Heat and Control provides complete systems for tortilla and corn chips, taco shells, tostadas, corn tortillas, extruded corn snacks, and even fried corn kernels! From masa production and forming, through cooking, seasoning, inspection and packaging, our systems consistently duplicate your unique recipe and provide years of reliable service. One call to Heat and Control also delivers more than machinery: It connects you to ongoing technical support including spare parts, service, training and access to technical innovations developed from installations around the world. Call us today for the equipment systems and services that will help your business grow!
The Complete System

System Components

1. Dry corn cooking
2. Corn washing/draining
3. Milling & pumping
4. Sheeter
5. Toaster oven
6. Equilibrator/conditioner
7. Extruder
8. Fryer
9. Fryer Support Module
10. Ambient Air Cooler
11. Seasoning application
12. Conveying & distribution
13. Ishida weigher
14. Ishida bagmaker
15. Ishida seal checker
16. CEIA metal detector
17. Ishida checkweigher
18. Ishida X-ray inspection
Think of Heat and Control as your business partner who designs and builds machinery that produces the finest corn products at the lowest cost. Guided by your goals, we manufacture systems that exceed expectations for performance, ease of cleaning, low maintenance and reliability. We also stand behind our machinery with a commitment to ongoing technical support that is rarely found in modern industry. Serving processors of corn products and snacks since 1950, Heat and Control has become the one-stop source for innovative processing, seasoning, inspection, conveying, weighing and packaging systems. With Heat and Control, you have a partner in progress... from start to future!
Get every advantage with Heat and Control

Pioneering Technology
Many Heat and Control developments, such as externally heated frying, continuous oil filtration, FastBack horizontal motion conveying and Ishida multihead weighing, have become the standards for efficient food processing and packaging. We strive to create safe, reliable machinery that delivers products of the highest quality at the lowest cost. For solutions to your toughest challenges, rely on Heat and Control.

Global Solutions
Worldwide, we maintain seven manufacturing plants and over 25 sales and service offices. Linked to an SAP resource management system, our personnel are in constant communication so we quickly share ideas, talent and experience to develop the optimal process and equipment system for your application. One call delivers local expertise supported by a world of engineering, manufacturing, training, service and technical resources for processing, product handling, inspection and packaging systems.

Packaging Centers
Test your products on Ishida weighers, bagmakers, X-ray systems, checkweighers, CEIA metal detectors, and a variety of conveyors. Without interrupting the production schedule at your plant, our test centers let you conveniently evaluate product flow, speed, accuracy and other characteristics of our equipment before you buy.

Technical Support
From process development to new equipment start-up, we support you all the way by providing operational assistance, documentation, service, training and parts.

Service
Electronically or in-person, our experienced service technicians do whatever it takes to keep your line running at peak efficiency. Equipment start-up, adjustment, safety audits, troubleshooting, repairs and modifications are just a few of the ways we help to minimize downtime and improve performance.

Parts
E-mail and toll-free phone service give you instant access to our experienced technicians who quickly identify and deliver parts when you need them.

Training
Our classroom and on-site training programs help your staff learn safe and efficient procedures for equipment operation, maintenance, sanitation and adjustment.

Technical Manuals
In addition to spare parts recommendations and technical drawings, we provide documentation outlining production, safety and sanitation procedures, plus equipment service and maintenance programs.
Control every step of your masa production to assure consistent quality of your corn products. Our processing systems enable you to duplicate your masa recipe every time, whether you use pre-dried masa flour or dry corn. Then our extruders and sheeters accurately form and transfer your products without work-altering the masa’s texture and flavor. Whether you produce hundreds or thousands of pounds per hour, get the best quality and production efficiency with Heat and Control.
Masa Production Systems
Give your products one-of-a-kind flavor and texture by cooking your own corn. Manual, semi-automatic or fully automated systems are engineered for your process and budget. Systems can include corn and lime feeding equipment, steam-jacketed simmering kettles, corn receiving tanks, soak tanks and all interconnecting valves, piping, platforms and controls. Best of all, our systems allow you to duplicate your special masa recipe consistently, within each batch and from batch to batch.

Corn Washer
Thoroughly remove hulls and soak water from cooked/soaked corn before milling. Fresh water sprays wash corn before it is transferred to a drain conveyor for delivery to the corn mill. Add a vibratory separator to remove hulls from drain water, a booster pump to increase wash water spray pressure, and a platform to facilitate access to the washer drum.

Masa Forming
Sheeters
Rugged construction and the innovative features of our Paragon sheeters assure consistently uniform product piece weight with minimal maintenance. Hinged supports of the rear roll maintain precise roll alignment and roll gap adjustment over years of service. Differential speed rolls eliminate the need for a rear stripping wire. Simple pneumatic controls enable quick and repeatable setting of the front stripping wire, cutter roll, brush and discharge conveyor. Choose from free-standing or oven-mounted sheeter designs. High-capacity models are also available with automatic piece weight control.

Extruders
For corn chips and other fried or baked corn snacks, we offer a variety of semi-automatic and fully automated extruders.
When you want efficient, reliable cooking systems, our name says it all: Heat and Control. Our ovens and fryers evenly distribute heat and give you precise control of cook time and temperature. They give you the most from every BTU to conserve fuel and optimize thermal efficiency. Equally important, our cooking systems are designed and built to deliver decades of reliable performance, simple cleaning and maximum productivity of consistent, high-quality corn products. It all comes back to the name you can trust for excellence and ongoing support: Heat and Control.
Ovens

Tortilla Toaster Ovens
Compact three-pass, single-pass, or small capacity models: Heat and Control ovens are designed for uniform toasting, fuel efficiency and years of reliable operation. We also build spiral, convection and impingement ovens for baked snacks and other corn products.

Fryers

Indirect-Heated
Renowned for high quality and reliability, our continuous fryers provide precise control of oil flow, temperature and cook time for corn chips, tortilla chips and tostadas of consistent quality. Specialized fryer systems are also available for continuous production of taco shells and tostadas.

Direct-Heated
Economically fry chips, pellets, extruded and other snacks using our continuous direct-heated fryers. Thermal fluid, gas-fired and electric heated models are available for a variety of production capacities.

Equilibration & Cooling

Corn Products Conditioner
Equilibrate the moisture content of tortilla chips before frying to prevent blisters and oil pockets. Single or multi-tier models provide adjustable conditioning times and require minimal space.

Oil Heating & Filtration
Gentle, responsive oil heating with the highest possible thermal efficiency are provided with our space-saving vertical, horizontal and pollution control heat exchangers. For maximum energy efficiency, add our Booster Heater or Combustion Air Pre-Heater system.

Ambient Air Cooler
Cool products after frying to immediately stop cooking and to reduce temperature for safe packaging. Models are also available utilizing chilled or tempered air.

Fryer Support Modules
Dramatically reduce the time and cost of indirect heated fryer installation and start-up. Oil filters, pumps, heat exchanger, storage tank and piping components are pre-assembled on a user-friendly compact skid with single-point utility connections.
Product Handling & Seasoning

Move your products where and when you need them. Convey, feed, fill, elevate, inspect, accumulate, apply seasonings and distribute product in proportional quantities to multiple locations with less breakage, waste, and unscheduled cleaning downtime. We manufacture and supply all types of conveyors, distribution gates, platforms and seasoning applicators. What’s more, we integrate everything into a compact, easily controlled system that meets all your product handling needs.
Conveyor Systems

**FastBack® Horizontal Motion**
Reduce product breakage up to 60% compared to vibratory conveyors. FastBack’s gentle slow-forward, fast-back motion prevents product damage, coating loss, and eliminates hard-to-clean buildup in the pan. Low 70 dB operation improves workplace comfort. Choose FastBack conveyors for weigher feeding, inspection, proportional distribution, accumulation and seasoning application.

**Flighted Incline**
Space-saving incline conveyors are available to elevate products vertically or at any angle. Flighted plastic or stainless steel mesh belt prevents spills and product fall-back. Heavy-duty construction assures trouble-free operation and easy cleaning.

**Varilift® Bucket**
Buckets are maintained upright to prevent product spills and jamming. Horizontal, S or C configurations are available for conveying or product accumulation. Optional multiple infeed and discharge points allow you to receive or deliver product to more than one location.

**Container Fillers**
End product loss and unscheduled cleaning downtime using one of our compact, high-speed filling systems to transfer product from a weigher into trays or cartons on a continuous conveyor.

Our pre-assembled modular support platforms reduce packaging system installation costs!

Accumulators

**MinuteMan™**
Providing up to 90 cubic feet of storage space, MinuteMan significantly reduces product breakage. Simultaneous fill and discharge rates are synchronized to eliminate delays.

**SwitchBack™**
Requiring no gates or pneumatics, this simple accumulation-transfer conveyor reduces product damage and cleaning costs. Its compact design saves floor space while providing up to 45 cubic feet of inline storage.

Seasoning Applicators

**FastBack Revolution™**
Apply a different seasoning at each weigher. For on-machine and packaging line applications, Revolution uniformly applies salt and seasonings with less waste and breakage. Changeovers and cleaning require minimal time because the drum and applicator are easily removed without using tools.

**Roll Salter**
Uniformly meter salt over product conveyors up to 78” wide. Roll Salters fit most conveyors and are available with automatic salt feed and dust extraction systems.

Ask about our seasoners for special applications.
With Heat and Control, you get the most efficient inspection, weighing and bagmaking systems available, all backed by our commitment to provide the industry’s best technical support. As a supplier of processing and packaging machinery, we provide components and controls designed to work together to maintain the highest product quality - all the way from corn preparation to your shipping dock.
Ishida Multihead Weighers
Ishida weighers are unmatched in reducing product giveaway, cleaning and maintenance costs. Ishida invented computerized multihead weighing and leads the industry with new technology for the fastest, most accurate, most reliable weighing. With more product application experience than any other company, Heat and Control/Ishida provide the right system for your packaging needs, backed by parts and service centers on both coasts.

Ishida Snack Bagmakers
Package snacks faster with consistently perfect seals and a low lifecycle cost using Ishida vertical form-fill-seal bagmakers. Adjustable for a wide range of bag sizes, Ishida bagmakers allow rapid changeover and, depending on model, are available with automatic film splicing, network control, integrated metal detection and code dating. There’s even an Ishida bagmaker that easily makes pillow, gusseted, flat bottom and hem seal bags.

Ishida Strip-Pack Applicator
Automatically produce hanging strips of bags for point-of-purchase sales. Ishida’s Flexible Strip-Pack system applies a variety of bag sizes and weights using any bagmaker.

Ishida Checkweighers
Ishida checkweighers maximize quality control and customer satisfaction with accurate verification of package weight and product count. Single and multiple lane models feature abundant product memory for fast changeovers.

Ishida X-Ray
Safely and reliably detect foreign objects and product defects for superior food safety. Ishida’s unique image processing technology precisely detects metal, glass, plastics, product damage and incorrect weights.

CEIA Metal Detectors
Economically and reliably detect all metal, including stainless steel, in falling, conveyed, pumped and packaged products. CEIA metal detectors feature ultra-high sensitivity, compact size and multiple product memory for fast changeovers.
Microprocessors, graphic operator interface devices and other electronic wonders have given us the ability to control and analyze mechanical operations and delicate processes with ease and precision that were unthinkable just a few years ago. As a systems integrator and builder of control centers, we create complete control and data collection systems for your line. Design, engineering, PLC and computer programming, database and information system configuration: We provide all services, plus start-up and training. As a manufacturer of processing and packaging machinery, we possess the expertise which makes it all work as an integrated system. Best of all, you will enjoy the peace of mind that comes from working with one experienced, reliable supplier: Heat and Control.