



FEATURES

Frame Size (mm): 60/90/115

Nominal Output Torque (Nm): 32-280

Ratio: 3-100:1

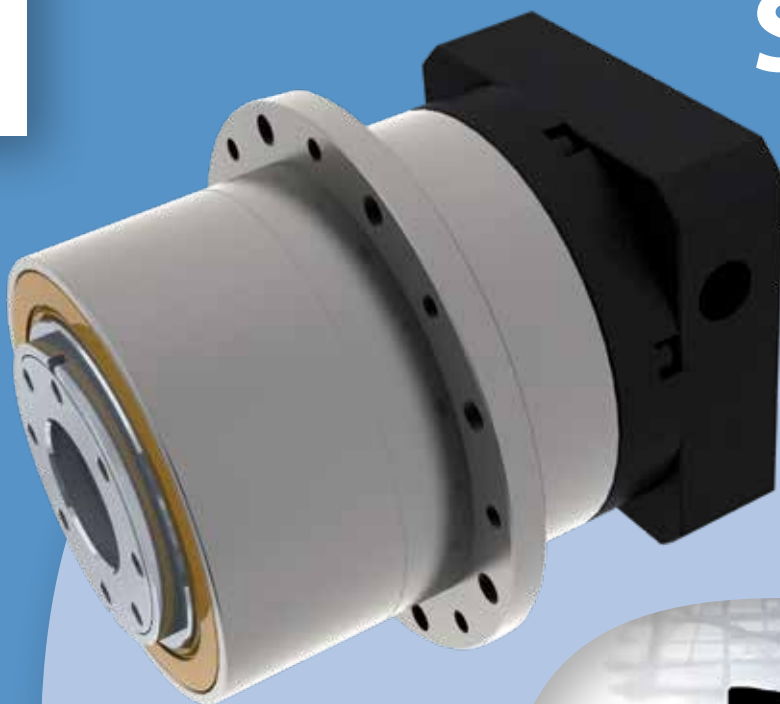
Backlash (arcmin): 7-12 (one stage),
9-15 (two stages)

Torsional Rigidity (Nm/arcmin): 7-55

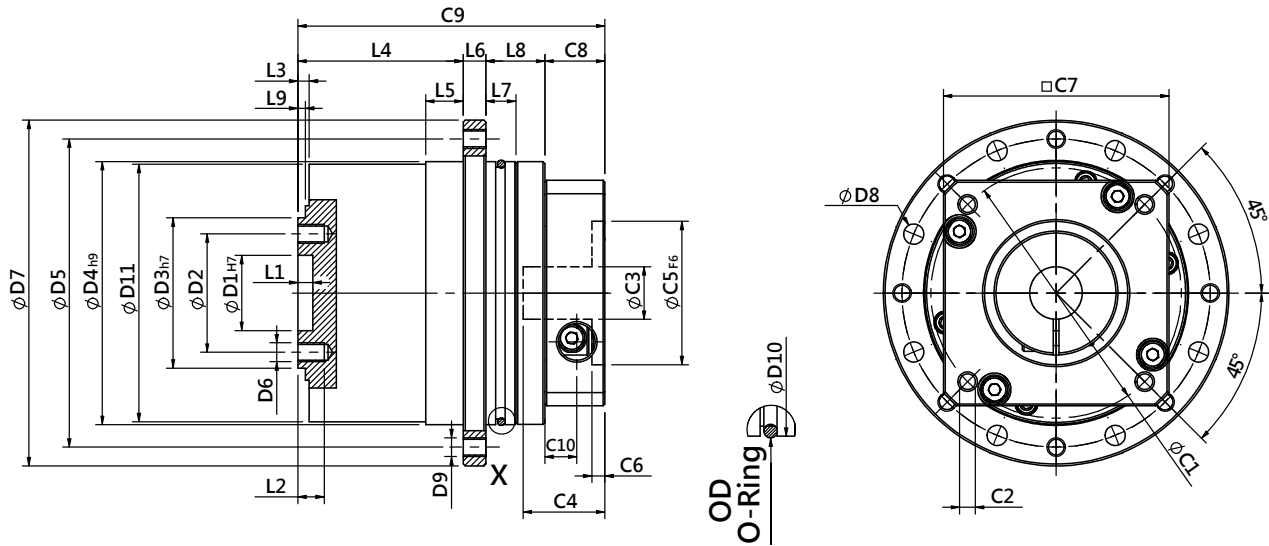
Max. Radial Load (N): 1510-7100

Inline versions standard, right angle
- optional

PGV SERIES



PGV Single Stage Dimensions



Specifications

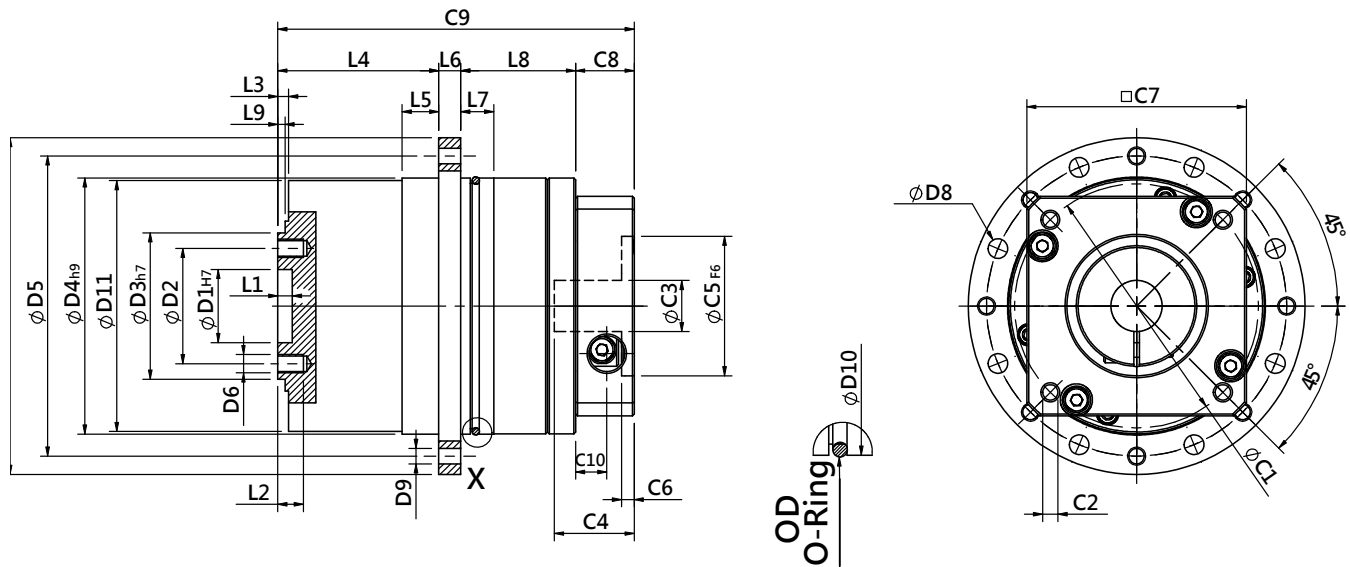
Unit: mm

Dimensions	PGV60	PGV90	PGV115
D1 H7	20	31.5	40
D2	31.5	50	63
D3 h7	40	63	80
D4 h9	70	94	120
D5	82	108	142
D6	M5x0.8P	M6x1.0P	M6x1.0P
D7	92	120	158
D8	5.4	6.6	9
D9	M5x0.8P	M6x1.0P	M8x1.25P
D10	70	95	120
D11	69.9	93.9	119.9
L1	4	6	6.5
L2	7	10	12
L3	3	6	6.5
L4	44	59.5	80
L5	10	15	21
L6	6	8	10
L7	8	-	-
L8	15.7	22.9	18
L9	2	5	5.5
C1 ²	66.67	90	115
C2 ²	M5x0.8P	M6x1.0P	M8x1.25P
C3 ²	≤11/≤14/≤19	≤14/≤19/≤24	≤19/≤24/≤38
C4 ²	21.8	41.3	42.9
C5 ² F6	38.15	70	95
C6 ²	3.5	6	6
C7 ²	60	90	115
C8 ²	16	26	30
C9 ²	81.7	116.4	138
C10 ²	8.5	11.3	13.8
OD	66x2	-	-

★ C1~C10 are motor specific dimensions(metric std shown). Size may vary according to motor flange.

★ Specification subject to change without notice.

PGV Double Stage Dimensions-1



Specifications

Unit: mm

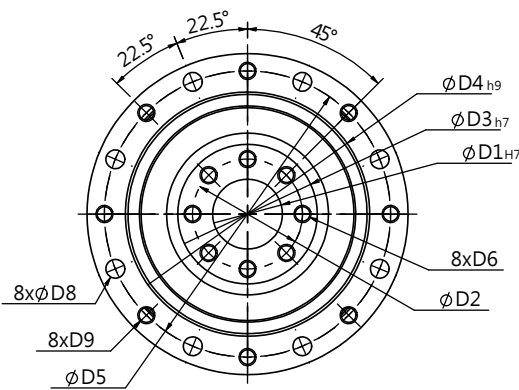
Dimensions	PGV60	PGV90	PGV115
D1 _{H7}	20	31.5	40
D2	31.5	50	63
D3 _{h7}	40	63	80
D4 _{h9}	70	94	120
D5	82	108	142
D6	M5x0.8P	M6x1.0P	M6x1.0P
D7	92	120	158
D8	5.4	6.6	9
D9	M5x0.8P	M6x1.0P	M8x1.25P
D10	70	95	120
D11	69.9	93.9	119.9
L1	4	6	6.5
L2	7	10	12
L3	3	6	6.5
L4	44	59.5	80
L5	10	15	21
L6	6	8	10
L7	9	7.7	10
L8	31.4	42.7	45.8
L9	2	5	5.5
C1 ²	66.67	90	115
C2 ²	M5x0.8P	M6x1.0P	M8x1.25P
C3 ²	≤11/≤14/≤19	≤14/≤19/≤24	≤19/≤24/≤38
C4 ²	21.8	41.3	42.9
C5 ² _{F6}	38.15	70	95
C6 ²	3.5	6	6
C7 ²	60	90	115
C8 ²	16	26	30
C9 ²	97.4	136.2	165.8
C10 ²	8.5	11.3	13.8
OD	66x2	86x3	110x3

★ C1~C10 are motor specific dimensions(metric std shown). Size may vary according to the motor flange.

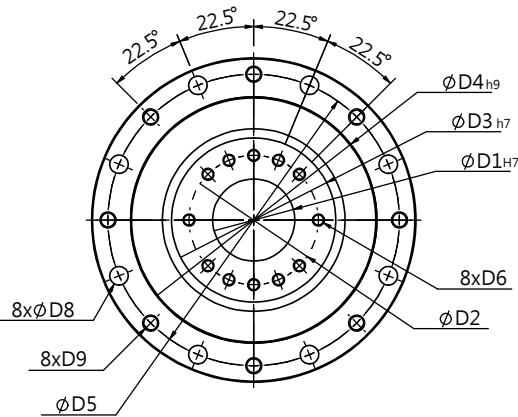
★ Specification subject to change without notice.

PGV Flange Dimensions

PGV60
PGV90



PGV115



Specifications

Unit: mm

Dimensions	PGV60	PGV90	PGV115
D1 H7	20	31.5	40
D2	31.5	50	63
D3 h7	40	63	80
D4 h9	70	94	120
D5	82	108	142
D6	M5x0.8P	M6x1.0P	M6x1.0P
D8	5.4	6.6	9
D9	M5x0.8P	M6x1.0P	M8x1.25P

★ Specification subject to change without notice.

PGV Specifications

Specification		Stage	Ratio	PGV-60	PGV-90	PGV-115				
Nominal Output Torque T _{2N}	N • m	1	3	41	110	250				
			4	44	120	270				
			5	45	120	280				
			7	38	100	260				
			8	35	95	240				
			10	32	95	210				
		Stage	Ratio	PGV-60	PGV-90	PGV-115				
		2	9	41	110	250				
			12	44	120	270				
			15	45	120	280				
			16	44	120	270				
			20	44	120	270				
			25	45	120	280				
			30	41	110	280				
			35	45	120	280				
			40	44	120	270				
			50	45	120	280				
			64	35	95	240				
			70	38	100	260				
			100	32	85	210				
Emergency Stop Torque T _{2NOT}	N • m	2.5 Times of Nominal Output Torque Max. Output Torque T _{2B} =60% of Emergency Stop Torque								
Starting Torque	N • m	1 2	3-10 9-100	0.11 0.09	0.3 0.25	0.55 0.5				
Nominal Input Speed n _{1N}	rpm	1,2	3-100	4500	4000	3500				
Max. Input Speed n _{1max}	rpm	1,2	3-100	7500	7000	6500				
Standard Backlash P2	arcmin	1 2	3-10 9-100	≤ 9 ≤ 12	≤ 8 ≤ 10	≤ 7 ≤ 9				
Torsional Rigidity	N • m /arcmin	1,2	3-100	8	22	55				
Max. Radial Load F _{2rB} ¹	N	1,2	3-100	3300	5300	7100				
Max. Axial Load F _{2aB} ¹	N	1,2	3-100	3120	5000	7000				
Max. Bending Moment M _{2kB} ¹	N • m	1,2	3-100	110	220	350				
Operating Temp.	°C	1,2	3-100	-10°C ~ +90°C						
Service Life	hr	1,2	3-100	30,000 (15,000 Continuous Operation)						
Efficiency	%	1 2	3-10 9-100	≥ 97% ≥ 94%						
Weight	kg	1 2	3-10 9-100	1.8 2.2	4.3 5.3	8.6 10.6				
Mounting Position	-	1,2	3-100	Any Direction						
Noise Level ²	dBA/1m	1,2	3-100	58	60	63				
Protection Class	-	1,2	3-100	IP65 (at the Output Side)						
Lubrication	-	1,2	3-100	Synthetic Lubricant						
Inertia (J1)										
Stage	Ratio	Unit	PGV-60			PGV-90		PGV-115		
			(ϕ 19)	(ϕ 14)	(ϕ 11)	(ϕ 24)	(ϕ 19)	(ϕ 14)	(ϕ 24)	(ϕ 19)
1	3	Kg • cm ²	0.46	0.23	0.23	0.77	0.77	0.33	2.2	1.87
	4		0.42	0.21	0.21	0.67	0.67	0.23	1.51	1.18
	5~8, 10		0.42	0.21	0.21	0.61	0.61	0.21	1.26	0.93
Stage	Ratio		PGV-60			PGV-90		PGV-115		
2	9, 12 15		(ϕ 19)	(ϕ 14)	(ϕ 11)	(ϕ 24)	(ϕ 19)	(ϕ 14)	(ϕ 24)	(ϕ 19)
	Other ratios		0.46	0.23	0.23	0.77	0.77	0.33	2.2	1.87
			0.42	0.21	0.21	0.67	0.67	0.23	1.51	1.18

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

* 2. Measured at 3000 rpm with no load. These values are measured by gearbox with ratio = 10 (1-stage) or ratio = 100 (2-stage) at nominal input speed or 3000 rpm (if nominal input speed is higher than 3000 rpm) 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.

Notes

Notes

ABOUT DIEQUA

Founded in 1980 by Dietmar Quaas, and now owned by his sons, DieQua Corporation has expanded from a single product line to become a leading manufacturer and supplier of an extensive line of high-quality power transmission and precision motion control products, including gearboxes, servo gearheads, screw jack systems, speed reducers, cycloidal reducers, and connecting components. The company also offers custom product modifications and complete design solutions for virtually any application. DieQua Corporation serves a wide range

of industries, including medical and health care, marine engineering, renewable energy, mining, transportation, steel, forestry and lumber, water and wastewater, automotive, and factory automation, to name a few.

An experienced and knowledgeable technical sales, customer service, and engineering support staff, as well as local distributors, ensure that DieQua customers in North America, Mexico and South America select the optimum components, systems, and best design solutions for their specific requirements.

The DieQua family of products



Spiral Bevel
Gearboxes



Servo
Gearheads



Cycloidal Reducers
& Positioners



Screw Jack
Systems



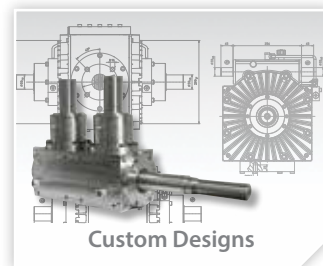
Helical
Speed Reducers



Speed Modulating
Gearboxes



Zero Backlash Couplings
and Line Shafts



Custom Designs

The DieQua Advantage

Engineering Support

DieQua Corporation has several decades of combined experience specifying power transmission and motion control components. This assures proper selection of components and systems to suit your unique requirements.

Warehousing

We pride ourselves for our extensive in-stock inventory. For fast product turnaround, DieQua Corporation stocks many components of various ratios and sizes, ready to ship fast.

Manufacturing and Assembly

DieQua Corporation now manufactures or assembles most of the products, for on-time delivery of standard orders as well as prototypes. We are ISO 9001 certified and are constantly improving our quality systems to ensure our customers receive the best products.