

SEW
EURODRIVE



**Simply
more**

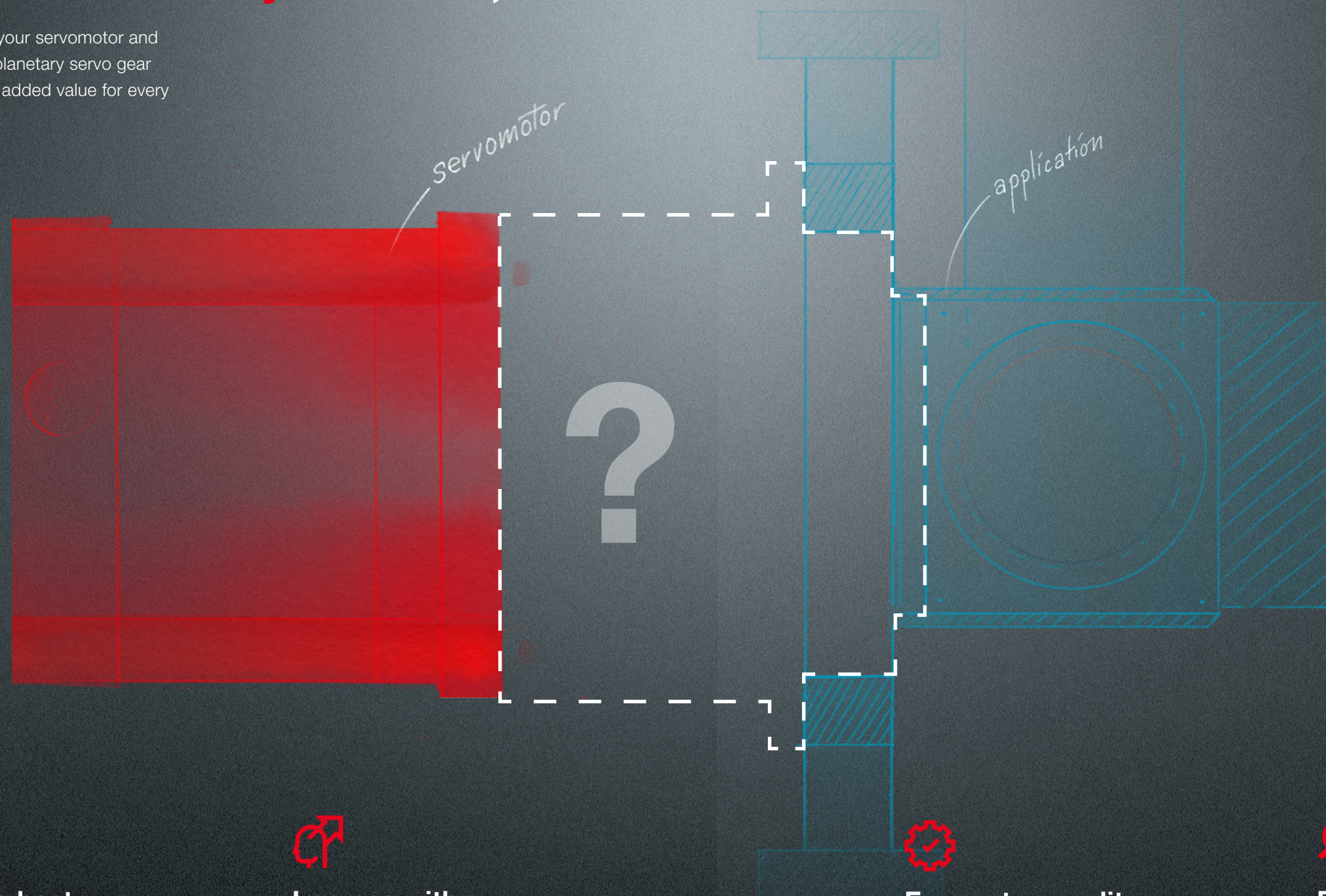
PxG[®]

planetary servo gear units

**Because we understand
your needs**

Because we understand **your needs**,

we can close the gap between your servomotor and application with the new PxG® planetary servo gear units. After all, they offer crucial added value for every application.



Find the best solution fast

Are you keen to find flexible solutions that are in perfect harmony with your applications?

PAGES 4–5



Impress with technological innovation

Are you impressed by technological excellence and a high power density combined with a long service life?

PAGES 6–7



Ensure top quality and high availability

Are you won over by fast delivery times and excellent product quality?

PAGES 8–9



Plan your future with a strong global partner

Are you looking to get everything you need – from gear units to motors and cables to inverter and control technology – from a single source?

PAGES 10–11



Find the best solution fast

By making the most of the modular product concept behind our PxG® planetary servo gear units, you can get the ideal gear unit for any application.

PxG®
planetary servo gear units



The modular system is based on several gear unit sizes that cover various performance classes (P5 to P7) and are each available in 1-stage, 2-stage and 3-stage designs. These are further enhanced by numerous options that can be selected in virtually any combination. For example, there are various output bearings, rotational clearance classes, lubricants and seals to choose from.

A range of adapter designs and geometrical compatibility with the market standard ensure that the planetary servo gear units can be combined with a broad variety of servomotors. Due to the compact design, which offers high torque in a small installation space, the gear units can be integrated into your application in a space-saving arrangement.

Because we understand your needs, we offer the following **added value**:

- A wide-ranging modular system for optimum adaptation to your application
- Geometrical compatibility with the market standard
- Custom configuration to precisely suit your requirements in terms of service life, precision and performance
- High torque but small installation space
- Long service life for all product elements – bearings, gearing, lubricants and sealing elements



Planetary servo gear units		P5.G..	P6.G..	P7BG..
Sizes		21, 22, 31, 32, 33, 41, 42, 43, 51, 52, 53, 61, 62, 63, 71, 72, 73 (NEW)		
Gear ratio	1-stage	3 – 10		4 – 5.5
	2-stage	12 – 100		16 – 55
	3-stage	64 – 1000	On request	64 – 550
Acceleration torque		66 – 4200 Nm	40 – 2000 Nm	80 – 6150 Nm
Rotational clearance		3 – 4 arcmin		1 arcmin
Service life		20 000 h (ED 60%)	30 000 h (ED 100%)	20 000 h (ED 60%)
Output variants		Solid shaft (smooth, key or splined), Flange block shaft with or without index bore		Flange block without index bore
Lubrication		GearOil Poly E1 by SEW-EURODRIVE or Grease HL 2 E1* by SEW-EURODRIVE, also in H1 (food intolerance)		
Seal		Premium Sine Seal or labyrinth seal (in the case of grease lubrication)		

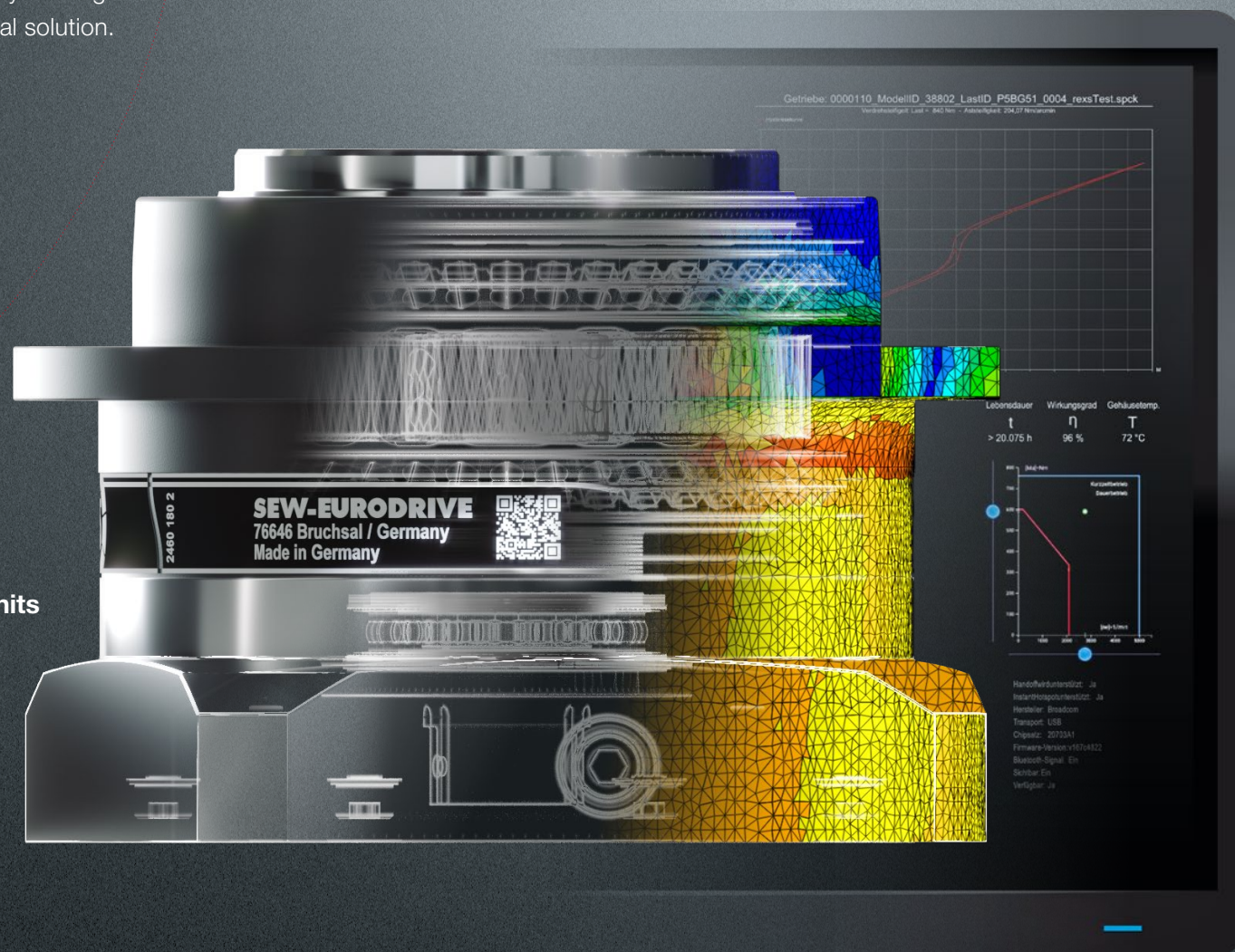
*Grease lubrication only for P6.G..



Impress with technological innovation

Are you looking for technical excellence in every last detail? Then the new PxG® planetary servo gear units from SEW-EURODRIVE are the ideal solution.

PxG®
planetary servo gear units
including digital twin



To ensure you are perfectly prepared for the demands of Industry 4.0, we provide a digital twin for every variant of the PxG® planetary servo gear unit.

As all parts and components undergo 100% inspection during the production process, you can use real data to precisely calculate the service life of your planetary servo gear unit. The unique QR code on each gear unit is the interface between the physical product and the digital world. For example, it offers access

to technical documentation and other types of information.

Since the entire product concept has been newly developed and we have worked closely with our industry partners, we can offer you a whole range of additional technical highlights. These include the Premium Sine Seal oil seal, which has been exclusively developed with a prestigious partner and specifically optimized for this gear unit to maximize dynamics and service life.

Because we understand your needs, we offer the following **added value**:

- 100% inspection of all installed gear units
- A digital twin (the digital depiction of the actual product) accompanies the product throughout its entire life cycle
- Precise determination of service life during the planning phase using cutting-edge simulation tools
- High power density over a long service life
- Consistent operating characteristics (rotational clearance and angular synchronism) over the entire life cycle, even when under very high loads
- Use of exclusive machine elements such as the GearOil Poly E1 series by SEW-EURODRIVE and the Premium Sine Seal sealing system





Ensure top quality and high availability

We have put in place lean principles and approaches in line with Industry 4.0 to create a perfectly networked, modular and highly efficient production system. Everything is geared to the high level of variation in the modular system, ever-shrinking batch sizes and shorter delivery times.



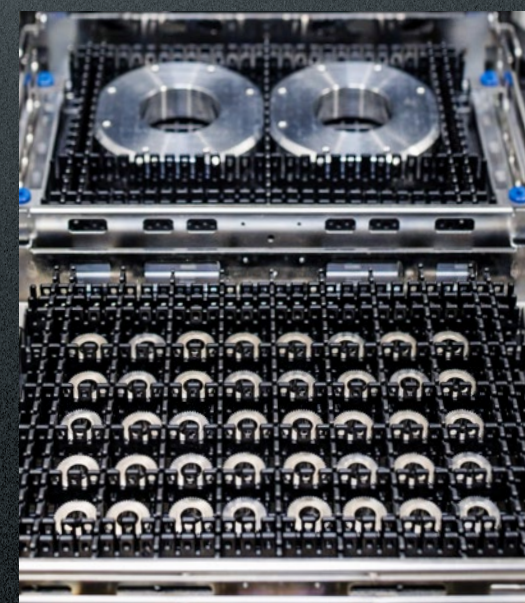
We have made the most of cutting-edge simulation and calculation tools from the very outset of our development work. The result is a perfectly networked, modular and highly efficient production system that will ensure short delivery times and rapid re-procurement, even when working with a batch size of one.

The intelligent workflows and processes are designed to achieve a standard delivery time of just a few days.

Delivery reliability and certainty are also key criteria for us when selecting our own suppliers, and our position as a major global customer gives us a strong standing in that regard. This safeguards the availability of materials and components, even in times when raw materials are scarce. High production capacities in the plants and a high global turnover of materials result in short production and assembly times, even when demand is high.

Because we understand your needs, we offer the following **added value**:

- Rapid delivery times for a widely varying modular system
- High availability and rapid re-procurement
- Consistently high quality standards for series and individual products
- Advice and application support when selecting and utilizing the modular system
- The promised product properties have been confirmed in comprehensive tests and test bench runs





Plan your future with a strong global partner

As a global partner for drive engineering, SEW-EURODRIVE has a whole lot to offer anyone who looks beyond the advantages of a single product.



Because we understand your needs, we offer the following **added value**:

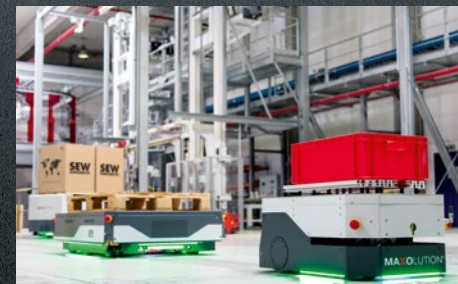
- A provider of solutions for the entire world of drive technology and automation
- Extensive product portfolio
- An innovation partner for the future
- Highly proficient on-site consulting worldwide, and strong support when utilizing the modular system
- Consistently high level of innovation for products and services, including with input from exclusive industry partners

As a full-service supplier, SEW-EURODRIVE is a strong partner for the entire drive train, from gear units to motors and cables to inverter and control technology.

The product properties of the gear unit and the motor and the interactions between both components can be optimally coordinated during configuration/project planning thanks to the comprehensive product range.

With 90 years of application expertise, a global network with over 19000 employees in 52 countries and 900 researchers who are continuously working on technical highlights, we are the ideal strategic partner to help you with every aspect of drive engineering, both right now and in the future.

Watch out for further additions to the PxG® modular system of planetary servo gear units.



PxG®
planetary servo gear units

Our PxG® planetary servo gear units

P5.G.. – the scalable all-rounder



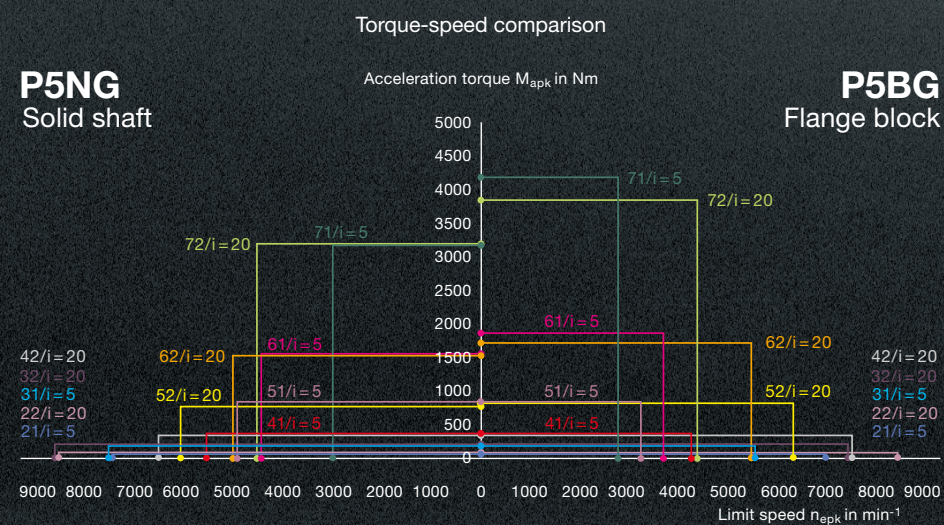
Potential uses and target applications

- Machine tool gantry
- Mounting press
- Drilling and pegging machine

- The servo gear units in performance class 5 are especially suitable for dynamic applications in intermittent duty with a high switching frequency
- The helical gearing keeps everything running very smoothly and uniformly
- Consistent precision over the entire service life thanks to hardened gearing
- Optimized for short-time duty (S3 duty cycle), DC < 60%
- Designed for a service life of 20 000 hrs

Gear units in performance class 5 have the following key properties:

- High degree of standardization
- Broad range of uses and excellent compatibility with the market standard
- Excellent dynamics
- Optimized for numerous load changes and high switching frequency coupled with consistent precision
- Wide variety of options
- Flexible use for a wide range of applications



Our PxG® planetary servo gear units

P6.G.. – the fast endurance runner



Potential uses and target applications

- Filling and transfer starwheel
- Printing machine
- Diaper machine

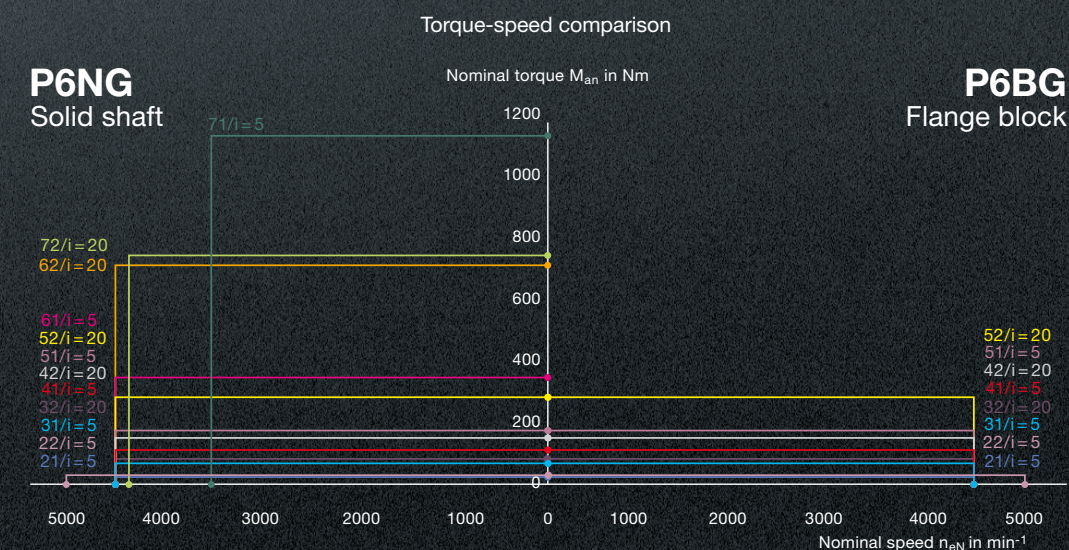
- The servo gear units in performance class 6 are especially suitable for applications in continuous duty with high speeds
- A modified bearing concept ensures high efficiency based on low thermal losses
- Similarly, a special coating on the gearing parts reduces wear, thereby ensuring the component has a long service life
- Optimized for continuous duty (S1 duty cycle), DC = 100%
- Designed for a service life of 30 000 hrs

Gear units in performance class 6 have the following key properties:

- Durability
- Increased service life for high cost-efficiency
- Reduced thermal losses for use in continuous duty
- Geometrical compatibility with performance class 5

Modification option for performance class 5:

- Bellows coupling to compensate for thermal changes to the motor shaft length in the gear unit adapter
- Option of point or line contact in the output bearing



Our PxG® planetary servo gear units

P7.G.. – the precision powerhouse



- The servo gear units in performance class 7 are especially suitable for applications in intermittent duty and with limited space
- The modified output stage ensures a high overload capacity
- Maximum precision built in as standard
- Optimized for short-time duty (S3 duty cycle), DC < 60%
- Designed for a service life of 20 000 hrs

Potential uses and target applications

- Laser cutting machine
- Delta kinematics
- Chain magazine and tool changer

Gear units in performance class 7 have the following key properties:

- Precision
Top quality in the application due to high precision
- Overload capacity
High level of safety in the application due to high overload capacity
- Compact design
Increased acceleration torques – up to 30% higher torques compared to the standard design

Modification option for performance class 5:

- Four planets in the gear unit output stage ensure up to 30% more permissible acceleration torque can be transmitted in the same installation space

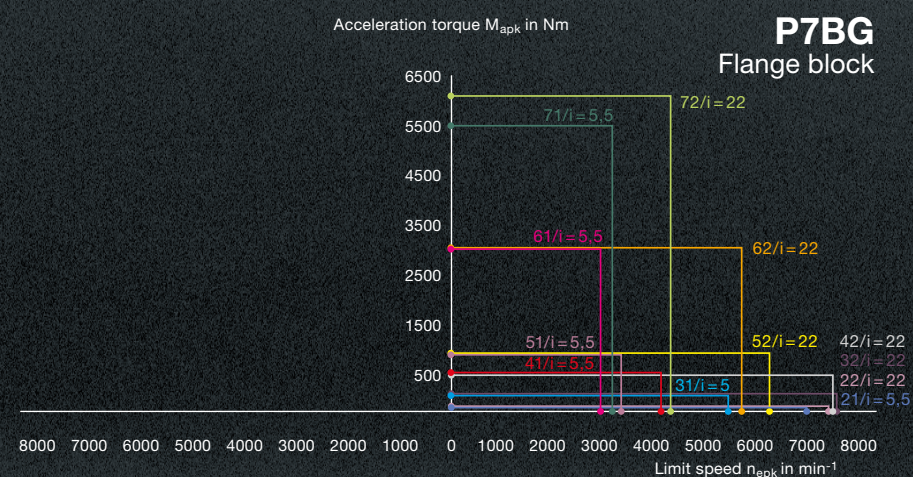


Simply more

PxG®
planetary servo gear units

*All the best,
SEW-EURODRIVE*

Torque-speed overview



Because we understand your needs,

we don't just supply innovative technology in the form of our new PxG® planetary servo gear units, we also provide intelligent services

and a future-proof partnership for your machine automation. PxG® extends our all-in-one package for the entire drive train, thereby creating added value that is geared specifically to your needs.

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