

**ENGINEER: MECHANICAL**

**JAMES P. REIL, P.E.**  
Engineering Design & Testing Corp.  
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**EDUCATION:**

1998 Bachelor of Science, Mechanical Engineering  
Wilkes University, Wilkes-Barre, Pennsylvania

**EXPERIENCE:**

March 2009 **Engineering Design and Testing Corp.**  
to Present **Richardson, Texas**

Consulting Engineer. Consultation in the areas of failure analysis, mechanical evaluation, damage assessment, fire origin and cause, commercial and consumer product evaluation, vehicle and equipment incident evaluation.

February 2006 **H & K International, Inc.**  
to February 2009 **Dallas, Texas**

Senior Research and Development Engineer. Investigation of alternative stainless steels and associated manufacturing methods; restaurant equipment warranty review; failure analysis and retrofit design; commercial restaurant fabricated metal product sustaining engineering; energy efficiency in commercial HVACR appliances; design of unique specific commercial electro-mechanical appliances; press-brake die design; international business development and consultation; new appliance design testing and documentation.

October 2003  
to January 2006

**H & K International, Inc.**  
**Dallas, Texas**

Business Development Engineer, New Accounts. Interpretation of restaurant operational requirements and design of non-traditional custom electro-mechanical equipment solutions; design of modular fabricated metal equipment systems and manufacturing processes; code review and associated equipment design for conformance; structural and heat-transfer design feasibility analysis; performance simulation and optimization; design and testing of restaurant perishable food storage, preparation, and cooking systems; restaurant building and equipment condition evaluations; kitchen equipment floor plan and rough-in preparation and review; field construction inspection and supervision.

August 2000  
to September 2003

**H & K Dallas, Inc.**  
**Dallas, Texas**

Engineering Manager, North American Manufacturing Facilities. Manufacturing drawing, electrical, and plumbing schematic creation and review; bill-of-materials and trim sourcing; manufactured product safety and performance testing and certification; quality assurance procedures and product inspection; development of manufacturing out-source procedures; investigation of alternative refrigeration systems and UVC grease filtration systems, baffle and cartridge grease extraction filters; design of restaurant ventilators (type 1 and 2 hoods); consultation in commercial restaurant cabinet failure analysis; design of heated, refrigerated, and dual usage commercial kitchen preparation and storage appliances; stability analysis for fixed and portable equipment designs and uses; design of portable equipment packages with integral electrical power distribution, water piping, and data cabling for international and domestic uses.

December 1999  
to July 2000

**H & K Dallas, Inc.**  
**Dallas, Texas**

Lead Engineer, Oceana Region. Design of custom restaurant equipment for introduction to Australian and Asian-Pacific market; application of foreign electrical and mechanical codes, certification processes, and safety standards in design and manufacturing process; development of design, trim, manufacturing, and packaging specifications to provide corrosion protection for electro-mechanical appliances during sea-freight shipment.

July 1998  
to November 1999

**H & K Dallas, Inc.**  
**Dallas, Texas**

Project Engineer. Design of stainless steel commercial restaurant equipment and appliances for specific uses; stress and deflection analysis of fabricated metal parts and assemblies; heat transfer calculations; design of steam tables and refrigerated appliances; energy balance calculations for heated food assembly surfaces; performance testing and analysis for certification; restaurant remodel equipment plan and utility rough-in construction and permit drawings.

June 1995  
to June 1998

**Vibra-Tech Engineers, Inc.**  
**Hazleton, Pennsylvania**

Vibration Engineer and Senior Associate, Technical Services Division. Consultation in the areas of vibration effects on residential and commercial structures, buried pipelines and wells, curing concrete, and human perceptibility; vibration control for construction, explosives, mining, and seismic exploration industries and regulatory agencies; stress and deflection analysis of materials due to elastic vibrations; site qualification studies for vibration sensitive applications including computer rooms, magnetic resonance image (MRI) equipment placement, and semiconductor manufacture; traffic vibration measurement and analysis; blast design for vibration effects computer simulation and optimization; structural response to transient and steady

state vibration calculations, traffic and construction vibration control plans; site specific vibration prediction using statistical methods and spectral transformation; research in the use of finite element analysis in ground vibration prediction and control; computer programming to simulate dynamic response; perform spectral analysis, and statistical analysis of vibration data.

April 1986  
to May 1995

**Vibra-Tech Engineers, Inc.**  
**Hazleton, Pennsylvania**

Field Representative and Vibration Analyst. Field vibration monitoring of transient and steady state vibrations from explosives, construction, mining, and traffic using portable seismographs, certification of regulatory compliance of vibration levels, digitizing analog data for computer analysis, electronic measurements of data, maintenance and repair of electronic equipment and computers.

July 1982  
To March 1986

**United States Army**  
**Fort Benning, Georgia**

Assistant Battalion Operations Sergeant and Squad Leader, Combat Heavy Engineers. Direction of daily tasking for five combat heavy (construction) engineer companies using knowledge of the capabilities of over 350 pieces of construction and transportation equipment; alternate battalion nuclear, biological, and chemical defense leader; non-commissioned officer in charge of various teams and sections.

**CONTINUING EDUCATION:**

Silent Knight Intelliknight 5700 / 5808 / 5820XL Fire Alarm Control Panels  
Honeywell, 2010, Online Certification

Investigation of Gas and Electric Appliance Fires

Fire Findings, 2009, Benton Harbor, Michigan

Principals of Failure Analysis

ASM International, 2009, Materials Park, Ohio

OSHA Confined Space Entry

TEXO, 2009, Fort Worth, Texas

Advanced National Fire, Arson, and Explosion Investigation Training Program

NAFI / NFPA, 2009, Sarasota, Florida

Mechanical and Electrical Estimating

R.S. Means Company, 2009, Irving, Texas

Commercial Kitchen Ventilation Seminar

Captive-Aire, 2008, Irving, Texas

National Sanitation Foundation Standards 2, 4, and 7 Certification

National Sanitation Foundation, 2007, Dallas, Texas

Ansul R-102/UL300 Restaurant Fire Protection Certification

Tyco Corporation, 2007, Arlington, Texas

Basics of Industrial Electricity

Performance Training Associates, 2001, Dallas, Texas

Fundamentals of Commercial Kitchen Ventilation

J. Knapp Associates/ASHRAE, 2001, Dallas, Texas

Ansul R-102/UL300 Restaurant Fire Protection Certification

Tyco Corporation, 2000, Dallas, Texas

OSHA 29 CFR 1910.120 Hazardous Materials Re-certification

Hoffman Consulting, 1997, Harrisburg, PA

OSHA 29 CFR 1910.120 40-Hour Hazardous Materials Certification Training

Wilkes University, 1995, Wilkes-Barre, PA

Short Course in Introduction to Engineering and Environmental Geophysics  
Bell West Geoservices, Inc., 1992, Hazleton, PA

Meteorology and Aeronautical Engineering  
US Army Institute of Professional Development, 1984, Fort Benning, GA

Demolition and Pyrotechnics  
US Army Infantry Center, 1983, Fort Benning, GA

Nuclear, Biological, and Chemical Defense Warfare Course  
US Army Infantry Center, 1983, Fort Benning, GA

**PROFESSIONAL ORGANIZATIONS:**

National Society of Professional Engineers (NSPE)  
Texas Society of Professional Engineers, Dallas Chapter (TSPE)  
American Society of Mechanical Engineers (ASME)  
ASM International (ASM)  
National Fire Protection Association (NFPA)  
National Association of Fire Investigators (NAFI)

**REGISTRATIONS:**

Registered Professional Engineer in Pennsylvania (#PE-052890-E)  
Registered Professional Engineer in Texas (#103057)  
Registered Professional Engineer in Oklahoma (#24188)  
Registered Professional Engineer in Arkansas (#14015)  
Registered Professional Engineer in Louisiana (#35189)  
Registered Professional Engineer in New Mexico (#19719)  
Licensed Professional Engineer in Alabama (#32124-E)  
National Council of Examiners for Engineering and Surveying Record (#39629)  
NAFI Certified Fire and Explosion Investigator (#14524-7816)

**PUBLICATIONS:**

“Why People Complain about Blasting,” Rock Products, July 1, 1998.

**PATENTS:**

United States Patent No. 7,367,197, “Refrigerated Open Condiment Rail,” May 6, 2008.

**AWARDS:**

National Restaurant Association Kitchen Innovation Award for Refrigerated Open Condiment Rail, 2006.

National Sanitation Foundation Leadership in Food Safety Equipment Design for Refrigerated Open Condiment Rail, 2006.