

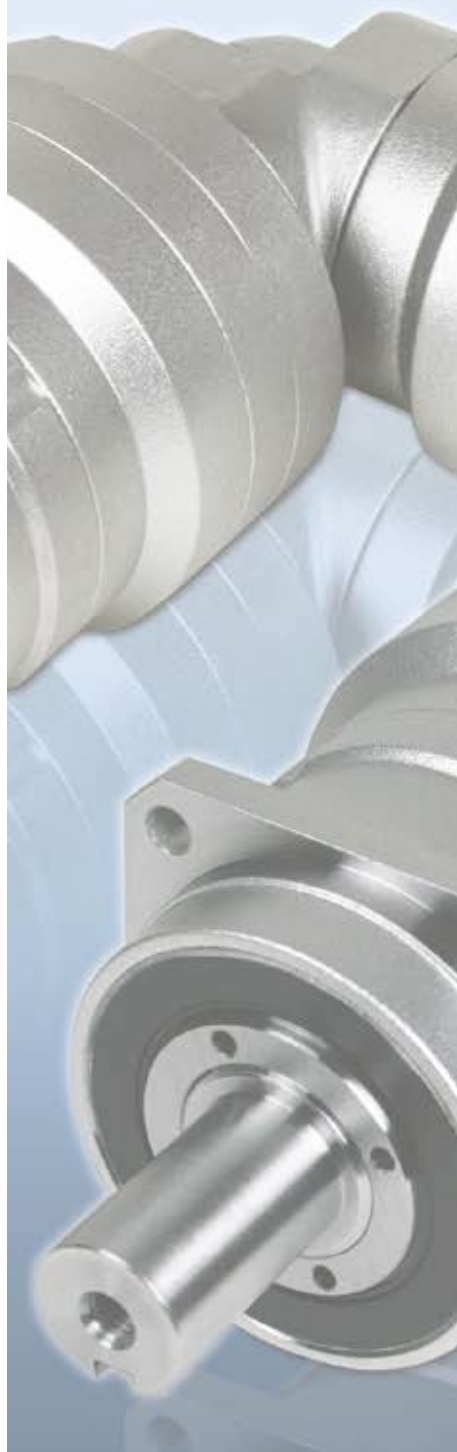
Planetary Gearboxes



A *Nidec* Group Company

SHIMPO

All for dreams



PLANETARY GEARBOXES NIDEC-SHIMPO

NIDEC-SHIMPO Planetary Gearboxes show excellent versatility combined with very high quality; certified by a manufacturing process that includes constant checks of each component, and final tests of the complete product for angular backlash, noise, back-drive resistance and slip resistance. Through the use of

software optimized helical gearing, a superior tooth hardening process, and extremely close machining tolerances, we can offer an optimum power density which will satisfy the highest dynamic and precision requirements. **NIDEC-SHIMPO** gearboxes are interchangeable with most of the gearboxes on the market.

VR SERIES, PLANETARY GEARBOXES IN LINE with adapter flange and simple connection to servo motors

VRL
Reliability, complete product range



FRAME SIZE	050B 070B 090B 120B 155B 205B 235B
BACKLASH RATING	1 stage ≤ 5 arc/min 2 stages ≤ 5 arc/min
NOMINAL TORQUE	From 6 Nm to 2.300 Nm
REDUCTION RATIOS	1 stage: From 3 to 10 2 stages: From 15 to 100
INPUT SPEED	Up to 8.000 rpm

VRB
Precision, easy mounting by square flange



FRAME SIZE	042B 060B 090B 115B 140B 180B 220B
BACKLASH RATING	1 stage ≤ 3 arc/min 2 stages ≤ 3 arc/min
NOMINAL TORQUE	From 6 Nm to 2.300 Nm
REDUCTION RATIOS	1 stage: From 3 to 10 2 stages: From 15 to 100
INPUT SPEED	Up to 8.000 rpm

VRS
High precision, versatility and high radial and axial load



FRAME SIZE	060B 075B 100B 140B 180B 210B 240B
BACKLASH RATING	1 stage ≤ 3 arc/min 2 stages ≤ 3 arc/min
NOMINAL TORQUE	From 18 Nm to 3.700 Nm
REDUCTION RATIOS	1 stage: From 3 to 10 2 stages: From 15 to 100
INPUT SPEED	Up to 6.000 rpm

VRT
Compact design, extreme performance with ISO flange



FRAME SIZE	047B 064B 090B 110B 140B 200B 255B 285B
BACKLASH RATING	1 stage ≤ 3 arc/min 2 stages ≤ 3 arc/min
NOMINAL TORQUE	From 6 Nm to 5.300 Nm
REDUCTION RATIOS	1 stage: From 4 to 10 2 stages: From 16 to 100
INPUT SPEED	Up to 6.000 rpm

Food/Washdown Duty
Optional features for food or washdown environments



FRAME SIZE	VRL: 070, 090, 120 VRB: 060, 090, 115 Other available upon request
BACKLASH RATING	1 stage ≤ 3 arc/min 2 stages ≤ 3 arc/min
NOMINAL TORQUE	From 6 Nm to 2.300 Nm
REDUCTION RATIOS	1 stage: From 3 to 10 2 stages: From 15 to 100
INPUT SPEED	Up to 8.000 rpm

EV SERIES, PLANETARY GEARBOXES WITH RIGHT ANGLE with adapter flange and simple connection to servo motors

EVL
Reliability, complete product range



FRAME SIZE	070B 090B 120B 155B 205B 235B
BACKLASH RATING	2 stages < 6 arc/min 3 stages < 8 arc/min
NOMINAL TORQUE	From 12 Nm to 1.840 Nm
REDUCTION RATIOS	2 stages: From 3 to 10 3 stages: From 15 to 100
INPUT SPEED	Up to 6.000 rpm

EVB
Precision, easy mounting by square flange



FRAME SIZE	060B 090B 115B 140B 180B 220B
BACKLASH RATING	2 stages < 4 arc/min 3 stages < 6 arc/min
NOMINAL TORQUE	From 12 Nm to 1.840 Nm
REDUCTION RATIOS	2 stages: From 3 to 10 3 stages: From 15 to 100
INPUT SPEED	Up to 6.000 rpm

EVS
High precision, versatility and high radial and axial load



FRAME SIZE	060B 075B 100B 140B 180B 210B 240B
BACKLASH RATING	2 stage: < 4 arc/min 3 stages: < 6 arc/min
NOMINAL TORQUE	From 12 Nm to 2.960 Nm
REDUCTION RATIOS	2 stages: From 3 to 10 3 stages: From 15 to 100
INPUT SPEED	Up to 6.000 rpm

ST SERIES, HALLOW BORE ROTARY AND INDEXING PLANETARY GEARBOXES

STH
Hollow Output Rotary Actuator, High moment load with high-precision



FRAME SIZE	From 052 mm to 078 mm
BACKLASH RATING	≤ 2 arc/min ≤ 10 arc/min
NOMINAL TORQUE	From 65 Nm to 170 Nm
REDUCTION RATIOS	From 12 to 324 2-3-4 stages
INPUT SPEED	Up to 6.000 rpm

STR
Hollow Output Rotary Actuator, Zero backlash



FRAME SIZE	From 040 mm to 240 mm
BACKLASH RATING	Zero Backlash ≤ 5 arc/sec
NOMINAL TORQUE	From 15 Nm to 6.072 Nm
REDUCTION RATIOS	From 12 to 2.000 2-3-4 stages
INPUT SPEED	Up to 6.000 rpm

EJ SERIES, RIGHT ANGLE WORM GEARBOXES FOR SERVOMOTOR with adapter flange and simple connection to servo motors

EJM

- Globoidal worm gear mesh
- Economy leader of category
- Aluminum housing
- Conventional precision range



CLASS	Economy
FRAME SIZE	Variety: 6
REDUCTION RATIOS	5, 7.5, 10, 15, 20, 25, 30, 40, 50, 60
RATING TORQUE (Nm)	22 - 445
MAXIMUM TORQUE (Nm)	32 - 549
MAX. INPUT SPEED (rpm)	4.000
BACKLASH (arc/min)	12 - 41
OUTPUT HOLLOW BORE SIZE (mm)	Ø 25.4 - 74.6

EJH

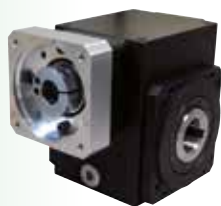
- Globoidal worm gear mesh
- Strong internal structure
- Robust cast iron housing
- Standard or low precision options



CLASS	Heavy Industrial
FRAME SIZE	Variety: 5
REDUCTION RATIOS	5, 6, 7, 8, 9, 10, 15, 20, 25, 30, 40, 50, 60
RATING TORQUE (Nm)	29 - 373
MAXIMUM TORQUE (Nm)	41 - 550
MAX. INPUT SPEED (rpm)	4.000
BACKLASH (arc/min)	6 - 32
OUTPUT HOLLOW BORE SIZE (mm)	Ø 25 - 60

EJP

- Globoidal worm gear mesh
- Low or "zero" precision options
- Optimal sound characteristics,
- Performance leader of category



CLASS	High Precision
FRAME SIZE	Variety: 6
REDUCTION RATIOS	5, 6, 7, 8, 9, 10, 15, 20, 25, 30, 40, 50, 60
RATING TORQUE (Nm)	29 - 370
MAXIMUM TORQUE (Nm)	41 - 550
MAX. INPUT SPEED (rpm)	6.000
BACKLASH (arc/min)	0 - 24
OUTPUT HOLLOW BORE SIZE (mm)	Ø 25 - 60

OUTPUT MOUNTING OPTIONS

Solid Shaft



Hollow Shaft



Shrink Disc



Flange Mount



The right-angle servo grade gearboxes are suitable for mounting in any applications where precision and compactness are required without decreasing the high performance.

RACK-PINION TRANSMISSION SYSTEM PRECISE AND COMPACT

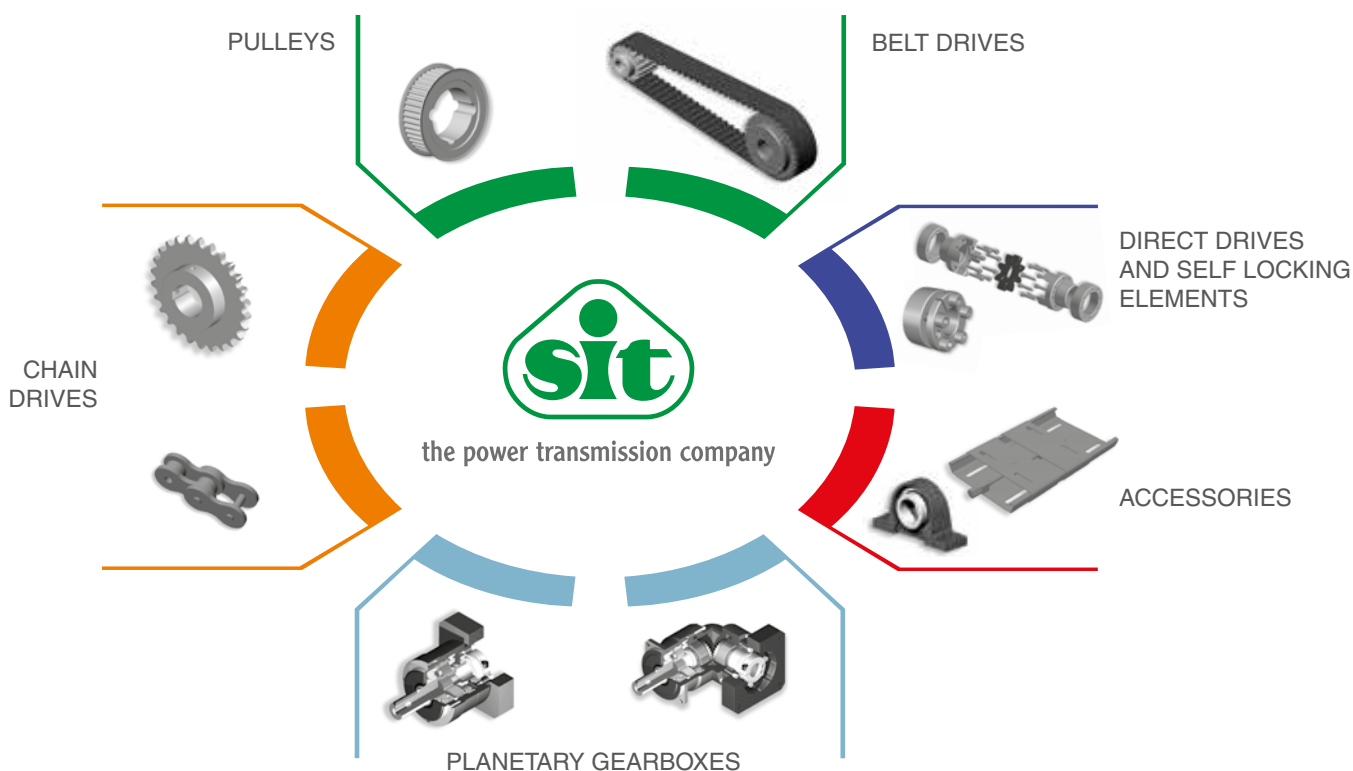
By shrinking the pinion with helical teeth, hardened and ground, through advanced technologies, or with SIT-LOCK® locking devices, we are able to propose a system of power transmission that is compact and quiet.

Thanks to precise mating pinion racks with helical teeth hardened and ground, made in different materials and heat treatments designed for every technical application, we are able to meet the increasingly high demands in terms of dynamics and precision.



Model frame size	M	Z	Ø Hole mm	Motor speed min ⁻¹	Ratio	Moving force [N]	Torque [Nm]	Speed m/min.	Weight [kg]
VRS060B VRL070B VRB060B	2	18	16	6.000	3	950	18	240	0,2
VRS075B VRL090B VRB090B	2	22	22	6.000	3	2.150	50	293	0,4
VRS100B VRL120B VRB115B	2	26	32	6.000	3	4.350	120	346	0,5
VRS140B VRL155B VRB140B	3	24	40	6.000	3	6.300	240	320	1,2

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