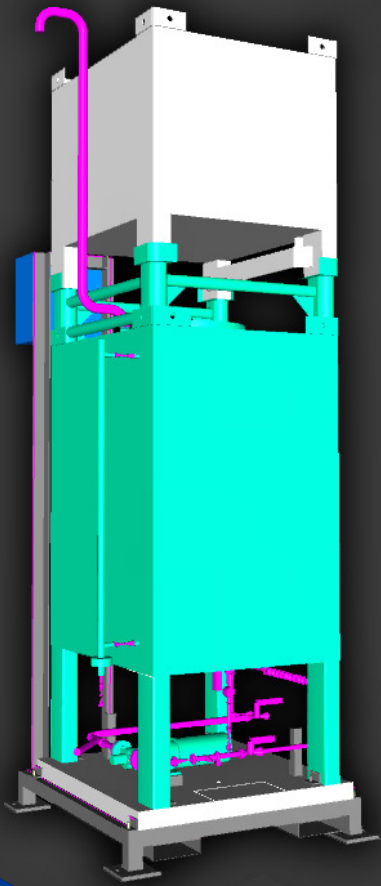


MINOR INGREDIENT DOSING SYSTEM



Quickly Automate Your Minor Ingredient Additions



GUIDING YOUR PROCESS PROJECT TO EPIC RESULTS



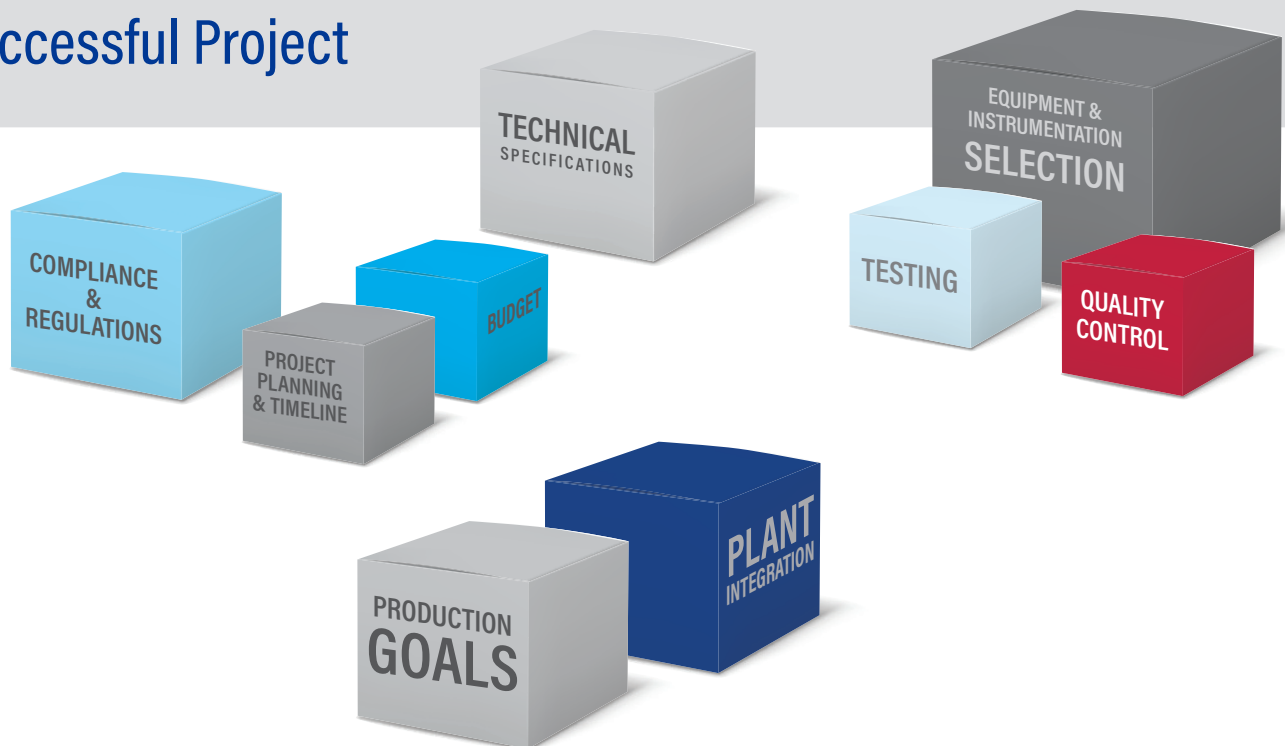
Goal Setting

KEY TO SUCCESS: Understanding Your True Priorities & Business Impact

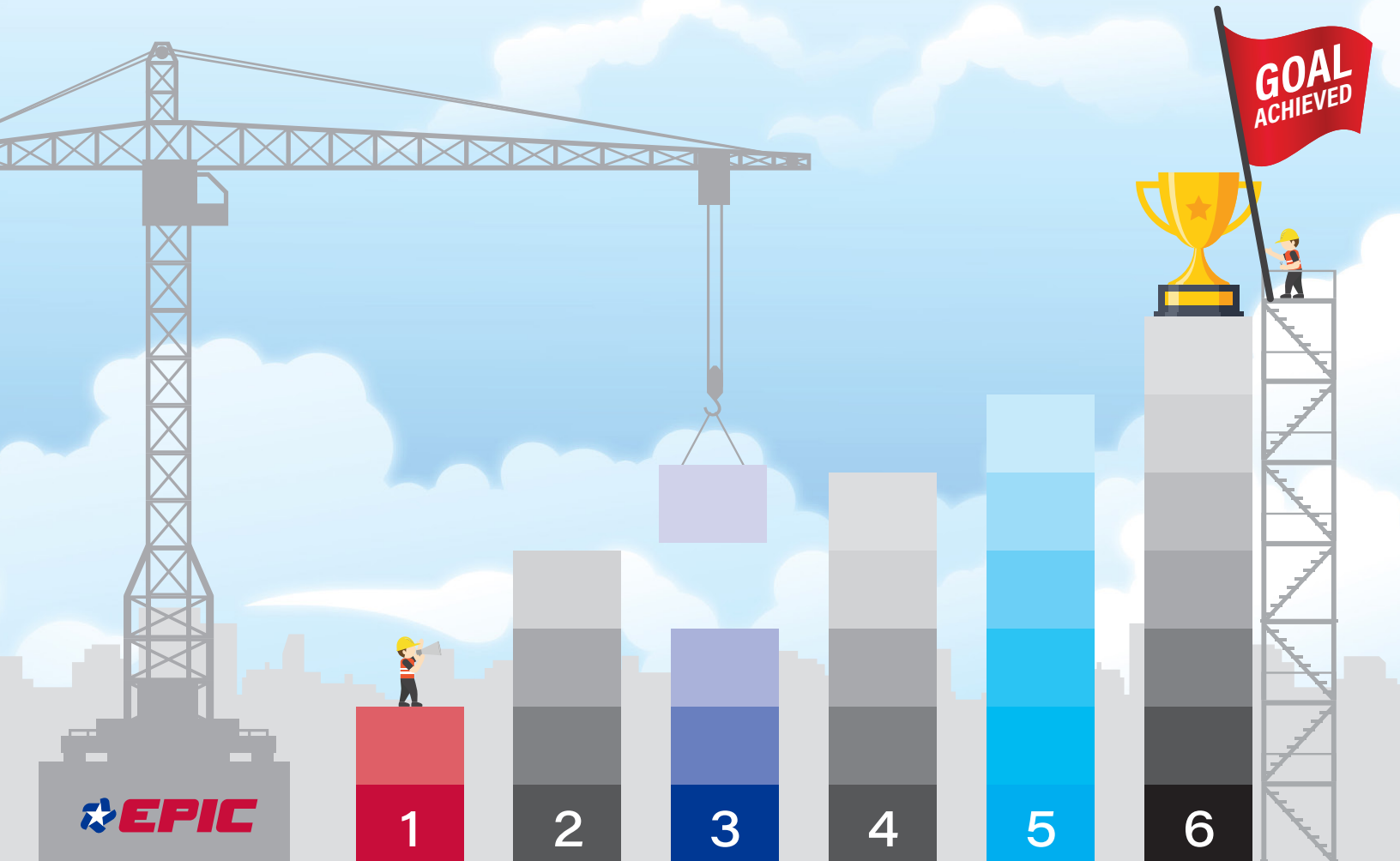
What are you truly trying to achieve?

- Return on Investment
- On-time startup and product rollout
- Enhanced profitability
- Production gains
- Reduced scrap
- Lower risk
- Improved margins
- Sustainable manufacturing
- Process flexibility
- Reduced overhead
- Improved plant efficiency
- Enhanced automation control
- Actionable data for continuous improvement
- Improved employee welfare

Elements of a Successful Project



Let EPIC do the Heavy Project Lifting



CONCEPT & GOALS ESTABLISHED

- Budget
- Timeline
- Business goals

BASIC ENGINEERING

- Design basis
- Unit operations
- Preliminary equipment selection
- Timeline
- Process technology

DETAILED ENGINEERING

- Process flow diagrams
- Operating requirements
- Construction plans
- 3D models
- Equipment data sheets
- Automation design basis
- Finalized process operating parameters

AUTOMATION & CONTROLS

- Control Panel Fabrication
- Control system development
- Electrical design
- Drafting
- MES & SCADA
- Network Design
- HMI development
- Instrumentation integration
- Advanced process programming

FABRICATION & ASSEMBLY

- Frame fabrication
- Equipment procurement
- Electrical wiring
- Pipe fitting
- Site civil upgrades
- Power distribution
- FAT testing
- QA assurance
- Shipment

INSTALLATION & COMMISSIONING

- Installation
- Raw material & utilities hookups
- SAT testing
- Plant controls integration
- Validation
- Commissioning
- Checkout
- Training
- Documentation turnover
- Ongoing support
- Successful system operation

Focused on the **Right Project Aspects** at the **Right Time** to Achieve Your Desired Outcomes

SINGLE TOTE

Minor Ingredient Dosing System



Quickly automate your raw material management for minor ingredients with our pre-designed minor ingredient dosing totes. Totes come fully tested with sanitary stainless steel design for quick integration into your existing operations. Single totes are easily refillable and come with weigh scales and a NEMA 4 rated control panel for precise ingredient dosing.

SINGLE TOTE SPECS

OVERALL DIMENSIONS

4'6" W x 4'6" L x 5'0" H
(10'0" H with feed tote)

SHIPPING WEIGHT

~1,800 lbs

FRAME

304SS, mill finish

MAIN TANK STORAGE

100–550 gal shippable IBC
(supplied by end user)

PIPING

Sanitary tubing,
tri-clamp connections,
316SS with 20 Ra interior polish

GASKETS

Viton

PUMP

316SS Positive Displacement
Pump, 10 gpm max flow,
400 psi max pressure

SHUT-OFF VALVES

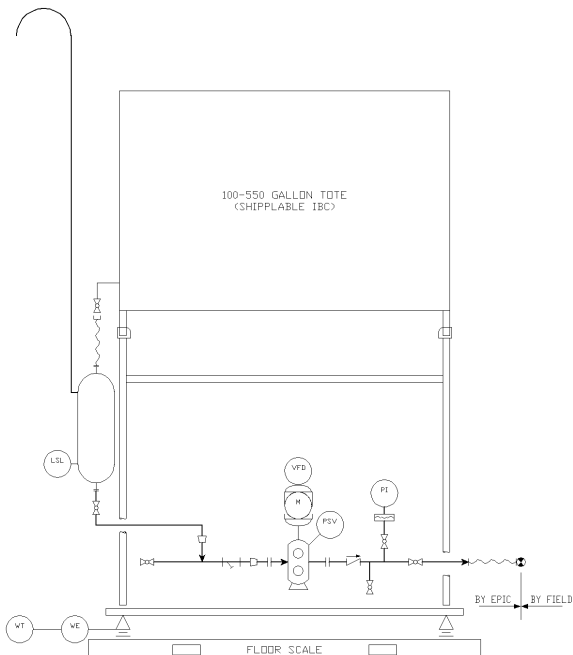
Tri-clamp ball valves, 316SS,
PTFE seat

LEVEL INDICATION

Floor scale and visual level
indicator on main tank

ELECTRICAL & CONTROLS

304SS stainless NEMA 4X
electrical cabinet which houses a
disconnect for incoming 480VAC
power, transformer to supply
120VAC power, motor VFD, and
scale weight indicator/transmitter.
The motor is wired to the VFD and
the weigh scale is wired to the
indicator via separate conduit runs.



DOUBLE TOTE

Minor Ingredient Dosing System

The double tote design is a tote-to-tote transfer unit that allows quick hookup of raw material totes direct from the supplier. The lower tote is fixed in place and the upper tote is the returnable tote from the chemical supplier. This product also comes with sanitary stainless steel design and a NEMA 4 rated control panel for precise ingredient dosing.

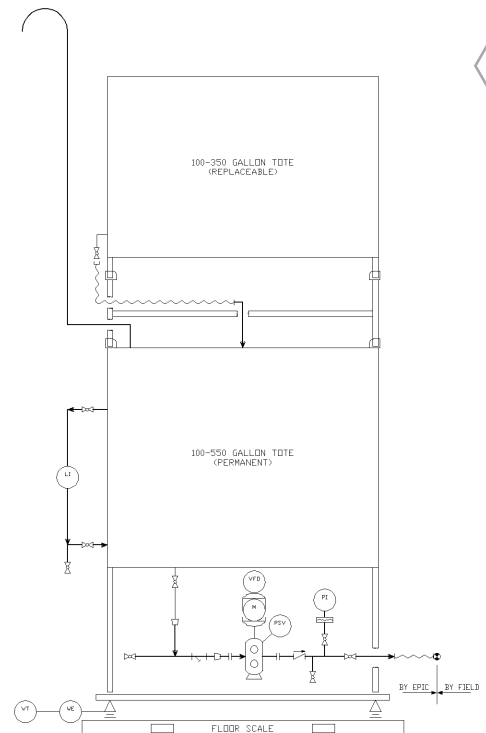


Experience consistent, higher quality product & reduce human capital cost with automation



DOUBLE TOTE SPECS

OVERALL DIMENSIONS	4'6" W x 4'6" L x 8'6" H (13'6" H with feed tote)
SHIPPING WEIGHT	~2,400 lbs
FRAME	304SS, mill finish
MAIN TANK STORAGE	550 gal, 304SS, mill finish
PIPING	Sanitary tubing, tri-clamp connections, 316SS with 20 Ra interior polish
GASKETS	Viton
PUMP	316SS Positive Displacement Pump, 10 gpm max flow, 400 psi max pressure
SHUT-OFF VALVES	Tri-clamp ball valves, 316SS, PTFE seat
LEVEL INDICATION	Floor scale
ELECTRICAL & CONTROLS	304SS stainless NEMA 4X electrical cabinet which houses a disconnect for incoming 480VAC power, transformer to supply 120VAC power, motor VFD, and scale weight indicator/transmitter. The motor is wired to the VFD and the weigh scale is wired to the indicator via separate conduit runs.



GET EPIC RESULTS

CASE STUDIES

Solving Complex Manufacturing Challenges

FACILITY EXPANSION GETS EPIC BOOST IN PRODUCTION, QA & AUTOMATION CAPABILITIES

An international food company was moving to a new facility and expanding production. EPIC was brought on a project partner to manage the process and pack out portions of the project that were the heart of the expansion. EPIC was able to compress the project timeline by fabricating complete process systems offsite during facilities buildout for both liquid and powder products.

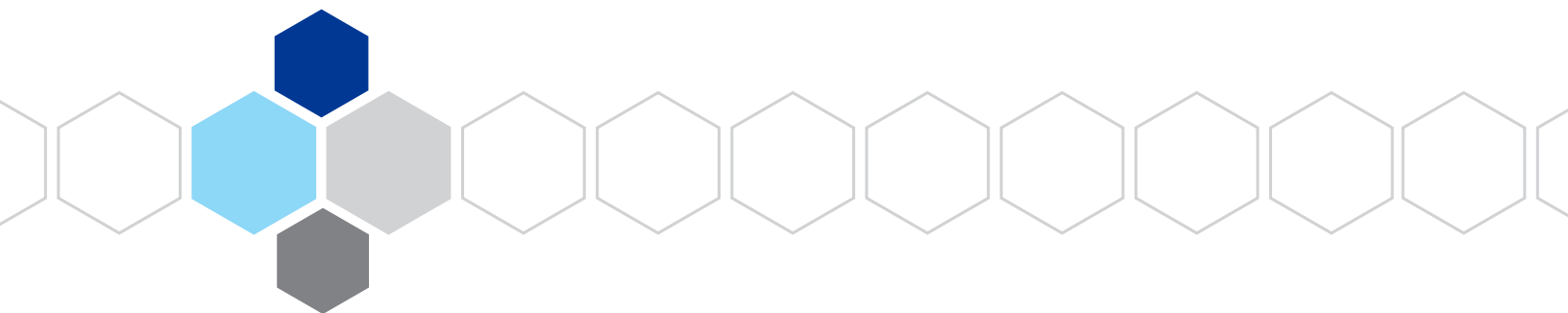
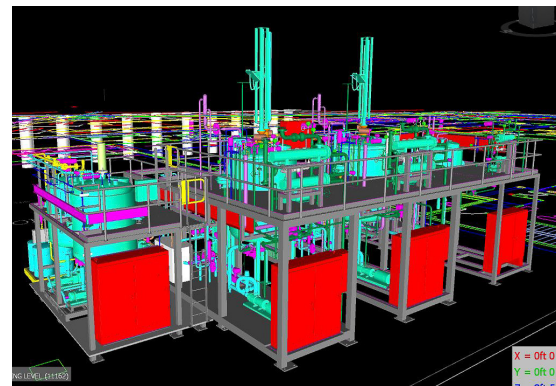
The new facility was up and running on-time and on-budget with a smooth transition from the previous location. The results for the client included doubled production capacity and improved automation throughout the process and packaging operations, which allowed better tracking and quality control.

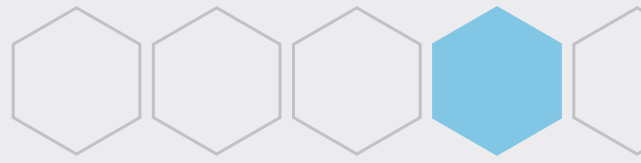
PLANT TECHNOLOGY CHANGEOVER GETS BACK ON COURSE WITH EPIC'S HELP

A large consumer products company was attempting to change a facility from soap to deodorant manufacturing. After working with an outside engineering firm, the project had gotten several months behind schedule and was projected to significantly overrun budget.

EPIC was approached to help get the project back on course. Through EPIC's streamlined project management process, value engineering approach, and offsite modular fabrication capabilities, the project ended up being successfully completed on the original timeline and within budget.

This saved the client \$8-\$10 million and eliminated several months of schedule creep. In addition, client risk was significantly reduced through the elimination of outdated technologies and reduced OSHA exposure hours at their site, which were direct results of EPIC's project management practices.





TESTIMONIALS

Trusted Partners for Impactful Improvements in Lean Manufacturing

"I have found, with no exception, EPIC to be a company of high technical capability and high quality of construction that always has delivered what they committed to. EPIC has always delivered for me. High-quality people, high technical proficiency, and high-quality products. I especially value the partnership approach they bring to each project."

Sr. Director of Corporate Engineering | International Personal Care Products Company

"I find long-term value in this company, not just for one-off projects. EPIC's project managers have our trust and we truly share mutual respect. We know that they can do more than just get the job done; they can get it done right. We collaborate with inventive thinking based on efficiency. EPIC has helped our company become an engine for growth in the global economy."

Senior Process Engineer | Fortune 500 Chemical Client

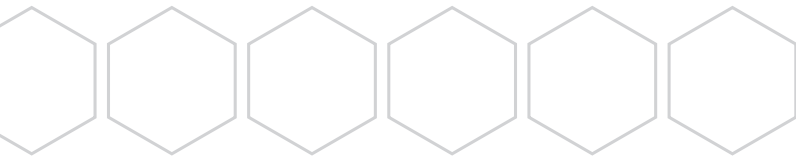
Trusted Partner of:



DURACELL



GE imagination at work





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