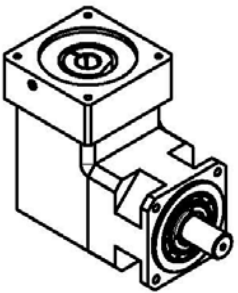
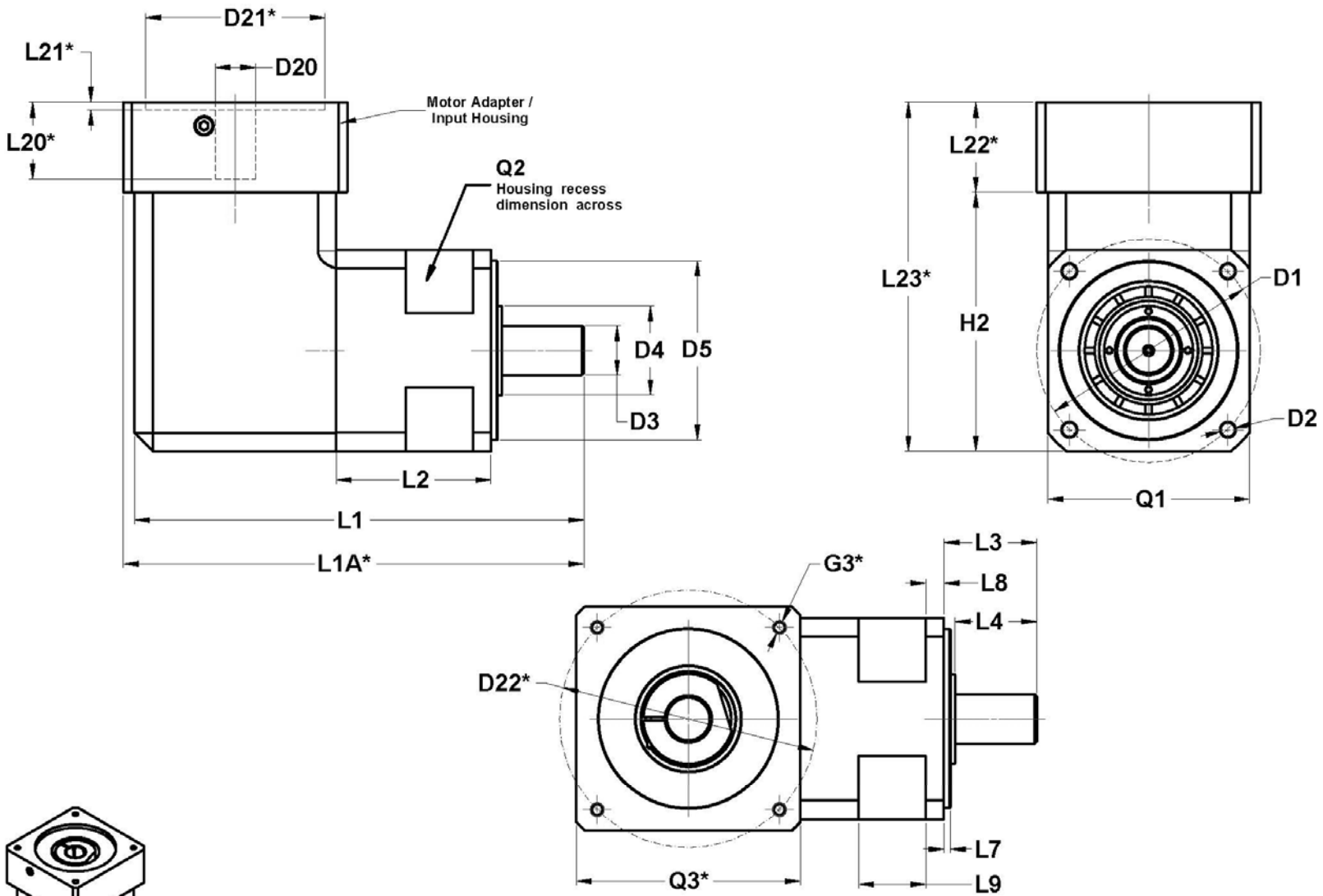


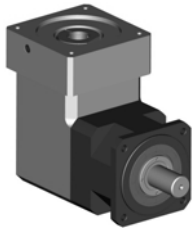
**WPLS**  
 High Precision Bevel - Planetary Servo Gearhead  
 With Standard Neugart Output Flange



**WPLS series right-angle gearbox**

WPLS 70; WPLS 90; WPLS 115; WPLS 142; WPLS 190





# WPLS

## High Precision Bevel-Planetary Servo Gearhead With Standard Neugart Output Flange



DIMENSIONS mm (in.)	Tol./#	WPLS 70	WPLS 90	WPLS 115	WPLS 142	WPLS 190
<b>D1</b> Output flange bolt circle	•	75 (2.952)	100 (3.937)	130 (5.118)	165 (6.496)	215 (8.464)
<b>D3</b> Output shaft diameter	k6	19 (0.748)	22 (0.866)	32 (1.259)	40 (1.575)	55 (2.165)
<b>D4</b> Output shaft collar diameter	•	32.5 (1.280)	37.5 (1.476)	42.5 (1.673)	62.5 (2.461)	77.5 (3.051)
<b>D5</b> Pilot diameter	h7	60 (2.362)	80 (3.150)	110 (4.331)	130 (5.118)	160 (6.299)
<b>Q1</b> Gearbox housing / output flange □	•	70 (2.756)	90 (3.543)	115 (4.528)	140 (5.512)	190 (7.480)
<b>D2</b> Output flange mounting hole size	4	5.5 (0.216)	6.5 (0.256)	8.5 (0.335)	11 (0.433)	13.5 (0.531)
<b>L1</b> Minimum overall length	1-stage	• 164.5 (6.476)	• 200.5 (7.894)	• 257 (10.118)	• 337 (13.268)	• 435 (17.126)
	2-stage	• 188 (7.402)	• 229 (9.016)	• 290.5 (11.437)	• 378 (14.882)	• 449 (17.677)
<b>L2</b> Main housing length	1-stage	• 62.5 (2.461)	• 69 (2.717)	• 77.5 (3.051)	• 110 (4.331)	• 155 (6.102)
	2-stage	• 86 (3.385)	• 97.5 (3.839)	• 111 (4.370)	• 151 (5.945)	• 169 (6.654)
<b>L3</b> Shaft length (to mounting face)		32 (1.259)	41.5 (1.633)	64.5 (2.539)	87 (3.425)	90 (3.543)
<b>L4</b> Shaft length (to collar)		28 (1.102)	36 (1.417)	58 (2.283)	80 (3.149)	82 (3.228)
<b>L7</b> Output pilot length	•	3 (0.118)	3 (0.118)	4 (0.157)	5 (0.197)	6 (0.236)
<b>L8</b> Output flange thickness	•	7 (0.276)	8 (0.315)	14 (0.551)	20 (0.787)	20 (0.787)
<b>L9</b> Housing recess width	•	23 (0.906)	30 (1.181)	34 (1.339)	52 (2.047)	52 (2.047)
<b>Q2</b> Housing recess □ (across flats)	•	64 (2.520)	87 (3.425)	115 (4.528)	140 (5.512)	190 (7.480)
<b>H2</b> Right-angle housing height	•	98.5 (3.878)	116 (4.567)	145 (5.709)	160.5 (6.319)	1-stg. 231 (9.094) 2-stg. 190 (7.480)
<b>D20</b> Maximum input pinion bore <sup>(1)</sup>	•	14 (0.551)	19 (0.748)	24 (0.945)	35 (1.378)	48 (1.890)
<b>Available standard bushings <sup>(1)</sup></b> mm (1) For motor shaft smaller than <b>D20</b> , a precision standard bushing is supplied.	mm	6; 6.35; 7; 8; 9; 9.525; 10; 11; 12; 12.7	9.525; 10; 11; 12; 12.7; 14; 15.875; 16;	11; 12.7; 14; 15.87; 16; 19; 19.05; 22; 22.22	19; 22; 24; 28; 28.575; 32	28; 32; 35; 38; 42
	inch	.236; .250; .276 .315; .354; .375; .394; .433; .472; .500	.375; .393; .433; .472; .500; .551; .625; .630	.433; .500; .551; .625; .630; .748; .750; .866; .875	.748; .866; .944; 1.125; 1.102; 1.260	1.102; 1.260 1.378; 1.496; 1.654
<b>Motor-dependent dimensions:</b> <b>D21*, D22*, L1A*, L20*</b> <b>L21*, L22*, L23*, G3*, Q3*</b>	<b>Adapter / input housing dimensions and unit overall length depend on motor output geometry.</b> <b>A motor-specific adapter / input housing is supplied with every gearhead.</b>					
<b>L22* dimension calculation</b> <b>L22* tolerance mm (in) +5 / -0</b> <b>(+0.196" / -0)</b>	Determine L22* calc = Motor shaft length + ΔL If L22* calc ≤ L22* minimum → L22* = L22* minimum + tolerance If L22* calc > L22* minimum → L22* = L22* calc + tolerance					
<b>ΔL</b>		6.5 (0.256)	10 (0.394)	6 (0.236)	14.5 (0.571)	13 (0.512) <sup>(a)</sup>
<b>L22* minimum</b>		29.5 (1.161)	40 (1.575)	46 (1.811)	64.5 (2.539)	73 (2.874) <sup>(a)</sup>

<sup>(a)</sup> WPLS 190 has 2 right-angle input units available for the 2-stage gearbox: Smaller housing for motor shaft diameter 24mm - 35mm; larger one for motor shaft diameter 35mm - 48mm. The SMALLER right-angle housing REDUCES ΔL & L22\* by 4mm.