

**PRESS RELEASE****REFPR003**

## **Less strain for dogs and owners thanks to new harness design Refitech produces lightweight carbon handle for guide dogs**

**Waalwijk, The Netherlands, 19 June 2018** – Refitech has been awarded a contract for series production of a lightweight carbon fibre handle for a new guide dog harness. The harness was developed by NPK Design in Leiden by request of the Royal Dutch Guide Dog Foundation (KNGF Guide Dogs). The new handle weighs less than 50% of the previous metal version. This significantly improves the comfort for both the dog and the owner. The design incorporates several novel features inspired by kite surfing equipment and motor sports technology, while its reflective trim enhances the dog's visibility in traffic.

When helping its owner to navigate obstacles and through traffic, a guide dog's harness and handle are vital for signalling directions. This requires the harness to fit tightly and provide for all connections to be rigid and without play. Thanks to ridges incorporated in the design by the NPK team, the handle slots into place with a clearly audible 'click', a helpful feature for visually impaired owners. Once mounted on the harness, the carbon handle 'floats' above the dog's back, making it easier to locate for the owner. The harness itself is made of leather, which happens to be the most wear resistant material for the job.

'We were honoured when asked by KNGF Guide Dogs to help them with the design of a new guide dog harness,' says Janwillem Bouwknegt, one of NPK's chief designers. 'After several meetings with owners and guide dog trainers, we chose a carbon fibre solution for the handle, mainly because of the material's superior stiffness and weight characteristics. This in turn meant that we had to look for a supplier capable of taking on the small-scale series production of carbon components at a reasonable cost – and having worked with Refitech before, they were our first choice,' Bouwknegt continues.

'NPK was leading in the conceptual design and functionality of the new harness,' explains Bas Nijpels, Sales Engineer at Refitech. 'Our role in the process was to focus on the production aspects of the handle as well as on prototyping and material sourcing. As KNGF Guide Dogs is a non-profit organization that depends on donations for its work, we knew upfront that costs would have to be kept at a minimum. After optimizing the design for easier removal from the mould and for the use of

prepregs, we now supply the new handle at a very favourable price, also thanks to our production facilities in China.'

KNGF Guide Dogs is a non-profit organization that breeds and trains guide dogs for blind or partially-sighted owners, people confined to a wheelchair as well as persons suffering from autism or post-traumatic stress disorders (PTSD). The organization offers the new lightweight harness to guide dog owners in the Netherlands. However, as the demand is universal, KNGF Guide Dogs has already secured orders from Australia and Belgium, while there is also interest in the United States.

#### **About NPK Design**

Based in Leiden, near Amsterdam, NPK Design's team consists of designers, engineers, strategists and researchers, all with a passion for solving complex problems. With their expertise, they are able to assist clients throughout the entire innovation process: from identifying ideal opportunities to developing integrated design solutions and providing guidance towards market introduction. For more information: [www.npkdesign.com](http://www.npkdesign.com).

#### **About Refitech**

Refitech specializes in engineering and producing industrial composite components. The company was founded in 1989 and provides composite solutions for several markets including industrial automation, UAV systems, medical equipment and marine systems. Services comprise composites engineering, prototyping, series production, including parts and components assembly, and CNC milling, while Refitech's standard tubes and connectors can be purchased directly online. In addition to its headquarters in Waalwijk, the Netherlands, Refitech has its own production facilities in Ningbo, China. For more information: [www.refitech.nl](http://www.refitech.nl).

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**Image 1**



**Caption:**

Helping its owner around obstacles and through traffic, the guide dog's harness and handle are vital for signalling directions. *(Source: NPK Design)*

**Image 2**



**Caption:**

Refitech's new carbon bracket for guide dog harnesses weighs less than 50% of the previous metal version, meaning more comfort for the dog and the owner. *(Source: Refitech)*

**Image 3**



**Caption**

The new guide dog harness incorporates several novel features inspired by kite surfing equipment and motor sports technology, while its reflective trim makes the dog more visible in traffic. (Source NPK Design)

**Note for editors (not for publication)**

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