



## The HydraTherm™ Cooking System

The HydraTherm is a continuous **full absorption** rice and grain cooking system that uses only the water and steam necessary to achieve the desired hydration level, making this technology a significant advancement in sustainable processing.

## Applications

### Washing, Conveying, Soaking, Cooking, Metering and Cooling

**Continuous cooking** of rice, grain and pasta varieties: arborio, Japanese sticky rice, jasmine, basmati, calrose, wild rice, brown rice, quinoa, tabouli, couscous, pastas of varying geometries - orzo, penne, rotini, farfalle, spaghetti, fettuccini, etc.

**Continuous cooking** of prepared rice dishes such as risotto, biryani, pilau, pilaf, paella, Spanish rice, gallo pinto, etc.

## Highlights

- Complete system integration can include bulk rice transfer, washing, soaking, ingredient metering and product cooling.
- Complete PLC automation and integration so that single operator can manage the entire system.
- Full absorption cooking eliminates starch laden effluent (water waste) from excess water cooking, thereby increasing yield and decreasing operating costs.
- Engineered to consume steam and hot water **ONLY** as needed to meet the specified hydration level - in line with green/sustainable manufacturing practices.
- Continuous addition of liquid and solid ingredients without dilution.
- Full absorption cooking is the only way to prepare authentic Japanese sticky rice for sushi and bento meal products.
- 26 year of proven engineering and manufacturing for maximum life with minimal maintenance and spare parts requirements.
- Designed for easy cleaning; meets and exceeds current 'Good Sanitary Design' guidelines.
- PLC platform choices with multi-recipe and Ethernet capability.
- Voltage and component choices to meet global energy standards.
- Services available for complete system integration.



# HydraTherm™ Cooking System

"200 Years Formed In Steel"

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## Key Components

**Uniformity:** Steam diffusers, zoned hydration water nozzles and intermeshing agitators are designed for even distribution of moisture and energy throughout the product.

**Precise Temperature Control:** Multi-zone temperature sensor(s) and modulating valves allow precise thermal control to apply energy and moisture appropriately in each section of the cooker at the appropriate times during the product-specific cooking cycle.

**Thermal Cycling:** Blentech has engineered a proprietary thermal expansion system that allows the cooker to move free of restriction during thermal expansion and contraction.

**Production Rate Flexibility:** Variable in-feed rate and residence time allow flexible production rates within design constraints.

**Easy Cleaning:** Pneumatic agitator-lift feature allows for quick, easy and thorough cleaning beneath the agitator flights, increasing efficiency of cleaning and sanitation cycles.



Model	Throughput (lbs/hr) 22min	Throughput (kgs/hr) 22min
HT-0908	253	114
HT-1408	660	299
HT-1410	825	374
HT-1414	1155	524
HT-1812	1650	748
HT-1816	2200	998
HT-1818	2475	1123
HT-2412	3112	1412
HT-2416	4150	1882
HT-2418	4670	2118
HT-2420	5185	2352

**Standard Features:** Standard Features: raw material hopper, horizontal feed conveyor with PLC speed control, twin intermeshing variable speed specially engineered agitators, solenoid steam valve(s) with multi-zone steam control, hot water spray system, top cover with steam-lock water seal to keep steam inside cooker during cooking, multiple recipe PLC control system, interlocked safety grate(s), corrosion resistant bearings, T-304 stainless steel construction with glass bead satin finish exterior, #4 oscillation on product contact surfaces.

**Options:** Options: Blentech offers over 20 different options to customize HydraTherm systems to meet customer process requirements with solutions designed to satisfy special process needs.



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