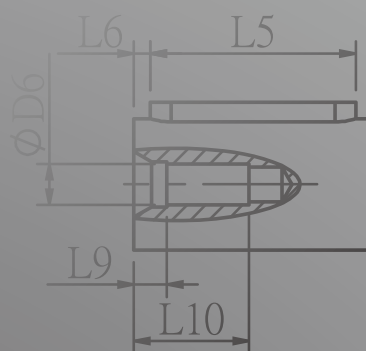
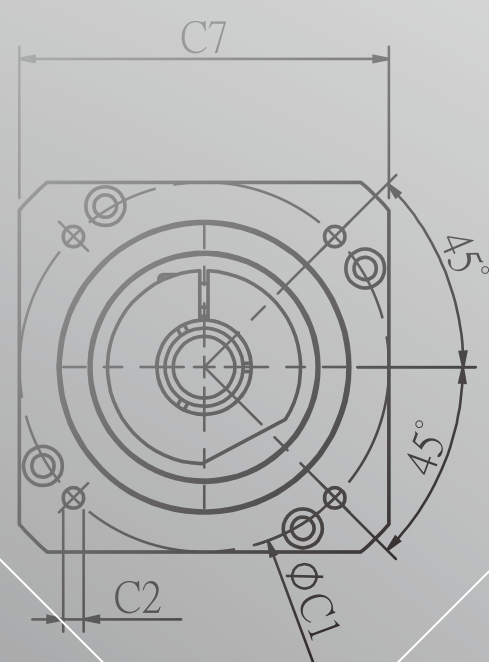
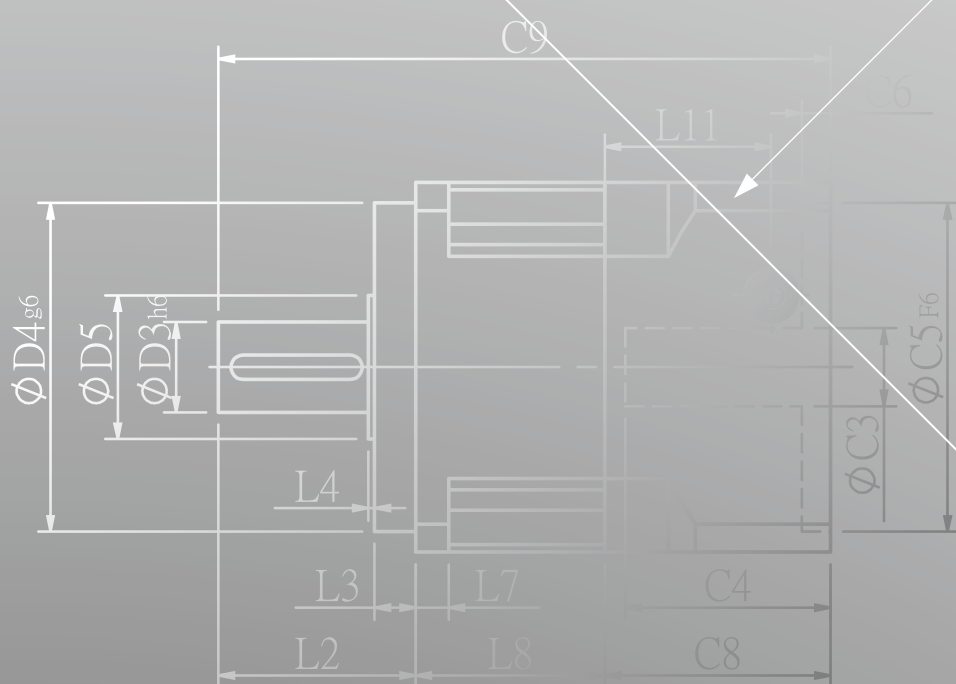
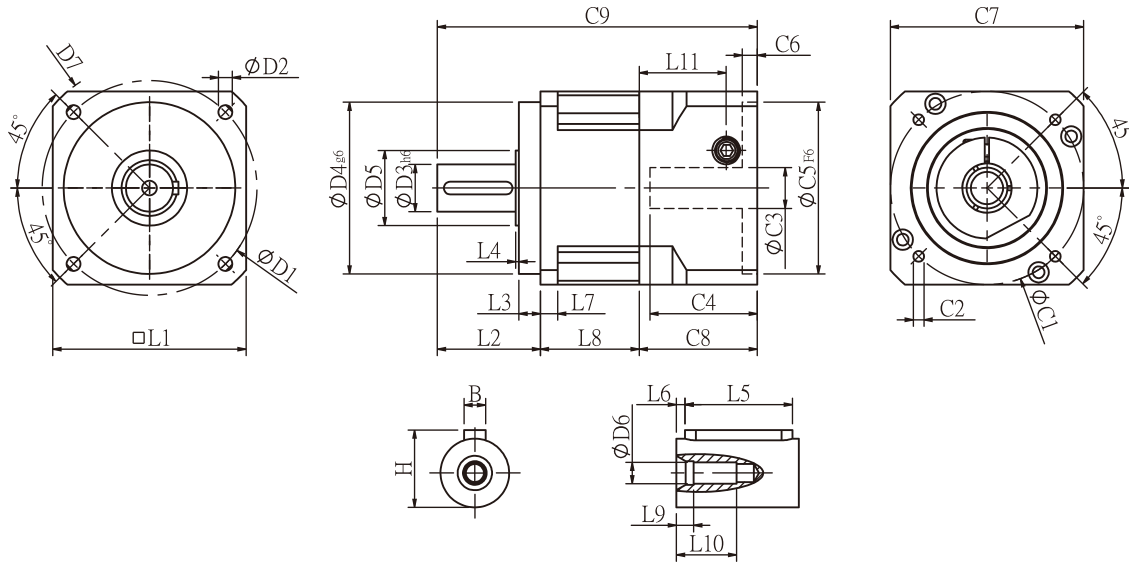


# PGH SERIES





## PGH Single Stage Dimensions



## Specifications

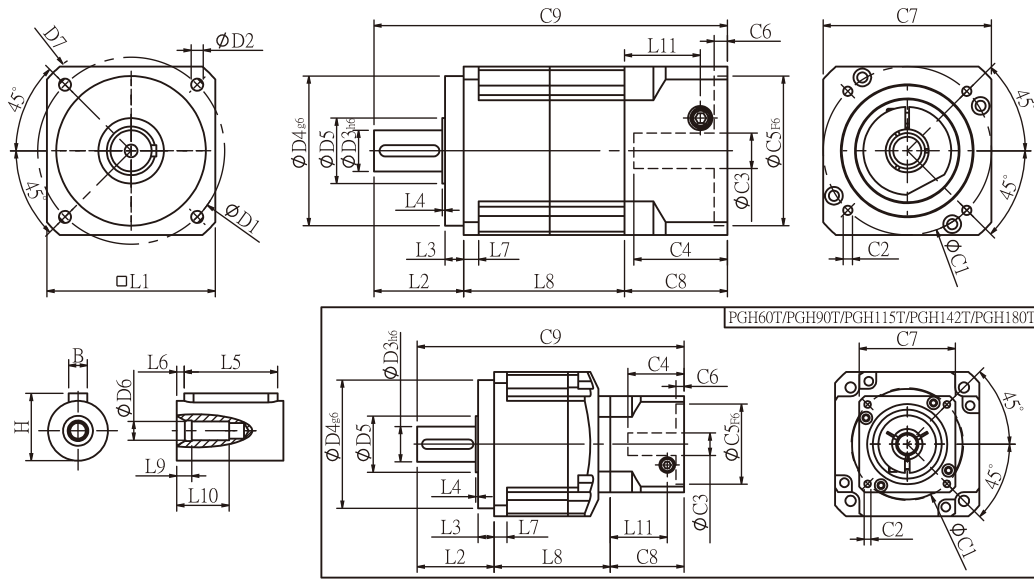
Unit:mm

Dimensions	PGH42	PGH60	PGH90	PGH115	PGH142	PGH180	PGH220
D1	50	70	100	130	165	215	250
D2	3.4	5.5	6.5	8.5	10.5	13	17
D3 <sub>h6</sub>	13	16	22	32	40	55	75
D4 <sub>g6</sub>	35	50	80	110	130	160	180
D5	15	25	35	45	50	70	114.4
D6	M4x0.7P	M5x0.8P	M8x1.25P	M12x1.75P	M16x2.0P	M20x2.5P	M20x2.5P
D7	56	80	118	148	186	239	292
L1	42.6	60	90	115	142	182	220
L2	26	37	48	63	91.5	100.5	138
L3	5.5	7	10	10	10	16	30
L4	1	1.5	1.5	3.5	2.5	2.5	3
L5	15	25	32	40	60	70	90
L6	2	2	3	5	5	6	7
L7	4	6	8	11	16	18	20
L8	28.3	37	46	57	75.5	94	111
L9	4	4	4.5	6	6	8	15
L10	14	16.5	20.5	30	38	48	42
L11	29	35.5	40.5	42	63	69.5	96
C1 <sup>2</sup>	46	70	90	115	145	200	235
C2 <sup>2</sup>	M4x0.7P	M5x0.8P	M6x1.0P	M8x1.25P	M8x1.25P	M12x1.75P	M12x1.75P
C3 <sup>2</sup>	≤8/≤11	≤14	≤19/≤24	≤24/≤32	≤35/≤38	≤50	≤55
C4 <sup>2</sup>	27	37	47	56	66.5	82	112
C5 <sup>2</sup> <sub>F6</sub>	30	50	70	95	110	114.3	200
C6 <sup>2</sup>	4	4	6	10	6	13	6
C7 <sup>2</sup>	42.6	60	90	115	140	180	220
C8 <sup>2</sup>	38.5	46	55	63	80	95	120
C9 <sup>2</sup>	92.8	120	149	183	247	289.5	369
B	5	5	6	10	12	16	20
H	15	18	24.5	35	43	59	79.5

★ C1~C9 are motor specific dimensions(metric std shown ), Size may vary according to the motor flange chosen.

★ Specification subject to change without notice.

## PGH Double Stage Dimensions



## Specifications

Unit:mm

Dimensions	PGH42	PGH60	PGH60T	PGH90	PGH90T	PGH115T	PGH142T	PGH180T	PGH220T
D1	50	70		100		130	165	215	250
D2	3.4	5.5		6.5		8.5	10.5	13	17
D3 h6	13	16		22		32	40	55	75
D4 g6	35	50		80		110	130	160	180
D5	15	25		35		45	50	70	114.4
D6	M4x0.7P	M5x0.8P		M8x1.25P		M12x1.75P	M16x2.0P	M20x2.5P	M20x1.5P
D7	56	80		118		148	186	239	292
L1	42.6	60		90		115	142	182	220
L2	26	37		48		63	91.5	100.5	138
L3	5.5	7		10		10	10	16	30
L4	1	1.5		1.5		3.5	2.5	2.5	3
L5	15	25		32		40	60	70	90
L6	2	2		3		5	5	6	7
L7	4	6		8		11	16	18	20
L8	55.3	70	65.5	86	78.5	99.5	127.5	166	202
L9	4	4		4.5		6	6	8	15
L10	14	16.5		20.5		30	38	48	42
L11	29	35.5	29	40.5	35.5	40.5	42	63	74
C1 <sup>2</sup>	46	70	46	90	70	90	115	145	200
C2 <sup>2</sup>	M4x0.7P	M5x0.8P	M4x0.7P	M6x1.0P	M5x0.8P	M6x1.0P	M8x1.25P	M8x1.25P	M12x1.75P
C3 <sup>2</sup>	≤8/≤11	≤14	≤8/≤11	≤19/≤24	≤14	≤19/≤24	≤24/≤32	≤35/≤38	≤50
C4 <sup>2</sup>	27	37	27	47	37	47	56	66.5	81
C5 <sup>2</sup> F6	30	50	30	70	50	70	95	110	114.3
C6 <sup>2</sup>	4	4	4	6	4	6	10	6	6
C7 <sup>2</sup>	42.6	60	42.6	90	60	90	115	140	180
C8 <sup>2</sup>	38.5	46	38.5	55	46	55	63	80	93
C9 <sup>2</sup>	119.8	153	141	189	172.5	217.5	282	346.5	433
B	5	5		6		10	12	16	20
H	15	18		24.5		35	43	59	79.5

★ C1~C9 are motor specific dimensions(metric std shown ), Size may vary according to the motor flange chosen.

★ Specification subject to change without notice.

## PGH Specifications Table

Specifications		Stage	Ratio	PGH-42	PGH-60	PGH-90	PGH-115	PGH-142	PGH-180	PGH-220
Nominal Output Torque T <sub>2N</sub>	N • m	1	3	19	53	145	290	520	950	1100
			4	20	55	150	300	550	1000	1700
			5	17	54	140	290	530	1050	2000
			6	15	46	135	280	490	1000	1850
			7	14	44	125	270	450	960	1750
			8	12	41	110	240	390	900	1550
			9	11	37	95	220	360	800	1500
		10	11	37	95	220	360	800	1450	
		Stage	Ratio	PGH-42	PGH-60 (T)	PGH-90(T)	PGH-115T	PGH-142T	PGH-180T	PGH-220T
		2	15	19	53	145	290	520	950	2000
			20	20	55	150	300	550	1000	2000
			25	17	54	140	290	530	1050	2000
			30	17	54	140	290	530	1050	2000
			35	17	54	140	290	530	1050	2000
			40	17	54	140	290	530	1050	2000
			45	17	54	140	290	530	1050	2000
			50	17	54	140	290	530	1050	2000
			60	15	46	135	280	490	1000	1850
			70	14	44	125	270	450	960	1750
			80	12	41	110	240	390	900	1550
		90	11	37	95	220	360	800	1500	
		100	11	37	95	220	360	800	1450	
Emergency Stop Torque T <sub>2NOT</sub>	N • m		3.0 times of Nominal Output Torque (*Max. Output Torque T <sub>2B</sub> =60% of Emergency Stop Torque)							
Nominal Input Speed n <sub>1N</sub>	rpm	1,2	3-100	5000	5000	4000	4000	3000	3000	2000
Max. Input Speed n <sub>1max</sub>	rpm	1,2	3-100	10000	10000	8000	8000	6000	6000	4000
Micro Backlash P0	arcmin	1	3-10	≤ 2	≤ 2	≤ 2	≤ 1	≤ 1	≤ 1	≤ 1
		2	12-100	≤ 4	≤ 4	≤ 4	≤ 3	≤ 3	≤ 3	≤ 3
Precision Backlash P1	arcmin	1	3-10	≤ 4	≤ 4	≤ 4	≤ 3	≤ 3	≤ 3	≤ 3
		2	12-100	≤ 6	≤ 6	≤ 6	≤ 5	≤ 5	≤ 5	≤ 5
Standard Backlash P2	arcmin	1	3-10	≤ 6	≤ 6	≤ 6	≤ 5	≤ 5	≤ 5	≤ 5
		2	12-100	≤ 8	≤ 8	≤ 8	≤ 7	≤ 7	≤ 7	≤ 7
Torsional Rigidity	N • m /arcmin	1,2	3-100	2.5	6	12	23	45	75	130
Max. Radial Load F <sub>2rB</sub> <sup>1</sup>	N	1,2	3-100	760	1570	2780	5340	8400	13000	13810
Max. Axial Load F <sub>2aB</sub> <sup>1</sup>	N	1,2	3-100	410	750	1870	3310	4670	6460	18530
Operating Temp.	°C		3-100	-10 °C ~ +90 °C						
Service Life	hr		3-100	20,000 (10,000/ Continuous operation)						
Efficiency	%	1	3-10	≥ 97%						
		2	12-100	≥ 94%						
Weight	kg	1	3-10	0.6	1.3	3.5	7.8	16.1	27	55
		2	12-100	0.9	2.0/1.6	5.6/3.9	9.5	19	34	68.5
Mounting Position	-	1,2	3-100	Any direction						
Noise Level <sup>2</sup>	dBA/1m	1,2	3-100	56	58	60	63	65	67	70
Protection Class	-	1,2	3-100	IP65						
Lubrication	-	1,2	3-100	Synthetic Lubricant						
Inertia(J1)										
Stage	Ratio	unit		PGH-42	PGH-60	PGH-90	PGH-115	PGH-142	PGH-180	PGH-220
1	3	Kg • cm <sup>2</sup>		0.03	0.23	0.97	2.35	10.00	30.50	79.50
	4			0.02	0.18	0.67	1.66	7.17	25.86	58.21
	5			0.02	0.17	0.65	1.50	6.52	23.63	54.36
	6/7/8			0.02	0.14	0.60	1.45	6.17	22.92	54.12
	9/10			0.02	0.14	0.58	1.41	6.10	22.73	53.98
Stage	Ratio			PGH-42	PGH-60(T)	PGH-90(T)	PGH-115T	PGH-142T	PGH-180T	PGH-220T
2	15/20/25			0.02	0.17(0.02)	0.65(0.17)	0.65	1.50	6.52	23.63
	30/35/40			0.02	0.14(0.02)	0.60(0.14)	0.60	1.45	6.17	22.92
	45/50/60/70/80/90/100			0.02	0.14(0.02)	0.58(0.14)	0.58	1.41	6.10	22.73
* 1. Applied to the output shaft center @100rpm. * 2.Measured at 3000rpm with no load ※ The above figures/specifications are subject to change without prior notice.										

\* 1. Applied to the output shaft center @100rpm.

\* 2. Measured at 3000rpm with no load

※ The above figures/specifications are subject to change without prior notice.

Products due to human error, natural disasters or other factors lead to poor or damaged, will not be covered under warranty.