



Education

- ▶ B. S. Chemical Engineering, UC San Diego, 1993
- ▶ EIT Certified License No. XE093269
- ▶ 40 Hour HAZWOPR Training in Accordance with OSHA 29 CFR 1910.120

Professional

- ▶ American Institute of Chemical Engineers (AIChE)
- ▶ American Water Works Association (AWWA)
- ▶ Water Environment Federation
- ▶ Design Build Institute of America (DBIA)

An innovative water treatment professional with over 20 years of experience in process engineering, sales, management and customer service. Expert knowledge of many water and wastewater treatment processes including anaerobic and aerobic biological treatment, sludge dewatering, heavy metal treatment, pH neutralization, zero liquid discharge, ion exchange, membrane processes, ultra-high purity water production, advanced processes, and their application into a broad range of industrial markets such as Food & Beverage, Oil & Gas, Microelectronics, and Mining. Hands-on mechanical, process, and electrical skills with a variety of unit operations. A well-rounded, savvy business leader and problem solver possessing a high level of integrity.

Experience

President and CEO, Total Process Systems, Inc.

2008 - Present

Founded the business in 2008 for the purpose of providing integrated water and wastewater treatment solutions and services to industrial customers. Self perform engineering activities and provide sound solutions to difficult water treatment problems. Responsible for all day-to-day management of business operations

- ▶ Confidential Semiconductor Manufacturer Chandler, AZ: Design/Build installation of a 600 GPM High Purity Water System
- ▶ NextEra Energy Blythe, CA: Design and supply of a Potable Water Treatment system to support a Solar Plant
- ▶ Confidential Oil Producer Bakersfield, CA: Developed a design/build water treatment project to treat produced water from an oil field operation and recycle to high pressure boilers or discharge to a river
- ▶ HollyFrontier Artesia, NM: Design and supply of a Reverse Osmosis system to support an Oil Refineries boiler requirements
- ▶ Mariani Packing Vacaville, CA: Provide ongoing consulting services to oversee operations of an anaerobic/aerobic treatment process including daily review of process data and adjustment of process parameters to maintain effluent discharge compliance
- ▶ Del Monte Walnut Creek, CA: Provided a Dissolved Air Floatation system to treat high FOG wastewater from a pet food manufacturing facility
- ▶ Fulcrum BioEnergy Reno, NV: Designed and supplied a high purity water system consisting of 2-pass reverse osmosis system followed by electro-deionization



Sr. Capital Sales Engineer, USFilter/Siemens Water

2001 - 2008

Responsible for the development of large design/build capital projects within the western US.

- ▶ Mariani Packing Company: Design/Build installation of an anaerobic & aerobic treatment system to treat high COD fruit processing wastewater
- ▶ Marquez Brothers International: Design/Build installation of a 600,000 GPD wastewater pretreatment system consisting of dissolved air floatation and aerobic treatment of milk processing wastewater
- ▶ Large Confidential Winery: Design/Build installation of anaerobic treatment and biogas scrubbing system to treat winery wastewater
- ▶ Nevada Energy: Turnkey installation of a Zero-Liquid-Discharge water treatment plant at a Power Generating facility

Applications Engineer/Manager, USFilter

1993 - 2001

Managed and led a team of Engineers and was responsible for the process design of industrial water and wastewater treatment projects primarily for the microelectronics industry both domestically and internationally.

TSMC Taipei, Taiwan: Design and commissioning of a comprehensive wastewater system incorporating pH Neutralization, Fluoride and Heavy Metals Precipitation, and Slurry Treatment from a large semiconductor fab.
Applied Materials Santa Clara, CA: Design of an Ultra High Purity Water System that met the tightest UHPW specifications at the time.

Hitachi San Jose, CA: Design of a pH Neutralization System and UPW system for a semiconductor manufacturing facility

MASCA Puyallup, WA: Design of a comprehensive wastewater system incorporating pH Neutralization, Fluoride and Heavy Metals Precipitation, Slurry Treatment, Ammonia Stripping, and biological treatment of wastewater from a large semiconductor fab

Cypress Semiconductor San Jose, CA: Designed and managed a project to upgrade an existing UPW system to provide higher quality UPW Water to a semiconductor manufacturing facility.