Professional Experience

Over forty-five years' experience in design, engineering, installation, startup and troubleshooting of manufacturing and production equipment, industrial process skids, industrial and municipal water and wastewater treatment systems, inclusive of the equipment, hydraulics, pneumatics, instrumentation, controls and programming.

Significant recent efforts include:

- Lead project engineer and project controls manager for a multi year multi facility aerospace rocket plant retooling. This multimillion-dollar project in a security-controlled environment removed, replaced, refurbished, and reinstalled specialized aerospace industry equipment used to construct the leading US rockets, all accomplished in the midst of an operating facility. Project planning, scheduling, documentation, cost control, and mechanical, electrical and controls start-up coordination were portions of the daily responsibilities.
- Acted as the senior project engineer for the erection of a bulk material handling facility, including the process equipment, conveying, and structural steel. This facility, used in the production of alcoholic beverages, was constructed 140 feet above grade, on top of an existing production structure. The project was dominated by the use and critical placement of high-lift industrial cranes, placed into tight isles congested by existing traffic flow, performing critical picks and placement of the equipment, all while the existing facility was in operation.
- The construction and erection of a custom mining industry production facility, the size of a football stadium, accomplished at high elevations, required extra effort for success with project controls and project engineering. Handled multiple subs and suppliers for quality, submittals and RFI communication on this multimillion-dollar project.
- Provided the estimating, design efforts, engineering and project management to manufacture and construct custom hydraulic fluid power units used in industry by, a rocket manufacturer, a hazardous waste incineration facility, a large superfund site, and for the Central Arizona Project Aqueduct System.
- Lead designer and control systems engineer for process, control and instrumentation systems at multiple water and wastewater treatment plants.
- Project manager/engineer/programmer for a tea mixing tote washing and sanitizing system. Tasks included equipment selection, utility

coordination, control panel design. PLC and OIT programming, and chemical injection equipment design, and facility modification coordination

Employment History

 AmWest Control, Inc., Brighton, CO 	2018 to Present
Project Engineer	
Precision Industrial Contractors, Inc., Brighton, CO	2007 to 2018
Project Engineer	
Colorado Controls and Design, Inc., Littleton, CO	1999 - 2007
Owner/Project Manager	
TOPRO Systems, Inc., Denver, CO	1990 - 1999
Project Manager/Engineer	
 Air-O2-Gest Corp., Commerce City, CO 	
Project Engineer	1982 - 1990
Draftsman/Designer	1972 - 1978
Chaney Electronics, Englewood, CO	1978 - 1982
Manager	
J.A. Richards Company, Kalamazoo, MI	1969 - 1971
Die Layout/Draftsman	

Education and Training

Comstock High School, Comstock, MI. 1969

A.A.S., Mechanical Drafting and Design Technology - Arapahoe Community College, Littleton, CO 1986

Professional/Certifications

•	Certificate, U.S. Army, Advanced Medical Equipment Repairman		
	1970 - 1976		

Certificate, Wastewater Operators Course, University of Colorado

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•	Certificate, CAD/Drafting, ACC, Littleton CO	1987	
•	Certificate, ABB Kent Taylor MOD300 DCS School	1992	
•	Certificate, Warren Fluid Power Hydraulics School	1993	

Airport Experience

- <u>Pueblo Municipal Airport</u> project engineer for the design and installation of the airfield remote lighting control system.
- <u>Fayid Air Force Base, Egypt</u> project engineer for the design and installation of the base's water and wastewater treatment plant control systems.
- <u>Denver International Airport</u> project engineer on the design and installation of the process control system for the glycol production and recycling plant.
- <u>Denver International Airport</u> project manager/engineer for the design and installation of process controls required by a series of glycol services replacements, spanning 5 years.
- <u>Denver International Airport</u> project manager/engineer for the replacement of the boiler controls at the central heating plant.
- <u>Denver International Airport</u> project engineer for the design and coordination of controls and instrumentation for the glycol de-icing fluid collection system expansion.

Control and Instrumentation Experience

• Product Experience

Radio Telemetry

Microwave Data Systems Radios

Control Panels

Relay Panels PLC Panels

Pump Panels Motor Starter Panels

Programmable Logic Controllers (PLC's)

Allen-Bradley - PLC5, SLC500, General Electric - 90-30, Nano

Micrologix, ControlLogix

Honeywell - 621 Modicon - 984 OPTO-22 Toshiba - EX100

Distributed Control System (DCS)

ABB MOD 300

Instrumentation

Analyzers, Flow, Level, Pressure, Temperature, and Weight Human Machine Interface (HMI's, MMI's, OIT's)

GE Fanuc – iFix 3.5 Allen-Bradley - PanelView

Industry Experience

Boilers Glycol Collection

Rendering Plants Irrigation

Food Environmental Remediation
Domestic Water/Wastewater Industrial Water/Wastewater

Process Skid Design Experience

- Electro-coagulation Units Design and engineer cost effective process skids using electro-coagulation to remove process oil and sand containments from an industrial steam cleaning wastewater. The skids included: automated control system, power supplies, clarifier, pumps, filters and electro-coagulation tubes.
- Trailer Mounted Dredging System Design and engineering assistance of a system to separate silt, sand, and trash from a dredging operation. The system needed to be portable and easy to setup and knock down. Take customer ideas of the system and specify components and a practical layout. The components and layout were then presented to the customer for approval. Components specified were trailers, bar screens, shakers, cyclones, dissolved air flotation unit, screw conveyors, pumps, and controls. A system efficiency study was also done and presented to the customer. The customer then took the information and used it for investment and sales presentations.
- Chlorine Dioxide Generators Design and engineer customer specified chlorine dioxide generator skids. Coordinated the fabrication and assembly of the skids including the control system to operate the skids which included pumps, injector, valves, and piping.
- High Gradient Magnetic Filters Design and engineer control and instrumentation systems for filters to remove iron and copper corrosion particles from boiler condensate waters. The filters are skid mounted and PLC controlled with automatic backflush cycle. Specified all controls and instrumentation including: PLC, valve actuators, pressure transmitters, and temperature transmitters. General arrangement, process and instrumentation diagrams, electrical drawings, electrical interconnection diagrams, and field commissioning of the filter system were provided.
- MEK Shuttle Cart Design of an MEK solvent shuttle cart that is self contained and includes connecting hose, valves, pump, and dripless quick connectors. All valves, piping, tubing, and tank in contact with the MEK were stainless steel and materials compatible MEK. The cart design had a low center of gravity and roller bearing spring loaded casters.
- Coal Bed Methane Analysis Equipment Research, design and engineer a
 complete laboratory system to analyze methane gas production from a coal bed
 using exploration wells. The methodology uses laboratory equipment, data
 acquisition and computers. Equipment from core canisters, water baths and
 sample preparation apparatus to data acquisition multiplexers and computer
 operator interfaces was selected and provided.

Dave R. Rollins

Project Manager/Project Engineer

Software Experience

- Allen-Bradley RSLogix500
- Allen-Bradley RSLogix5
- Allen-Bradley PanelBuilder 32
- AutoCAD 2004 (as well as previous versions)
- GE Fanuc iFix 3.5
- GE Proficy Machine Edition
- Honeywell 620
- HTML Programming
- Basic Programming
- Microsoft Word
- Microsoft Excel
- Microsoft Project
- Primavera Expedition
- Primavera P6
- Procore Certified: Engineer