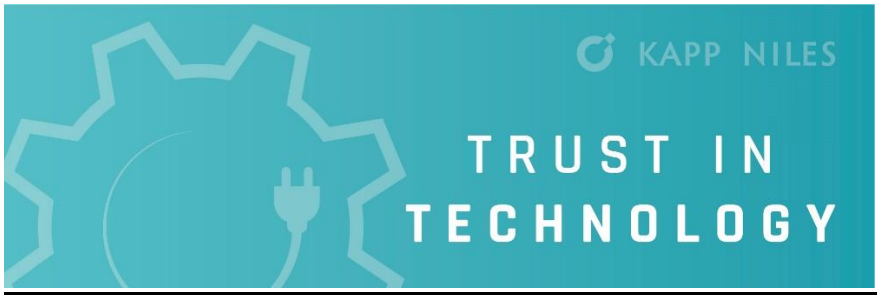
KAPP NILES

KAPP NILES · Postfach 21 44 · 96410 Coburg

Press release

08.02.2024

Trust in Technology



Kapp Niles sets standards in e-mobility

For over 10 years, the mechanical engineering company Kapp Niles has been working intensively on the topic of gears in e-mobility and has established itself as a pioneer in this rapidly growing industry. With a focus on innovation and quality, Kapp Niles offers customised solutions for the production of gearboxes and gears in electric vehicles.

Customers rely on Kapp Niles for their e-mobility projects

Electric vehicles are the future of mobility. Kapp Niles is actively shaping this future with a dedicated team of highly qualified employees.

"We understand the specific challenges of e-mobility and work closely with our customers to fulfil their requirements and achieve first-class results with our machines and technologies," summarises Matthias Kapp, Managing Director at Kapp Niles.

E-mobility in various application areas

E-mobility requires different gearing solutions for different areas of application.

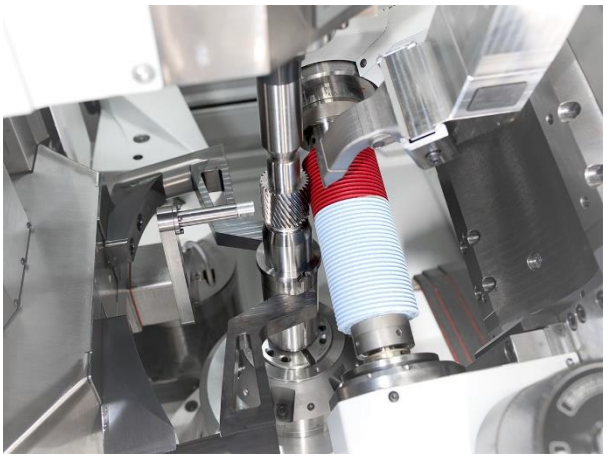
KAPP NILES
Callenberger Str. 52
96450 Coburg

Telefon: +49 9561 866-0
E-Mail: info@kapp-niles.com
Internet: www.kapp-niles.com

"Flexibility in the range of components is one of our strengths. We can fulfil a wide range of requirements here, from the fine machining of miniature gears in e-bikes and components for electrically powered cars to larger components in electric commercial vehicles," emphasises Friedrich Wölfel, Head of Sales at Kapp Niles.

Optimising the surfaces for more range

The drivetrain in electric vehicles must be optimised even more than in conventional vehicles with combustion engines in terms of efficiency and therefore range. A key component of the measures used for this is the optimisation of the gear surfaces in the transmission. Fine or polishing grinding on Kapp Niles machines enables the highest surface accuracies to be produced economically and reproducibly.



Picture 2:

Grinding of an e-mobility shaft with a combined grinding worm

"An ultra-fine surface with an increased material contact ratio can extend the efficiency of torque transmission and improve the range of electric vehicles. Our technologies offer customised solutions for this," explains Patrick Duhre, Team Leader Subcontracting at Kapp Niles.

Process monitoring and waviness analysis for low-noise gearing

In e-mobility, gearboxes not only have to be efficient, but also particularly quiet. Kapp Niles relies on intelligent process monitoring to identify noisy components during machining and reduce the return rate. This is an effective and cost-saving option and fulfils the high quality requirements of e-mobility.

Picture 3:

Process monitoring during generating grinding of an e-mobility shaft

For the same reason, waviness analysis is becoming increasingly important for assessing the quality of gearing in electric drives. A software option for order analysis is directly integrated on the Kapp Niles measuring machines to enable quality testing for low-noise gears during series production.

Picture 4:

Process monitoring during measuring of an e-mobility shaft

"With our waviness analysis, we offer a precise and efficient way to determine the smallest geometric deviations as a result of preliminary process steps and to evaluate components using definable tolerance curves," reports Dr Philip Geilert, Testing / Fundamentals at Kapp Niles.

Further information

Find out more about the innovative solutions for e-mobility from Kapp Niles at https://www.kapp-niles.com/en/e-mobilitaet

KAPP NILES

KAPP NILES is a globally operating group of companies with high-quality and economical solutions for finishing gears and profiles and is partner for companies from numerous industrial sectors in the mobility, automation and energy segments.
The perfect interaction between machine, tool, technology and metrology enables extremely precise machining to a thousandth millimetre.

Press contact:
Carola Rehder | Head of Communication / Marketing
Phone: + 49 9561 866-1250
Email: carola.rehder@kapp-niles.com
KAPP GmbH & Co. KG | 96450 Coburg | Callenberger Str. 52