

# SUCCESS STORY



**Creative. Visionary. Successful.**

The efficient cooperation is the foundation for success. Yours and ours.

**Passion for successful joining.**

# **BÖLLHOFF**

# Design and technology on a pathbreaking

## Gazelle – a royal bicycle manufacturer

Royal Dutch Gazelle was founded 1892 by Willem Kölling and Rudolf Arentsen in the Dutch town of Dieren. Initially, bicycles from England were imported for reselling, until their own production started in 1902. Since the company's establishment, the development of high-quality bicycles, which are both easy to ride and comfortable, has always been emphasised. In 1996, the Gazelle quality system was certified to ISO 9001 norms being the only Dutch bicycle manufacturer with this certification to date.

Today, the core product portfolio includes electric, city, lifestyle and trekking bikes. Annually, circa 350 employees manufacture more than 275,000 bicycles, guaranteeing Gazelle's leading position in the market. A total of 13 million products have been sold worldwide until now.

On the occasion of the firm's centenary anniversary in 1992, Gazelle received the accolade of receiving a royal title, presented by Princess Margriet.

In September 2015, the Dutch King Willem Alexander opened the new production facility – the most modern bicycle factory in the world.



Gazelle N°1: E-Bike of the future

## Product

For some time, Gazelle has collaborated with the world-famous Italian design studio Giugiaro Design in order to create an e-bike of the future – the Gazelle N°1. This model, partly made of carbon and aluminium, weighs only 25.5 kilos and combines the perfect mix of speed, ride comfort and connectivity.

The electric power system comprises an almost invisible battery (612 watt hours), which is completely rechargeable within three hours. On a single charge, the Pedelec has a range up to 200 kilometres and assists the cyclist up to a speed of 45 kph.

For instrumentation, Gazelle decided to use the smartphone system from COBI. Using native smartphone functions such as route planning, fitness tools, weather forecasts or music, many options can be programmed for use.

## Initial situation

Throughout the development of Gazelle N°1, the design was focused above all on smooth and seamless form. For example, the drive train and cables of the e-bike should definitely not be visible. As a result, the body panel could not be screwed together without leaving recognisable fastening points. Additionally, the joint had to decouple vibration, which might occur while using an e-bike and during maintenance or battery change, the cover should be easily removed.

# tour!

ROYAL DUTCH  
**Gazelle**



## Customer benefits

- Fast and easy assembly
- Cost-effective
- Easy integration into the customers' component

## Product characteristics

- Decoupling of vibration and noise
- Tolerance compensation

### The solution: The SNAPLOC® fastening system

In cooperation with our Dutch trading partner VIBA NV, located in Zoetermeer, we offered Gazelle our SNAPLOC® plug-in connections. And they were convinced completely.

7 SNAPLOC® systems with a diameter of 7 mm are assembled in each e-bike.

SNAPLOC® is a two-part system – ball stud and coupling – for fast installation.

The 'K' in 'K' ball stud forms or cuts a thread into the mounting dome of the body panel cover. The coupling is mounted by simply being pushed into the frame. Inside the coupling a ball socket is formed, in which the ball stud as the counterpart can snap into. The installed SNAPLOC® plug-in fastener is not visible on the body panel cover's surface and supports the aesthetic design significantly. Furthermore, the system is vibration-decoupling. Pull apart to detach – the simple disassembly of SNAPLOC® facilitates the maintenance process considerably.

**Did we spark your interest?**

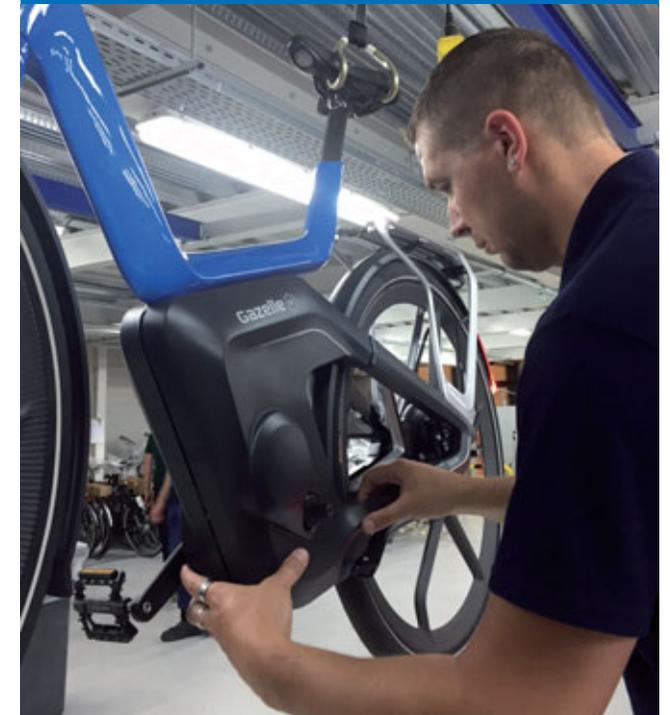
**Please take a look:**



The Gazelle N°1 | E-bike of the future



SNAPLOC® plug-in connections



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