

# WHO WE ARE

AFMA is a specialized fatigue and fatigue crack growth testing and consulting facility.

We thrive on the most difficult testing programs. In addition, we have developed and marketed competitive fatigue and fatigue crack growth testing software and hardware solutions designed for a novice user, college students, as well as professionals in the FCGR testing and analysis disciplines. These products pick up where other similar products left off. It is not just being able to accomplish the testing, but it also attempts to maximize the rig resources to their fullest extent by almost eliminating downtime waiting for an operator to move to the next phase of a test. Ideally suited for programs with limited lead times, cost reduction goals, profit maximization or just freedom for operators to move on to other tasks. We do this by allowing the operator to queue up multiple test segments which transition autonomously and smoothly to the next segment in a test, saving days or weeks in a test frame. Do not let our system price fool you, even though we are a fraction of the cost of the competitions software & hardware, we have packed more into it. The system is not only designed to efficiently perform FCGR testing, we also automate constitutive testing, tensile testing, fatigue testing either crack monitored or vanilla fatigue testing, variable amplitude crack growth testing and spectrum waveform capability. This is a full solution for your testing, and we are continually updating and making it better based on customer feedback. Check our website for more information.

# Let's work together

## Technical and Efficiency Benefits

The test services that we provide fits well into the overall social and economic trend of fuel efficiency. We provide advanced fracture mechanics test services and data using highly trained and educated professionals.

Visit our website for more information or contact us today!



## VISIT US

Office:

264 Clubhouse Road, Lebanon, CT 06249

Facility:

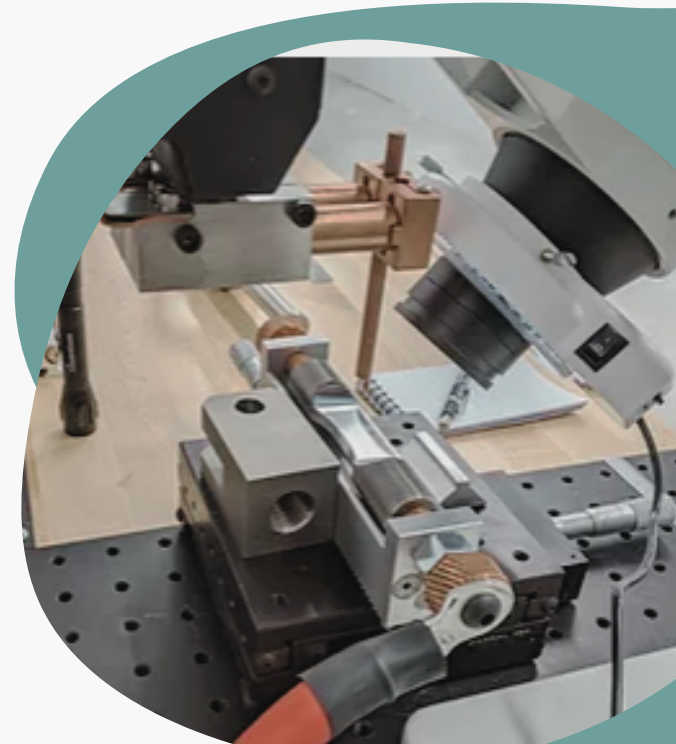
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Visit our website for more information. We look forward to working with you!



## Advanced Fracture Mechanics Associates, LLC

WE CARE ABOUT YOUR PROGRAM & DATA

# Services

## Fatigue and Fatigue Crack Growth Testing

### Test systems

We have 6 test frames fully capable of performing fatigue, fatigue crack growth, constitutive, and tensile ranging from 3 kip to 50 kip. We are currently building a cryogenic testing facility capable of performing all the above testing at temperatures down to 4.2 kelvin (-269C, -452F) up to room temperature. Our elevated temperature testing capability ranges from RT to 2200F (1200C).

### Support Equipment

Ziese microscope, Ziese LEO I430 SEM, micro tack welding, pretest and posttest crack measuring devices, many extensometers, calibration equipment, standard grips and fixturing, as well as 5 kip and 20 kip hydraulic wedge grips and much more, to support our customer's testing needs in a timely and accurate manner, including equipment redundancies to minimize equipment downtime.



# Services

## Electrical Discharge & Milling Machining

### VL600Q Wire EDM Machine & 2019 Haas VF - 2 Milling Machine

We have full machining capability. This includes EDM, CNC turning, CNC milling, grinding, band saw, and some CNC inspection capabilities.



#### Haas VF

- Full probing
- 3-axis (upgradable if needed)
- 30" x 16" table with 20" Z height
- Wet and dry machining capability with high-speed machining
- Mastercam license

#### VL600Q EDM

- X Axis travel: 23.62"; Y Axis travel: 15.75"; Z Axis travel: 10.63"
- Sodick motion controller
- Thermally stable ceramic work zone
- Rigid linear motors

# Services

## Consulting, Modeling/Analysis Services, FCGR Software & Hardware, Probability of Detection

### Consulting & Modeling/Analysis Services

We will analyze your data and compile our findings into a comprehensive report. We are here if you need advice or guidance for your program regardless of where the testing is taking place.

- Fatigue Modeling
- Fatigue Crack Growth
- Adjusted Compliance Ratio & Master Curves

### Fatigue & Fatigue Crack Growth Testing Software & DCPD Hardware (ADwin-Gold/ADwin-X Powered)

AFMA/FractureLab have joined forces and developed cutting edge fatigue and fracture growth software and hardware.

### Probability of Detection

Another service that we offer is, probability of detection crack set development. Using a combination of visual and non-visual methods to precisely dial in individual crack lengths to complete your set accurately.

Visit our website for more information. We look forward to working with you!

