

Ritchey Liquid Torque

Ritchey Liquid Torque creates extra friction between two surfaces, allowing tightening torque to be reduced by up to 30%. This is especially useful in clamping areas, such as between a handlebar and stem, or fork steerer tube and stem – two areas where too much clamping torque can damage componentry, causing component failure or a voided warranty. Carbon fiber components are particularly sensitive to the damage that can be caused by too much clamping force. In addition to reducing clamping force, Ritchey Liquid Torque also relieves stress on sensitive carbon surfaces, prevents damage to the fibers and eliminates cracking. It also provides maximum protection against corrosion and retains its effectiveness in wet conditions.

Ritchey Liquid Torque can be used for all carbon, aluminum and steel connections, including:

- Seatpost/frame interface area and seatpost bolt threads
- Stem/handlebar interface area and stem bolts
- Crank bolts
- Screw threads in any area where reliable locking force is required, but should be easy to release/loosen even after prolonged use

Directions for use: Prior to applying Liquid Torque, remove dirt particles and lubricant residues from the surfaces to be treated. Next, apply a thin and even coat of Ritchey Liquid Torque to the cleaned surfaces using a brush or lint free textile or leather cloth. Install components as directed by the manufacturer, using a torque wrench (such as the Ritchey Torque Wrench*, which is recommended for use on all Ritchey bars and stems) and taking care *not to exceed* the manufacturer's maximum torque recommendations. Wipe off any excess Liquid Torque. Seal container after use.

Additional information: Many manufacturer warranties will not cover damage done to componentry due to over-torquing. *Refer to the manufacturer's recommended torque limits for each component, always use a torque wrench to verify you are within these torque limits, and do not exceed them.* Using Ritchey Liquid Torque will allow you to safely install your bicycle components – particularly in the case of carbon fiber – without exceeding the manufacturer's recommended torque limits. In most cases, you will be able to use up to 30% less torque while installing your components while using Liquid Torque.

Ritchey Liquid Torque is neutral to copper and aluminum alloys, steel and synthetic material, and will not damage product surfaces.

***Ritchey Torque Wrench:** The Ritchey Torque Wrench is designed for use with all Ritchey MTB and Road handlebars and stems. It is pre-set to only allow the user to tighten a 5mm hex bolt to 5Nm which is the *maximum* torque required to fasten Ritchey stem bolts to handlebars and steerer tubes. Exceeding 5Nm for a Ritchey stem's steerer or handlebar clamp bolts will create too much clamping force, risking component failure and will also void the product warranty.