

Universal and scalable variety

CMP synchronous servomotors and
DRL asynchronous servomotors for direct
mounting to R, F, K, S and W gear units



Servomotors and standard gear units – a perfect combination

Due to the increased power density of machines and ever decreasing space available in systems, servomotors are entering areas that – so far – have almost exclusively been predominated by asynchronous motors. This opens new fields of application, and solutions can be implemented more effectively.

The 7 series standard gear units provide efficiency, power density, and a variety of variants.

The synchronous and asynchronous servomotors provide precision, dynamics and torque in a compact design.

The combination of these gear units and motors sets global standards. Now, the innumerable variety of the SEW-EURODRIVE modular system is also available for servomotors, offering you all the freedom you require.



Advantages at a glance:

- Rigid housing with optimum power flow
- Favorable force progression in a monoblock housing
- Sealing surfaces are not subject to any load pressure
- Positive shaft-hub connection
- Positioning tasks also in reduced backlash version
- New project planning guidelines use additional power reserves
- Extremely compact dimensions in combination with CMP motors
- Prefabricated cables for minimum startup times



Standards in servo technology – System solutions with servo gearmotors

All designs and sizes of the helical, helical-bevel, helical-worm gear units and the SPIROPLAN® right-angle gear unit can also be mounted to the CMP synchronous servomotors and DRL asynchronous servomotors from SEW-EURODRIVE.

The /R option, i.e. reduced circumferential backlash in conjunction with high efficiency ratings and a high endurance gearing, provides for servo-typical advantages for these gear units, such as high positioning accuracy.

MOVIDRIVE®, MOVITRAC® LTX inverters, and the powerful MOVIAXIS® series with their diverse options provide for functional, scalable and intelligent systems that ensure the maximum utilization of all components.

Helical servo gearmotors provide for the best performance in any position

Six single-stage and fourteen two- and three-stage sizes covering a power range from 31 to 18,000 Nm – the helical gear units always offer an optimum ratio between performance and space requirements. The proven modular system and the strict quality criteria allow SEW-EURODRIVE to offer a fine graduation and variety of torque ratings as well as gear ratios that is peerless.

Space-saving and low weight

The variety of sizes meets almost any requirement. The RX57 to RX107 single-stage gear units offer space-saving solutions for a high output speed. If every kilogram counts, you may benefit from a solution with multi-stage gear units:

Due to their die-cast aluminum design, the R07, R17 and R27 models are three particularly efficient lightweights – ideal as satellite drives and for use in light machine constructions.



Technical data

	Synchronous servo gearmotors CMP	Asynchronous servo gearmotors DRL
	RX57 – RX107 R07 – R107	RX57 – RX107 R07 – R167
Gear ratios [i]	1.3 ... 8.23 3.21 ... 216.54	1.3 ... 8.65 3.37 ... 289.74
Output torque rates [Nm]	63 ... 830 31 ... 4,300	63 ... 830 31 ... 18,000
Circumferential backlash (/R option) [arcmin]	– 5 ... 14	– 5 ... 14

Preferred application areas

- Winders
- Conveyor belts, typically in M4 mounting position
- Cutter drums

Whether for finely stepped torque rates and gear ratios or for high output speed rates – a helical gear unit is the right choice in many cases.



The advantages at a glance:

- Cost-efficient gear unit in axially parallel design
- Flexible foot or flange mounting
- Complete torque graduation due to 14 sizes from 50 to 18,000 Nm
- Single stage design for higher output speed rates
- Also available in reduced backlash design

Parallel-shaft helical servo gearmotors are truly great – even in confined space conditions

In cramped space conditions, the exceptionally lean parallel-shaft helical gearmotors convince with their high performance. Even under adverse conditions, the wide torque range from 87 to 18,000 Nm as well as the diverse mounting positions and designs allow for a variety of possible applications.

Compatible and powerful

A standard drive that is not only appreciated because of its power, but also because of its construction characteristics. There is always a place for parallel-shaft helical gearmotors by

SEW-EURODRIVE to reliably implement all kinds of drive solutions. They are typically used in material handling and process engineering applications.



Technical data

	Synchronous servo gearmotors CMP	Asynchronous servo gearmotors DRL
	F27 – F107	F27 – F157
Gear ratios [i]	3.77 ... 228.99	3.77 ... 276.77
Output torque rates [Nm]	87 ... 7,840	87 ... 18,000
Circumferential backlash (/R option) [arcmin]	5 ... 12	5 ... 12

Preferred application areas

- x axis in panel gantries
- Gantry order picking robots
- Travel axes in palletizing systems
- Main drives
- Trolleys

Even under adverse conditions, there will always be room for parallel-shaft helical gearmotors.



Advantages at a glance:

- Foot or flange-mounted version
- Available with solid or hollow shaft
- Customer shaft can be passed through
- Backlash-free connection of the customer shaft with shrink disk or TorqLOC® hollow shaft mounting
- Space-saving and lean design
- Torque arm with flexible rubber buffers
- Also available in reduced backlash design

In each design, the helical-bevel servo gearmotors provide durable power

The compact design of the 7 series is most obvious in our helical-bevel gear units. They are sophisticated right-angle gear units for all engineering applications that require space-saving installation. At the same time, they offer a powerful torque range from 125 to 50,000 Nm.

Wear-free and energy-efficient

In both directions of rotation and at any input speed, the helical-bevel gear units by SEW-EURODRIVE provide a high degree of efficiency – reliably in the long run. The gearing is designed for high endurance and thus makes for a high-torque, wear-free drive.

The remarkably high efficiency of our helical-bevel gearmotors makes them energy-savers. Their long maintenance-free service life is yet another reason for using both AC asynchronous motors and asynchronous and synchronous servomotors for every occasion.



Technical data

	Synchronous servo gearmotors CMP	Asynchronous servo gearmotors DRL
	K37 – K107	K37 – K187
Gear ratios [i]	3.98 ... 197.37	3.98 ... 197.37
Output torque rates [Nm]	125 ... 1,550	125 ... 50,000
Circumferential backlash (/R option) [arcmin]	5 ... 13	5 ... 13

Preferred application areas

- Lifting axes in gantries
- Timing belts with angle-shaped power flow
- Main drives with angle-shaped power flow
- Winding drives and cutter drums

In any application, these compact power packs provide a high degree of efficiency.



The advantages at a glance:

- High permitted overhung loads
- Angle-shaped power flow with solid or hollow shaft
- A wide setting range in conjunction with DRL; typical for winding applications
- Maximum torque rates of up to 50,000 Nm
- Backlash-free connection of the customer shaft with shrink disk or TorqLOC® hollow shaft mounting
- Also available in reduced backlash design

The distinguishing feature of the helical-worm servo gearmotors is their low-noise

Being designed as right-angular drives, they are very space saving. Their good dampening properties are yet another advantage of the simple, mechanical design. As the power transmission to the drive shaft is linear, torque shocks are reduced. The noise of this type is very low, even when operating at full capacity making the helical-worm gearmotors by SEW-EURODRIVE even suitable for stage lifts.

Technical data

	Synchronous servo gearmotors CMP	Asynchronous servo gearmotors DRL
	S37 – S67	S37 – S67
Gear ratios [i]	6.80 ... 75.06	3.97 ... 75.06
Output torque rates [Nm]	43 ... 480	43 ... 520

Preferred application areas

- Format-dependent adjusting axes with compact design
- Positioning axes – to some extent
- Haul-offs
- Stage and theater
- Winders

The helical-worm gear units are even suitable for niche applications of drive technology.



The advantages at a glance:

- Angle-shaped power flow with solid or hollow shaft
- Quiet drive for sensitive areas
- Cost-efficient gear unit with angle-shaped power flow
- Torque arm possible in any direction
- Backlash-free connection of the customer shaft with shrink disk or TorqLOC® hollow shaft mounting

SPIROPLAN® W37 servo gearmotors – Wear-free at high speeds

Conveyor applications in intralogistics or hygienic applications in the food and beverage sector – SPIROPLAN® right-angle servo gearmotors are very versatile. A light aluminum housing, compact design, wear-free gearing and the oil filling independent of the mounting position are the distinctive features of this drive, which convinces also in fast and dynamic applications.

Technical data

	Synchronous servo gearmotors CMP		Asynchronous servo gearmotors DRL	
	W10 – W30		W37 – W47	
Gear ratios [i]	6.57 ... 16.5*		3.2 ... 74.98	
Output torque rates [Nm]	70 ... 110		70 ... 180	

* Gear ratios of $i = 19.5 - 75$ are available on request

Preferred application areas

- Format-dependent adjusting axes with compact design
- Positioning axes – to some extent
- Conveying applications



The advantages at a glance:

- Low noise emission
- Maintenance-free operation
- Shaft-mounted variant with smooth surface for hygienic applications (for W37 – W47)
- Compact dimensions due to single-stage design of W10 – W30
- Freely adaptable due to flexible output geometries
- Positive shaft/hub connection throughout
- Economical alternative to torques < 200 Nm

How we're driving the world



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