

Proposed New NFSI Tribometer Selection Process (TSP)

An NFSI “Approved Tribometer” is one that is determined by the NFSI Technical Review Committee to have met the following criteria:

- 1. Demonstrate laboratory accuracy of the device through submission of:**
 - **Statement of Precision (per ASTM E-177-08, ASTM E-691, or equivalent)**
 - **Statement of Bias (per ASTM E-177-08, ASTM E-691, or equivalent)**

The Statement of Precision will include published Repeatability (r) and Reproducibility (R) limits. The statements must be based on an Inter Laboratory Study (ILS) whose design fulfills the requirements covered in the NFSI ILS Guideline (below).

- 2. Demonstrate the field accuracy of the device through a verification process utilizing an NFSI Certified reference calibration tile.**
- 3. The tribometer manufacturer shall be capable of providing calibration, repair, maintenance, revision control, and other services necessary to ensure device reliability.**
- 4. The device shall be capable of measuring Static Coefficient of Friction (SCOF) to the hundredths (2 decimal places) using a scale of 0.00 to (at least) 1.00.**
- 5. SCOF measurements shall be displayed via a digital display.**
- 6. Pending the final and full release of the ASTM F13 WK6587 – Standard Practice for Validation and Calibration of Walkway Tribometers using Reference Surfaces.**

The Technical Review Committee intends to add the related Validation Report and Calibration Report to this list of mandatory approval criteria.

**NFSI Inter-Laboratory Study
(ILS) Guideline Overview**

This ILS guideline will be developed by the Noria Services, Tulsa OK, for the specific purpose of evaluating the laboratory accuracy of portable tribometers.

Structure

	Repeatability (r) Conditions	Reproducibility (R) Conditions
Laboratory	same	4 Different
Operator Skill Level	<ul style="list-style-type: none"> • Average • Skillset 	<ul style="list-style-type: none"> • Average • Skilled
Device	same	4 Different**
Test Material	same	4 Different Reference Surfaces
Environmental Conditions	normal/wet or dry	normal/wet or dry
Interval	short*	Not specified
Expression	Probability Value 95%	Probability Value 95%

* **Within same day**

** **Four uniquely serialized units of the same design.**