Research and Development Center

The R&D Center at International Thermal Systems is unmatched with a full-time Research and Development Laboratory directed by a US Patent holder with a Ph.D in Thermal Science. Complete heat process tests are conducted in our Research and Development Laboratory to prove and confirm the process parameters prior to engineering and manufacturing. Proprietary heat transfer computer software and commercial CFD software are used to simulate the heating process with proven accuracy.

The ITS lab washer allows customers to see their parts cleaned in a real world environment. The lab washer further enhances our ability to design and validate those solutions for our customers. Customers are encouraged to send parts and chemicals to the International Thermal Systems lab for testing.

The benefit to the customer is the confirmation of the exact process parameters prior to the engineering and manufacturing of the equipment.

ITS sells more than just equipment - we sell solutions. Contact ITS to build your best solution.

InternationalThermalSystems.com

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International Thermal Systems is a Lead Acid Battery industry leader specializing in curing, plate drying, thermal degreasing and other battery equipment. Focusing on saving energy and reducing airborne lead dust in air, ITS specializes in standard and custom equipment designs. Utilizing the latest engineering and programming software packages, International Thermal Systems can provide the best solution for various thermal processing and ventilation applications.

Flash Maid™ Plate Dryer
The Flash Maid™ Self-Cleaning Plate Dryer is the only self-cleaning flash plate dryer on the market. This feature means less free lead in the air, less down time for maintenance, enhanced temperature uniformity on the parts and less wasted energy through heat absorption and restricted air flow because of trapped dust inside the dryer ductwork.

HydroCure™ Humidity Drying Chamber
Pallets of plates are stacked in the sleek, upright design of the HydroCure™ Humidity Drying Chamber easily. A proprietary High Velocity Nozzle integral design in the supply duct ensures proper crystal growth.

Trim Thermal Degreaser
The Trim Thermal Degreaser Oven is designed to evaporate cutting oils from the excess trim generated during the battery grid expanding process. The equipment will eliminate any lead splashing from boiling moisture that can commonly occur, when reintroducing the strip to the lead pot.

ITS Parts
The parts department stocks replacement and spare parts and we have made ordering convenient with a newly designed online parts store. Set up an account, view parts pricing and order parts as needed. The parts team is also available by email, phone or fax and can answer any questions. Need a parts list or a manual? Contact the parts department for assistance.

ITS Services
The ITS Services team is unique for a number of reasons. First and foremost, our team is highly trained and offer a diverse set of skills and experience. Electrical engineers, mechanical assembly and installation pros are all part of the ITS team. The ITS team services our equipment and also the equipment from other manufacturers. We provide complete preventative maintenance services with annual equipment check ups. We can also train your personnel on effectively operating and maintaining the machine. We provide as much or as little service that you require. Our goal is 100% customer satisfaction with the equipment and with your team from ITS.

ITS Services
- Equipment Relocation
- Equipment Retrofit and Repairs
- Emergency Repairs
- Commissioning/Debug/Startup
- Equipment Troubleshooting
- Equipment Audits
- Preventative Maintenance
- Operator Support Training

At ITS, every piece of equipment sold is the beginning of a long-term business partnership with the customer. From design-to-installation and throughout the life of the machine, ITS is here to provide equipment support. Our Parts & Services Division was created to provide support and our mission is to keep your equipment running at maximum efficiency and avoid any downtime.
TRIDENT
EFFICIENT • EFFECTIVE • ECO-FRIENDLY

TruClean Aqueous Washers
TruClean Washers set the standard for quality, durability, thorough cleaning and minimal maintenance. The TruClean line of aqueous washers includes conveyor, cabinet, monorail, case, pallet and rotary drum washers. Our diversified line enables us to offer complete solutions for a wide variety of industries and markets.

TruClean washers are designed by the experienced ITS engineering team and each application is tested and proven in the ITS R&D lab before the machine is built. Customers can be assured that when the washer is installed, it is ready to run on day one.

At ITS we view each project as the beginning of a long term business partnership. We provide customer support throughout the life of the machine. Our Customer Support Services division is available for installation, spare parts, repairs and preventative maintenance. Our goal is to assist you in maintaining maximum efficiency of your equipment.

ITS manufactures a complete line of Aqueous Washers:
• Monorail Washers
• Rotary Drum Washers
• Case Washers
• Pallet Washers

TruClean Conveyor Washer
The TruClean Standard conveyor washers are available in 4 sizes including 12", 18", 24" and 30". Standard models are pre-engineered and are offered with expedited delivery and a lower cost than a custom engineered washer.

TruClean Cabinet Washer
Cabinet washers are designed for batch production. Applications for a cabinet washer include the general cleaning of parts placed in open wire baskets, frames or on a table for cleaning various sized casting fabrications or assemblies.

International Thermal Systems manufacturers can washers and a complete line of ovens for the metal packaging industry. As the industry leader, we continue to innovate, delivering solutions with ever increasing efficiency, smaller footprints and lower energy consumption.

Dry-off Oven
The Dry-off Oven is designed to remove residual water from the cans by thoroughly drying the cans with recirculated hot air.

Pin Oven
The Pin Oven is designed to cross link external inks, varnishes, and/or base coat on the exterior of the cans so they can be handled during the next processes of production. ITS pin ovens are designed with patented airflow technology.

Can Washer
The Can Washer is designed to clean and prepare the cans’ surface prior to the application of external and internal coatings. The washer offers multiple cleaning and rinsing stages, and features drain and blow-off sections between each stage.

Internal Bake Oven (IBO)
The Internal Bake Oven (IBO) is designed to cure the internal coating applied to the cans via the inside spray machine, as well as to complete the cure on the external inks, varnishes and/or base coat applied to the cans.

End Drying Oven
The End Drying Oven is designed to dry to a guaranteed 95% dryness.

Cap Oven
The Cap Oven is designed to dry water based compound on the inside of caps that are used in a variety of products.

Wicket Oven
The Wicket Oven is designed to cure inks and coatings to aluminum or tinplate steel sheets.
Industrial Ovens
Leaders in Air Flow Design

Industrial Ovens and Furnaces are available from a variety of manufacturers and choosing the right partner is key to achieving maximum performance of the machine. ITS is a world leader in engineering and air flow design.

Heat Treating Processes
- Annealing
- Calcining
- Composite Curing
- Core Baking
- Core Washing
- Curing
- Drying
- Preheat
- Stress Relieving
- Tempering
- Thermal Degreasing

Conveyor Ovens
Industrial Conveyor Ovens are built for higher production volume and for a wide variety of heat processes. Conveyor ovens can be designed in a horizontal or vertical configuration.

Batch Ovens
Industrial batch ovens process products one at a time or in groups. The part(s) are brought into the oven in batches on racks, carts, or trucks. ITS specializes in complete composite curing systems.

Standard Ovens and Furnaces from ITS

TruTemp by International Thermal Systems
- TruTemp™ Conveyor Oven
- TruTemp™ Batch Oven
- TruTemp™ Car Bottom Furnace
- TruTemp™ Box Furnace

ITS offers standard models for many of our ovens and furnaces. Standard equipment is pre-engineered and tested in our lab. Reducing engineering time and costs allows us to pass on savings and shorter lead times to our customers.

Car Bottom Furnace
The Car Bottom Furnace is an excellent solution to heat treat large and heavy walled fabrications. A rail mounted product car transfers parts into and out of the furnace. Multiple heating zone technology can be integrated to maintain exceptional part temperature uniformity.

Drop Bottom Furnace
Drop-bottom aluminum heat treat furnaces are used to solution heat treat aluminum alloys. ITS specializes in large volume workspaces with standard lengths to 40’ and heavy loads with standard sizes to 20,000 lbs.

Box Furnace
Box Furnaces process products one at a time or in a single group at temperatures over 1100°F (592°C). The Box Furnace has standard designs to 2250°F and can be customized for each individual application up to 3300°F.

Clam Shell Furnace
Clam Shell Furnaces are an excellent choice for an extremely heavy load. A Clam Shell Furnace features a pivoting furnace body to allow overhead crane loading and unloading of the parts.
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