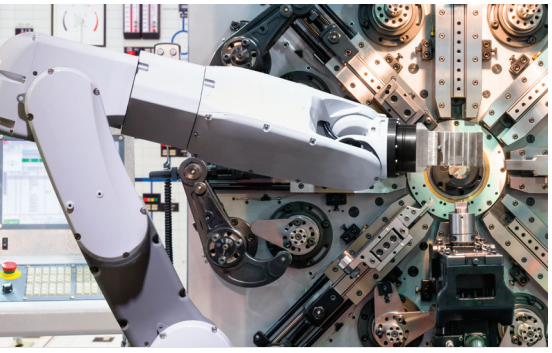
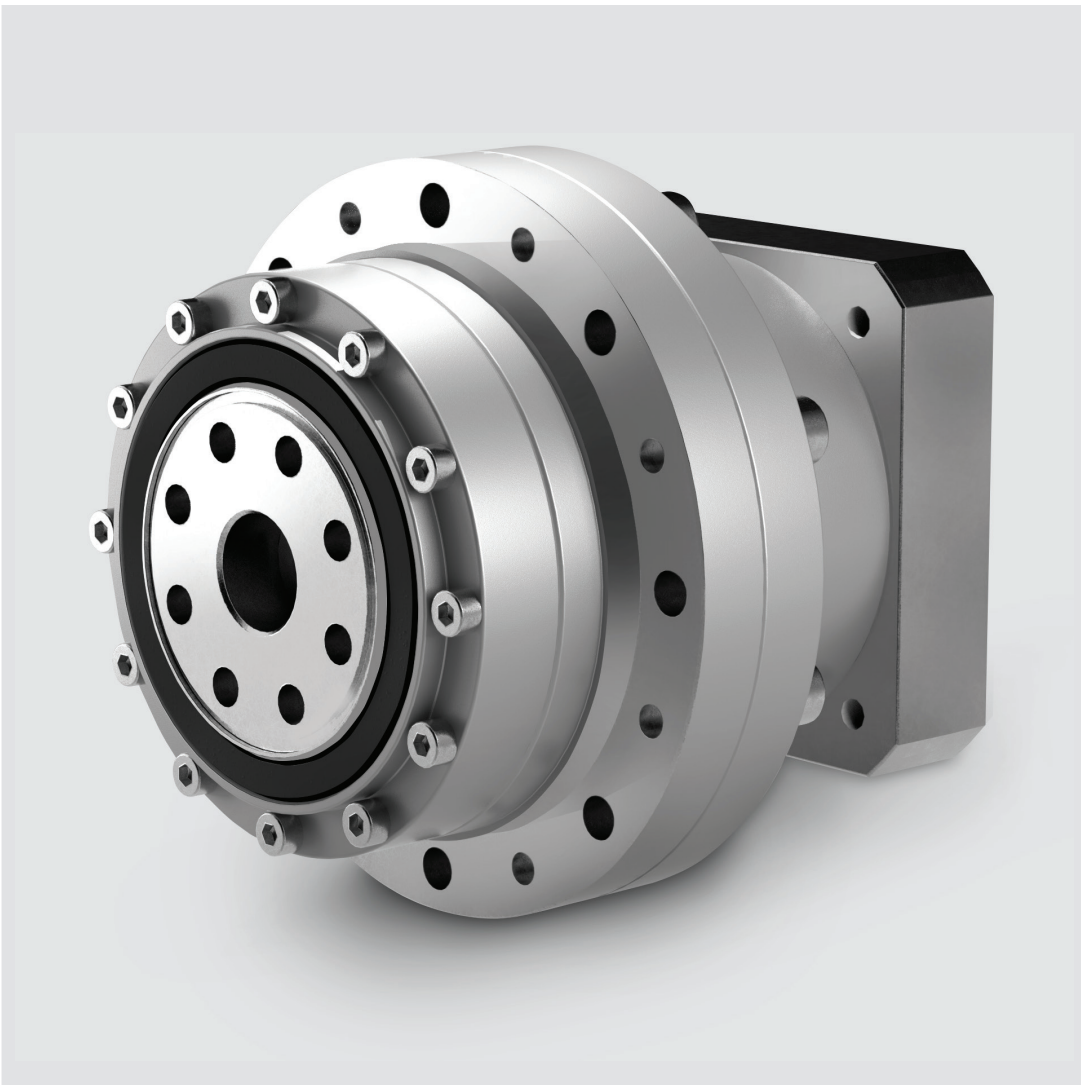
Nidec

FLEXWAVE

Strain Wave Gearheads





- Compact, zero backlash solution for demanding axes
- Fully housed, fully supported gearhead
- Five frame sizes with five reduction ratios up to 160:1
- Direct motor mounting system for convenient installation

NIDEC DRIVE TECHNOLOGY CORPORATION

70 Years of Gear Drive Development. Your Competitive Advantage.

WPG Series Strain Wave Gearheads

WPG Series gearheads combine the industry leading accuracy, repeatability and torque-to-weight ratio of our WPU high torque strain wave units with the modularity, installation ease and universal motor mounting of our VR planetary products.

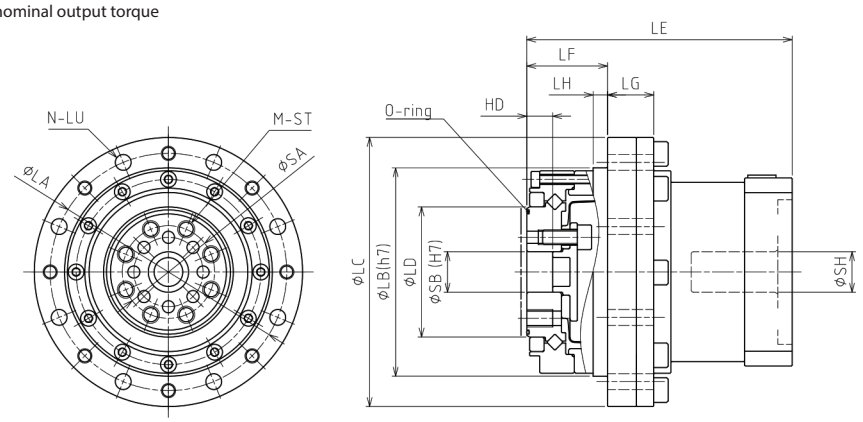
The result is a compact, versatile zero backlash gearhead in 5 frame sizes with ratios as high as 160:1–all in a single stage. The WPG can be implemented into a wide range of robotics, machine tool and general automation applications and allows customers with limited experience or integration capability to deploy an off-the-shelf solution and bring their product to market faster than ever before. Part number generation and CAD model download are readily available via our online configurator for direct installation to your motor.

Performance Specifications

Frame Size	Ratio	Nominal Output Torque [Nm] *1	Maximum Output Torque [Nm] *2	Emergency Stop Torque [Nm] *3	Nominal Input Speed [rpm] *4	Maximum Input Speed [rpm] *5	Service Life [hours] *6
35	50	7	23	46	3000	8500	10,000
	80	10	30	61			
	100	10	36	70			
42	50	21	44	91	3000	7300	
	80	29	56	113			
	100	31	70	143			
	120	31	70	112			
50	50	33	73	127	3000	6500	
	80	44	96	165			
	100	52	107	191			
	120	52	113	191			
	160	52	120	191			
63	50	51	127	242	3000	5600	
	80	82	178	332			
	100	87	204	369			
	120	87	217	395			
	160	87	229	408			
80	50	99	281	497	3000	4800	
	80	153	395	738			
	100	178	433	841			
	120	178	459	892			
	160	178	484	892			

*1) The maximum allowable value at the input rotation speed of 2,000 rpm
*2) The maximum allowable torque when starting and stopping
*3) The maximum allowable torque under emergency stop or crash situations
*4) The maximum allowable average input speed during intermittent operation. Continuous operation is not recommended
*5) The maximum allowable input speed
*6) The life time at 2,000 rpm input and nominal output torque

Dimensions



Frame Size	LA	LB	LC	LD	N	LT	LU	*LE	LF	LG	SA	SB	LH	M	ST	HD	*SH
35	65	56	73	31	8	M4	4.5	81.5	27	14	23	11	3.5	6	M4x8	9.5	5-8
42	71	63	79	38	8	M4	4.5	84.5	29	14	27	10	4	6	M5x8	9.5	5-14
50	82	72	93	45	8	M5	5.5	87	28	16	32	14	5	8	M6x9	9	5-14
63	96	86	107	58	10	M5	5.5	100	36	16	42	20	5	8	M8x10	12	9-19
80	125	113	138	78	12	M6	6.5	118	45	20	55	26	5	8	M10x12	15	9-19

*LE: Total length will vary depending on motor dimensions
*SH: This is the total available input bore range