

**BAXTER ENGINEERING**  
480 / 832-7744

**Gene K. Baxter, Ph.D., P.E.**  
**Forensic Consulting Engineer**

**1243 N. Norwalk Street**  
**Mesa, AZ 85205-4038**



## EDUCATION:

<u>Degree</u>	<u>Discipline</u>	<u>Specialization</u>	<u>School</u>	<u>Grad.</u>	<u>GPA</u>
Ph.D.	Mechanical Engg.	Structural Vibrations	Syracuse U.	1971	3.9/4.0
M.S.	Aerospace Engg.	Fluid & Gas Dynamics	Syracuse U.	1966	3.8/4.0
B.S.	Mechanical Engg.	General Curriculum	U. of Idaho	1961	3.7/4.0

## EXPERT WITNESS (Plaintiff or Defense):

- Personal Injury      ♦ Vehicle, Industrial & Construction Accidents      ♦ Aerial Lifts      ♦ Work Platforms  
   ♦ Ladders      ♦ Cranes & Hoists      ♦ Scaffolding      ♦ Falling Objects      ♦ Slip, Trip & Fall
- Product Liability      ♦ Design Defects      ♦ Manufacturing Defects      ♦ Pneumatic & Hydraulic Systems  
   ♦ Controls      ♦ Valves      ♦ HVAC & Refrigeration Systems      ♦ Stairs, Ramps & Walkways  
   ♦ Machinery      ♦ Tools      ♦ Equipment
- Mechanical Analysis      ♦ Dynamics      ♦ Kinematics      ♦ Stress/Strain & Fatigue effects      ♦ Heat Transfer  
   ♦ Mechanical Shock & Vibrations      ♦ Mechanisms      ♦ Materials      ♦ Fluid Flow      ♦ Air Flow

## INDUSTRIAL EXPERIENCE:

- 1993 - **Forensic Consulting Engineer**, Baxter Engineering, Mesa, AZ
- 1991-93 **President**, Exodyne Electric Motors, Inc., Tempe, AZ  
(Submersible electric motors for turbine pump systems, 20 to 600 HP applications)
- 1985-91 **Engineering Project Mgr.**, McDonnell Douglas Helicopter Co., Simulation Systems Div., Mesa, AZ  
(Apache flight & fire-control simulator software, crew stations, cockpit displays & control devices)
- 1983-85 **Manager of Engineering**, Baker International Company, Downhole Services Div., Sacramento, CA  
(Oil well Logging and Measurement While Drilling equipment; mud-pulse telemetry software)
- 1982-83 **Engineering Department Head**, Schlumberger Technology Corp., Well Services Div., Rosharon, TX  
(Wireline sondes for formation measurement & fluid sampling; wellhead pressure control equip.)
- 1977-82 **Manager - Mech. Design Engg.**, General Electric Co., Space Systems Div., Daytona Beach, FL  
(Aircraft & armored-tank crew-station simulators; elec. packaging for shipboard & nuclear controls)
- 1968-77 **Mech. Engr., Sr. Mech. Engr, Staff Engr.**, Gen. Electric Co., Electronic Systems Div., Syracuse, NY  
(Heat transfer & stress analysis of electronic devices and systems for military/commercial apps.)
- 1968 **Heating, Ventilating and Air Conditioning Engineer**, Galson Consulting Engineers, Syracuse, NY  
(Sizing and layout of HVAC equipment, ductwork & piping for commercial applications)
- 1962-68 **Teaching and Research Asst.**, Mechanical & Aerospace Engineering Dept., Syracuse Univ., NY  
(Taught Statics & Dynamics. Instrumentation and testing in wind tunnel and shock tube facilities)

## FORENSIC APPLICATIONS:

- Vehicular Accident Reconstruction:      ♦ Low-Speed Rear-End Collisions      ♦ Intersection Collisions      ♦ Ejections  
   ♦ Roll-Overs      ♦ Side-Swipes      ♦ Occupant Dynamics      ♦ Seat Belt Issues      ♦ Anthropometric Effects      ♦ g-forces  
   ♦ Reaction Time      ♦ Visibility & Line-of-Sight issues      ♦ Speed & Acceleration      ♦ Travel Times      ♦ Tire Failures      ♦  
Brake & Suspension System Issues      ♦ Radiator Systems      ♦ FMVSS Compliance
- HVAC Design Evaluation:      ♦ Hospital and Commercial Applications      ♦ Heating/Cooling Load Analysis  
   ♦ Work Station Capture Velocities      ♦ Ventilation      ♦ Heat Pumps      ♦ ASHRAE & DHHS Compliance
- Product & Equipment Failures:      ♦ Collapse      ♦ Fracture      ♦ Rupture      ♦ Tip-Over      ♦ Over-Turn      ♦ Instability  
   ♦ Pressure, Temperature and Flow Controls      ♦ Cranes, Hoists & Lifting Equipment      ♦ Chillers      ♦ Boilers  
   ♦ Chemiclaves      ♦ Autoclaves      ♦ Conveyors      ♦ Structures      ♦ Supports      ♦ Tubing, Pipe & Pipelines      ♦ Pumps  
   ♦ Hydraulic Systems      ♦ Vending Machines      ♦ Agricultural Equipment      ♦ Consumer & Industrial Products

## PROFESSIONAL REGISTRATION, MEMBERSHIPS, PUBLICATIONS & ACKNOWLEDGEMENTS:

- PE Registration:      ♦ AZ #32505, 1998      ♦ NY #048396, 1972 (Inactive)      ♦ NCEES #16161, 1998.
- Member of:      ♦ ASME (Life Member)      ♦ IEEE\*      ♦ NSPE\*      ♦ NAFE      ♦ ASHRAE\*      ♦ SAE\*      (\*Semi-Retired)  
   ♦ SATAI (Southwestern Assoc. of Tech. Accident Investigators)
- Publications (Approximately 30+ professional presentations and publications, 1966-2000).
- Marquis Who's Who:      ♦ in the World, 1980-2006      ♦ in Science and Engineering, 1992-93, 1996-2006  
   ♦ in America, 1982-83, 1997-2005      ♦ Finance and Industry, 1979-86, 1998-2001      ♦ West, 1985-92, 2000-01  
   ♦ in Technology Today, 1980-85      ♦ in the South and Southwest, 1978-85.