

Low backlash planetary gearheads High End



alpheno®

Perfection in a new dimension

Looking for a solution that is tailored to your needs? Your requirements are our challenge.

More performance in less space!
alpheno® – The sure way to success.



RP+

The new high-performance planetary gearhead

The RP+ sets standards in terms of power density, modularity and easy installation.
The highly rigid gearhead design ensures maximum positioning accuracy.



TP+ and TP+ HIGH TORQUE

Compact precision

Compact top performers with drive flange. The standard version is ideally suited for high positioning accuracy and highly dynamic cyclic operation. The TP+ HIGH TORQUE is particularly well suited for high-precision applications where high torsional rigidity is required.

Power density ←

Maximum power density

And the torques?

Although the previous series achieved outstanding results, we managed to increase the torques by up to 40%. Raising the limits – Typical of WITTENSTEIN alpha!

Versatile installation

In whatever position you install it – your gearhead always contains the same quantity of oil/grease. The gearheads are so flexible, you can install them vertically, horizontally or with the output facing upwards or downwards.

Simple motor installation

Safe, and secure motor installation is possible in a single step. The WITTENSTEIN alpha-patented motor mounting is also available with integrated thermal length compensation as an option.

Maximum positioning accuracy

Upon request, the High End planetary gearheads are available with torsional backlash of less than one arc minute. This significantly increases the positioning accuracy of your application.



SP+ and SP+ HIGH SPEED

The classic all-rounder among planetary gearheads

The standard version is ideally suited for high positioning accuracy and highly dynamic cyclic operation. The SP+ HIGH SPEED is particularly well suited for applications with maximum speeds during continuous operation.

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RP+



TP+



SP+

Superior running thanks to helical teeth

Our High End planetary gearheads “whisper”. Compared to the straight-toothed gearheads, our helical-toothed gearheads are 6 dB(A) quieter during operation. And what a difference 64 instead of 70 decibels makes to added value. You will barely notice vibrations because these gearheads run so smoothly.

World-class lifespan

The seal rings on the High End planetary gearheads were specially developed and the material and geometry are both optimized to ensure an extremely long lifespan!

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<div> <div>Version</div> <div>Specifications</div> </div>	alpheno®		
	+	++	+++
Positioning accuracy			
Rigidity			
Smooth-running			
Speed capacity			
Power density			
Max. axial/radial forces			

al [pha] + pheno [menal] = alpheno®

Perfect is not yet perfect enough

The performance capability of the planetary gear reducer reaches a new dimension with alpheno®. While others are still dealing with precision and operating noise, WITTENSTEIN alpha is once again a step ahead. alpheno® has already been used in highly challenging applications where the individual

requirements exceed the performance capabilities of the standard product range for several years. In comparison to the SP+, it was possible to increase the power density by up to 140% with alpheno® – exceeding all current standards in the market.



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Quality & reliability

We define quality as a philosophy to live by.
A universal QM system with the latest measuring and testing methods ensures quality.
We guarantee quality and reliability of your alpheno® with 100% final inspection.

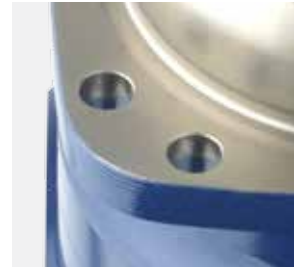


Incomparably powerful



WITTENSTEIN alpha sets standards

The alpheno® gear output interface facilitates a higher power transmission when compared to the industry standard which limits the transmitting torques of the gearhead. alpheno® transcends these limitations.

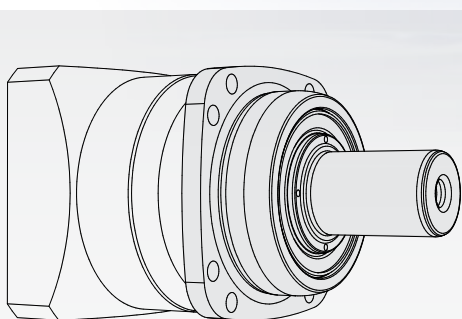
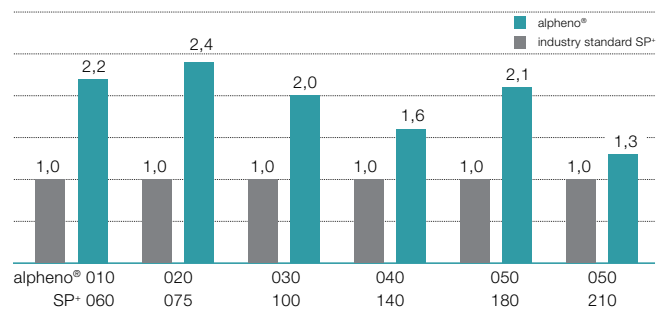


The technical advancement of alpheno® and its increased power can be directly utilized for your applications with the new design of the gear output.

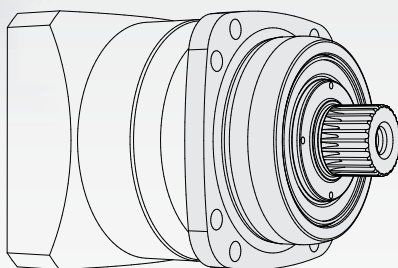
alpheno® convinces with highest power density

We offer you more performance in less space for the most compact drive requirements. This will allow your machine to perform better if specific system solutions are required.

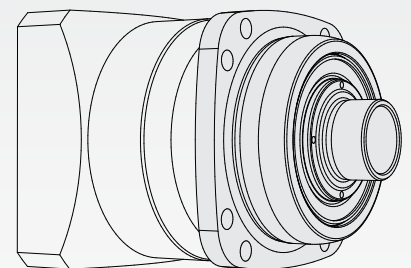
Power density of the industry standard and alpheno®



Smooth shaft



Involute



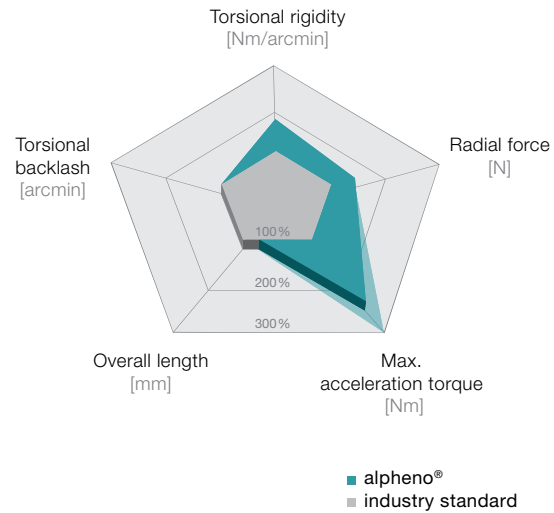
Slip-on shaft

Performance data

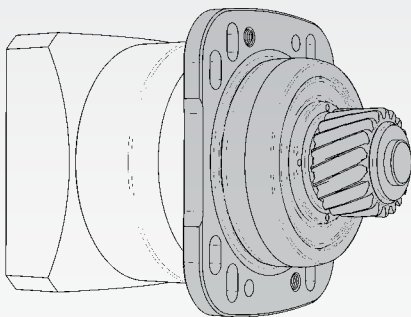
Looking for a solution that is tailored to your needs?
We will collaborate with you to develop your customized
solution and ensure the ideal design of your drive.

Torsional backlash [arcmin]	< 1
Ratio [-]	3 - 100
Max. acceleration torque [Nm]	2800
alpha peak torque [Nm]	3360
Max. input speed [min ⁻¹]	6000
Efficiency [%]	97

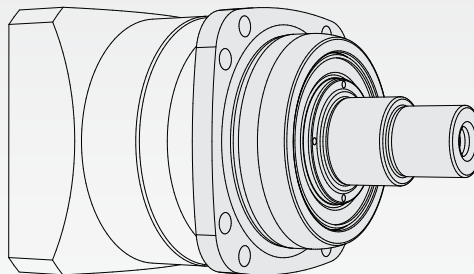
alpheno® in comparison to the industry standard



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Incl. pinion



Customer-specific

Options

Like the SP+ shaft gearhead, alpheno® is also available in a HIGH SPEED version and with a slip-on shaft at the gear output. A variant with optimized mass inertia guarantees a maximum level of energy efficiency. In combination with the WITTENSTEIN alpha rack-and-pinion portfolio, alpheno® represents an unbeatable drive bearing arrangement in the field of linear motion.