

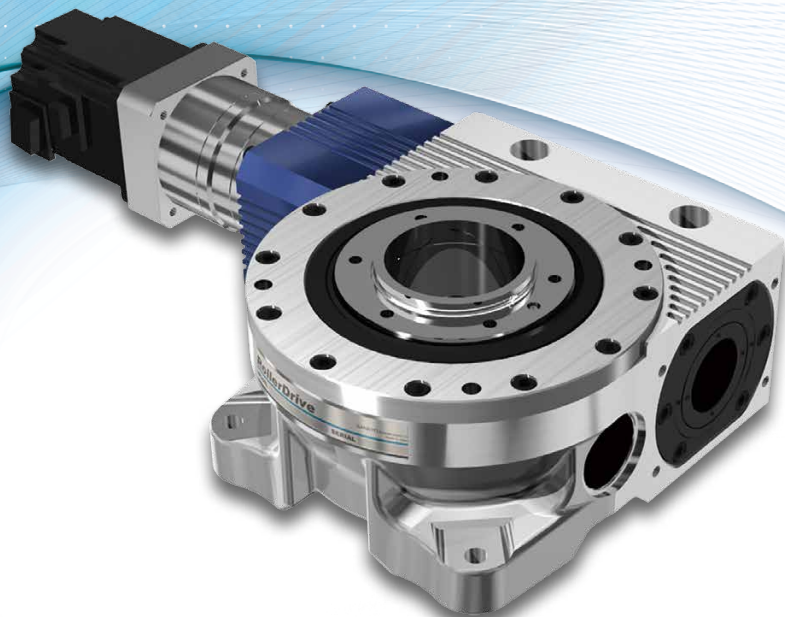
*Zero Backlash Positioner*

**RollerDrive<sup>®</sup>**

 **RGV** series Standard Model

*Varied lineup of reduction ratios and sizes*

*Large output torque from a compact servo motor*



# The ZERO-Backlash Technology

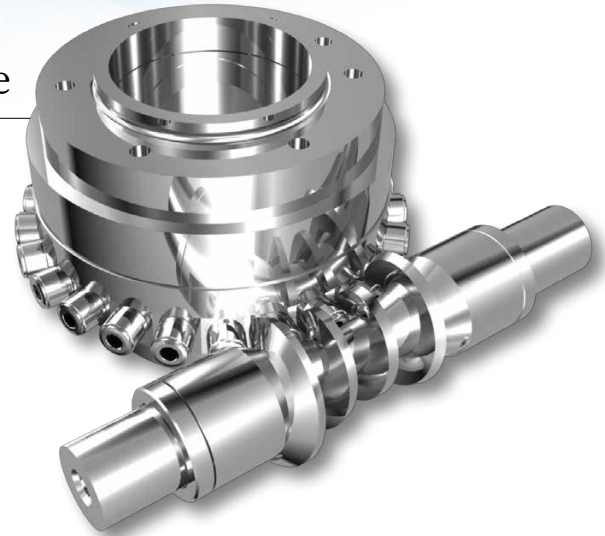
A mechanism developed through the pursuit of outstanding functionality and performance

## Superior movement achieved with zero-backlash technology

The RollerDrive is a zero-backlash reducer that utilizes a rolling transmission method with preload adjustment for high-dimensional accuracy, responsiveness, and rigidity with stable performance over long periods.

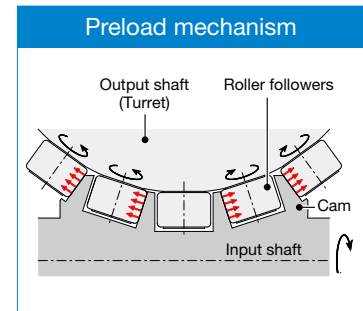
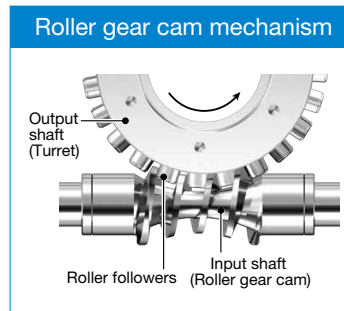
The large-diameter hole construction with a direct input/output shaft layout enables a compact design with zero backlash.

Meanwhile, the rolling transmission method of the RollerDrive provides a characteristic long service life.

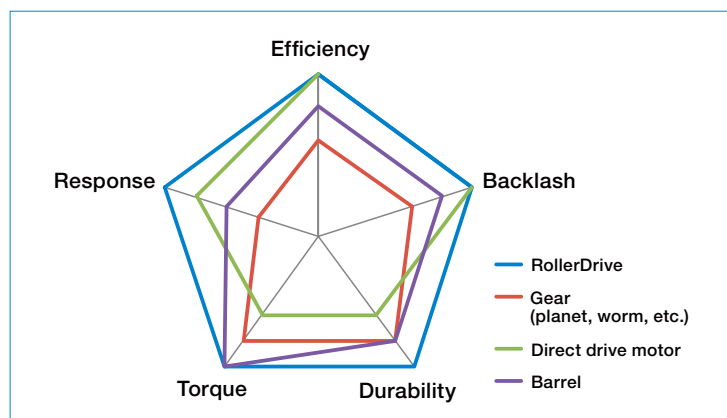


## Positioner Lineup

For general factory automation	
<b>MR</b> Ultra-compact model	
<b>RGV</b> Standard model	
<b>RGR</b> Large-diameter model	
<b>RA</b> Lightweight model	
<b>RU</b> High-rigidity model	
For welding machines	
<b>SP</b> Standard model	
<b>RW</b> High-accuracy model	

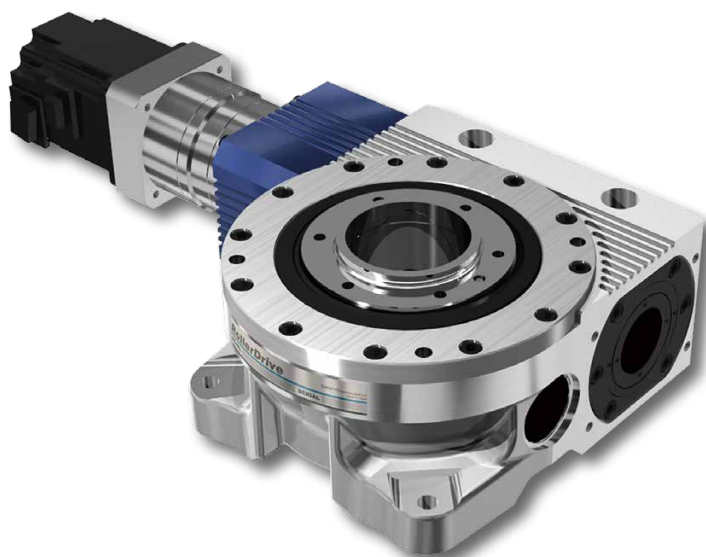


## Performance Comparison



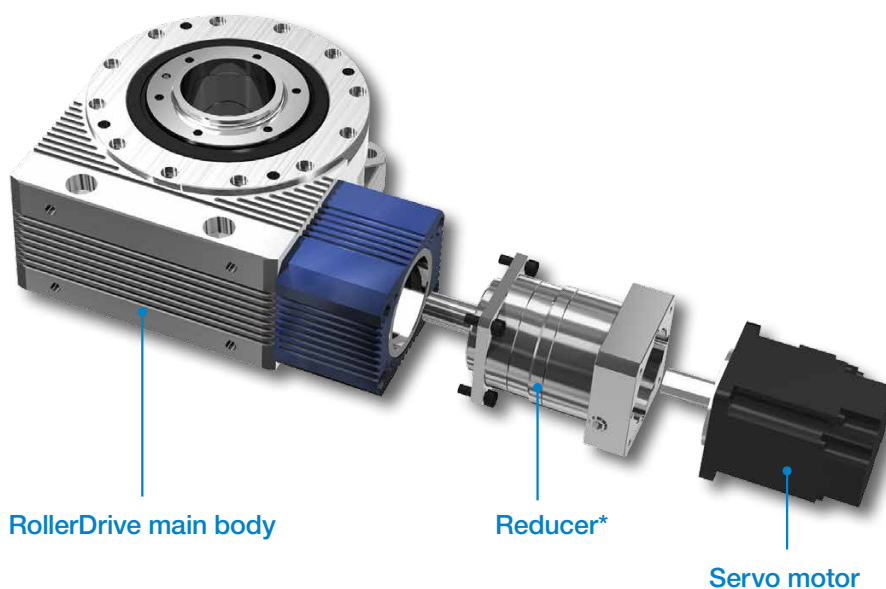
# **RollerDrive® RGV series**

*Zero-backlash positioner Standard model*



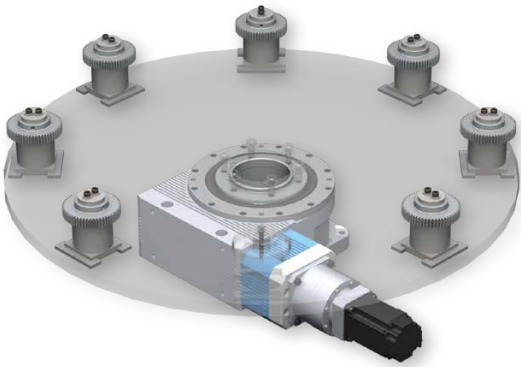
## **Features**

- ▶ Varied lineup of reduction ratios and sizes
- ▶ Large output torque from a compact servo motor
- ▶ Capable of handling heavy and uneven loads easily
- ▶ Lightweight and compact

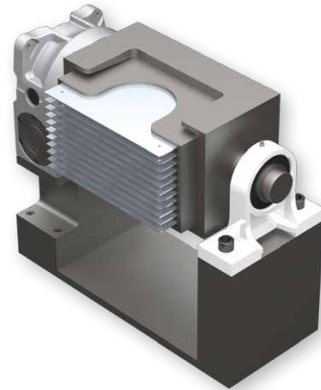


\*For high gear ratio model

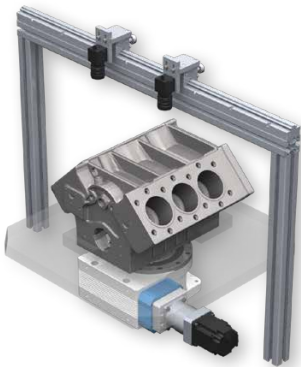
## Applications



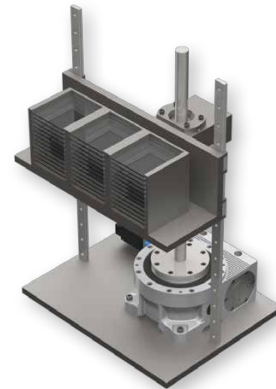
Index table



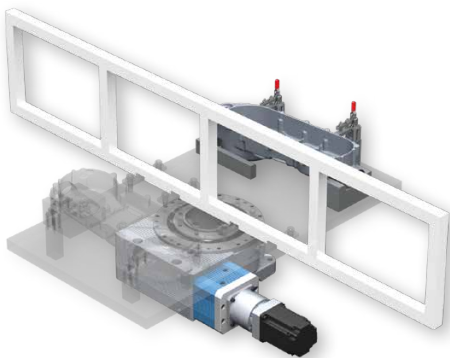
Cradle drive



Workpiece positioner



Ball screw drive



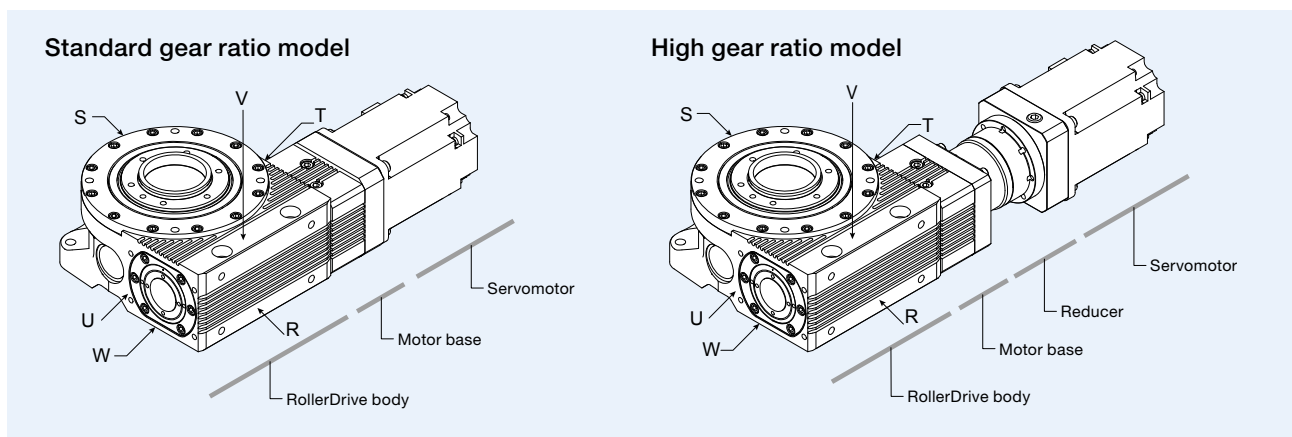
Turntable

# Product Code

## Product Code

1	2	3	4	5	6	7
RGV	063	072	G	T	A	BJC
1	2	3	4	5	6	7
Model	Size	Gear ratio	Lubrication method	Servomotor position	Options	Attachment code
RGV	040	015, 045, 075	G : Greaselubrication Usable in any position /direction  For oil lubrication: 1/2/3/4/5/6 See oil lubrication mounting codes below	T : Standard Mounted on right side of main unit  U : Mounted on left side of main unit	Blank : None A : Rustproof specification B : Rustproof/dustproof/waterproof specification	See the list of mountable motors for each size ⇒ P. 19 to 28
	063					
	080					
	100					
	125					

## RollerDrive components and mounting surface designations



\* Shown with servomotor on "T" surface

## Oil lubrication mounting codes

1	2	3	4	5	6
W surface toward bottom	V surface toward bottom	U surface toward bottom	T surface toward bottom	R surface toward bottom	S surface toward bottom

# Product Specifications

## Grease lubrication type

Model		RGV040			RGV063					
Main unit gear ratio		15			12			24		
Reducer gear ratio		—	3	5	—	3	5	—	3	5
Total gear ratio		15	45	75	12	36	60	24	72	120
Start / Stop limit torque	N · m	67			64.2			109.8		
Static output torque	N · m	100			87			184		
Maximum input speed	min <sup>-1</sup>	1,800	5,400	6,000	1,200	3,600	6,000	1,600	4,800	6,000
Rated input speed	min <sup>-1</sup>	900	2,700	3,000	600	1,800	3,000	800	2,400	3,000
Maximum output speed <sup>*1</sup>	min <sup>-1</sup>	120		80	100			66.7		50
Rated output speed <sup>*1</sup>	min <sup>-1</sup>	60		40	50			33.3		25
Internal moment of inertia at the input shaft <sup>*2</sup>	× 10 <sup>-4</sup> kg · m <sup>2</sup>	0.243			0.851			0.642		
Equivalent moment of inertia of motor shaft <sup>*3</sup>	× 10 <sup>-4</sup> kg · m <sup>2</sup>	0.39	0.21	0.16	1.68	0.44	0.26	1.47	0.41	0.25
Repeatability <sup>*4</sup>	arc sec or less	± 10			± 7					
Allowable axial load (load weight)	N	1,155			2,988			3,486		
Allowable radial load	N	766			2,642			3,082		
Allowable moment load	N · m	42			160			176		
Weight (not including motor) <sup>*5</sup>	kg	4.3	4.9		8.3	9.7		8.3	9.7	

Model		RGV080						RGV100						RGV125								
Main unit gear ratio		12			24			12			24			12			24					
Reducer gear ratio		—	3	5	—	3	5	—	3	5	—	3	5	—	3	5	—	3	5			
Total gear ratio		12	36	60	24	72	120	12	36	60	24	72	120	12	36	60	24	72	120			
Start / Stop limit torque	N · m	108.6			183.8			269.5			457			453.2			771.8					
Static output torque	N · m	155			323			374.5			782			632			1,326					
Maximum input speed	min <sup>-1</sup>	1,100	3,300	5,500	1,400	4,200	6,000	1,000	3,000	5,000	1,300	3,900	6,000	900	2,700	4,500	1,200	3,600	6,000			
Rated input speed	min <sup>-1</sup>	550	1,650	2,750	700	2,100	3,000	500	1,500	2,500	650	1,950	3,000	450	1,350	2,250	600	1,800	3,000			
Maximum output speed <sup>*1</sup>	min <sup>-1</sup>	91.7			58.3			50			83.3			54.2			50			75		
Rated output speed <sup>*1</sup>	min <sup>-1</sup>	45.8			29.2			25			41.7			27.1			25			37.5		
Internal moment of inertia at the input shaft <sup>*2</sup>	× 10 <sup>-4</sup> kg · m <sup>2</sup>	2.843			2.237			7.031			5.248			18.799			13.539					
Equivalent moment of inertia of motor shaft <sup>*3</sup>	× 10 <sup>-4</sup> kg · m <sup>2</sup>	3.67	0.66	0.34	3.07	0.59	0.31	9.23	3.92	1.17	7.45	3.72	1.10	26.60	5.85	3.66	21.34	5.27	3.45			
Repeatability <sup>*4</sup>	arc sec or less	± 5						± 5						± 5								
Allowable axial load (load weight)	N	3,687			4,015			4,118			4,242			7,510			8,301					
Allowable radial load	N	3,192			3,546			3,496			3,741			6,624			7,321					
Allowable moment load	N · m	253			278			446			520			1,005			1,164					
Weight (not including motor) <sup>*5</sup>	kg	15.2	16.3		15.2	16.3		26.1	29.0		26.1	29.0		44.9	48.8		44.9	48.8				

\*1 Contact Sankyo in the case of output with continuous rotation at 360 degrees or more.

\*2 Does not include coupling and reducer.

\*3 Maximum value may vary depending on motor specifications.

\*4 Indicates the accuracy for the main unit without the reducer.

\*5 May vary slightly depending on reduction ratio and motor specifications/dimensions.

# Product Specifications

## Oil lubrication type

Model		RGV040			RGV063					
Main unit gear ratio		15			12			24		
Reducer gear ratio		—	3	5	—	3	5	—	3	5
Total gear ratio		15	45	75	12	36	60	24	72	120
Start / Stop limit torque	N · m	82			79			135.2		
Static output torque	N · m	100			87			184		
Maximum input speed	min <sup>-1</sup>	2,400	6,000		2,600	6,000		2,600	6,000	
Rated input speed	min <sup>-1</sup>	1,200	3,000		1,300	3,000		1,300	3,000	
Maximum output speed <sup>*1</sup>	min <sup>-1</sup>	160	133.3	80	216.7	166.7	100	108.3	83.3	50
Rated output speed <sup>*1</sup>	min <sup>-1</sup>	80	66.7	40	108.3	83.3	50	54.2	41.7	25
Internal moment of inertia at the input shaft <sup>*2</sup>	× 10 <sup>4</sup> kg · m <sup>2</sup>	0.243			0.851			0.642		
Equivalent moment of inertia of motor shaft <sup>*3</sup>	× 10 <sup>4</sup> kg · m <sup>2</sup>	0.39	0.21	0.16	1.68	0.44	0.26	1.47	0.41	0.25
Repeatability <sup>*4</sup>	arc sec or less	± 10			± 7					
Allowable axial load (load weight)	N	1,155			2,988			3,486		
Allowable radial load	N	766			2,642			3,082		
Allowable moment load	N · m	42			160			176		
Weight (not including motor) <sup>*5</sup>	kg	4.3	4.9		8.3	9.7		8.3	9.7	

Model		RGV080						RGV100						RGV125					
Main unit gear ratio		12			24			12			24			12			24		
Reducer gear ratio		—	3	5	—	3	5	—	3	5	—	3	5	—	3	5	—	3	5
Total gear ratio		12	36	60	24	72	120	12	36	60	24	72	120	12	36	60	24	72	120
Start / Stop limit torque	N · m	133.7			226.2			331.8			562.3			557.9			950.2		
Static output torque	N · m	155			323			374.5			782			632			1,326		
Maximum input speed	min <sup>-1</sup>	2,200	6,000		2,200	6,000		2,000	6,000		2,000	6,000		1,920	5,760	6,000	1,920	5,760	6,000
Rated input speed	min <sup>-1</sup>	1,100	3,000		1,100	3,000		1,000	3,000		1,000	3,000		960	2,880	3,000	960	2,880	3,000
Maximum output speed <sup>*1</sup>	min <sup>-1</sup>	183.3	166.7	100	91.7	83.3	50	166.7	100	83.3	50	160	100	80	50	160	100	80	50
Rated output speed <sup>*1</sup>	min <sup>-1</sup>	91.7	83.3	50	45.8	41.7	25	83.3	50	41.7	25	80	50	40	25	80	50	40	25
Internal moment of inertia at the input shaft <sup>*2</sup>	× 10 <sup>4</sup> kg · m <sup>2</sup>	2.843			2.237			7.031			5.248			18.799			13.539		
Equivalent moment of inertia of motor shaft <sup>*3</sup>	× 10 <sup>4</sup> kg · m <sup>2</sup>	3.67	0.66	0.34	3.07	0.59	0.31	9.23	3.92	1.17	7.45	3.72	1.10	26.60	5.85	3.66	21.34	5.27	3.45
Repeatability <sup>*4</sup>	arc sec or less	± 5						± 5						± 5					
Allowable axial load (load weight)	N	3,687			4,015			4,118			4,242			7,510			8,301		
Allowable radial load	N	3,192			3,546			3,496			3,741			6,624			7,321		
Allowable moment load	N · m	253			278			446			520			1,005			1,164		
Weight (not including motor) <sup>*5</sup>	kg	15.2	16.3		15.2	16.3		26.1	29.0		26.1	29.0		44.9	48.8		44.9	48.8	

\*1 Contact Sankyo in the case of output with continuous rotation at 360 degrees or more.

\*2 Does not include coupling and reducer.

\*3 Maximum value may vary depending on motor specifications.

\*4 Indicates the accuracy for the main unit without the reducer.

\*5 May vary slightly depending on reduction ratio and motor specifications/dimensions.

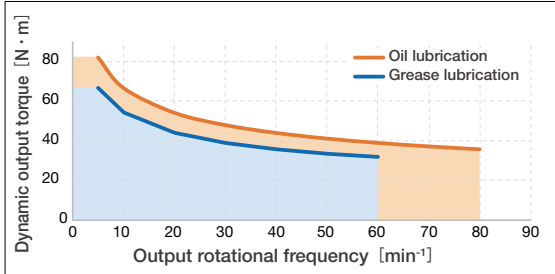


## Dynamic output torque

The limit for the load torque acting on the output shaft is indicated to satisfy the expected lifetime (12,000 hours) of the RollerDrive. Dynamic output torque varies according to the output rotational frequency.

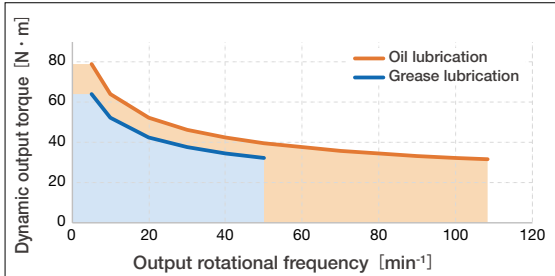
### RGV040

Gear ratio=15

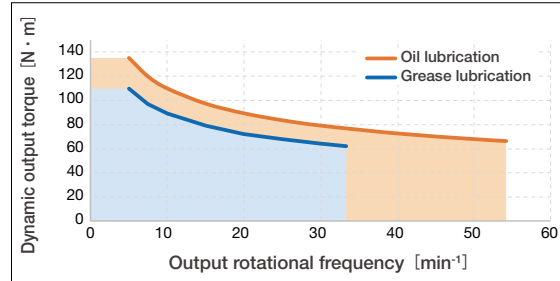


### RGV063

Gear ratio=12

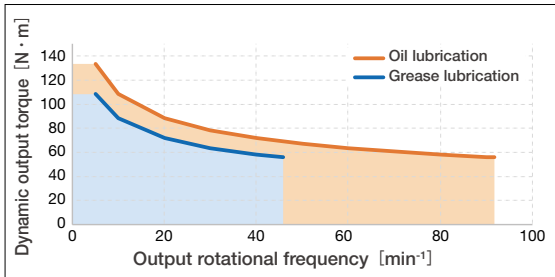


Gear ratio=24

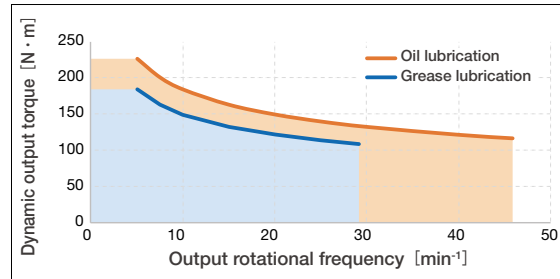


### RGV080

Gear ratio=12

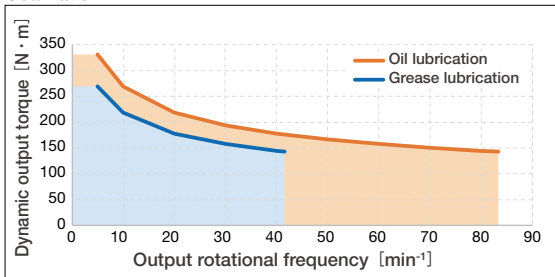


Gear ratio=24

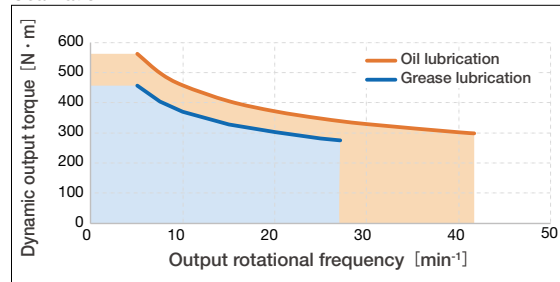


### RGV100

Gear ratio=12

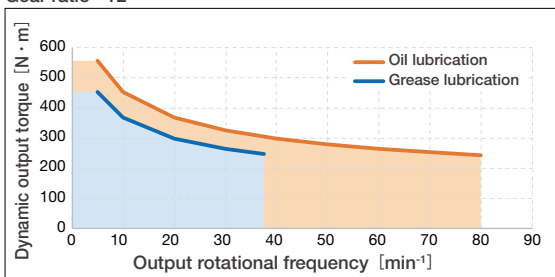


Gear ratio=24

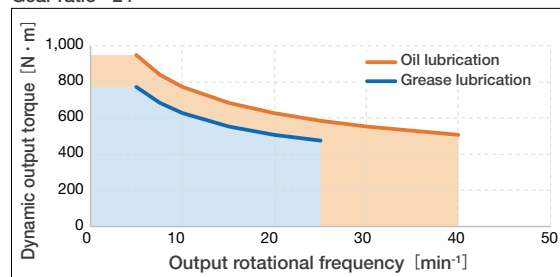


### RGV125

Gear ratio=12



Gear ratio=24



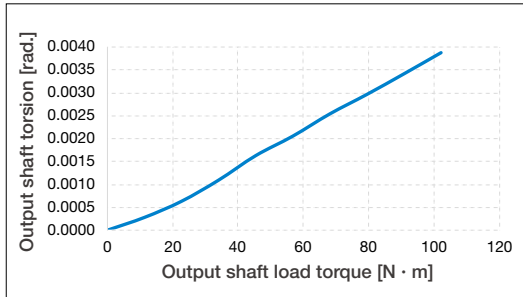




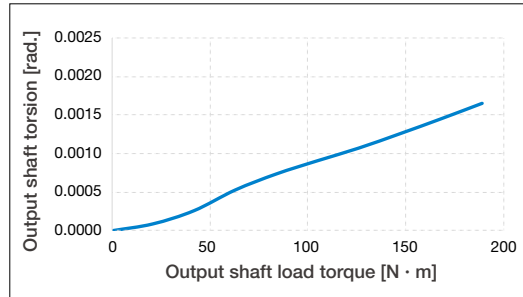
## Torsional Rigidity

Torsional rigidity is the degree of shaft torsion for the output shaft torque.  
Higher torsional rigidity means less torque deformation and higher natural frequency.

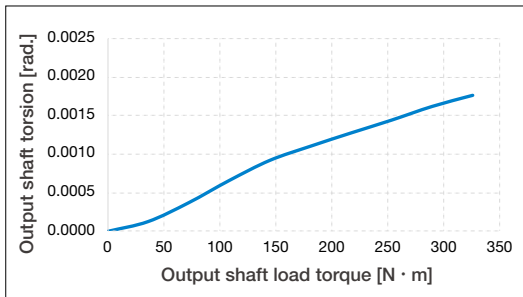
**RGV040**



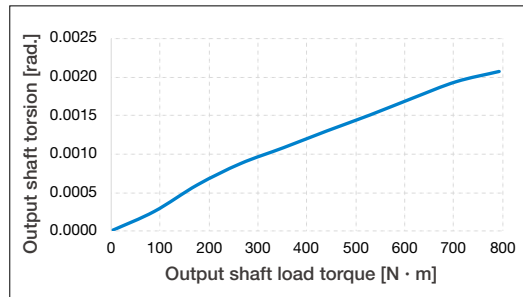
**RGV063**



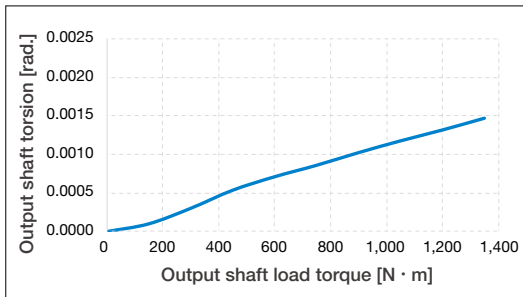
**RGV080**



**RGV100**

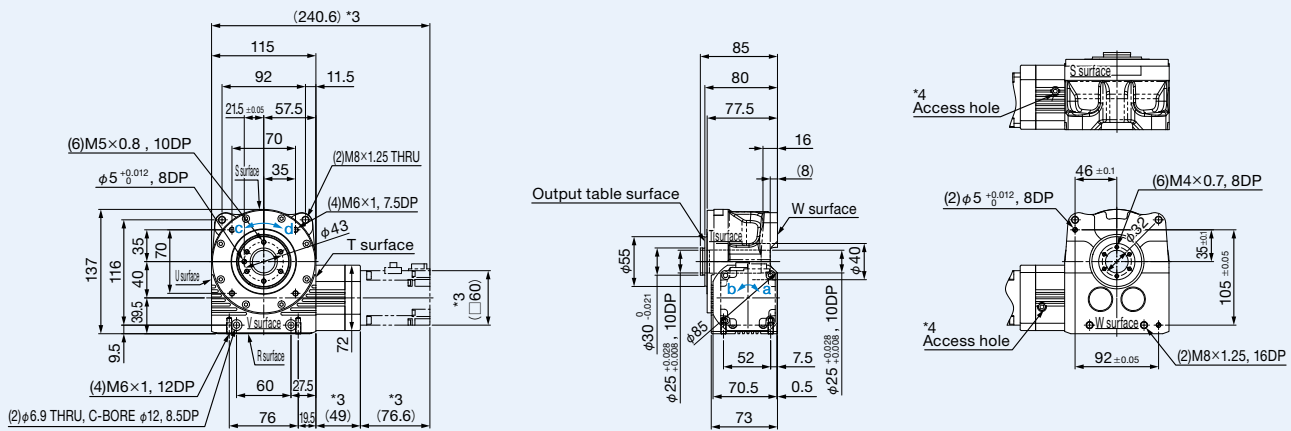


**RGV125**

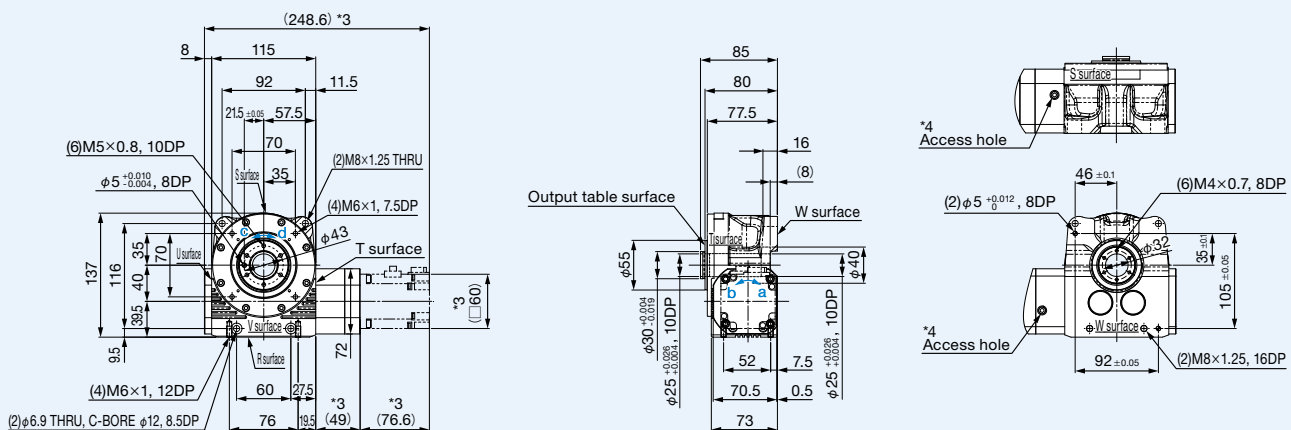


# RGV040 Dimensions of Standard Gear Ratio Models

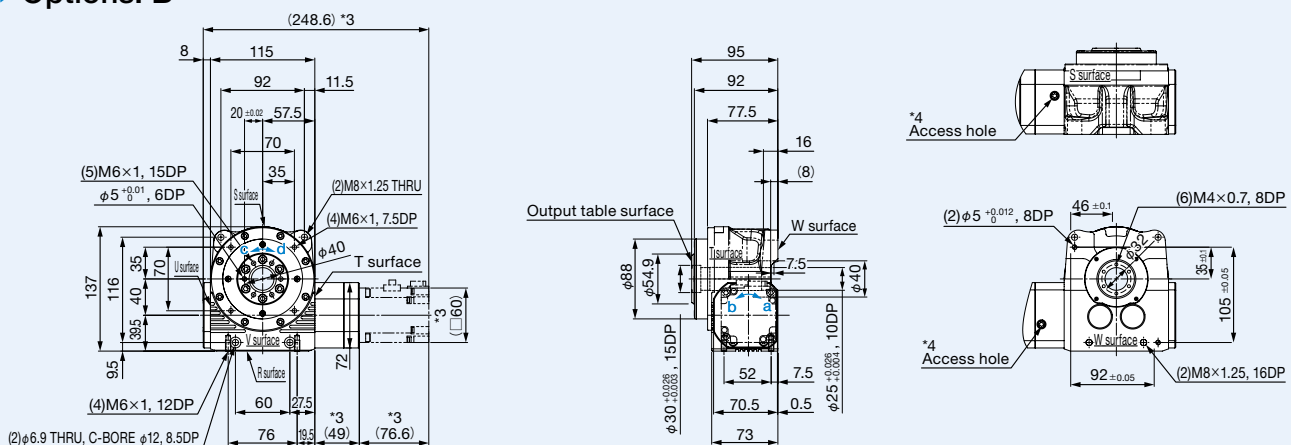
## Options: None



## Options: A



## Options: B



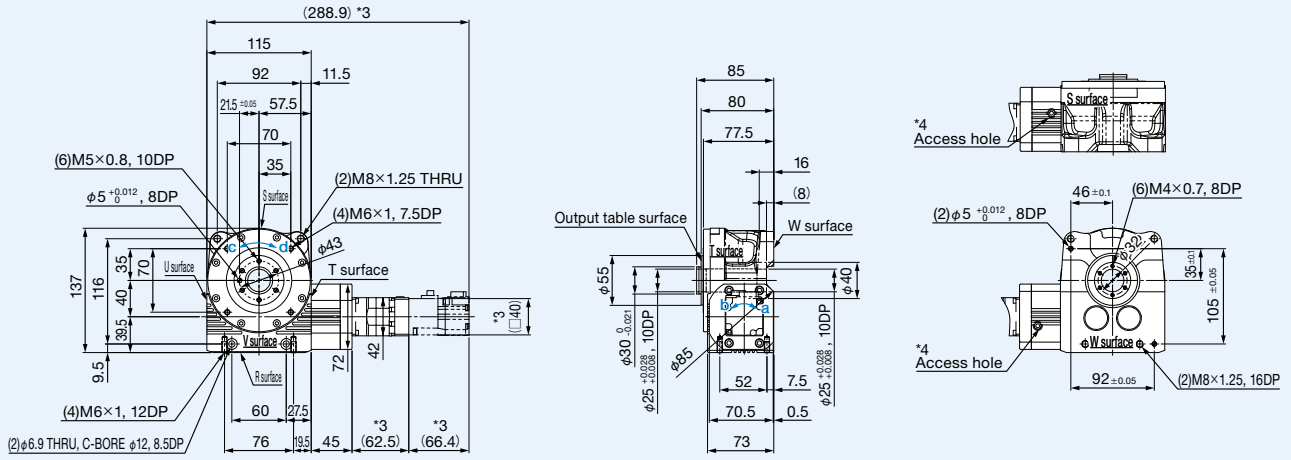
\*1 This drawing is for a model where the motor is mounted on the T surface. \*2 The rotating directions of input-output axes are related as a-d and b-c.

\*3 Dimensions in parentheses ( ) vary depending on the motor. \*4 There is one access hole on the S surface and one on the W surface.

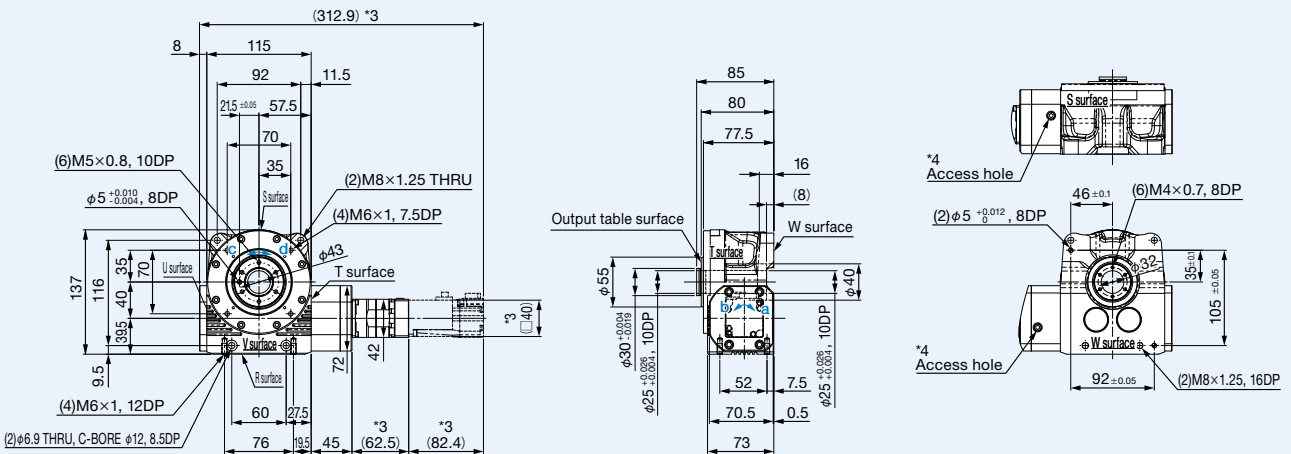
9 \*5 Due to its mounting position, the positions of the oil plug, oil level, and drain differ for the oil lubrication type. See P. 29. \*6 The servo motor will need to be prepared by the customer.

# RGV040 Dimensions of High Gear Ratio Models

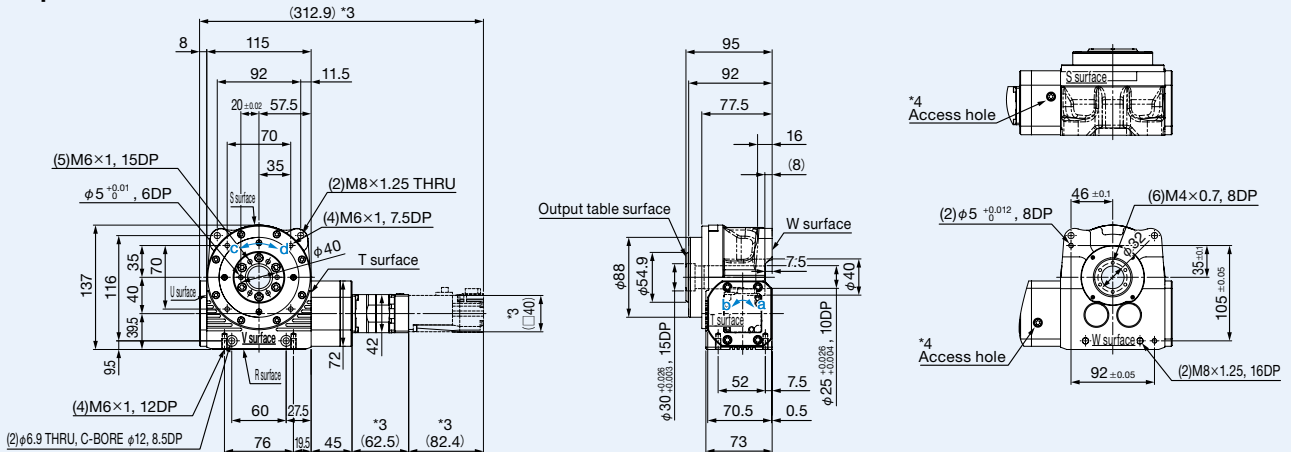
## Options: None



## Options: A



## Options: B



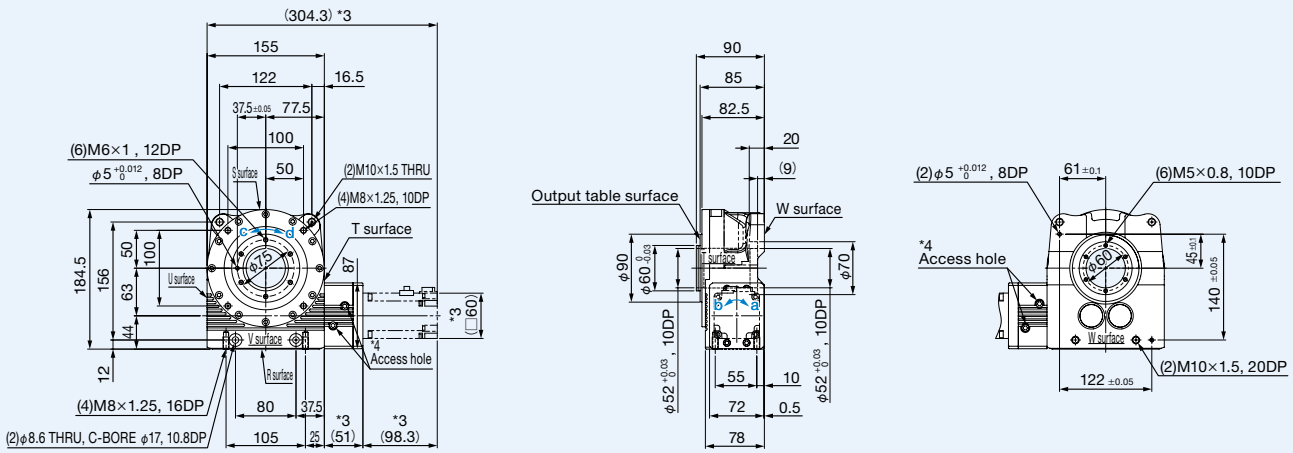
\*1 This drawing is for a model where the motor is mounted on the T surface. \*2 The rotating directions of input-output axes are related as a-d and b-c.

\*3 Dimensions in parentheses ( ) vary depending on the motor. \*4 There is one access hole on the S surface and one on the W surface.

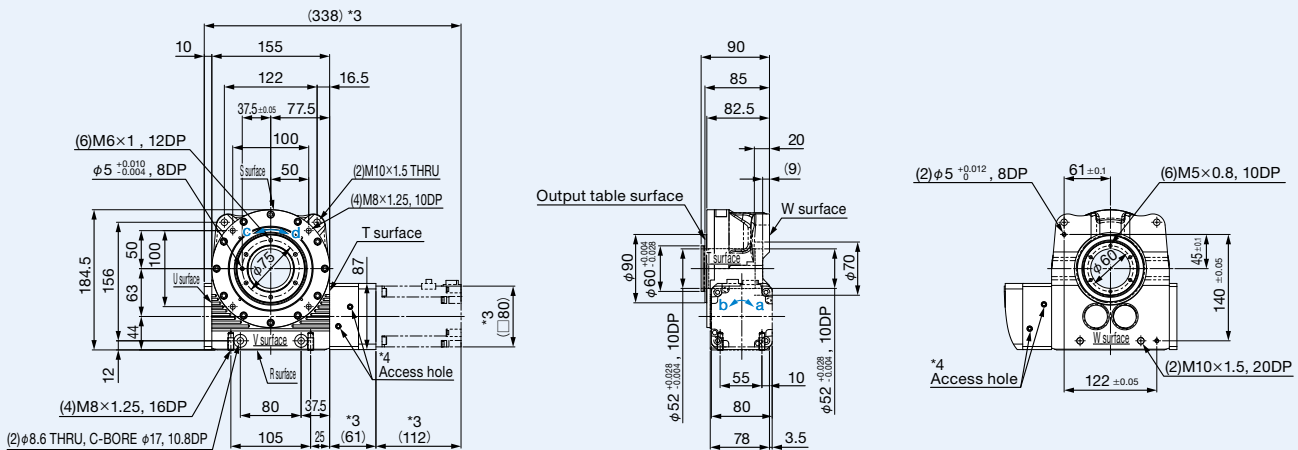
\*5 Due to its mounting position, the positions of the oil plug, oil level, and drain differ for the oil lubrication type. See P. 29. \*6 The servo motor will need to be prepared by the customer.

# RGV063 Dimensions of Standard Gear Ratio Models

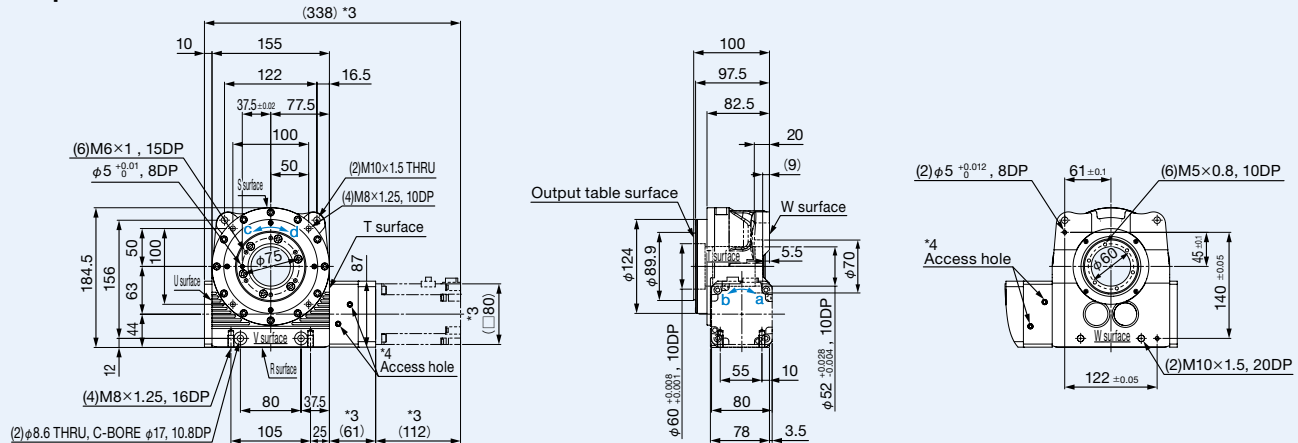
## Options: None



## Options: A



## Options: B



\*1 This drawing is for a model where the motor is mounted on the T surface. \*2 The rotating directions of input-output axes are related as a-d and b-c.

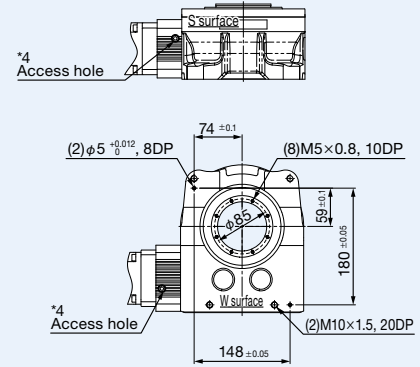
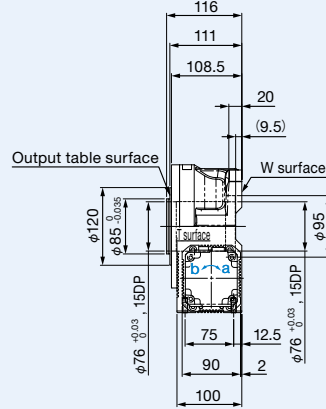
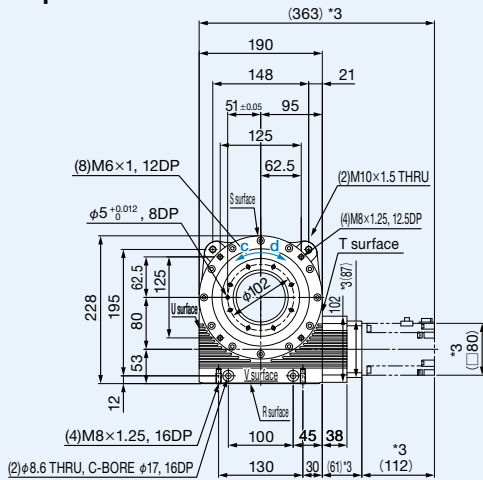
\*3 Dimensions in parentheses ( ) vary depending on the motor. \*4 There is one access holes on the V surface and one on the W surface.

11 \*5 Due to its mounting position, the positions of the oil plug, oil level, and drain differ for the oil lubrication type. See P. 29. \*6 The servo motor will need to be prepared by the customer.

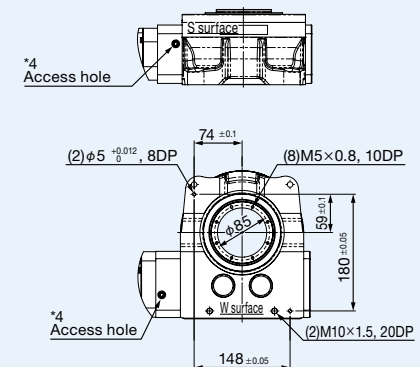
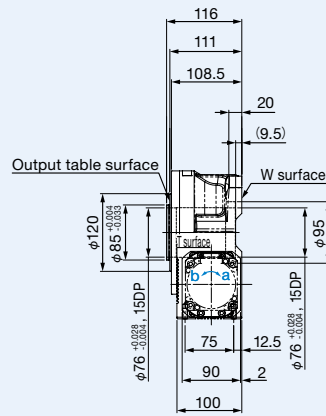
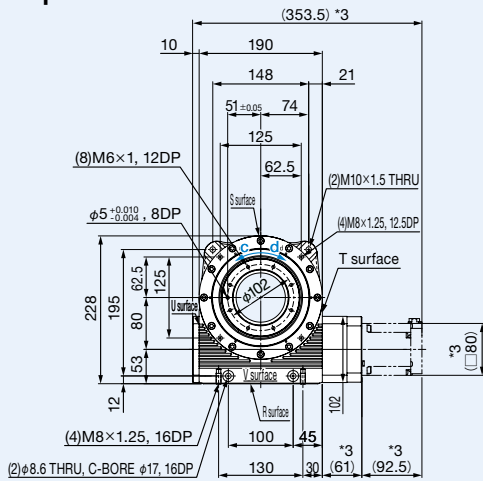


# RGV80 Dimensions of Standard Gear Ratio Models

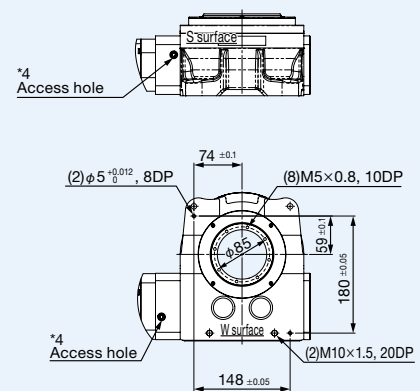
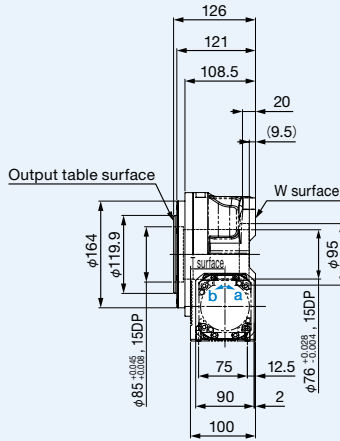
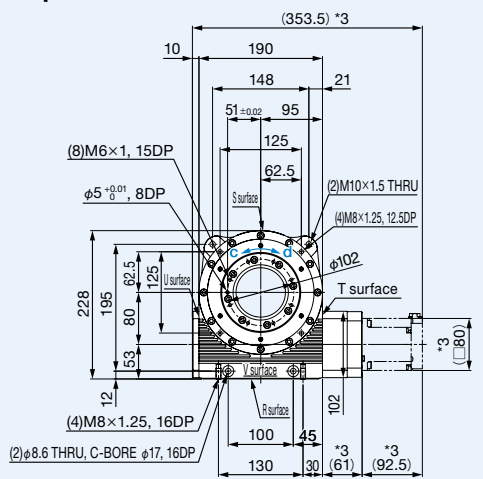
## Options: None



## Options: A



## Options: B

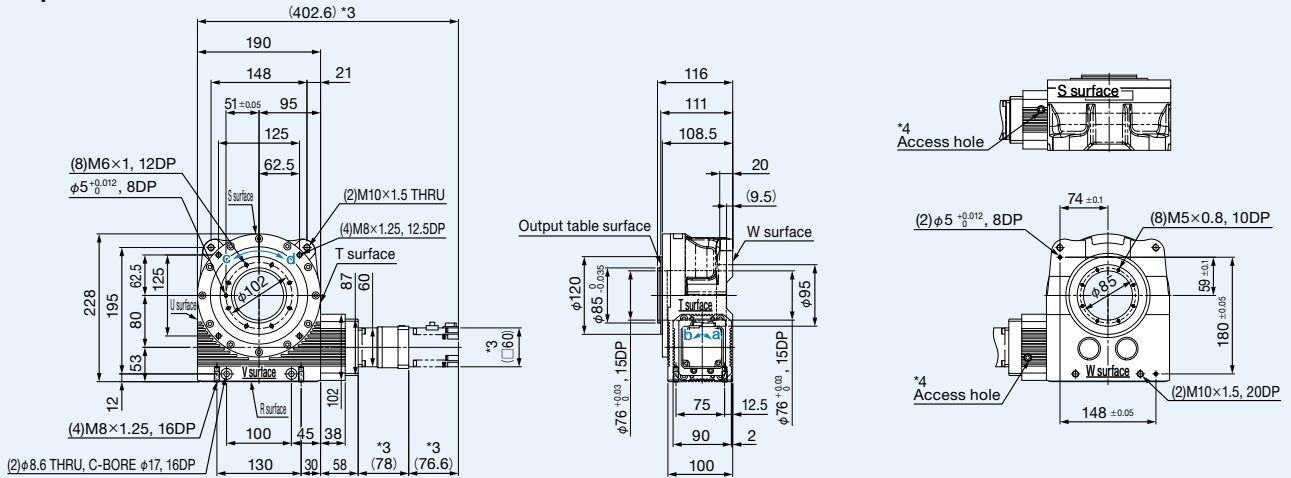


\*1 This drawing is for a model where the motor is mounted on the T surface. \*2 The rotating directions of input-output axes are related as a-d and b-c.

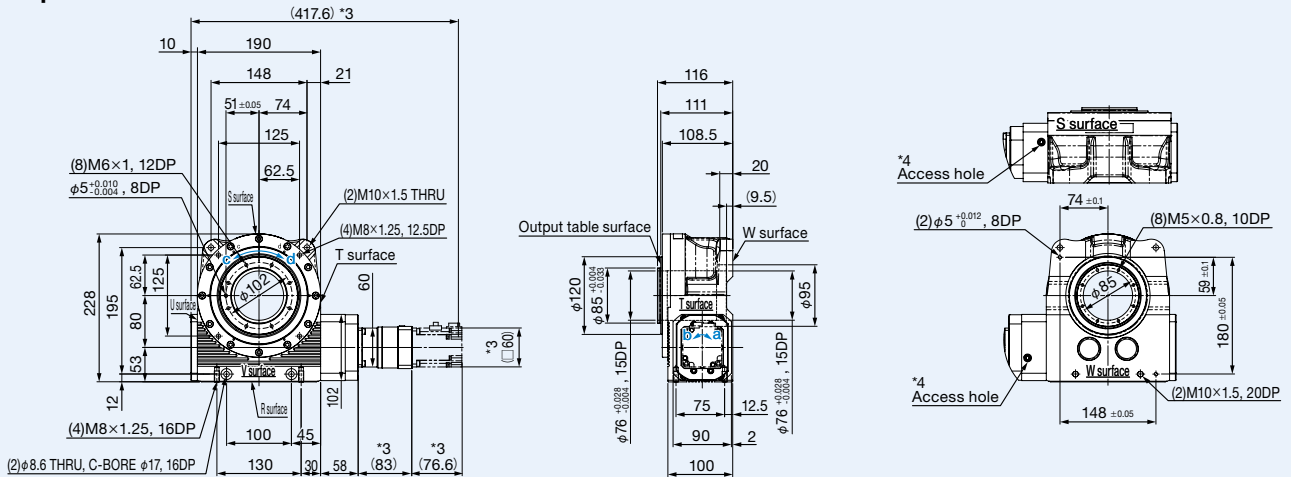
\*3 Dimensions in parentheses ( ) vary depending on the motor. \*4 There is one access hole on the S surface and one on the W surface.

# RGV80 Dimensions of High Gear Ratio Models

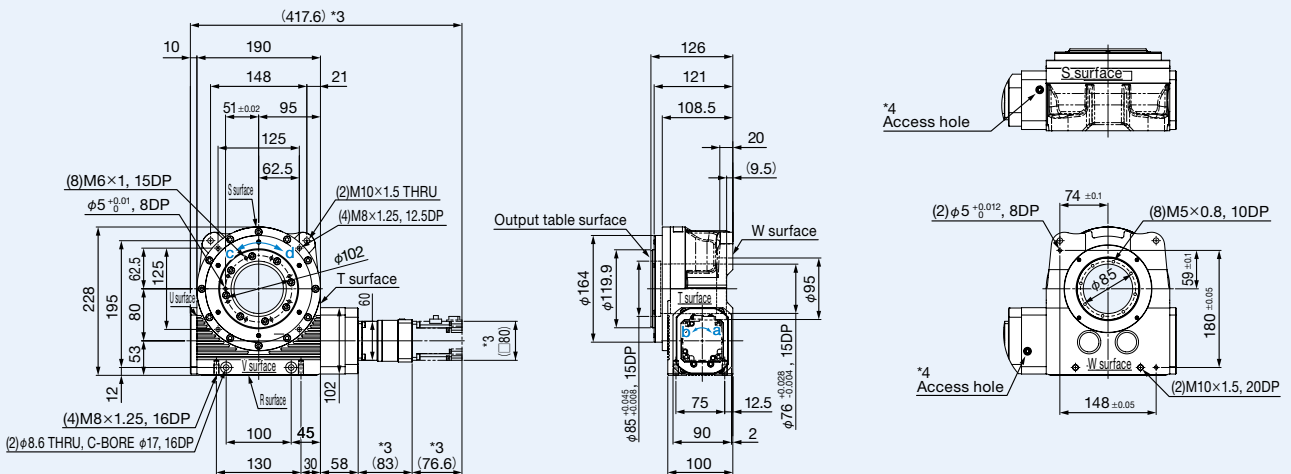
## Options: None



## Options: A



## Options: B



\*1 This drawing is for a model where the motor is mounted on the T surface. \*2 The rotating directions of input-output axes are related as a-d and b-c.

\*3 Dimensions in parentheses ( ) vary depending on the motor. \*4 There is one access hole on the S surface and one on the W surface.

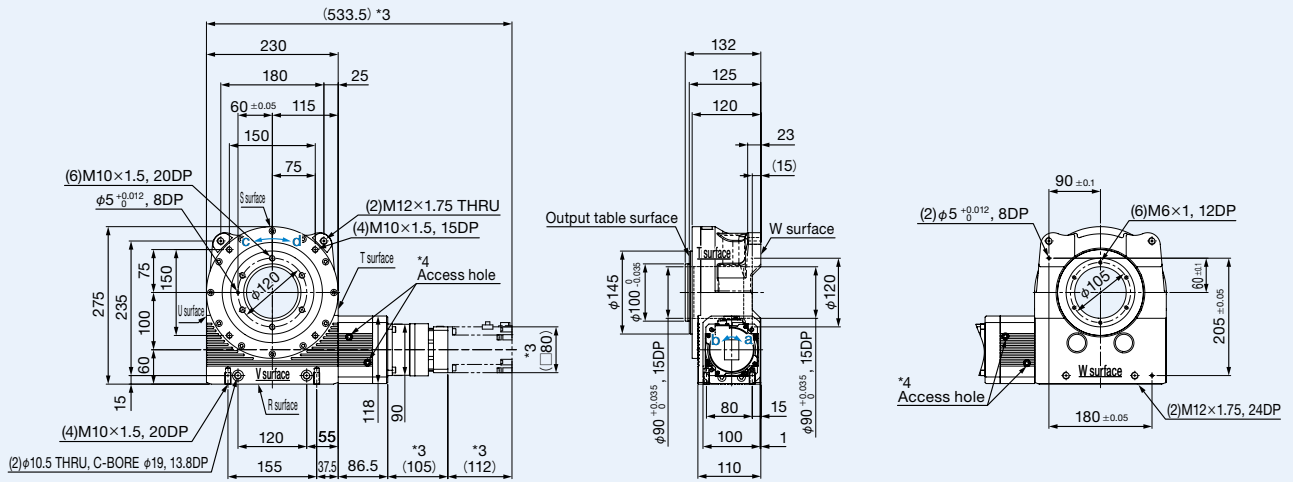
\*5 Due to its mounting position, the positions of the oil plug, oil level, and drain differ for the oil lubrication type. See P. 29. \*6 The servo motor will need to be prepared by the customer.



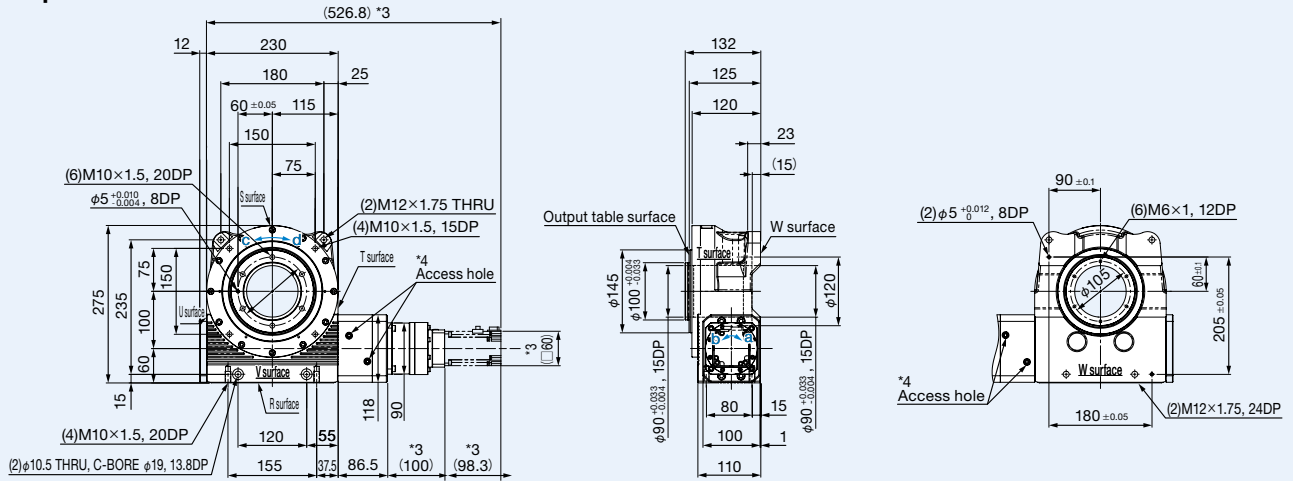


# RGV100 Dimensions of High Gear Ratio Models

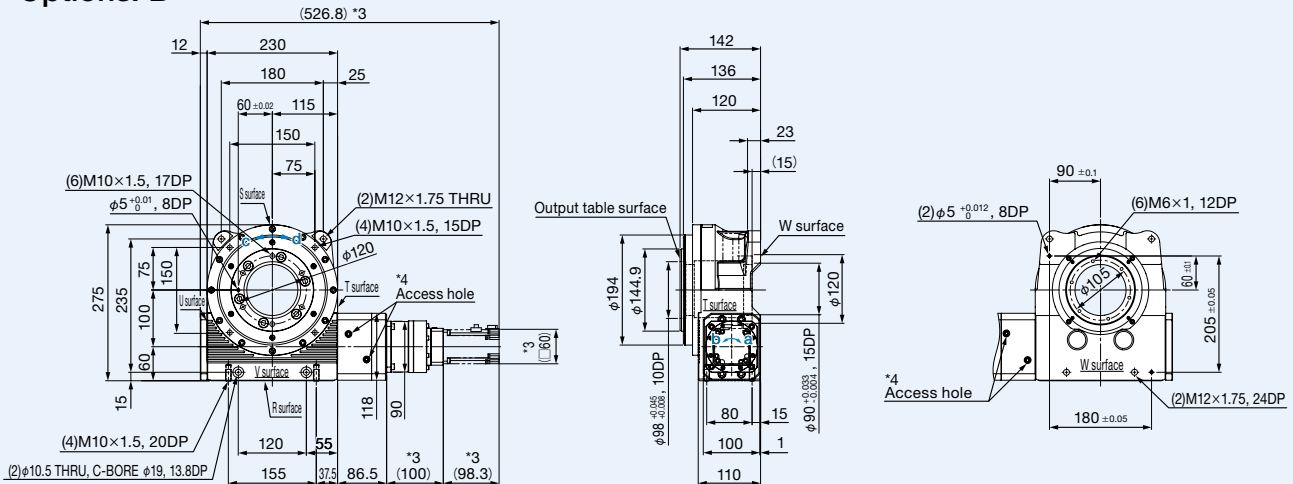
## Options: None



## Options: A



## Options: B



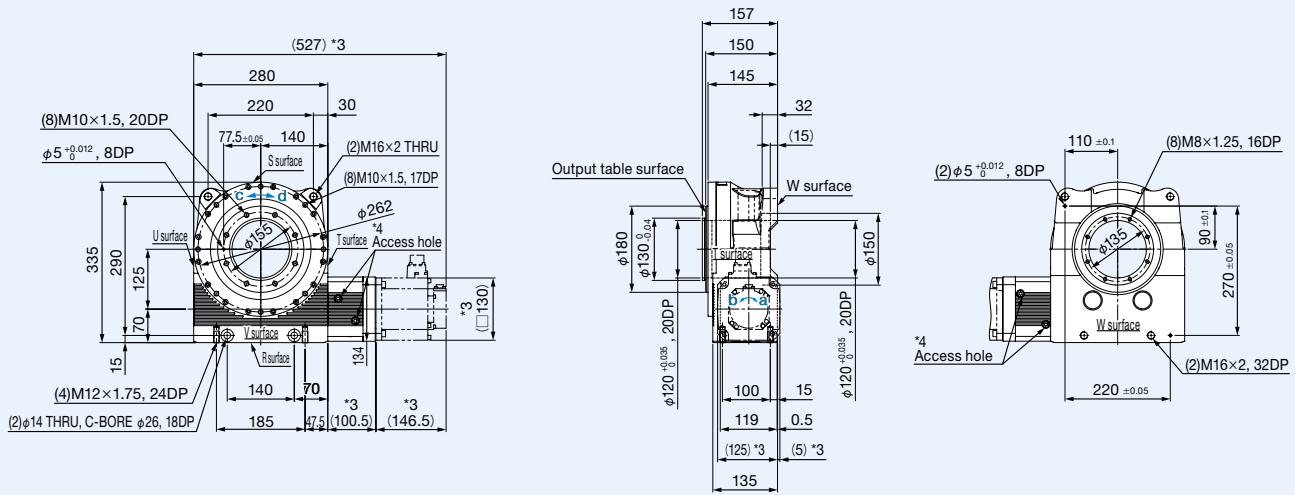
\*1 This drawing is for a model where the motor is mounted on the T surface. \*2 The rotating directions of input-output axes are related as a-d and b-c.

\*3 Dimensions in parentheses ( ) vary depending on the motor. \*4 There is one access holes on the V surface and one on the W surface.

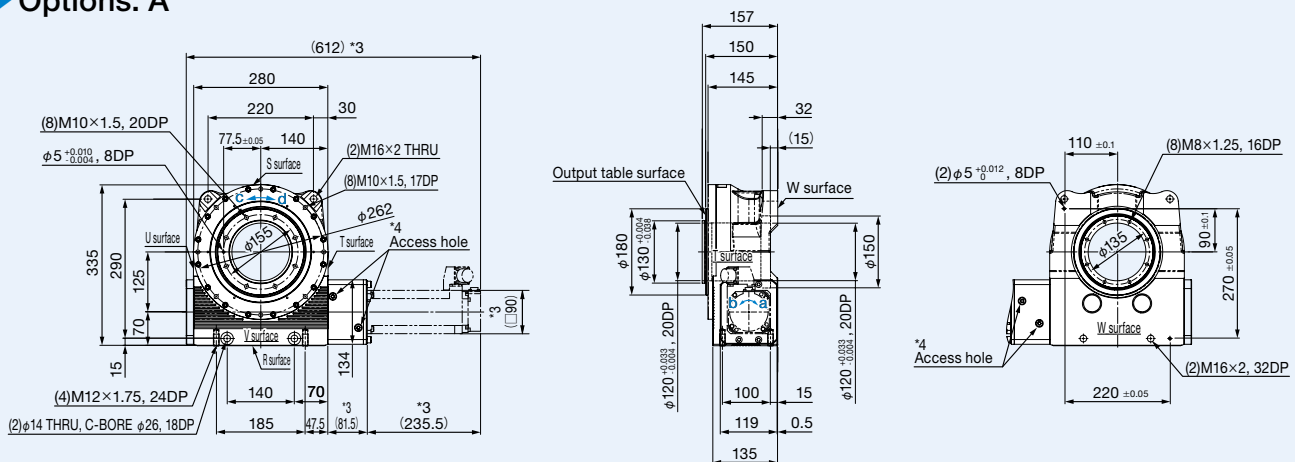
\*5 Due to its mounting position, the positions of the oil plug, oil level, and drain differ for the oil lubrication type. See P. 29. \*6 The servo motor will need to be prepared by the customer.

# RGV125 Dimensions of Standard Gear Ratio Models

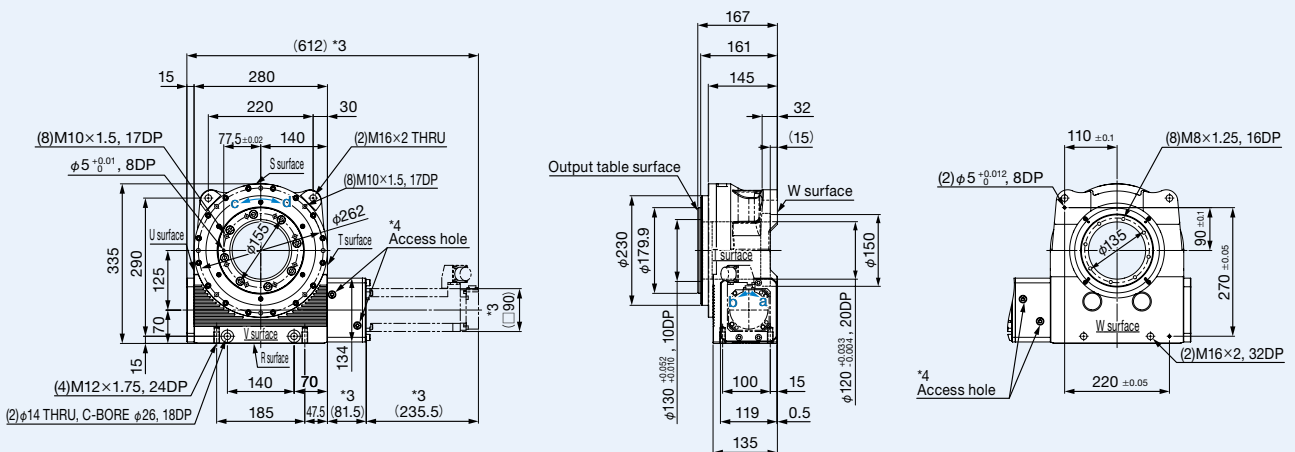
## Options: None



## Options: A



## Options: B



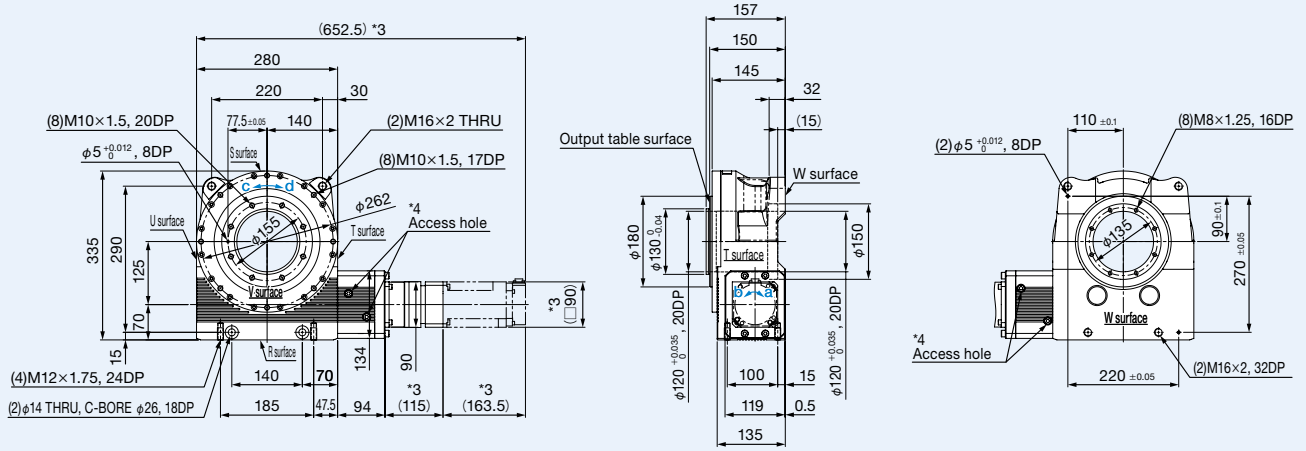
\*1 This drawing is for a model where the motor is mounted on the T surface. \*2 The rotating directions of input-output axes are related as a-d and b-c.

\*3 Dimensions in parentheses ( ) vary depending on the motor. \*4 There is one access holes on the V surface and one on the W surface.

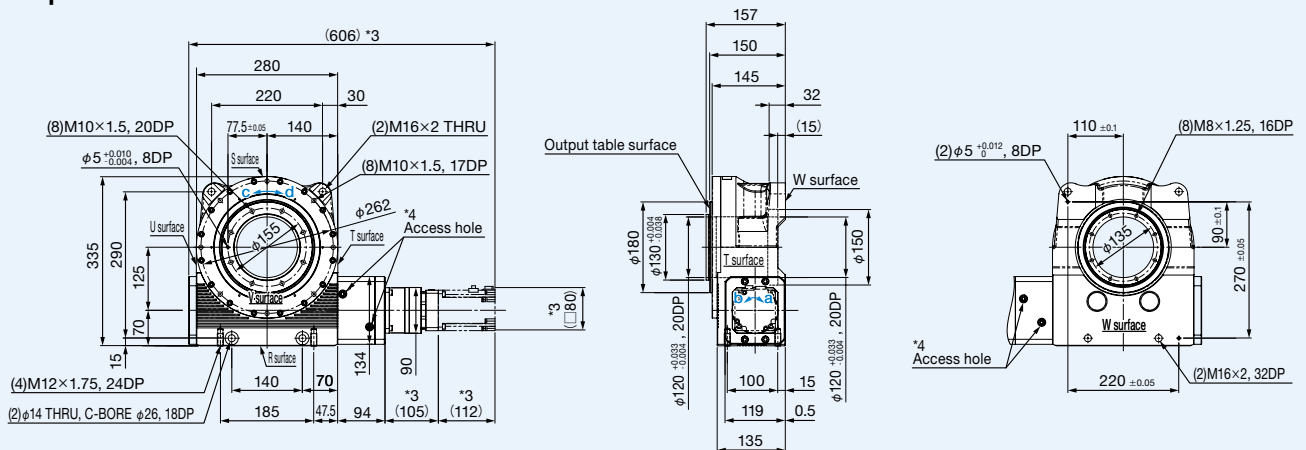
17 \*5 Due to its mounting position, the positions of the oil plug, oil level, and drain differ for the oil lubrication type. See P. 29. \*6 The servo motor will need to be prepared by the customer.

# RGV125 Dimensions of High Gear Ratio Models

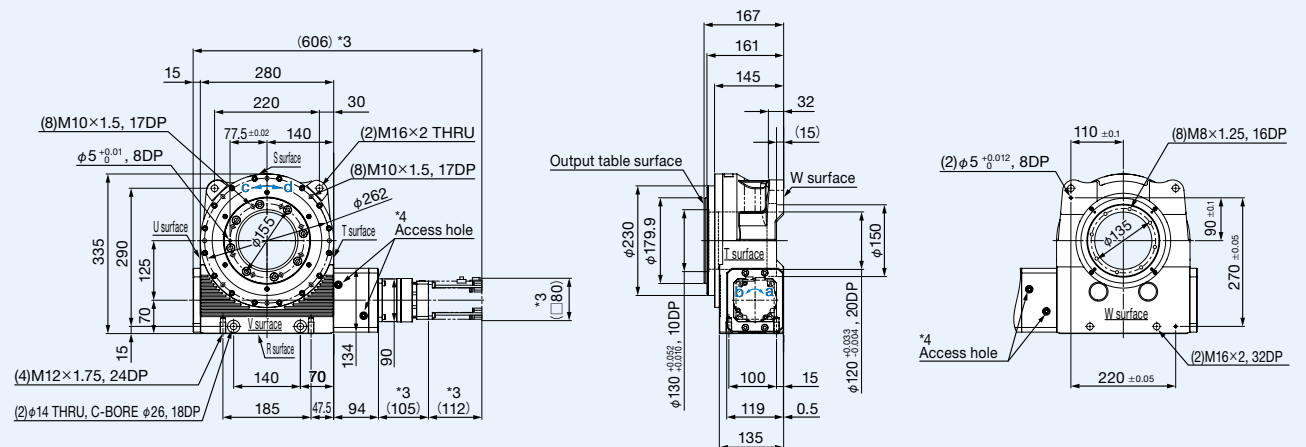
## Options: None



## Options: A



## Options: B



\*1 This drawing is for a model where the motor is mounted on the T surface. \*2 The rotating directions of input-output axes are related as a-d and b-c.

\*3 Dimensions in parentheses ( ) vary depending on the motor. \*4 There is one access holes on the V surface and one on the W surface.

\*5 Due to its mounting position, the positions of the oil plug, oil level, and drain differ for the oil lubrication type. See P. 29. \*6 The servo motor will need to be prepared by the customer.



# List of Mountable Servo Motors

## RGV040 Standard gear ratio model [Gear ratio = 15]

Manufacturer	Series	Model	Motor capacity [kW]	Motor rated torque [N · m]	Motor max. torque [N · m]	Rated rotation speed [min <sup>-1</sup> ]	Motor inertia [ $\times 10^{-4}$ kg · m <sup>2</sup> ]	Attachment code	Corresponding reduction ratio
OMRON	G	R88M-G40030H, T	0.4	1.3	3.67	3,000	0.26	CD	○
	G5	R88M-K40030H, T	0.4	1.3	3.8	3,000	0.26	CD	○
KEYENCE	SV	SV-M040	0.4	1.27	4.46	3,000	0.442	DD	○
	SV2	SV2-M040A	0.4	1.27	4.46	3,000	0.486	DD	○
Panasonic	MINAS_A5	MSMD042G1	0.4	1.3	3.8	3,000	0.26	CD	○
		MHMD042G1	0.4	1.3	3.8	3,000	0.67	CD	○
		MSME042G1	0.4	1.3	3.8	3,000	0.26	CD	○
	MINAS_A6	MSMF042L1	0.4	1.27	3.82	3,000	0.27	CD	○
MHMF042L1		0.4	1.27	4.46	3,000	0.56	CD	○	
FANUC	$\beta$ is	$\beta$ iS1/6000	0.5	1.2	5	6,000	0.34	DD	○
Mitsubishi Electric	J4	HG-MR43	0.4	1.3	3.8	3,000	0.142	DD	○
		HG-KR43	0.4	1.3	4.5	3,000	0.371	DD	○
	J5	HK-KT43W	0.4	1.3	4.5	3,000	0.41	DD	○
		HK-KT63W	0.6	1.9	6.7	3,000	0.598	DD	▲
		HK-KT434W	0.2	1.3	4.5	1,500	0.41	DD	○
HK-KT634W	0.3	1.9	6.7	1,500	0.598	DD	▲		
Yaskawa Electric	$\Sigma$ -7	SGM7J-04A	0.4	1.27	4.46	3,000	0.486	DD	○
		SGM7J-06A	0.6	1.91	6.69	3,000	0.8	DD	▲
		SGM7A-04A	0.4	1.27	4.46	3,000	0.216	DD	○
		SGM7A-06A	0.6	1.91	6.69	3,000	0.315	DD	▲
Sanyo Denki	R2	R2AA06040H	0.4	1.27	4.8	3,000	0.412	DD	○
		R2AA06040F	0.4	1.27	4.8	3,000	0.412	DD	○
	R5	R5AA06040H	0.4	1.27	4.8	3,000	0.414	DD	○
		R5AA06040F	0.4	1.27	4.8	3,000	0.414	DD	○

\*1 The customer will be responsible for preparing a servo motor with no keyway.

\*2 Contact Sanyo for servo motors with brakes or with oil seals.

\*3 "▲" indicates usability with the maximum torque limit applied to the servo motor. See "Servo motor torque limit" on page 32 for more information.

## RGV040 High gear ratio model [Gear ratio = 45, 75]

Manufacturer	Series	Model	Motor capacity [kW]	Motor rated torque [N · m]	Motor max. torque [N · m]	Rated rotation speed [min <sup>-1</sup> ]	Motor inertia [ $\times 10^{-4}$ kg · m <sup>2</sup> ]	Attachment code	Corresponding reduction ratio
OMRON	G	R88M-G10030H, T	0.1	0.32	0.9	3,000	0.051	ZG	- ○
		R88M-G20030H, T	0.2	0.64	1.78	3,000	0.14	BJC	○ -
	G5	R88M-K10030H, T	0.1	0.32	0.95	3,000	0.051	ZG	- ○
		R88M-K20030H, T	0.2	0.64	1.91	3,000	0.14	BJC	○ -
KEYENCE	SV	SV-M010	0.1	0.318	1.11	3,000	0.0665	ZG	- ○
		SV-M020	0.2	0.637	2.23	3,000	0.259	BK	○ -
	SV2	SV2-M010A	0.1	0.318	1.11	3,000	0.0659	ZG	- ○
		SV2-M020A	0.2	0.637	2.23	3,000	0.263	BK	○ -
Panasonic	MINAS_A5	MSMD012G1	0.1	0.32	0.95	3,000	0.051	ZF	- ○
		MSMD022G1	0.2	0.64	1.91	3,000	0.14	BJC	○ -
		MHMD022G1	0.2	0.64	1.91	3,000	0.42	BJC	○ -
		MSME012G1	0.1	0.32	0.95	3,000	0.051	ZF	- ○
	MSME022G1	0.2	0.64	1.91	3,000	0.14	BJC	○ -	
	MINAS_A6	MSMF012L1	0.1	0.32	0.95	3,000	0.048	ZF	- ○
		MSMF022L1	0.2	0.64	1.91	3,000	0.14	BJC	○ -
		MHMF012L1	0.1	0.32	1.11	3,000	0.071	ZG	- ○
MHMF022L1		0.2	0.64	2.23	3,000	0.29	BJC	○ -	
FANUC	$\beta$ is	$\beta$ iS0.3/5000	0.1	0.32	0.96	4,000	0.034	ZH	- ○
		$\beta$ iS0.4/5000	0.13	0.4	1	4,000	0.1	BKA	- ○
Mitsubishi Electric	J4	HG-KR13	0.1	0.32	1.1	3,000	0.0777	ZG	- ○
		HG-KR23	0.2	0.64	2.2	3,000	0.221	BM	○ -
	J5	HK-KT13W	0.1	0.32	1.1	3,000	0.0686	ZG	- ○
		HK-KT1M3W	0.15	0.48	1.7	3,000	0.0977	ZG	○ ▲
		HK-KT23W	0.2	0.64	2.2	3,000	0.209	BM	○ -
Yaskawa Electric	$\Sigma$ -7	SGM7J-01A	0.1	0.318	1.11	3,000	0.0659	ZG	- ○
		SGM7J-C2A	0.15	0.477	1.67	3,000	0.0915	ZG	○ ▲
		SGM7J-02A	0.2	0.637	2.23	3,000	0.263	BK	○ -
		SGM7A-01A	0.1	0.318	1.11	3,000	0.0337	ZG	- ○
		SGM7A-C2A	0.15	0.477	1.67	3,000	0.0458	ZG	○ ▲
		SGM7A-02A	0.2	0.637	2.23	3,000	0.139	BK	○ -
		SGM7P-01A	0.1	0.318	0.955	3,000	0.0592	BE	- ○
Sanyo Denki	R2	R2AA04010F	0.1	0.318	1.18	3,000	0.0627	ZH	- ○
		R2AA06010F	0.1	0.318	1.13	3,000	0.117	BF	- ○
		R2AA06020F	0.2	0.637	2.2	3,000	0.219	BM	○ -
	R5	R5AA06020F	0.2	0.637	2.2	3,000	0.198	BM	○ -
		R5AA06020H	0.2	0.637	2.2	3,000	0.198	BM	○ -

\*1 The customer will be responsible for preparing a servo motor with no keyway.

\*2 Contact Sanyo for servo motors with brakes or with oil seals.

\*3 "▲" indicates usability with the maximum torque limit applied to the servo motor. See "Servo motor torque limit" on page 32 for more information.

**RGV063 Standard gear ratio model [Gear ratio = 12、24]**

Manufacturer	Series	Model	Motor capacity [kW]	Motor rated torque [N · m]	Motor max. torque [N · m]	Rated rotation speed [min <sup>-1</sup> ]	Motor inertia [ $\times 10^{-4}$ kg · m <sup>2</sup> ]	Attachment code	Corresponding reduction ratio	
									12	24
OMRON	G	R88M-G40030H, T	0.4	1.3	3.67	3,000	0.26	CD	-	○
		R88M-G75030H, T	0.75	2.4	7.05	3,000	0.87	GF	○	○
	G5	R88M-K40030H, T	0.4	1.3	3.8	3,000	0.26	CD	-	○
		R88M-K75030H, T	0.75	2.4	7.1	3,000	0.87	GF	○	○
KEYENCE	SV	SV-M040	0.4	1.27	4.46	3,000	0.442	DD	-	○
		SV-M075	0.75	2.39	8.36	3,000	1.57	FF	▲	▲
	SV2	SV2-M040A	0.4	1.27	4.46	3,000	0.486	DD	-	○
		SV2-M075A	0.75	2.39	8.36	3,000	1.59	FF	▲	▲
Panasonic	MINAS_A5	MSMD042G1	0.4	1.3	3.8	3,000	0.26	CD	-	○
		MSMD082G1	0.75	2.4	7.1	3,000	0.87	GF	○	○
		MHMD042G1	0.4	1.3	3.8	3,000	0.67	CD	-	○
		MHMD082G1	0.75	2.4	7.1	3,000	1.51	GF	○	○
		MSME042G1	0.4	1.3	3.8	3,000	0.26	CD	-	○
		MSME082G1	0.75	2.4	7.1	3,000	0.87	GF	○	○
	MINAS_A6	MSMF042L1	0.4	1.27	3.82	3,000	0.27	CD	-	○
		MSMF082L1	0.75	2.39	7.16	3,000	0.96	GF	○	○
		MHMF042L1	0.4	1.27	4.46	3,000	0.56	CD	-	○
		MHMF082L1	0.75	2.39	8.36	3,000	1.56	GF	▲	▲
Mitsubishi Electric	J4	HG-MR43	0.4	1.3	3.8	3,000	0.142	DD	-	○
		HG-MR73	0.75	2.4	7.2	3,000	0.586	FF	○	○
		HG-KR43	0.4	1.3	4.5	3,000	0.371	DD	-	○
		HG-KR73	0.75	2.4	8.4	3,000	1.26	FF	▲	▲
	J5	HK-KT43W	0.4	1.3	4.5	3,000	0.41	DD	-	○
		HK-KT63W	0.6	1.9	6.7	3,000	0.598	DD	○	○
		HK-KT43UW	0.4	1.3	4.5	3,000	0.726	ED	-	○
		HK-KT7M3W	0.75	2.4	8.4	3,000	1.37	FF	▲	▲
		HK-KT434W	0.2	1.3	4.5	1,500	0.41	DD	-	○
		HK-KT634W	0.3	1.9	6.7	1,500	0.598	DD	○	○
HK-KT7M34W	0.375	2.4	8.4	1,500	1.37	FF	▲	▲		
Yaskawa Electric	Σ -7	SGM7J-04A	0.4	1.27	4.46	3,000	0.486	DD	-	○
		SGM7J-06A	0.6	1.91	6.69	3,000	0.8	DD	○	○
		SGM7J-08A	0.75	2.39	8.36	3,000	1.59	FF	▲	▲
		SGM7A-04A	0.4	1.27	4.46	3,000	0.216	DD	-	○
		SGM7A-06A	0.6	1.91	6.69	3,000	0.315	DD	○	○
		SGM7A-08A	0.75	2.39	8.36	3,000	0.775	FF	▲	▲
		SGM7P-04A	0.4	1.27	3.82	3,000	0.409	ED	-	○
Sanyo Denki	R2	R2AA06040F	0.4	1.27	4.8	3,000	0.412	DD	-	○
		R2AA06040H	0.4	1.27	4.8	3,000	0.412	DD	-	○
		R2AA08040F	0.4	1.27	4.4	3,000	1.04	ED	-	○
	R5	R5AA06040F	0.4	1.27	4.8	3,000	0.414	DD	-	○
		R5AA06040H	0.4	1.27	4.8	3,000	0.414	DD	-	○
		R5AA08075F	0.75	2.39	7.5	3,000	1.65	FE	-	○

\*1 The customer will be responsible for preparing a servo motor with no keyway.  
 \*2 Contact Sanyo for servo motors with brakes or with oil seals.  
 \*3 "▲" indicates usability with the maximum torque limit applied to the servo motor. See "Servo motor torque limit" on page 32 for more information.

**RGV063 High gear ratio model [Gear ratio = 36、60、72、120]**

Manufacturer	Series	Model	Motor capacity [kW]	Motor rated torque [N · m]	Motor max. torque [N · m]	Rated rotation speed [min <sup>-1</sup> ]	Motor inertia [ $\times 10^{-4}$ kg · m <sup>2</sup> ]	Attachment code	Corresponding reduction ratio			
									36	60	72	120
OMRON	G	R88M-G20030H, T	0.20	0.64	1.78	3,000	0.14	BJC	○	▲	○	▲
	G5	R88M-K20030H, T	0.20	0.64	1.91	3,000	0.14	BJC	○	▲	○	▲
KEYENCE	SV	SV-M020	0.20	0.637	2.23	3,000	0.259	BK	○	▲	○	▲
	SV2	SV2-M020A	0.20	0.637	2.23	3,000	0.263	BK	○	▲	○	▲
Panasonic	MINAS_A5	MSMD022G1	0.20	0.64	1.91	3,000	0.14	BJC	○	▲	○	▲
		MHMD022G1	0.20	0.64	1.91	3,000	0.42	BJC	○	▲	○	▲
		MSME022G1	0.20	0.64	1.91	3,000	0.14	BJC	○	▲	○	▲
	MINAS_A6	MSMF022L1	0.20	0.64	1.91	3,000	0.27	BJC	○	▲	○	▲
		MHMF022L1	0.20	0.64	2.23	3,000	0.56	BJC	○	▲	○	▲
Mitsubishi Electric	J4	HG-MR23	0.20	0.64	1.90	3,000	0.0865	BM	○	▲	○	▲
		HG-KR23	0.20	0.64	2.20	3,000	0.221	BM	○	▲	○	▲
	J5	HK-KT23W	0.20	0.64	2.20	3,000	0.209	BM	○	▲	○	▲
Yaskawa Electric	Σ -7	SGM7J-02A	0.20	0.637	2.23	3,000	0.263	BK	○	▲	○	▲
		SGM7A-02A	0.20	0.637	2.23	3,000	0.139	BK	○	▲	○	▲
Sanyo Denki	R2	R2AA06020F	0.20	0.637	2.20	3,000	0.219	BM	○	▲	○	▲
		R5AA06020H	0.20	0.637	2.20	3,000	0.198	BM	○	▲	○	▲
	R5	R5AA06020F	0.20	0.637	2.20	3,000	0.198	BM	○	▲	○	▲

\*1 The customer will be responsible for preparing a servo motor with no keyway.  
 \*2 Contact Sanyo for servo motors with brakes or with oil seals.  
 \*3 "▲" indicates usability with the maximum torque limit applied to the servo motor. See "Servo motor torque limit" on page 32 for more information.



# List of Mountable Servo Motors

RGV080 Standard gear ratio model [Gear ratio = 12、24]

Manufacturer	Series	Model	Motor capacity [kW]	Motor rated torque [N · m]	Motor max. torque [N · m]	Rated rotation speed [min <sup>-1</sup> ]	Motor inertia [ $\times 10^{-4}$ kg · m <sup>2</sup> ]	Attachment code	Corresponding reduction ratio			
									12	24		
OMRON	G	R88M-G75030H、T	0.75	2.4	7.05	3,000	0.87	HE	○	○		
		R88M-G1K030T	1	3.18	9.1	3,000	1.69	IE	○	○		
		R88M-G1K530T	1.5	4.77	12.8	3,000	2.59	JE	○	○		
	G5	R88M-K75030H、T	0.75	2.4	7.1	3,000	0.87	HE	○	○		
		R88M-K1K030H、T	1	3.18	9.55	3,000	2.03	JE	○	○		
KEYENCE	SV	SV-M075	0.75	2.39	8.36	3,000	1.57	FE	○	○		
	SV2	SV2-M075A	0.75	2.39	8.36	3,000	1.59	FE	○	○		
Panasonic	MINAS_A5	MSMD082G1	0.75	2.4	7.1	3,000	0.87	HE	○	○		
		MHMD082G1	0.75	2.4	7.1	3,000	1.51	HE	○	○		
		MSME082G1	0.75	2.4	7.1	3,000	0.87	HE	○	○		
		MSME102G1	1	3.18	9.55	3,000	2.03	JE	○	○		
		MSME152G1	1.5	4.77	14.3	3,000	2.84	JE	▲	▲		
	MINAS_A6	MSMF082L1	0.75	2.39	7.16	3,000	0.96	HE	○	○		
		MSMF092L1	1	3.18	9.55	3,000	1.26	HE	○	○		
		MSMF102L1	1	3.18	9.55	3,000	2.15	JE	○	○		
		MSMF152L1	1.5	4.77	14.3	3,000	3.1	JE	▲	▲		
		MHMF082L1	0.75	2.39	8.36	3,000	1.56	HE	○	○		
		MHMF092L1	1	3.18	11.1	3,000	2.03	HE	○	○		
		MHMF102L1	1	4.77	14.3	2,000	22.9	HE	▲	▲		
		FANUC	α iF	α iF2/5000	0.75	2	8.3	4,000	5.26	AA	-	○
				α iS2/5000	0.75	2	7.8	4,000	2.91	AA	-	○
α iS	α iS2/6000		1	2	6	6,000	2.91	AA	-	○		
	α iS4/5000		1	4	8.8	4,000	5.15	AC	○	○		
	α iS4/6000		1	3	7.5	6,000	5.15	AC	○	○		
β iS	β iS2/4000		0.5	2	7	4,000	2.91	AA	-	○		
	β iS4/4000		0.75	3.5	10	3,000	5.15	AC	○	○		
Mitsubishi Electric	J4	HG-MR73	0.75	2.4	7.2	3,000	0.586	FE	○	○		
		HG-KR73	0.75	2.4	8.4	3,000	1.26	FE	○	○		
		HG-JR73	0.75	2.4	7.2	3,000	2.09	GD	○	○		
		HG-JR103	1	3.2	9.6	3,000	2.65	GD	○	○		
		HG-JR153	1.5	4.8	14.3	3,000	3.79	GD	▲	▲		
	J5	HK-KT63W	0.6	1.9	6.7	3,000	0.598	CB	-	○		
		HK-KT7M3W	0.75	2.4	8.4	3,000	1.37	FE	○	○		
		HK-KT103W	1	3.2	11.1	3,000	1.68	FE	○	○		
		HK-KT7M3UW	0.75	2.4	8.4	3,000	2.11	GE	○	○		
		HK-KT103UW	1	3.2	11.1	3,000	2.74	GE	○	○		
		HK-KT153W	1.5	4.8	16.7	3,000	4.38	GE	▲	▲		
		HK-KT634W	0.3	1.9	6.7	1,500	0.598	CB	-	○		
		HK-KT7M34W	0.375	2.4	8.4	1,500	1.37	FE	○	○		
		HK-KT1034W	0.5	3.2	11.1	1,500	1.68	FE	○	○		
		Yaskawa Electric	Σ -7	SGM7J-06A	0.6	1.91	6.69	3,000	0.8	CB	-	○
SGM7J-08A	0.75			2.39	8.36	3,000	1.59	FE	○	○		
SGM7A-06A	0.6			1.91	6.69	3,000	0.315	CB	-	○		
SGM7A-08A	0.75			2.39	8.36	3,000	0.775	FE	○	○		
SGM7A-10A	1			3.18	11.1	3,000	0.971	FE	○	○		
SGM7A-15A	1.5			4.9	14.7	3,000	2	LG	▲	▲		
SGM7G-03A	0.3			1.96	5.88	1,500	2.48	GD	-	○		
SGM7G-05A	0.45			2.86	8.92	1,500	3.33	GD	○	○		
Sanyo Denki	R2	R2AA08075F	0.75	2.39	8.5	3,000	1.82	FD	○	○		
		R2AAB8100H	1	3.18	11.6	3,000	2.38	ED	○	○		
		R2AA10075F	0.75	2.39	8.6	3,000	2	KF	○	○		
		R2AAB8075F	0.75	2.38	11	3,000	1.64	ED	○	○		
	R5	R5AA08075D	0.75	2.39	8.5	3,000	1.65	FD	○	○		
		R5AA08075F	0.75	2.39	7.5	3,000	1.65	FD	○	○		

\*1 The customer will be responsible for preparing a servo motor with no keyway.

\*2 Contact Sankyo for servo motors with brakes or with oil seals.

\*3 "▲" indicates usability with the maximum torque limit applied to the servo motor. See "Servo motor torque limit" on page 32 for more information.

RGV080 High gear ratio model [Gear ratio = 36、60、72、120]

Manufacturer	Series	Model	Motor capacity [kW]	Motor rated torque [N · m]	Motor max. torque [N · m]	Rated rotation speed [min <sup>-1</sup> ]	Motor inertia [ $\times 10^{-4}$ kg · m <sup>2</sup> ]	Attachment code	Corresponding reduction ratio			
									36	60	72	120
OMRON	G	R88M-G20030H, T	0.2	0.64	1.78	3,000	0.14	BJC	-	○	-	○
		R88M-G40030H, T	0.4	1.3	3.67	3,000	0.26	BJ	○	▲	○	▲
	G5	R88M-K20030H, T	0.2	0.64	1.91	3,000	0.14	BJC	-	○	-	○
		R88M-K40030H, T	0.4	1.3	3.8	3,000	0.26	BJ	○	▲	○	▲
KEYENCE	SV	SV-M020	0.2	0.637	2.23	3,000	0.259	BK	-	○	-	○
		SV-M040	0.4	1.27	4.46	3,000	0.442	BK	-	▲	○	▲
	SV2	SV2-M020A	0.2	0.637	2.23	3,000	0.263	BK	-	○	-	○
		SV2-M040A	0.4	1.27	4.46	3,000	0.486	BK	-	▲	○	▲
Panasonic	MINAS_A5	MSMD022G1	0.2	0.64	1.91	3,000	0.14	BJC	-	○	-	○
		MSMD042G1	0.4	1.3	3.8	3,000	0.26	BJ	○	▲	○	▲
		MHMD022G1	0.2	0.64	1.91	3,000	0.42	BJC	-	○	-	○
		MHMD042G1	0.4	1.3	3.8	3,000	0.67	BJ	○	▲	○	▲
		MSME022G1	0.2	0.64	1.91	3,000	0.14	BJC	-	○	-	○
	MINAS_A6	MSMF022L1	0.2	0.64	1.91	3,000	0.14	BJC	-	○	-	○
		MSMF042L1	0.4	1.27	3.82	3,000	0.27	BJ	○	▲	○	▲
		MHMF022L1	0.2	0.64	2.23	3,000	0.29	BJC	-	○	-	○
		MHMF042L1	0.4	1.27	4.46	3,000	0.56	BJ	-	▲	○	▲
		FANUC	$\beta$ iS	$\beta$ iS0.5/6000	0.35	0.65	2.5	6,000	0.18	BKA	-	○
Mitsubishi Electric	J4	HG-MR23	0.2	0.64	1.9	3,000	0.0865	BM	-	○	-	○
		HG-MR43	0.4	1.3	3.8	3,000	0.142	BM	○	▲	○	▲
		HG-KR23	0.2	0.64	2.2	3,000	0.221	BM	-	○	-	○
		HG-KR43	0.4	1.3	4.5	3,000	0.371	BM	▲	▲	▲	▲
	J5	HK-KT23W	0.2	0.64	2.2	3,000	0.209	BM	-	○	-	○
		HK-KT23UW	0.2	0.64	1.9	3,000	0.419	DG	-	○	-	○
HK-KT43W		0.4	1.3	4.5	3,000	0.41	BM	▲	▲	▲	▲	
Yaskawa Electric	$\Sigma$ -7	SGM7J-02A	0.2	0.637	2.23	3,000	0.263	BK	-	○	-	○
		SGM7J-04A	0.4	1.27	4.46	3,000	0.486	BK	-	▲	○	▲
		SGM7A-02A	0.2	0.637	2.23	3,000	0.139	BK	-	○	-	○
		SGM7A-04A	0.4	1.27	4.46	3,000	0.216	BK	-	▲	○	▲
		SGM7P-02A	0.2	0.637	1.91	3,000	0.263	DF	-	○	-	○
		SGM7P-04A	0.4	1.27	3.82	3,000	0.409	DF	○	▲	○	▲
Sanyo Denki	R2	R2AA06020F	0.2	0.637	2.2	3,000	0.219	BM	-	○	-	○
		R2AA06040H	0.4	1.27	4.8	3,000	0.412	BM	▲	▲	▲	▲
	R5	R5AA06020F	0.2	0.637	2.2	3,000	0.198	BM	-	○	-	○
		R5AA06020H	0.2	0.637	2.2	3,000	0.198	BM	-	○	-	○
		R5AA06040F	0.4	1.27	4.8	3,000	0.414	BM	▲	▲	▲	▲
		R5AA06040H	0.4	1.27	4.8	3,000	0.414	BM	▲	▲	▲	▲

\*1 The customer will be responsible for preparing a servo motor with no keyway.

\*2 Contact Sankyo for servo motors with brakes or with oil seals.

\*3 "▲" indicates usability with the maximum torque limit applied to the servo motor. See "Servo motor torque limit" on page 32 for more information.



# List of Mountable Servo Motors

RGV100 Standard gear ratio model [Gear ratio = 12、24]

Manufacturer	Series	Model	Motor capacity [kW]	Motor rated torque [N · m]	Motor max. torque [N · m]	Rated rotation speed [min <sup>-1</sup> ]	Motor inertia [× 10 <sup>-4</sup> kg · m <sup>2</sup> ]	Attachment code	Corresponding reduction ratio	
									12	24
OMRON	G	R88M-G1K530T	1.5	4.77	12.8	3,000	2.59	HE	○	○
		R88M-G2K030T	2	6.36	18.4	3,000	3.46	HE	○	○
		R88M-G3K030T	3	9.54	27	3,000	6.77	IF	○	○
	G5	R88M-K1K530H、T	1.5	4.77	14.3	3,000	2.84	HE	○	○
		R88M-K2K030H、T	2	6.37	19.1	3,000	3.68	HE	○	○
		R88M-K3K030H、T	3	9.55	28.6	3,000	6.5	IF	○	○
KEYENCE	SV	SV-M100	0.85	5.39	13.8	1,500	13.9	IE	○	○
		SV-M150	1.3	8.34	23.3	1,500	19.9	IF	○	○
		SV-M200	1.8	11.5	28.7	1,500	26	IG	○	○
	SV2	SV2-M100A	0.85	5.39	14.2	1,500	13.9	IG	○	○
		SV2-M150A	1.3	8.34	23.3	1,500	19.9	IG	○	○
		SV2-M200A	1.8	11.5	28.7	1,500	26	IG	○	○
Panasonic	MINAS_A5	MSME152G1	1.5	4.77	14.3	3,000	2.84	HE	○	○
		MSME202G1	2	6.37	19.1	3,000	3.68	HE	○	○
		MSME302G1	3	9.55	28.6	3,000	6.5	IF	○	○
		MDME102G1	1	4.77	14.3	2,000	4.6	IF	○	○
		MDME152G1	1.5	7.16	21.5	2,000	6.7	IF	○	○
		MDME202G1	2	9.55	28.6	2,000	8.72	IF	○	○
	MINAS_A6	MSMF152L1	1.5	4.77	14.3	3,000	3.1	HE	○	○
		MSMF202L1	2	6.37	19.1	3,000	4.06	HE	○	○
		MSMF302L1	3	9.55	28.6	3,000	7.04	IF	○	○
		MHMF102L1	1	4.77	14.3	2,000	22.9	LF	○	○
		MHMF152L1	1.5	7.16	21.5	2,000	33.4	LF	○	○
		MDMF102L1	1	4.77	14.3	2,000	6.18	IF	○	○
		MDMF152L1	1.5	7.16	21.5	2,000	9.16	IF	○	○
		MDMF202L1	2	9.55	28.6	2,000	12.1	IF	○	○
FANUC	α iF	α iF4/5000	1.4	4	15	4,000	13.5	IE	○	○
		α iF8/3000	1.6	8	29	3,000	25.7	IE	○	○
		α iF8/4000	2.2	8	32	4,000	25.7	IE	-	○
	α iS	α iS4/5000	1	4	8.8	4,000	5.15	AC	○	○
		α iS8/4000	2.5	8	32	4,000	11.7	IE	-	○
		α iS8/6000	2.2	8	22	6,000	11.7	IE	○	○
	β iS	β iS12/2000	1.4	10.5	21	2,000	22.8	IG	○	○
		β iS12/3000	1.8	11	27	2,000	22.8	IG	○	○
		β iS8/3000	1.2	7	15	2,000	11.7	IE	○	○
Mitsubishi Electric	J4	HG-SR51	0.5	4.8	14.3	1,000	11.6	IG	○	○
		HG-SR81	0.85	8.1	24.4	1,000	16	IG	○	○
		HG-SR102	1	4.8	14.3	2,000	11.6	IG	○	○
		HG-SR152	1.5	7.2	21.5	2,000	16	IG	○	○
		HG-JR153	1.5	4.8	14.3	3,000	3.79	BD	○	○
		HG-JR203	2	6.4	19.1	3,000	4.92	BD	○	○
	J5	HG-JR353	3.3	10.5	32	3,000	13.2	IH	▲	○
		HK-KT153W	1.5	4.8	16.7	3,000	4.38	BE	○	○
		HK-KT203W	2	6.4	19.1	3,000	5.65	BE	○	○
		HK-KT202W	2	9.5	28.6	2,000	8.18	BE	○	○
		HK-KT1534W	0.75	4.8	21.5	1,500	4.38	BE	○	○
		HK-KT2034W	1	6.4	25.5	1,500	5.65	BE	○	○
		HK-ST102W	1	4.8	14.3	2,000	8.65	IG	○	○
		HK-ST172W	1.75	8.4	25.1	2,000	11.4	IG	○	○
		HK-ST202AW	2	9.5	28.6	2,000	16.9	IG	○	○
Yaskawa Electric	Σ -7	SGM7A-15A	1.5	4.9	14.7	3,000	2	KG	○	○
		SGM7A-20A	2	6.36	19.1	3,000	2.47	KG	○	○
		SGM7A-25A	2.5	7.96	23.9	3,000	3.19	KG	○	○
		SGM7A-30A	3	9.8	29.4	3,000	7	LH	○	○
		SGM7P-15A	1.5	4.77	14.3	3,000	4.02	JE	○	○
		SGM7G-09A	0.85	5.39	14.2	1,500	13.9	IG	○	○
		SGM7G-13A	1.3	8.34	23.3	1,500	19.9	IG	○	○
Sanyo Denki	R2	SGM7G-20A	1.8	11.5	28.7	1,500	26	IG	○	○
		R2AA13120B	1.2	5.7	16	2,000	6	IF	○	○
		R2AA13120D	1.2	5.7	16	2,000	6	IF	○	○
		R2AA13120L	1.2	5.7	20	2,000	6	IF	○	○
		R2AA13180D	1.8	8.6	25	2,000	9	IF	○	○
		R2AA13180H	1.8	8.6	22	2,000	9	IF	○	○
		R2AA13200D	2	9.5	30	2,000	12.2	IH	○	○
R2AA13200L	2	9.5	24	2,000	12.2	IH	○	○		

\*1 The customer will be responsible for preparing a servo motor with no keyway.

\*2 Contact Sanyo for servo motors with brakes or with oil seals.

\*3 "▲" indicates usability with the maximum torque limit applied to the servo motor. See "Servo motor torque limit" on page 32 for more information.



RGV100 High gear ratio model [Gear ratio = 36, 60, 72, 120]

Manufacturer	Series	Model	Motor capacity [kW]	Motor rated torque [N · m]	Motor max. torque [N · m]	Rated rotation speed [min <sup>-1</sup> ]	Motor inertia [ $\times 10^{-4}$ kg · m <sup>2</sup> ]	Attachment code	Corresponding reduction ratio			
									36	60	72	120
OMRON	G	R88M-G40030H, T	0.4	1.3	3.67	3,000	0.26	BJ	-	○	○	○
		R88M-G75030H, T	0.75	2.4	7.05	3,000	0.87	DB	○	▲	○	▲
		R88M-G1K030T	1	3.18	9.1	3,000	1.69	EC	○	▲	○	▲
	G5	R88M-K40030H, T	0.4	1.3	3.8	3,000	0.26	BJ	-	○	○	○
		R88M-K75030H, T	0.75	2.4	7.1	3,000	0.87	DB	○	▲	○	▲
		R88M-K1K030H, T	1	3.18	9.55	3,000	2.03	FB	○	▲	○	▲
KEYENCE	SV	SV-M040	0.4	1.27	4.46	3,000	0.442	BK	-	○	○	○
		SV-M075	0.75	2.39	8.36	3,000	1.57	DC	○	▲	○	▲
	SV2	SV2-M040A	0.4	1.27	4.46	3,000	0.486	BK	-	○	○	○
		SV2-M075A	0.75	2.39	8.36	3,000	1.59	DC	○	▲	○	▲
Panasonic	MINAS_A5	MSMD042G1	0.4	1.3	3.8	3,000	0.26	BJ	-	○	○	○
		MSMD082G1	0.75	2.4	7.1	3,000	0.87	DB	○	▲	○	▲
		MHMD042G1	0.4	1.3	3.8	3,000	0.67	BJ	-	○	○	○
		MHMD082G1	0.75	2.4	7.1	3,000	1.51	DB	○	▲	○	▲
		MSME042G1	0.4	1.3	3.8	3,000	0.26	BJ	-	○	○	○
		MSME082G1	0.75	2.4	7.1	3,000	0.87	DB	○	▲	○	▲
		MSME102G1	1	3.18	9.55	3,000	2.03	FB	○	▲	○	▲
	MINAS_A6	MSMF042L1	0.4	1.27	3.82	3,000	0.27	BJ	-	○	○	○
		MSMF082L1	0.75	2.39	7.16	3,000	0.96	DB	○	▲	○	▲
		MSMF092L1	1	3.18	9.55	3,000	1.26	DB	○	▲	○	▲
		MSMF102L1	1	3.18	9.55	3,000	2.15	FB	○	▲	○	▲
		MHMF042L1	0.4	1.27	4.46	3,000	0.56	BJ	-	○	○	○
		MHMF082L1	0.75	2.39	8.36	3,000	1.56	DB	○	▲	○	▲
		FANUC	$\alpha$ iF	$\alpha$ iF1/5000	0.5	1	5.3	5,000	3.05	EDB	-	○
$\alpha$ iF2/5000	0.75			2	8.3	4,000	5.26	EDB	○	▲	○	▲
$\alpha$ iS	$\alpha$ iS2/5000		0.75	2	7.8	4,000	2.91	EDB	○	▲	○	▲
	$\alpha$ iS2/6000		1	2	6	6,000	2.91	EDB	○	○	○	○
	$\alpha$ iS4/5000		1	4	8.8	4,000	5.15	ED	○	▲	○	▲
	$\alpha$ iS4/6000		1	3	7.5	6,000	5.15	ED	○	▲	○	▲
$\beta$ iS	$\beta$ iS2/4000		0.5	2	7	4,000	2.91	EDB	○	▲	○	▲
	$\beta$ iS4/4000		0.75	3.5	10	3,000	5.15	ED	○	▲	○	▲
Mitsubishi Electric	J4	HG-MR43	0.4	1.3	3.8	3,000	0.142	BM	-	○	○	○
		HG-MR73	0.75	2.4	7.2	3,000	0.586	DC	○	▲	○	▲
		HG-KR43	0.4	1.3	4.5	3,000	0.371	BM	-	○	○	○
		HG-KR73	0.75	2.4	8.4	3,000	1.26	DC	○	▲	○	▲
		HG-JR53	0.5	1.6	4.8	3,000	1.52	ECD	○	○	○	○
		HG-JR73	0.75	2.4	7.2	3,000	2.09	ECD	○	▲	○	▲
		HG-JR103	1	3.2	9.6	3,000	2.65	ECD	○	▲	○	▲
	J5	HK-KT43W	0.4	1.3	4.5	3,000	0.41	BM	-	○	○	○
		HK-KT63W	0.6	1.9	6.7	3,000	0.598	BM	○	▲	○	▲
		HK-KT43UW	0.4	1.3	4.5	3,000	0.726	DG	-	○	○	○
		HK-KT7M3W	0.75	2.4	8.4	3,000	1.37	DC	○	▲	○	▲
		HK-KT7M3UW	0.75	2.4	8.4	3,000	2.11	EB	○	▲	○	▲
		HK-KT434W	0.2	1.3	4.5	1,500	0.41	BM	-	○	○	○
		HK-KT634W	0.3	1.9	6.7	1,500	0.598	BM	○	▲	○	▲
HK-KT7M34W	0.375	2.4	8.4	1,500	1.37	DC	○	▲	○	▲		
HK-ST52W	0.5	2.4	7.2	2,000	5.9	HFF	○	▲	○	▲		
Yaskawa Electric	$\Sigma$ -7	SGM7J-04A	0.4	1.27	4.46	3,000	0.486	BK	-	○	○	○
		SGM7J-06A	0.6	1.91	6.69	3,000	0.8	BK	○	▲	○	▲
		SGM7J-08A	0.75	2.39	8.36	3,000	1.59	DC	○	▲	○	▲
		SGM7A-04A	0.4	1.27	4.46	3,000	0.216	BK	-	○	○	○
		SGM7A-06A	0.6	1.91	6.69	3,000	0.315	BK	○	▲	○	▲
		SGM7A-08A	0.75	2.39	8.36	3,000	0.775	DC	○	▲	○	▲
		SGM7P-04A	0.4	1.27	3.82	3,000	0.409	DF	-	○	○	○
		SGM7P-08A	0.75	2.39	7.16	3,000	2.1	HA	○	▲	○	▲
		SGM7G-03A	0.3	1.96	5.88	1,500	2.48	ECD	○	○	○	○
SGM7G-05A	0.45	2.86	8.92	1,500	3.33	ECD	○	▲	○	▲		
Sanyo Denki	R2	R2AA06040F	0.4	1.27	4.8	3,000	0.412	BM	-	○	○	○
		R2AA06040H	0.4	1.27	4.8	3,000	0.412	BM	-	○	○	○
		R2AA08040F	0.4	1.27	4.4	3,000	1.04	DG	-	○	○	○
		R2AA08075F	0.75	2.39	8.5	3,000	1.82	DCD	○	▲	○	▲
	R5	R5AA06040F	0.4	1.27	4.8	3,000	0.414	BM	-	○	○	○
		R5AA06040H	0.4	1.27	4.8	3,000	0.414	BM	-	○	○	○
		R5AA08075D	0.75	2.39	8.5	3,000	1.65	DCD	○	▲	○	▲
		R5AA08075F	0.75	2.39	7.5	3,000	1.65	DCD	○	▲	○	▲

\*1 The customer will be responsible for preparing a servo motor with no keyway.

\*2 Contact Sankyo for servo motors with brakes or with oil seals.

\*3 "▲" indicates usability with the maximum torque limit applied to the servo motor. See "Servo motor torque limit" on page 32 for more information.



# List of Mountable Servo Motors

RGV125 Standard gear ratio model [Gear ratio = 12, 24]

Manufacturer	Series	Model	Motor capacity [kW]	Motor rated torque [N · m]	Motor max. torque [N · m]	Rated rotation speed [min <sup>-1</sup> ]	Motor inertia [ $\times 10^{-4}$ kg · m <sup>2</sup> ]	Attachment code	Corresponding reduction ratio	
									12	24
OMRON	G	R88M-G1K530T	1.5	4.77	12.8	3,000	2.59	OB	○	○
		R88M-G2K030T	2	6.36	18.4	3,000	3.46	OB	○	○
		R88M-G3K030T	3	9.54	27	3,000	6.77	PC	○	○
		R88M-G4K030T	4	12.6	36.3	3,000	12.7	ID	○	○
		R88M-G5K030T	5	15.8	45.1	3,000	17.8	ID	○	○
	G5	R88M-K1K530H, T	1.5	4.77	14.3	3,000	2.84	OB	○	○
		R88M-K2K030H, T	2	6.37	19.1	3,000	3.68	OB	○	○
		R88M-K3K030H, T	3	9.55	28.6	3,000	6.5	PC	○	○
KEYENCE	SV	SV-M100	0.85	5.39	13.8	1,500	13.9	PB	○	○
		SV-M150	1.3	8.34	23.3	1,500	19.9	PC	○	○
		SV-M200	1.8	11.5	28.7	1,500	26	PD	○	○
	SV2	SV2-M100A	0.85	5.39	14.2	1,500	13.9	PD	○	○
		SV2-M150A	1.3	8.34	23.3	1,500	19.9	PD	○	○
		SV2-M200A	1.8	11.5	28.7	1,500	26	PD	○	○
Panasonic	MINAS_A5	MSME152G1	1.5	4.77	14.3	3,000	2.84	OB	○	○
		MSME202G1	2	6.37	19.1	3,000	3.68	OB	○	○
		MSME302G1	3	9.55	28.6	3,000	6.5	PC	○	○
		MSME402G1	4	12.7	38.2	3,000	12.9	ID	○	○
		MSME502G1	5	15.9	47.7	3,000	17.4	ID	○	○
		MDME102G1	1	4.77	14.3	2,000	4.6	PC	○	○
		MDME152G1	1.5	7.16	21.5	2,000	6.7	PC	○	○
		MDME202G1	2	9.55	28.6	2,000	8.72	PC	○	○
		MDME302G1	3	14.3	43	2,000	12.9	ID	○	○
	MINAS_A6	MSMF152L1	1.5	4.77	14.3	3,000	3.1	OB	○	○
		MSMF202L1	2	6.37	19.1	3,000	4.06	OB	○	○
		MSMF302L1	3	9.55	28.6	3,000	7.04	PC	○	○
		MSMF402L1	4	12.7	38.2	3,000	14.4	ID	○	○
		MSMF502L1	5	15.9	47.7	3,000	19	ID	○	○
		MHMF102L1	1	4.77	14.3	2,000	22.9	IC	○	○
		MHMF152L1	1.5	7.16	21.5	2,000	33.4	IC	○	○
		MDMF102L1	1	4.77	14.3	2,000	6.18	PC	○	○
		MDMF152L1	1.5	7.16	21.5	2,000	9.16	PC	○	○
FANUC	$\alpha$ iF	$\alpha$ iF8/3000	1.6	8	29	3,000	25.7	PB	○	○
		$\alpha$ iF8/4000	2.2	8	32	4,000	25.7	PB	○	○
	$\alpha$ iS	$\alpha$ iS8/4000	2.5	8	32	4,000	11.7	PB	-	○
		$\alpha$ iS8/6000	2.2	8	22	6,000	11.7	PB	-	○
		$\alpha$ iS12/4000	2.7	12	46	3,000	22.8	PD	○	○
		$\alpha$ iS12/6000	2.2	11	52	4,000	22.8	PD	○	○
$\beta$ iS	$\beta$ iS8/3000	1.2	7	15	2,000	11.7	PB	-	○	
	$\beta$ iS12/2000	1.4	10.5	21	2,000	22.8	PD	○	○	
	$\beta$ iS12/3000	1.8	11	27	2,000	22.8	PD	○	○	
Mitsubishi Electric	J4	HG-SR51	0.5	4.8	14.3	1,000	11.6	PD	○	○
		HG-SR81	0.85	8.1	24.4	1,000	16	PD	○	○
		HG-SR102	1	4.8	14.3	2,000	11.6	PD	○	○
		HG-SR152	1.5	7.2	21.5	2,000	16	PD	○	○
		HG-JR153	1.5	4.8	14.3	3,000	3.79	BA	○	○
		HG-JR203	2	6.4	19.1	3,000	4.92	BA	○	○
		HG-JR353	3.3	10.5	32	3,000	13.2	PE	○	○
	HG-JR503	5	15.9	47.7	3,000	19	PE	○	○	
	J5	HK-KT153W	1.5	4.8	16.7	3,000	4.38	BB	○	○
		HK-KT203W	2	6.4	19.1	3,000	5.65	BB	○	○
		HK-KT202W	2	9.5	28.6	2,000	8.18	BB	○	○
		HK-KT1534W	0.75	4.8	21.5	1,500	4.38	BB	○	○
		HK-KT2034W	1	6.4	25.5	1,500	5.65	BB	○	○
		HK-KT2024W	1	9.5	38.2	1,000	8.18	BB	○	○
		HK-ST102W	1	4.8	14.3	2,000	8.65	PD	○	○
		HK-ST172W	1.75	8.4	25.1	2,000	11.4	PD	○	○
		HK-ST202AW	2	9.5	28.6	2,000	16.9	PD	○	○
		HK-ST302W	3	14.3	43	2,000	22.4	PD	○	○
HK-ST1024W		0.6	5.7	17.2	1,000	8.65	PD	○	○	
HK-ST1724W	0.85	8.1	24.4	1,000	11.4	PD	○	○		
HK-ST2024AW	1	9.5	33.4	1,000	16.9	PD	○	○		
HK-ST3024W	1.5	14.3	43	1,000	22.4	PD	○	○		

\*1 The customer will be responsible for preparing a servo motor with no keyway.  
 \*2 Contact Sankyo for servo motors with brakes or with oil seals.

RGV125 Standard gear ratio model [Gear ratio = 12, 24]

Manufacturer	Series	Model	Motor capacity [kW]	Motor rated torque [N · m]	Motor max. torque [N · m]	Rated rotation speed [min <sup>-1</sup> ]	Motor inertia [× 10 <sup>-4</sup> kg · m <sup>2</sup> ]	Attachment code	Corresponding reduction ratio	
									12	24
Yaskawa Electric	Σ -7	SGM7A-20A	2	6.36	19.1	3,000	2.47	JD	-	○
		SGM7A-25A	2.5	7.96	23.9	3,000	3.19	JD	○	○
		SGM7A-30A	3	9.8	29.4	3,000	7	IE	○	○
		SGM7A-40A	4	12.6	37.8	3,000	9.6	IE	○	○
		SGM7A-50A	5	15.8	47.6	3,000	12.3	IE	○	○
		SGM7A-70A	7	22.3	54	3,000	12.3	IE	-	○
		SGM7G-09A	0.85	5.39	14.2	1,500	13.9	PD	○	○
		SGM7G-13A	1.3	8.34	23.3	1,500	19.9	PD	○	○
		SGM7G-20A	1.8	11.5	28.7	1,500	26	PD	○	○
Sanyo Denki	R2	R2AA13120B	1.2	5.7	16	2,000	6	PC	○	○
		R2AA13120L	1.2	5.7	20	2,000	6	PC	○	○
		R2AA13120D	1.2	5.7	16	2,000	6	PC	○	○
		R2AA13180H	1.8	8.6	22	2,000	9	PC	○	○
		R2AA13200L	2	9.5	24	2,000	12.2	PE	○	○
		R2AA13180D	1.8	8.6	25	2,000	9	PC	○	○
		R2AA13200D	2	9.5	30	2,000	12.2	PE	○	○

\*1 The customer will be responsible for preparing a servo motor with no keyway.

\*2 Contact Sankyo for servo motors with brakes or with oil seals.



# List of Mountable Servo Motors

RGV125 High gear ratio model [Gear ratio = 36、60、72、120]

Manufacturer	Series	Series	Motor capacity [kW]	Motor rated torque [N · m]	Motor max. torque [N · m]	Rated rotation speed [min <sup>-1</sup> ]	Motor inertia [ $\times 10^{-4}$ kg · m <sup>2</sup> ]	Attachment code	Corresponding reduction ratio			
									36	60	72	120
OMRON	G	R88M-G75030H, T	0.75	2.4	7.05	3,000	0.87	DB	○	○	○	○
		R88M-G1K030T	1	3.18	9.1	3,000	1.69	EC	○	○	○	○
		R88M-G1K530T	1.5	4.77	12.8	3,000	2.59	FB	○	▲	○	▲
		R88M-G2K030T	2	6.36	18.4	3,000	3.46	FB	▲	-	○	-
	G5	R88M-K75030H, T	0.75	2.4	7.1	3,000	0.87	DB	○	○	○	○
		R88M-K1K030H, T	1	3.18	9.55	3,000	2.03	FB	○	○	○	○
R88M-K1K530H, T		1.5	4.77	14.3	3,000	2.84	FB	○	▲	○	▲	
KEYENCE	SV	SV-M075	0.75	2.39	8.36	3,000	1.57	DC	○	○	○	○
		SV-M100	0.85	5.39	13.8	1,500	13.9	HB	○	-	○	▲
	SV2	SV2-M075A	0.75	2.39	8.36	3,000	1.59	DC	○	○	○	○
		SV2-M100A	0.85	5.39	14.2	1,500	13.9	HBF	○	-	○	▲
Panasonic	MINAS_A5	MSMD082G1	0.75	2.4	7.1	3,000	0.87	DB	○	○	○	○
		MHMD082G1	0.75	2.4	7.1	3,000	1.51	DB	○	○	○	○
		MSME082G1	0.75	2.4	7.1	3,000	0.87	DB	○	○	○	○
		MSME102G1	1	3.18	9.55	3,000	2.03	FB	○	○	○	○
		MSME152G1	1.5	4.77	14.3	3,000	2.84	FB	○	▲	○	▲
		MDME102G1	1	4.77	14.3	2,000	4.6	HAE	○	▲	○	▲
	MINAS_A6	MSMF082L1	0.75	2.39	7.16	3,000	0.96	DB	○	○	○	○
		MSMF092L1	1	3.18	9.55	3,000	1.26	DB	○	○	○	○
		MSMF102L1	1	3.18	9.55	3,000	2.15	FB	○	○	○	○
		MSMF152L1	1.5	4.77	14.3	3,000	3.1	FB	○	▲	○	▲
		MHMF082L1	0.75	2.39	8.36	3,000	1.56	DB	○	○	○	○
		MHMF092L1	1	3.18	11.1	3,000	2.03	DB	○	▲	○	▲
		MHMF102L1	1	4.77	14.3	2,000	22.9	HBE	○	▲	○	▲
		MDMF102L1	1	4.77	14.3	2,000	6.18	HAE	○	▲	○	▲
FANUC	$\alpha$ iF	$\alpha$ iF2/5000	0.75	2	8.3	4,000	5.26	EDB	○	○	○	○
		$\alpha$ iF4/5000	1.4	4	15	4,000	13.5	HB	○	▲	○	▲
	$\alpha$ iS	$\alpha$ iS2/5000	0.75	2	7.8	4,000	2.91	EDB	○	○	○	○
		$\alpha$ iS2/6000	1	2	6	6,000	2.91	EDB	○	○	○	○
		$\alpha$ iS4/5000	1	4	8.8	4,000	5.15	ED	○	○	○	○
		$\alpha$ iS4/6000	1	3	7.5	6,000	5.15	ED	○	○	○	○
	$\beta$ iS	$\beta$ iS2/4000	0.5	2	7	4,000	2.91	EDB	○	○	○	○
		$\beta$ iS4/4000	0.75	3.5	10	3,000	5.15	ED	○	○	○	○
		$\beta$ iS8/3000	1.2	7	15	2,000	11.7	HB	○	-	○	-
Mitsubishi Electric	J4	HG-MR73	0.75	2.4	7.2	3,000	0.586	DC	○	○	○	○
		HG-KR73	0.75	2.4	8.4	3,000	1.26	DC	○	○	○	○
		HG-SR51	0.5	4.8	14.3	1,000	11.6	HFF	○	▲	○	▲
		HG-SR52	0.5	2.4	7.2	2,000	7.26	HFF	○	○	○	○
		HG-SR102	1	4.8	14.3	2,000	11.6	HFF	○	▲	○	▲
		HG-JR73	0.75	2.4	7.2	3,000	2.09	ECD	○	○	○	○
		HG-JR103	1	3.2	9.6	3,000	2.65	ECD	○	○	○	○
	HG-JR153	1.5	4.8	14.3	3,000	3.79	ECD	○	▲	○	▲	
	J5	HK-KT7M3W	0.75	2.4	8.4	3,000	1.37	DC	○	○	○	○
		HK-KT103W	1	3.2	11.1	3,000	1.68	DC	○	▲	○	▲
		HK-KT7M3UW	0.75	2.4	8.4	3,000	2.11	EB	○	○	○	○
		HK-KT103UW	1	3.2	11.1	3,000	2.74	EB	○	▲	○	▲
		HK-KT153W	1.5	4.8	16.7	3,000	4.38	EB	○	▲	○	▲
		HK-KT7M34W	0.375	2.4	8.4	1,500	1.37	DC	○	○	○	○
		HK-KT1034W	0.5	3.2	11.1	1,500	1.68	DC	○	▲	○	▲
		HK-ST52W	0.5	2.4	7.2	2,000	5.9	HFF	○	○	○	○
HK-ST102W		1	4.8	14.3	2,000	8.65	HFF	○	▲	○	▲	
HK-ST524W	0.3	2.9	11.5	1,000	5.9	HFF	○	▲	○	▲		
HK-ST1024W	0.6	5.7	17.2	1,000	8.65	HFF	○	-	○	-		

\*1 The customer will be responsible for preparing a servo motor with no keyway.

\*2 Contact Sankyo for servo motors with brakes or with oil seals.

\*3 "▲" indicates usability with the maximum torque limit applied to the servo motor. See "Servo motor torque limit" on page 32 for more information.

RGV125 High gear ratio model [Gear ratio = 36, 60, 72, 120]

Manufacturer	Series	Model	Motor capacity [kW]	Motor rated torque [N · m]	Motor max. torque [N · m]	Rated rotation speed [min <sup>-1</sup> ]	Motor inertia [ $\times 10^{-4}$ kg · m <sup>2</sup> ]	Attachment code	Corresponding reduction ratio			
									36	60	72	120
Yaskawa Electric	$\Sigma$ -7	SGM7J-08A	0.75	2.39	8.36	3,000	1.59	DC	○	○	○	○
		SGM7A-08A	0.75	2.39	8.36	3,000	0.775	DC	○	○	○	○
		SGM7A-10A	1	3.18	11.1	3,000	0.971	DC	○	▲	○	▲
		SGM7A-15A	1.5	4.9	14.7	3,000	2	FD	○	▲	○	▲
		SGM7P-08A	0.75	2.39	7.16	3,000	2.1	HA	○	○	○	○
		SGM7P-15A	1.5	4.77	14.3	3,000	4.02	HA	○	▲	○	▲
		SGM7G-03A	0.3	1.96	5.88	1,500	2.48	ECD	○	○	○	○
		SGM7G-05A	0.45	2.86	8.92	1,500	3.33	ECD	○	○	○	○
		SGM7G-09A	0.85	5.39	14.2	1,500	13.9	HBF	○	-	○	▲
Sanyo Denki	R2	R2AA08075F	0.75	2.39	8.5	3,000	1.82	DCD	○	○	○	○
		R2AB8100H	1	3.18	11.6	3,000	2.38	EBD	○	▲	○	▲
		R2AA10075F	0.75	2.39	8.6	3,000	2	FEE	○	○	○	○
		R2AA13050H	0.55	2.6	9	2,000	3.1	HFE	○	○	○	○
		R2AA13050D	0.88	2.6	7	2,000	3.1	HFE	○	○	○	○
		R2AA13120B	1.2	5.7	16	2,000	6	HFE	○	-	○	-
		R2AB8075F	0.75	2.38	11	3,000	1.64	EBD	○	▲	○	○
		R2AB8100F	1	3.18	14.3	3,000	2.38	EBD	○	▲	○	▲
		R2AA10100F	1	3.18	14.3	3,000	3.5	FEE	○	▲	○	▲
		R2AA13120D	1.2	5.7	16	2,000	6	HFE	○	-	○	-
	R5	R5AA08075D	0.75	2.39	8.5	3,000	1.65	DCD	○	○	○	○
		R5AA08075F	0.75	2.39	7.5	3,000	1.65	DCD	○	○	○	○

\*1 The customer will be responsible for preparing a servo motor with no keyway.

\*2 Contact Sankyo for servo motors with brakes or with oil seals.

\*3 "▲" indicates usability with the maximum torque limit applied to the servo motor. See "Servo motor torque limit" on page 32 for more information.

# Oil Plug, Oil Level, Drain Position (Oil lubrication types)

Unit: mm

Mounting position	1	2	3	4	5	6
RGV040						
A	Oil plug Rc1/4	Oil plug Rc1/4	Oil plug Rc1/4	Oil plug Rc1/4	Oil plug Rc1/4	Oil plug Rc1/4
A1	55	14	26	89	20	20
A2	53.5	53.5	56	56	57.5	57.5
B	Oil level	Oil level	Oil level	Oil level	Oil level	Oil level
B1	32.5	32.5	39.5	75.5	38	38
B2	68.5	68.5	38	38	75.5	75.5
C	Drain Rc1/4	Drain Rc1/4	Drain Rc1/4	Drain Rc1/4	Drain Rc1/4	Drain Rc1/4
C1	14	55	89	26	20	20
C2	53.5	53.5	56	56	57.5	57.5
Oil amount (L)	0.09	0.1	0.13	0.12	0.05	0.14
RGV063						
A	Oil plug Rc1/4	Oil plug Rc1/4	Oil plug Rc1/4	Oil plug Rc1/4	Oil plug Rc1/4	Oil plug Rc1/4
A1	55	20	32	123	23.5	23
A2	98	77.5	32	32	77.5	77.5
B	Oil level	Oil level	Oil level	Oil level	Oil level	Oil level
B1	36.5	36.5	58.5	96.5	44	44
B2	107	107	44	44	96.5	96.5
C	Drain Rc1/4	Drain Rc1/4	Drain Rc1/4	Drain Rc1/4	Drain Rc1/4	Drain Rc1/4
C1	20	55	123	32	23.5	23.5
C2	77.5	98	32	32	77.5	77.5
Oil amount (L)	0.15	0.16	0.2	0.19	0.1	0.21
RGV080						
A	Oil plug Rc3/8	Oil plug Rc3/8	Oil plug Rc3/8	Oil plug Rc3/8	Oil plug Rc1/4	Oil plug Rc3/8
A1	73	22	41	149	29	31
A2	120	95	34	34	95	95
B	Oil level	Oil level	Oil level	Oil level	Oil level	Oil level
B1	47	47	66	124	51	51
B2	133	133	51	51	124	124
C	Drain Rc3/8	Drain Rc3/8	Drain Rc3/8	Drain Rc3/8	Drain Rc3/8	Drain Rc1/4
C1	22	73	149	41	29	29
C2	95	120	34	34	95	95
Oil amount (L)	0.31	0.35	0.43	0.42	0.18	0.48
RGV100						
A	Oil plug Rc1/2	Oil plug Rc1/2	Oil plug Rc1/2	Oil plug Rc1/2	Oil plug Rc3/8	Oil plug Rc1/2
A1	80	25	48	182	39	32
A2	145	115	48	48	115	115
B	Oil level	Oil level	Oil level	Oil level	Oil level	Oil level
B1	51	51	74	156	72	72
B2	160	160	72	72	156	156
C	Drain Rc1/2	Drain Rc1/2	Drain Rc1/2	Drain Rc1/2	Drain Rc1/2	Drain Rc3/8
C1	25	80	182	48	32	39
C2	115	145	48	48	115	115
Oil amount (L)	0.46	0.56	0.7	0.68	0.37	0.65
RGV125						
A	Oil plug Rc1/2	Oil plug Rc1/2	Oil plug Rc1/2	Oil plug Rc1/2	Oil plug Rc3/8	Oil plug Rc1/2
A1	95	30	55	225	43	35
A2	180	140	50	50	140	140
B	Oil level	Oil level	Oil level	Oil level	Oil level	Oil level
B1	60	60	88	192	88	88
B2	195	195	88	88	192	192
C	Drain Rc1/2	Drain Rc1/2	Drain Rc1/2	Drain Rc1/2	Drain Rc1/2	Drain Rc3/8
C1	30	95	225	55	35	43
C2	140	180	50	50	140	140
Oil amount (L)	0.79	1.01	1.22	1.2	0.7	1.1

Attention: \_\_\_\_\_

Date: \_\_\_\_\_

Our contact person: \_\_\_\_\_

## Model Sizing Form for the **RollerDrive® RGV series**

Customer's Company, Department	Tel
Address	Fax
Name	Email

A) Application

B) Overview drawing, loads, operating environment, etc.  
 (Include any tables, workpieces, or jigs that will be attached to the RGV output shaft, and any loads that will be applied during rotation.)

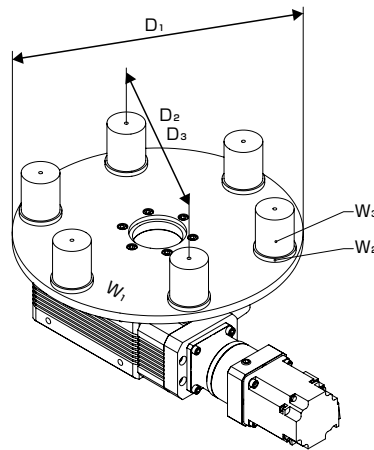
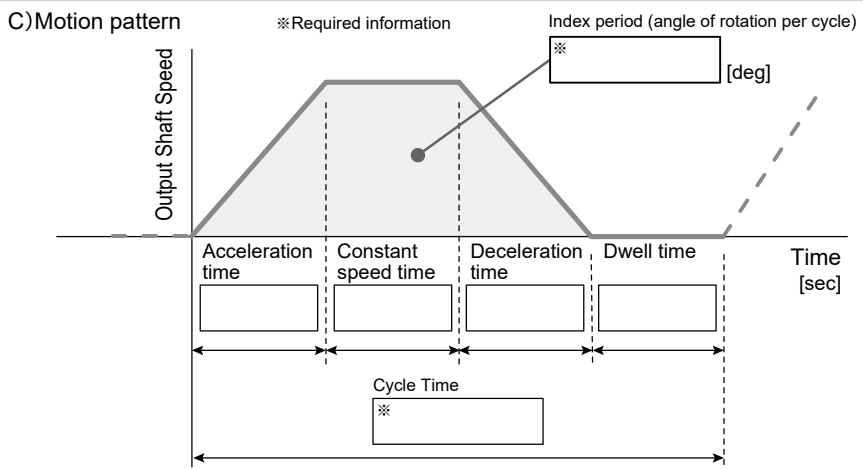


Table diameter : $D_1$	[mm]
Table weight : $W_1$	[kg]
Jig P.C.D. : $D_2$	[mm]
Weight per jig : $W_2$	[kg]
Jig quantity : $n_2$	[pcs]
Workpiece P.C.D. : $D_3$	[mm]
Weight per workpiece : $W_3$	[kg]

Load applied to output shaft

Axial/radial load	Moment load	Workpiece quantity : $n_3$
[N]	[N·m]	[pcs]



E) Intended servomotor Manufacturer

Model No. \_\_\_\_\_

Motor power (rated output) \_\_\_\_\_ [kW]

F) Mounting direction of servomotor  
 T surface (right side viewed from front)  
 U surface (left side viewed from front)  
 Circle applicable answer.

G) Attachment code

D) Lubrication method and position/direction Please choose one.

Lubrication method :  Grease lubrication  Oil lubrication

Position/direction :  W surface toward bottom  U surface toward bottom  R surface toward bottom  V surface toward bottom  T surface toward bottom  S surface toward bottom

H) Options

None  A : Rustproof  B : Rustproof/dustproof/waterproof

# Handling

## ▶ Installation Site

The RollerDrive products with standard specifications should be installed in locations where they can be easily checked and maintained. Specifically:

- Environment temperature from 5 to +40°C  
Depending on the operation pattern, the product surface temperature may rise because of heating in the motor or the product itself. Ensure cooling to 60°C or less using a fan or the like.
- Humidity under 85% (no condensation)
- Non vacuum or extreme pressure
- No exposure to water, oil, chemicals, dusts, etc.
- No existence of explosive gas, other hazardous gas, or radio active materials
- No direct sunlight
- Excessive shock or force does not act
- Minimal electromagnetic noise, and isolated from currents (Take particular care near welders, etc.).
- Minimum electro magnetic noise (be cautious on welding machines)

## ▶ Installation Procedure

The RollerDrive should be put in the operating position and installed on a smooth, robust place. After installing the main unit, attach the drive target to the output flange.

Tightening torque (Table 1)

Housing threads (aluminum)

Unit: N·m

Tightening torque (Table 2)

Output shaft threads (iron-based)

Unit: N·m

Thread size	Specified tightening torque (DIN6.8)	Thread size	Specified tightening torque (DIN10.9)
M6	7.5	M4	4.1
M8	18.5	M5	8.5
M10	36.0	M6	14.0
M12	63.0	M8	35.0
M16	158.0	M10	69.0

To prevent the bolts from loosening inadvertently, apply Loctite 242 or equivalent and use a torque wrench to apply the specified torque. (Refer to the tables on the left for the tightening torque.)

## ▶ Lubrication

RGV series products are available in one of two lubrication methods: Grease lubrication, which is the basic specification, or oil lubrication, which allows for high-speed rotation.

### • Grease lubrication

Units are generally maintenance-free, eliminating the need for regular grease replacement. (Please contact Sankyo for any questions about lubrication.)

**Lubricating grease: Epnoc grease AP (N) 2 from ENEOS Corporation**

### • Oil lubrication

Units use high-performance oil for lubrication. Although the oil used for lubrication is scientifically and thermally stable, change the oil after every 3,000 hours of operation to ensure a longer product service life. The oil level indicator can be used to check the condition of the lubricating oil. Stop operation before checking the condition.

Check the amount and color of the oil. If the oil amount has decreased, or if discoloration is found, replace the oil regardless of the operating time. Note that fine bubbles may appear in the oil during operation. This does not indicate a problem with the oil quality.

\* When changing the oil, use only the lubricating oil specified below.

Using an oil other than the one specified below for lubrication may shorten the product's service life or cause the components to deteriorate.

**Specified standard lubricating oil: Mobil SHC629 (VG150)**

Please refer to the instruction manual for product handling details.



## Handling

### ▶ Rustproof/dustproof/waterproof specifications

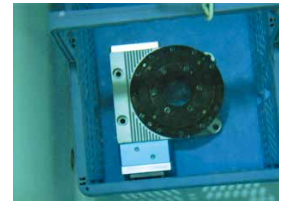
Rustproof/dustproof/waterproof specifications are available protection options for RGR series units.

Following tests conducted under IP67 testing conditions (IEC 60529), TÜV Rheinland Japan Ltd., has confirmed that the RGR series housing is waterproof and dustproof.

(Tests were performed with the RGV063 (gear ratio: 24).)

IP is the abbreviation for International Protection, which indicates the degree of protection necessary to prevent foreign matter (steel balls, copper wires, dust, water, etc.) from entering the housing of electrical or mechanical products. A rating of IP6X indicates complete protection against dust, and IPX7 indicates that there is no intrusion of water even if a product is submerged in water at a specified pressure (at 15 cm to 1 m below the surface) for a certain amount of time (at least 30 minutes).

- A rustproof/dustproof/waterproof rating is not a guarantee against malfunction or for a specific operational lifetime.
- Units are not protected from the intrusion of all solids and liquids under all environments.
- RGV series units are rated IP54 or equivalent unless the dustproof/waterproof option is specified.



### ⚠ Servo motor torque limit

When using a motor indicated with “▲” in the list of mountable servo motors, take measures to limit the torque before use.

The RollerDrive may be damaged if the maximum instantaneous servo motor torque exceeds the static output torque of the RGV main unit such as during an emergency stop. To prevent the RollerDrive from being damaged, use the servo motor torque limit function and prevent the device from exceeding the static output torque such as during an emergency stop by turning off the power supply after a rapid stop. For emergency stop operations, implement a risk assessment at your company and select the most appropriate stop category.

- ⚠ Malfunctions caused by emergency stops, power failures, or torque limit function failures are not covered under warranty. Refer to the table to the right for torque limit settings.

List of torque limit setting values

Model	Total gear ratio	Setting value[N · m]
RGV040	15	6.6
	75	1.3
RGV063	12	7.2
	24	7.6
	60	1.4
	120	1.5
RGV080	12	12.9
	24	13.4
	36	4.3
	60	2.5
	72	4.4
RGV100	120	2.6
	12	31.2
	24	32.5
	60	6.2
RGV125	120	6.5
	36	17.5
	60	10.5
	120	11

### ⚠ Limitations on the use of this product

- This product cannot be used in applications where operation of the product has a direct impact in human life, or can cause bodily harm to people.

The scope of these use limitations includes the following applications:

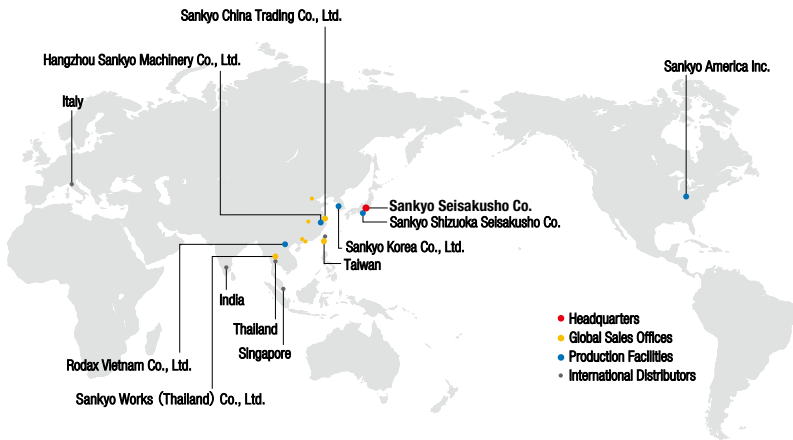
- i . Medical equipment
- ii . Nuclear power related equipment
- iii . Aerospace equipment
- iv . Equipment for handling explosive, corrosive or toxic substances etc.

- Please consult with our company if you are considering use in one of the above applications.
- If there is a possibility that this product will be used in a final use location outside Japan, in weapons or equipment for weapon manufacture, then it may be subject to regulation due to the Foreign Exchange and Foreign Trade Control Law. Please take extra care with regard to the application and region of use, and properly submit applications and follow procedures if necessary.

### ⚠ Notes on information

- Specifications, dimensions and other information relating to this product provided in this catalog are subject to change without prior notice.
- The information in this catalog is current as of December 2021.
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## Global network



## Group Companies

### Sankyo America Inc.

10655 State Route 47 Sidney, Ohio, 45365 U.S.A.  
 Phone: +1-(0)937-498-4901 Fax: +1-(0)937-498-9403  
 Email: sales@sankyoautomation.com

### Sankyo Korea Co., Ltd.

1449-48 Seobu-ro, Gwonseon-gu, Suwon-si, Gyeonggi-do, 16643 Korea  
 Phone: +82-(0)31-895-5991 Fax: +82-(0)31-895-6607  
 Email: kr-sales@rollerdrive.com

### Sankyo China Trading Co., Ltd.

**[ Shanghai Sales Office ]**  
 Room 1103, Block B, No.391 Guiping Road,  
 Shanghai 200233 China  
 Phone: +86-(0)21-5445-2813 Fax: +86-(0)21-5445-2340  
 Email: sales@sankyochina-trading.com

### [ Shenzhen Sales Office ]

Unit 19J, Tower B, NEO Building, No.6009 Shennan Avenue,  
 Futian District, Shenzhen China  
 Phone: +86-(0)755-8230-0270 Fax: +86-(0)755-8236-4605

### [ Tianjin Sales Office ]

Room 1905, Pengzhanfeiwo Building A, Crossing Yale Road Yaolin Road,  
 Xiqing District, Tianjin 300380 China  
 Phone: +86-(0)22-2312-1005 Fax: +86-(0)22-2312-1007

### [ Guangzhou Sales Office ]

Room 913, Xing Pu building, No.12 Guan Hong Road,  
 Guangzhou Economic Development Zone, Huang Pu, Guang Zhou 510670 China  
 Phone: +86-(0)20-8985-1846 Fax: +86-(0)20-8225-7346

### [ Wuhan Sales Office ]

Room 2301, Taihe Square, No.134 Wusheng Road, Wuhan,  
 Hubei Province China  
 Phone: +86-(0)27-8568-5818 Fax: +86-(0)27-8568-2818

### Hangzhou Sankyo Machinery Co., Ltd.

No.2518 Jiang Dong 2 Road, Hangzhou Jiang Dong Industrial Park,  
 Xiaoshan Zone, Hangzhou, Zhejiang, China  
 Phone: +86-(0)571-8283-3311 Fax: +86-(0)571-8283-1133

### Rodax Vietnam Co., Ltd.

Plot No. M1, Thang Long Industrial Park II  
 Di Su, My Hao, Hung Yen, Viet Nam  
 Phone: +84-(0)221-3-589701 Fax: +84-(0)221-3-589708

### Sankyo Works (Thailand) Co., Ltd.

9/31 Moo 5, Phaholyotin Road, Klongnueng,  
 Klong Luang, Patumthani 12120 Thailand  
 Phone: +66-(0)2-516-5355 Fax: +66-(0)2-068-0931  
 Email: sales@sankyo-works.co.th

## Contact us

Mon-Fri AM8:30-12:00 PM13:00-17:30 UTC + 09:00 (JST) (Except public holidays and company holidays)

### ■ Headquarters (International Sales Division)

3-37-3 Tabatashinmachi, Kita-ku, Tokyo, Japan 114-8538  
 Phone: +81-(0)3-3800-3330  
 Fax: +81-(0)3-3800-3380  
 Email: overseas@sankyo-seisakusho.co.jp  
 URL: <http://www.sankyo-seisakusho.co.jp>

### ■ Taiwan Sales Office

No.21, Ln.152, Jianxing Rd., Sanhe Vil., Daya Dist., Taichung City 42876, Taiwan (R.O.C.)  
 Phone: +886-(0)4-2359-4048  
 Fax: +886-(0)4-2359-4720  
 Email: tw-sales@rollerdrive.com





<http://www.sankyo-seisakusho.co.jp>

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