

excellence for mobility



Nidec
NIDEC GPM Group

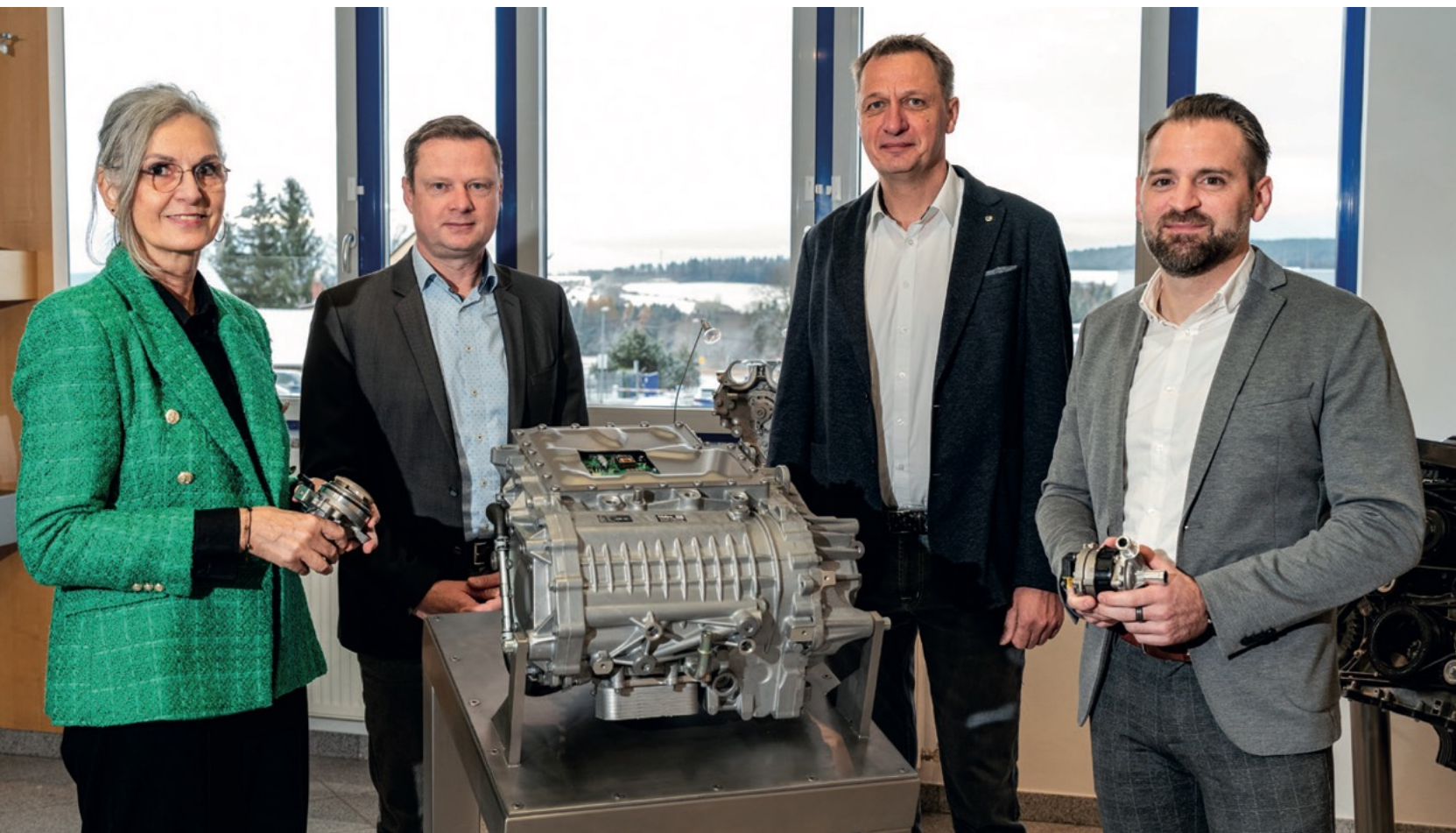
Innovative pump solutions are our drive.

The world of tomorrow requires technological innovations that combine efficiency and sustainability. At Nidec GPM we see ourselves as pioneers for sustainable mobility through innovative pump concepts.

Behind the success of Nidec GPM is a highly qualified and committed team of experts. Our employees not only bring technical knowledge and innovative spirit, but also a deep passion for the challenges of tomorrow's mobility. We believe in the importance of teamwork and continuous training in order to develop the best solutions for our customers.

Through close partnerships with our customers, innovative products and a clear vision for the future, we aim to make a decisive contribution to sustainable mobility. With our many years of experience, our global network and our relentless pursuit of excellence, we are ready to take on the challenges of the future. Nidec GPM stands for reliability, innovation and sustainability - the values that are crucial in a rapidly changing world.

from the left:
Christine Schulz-Hellstern,
Director Human Resources,
Holger Ehrhardt, CEO,
Andreas Gundlach, Global
Industrial Engineering Director,
Dominic Fritz, Director Sales
und Project Management



We mobilize. For more than 80 years!



The fifties



The seventies



Nowadays

Since our foundation in Merbelsrod in 1939 as a manufacturer of precision aircraft parts we have pursued the goal of combining ecological responsibility with a global impact.

In the 1950s, we expanded our portfolio and began producing pump systems for the automotive industry. Over the course of time, we have developed into a high-performance supplier for drive-independent thermal management systems in the automotive sector, which help to reduce CO₂ and saving fuel.

The merger with the NIDEC Group in 2015 enabled us to combine our pump technology with the electric motors from NIDEC. This means that today we can offer thermal management solutions for all drive types.



1939

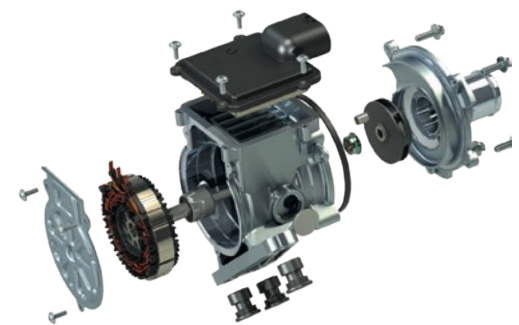
Foundation of the company
„Karl Schmidt Präzisions-
flugzeugteile“



Nidec
NIDEC GPM Group

2015

GPM becomes part
of the Nidec Group



2016

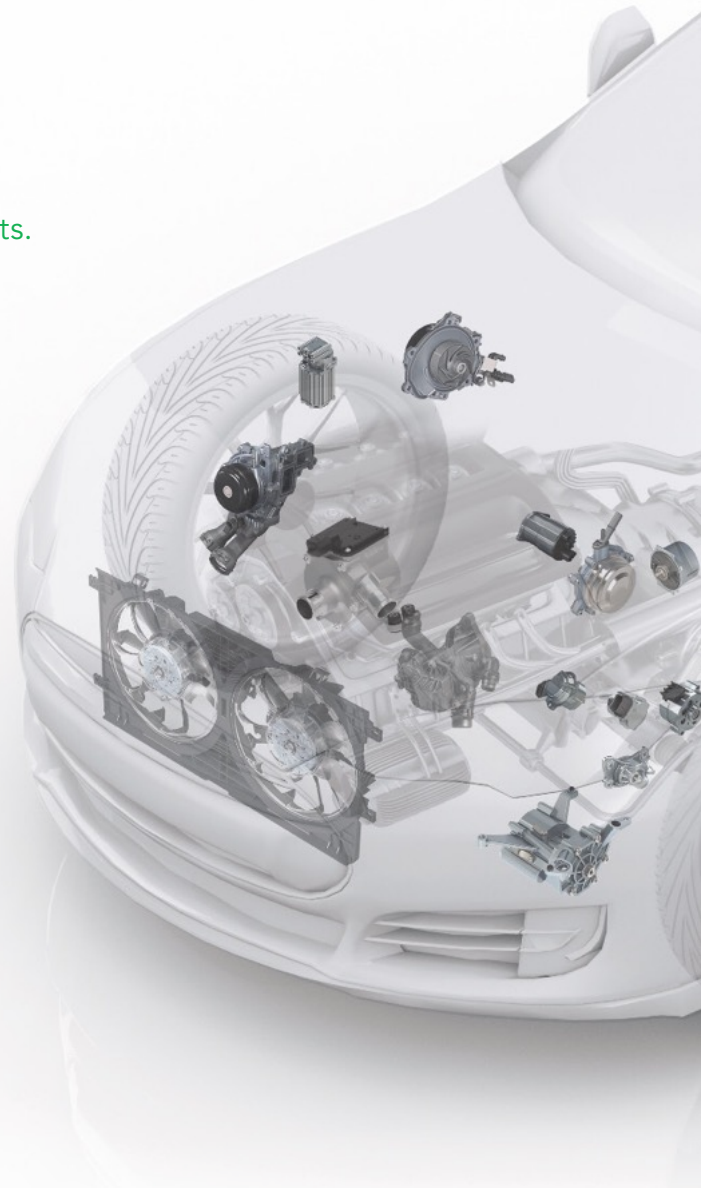
First steps in the field of
machatronic systems

Our product range: Full expertise for a sustainable future

We focus on the creation of innovative, sustainable products. As pioneers in CO₂ reduction, we contribute with our oil and water pumps, actively to environmental protection.

As part of the NIDEC Group - the world's leading engine manufacturer we take responsibility for protecting our environment and pursue a clear vision for a sustainable future. Our objective is to continuously improve environmental protection and use resources efficient. Through measures such as conscious waste disposal and the use of alternative photovoltaic energy, we are committed to respectful use of natural resources.

Particularly in the development of our products, the focus is on increasing performance while at the same time reducing consumption. Our goal is to achieve even more fuel and CO₂ savings in vehicles in the future.



Hänel Präzisions-Zahnräder Gut aufgestellt für die Zukunft!

Die Bereiche, in denen Hänel Präzisions-Zahnräder eingesetzt werden, sind so vielseitig wie die gesamte Welt der Technik. Fast alle unsere Kunden sind Stammkunden, weil sie an ihre Produkte die höchsten Anforderungen stellen – und wissen, dass Hänel die entsprechenden Antriebskomponenten liefert.

Zahnradfabrik Hänel GmbH & Co. KG

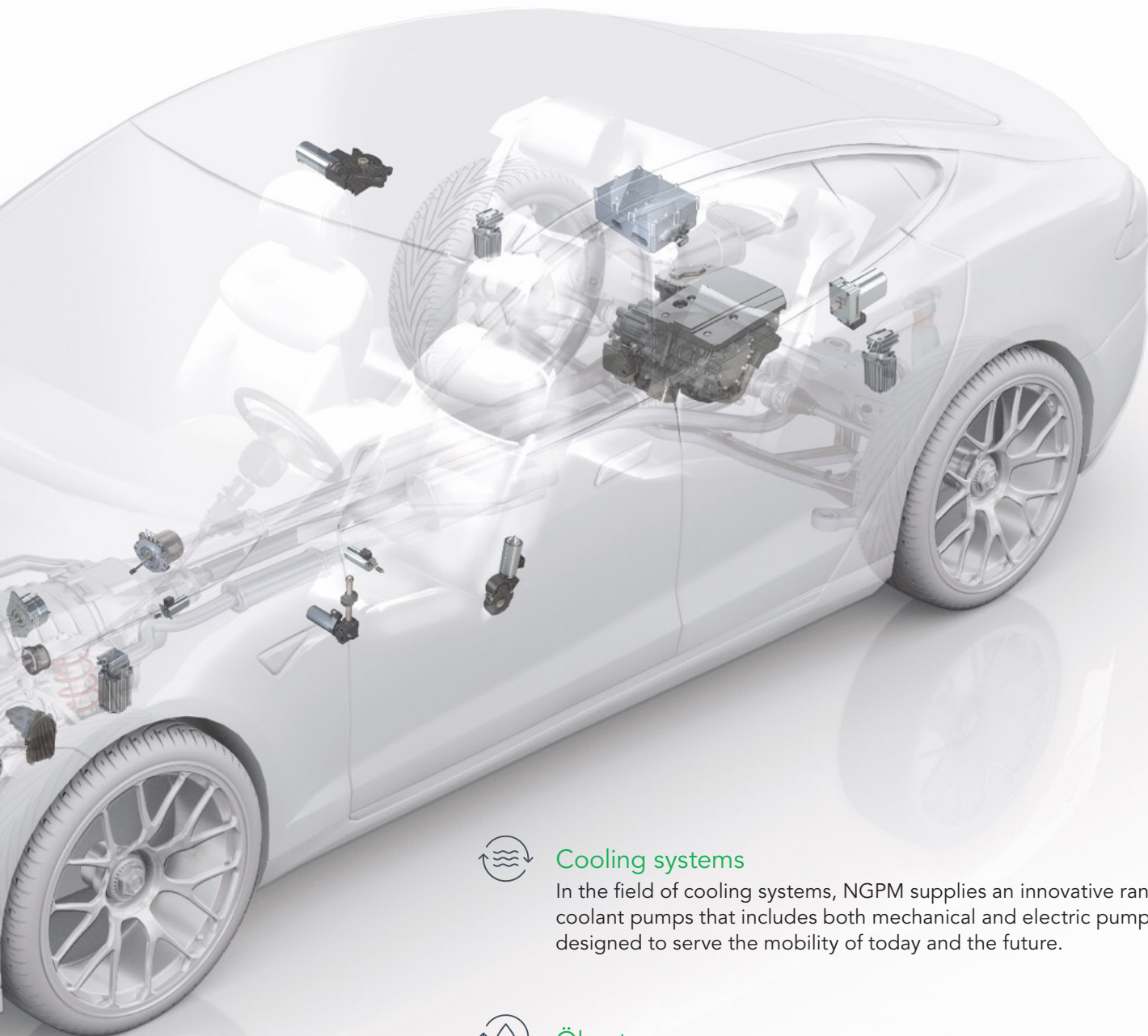
Siemensstraße 1, D-74177 Bad Friedrichshall, info@haenel-zahnrad.de, www.haenel-zahnrad.de

Das Hänel Präzisions-Programm:

- ▶ Gefräste Stirnräder bis 400 mm Durchmesser und 275 mm Zahnbreite
- ▶ Modulbereich von 0,5 bis 8
- ▶ Geschliffene Stirnräder (Reishauer) bis 400 mm Durchmesser und 180 mm Zahnbreite
- ▶ Diametralpitchbereich von DP 48 bis DP 5

Für weitere Informationen über unser Unternehmen einfach den QR-Code einscannen oder den Shortlink eingeben:
www.haenellinks.com/hz/nidec2024





Cooling systems

In the field of cooling systems, NGPM supplies an innovative range of coolant pumps that includes both mechanical and electric pumps. Fully designed to serve the mobility of today and the future.



Ölsysteme

Our oil systems have a compact and durable design with a first-class oil supply. Whether as a main oil pump or as an auxiliary oil pump system, mechanically or electrically – the results are groundbreaking






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Innovative water pumps for passenger cars



Constant water pumps

Advantages

- High efficiency due to 3-D impeller geometry
- Closed plastic impeller with 3-D impeller geometry
- Very high efficiency compared to the competition
- Integrated mounting of the silicate cartridge, which coolant additives over lifetime
- Mapping of different performance levels with one housing by installing different impellers

Product specification

Speed	0–8500 rpm
Flow rate	413 l/min
Operating pressure	2,7 bar
Temperature range	-40 °C up to 110 °C



Switchable water pump PSF

Advantages

- PSF control unit realized switching times of up to 0.1 seconds
- High efficiency
- Rapid engine warm-up results in reduced fuel consumption and emissions
- Small installation space
- Fail-safe function

Product specification

Speed	7560 rpm
Flow rate	192 l/min
Operating pressure	2.2 bar
Weight	2564 g



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ERFAHRUNG TRIFFT AUF INNOVATION



Switchable water pump ECF

Advantages

- Independent of vacuum
- Rapid engine warm-up reduces fuel consumption and emissions
- Minimization of the leakage risk due to the elimination of static sealing points
- Small installation space
- Power reserves when shifting gears
- Fail-safe function

Product specification

Speed	0–6230 rpm
Flow rate	230 l/min at 4800 U/min
Operating pressure	2.2 bar
Temperature range	-40 °C up to +140 °C
Weight	862 g



WILLKOMMEN IN DER WELT VON BERRANG

IHREM GLOBALEN PARTNER FÜR
MECHANISCHE VERBINDUNGSTECHNIK.

Mehr als 75 Jahre Erfahrung, über 150.000 Artikel, 12 internationale Standorte weltweit – das ist Berrang. Das sind wir.

Ein Unternehmen mit Hauptsitz in Mannheim und führend für verbindungstechnische High-End-Lösungen und Engineering-Leistungen. In enger Zusammenarbeit mit unseren Kunden entwickeln wir Produkte, die technisch überzeugen und für den jeweiligen Einzelfall wirtschaftlich am interessantesten sind. Dazu gehören selbstverständlich auch optimale Lösungen für Ihre Beschaffungsprozesse und Ihre Logistik.

Bleibt also nur noch zu sagen: Wir freuen uns auf eine gute Zusammenarbeit.



JETZT EINTAUCHEN &
EINEN TERMIN MIT DER
ZUKUNFT VEREINBAREN

www.berrang.de



Fully variable water pump ECF

Advantages

- On demand coolant heat management / flow regulation
- Fast engine heating causes a reduction of fuel consumption and emissions
- Independent from vacuum
- In comparison to constant pump no increase of installation space
- Power reserves of Axial Piston Pump when controlling
- Fail-safe function: a full delivery is guaranteed even if there is a control failure



Product specification

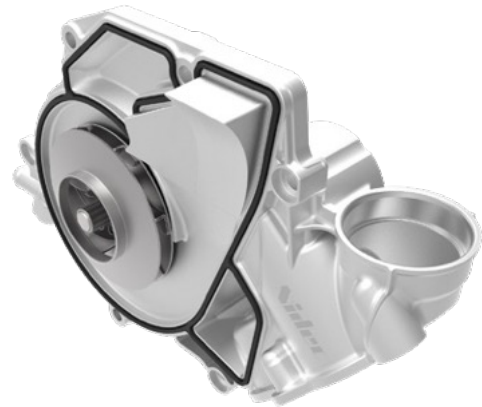
Speed	0–7488 rpm
Flow rate	250 l/min at 6240 U/min
Operating pressure	1.5 bar at 6240 U/min
Temperature range	-40 °C up to +110 °C



Water pump for commercial vehicles and industrial applications

Advantages

- Very high efficiency compared to the competitors
- Integrated thermostat holder for second coolant circuit
- Integrated holder for the silicate cartridge, which coolant additives over its lifetime
- Representation of different performance levels with one housing by installing different impellers



Product specification

Speed	4067 rpm
Flow rate	up to 400 L/min
Operating pressure	up to 2.2 bar
Temperature range	-40 °C up to +130 °C
Weight	2679 g



Messtechnik
am - besten - testen

Umweltsimulation

Akkreditiertes Testlabor

Prüfstandbau

Bau von individuellen Prüfständen

Software für Prüfstände

LabVIEW-Integration Partner

www.beck-messtechnik.de





NEWP Electric water pump (150–300 W)

Advantages

- Dry-running concept – insensitive to contaminated coolant
- Proven motor concepts – new generation motors with a very good relation of power and weight
- Demand-controlled cooling
- Acoustic and efficiency-optimized design



Specification according to customer requirements

Power	100–300 W
Design point	17 l/min, 1 bar
Temperature range	-40 °C up to +130 °C
Speed	0–7000 U/min
Weight	650 g



NEWP Electric water pump (450–950 W)

Advantages

- Proven components of mechanical water pumps combined with NIDEC motor technology
- Design for combustion engine requirements (temperature and vibration)
- Concept for 12 V and 48 V applications



Specification according to customer requirements

Power	450–950 W
Voltage	12 V/48 V
Flow rate	150–189 l/min
Pressure	0.9–1.5 bar
Weight	1400 g

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SMART IN FLOW CONTROL



Compact and durable oil systems



Oil pump (gear pump)

Advantages

- Integration of the control and safety valve in the housing parts
- Low weight
- Compact design

Product specification

Speed	550–3200 rpm
Flow rate	240 l/min at 2400 U/min, 3 bar
Operating pressure	up to 10 bar
Temperature range	-40 °C up to +140 °C
Weight	4570 g



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Transmission oil pump

Advantages

- Integration of additional oil supply channels
- High efficiency due to a special material selection
- Compact design



Product specification

Speed	550–8400 rpm
Flow rate	5.5 l/min at 550 U/min, 10 bar
Operating pressure	10–20 bar
Temperature range	-40 °C up to +150 °C
Weight	2779 g



Engine oil pump (vane pump)

Advantages

- Demand-oriented oil supply through integrated control
- Integration of the safety valve in the housing parts
- Optimized cold start behaviour
- Integration of the interface of an additional high-pressure pump
- Compact design



Product specification

Speed	667–4000 rpm
Flow rate	10–45 l/min
Operating pressure	up to 10 bar
Temperature range	-40 °C up to +140 °C
Weight	2359 g

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Transmission auxiliary oil pump

Advantages

- Robust and durable
- Temperature compensation
- Compact design
- Optimized cold start performance
- Individual, efficiency-optimized gerotor
- Reduced internal friction

Product specification

Power	50–5000 rpm
Flow rate	up to 12 l/min
Operating pressure	0,1–20 bar
Temperature range	-40 °C up to +140 °C
Weight	304 g



EXCELLENCE IN DUROPLAST

BAUMGARTEN bietet Ihnen von der duroplastgerechten Konstruktion über die Herstellung von Prototypen bis hin zu Großserien **innovative Komplettlösungen in der Bauteilfertigung**. Wir sind ein weltweiter Zulieferer von Duroplast-Formteilen für die Automobil-, Elektro- und andere Industrien. BAUMGARTEN versteht sich als Duroplast-Experte und Partner des Kunden.

Profitieren Sie von **über 60 Jahren Erfahrung** mit duroplastischen Materialien und ziehen Sie klare Vorteile aus unserem großen Leistungsspektrum.

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BAUTEILE**

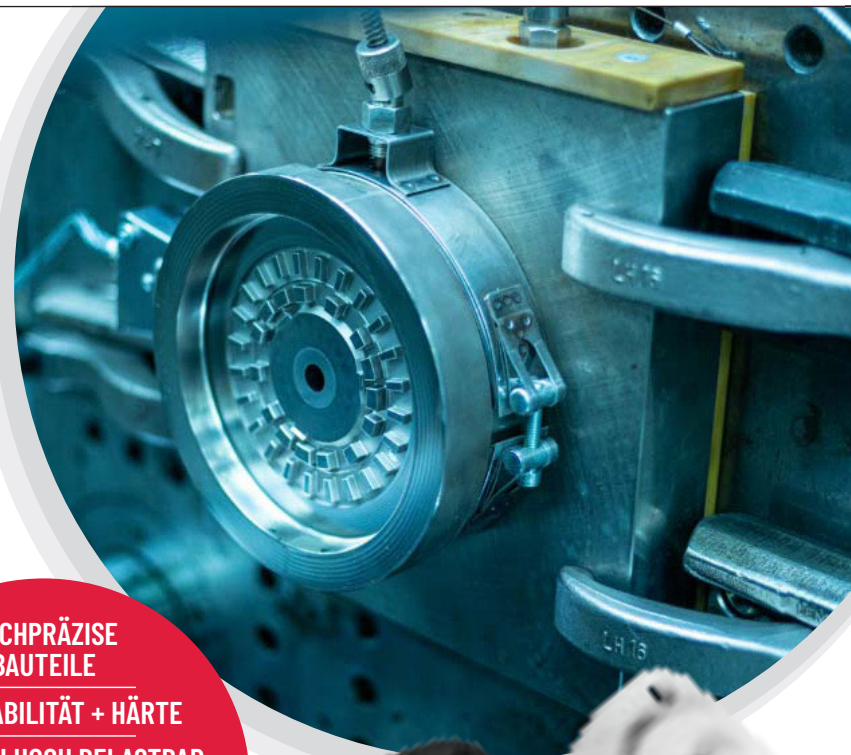
FORMSTABILITÄT + HÄRTE

THERMISCH HOCH BELASTBAR

RESISTENT GEGEN CHEMIKALIEN

ELEKTRISCH ISOLIEREND

**ATTRAKTIVER
CO₂-FOOTPRINT**





Electric oil pumps

Advantages

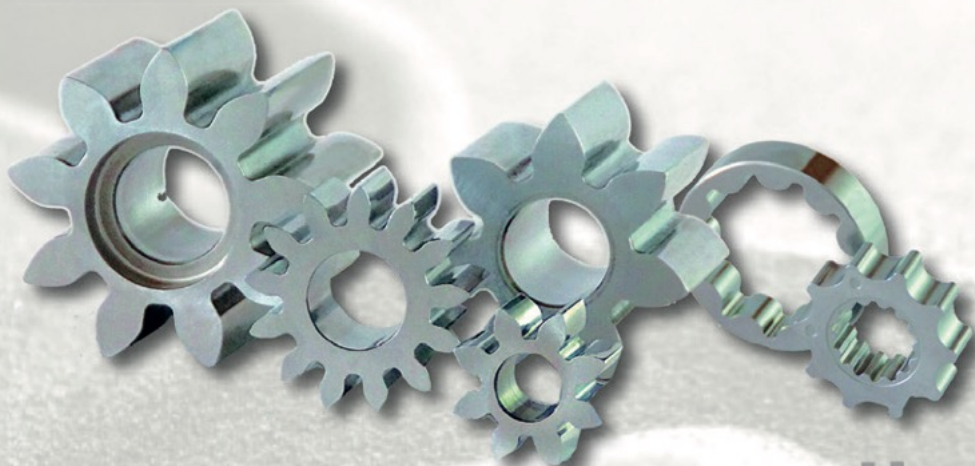
- Electric oil pumps for various applications in series production
- Both cooling/lubrication applications and as well pressure applications
- Dry-running and wet-running systems
- Different power ranges
- Flexible motor platforms for different power ranges

Product specification

Power	100–400 W
Voltage	12 V
Pressure	up to 25 bar
Motor development	Standardized motor platform, variable stack length for different performance classes
Communication	LIN, CAN, PWM
System control	Integrated or external



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PRÄZISION
 AUS GESINTERTEN WERKSTOFFEN

Innovative products for the future of mobility



NEWP Next Generation-electric water pump

Advantages

- Plug-in and stand-alone version available
- Power range 80–250 W with standardized mounting concept
- High system efficiency
- Designed for use in battery electric vehicles
- Very high power density due to highly integrated motor



Product specification

Speed	6000–6300 rpm
Flow rate	30 l/min
Operating pressure	1,7 bar
Temperature range	-40 °C up to 100 °C
Communication	LIN, CAN, PWM
Weight	approx. 630 g (stand alone) approx. 575 g (plug-in pump)



NICP – Nidec Immersion Cooling Pump

Advantages

- Benchmark in acoustics
- Optimized ESD behavior
- Benchmark in system efficiency
- Power range from 100–500 W
- Benchmark in power density and size



Product specification

Power	100–500 W 12V
Flow rate	40–20 l/min
Operating pressure	0,6–2 bar
Temperature range	-40 °C up to 100 °C
Communication	LIN, CAN, PWM
Weight	600–850 g (depending on power)



Switchable water pump ECF HD for commercial vehicles

Advantages

- Adjustable volume flow in the commercial vehicle range
- More cost-efficient and lighter than competitor products (viscous coupling)
- 100 % fail safe
- Reduced power consumption through closed-loop operation
- CO₂ redistribution
- Robust design



Product specification

Speed	3600 rpm
Flow rate	630 l/min
Operating pressure	3.3 bar
Temperature range	-40 °C up to 120 °C
Weight	ca. 3300 g

VR Automotive Dichtungssysteme GmbH
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State-of-the-art processes for first-class products

Our highly automated and digitalized systems enable flexible, customer-oriented production from small to large series of the highest quality. We offer reliable, compact and competitive products.

We are also a full-service provider for research and development in the areas of pre-development, simulation and testing as well as prototype construction - always with the aim of exceeding our customers' expectations. Our production combines state-of-the-art equipment, experienced experts and excellent quality management. In addition, we offer specialized manufacturing techniques such as 2-component silicone coating, laser welding and vacuum impregnation.

Our NGPM management system ensures continuous process improvement and error prevention through FMEA, LEAN methods and shop floor management. The customer's wishes always remain our top priority.



Pre-development

Quality is our top priority. Thanks to state-of-the-art software, we develop, refine and manufacture unique technologies. With special design software, we optimize the results for our customers and use simulation programs, to test complex systems at an early stage. Adjustments are made quickly and cost-efficiently.





Simulation and testing

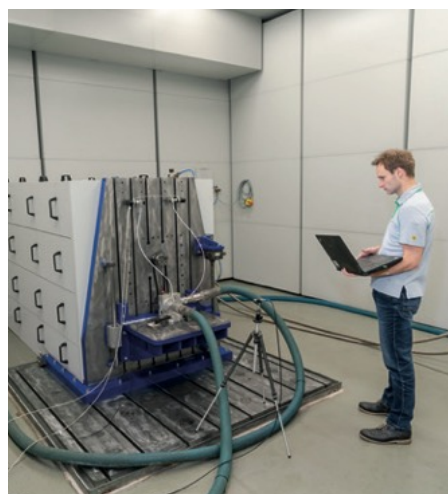
NGPM has an excellently equipped testing center with over 70 test procedures. In these procedures we test our pumps with the utmost care – among others with the shaker test, mist spray chamber test, endurance test and the climatic chambers. We offer our customers the better product.

Acoustics laboratory

In our acoustics laboratory we test the pumps for their noise development, to ensure that they operate as quietly as possible. We record the airborne sound, determine the sound pressure level and a frequency spectrum. In this way interfering frequencies and noise sources can be localized. An additional structure-borne sound sensor confirms the measurements and helps us further optimize the results. Our laboratory is certified according to DIN EN ISO 3746 and DIN EN ISO 3744.

Prototype construction

Only those who have it in their own hands determines the quality. We take this realization seriously – and are proud of our own prototype construction. The internal communication between the development and prototyping enables us to carry out the necessary optimization loops in a short time..

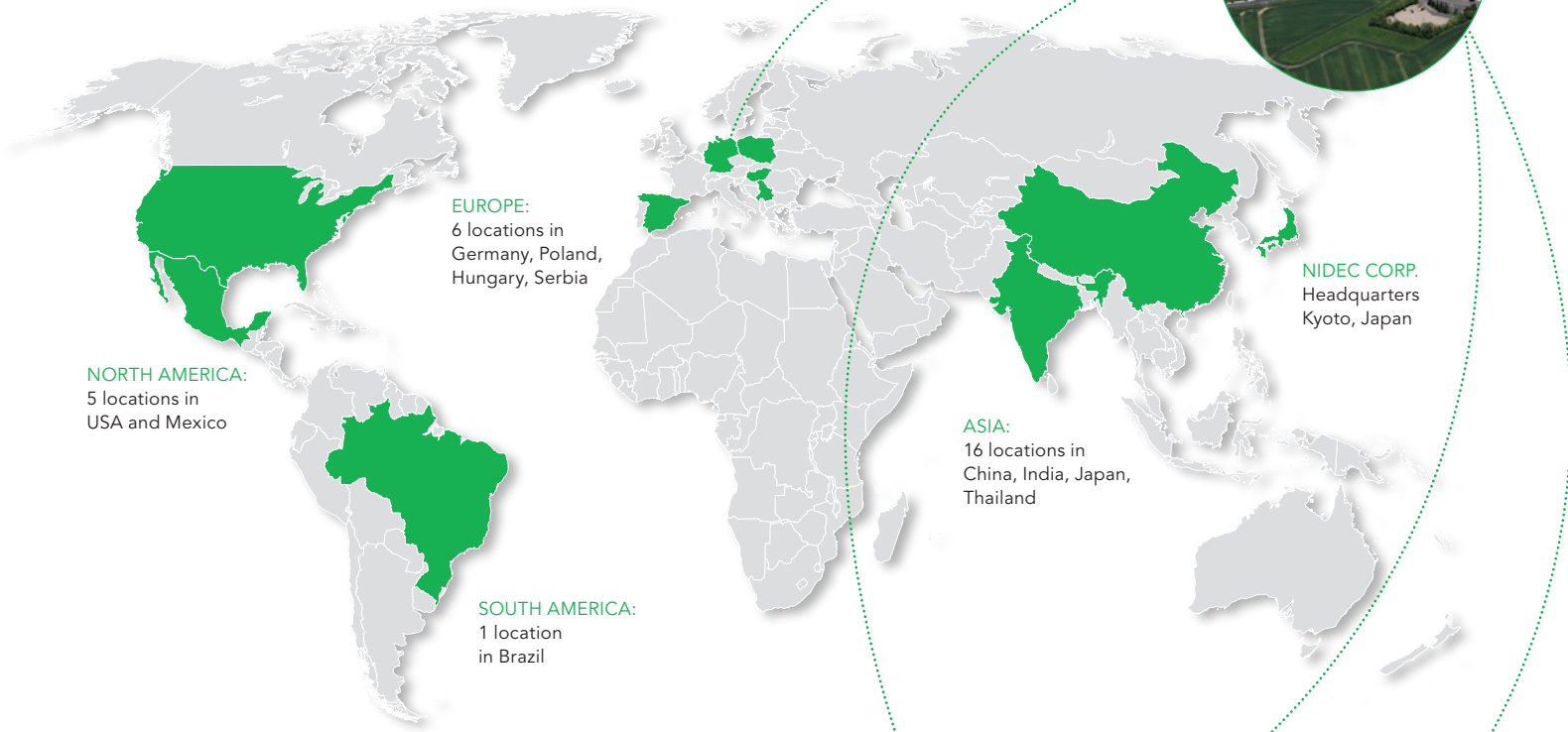


NIDEC GPM Group and the worldwide NIDEC competence network

The NIDEC GPM GROUP, headquartered in Merbelsrod, is part of the globally active NIDEC Corporation.

Thanks to our international locations in Brazil, Hungary and China as well as the cooperation with the NIDEC Corporation, we have a global presence and are able to meet the requirements of our customers globally. By utilizing synergies and cross-industry expertise, we develop high-performance products and integrate environmentally friendly processes

Headquarters of the NIDEC GPM GROUP
Merbelsrod Germany



Brazil



Hungarys



China

Opening up new markets



Our vision of a sustainable future continuously drives us to break new ground.

Thanks to our constant innovation cycle, we are future-proof. We continue to operate successfully in our existing industries and have the ability to open up new markets such as the two-wheeler, shipping and agricultural industry and as well server cooling technology. With enthusiastic people, innovative and sustainable products.

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