering examples	DSR	220	—	120	—	R	1	H	—	B
	DSR	300	—	120	—	R	2	V	—	T M
	DSR	500	—	225	—	R	3	H	—	T B

Type	Size	Reduction gear ratio
DSR	120	100
	160	120
	220	120
	300	120
	400	180
	500	225
lease contact us for non-standard reduction gear ratio other than chart on the left.		

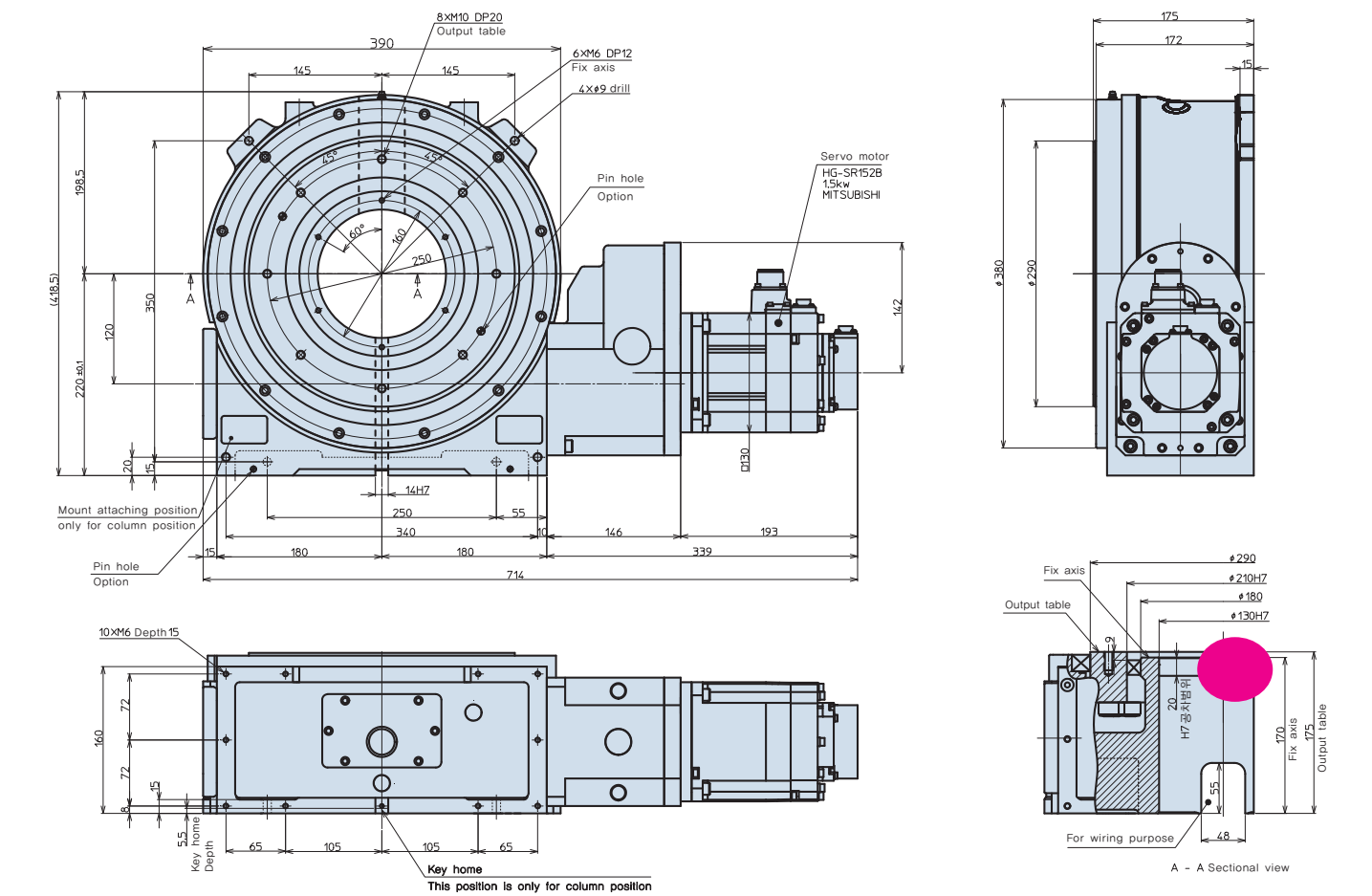
Motor position		
Right Recommended standard position.	R	
	L	

Connector position		
Inner side of Body	1	
Front side of Body	2	
Output side	3	
Bottom side of Body	4	

Installation position		
Plane position	H	
Column position ※ DSR500 is exclusive model for plane position. Column position is not possible for DSR500.	V	
Others	Z	※ Setting of output as facing downward is not possible due to the function of Oil-seal.

Option (Detailed size info is in P9-P10)		
2 pin holes on output table side.	T	
2 pin holes on housing	B	
4 mounts for column position. ※ T Nut bolt is not included.	M	

DSR120

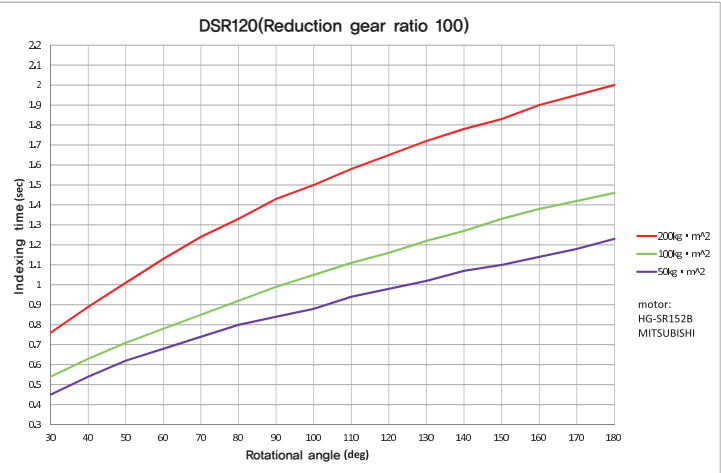


■ Function specification

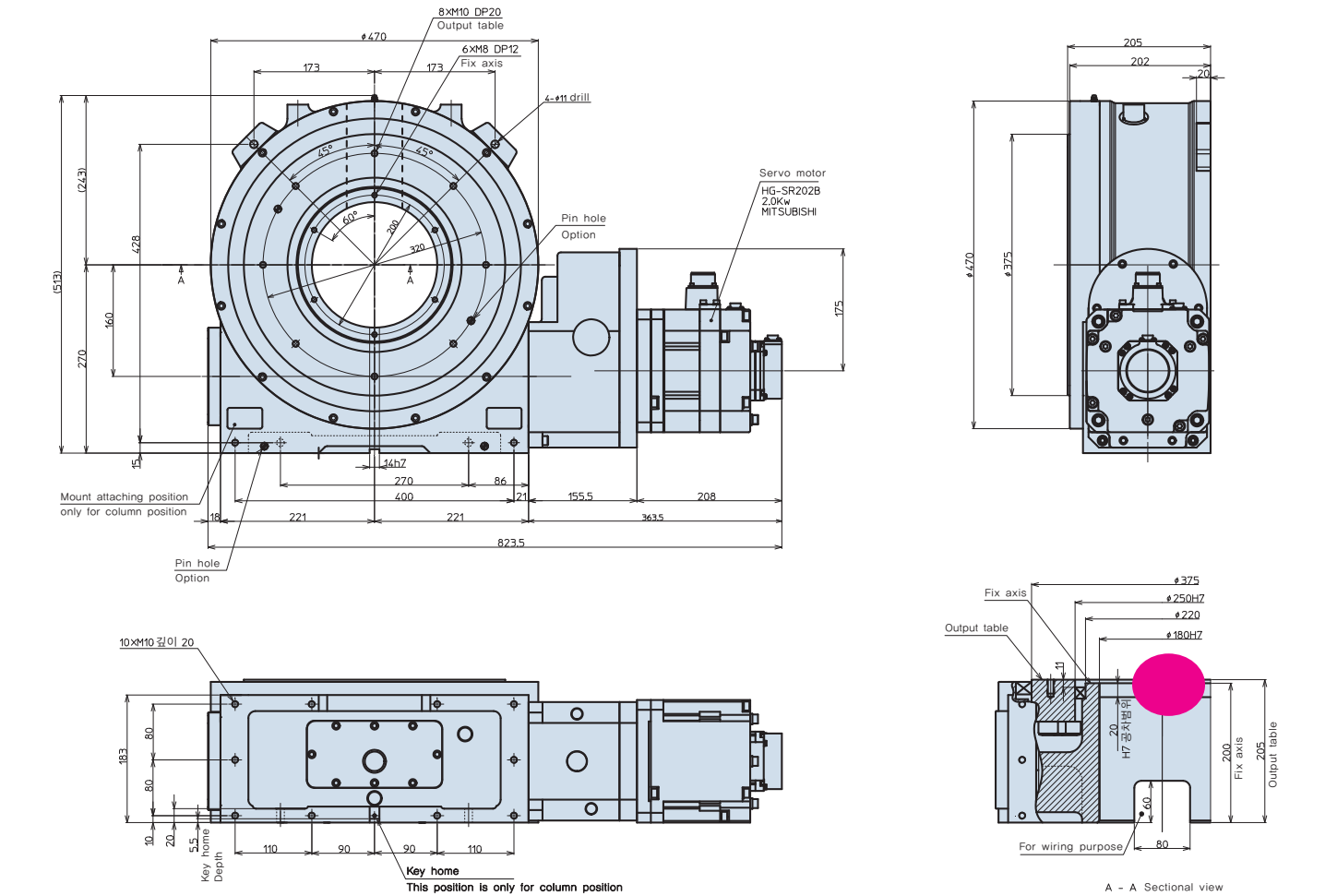
Type		DSR120
Center distance	[mm]	120
Reduction gear ratio *1	i	100(20x5)
Rated output torque	Ts[N.m]	2,400
Calculated moment of inertia for Motor axis *2	J[kg.m ²]	10.3x10 ⁻⁴
Max load	[kg]	2,000
Repeatability	[mm]	0.05 (R=1000)
Unit weight	[kg]	100
Recommended Servo Capacity *3	kW	1.5

※ For detailed dimensions, please refer to our homepage
※ Able to attach 1.5kW rated servo motor disregarding the makers.
※ Guide key is included

■ Characteristic for rotation positioning speed



DSR160

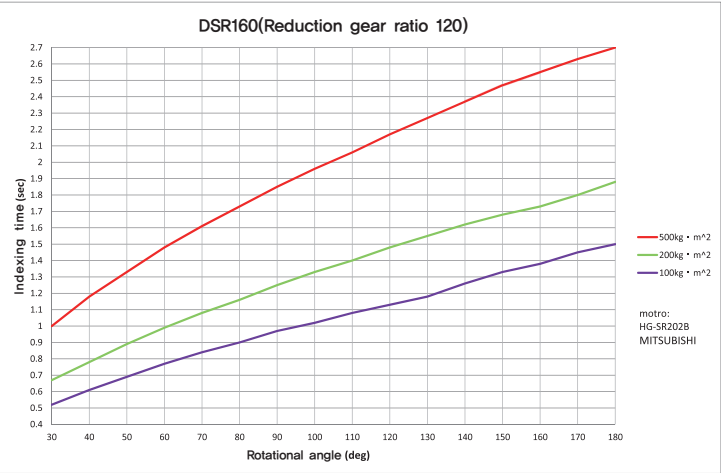


■ Function specification

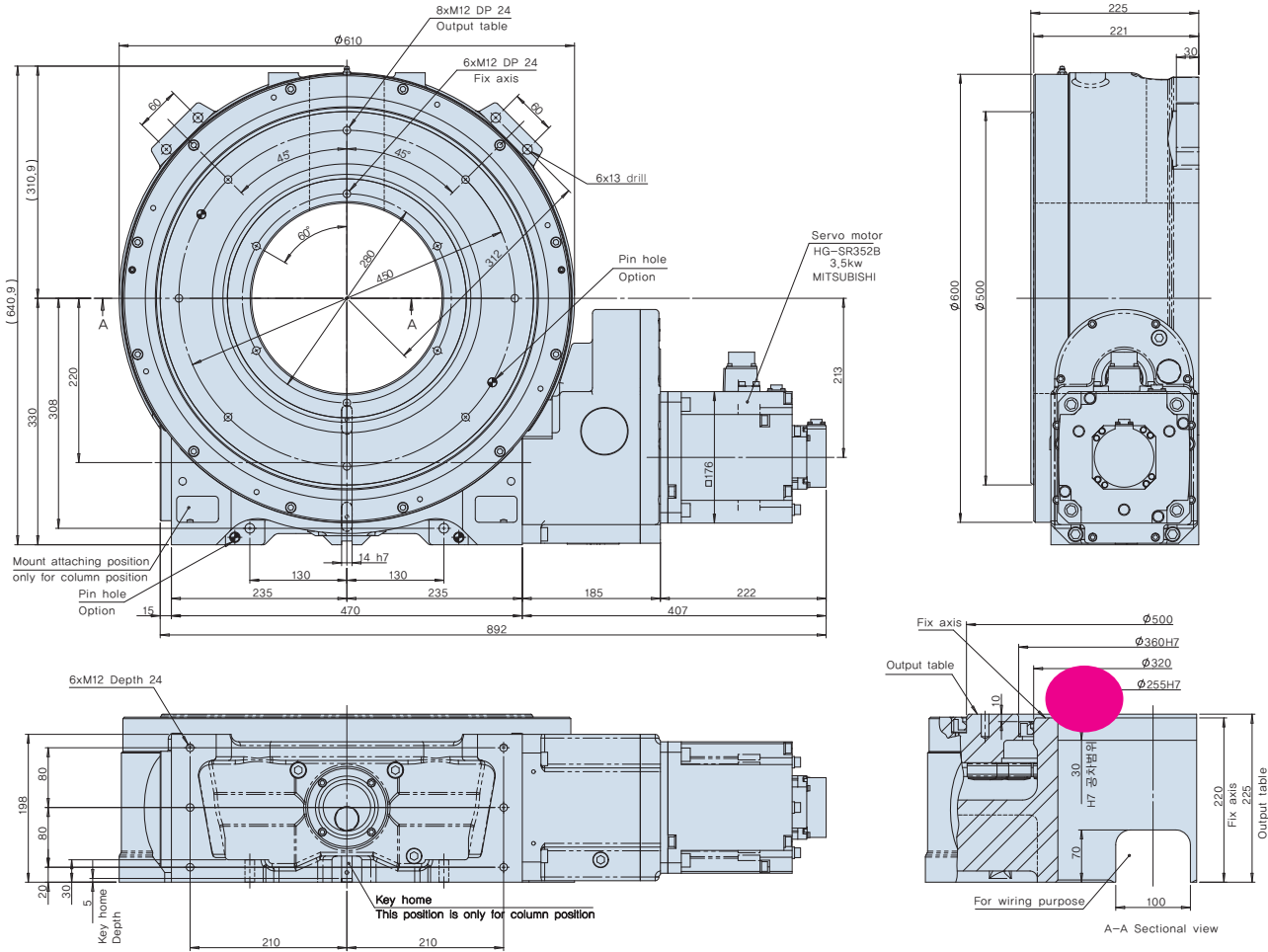
Type		DSR160
Center distance	[mm]	160
Reduction gear ratio *1	i	120(24x5)
Rated output torque	Ts[N.m]	5,400
Calculated moment of inertia for Motor axis *2	J[kg.m ²]	22.2x10 ⁻⁴
Max load	[kg]	3,000
Repeatability	[mm]	0.05 (R=1000)
Unit weight	[kg]	200
Recommended Servo Capacity *3	kW	2.0

※ For detailed dimensions, please refer to our homepage
※ Able to attach 2.5kW rated servo motor disregarding the makers.
※ Guide key is included

■ Characteristic for rotation positioning speed



DSR220

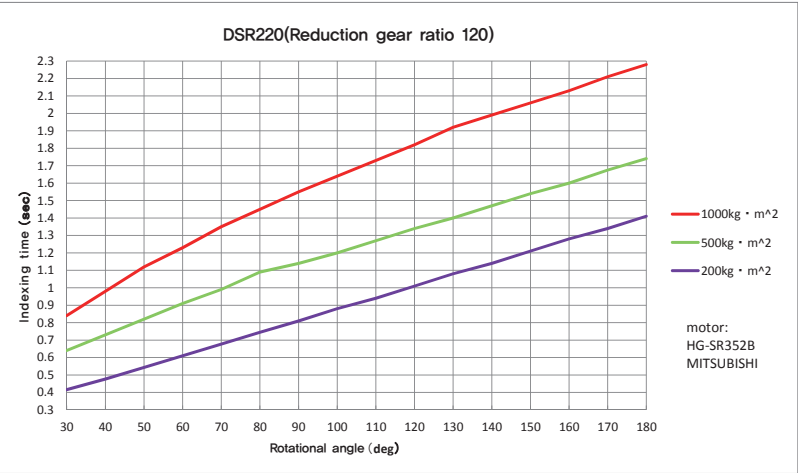


Function specification

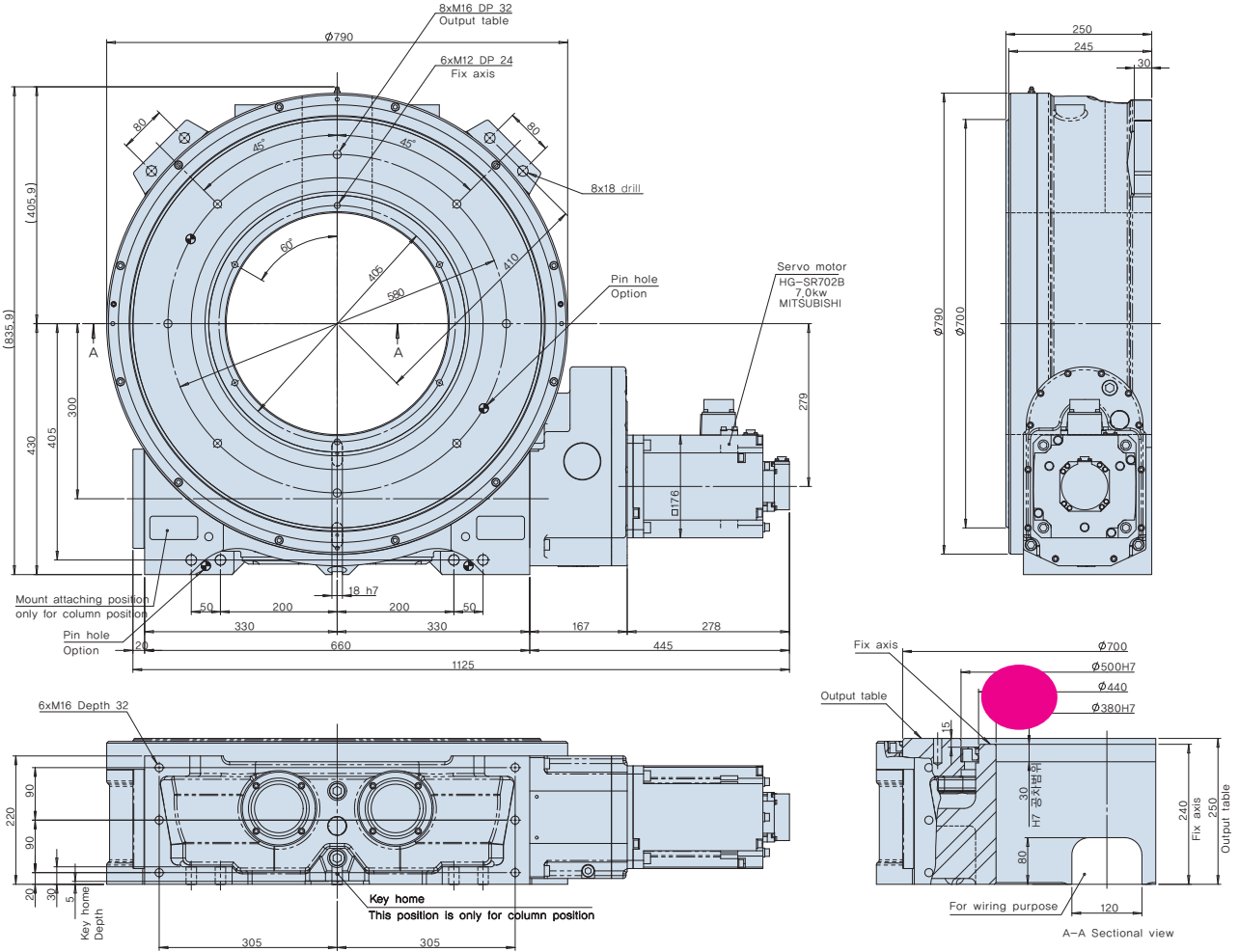
Type		DSR220
Center distance	[mm]	220
Reduction gear ratio *1	i	120(24x5)
Rated output torque	Ts[N.m]	11,860
Calculated moment of inertia for Motor axis *2	J[kg.m ²]	44.8x10 ⁻⁴
Max load	[kg]	7,500
Repeatability	[mm]	0.05 (R=1000)
Unit weight	[kg]	320
Recommended Servo Capacity *3	kW	3.5

※ For detailed dimensions, please refer to our homepage
※ Able to attach 3.5Kw rated servo motor disregarding the makers.
※ Guide key is included

Characteristic for rotation positioning speed



DSR300

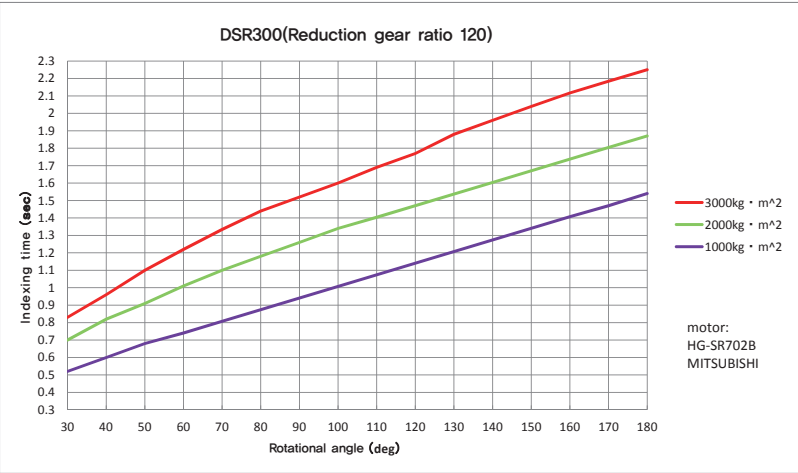


Function specification

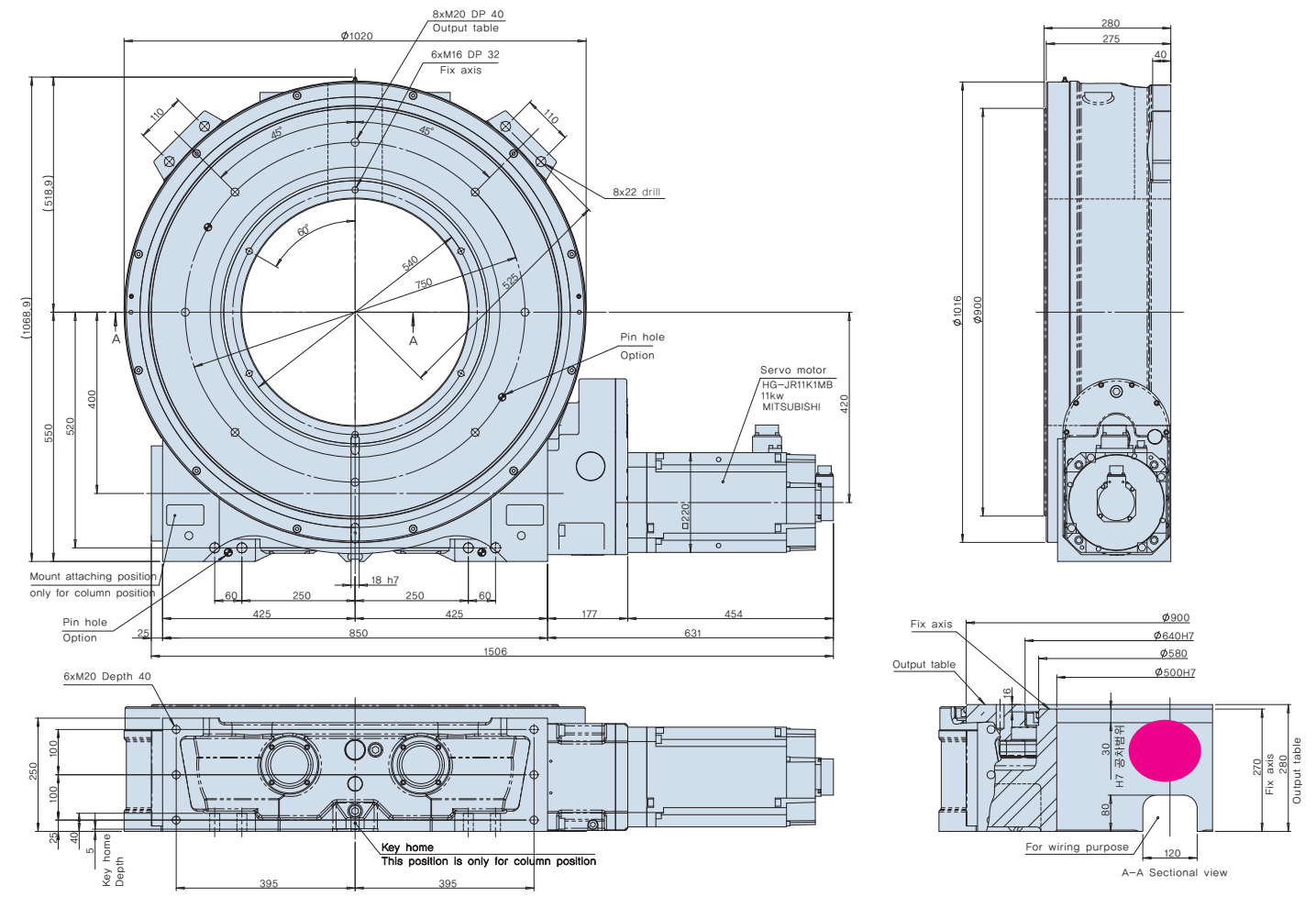
Type		DSR300
Center distance	[mm]	300
Reduction gear ratio *1	i	120(24x5)
Rated output torque	Ts[N.m]	26,492
Calculated moment of inertia for Motor axis *2	J[kg.m ²]	67.5x10 ⁻⁴
Max load	[kg]	10,000
Repeatability	[mm]	0.05 (R=1000)
Unit weight	[kg]	560
Recommended Servo Capacity *3	kW	7.5

※ For detailed dimensions, please refer to our homepage
※ Able to attach 7.5Kw rated servo motor disregarding the makers.
※ Guide key is included

Characteristic for rotation positioning speed



DSR400

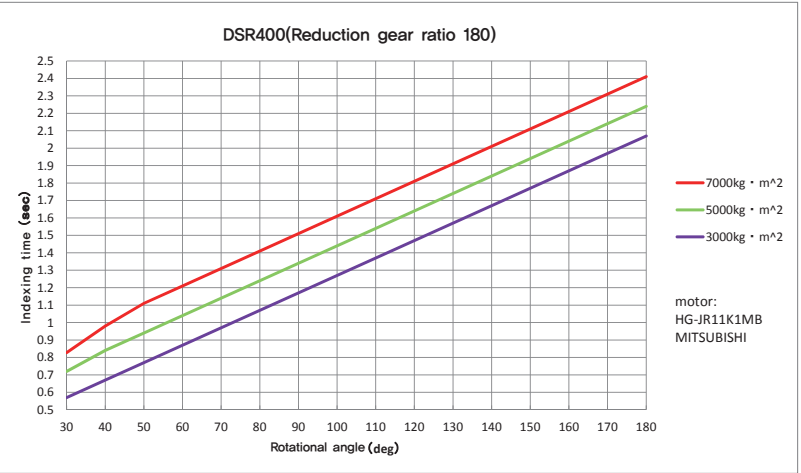


■ Function specification

Type		DSR400
Center distance	[mm]	400
Reduction gear ratio *1	i	180(24x7.5)
Rated output torque	Ts[N.m]	61,080
Calculated moment of inertia for Motor axis *2	J[kg.m ²]	147x10 ⁻⁴
Max load	[kg]	15,000
Repeatability	[mm]	0.05 (R=1000)
Unit weight	[kg]	1,000
Recommended Servo Capacity *3	kW	11.0

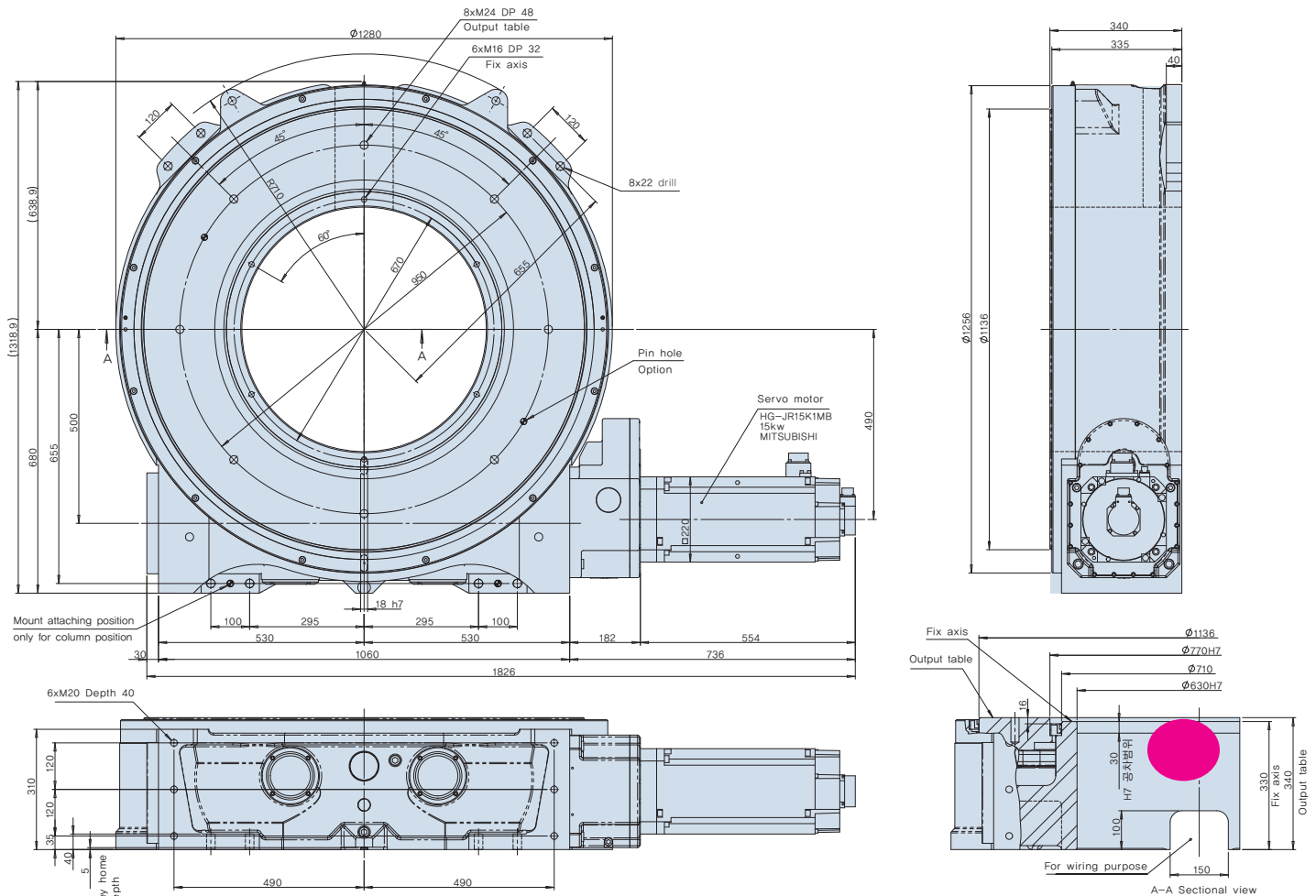
※ For detailed dimensions, please refer to our homepage
※ Able to attach 11Kw rated servo motor disregarding the makers.
※ Guide key is included

■ Characteristic for rotation positioning speed



- In case of torque can be applied due to gravity and etc, please install the servo motor with brake so output table can be stopped safely in certain circumstances such as black out and etc.
- *1 Reduction gear ratio is the value where main body reduction gear ratio is 24 and 1st sub reduction gear ratio is 5. If you need other reduction gear ratio than provided ratio, please contact us.
- *2 Sum of the moment of inertia in chart 2 and calculated load moment of inertia for motor axis cannot exceed recommended moment of inertia of servo motor.
- *3 When selecting the *3 motor, please satisfy all requirements such as allowable torque, motor drive regenerative resistance.
- Installing the motor process is performed by us. Please do not disassemble and change the motor by yourself.
- Please contact us for further/detailed specification review.

DSR500



■ Function specification

Type		DSR500
Center distance	[mm]	500
Reduction gear ratio *1	i	225(30x7.5)
Rated output torque	Ts[N.m]	73,030
Calculated moment of inertia for Motor axis *2	J[kg.m ²]	252x10 ⁻⁴
Max load	[kg]	20,000
Repeatability	[mm]	0.05 (R=1000)
Unit weight	[kg]	1,800
Recommended Servo Capacity *3	kW	15.0

※ For detailed dimensions, please refer to our homepage
※ Able to attach 15Kw rated servo motor disregarding the makers.
※ Guide key is included

■ Characteristic for rotation positioning speed

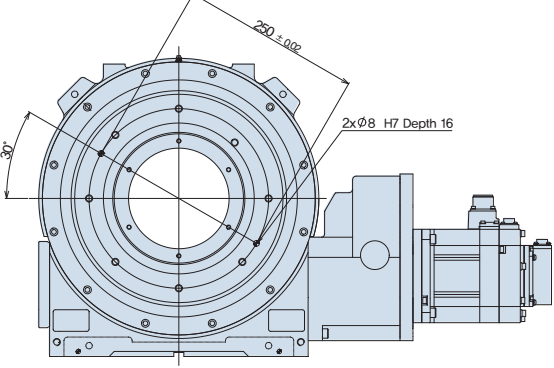


- In case of torque can be applied due to gravity and etc, please install the servo motor with brake so output table can be stopped safely in certain circumstances such as black out and etc.
- *1 Reduction gear ratio is the value where main body reduction gear ratio is 30 and 1st sub reduction gear ratio is 7.5. If you need other reduction gear ratio than provided ratio, please contact us.
- *2 Sum of the moment of inertia in chart 2 and calculated load moment of inertia for motor axis cannot exceed recommended moment of inertia of servo motor.
- *3 When selecting the *3 motor, please satisfy all requirements such as allowable torque, motor drive regenerative resistance.
- Installing the motor process is performed by us. Please do not disassemble and change the motor by yourself.
- Please contact us for further/detailed specification review.

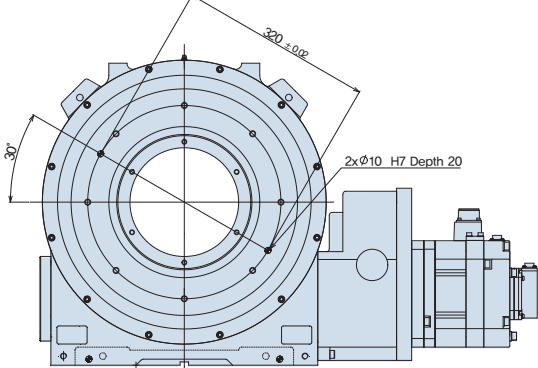
■ Option dimensions

Output table pin hole

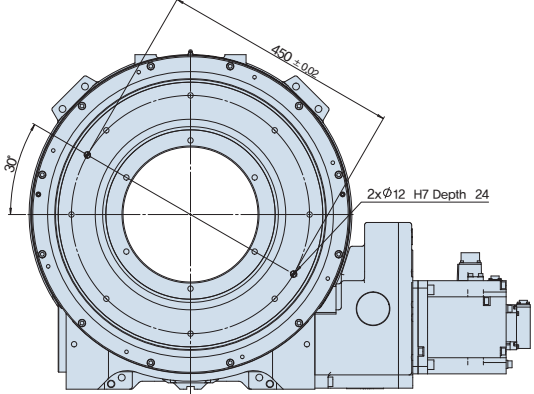
DSR120



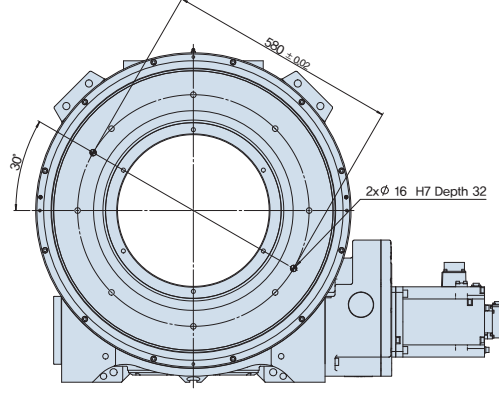
DSR160



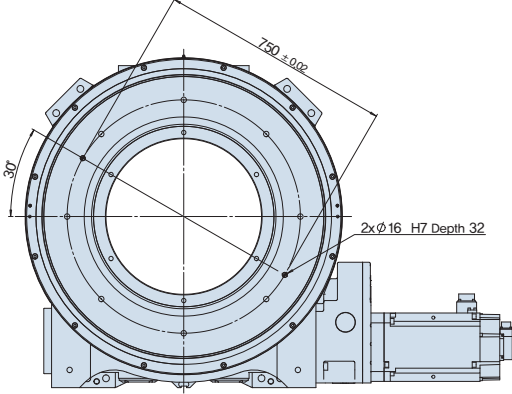
DSR220



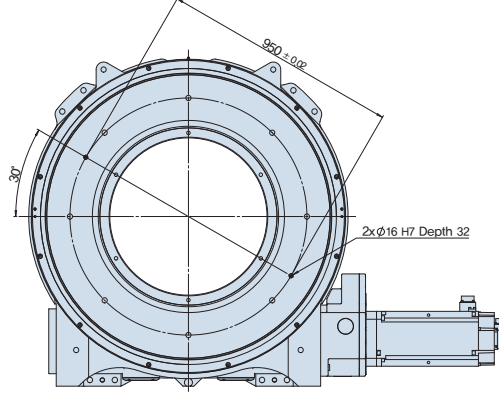
DSR300



DSR400

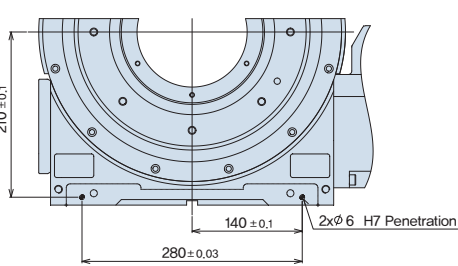


DSR500

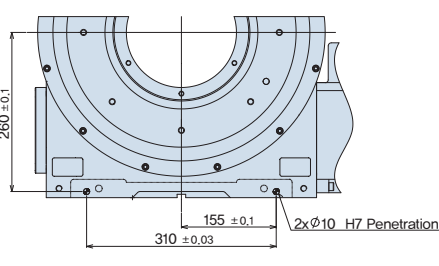


Pin holes on housing

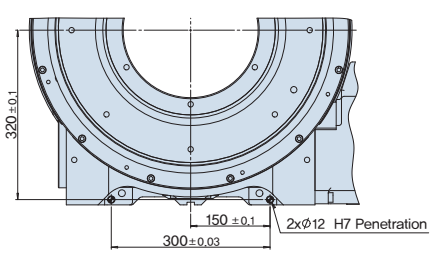
DSR120



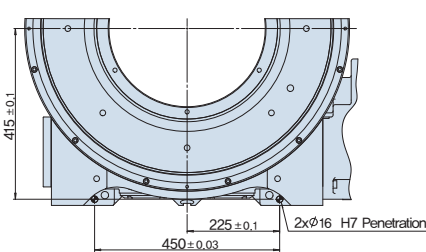
DSR160



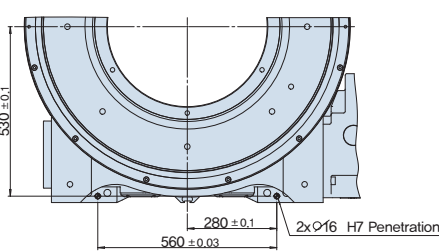
DSR220



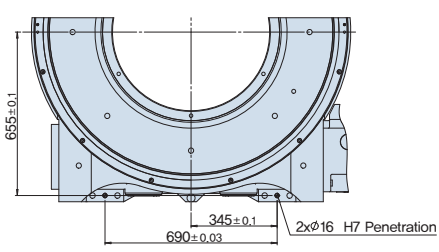
DSR300



DSR400



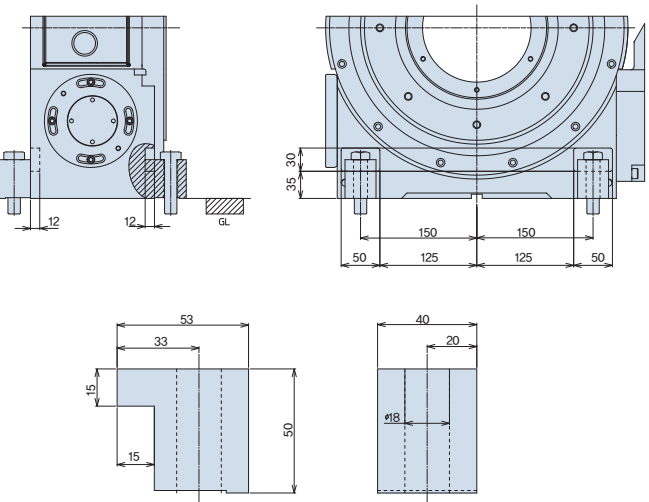
DSR500



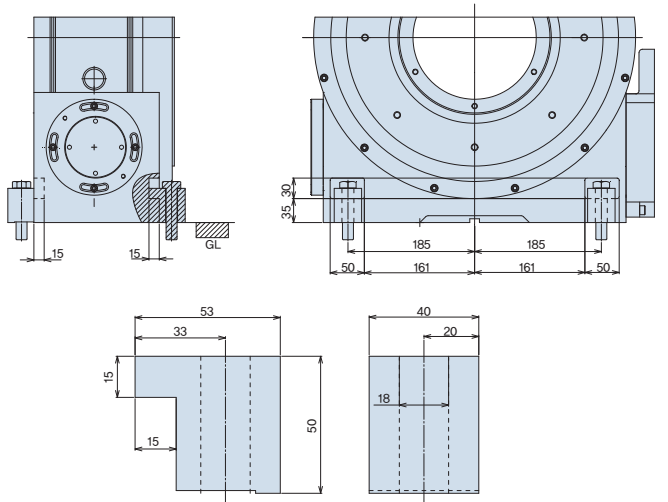
■ Option dimensions

Mount for column position

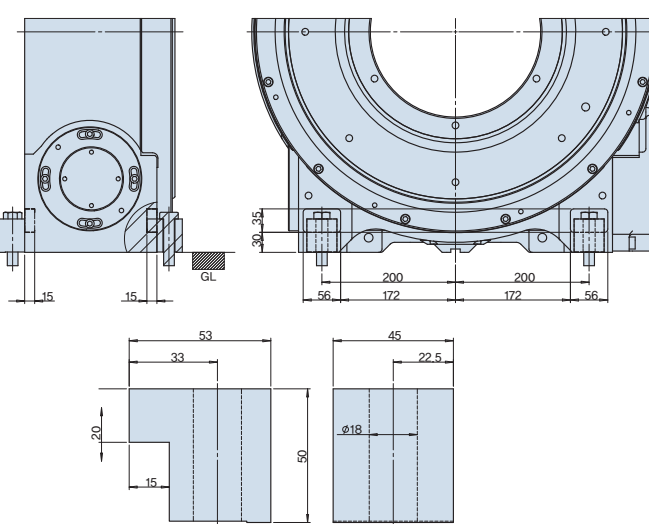
DSR120



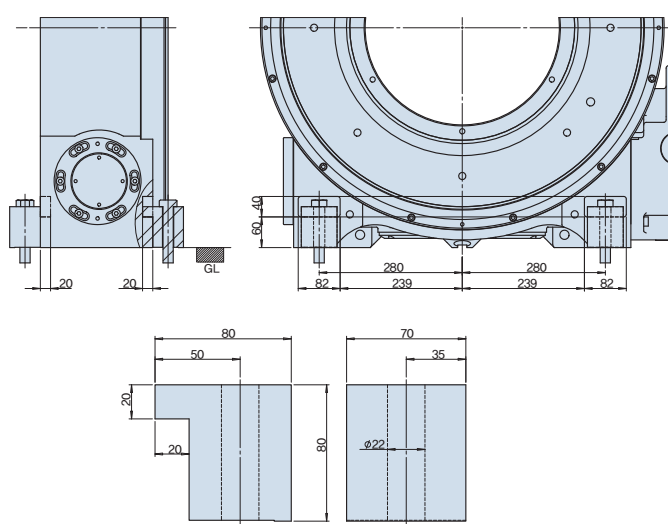
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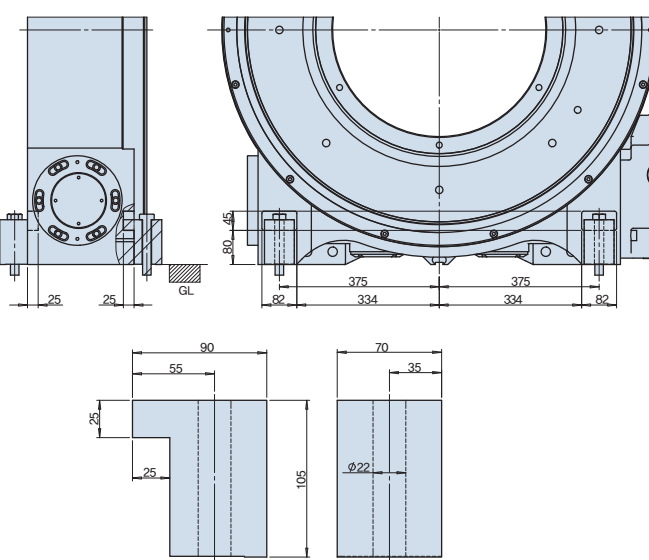
DSR220




DSR300



DSR400





Cautious

- Please use T nut and bolt which available on market.
- In case of not using mount option of Hanz Motrol, please use mount which available on market.
- DSR500 is exclusive model only for plain position. Column position is not possible.

■ Selecting the model

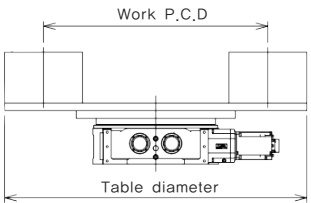
When selecting the model, before fill out and send the Model request form to us, please check the conditions on the below.

1. Applying work condition

Weight and moment of inertia for table, zig and other works which are loaded and rotating.

Examples of list	unit
unit	mm
Table diameter	kg
Work (zig) P.C.D	mm
Work quantity/lea	kg
Number of work	개


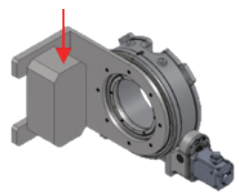
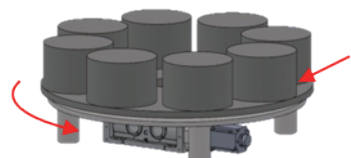
Examples of list	unit
Total moment of inertia	kg·m ²
Total weight	kg



2. Load condition

Secondary load which generated by the work self load and operation.

Examples of list	unit
Operation load torque	N·m
Friction load torque	N·m
Unbalance load torque	N·m
Bending moment	N·m



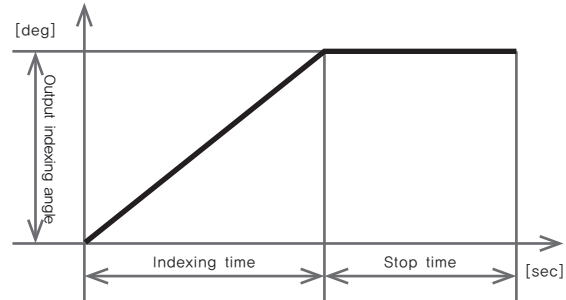
① Operation and friction load torque ② Unbalance load torque due to gravity.

③ Bending moment due to the Eccentricity load

3. Operation condition

Indexing time (moving time), stop time and output indexing angle among operation

Examples of list	unit
Indexing time	sec.
Stop time	sec.
Output indexing angle	deg.
Emergency stop time	sec.
Emergency stop angle	deg.



4. Operation servo motor

If you have any questions about maker of servo motor (for application to DSR) please contact us. Our recommended makers are on the right side.

Recommended maker
Mitsubishi
Yaskawa
Fanuc

DSR Series Model request form

(Please make copy and use it)

Name of company	TEL
Contact person	E-mail
Desired lead time	Order quantity

※ is required field

	List	값	unit
Work load condition	Table diameter		mm
	Table weight		kg
	Work (zig)P.C.D		mm
	Work quantity/lea		kg
	Number of work		개
	Total moment of inertia ※		kg·m ²
	Total weight ※		kg
	Operation load torque ※		N·m
	Friction load torque ※		N·m
	Unbalance load torque ※		N·m
Bending moment ※		N·m	


	List	값	unit
Operation condition	Indexing time ※		sec.
	Stop time ※		sec.
	Output indexing angle ※		deg.
	Emergency stop time		sec.
	Emergency stop angle		deg.

Applied motor ※

☐ Hannz Motrolhandle it ☐ Assign the maker (Maker and specification)

Others and requested lists, drawing and etc

송신처

 FAX: 82-31-499-4056

■ Cautious

- Correct model selection and correct usage are very important.
- The specification written on this catalog is calculated based on our evaluation method. For customers, please double check whether there will not be any problem within actual using condition and then use the product.
- Fault usage or operation may ends up with severe damage to the equipment or perhaps life crisis. Please be prepare for the unex-pected event at anytime and always consider safety on priority.
- Please replace oil and grease after 1000 hour operation only for the first time. After the first time exchange, please replace them every 300hour operation. However, if operation time is less than above condition, please replace them once for every year.
- Depends on the operation method, the temperature of surface of reducer may increase due to the servo motor heat generation or reducer internal heat generation. Please prepare to maintain the temperature of surface not to exceed 60C.
- When operating with very small angle repeatedly, fretting and etc may occur due to the oil condition and load condition are not in good condition than expected. Therefore when using the products less than 10 degree, please contact us before make selec-tion.
- This product may applied in industry related to the weapon industry or industry similar to weapon industry. In such cases, it may violate the foreign exchange control law. Therefore, customers must go through proper evaluation and export steps.
- If this product is applied to the industry line where malfunction may directly influence the life of human being or damage the human body such as transferring machine, medical related machine, nuclear related machine and etc, in such cases, please contact us for further detailed explanation.
- Please refer to the instruction manual for safety and correct usage.

■ Warranty

- If occurred damage are checked by our engineer and such damage were generated by our drawing fault or misassemble, Hannz Motrol will be responsible for fixing the product only under following condition. (for 1 year after purchasing or after 3000 hour after first operation)
- Clause on the above is the regulation only for the malfunction of corresponding product. Any cost other than fixing the product such as transportation, penalty for manufacturing loss, assemble/disassmelbe of surrounding equipment and etc are not guaran-teed by Hannz Motrol. (Exception : If any other separated agreements are signed by both parties)
- The cost for fixing the product will be charged to customer if any of below conditions are included.
 1. Consumable parts and the parts exceeded the life cycle time. (Oil seal and etc)
 2. Now following the condition and specification written on our instruction manual or catalog.
 3. If the product is used under special condition such as high temperature, low temperature, high humidity, a lot of dust, high pressure, low pressure, flammable condition and etc.
 4. any pollution, influence of external substances and power transmission
 5. Using the consumable parts or parts other than assigned model.
 6. Assemble, disassemble, upgraded and etc are not done by Hannz Motrol.
 7. Any other external influence by surround machine.
 8. Any influence by natural disaster such as fire, earthquake, thunder and etc
 9. Any problem not generated by our drawing miss or assembling miss.
- Warranty period will follow the period mentioned on the above. In other words, even after the product has been inspected by us and fixed by us, it will not re-start the warranty period as 1 year. Warranty period will follow the remaining period.

관련상품

INDXIA series

HD SERIES

HA SERIES

HP SERIES

HN SERIES

HL SERIES

HI SERIES

Parallel Gear®

PGM series

Orthogonal input type accurate gear head which minimize the height of device.

Connecting Bolt

Connecting clamp

Motor base

Bush

Servo motor

Easy integration of servo-motor

Yaskawa	Mitsubishi
Keyence	Sanyo
Panasonic	Fanuc

Please contact us for the motors other than above companies.



ADDRESS: 304, 1 Na 241, Hyupryeok ro, Siheung si,
Gyeonggi do (Jeongwang dong, Sihwa Industrial Complex)
TEL: 82-31-499-4054
FAX: 82-31-499-4056
www.hannzmotrol.com

H160100

Information in this catalog such as specification, dimension, function and etc may changed without
prior notification