



HEADWATERS
ENGINEERING + CONSULTING

ENGINEERING TOMORROW'S SOLUTIONS, TODAY

WE'VE WALKED THE PLANT FLOORS.

WE'VE BEEN TO THE INDUSTRIAL SITES.

LET **HEADWATERS ENGINEERING + CONSULTING**
USE OUR REAL WORLD EXPERIENCE
TO IMPROVE YOUR OPERATIONS.

DOING THINGS RIGHT.

SAFETY IS HEADWATERS' NUMBER ONE PRIORITY.

Our main focus is ensuring the health and safety of everyone who works on a Headwaters project. We are committed to protecting the quality of life of everyone on the job site, creating safe designs for your employees after completion, and identify and applying all regulations, codes, and rules early.



INDUSTRIES SERVED



FOOD & BEVERAGE

We provide solutions to common problems within the industry such as hygiene and safe food handling, regulation compliance, time-sensitivity, and dust/explosion protection.

INDUSTRIAL, AGRICULTURE, & GENERAL MANUFACTURING

On a tight budget and schedule? Headwaters understands restrictions and is able to find the right solution for the right budget with the expertise to pull it all together.

STEAM, OIL, GAS, UTILITY, & ENERGY

At Headwaters, we understand the need for reliability, safety, and energy savings. Our years of engineering and equipment design and specification transfer to successful projects that save you time and money.

DISCIPLINES

DISCIPLINES EXECUTED BY THE EXPERTS THAT YOU CAN TRUST.

At Headwaters, we take great pride in the quality and attention-to-detail that is in each and every design and project. The product we produce is a direct reflection of the stakeholders that choose to partner with us and must be at the highest level of quality.

START THE CONVERSATION

📞 612-207-9598

✉ Info@HeadwatersEC.com

🌐 www.HeadwatersEC.com

🌐 [linkedin.com/company/Headwaters-EC](https://www.linkedin.com/company/Headwaters-EC)



PROJECT MANAGEMENT

- Project, program, & CAPEX management
- Feasibility studies (FEED/FEL) & budget development
- Staff augmentation, "Rent an Engineer"
- Owner's representative services
- Startup, commissioning, & training support
- Stop-gap on-site engineering support



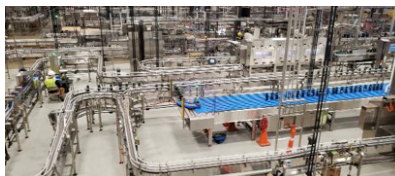
TURN-KEY & EPC

- Single source execution of projects
- One project manager/point of contact
- Engineer, procure, & construct (EPC)
- Licensed & bonded in several states
- Robust list of trusted sub-contractor partners
- Complete transparency throughout entire project
- Un-biased selection and procurement process
- Flexible contracts that meet your needs
- System design engineers onsite for startup and commissioning



PROCESS ENGINEERING

- Process and piping design & layouts
- System retrofits & upgrades
- Mixing, batching, and blending
- Process Automation & modernization
- PFD and P&ID development & updates
- Equipment specifications & selection
- CIP/COP system designs
- Dust hazard analysis
- Mass balance and Utility Matrix development



PACKAGING & INTEGRATION

- Packaging line design, analysis, & layouts
- Product Application: Wet, dry viscous, rigid, flexible, bulk, high speed, specialty
- Equipment specifications, comparisons, & selection (primary, secondary, & tertiary)
- Line automation, integration, & robotics
- Installation, startup, commissioning, & training support
- Factory & site acceptance testing support
- Line efficiency studies & upgrades
- Packaging line modifications & relocations



AUTOMATION, CONTROLS, & INSTRUMENTATION

- Existing system analysis for performance improvement
- Upgrades to legacy PLC/Controls systems
- Programming & troubleshooting
- Control panels (UL), hardware, & instruments
- Hardware & software upgrades
- Process and packaging controls and instrumentation
- Control Platform Expertise: Rockwell, Siemens, GE, Modicon, Wonderware, Ignition
- Information Solutions: SCADA, Historians, ERP, MES, Reporting



ARCHITECTURE & ENGINEERING

- Architectural
- Mechanical (HVAC, plumbing, & utility)
- Electrical
- Structural
- Civil & land surveying
- Geotechnical
- Environmental



3D LASER & LiDAR SCANNING

- 3D laser scanning and point cloud conversion
- Aerial/drone scanning for site imagery
- Updates to building/facility & equipment layouts
- Project planning and as-built assessments
- Useful tool for allowing remote access to site



HAZARD & SAFETY CONSULTING

- Hazard identification & risk assessment
- Machine guarding, railings, & pipe insulation
- Machine center, process components, and instrument tagging for easy maintenance
- Maintenance and inspections
- Perform Dust Hazard Analysis (DHA) surveys and mitigation plans
- Food safety consulting, auditing, and designs
- Technology integration for improved safety
- Ergonomic design implementation for safety improvement