

INVESTING IN A CFME VEHICLE – What You Should Know

All FAA approved Continuous Friction Measurement Equipment (CFME) vehicles are capable of measuring the friction on your runways according to a certain standard. Not all, however, benefit from the same mechanical and technological advances. If these characteristics are inherent in the CFME vehicle, they offer added benefits without additional investments.

Before you invest in a CFME, here are some questions you should consider:

1. Can my CFME vehicle measure over my entire operational surface?

FAA approved CFME vehicles are intended to be able to measure the friction on the straight lengths of your runways. In order to measure friction over your entire operational surface, however, your CFME also needs to be able to measure while turning in order to cover operational areas such as high-speed taxiways.

ASFT's CFME vehicles are all manufactured according to the highly successful MkIV rear axle design. The measuring wheel is connected to both reference wheels so that the slip ratio (% break on measuring wheel) remains constant when measuring straight, turning right, or turning left. This design achieves the same measuring result regardless if test is made in curve from right to left or left to right.

2. Can my CFME vehicle be driven on roads and highways (at normal speeds) when not measuring?

You may need to drive your CFME vehicle certain distances within the airport or even leave the airport perimeters. In these cases, you would like to be able to drive your vehicle without any constraints due to the measuring equipment.

With ASFT's CFME vehicles, the measuring wheel is automatically retracted when not measuring, and all rotation of the measuring wheel ceases. The vehicle can be used as a normal vehicle, on roads and highways, at normal speeds, without causing any wear and tear on the measuring equipment.

3. What is reproducibility? Repeatability?

Repeatability: The ability to achieve the same result (measurement) measuring the same section at different times. Compare this to a man weighing 200 lbs standing on a scale, if he steps off the scale and then back on the scale it should still read 200 lbs.

A high level of repeatability is necessary to ensure that variations in the surface are detected over time.

Reproducibility: The ability to achieve the same result (measurement) with two different measuring equipments, measuring the same section at the same time.

Compare this to a man weighing 200 lbs standing on a scale, if he steps off the scale and on to a different scale it should also read 200 lbs.

A high level of reproducibility allows measuring values to be compared in different areas, regardless of the equipment used.

ASFT's MkIV design, in which the measuring wheel arm is mounted on the rear axle, and not connected to the chassis of the vehicle, generates unmatched repeatability and reproducibility without excessive recalibration. This consistency is possible since the measuring does not pick up noise from movements in the chassis. Thanks to this stability, you can obtain increased situational awareness and safety by offering overall surface mapping (reproducibility) and improved runway maintenance planning (repeatability).

4. How often does my CFME vehicle need to be calibrated? How complicated and costly is the calibration?

Calibration is a necessary part of ensuring accurate measuring. The more frequent the fundamental values in friction testing are modified (weight, slip, distance), the more often the CFME needs to be calibrated.

In ASFT's MkIV design, the measuring wheel arm is mounted on the rear axle, and not attached to the chassis of the vehicle. This design results in an unprecedented stability of the measuring arm; it is not subject to variations in the host vehicle, nor does it receive additional stress from surface bumps through the host vehicle. The fundamental friction values tend to remain constant, keeping the need for calibration at a minimum.

The ASFT on-board computer performs automatic tests on the system before every measuring period. Further calibrations are not usually necessary more than once per month. Monthly calibrations are so quick and simple that they are performed on-site by your personnel (training is provided upon delivery of the vehicle) with the use of a calibration kit included with the vehicle. No costly factory calibration is needed.

5. How complicated is the regular maintenance of my CFME vehicle?

Regular maintenance of your CFME is a necessary part of ensuring the long life and reliability of the vehicle. Because it is necessary does not mean it should be costly or immobilize your vehicle for any extended period of time.

AST, ASFT's exclusive distributor in the U.S. and Canada, ensures a trained technical team to provide scheduled, on-site maintenance, for your simplicity and the continued availability of your vehicle.

6. What should I be able to expect from the computer system?

For data to be relevant, it needs to be not simply reliable but also easily exploitable and interactive with other pertinent information about your operations.

ASFT's New Generation computer system allows for—amongst many other advantages—real-time communication of measuring values to any chosen internet location, including surface mapping of your entire operational area for immediate situational awareness.

ASFT's applications are Windows-based open architecture, allowing for data interface with your other sensors and equipment for an overall assessment of your operations.

7. How quickly can I get support if I have a problem?

In case of a problem, you need qualified personnel to take charge of the matter and find the solution quickly. Minimal immobilization of your CFME means a higher level of safety and efficiency for your operations.

ASFT's New Generation computer system allows a secure web-link by which ASFT technicians can perform a complete diagnosis of your system, at your request, to solve any problems you may have, in a minimal amount of time. Also, new software versions can be uploaded directly via internet into the friction tester.

CFME vehicles do not guarantee the same level of mechanical and technical proficiency. By asking these simple questions before making your choice of CFME, you can ensure that you invest in a vehicle that meets all of your needs in safety and efficiency of your operations.

For any questions you may have or for further information, please contact

American Safety Technologies

Toll free: 1-800-994-7419

Sales: 913-705-0064

Americansafetytechnologies@gmail.com