Automated Rotary Hi-pressure Belt Washing and Sanitizing System



AMTek custom conveyors

Hi-pressure Rotary Belt Washer

Constructed of 304 stainless material. Has a PLC controlled automated wash cycle with water flow solenoid valves. Belt drying is performed with a High Velocity stainless steel air knife. A stainless drain sump collects wash and rinse water.

- Complete stainless steel housing construction
- Stainless steel rotating high pressure spray bars with nozzles clean both sides of belt
- Solenoid valves supplied
- PLC controlled by a sequential timer program

Sequence/steps of the belt wash cycle

- 1) City water purge (clear the system)
- 2) Low pressure city water presoak
- 3) Foam grease and residue release
- 4) High pressure city water rinse removes foam and sonic blower dries belt
- 5) Sanitizer applied end of belt cleaning



About AMTek Microwaves

AMTek is a privately held company located in the heart of the United States. We support a complete team of professionals that have been designing, manufacturing, and supporting hundreds of industrial microwave systems worldwide over the past two and a half decades. Our team brings you the experience and expertise in developing microwave equipment for applications in the industrial marketplace for pasteurizing, drying, cooking and tempering a very extensive array of products.

The AMTek team consists of a staff of more than 45 people, doing all functions relating to the production of these high powered systems. Our team designs, fabricates and assembles these high quality microwave systems, custom for each application and facility. Once the systems are installed, AMTek continues in the role to fully support the service of these systems, wherever located in the world.

AMTek provides complete solutions for your microwave systems. We offer complete packages including items such as metal detector systems, chiller systems, fire suppression solutions and custom designed conveyors. We can offer the entire solution to your processing needs.

AMTek is also supported by distributors that represent the company on six continents. Our international team consists of more than 25 reputable companies that provide us with international marketing, sales support, and technical service. These international distributors are a key player in the reputation of our company and are considered an important part of our overall team.



Located in Cedar Rapids, Iowa USA



Service and Support

complete your tempering system. **Custom conveyors** Constructed of 304 stainless steel and rated for full wash down. E-stops and guarding meet applicable government safety standards for operation. Many conveyor lengths and widths available.





AMTek Test Lab

Simple Flexible

4115 Thomas Drive SW • Cedar Rapids, IA 52404, USA • 319-365-2000 sales@4AMTek.com www.4AMTek.com



4000 Series Microwave Tempering Systems

Temper your product in minutes instead of days.



- Eliminate tempering rooms and multiple handling sequences.
- Improve the quality, maximize yields and minimize drip loss.
- Precise control of product temperatures, ensuring they are within the required limits for subsequent slicing, grinding, forming, or molding.
- Customized to meet your specific requirements and facility layout.
- Multiple chamber layout allows for even greater control of results.

Simple Flexible Precise

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Microwave Heating & Tempering Systems

Microwave transmitter either 896 MHz. 915 MHz or 922 MHz and generate 75 or 100 kilowatts of microwave power. Our microwave transmitters can be used in virtually any application requiring microwave power.

Interlocking access doors

on the transmitters, process ovens, and passive microwave suppression tunnels meet applicable government safety standards for operation.

Rotary feed assembly

provides randomly dispersed microwave energy into the oven chamber(s) using rotating aluminum antenna assemblies.

Cooled exit suppression tunnel

with suppression flaps minimize microwave energy emissions.

Leak detector

At entrance and exit



A 24 inch wide positive drive, articulated belt of microwave transparent material moves continuously through the oven.

Microwave modular chamber

where the microwave process takes place. Multiple chambers can be used for greater control over final results.

Emergency stop switches

4X Panel Enclosures

outdoor locations.

Double Seal electrical enclosures

for sanitary and extreme indoor and

4000 Series Microwave Oven E-stop switches will cause an immediate system shutdown, and will identify the condition on all of the ovens control assemblies.

Wavequides transport the microwave energy to the modular chamber.



Touch controls

PLC controls provide accurate process with recipe storage for numerous products.

PLC Control package

The main control assembly houses all of the hardware of the systems control system. The Ethernet or the optional DH+ based PLC system monitors and controls all features of the entire system. The Nema 4 enclosure protects the entire assembly from the wash down process. The process screen offers the operator all of the information needed to operator and identify the system status. This screen is identified by the system layout showing the oven and installed transmitters.

> **Leak detector** at entrance and exit tunnel.



Suppression tunnel cooling system provide a continuous flow of a glycol/water solution to each of the systems polypropylene suppression





Features

Transmitter

AMTek's microwave transmitters provide dependable power to your industrial microwave systems. They are manufactured using the latest Allen-Bradley controls hardware which enables flexible design and construction. Your microwave transmitter can operate at a frequency of either 896 MHz, 915 MHz or 922 MHz and generate 75 or 100 kilowatts of microwave power. We build our transmitters using transformers designed for the voltage available in the destination country. Our microwave transmitters can be used in virtually any application requiring microwave power.

The transmitter enclosure is constructed of stainless steel with an open interior design for easy access for vour maintenance personnel.

Finger-safe ferruled construction for all wire terminations and dual disconnect breakers ensure the highest level of operator safety.

Belt System

A 24 inch wide positive drive, articulated belt of microwave transparent material moves continuously through the oven.

Sanitation

The entire oven is constructed of stainless steel and rated for full wash down.

Safety

Interlocking access doors on the transmitters, process ovens, and passive microwave suppression tunnels meet applicable government safety standards for operation.

