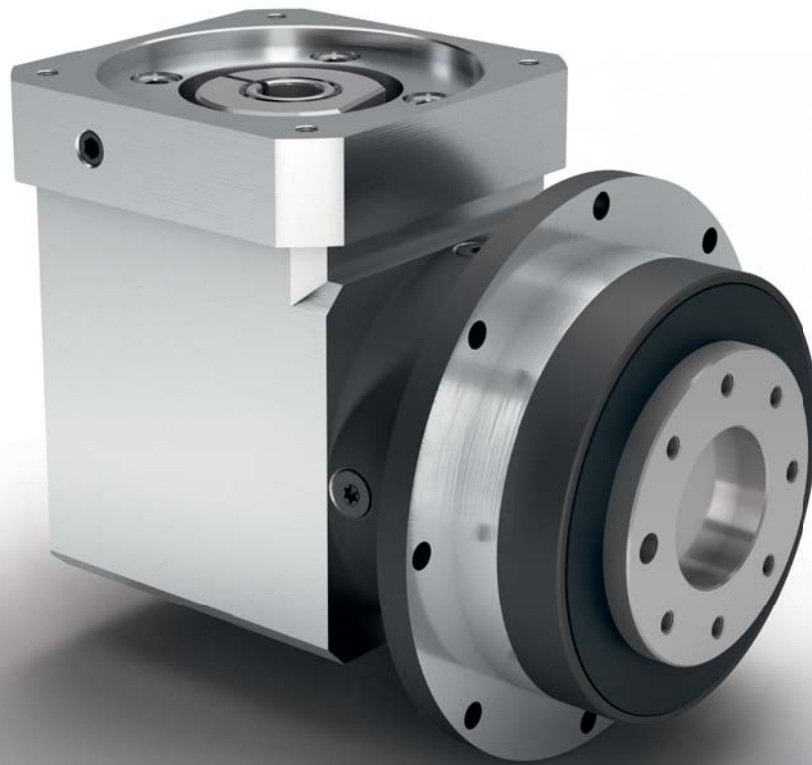


WPLFE

The shortest right angle planetary gearbox with flange output shaft and maximum torsional stiffness



- + Space-saving thanks to minimal installation height
- + Maximum torsional stiffness for precise drive solutions
- + Simple, reliable and fast mounting due to standardized flange interface

Our new right angle planetary gearbox at a glance:

+ Can be mounted in any direction

Optimize your small spaces with our **WPLFE** right angle planetary gearbox which comes with lifetime lubrication. It can be mounted in any direction and thereby offers maximum flexibility.

+ Space-saving thanks to minimal installation height

The **WPLFE** is the shortest right angle planetary gearbox in the economy line. Depending on size, it needs up to 30% less space than comparable right angle gearboxes.

+ Maximum torsional stiffness for precise drive solutions

The larger diameter of the flange output shaft gives the **WPLFE** five times the torsional stiffness of an output shaft with a feather key. This design allows you to make the most of your drive solution for cyclic or continuous operation.

+ More flexibility for the motor

The input flange can be individually adapted to the motor to improve your flexibility.

+ Precise gearing

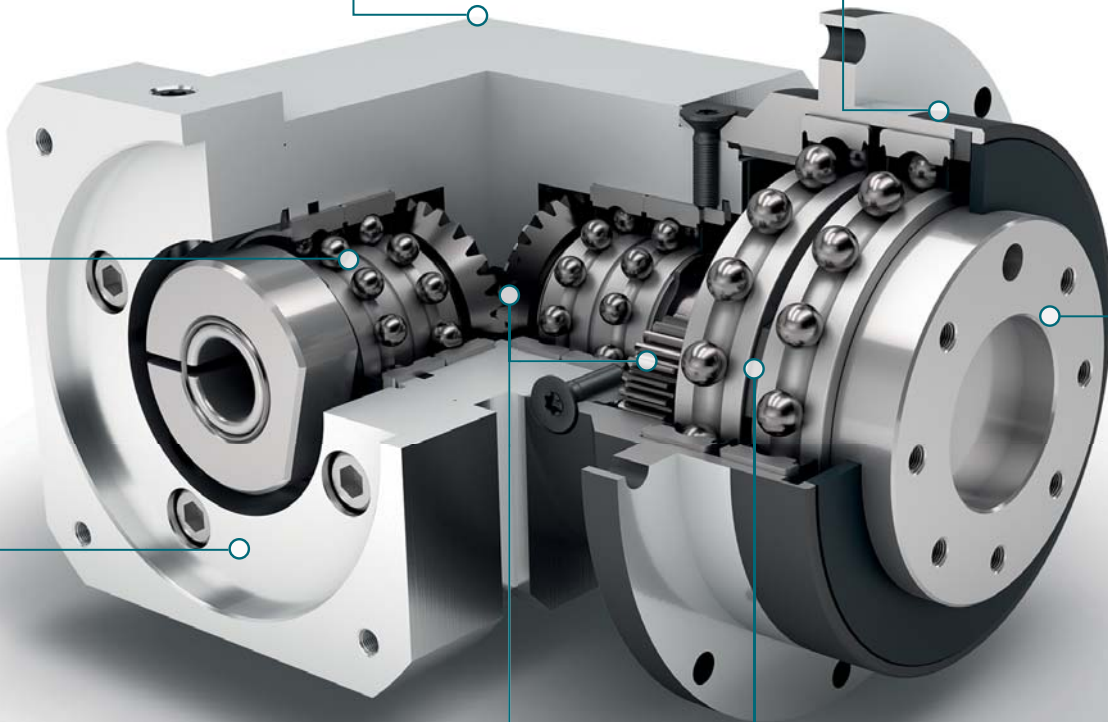
Precise gearing delivers optimum output torque even in a small space.

+ Optimized bearing concept for high performance

The deep groove ball bearings are very low-friction components. So only little heat is produced, which improves the performance of the gearbox and your drive.

+ Simple, reliable and fast mounting

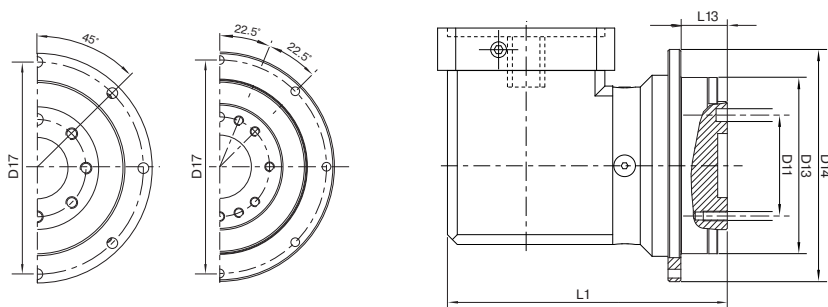
The standardized flange interface (EN ISO 9409-1) guarantees quick and easy mounting of drive components such as a pulley, linear unit or rotary table. The integrated dowel hole provides additional secureness during fitting.



Gearbox characteristics			WPLFE064	WPLFE090	WPLFE110	Z ⁽¹⁾
Service life ⁽²⁾	t _L	h	20,000			
Efficiency at full load ⁽³⁾	η	%	94			
Operating temperature	T _{min} /T _{max}	°C	- 25 / + 90			
Protection class			IP 54			
Standard backlash	j _t	arcmin	< 16	< 13	< 11	1
			< 18	< 15	< 13	2
Torsional stiffness ⁽³⁾	c _g	Nm/arcmin	8.9 - 11.9	21.0 - 27.8	52.8 - 71.4	1
			9.1 - 11.9	21.5 - 27.8	53.8 - 70.4	2
Gearbox weight	m _G	kg	1.9	5.2	13.0	1
			2.3	5.7	15.0	2
Running noise ⁽⁴⁾	Q _g	dB(A)	70	73	75	
Output shaft loads						
Radial force ⁽²⁾⁽⁵⁾	F _r	N	500 - 900	1200 - 2200	2100 - 3800	
Axial force ⁽²⁾⁽⁵⁾	F _a		1200	3000 - 3300	3300 - 5200	
Tilting moment for 30,000 h ⁽²⁾⁽⁶⁾	M _{K30,000 h}	Nm	11	40	96	
Moment of inertia						
Mass moment of inertia ⁽³⁾	J	kgcm ²	0.229 - 0.458	0.964 - 1.913	1.955 - 4.272	1
			0.221 - 0.387	0.917 - 1.477	1.850 - 3.515	2
Output torques						
Nominal output torque ⁽³⁾	T _{2N}	Nm	14 - 25	38 - 67	80 - 135	1
			15 - 44	38 - 130	95 - 260	2
Max. output torque ⁽³⁾⁽⁷⁾	T _{2max}	Nm	22 - 40	61 - 107	128 - 216	1
			24 - 70	61 - 208	152 - 416	2
Emergency stop torque ⁽³⁾⁽⁸⁾	T _{2Stop}	Nm	66 - 86	170 - 240	340 - 500	1
			80 - 88	190 - 260	380 - 520	2
Input speeds						
Average thermal input speed at T _{2N} and S1 ⁽³⁾⁽⁹⁾	n _{1N}	rpm	3200 - 4500	2200 - 4000	1700 - 3500	
Max. mechanical input speed ⁽⁹⁾	n _{1Limit}	rpm	13000	7000	6500	

WPLFE064
WPLFE090

WPLFE110



Drawing corresponds to a WPLFE090 / 1-stage / flange output shaft with dowel hole / 19 mm clamping system / motor adaptation - 2-part - square universal flange / B5 flange type motor

All other variants can be retrieved in the Tec Data Finder at:
www.neugart.com

Geometry*			WPLFE064	WPLFE090	WPLFE110	Z ⁽¹⁾
Pitch circle diameter output shaft	D11		31.5	50	63	
Centering diameter output flange	D13	h7	64	90	110	
Flange diameter output	D14		86	118	145	
Pitch circle diameter output flange	D17		79	109	135	
Total length	L1		110	149	198.5	1
			122.5	166.5	225.5	2
Output flange length	L13		19.5	30	29	

* Dimensions in mm

⁽¹⁾ Number of stages

⁽²⁾ Other (sometimes higher) values following changes to T_{2N}, F_r, F_a, cycle, and service life of bearing.

Application specific configuration with NCP - www.neugart.com

⁽³⁾ The ratio-dependent values can be retrieved in Tec Data Finder - www.neugart.com

⁽⁴⁾ Sound pressure level from 1 m, measured on input running at n₁ = 3000 rpm no load; i = 5

⁽⁵⁾ Based on the end of the output shaft

⁽⁶⁾ These values are based on an output shaft speed of n₂ = 100 rpm 30,000 rotations of the output shaft permitted

⁽⁷⁾ Permitted 1000 times

⁽⁸⁾ Permitted 1000 times

⁽⁹⁾ Application-specific speed configurations with NCP - www.neugart.com

As a torsionally stiff drive component, our compact **WPLFE** right angle planetary gearbox is the ideal solution for many fields. The compactness of the **WPLFE** provides the freedom in your application you have long been looking for.

The product code shows the numerous variants of the **WPLFE**. You can select the gearbox variant most suited to your requirements.

Series		Frame size		Ratio		Input design		Clamping system diameter input		Input system		Output flange design		Output shaft design		Surface		Lubrication		Torsional backlash													
WPLFE 090		005		S S S E 3 A E		Y		14 / 30 / 80 / 100 / B5 / M5		More motor details		Input design		Clamping system diameter input		Input system		Output flange design		Output shaft design		Surface		Lubrication		Torsional backlash							
064 Frame size 64		090 Frame size 90		110 Frame size 110		Motor adaptation – 2-part – square universal flange Y		No motor adaptation – square universal flange T		11 mm Clamping system diameter C		14 mm Clamping system diameter D		19 mm Clamping system diameter E		24 mm Clamping system diameter F		Standard input system A		Standard output flange 3		Flange output shaft with dowel hole E		Standard surface S		Standard lubrication S		Food grade lubrication F		Low temperature lubrication L		Standard backlash S	
003 Ratio i = 3		004 Ratio i = 4		005 Ratio i = 5		007 Ratio i = 7		008 Ratio i = 8		010 Ratio i = 10		009 Ratio i = 9		012 Ratio i = 12		015 Ratio i = 15		016 Ratio i = 16		020 Ratio i = 20		025 Ratio i = 25		032 Ratio i = 32		040 Ratio i = 40		064 Ratio i = 64		100 Ratio i = 100			
				1-stage																													
				2-stage																													

Neugart's **Tec Data Finder** allows you to very easily configure your right angle planetary gearbox with flange output shaft. The product code helps you to quickly and directly request a quote.



Use **Tec Data Finder** to easily generate all the relevant information about your gearbox online. This includes the specific and geometrical data in the form of a dimension sheet as well as the CAD models in all of the usual formats.



The **NCP** configuration software enables you to determine the optimum motor-gearbox combination for your application with the relevant dynamics data and loads. A huge number of possible applications and over 11,000 motors are available to you.

Do you still have unanswered questions or want more information?

We would be happy to advise on all matters relating to drive technology.

You can find your local sales contact at www.neugart.com

Neugart GmbH

Keltenstraße 16
77971 Kippenheim
Germany

Phone: (+49) 7825 847 0
Fax: (+49) 7825 847 2999
Email: sales@neugart.com