



## JOHN T. KRACZEK – MECHANICAL ENGINEER

John Kraczek has more than 30 years of experience in industrial design engineering, Project and Construction Management. He has significant experience in mining and mineral processing, and chemical plant projects both domestically and internationally. He has participated in projects, feasibility studies, and project cost analyses in multiple countries. His equipment design experience includes CNC machine development, robotic welding, automated equipment development, assembly and manufacturing cell set up. He has managed multiple plant installation and construction projects.

### PROJECT EXPERIENCE

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- **Bozshakol Clay Copper Concentrator Plant** - Kazakhstan » FLSmidth - Senior Mechanical Engineer and Senior Project Engineer on \$330 million project. Oversaw and coordinated mechanical engineering teams and coordinated work between all disciplines including process, civil, structural, electrical, controls, and equipment suppliers, and site contractors in support of the overall project director. Extensive work in sizing, qualifying and deploying many types of equipment and included working with teams integrating equipment into the plant control systems.
- **FMC Plant Upgrades** » FMC - Project Engineer and Manager on multiple projects, process review and engineering cross check, pumps and piping calculations, corrosion studies, construction coordination and inspections, cost estimates and approvals for finance packages, Calciner and rotary kiln rebuild management. Managed Approximately \$20 Million in projects over 2 years.
- **Hunter Plant Drag Chain Conveyor for Unit #3** » UCC – Lead Project Engineer – coordinated multidiscipline effort to support the installation of a new drag chain conveyor for the unit 3 boiler at the Hunter Power Plant for UCC.
- **Huntington Plant Submerged Drag Chain Conveyor** » PacifiCorp - lead mechanical engineer on the installation of a drag conveyor for boiler #2 at the Huntington power plant.
- **Gold Refinery Ventilation** » Johnson Matthey - Performed various ventilation studies, reviewed vendor equipment recommendations, coordinated and reviewed roof load studies and equipment placement, power and gas consumption projection estimates for proposed expansion projects
- **Trona Plant Upgrade** » Tata Chemicals - Coordinated pump and piping calculations, equipment selection, process review and process change recommendations, engineering support for purchasing functions, site inspections and tie in review.
- **Manufacturing Facility Upgrade and Management**» Designed process flow and equipment layouts and managed construction and equipment installation including rigging, electrical installation and tie ins, plumbing, offices, phone systems for 4 different short to medium run manufacturing facilities.
- **Facility Upgrade** » OCI - Selected equipment for client provided process for a facility upgrade, classifier, clarifier, pump and piping calculations, preliminary total installed cost estimate for the upgrade.
- **Green Field Facility** » M.C. Lithium - Selected equipment for client provided process for a green field facility, piping and pump calculations, peeler centrifuge, drier, and agitator calculations and sizing, preliminary total installed cost estimate for the facility.
- **Tasmania Tin and Sapphire Mine** » Van Diem Mines - Ore flow and mining process calculations, equipment sizing and plant design for Tin and Sapphire capture, on site mine inspections, oversaw equipment and plant manufacturing and shipping.
- **Coal Mine Facility Update** » Lila Canyon Coal - Review and update design of mine coal load out, review and update design of surface facilities.
- **Rotary Drier Failure Analysis** » Great Salt Lake Miner - Rotary Drier Failure Analysis and Recommendations, turn around planning.



- **Billet Heater** » SAPA - Engineering calculations on re-engineered billet heater, engineering design of equipment, coordinated manufacturing of equipment, oversaw installation, testing and commissioning of equipment.
- **Renewable Power and Natural Gas Projects** » MAETEC LLC - Development of green field renewable power and natural gas power projects for the Caribbean, South Pacific and South East Asia, engineering and design of offshore renewable energy systems, preliminary environmental impact studies, project feasibility studies.
- **Coal Mine Engineering and Design** » Circle Industries - Coal mine inspection, engineering and design of coal mine man doors, engineering and design of manufacturing equipment for production.
- **Manufacturing Equipment Design and Development** » Integrated Engineering and Design – CNC Automated manufacturing equipment design and program logic development, (56k lines code), oversaw equipment manufacturing, equipment installation and check out, operator and process training.
- **Manufacturing Cell Design** » Boundary Fence and Railing - Oversaw equipment installation, equipment commissioning, and operator training.
- **Manufacturing Equipment Design** » Daymond - Equipment Cell Design, oversaw equipment installation and commissioning, product design and development, technical support and debugging.
- **Manufacturing** » Tensar Polytechnologies - Retail product line development and marketing support, multiple SKUs, manufacturing plant design including material flows, conversion, packaging and warehouse, managed plant and equipment construction and commissioning, trained operators, turn around planning and management for press rebuilds.
- **Equipment Design and Manufacturing** » Goldfield International - Goldfield Engineering – Responsible for development of mine process flow sheets and mechanical equipment selection and sizing, specifying horsepower of motors, call out bearings, chain and belt sizes on motorized equipment, oversaw design and manufacturing and assembly of rotary trammels, jigs, and sluices for ore processing, designed dewatering sand screws, rotary and trey driers, oversaw the fabrication, construction, and packing for shipment of plants shipping internationally.

## **EDUCATION & TRAINING**

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### **Weber State University**

Bachelor of Science in Mechanical Engineering Technology

Post Graduate Studies:

- Project Management
- Accounting
- Team and Business Management

## **AFFILIATIONS AND LICENSES**

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Society for the Advancement of Material and Process Engineering (SAMPE)

# JOHN T. KRACZEK

## EXECUTIVE DIRECTOR AND SENIOR PROJECT ENGINEER

### AREAS OF EXPERTISE

Extensive project experience in the U.S., Canada, Caribbean, Australia, South East Asia and The South Pacific.

Expertise in energy projects, material handling, strengths of materials, mechanical process and design, mineral processing, concentrators.

Excellent knowledge of engineering design associated with safe operation of plant equipment and piping systems.

Develop process concept ideas into Process Flow and P&IDs.

Prepare technical data sheets.

Skilled at identifying project tasks, order of priority, and accomplishing turn around projects.

Evaluate vendor bids and drawings to assure design compliance.

Excellent management and interpersonal skills for leading small to large teams.

### PERSONAL DETAILS

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### PERSONAL SUMMARY

Johnny Kraczek has more than 30 years of experience in design and industrial engineering, working in energy, chemical, mining and manufacturing projects internationally. He has developed and managed engineering projects in renewable energy, manufacturing, heavy equipment manufacturing, manufacturing automation, plant power, mining process, mining equipment, slurries and ore processing in precious metal, precious gems, potash, trona, and salt mineral recoveries.

### PROJECT EXPERIENCE

#### **FLSmidth Salt Lake**

Senior Project Engineer

- Coordination of all engineering disciplines with client. Worked directly with conveyor and plant equipment development and procurement, HVAC engineering development, other equipment and engineering support for \$350 million Bozshakol Copper Project in Kazakstan

#### **FMC Greenriver**

Senior Project Engineer

- Worked with procurement of contractors to carry out turn around projects.
  - Calciner and rotary kiln rebuild projects
  - Crystallizer Chiller Piping corrosion analysis
  - Steam Sparger and pre-crystallizer heat systems
  - Feed and Heat Balance Analysis and design review
  - Agitator/sweeper drives
  - Vacuum Pumps and steam venturi vacuum systems
  - Crystallizer structural supports
  - Various crystallizer design reviews including Mono, Sesqui, and Decahydrate systems for Sodium Bicarbonate purification and processing
  - Design review and evaluation on Potash Systems
  - Post crystallizer piping systems
- Responsible for \$20 million plus in FMC projects

#### **PSE Sandy**

Senior Consulting Engineer

- Plant Design including Lithium Plant, Trona Plant, construction cost estimates and preliminary engineering.
- Power Plant Projects for Hunter, Hunnington and Glendive Power plants.
- Coal handling and processing equipment design and costing for various mines.
- Various mine and smelter projects for Kennecott Copper

# JOHN T. KRACZEK

## EXECUTIVE DIRECTOR AND SENIOR PROJECT ENGINEER

### OTHER AREAS OF EXPERTISE

Process Flow and Design  
Inspections and Procurement  
Greenfield and Retrofit  
Plant development  
Construction Management  
Project Management  
Heavy Machinery Design  
Structural and Mechanical Design  
Tool Design  
Material Handling Including Belt and Pneumatic Conveyors  
Placer Separation Equipment Including Jigs, Trommels  
Screen Deck and Sluice design  
HVAC and ventilation  
Industrial Motors and site power development  
Clear Water and Slurry pumps  
Agitators, Frothers, and Clarifiers  
Crystallizers  
Solar Evaporation

### EDUCATION & TRAINING

**Weber State University**  
Bachelor of Science in Mechanical Engineering Technology  
Post Graduate Studies:  
Management of Teams  
Accounting and Project Management

### **Goldfield International-Goldfield Engineering, Lindon Utah** Senior Engineer

- Responsible for the development and manufacturing of placer mining equipment in the world wide market.
- Oversaw design and manufacturing of rotary trommels for ore processing.
- Oversaw design and manufacturing of equipment to receive and meter ore from earth moving equipment.
- Designed dewatering sand screws, rotary and trey driers to further process ores and precious stones.
- Projects included systems to process up to 300 tons of ore per hour
- Oversaw the design and supported manufacturing for processing complex ore processing systems shipping internationally some systems packaged in as many as forty 40ft shipping containers for one site.
- Three story processing platforms with connecting bridges as well as conveyors, slurry pumps and extensive plant piping systems for both process water and slurries.
- Oversaw the fabrication, construction, and packing for shipment plants shipping internationally.

### **MAETEC LLC, Sandy Utah**

#### Founder, Lead Researcher and Director of Engineering

- Researched and developed Renewable Energy Projects
- Site visits and negotiations with government ministries and Prime Ministers to determine island power needs and to gather support for renewable energy projects
- Inspection of marine equipment and facilities including shore facilities, tug and other vessel inspections. Interviews with mariners and harbor commandants
- Extensive testing and development work, leading research technicians to develop highly efficient electrolyzers and new international Electrolyzer patents
- Leadership and extensive involvement in the development of two sizes of Offshore Energy Capture and Storage systems, including concept design, PID, PFD development, general part development, FEA parameters for parts, and
- Responsible for specifying horsepower of motors, call out

# JOHN T. KRACZEK

## EXECUTIVE DIRECTOR AND SENIOR PROJECT ENGINEER

### PROFESSIONAL SKILLS

AutoCADD, Inventor  
ProE, Solid Works  
Microsoft Office  
Word, Excel, Outlook, Power  
Point, Access  
Algore  
Caesar II

Taught: Composite  
Engineering at SLCC 2 yrs

### PERSONAL CHARACTERISTIC

Resourceful  
Disciplined  
Performs Quality work  
Complete work on time  
Productive  
Organized  
Good verbal and written  
communication skills  
Skilled presenter

### OTHER SKILLS

Other useful project skills  
include:

-Equipment Inspector  
including industrial, energy  
and marine equipment  
-Certified Diver with open  
sea diving experience.  
-Open water skipper with  
hundreds of hours of  
sailing experience in all  
types of weather.

### REFERENCES

Available Upon Request

of bearings, chain and belt sizes on motorized equipment.

- Led engineers in development of detail drawings.
- Led technicians in testing many manufacturing processes and procedures for creating the required composite parts.
- Performed in depth analysis of renewable energy system applicability for many sites including projects in the South Pacific, South East Asia, Central America, and the Caribbean. Typically this work involved site visits, interviews with power plant staff, power boards, ministries of energy and ministries of environment.

### **Circle Industries LC, Clearfield Utah**

VP of Engineering, Director of Operations

- Completed (3) manufacturing plant set ups including flow analysis, equipment layout, wiring plan, and led the rigging and start up of the plants at three different sites in Clearfield.
- Developed, designed and managed a testing program as a subcontractor on a US Air Force equipment cycle test.
- Personally responsible for several new products and their designs including patents.
- Oversaw the manufacturing implementation of many new products
- Served for two years as Chief Operations Officer
- Designed process equipment and worked with plants to install the equipment in the U.S. and Canada. Some larger plants included Allside Ohio, Daymond Building Products Canada, Trinity Plastics Alabama, Signature Sports Brooklyn.
- Managed and led staff of up to ninety people.

### **Tensor Polytechnologies & Tensor Inc., Morrow Georgia**

Product Engineer and Plant Engineering

- Worked with Tensor Polytechnologies marketing staff to design a retail product line for Big Box retailers like Builders Square, Lowes, Home Depot.
- Worked as lead engineer over 350 ton flywheel presses.

### **Integrated Engineering and Design, Ogden Utah**

Founder and President

- Drawing CAD drawings from company hand drawings
- Re-engineered parts for CNC manufacturing equipment