HYDRATHERM Continuous Rice Cooker

A First in Full Absorption Rice Cooking



Blentech has developed the first truly continuous, full absorption rice cooker for Asian 'sticky' rice, flavored rice pilaf or any grain product where controlling the percentage of water content in the hydrated product is critical to quality. The HydraTherm system with process and machine patents pending, continuously feeds raw rice into the inlet and perfectly hydrated, completely cooked steamed rice continuously feeds out the discharge opening.

Batch Cooked Rice

The 'full absorption' cooking methods used today do not produce cooked rice with the same percentage of water content in all kernels. The rice kernels at the top of the batch have low moisture content while the kernels at the bottom of the batch have absorbed too much water. Only the rice kernels in the middle of the batch have the optimum moisture content. This is because the kernels at the bottom are continuously bathed in water during the total cooking time while rice expansion causes the rice kernels at the top to be pushed up out of the water where there is no more moisture to absorb.

Continuous Asian rice systems cook the rice in small rectangular pots filled with an exact ratio of rice to water and then convey the pots through an oven in assembly line fashion. These systems are very complex and expensive with robotic arms, electric eyes and sensors. These mechanized batch systems, like other batch cooking systems, cannot produce rice with even hydration of every kernel.



HydraTherm is Different

HydraTherm uses the surface tension of water to maintain the optimum amount of moisture around each kernel during hydration. At the inlet of the cooker the raw rice is heated by direct steam to approximately 200° F (94° C). As it is conveyed, hot water is misted onto the rice bed. As the water percolates downward at exactly the rate each kernel can absorb the water, surface tension holds some water around each kernel providing the moisture for optimum hydration at all levels. During this

hydration process the rice is gently mixed by rods welded to the two intermeshing agitators.

Direct steam is injected up through the bed of rice as it is conveyed keeping it at proper hydration temperature the full length of the cooker. Since the cooker is covered, steam is contained in the chamber above the rice bed just as it is in a covered cooking pot.

HydraTherm Advantages

HydraTherm has many advantages over batch cooking systems and continuous batch systems:

- Produces a more evenly hydrated and steamed product with improved quality.
- · Automatic in-feed requiring less production man-hours.
- True continuous production, no batch pots.
- Less capital cost for any production rate.
- · Automatic with PLC controlled multiple recipe capability.
- · Requires less factory space.
- Simple and easier to maintain with less moving parts.

HydraTherm produces a higher quality product continuously and automatically.

