

XPC+/RPC+ – High precision and low ratios around the corner



XPC+

New performance standard, also available in the bevel version

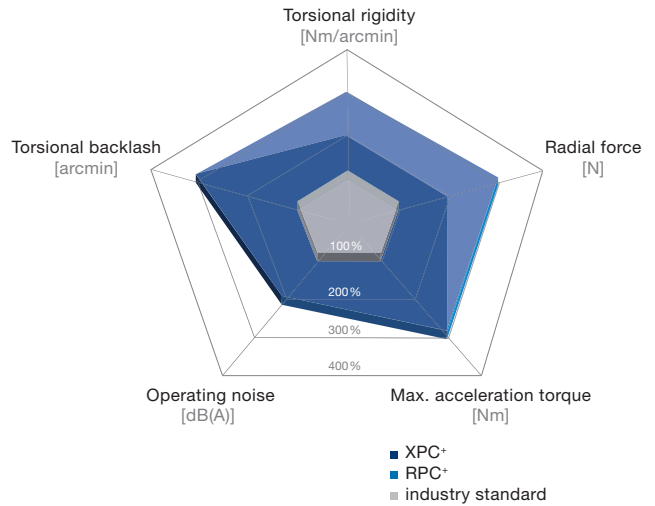
Both the XP+ and RP+ Premium planetary gearboxes are now available in a right-angle version with bevel toothing. Bevel gearboxes are primarily characterized by low gear ratios (ratio 1 and 2) in the angle section. Consequently, right-angle and planetary gearbox combinations can achieve the same low ratios as planetary gearboxes. The product design has a positive influence on temperature development in the gearbox and reduces overall heat development in the system as a result. The overall system achieves a higher degree of positioning accuracy as a consequence.

XPC+ and RPC+ compared to industry standard

Product highlights

RPC+: Max. torsional backlash [arcmin] ≤ 1.8
XPC+: Max. torsional backlash [arcmin] ≤ 2

RPC+ and XPC+:
 Low ratios of $i = 4 - 88$ possible
 Optimized temperature distribution, even at high speeds
 High tilting moments and torsional rigidity
 Optimized for rack and pinion applications



XPC+ with pinion and slots



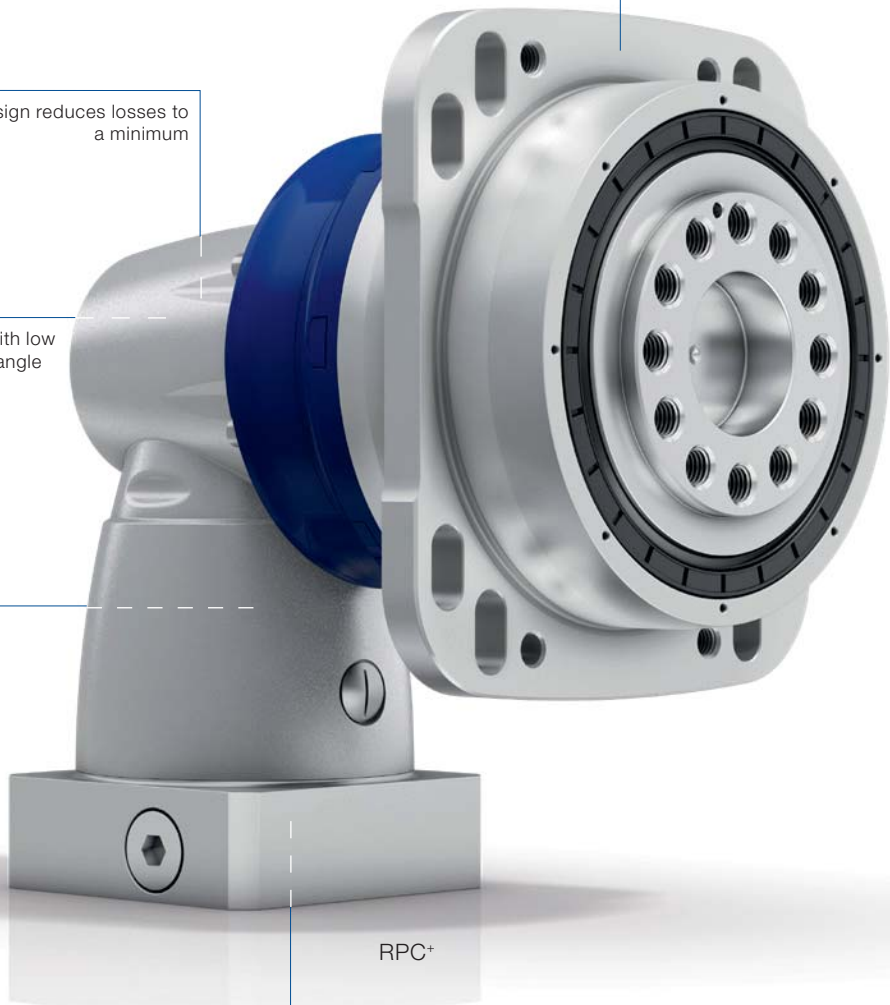
XPC+ with pinion, slots and rack

Specially designed output for transmitting extremely high torques

Intelligent design reduces losses to a minimum

High-quality bevel toothing with low gear ratios of $i = 1 - 2$ in the angle section

Low temperature development, even at high speeds



RPC+

Metal bellows coupling incorporated for thermal length compensation and protection of the motor bearing



RPC+ with pinion



RPC+ with rack and pinion

XPC+ – Product features

Your benefits

	XPC+ MF-Version
Features	
Power density	++++
Positioning accuracy (e.g. clamped drives)	++++
Highly dynamic applications	+++
Torsional rigidity	++++
Space-saving design	++++
Easy assembly	++++



Options

	XPC+ MF-Version
Output type	
Smooth shaft	✓
Shaft with key	✓
Splined shaft (DIN 5480)	✓
Blind hollow shaft	✓
System output with pinion	✓
Input type	
Motor-mounted version	✓
Design	
Food-grade lubrication ^{a) b)}	✓
Accessories	
Coupling	✓
Rack	✓
Pinion	✓
Shrink disc	✓

a) Power reduction: Technical data available on request

b) Please contact WITTENSTEIN alpha

Technical data

		XPC+ MF-Version
Ratio	i	4 – 20
Number of sizes		5
Max. torsional backlash	j_t [Nm/arcmin]	Standard ≤ 4
		Reduced ≤ 2
Max. torque	T_{2c} [Nm]	48 – 2646
Max. input speed	n_{1Max} [rpm]	6000
Max. tilting moment	M_{2KMax} [Nm]	3256
Torsional rigidity	C_{t2H} [Nm/arcmin]	3,1 – 215

RPC+ – Product features

Your benefits

	RPC+ MA-Version
Features	
Power density	++++
Positioning accuracy (e.g. clamped drives)	++++
Highly dynamic applications	+++
Torsional rigidity	++++
Space-saving design	++++
Easy assembly	++++

Options

	RPC+ MA-Version
Output type	
Flange	✓
System output with pinion	✓
Input type	
Motor-mounted version	✓
Design	
Food-grade lubrication ^{a) b)}	✓
Accessories	
Rack	✓
Pinion	✓

a) Power reduction: Technical data available on request

b) Please contact WITTENSTEIN alpha



Technical data

		RPC+ MA-Version
Ratio	i	22 – 55
Number of sizes		3
Max. torsional backlash	j_t [Nm/arcmin]	Standard ≤ 1,3
Max. torque	$T_{2\alpha}$ [Nm]	1400 – 7535
Max. input speed	n_{1Max} [rpm]	4500
Max. tilting moment	M_{2KMax} [Nm]	34000
Torsional rigidity	C_{t21} [Nm/arcmin]	194 – 1171