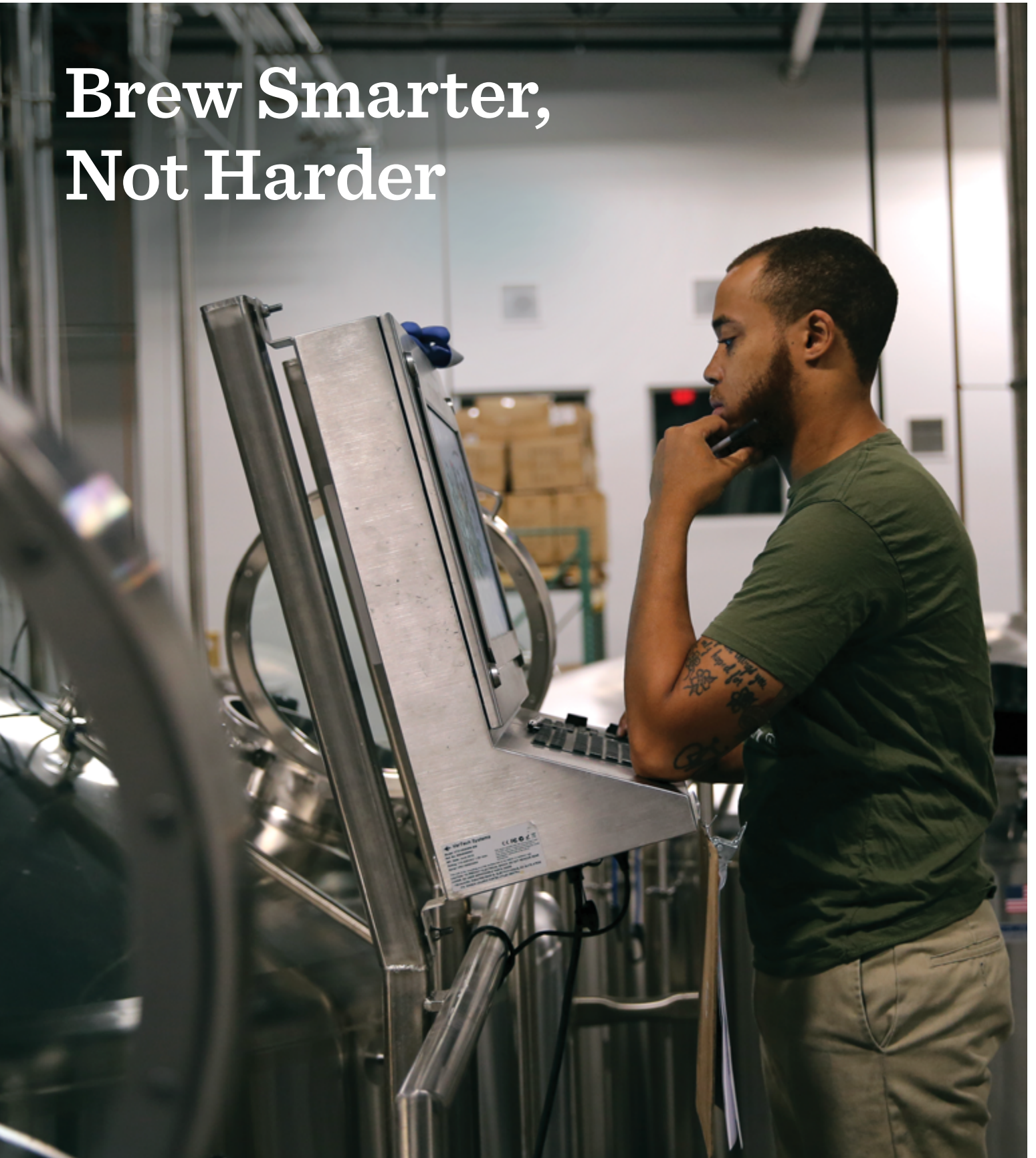


Brew Smarter, Not Harder



BREWING EQUIPMENT

MUELLER



Pouring Efficiency into Every Pint

Crafting beer on a large scale is an exercise in time, space, and ingredient management. With everything you have going on, you need equipment that does the heavy lifting of controlling these factors. Paul Mueller Company has been building brewing equipment for more than 50 years. Our expertise, intuitive designs, and top quality craftsmanship can provide a single vessel or an entire system to help you brew smarter and meet your goals for growth and taste for years to come.

But don't take our word for it...



“This is the best ROI we've seen on any vessel we've ever purchased. We're kicking ourselves for not buying one sooner.”

— *Dan Strevey, Process Analyst, Avery Brewing Co.*



“Your tanks are fantastic, they fit in very well with our needs. And we've had a great working relationship with you.”

— *Alec Mull, Director of Brewing Operations, Founders Brewing*



“The engineering in Mueller tanks is awesome, bar none. You have more zones per tank so the cooling capacity is smashing! Good steel, good customer support—it's quality equipment.”

— *John Havermale, Head Brewer, Escutcheon Brewing*

Our Culture

With almost 1,000,000 square feet of manufacturing space in Springfield, Missouri, and an experienced field operations team, we can take on projects of any scope. We source our steel from various tested sources to find the best material at a reasonable price. Our craftspeople have pride of ownership and can often be seen wearing the gear of the beer brands they work on. With an open-book management culture, our mission is to walk a path of successful collaboration with our co-workers and customers daily.



Brewhouses

At Paul Mueller Company, we understand how one part fits into your whole system. As our specialists conceptualize the best brewhouse solution for what you want to achieve, it's not just about the equipment. We think about how it will be connected and user-friendliness, as well as the best way to incorporate our experience, expertise, and innovations to take your beers to the next level.

Working with all relevant partners, Paul Mueller Company manages the design, engineering, build, and installation of a custom brewhouse to help you achieve and replicate your unique brewing process. In the end, you have a long-term, sustainable system that maximizes efficiency and space in your brewery.



maxxLūp™

Get more out of your hops! Our **maxxLūp** provides a pressure rated solution to the often inconvenient process of dry hopping. This flexible vessel can also handle coffee, spices, fruit, and many other adjuncts to infuse creativity into your products.

Cost Efficiency

- Users report up to 50% reduction in hop use while achieving the same or better sensory analysis when compared to traditional methods.
- Eliminates lengthy steep times for adjuncts.

Cleanability

- Large outlet valve allows for easy removal of spent hops and adjuncts.
- Dedicated spray balls for the vessel and screen ensure complete CIP.

Improved Quality

- Our motor-free solution employs fluid flow to harness the essential oils and resins in hops and adjuncts while mitigating the risk of shear damage.
- The configuration of the **maxxLūp** allows the vessel to be purged, reducing the introduction of unwanted oxygen into the product.

Flexibility and Mobility

- Our removable screen design allows for thorough inspection and works with a variety of ingredients including cone or pellet hops, coffee, spices, and fruit.
- Designed for use in both the cellar and the brewhouse with casters that allow the user to move the vessel throughout the brewery.

Safety

- Eliminates the need to access the top of the fermenter for dry hopping.
- Pressure rated and ASME Code-stamped options are available.



Fermenters

Our customers' needs have given us many opportunities to innovate and build thousands of custom fermentation vessels in a wide range of shapes and sizes. Your unique needs may call for indoor or outdoor fermenters that are leg-, roof-, or skirt-mounted. Unique cellar challenges are our specialty.

We have shop-built and custom designed tanks up to 1,800 BBLs and have the capacity to go even bigger. Tanks that are too large to be shipped can be built at your site by Mueller Field Operations, Inc. We also offer a line of standard fermenters combining the best features of our custom designs with our hallmark quality craftsmanship. Our standard line tanks range from 15 BBLs to 120 BBLs in size.

FEATURES

- 14.9 psig non-ASME Code
- 100°F design temperature
- 70° bottom cone angle
- Two cooling zones on shell
- One cooling zone on cone
- Single thermowell
- 3" of insulation
- Fully welded 12-gauge stainless steel outer jacket
- In-swing manway
- Removable CIP assembly
- Racking arm





Standard Fermenters

Net Volume (BBLs)	Inner Diameter (in)	Outer Diameter (in)	Straight Side (in)	Overall Vessel Length (in)	Overall Height (in)
15	47	54	63½	113	125 – 137
25	55¾	62¾	76	133¾	146 – 158
30	59½	66¾	81	141⅝	154 – 166
50	70¾	77¾	96½	171	183 – 195
60	74½	81½	102½	180	193 – 205
75	80¾	87¾	111	194	206 – 218
90	85¾	92¾	118	206¾	219 – 231
100	88½	95½	122½	213½	226 – 238
120	94	101	130	226⅞	239 – 251

Bright Beer Tanks

Bright beer tanks play a key role in your process, serving to mature, clarify, and carbonate the beer after fermentation. In some cases, bright tanks double as serving vessels in brewpubs, eliminating the need for kegs.

The quality of your beer is impacted by the efficacy of your bright tank. Paul Mueller Company offers both standard and custom top-of-the-line bright beer tanks handcrafted for your brewery. Our bright beer tanks come in a wide array of sizes and design pressures so that we can meet your brewing needs and help you maintain the integrity of your finished beer.



Standard Bright Beer Tanks

Net Volume (BBLs)	Inner Diameter (in)	Outer Diameter (in)	Straight Side (in)	Overall Vessel Length (in)	Overall Height (in)
15	47	54	63½	95	108
25	53¾	62¾	76	111	124
30	59½	66¾	81	117	130
50	70¾	77¾	96½	136	149
60	74½	81½	102½	144	157
75	80¾	87¾	111	153	166
90	85¾	92¾	118	164	177
100	88½	95½	122½	171	184
120	94	101	130	184	197



STANDARD FEATURES

- 14.9 psig non-ASME Code
- 100°F design temperature
- Two cooling zones on shell
- One cooling zone on bottom head
- Single thermowell
- 3" of insulation
- Fully welded 12-gauge stainless steel outer jacket
- In-swing manway
- Removable clean-in-place (CIP) assembly
- Sight tube for level readings

Serving Beer Tanks

These unique serving tanks with bag inliners are being used all over Europe and have only recently been introduced in the United States. The cutting-edge technology used in these tanks allows them to hold high-strength bag inliners, creating a self-cooling, bag-in-tank system that can be used directly in the taproom.

This bag-in-tank system results in fresher beer than keg storage, less beer handling, and a longer shelf life. Our serving beer tanks are independently temperature controlled so you save on cold storage. With ASME Code certified engineering and display quality finishes, this is a functional showpiece for your brewery that will keep you saving



FEATURES

- Bag-in-tank system
- Air pressured
- Small footprint
- Top quality fixtures
- Convenient sight glasses
- ASME certified (30 psi)
- Display quality finish
- Independently temperature controlled



Yeast Management

Proper yeast management is critical to ensuring healthy, consistent fermentation. At Paul Mueller Company we have the yeast management systems to give you the next level of control over your brewing process.



Yeast Propagation Tank

Our yeast propagation tanks are uniquely designed to provide you with a consistently safe and reliable supply of freshly propagated yeast. With advanced technology and easy operation, our yeast propagation tanks ensure brewing with maximum cost-efficiency.

FEATURES

- ASME Code pressure ratings
- Steam-in-place (SIP) temperature ratings
- Custom geometry to fit your process and space
- Dish or cone bottom
- Custom cooling designed to your requirements
- Vertical agitation available
- Fully welded stainless steel outer sheathing
- Under-jacket glycol piping



Yeast Brinks

Paul Mueller Company's yeast brinks are perfect for storing and transporting yeast between batches. Our yeast brinks are highly sanitary and allow for effective collection and repitching of yeast from a fermenter into a new batch of beer.

FEATURES

- ASME Code pressure ratings
- SIP temperature ratings
- Custom geometry to fit your process and space
- Dish or cone bottom
- Custom cooling designed to your requirements
- Fully welded stainless steel outer sheathing
- Under-jacket glycol piping

Spent Grain Silos

Tired of messing with totes or carts to store your spent grain? Having a spent grain silo will eliminate the headaches associated with spent grain storage. Looking for another source of income for your brewery? Many breweries are able to sell their spent grain when they ship it in truckload quantities. Paul Mueller Company can help you determine the best location, size, and discharge method for your brewery.

FEATURES

- Elevated and non-elevated designs
- Insulated and heated designs available
- Custom discharge options for maximum flexibility



Efficient Solutions

Plate Heat Exchangers

The quality of your beer is directly affected by how quickly you can cool your wort from boiling to yeast-pitching temperatures. Paul Mueller Company wort chillers utilize the innovative technology of our Accu-Therm® plate heat exchangers to efficiently chill your wort so you can expect clarity in your beer without the fear of affecting your brews' flavors.



FEATURES

- Provides high-efficiency heat transfer performance
- Reduces fouling and the need for frequent cleaning
- High thermal efficiency and high surface density allows for compact size
- Expandable and lightweight
- Easy disassembly, cleaning, and inspection
- True counterflow allows for greater effective temperature differences
- Close approach temperatures of 1°F to 2°F

Pure Steam Generators

Paul Mueller Company PyroPure® pure steam generators are capable of producing pyrogen-free pure steam that can be used for system or keg cleaning. When condensed, the pure steam meets all U.S. Pharmacopeia (USP) requirements for water-for-injection, and ensures impurities such as boiler chemicals are not introduced into your process. Mueller pure steam generators have a simple, robust design that minimizes moving parts. This design minimizes maintenance and downtime, ensuring that your facility has pure steam when it is needed.



STANDARD FEATURES

- Pure steam temperature control
- Allen Bradley Compact Logix PLC and operator interface terminal (OIT)
- Level control system
- Start-up services utilizing a factory-based service technician
- Comprehensive documentation package

ADDITIONAL OPTIONS

- Feedwater pump system
- Pure steam condensate sampling system
- Pure steam analyzer
- Stainless steel sheathing and frame
- Feedwater analyzer
- Degasser

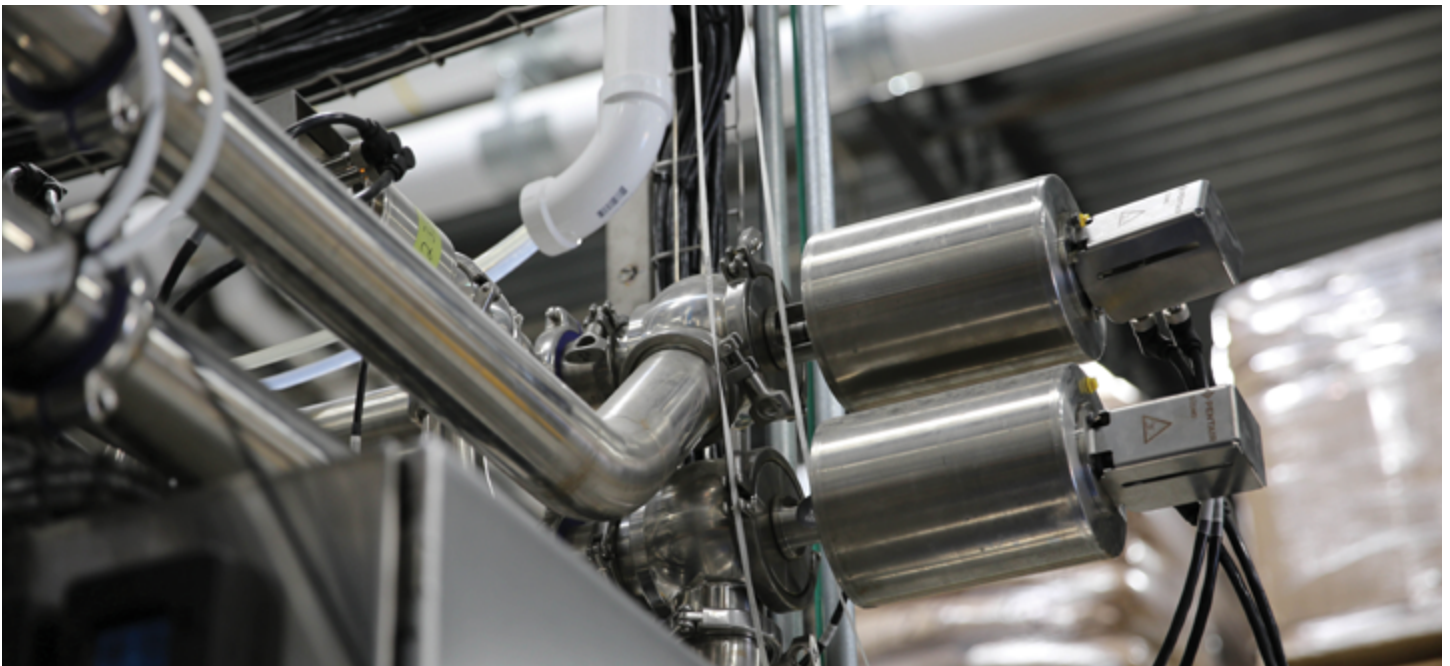
Clean-In-Place Systems



Tired of wasting supplies or worrying about dangerous chemical exposure? Paul Mueller Company specializes in clean-in-place (CIP) systems that are custom-designed to meet your needs and requirements. Our CIP systems are “smart,” meaning they will keep your chemical concentrations at safe levels to protect your people and your equipment. Our CIP systems can be designed to recover chemicals, which saves time and money. We can design the systems as single-circuit or multi-circuit to minimize your downtime.

FEATURES

- Two-, three-, and four-tank options
- Heating option
- CIP automation available



Field Construction, Shipping, and Repairs



Field Construction and Installation

Whether you are installing shop-built brewery tanks or starting from scratch with an entire brewery that requires field construction, Mueller Field Operations, Inc. can handle it seamlessly.

With some of the highest safety ratings in the business, our field construction group has a wide-range of capabilities that have allowed us to install everything from small to extra large beer tanks, building production breweries from the ground up.

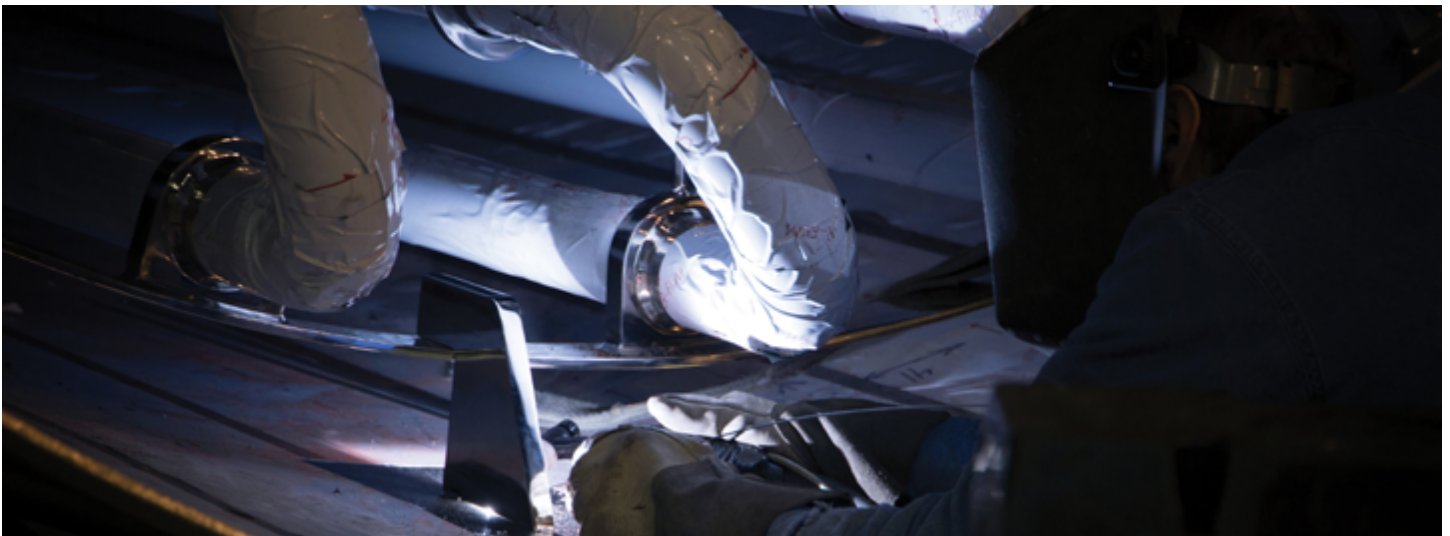
We begin every field project by surveying the facility before creating a plan to meet your timeline, scope, and equipment needs. With a custom plan in hand and safety top of mind, we manage the entire process, from logistics to execution and everything in between.





Shipping

Brewing solutions from Paul Mueller Company go beyond the tanks. Once our shop fabrication is complete, we take the responsibility of safely transporting your equipment from our production floor to your door. Mueller Transportation Inc., our custom tank transportation group, provides the load crews, the drivers, and the logistical organization to handle all aspects of the shipment. Whether it's standard or oversize freight, our specialists are committed to steadfast delivery so your project arrives without a scratch.



Repair

If a tank repair or upgrade threatens to halt your production, our Paul Mueller Company repair team can quickly dispatch to your location and solve the issue. We have a dedicated group of skilled engineers and technicians ready with a solution for upgrades, repairs, and maintenance, so downtime is minimized. Whether you need a tank repaired or brewing transitioned from one system to another while following a round-the-clock schedule, we are here with a high level of service and a quick, safe turnaround to make the process as smooth and seamless as possible.

PAUL MUELLER COMPANY



PAUL MUELLER, OUR FOUNDER

At Paul Mueller Company, we are united by a belief that the only quality that matters is quality that works for life. With every piece of processing equipment we build, our goal is to have lasting impact. This collective vision has led us from a small sheet metal shop to a global supplier of heating, cooling, processing, and storage solutions. Our equipment allows farmers, brewers, and engineers to keep their products fresh and their inventory strong. Whether our equipment brews award-winning beer or helps build businesses that sustain communities, we are making an impact across the globe.



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