



Ed Beard, P.E.
Senior Engineer

RYAN FORENSICS

Mr. Ed Beard is a licensed Professional Engineer with 10 years of industrial experience as a mechanical, agricultural and manufacturing engineer in production processes, manufacturing, research and development, product design, failure analysis and engineering and manufacturing management.

EXPERTISE

Over half of 10-year manufacturing career spent as a machine and product designer of mobile and stationary mechanical, electromechanical, hydraulic and pneumatic equipment, as well as DC electrical circuit design. Machine and product design included experience with computer-aided design (CAD) and drafting and design failure mode and effect analysis (DFMEA), along with hands-on development through research and development prior to release into production. Production experience included guarding, warnings and manuals, as well as providing product service in the field. Experienced in a wide variety of manufacturing and fabricating processes and machinery, as well as OSHA, FMVSS and other industry safety regulations. Remaining manufacturing tenure spend managing engineers/drafters, production managers and production facilities. Extensive experience in school bus design and commercial/passenger vehicle accidents.

EDUCATION

Master of Business Administration - Webster University, Little Rock, AR	2003
Bachelor of Science, Agricultural Engineering – Arkansas State University, Jonesboro, AR	1998
Bachelor of Science, Mechanical Engineering – Arkansas State University, Jonesboro, AR	1998

ENGINEERING EXPERIENCE

Senior Engineer, Ryan Forensics, PLLC	2012 – Present
Provide consulting services for legal, insurance, and corporate clients. Responsibilities include mechanical equipment and machinery analysis, industrial accident analysis, product design, and safety analysis.	
Senior Consultant, Rimkus Consulting Group	2008 – 2012
Provide consulting services for legal, insurance, and corporate clients. Responsibilities include mechanical equipment and machinery analysis, industrial accident analysis, product design and safety analysis.	
Plant Manager, Industrial Component Supply	2006 - 2008
Responsibilities included managing all plant operations including production, quality, engineering, inventory control, and maintenance. Developed procedures and manufacturing processes, ensured OSHA compliance within facility, implemented all safety procedures/plans, and ensured all required resources are available. Developed heat exchangers for commercial HVAC units.	

IC Corporation**2000 - 2006****Engineering Supervisor, (3 years)**

Responsibilities included managing a group of engineers and drafters in addition to releasing all personal projects into production. Ensured all new designs or design changes to buses were compliant with Federal Motor Vehicle Safety Standards. Performed engineering analysis on structural members, bearings, and welds. Conducted roof crush and side impact tests on buses. Also conducted corrosion testing on metals and non-metals. Redesigned seats and crash barriers for buses.

Design Engineer, (3 years)

Worked within the new product group, where responsibilities included development of new models/products. Each project included developing a design concept, prototyping the concept, developing costing, and ensuring the design was ready for production. Worked with tooling suppliers if the design build required new or modified tooling. Supported pilot builds and worked with research and development to ensure parts were made for build events and prototyping.

Product Engineer, Rol-Lift Corporation**1998 - 2000**

Duties encompassed all engineering and manufacturing support for pallet truck and stacker product lines. Responsibilities included reviewing special customer orders to create design changes based on the request. Released new drawings to the shop floor, created bills of materials, and ordered any special parts needed. Performed engineering calculations for pallet jacks, scissor lifts and forklift attachments.

Farm Laborer, Bowman Farms**1992 - 1997**

Specialized in tilling soil for planting crops, precision land leveling, herbicide applications, and harvesting crops. Operated and helped repair farm equipment such as tractors, combines, and chemical applicators.

PROFESSIONAL CERTIFICATIONS & MEMBERSHIPS**Professional Memberships:**

- American Society of Mechanical Engineers
- Society of Automotive Engineers
- National Safety Council

Professional Engineering Licenses: NCEES Record # 36595

Arkansas, Oklahoma, Mississippi, Missouri, Texas

SPECIALIZED COURSES

- Certified Self-Propelled Scissor-Lift Aerial Platform and Aerial Lift Operator
- Certified Class 1 through 7 Lift Truck Trainer and Operator
- Detroit Diesel DDEC Reports Training Program – Detroit Diesel
- Crash Data Retrieval (CDR) Technician Course – Vetronix/Bosch
- Accident Investigation 1 & 2 Courses – Northwestern University Center for Public Safety
- Traffic Accident Reconstruction 1 & 2 Courses – Northwestern University Center for Public Safety
- Design Failure Mode and Effect Analysis DFMEA Facilitator – Eastern Michigan University Center for Quality



Rob Bullen, P.E., J.D.
Senior Engineer

RYAN FORENSICS

Mr. Rob Bullen provides a wide variety of technical expertise for the Ryan Forensics Division and brings a working combination of engineering and law to the RF team. He is a licensed Professional Engineer with more than 25 years of experience in both the biomedical and mechanical engineering fields. His experience includes machine design and industrial plant design, as well as experience as a manufacturing engineer in production environments. In addition to his engineering background, he also holds a Juris Doctor degree.

EXPERTISE

Mr. Bullen spent much of his early career focusing on biomedical engineering (both research and patient care), transitioning to machine design and manufacturing. His experience includes mechanical, electromechanical, pneumatic, and hydraulic systems. More recently, his work has included consulting engineering for industrial plant design and code compliance issues. He has worked to ensure compliance with multi-jurisdictional codes including NFPA, OSHA, and ICC, as well as state and local codes. These compliance issues include general building systems as well as mechanical and electrical health and safety issues. His years of hands-on experience both working in the plant facilities as well as with their construction have helped him to develop a thorough working knowledge of the codes and best practice compliance standards.

EDUCATION

Juris Doctor – William H. Bowen School of Law, Little Rock, AR	2020
Bachelor of Science, Mechanical Engineering – University of Maryland, Baltimore, MD	1993

ENGINEERING EXPERIENCE

Senior Engineer, Ryan Forensics, PLLC	2020 – Present
Mechanical, electromechanical and forensic engineering, industrial consulting and machine design. International machine guarding consultant.	
Project Manager/Project Engineer, Mid-South Engineering Co.	2004 - 2020
Consulting engineer for the design and construction of industrial manufacturing plants. Full-service engineering including site development, building design, manufacturing equipment design, and code compliance. Process Hazard Analysis, including risks of dust handling, process machinery guarding and risk mitigation.	
Mechanical Engineer, Strong Manufacturing Co., Inc.	1999 - 2004
Design of stationary and mobile construction machinery including specialty concrete mixers/pumps and power transmission systems utilizing electric motors, hydraulic power units, and internal combustion engines. Equipment guarding design and compliance with safety standards.	

Production Supervisor

Supervision of production operations including quality control and safety compliance. Operations included metal fabrication, machining, welding, and assembly.

Manufacturing Engineer, AAI Corporation

1996 – 1999

Manufacturing engineer for the new products integration group. Responsible for design review and manufacturing implementation, including Design for Manufacturing and Assembly (DFMA), Integrated Product Development, and production line design. ISO 9001 certified. Design and production for the defense, transportation, and simulation industries.

Biomedical Engineer, Johns Hopkins University, School of Medicine

1993 - 1996

Biomedical engineer for research and clinical patient care equipment and instrumentation. Supervision of clinical patient testing lab – pulmonary function lab. Certified pulmonary function technologist.

Machinist Trainee, National Institutes of Health, Gerontology Research Center

1989 - 1993

Design and fabrication of instrumentation for medical research.

PROFESSIONAL CERTIFICATIONS & MEMBERSHIPS

Professional Memberships:

- Arkansas Society of Professional Engineers
- Arkansas Bar Association
- National Safety Council

Professional Engineering Licenses: NCEES Record # 3258

Alabama, Arizona, Arkansas, Louisiana, Maine, Maryland (Inactive), Mississippi, Missouri, New Mexico, North Carolina, Oklahoma, Tennessee, Texas, Wisconsin

PROFESSIONAL DEVELOPMENT – PARTIAL LIST

- FEMA – ATC20 – Post Earthquake Safety Evaluation of Buildings
- Laws, Rules, and Ethics for Professional Engineers
- International Building Code
- Acoustical Sound Attenuation for Equipment Enclosures
- Storage Silo Material Unloading
- MSHA Surface Metal & non-Metal certification
- Duct Smoke Detection
- Life Safety Code
- Natural Ventilation System Design
- NFPA Standards for Combustible Dusts
- NFPA – Combustible Dust Hazard Assessment
- Laboratory Exhaust Systems, Makeup Air and Energy Recovery
- Biomass Boilers
- Hidden Risks of Green Construction: Moisture and Mold Problems
- Safety and Risk Analysis
- Designing with Engineered Wood Products
- Construction Safety Standards/Construction Work Safety
- Dust Collection: Dust Collector Explosions

PROFESSIONAL ACHIEVEMENTS

Former President, Arkansas Society of Professional Engineers **2014 - 2015**

Former President, Hot Springs Chapter - Arkansas Society of Professional Engineers **2009 – 2010**

Barrister's Award, William H. Bowen School of Law

Charter Member, National Park College Engineering Advisory Board



Russ Rasnic, P.E.
Director/Principal

RYAN FORENSICS

Mr. Russ Rasnic provides leadership and management for the Ryan Forensics Division and brings a variety of strengths to the RF team. He is a licensed Professional Engineer with 20 plus years of industrial experience as a mechanical, plant and manufacturing engineer in production processes, machine design, failure analysis, engineering and manufacturing management.

EXPERTISE

Nearly half of 20-year manufacturing career spent as a machine designer of mobile and stationary mechanical, electromechanical, hydraulic and pneumatic equipment, as well as AC and DC electrical circuit design. This concept to production experience included drawings, guarding, warnings, manuals and product service. Experienced in a wide variety of manufacturing/fabricating processes and machinery, as well as OSHA and safety regulations. Balance of manufacturing tenure spent managing/setting up production facilities. Extensive construction site/equipment experience.

EDUCATION

Master of Science, Mechanical Engineering – University of Arkansas, Fayetteville, AR 1982
Bachelor of Science, Mechanical Engineering – University of Arkansas, Fayetteville, AR 1981

ENGINEERING EXPERIENCE

Senior Engineer/Director, Forensic Division – Ryan Engineering, Inc. 2002 - 2009
Director/Principal, Ryan Forensics, PLLC 2010 – Present
Mechanical, electromechanical and forensic engineering, industrial consulting and machine design. International machine guarding consultant.

President/CEO/Chairman, Halo Spark Plug, Inc. 1999 - 2002
Startup manufacturing company. Duties encompassed all aspects of product design, patents, production startup, plant management, sales, marketing and accounting. Developed international sales and contracts; secured exemption of securities for private sale. Appeared on a segment of the national television series Auto Trends.

ROL-LIFT Corporation 1988 – 1999
Operations Manager, (6 years)
P & L responsibility for materials handling equipment manufacturer, including all aspects of manufacturing plant operations.

Engineering and Product Development Manager, (2 years)
Duties encompassed all manufacturing support, special product research and development engineering, as well as technical services, warranty, field service and quality assurance.

Engineering and Technical Services Manager, (2.5 years)

Engineering and customer service responsibilities, including parts sales, field service, warranty and technical assistance.

Senior Manufacturing Engineer, Chamberlain Group

1987 - 1988

Manufacturing/plant engineer for aluminum extrusion and storm door manufacturer.

Project Engineer, Texas Instruments, Inc.

1982 - 1987

Design, project engineering and leadership responsibilities for infrared systems and detectors manufactured for US Armed Forces. Worked extensively with exotic materials and alloys.

Graduate Teaching Assistant, University of Arkansas, Fayetteville, AR

1982

Field Engineer, Arkansas Western Gas Company, Fayetteville, AR

1981

PROFESSIONAL CERTIFICATIONS & MEMBERSHIPS

Professional Memberships:

- American Society of Mechanical Engineers
- American Society of Metals
- Arkansas Academy of Mechanical Engineering
- Human Factors and Ergonomics Society
- Institute of Electrical and Electronic Engineers
- National Safety Council
- Society of Automotive Engineers

Professional Engineering Licenses: NCEES Record # 42051

Alabama, Arizona, Arkansas, California, Mississippi, Missouri, Oklahoma, New York, Tennessee (Inactive), Texas

PROFESSIONAL DEVELOPMENT – PARTIAL LIST

- Machine Guarding/Warnings – Technical Paper Publication/Presentation - 2004
- Ladder Tiplock Analysis – Technical Paper Publication/Presentation - 2004
- Aerial Lift Anti-Entrapment Devices Testing – Technical Paper Publication/Presentation - 2019
- PLC Programming
- Safety Engineering and Hazard Evaluation /Warnings
- Traffic Accident Reconstruction
- NCCCO Certified Crane Operator
- Certified Level 1 Rigger/Signal Person
- Certified Forklift Operator/Trainer
- Certified Aerial Lift Operator/Trainer
- Combustion and Emissions for Engineers
- Excellence in Manufacturing
- Hazardous Materials Transportation
- Safety and Risk Analysis
- Corrosion
- Construction Safety Standards/Construction Work Safety
- Wood as an Engineering Material

PROFESSIONAL ACHIEVEMENTS

- Charter Member of Trade Societies Responsible for Development of Three ANSI Standards
- Co-Author, U.S. Patent Number 6,080,029 and Seven International Patents
- Department of Defense Quality Vendor Award, 1992-1996
- Former Department of Defense Secret Clearance
- OSHA Plant Inspection Exemptions, 1991-1999
- Plant Engineering Magazine “Product of the Year” Design Finalist, 1990
- Former President, Hot Springs YMCA Board of Directors
- Elected to Arkansas Academy of Mechanical Engineering, 2007, BOD 2008 – 17, President 2015-16
- Guest Lecturer on Safety In Design – University of Arkansas, National Park Community College
- ASME Safety Engineering & Risk Analysis Division Technical Paper Reviewer/Technical Session Chair
- National Park College Engineering Advisory Board – Charter Member
- University of Arkansas Mechanical Engineering Department Capstone Senior Design Project Advisor

