

# Materials Engineer Sees Market For Carbon-Specific Bike Tools

BY MATT WIEBE

BRA, Italy—A torque wrench may not be the most exciting initial product in a lineup. But in the mind of engineer Alberto De Gioannini, it had to hit the market before his sexier super-light carbon parts did.

“As a starting point, a torque wrench allows people to safely use existing carbon parts. The fact that many cyclists still torque stem bolts with standard wrenches and we don’t see too many accidents tells us current carbon parts are wisely overbuilt by manufacturers,” said Gioannini, a materials engineer.

“I think there’s a certain margin for weight reduction, but that can only be explored by a small number of users—those using torque wrenches. These are the people I will build parts for,” he added.

For the last six years Gioannini has been product manager for Vittoria and Geax. He designed most of the new Vittoria tread patterns and all Geax tires, from Mezcal to Saguaro.

While he continues his relationship with Vittoria and other bicycle-related companies, early this year he launched his own company named Effeno Mariposa, Italian for Butterfly Effect.

Meteorologist Edward Lorenz’s question (“Does the flap of a butterfly’s wings in Brazil set off a tornado in Texas?”) coined the term “Butterfly Effect,” which resonates with Gioannini.

“I like the message the Butterfly Effect brings to people—even small actions may have a huge impact. We see it in many aspects of everyday life. We might see it in the way a mechanic works on our bicycle,” Gioannini said.

“The extra torque an unaware mechanic applies to a screw could be the flap of a butterfly’s wing setting off the tornado—leading to a broken handlebar,” he added.

Effeno Mariposa will focus on niche road and mountain bike products,

high-quality tools, small products and accessories. No frames, bikes or tires. This not only keeps it from competing with bigger companies, but it capitalizes on Effeno Mariposa’s size as a one-man company. It can react quickly to market needs.

Gioannini hopes to introduce his first components next year in carbon as well as more traditional materials.

When Gioannini started playing with prototype ultra-light parts on his own bikes, he realized he had no idea of the torque he was applying with his usual bike tools. Looking into it, he discovered that most cyclists as well as manufacturers were not accurately torquing fasteners or considering the potentially serious safety issues.

“The torque wrenches I found within the industry were clearly originating from other industries. They were unnecessarily heavy and bulky. Very often they offered a limited range of bits, with the ones you need costing extra,” he said.

“That’s when I started thinking about my own torque wrench, designed from the ground up for bicycles and ready-to-use out of the box. It also allows me to keep developing light parts knowing they will be correctly torqued,” he added.

Gioannini was a bit surprised when Colnago placed a large order for torque wrenches to use on its assembly line. He was initially targeting riders with his small \$150 wrench. But in addition to Colnago, he’s finding other high-end assembly factories are interested in his wrench.

The cost of the torque wrench may seem high, but Gioannini said he has sold 30 or so wrenches to North American cyclists. He said the value of a torque wrench is evident when somebody avoids replacing an expensive handlebar that could have been damaged by over-torqued bolts. **BRAIN**

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Effeno Mariposa's torque wrench is designed for bicycles and ready to use out of the box. It retails for \$150.