



# Forensic Services

## We Take A Closer Look

#### **Forensic Services**

Forensic engineering at ATS is a comprehensive service utilizing experienced and dedicated professionals equipped with state-of-the-art tools and technology. Our engineer-investigators are court qualified and possess industry accepted accreditations and licenses.

#### Service Area

ATS employs approximately 500 personnel in 16 branch offices throughout the United States, and can provide inspection services anywhere in the US or abroad. With over 40 years of inspection and testing experience, ATS is prepared to handle any project regardless of size or location and we are committed to providing the highest level of quality and service available.

#### **Scheduling**

ATS is always available to handle your inspection needs and will respond to each request in a prompt and timely manner. Simply contact any ATS office to schedule an inspection project or to set-up a visit by an ATS representative.

- Material Testing
- Forensic Site Mapping
- Workplace Accident Investigation
- Standards Compliance Research And Testing
- Expert Witness Testimony
- Evidence Storage

**Applied Technical Services** 

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#### **Chemical Analysis of Fire Debris**

The findings of ignitable liquid residues in a sample of fire debris is often the vital piece of evidence to support a determination that a fire may have been incendiary. Because of the importance of this evidence, ATS uses only state of the art techniques for the analysis of fire debris. Since we understand the need to quickly learn whether a sample is positive, we typically turn around our chemical analyses in 24 to 48 hours.

#### **Capabilities & Equipment**

All of our samples are processed using ASTM methods for separation and analysis. Our primary analytical tools:

- · Gas Chromatograph
- · Mass Selective Detector
- Automatic Liquid Sampler
- Flectron Ionization Detector
- FTIR Spectrophotometer
- Thermogravimetric Analyzer
- · Differential Scanning Calorimeter

#### **Ignition Switch Analysis**

When a vehicle is stolen and recovered burned, a major issue involves the condition of the ignition switch. Our in-house capabilities, particularly our x-ray facility, allow for the identification of the ignition parts and keys that might otherwise be lost in the mass of debris found on the floorboards









#### **Product Testing Services**

Electric and gas appliances and systems are frequently involved in fires. These items must be understood, examined, and either ruled in or out as the cause of the fire. The central question in electric and gas systems evaluation is the chicken-and-egg scenario of whether the system malfunction caused the fire or the fire caused the system malfunction.

#### **Capabilities & Equipment**

- Power supplies for 480, 277, 240, 208, 120, 24 and 12-Volt appliances
- Dry Test Meter measuring flows of Natural & LP gas
- Complete Photographic & Videographic Capability
- X-ray Facilities for Nondestructive Examination Thermal Behavior
- Scanning Electron Microscope for Close-up Examination and Chemical Analysis of Arc Beads
- Complete Metallurgical Facilities

#### **INDUSTRIES SERVICED**

ADDITIVE MANUFACTURING - AEROSPACE - AUTOMOTIVE - CHEMICAL COMMERCIAL PROPERTIES - CONSTRUCTION - DEFENSE/MILITARY INSURANCE/LEGAL - MANUFACTURING - MEDICAL - NUCLEAR OIL & GAS - POWER GENERATION - PULP & PAPER - MANY MORE









#### **Vehicle Accident Reconstruction**

- Vehicle "Black Box" Downloading
- Site Data Collection Forensic Mapping
- Vehicle Inspection Storage and Inspection Hosting

#### **Component Analysis**

- Braking System Steering Components
- Failure Analysis Products Testing
- Metallurgical and Chemical Analysis

#### **Mechanical Engineering**

- Industrial Process Equipment
- Refrigeration Systems and Boilers
- Pressure Vessel Piping and Control Systems

#### Fire & Explosion Investigation

- Commercial & Residential Structures
- Heavy Trucks, Automobiles, RV's & Marine
- X-ray, GCMS, FTIR, SEM/EDS, XRD

### **Certified Inspection Standards**

- ISO 9001
- In Compliance with ISO Guide 17025
- ASTM E 1492
- ASTM E 860
- NFPA
- IAAI
- NAFI

