

InfinityCooker

The *InfinityCooker* is designed to process a wide range of products at extremely high production rates regardless of the viscosity. It is capable of cooking products with fragile particulates up to 1¼ inch diameter (31.75 mm) with minimal damage to the particulates. The InfinityCooker is the perfect answer to cooking process cheese, meat or fruit pie fillings, delicate custard desserts, thick chunky soups and sauces, fruit jelly or compote or cooking any other product that requires precise temperature control including aseptic processing.



The Evolution of Processing All Pumpable Products

INTERMESHING AGITATORS

The *patent pending* intermeshing agitators provide incredibly effective mixing of the product as it is pumped through the cooking column. When rotated in one direction at low RPMs the agitators provide gentle mixing with minimal shear and product breakdown for fragile products such as ground beef or sliced vegetables. When rotated at high RPMs in the opposite direction the sharp leading edge of the mixing fingers will chop up the product to a fine slurry. The mixing fingers of the two agitators overlap to fold the product together evenly regardless of the viscosity.



DIRECT STEAM FUSION

As the product is pumped through the cooking column, direct steam is diffused evenly into the product through spring closed, flathead injectors that distribute the steam gently in a 360 degree circle from each injector. By spreading the steam flow out around each injector the steam velocity slows to avoid damaging any fragile particulates. The combination of the *patent pending* agitators and steam diffusers allows the injection of a high volume heat energy into the product evenly, even at extremely high production rates. For example the standard InfinityCooker is capable of production of high quality process cheese at up to 24,200 lbs. per hour (11,000 kgs. per hour).



SPACE-AGE STEAM HEATING

The 24 steam injectors, which have only one moving part, can be taken out of the valve body without tools and disassembled for inspection. The flat head of the steam valve which is exposed to the product is coated with a space-age non-stick material that actually fuses with the molecules of the stainless steel and will not flake off. The product will not burn onto this unique surface. When the steam is turned off the spring closes the valve and a mechanical vacuum release, adjacent to each injector, releases the vacuum caused by the collapsing steam in the steam line. For precision control, the steam injectors are divided into twelve independently controlled steam zones.





SIMPLE CLEANING AND MINIMAL MAINTENANCE

The InfinityCooker can be CIP cleaned in minutes by pumping cleaning fluid through the cooker as the agitators are rotating. The neutralizing and rinsing fluid can be drained out of the shaft seals and injector cavities without changing the position of the cooker body from its horizontal operational position. By raising the hinged cover to the over-center position, each injector is within easy reach and can be removed without tools to inspect the interior of the cooker for cleanliness.

The steam manifold and steam hardware are accessible after removing a guard panel in the frame. The electrical panel is also built into the frame of the InfinityCooker making the Compact Logics PLC and other electrical and control components easy to reach and maintain.

The large 10-inch touch screen HMI clearly displays the user friendly control system. The PLC controls both steam pressure and product temperature with the extreme accuracy that the processing of sensitive custard desserts and other similar products require.

The InfinityCooker is loaded with Innovation:

- Patent Pending twin intermeshing agitation system
- Spring-actuated, mechanical shaft seals
- Twenty-four high capacity spring closed, modulating flathead direct steam injectors
- Twelve-zone precision temperature control system
- Vacuum release valves in the steam line to each agitator to eliminate product suck-back
- Allen Bradley Compact Logix PLC control system with manual and auto modes
- Differential steam pressure product temperature control
- Optional PLC controlled, air retractable temperature probe technology
- Optional back pressure valve control for 45 PSI (3 bar) over pressure cooking
- Production rates up to 24,500 lbs. per hour (11,000 kgs. per hour)
- 10-inch (254 mm) color touch screen HMI
- CIP cleaning and rinsing with the cooking column in the cooking position without moving the column



The above are examples of thick, viscous products that can be efficiently processed in the InfinityCooker.

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