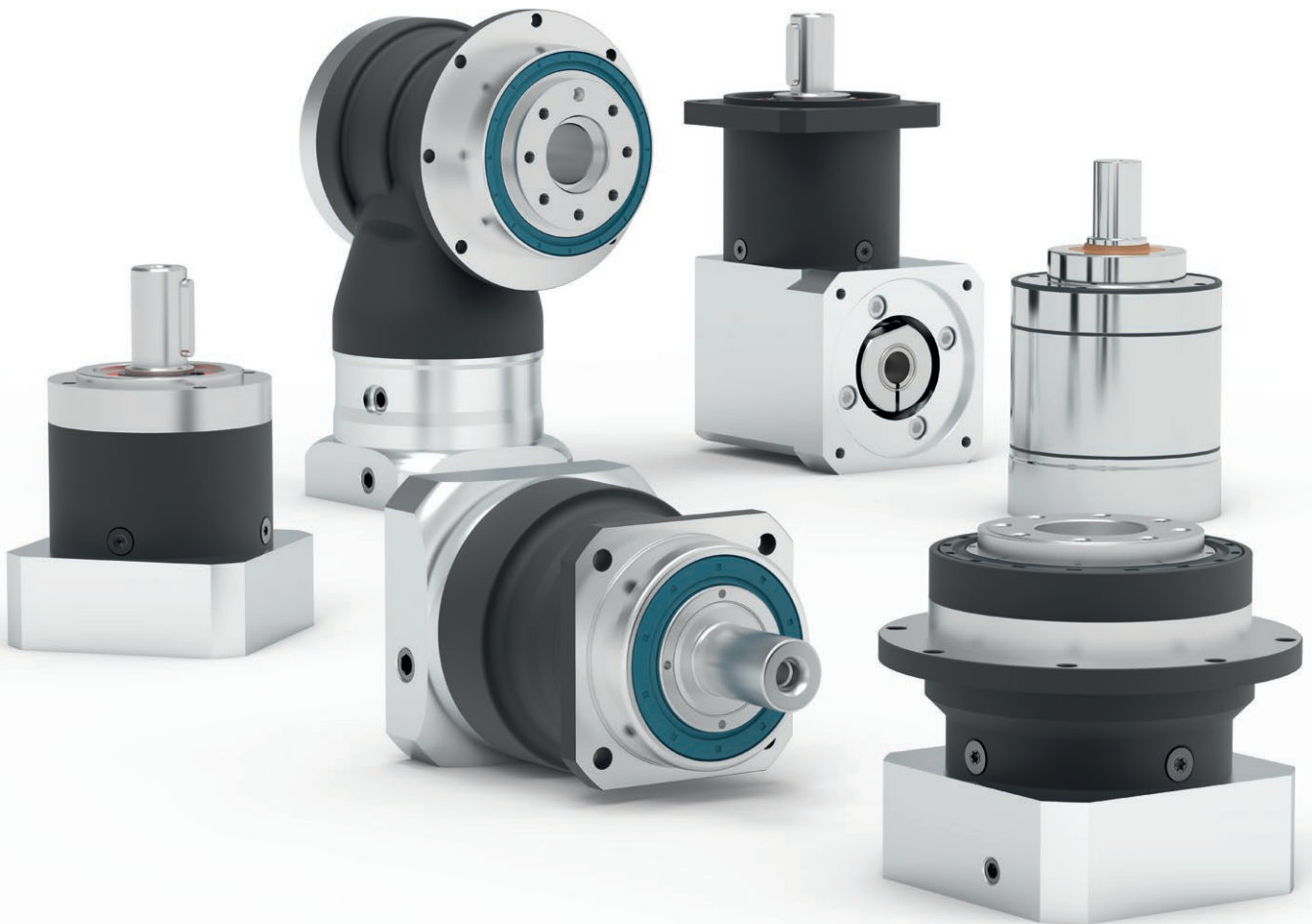


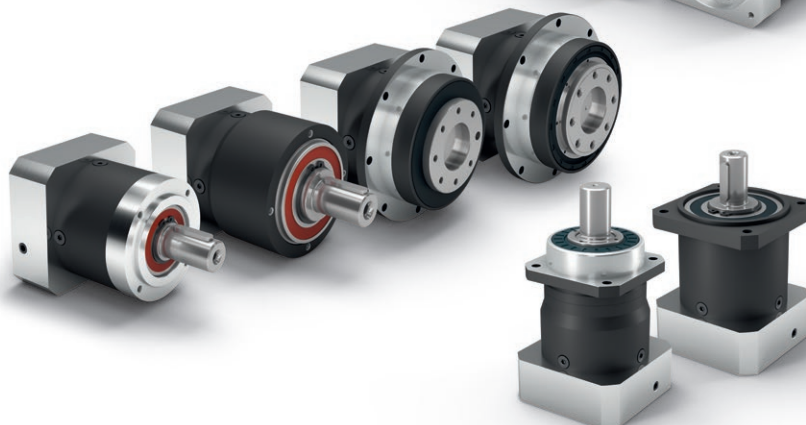


## Precision gearbox brochure





## E Economy Line



## P Precision Line



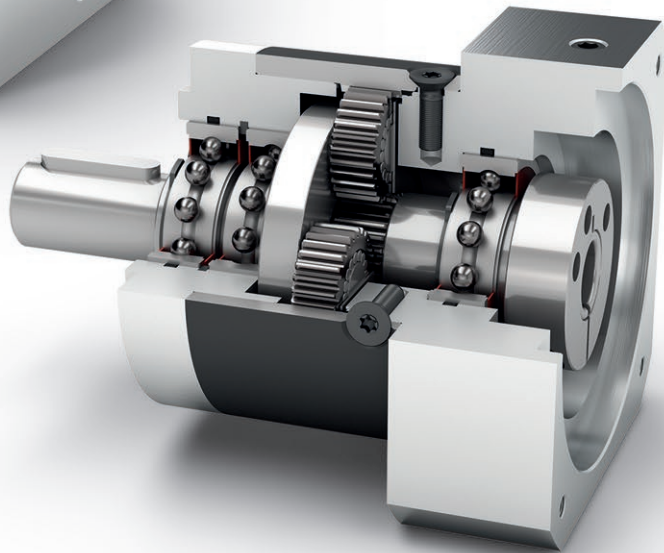
## H Hygienic Design











- ⊕ For any mounting position
- ⊕ Individual adaptation of the input flange to the motor
- ⊕ Lifetime lubrication for maintenance-free operation
- ⊕ Clamping systems with optimized mass moment of inertia
- ⊕ High efficiency



The **PLE** is perhaps the basis of our success. It is notably light, extremely powerful, yet suitable for complex production cycles due to its low-friction bearing design and optimized lubrication. A genuine powerhouse at an attractive, fair price.



-  Economy Line
-  Coaxial gearbox
-  Equidirectional rotation
-  Spur gear
-  Round type output flange
-  Low-friction deep groove ball bearings
-  High ratio variety  $i=3$  up to  $i=512$
-  Planet carrier in disc design

Nominal output torque **5 - 800 Nm**

Torsional backlash **6 - 22 arcmin**

Tilting moment **5 - 474 Nm**

Protection class **IP54**

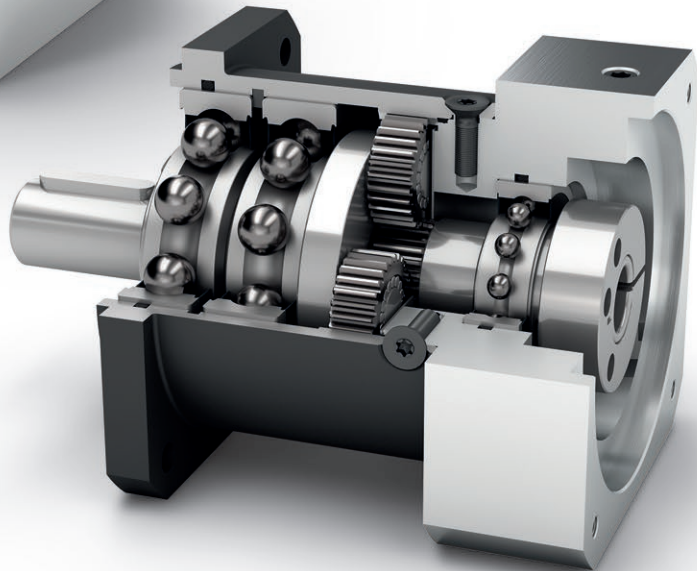
Frame sizes









- 40
- 60
- 80
- 120
- 160

**PLQE**



Our **PLQE** is uncomplicated and powerful. It can be connected directly to your installation without the need for an intermediate flange. The large deep groove ball bearings at the output can absorb large axial and radial forces. In the process, only little heat is generated, so reliable operations are assured even in complex production cycles.



-  Economy Line
-  Coaxial gearbox
-  Equidirectional rotation
-  Spur gear
-  Square type output flange
-  Reinforced deep groove ball bearings
-  High ratio variety  $i=3$  up to  $i=512$
-  Planet carrier in disc design

Nominal output torque **15 - 260 Nm**

Torsional backlash **7 - 15 arcmin**

Tilting moment **37 - 232 Nm**

Protection class **IP54**

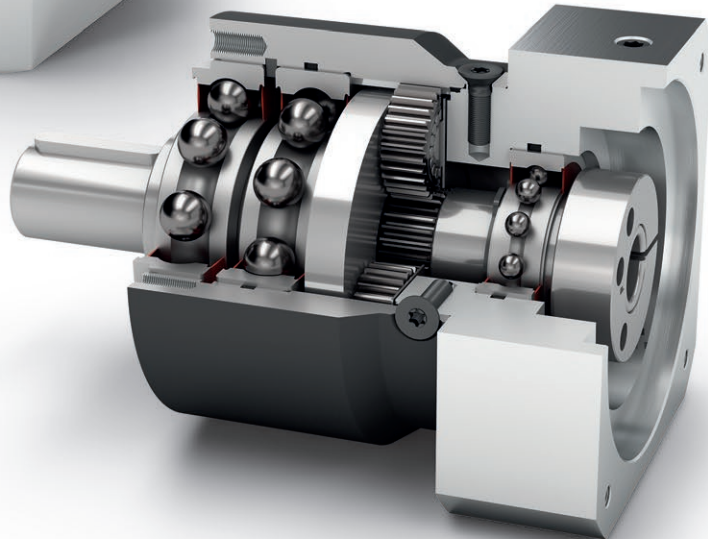
Frame sizes







- 60**
- 80**
- 120**





Our **PLPE** unites the best properties of the Economy Line with a performance advantage. It is cost effective, yet powerful, and generates minimal heat. The optimized output bearing has been designed for high radial and axial forces.



-  Economy Line
-  Coaxial gearbox
-  Equidirectional rotation
-  Spur gear
-  Round type output flange
-  Reinforced deep groove ball bearings
-  Planet carrier in disc design

Nominal output torque **5 - 460 Nm**

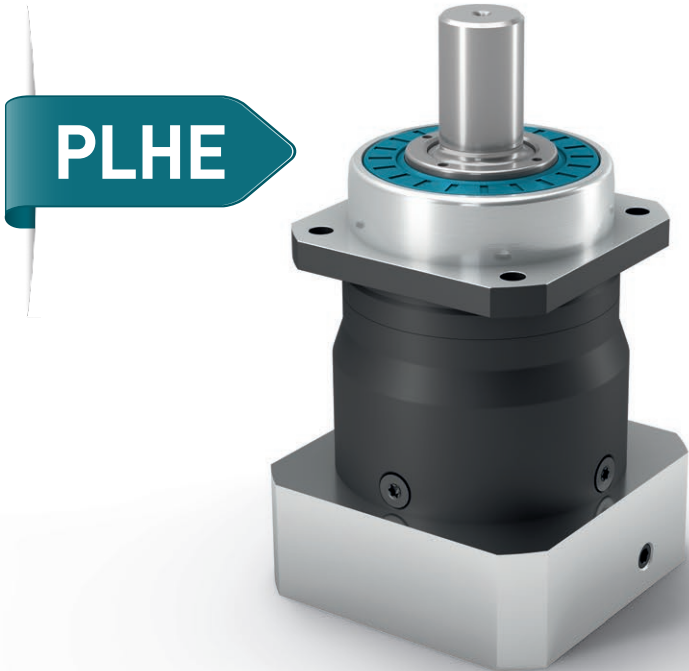
Torsional backlash **7 - 19 arcmin**

Tilting moment **26 - 497 Nm**

Protection class **IP54**

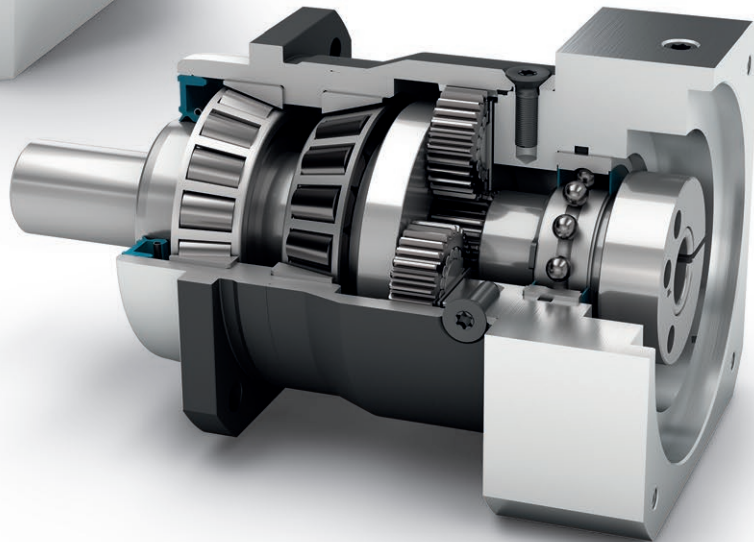
Frame sizes










- 50
- 70
- 90
- 120
- 155



**PLHE**

The **PLHE** is the world's first combination of economy and precision planetary gearboxes. The prestressed tapered roller bearings of our planetary gearboxes safeguard great stiffness even under the highest loads. The seal we have developed provides the perfect protection against dust and water jets.



-  Economy Line
-  Coaxial gearbox
-  Equidirectional rotation
-  Spur gear
-  Square type output flange
-  Preloaded tapered roller bearings
-  Rotary shaft seal
-  Extra long centering collar
-  Planet carrier in disc design

Nominal output torque **15 - 260 Nm**

Torsional backlash **7 - 12 arcmin**

Tilting moment **191 - 488 Nm**

Protection class **IP65**

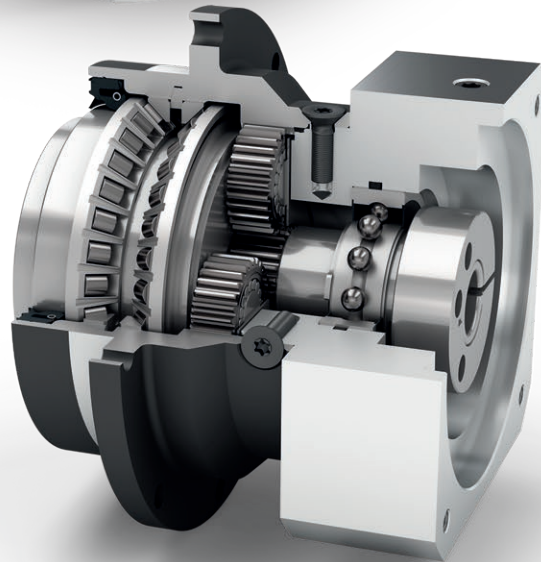
Frame sizes

- 60**
- 80**
- 120**

**PFHE**



The **PFHE** represents an economically attractive alternative for high-load applications in which high radial loads occur. The combination of special pre-stressed inclined roller bearings and a flanged output shaft in accordance with EN ISO 9409-1 gives the **PFHE** a very high load capacity. Thanks to the radial shaft seal that is used, this gearbox achieves protection class IP65 at the output side and can therefore also withstand adverse usage conditions.



-  Economy Line
-  Coaxial gearbox
-  Equidirectional rotation
-  Spur gear
-  Extra large round type output flange
-  Preloaded angular contact roller bearings
-  Rotary shaft seal
-  Flange output shaft (ISO 9409)
-  Planet carrier in disc design

Nominal output torque **15 - 260 Nm**



Torsional backlash **7 - 12 arcmin**



Tilting moment **110 - 407 Nm**

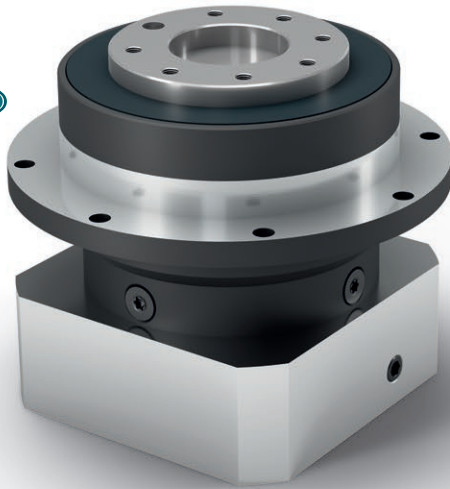


Protection class **IP65**

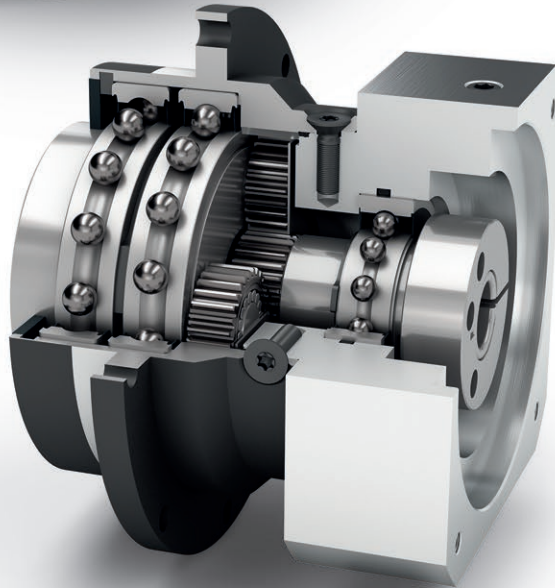


Frame sizes

- 64**
- 90**
- 110**



There's no such thing as too short: The **PLFE** is our planetary gearbox with compact flange output shaft. You save more than a third of the space and gain a significantly higher torsional stiffness. Due to its standardized flange interface, it is especially easy to install. The integrated dowel hole provides additional secureness during fitting.



-  Economy Line
-  Coaxial gearbox
-  Equidirectional rotation
-  Spur gear
-  Extra large round type output flange
-  Low-friction deep groove ball bearings
-  Flange output shaft (ISO 9409)
-  Planet carrier in disc design

Nominal output torque **15 - 260 Nm**

Torsional backlash **7 - 12 arcmin**

Tilting moment **12 - 109 Nm**

Protection class **IP54**

Frame sizes

**64**

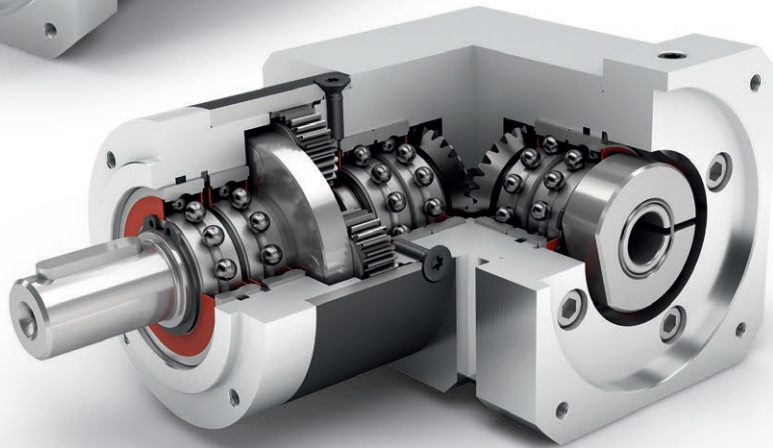
**90**





**110**





The **WPLE** is a consistent continuation of the benefits offered by the Economy Line. With its compact, but powerful design, it is ideal for dynamic multiple axis systems. Our right angle gearbox features lifetime lubrication, is easy to install, all this at an unrivalled price-performance ratio.



-  Economy Line
-  Right angle gearbox
-  Equidirectional rotation
-  Spur gear
-  Bevel gear right angle stage
-  Round type output flange
-  Low-friction deep groove ball bearings
-  High ratio variety  $i=3$  up to  $i=512$
-  Planet carrier in disc design

Nominal output torque **5 - 260 Nm**



Torsional backlash **11 - 28 arcmin**



Tilting moment **5 - 101 Nm**



Protection class **IP54**



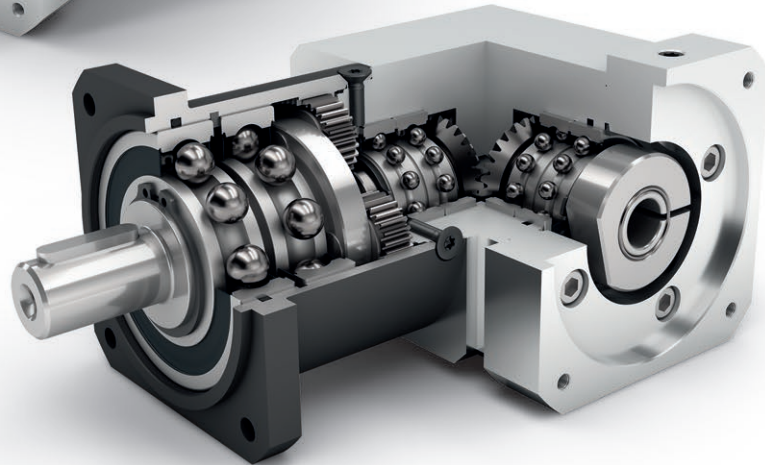
Frame sizes










- 40
- 60
- 80
- 120

**WPLQE**



The **WPLQE** is our right angle gearbox with the square output flange. This makes it particularly easy to install for a wide range of applications, and its large deep groove ball bearings also make it ideal for high radial and axial forces.



-  Economy Line
-  Right angle gearbox
-  Equidirectional rotation
-  Spur gear
-  Bevel gear right angle stage
-  Square type output flange
-  Reinforced deep groove ball bearings
-  High ratio variety  $i=3$  up to  $i=512$
-  Planet carrier in disc design

Nominal output torque **14 - 260 Nm**

Torsional backlash **11 - 21 arcmin**

Tilting moment **37 - 232 Nm**

Protection class **IP54**

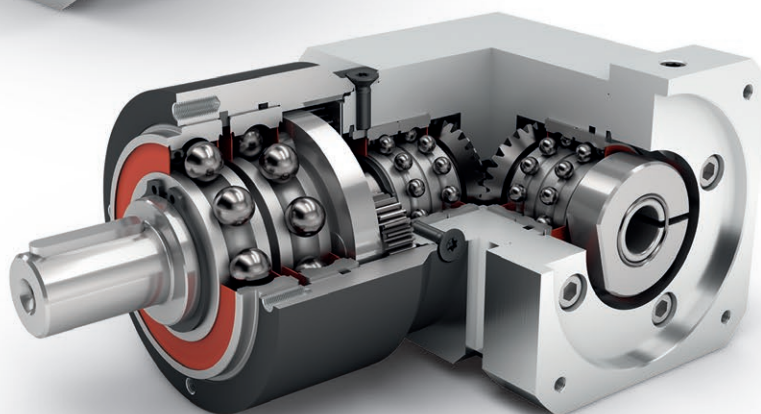
Frame sizes









- 60**
- 80**
- 120**

**WPLPE**



The **WPLPE** is the smart right angle solution from our Economy Line: Space-saving, and yet powerful at an attractive price. You install your drive elements directly on the output shaft and extract the maximum flexibility from your application.



-  Economy Line
-  Right angle gearbox
-  Equidirectional rotation
-  Spur gear
-  Bevel gear right angle stage
-  Round type output flange
-  Reinforced deep groove ball bearings
-  Planet carrier in disc design

Nominal output torque **5 - 195 Nm**

Torsional backlash **11 - 25 arcmin**

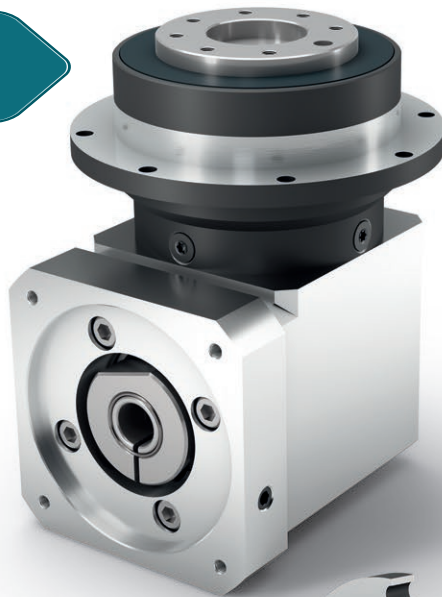
Tilting moment **26 - 168 Nm**

Protection class **IP54**

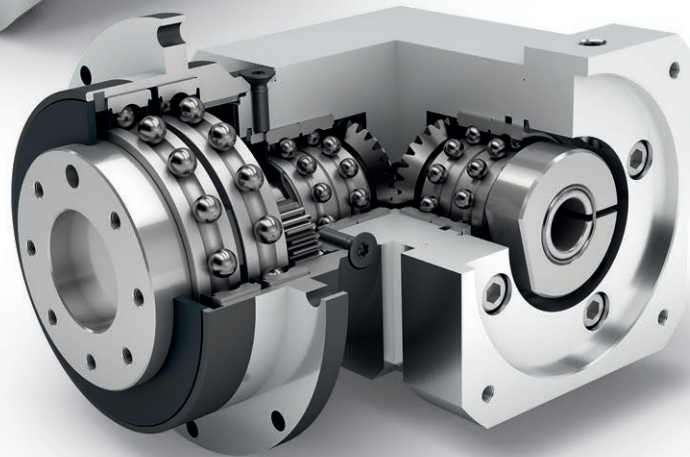
Frame sizes







- 50
- 70
- 90
- 120

**WPLFE**



Thinking around corners even in tight spaces. The **WPLFE** is our right angle planetary gearbox with compact flange output shaft. You save more than a third of the space and gain a significantly higher torsional stiffness. Thanks to its standardized flange interface, it is especially easy to install. The integrated dowel hole provides additional secureness during fitting.

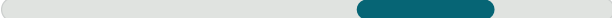


-  Economy Line
-  Right angle gearbox
-  Equidirectional rotation
-  Spur gear
-  Bevel gear right angle stage
-  Extra large round type output flange
-  Low-friction deep groove ball bearings
-  Flange output shaft (ISO 9409)
-  Planet carrier in disc design


Nominal output torque **14 - 260 Nm**



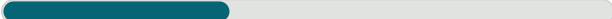
Torsional backlash **11 - 18 arcmin**



Tilting moment **12 - 109 Nm**



Protection class **IP54**



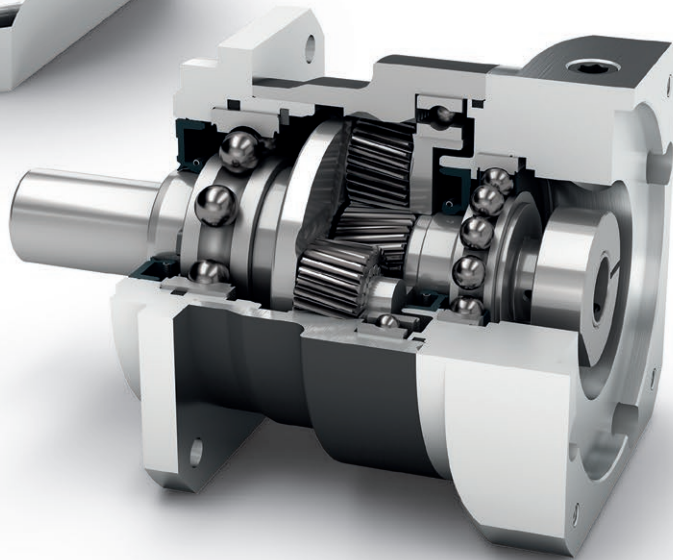
Frame sizes

- 64**
- 90**
- 110**





Our **PSBN** is the ideal combination of precision planetary gearbox and efficient bearing technology. It has been developed specifically for delivering the maximum performance at high speeds. Its helical teeth provide homogeneous synchronism and quiet running noise.



- Precision Line
- Coaxial gearbox
- Equidirectional rotation
- Helical gear
- Square type output flange
- Low-friction deep groove ball bearings
- Rotary shaft seal
- Planet carrier in cage design
- Option: Reduced backlash

Nominal output torque **28 - 470 Nm**

Torsional backlash **1 - 5 arcmin**

Tilting moment **68 - 794 Nm**

Protection class **IP65**

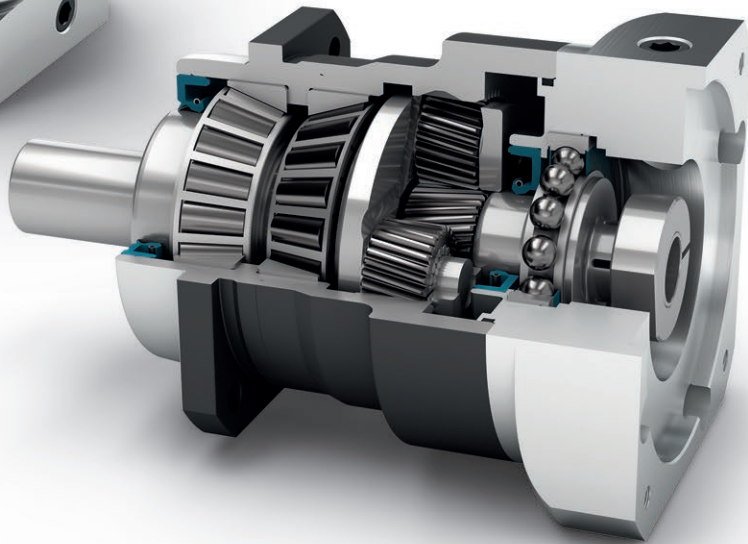
Frame sizes












- 70
- 90
- 115
- 142



**PSN**

Our **PSN** embodies pure progress: Its innovative helical teeth safeguard low-noise operations. This precision planetary gearbox minimizes vibrations, and therefore increases the quality of your workpiece surfaces even under the highest bearing loads.



-  Precision Line
-  Coaxial gearbox
-  Equidirectional rotation
-  Helical gear
-  Square type output flange
-  Preloaded tapered roller bearings
-  Rotary shaft seal
-  Extra long centering collar
-  Planet carrier in cage design
-  Option: Reduced backlash
-  Option: Splined output shaft (DIN 5480)

Nominal output torque **28 - 950 Nm**

Torsional backlash **1 - 5 arcmin**

Tilting moment **203 - 2887 Nm**

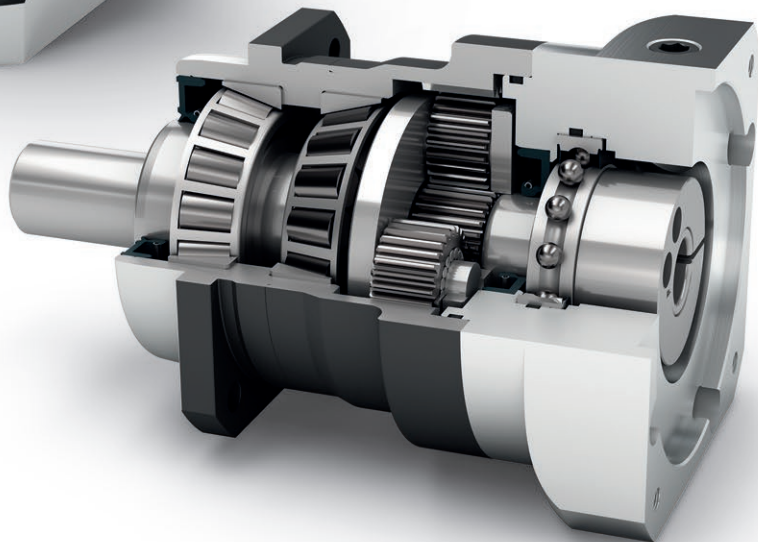
Protection class **IP65**












Frame sizes

- 70**
- 90**
- 115**
- 142**
- 190**



Our straight-toothed precision planetary gearbox has been designed for the highest performance and torque. The prestressed tapered roller bearings in the **PLN** and the seal we have developed safeguard the optimal performance even against dust and water jets.



-  Precision Line
-  Coaxial gearbox
-  Equidirectional rotation
-  Spur gear
-  Square type output flange
-  Preloaded tapered roller bearings
-  Rotary shaft seal
-  Extra long centering collar
-  Planet carrier in cage design
-  Option: Reduced backlash
-  Option: Splined output shaft (DIN 5480)

Nominal output torque **27 - 1800 Nm**

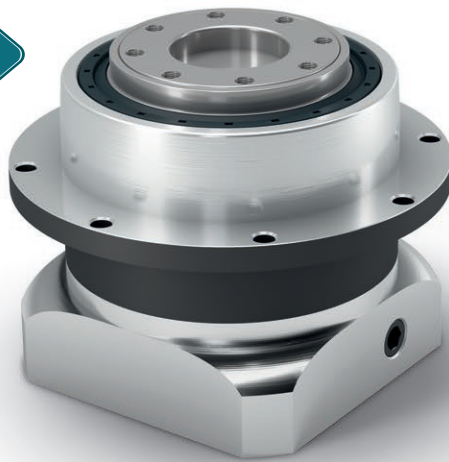
Torsional backlash **1 - 5 arcmin**

Tilting moment **191 - 2535 Nm**

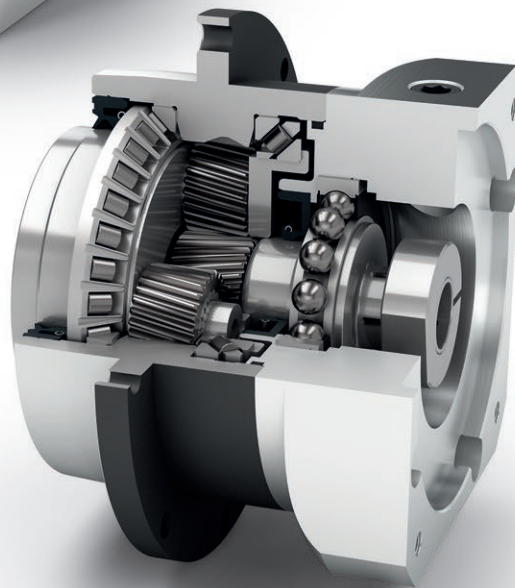
Protection class **IP65**

Frame sizes

- 70**
- 90**
- 115**
- 142**
- 190**



Thanks to its standardized flange interface, our **PSFN** can be installed easily and reliably. Our Neugart-designed helical teeth makes additional noise absorption measures absolute. Thanks to its high tilting moment, you may demand the utmost from this precision planetary gearbox.



- Precision Line
- Coaxial gearbox
- Equidirectional rotation
- Helical gear
- Extra large round type output flange
- Preloaded angular contact roller bearings
- Rotary shaft seal
- Flange output shaft (ISO 9409)
- Planet carrier in cage design
- Option: Reduced backlash

Nominal output torque **28 - 950 Nm**

Torsional backlash **1 - 5 arcmin**

Tilting moment **132 - 2445 Nm**

Protection class **IP65**

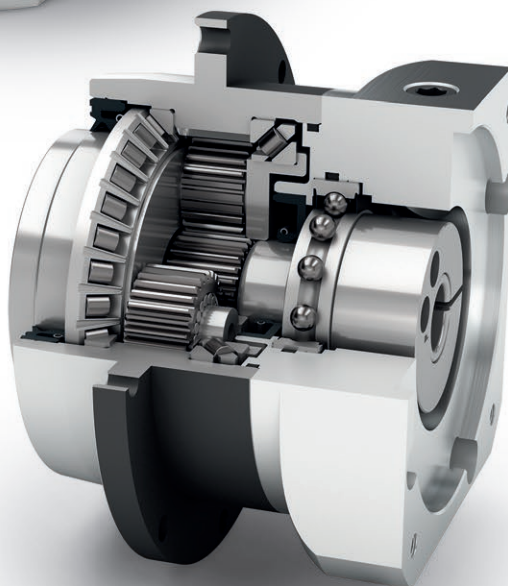
Frame sizes

- 64**
- 90**
- 110**
- 140**
- 200**





Our **PLFN** features a standardized flange interface for ease of installation. The straight-teeth precision planetary gearbox has been designed for the highest performance and torque. Its high tilting moment delivers the best performance even under the highest radial and axial forces.



-  Precision Line
-  Coaxial gearbox
-  Equidirectional rotation
-  Spur gear
-  Extra large round type output flange
-  Preloaded angular contact roller bearings
-  Rotary shaft seal
-  Flange output shaft (ISO 9409)
-  Planet carrier in cage design
-  Option: Reduced backlash

Nominal output torque **27 - 1800 Nm**

Torsional backlash **1 - 5 arcmin**

Tilting moment **132 - 4957 Nm**

Protection class **IP65**

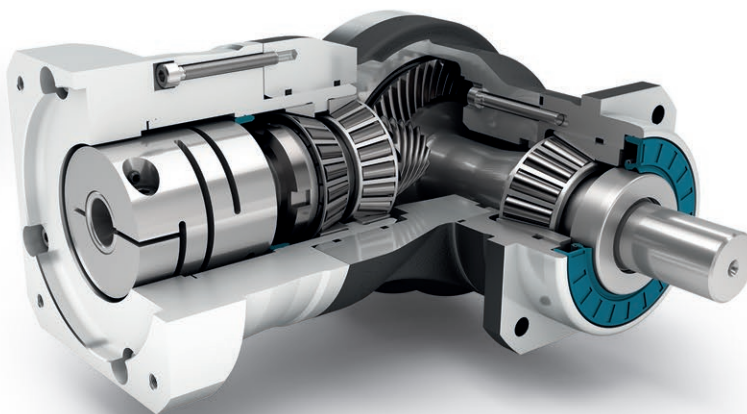
Frame sizes










- 64**
- 90**
- 110**
- 140**
- 200**

**WPLN**



Thanks to its spiral teeth, our **WPLN** achieves the optimal synchronism for the best surface qualities. By minimizing vibrations, it runs uniformly and quietly. The precision right angle planetary gearbox features lifetime lubrication and can be mounted virtually anywhere.



-  Precision Line
-  Right angle gearbox
-  Counterdirectional rotation
-  Hypoid gear right angle stage
-  Square type output flange
-  Preloaded tapered roller bearings
-  Rotary shaft seal
-  Extra long centering collar
-  Option: Reduced backlash

Nominal output torque **22 - 800 Nm**

Torsional backlash **3 - 5 arcmin**

Tilting moment **322 - 2225 Nm**

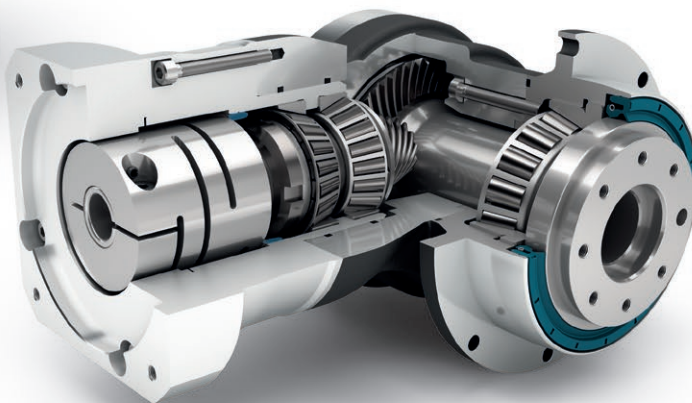
Protection class **IP65**











Frame sizes

- 70
- 90
- 115
- 142

**WPSFN**

Our **WPSFN** is extremely light and easy to integrate thanks to its standardized flange interface. It achieves optimized synchronization with the spiral gearing and the helical-toothed planetary stage for the best surface qualities. The shortest right angle precision gearbox with integrated hollow shaft provides you with new structural solutions.



-  Precision Line
-  Right angle gearbox
-  Counterdirectional rotation
-  Hypoid gear right angle stage
-  Extra large round type output flange
-  Preloaded angular contact roller bearings
-  Rotary shaft seal
-  Flange output shaft (ISO 9409)
-  Hollow shaft
-  Option: Reduced backlash

Nominal output torque **22 - 625 Nm**

Torsional backlash **3 - 5 arcmin**

Tilting moment **132 - 1989 Nm**

Protection class **IP65**

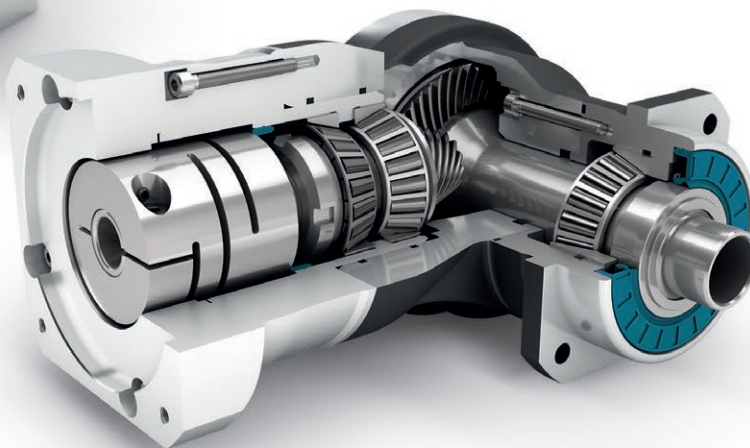
Frame sizes









- 64**
- 90**
- 110**
- 140**

**WGN**



Our **WGN** is a hollow-shaft right angle gearbox that operates with particularly low noise levels. At the same time, the spiral teeth increase the quality of your workpiece surfaces. It can be connected directly to the application via a shrink disc, a simple and reliable solution that offers you new design possibilities.



-  Precision Line
-  Right angle gearbox
-  Counterdirectional rotation
-  Hypoid gear right angle stage
-  Square type output flange
-  Preloaded tapered roller bearings
-  Rotary shaft seal
-  Extra long centering collar
-  Hollow shaft for clamping system with shrink disc

Nominal output torque **22 - 320 Nm**

Torsional backlash **5 arcmin**

Tilting moment **252 - 1505 Nm**

Protection class **IP65**

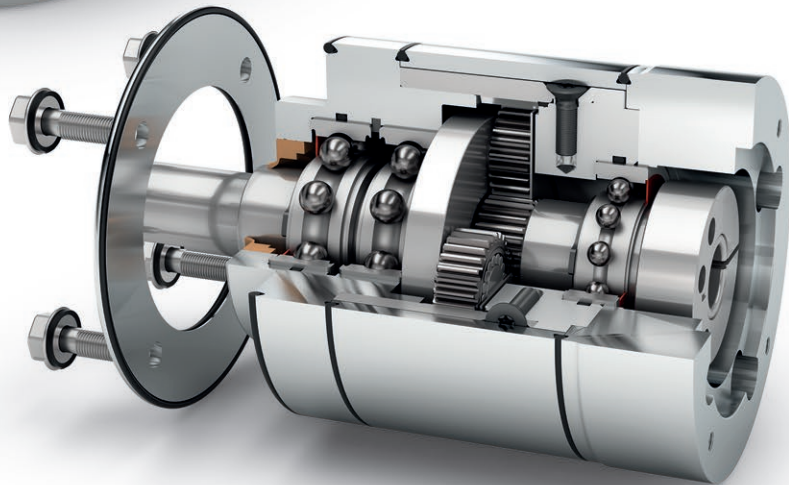
Frame sizes










- 70**
- 90**
- 115**
- 142**





Our **HLAE** is unique: It is the world's first planetary gearbox with certified hygienic design – flexible without a radial screw, powerful, and yet ideal for fast and easy cleaning. It has been developed specifically for challenging applications such as in the pharmaceutical, cosmetics and food industries.



-  Hygienic Design
-  Coaxial gearbox
-  Equidirectional rotation
-  Spur gear
-  Round type output flange
-  Low-friction deep groove ball bearings
-  Rotary shaft seal
-  Planet carrier in disc design
-  Option: FFKM seal

Nominal output torque **15 - 171 Nm**

Torsional backlash **7 - 12 arcmin**

Tilting moment **22 - 109 Nm**

Protection class **IP69K**

Frame sizes

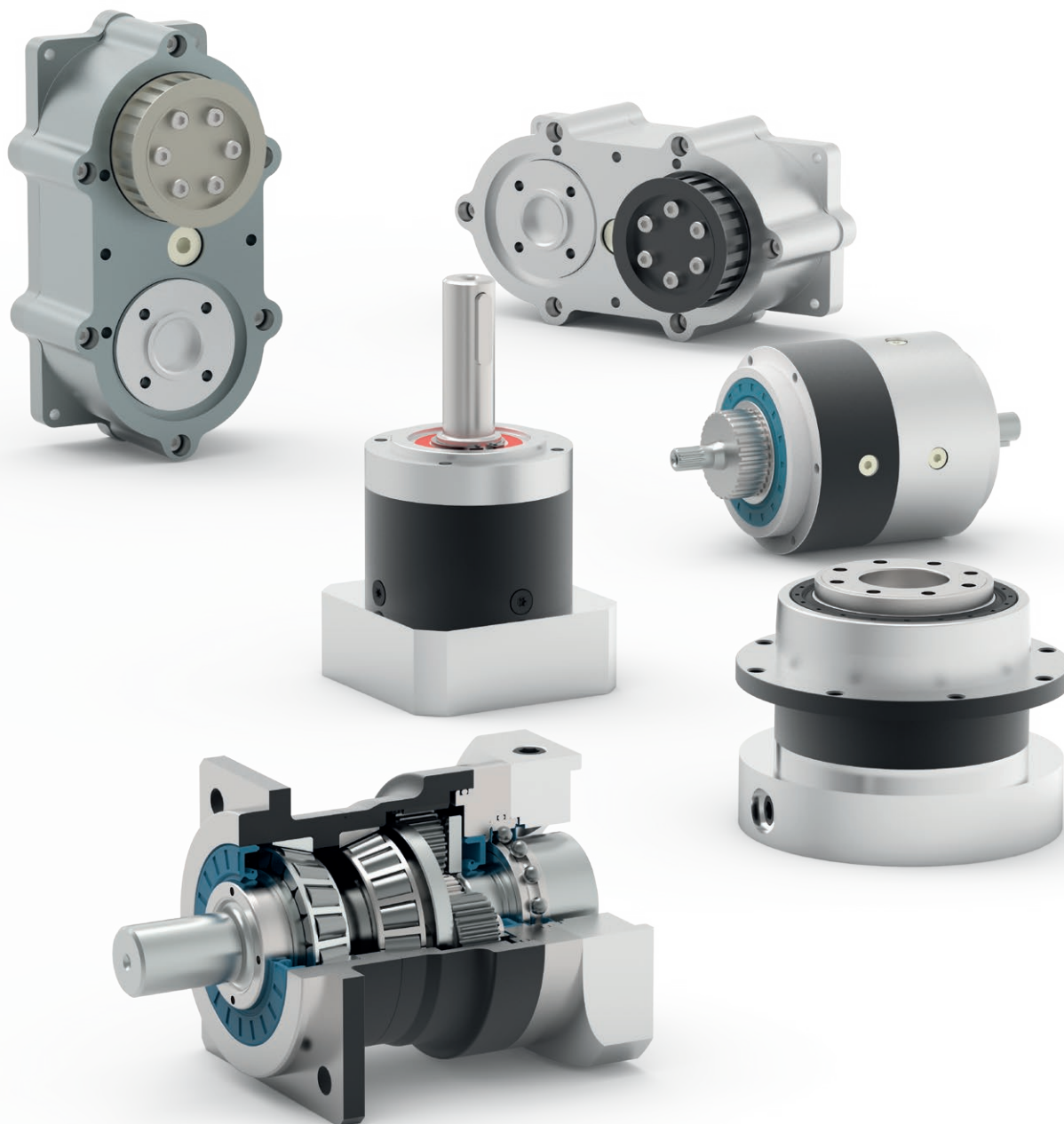
<b>70</b>	<b>90</b>	<b>110</b>
-----------	-----------	------------

Economy gearboxes		Nominal output torque	Backlash	Bearing load	Protection class	Running noise	Input speeds	Torsional stiffness	Wide range of ratios
<b>PLE</b>		Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
<b>PLQE</b>		Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
<b>PLPE</b>		Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
<b>PLHE</b>		Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
<b>PFHE</b>		Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
<b>PLFE</b>		Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
<b>WPLE</b>		Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
<b>WPLQE</b>		Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
<b>WPLPE</b>		Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
<b>WPLFE</b>		Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard

Precision gearboxes		Nominal output torque	Backlash	Bearing load	Protection class	Running noise	Input speeds	Torsional stiffness	Wide range of ratios
<b>PSBN</b>		Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
<b>PSN</b>		Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
<b>PLN</b>		Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
<b>PSFN</b>		Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
<b>PLFN</b>		Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
<b>WPLN</b>		Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
<b>WPSFN</b>		Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
<b>WGN</b>		Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard

Hygienic Design gearbox		Nominal output torque	Backlash	Bearing load	Protection class	Running noise	Input speeds	Torsional stiffness	Wide range of ratios
<b>HLAE</b>		Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard

Standard      Excellent



## **Innovative and individual: Our custom made gearboxes.**

Compact form and high performance, special construction requirements, food grade certification or individual design: We fulfill even your most complex requirements – in all sectors of machine building.

The qualified specialists of our engineering department design gearbox solutions and systems. According to your performance, price and quality needs.

Your benefit from innovation: We utilize our experience and at the same time take advantage of new developments, integrating them into our customer solutions.

Using modern design and development tools, applications from all areas of system design (for instance, printing presses, handling systems, die-cast machines and robot painting systems), medical engineering and model building are realized. For new perspectives.



#### **Neugart GmbH**

Keltenstraße 16  
77971 Kippenheim  
Deutschland  
Phone: +49 7825 847-0  
Fax: +49 7825 847-2999  
Email: [sales@neugart.com](mailto:sales@neugart.com)  
Web: [www.neugart.com](http://www.neugart.com)

#### **Neugart USA Corp.**

14325 South Lakes Drive  
Charlotte, NC 28273  
USA  
Phone: +1 980 299-9800  
Fax: +1 980 299-9799  
Email: [sales@neugartusa.com](mailto:sales@neugartusa.com)  
Web: [www.neugart.com/en-us](http://www.neugart.com/en-us)

#### **Neugart Planetary Gearboxes (Shenyang) Co., Ltd.**

No. 152, 22nd road  
E&T Development Zone Shenyang, PC 110141  
PR China  
Phone: +86 24 2537-4959  
Fax: +86 24 2537-2552  
Email: [sales@neugart.net.cn](mailto:sales@neugart.net.cn)  
Web: [www.neugart.net.cn](http://www.neugart.net.cn)