

# Newsletter

*August 18, 2011*

## **BIG NEWS: XL VIT VALIDATED AS ASTM F2508 COMPLIANT**

The world of walkway safety and meaningful tribometry has been in a state of flux since the ASTM Standard Practices were withdrawn because they were based on proprietary devices. Even though those standards were merely operating instructions for the devices, the adversaries of accurate measurement of slip resistance took advantage of the void to represent that there was no approved, meaningful tribometer. The ASTM Standard Practices were not approvals or endorsements of the devices, anyhow. Also in that void, agencies and methodologies, which would not have flourished in the light of meaningful science, have been allowed to survive. The dark days are over.

The ASTM F2508-11 Standard Practice for Validation and Calibration of Walkway Tribometers Using Reference Surfaces was approved March 15, 2011, and then immediately published.

EXCEL TRIBOMETERS, LLC, as the patent owner, manufacturer and sole authorized supplier of the English XL Variable Incidence/Articulated Strut Tribometer (both the base XL VIT and the XL VIT with sequencer) performed all requisite testing that demonstrates full performance compliance of both models of the XL VIT with the requirements of F2508. The Reports of Validation for both machines are being finalized for publication within the next few days.

## **XL VIT WITH SEQUENCER PROVED AGAIN**

As an aside, the extensive F2508 validation testing further confirmed what was demonstrated in November 2010, at the Musculoskeletal Biomechanics Research Laboratory at the University of Southern California in Los Angeles; the base XL VIT and the XL VIT with sequencer have the same operational and performance characteristics. The only difference between the base and sequencer models is the ergonomic benefits of the sequencer, which makes actuation of the XL VIT virtually effortless. Everyone who has used or now owns the sequencer model agrees that the ease and speed of using the already easy-to-use and fast XL VIT is even better.

The Sequencer was primarily developed for operator convenience to eliminate the need for a relatively strong return spring on the thumb actuation button. The spring force created some stress on our aged users and users of lesser stature, and on all users who were exposed to many actuations in one session, such as researchers and laboratory technicians performing materials testing with many samples. The sequencer will prove even more valuable in light of the extensive testing now required by the ASTM F2508 standard.

As an added benefit of the sequencer, one more aspect of instrument operation was standardized; the duration of actuation is uniformly and consistently 1/2 second with the sequencer, even though there was no evidence that manual operation of the XL VIT was ever anything other than reliable and accurate when the current User Guide, or formerly ASTM F-1679, was followed.

The sequencer upgrade is available for existing base machines for \$800.00, which includes an XL Instrument Calibration (XL instrument calibration is not the same as the ASTM F2508 calibration). The XL VIT with sequencer is for sale new for \$4,800.00.

### **NEW CERTIFIED XL TRIBOMETRISTS**

The June 2011 CXLT Program again received strong support and rave reviews. The new and returning CXLT's who are now entitled to use the CXLT designation are listed below and on the website ([click here for the CXLT Registry](#)). Congratulations to all.

Dennis McCune	Chubb and Sons
Scott A. Cameron, R.A.	LGI Forensic Group
Keith Adelsberg	Chubb and Sons
Jessie N. Harris	Chubb and Sons
Jesse L. Wobrock, Ph.D.	Accident Reconstruction and Biomechanics
Kevin Brown	KTA Tator
Brian Gerald Moffitt	Rimkus Consulting Group
Jessica Yokley	Dollywood
James J. Bernitt	LGI Forensic Group
Paul Benensky	CertainTeed Roofing
Chris Trageser	Stonhard
Michael Trevor	Chubb and Sons
Angelina G. Fairchild	Kimley-Horn and Associates
Oswaldo Arevalo	SDII-Global
Frederick Gelfant	Stonhard
Thomas Pienciak	Robson Forensic
Steven Pietropaolo, P.E.	LGI Forensic Group Inc
Kyle Tierney	Stonhard

**NOVEMBER CXLT PROGRAM – PHOENIX, AZ.**

The next CXLT Certification Program will be conducted by EXCEL TRIBOMETERS, LLC on Thursday, November 10, 2011, in Phoenix, Arizona, at the Residence Inn Phoenix Airport. A block of studio suites has been reserved at \$129.00 for November 9-10. To get this rate, you must book under the EXCEL TRIBOMETERS, LLC group name on or before October 14. A shuttle from the airport is available by calling the hotel number. Space at the hotel and in the program is limited, so reserve early. Contact the hotel directly at:

Residence Inn Phoenix Airport  
801 North 44th Street  
Phoenix, AZ 85008  
(602) 273-9220

If you prefer to reserve your room online, the link below will direct you to the property's home page with the negotiated rate code already entered in the appropriate field.

[Residence Inn Phoenix Airport](#)

The current program is constantly being improved to maximize the value for your investment, with expanded science and extensive hands-on instruction with the instrument.

It is interesting to note that not only have there been first time CXLT program participants, but very experienced XL users who wanted a refresher as well as CXLT's who chose to retake the course and the test to maintain their current status. Of course, we encourage anyone who owns an XL VIT who has never taken the program to please do so in order to ensure your compliance with both the understanding of the science and principles of walkway safety, metering, as well as proper and accurate use of the XL VIT. Please consider the importance of your participation.

Holding the CXLT certification assures your **recognition and respect** as an expert who is knowledgeable, competent, and proficient in walkway safety, meaningful tribometry, and in the use of the XL VIT. Anyone who wants to perform a competent risk assessment of a walkway, or evaluate flooring and footwear products, needs to establish a strong foundation in the principles of safety engineering, the sciences of walkway safety, the scientific and mechanical aspects of the available slipmeters, and the effects of reasonably foreseeable variables on the performance of walkways and slipmeters. The certification also shows the CXLT had extensive hands-on instruction in the proper use of the XL VIT and proved his or her proficiency with the most respected slip meter.

Make sure you review the **updated and expanded** CXLT Certification Program on the EXCEL TRIBOMETERS, LLC website. Also please keep in mind on-site programs are available if you are one of the many organizations that have a large staff who are interested in tribometry and walkway safety.

### **WEBSITE UPDATE**

The EXCEL TRIBOMETERS, LLC website is continually being improved to provide your ready access to the information you need, and for your convenience with an integrated shopping cart and online checkout. If you haven't lately, take a few minutes to browse the site. Comments and suggestions are welcome. While you are at the EXCEL TRIBOMETERS, LLC website, check to make sure you are up to date with the most recent version the XL VIT User Guide.

### **INSTRUMENT CALIBRATION AND REFURBISHING SERVICE**

Your XL VIT is a scientific instrument and requires regular instrument calibration and refurbishing, as with any similar credible metering device. The fee for XL VIT instrument calibration, if you are on time, is \$200. For those of you who are not current and your slipmeter is overdue, we are offering new standard pricing of \$300 plus parts, which may save money for our customers who have neglected to have their slipmeter refurbished for an extended period of time.

Please keep in mind that if you maintain your tribometer by sending it for service at the proper intervals, **we will repair anything** within 6 months following service, for shipping costs only, unless there is clear evidence of physical abuse or extraordinarily extensive use. Some machines are shared by many and used constantly. Those slipmeters need servicing more often. Please be careful when packing and shipping your instrument. The most common form of abuse we see is abuse from poor packing techniques. See the Instrument Calibration page on the EXCEL TRIBOMETERS, LLC website for the simple shipping methods that are safe. A custom fit Pelican Hard Case is now available for your XL VIT on the website.

The XL VIT instrument calibration is **not the same** as the F2508 calibration, which is not the same as the F2508 validation testing and reporting. The extensive testing, on the four (4) controlled reference surfaces, with special cleaning procedures and reagents, and the required calibration reporting, are all much more extensive than the XL VIT calibration and refurbishing. EXCEL TRIBOMETERS, LLC is preparing an offering to perform the F2508 calibration testing and reporting, which will be posted on our website when finalized.

## TEST FOOT CALIBRATION

Continued testing and analysis has confirmed that the optimum value is 0.15 when calibrating your test foot on the standard XL calibration tile. The same testing and analyses show that whether you calibrate to 0.10, 0.15 or 0.20, the relative significance of your results for slip resistance measurement is the same; above a measured slip resistance of 0.35, the values are all within the confidence limits of the instrument, and properly characterize and rank the measured surface. Keep in mind that if you measure a surface as 0.25, 0.20, or 0.15, it is very dangerous; so the variations below 0.35 are insignificant with respect to walkway safety. When performing validation or calibration laboratory testing and analysis, the values are more statistically meaningful; so we would all use 0.15.

Please be vigilant of the criticality of ***proper sanding*** and keeping the sandpaper square with the test foot to prevent rounding of the test foot surface. Using your standard XL calibration tile, practice your sanding technique so you can assure yourself that you can consistently and reliably prepare the test foot to the same calibration value each time you sand the test foot, whatever the reason. The XL VIT is an instrument that is intended to measure and respond to the critical parameters and characteristics that most accurately represent slip and fall injury risk in human ambulation, for the at-risk population. Yes, the test foot could be larger, but then the heel contact area of real people who fall would not be represented. Yes, the test foot could be grooved to eliminate sensitivity to smooth hard surfaces. However, metering smooth hard surfaces is where your tribometer better be most sensitive. Smooth hard surfaces are the highest slip and fall injury risk material, as we all know. Also, worn footwear where the shoe contact area is smooth is represented in a preponderance of slip and fall injury events. A grooved test foot may not be representative of real world slip and fall injury risk.

As a reminder, if your XL VIT is in sound condition, if the slip meter instrument is properly calibrated, if the test foot is properly calibrated, and if you use your slipmeter according to the current XL VIT User Guide, then you will be assured of accurate and reliable slip resistance testing results with the XL VIT.

Use extra care when you ***calibrate your test foot***. First, make sure your XL VIT is current with its annual instrument calibration and refurbishing. Annual instrument calibration and refurbishing is not the same as test foot calibration. Extensive testing and research has shown test foot calibration must be performed before each metering episode, not only for the XL VIT, but for any tribometer that uses Neolite ® as the test foot material. Again, make sure you are familiar with and follow the current XL VIT User Guide.

We ***value your input*** and questions, and look forward to hearing from you. All of your comments and concerns are welcome and will be thoroughly addressed. Your communications are treated with respect, and kept in the strictest of

confidence. You may contact Peter directly at 757-897-2853, or by email at [pwidas@EXCELTRIBOMETERS.com](mailto:pwidas@EXCELTRIBOMETERS.com).

Thank you for your participation in the continuing efforts for advancements in the field of walkway safety and meaningful tribometry.

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