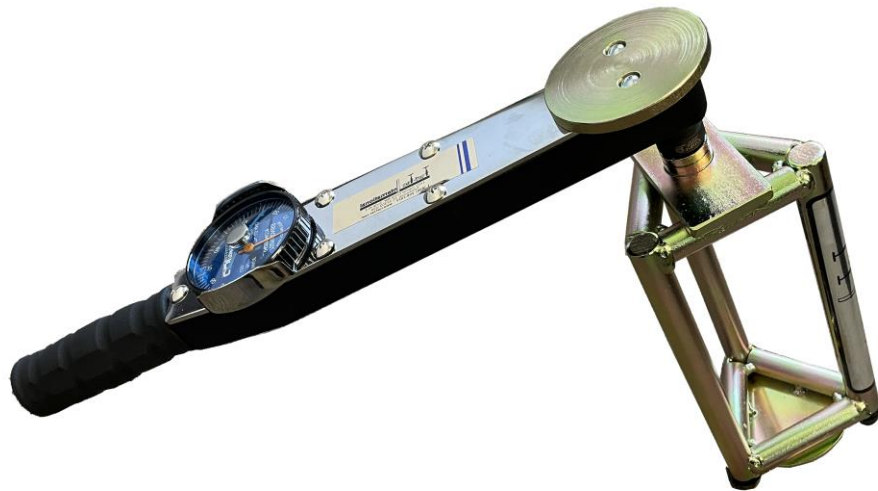


# **Turf-Tec FIFA Shear Strength Tester TSHEAR1-FIFA-M Instructions**

**Tests turf shear, tear and tensile strength and resistance. Unit also tests for the proper cleat selection. Unit includes 0-70 nm (Newton Meter) wrench**



The new Turf-Tec FIFA Shear Strength Tester is a specially designed tool to test the stability of athletic field turfgrass root systems as well as footing on natural and synthetic turf surfaces. In addition, the Turf-Tec FIFA Shear Strength Tester also allows you to test the type of cleats that will perform best in your particular turf grass root system, environment, or infill synthetic turf surface. By using the Turf-Tec FIFA Shear Strength Tester allows you to know the correct cleat to wear during play will not only insure proper footing during play but will also reduce slipping and may also create a safer playing environment for athletes.

The unique design of the new Turf-Tec FIFA Shear Strength Tester allows the turf stability to be tested to insure the health of the root system directly on athletic fields. The Turf-Tec FIFA Shear Strength Tester can also test different cleat designs and cleat depths to insure proper footing during play.

By using the Turf-Tec FIFA Shear Strength Tester, never wonder again if your athletes are wearing the right cleats for the game!



To use the Turf-Tec FIFA Shear Strength Tester, simply screw in the cleats or studs to be used during play and insert the tool into the soil or synthetic turf. By simply pressing down with steady pressure and turning the tool until slippage occurs, you can get a reading in Newton Meters as to the shear strength of the turf from 0 to 70 nm. The precision factory calibrated torque wrench has a follower needle that, when slippage occurs, registers the highest reading achieved, making testing simple.

Different cleat types and depths can be tested and compared to each other right on the playing field. This will insure the cleat choice is optimum for that field on that given day, regardless of field moisture, soil types, turf varieties or weather conditions. It is an excellent tool for high school sports fields, college and university athletic fields and professional sports teams. Turf-Tec FIFA Shear Strength Tester is an excellent tool for testing cleats for football, soccer, baseball, softball, lacrosse, rugby, volleyball, baseball on natural and artificial surfaces.

Use the new Turf-Tec FIFA Shear Strength Tester to be sure your players are wearing the right cleat for that field. Take the guess work out of choosing the correct cleat and let science determine the best choice. Excellent for testing. The Turf-Tec FIFA Shear Strength Tester is then inserted into the playing field surface and the shear strength torque wrench is turned and a reading is taken from the gauge on top of the Turf-Tec FIFA Shear Strength Tester.

The readings produced by the Turf-Tec FIFA Shear Strength Tester can be compared from one field to another to determine which cleats are going to produce the same feel and playability as your home practice fields. Just imagine your players going through a game without the worry of excessive slipping or the need to change their cleats during a game, losing playing time.





**Use the new Turf-Tec FIFA Shear Strength Tester to be sure your players are wearing the right cleat for that particular field. Take the guess work out of choosing the correct cleat and let science determine the best choice**

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|---|---|--|
|   |   |  |
| <p>The cleats are inserted into the Turf-Tec FIFA Shear Strength Tester</p> | <p>The Turf-Tec FIFA Shear Strength Tester is inserted into the playing field surface</p> | <p>The tool is turned, and a reading is taken from the gauge on top of the Turf-Tec FIFA Shear Strength Tester</p> |

\* The Turf-Tec FIFA Shear Strength Tester was inspired by the legendary pro bowl, super bowl, Olympics and world cup soccer professional grounds keeper, George Toma.

## **Turf-Tec FIFA Shear Strength Tester - TSHEAR1-M**

## Turf-Tec FIFA Shear Strength Tester Instructions

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|    | <p><b>Step 1.</b><br/>Insert three cleats to be tested into the bottom of the Turf-Tec FIFA Shear Strength Tester. Be sure cleats are securely threaded into unit. <b>DO NOT OVER TIGHTEN.</b></p>  |
|    | <p><b>Step 2.</b><br/>Place torque wrench into receptacle on top of Turf-Tec FIFA Shear Strength Tester as shown.</p>   |
|    | <p><b>Step 3.</b><br/>Press Turf-Tec FIFA Shear Strength Tester firmly into ground until tool cleats are all the way into the soil surface.</p>   |
|  | <p><b>Step 4.</b><br/>While pressing firmly down on the Turf-Tec FIFA Shear Strength Tester, turn the torque tool. When the cleats start to slip, the indicator needle will remain at the highest reading achieved. This is the number to record. Repeat above procedure for each different type of cleat to be tested.</p> |

### Testing Areas for Cleat Selection

Take at least 10 readings from different areas of each field to get an average of the shear strength of the turf for each cleat to be tested.

First test the practice field where the players usually practice and determine that reading and record the reading and cleat length depth. When testing another field or a game field, insert the same cleat length into the tool and determine the reading. If the reading is lower or higher, different cleat lengths can be inserted into the FIFA Shear Strength Tester in order to achieve that same reading. This way you can tell what length cleats will achieve the same level of traction on the playing field as compared to the practice field.

It is recommended that the field be tested as close to game time as possible to insure variables like soil moisture content does not change. Different soil moisture contents will be the greatest variable in testing shear strength. If you are testing the same field over time and comparing the shear strength, it is recommended that a Turf-Tec Moisture Sensor also be used to ensure that soil moisture is in the same range each time you test that particular field.

## **Consistency**

The FIFA Shear Strength Tester is most useful to determine consistency from one area of the field to another. It is usually more important for playability and safety to have consistent footing from one end of the field to the other and sideline to sideline than trying to achieve a certain shear strength number. By testing the field from endzone to endzone or goal mouth to goal mouth and sideline to sideline, you can ensure the entire field will play with the same consistency on all parts of the playing surface. Pay closest attention to areas that are worn as well as areas that have been resodded in order to insure the same shear strength numbers between these "transition" zones for maximum play consistency and safety.

## **Uses**

The Turf-Tec FIFA Shear Strength Tester is not only useful in determining what types of cleats to wear before play, but also in testing the strength of the turfgrass root system and the ability to resist wear.

## **New Sod**

The Turf-Tec FIFA Shear Strength Tester is also useful in testing areas that have been re-sodded to be sure the sod is rooted down enough for play. Test the sod seam and corner areas to insure safe footing.

## **Synthetic Turf Fields**

For testing synthetic turf fields, the unit can also give an indication of the proper length cleats to be worn as well as insuring the playability and footing is the same across the entire playing surface. By using the Turf-Tec FIFA Shear Strength Tester to determine proper cleat length footing values and matching those values with an infill depth gauge will also insure the infill material is at the same depth across the entire playing surface. Also testing hardness of the surface with a Clegg Impact Tester to find out Gmax readings will also show hardness of the playing surface. By having the shear strength reading, the Gmax Reading and the infill depth reading all in the same range across the entire playing surface will insure playability and footing is consistent for synthetic turf safety.

## **Testing qualifications**

The Turf-Tec FIFA Shear Strength Tester is designed to give an indication of what the playability of an athletic field will be like. Turf-Tec does not guarantee cleat selection will be the best for athletes, as the ultimate cleat selection depends on skill and ability of each player.

**\* The Turf-Tec FIFA Shear Strength Tester was inspired by the legendary pro bowl, super bowl, Olympics and world cup soccer professional grounds keeper, George Toma.**

## **Turf-Tec FIFA Shear Strength Tester - TSHEAR1-M**

### **LIMITED WARRANTY OF TURF-TEC INTERNATIONAL PRODUCTS**

Turfgrass Products Corporation - dba - Turf-Tec International ("Seller") warrants to the final purchaser, that all Turf-Tec International tools will be free from defects in material or workmanship for a period of one year from date of purchase. SELLER'S SOLE OBLIGATION AND YOUR EXCLUSIVE REMEDY under this Limited Warranty and, to the extent permitted by law, any warranty or condition implied by law, shall be the repair or replacement of parts, without charge, which are defective in material or workmanship and which have not been misused, carelessly handled, or improperly repaired by persons other than Turf-Tec International. To make a claim under this Limited Warranty, you must return the complete tool, transportation prepaid, to Turf-Tec International after contacting Turf-Tec International and receiving a return authorization number. Please include a dated proof of purchase with your tool.

ANY IMPLIED WARRANTIES SHALL BE LIMITED IN DURATION TO ONE YEAR FROM DATE OF PURCHASE. IN NO EVENT SHALL SELLER BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING BUT NOT LIMITED TO LIABILITY FOR LOSS OF PROFITS) ARISING FROM THE SALE OR USE OF THIS PRODUCT.

### **Hold Harmless Agreement**

The seller shall protect, defend, indemnify and hold the purchaser and their respective assigns and their attorneys, accountants, employees, officers and directors harmless from and against all losses, costs, liabilities, claims, damages and expenses of every kind and character, as incurred, resulting from or relating to or arising out of the inaccuracy of results, injury of user, injury of sports participant, turfgrass loss, warranty, covenant or any agreement made by the seller in this agreement.