

Materials Analysis Lab

APS Technology's Materials Analysis Lab offers a full quick-turn sample preparation and analysis workflow for all your metallurgical qualification and forensic needs.



Example Analysis Types

- > Microstructure
- > Structural Defects
- > Corrosion
- > Abrasion Resistance
- > Cycle Fatigue Failure Analysis
- > Yield Fatigue Failure Analysis

Example Workflow



Materials Analysis Lab

Capabilities

Struers Labotom-5 Abrasive Cut-off Machine

| | |
|---------------------------|---|
| Cutting Capacity | 3.5 in. (90 mm) dia. or 1.7 x 4.7 in. (42 x 120 mm) |
| Cutting Table Size | 8.9 x 12.4 in. (225 x 316 mm) |

Struers CitoPress-1 Hot Mounting Press with MultFast Phenolic Thermosetting Resin Process

| | |
|--------------------------|-----------------|
| Cylinder Diameter | 1.5 in. (38 mm) |
|--------------------------|-----------------|

Struers LaboPol-5 Grinder/Polisher with LaboForce-3 Specimen Mover & LaboDoser Automatic Dosing Unit

| | |
|--|--------------------------|
| Motor Speed | 50 - 500 rpm |
| Disc Diameter | 8 - 9 in. (200 - 230 mm) |
| Applied Specimen Force | 1.1 - 90 lbf (5 - 40 N) |
| Dosing Levels: | |
| Suspensions (Levels 1 - 5) | 0.20 - 1.15 ml |
| Lubricants and All-in-One Suspensions (Levels 5 - 10) | 1.15 - 8.50 ml |

Jamestown-JMC IsolatorGen5 Bench Fume Hood

For corrosion test sample preparation.

Zeiss Stemi 2000 Stereo Digital Microscope with CL 1500 ECO Dual Gooseneck Illuminator

For macro viewing and recording under reflected light.

| | |
|--------------------|-----------------|
| Zoom Range | 7.7:1 |
| Object Area | 1.4 in. (35 mm) |

Zeiss AXIO Digital Microscope with Motorized Scanning Stage & Infinity1-2B Camera and HAL 100 Halogen Illuminator

For micro viewing and recording under reflected light.

| | |
|----------------------------|-----------------------------|
| Magnification Range | 50 - 1,000x |
| Stage Area | 5.1 x 3.3 in. (130 x 85 mm) |

Struers Scentis Image Analysis Software

For image enhancement and quantitative analysis.

Buehler/Wilson TUKON 1102 Knoop/Vickers Microhardness Tester

| | |
|--------------------------------|------------------|
| Load Range | 10 gf - 2 kgf |
| Dwell Time | 5 - 99 sec |
| Measurement Range | 10 - 200 μ m |
| Measurement Resolution | 0.1 μ m |
| Maximum Specimen Height | 5.1 in. (130 mm) |

Headquarters ♦ Wallingford ♦ USA

7 Laser Lane, Wallingford, CT 06492 USA
 Phone: 860-613-4450 ♦ Fax: 203-284-7428
 contact@aps-tech.com

Houston ♦ USA

15415 International Plaza Dr., Suite #150
 Houston, TX 77032 USA
 Phone: 281-847-3700

Rev. 141020-vA

Specifications subject to change without notice.

© APS Technology, Inc. 2014

