Newsletter

November 8, 2013

WE'VE COMPLETED OUR MOVE!

EXCEL TRIBOMETERS, LLC is established in its new location in Chesapeake, VA. Please make sure your records are up to date. All shipments and correspondences should hereafter be directed to:

EXCEL TRIBOMETERS, LLC

237 Hanbury Road East Suite 17, PMB 254 Chesapeake, VA 23322

CXLT PROGRAM FAST APPROACHING

December 11, 2013, JW Marriott Desert Ridge Resort and Spa, Phoenix, AZ; special room rate expires November 10---details below.

STAY TECHNICALLY CURRENT-- WALKWAY SAFETY, MEANINGFUL TRIBOMETRY AND ASTM F2508 IN CONTEXT

If we start out with a common understanding that significant tasks in achieving walkway safety include identification, assessment and control of real-world risk for slip and fall injury and death, then *meaningful tribometry* should give us the science and technology to perform those tasks. For a walkway tribometer to be meaningful, it needs to differentiate the real-world risk for slip and fall injury and death. That does *not* mean it must be capable of determining the difference between walkway surfaces and conditions that fall in the *same* category of risk.

For the sake of our discussion, let's use a system of values measured by observation of persons walking and/or slipping on force plates. In our system, zero is perfectly lubricated with no slip resistance. A value of 2 is as slippery as ice where *virtually everyone* who encounters that condition in a normal speed walking gait **slips**. At a value of 5, the slips are observed to be highly unlikely, and 10 is where there is virtually no real-world risk of slipping. In that value system, we only need a slip meter that reliably tells us whether the slip resistance experienced by persons walking is within about *plus or minus 1* of those key points to reasonably identify and quantify the risk for slip and fall injury and

death. If one walkway condition has a slip resistance value of 0.08, and another has a value of 0.12, they are both twice as slippery as our known value where virtually everyone slips, so we should be certain they are both unacceptable. Those two walkway conditions are *the same* as far as real-world risk for slip and fall injury and death is concerned.

On the other hand, the current criteria of ASTM F2508 requires the 0.08 soapy wet polished granite Reference Surface A, and the 0.12 wet porcelain Reference Surface B, and the 0.17 wet vinyl tile Reference Surface C all have to be ranked in that order and statistically differentiated. The precision to repeatedly achieve that process brings into play the quality of and *variations in the Reference Surfaces* themselves, as well as the molecular consistency of the test foot material, and other factors otherwise *trivial* to the identification, assessment and control of *real-world risk* for slip and fall injury and death.

Notwithstanding the extraordinary performance requirements and the burdensome test protocols of F2508, plus the external variabilities, the English XL VIT has *repeatedly* demonstrated compliance with the F2508 Validation and Calibration process, performed not only by **EXCEL TRIBOMETERS**, LLC, but by several unaffiliated, *independent* entities and persons who obtained their own Reference Surfaces from ASTM and performed their own Validations and Calibrations.

Sharing Reference Surface sets and *comparison of results* shows the different Reference Surface sets vary noticeably in their properties and slip resistance values set to set, tile to tile, and within some of the individual tiles themselves. For instance, variations in Reference Surface C, the vinyl tile, have been recorded as from 0.12 to 0.27 tile to tile, and as from 0.15 to 0.25 on different locations on the same tile. Also, the vinyl can wear and change value as it is used. Further, variations in the texture and associated slip resistance of Reference Surface D have been recorded as from 0.45 to 0.95 tile to tile, and as from 0.55 to 0.95 on different locations on the same tile. All that is *not a problem* as long as it is understood the F2508 processes is *only significant* for a *particular locations* on a *particular set* of Reference Surfaces.

F2508 CALIBRATION

Do you need to have the F2508 Calibration performed on your English XL VIT (or any other walkway tribometer)? The best answer is "it depends." If you are in an environment where you need to represent you have an ASTM F2508 Validated walkway tribometer, then "yes" you need to have a current F2508 Calibration, since F2508 <u>Calibration</u> is part of the F2508 <u>Validation</u> process, as defined in the standard practice. The interval for F2508 Calibration established by F2508 is annual, as defined in the standard practice. Click here for a more extensive discussion (<u>Newsletter Sept. 30, 2011</u>).

EXCEL TRIBOMETERS, LLC offers F2508 Calibration of the English XL VIT for those who request it at the time of purchase of a new instrument for \$750.00. For F2508 Calibration at any other time for any English XL VIT, the fee is \$950.00. Due to the extensive laboratory time to perform the testing required, please call ahead to schedule your F2508 Calibration.

TEST FOOT PREPARATION

The precision required to satisfy the current ASTM F2508 standard for validating, calibrating and certifying walkway tribometers substantially reduces the *permissible variations* in test foot preparation. The current **EXCEL**TRIBOMETERS, LLC English XL VIT User Guide requires *test foot calibration* on a certified calibration tile *before each testing episode*. That was not always the case. The values formerly assigned to calibration tiles were based on the much wider tolerance for test foot preparation. What was (and still is) more than sufficient to properly assess the real world risk for a human slip and fall injury events is no longer enough to reliably comply with the F2508 criteria. As we move forward, let us not forget our main purpose however – to *assess the real-world risk* for a slip and fall injury event.

EXCEL TRIBOMETERS, LLC has developed a standardized test foot preparation device. *The Sander* makes it easy for all users to achieve the required precision for F2508. Henceforth, calibration tiles will have an assigned value based on the Sander. As described in the current XL VIT User Guide, you do not necessarily have to use a Sander if you can consistently produce reliable test foot preparation results on your certified calibration tile.

Note that the Sander was developed to consistently produce the $0.20~(\pm~0.03)$ wet on the XL Calibration Tile. This value has been the calibration value used in the many round-robins and research papers that have repeatedly proven the efficacy of the English XL VIT. It is important to also consider that the shape of a test foot prepared with the Sander (or by hand the same as the "Sander") is not perfectly flat, which mimics the characteristics of the worn heal contact area observed in analysis of footwear from actual, real world, slip and fall injury events.

Everyone who has an XL Calibration Tile should always send their tile (properly packaged), with their English XL VIT when they send the slipmeter in for annual Instrument Calibration. XL Calibration Tiles formerly certified by **EXCEL**TRIBOMETERS, LLC will be re-certified or verified at no charge.

Page:4

USER GUIDE UPDATE

The current version of the XL VIT <u>User Guide</u> is dated July 4, 2012. Please make sure you are up to date; download, review and follow the current version. The English XL VIT will produce *extraordinarily accurate* and repeatable results in the meaningful range of slip resistance values for real-world walkway surfaces, and will properly assess and rank the real-world risk for human slip and fall injury events, if the instrument is properly maintained and used *according to the XL VIT User Guide*. Being current makes you proficient, all you have to do is read what is given to you and follow the instructions.

NEXT CXLT PROGRAM: Phoenix, AZ

The next **CXLT Certification Program** will be conducted by **EXCEL TRIBOMETERS**, **LLC** on Wednesday, December 11, 2013, in Phoenix, AZ, at the JW Marriott Desert Ridge Resort and Spa, 5350 E. Marriott Drive, Phoenix, AZ, where a block of rooms has been reserved at a special rate of \$189.00 (normally \$279.00). The rate is available for a limited time, as is space in the Program, so book early. Contact the hotel directly for room reservations at 480-293-5000.

The current program is constantly being improved to maximize the value for your investment, with expanded sciences and extensive hands-on instruction with the instrument. First time CXLT program participants, 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 have all touted the program.

To read comments received, check out: CXLT Program Testimonials

ALL ENGLISH XL VIT OWNERS SHOULD CONSIDER THE CXLT PROGRAM

Of course, we encourage anyone who owns an English 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 and slip resistance metering, as well as proper and accurate use of the English 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 English 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 English 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.

CXLT REGISTRY: CXLT'S-PLEASE MAKE SURE YOUR CONTACT INFORMATION IS CURRENT!

The CXLT certification has become such a **recognized**, **respected** and significant credential in the world of walkway safety and meaningful tribometry **EXCEL TRIBOMETERS**, **LLC** is regularly contacted by attorneys and other parties to verify whether people representing themselves in court as CXLT's actually are, and to see if they are current and in good standing.

Please check and make sure you are current. We do our best to send out reminders to alert you when the renewal process should be completed, but if your contact information changed, you are on your own to renew. Please make sure *you* keep us *up to date* with your contact information.

Unfortunately and regretfully, a few CXLT's are **revoked** every month for not renewing. Hopefully, they no longer need to be a CXLT; otherwise, they have lost a credential that is increasingly more important.

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INSTRUMENT CALIBRATION AND REFURBISHING SERVICE

Your English XL VIT is a scientific instrument and requires regular instrument calibration and refurbishing, as with any similar credible metering device. The fee for English XL VIT instrument calibration, if you are on time, is \$250. For those of you who are not current and your slipmeter is overdue, we are offering new standard pricing of \$350 plus parts, which encourages overdue English XL VIT users to bring their instrument up to date. The *English 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) reference surfaces, with special cleaning procedures and reagents, and the required calibration reporting, are all much more extensive than the English XL VIT calibration and refurbishing.

Please keep in mind that if you maintain your tribometer by sending it for the English XL VIT instrument calibration 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.

Note our updated mailing address that provides a more secure facility for receiving your equipment.

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

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

Peter Widas, BSMSE, CXLT, Vice President, Chief Operating Officer

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Page:7

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