

Application Information

Verification of Torque to Mount Climbing Holds

Rock climbing is a popular hobby that is growing worldwide. Indoor rock-climbing and outdoor facilities are readily found at gyms, recreation complexes, fun centers, shopping malls and various festivals. Scaling rock climbing walls is accomplished via a series of polyurethane resin grips called climbing holds. These holds come in a variety of shapes and sizes. Their form combined with relocating their mounting locations to create different patterns varies the challenge presented to the climber to ascend their way to the top.

For those that operate rock climbing walls, the holds are removed not only for creating new climbing routes, but as well for maintenance and cleaning. When the climbing holds need to be reattached to the wall, it is imperative that the mounting hardware installs the holds with the proper amount of torque. Climbers depend on these holds to be stable. Over or under torqueing can cause hold failure, leading to an unexpected climber fall and potential injury.

Utilizing the TTC-I-50 Torque Tool Tester, rock climbing operators check the performance of their equipment to verify they will apply the proper torque to the hold upon installation, ensuring correct mounting. The TTC-I-50 with 36.8 ft-lbs. (50 N-m) capacity encompasses the torque ranges required for the different size holds. Smaller size holds typically require 14.8-18.4 ft-lbs. (20-25 N-m) of installation torque, medium holds range between 18.4-25.8 ft-lbs. (25-35 N-m), while larger holds require 25.8-33.2 ft-lbs. (35-45 N-m) for proper attachment. The TTC presents the ability to store and output tool torque readings to a PC, providing accountability of the installation mounting tool's performance in the case of hold failure where injury and possible litigation may occur.

These features make the TTC the perfect device for rock-climbing operators needing consistent, dependable results for ensuring the safety of rock climbing holds and the climber enthusiasts that utilize them.

Equipment Used

- *TTC-I-50 Torque Tool Tester*



TTC-I Torque Tool Tester
with Internal Sensor