



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 ⁻¹	1,800	5,400	6,000	1,200	3,600	6,000	1,600	4,800	6,000
Rated input speed	min ⁻¹	900	2,700	3,000	600	1,800	3,000	800	2,400	3,000
Maximum output speed ^{*1}	min ⁻¹	120		80	100			66.7		50
Rated output speed ^{*1}	min ⁻¹	60		40	50			33.3		25
Internal moment of inertia at the input shaft ^{*2}	× 10 ⁻⁴ kg · m ²	0.243			0.851			0.642		
Equivalent moment of inertia of motor shaft ^{*3}	× 10 ⁻⁴ kg · m ²	0.39	0.21	0.16	1.68	0.44	0.26	1.47	0.41	0.25
Repeatability ^{*4}	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) ^{*5}	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 ⁻¹	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 ⁻¹	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 ^{*1}	min ⁻¹	91.7			58.3			50			83.3			54.2			50			75		
Rated output speed ^{*1}	min ⁻¹	45.8			29.2			25			41.7			27.1			25			37.5		
Internal moment of inertia at the input shaft ^{*2}	× 10 ⁻⁴ kg · m ²	2.843			2.237			7.031			5.248			18.799			13.539					
Equivalent moment of inertia of motor shaft ^{*3}	× 10 ⁻⁴ kg · m ²	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 ^{*4}	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) ^{*5}	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 ⁻¹	2,400	6,000		2,600	6,000		2,600	6,000	
Rated input speed	min ⁻¹	1,200	3,000		1,300	3,000		1,300	3,000	
Maximum output speed ^{*1}	min ⁻¹	160	133.3	80	216.7	166.7	100	108.3	83.3	50
Rated output speed ^{*1}	min ⁻¹	80	66.7	40	108.3	83.3	50	54.2	41.7	25
Internal moment of inertia at the input shaft ^{*2}	× 10 ⁴ kg · m ²	0.243			0.851			0.642		
Equivalent moment of inertia of motor shaft ^{*3}	× 10 ⁴ kg · m ²	0.39	0.21	0.16	1.68	0.44	0.26	1.47	0.41	0.25
Repeatability ^{*4}	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) ^{*5}	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 ⁻¹	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 ⁻¹	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 ^{*1}	min ⁻¹	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 ^{*1}	min ⁻¹	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 ^{*2}	× 10 ⁴ kg · m ²	2.843			2.237			7.031			5.248			18.799			13.539		
Equivalent moment of inertia of motor shaft ^{*3}	× 10 ⁴ kg · m ²	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 ^{*4}	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) ^{*5}	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.

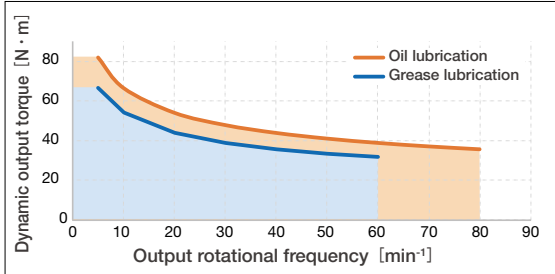


Dynamic output torque

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.

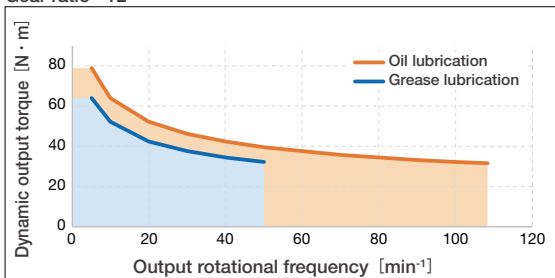
RGV040

Gear ratio=15

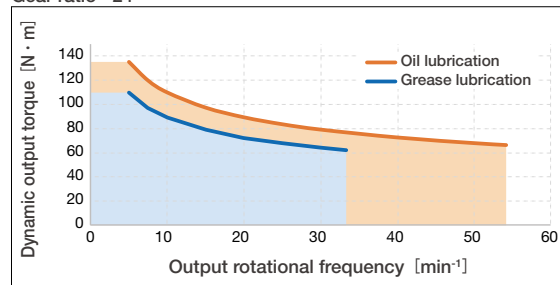


RGV063

Gear ratio=12

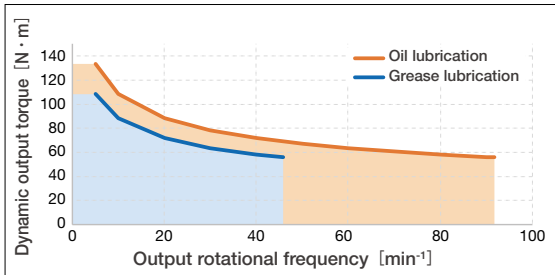


Gear ratio=24

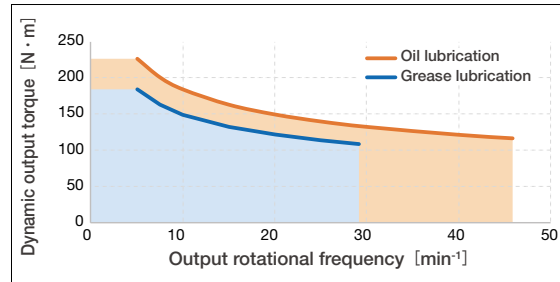


RGV080

Gear ratio=12

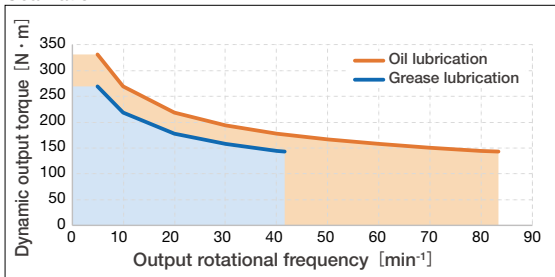


Gear ratio=24

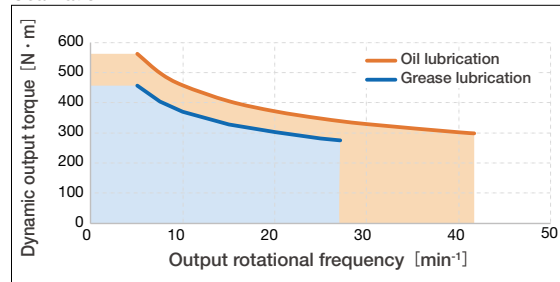


RGV100

Gear ratio=12

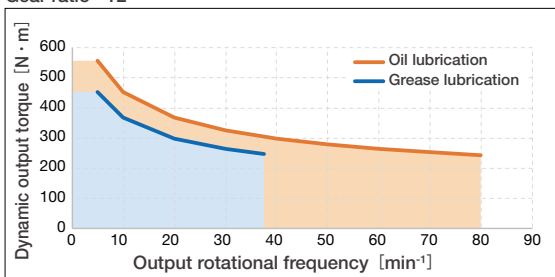


Gear ratio=24

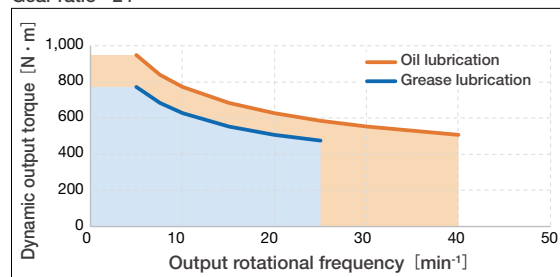


RGV125

Gear ratio=12



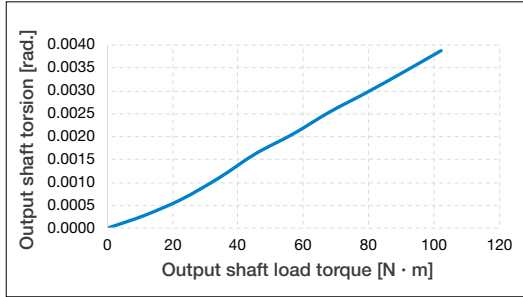
Gear ratio=24



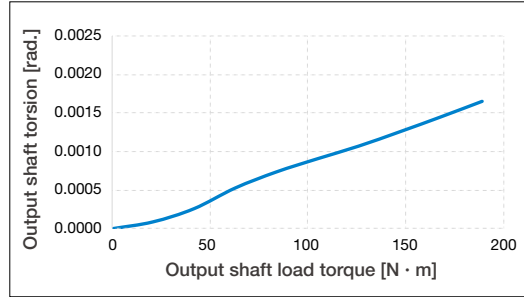
Torsional Rigidity

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

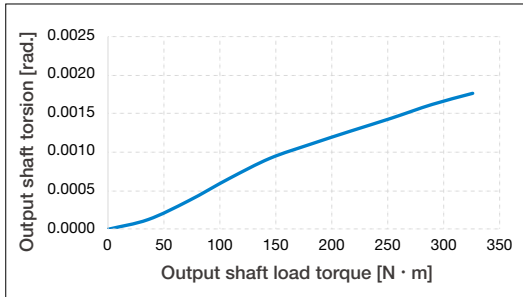
RGV040



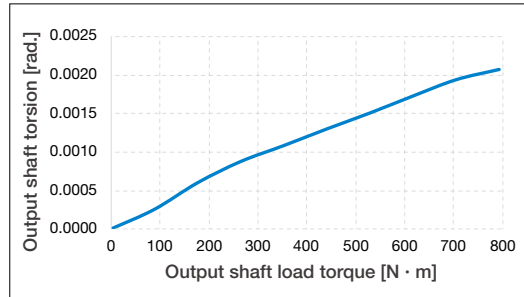
RGV063



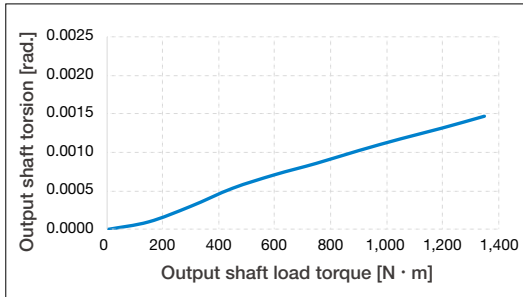
RGV080



RGV100

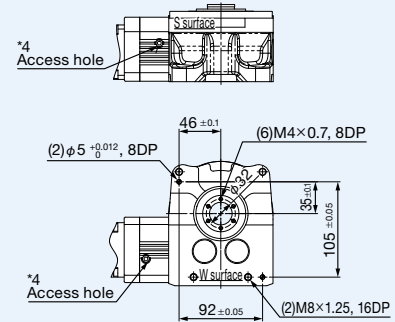
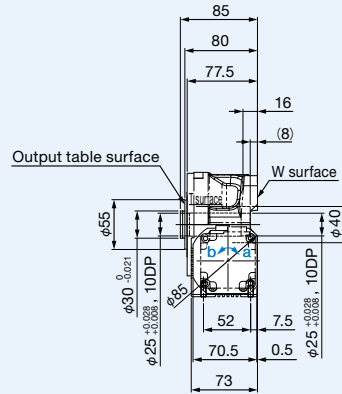
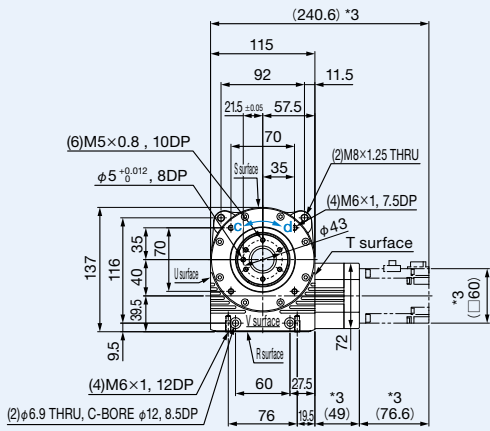


RGV125

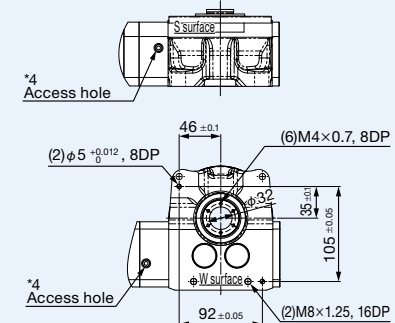
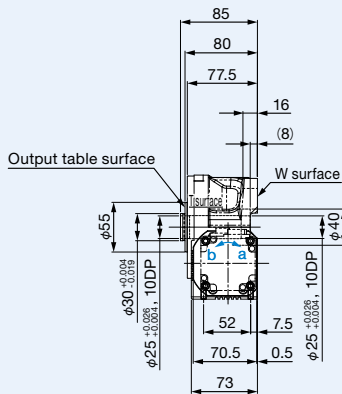
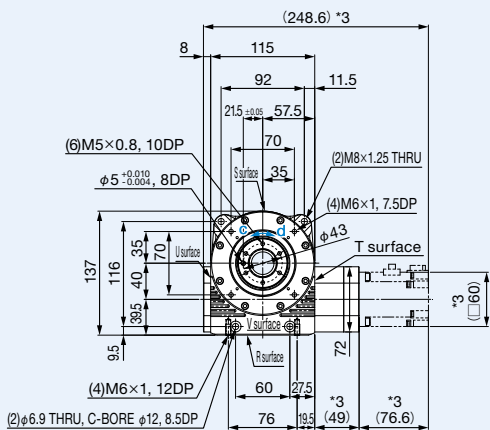


RGV040 Dimensions of Standard Gear Ratio Models

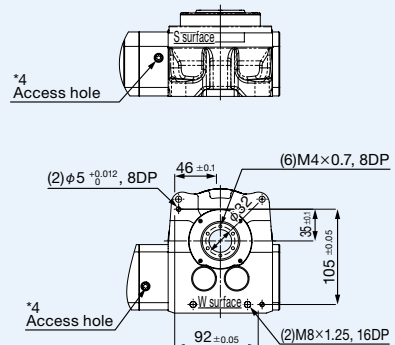
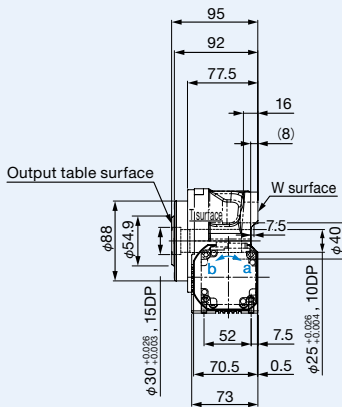
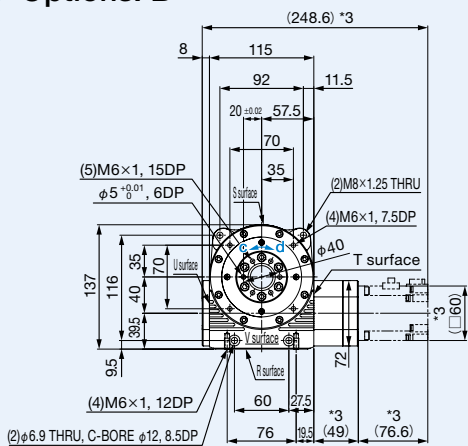
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Options: A



Options: B



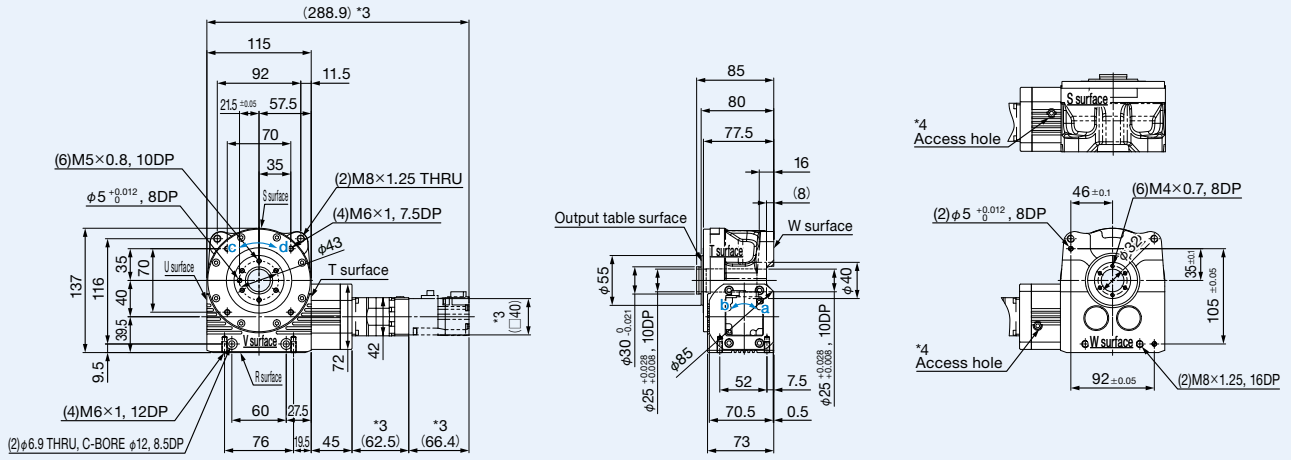
*1 This drawing is for a model where the motor is mounted on the T surface. *2 The rotating directions of input-output axes are related as a-d and b-c.

*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.

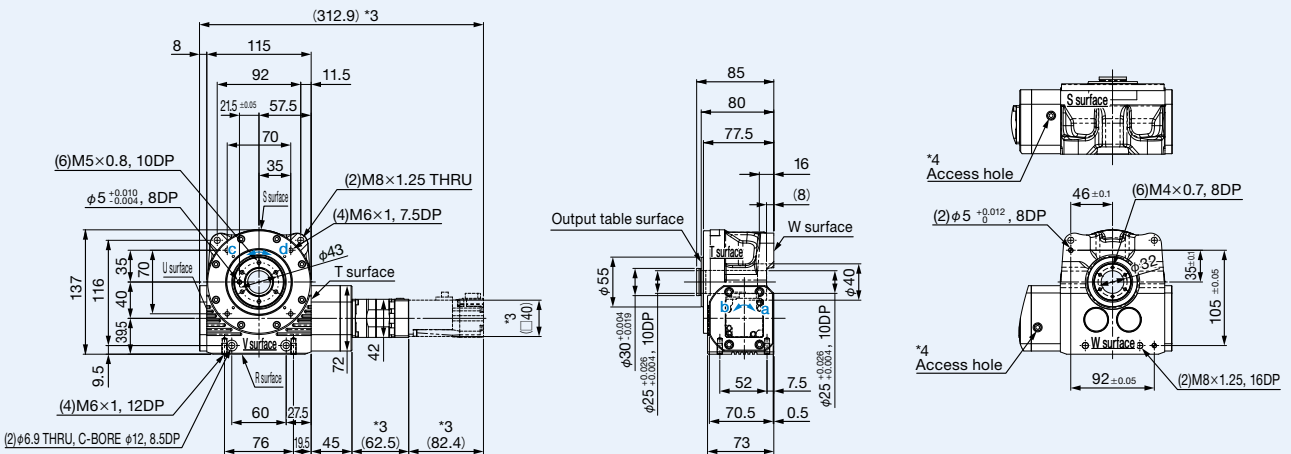
9 *5 Due to its mounting position, the positions of the oil plug, oil level, and drain differ for the oil lubrication type. See P. 29. *6 The servo motor will need to be prepared by the customer.

RGV040 Dimensions of High Gear Ratio Models

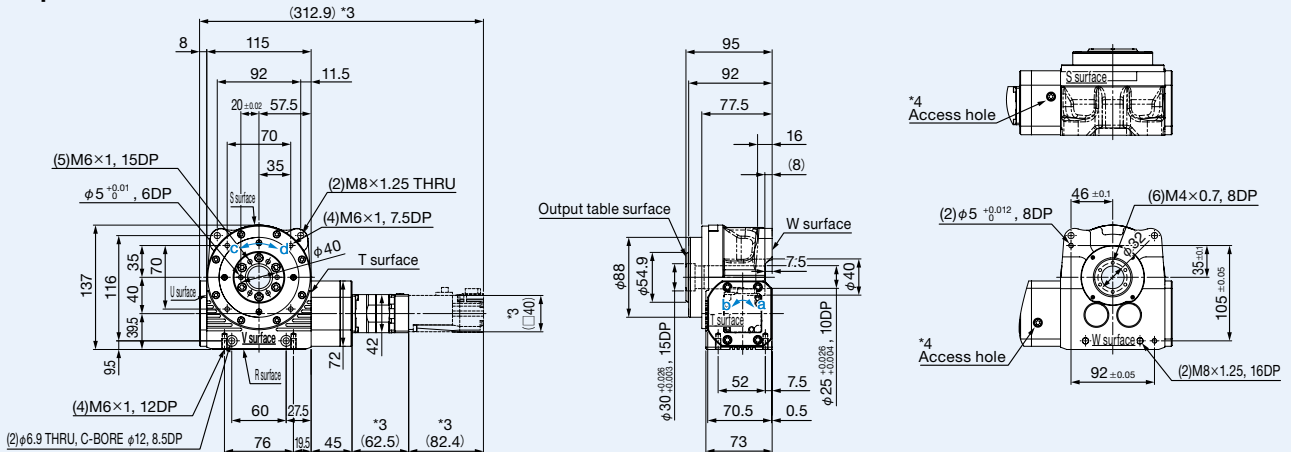
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Options: A



Options: B



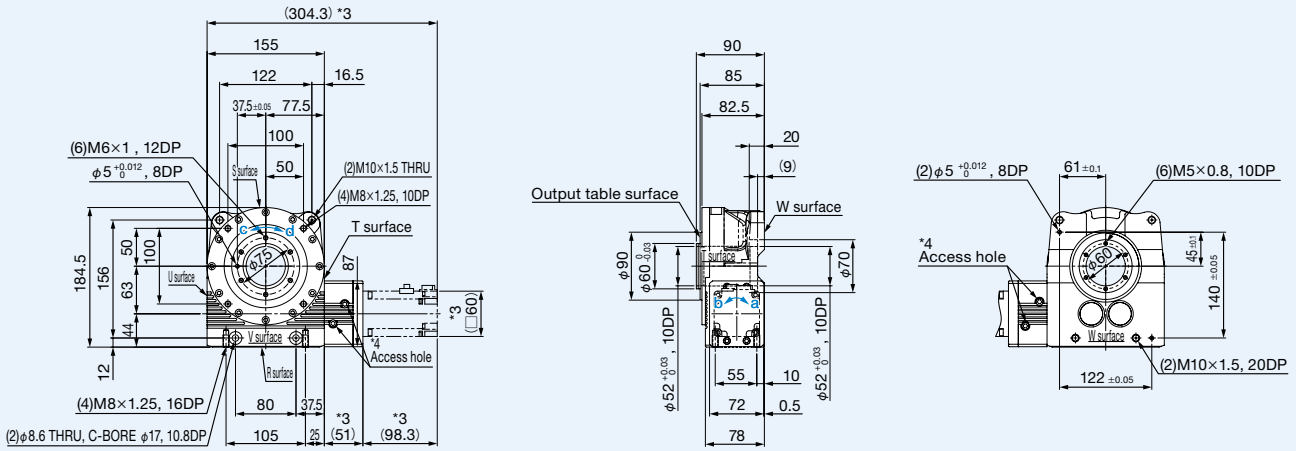
*1 This drawing is for a model where the motor is mounted on the T surface. *2 The rotating directions of input-output axes are related as a-d and b-c.

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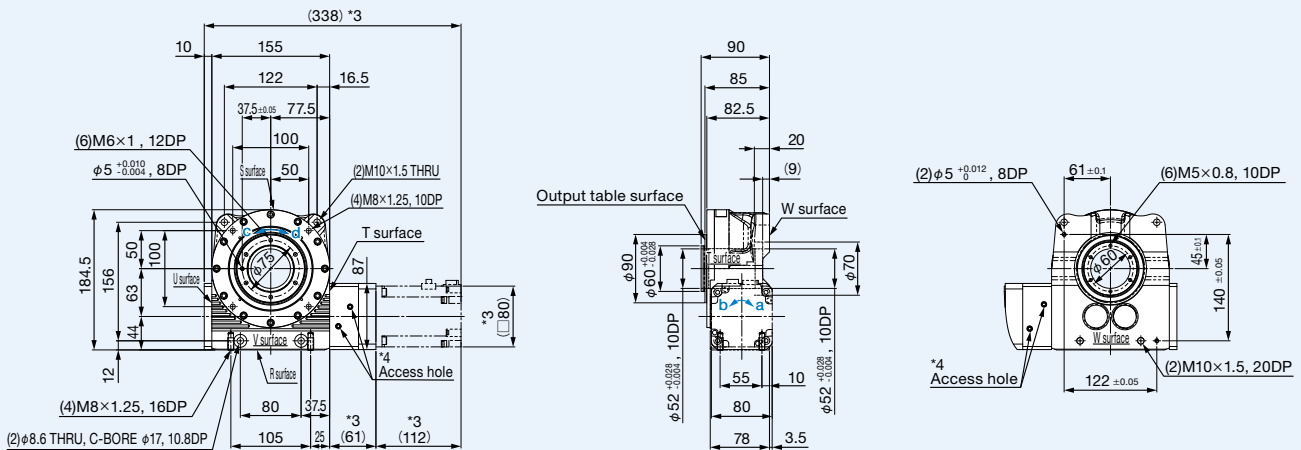
*5 Due to its mounting position, the positions of the oil plug, oil level, and drain differ for the oil lubrication type. See P. 29. *6 The servo motor will need to be prepared by the customer.

RGV063 Dimensions of Standard Gear Ratio Models

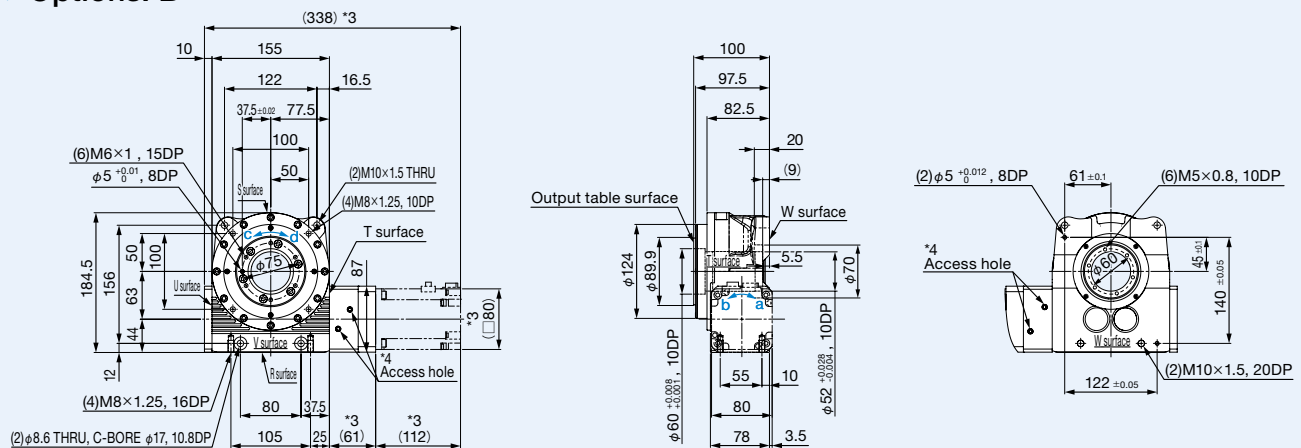
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Options: A



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.

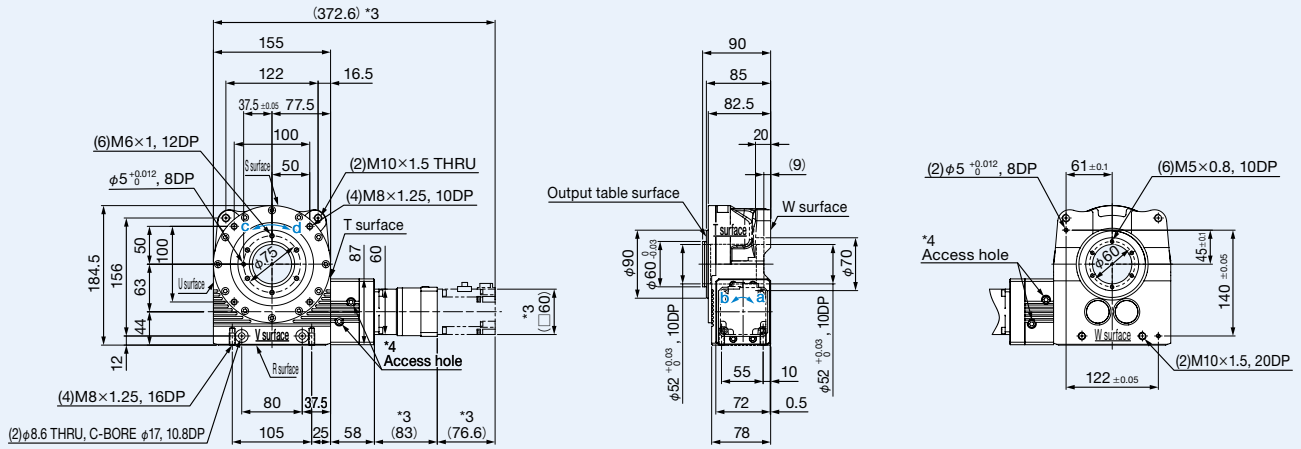
*3 Dimensions in parentheses () vary depending on the motor. *4 There is one access holes on the V surface and one on the W surface.

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.

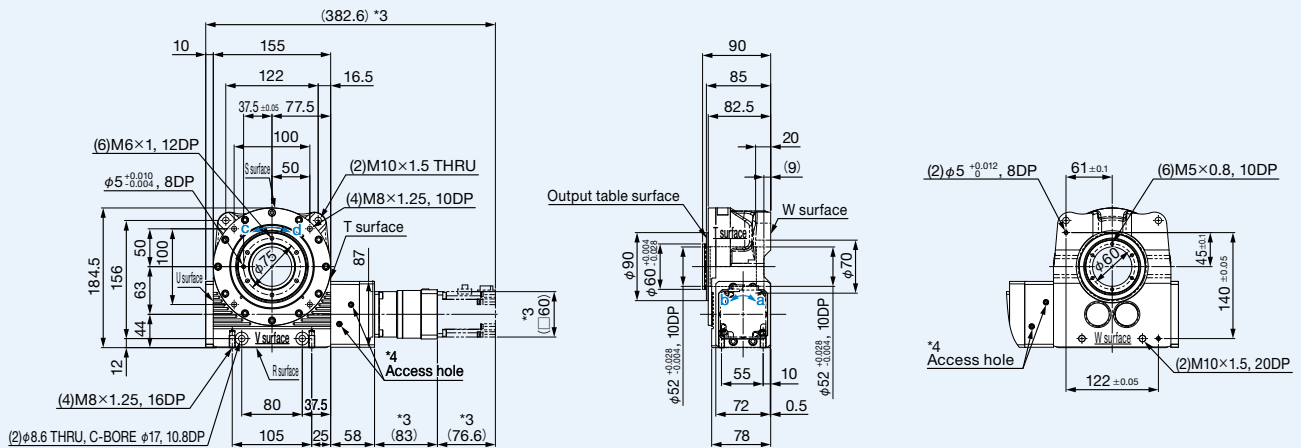


RGV063 Dimensions of High Gear Ratio Models

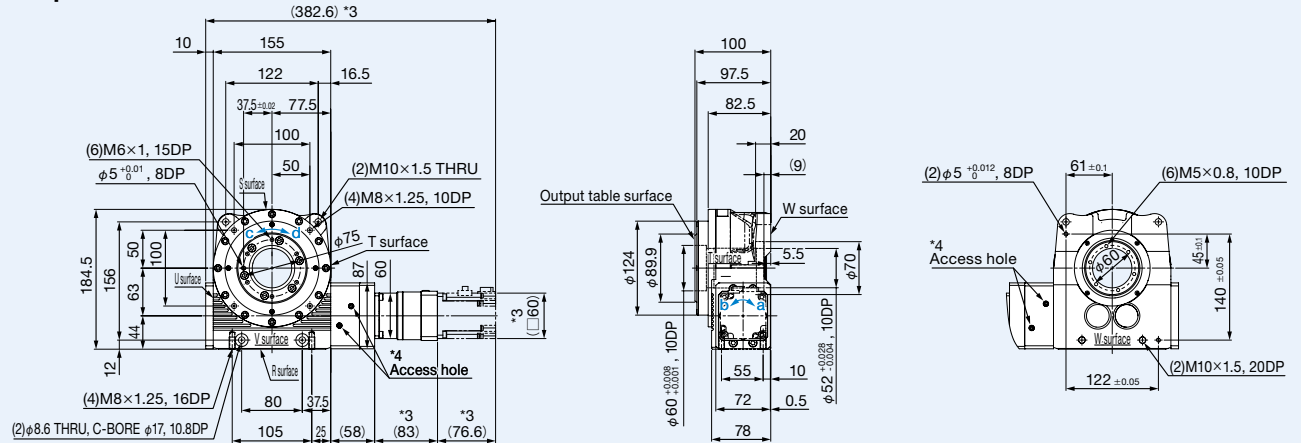
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Options: A



Options: B



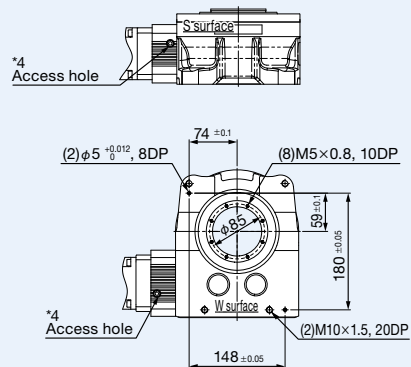
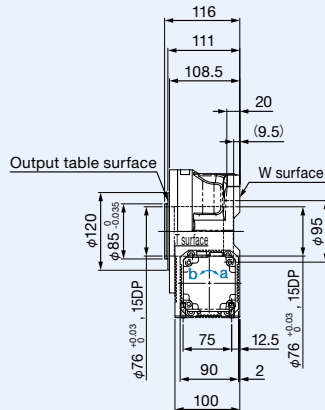
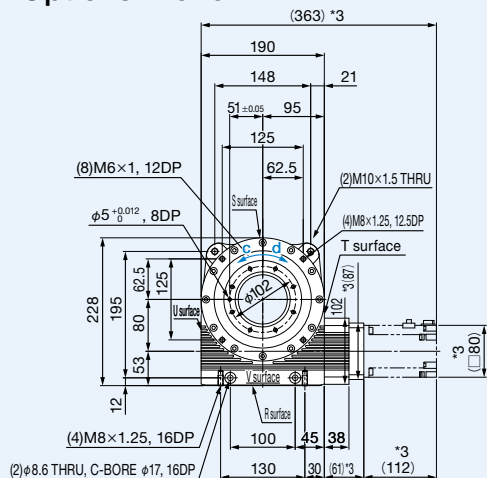
*1 This drawing is for a model where the motor is mounted on the T surface. *2 The rotating directions of input-output axes are related as a-d and b-c.

*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.

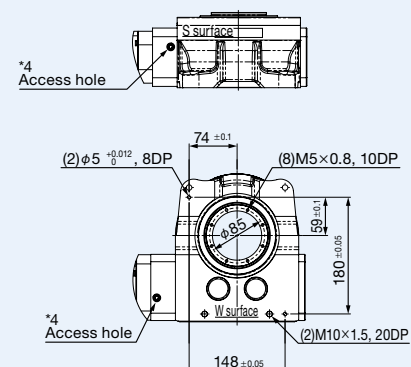
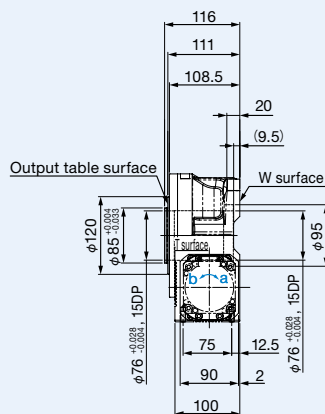
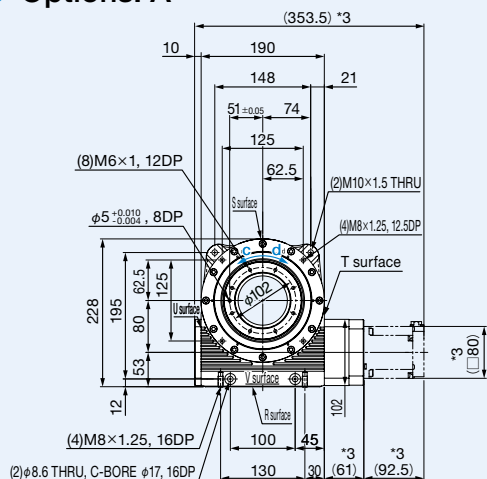
*5 Due to its mounting position, the positions of the oil plug, oil level, and drain differ for the oil lubrication type. See P. 29. *6 The servo motor will need to be prepared by the customer.

RGV80 Dimensions of Standard Gear Ratio Models

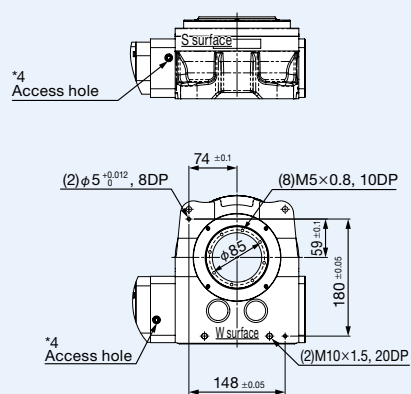
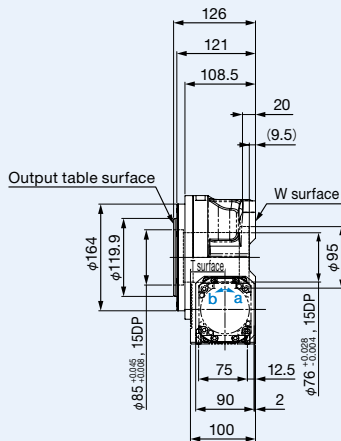
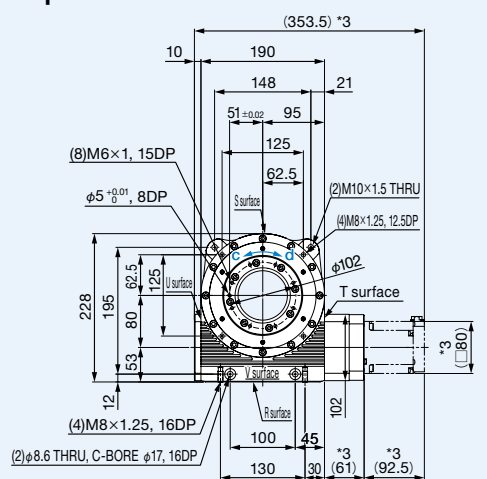
Options: None



Options: A



Options: B

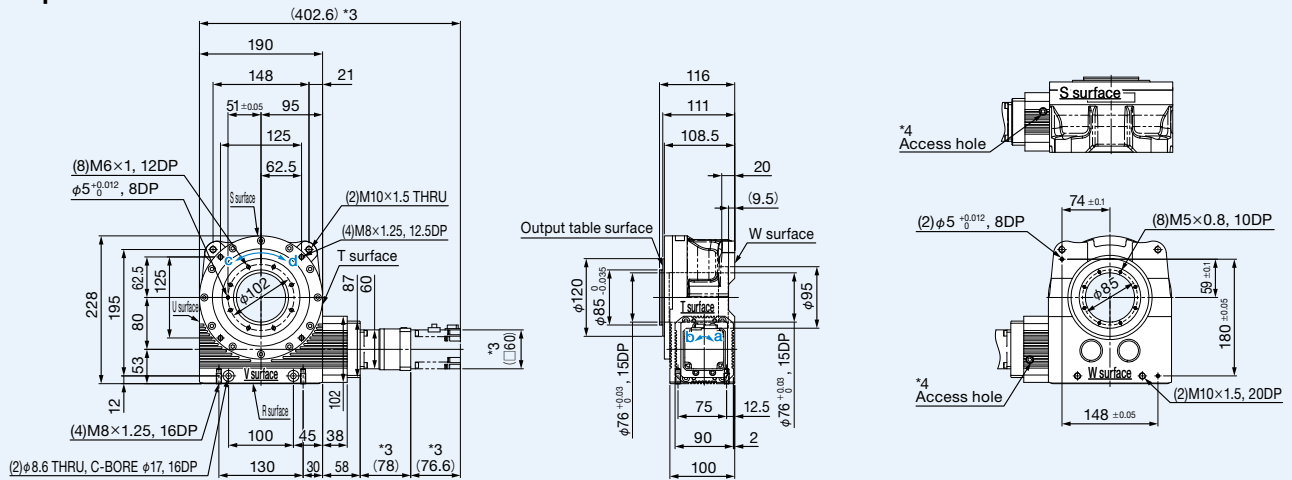


*1 This drawing is for a model where the motor is mounted on the T surface. *2 The rotating directions of input-output axes are related as a-d and b-c.

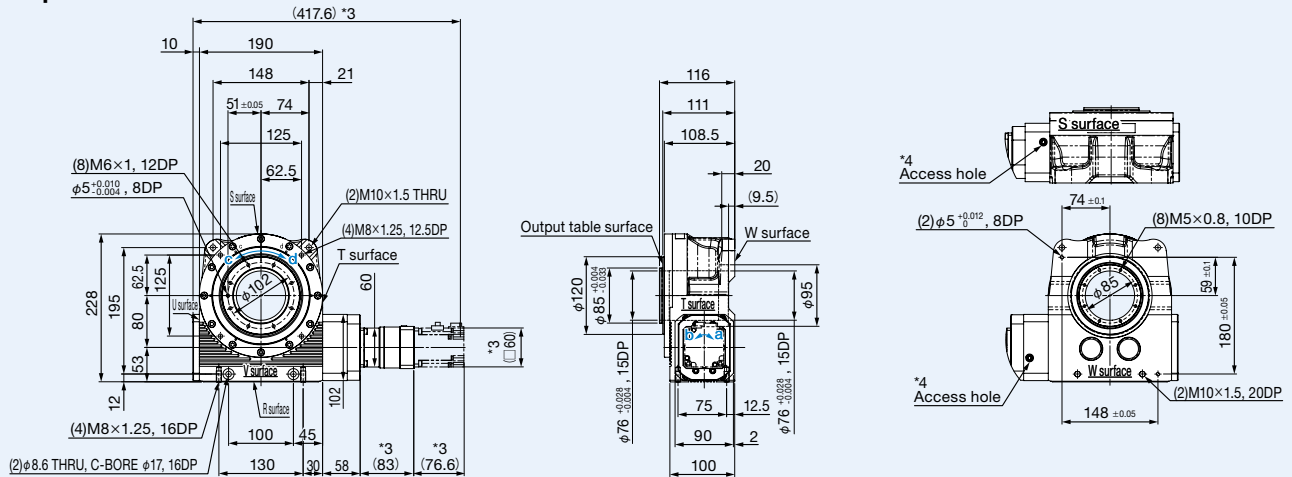
*3 Dimensions in parentheses () vary depending on the motor. *4 There is one access hole on the S surface and one on the W surface.

RGV80 Dimensions of High Gear Ratio Models

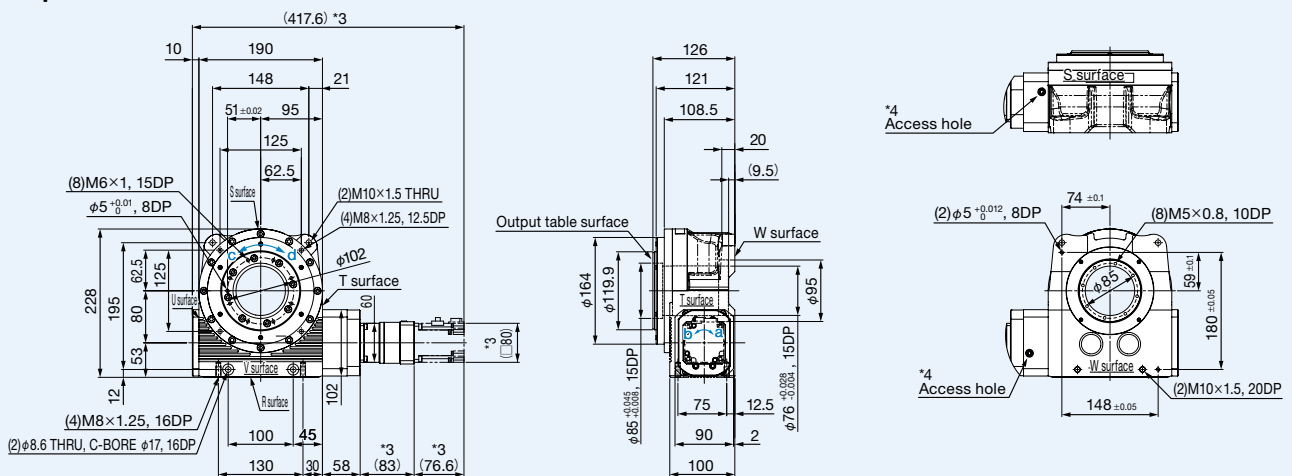
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Options: A



Options: B



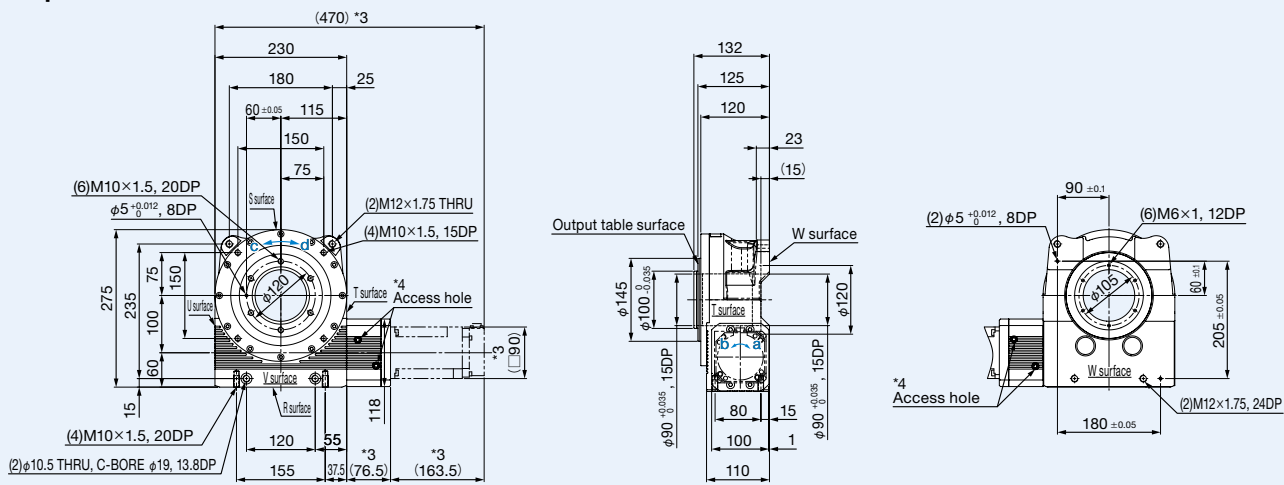
*1 This drawing is for a model where the motor is mounted on the T surface. *2 The rotating directions of input-output axes are related as a-d and b-c.

*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.

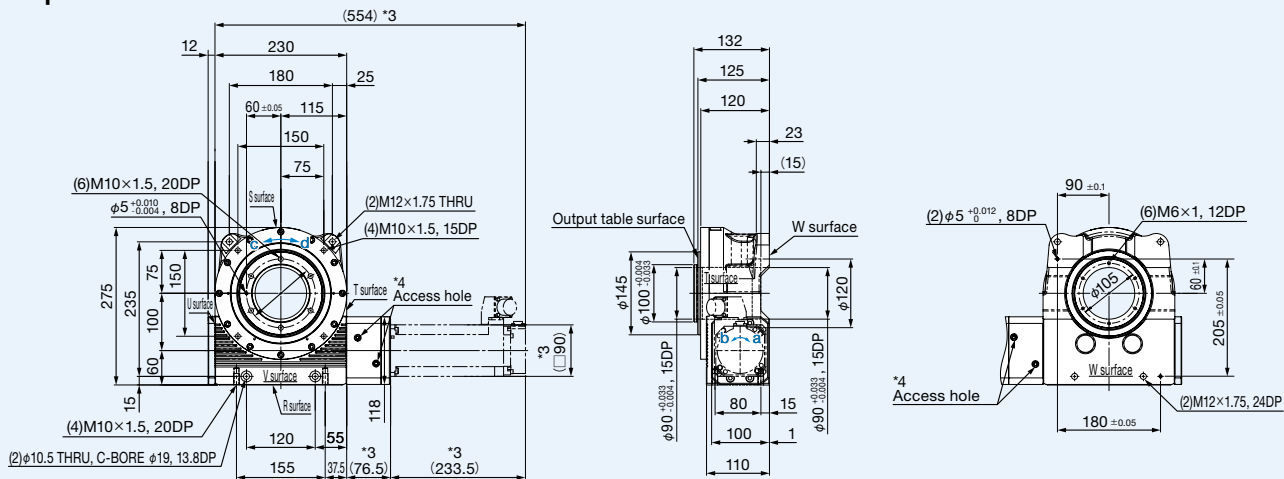
*5 Due to its mounting position, the positions of the oil plug, oil level, and drain differ for the oil lubrication type. See P. 29. *6 The servo motor will need to be prepared by the customer.

RGV100 Dimensions of Standard Gear Ratio Models

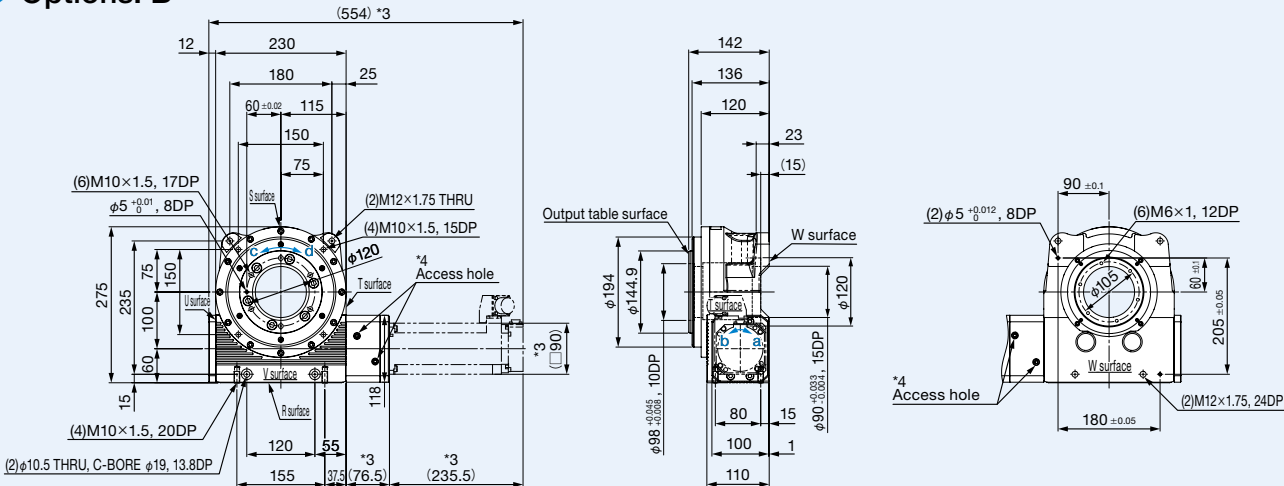
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Options: A



Options: B



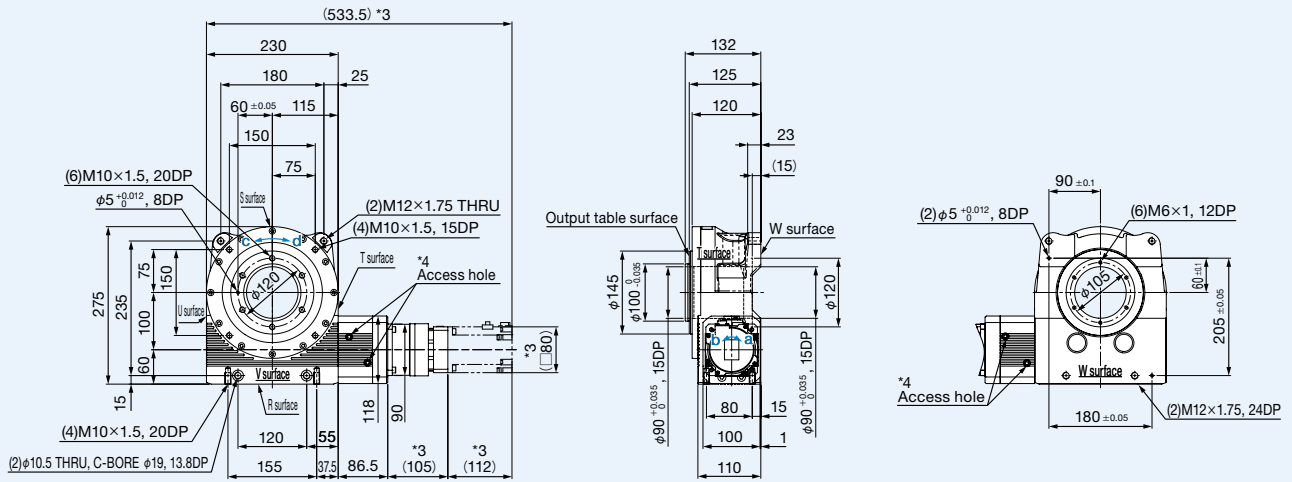
*1 This drawing is for a model where the motor is mounted on the T surface. *2 The rotating directions of input-output axes are related as a-d and b-c.

*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.

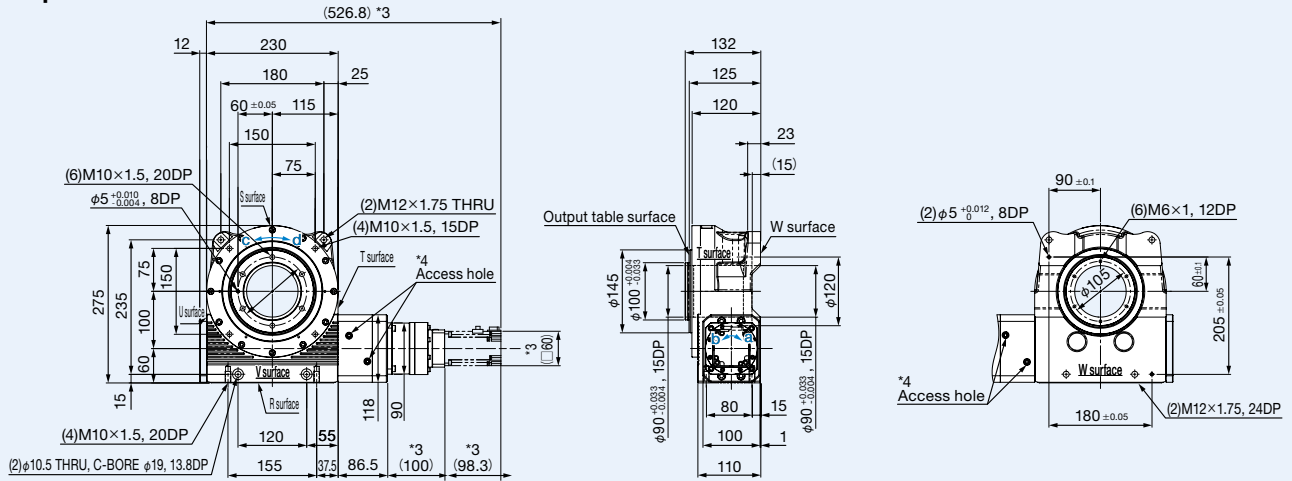
15 *5 Due to its mounting position, the positions of the oil plug, oil level, and drain differ for the oil lubrication type. See P. 29. *6 The servo motor will need to be prepared by the customer.

RGV100 Dimensions of High Gear Ratio Models

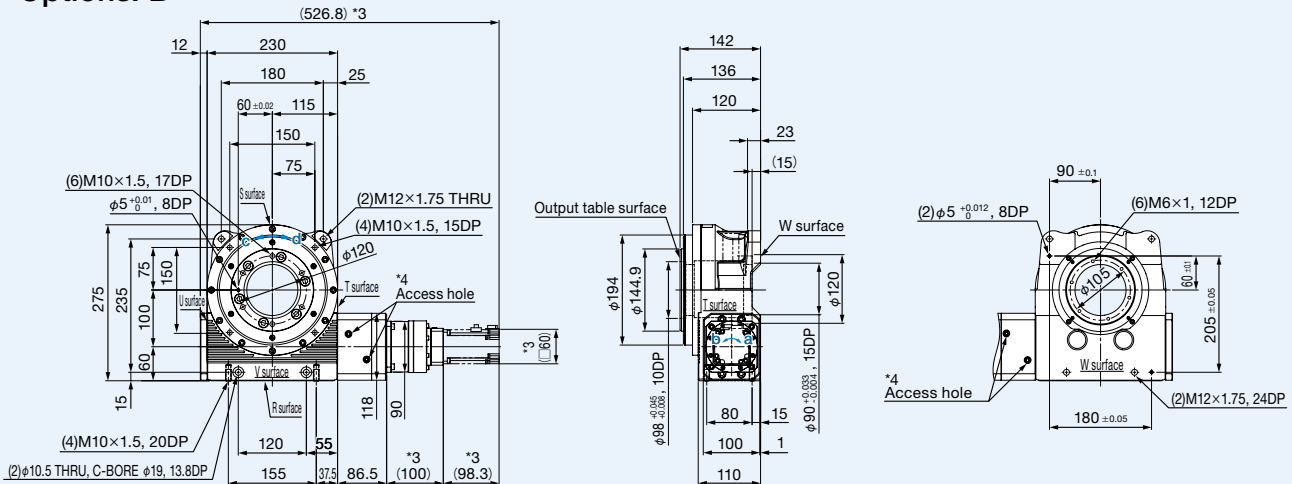
Options: None



Options: A



Options: B



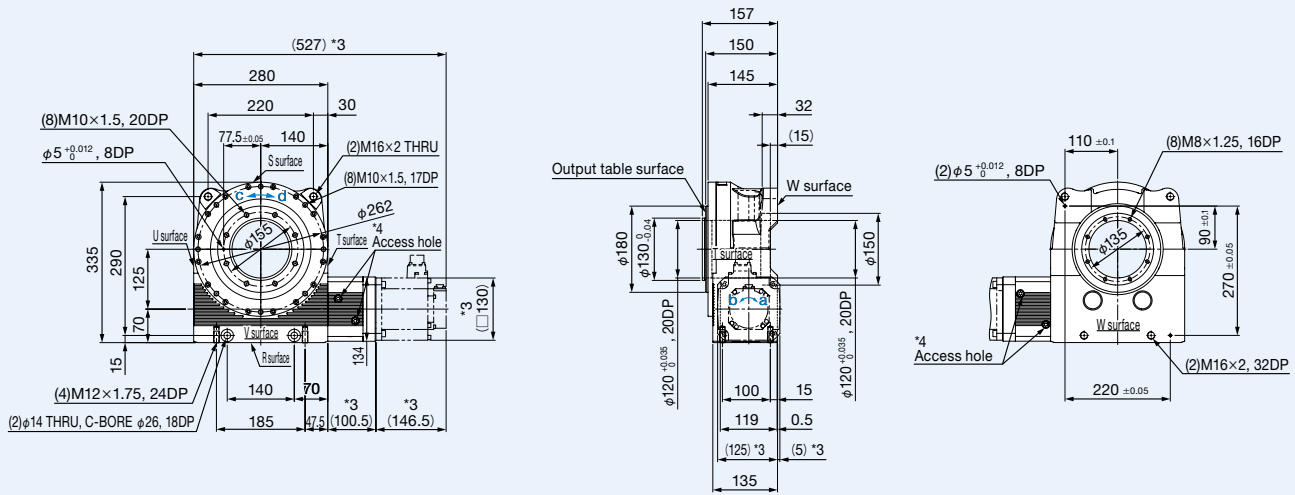
*1 This drawing is for a model where the motor is mounted on the T surface. *2 The rotating directions of input-output axes are related as a-d and b-c.

*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.

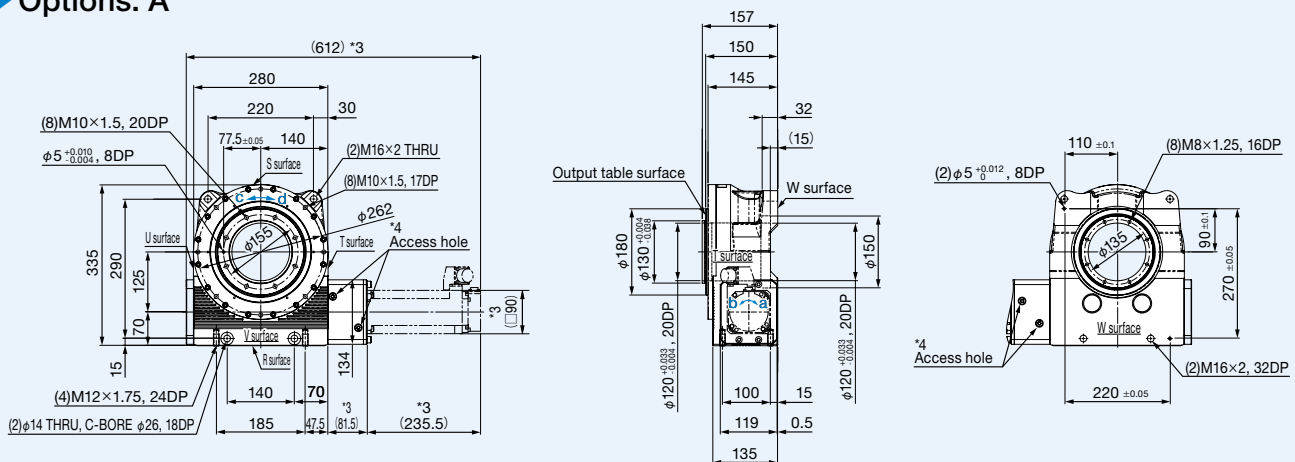
*5 Due to its mounting position, the positions of the oil plug, oil level, and drain differ for the oil lubrication type. See P. 29. *6 The servo motor will need to be prepared by the customer.

RGV125 Dimensions of Standard Gear Ratio Models

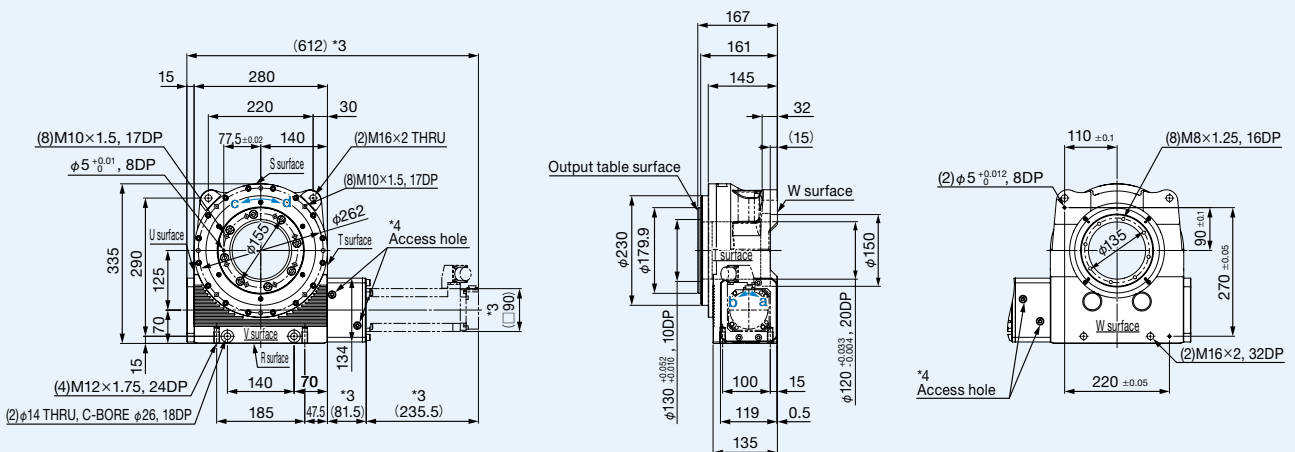
Options: None



Options: A



Options: B

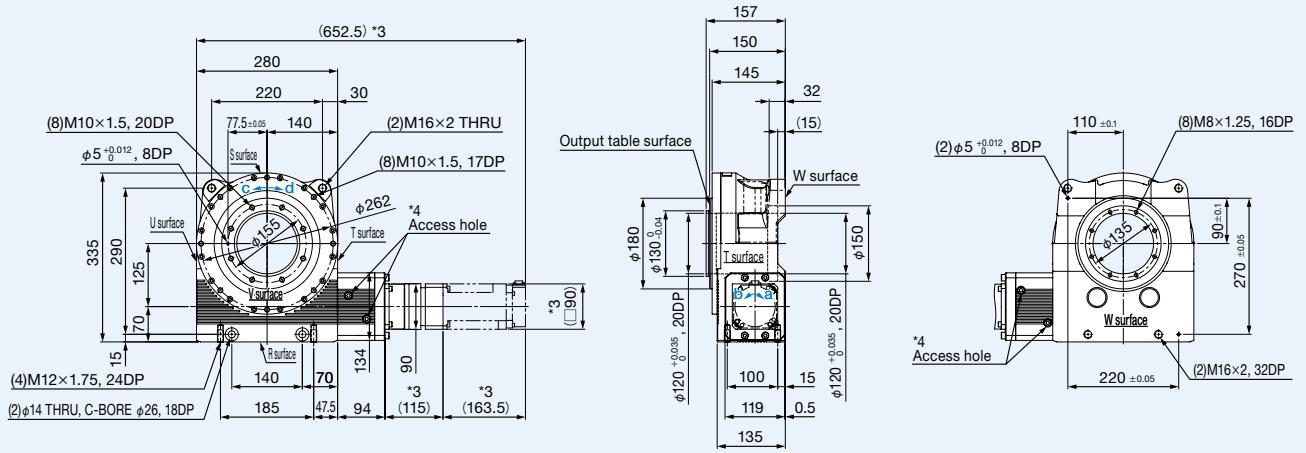


*1 This drawing is for a model where the motor is mounted on the T surface. *2 The rotating directions of input-output axes are related as a-d and b-c.

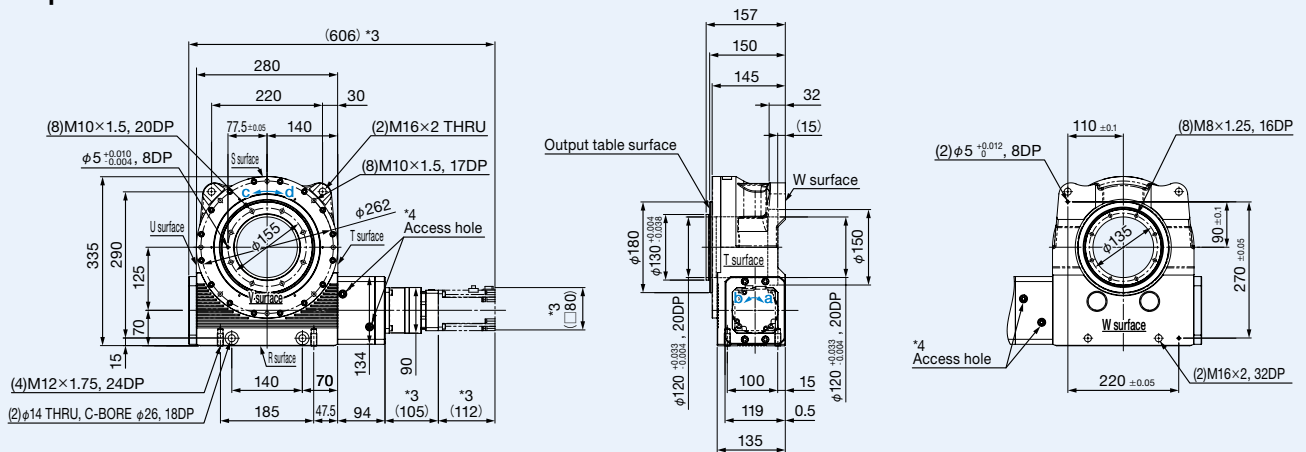
*3 Dimensions in parentheses () vary depending on the motor. *4 There is one access holes on the V surface and one on the W surface.

RGV125 Dimensions of High Gear Ratio Models

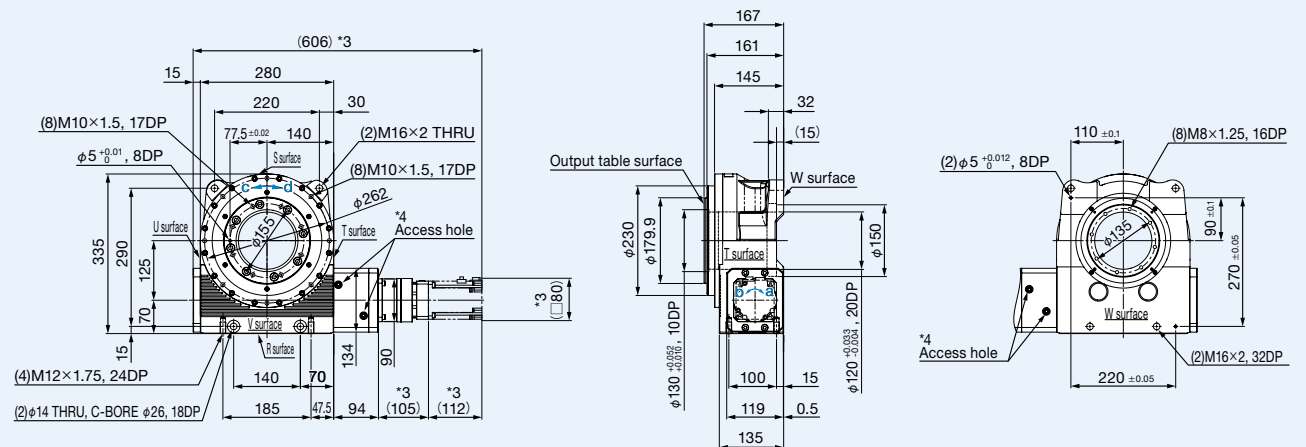
Options: None



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.