



THERMA-TRON-X, INC.

INDUSTRIAL FINISHING SYSTEMS,
WATER AND WASTEWATER TREATMENT EQUIPMENT
AND HEAT PROCESSING SOLUTIONS

ABOUT Us

Therma-Tron-X Inc., a family owned and operated company, was founded in 1969 by Otto Andreae and Rusty Sherman. The Andreae family had vacationed in Door County, Wisconsin for many years, so they were familiar with the area. Otto met Rusty while working for an industrial oven manufacturer in the Milwaukee area in the late 1960's. Their drive and determination led to them bringing their start-up business to Door County, Wisconsin. They began manufacturing custom-built industrial ovens in an old apple warehouse. Otto and his son, Brad, lived in a tent while working around the clock to get the business off the ground.



Today, TTX is a leading, internationally renowned supplier of complete finishing systems. Our systems are custom tailored to the process specified by the end user. From pretreatment to cure, TTX will automate every step and integrate the right finishing system with your facility.

Therma-Tron-X manufactures 90% of the system components in house, including – industrial washers, pretreatment systems, ovens, conveyor systems, paint booths and environmental rooms. TTX Environmental supplies all water conditioning and wastewater treatment equipment to meet process specifications.

OUR PEOPLE

At TTX, innovation is the driving force for continued improvement. Our staff is made up of talented individuals that consistently bring fresh ideas and well-honed skills to the table. On average, TTX employees have 16 years of experience, with more than 30 percent of our staff having been with TTX for more than 25 years, qualifying them to meet your specialized needs. At the same time however, new ideas and talent are continuously being infused, as new engineers and technicians are joining the company. The TTX engineering department employs 70+ people, each uniquely suited to meet the requirements you set forth. At TTX, dedication and pride ensure quality, reliability and energy efficiency.

Family Owned

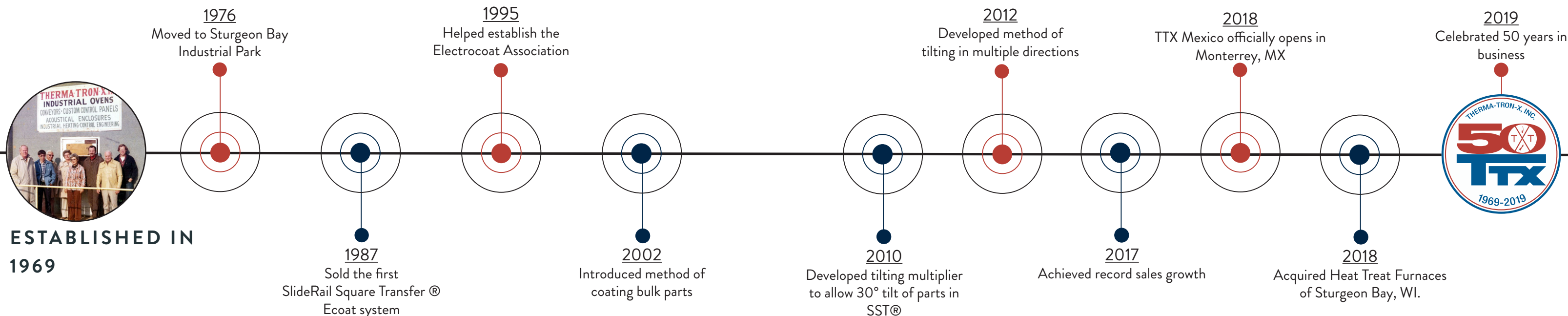
For over 50 years, the Andreae family has owned and operated TTX. Three generations have worked side by side.

Experience

On average, our employees have 16 years of experience. 35% of our employees have worked for TTX for more than 25 years, at the same time, new ideas and talent are continuously being infused as young engineers are joining the company.

Diversity

260+ employees including engineers, designers, and skilled crafts-people for all phases of a project. TTX's engineering department employs a diverse group of people, each uniquely suited to meet the requirements set forth.

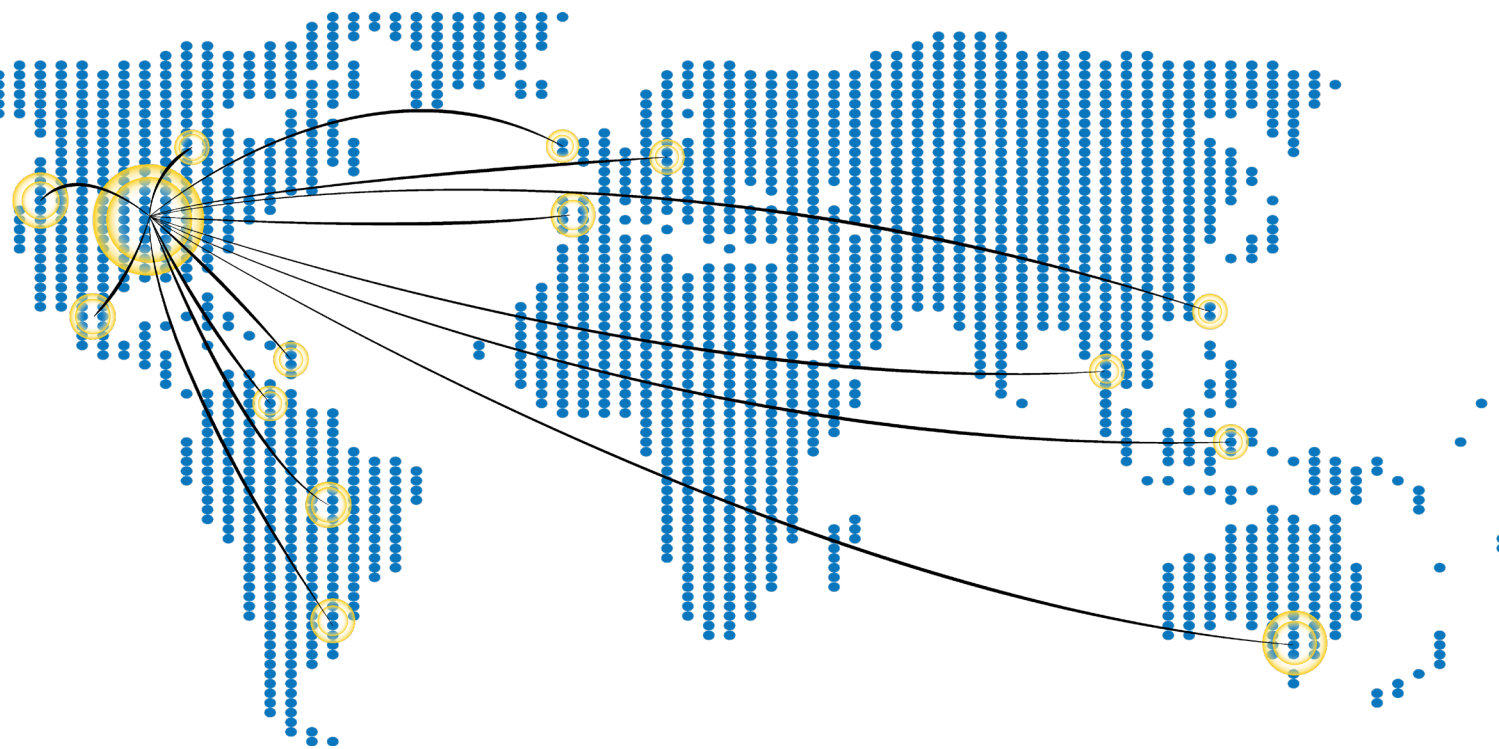


OUR FACILITIES

TTX began operations in the Sturgeon Bay Industrial Park in 1976. In 1986, an office was opened in the Chicago area to expand the sales department and position itself in a global transportation hub, making travel for meetings with customers seamless.

Over the years, TTX has become a leading manufacturer of custom finishing systems. This resulted in steady growth and several plant expansions that increased fabrication, engineering, and general office square footage, growing from 20,400 ft² in 1976 to 275,400 ft² in 2018.

Cutting edge technology and modern facilities allow TTX to fabricate the equipment needed for a system in house. Design and manufacturing facilities are located on-site to ensure seamless communication through all project phases. In addition, TTX has multiple aircrafts and a hanger within minutes from our facility, making it easy for installation crews, technical service personnel and clients to travel to and from our northeastern Wisconsin location.



OUR PRODUCTS

TTX builds paint and coating systems for hundreds of dedicated product manufacturers and contract shop coaters. TTX's product line includes many proprietary technologies like our patented SlideRail Square Transfer® system, which has revolutionized the industry.

TTX is a global company with small town values. When you purchase a TTX system, you get complete engineering support, evaluation, testing, design, fabrication, installation, start-up and field service with the continued support from our in-house service group. TTX is a turn-key equipment supplier.

TTX has built more than 3,100 systems of every type. Among them are:

- More than 350 SST® electrocoat machines both with and without additional topcoat capability
- More than 400 continuous and power and free monorail finishing systems for both liquid and powder applications
- More than 150 hoist systems using both programmed controls and manual operation

OUR SERVICES

TTX believes in developing partnerships with its customers. After your system is installed you can expect:

- Start up troubleshooting and tweaking
 - *We make sure you are up and running before we leave*
- Comprehensive training
- Maintenance programs and manuals
- Recommended spare parts list and availability through our service and spare parts department
- The first year of telephone support and online programming support is available through the project engineer and programmer

The service and spare parts department offers rapid response to your needs either in person, via VPN or over the phone. Our in-house staff are dedicated, experienced, and knowledgeable.



Evaluation

TTX'S sales engineers look for new and innovative ways to apply advanced surface treatments and finishes to metal products. They search for solutions to make your finishing process more productive and cost effective while reducing labor costs and environmental impact. They consider your paint process, space requirements, part size and production goals when putting together the most efficient design for your finishing system.

Design

IN this phase, TTX engineers design each component of the system. Per your specification, each project is systematically developed with every detail considered. TTX specialists work closely with your facilities team to ensure that the equipment is built to meet your every need. TTX's years of experience, commitment to problem solving, innovated thinking and excellent work ethic incorporates to create a package that is going to maximize your productivity.

Fabrication

TTX's state of the art facilities allow for seamless communication between the design phase and fabrication phase. TTX fabricators are skilled craftsmen that pride themselves on creating products that stand out in our industry and are known for reliability, durability and efficiency. TTX is equipped with the latest fabrication tools, enabling precise and superior workmanship.

Installation

AN experienced project engineer oversees your job from design to installation. These engineers work closely with the designers, fabricators and the dedicated installation crew that brings your system to completion. TTX teams bring the expertise needed to every step of the operation and you can be assured that they will pull it all together, meeting your delivery requirements. TTX customers take great pride in the ownership of a new state of the art system.

Start up & Testing

AFTER your system is installed, TTX is there to help you get up and running smoothly, making adjustments to ensure that all system components will perform efficiently. TTX project engineers also train your personnel, giving them the ability to better troubleshoot and maintain your equipment. TTX works closely with paint and chemical suppliers to ensure a smooth start-up.

Field Service

TTX ensures the highest productivity rates for their customers. The TTX service department is quick to help with any problem that comes up. Rapid response from TTX's highly trained in-house service staff gives our clients the security and support they need. Most spare parts are readily available and can be shipped at a moment's notice. Trouble shooting specialists are available by phone to walk you through a situation. TTX is your trusted supplier.

FINISHING SYSTEM COMPONENTS

PRETREATMENT SYSTEMS

Perfectly prepare your product

At Therma-Tron-X, multi-stage pretreatment equipment is engineered to prepare a product's surface for painting, plating or other industrial finishing processes. Our pretreatment systems are PLC controlled, with automatic start-up and shut-down programs. They are designed with computer aided rinse ratios, reducing water usage, and in some cases creating a zero discharge system.



ENVIRONMENTAL ROOMS

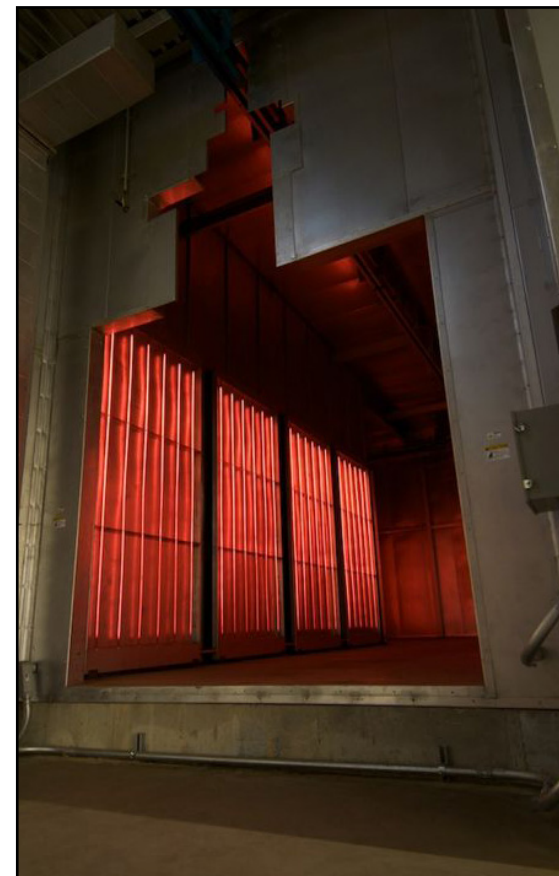
Air conditioned, humidity controlled, custom built

Therma-Tron-X's environmental rooms are engineered to provide ideal powder paint application conditions. They include temperature, humidity and multilevel filtration control equipment that balances airflow, maintaining ideal humidity and temperature conditions. TTX environmental rooms are built of insulated, FM approved panels.

LIQUID SPRAY BOOTHS

Paint with confidence

Therma-Tron-X designs and manufactures spray booths to fit system requirements. Spray booths are a component of a finishing system that when designed and fabricated by Therma-Tron-X, are of the utmost quality, uniquely efficient, and perfectly integrated.



Ovens

Bring on the heat

Batch ovens, conveyORIZED ovens, infrared zones, convection curing ovens, dry-off ovens and various custom heat processing solutions are at the heart of Therma-Tron-X's capabilities. TTX is experienced at designing units that fit spatial needs and utility requirements. TTX ovens can be incorporated into finishing systems or configured as stand alone units. TTX oven heat processing technologies include aging, annealing, baking, curing, drawing, normalizing, and preheating.

MATERIAL HANDLING

CONVEYOR SYSTEMS

Moving your parts from here to there

Every Therma-Tron-X conveyor system is custom designed for a specific application. TTX conveyors automate any finishing operation and seamlessly link a variety of processes. Conveyors can significantly reduce the amount of labor needed to move parts around a plant.



POWER AND FREE SYSTEMS

The flexible solution for finishing operations

For industrial applications that require maximum versatility and efficiency. They provide direct control for each and every load and are best suited for lines where products need to be routed through multiple spray booths. They are also used when non-synchronous movement is required.



MONORAIL SYSTEMS

High capacity finishing equipment built to last

Therma-Tron-X has been designing and building monorail finishing systems and components since its inception. TTX monorails are utilized for powder systems, fluidized bed dip systems, E-coat systems, liquid paint systems and other custom combination systems. Monorails are ideal for high production solutions, and can be designed for varying line speeds.



ACC[®]

Automated conveyor carrier system

The TTX ACC[®] is a flexible and cost-effective material handling solution that utilizes a wireless network to send instructions to individual carriers throughout your paint line. ACC[®]'s are hung on an overhead I-Beam rail and use an adjustable friction drive wheel to maneuver. The ACC[®] systems are also equipped with automatic charging stations located along the path. The units can be swapped out with spares for ease of maintenance.

MATERIAL HANDLING

SLIDERAIL SQUARE TRANSFER SYSTEM®

The versatile solution for industrial finishing

The SST® coating system is unlike any other system in the finishing business. Not only does it significantly reduce the amount of floor space needed, it also allows increased load density. Parts index along a pair of low maintenance slide rails, rather than a chain conveyor. Racks of product suspended from load bars raise and lower in and out of the processing tanks simultaneously, and move in unison through the finishing process, minimizing material handling time.



PROGRAMMED HOIST

Constructed for long lasting performance

TTX hoists are designed to handle the heaviest workloads and are fabricated, programmed and tested before shipment. They can be integrated with multiple styles of conveyor systems. To sustain a clean plant environment, process tanks are typically enclosed, venting vapors and odors to the atmosphere. Programmable logic controllers (PLCs) monitor hoist systems and make sure all operations meet exact specifications.

CUSTOM COMBINATIONS

Therma-Tron-X designs, fabricates and installs combination coating systems for original equipment manufacturers and contract coating businesses. Many of TTX's clients are now opting for combination coating systems that offer the outstanding corrosion resistance and coverage provided by a powder or liquid top coat applied over an E-coat primer. Powder and liquid top coat technologies can provide the multicolor flexibility that many manufacturers require for their products.

CUSTOM SMALL CONTAINER E-COAT

This system is designed for small parts, fasteners or screws. The thickness of the paint can be controlled and adjusted when electrocoating, making it a perfect choice for small parts that require a consistent coating with a durable, long lasting finish.



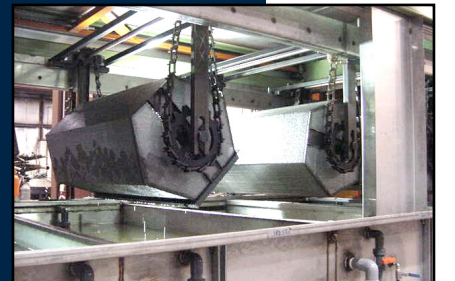
TILTING SST®

A variation on the popular TTX SlideRail Square Transfer®, the tilting SST® has the ability to dip and drain products at various angles, both side-to-side and front-to-back. Combining the functionality of the classic SST® system with new flexibility, the tilting SST® ensures complete coating of the product, even those with deeply recessed surface areas.



BULK E-COAT

Complex small parts are well suited for bulk processing. High density throughput allows the customer to get more output in the process time that is needed, while minimizing labor and handling. Barrel coating minimizes touch marks while still providing the uniform, durable finish that is required.



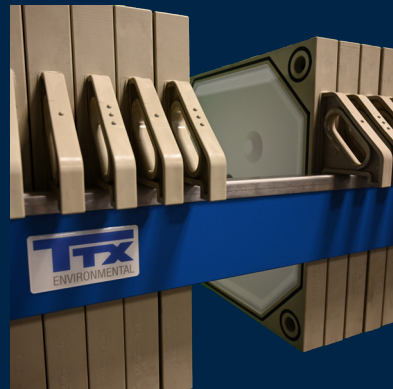
ROTA-COAT® E-COAT SYSTEM

The revolutionary patented Rota-Coat® electrocoating system is designed specifically for small production requirements, and saves on operating costs and floor space by combining several stages of the finishing process into one circular movement.



TTX ENVIRONMENTAL

TTX Environmental develops wastewater treatment systems that minimize operational costs and environmental impact. Our innovative engineers work to develop a plan that optimizes your production and meets the stringent regulations that affect your business. TTX Environmental designs, builds and integrates all the water and wastewater components that you need so you can focus on production. Industries that utilize TTX Environmental range from food service to industrial finishing houses.



At TTX Environmental, we use wastewater minimization technologies and process bath reclamation to help bring your plant into compliance with federal, state and local discharge standards. We specialize in chemical precipitation, metal absorption, ion exchange and membrane separation.

ENVIRONMENTAL PRODUCTS

WATER AND WASTEWATER TREATMENT

TTX Environmental wastewater treatment systems require very little maintenance and are fabricated using only high-quality materials. Wastewater treatment units can help cut down on water and sewer costs and require minimal manpower to operate. TTX systems can be operated on a batch or continuous basis, depending on volume.



REVERSE OSMOSIS

TTX Environmental reverse osmosis units generate pure water for use in nearly every process and have the ability to separate dissolved solids from water. Commercial RO systems can be installed nearly anywhere due to their small footprint and 115 volts, 20 amp power requirement. Industrial units prevent scaling when used as a medium in heat exchange functions.



IRON REMOVAL UNITS

Configured to meet production needs, simplex, duplex, and triplex systems can come with skid-mounted pre-filters and supply pumps that meet a plant's pre-filtration requirements. TTX Environmental iron removal systems reduce raw material costs, waste disposal costs, storage requirements and are a good return on investment.



Available Components:

- Filter presses
- Clarifiers
- Mixers
- Pump skids
- Chemical feeds and storage tanks

SPOTLIGHT ON TTX AUTOMATIC GUIDED CART AND VEHICLES

SMARTCART® AUTOMATIC GUIDED CART (AGC) / AUTOMATIC GUIDED VEHICLE (AGV)

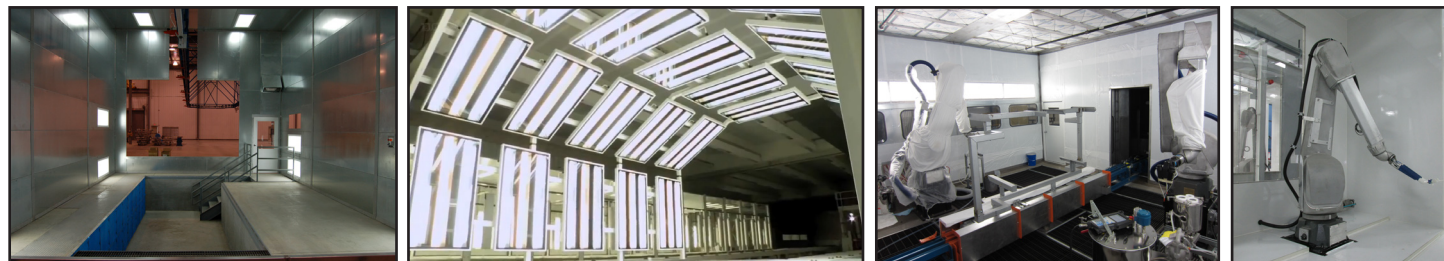
- Reliable and consistent point to point movement
- Customizable
- Unlimited number synchronized
- Loads from 60-6000 pounds
- Small parts to heavy pallets
- Every type of guidance including:
 - Laser
 - Inertial
 - Wire & magnetic tape



SPRAY BOOTHS, INSPECTION STATIONS AND ROBOTS

FULLY INTEGRATED TOP COAT PAINT LINES FOR METAL AND PLASTIC

- Clean rooms
- Inspection booths
- Application robots
- Customized conveyance (carts or automated)

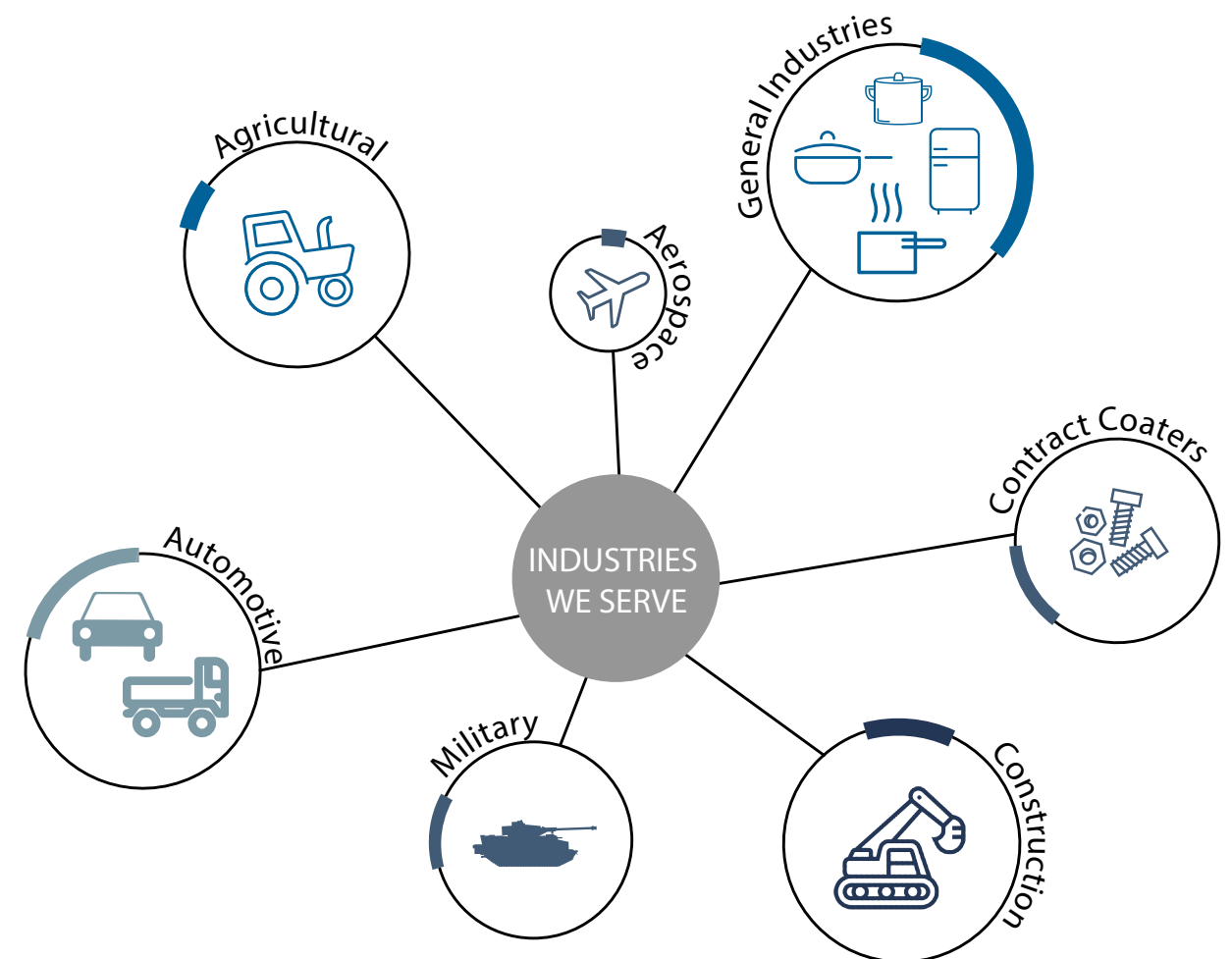


FROM CONCEPT THROUGH PRODUCTION AND BEYOND

TTX's overall objective is to provide our customers with the best equipment solutions for their application.

INDUSTRIES WE SERVE

SALES DIVERSITY IN THE LAST FIVE YEARS



FINISHING SYSTEM PRODUCTS

- Pretreatment Systems
- Process Ovens
- Environmental Rooms
- Liquid Spray Booths
- Electrocoat Systems
- Powder-coating Systems
- Liquid-coating Systems
- Autodeposition Systems

MATERIAL HANDLING PRODUCTS

- Programmed Hoist Systems
- SlideRail Square Transfer® Systems
- Econ-E-Coat®
- Custom E-Coat Systems
- Monorail Conveyors
- Power and Free Conveyors
- Floor Conveyor Systems
- Custom Combinations
- TTX ACC®

WATER AND WASTEWATER TREATMENT PRODUCTS

- Wastewater Treatment
- Reverse Osmosis
- Ion Exchange
- Process Mixing
- Fluid Transfer

In the years since TTX has started, thousands of systems of every type have been produced. Many manufacturers seeking to process their products through state of the art finishing facilities have come to TTX for complete systems.



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