



SERVICES

Our analytical services set us apart from other metallurgical labs:

- Failure analysis
- Grain size analysis
- Case depth
- Inclusion content
- Nodularity
- Coating thickness
- Chemical analysis
- Mechanical property tests
- Microstructure evaluation
- Corrosion testing
- Fastener testing
- Technical support
- Test plate manufacturing

Contact Us

Please contact us for a free consultation for your next project:

4155-A Lisa Drive
Tipp City, OH 45371

Email: Craig.riviello@mvmtc.com

Office: (937) 669-4500

Toll Free: (866) 99MVMTTC

Fax: (937) 669-4566

MEET THE OWNER

Craig Riviello
Director of Testing Services

Craig is retired from the Air Force, where he spent his career in jet engine field service and development, including aircraft accident investigations, field and laboratory failure analysis, flight testing and R&D. Craig spent two years at the Air Force Research Laboratory at Wright-Patterson Air Force Base researching titanium-based composites. In 2000, he became Global Manager of Materials Engineering for A.O. Smith's Electrical Products Company, supporting 20 manufacturing plants worldwide. Craig has a B.S. in Mechanical Engineering from Texas A&M University, an MBA and an M.S. in Materials Science & Engineering from Wright State University.

“ *MVMTC is more than just your engineering partner. You don't just receive data; you receive expert analyses and technical opinions to help solve your issue.* ”



WWW.MVMTC.COM

4155-A LISA DRIVE
TIPP CITY, OH 45371
TEL. 937.669.4500
FAX. 937.669.4566
1.866.99MVMTC



**One Source
for Testing,
Analysis
& Expert
Consultation**

WWW.MVMTC.COM

One Source for Testing, Analysis & Expert Consultation



The Miami Valley Materials Testing Center is an A2LA-accredited full-service testing facility, conveniently located off of Interstate 70, in Tipp City, Ohio. MVMTC is a highly competitive provider of metallurgical, tensile, corrosion and plastics testing. While we pride ourselves in delivering competitive pricing and quick turn around times,

we also aim to function as your manufacturing partner, providing in-depth analysis and quality assurance at every stage of the process.

MVMTC features state-of-the-art testing equipment as well as in-house machining capabilities. Our team draws on over 25 years of real-world manufacturing experience offering analysis and consultation for clients in the aerospace, automotive, medical, casting, fasteners, electronic and industrial manufacturing industries.

Here at Miami Valley Materials Testing Center our analysis **is more than data; it's a solution.** Let us be your solution for all of your material testing needs.

Partial List of Technology/Instrumentation

- AMRAY SCANNING ELECTRON MICROSCOPE
- INSTRON 3385H UNIVERSAL TESTING SYSTEM (100 to 56,000 lbs)
- LECO GDS500 OPTICAL EMISSION SPECTROMETER
- NIKON EPIPHOT 200 INVERTED METALLOGRAPH MICROSCOPE
- MITUTOYO MACRO HARDNESS AND MICRO HARDNESS TESTERS
- Q-LAB CCT 1100 CYCLIC CORROSION CHAMBER
- FULL MACHINE SHOP

End-to-End Testing Capability & the Latest Technology All Under One Roof

As your manufacturing partner, MVMTC provides a complete range of testing & analytical services, including:

CHEMICAL ANALYSIS

- Plain Carbon Steel
- Stainless Steel
- Cast Iron
- Tool Steels
- Titanium
- Spectroscopy
- Carbon/Sulfur Analysis
- Low Alloy Steel
- Aluminum
- Zinc
- Nickel
- Copper
- Wet Digestion (ICP)

MECHANICAL PROPERTY TESTING

- Yield Strength
- Macro Hardness
- Tensile Strength
- Micro Hardness
- % Elongation
- Bend Testing
- % Reduction in Area
- All Samples Machined In-House
- r and n values
- Charpy Impact Strength

METALLURGICAL TESTING

- Metallurgical Prep
- Case Depth
- Microstructural Analysis
- Weld Analysis
- Core & Surface Hardness
- Microcleanliness
- Grain Size
- Graphite Content

COATING CHARACTERIZATION

- Salt Spray
- Humidity
- Adhesion
- Coating Thickness
- Accelerated Weathering
- UV Exposure
- Cyclic Corrosion

TEST PLATE MANUFACTURING

Test plates are an important part of the fastener inspection process, and proper use will call attention to any potential problems before the fasteners can cause assembly or warranty problems. Untapped test plates are required to properly test tapping screws to detect the presence of hydrogen embrittlement. Tapped test plates are required for testing electroplated and Rockwell C30 or harder machine screws and bolts to detect the presence of hydrogen embrittlement.

Miami Valley Materials Testing Center test plates offer double the amount of holes for less than double the price. Each test plate can be ordered through our online store. Our test plates are a convenient and cost effective solution for your inspection needs. MVMTC test plates are stocked for immediate shipment and meet the following specifications:

- ANSI B 18.6.4, B 18.6.5M
- SIN 7500-1, 7513, 7516
- FIP-1000.1-7
- Ford ES-M 1 A 160-A, ES-20003-S 1000
- GM 6010M, 617M, 6171M
- ISO 2702
- JIS 1055
- SAE J81, J478a, J993, J1237

Online Store Coming Soon!

FAILURE ANALYSIS, CERTIFICATION & TECHNICAL CONSULTING

- Years of military aircraft maintenance experience to enhance your certification and technical programs.
- Experience with Chinese and Eastern European materials.
- Leading-edge scanning electron microscopy.
- Simplified one-page reports, multi-page reports, digital photography, and other consulting services.
- Years of REAL WORLD Manufacturing, Quality Control and R&D Experience.