

## PROFESSIONAL EXPERIENCE

2015 to present     **Robson Forensic, Inc.**  
*Associate*

Provide technical investigations, analysis, reports, and testimony toward the resolution of commercial and personal injury litigation involving Mechanical, HVAC systems, welding incidents and defects, traffic accident reconstruction, and failure analysis.

### HVAC

- Chilled water systems: Chillers, piping, pumps, piping accessories, control valves, isolation valves, bypass valves, valve actuators, evaporators, cooling coils, cooling towers, air separators, condenser water systems, and condensers, primary/secondary systems, primary only systems, bypass valve control, heat transfer issues, water side economizers, and low delta T issues.
- Compressors: Centrifugal, screw, reciprocating, and scroll type compressors.
- Refrigerant management: Charge adjustment, purge units, non-condensable contamination, and oil separators.
- Instrument and controls: Flow meters, temperature sensors, variable speed drives, valve control, controller networks, sequence of operations, control logic, humidity sensors, flow stations, differential pressure sensors, power meters, current taps, freeze stats, averaging air temperature sensors, immersion wells, relays, and contactors.
- DX systems and equipment: Packaged RTUs, split systems, through wall systems, ductless systems, refrigerant piping, oil return issues, and compressor failure issues.
- Air side systems: Air handlers, make up air units, outside air units, fan coils, heating and cooling coils, duct heaters, duct work, duct sizing, blowers, return air paths, dehumidification issues, condensation/dew point issues, comfort issues, and building pressurization.
- Exhaust systems: Building exhaust, kitchen exhaust, and toilet exhaust.
- Heating systems: Electric resistance, heat pump, gas furnace, natural gas, hydronic heating systems, hot water heaters, and gas line.
- Life safety: Duct mounted smoke detectors, smoke control, fire dampers, and smoke dampers.

### PLUMBING, WATER AND GAS

- Domestic hot and cold water: Temperature control, temperature safety devices, scalding, water heaters, mixing valves, circulators, pumps, auto flush devices, freeze protection, corrosion, indirect water heaters, low pressure steam, reverse osmosis systems, pressure and temperature relief valves, reverse osmosis systems, pressure and temperature relief valves.
- Gas systems: Natural gas and propane, gas piping systems, regulators, appliances, gas valves, leak check.
- Gas-fired appliances: Boilers, furnaces, hot water heaters, radiant heaters, wall heaters, ranges, ovens, gas logs and burns.
- Carbon Monoxide Poisoning
- Fire Sprinkler Systems

STANLEY JAWORSKI, P.E., CFEI, CVFI  
Mechanical Engineer

#### **WELDING**

- Experienced TIG welder: Welding of aluminum, steel, stainless steel, and magnesium using the Tungsten Inert Gas Welding process.
- Experienced SMAW welder: Welding of steel pipe and steel members, and steel assemblies using the Shielded Metal Arc Welding process.
- Experienced MIG welder: Welding of automotive exhaust, steel members, steel assemblies, and stainless steel using the Metal Inert Gas welding process.
- Experienced FCAW welder: Welding of steel pipe, automotive components, and steel reinforcements using the Flux Core Arc Welding process.
- Plasma cutting: Experienced operator of manually operated Plasma Cutting machine.
- Oxy-acetylene cutting torch: Experienced operator of Oxy-acetylene cutting torch.
- Brazing: Experienced in the Brazing of copper and brass refrigeration components and line sets.
- Welding and fabrication: Experienced in the application of various methods of welding in the fabrication of new equipment and machinery, pipe welding, and in the application of welding as a method of repair.

#### **HYDRAULICS**

- Power: Pumps, Motors, Cylinders, Actuators, Filters
- Control: Control Valves, Pressure Maintaining Valves, Flow Regulating Valves, Governors, Accumulators, Pressure Regulators, Pilot Actuated, Servos, Pressure Compensating Valves, Check Valves, Hydraulic Logic

#### **ELECTRICAL**

- Power: 480, 220, 208, 120 VAC, generators, transformers, breakers.
- Control: 24, 120VAC, low voltage DC, equipment control panels, VFDs, PLCs, touch screens, switches, temp and pressure sensors, loop controllers, transmitters, I/P converters, level sensors.
- Electrical heating systems: Experienced in the application, installation, service, and repair of electric resistance heaters including wall pack heaters, base boards, duct furnaces, electric pre-heat, electric re-heat, and electric resistance terminal unit heaters and all safety and control devices.
- Marine Electrical Systems: 120/240 VAC Systems, DC Systems, Inverters, Generators, Shore Power, Grounding Bus, Distribution Panels, Isolation Transformers

#### **INDUSTRIAL SAFETY**

- Power Press, Press Brake, Hydraulic Cylinders, Machine Guarding

#### **AGRICULTURAL SAFETY**

- Center Pivot Irrigation Systems, Irrigation Pipeline

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Mechanical Engineer

2009 to  
2015

**Optimum Energy**

*Senior Technical Account Manager*

- Responsible for building customer relationship at both plant operator level and executive levels during deployment and maintaining relationship for life of the account.
- Provided technical support for customers and partners.
- Collaboration with engineering, development, and project deployment team.
- Maintained excellent relationships with customers, acting as advisor and advocating for product and service enhancements that positively impact operational savings and demonstrate the value of our offering.
- Addressed issues that impact plant performance and energy savings.
- Assisted customers with analysis and troubleshooting of issues involving control theory, direct digital control (DDC) systems, chilled water systems, air handler systems, boiler systems, VAV systems, compressed air systems, psychometrics, BACnet networks, LON networks, IP networks, electrical systems, variable speed drives, fans, pumps, cooling towers, test and balance (TAB), packaged rooftop units, dehumidification, DX systems, split systems, energy recovery units, heat (enthalpy) wheels, heat recovery machines, heat exchangers, valves, actuators, building pressurization, comfort applications, process applications, ventilation systems, air handlers, ductwork, piping, filters, strainers, diffusers, insulation, maintenance, bearings, thermal energy storage, and control valves.
- Analysis of the operational condition and efficiency of central heating and cooling plant as well as its individual component condition and efficiencies.
- Analysis of the operational condition and efficiency of air movement systems as well as its individual component condition and efficiencies.
- Reviewed and modified chiller plant operational procedures and operating sequences.
- Analyzed, reviewed, and modified chiller plant and HVAC system maintenance programs.
- Advised customers on best solution and options for equipment replacement, retrofit, and/or repair.
- Managed the technical account management team and team work load.
- Coordinated with sales, engineering, development, and project deployment team.

2006 to  
2009

**HVAC Environmental Solutions, Inc.**

*Project Manager*

- Designed work (layout, sizing, and drawings) for duct work, natural gas pipe, chilled water pipe, condenser water pipe, control valves, heat exchanges, packaged roof top units, pumps, and fans.
- Supervised the execution of work done by our installers, mechanics, and subcontractors. Responsible for sizing and selecting pumps, pipes, cooling towers, roof top units, ductwork, and other components of air conditioning equipment.
- Responsible for construction permit applications and the inspection and acceptance process with the appropriate municipality.

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Mechanical Engineer

- Service, installation, and repair of control systems, chillers, packaged roof top air conditioners, VAV boxes, PIU boxes, return air paths, fire dampers, smoke dampers, duct mounted smoke detectors, networkable thermostats, lighting controls, duct heaters, contactors, relays, equipment safety circuits, pumps, pump motors, fans, fan motors, blowers, exhausters, variable speed drives, outside air dampers, damper actuators, control valves, control valve actuators, communication lines, low voltage wiring, cooling coils, heating coils, expansion valves, refrigerant distributors, condensers, refrigeration compressors, walk in coolers, walk in freezers, dehumidifiers, cooling towers, economizer controls, heat exchangers, kitchen exhaust, and toilet exhaust.
- Service and repair of refrigeration systems utilizing reciprocating, screw, scroll, and centrifugal type compressors.
- DX and chilled water based cooling systems.
- Cutting, threading, and fitting of black steel gas line.
- Welding of steel pipe (SMAW) for chilled water and condenser water.
- Brazing of copper and brass refrigeration lines and fittings.

2005 to **Commissioning and Green Building Solutions**

2006 *Assistant Commissioning Agent*

- Responsible for reading and interpretation of construction contract documents
- Formulated static or 'pre-functional' testing routines and checksheets.
- Prepared dynamic of 'functional' testing routines and checksheets.
- Onsite execution of pre-functional and functional tests.
- Preparation of the commissioning reports.
- Performed calculations for determination of LEED credit requirements.
- Application for LEED credits and certification.
- Testing of the following systems/equipment and their associated controls: building envelopes, building pressurization, demand based ventilation, thermostatic controls, dehumidification, energy recovery units (heat wheel), hot gas bypass valves, VAV boxes, boiler staging controls, thermal energy storage, fans, pumps, exhaust systems, economizers, building automation control systems, and life safety interlocks.
- Verification of construction methods meeting SMACNA standards.
- Verification of construction materials complying with contract documents and design specifications.

2004 to **Waypoint Systems**

2005 *Field Engineer*

- Installed, configured, programmed, and troubleshot building automation controllers, systems, and networks.

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Mechanical Engineer

2003 **Higginbotham and Associates (now Marietta NDT)**

*Welder/Fabricator*

- Constructed welded steel assemblies, steel/lead/steel wall panels, vaults, enclosures, gantries, steel/lead/steel door.
- Operation of manual machine and fabrication tools including drill press, knee mill, engine lathe, magnetic base drill, hole saw, punch press, press brake, shear.
- Welding processes used: Metal Inert Gas, Tungsten Inert Gas, Shielded Metal Arc Welding.
- Metal cutting: Oxy-acetylene, plasma, reciprocating saw, band saw.
- Blueprint interpretation, welding print interpretation.

**PROFESSIONAL CREDENTIALS**

Professional Engineer, Mechanical; California, Colorado, Montana, Nevada, Oregon, Texas, Washington

Certified Niagara AX (Factory Certification 2007)

United States Government, General Services Administration – Contractor, Public Trust, Region IV

EPA 608 & 609 Certified (Refrigeration Technician)

Distech Controls (Factory Certification) Free Programmable Controllers

NRA Certified Range Safety Officer

Certified Fire and Explosion Investigator (CFEI)

Certified Vehicle Fire Investigator (CVFI)

**EDUCATION**

B.S., Mechanical Engineering Technology, Southern Polytechnic State University, Marietta Georgia, 2004

*Continuing Education*

Professional Ethics for Texas Engineers, PDH Engineer, December 2017

Finding the Root Cause, PDH Engineer, November 2017

Introduction to Hazard Evaluation, PDH Engineer, October 2017

Basics of Crack Propagation, PDH Engineer, October 2017

Fire Protection Fundamentals, PDH Engineer, September 2017

HVAC Instrumentation and Control, PDH Engineer, September 2017

Stairwell Pressurization Systems, PDH Engineer, September 2017

AC Waveforms: Basic Quantities for Non-Electrical Engineers, PDH Engineer, August 2017

Vehicle Fire, Arson & Explosion Investigation Science & Technology Seminar, National Association of Fire Investigators, 2017

International Fire, Arson, & Explosion Investigation Training Program, National Association of Fire Investigators, 2016

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Mechanical Engineer

**PROFESSIONAL MEMBERSHIPS**

American Society of Heating, Refrigeration & Air Conditioning (ASHRAE)  
American Society of Mechanical Engineers (ASME)  
National Association of Fire Investigators (NAFI)  
National Fire Protection Association (NFPA)  
Washington Association of Technical Accident Investigators (WATAI)

**INVITED SPEAKER**

Air Barriers: What Are They, What Do They Do and How Do You Foul Them Up?  
WDTL Annual Construction Law Update, Presented with William E.J. Martin, AIA, NCARB,  
Seattle, WA March 4, 2016