

EDUCATION

1998 **Bachelor of Science, Mechanical Engineering, Summa Cum Laude**
Wilkes University, Wilkes-Barre, Pennsylvania

EXPERIENCE

March 2009
to Present **Engineering Design and Testing Corp.**
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; expertise in restaurant equipment; heating, ventilation, air-conditioning and refrigeration.

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

REGISTRATIONS and CERTIFICATIONS

Registered Professional Engineer in Alabama (#32124-E)
Registered Professional Engineer in Arizona (#65283)
Registered Professional Engineer in Arkansas (#14015)
Registered Professional Engineer in Louisiana (#35189)
Registered Professional Engineer in New Mexico (#19719)
Registered Professional Engineer in Oklahoma (#24188)
Registered Professional Engineer in Pennsylvania (#PE-052890-E)
Registered Professional Engineer in South Carolina (#31951)
Registered Professional Engineer in Texas (#103057)
Registered Professional Engineer in West Virginia (#19628)
NAFI Certified Fire and Explosion Investigator (#14524-7816)
NAFI Certified Vehicle Fire Investigator (#14524-7816v)
National Council of Examiners for Engineering and Surveying International Registry
National Council of Examiners for Engineering and Surveying Record (#39629)

PROFESSIONAL ORGANIZATIONS

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

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.

CONTINUING EDUCATION

- 2018 *Using NFPA 921 to Meet the Professional Qualifications for Fire Investigator in NFPA 1033*, National Fire Protection Association/ National Association of Fire Investigators, 2018, Orlando Florida
NFPA 20 Standard for the Installation of Stationary Pumps for Fire Protection, National Fire Protection Association, 2018, Quincy, Massachusetts
- 2016 *Pumps and Piping: Design and Operation for Continued Reliability*, EDT, Columbia, South Carolina
- 2015 *Glass Fractography*, EDT, Nashville, Tennessee
Refrigeration Systems, EDT, Nashville, Tennessee
- 2014 *Class 4 Asbestos Certification*, R&R Environmental, Salt Lake City, Utah
Construction Standard of Care, EDT, Salt Lake City, Utah
- 2013 *International Vehicle Fire, Arson and Explosion Investigation Science and Technology Seminar*, National Fire Protection Association/National Association of Fire Investigators, Lexington, Kentucky
An Introduction to HVAC Systems for Medical Facilities, PDH Direct, Tampa, Florida
Fire Suppression Systems – Save the Day or Rain on Your Parade, EDT, Columbia, South Carolina
- 2012 *Analysis of Plastic Fractures*, EDT, Orlando, Florida
Kitchen Fires Beware: CORE Protection Fire Systems, Captive Aire, Raleigh, North Carolina
Quantitative Measurement of LP/Natural Gas Pipe Systems, EDT, Orlando, Florida
- 2010 *Hydraulic Hose Failure Analysis*, EDT, Columbia, South Carolina
Silent Knight Intelliknight 5700 / 5808 / 5820XL Fire Alarm Control Panels, Honeywell, Online Certification
- 2009 *Advanced National Fire, Arson, and Explosion Investigation Training Program*, NAFI / NFPA, Sarasota, Florida
Investigation of Gas and Electric Appliance Fires, Fire Findings, Benton Harbor, Michigan
Mechanical and Electrical Estimating, R.S. Means Company, Irving, Texas
OSHA Confined Space Entry, TEXO, Fort Worth, Texas
Principals of Failure Analysis, ASM International, Materials Park, Ohio
- 2008 *Commercial Kitchen Ventilation Seminar*, Captive Aire, Irving, Texas
- 2007 *Ansul R-102/UL300 Restaurant Fire Protection Certification*, Tyco Corporation, Arlington, Texas
National Sanitation Foundation Standards 2, 4, and 7 Certification, National Sanitation Foundation, Dallas, Texas
- 2001 *Basics of Industrial Electricity*, Performance Training Associates, Dallas, Texas
Fundamentals of Commercial Kitchen Ventilation, J. Knapp Associates/ASHRAE, Dallas, Texas
- 2000 *Ansul R-102/UL300 Restaurant Fire Protection Certification*, Tyco Corporation, Dallas, Texas
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- 1997 *OSHA 29 CFR 1910.120 Hazardous Materials Re-certification*, Hoffman Consulting, Harrisburg, Pennsylvania
- 1995 *OSHA 29 CFR 1910.120 40-Hour Hazardous Materials Certification Training*, Wilkes University, Wilkes-Barre, Pennsylvania
- 1992 *Short Course in Introduction to Engineering and Environmental Geophysics*, Bell West Geoservices, Inc., Hazleton, Pennsylvania
- 1984 *Meteorology and Aeronautical Engineering*, US Army Institute of Professional Development, Fort Benning, Georgia
- 1983 *Demolition and Pyrotechnics*, US Army Infantry Center, Fort Benning, Georgia
 Nuclear, Biological, and Chemical Defense Warfare Course – US Army Infantry Center, Fort Benning, Georgia

AWARDS

- 2006 National Restaurant Association Kitchen Innovation Award for Refrigerated Open Condiment Rail.
 National Sanitation Foundation Leadership in Food Safety Equipment Design for Refrigerated Open Condiment Rail.