

Basic

Index

RGIB

250

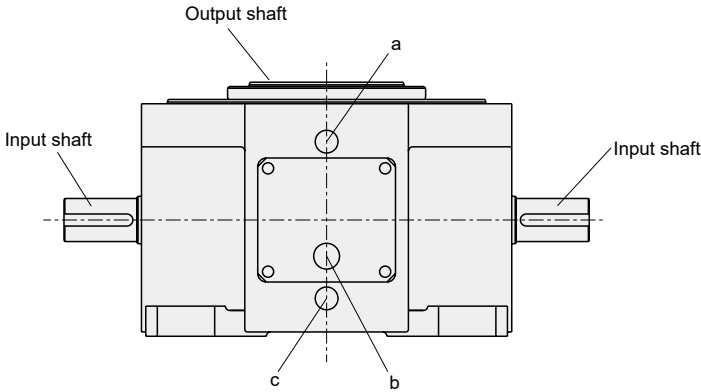
● Common specifications



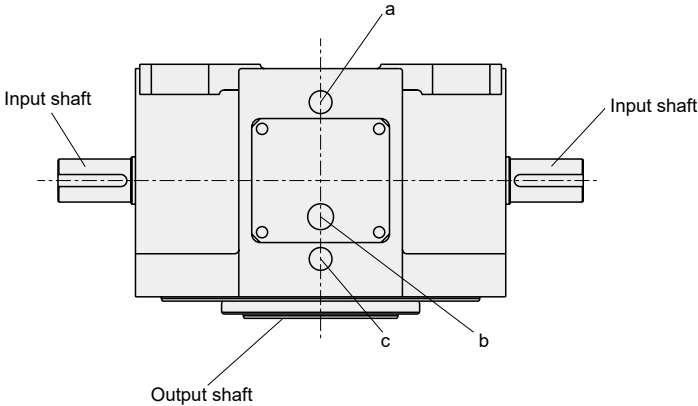
1. Installation specifications

(1) The output shaft is facing upward for the standard version.

Position 1

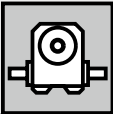


Position 2

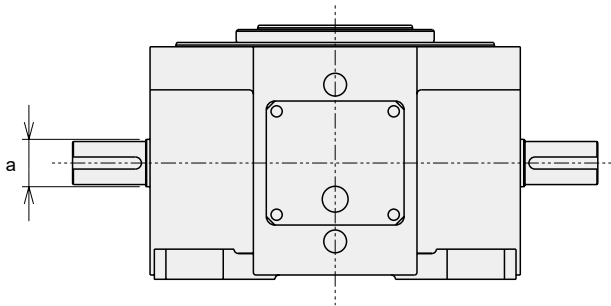


a: Oil supply port b: Oil level gauge c: Drain port

2. Housing material/Fc



3. Diameter of the stepped section of the input shaft



Dimensions	a
Size	
250	ø 55

4. Option/Hollow shaft geared motor

List of gear head + motor installation

Main model No.		Motor output kw	Reduction ratio
RGIB	250	2.2	1/10, 1/15, 1/20, 1/25, 1/30, 1/40, 1/50, 1/60
		3.7	1/10, 1/15, 1/20, 1/25, 1/30, 1/40, 1/50, 1/60

* The above indicates the combinations of standard installations.
Use this after verifying the motor capacity (Pe), the allowable output shaft torque (Ttr) and the load torque of the geared motor (Ter).

Product specifications

Option	Parallel cam drive		Roller gear cam drive		
	Pick and Place drive	Basic	Wide angle	Table	Standard
Option	Linear				
	Circular				

Basic

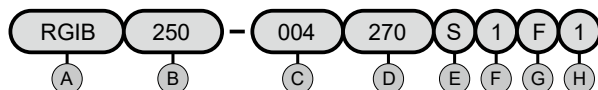
Index

RGIB

250

1. Index drives/Model No. table Index series

Product specifications

[illegible]

Example of model No.

RGIB250-003330S5F1

Shaft interval.....250 mm

Index number.....3

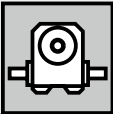
Total index angle.....330°

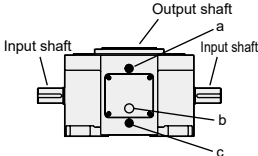
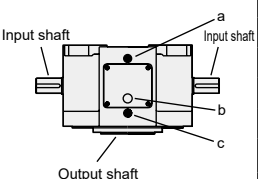
Cam curve MS curve

Cam helix direction/dwell No.Right helix and single dwell interval

Shape of the output shaft Flange

Installation position Position 1



G Shape of the output shaft		H Installation position			
F	Flange	1	Position 1	Position 1	Position 2
		2	Position 2		

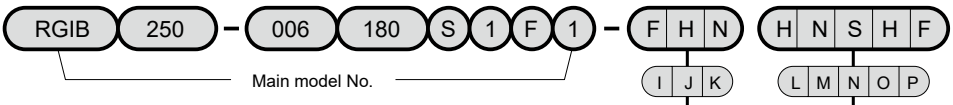
a: Oil supply port b: Oil level gauge c: Drain port

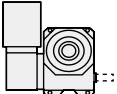
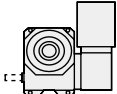
Option	Pick and Place drive		Parallel cam drive	Roller gear cam drive			Product specifications
	Linear	Circular		Basic	Wide angle	Table	

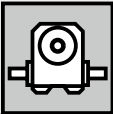
Basic

2. Units with Options/Model No. table

Index series



Input/Output shaft specification code				
① Input shaft specification code [left shaft]		② Input shaft specification code [right shaft]		③ Output shaft specification code
N		N		N There is no basic output shaft option. ☐ ☐ N
C		C		
H		H		
F		F		
P		P		
N	Standard (with keyway)			
C	Cutoff This is cut off at the stepped spot. It will protrude from the housing. Verify the dimensions with the diagram.			
H	With the hollow shaft geared motor. Since the specification for the motor is required, determine with "Hollow shaft geared motor installation specification code."			
F	With input shaft position detection cam and photo micro sensor.			
P	Sensor shaft Without input shaft position detection cam and photo micro sensor.			



Installation specification code of the hollow shaft geared motor									
Ⓐ Motor type		Ⓑ Motor output		Ⓒ Voltage		Ⓓ Reduction ratio		Ⓔ Driving method	
G	Nissei Hypoid gear	M	2.2 kW	S	Three-phase 200 V	A	1/10	F	Face mount
T	Tsubaki Emerson Hypoid gear	N	3.7 kW			B	1/15		
						C	1/20		
						D	1/25		
						E	1/30		
						F	1/40		
						G	1/50		
						H	1/60		

Product specifications

Option	Parallel cam drive			Roller gear cam drive			Compact
	Pick and Place drive Linear		Circular	Wide angle	Table	Standard	
				Basic			

Difference
between shafts: **250** mm

Discontinue

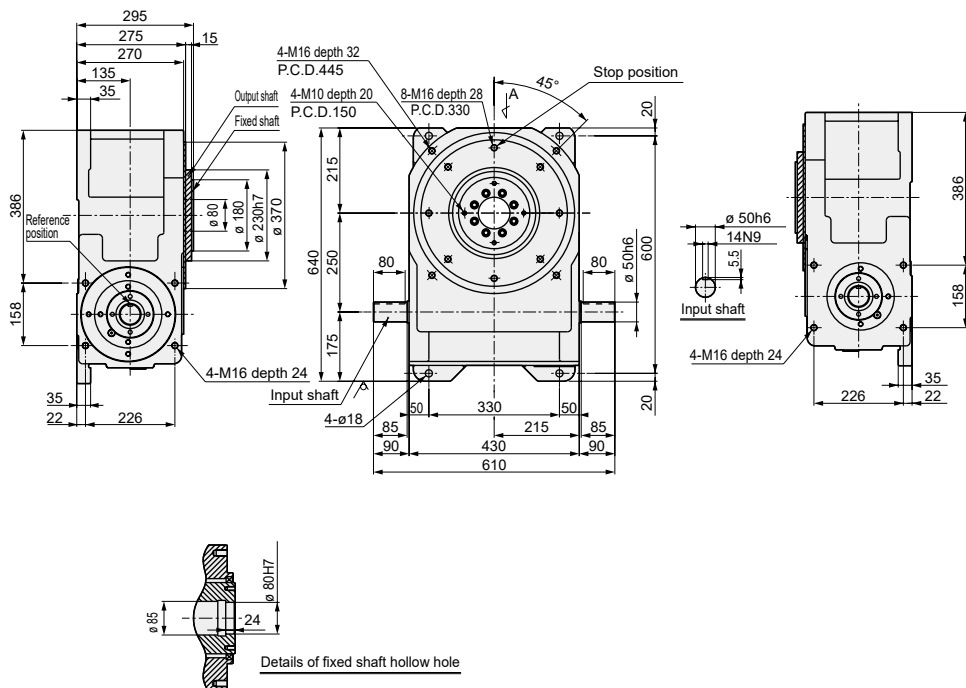
Basic

Index

RG I B 250

● Standard specifications

Dimensions



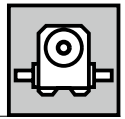
✓ section has casting surface (unpolished surface).

RG I B 250- [] [] [] [] [] F []

Installation position and oil supply/drain port and oil level gauge positions

Installation position	1	2
Series	RG I B	RG I B
Dimensions	A view	A view

- Oil fill/drain port (Rc³/4)
- Oil level gauge (ø 30)



Characteristics

Descriptions	Unit	Characteristics	
		Output shaft	Input shaft
Allowable thrust force	N	25000	6200
Allowable radial force	N	(Note 1, 2) 12000	6700
Bending rigidity (radial force)	N/mm	(Note 3) 65700	-
Allowable bending moment	N·m	(Note 1, 2) 2000	-
Bending rigidity (bending moment)	N·m/mm	(Note 3) 14000	-
Moment of inertia	kg·m ²	2.00	0.48

Note 1

Be sure to confirm that the index is in the dwell interval when a radial force or bending moment is applied to the output shaft and the fixed shaft.

If a radial force or bending moment is applied while in rotation, provide an outside guide or coupling mechanism so that the load only required for rotation is applied to the output shaft of the index.

Note 2

When you extend the fixed shaft, the above characteristics does not apply.

For the characteristics, contact CKD.

Note 3

The deflection of the output shaft tip when a radial force or bending moment is applied to the output shaft and the fixed shaft should be calculated using the bending rigidity value.

Accuracy

Accuracy (sec.)		
Indexing accuracy	1 dwell	± 20
	2 dwell	± 40
Repeatability		30

* For the dwell accuracy, please contact CKD.

List of index angles

Index series **RGIB 250 Cam curve/MS/MC**

Total index angle (θt)		120	150	180	210	240	270	300	330
Index number (n)									
1 dwell	2								□
	3						□	□	○
	4					□	○	○	○
	5				□	○	○	○	○
	6			○	○	○	○	○	○
	8		○	○	○	○	○	○	○
	10	○	○	○	○	○	○	○	○
	12	○	○	○	○	○	○	○	○
	15	○	○	○	○	○	○	○	○
	16	○	○	○	○	○	○	○	○
2 dwell	16				○	○	○	○	○
	20			○	○	○	○	○	○
	24			○	○	○	○	○	○
	32			○	○	○	○	○	○

○ Cam curve / MS

□ Cam curve / MC

● Dimensions with options



With the hollow shaft geared motor (2.2 kW) + sensor shaft

Product specifications

Compact

Standard

Table

Wide angle

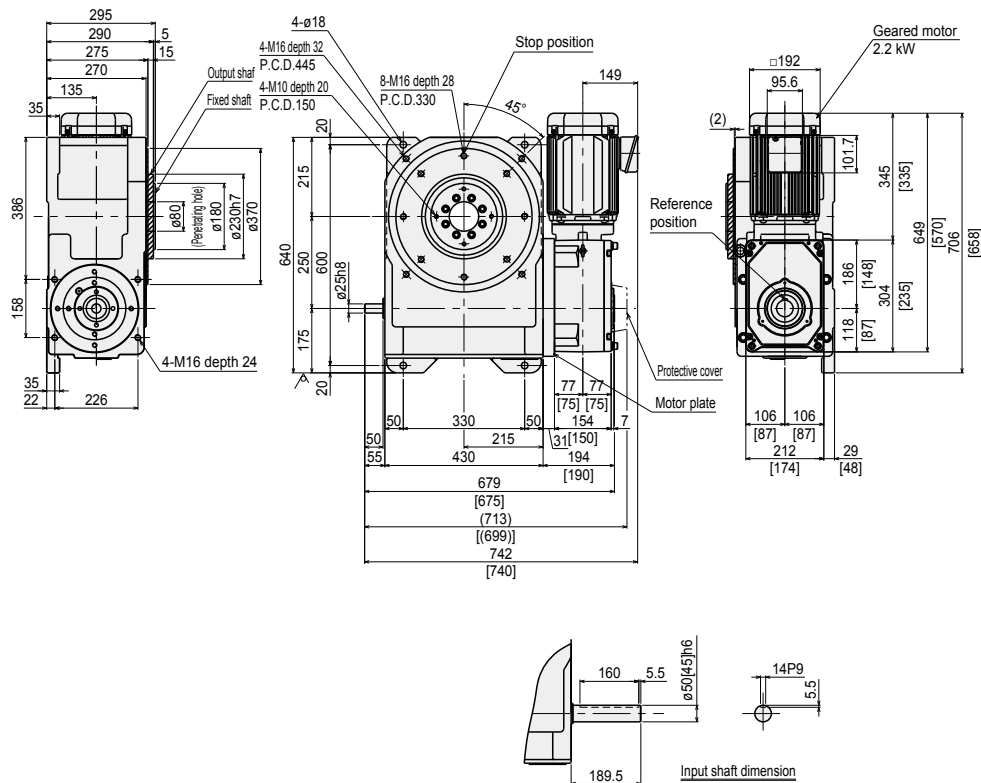
Basic

Parallel cam drive

Linear
Circular
Pico and
Pico drive

Option

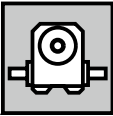
Roller gear cam drive



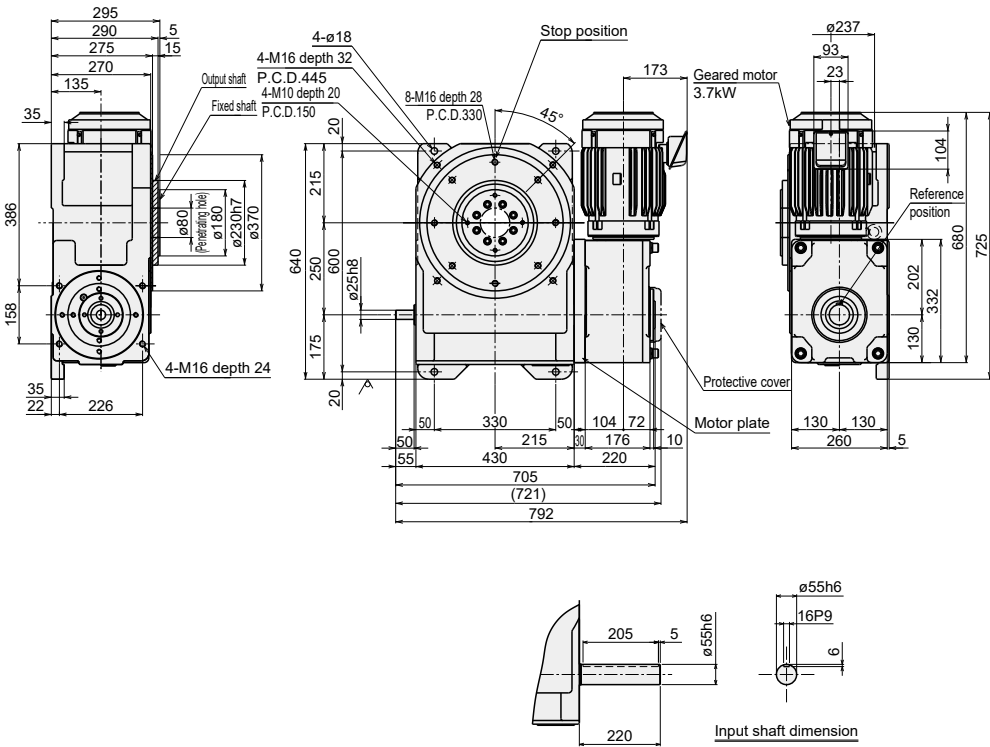
✓ section has casting surface (black film).

Value in () is reduction ratio (unpolished surface 20, 25, 30)

RG I B 250- [] [] [] [] [] F [] -PHNGMS [] F



With the hollow shaft geared motor (3.7 kW) + sensor shaft



✓ section has cast surface (unpolished surface).

RG I B 250- ☐ ☐ ☐ ☐ ☐ ☐ F -PHNTNS ☐ F

Product specifications

Option	Pick and Place drive Linear Circular	Parallel cam drive			Roller gear cam drive			Compact	
		Basic			Wide angle			Table	
								Standard	

Output torque table

Index series

● RGB flange shaft (1 dwell)

Cam curve/MS

Product specifications		Cam curve/MS										
		Index number	Total Index angle (deg)	Static rated output torque (N·m)	Rated dynamic output torque (N·m)							
					Input shaft rotational speed (rpm)							
					20	40	60	80	100	120	150	200
Compact	Roller gear cam drive	3	330	5300	2400	2400	2250	2010	1810	1660	1460	1170
		4	270	5460	2470	2460	2310	2050	1850	1680	1480	1170
		300	7690	3670	3670	3460	3110	2820	2600	2320	1950	
Standard	Roller gear cam drive	5	330	7690	3870	3860	3650	3310	3010	2780	2500	2130
		240	5460	2630	2620	2460	2180	1970	1790	1580	1260	
		270	5460	2800	2790	2630	2360	2140	1960	1740	1440	
Table	Roller gear cam drive	6	300	5460	2950	2940	2770	2520	2290	2110	1890	1590
		330	5460	3070	3070	2900	2640	2420	2230	2010	1710	
		180	7690	3450	3440	3180	2800	2520	2290	2000	1560	
Wide angle	Roller gear cam drive	6	210	13700	4400	4390	4130	3660	3320	3050	2720	2260
		240	13700	4710	4700	4440	3990	3630	3350	3010	2560	
		270	13700	4970	4960	4690	4260	3880	3590	3240	2800	
Basic	Roller gear cam drive	8	300	13700	5180	5170	4890	4470	4100	3790	3440	2990
		330	13700	5350	5350	5060	4630	4280	3970	3600	3150	
		150	7690	3670	3660	3370	2970	2670	2420	2110	1640	
Basic	Roller gear cam drive	8	180	7690	4040	4030	3780	3350	3040	2790	2470	2040
		210	13700	5040	5030	4750	4270	3890	3590	3230	2750	
		240	13700	5300	5290	5000	4550	4150	3840	3470	3010	
Basic	Roller gear cam drive	10	270	13700	5500	5490	5190	4750	4370	4050	3670	3200
		300	13700	5650	5650	5340	4890	4540	4210	3830	3360	
		330	13700	5780	5770	5460	5000	4670	4350	3970	3490	
Basic	Roller gear cam drive	10	120	5460	2630	2610	2360	2060	1830	1630	1350	908
		150	5460	2950	2930	2730	2410	2170	1970	1720	1340	
		180	7690	4440	4430	4180	3740	3400	3130	2800	2360	
Basic	Roller gear cam drive	10	210	7690	4670	4670	4410	4000	3650	3370	3040	2620
		240	7690	4850	4840	4580	4180	3840	3560	3230	2800	
		270	7690	4980	4970	4700	4300	4000	3710	3370	2950	
Basic	Roller gear cam drive	12	300	13700	5920	5920	5600	5130	4780	4470	4070	3590
		330	13700	6010	6010	5680	5210	4860	4590	4180	3690	
		120	5070	2400	2390	2180	1910	1700	1520	1280	895	
Basic	Roller gear cam drive	12	150	5460	3180	3170	2970	2630	2380	2170	1920	1550
		180	5460	3370	3360	3170	2860	2600	2390	2140	1800	
		210	5460	3510	3500	3310	3020	2760	2550	2300	1970	
Basic	Roller gear cam drive	12	240	5460	3610	3600	3400	3110	2880	2670	2420	2100
		270	7690	5140	5140	4860	4450	4150	3870	3520	3100	
		300	7690	5220	5210	4930	4520	4220	3970	3620	3190	
Basic	Roller gear cam drive	12	330	7690	5280	5270	4990	4570	4270	4030	3700	3270
		120	3720	2120	2110	1960	1720	1530	1380	1170	849	
		150	3720	2270	2260	2130	1900	1720	1570	1380	1100	
Basic	Roller gear cam drive	15	180	5070	2920	2920	2750	2510	2280	2100	1880	1600
		210	5070	3000	3000	2830	2590	2390	2210	1990	1720	
		240	5070	3060	3050	2880	2640	2460	2290	2070	1800	
Basic	Roller gear cam drive	15	270	5070	3090	3090	2920	2670	2490	2350	2130	1870
		300	5070	3120	3120	2950	2700	2520	2380	2180	1920	
		330	5070	3140	3140	2970	2720	2540	2400	2220	1960	
Basic	Roller gear cam drive	16	120	2650	1740	1730	1600	1400	1250	1120	939	658
		150	3720	2310	2300	2170	1940	1750	1600	1410	1140	
		180	3720	2390	2390	2250	2050	1870	1720	1540	1290	
Basic	Roller gear cam drive	16	210	3720	2450	2450	2310	2110	1950	1800	1620	1390
		240	5070	3080	3070	2910	2660	2480	2310	2100	1830	
		270	5070	3110	3110	2940	2690	2510	2370	2160	1890	
Basic	Roller gear cam drive	16	300	5070	3140	3130	2960	2720	2530	2390	2200	1940
		330	5070	3160	3150	2980	2730	2550	2410	2240	1980	

● RGB flange shaft (1 dwell)

Cam curve/MC

Index number	Total index angle (deg)	Static rated output torque (N·m)	Rated dynamic output torque (N·m)							
			Input shaft rotational speed (rpm)							
			20	40	60	80	100	120	150	200
2	330	5140	2330	2320	2100	1830	1620	1440	1190	782
3	270	5460	2520	2500	2270	1990	1760	1570	1300	882
	300	5460	2680	2660	2450	2150	1930	1740	1480	1100
4	240	7690	3870	3860	3530	3110	2790	2530	2190	1680
5	210	5460	2900	2880	2620	2300	2050	1830	1550	1100

● RGB flange shaft (2 dwell)

Cam curve/MS

Index number	Total index angle (deg)	Static rated output torque (N·m)	Rated dynamic output torque (N·m)							
			Input shaft rotational speed (rpm)							
			10	20	30	40	50	60	75	100
16	210	7690	4320	4320	4080	3740	3470	3210	2910	2540
	240	13700	5300	5290	5010	4590	4280	4000	3640	3210
	270	13700	5500	5490	5200	4760	4440	4200	3840	3390
	300	13700	5650	5650	5350	4900	4580	4320	3990	3540
	330	13700	5780	5780	5470	5010	4680	4420	4120	3660
20	180	7690	4440	4440	4190	3830	3540	3280	2970	2590
	210	7690	4670	4670	4420	4040	3770	3520	3200	2810
	240	7690	4850	4840	4580	4200	3920	3700	3380	2980
	270	7690	4980	4980	4710	4310	4030	3810	3520	3110
	300	13700	5920	5920	5600	5130	4800	4530	4230	3760
	330	13700	6010	6010	5690	5210	4870	4610	4300	3860
24	180	5460	3370	3370	3180	2910	2710	2510	2280	1980
	210	5460	3510	3510	3320	3030	2830	2660	2420	2120
	240	5460	3610	3610	3410	3120	2910	2750	2530	2230
	270	7690	5140	5140	4860	4460	4160	3930	3670	3250
	300	7690	5220	5220	4940	4520	4230	4000	3730	3340
	330	7690	5280	5270	4990	4580	4280	4040	3770	3420
32	180	3720	2390	2390	2260	2070	1930	1810	1640	1420
	210	5070	3030	3030	2860	2620	2450	2310	2120	1870
	240	5070	3080	3080	2910	2670	2490	2350	2190	1940
	270	5070	3110	3110	2940	2700	2520	2380	2220	1990
	300	5070	3140	3140	2970	2720	2540	2400	2240	2030
	330	5070	3160	3160	2990	2740	2560	2420	2260	2060

Product specifications

Compact

Standard

Table

Wide angle

Basic

Parallel cam drive

Pick and Place drive

Linear

Option

Circular