

IF YOU CAN PUMP IT YOU CAN PROCESS IT IN A

Cherry-Burrell Thermutator

The Thermutator is designed to perform any of the following functions, singly or in combination. It can be used on the products below, or similar products.

FUNCTIONS

Heating • Cooking
Sterilizing • Pasteurizing
Cooling • Slush Freezing
Chilling • Plasticizing
Whipping • Emulsifying
Crystallizing

PRODUCTS

Caramel Candies
Chopped Junior Foods
Edible Starch
Eggs • Peanut Butter
Fondant and Coatings
Fruit Juice Concentrates
Gravy and Sauces
Ice Cream Mix
Jams and Jellies
Lard • Shortening
Mustard
Nitrates
Paper Size
Petroleum Jelly
Pharmaceuticals
Photo Emulsions
Pie Fillings
Pickle Relish

Puddings • Starch Slurries
Resins
Soups
Strained Baby Foods
Sulfates
Sweetened Condensed Milk
Syrups
Textile Size
Tomato Paste
Wax

Cherry-Burrell multi-purpose Thermutator is available in a variety of sizes and heat exchange mediums to achieve maximum flexibility.

SIZES

The Cherry-Burrell Thermutator is made in the following types and cylinder sizes:
672 cyl. — 9 sq. ft. of transfer surface
648 cyl. — 6 sq. ft. of transfer surface
324 cyl. — 1.7 sq. ft. of transfer surface

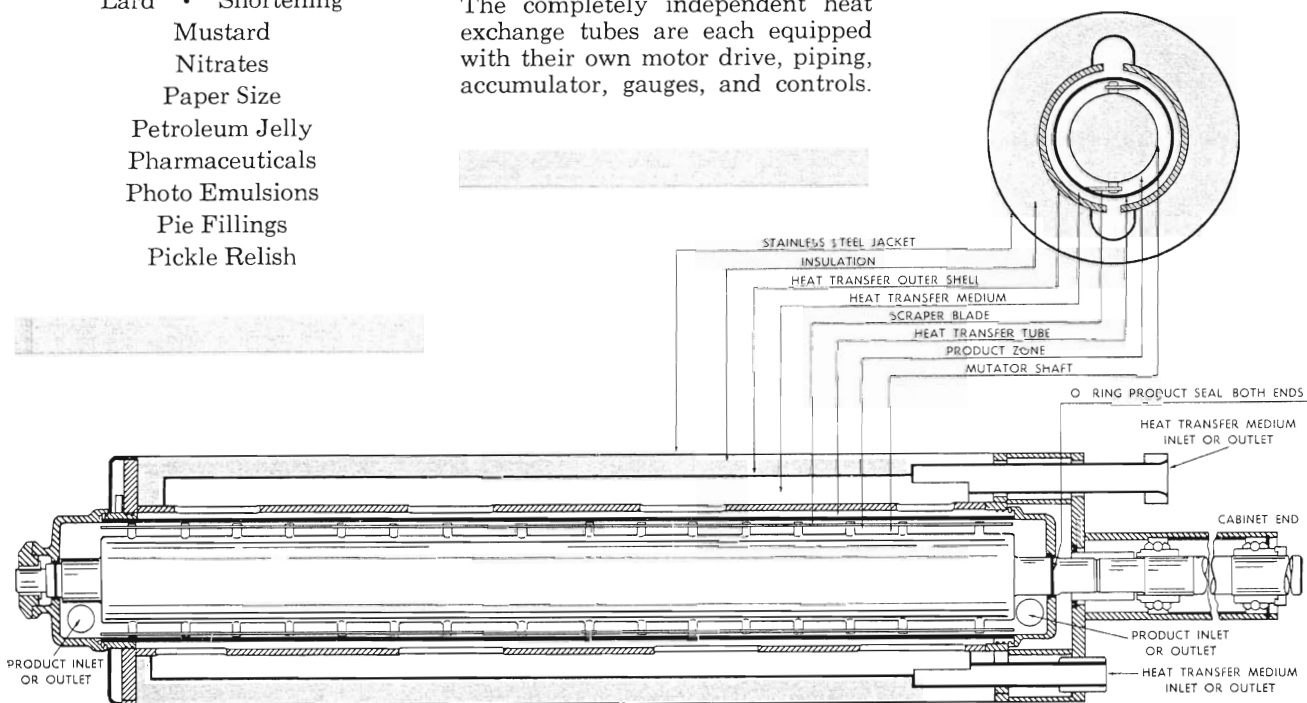
HEAT TRANSFER CYLINDERS

The completely independent heat exchange tubes are each equipped with their own motor drive, piping, accumulator, gauges, and controls.

Each tube has perfect concentricity because tube and drive mounting are machined from one setting, from one boring bar. This permits use of "O" rings on front and rear of tubes. No mechanical seals are in contact with the product. Full floating heat exchange tube design permits inlet and outlet to be connected directly to tube with quarter turn "pressure cooker" locking device. Not affected by extreme heat or cold.

Each mutator is connected to its own independent drive by a spline attachment. No shear pins are used. Drive is powered by multiple V-belts. Motor sizes up to 15 H.P. per tube. Easily removable motor shaft coupling.

Pure nickel heat exchange tubes are equipped as standard with a 75 Rockwell hardened chrome plating, .003" minimum thickness, and are polished to a mirror-like super-finish perfected by years of experience on thousands of ice cream freezers. The Thermutator employs a 316 Stainless Steel mutator with hardened stainless steel blades. The tubes are designed for ease of cleaning — can be removed and reassembled in minutes. Heavy duty outboard ball bearings are used on front and rear of mutator shaft of 648 and 672 tubes.



CROSS-SECTION THROUGH THERMUTATOR TUBE

A SIZE AND STYLE FOR EVERY APPLICATION

TYPES

S.W.B. — equipped for steam, water or brine. For heating with steam or hot water up to $+350^{\circ}\text{F}$. For cooling with city water, sweet water, brine. D.E. — equipped for direct expansion cooling — ammonia or freon. Each direct expansion cylinder has its own independent accumulator, valves, gauge and control.

FEATURES

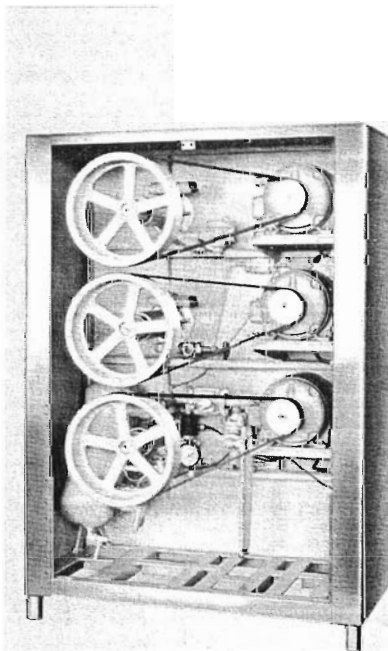
The Thermutator Heat Exchanger is a scraper-blade heat transfer apparatus, using the principles of the famous "VOGT" freezer. Designed specifically for continuous heating or cooling, or both, of liquid or semi-solid products, the Thermutator processes products through a wide range of temperatures.

The material to be processed is pumped through a narrow annular passage, and is heated or cooled in seconds through contact with the heat transfer tube. Two-bladed mutator scrapes sides of tubes continuously, preventing burn-on or freeze-on even at extreme temperatures. The scraper blades further provide simultaneous agitation and mixing, as well as assuring efficient uniform heat exchange.

The completely enclosed system provides protection against contamination by air-borne bacteria, and also prevents evaporation losses — the product retains full flavor. The Thermutator provides continuous processing, with instrumentation which saves time and labor, as well as assuring positive quality control.

Each Thermutator cylinder is equipped with independent drive, piping, accumulator and controls, to permit maximum flexibility, making it possible to heat in one tube, cool in another simultaneously.

Space saving, streamlined design. The Style "A" and "C" cabinets, with three tubes, are all stainless steel exterior. All interconnecting heating and cooling piping, accumulator and drive unit are inside the cabinet. The Uni-Stack Style has a stainless steel veneer or a painted carbon steel cabinet, with only the direct expansion accumulator outside. The Uni-Stack can be used singly, or multiple units can be stacked up to three high, or mounted side by side. Machined surfaces assure perfect alignment.



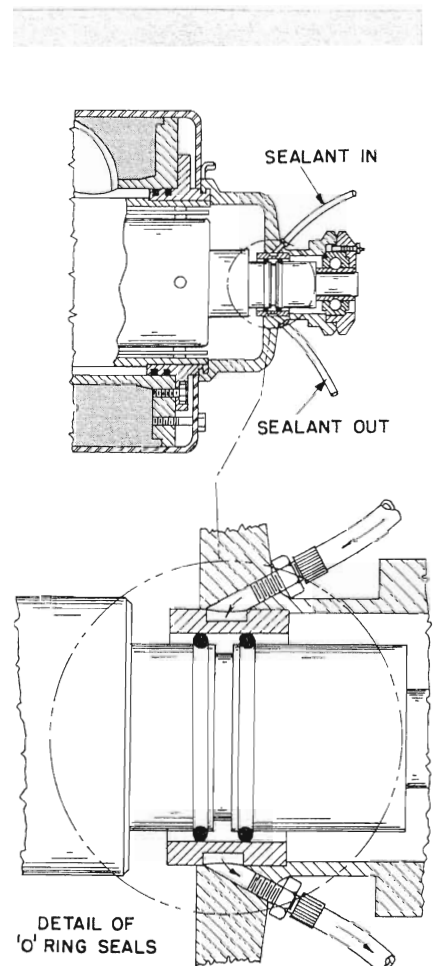
INTERIOR OF 3-TUBE THERMUTATOR

FLEXIBILITY

Thermutator's flexibility permits units to be purchased with expansion cases — tubes can be added, or changed without affecting other tubes in cabinet. The instrument panel can be installed in any convenient location if remote control is desired.

USES

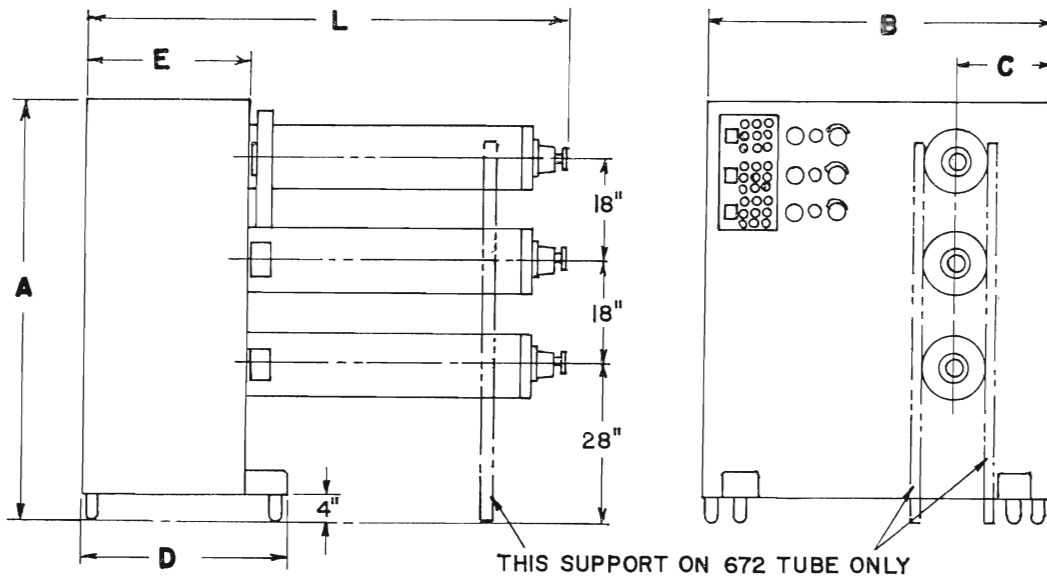
The Cherry-Burrell Thermutator can be used for heating, cooling or mixing liquids, liquids and gases, and liquids and semi-solids. It is specifically designed to process products which form a surface film on normal heat exchange surfaces; for fibrous or high viscosity materials; and for applications requiring either ultra-high heating, ultra-low cooling, or both.



ASEPTIC PROCESSING

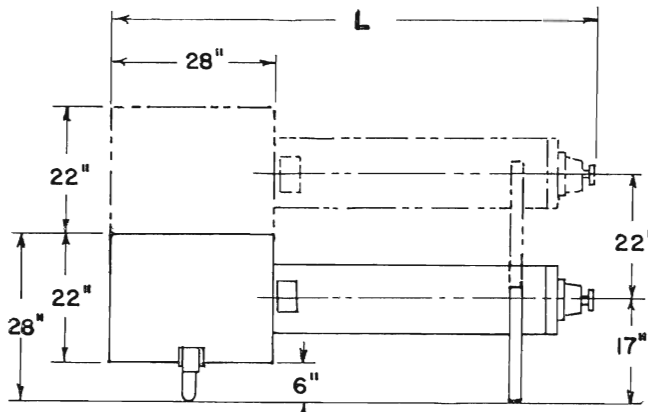
For aseptic processing or other applications where product characteristics call for a sterile seal to prevent external contamination, double "O" ring seals can be provided with steam injection lines. For other applications a water seal can be used.

Cherry-Burrell THERMUTATOR

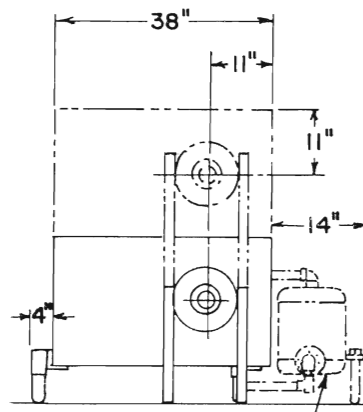


DIMENSIONS FOR STYLE "A" AND "C" CABINETS

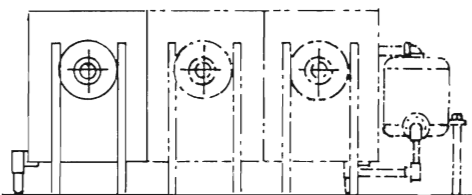
Style	Cylinder	A	B	C	D	E	L
C	324	70	52	15	33½	25	60
A	648	72	60	16	36½	28	85
A	672	72	60	16	36½	28	109



WITH VERTICAL TUBE ARRANGEMENT



FOR D.E. OPERATION, ACCUMULATOR CAN BE PLACED ON EITHER SIDE OF CABINET.



ARRANGEMENT FOR HORIZONTAL TUBES

DIMENSIONS FOR UNISTACK CABINET

Cylinder	L
324	60
648	85
672	109



CEDAR RAPIDS, IOWA