

Temp-Plate[®]

Custom Heat Transfer Solutions



INDUSTRY APPLICATIONS

MUELLER

Food & Beverage Processing

Temp-Plate® enhances food and beverage operations by delivering precise, uniform heat transfer for high-volume processing and ensuring product quality and operational efficiency.

Fryer Bank

Combined panels form immersion banks for industrial fryers, providing even, high-temperature heat for thousands of pounds of product. Its low-profile design accommodates conveyors and equipment.

Jacketed Trough

Single-embossed panels integrate heat transfer surfaces along the trough bottom, offering consistent heating for cooking and processing.

Freeze Dryer

Multi-tray cartridge assemblies in vacuum chambers gently apply heat to remove moisture, preserving product integrity.

Hydrocooler

Bank assemblies chill water 10 to 20 times faster than air, preventing moisture loss and extending shelf life. They are customizable to suit shower, submerged, or batch systems.

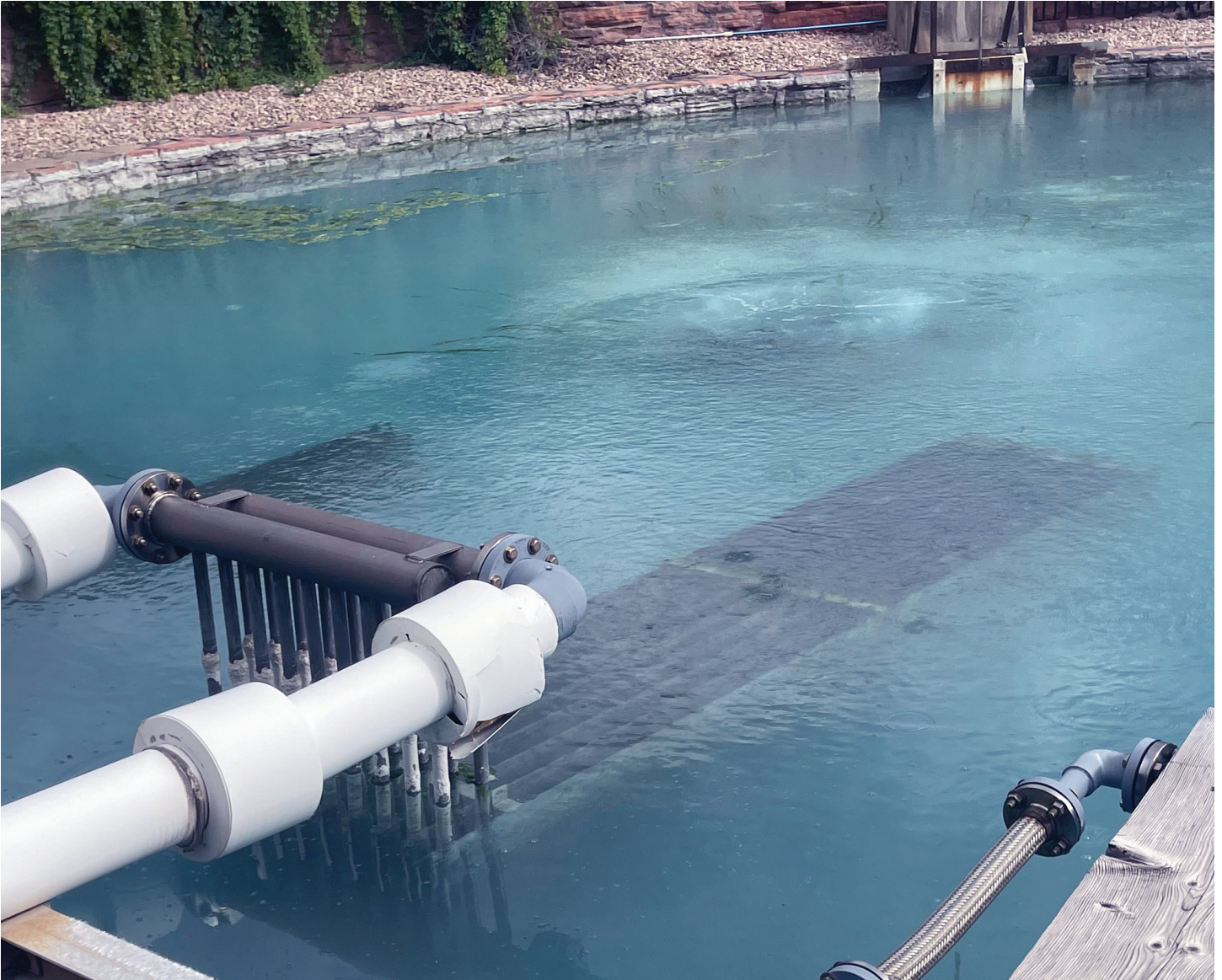


Temp-Plate bank hydrocooler



Freeze-drying tray panels

*Where
are you
experiencing
uneven
heating,
energy
loss, or
temperature
delays in
your process?*



Hydrothermal Applications

Temp-Plate solutions can be used to leverage environmental sources for sustainable heating and cooling in challenging conditions.

Hot Spring Heat Recovery

Bank assemblies installed in hot springs capture thermal energy for potable water, snow melt systems, and more. Double-wall titanium plates resist corrosion from mineral-rich water.

Thermal Heat Sink

Installed in ponds or lakes, banks pre-cool HVAC water using natural cooling properties, cutting chiller loads and costs. Titanium options are available for corrosive or saltwater environments.

Log Pond Heating

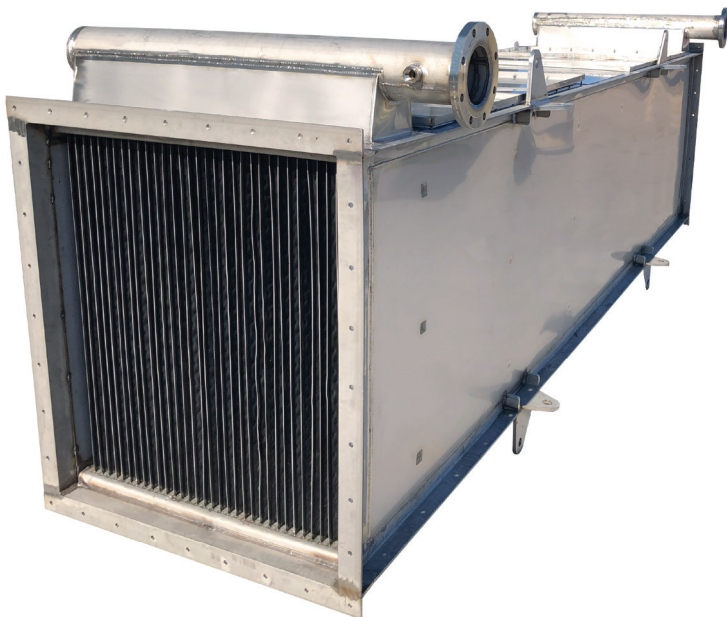
Panels maintain optimal water temperatures for debarking, softening bark for efficient removal, smoother operations, and reduced energy waste.

Energy Banks & Heat Recovery

Temp-Plate energy recovery banks capture waste heat from industrial processes, converting it into savings by preheating water or glycol.

Integrated into existing ducts, these units reclaim exhaust heat, reduce boiler demand, and lower energy use. For heat recovery from moist exhaust streams, Temp-Plate provides a superior solution to other technologies by offering high heat transfer rates in a compact package that is easy to keep clean.

What would 10-20% energy savings or faster throughput mean for your bottom line?



Temp-Plate energy recovery bank



Temp-Plate energy bank

Industrial Processes & Custom Solutions

Custom Temp-Plate for Unlimited Industrial Applications

Temp-Plate panels can be custom-fabricated or retrofitted for manways, dished heads, cones, troughs, tanks, immersion panels, bayonet / insertion heaters, and beyond. If standard applications don't fit, our teams collaborate from concept to completion, aligning with your process goals.

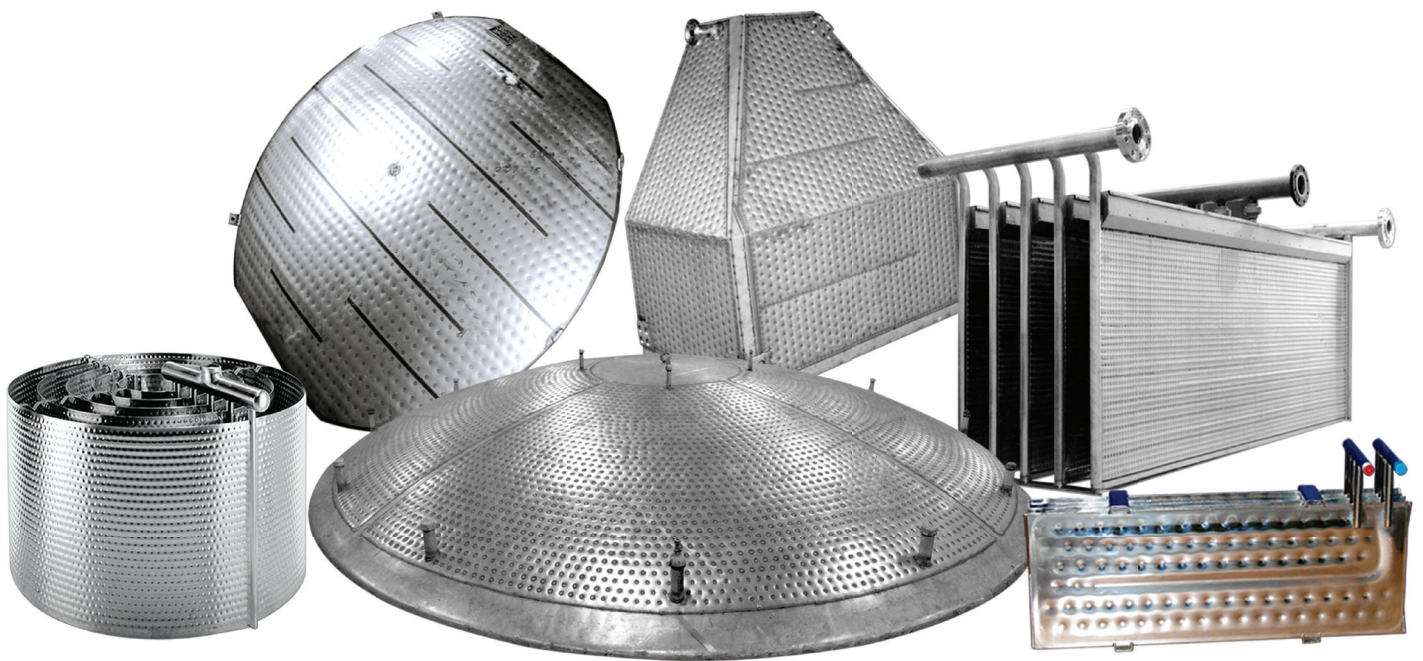
Why Choose Temp-Plate Over Alternatives?

Finned Tube Heat Exchangers: Good for dry air-side transfer but prone to fouling and less robust

Coiled Pipe/Grid Coil: Cheap and simple but not efficient, hard to clean, and not space-efficient

Steam Tracing: Suitable for small loads but can't handle large heat demands and provides non-uniform heating

Temp-Plate Advantages: A robust US manufacturer with over 50 years of expertise; easily cleanable; high efficiency at low flow rates; and even heating across the entire surface



Unlike bulky alternatives, Temp-Plate offers superior performance in a compact, custom design – backed by proven US engineering.

PAUL

MUELLER COMPANY

Our Products and Services

Skids and Integrated Systems

- Small Scale to Custom Automated Systems
- Modular Process Systems
- Water-for-Injection Distribution Skids

Custom Tanks and Vessels

- Mixing, Storage, and Process
- Design and Fabrication
- Routine to Extreme Specialty Process

Refrigeration Solutions

- Falling Film Chillers
- Batch Chillers
- Packaged Chillers
- Air-Cooled Condensing Units
- Heat Recovery
- Controls

Clean Utilities

- Pure Steam Generators
- Multiple-Effect Still
- Water-for-Injection Distribution Systems

Heat Transfer Solutions

- Heat Transfer Surfaces
- Preformed Heat Transfer Panels
- Plate Heat Exchangers
- Replacement Parts
- Service and Repair

Component Products

- Tank Heads
- Tank Shells
- Manways
- Agitators

Cleaning Systems

- Clean-in-Place (CIP) Systems
- Chemical Dosing Systems

Specialty Hauling with Mueller Transportation, Inc.

- Door-to-Door Specialty Handling
- Oversized Hauling Capabilities

Who We Are

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 preserves milk in rural areas or helps manufacture medicine with broad health benefits, we are making an impact across the globe.

Creating Quality
for *Life*

Industries We Serve

- Animal Health
- Battery Production and Recycling
- Beverage
- Brewing
- Chemical
- Dairy Farm
- Dairy Processing
- Data Centers
- Food
- Heat Transfer
- HVAC
- Mining
- Oil and Gas
- Personal Care
- Pharmaceutical
- Refrigeration
- Tank Fabrication
- Wine
- And More

Facilities and Resources

- Domestic Facilities With Nearly One Million Square Feet Under Roof
- Comprehensive Test Facilities for Factory Acceptance Testing
- Expert Fabricators and Manufacturing Staff
- Onsite, Experienced Engineering Department

Project Support Services

- Comprehensive, Customizable Documentation Packages
- IQ/OQ Protocols and Execution
- Seamless Shipping with Mueller Transportation, Inc.
- Expanded Scope Facility Construction and Expansion
- Installation Supervision and Site Acceptance Testing

Quality and Process Certification

- ASME (American Society of Mechanical Engineers)
- ASME BPE (American Society of Mechanical Engineers Bioprocessing Equipment Standard)
- API (American Petroleum Institute)
- UL (Underwriters Laboratories)
- CSA (Canadian Standards Association)
- PED CE (Pressure Equipment Directive Certification)
- UKCA (United Kingdom Conformity Assessed)
- CRN (Canadian Registration Number)
- TSSA (Technical Standards and Safety)

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