



# Compounding Lines

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## Saving Water

New bicycle bottle cage helps keep water supply always safely at hand

Whether amateur or professional, serious cyclists want the assurance of quick and easy access to their water bottle during a hard ride for health as well as competitive reasons. But when cyclists are speeding up and down hills or racing through rough terrain, it is not uncommon to see a water bottle fly off a bike due to vibration or obstacles.

As a well-respected provider of cycling accessories to these demanding athletes, Netherlands' **Tacx BV** wanted to put a higher level of bottle protection within the reach of every cyclist. To get the durability and flexibility they desired, they developed a bottle cage design utilizing carbon fiber, a material they had not used previously. Then, they turned to their distributor, De Monchy International BV, for advice.

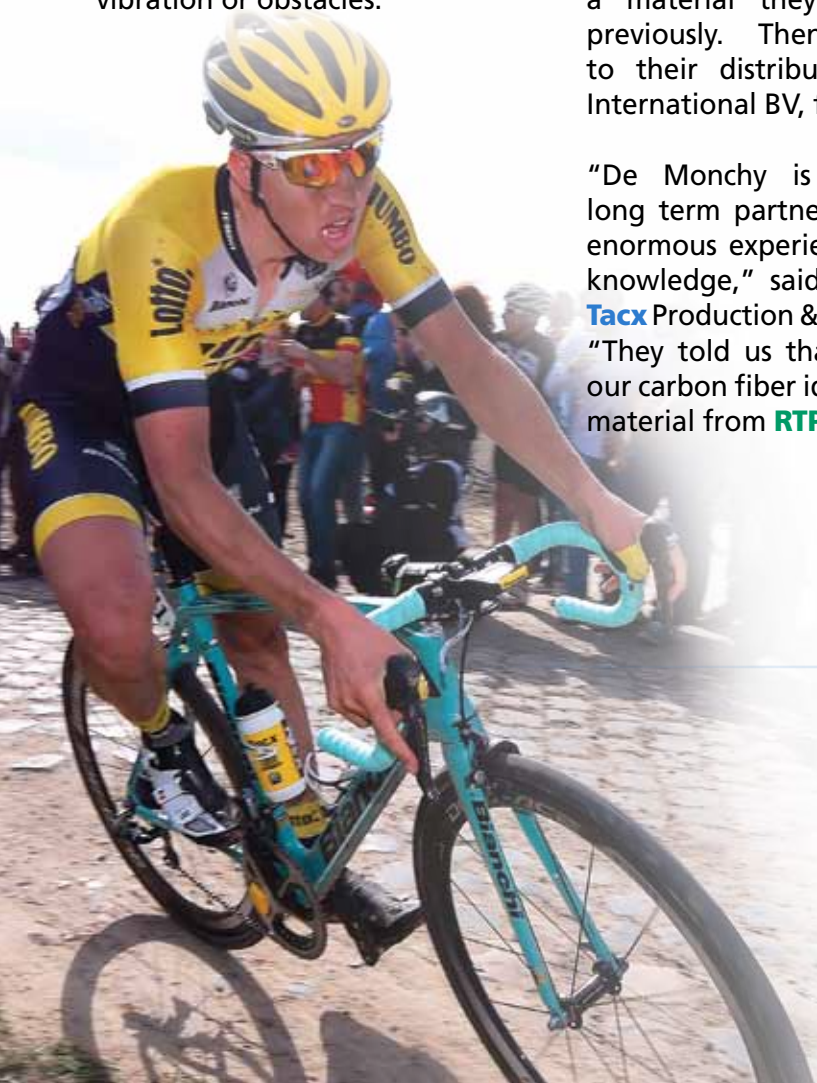
"De Monchy is a trusted and long term partner, and they have enormous experience and product knowledge," said Hans Haasnoot, **Tacx** Production & Quality Manager. "They told us that the answer to our carbon fiber idea was definitely material from **RTP Company**."

The advice from De Monchy, noted Haasnoot, was right on target.. **RTP Company's** suggested solution, a 40% carbon-filled polyamide, gave them exactly what they envisioned and enabled them to quickly develop their new "Deva" bottle cage line.

"In combination with our Shiva bottle, the Deva bottle cages provide an extremely secure fit," Haasnoot explained. "Cyclists like the fact that they can sense the moment the holder smoothly grips the bottle and feel that satisfying 'click.' It gives them a high degree of confidence that their water bottle will be there for them when they need it, no matter how rough the ride. And that's extremely important to any cyclist."

Indeed, Haasnoot notes that **Tacx** has extensively fatigue-tested the bottle cage, using equipment that simulates conditions of eight hours of extreme vibration, with the Deva holding tight throughout.

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"De Monchy and **RTP Company** told us that the clamping power provided by the material would be very good, but we were surprised by how good it actually was," said Haasnoot. "With just the first few pieces out of the molds, it was clear that the **RTP Company** material would perform a lot better in the application than two other materials we had tried for comparison."

Another pleasant surprise was how easy it was to work with the **RTP Company** material. "We were a little concerned about how challenging it would be to run the 40% carbon fiber in our injection molding machines, since we hadn't done that before. In fact, **RTP Company** very kindly stood by and said 'call us directly if you need any technical assistance at all,'" explained Haasnoot. "As it turned out, we didn't need to take them up on that offer.

The material was very easy to work with, and production was a very smooth process. In fact, we found that the **RTP Company** material was even easier to mold than the glass-filled polyamide we more frequently use."

But perhaps the best surprise of all has been the extent to which the market has embraced the new Deva line. "Although originally designed for a broader cycling market, it has already been specified by professional teams, including some riding in the Tour de France and other cycling classics," said Haasnoot.

Haasnoot notes that **Tacx** also offers an "all-carbon" version of the Deva. "Customer feedback on the product line continues to be excellent, and we see Deva as being a big success for us," said Haasnoot. "This is due in no small part to the efforts of De Monchy and **RTP Company**. We are very pleased with their excellent assistance and expertise."

### **TACX BV** **Bicycle Water Bottle Cage**

**Market:** Consumer Goods  
**Compound:** RTP 287A (PA6 CF40)



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