

Zero-Backlash high precision reducer

# DynaStation® GTBseries



**GTB**  
P L B

## Task of Servo positioning

- Minimize backlash of gear head
- Need solid drive system
- Selection of reduction ratio

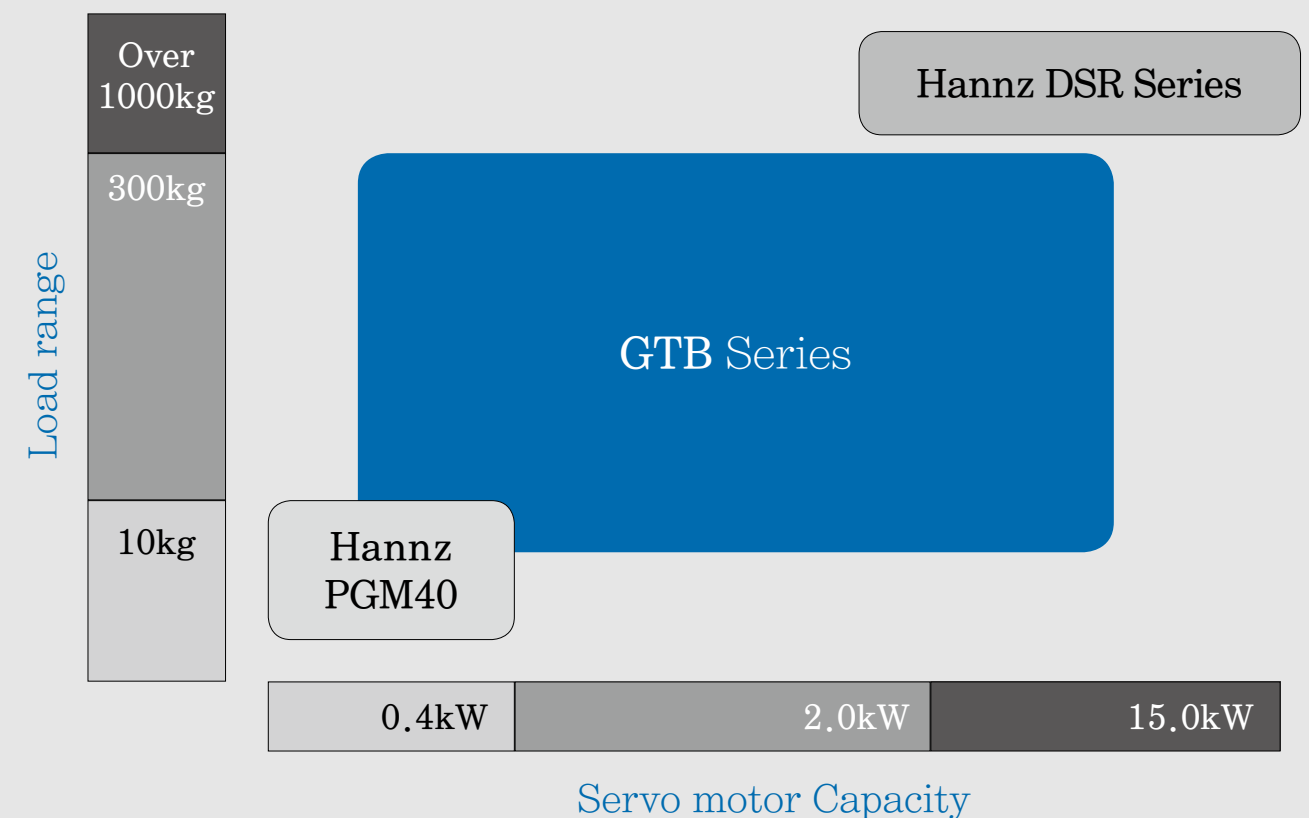


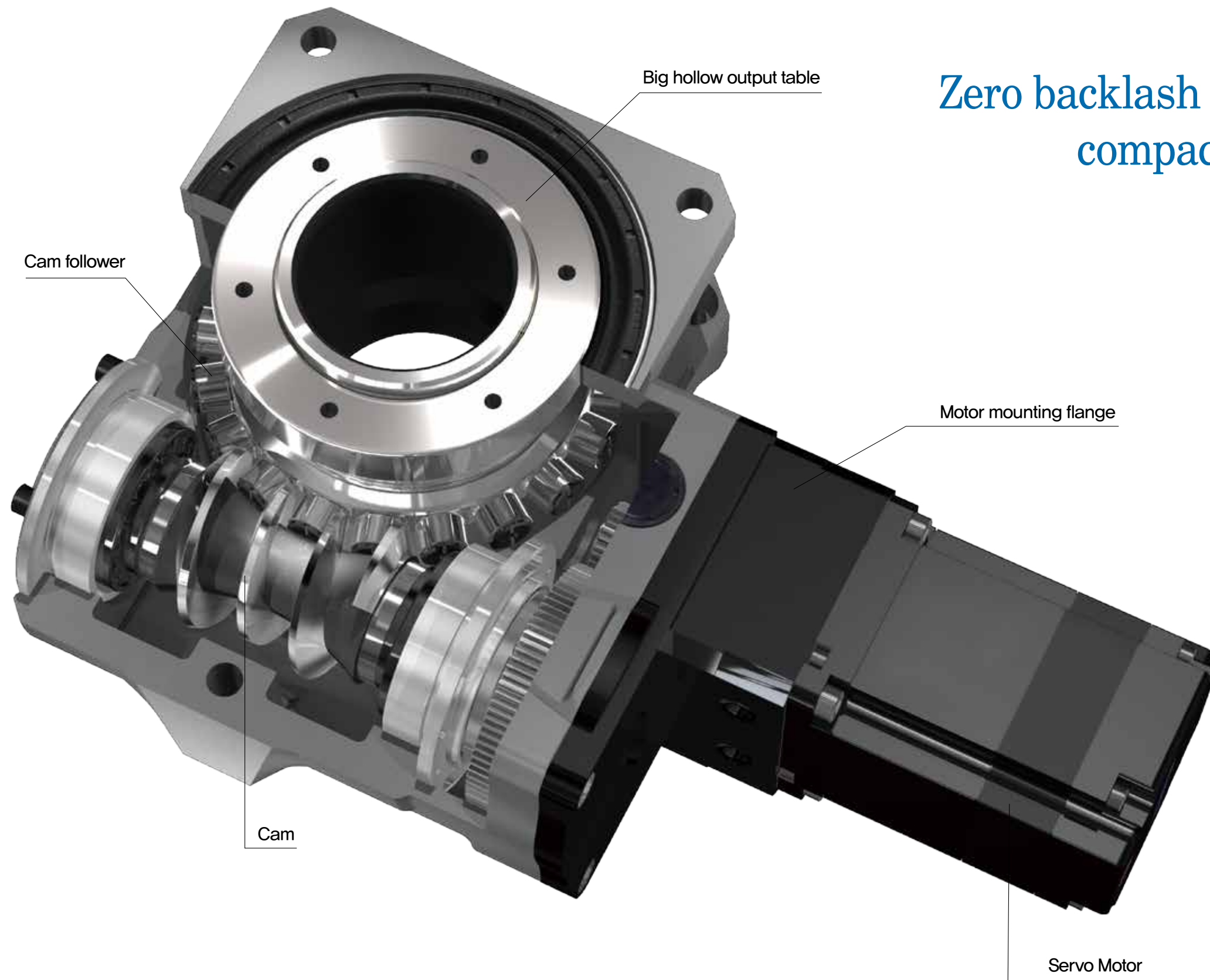
## G T B Series



Dynastation G T B series is a high precision zero backlash reducer for designed by solving the problems of automation field.

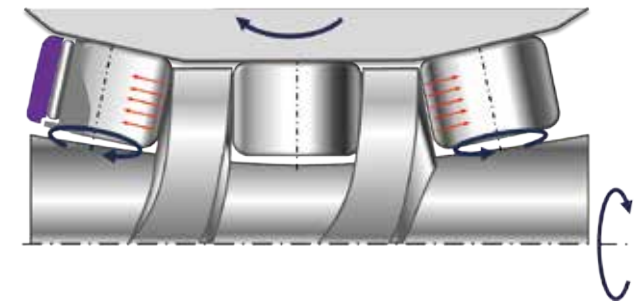
## Range of GTB Series





High ratio type

Zero backlash mechanism without abrasion  
compact high-strength body



## Roller gear cam reducer

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

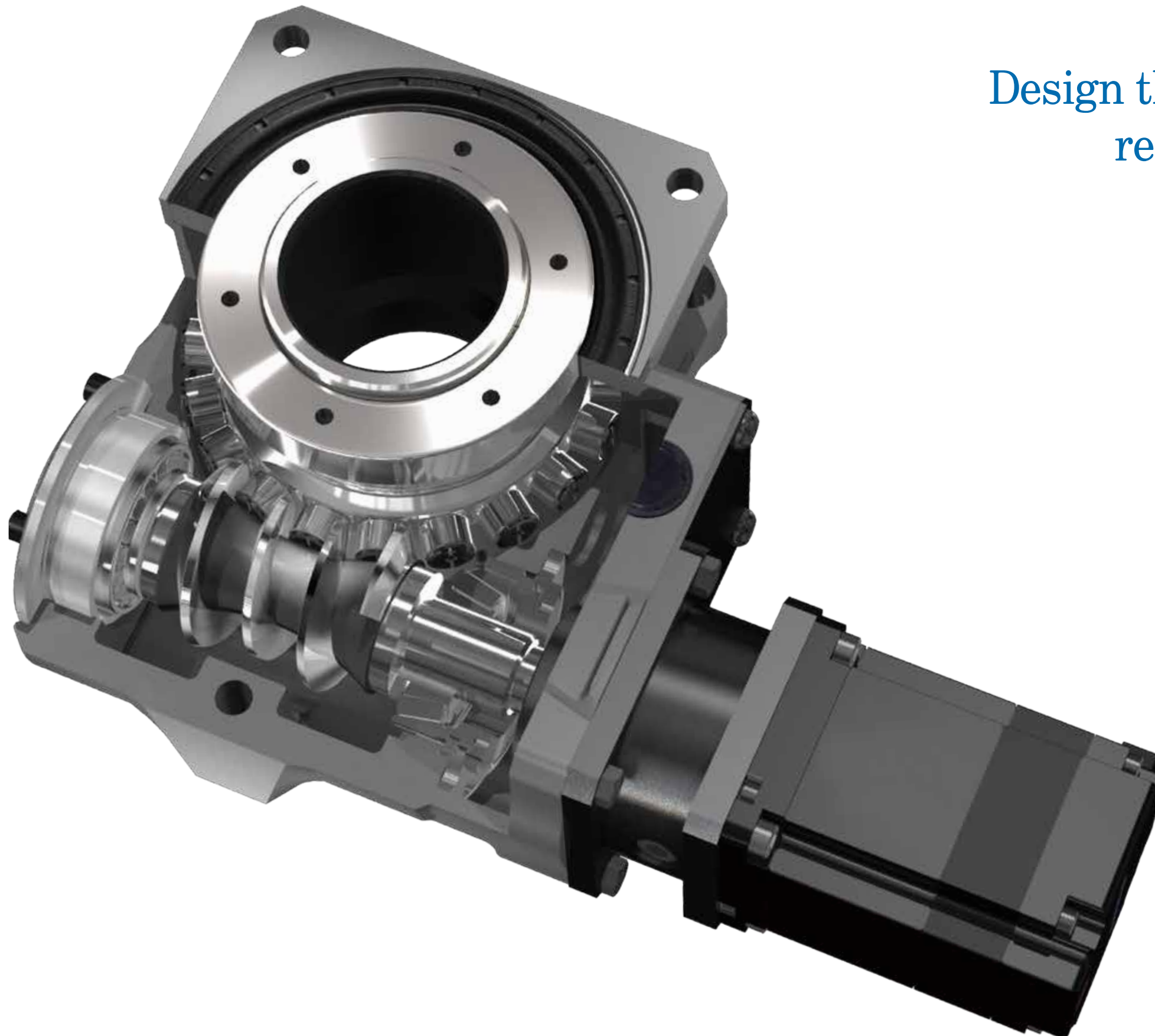


## Black finish high-strength body

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



# GTB SERIES



Motor direct type

Design that can cope with two type of reduction characteristics



## Reduction ratio select system (PAT.P)

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



## Stable vertical and plane installation

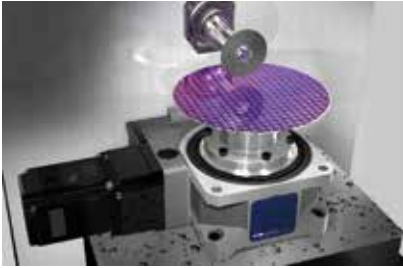
The product can be installed in any direction, either plane or vertical. Except for the motor direction, the installable surface is arranged in all the other direction, so it can be used for various installation methods. In addition, since the front and rear mounting positions are the same, it is possible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

■ Application

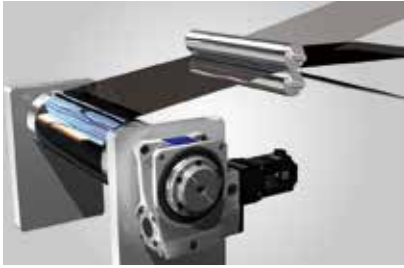
Semiconductor／LCD



Glass polishing machine



Wafer rotation axis

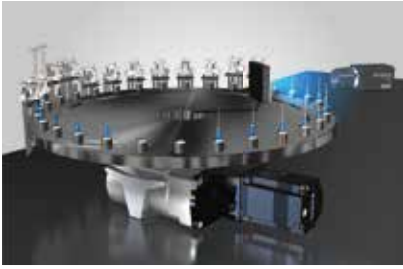


Polarizing film roll transport

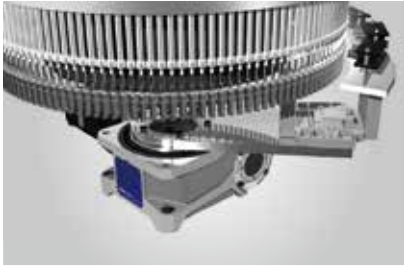
Pharmaceutical／Medical device



Filling machine

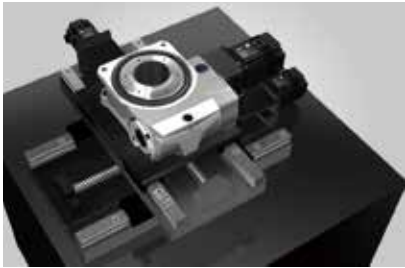


Needle assembly inspection

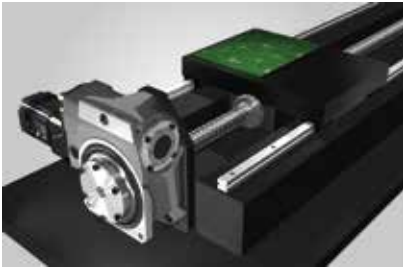


Visual inspection camera synchronous operation

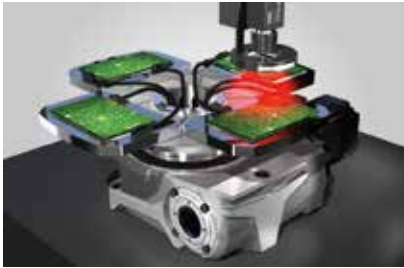
Electric／Electronic



X・Y・θ inspection stage

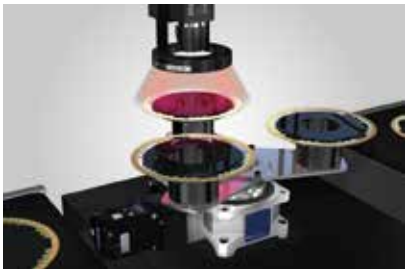


Ball screw drive



Substrate inspection device

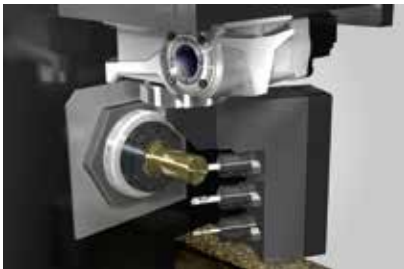
Automotive／Machine tool



Assembly quality inspection table



Robot sub drive part



Lathe machine tool B-axis

Packaging, molding



Rotary packaging machine



Molding／Printing

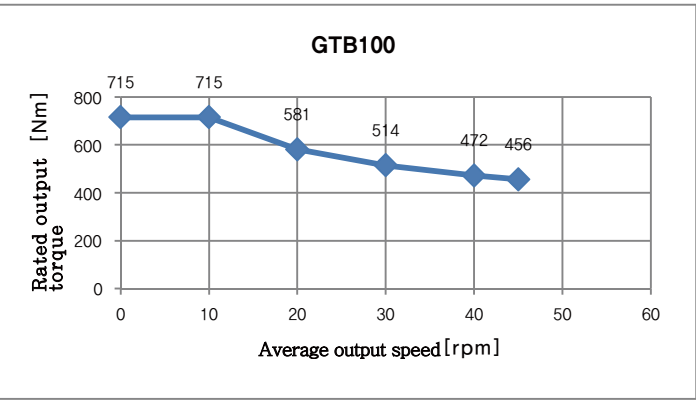
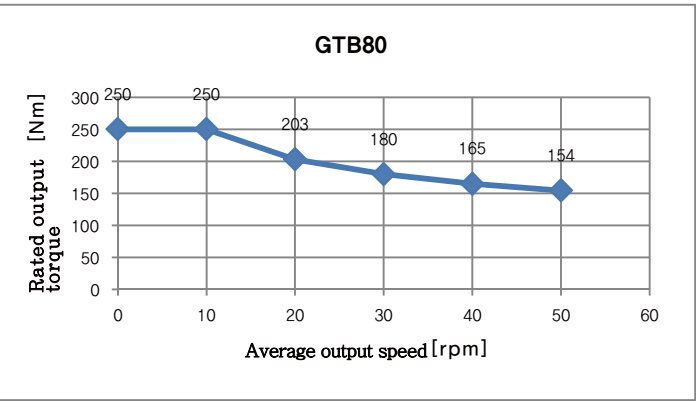
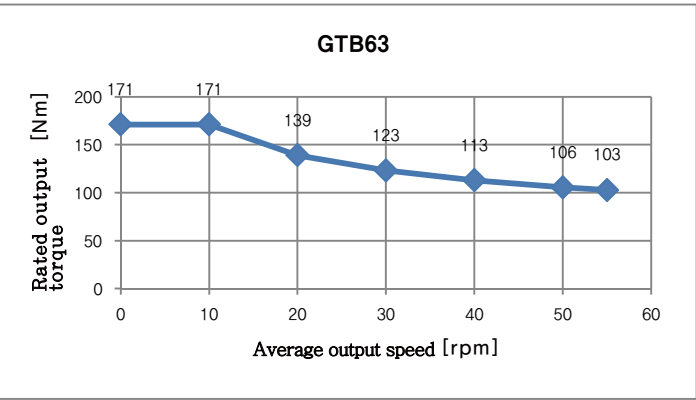
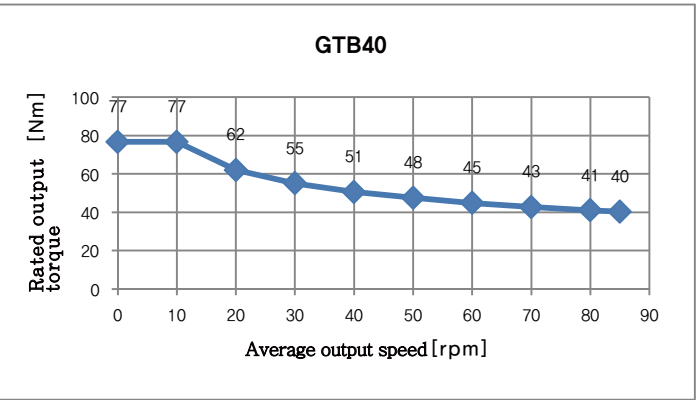


Colgate forming rotary part

■ Line up/Specifications (Refer to P16 ~ for dimension)

Model size		GTB40		GTB63		GTB80		GTB100	
Center distance	[mm]	40		63		80		100	
Output hollow diameter	[mm]	φ25		φ50		φ75		φ85	
Reduction ratio	i	45	15	60	20	60	20	60	20
Static rated torque	Ts[N・m]	176		411		600		1341	
Start-stop limit torque	Tu[N・m]	94		210		307		880	
Allowable average output speed	nm max[rpm]	86	86	55	55	50	50	45	45
Allowable maximum output speed	nu max[rpm]	100	100	70	70	60	60	50	50
Moment of inertia	J[kg・m <sup>2</sup> ×10 <sup>-4</sup> ]	0.17	0.263	0.4	0.871	1.52	3.214	4.08	10.39
Backlash	[sec.]	25	0	15	0	15	0	10	0
Indexing accuracy	arc・sec arc・sec Max.	90		60		40		40	
Repeatability	arc・sec arc・sec Max.	±10		±7		±5		±5	
Permissible axial load	Pa max[N]	1100		1850		3632		4100	
Permissible radial load	Pr max[N]	740		1500		3100		3420	
Permissible moment load	M <sub>mean</sub> max[N・m]	40		85		226		313	
Average efficiency	%	80	90	80	90	80	90	80	90
Lubrication		Grease		Grease		Grease		Grease	
Weight (without motor)	[kg]	3.5	3.3	6.2	5.9	14.1	12.9	25.2	24.3

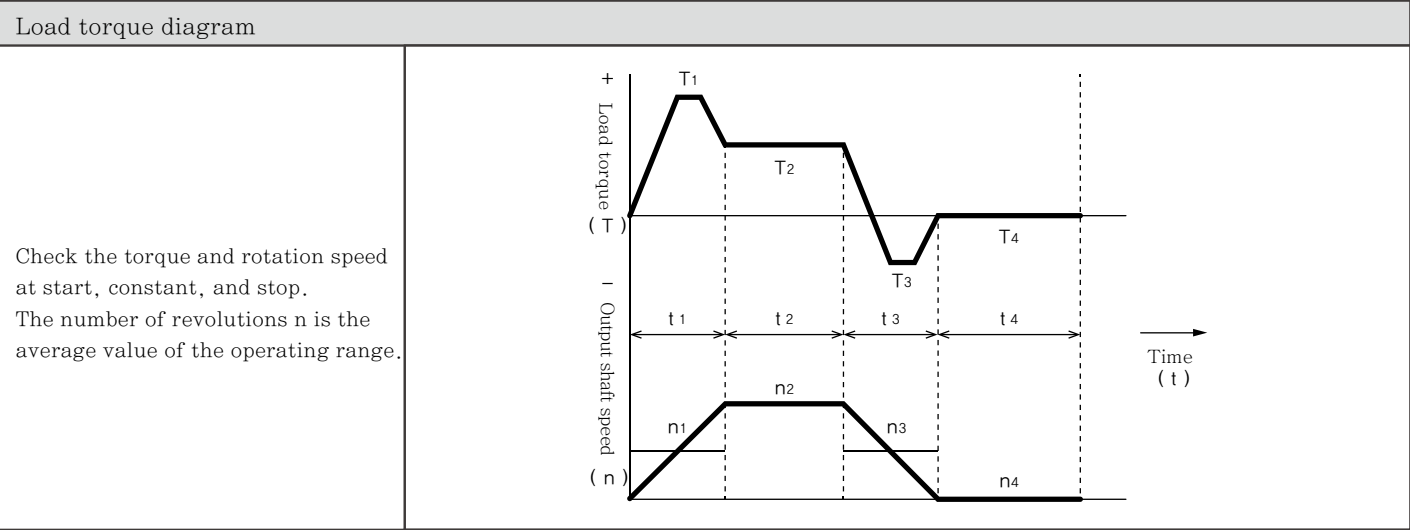
■ Rated torque Table





■ Selection

Please contact us by filling out the request form after confirming the following information.



Condition requirement	
Calculate the average load torque from the load torque diagram.	$T_{mean} = \sqrt[10]{\frac{n_1 \cdot t_1 \cdot  T_1 ^{\frac{10}{3}} + n_2 \cdot t_2 \cdot  T_2 ^{\frac{10}{3}} + \dots + n_n \cdot t_n \cdot  T_n ^{\frac{10}{3}}}{n_1 \cdot t_1 + n_2 \cdot t_2 + \dots + n_n \cdot t_n}} \text{ (N}\cdot\text{m)}$
Average output speed	$n_{mean} = \frac{n_1 \cdot t_1 + n_2 \cdot t_2 + \dots + n_n \cdot t_n}{t_1 + t_2 + \dots + t_n} \text{ (rpm)}$
Maximum output speed	$n_{max(\text{maximum output speed})} \text{ (rpm)}$



Select size	
The size that satisfies the three conditions on the right side is selected by referring to the rated table.	$T_{mean} < \text{Rated output torque } T_{op} \text{ (N}\cdot\text{m)}$
	$n_{mean} < \text{Allowable average output speed } nm_{max} \text{ (rpm)}$
	$n_{max} < \text{Allowable maximum output speed } nu_{max} \text{ (rpm)}$

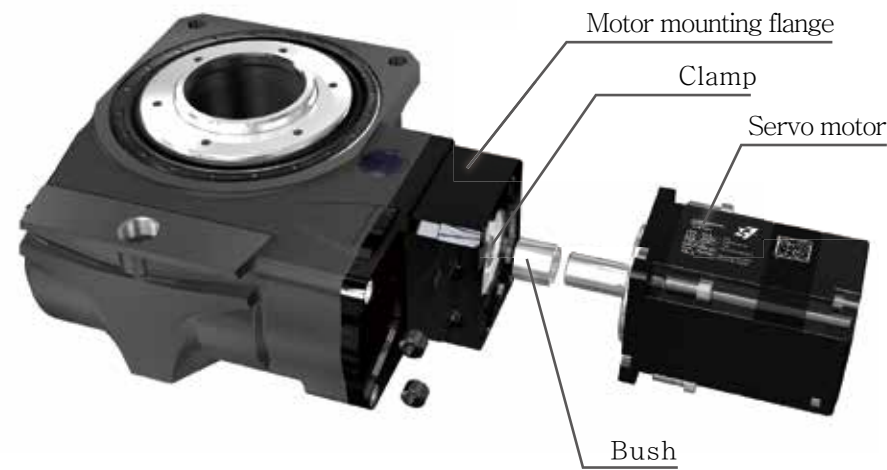


Ability check		
Start • Stop torpue check	$T_l < \text{기동 정지 시 상한 토크 } T_u \text{ (N}\cdot\text{m)}$	
	$T_3 < \text{기동 정지 시 상한 토크 } T_u \text{ (N}\cdot\text{m)}$	
Factor based on operating conditions	Conditions	f
	smooth operation with no impact load	1.0 ~ 1.2
	normal operation	1.2 ~ 1.5
	peration with impact load	1.5 ~ 3.0
Expected life time	$L_h = 12000 \cdot \left( \frac{T_{op}}{f \cdot T_{mean}} \right)^{\frac{10}{3}} \text{ (hours)}$	



Completed if the requirements are met

■ Product code



Supports all kinds of servo motor

Yaskawa

Keyence

Panasonic

Mitsubishi

Sanyo

Fanuc

Type	Size	—	MI code (motor mounting interface)	—	Installation position	—	Option
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Ordering examples

GTB 63 - GGA10 - H  
GTB 100 - JGA10 - V - TB

Type	Size	MI Code (motor mounting interface : 5digits)		
		Reduction ratio(2digits)	Motor(3digits)	
GTB	40	45 (high ratio)	FG	<div>000</div> <p>Please specify a code suitable for the motor to be installed. It is determined by the servo motor(refer to the next page).</p>
		15 (motor direct)	FD	
	63	60 (high ratio)	GG	
		20 (motor direct)	GD	
	80	60 (high ratio)	HG	
		20 (motor direct)	HD	
	100	60 (high ratio)	JG	
		20 (motor direct)	JD	

Installation position		
Plane	H	
Vertical	V	
Etc	Z	Incline installation and product rotate in any direction.

Option		
Output table surface pin hole	T	Table surface 1ea refer to dimension drawing
Housing pin hole	B	Top 2ea+Bottom 2ea refer to dimension drawing
Oil lubrication specification	Q	Please contact us for details.
Special order	X	Other specifications can be customized (motors other than those listed in the list can also be installed)

caution

- Be sure to install a servo motor with brake type so that the table can safely stop at power failure if torque is applied due to gravity, etc.
- When selecting the motor, please make sure to satisfy all the requirements such as allowable torque motor driver regeneration resistance specification.
- Read the manual procedures when assembling the motor.
- Please contact us for further details.

GTB40 Motor Interface Code



Ratio 1/45

Maker／ Series		Model	□ mm	Output KW	MI Code	Attached bush
Keyence	SV	SV-M010	40	0.10	FGA0	－
Keyence	SV2	SV2-M010	40	0.10	FGA0	－
Mitsubishi	J3	HF-KP13	40	0.10	FGA0	－
Mitsubishi	J3	HF-MP13	40	0.10	FGA0	－
Mitsubishi	J4	HG-KR13	40	0.10	FGA0	－
Mitsubishi	J4	HG-MR13	40	0.10	FGA0	－
Panasonic	A5	MSMD01	38	0.10	FGB0	－
Panasonic	A5	MSME01	38	0.10	FGB0	－
Panasonic	A6	MHMF01	40	0.10	FGA0	－
Panasonic	A6	MSMF01	38	0.10	FGB0	－
Sanyo	R2	R2AA04010F	40	0.10	FGA0	－
Yaskawa	Σ5	SGMAV-01A	40	0.10	FGA0	－
Yaskawa	Σ5	SGMAV-C2A	40	0.15	FGA0	－
Yaskawa	Σ5	SGMJV-01A	40	0.10	FGA0	－
Yaskawa	Σ5	SGMJV-C2A	40	0.15	FGA0	－
Yaskawa	Σ7	SGM7A-01A	40	0.10	FGA0	－
Yaskawa	Σ7	SGM7A-C2A	40	0.15	FGA0	－
Yaskawa	Σ7	SGM7J-01A	40	0.10	FGA0	－
Yaskawa	Σ7	SGM7J-C2A	40	0.15	FGA0	－



Ratio 1/15

※In the direct type, the motor is mounted without bush.

Maker／ Series	Model	□ mm	Output KW	MI Code	
Fanuc	β	βiS0.5/6000	60	0.35	FDE10
Fanuc	β	βiS1/6000	60	0.50	FDA10
Keyence	SV	SV-M020	60	0.20	FDA10
Keyence	SV	SV-M040	60	0.40	FDA10
Keyence	SV2	SV2-M020	60	0.20	FDA10
Keyence	SV2	SV2-M040	60	0.40	FDA10
Mitsubishi	J3	HF-KP23	60	0.20	FDA10
Mitsubishi	J3	HF-KP43	60	0.40	FDA10
Mitsubishi	J3	HF-MP23	60	0.20	FDA10
Mitsubishi	J3	HF-MP43	60	0.40	FDA10
Mitsubishi	J4	HG-KR23	60	0.20	FDA10
Mitsubishi	J4	HG-KR43	60	0.40	FDA10
Mitsubishi	J4	HG-MR23	60	0.20	FDA10
Mitsubishi	J4	HG-MR43	60	0.40	FDA10
Panasonic	A5	MHMD02	60	0.20	FDC10
Panasonic	A5	MHMD04	60	0.40	FDD10
Panasonic	A5	MSMD02	60	0.20	FDC10
Panasonic	A5	MSMD04	60	0.40	FDD10
Panasonic	A5	MSME02	60	0.20	FDC10
Panasonic	A5	MSME04	60	0.40	FDD10
Panasonic	A6	MHMF02	60	0.20	FDC10
Panasonic	A6	MHMF04	60	0.40	FDD10
Panasonic	A6	MSMF02	60	0.20	FDC10
Panasonic	A6	MSMF04	60	0.40	FDD10
Sanyo	R2	R2AA06020F	60	0.20	FDA10
Sanyo	R2	R2AA06040F	60	0.40	FDA10
Sanyo	R2	R2AA06040H	60	0.40	FDA10
Yaskawa	Σ5	SGMAV-02A	60	0.20	FDA10
Yaskawa	Σ5	SGMAV-04A	60	0.40	FDA10
Yaskawa	Σ5	SGMAV-06A	60	0.55	FDB10
Yaskawa	Σ5	SGMJV-02A	60	0.20	FDA10
Yaskawa	Σ5	SGMJV-04A	60	0.40	FDA10
Yaskawa	Σ5	SGMJV-06A	60	0.60	FDB10
Yaskawa	Σ7	SGM7A-02A	60	0.20	FDA10
Yaskawa	Σ7	SGM7A-04A	60	0.40	FDA10
Yaskawa	Σ7	SGM7A-06A	60	0.60	FDB10
Yaskawa	Σ7	SGM7J-02A	60	0.20	FDA10
Yaskawa	Σ7	SGM7J-04A	60	0.40	FDA10
Yaskawa	Σ7	SGM7J-06A	60	0.60	FDB10

GTB63 Motor Interface Code



Ratio 1/60

Maker／ Series	Model	□ mm	Output KW	MI Code	Attach bush	
Fanuc	β	βiS05/6000	60	0.35	GGA12	○
Fanuc	β	βiS1/6000	60	0.50	GGA10	－
Keyence	SV	SV-M020	60	0.20	GGA10	－
Keyence	SV	SV-M040	60	0.40	GGA10	－
Keyence	SV2	SV2-M020	60	0.20	GGA10	－
Keyence	SV2	SV2-M040	60	0.40	GGA10	－
Mitsubishi	J3	HF-KP23	60	0.20	GGA10	－
Mitsubishi	J3	HF-KP43	60	0.40	GGA10	－
Mitsubishi	J3	HF-MP23	60	0.20	GGA10	－
Mitsubishi	J3	HF-MP43	60	0.40	GGA10	－
Mitsubishi	J4	HG-KR23	60	0.20	GGA10	－
Mitsubishi	J4	HG-KR43	60	0.40	GGA10	－
Mitsubishi	J4	HG-MR23	60	0.20	GGA10	－
Mitsubishi	J4	HG-MR43	60	0.40	GGA10	－
Panasonic	A5	MHMD02	60	0.20	GGB11	○
Panasonic	A5	MHMD04	60	0.40	GGB10	－
Panasonic	A5	MSMD02	60	0.20	GGB11	○
Panasonic	A5	MSMD04	60	0.40	GGB10	－
Panasonic	A5	MSME02	60	0.20	GGB11	○
Panasonic	A5	MSME04	60	0.40	GGB10	－
Panasonic	A6	MHMF02	60	0.20	GGB11	○
Panasonic	A6	MHMF04	60	0.40	GGB10	－
Panasonic	A6	MSMF02	60	0.20	GGB11	○
Panasonic	A6	MSMF04	60	0.40	GGB10	－
Sanyo	R2	R2AA06020F	60	0.20	GGA10	－
Sanyo	R2	R2AA06040F	60	0.40	GGA10	－
Sanyo	R2	R2AA06040H	60	0.40	GGA10	－
Yaskawa	Σ5	SGMAV-02A	60	0.20	GGA10	－
Yaskawa	Σ5	SGMAV-04A	60	0.40	GGA10	－
Yaskawa	Σ5	SGMAV-06A	60	0.55	GGA10	－
Yaskawa	Σ5	SGMJV-02A	60	0.20	GGA10	－
Yaskawa	Σ5	SGMJV-04A	60	0.40	GGA10	－
Yaskawa	Σ5	SGMJV-06A	60	0.60	GGA10	－
Yaskawa	Σ7	SGM7A-02A	60	0.20	GGA10	－
Yaskawa	Σ7	SGM7A-04A	60	0.40	GGA10	－
Yaskawa	Σ7	SGM7A-06A	60	0.60	GGA10	－
Yaskawa	Σ7	SGM7J-02A	60	0.20	GGA10	－
Yaskawa	Σ7	SGM7J-04A	60	0.40	GGA10	－
Yaskawa	Σ7	SGM7J-06A	60	0.60	GGA10	－



Ratio 1/20

※In the direct type, the motor is mounted without bush.

Maker／ Series	Model	□ mm	Output KW	MI Code	
Fanuc	α	αiF1/5000	90	0.50	GDK10
Fanuc	α	αiF2/5000	90	0.75	GDK10
Fanuc	α	αiS2/5000	90	0.75	GDK10
Fanuc	α	αiS2/6000	90	1.00	GDK10
Fanuc	β	βiS1/6000	60	0.50	GDA10
Fanuc	β	βiS2/4000	90	0.50	GDK10
Keyence	SV	SV-M040	60	0.40	GDA10
Keyence	SV	SV-M075	80	0.75	GDB10
Keyence	SV2	SV2-M040	60	0.40	GDA10
Keyence	SV2	SV2-M075	80	0.75	GDB10
Mitsubishi	J3	HF-KP43	60	0.40	GDA10
Mitsubishi	J3	HF-KP73	80	0.75	GDB10
Mitsubishi	J3	HF-MP43	60	0.40	GDA10
Mitsubishi	J3	HF-MP73	80	0.75	GDB10
Mitsubishi	J4	HG-KR43	60	0.40	GDA10
Mitsubishi	J4	HG-KR73	80	0.75	GDB10
Mitsubishi	J4	HG-MR43	60	0.40	GDA10
Mitsubishi	J4	HG-MR73	80	0.75	GDB10
Mitsubishi	A5	MHMD04	60	0.40	GDF10
Mitsubishi	A5	MHMD08	80	0.75	GDG10
Mitsubishi	A5	MSMD04	60	0.40	GDF10
Mitsubishi	A5	MSMD08	80	0.75	GDG10
Mitsubishi	A5	MSME04	60	0.40	GDF10
Mitsubishi	A5	MSME08	80	0.75	GDG10
Mitsubishi	A6	MHMF04	60	0.40	GDF10
Mitsubishi	A6	MHMF08	80	0.75	GDG10
Mitsubishi	A6	MHMF09	80	1.00	GDG10
Mitsubishi	A6	MQMF04	80	0.40	GDH10
Mitsubishi	A6	MSMF04	60	0.40	GDF10
Mitsubishi	A6	MSMF08	80	0.75	GDG10
Mitsubishi	A6	MSMF09	80	1.00	GDG10
Sanyo	R2	R2AA06040F	60	0.40	GDA10
Sanyo	R2	R2AA06040H	60	0.40	GDA10
Sanyo	R2	R2AA08075F	80	0.75	GDJ10
Sanyo	R2	R2AAB8075F	86	0.75	GDD10
Sanyo	R2	R2AAB8100H	86	1.00	GDD10
Yaskawa	Σ5	SGMAV-04A	60	0.40	GDA10
Yaskawa	Σ5	SGMAV-06A	60	0.55	GDA10
Yaskawa	Σ5	SGMAV-08A	80	0.75	GDB10
Yaskawa	Σ5	SGMAV-10A	80	1.00	GDB10
Yaskawa	Σ5	SGMGV-03A	90	0.30	GDC10
Yaskawa	Σ5	SGMGV-05A	90	0.45	GDD10
Yaskawa	Σ5	SGMJV-04A	60	0.40	GDA10
Yaskawa	Σ5	SGMJV-06A	60	0.60	GDA10
Yaskawa	Σ5	SGMJV-08A	80	0.75	GDB10
Yaskawa	Σ5	SGMJV-10A	80	1.00	GDB10
Yaskawa	Σ7	SGM7A-04A	60	0.40	GDA10
Yaskawa	Σ7	SGM7A-06A	60	0.60	GDA10
Yaskawa	Σ7	SGM7A-08A	80	0.75	GDB10
Yaskawa	Σ7	SGM7A-10A	80	1.00	GDB10
Yaskawa	Σ7	SGM7G-03A	90	0.30	GDE10
Yaskawa	Σ7	SGM7G-05A	90	0.45	GDD10
Yaskawa	Σ7	SGM7J-04A	60	0.40	GDA10
Yaskawa	Σ7	SGM7J-06A	60	0.60	GDA10
Yaskawa	Σ7	SGM7J-08A	80	0.75	GDB10

GTB80 Motor Interface Code



Ratio 1/60

Maker／Series		Model	□ mm	Output KW	MI Code	Attached Bush
Fanuc	α	αiF1/5000	90	0.50	HGB13	○
Fanuc	α	αiF2/5000	90	0.75	HGB13	○
Fanuc	α	αiS2/5000	90	0.75	HGB13	○
Fanuc	α	αiS2/6000	90	1.00	HGB13	○
Fanuc	β	βiS2/4000	90	0.50	HGB13	○
Keyence	SV	SV-M075	80	0.75	HGA10	－
Keyence	SV2	SV2-M075	80	0.75	HGA10	－
Mitsubishi	J3	HF-KP73	80	0.75	HGA10	－
Mitsubishi	J3	HF-MP73	80	0.75	HGA10	－
Mitsubishi	J4	HG-KR73	80	0.75	HGA10	－
Mitsubishi	J4	HG-MR73	80	0.75	HGA10	－
Panasonic	A5	MHMD08	80	0.75	HGC10	－
Panasonic	A5	MSMD08	80	0.75	HGC10	－
Panasonic	A5	MSME08	80	0.75	HGC10	－
Panasonic	A6	MHMF08	80	0.75	HGC10	－
Panasonic	A6	MHMF09	80	1.00	HGC10	－
Panasonic	A6	MSMF08	80	0.75	HGC10	－
Sanyo	R2	R2AA08075F	80	0.75	HGA12	○
Sanyo	R2	R2AAB8075F	86	0.75	HGB12	○
Sanyo	R2	R2AAB8100F	86	1.00	HGB12	○
Sanyo	R2	R2AAB8100H	86	1.00	HGB12	○
Yaskawa	Σ5	SGMAV-08A	80	0.75	HGA10	－
Yaskawa	Σ5	SGMAV-10A	80	1.00	HGA10	－
Yaskawa	Σ5	SGMGV-03A	90	0.30	HGB11	○
Yaskawa	Σ5	SGMGV-05A	90	0.45	HGB12	○
Yaskawa	Σ5	SGMJV-08A	80	0.75	HGA10	－
Yaskawa	Σ7	SGM7A-08A	80	0.75	HGA10	－
Yaskawa	Σ7	SGM7A-10A	80	1.00	HGA10	－
Yaskawa	Σ7	SGM7G-03A	90	0.30	HGB12	○
Yaskawa	Σ7	SGM7G-05A	90	0.45	HGB12	○
Yaskawa	Σ7	SGM7J-08A	80	0.75	HGA10	－



Ratio 1/20

※In the direct type, the motor is mounted without bush.

Maker／Series		Model	□ mm	Output kw	MI Code
Fanuc	α	αiF1/5000	90	0.50	HDL10
Fanuc	α	αiF2/5000	90	0.75	HDL10
Fanuc	α	αiS2/5000	90	0.75	HDL10
Fanuc	α	αiS2/6000	90	1.00	HDL10
Fanuc	β	βiS2/4000	90	0.50	HDL10
Keyence	SV	SV-M075	80	0.75	HDA10
Keyence	SV2	SV2-M075	80	0.75	HDA10
Mitsubishi	J3	HF-KP73	80	0.75	HDA10
Mitsubishi	J3	HF-MP73	80	0.75	HDA10
Mitsubishi	J4	HG-KR73	80	0.75	HDA10
Mitsubishi	J4	HG-MR73	80	0.75	HDA10
Panasonic	A5	MHMD08	80	0.75	HDE10
Panasonic	A5	MSMD08	80	0.75	HDE10
Panasonic	A5	MSME08	80	0.75	HDE10
Panasonic	A5	MSME10	100	1.00	HDF10
Panasonic	A5	MSME15	100	1.50	HDE10
Panasonic	A5	MSME20	100	2.00	HDE10
Panasonic	A6	MHMF08	80	0.75	HDE10
Panasonic	A6	MHMF09	80	1.00	HDE10
Panasonic	A6	MSMF08	80	0.75	HDE10
Panasonic	A6	MSMF10	100	1.00	HDF10
Panasonic	A6	MSMF15	100	1.50	HDE10
Panasonic	A6	MSMF20	100	2.00	HDE10
Sanyo	Q1	Q1AA10100D	100	1.00	HDK10
Sanyo	Q1	Q1AA10150D	100	1.50	HDK10
Sanyo	Q1	Q1AA10200D	100	2.00	HDK10
Sanyo	R2	R2AA08075F	80	0.75	HDH10
Sanyo	R2	R2AA10075F	100	0.75	HDK10
Sanyo	R2	R2AA10100F	100	1.00	HDK10
Sanyo	R2	R2AAB8075F	86	0.75	HDC10
Sanyo	R2	R2AAB8100F	86	1.00	HDJ10
Sanyo	R2	R2AAB8100H	86	1.00	HDC10
Yaskawa	Σ5	SGMAV-08A	80	0.75	HDA10
Yaskawa	Σ5	SGMAV-10A	80	1.00	HDA10
Yaskawa	Σ5	SGMGV-03A	90	0.30	HDB10
Yaskawa	Σ5	SGMGV-05A	90	0.45	HDC10
Yaskawa	Σ5	SGMJV-08A	80	0.75	HDA10
Yaskawa	Σ5	SGMSV-10A	100	1.00	HDD10
Yaskawa	Σ5	SGMSV-15A	100	1.50	HDD10
Yaskawa	Σ5	SGMSV-20A	100	2.00	HDD10
Yaskawa	Σ5	SGMSV-25A	100	2.50	HDD10
Yaskawa	Σ7	SGM7A-08A	80	0.75	HDA10
Yaskawa	Σ7	SGM7A-10A	80	1.00	HDA10
Yaskawa	Σ7	SGM7A-15A	100	1.50	HDD10
Yaskawa	Σ7	SGM7A-20A	100	2.00	HDD10
Yaskawa	Σ7	SGM7A-25A	100	2.50	HDD10
Yaskawa	Σ7	SGM7G-03A	90	0.30	HDC10
Yaskawa	Σ7	SGM7G-05A	90	0.45	HDC10
Yaskawa	Σ7	SGM7J-08A	80	0.75	HDA10

GTB100 Motor Interface Code



Ratio 1/60

Maker／Series		Model	□ mm	Output KW	MI Code	Attached Bush
Fanuc	α	αiF2/5000	90	0.75	JGB15	○
Fanuc	α	αiF4/4000	130	1.40	JGA11	○
Fanuc	α	αiF8/3000	130	1.60	JGA11	○
Fanuc	α	αiS2/5000	90	0.75	JGB15	○
Fanuc	α	αiS2/6000	90	1.00	JGB15	○
Fanuc	α	αiS8/4000	130	2.50	JGA11	○
Fanuc	β	βiS2/4000	90	0.50	JGB15	○
Fanuc	β	βiS8/3000	130	1.20	JGA11	○
Fanuc	β	βiS12/2000	130	1.40	JGA10	－
Fanuc	β	βiS12/3000	130	1.80	JGA10	－
Keyence	SV	SV-M100A	130	0.85	JGA11	○
Keyence	SV	SV-M150A	130	1.30	JGA12	○
Keyence	SV	SV-M200A	130	1.80	JGA10	－
Keyence	SV2	SV2-M100A	130	0.85	JGA10	－
Keyence	SV2	SV2-M150A	130	1.30	JGA10	－
Keyence	SV2	SV2-M200A	130	1.80	JGA10	－
Mitsubishi	J3	HF-SP51	130	0.50	JGA10	－
Mitsubishi	J3	HF-SP52	130	0.50	JGA10	－
Mitsubishi	J3	HF-SP81	130	0.85	JGA10	－
Mitsubishi	J3	HF-SP102	130	1.00	JGA10	－
Mitsubishi	J3	HF-SP152	130	1.50	JGA10	－
Mitsubishi	J4	HG-SR51	130	0.50	JGA10	－
Mitsubishi	J4	HG-SR52	130	0.50	JGA10	－
Mitsubishi	J4	HG-SR81	130	0.85	JGA10	－
Mitsubishi	J4	HG-SR102	130	1.00	JGA10	－
Mitsubishi	J4	HG-SR152	130	1.50	JGA10	－
Panasonic	A5	MDME102	130	1.00	JGA12	○
Panasonic	A5	MDME152	130	1.50	JGA12	○
Panasonic	A5	MDME202	130	2.00	JGA12	○
Panasonic	A6	MDMF102	130	1.00	JGA12	○
Panasonic	A6	MDMF152	130	1.50	JGA12	○
Panasonic	A6	MDMF202	130	2.00	JGA12	○
Sanyo	R2	R2AA13050D	130	0.55	JGA12	○
Sanyo	R2	R2AA13050H	130	0.55	JGA12	○
Sanyo	R2	R2AA13120B	130	1.20	JGA12	○
Sanyo	R2	R2AA13120D	130	1.20	JGA12	○
Sanyo	R2	R2AA13120L	130	1.20	JGA12	○
Sanyo	R2	R2AA13180D	130	1.80	JGA12	○
Sanyo	R2	R2AA13180H	130	1.80	JGA12	○
Yaskawa	Σ5	SGMGV-03A	90	0.30	JGB13	○
Yaskawa	Σ5	SGMGV-05A	90	0.45	JGB14	○
Yaskawa	Σ5	SGMGV-09A	130	0.85	JGA11	○
Yaskawa	Σ5	SGMGV-13A	130	1.30	JGA12	○
Yaskawa	Σ5	SGMGV-20A	130	1.80	JGA10	－
Yaskawa	Σ5	SGMSV-10A	100	1.00	JGC10	－
Yaskawa	Σ5	SGMSV-15A	100	1.50	JGC10	－
Yaskawa	Σ5	SGMSV-20A	100	2.00	JGC10	－
Yaskawa	Σ5	SGMSV-25A	100	2.50	JGC10	－
Yaskawa	Σ7	SGM7A-15A	100	1.50	JGC10	－
Yaskawa	Σ7	SGM7A-20A	100	2.00	JGC10	－
Yaskawa	Σ7	SGM7A-25A	100	2.50	JGC10	－
Yaskawa	Σ7	SGM7G-03A	90	0.30	JGB14	○
Yaskawa	Σ7	SGM7G-05A	90	0.45	JGB14	○
Yaskawa	Σ7	SGM7G-09A	130	0.85	JGA10	－
Yaskawa	Σ7	SGM7G-13A	130	1.30	JGA10	－
Yaskawa	Σ7	SGM7G-20A	130	1.80	JGA10	－



Ratio 1/20

※ In the direct type, the motor is mounted without bush.

Maker／Series		Model	□ mm	Output kW	MI Code
Fanuc	α	αiF4/4000	130	1.40	JDA10
Fanuc	α	αiF8/3000	130	1.60	JDA10
Fanuc	α	αiS8/4000	130	2.50	JDA10
Fanuc	α	αiS12/4000	130	2.70	JDC10
Fanuc	β	βiS8/3000	130	1.20	JDA10
Fanuc	β	βiS12/2000	130	1.40	JDC10
Fanuc	β	βiS12/3000	130	1.80	JDC10
Keyence	SV	SV-M100A	130	0.85	JDA10
Keyence	SV	SV-M150A	130	1.30	JDB10
Keyence	SV	SV-M200A	130	1.80	JDC10
Keyence	SV2	SV2-M100A	130	0.85	JDC10
Keyence	SV2	SV2-M150A	130	1.30	JDC10
Keyence	SV2	SV2-M200A	130	1.80	JDC10
Mitsubishi	J3	HF-SP51	130	0.50	JDC10
Mitsubishi	J3	HF-SP81	130	0.85	JDC10
Mitsubishi	J3	HF-SP102	130	1.00	JDC10
Mitsubishi	J3	HF-SP152	130	1.50	JDC10
Mitsubishi	J4	HG-SR51	130	0.50	JDC10
Mitsubishi	J4	HG-SR81	130	0.85	JDC10
Mitsubishi	J4	HG-SR102	130	1.00	JDC10
Mitsubishi	J4	HG-SR152	130	1.50	JDC10
Panasonic	A5	MDME102	130	1.00	JDB10
Panasonic	A5	MDME152	130	1.50	JDB10
Panasonic	A5	MDME202	130	2.00	JDB10
Panasonic	A6	MDMF102	130	1.00	JDB10
Panasonic	A6	MDMF152	130	1.50	JDB10
Panasonic	A6	MDMF202	130	2.00	JDB10
Sanyo	Q1	Q1AA10150D	100	1.50	JDE10
Sanyo	Q1	Q1AA10200D	100	2.00	JDE10
Sanyo	Q1	Q1AA10250D	100	2.50	JDE10
Sanyo	R2	R2AA13050D	130	0.55	JDB10
Sanyo	R2	R2AA13050H	130	0.55	JDB10
Sanyo	R2	R2AA13120B	130	1.20	JDB10
Sanyo	R2	R2AA13120D	130	1.20	JDB10
Sanyo	R2	R2AA13120L	130	1.20	JDB10
Sanyo	R2	R2AA13180D	130	1.80	JDB10
Sanyo	R2	R2AA13180H	130	1.80	JDB10
Yaskawa	Σ5	SGMGV-09A	130	0.85	JDA10
Yaskawa	Σ5	SGMGV-13A	130	1.30	JDB10
Yaskawa	Σ5	SGMGV-20A	130	1.80	JDC10
Yaskawa	Σ5	SGMSV-15A	100	1.50	JDD10
Yaskawa	Σ5	SGMSV-20A	100	2.00	JDD10
Yaskawa	Σ5	SGMSV-25A	100	2.50	JDD10
Yaskawa	Σ7	SGM7A-15A	100	1.50	JDD10
Yaskawa	Σ7	SGM7A-20A	100	2.00	JDD10
Yaskawa	Σ7	SGM7A-25A	100	2.50	JDD10
Yaskawa	Σ7	SGM7G-09A	130	0.85	JDC10
Yaskawa	Σ7	SGM7G-13A	130	1.30	JDC10
Yaskawa	Σ7	SGM7G-20A	130	1.80	JDC10



**GTB40**(motor □ 38, □ 40)

[illegible]

**GTB40**(motor □ 60)

[illegible]

## GTB40 Option

Technical drawings of the 1000 series motor showing front and side views with dimensions and feature labels.

**Front View (Left):**

- Overall width:  $75 \pm 0.03$
- Overall height:  $87 \pm 0.03$
- Top flange diameter:  $\varnothing 5 H7^{+0.012}_{-0} DP 8$  Option 'T'
- Top flange hole diameter:  $21 \pm 0.05$
- Motor body diameter:  $2 \times \varnothing 5 H7^{+0.012}_{-0} DP 7$  Option 'B'
- Bottom flange diameter:  $42 \pm 0.1$
- Bottom flange hole diameter:  $25 \pm 0.1$

**Side View (Right):**

- Overall width:  $53 \pm 0.03$
- Overall height:  $89 \pm 0.03$
- Top flange diameter:  $2 \times \varnothing 5 H7^{+0.012}_{-0} DP 7$  Option 'B'
- Top flange hole diameter:  $43 \pm 0.1$
- Motor body diameter:  $29 \pm 0.1$
- Bottom flange diameter:  $43 \pm 0.1$
- Bottom flange hole diameter:  $29 \pm 0.1$

Technical drawings of the pump assembly showing front and side views with dimensions and labels.

**Front View (Left):**

- Labels: Oil supply, Oil drain, Rc1/8
- Dimensions: 46 (height), 35.5 (width)

**Side View (Right):**

- Label: Oil level
- Dimensions: 31 (height), 32 (width)

Oil supply  
Oil drain  
Rc1/8

95.5

46

***GTB63***(*motor* □ 60)

6 x M6 DP12

2 x M10 Though (V,W surface)

Motor mounting flange

Output table

Motor mounting tap

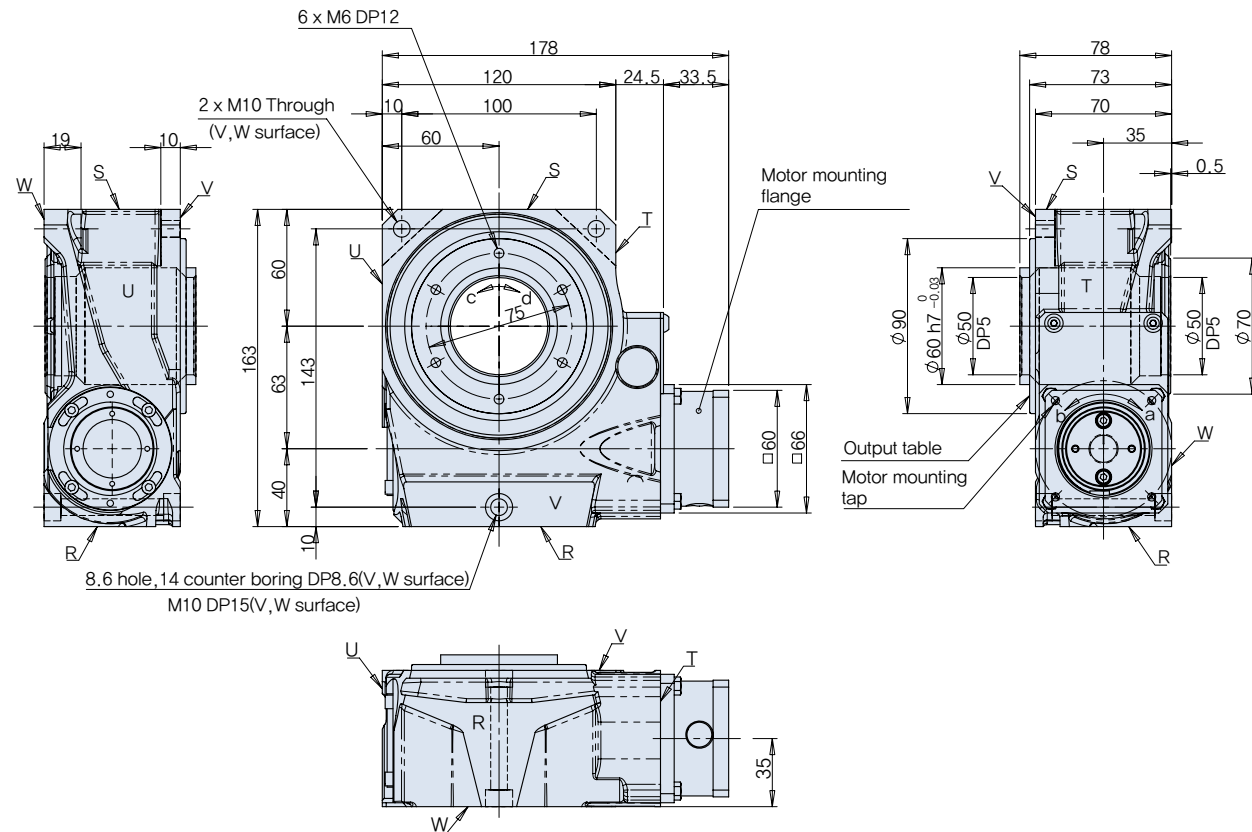
8,6 hole, 14 counter boring DP8,6(V,W surface)  
M10 DP15(V,W surface)

Direction of input shaft rotation : a-d, b-c

17

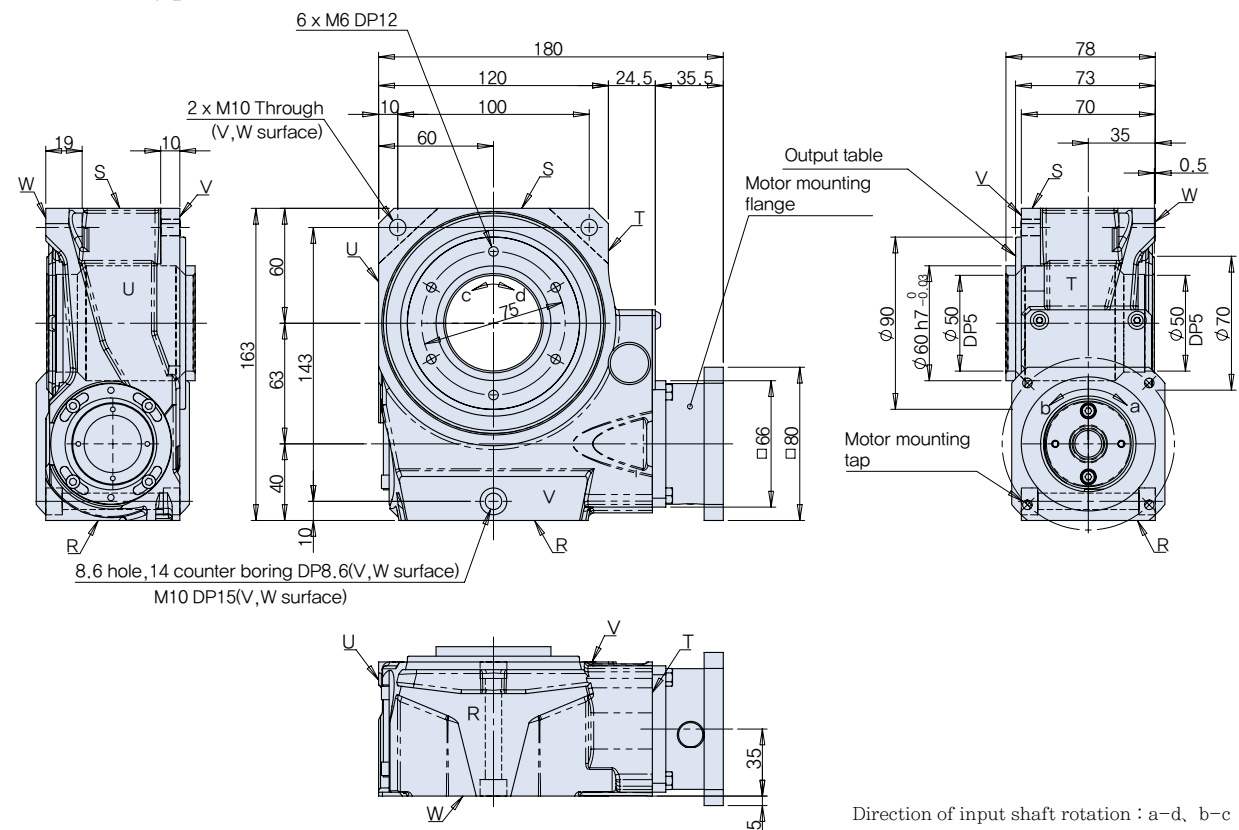
**GTB63**(motor □ 60)

High ratio i=20



***GTB63***(*motor* □ 80)

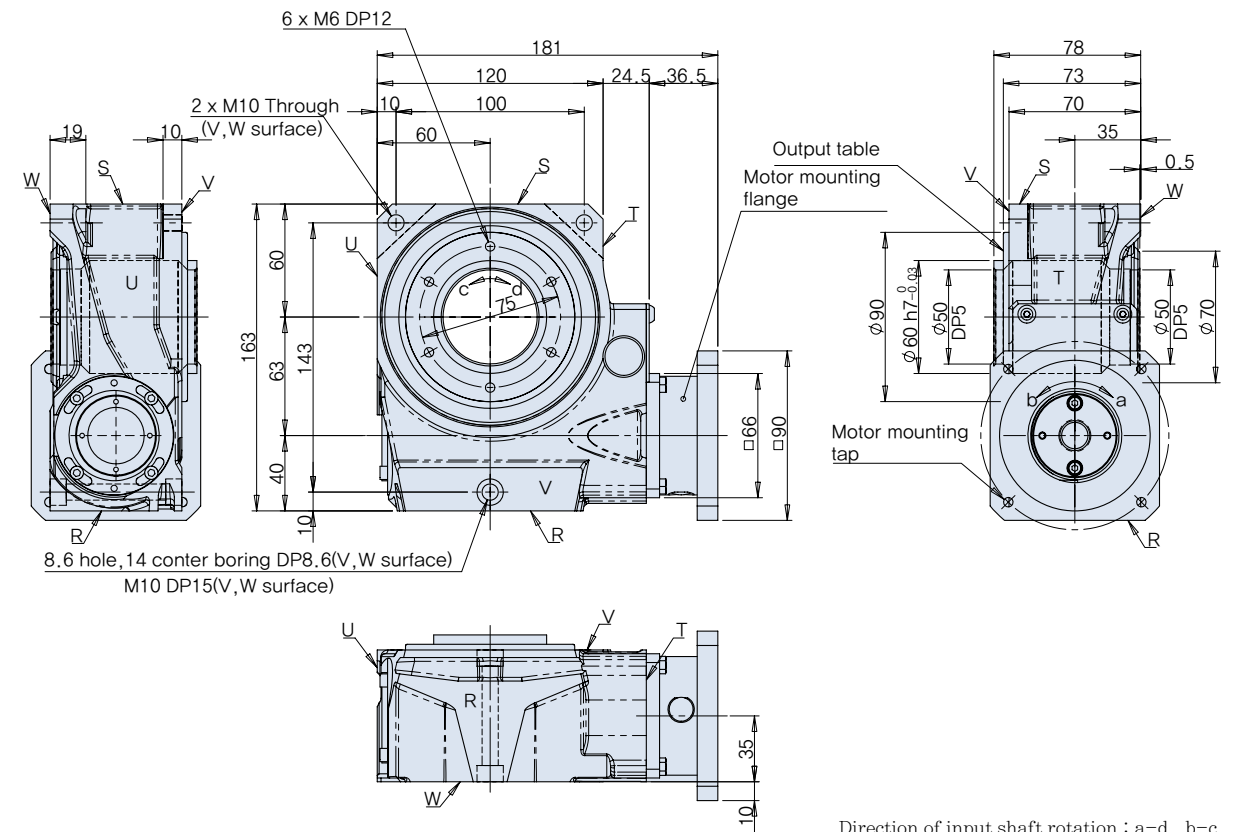
Motor direct type i=20



Direction of input shaft rotation : a-d, b-c

**GTB63**(motor □ 86, □ 90)

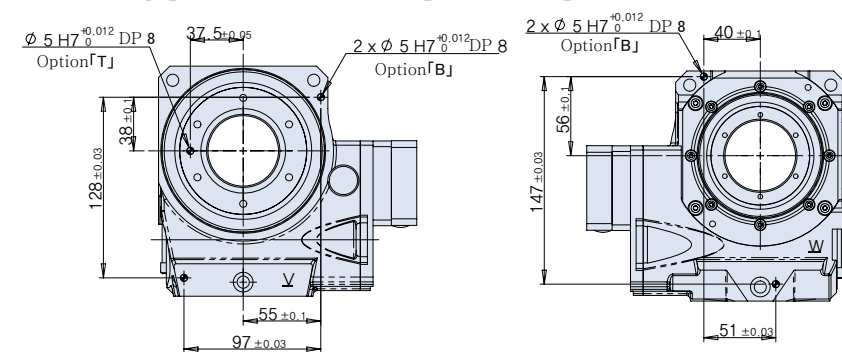
High ratio i=20



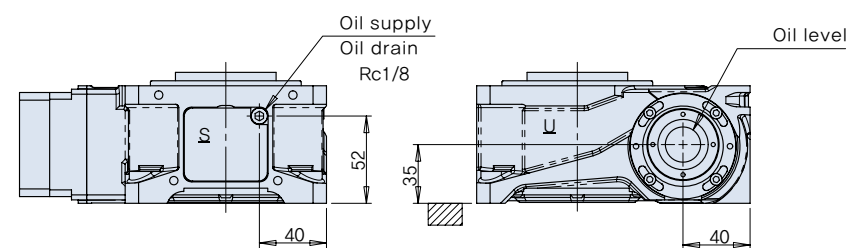
Direction of input shaft rotation : a-d, b-c

## GTB63 Option

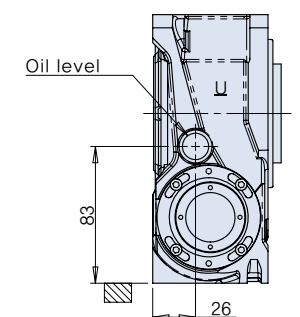
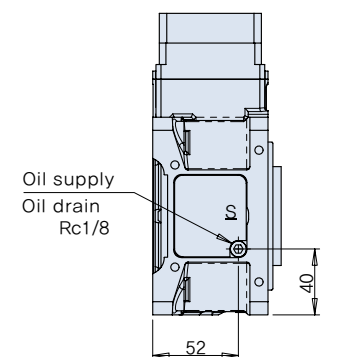
Housing pin hole : B , Output table pin hole : T



Oil lubrication : Q (Location of oil plug/Plane)

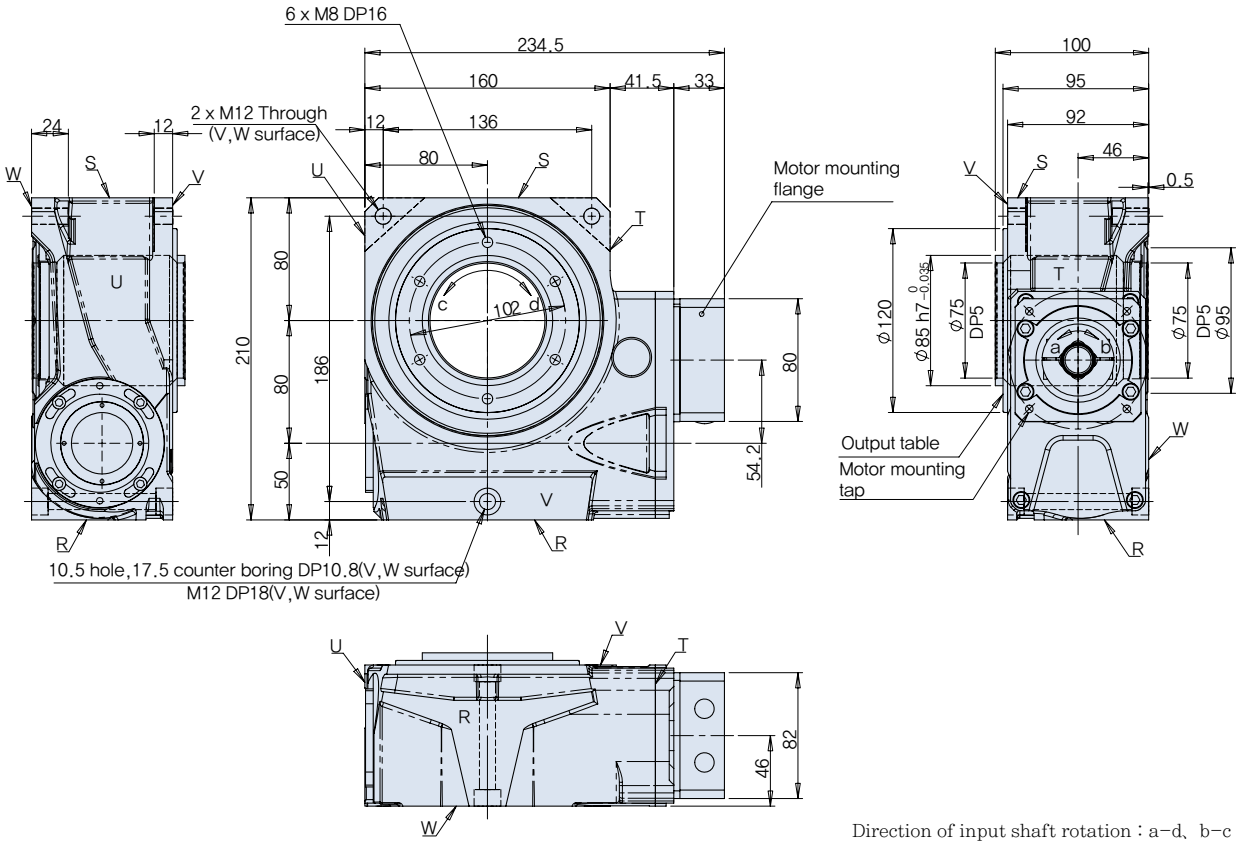


Oil lubrication : Q  
(Location of oil plug/Vertical)



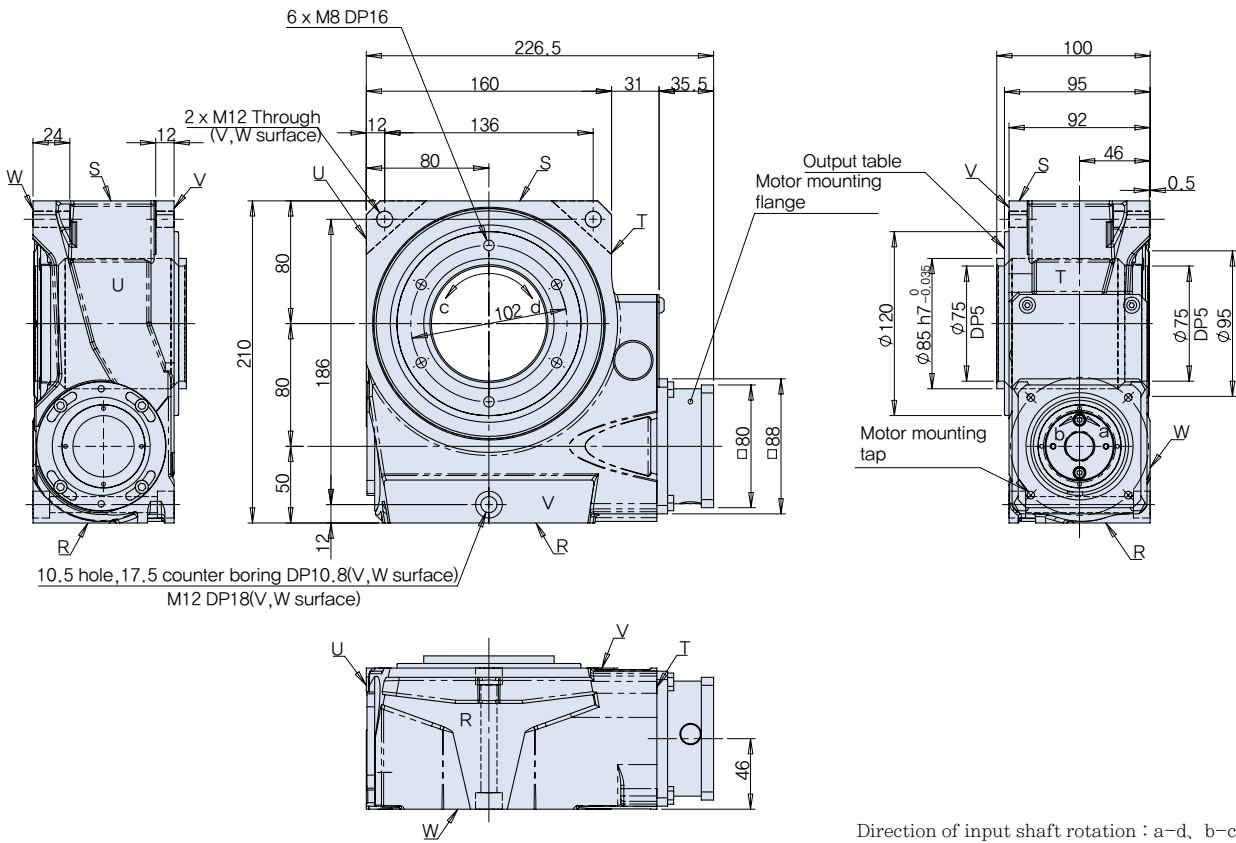
GTB80(motor □ 80)

High ratio i=60



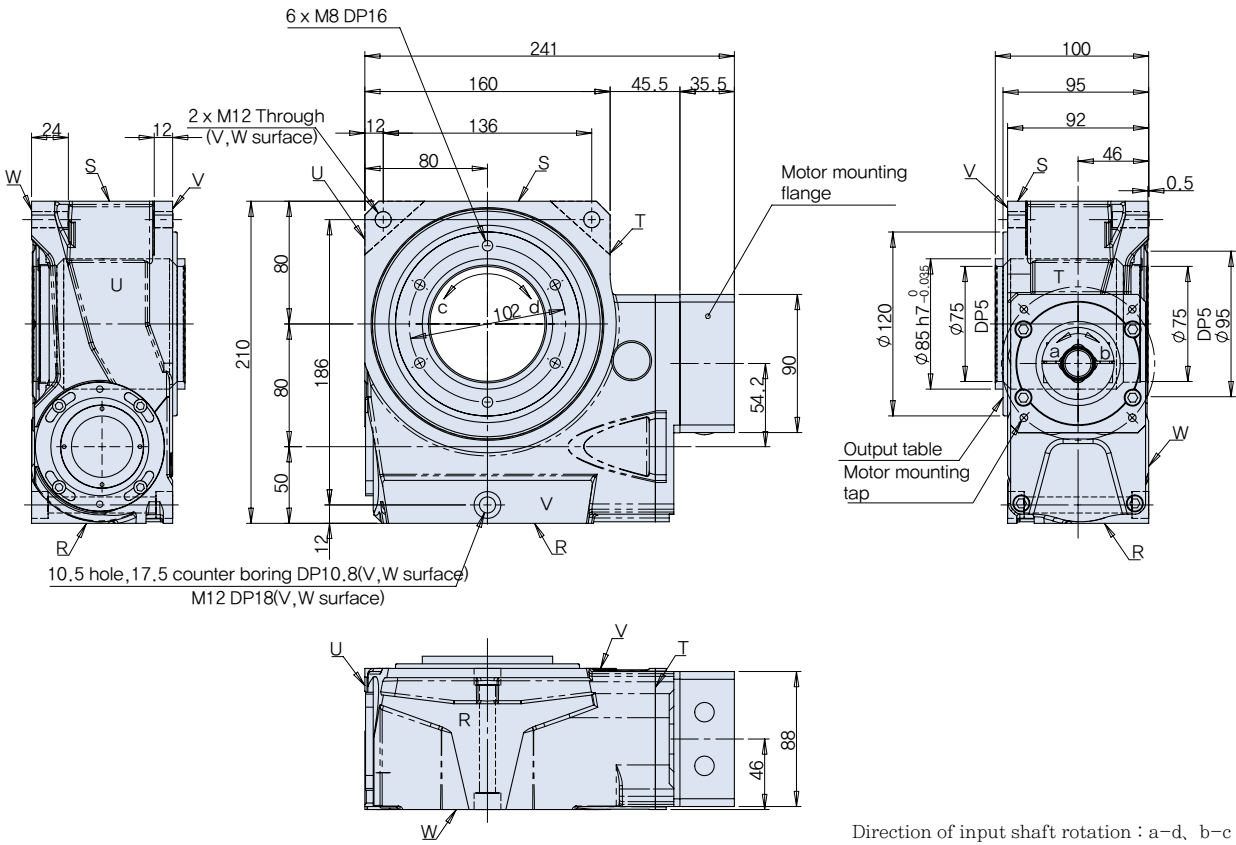
GTB80(motor □ 80)

High ratio i=20



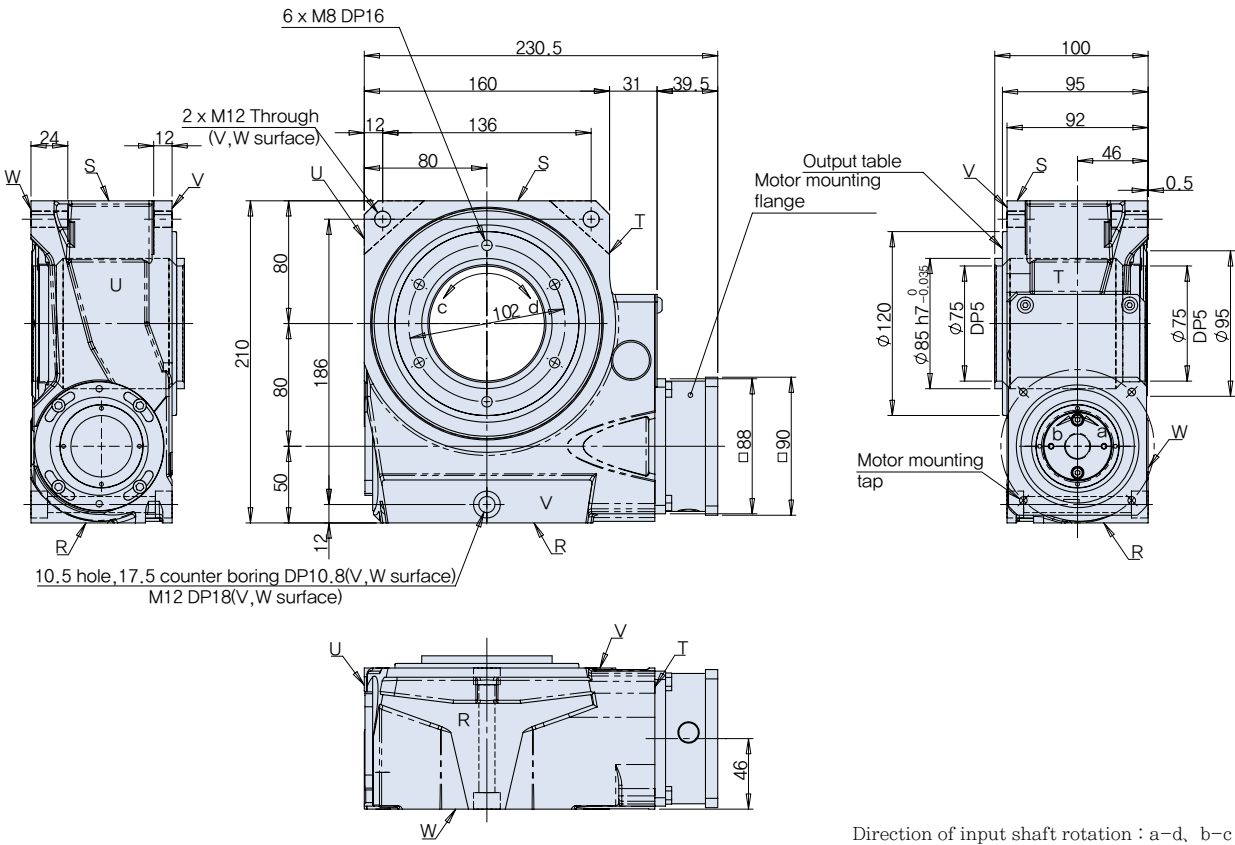
GTB80(motor □ 86, □ 90)

High ratio i=60



GTB80(motor □ 86, □ 90)

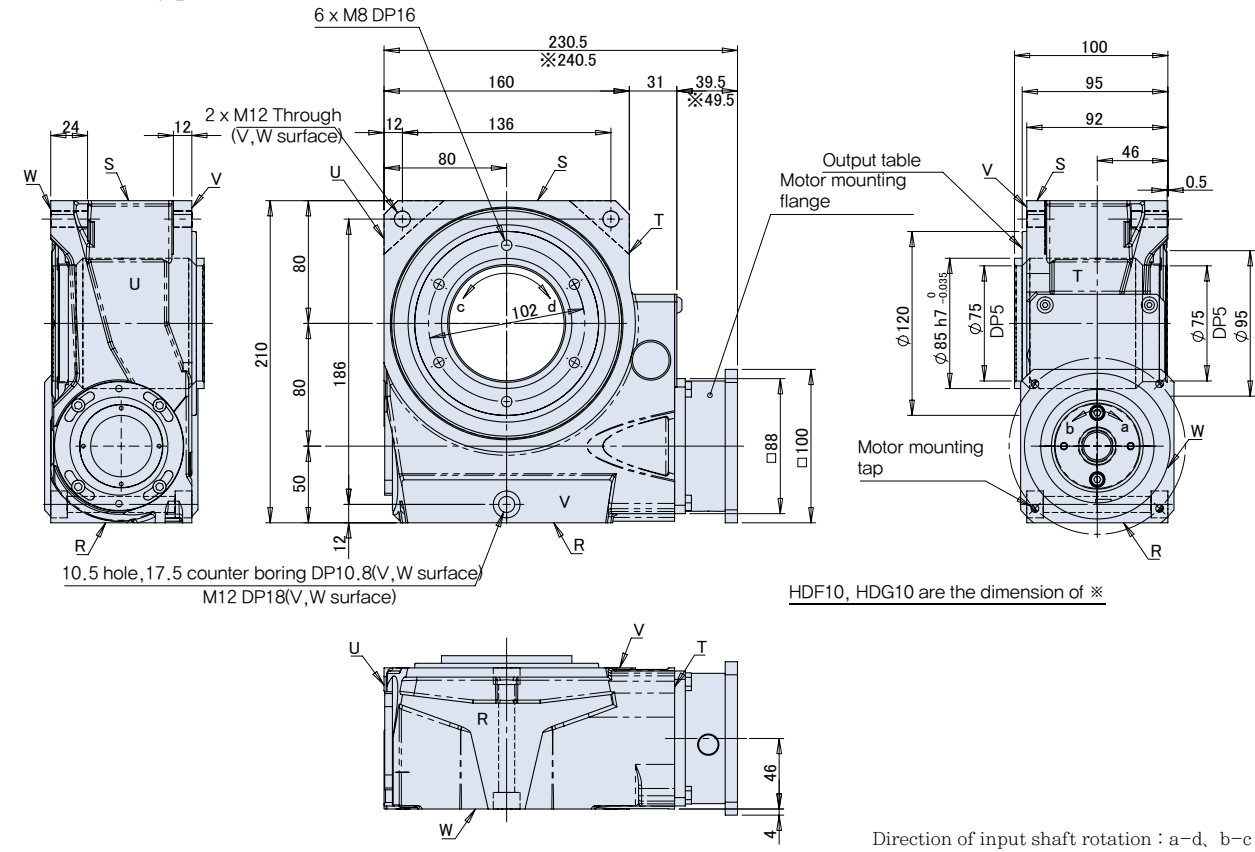
High ratio i=20





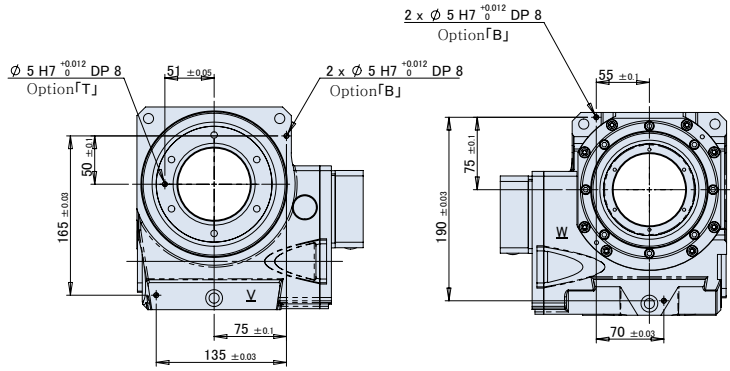
GTB80(motor □ 100)

Motor direct type i=20

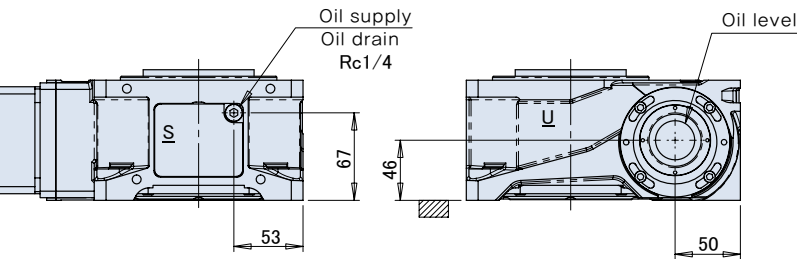


GTB80 Option

Housing pin hole : B , Output table pin hole : T

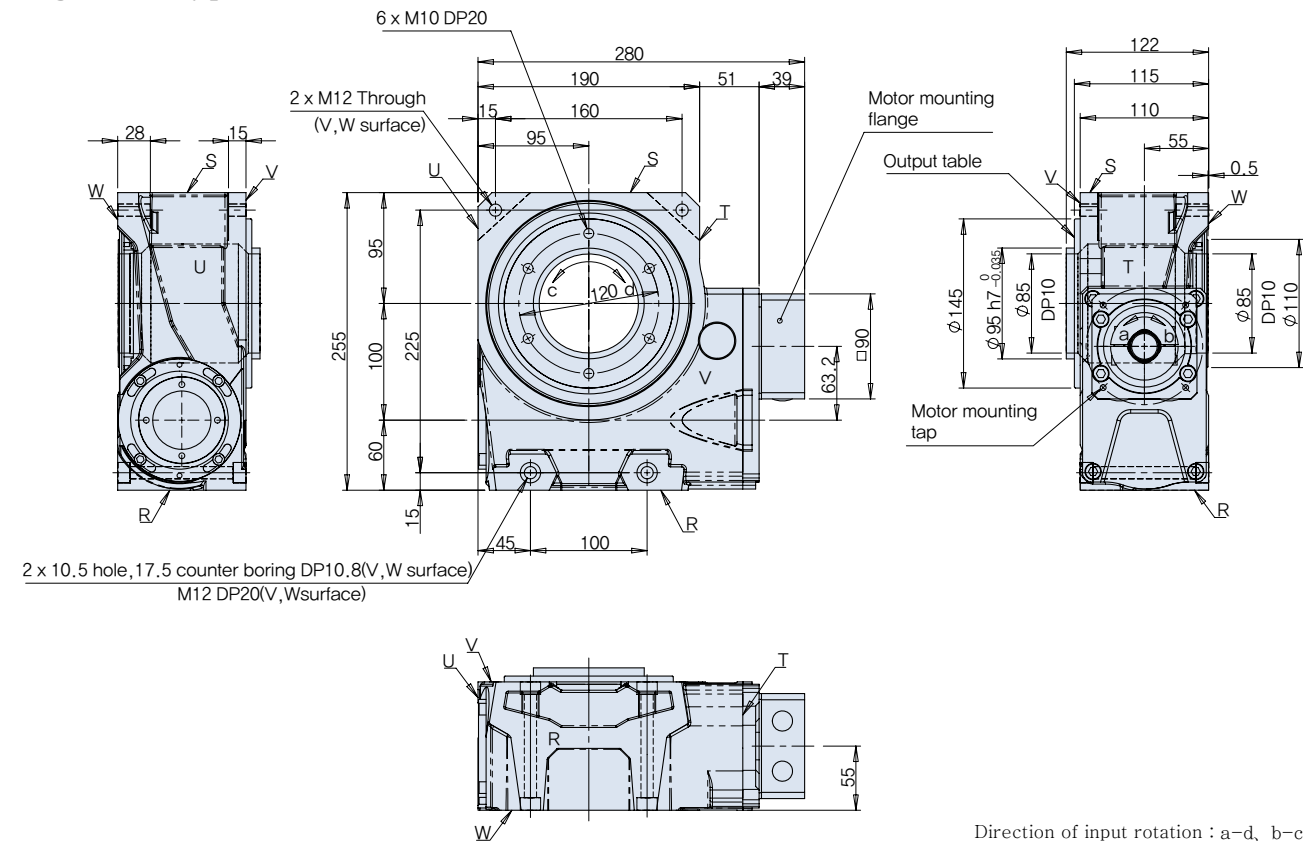


Oil lubrication : Q (Location of oil plug/Plane)



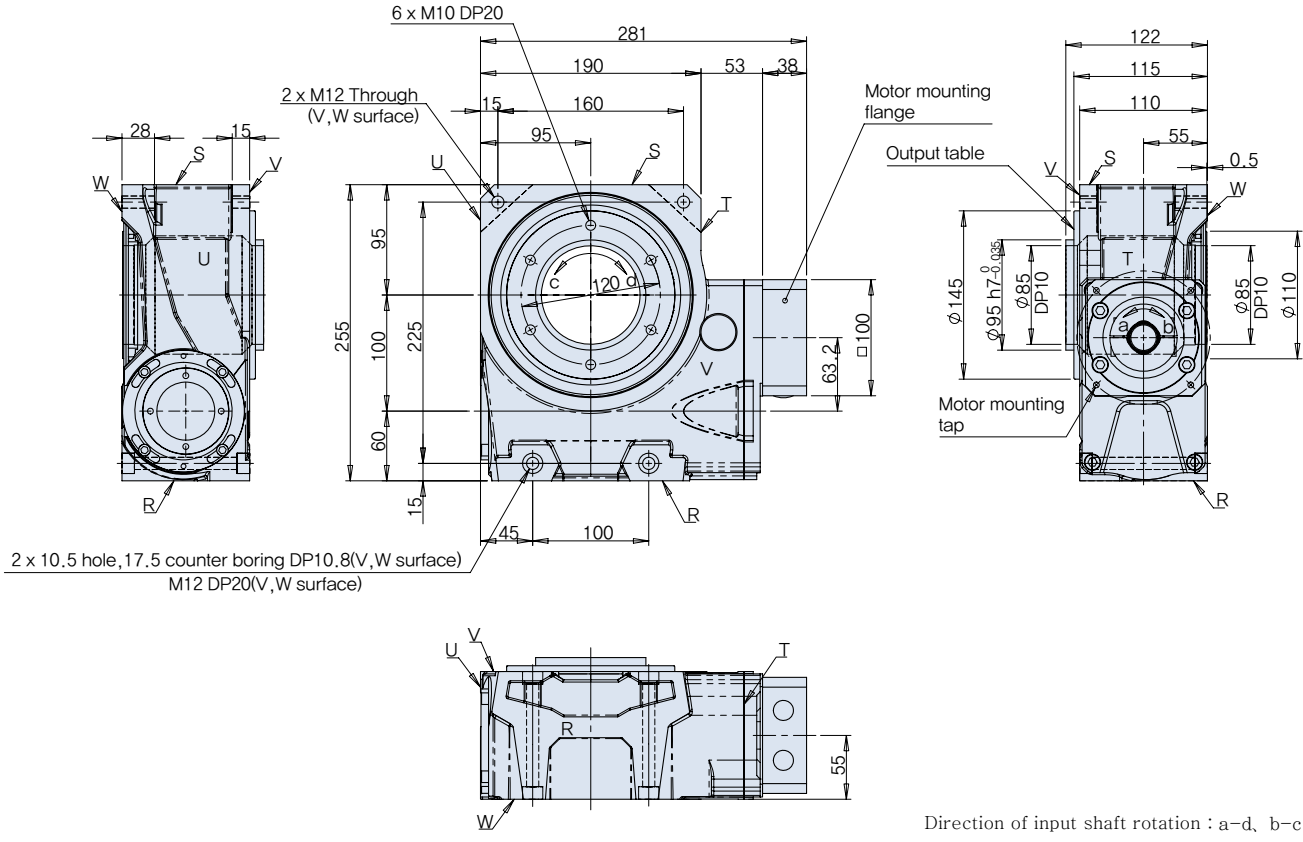
GTB100(motor □ 90)

High ratio type i=60



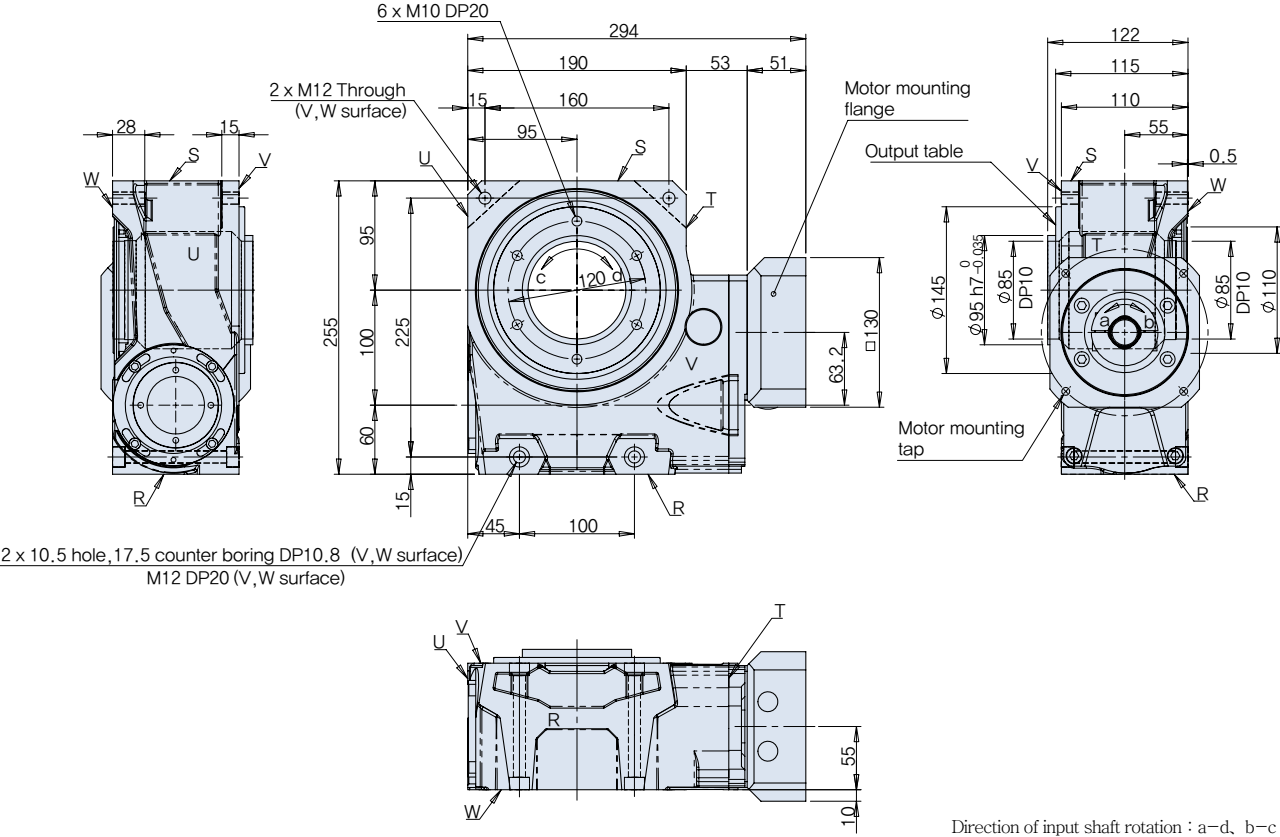
GTB100(motor □ 100)

High ratio type i=60



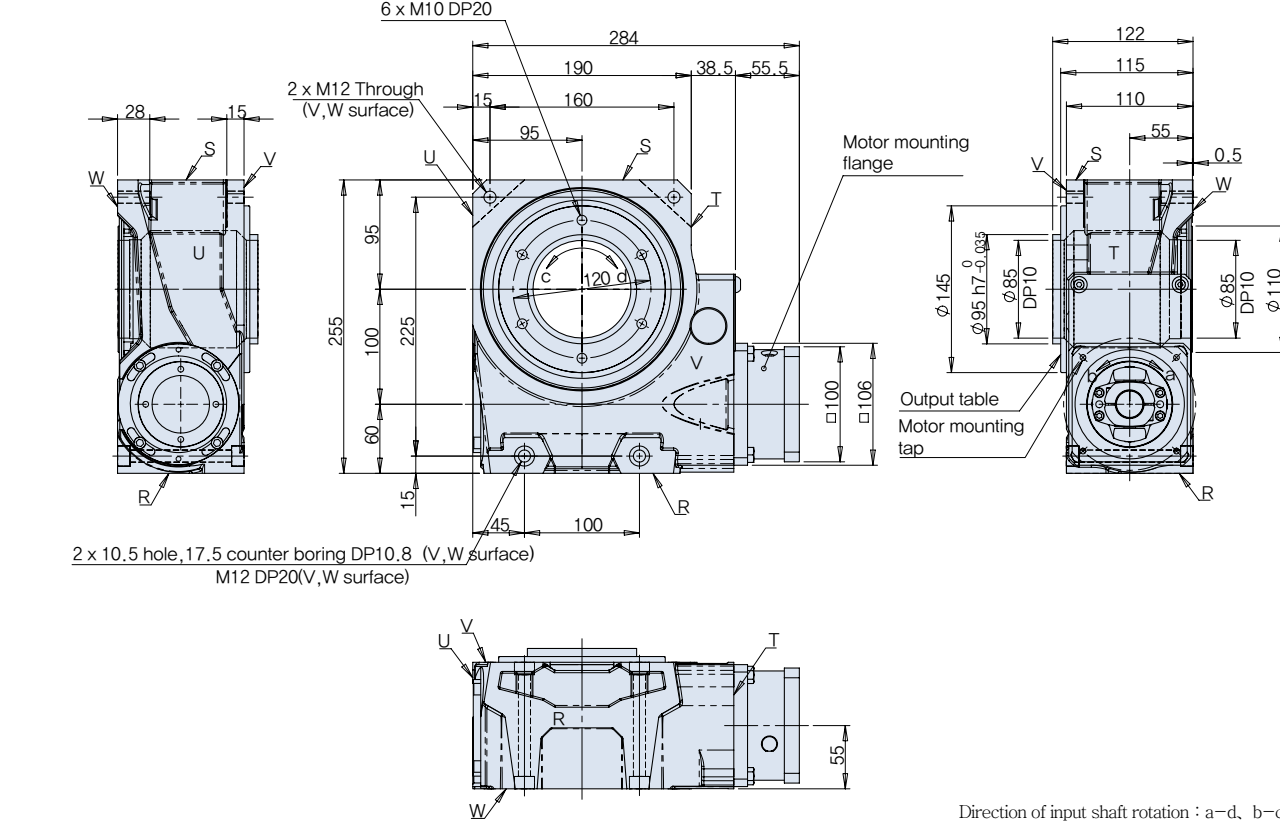
GTB100(motor □ 130)

High ratio type i=60



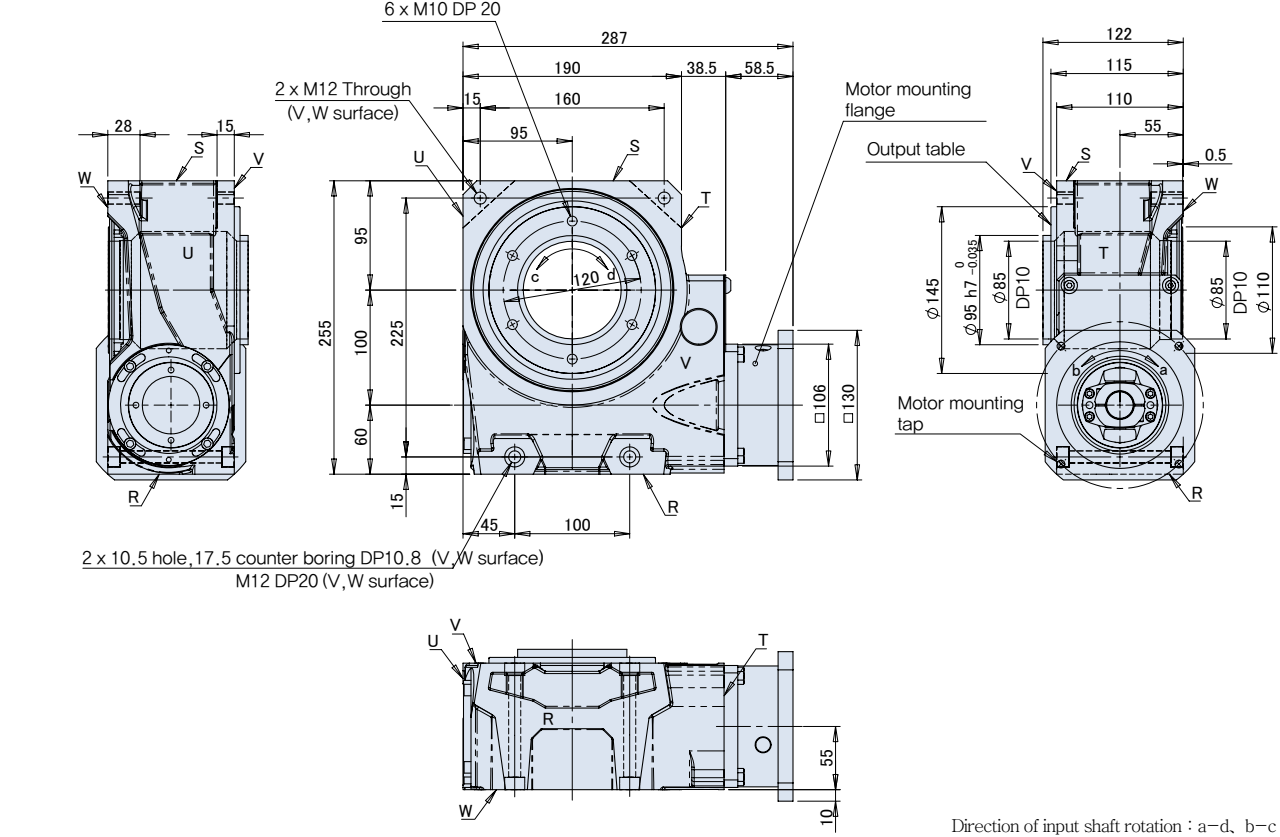
GTB100(motor □ 100)

Motor direct type i=20



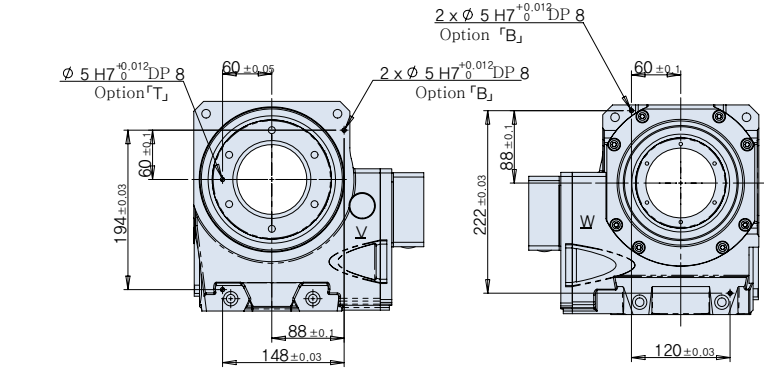
GTB100(motor □ 130)

Motor direct type i=20

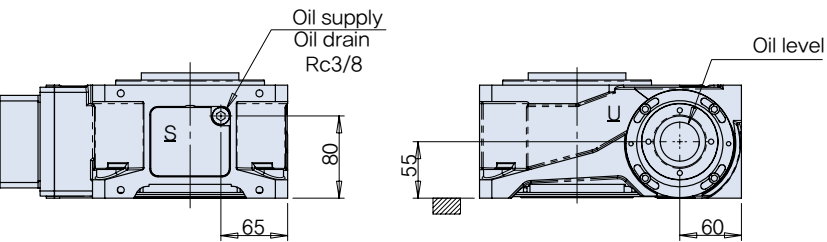


GTB100 Option

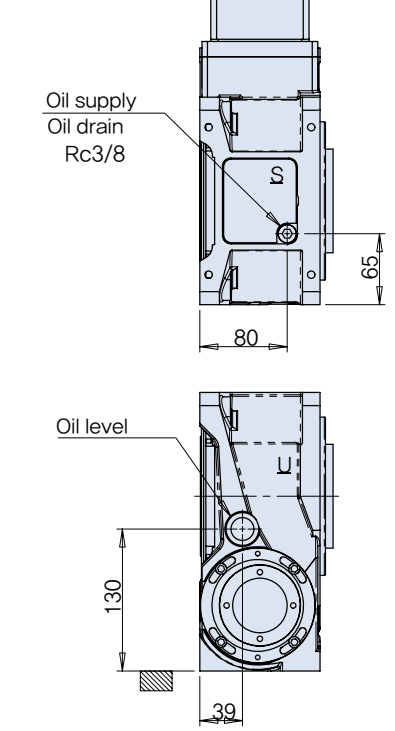
Housing pin hole : B, Output table pin hole : T



Oil lubrication : Q (Location of oil plug/Plane)



Oil lubrication : Q  
(Location of oil plug/Vertical)



■ Notice

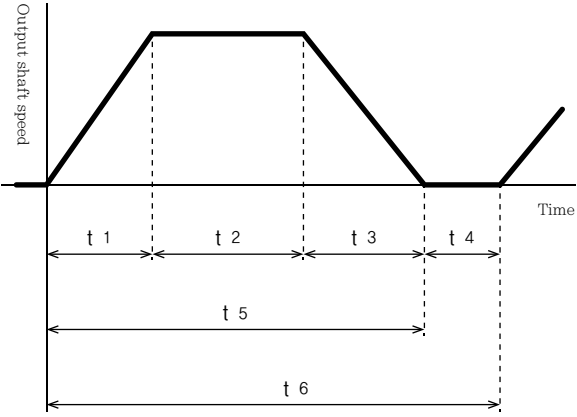
- Proper selection and use of this product should be observed.
- The specifications shown in this catalog are based on Hannz evaluation method.  
Please check that there is no problem with the actual conditions of use.
- Operation mitakes and incorrect use can result in malfuntion, damageor injury.  
Please consider sufficient safety measures.
- Depending on the operation pattern, the surface temperature of the product may be increased by the heat of the servo motor or the heat generated in ther reducer. Please consider cooling measures so that the surface temperature does not exceed 60℃.
- When repeatedly operating at a very small angle, the lubrication condition and the load condition may be stricter than expected and fretting may occur. Contact us if you are using the product at a rotation angle of 10° or less.
- If the final use of this product is a weapon–related facility or an organization related to it, it may be subject to export control regulated by the Foreign Exchange Control Act. Therefore, the customer must be properly examined and exported.
- Please contact us if you want to review the application of the product to a device that may affect human life or human body due to malfunction of this product.
- Safety information and detailed product handling instructions are described in the instruction manual.

■ Warrantv

- If it is confirmed that the product is defective due to design or manufacturing defects within a period of one year after delivery or 2,000 hours after start of operation, the repair or replacement of the product shall be carried out at Hannz own expense.
- For the above items, it is our responsibility to repair any defective product or replace the defective product.  
No compensation is made for other expenses.(compensation for loss of opportunity cost, disassembly and assembly cost of cutomer machinery, transportation costs)
- The maintenance will be charged to customer if any of below conditions are included.
  - ① Consumable parts and the parts exceeded the life cycle time.(Oil seal and etc.)
  - ② Failure to comply with the proper uses conditions specified by Hannz.
  - ③ This product is used in a special environment.(high temperature, low temperature, high humidity, vacuum, large amount of dust, high pressure, flammable materials etc.)
  - ④ Any pollution, influence of external substances and power transmission.
  - ⑤ When other lubricants, consumables, etc. are used in the product.
  - ⑥ Assemble, disassemble, repair or modify are not done by Hannz.
  - ⑦ Any other external influence by other machine.
  - ⑧ Any influence by natural disaster such as fire, earthquake, thunder and etc.
  - ⑨ For other product design defects.

■ Product selection request form

Please fill in the following sheet and contact us by e–mail or Fax.

【Company】		【Address】	
【Department】		【TEL】	【FAX】
【Name】		【Mail–Address】	
【Application】			
【Drawing • Load condition】 (If there is a table, workpiece, jig, etc. mounted on the output shaft, please explain by drawing)		Table diameter [mm]	
		Table weight [kg]	
		Jig PCD [mm]	
		Jig weight [kg]	
		Number of jig [개]	
		Workpiece PCD [mm]	
		Workpiece weight [kg]	
		Number of workpiece [ea]	
【Information of servo motor】  ■ Maker  _____  ■ Model  _____  ■ Motor capacity  _____ [kW]		【Operation conditions】	
			
		Output indexing angle [deg]	
		Acceleration time : t 1 [sec]	
		Constant time : t 2 [sec]	
		Deceleration time : t 3 [sec]	
Stop time : t 4 [sec]			
Indexing time : t 5 [sec]			
Cycle time : t 6 [sec]			
【Other】 (Explain about the operation enviroment, operation conditions, etc.)			



FAX: 82-31-499-4056



## Related product

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### Small high-speed rotation positioning PGM40

0.2~0.4kW

Compact and lightweight positioning unit PGM40, suitable for table rotation and sub-drive part, high-speed rotation is possible.



### Heavy-duty servo positioning DSRseries

3.5~15.0kW

large index suitable for positioning of heavy loads, convenient use due to large hollow, selectable from 6 models according to requirements.



ADDRESS: 241, Hyeomnyeok-ro, Siheung-si,  
Gyeonggi-do, Korea  
TEL: 82-31-499-4054  
FAX: 82-31-499-4056  
[www.hannzmotrol.com](http://www.hannzmotrol.com)

■ The specifications, dimensions performance and appearance of this catalog are subject to change without notice



Please read the instruction manual before use.