

PLATECOIL®

Prime Surface Heat Exchangers



Shape
One ~~Size~~ Does **NOT** Fit All...

Shapes Book

Any Way, Shape or Form, PLATECOIL® Can Take the Heat

Looking for efficiency and versatility in heating, cooling and heat recovery? You'll find what you need with PLATECOIL® Prime Surface Heat Exchangers. Made with die-formed, embossed metal sheets, PLATECOIL welded panels comprise a series of well defined channels through which the heat transfer media flows. Configure them as unit sheets, jackets, banks for immersion heating, banks for heat recovery or countless other assemblies...the potential is unlimited.

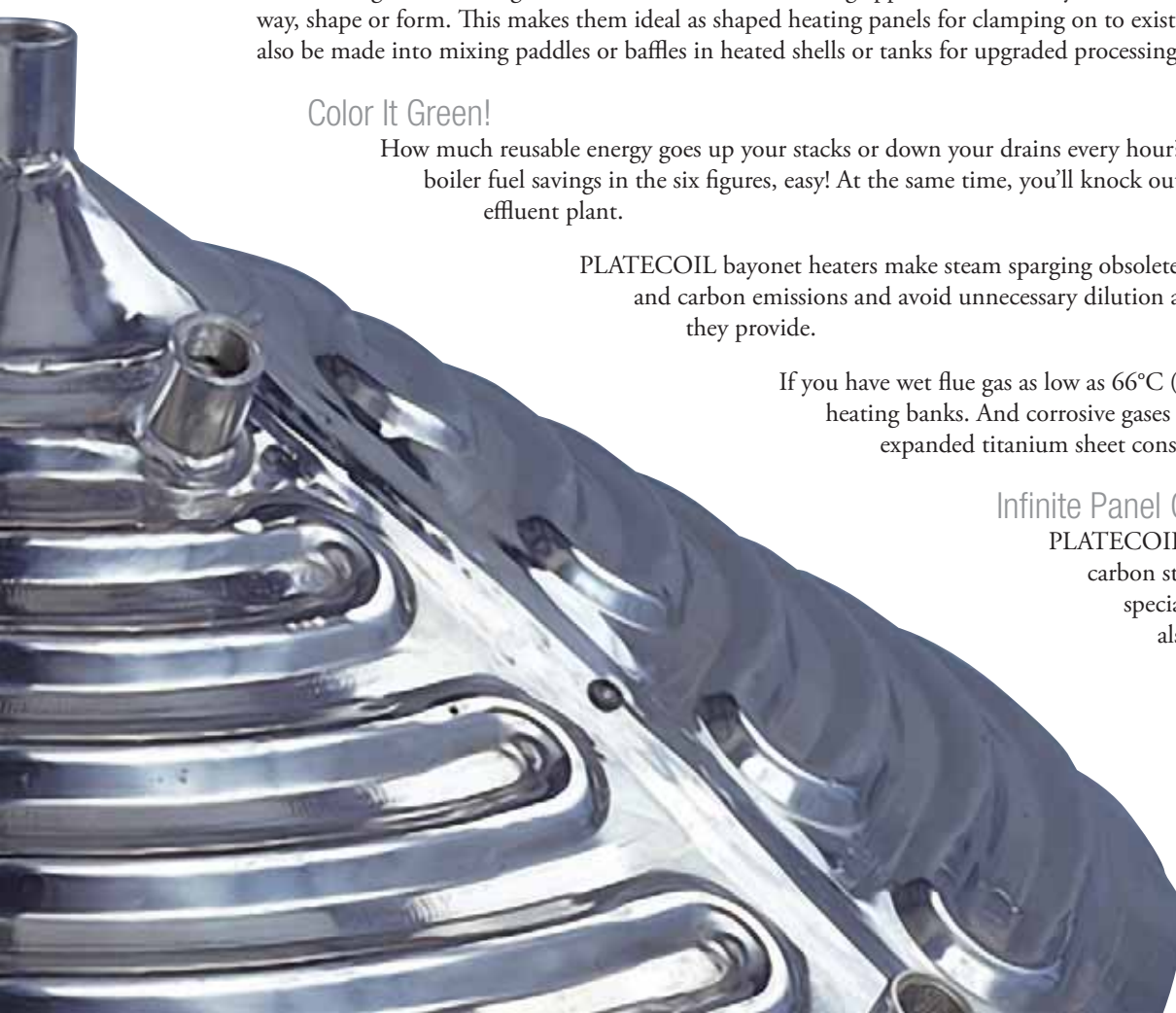
Engineering Strength

The more you seek performance, the more you need a heat exchanger engineering specialist. That's Tranter, and we've been in the business more than 70 years. Our in-house engineering and tool & die departments bring you prompt, quality production of custom designs. And our materials engineering and processes give you durability, quality and consistency in manufacturing.

Die-Formed Advantages

PLATECOIL panels are highly refined, engineered products that meet specific needs. Their exclusive, die-formed construction offers significant advantages for ease of installation, life cycle and performance. These panels are lighter and more economical to install than pipecoil, plus their efficiency means a smaller footprint. The die-formed channels comprise a balanced flow path for more even, uniform heat transfer than dimple jacket, gridcoil or pipecoil.





Die-forming is also what gives PLATECOIL its outstanding application flexibility. In carbon steel, these die-formed panels can truly be bent or curved in any way, shape or form. This makes them ideal as shaped heating panels for clamping on to existing vessels for an instant capacity or performance boost. They can also be made into mixing paddles or baffles in heated shells or tanks for upgraded processing.

Color It Green!

How much reusable energy goes up your stacks or down your drains every hour? Install PLATECOIL heat recovery banks, and you'll enjoy annual boiler fuel savings in the six figures, easy! At the same time, you'll knock out troublesome vapor plumes and reduce thermal load on your effluent plant.

PLATECOIL bayonet heaters make steam sparging obsolete. Save boiler fuel and treatment chemicals, reduce makeup water and carbon emissions and avoid unnecessary dilution and contamination...all thanks to the closed-loop steam heating they provide.

If you have wet flue gas as low as 66°C (150°F), you're a candidate for big savings from PLATECOIL heating banks. And corrosive gases are not a problem, thanks to special ECONOCOIL® hydraulically expanded titanium sheet construction.

Infinite Panel Configurations

PLATECOIL panels can be fabricated from most weldable metals, including carbon steel, stainless steel, Monel, nickel, titanium and various other special corrosion-resistant alloys. Corrosion-resistant titanium units are also supplied as ECONOCOIL hydraulically expanded panels.

A variety of surface finishes is available to minimize fouling and reduce maintenance. These include mechanical polish, 2B finish (except for weld marks), PTFE, electropolish and passivation.



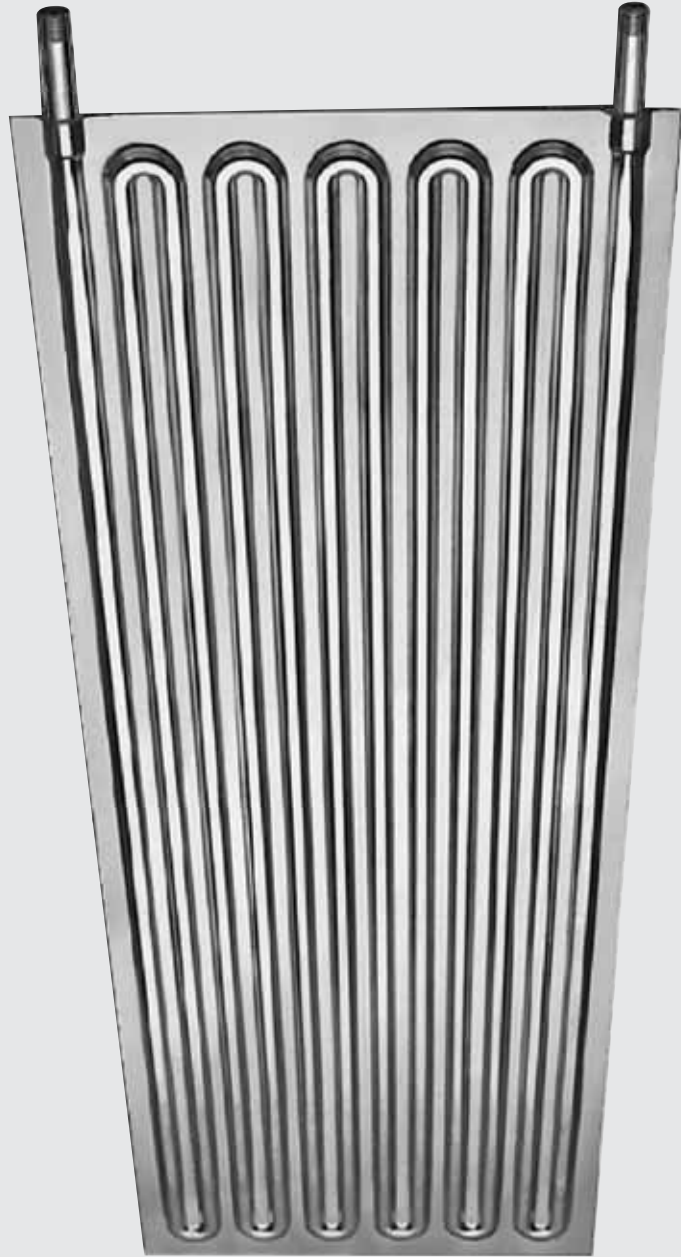
Flow configurations are Serpentine or Multi-Zone patterns, or other custom-designed flow configurations. The Serpentine flow pattern is used primarily with liquid heat transfer media such as water, oil and liquid refrigerants. This configuration allows the heat transfer media to reach high flow velocities and outstanding rates of heat transfer.

The Multi-Zone flow pattern is ideal for steam heating. Its exclusive zoned header design provides controlled steam distribution, preventing efficiency-reducing condensate “blocking” from occurring. The Multi-Zone pattern provides far more heat transfer efficiency than pipecoil, gridcoil, dimple sheet or plate-type units with a straight-header design.

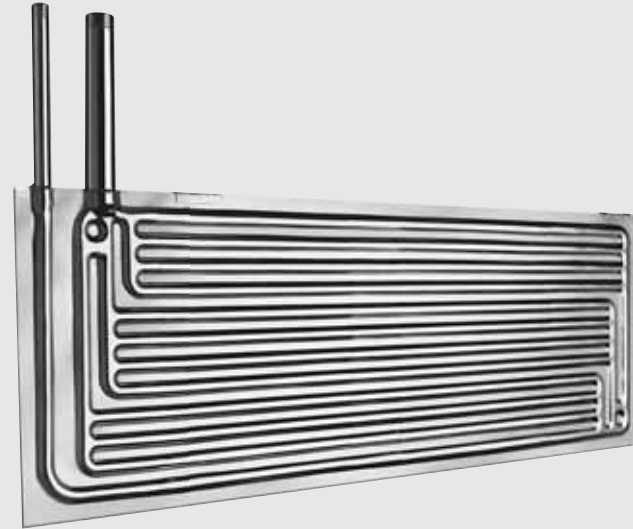
ECONOCOIL is a specially engineered variant fabricated as resistance-welded, hydraulically expanded panels. They are available in an assortment of single-embossed or double-embossed styles and sizes in Serpentine or Parallel passes. Configurable as banks, curved panels or special shapes, they are capable of operating pressures to 24 barg (350 psig).

Popular PLATECOIL® Applications

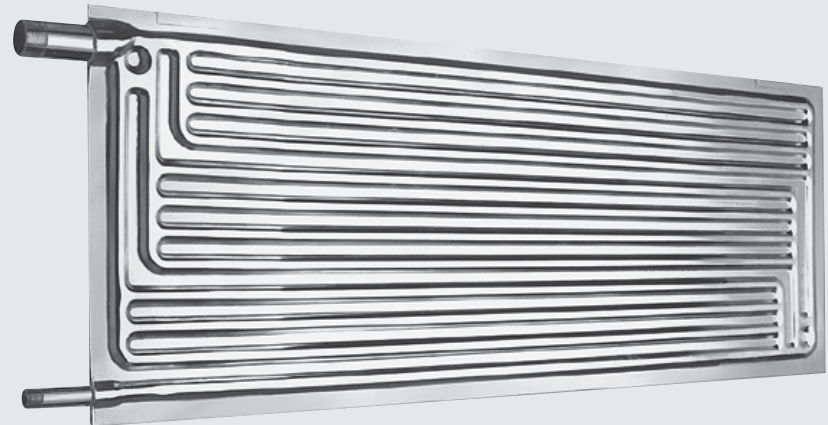
- Jacketed tanks and vessels
- Clamp-on upgrades
- Immersion heaters and coolers
- Heat recovery banks
- Suction heaters
- Bayonet heaters
- Cryogenic shrouds
- Drum warmers
- Pipe coolers
- Freeze-dry condenser banks
- Shipboard heaters and coolers
- Cascade coolers
- Refrigeration coolers
- Storage tank heaters
- Shelves
- Fluidized beds
- Gas cylinder heaters



Standard PLATECOIL® Style 60



Standard PLATECOIL Style 90



Standard PLATECOIL Style 70

One Shape Does NOT Fit All

Scan through the broad spectrum of PLATECOIL solutions presented in the next few pages. You're sure to see some money-saving, control-improving ideas you can put to work in your own facility.

Unit Panels



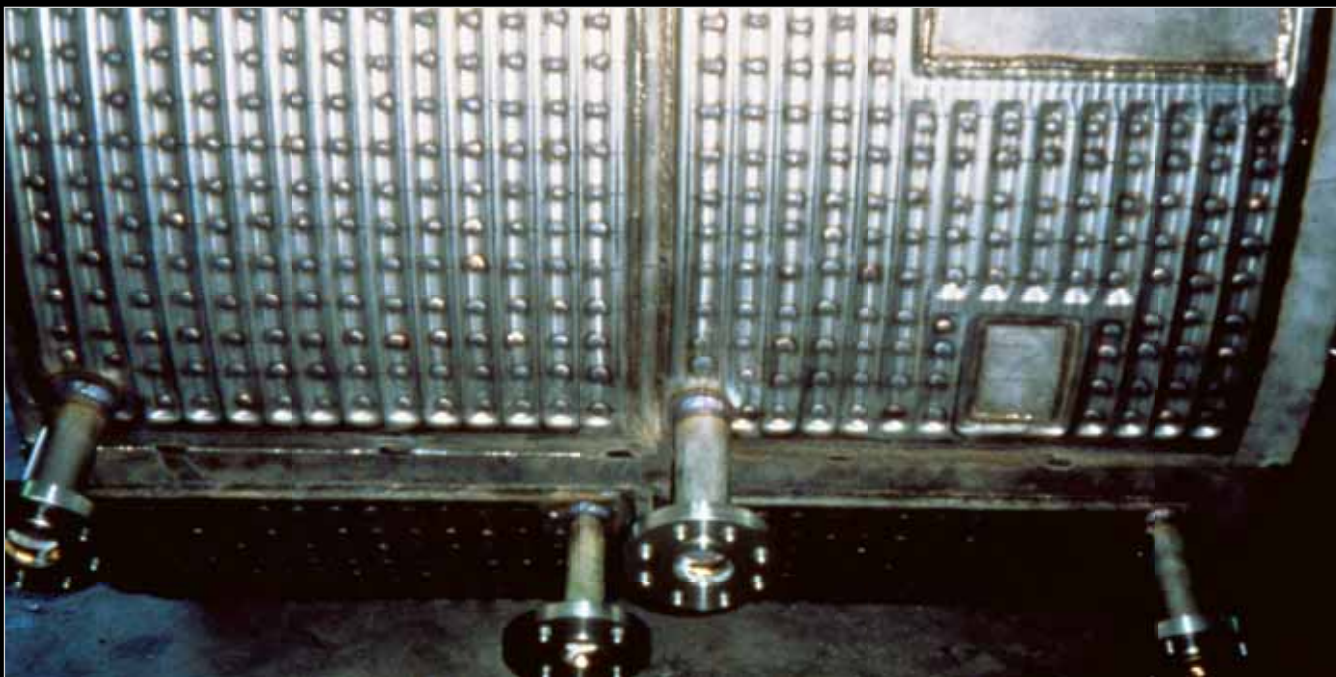
Tanks and Vessels



Banks in highly agitated polypropylene reactor



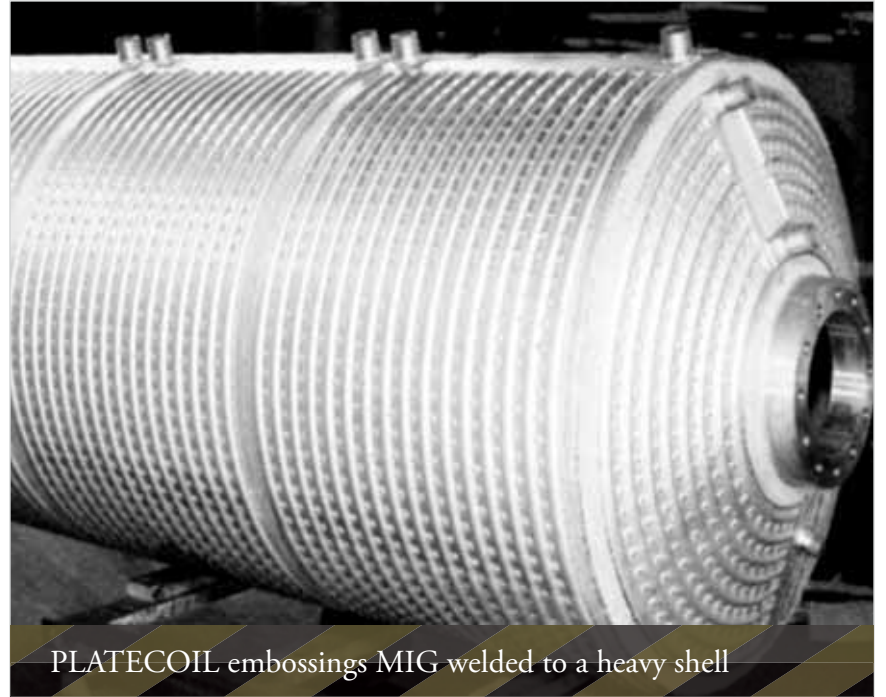
Cookers used by food processors



Heavy-duty, MIG-welded, jacketed vessel



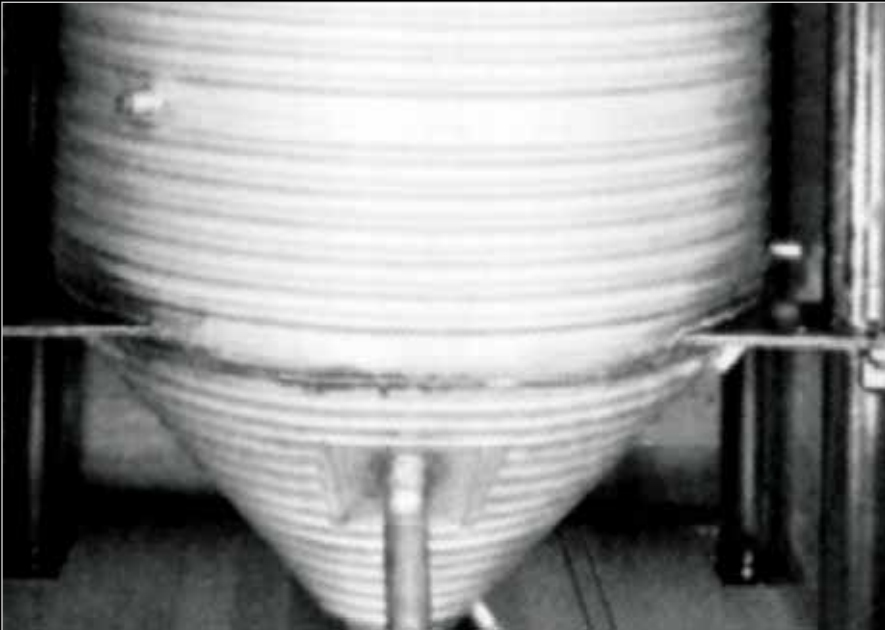
Pressure reactors



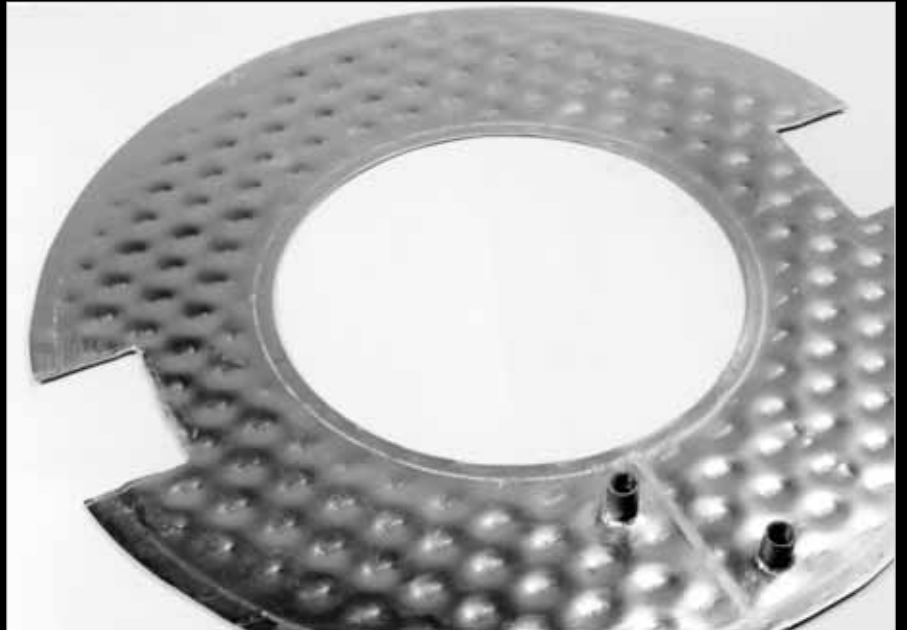
PLATECOIL embossings MIG welded to a heavy shell



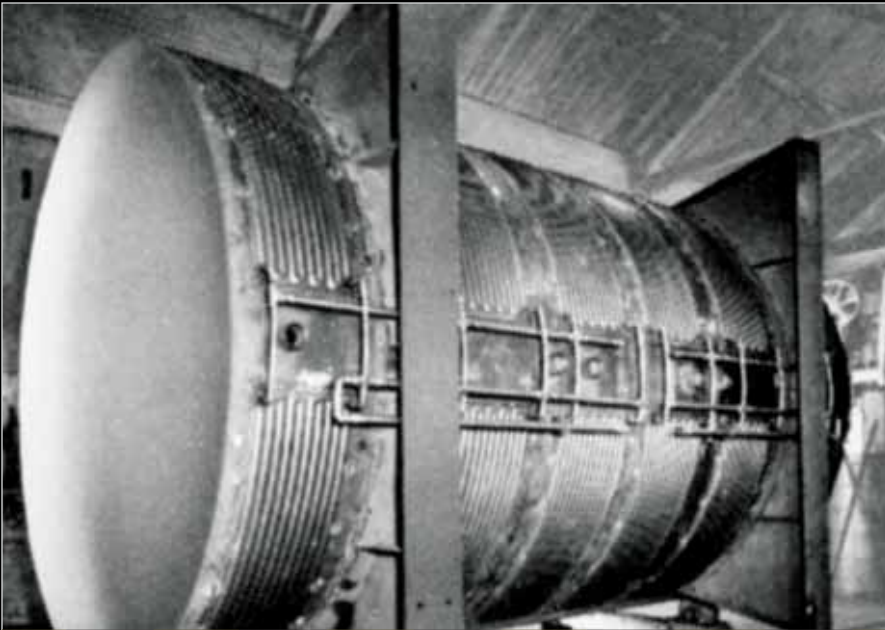
Jacket on a dished head



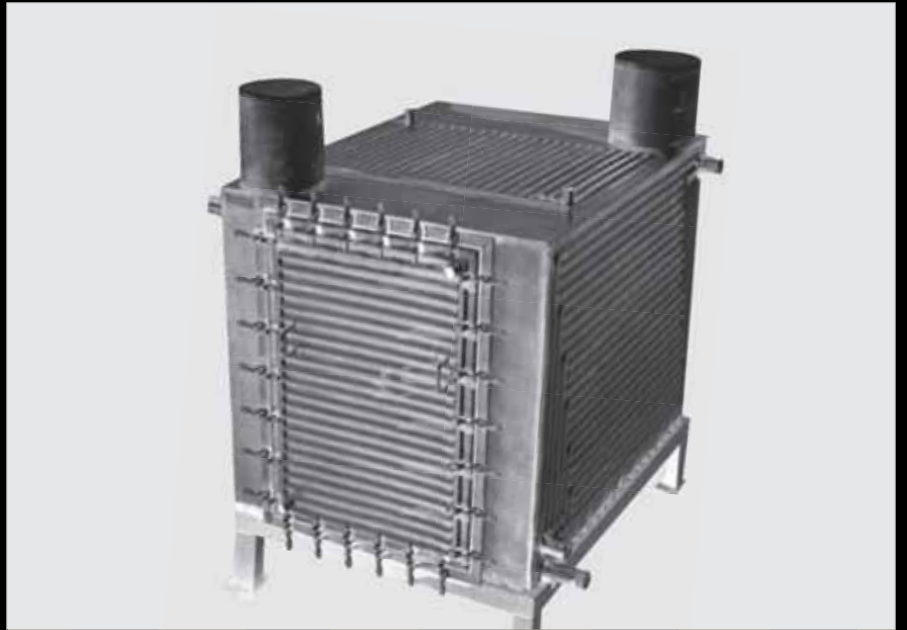
Tank with jacketed sides and bottom



ECONOCOIL® doughnut with cutouts



Jacketed units in a large bakery

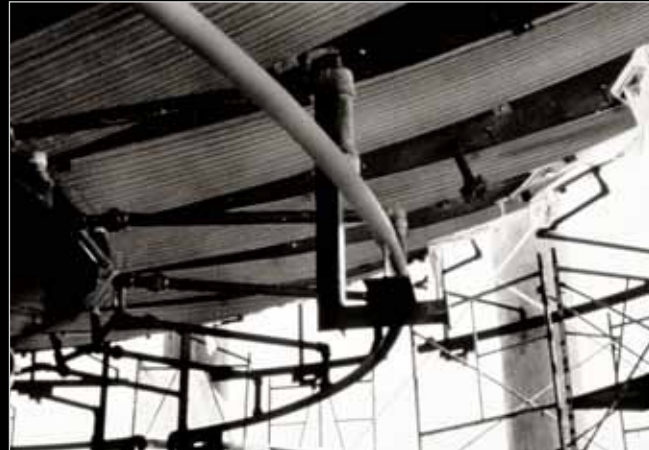


Jacketed environmental chamber

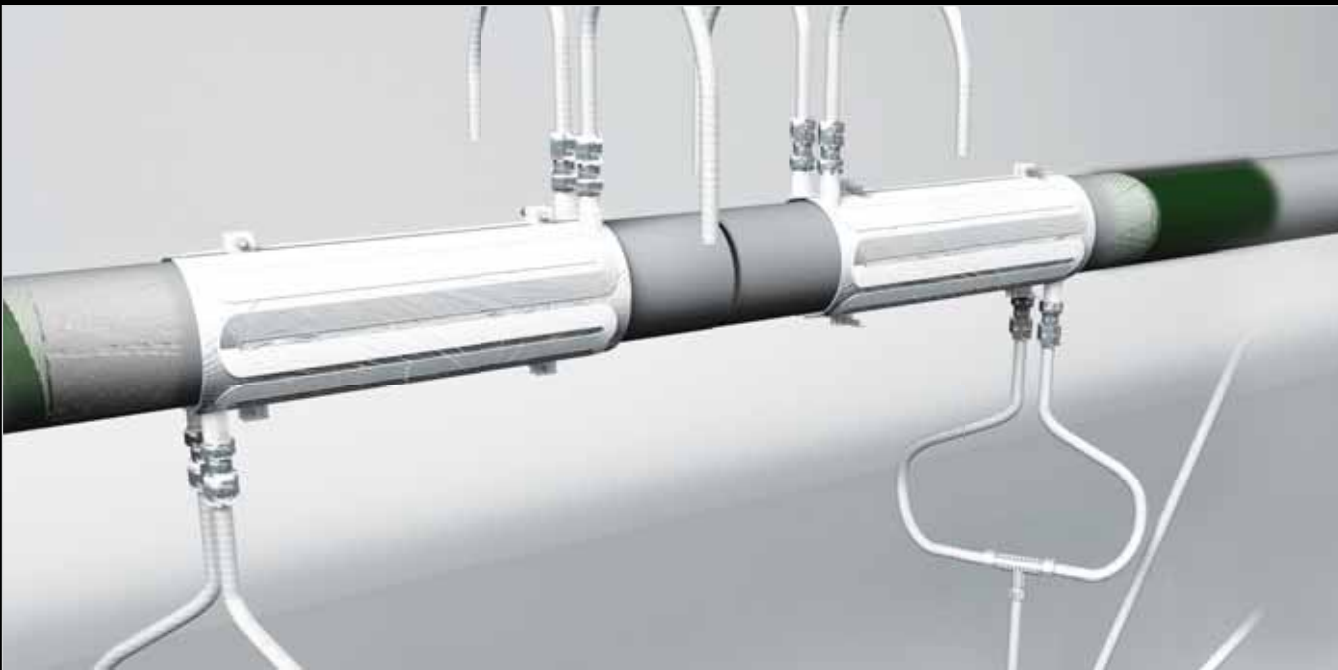
Clamp-On



Clamp-on PLATECOIL configured to a cone shape for heating the bottom of a large bin



Clamp-on PLATECOIL attached to large butane storage tank



Using clamp-on PLATECOIL with cryogenic gas to freeze two plugs in a pipeline around a repair site



Gas cylinder cooler or heater



Saddle-type drum warmer cart



Drum warmers for rapid removal of viscous fluids



Clamp-on PLATECOIL for a large storage tank

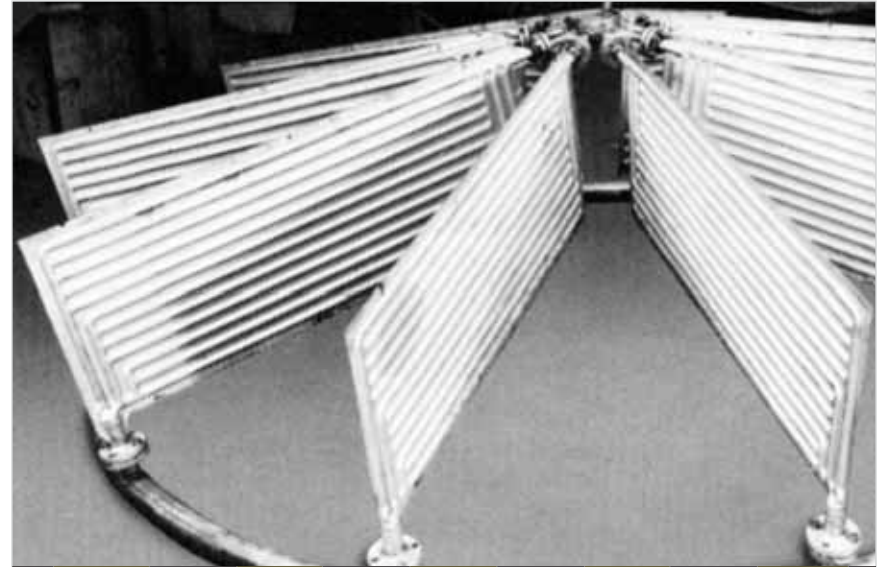


Large, curved clamp-on PLATECOIL panels used to heat the contents of a storage tank

Banks



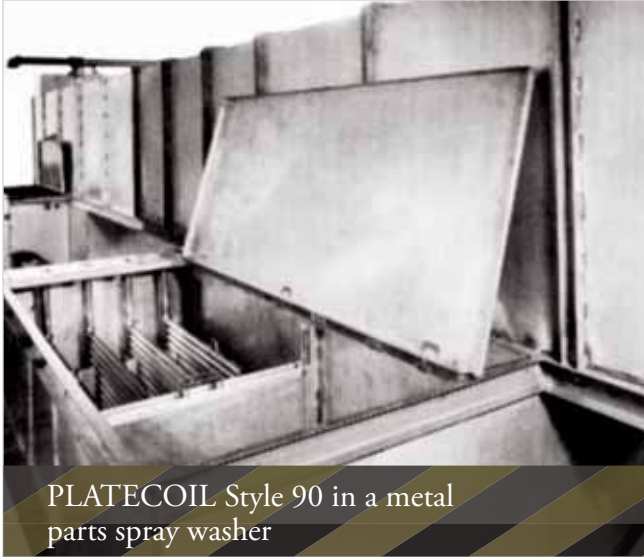
Circulator bank for use in a mildly agitated vessel



Assembly for use in a large corn products tank



PLATECOIL banks for heating viscous products in large petroleum storage tank



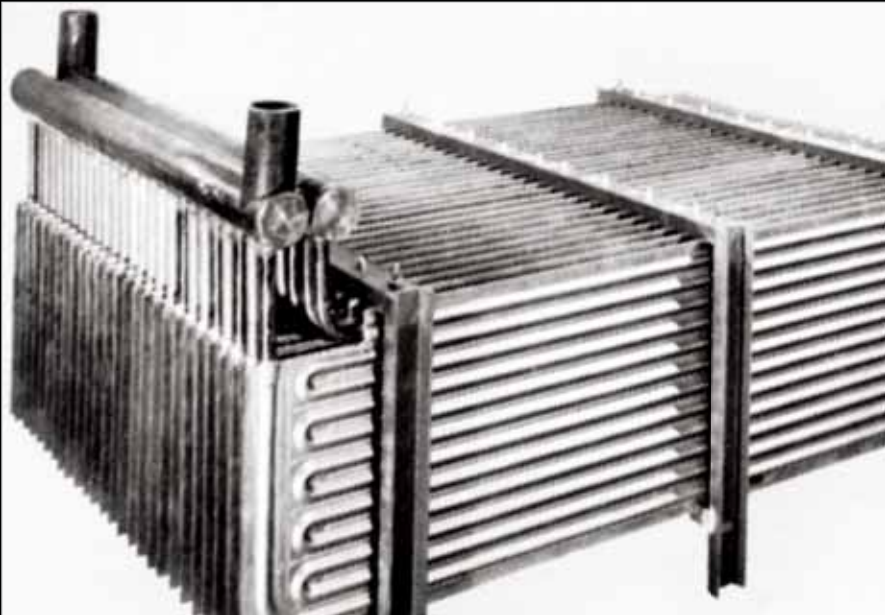
PLATECOIL Style 90 in a metal parts spray washer



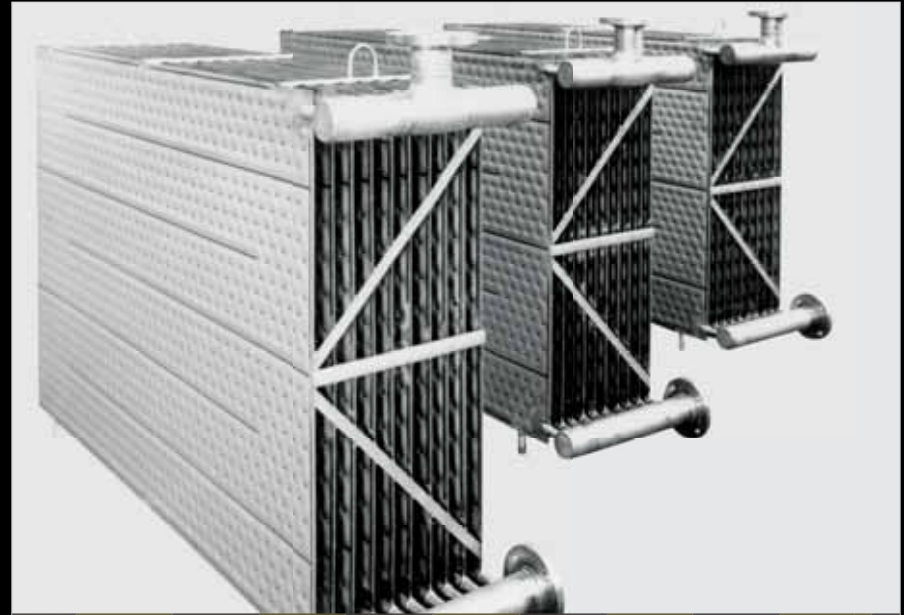
Series parallel PLATECOIL Baudelot cascade cooler



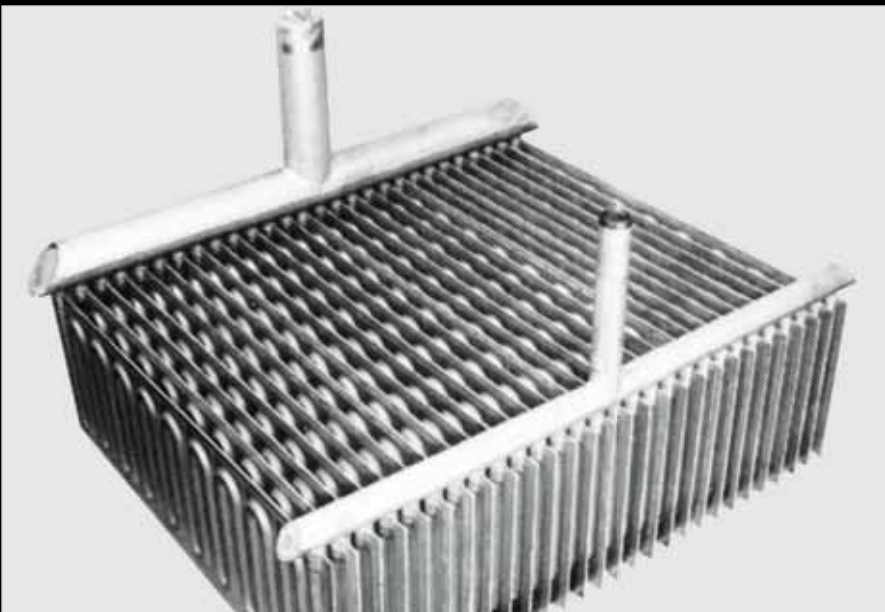
PLATECOIL bank externally recessed into ship hull (grid cooler) provides cooling for vessel's fresh water circuit



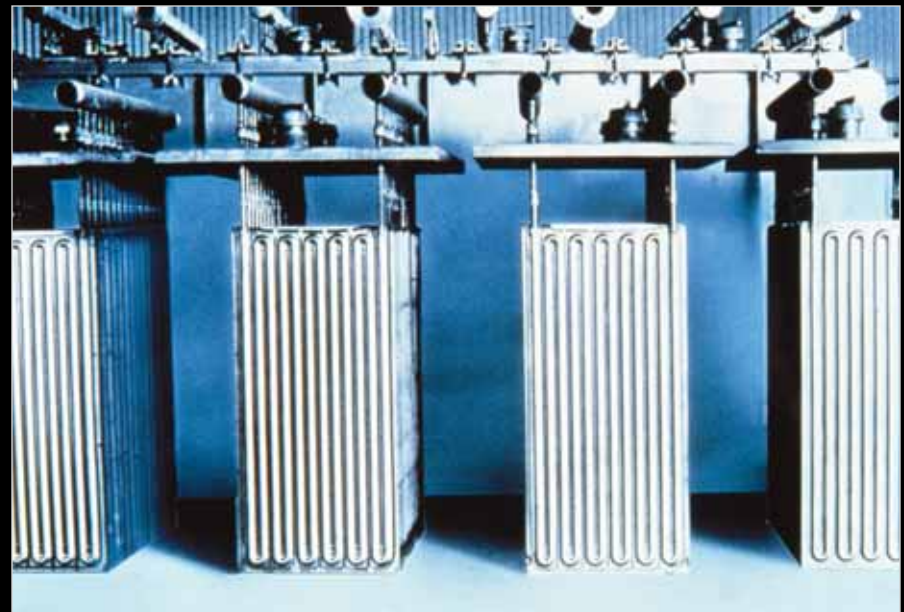
Bank for heating metal cleaner solution with hot water



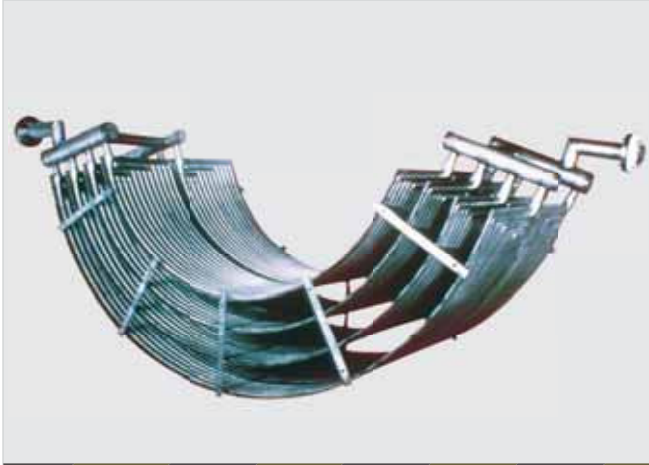
Titanium ECONOCOIL bank provides durable cooling of sodium chlorate solution



Compact PLATECOIL bank for a carbonator at a soft drink plant



Assembly for fluidized bed cooling



Curved alloy bank assembly for use in an agitated vessel



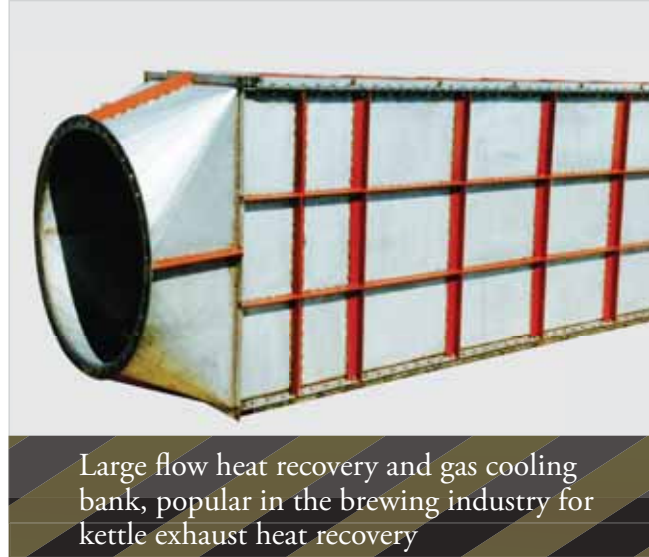
PLATECOIL banks used in food processing as freeze dryers



Banks in tanks for process heating or for heat recovery from hot waste streams



ECONOCOIL bank for recovering heat from hot, wet paper machine dryer section exhaust



Large flow heat recovery and gas cooling bank, popular in the brewing industry for kettle exhaust heat recovery



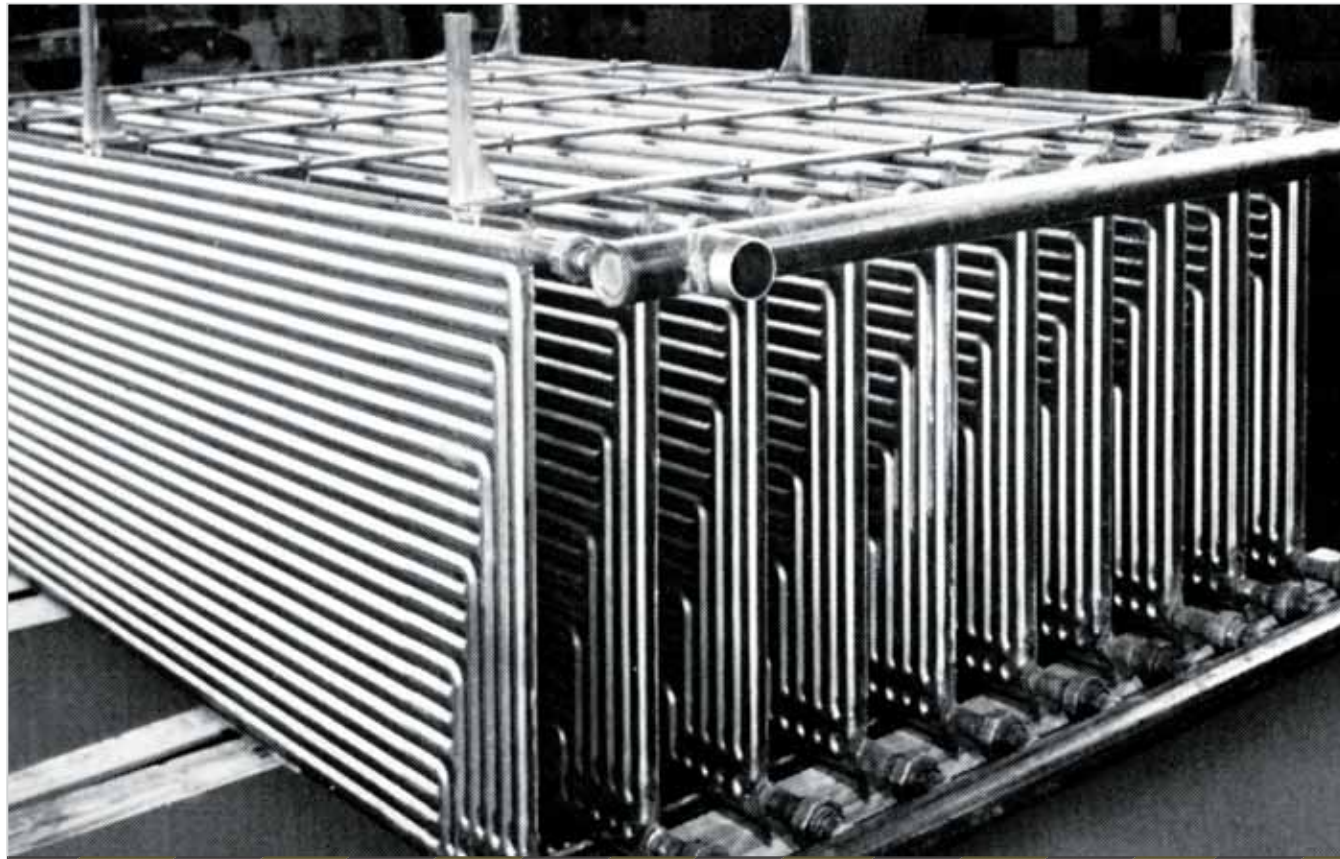
Cargo heating: barges, ship holds, trailers, railcars



PLATECOIL bank for recovering heat from a hospital's laundry waste water



Waste heat recovery bank

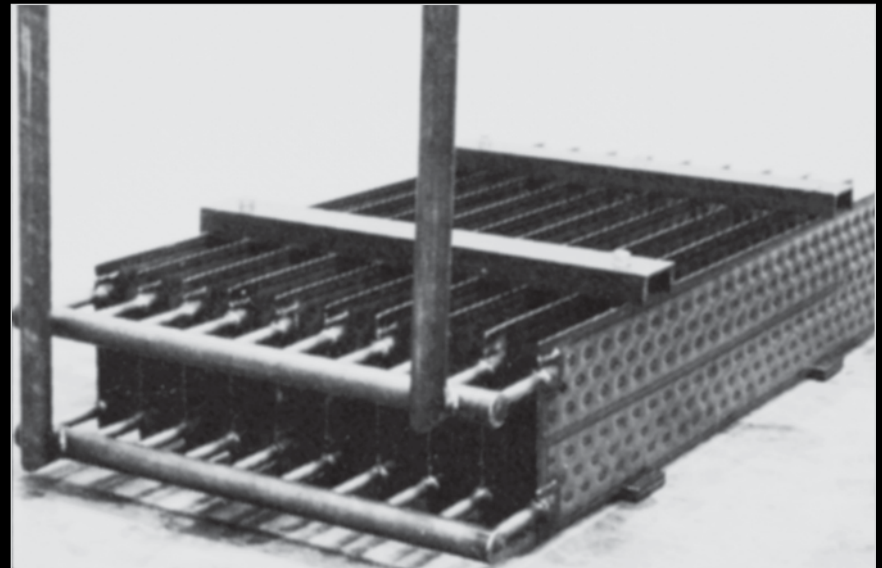


Bank for heating a product tank

Special Fabrications



Water-cooled cover for electric furnace observation port



ECONOCOIL bank for cooling a corrosive solution



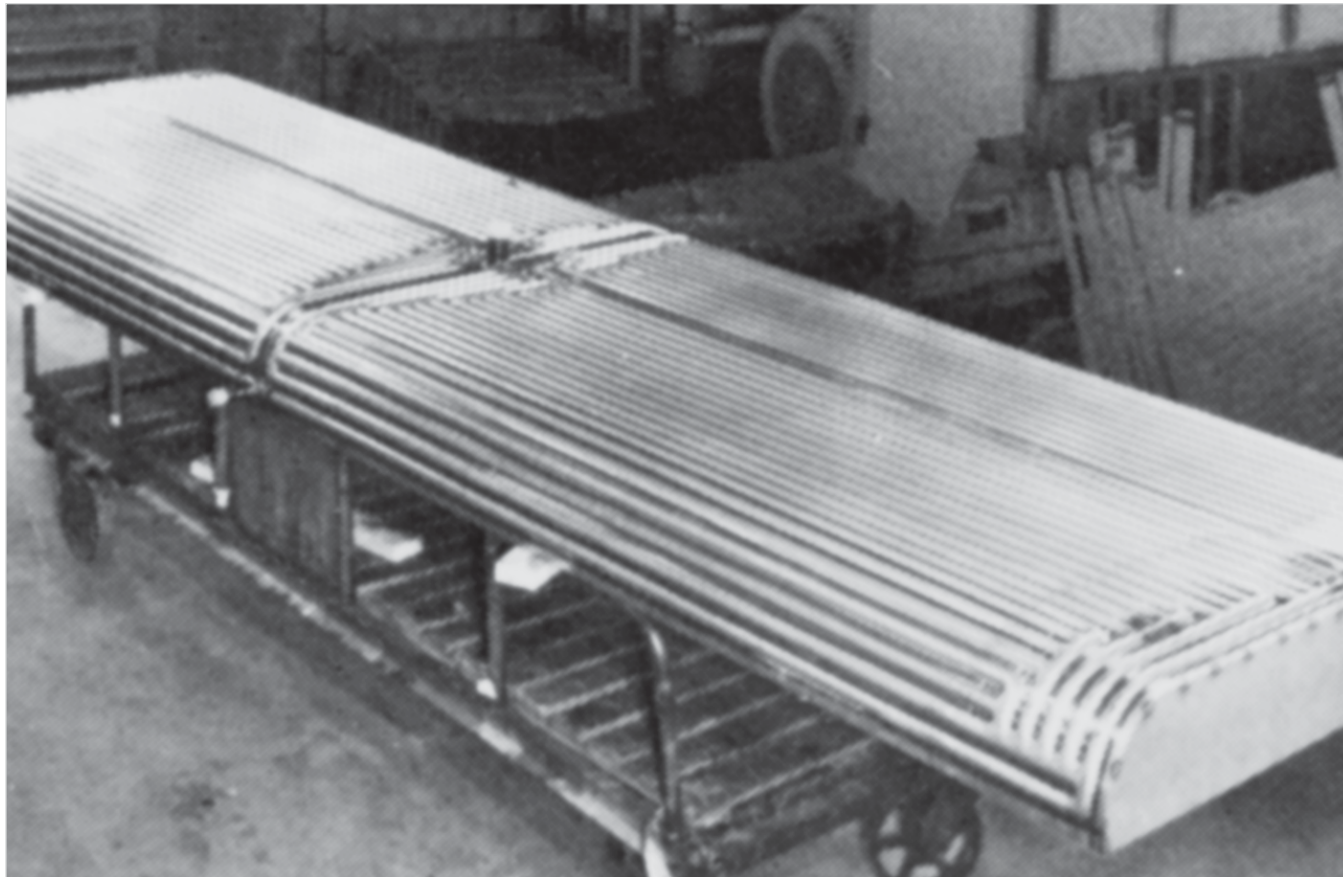
PLATECOIL assembly for cooling paint solvents



Built-in aqueduct for cooling engine jacket water



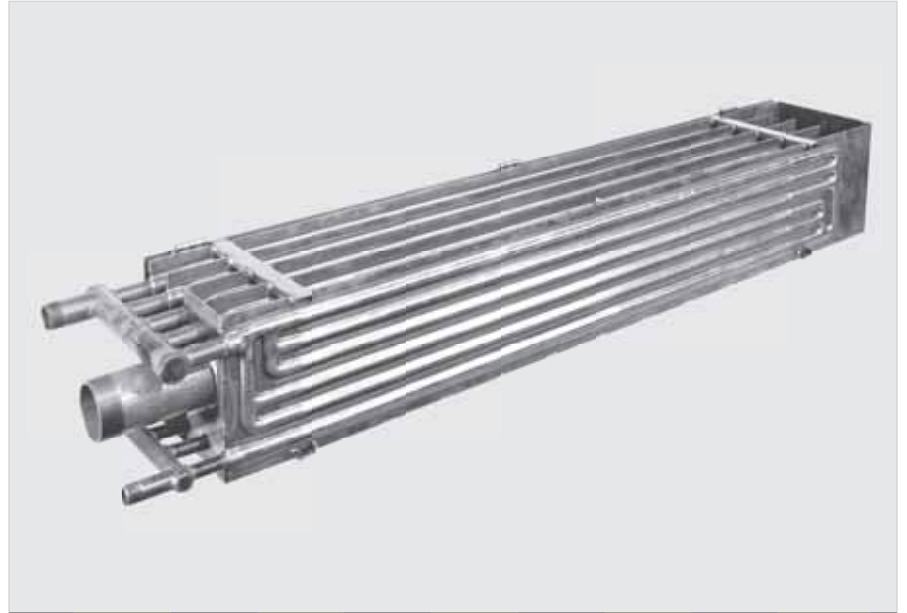
Bulk material dryer with heated baffles, commonly used in textile manufacturing and tobacco drying



Heated hood for use over textile dye beck



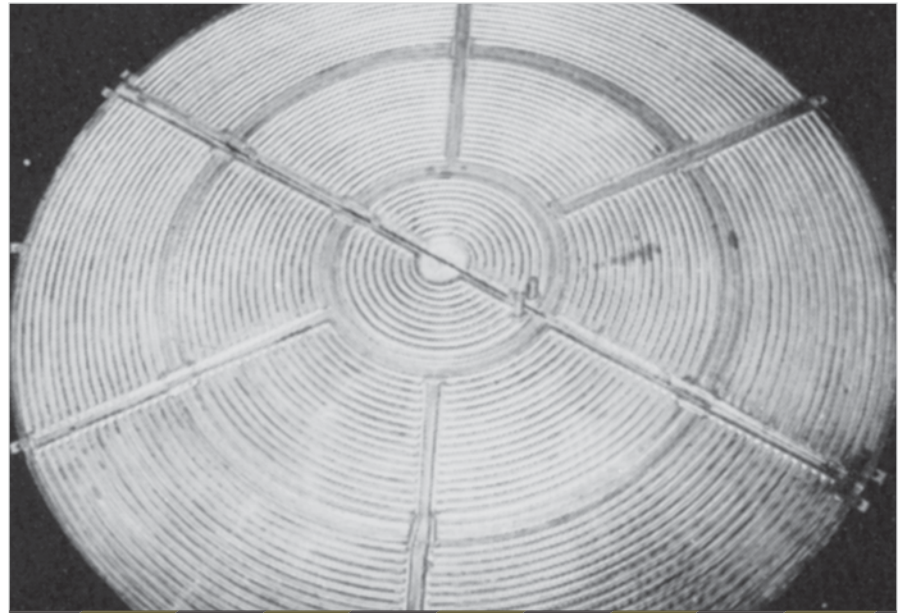
Bank for use as a bayonet heater



Suction heaters



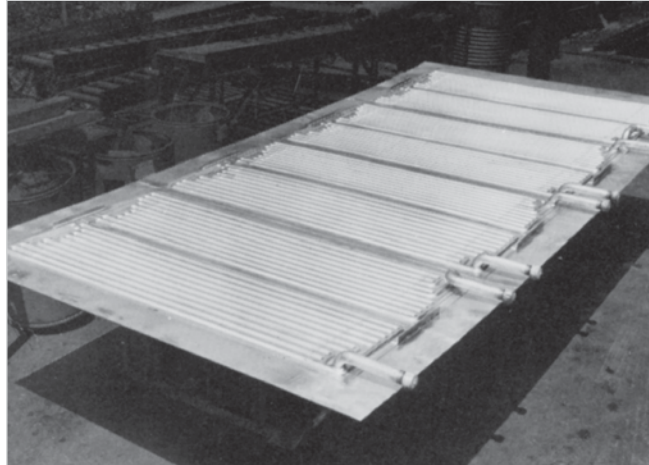
Soybean dryer



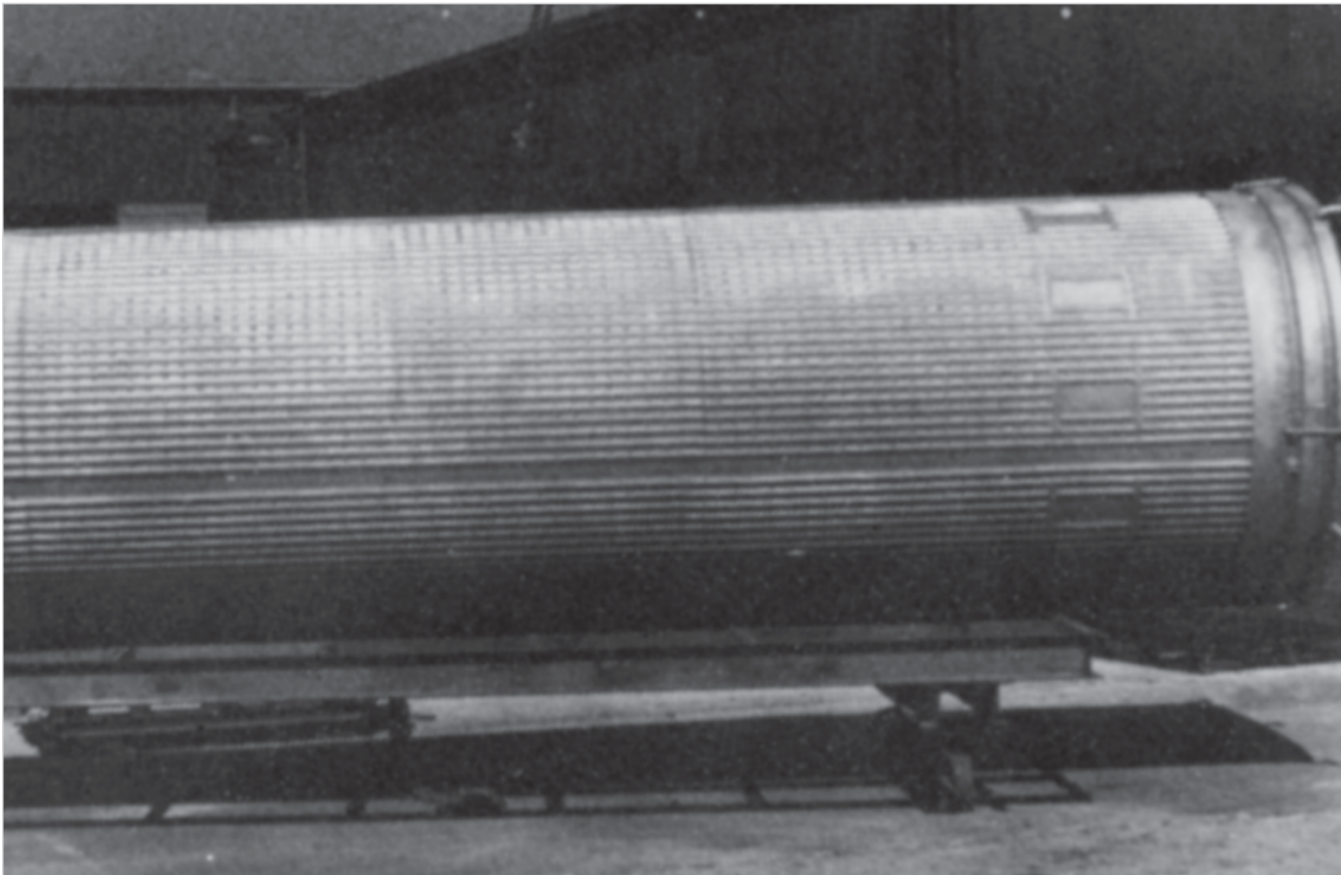
Stainless steel cryogenic assembly



Refrigerated liner for use in a medical testing machine



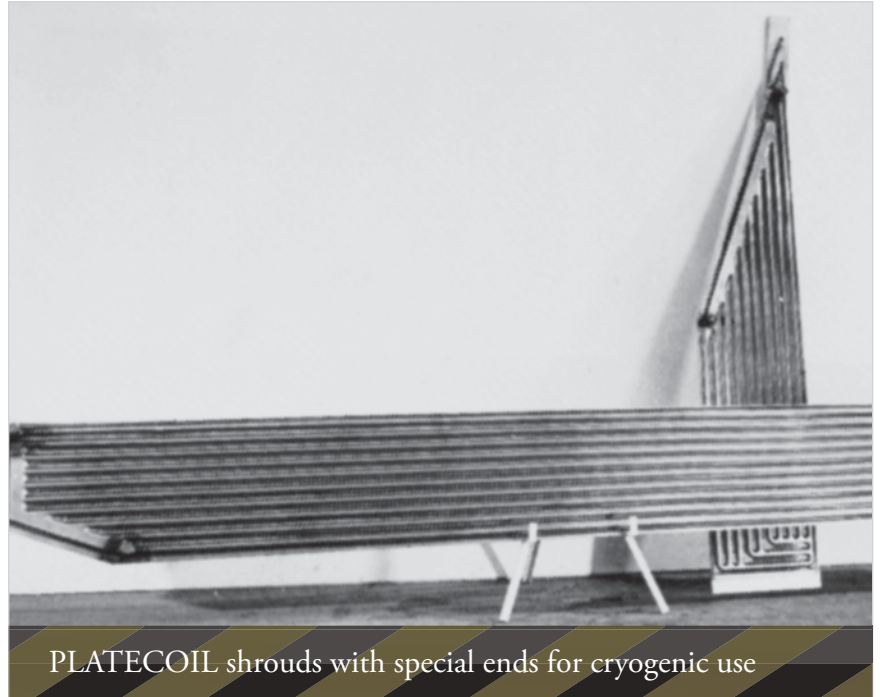
Heated platen for processing a textile product



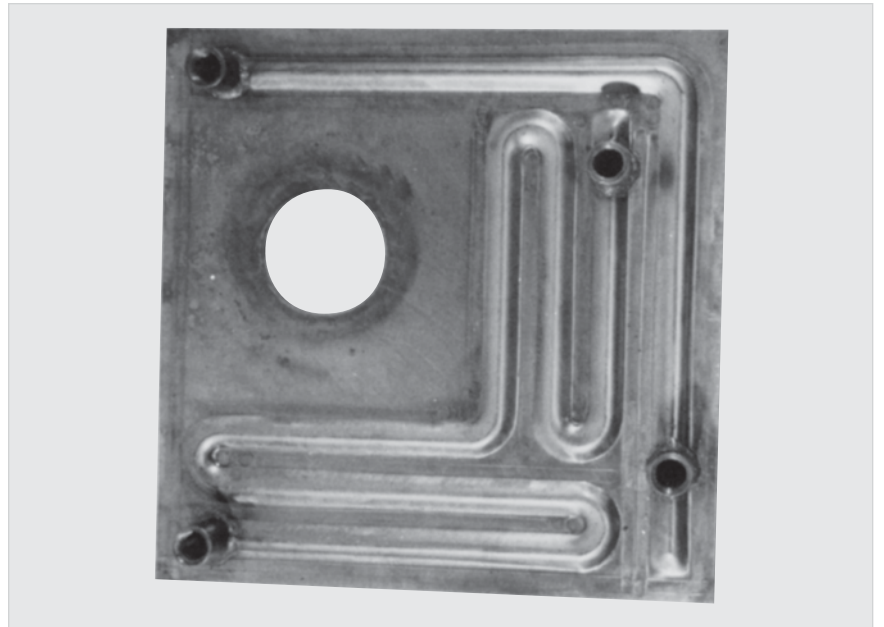
Jacketed shell for rotary tobacco dryer or grain dryer



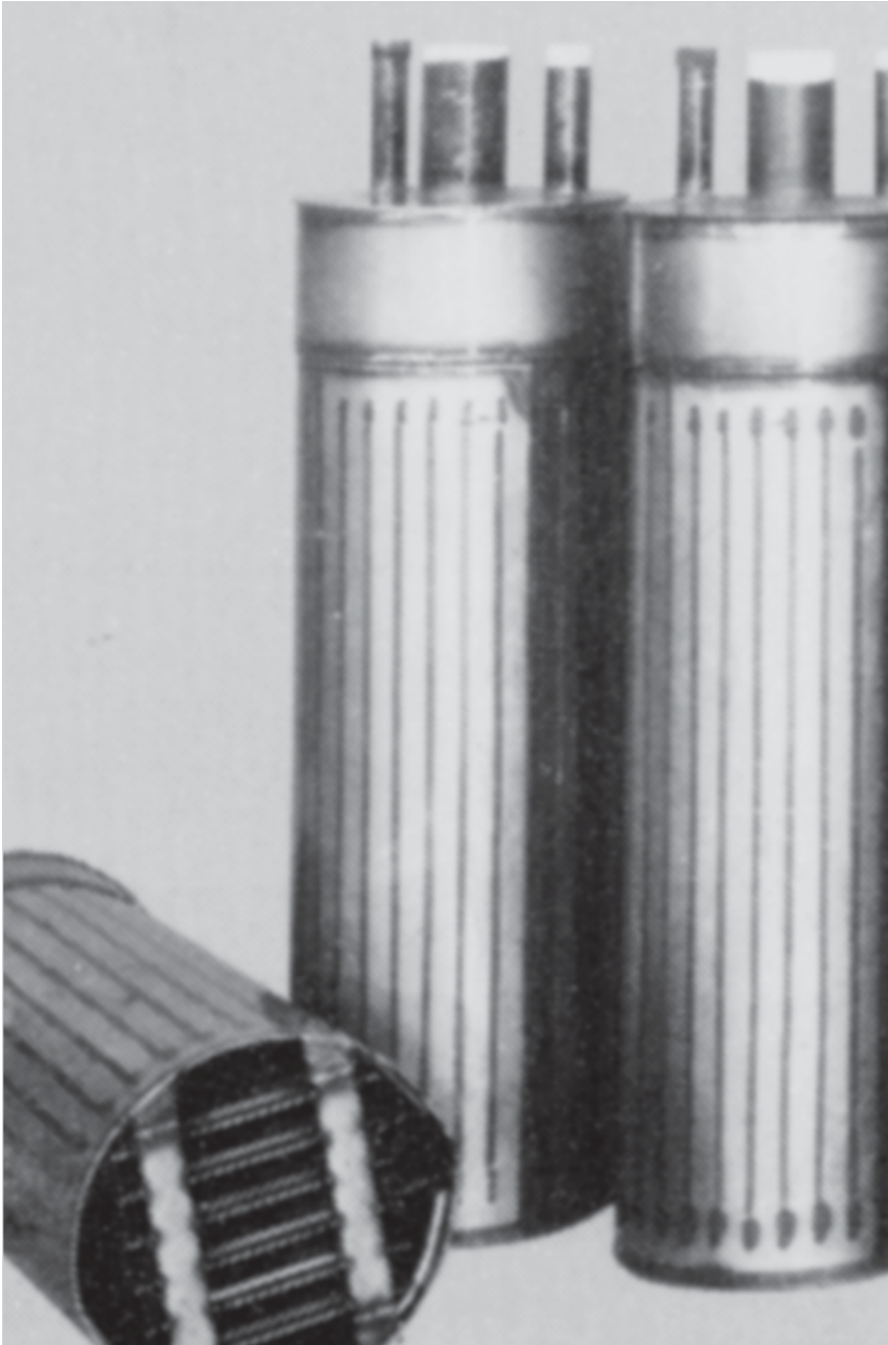
Suction bell heater for pumping heavy fuel oil



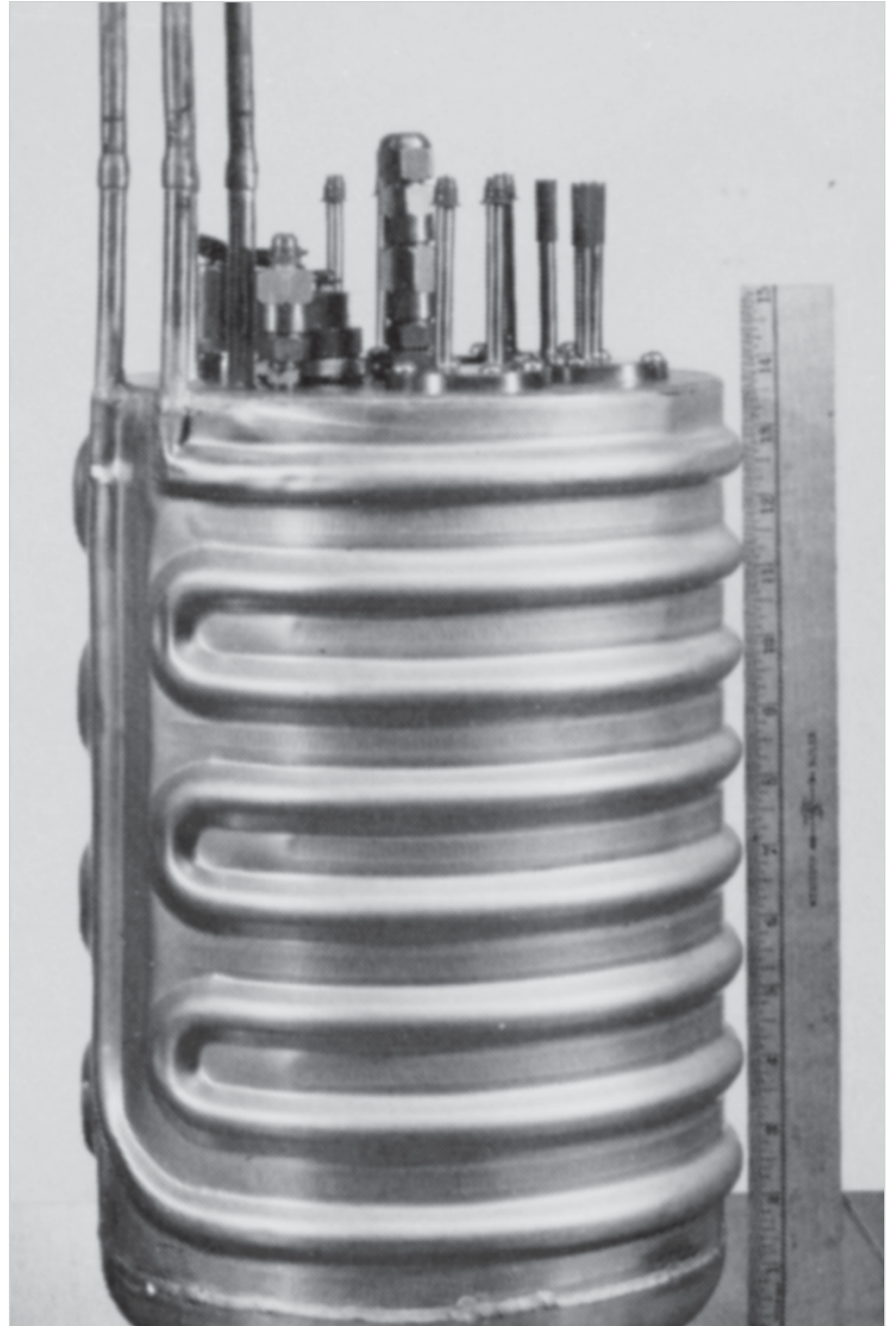
PLATECOIL shrouds with special ends for cryogenic use



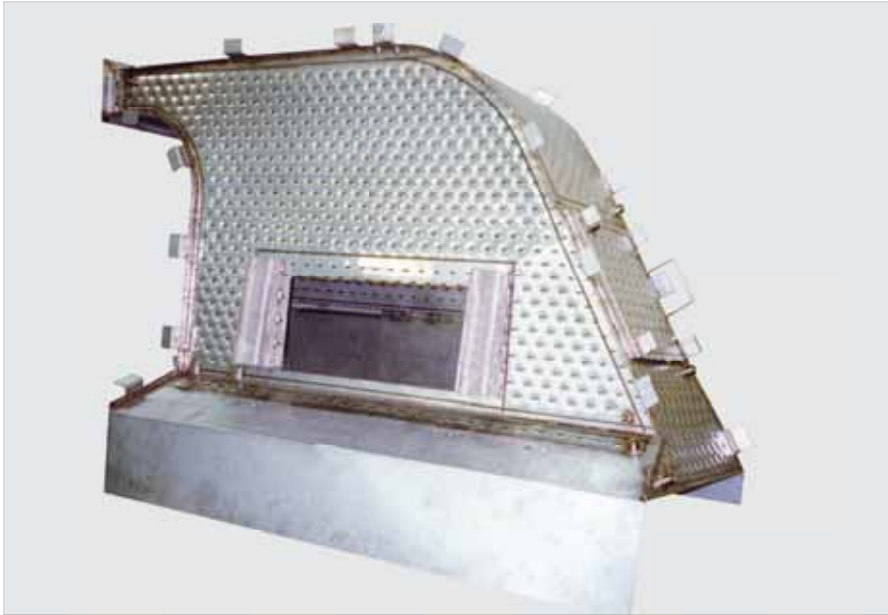
Water-cooled cover to protect camera in hot area



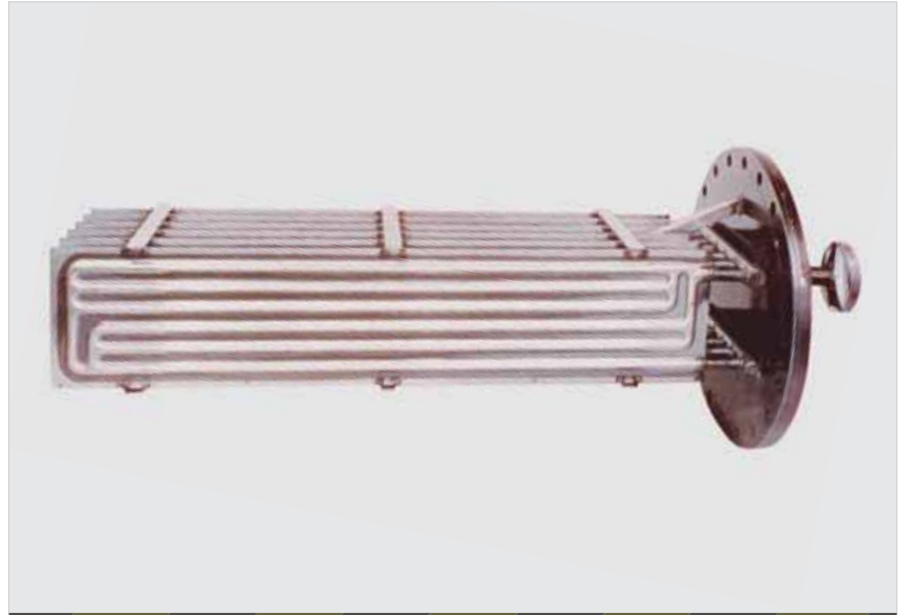
Fuel oil suction heaters



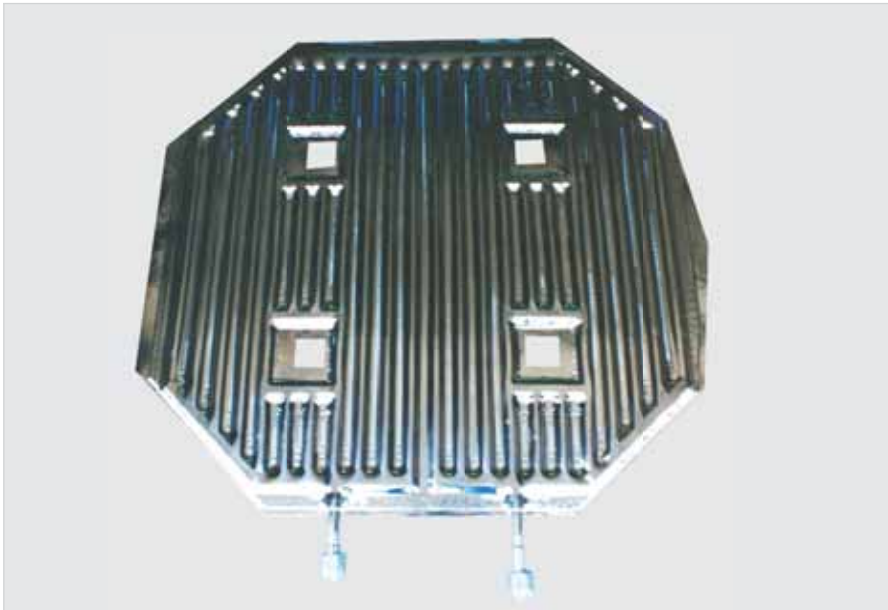
PLATECOIL carbonator for soft drinks



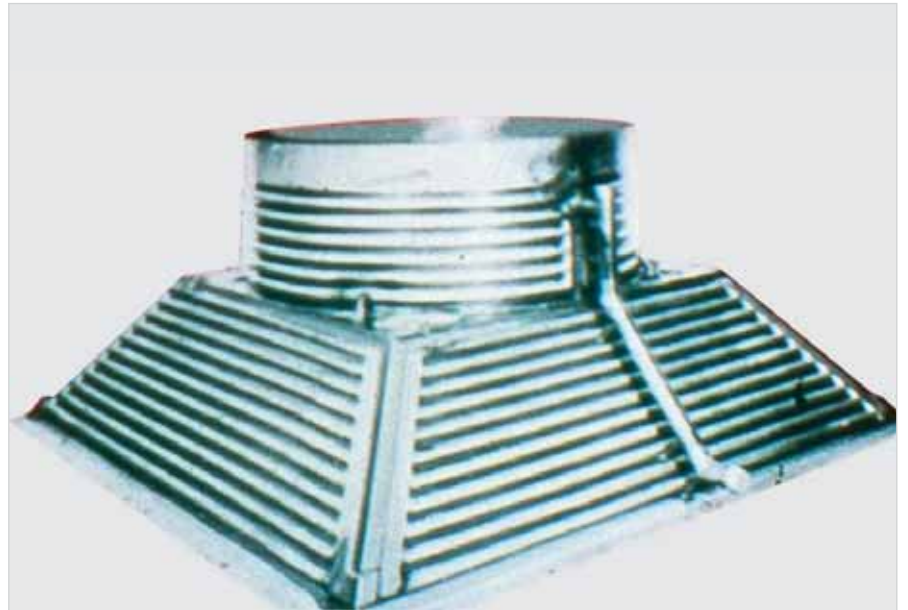
Heated kiln exhaust hood



Bayonet heater for storage tank



Cryogenic shroud for use with liquid nitrogen



Heated exhaust hood to prevent condensation at a plywood plant



PLATECOIL jacket used to keep pipe cool



Sulfur recovery with jacketed piping



Assemblies for cooling mineral slurries



Falling film evaporators for concentrating fertilizer acids



Water-cooled chute for a chemical product

Reshape Your Future With PLATECOIL

Any way you look at it, PLATECOIL Prime Surface Heat Exchangers bring new and better solutions to your direct heat transfer processes. Learn more at www.tranter.com. Complete our Heat Recovery Application Data Sheet in the Literature section or, for more specialized needs, complete the Request Information Form in the Contact section. And don't forget to request a copy of the PLATECOIL Brochure and Data Manual for more in-depth information, specifications, performance and configuration details.

Don't settle for the "one shape fits all" approach. Contact your Tranter representative today! He's ready to assist you through the feasibility process to ensure you receive the optimum technical solution for your applications.



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