

Experience Productivity Efficiency with the Best
in Mechatronic Motion Control

From the Leaders in Precision Technology



WITTENSTEIN

alpha Gearboxes

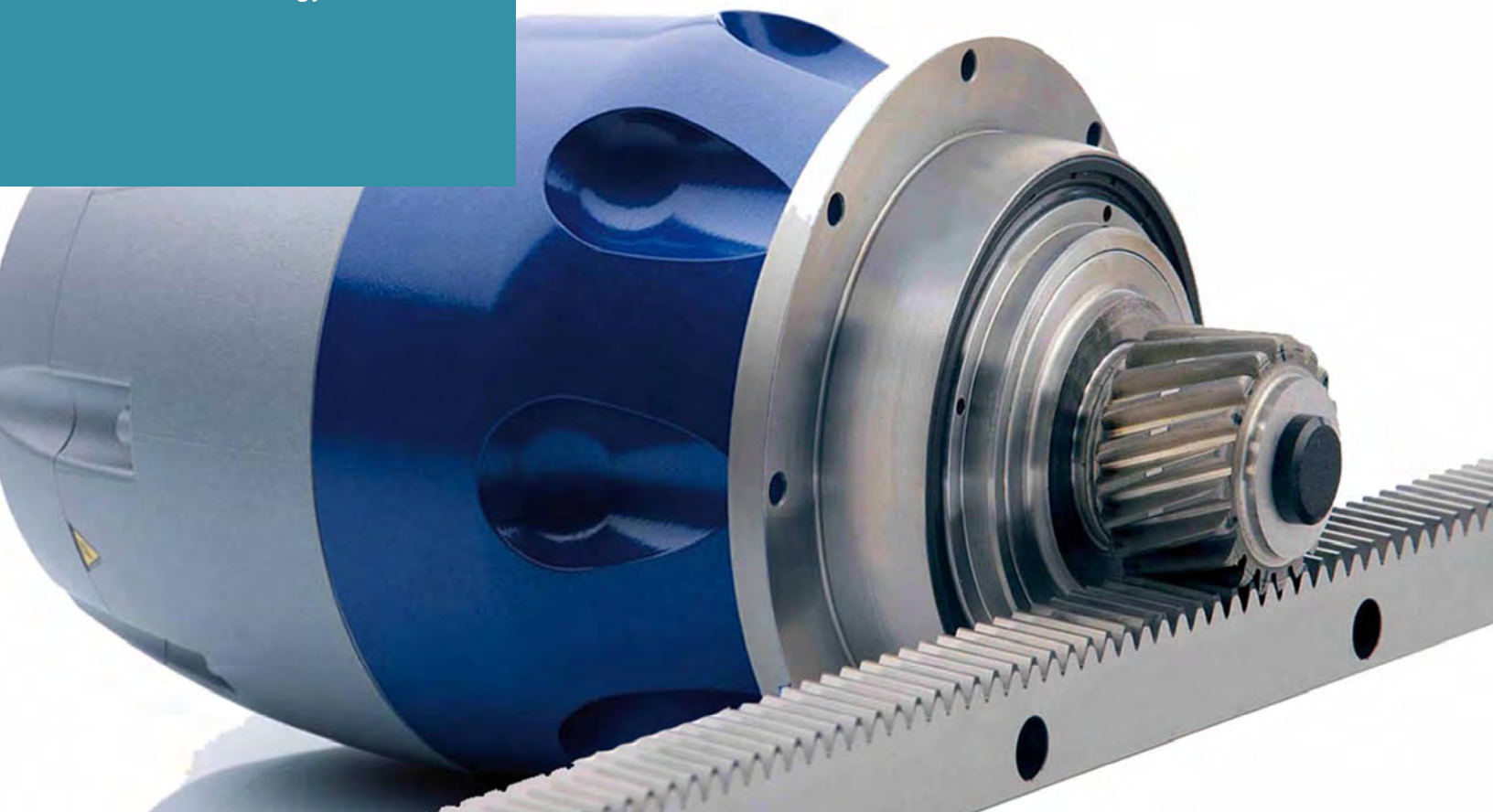
Rack and Pinion Systems

Rotary and Linear Actuators

Motor Technology

Your Solutions in Motion

Compact and Robust Motion
Components and Systems



Gearboxes

From Low-duty to the Highest in Power Density



alpha CP+

- Low duty



alpha LP+

- Flexible



alpha LPB+

- Belt-pulley option



alpha SP+

- HIGH SPEED® option



alpha TP+

- High torque option



alpheno®

- The power of one – the new dimension of gearbox

	alpha CP+	alpha LP+	alpha LPB+	alpha SP+	alpha TP+	alpheno®
Backlash (arcmin)	≤ 20 - 25	≤ 8 - 15	≤ 8 - 15	≤ 1 - 6	≤ 1 - 4	≤ 1
Ratio (i)	5 - 100	3 - 100	3 - 10	3 - 100	4 - 220	3 - 100
Max Acc Torque (Nm)	200	450	220	4500	6000	2800



alpha LK+
alpha LPK+
alpha LPB+

- Compact



alpha HG+

- Output options



alpha SK+
alpha SPK+

- Shaft output



alpha TK+
alpha TPK+

- Flange output



alpha V-Drive®
VDS(e), VDH(e), VDT

- Low to high duty
- Output options

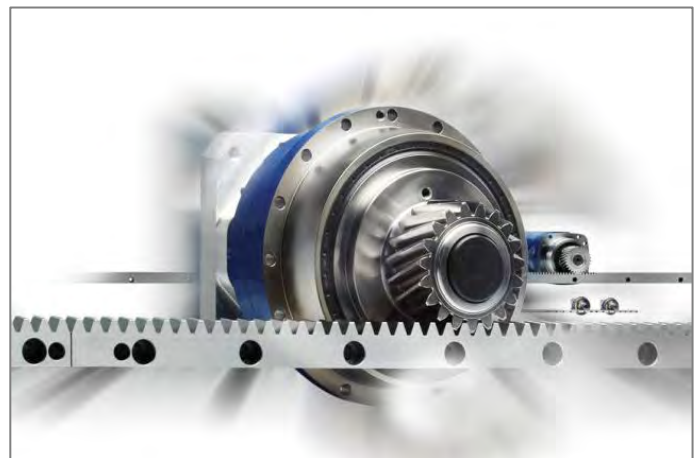
	alpha LK+	alpha LP(B)K+	alpha HG+	alpha SK+	alpha SPK+	alpha TK+	alpha TPK+	alpha V-Drive® (e) economy	alpha V-Drive®
Backlash (arcmin)	≤ 15	≤ 8 - 15	≤ 4 - 5	≤ 4 - 5	≤ 4 - 5	≤ 4 - 5	≤ 2 - 6	≤ 8	≤ 3
Ratio (i)	1	3 - 100	3 - 10	3 - 10	12-10000	3 - 100	12-10000	7 - 40	4 - 40
Max Acc Torque (Nm)	93	450	640	640	4500	640	10000	301	1505

Rack and Pinion Systems

The Portrait of Teamwork

A quick overview of WITTENSTEIN's four levels of systems:

Value Class	m2 - m10	up to 2 meters
Smart Class	m2 - m4	up to 480 mm
Premium Class	m2 - m6	up to 500 mm
Case-hardened Rack	M2 - m6	up to 1000mm



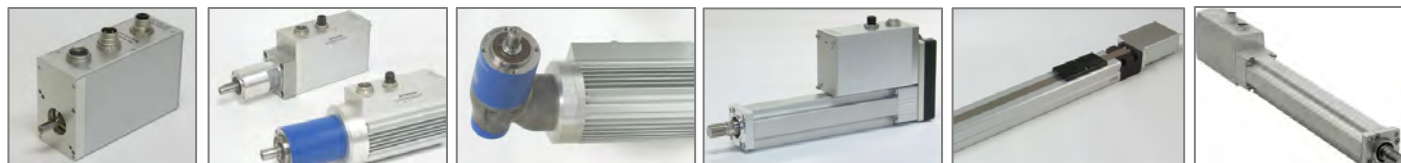
Actuators

Rotary and Linear Integrated Mechatronics



TPM+ dynamic TPM+ power TPM+ endurance TPM+ High Torque Size 300/500

	Length (mm)	Max. Acc Torque (Nm)	Max. Power (Kw)
TPM+ dynamic	113 – 268	40 – 1300	1.0 – 14.2
TPM+ power	149 – 307	50 – 1600	1.4 – 32.0



ternary® Rotary ternary® Inline Gear Rotary ternary® Right Angle Linear ternary® Folded Linear ternary® Linear ternary®

	Rotary ternary®		Linear Rod ternary®		Linear Slider	
	Speed (RPM)	Torque (Nm)	Speed (mm/s)	Force (N)	Speed (mm/s)	Force (N)
Stepper	4500	0.32	700	600	700	280
100 W Servo	5000	0.8	1000	1000	1000	740
200 W Servo	5000	1.6	In development			
400 W Servo	5000	3.2				

ternary® Features	
Electronic integrated actuator with the following interfaces available:	
Discrete I / O	Profibus
Ethernet / IP	Pulse Input
DeviceNet	Analog Position

Motor Technology

Standard and Specialty Servos



Miniature Motors Frameless Direct Drive Extreme Temperature Ultra High Vacuum Radiation Hardened

For more than a decade, WITTENSTEIN has designed and manufactured motors for medical technology and simulation devices. These unique servo motors provide outstanding performance combined with the highest power density and lowest torque ripple.

NEW - Experience the Revolution in Linear Technology:

High Performance Linear Systems

Double the performance in less space!

- 120% more feed force
- 50% higher system rigidity
- 100% higher power density
- 15% more accurate positioning
- Maximum freedom in design
- Reduced system complexity and installation time

Available as a system utilizing either **gearbox (RP+)** or **actuator (RPM+)** designs. Looking for more? Ask our sales or engineering teams or visit us online.



System Components

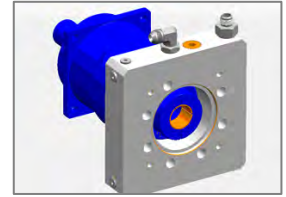
Accessories to Enhance Your Systems



Servo Couplings



torqXis® Sensors



alphaCool™ Adapter Plate

Award-winning WITTENSTEIN Products and Services

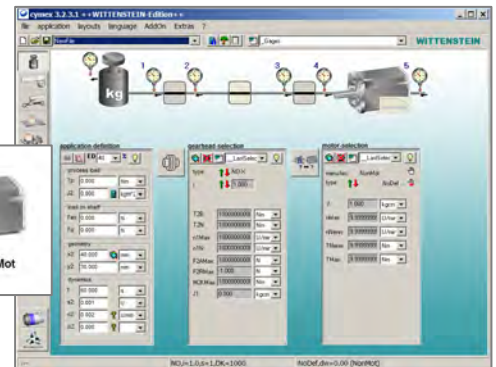
WITTENSTEIN's commitment to quality, consistency and reliability has been rewarded with ISO 9001:2008 certification. Production facilities are EASA Part 21G and EASA Part 145 certified.

Additional services include:

- **Application engineering**
- **Post-sale service and repair support**
- **On- and off-site training**
- **Custom product design and manufacturing from prototype to production**
- **cymex® servo sizing software for motion systems**

Visit us online for full product details and to receive drawings through our interactive CAD generator utilizing the cymex® database of motion combinations.

Engineering the future of motion – inspired by alpha and your requirements.



WITTENSTEIN is committed to being a world-class partner for customers of its intelligent mechatronic drive technology, servo systems and mechanical components. By using the power of science, innovation and forward thinking engineering, the Company strives to provide cutting-edge technology for today's motion.