

DIEQUA
Corporation

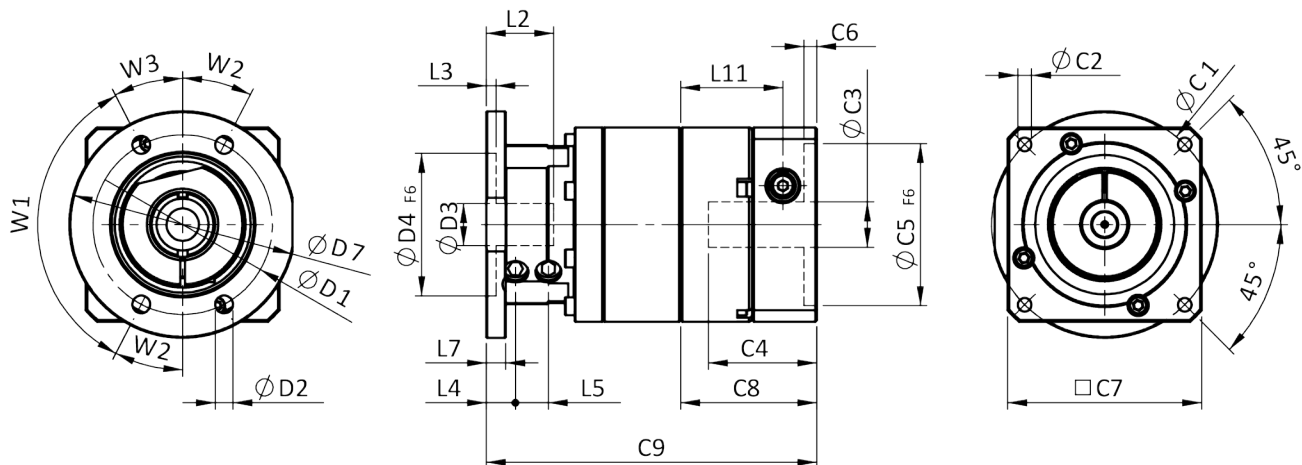
630-980-1133
diequa.com



PGW Series

Servo Gearheads for
Linear Actuators

PGW Single Stage Dimensions

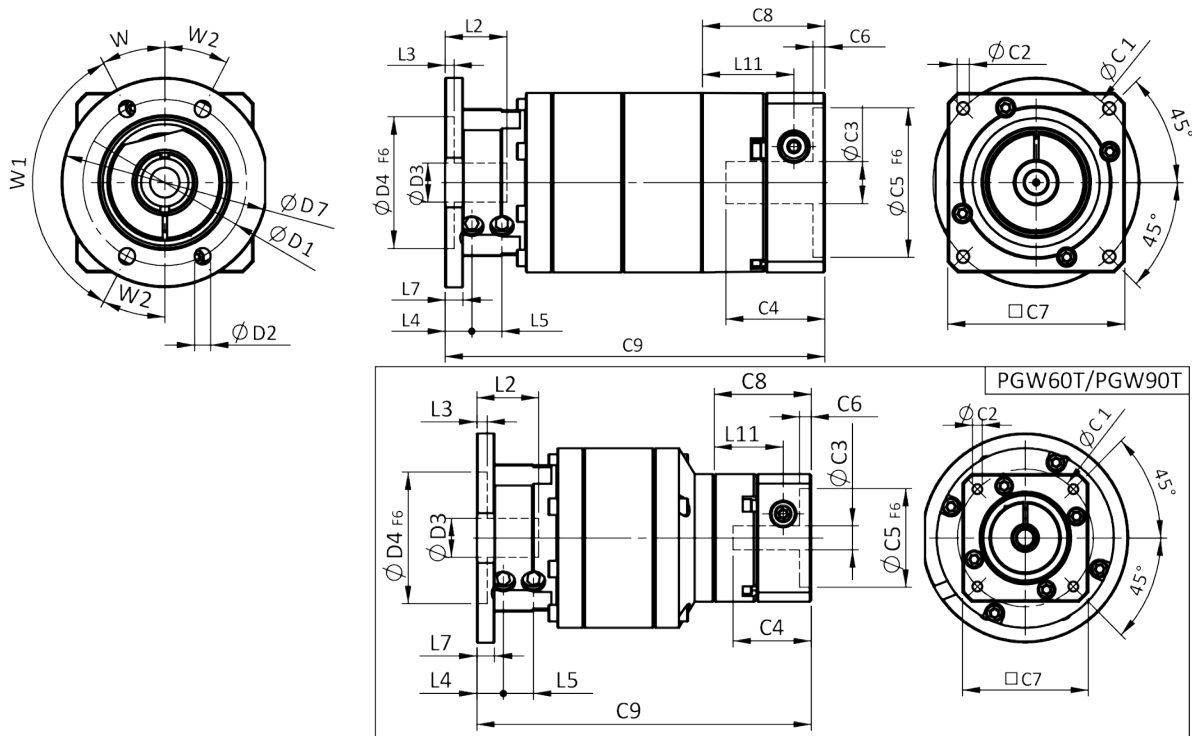


The PGW Single Stage hollow bore planetary reducer features an all steel alloy gear train and housing, low noise and vibration, and is maintenance-free under normal operating conditions.

- Backlash as low as ≤ 6 arcmin
- High efficiency: $\geq 95\%$
- Low operating noise: ≤ 63 dB(A)
- Inline housing configuration
- One piece planet carrier and hollow bore output shaft
- Available in three sizes: 60, 90 and 115
- Hollow output bore sizes: ≤ 16 mm, ≤ 20 mm
- Single stage offers 6 ratios, 3:1 through 10:1
- Torque capacity range: starting at 28 Nm through 200 Nm
- Caged planet gear carrier for higher torque capacity
- Full needle roller bearings support precision planet gears
- Environmental protection: IP65
- Lubrication: lifetime synthetic lubricant

Dimensions	PGW60	PGW90
D1	55.5	73
D2	5.5	5.5
D3 _{h6}	16	20
D4 _{g6}	44	60
D7	70	84
L2	31	31
L3	3.5	3.5
L4	9	10.2
L5	10.2	10.9
L7	6	6
L11	31.6	37.3
W1	125°	90°
W2	27.5°	22.5°
W3	27.5°	67.5°
C1 ²	70	90
C2 ²	M5x0.8P	M6x1.0P
C3 ²	$\leq 14 / \leq 19$	$\leq 19 / \leq 24 / \leq 28$
C4 ²	33.5	41
C5 ² _{F6}	50	70
C6 ²	4	6
C7 ²	60	90
C8 ²	42.1	51.5
C9 ²	102.2	126.5

PGW Double Stage Dimensions

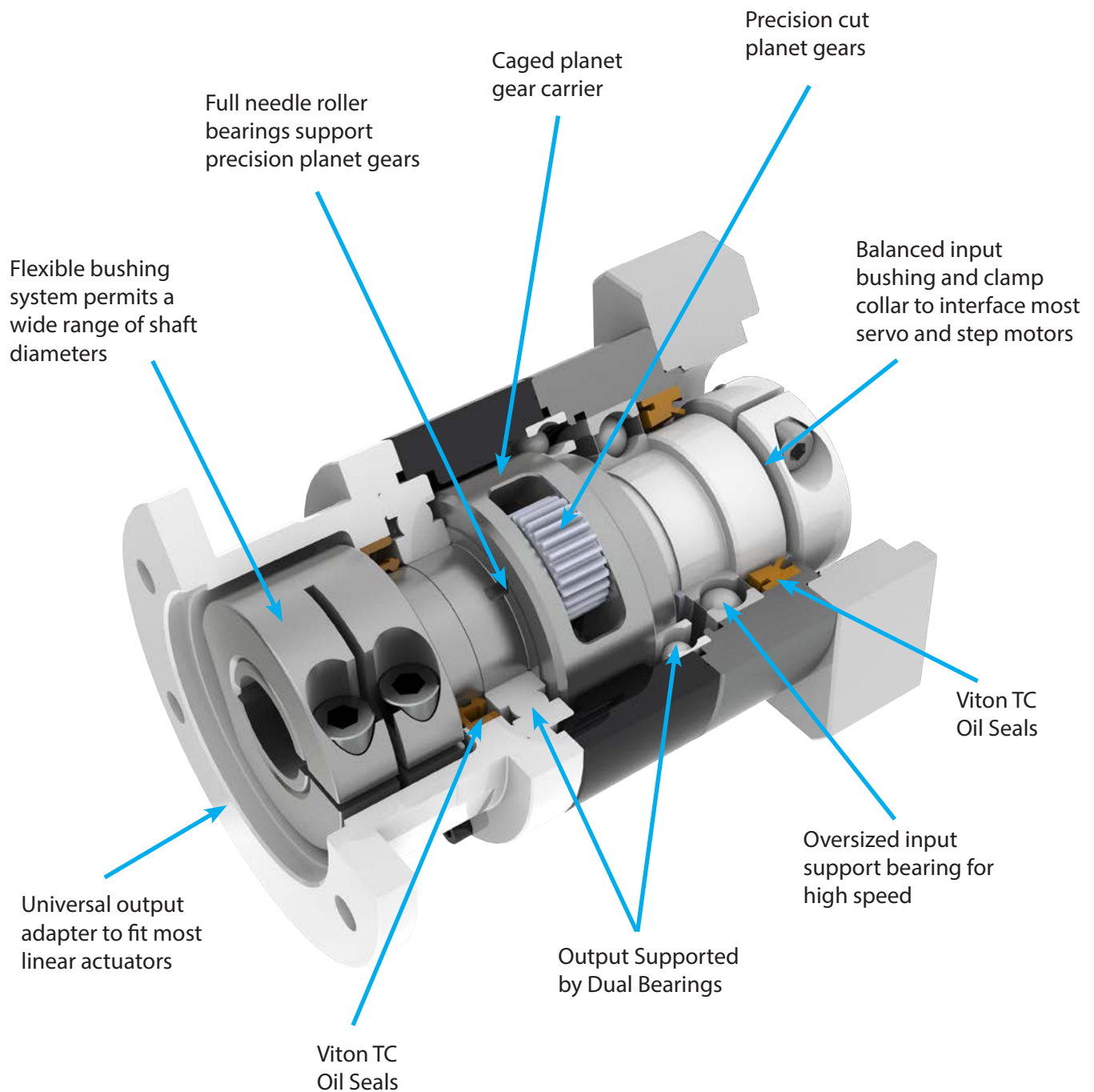


The PGW Double Stage hollow bore planetary reducer features an all steel alloy gear train and housing, low noise and vibration, and is maintenance-free under normal operating conditions.

- Backlash as low as ≤ 7 arcmin
- High efficiency: $\geq 90\%$
- Low operating noise: ≤ 66 dB(A)
- Inline housing configuration
- One piece planet carrier and hollow bore output shaft
- Available in three sizes: 60, 90 and 115
- Hollow output bore sizes: ≤ 16 mm, ≤ 20 mm
- Single stage offers 6 ratios, 3:1 through 10:1
- Torque capacity range: starting at 28 Nm through 200 Nm
- Caged planet gear carrier for higher torque capacity
- Full needle roller bearings support precision planet gears
- Environmental protection: IP65
- Lubrication: lifetime synthetic lubricant

Dimensions	PGW60	PGW60T	PGW90	PGW90T
D1	55.5		73	
D2	5.5		5.5	
D3 _{h6}	16		20	
D4 _{g6}	44		60	
D7	70		84	
L2	31		31	
L3	3.5		3.5	
L4	9		10.2	
L5	10.2		10.9	
L7	6		6	
L11	31	23.4	37.3	31
W1	125°		90°	
W2	27.5°		22.5°	
W3	27.5°		67.5°	
C1 ²	70	46	90	46
C2 ²	M5x0.8P	M4x0.7P	M6x1.0P	M5x0.8P
C3 ²	$\leq 14/\leq 19$	$\leq 8/\leq 11$	$\leq 19/\leq 24/\leq 28$	$\leq 14/\leq 19$
C4 ²	33.5	26.5	41	33.5
C5 ² F6	50	30	70	50
C6 ²	4	4	6	4
C7 ²	60	42.6	90	60
C8 ²	41.5	32.9	51.5	41.5
C9 ²	128.6	113.3	160.3	145.8

PGW Features



PGW Specifications

Specifications		Stage	Ratio	PGW-60	PGW-90	PGW-115
Nominal Output Torque T_{2N}	$N \cdot m$	1	3	28	85	200
			4	32	80	215
			5	35	95	215
			7	28	85	200
			9	23	75	195
			10	21	65	180
		Stage	Ratio	PGW-60/PGW-60T	PGW-90/PGW-90T	PGW-115T
		2	15	35/24	95/68	168
			20	35/31	95/95	215
			25	35/30	95/95	215
			35	35/28	95/95	215
			45	35/27	95/92	215
			50	35/27	95/82	205
			70	28/28	85/85	200
			90	23/23	75/75	195
			100	21/21	65/65	180
		Stage	Ratio	PGW-60T	PGW-90T	PGW-115T
		3	125	35	95	215
			175	35	95	215
			225	35	95	215
			245	35	95	215
			315	35	95	215
			405	35	95	215
			567	28	85	200
			729	23	75	195
			1000	21	65	180
Emergency Stop Torque T_{2NOT}	$N \cdot m$	(2.5 times of Nominal Output Torque) *Max. Output Torque T_{2B} = 60% of Emergency Stop Torque)				
Nominal Input Speed n_{1N}	rpm	1,2,3	3-1000	4000	3000	2500
Max. Input Speed n_{1max}	rpm	1,2,3	3-1000	6000	6000	5000
Standard Backlash P2	arcmin	1	3-10	≤ 8	≤ 7	≤ 6
		2	15-100	≤ 10	≤ 9	≤ 8
		3	125~1000	≤ 12	≤ 12	≤ 12
Operating Temp.	°C	1,2,3	3-1000	-10°C ~ +90°C		
Service Life	hr	1,2,3	3-1000	20,000 (10,000 Continuous operation)		
Efficiency	%	1	3-10	≥ 95%		
		2	15-100	≥ 90%		
		3	125~1000	≥ 85%		
Weight	kg	1	3-10	1.2	2.9	6.4
		2	15-100	1.6/1.4	4.3/3.2	8.0
		3	125~1000	1.8	4.6	9.4
Mounting Position	-	1,2,3	3-1000	Any direction		
Noise Level ²	dBA/1m	1,2,3	3-1000	63	66	67
Protection Class	-	1,2,3	3-1000	IP 65		
Lubrication	-	1,2,3	3-1000	Synthetic Lubricant		
Inertia (J1)						
Stage	Ratio	unit		PGW-60 (ψ14)	PGW-90 (ψ19)	PGW-115 (ψ24)
1	3	$Kg \cdot cm^2$		0.23	0.77	2.30
	4			0.21	0.67	1.92
	5~10			0.21	0.61	1.71
Stage	Ratio			PGW-60 (ψ14) PGW-60T (ψ8)	PGW-90 (ψ19) PGW-90T (ψ14)	PGW-115T (ψ19)
2	15			0.23/0.04	0.77/0.23	0.77
	Other ratios			0.21/0.03	0.61/0.21	0.61
Stage	Ratio			PGW-60T (ψ8)	PGW-90T (ψ14)	PGW-115T (ψ19)
3	All ratios			0.03	0.21	0.61

* 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.

The DieQua Advantage

DieQua Corporation has been a manufacturer and supplier of precision motion control components since 1980. We offer the widest range of servo gearhead and speed reducing solutions available from a single source. Featuring right angle and inline designs with multiple backlash precision levels, the largest number of ratios, and several mounting and output options, we have the drive that meets your needs.

Sales

DieQua has established a network of sales associates and high tech distributors, supported by our inside sales team, to provide personal service to our valued customers.



Customer Service

DieQua is dedicated to being your most valuable supplier. From technical support to on-time delivery, you can count on DieQua to be a reliable extension of your design team.

Engineering

DieQua has several decades of combined experience specifying rotary motion control components. This assures the proper identification and selection for your unique requirements.



Manufacturing

DieQua manufactures or assembles the majority of the products we provide. This adds valuable flexibility to provide reliable and cost effective on-time delivery of your production orders.

Warehousing

DieQua maintains an extensive inventory of common gearheads and servo motor connection components to provide quick delivery of prototypes, small orders and spare parts.



Special Designs

DieQua offers component dimension modifications or complete special designs. These capabilities compliment our philosophy of offering the best possible solution available.

DIEQUA
Corporation

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