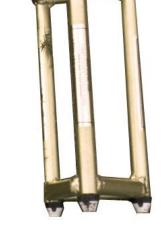


## Turf-Tec Toma Shear Strength Tester



The new Turf-Tec Toma Shear Strength Tester is a specially designed tool to test the stability of athletic field turfgrass root systems. In addition, the Turf-Tec Toma Shear Strength Tester also tests the type of cleats that will perform best in your particular turfgrass root system and environment. Knowing the correct cleat to play in 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 Toma 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 Toma Shear Strength Tester can also test different cleat designs and cleat depths to insure proper footing during play. Simply screw in the cleats to be used during play and insert the tool into



the soil. By simply pressing down and turning the tool until the turf fails, you can get a reading in foot pounds or Newton Meters as to the shear strength of the turf. 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.

Use the new Turf-Tec Toma 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.



The cleats are inserted into the Turf-Tec Toma Shear Strength Tester.



The Turf-Tec Toma Shear Strength Tester is inserted into the playing field surface.



The tool is turned, and a reading is taken from the gauge on top of the Turf-Tec Toma Shear Strength Tester.

## Turf-Tec Toma Shear Strength Tester - TShear1-M

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



# **Turf-Tec Toma Shear Strength Tester Instructions**



## Step 1.

Insert three cleats to be tested into the bottom of the Turf-Tec Toma Shear Strength Tester. Be sure cleats are securely threaded into unit. DO NOT OVER TIGHTEN.



### Step 2.

Place torque wrench into receptacle on top of Turf-Tec Toma Shear Strength Tester as shown.



### Step 3.

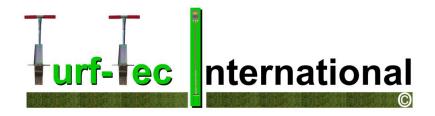
Press Turf-Tec Toma Shear Strength Tester firmly into ground until tool cleats are all the way into the soil surface.



#### Step 4.

While pressing firmly down on the Turf-Tec Toma Shear Strength Tester, turn the torque tool keeping an eye on the reading. When the turf tears, the highest number on the scale before tearing is the number to record.

Repeat above procedure for each different type of cleat to be tested.



## **Testing Areas**

Take at least three reading 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 Toma 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 Toma 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 goalmouth 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 consistence and safety.

#### Uses

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

## **New Sod**

The Turf-Tec Toma 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.

## **Testing qualifications**

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

## Turf-Tec Toma 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.