PAINT FINISHING SYSTEMS
VOC CONTROL SYSTEMS
AUTOMATION SYSTEMS
SECTION 1 - ORGANIZATION

Process Engineering Solutions

TKS’ North American Operations are based in Troy, Michigan. TKS averages $100 to $200 Million in engineering, manufacturing and construction revenues annually. As part of the Taikisha worldwide organization TKS serves a broad variety of industries and clients. More than 4000 employees are located strategically in Taikisha offices around the world. Projects have been completed in over 60 countries including:

- Australia
- Canada
- France
- India
- Mexico
- United States
- Brazil
- China
- Russia
- Indonesia
- United Kingdom

Taikisha has been in business since 1913. We began operations in the United States in 1981. We provide complete industrial process equipment, metal finishing and painting systems to the following industries:

- Automotive
- Aerospace
- General Industrial
- Semiconductor

Each project is unique, requiring resources including Research and Development, designing, engineering, manufacturing, installing, commissioning, training, and subcontract management capabilities. Turnkey design-build projects include manufacturing and process systems, site development, facility design and construction, process system controls, material handling equipment and systems, energy and utility systems and environmental control systems.

There are over 100 employees located at our Troy Headquarters and Columbus Shop, with the majority having engineering, fabrication and construction management backgrounds. TKS field personnel directly supervise an average of over 1000 skilled trade and technical workers as they construct, service, and commission projects throughout North America.

The company's financial strength coupled with its outstanding performance record enables TKS to undertake complex projects of significant magnitude.
OFFICE LOCATIONS

United States and Canada

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TAIKISHA GLOBAL OFFICES

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PARTNERS

GEICO TAIKISHA
Milan, Italy  www.geico-spa.com

Encore Automation
Auburn Hills, Michigan  www.encoreautomation.com

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TKS INDUSTRIAL
PARTIAL CLIENT LIST

U.S.A.
- General Motors
- Ford Motor Company
- DaimlerChrysler Corporation
- Auto Alliance International, Inc.
- Diamond-Star Motors
- Honda of America Mfg. Inc.
- Honda R&D of North America
- New United Motor Manufacturing Inc.
- Nissan Motor Manufacturing
- Subaru-Isuzu Automotive Inc.
- Toyota Motor Manufacturing U.S.A., Inc.
- Yamaha Motor Mfg. Corp.
- Boeing
- KTH Parts Industries
- Kubota (USA)
- Calsonic Mfg.
- Greenville Technology
- Kenworth

MEXICO
- General Motors
- Chrysler de Mexico, S.A.
- VW de Mexico, S.A. de C.V.
- Honda de Mexico, S.A. de C.V.
- Nissan Mexicana, S.A. de C.V.
SECTION 2- CAPABILITIES AND SERVICES

Turnkey Project Delivery

TKS specializes in delivering turnkey and full service projects that focus on manufacturing or processing systems. Project approaches with clients can vary from fixed design/build contracts through cost plus type projects where the client takes a more active role in the specifications and selection of equipment, systems and suppliers.

TKS's value to the client is focused in the ability to efficiently manage the project through all phases:

- Conceptual Engineering
- Estimating
- Scheduling
- Detailed Design
- Value Engineering
- Equipment Procurement
- Self Performed Fabrications and Installations
- Quality Assurance
- Subcontractor selection and Onsite management
- System Startup and Commissioning
- Complete System Training

The flexibility and complexity of major projects are met through a range of TKS in-house capabilities as well as our ability to partner with complementary firms in order to deliver the full project scope.
CONSTRUCTION MANAGEMENT

Project Delivery

As part of a range of project delivery approaches, TKS can provide construction management services. This has been provided for clients on many process focused projects and integrated systems, site development and building construction.

TKS predominately provides construction management as a design/build basis, but can also provide a cost plus fee basis management program.
FACILITY DESIGN AND CONSTRUCTION

The process equipment should define the facility in which it is housed. Too often the facility is started long before the process equipment is determined. This results in a less than ideal situation. TKS systems are process driven. TKS can either work with your architectural engineering early in the planning stages or we can provide an A/E firm for you. The result is one company, TKS, providing you with a complete manufacturing facility, building and process equipment.

This will include any of the following:

- Renovations and Expansions
- Demolition
- Greenfield Construction
- Custom Design
- Prefabricated Structures

Normally this involves defining the process and its layout first by determining the most cost effective facility.

Facility designs are also driven by client desires and constraints. TKS has delivered facility designs emphasizing aesthetic appeal, security concerns, budget concerns, quality concerns and space constraint considerations.
MANUFACTURING

Functional Manufacturing

TKS is unique as an engineering/construction firm in that we have a fully functional manufacturing facility to support design/build projects.

These manufacturing capabilities include:
- Sheet Metal Fabrications
- Ironwork and Steel Fabrications
- Modular Construction including Pre installed pipefitting and Electrical
- Automated Fabrication Methods

This can provide TKS with improved project schedule control through the use of in-house manufacturing, as well as heightened quality assurance.

TKS provides many fabricated process units including air scrubbers, ovens, oven heaters, booths, etc.

We integrate all trades (pipefitting, electrical and insulation) to provide modular “on-skid” equipment that minimizes on-site construction, enhances first time quality, and reduces startup/commissioning costs.

In addition, standard or specialized industrial grade ductwork (round or rectangular), stacks, inlet boxes, tanks, hoppers and other transitions are efficiently fabricated of various metals.

TKS manufacturing facility is registered in both ISO 9001:2008 and ISO 14001: 2004, guaranteeing consistent quality driven processing and methods. Our Union affiliated workforce is well trained and stable. Welding is performed by AWS certified welders under controlled conditions. In addition, our facility gains efficiency through our bridge cranes in our high bay areas, as well as our 480’ yard crane. TKS has a substantial storage lay down yard for modular storage and just in time delivery to site. All work is inspected before leaving TKS shop.
TKS COLUMBUS MANUFACTURING FACILITY

ASSEMBLY AREA
260'L x 40'W x 27'H
15 TON TOTAL CRANE CAPACITY

ASSEMBLY AREA
260'L x 40'W x 27'H
15 TON TOTAL CRANE CAPACITY

ASSEMBLY AREA
260'L x 51'W x 27'H
55 TON TOTAL CRANE CAPACITY

ENGINEERING OFFICES

CONFERENCE AREA

OUTSIDE EQUIPMENT STORAGE

MATERIAL PROCESSING AREA

SHOP OFFICE-
MEZZANINE LEVEL

CAFETERIA-
LOWER LEVEL

CAD AREA
INSTALLATION AND ERECTION

Field Construction

Either in conjunction with or independent from our Fabrication Facilities, TKS self-performs installation and erection of process equipment and systems.

Flexibility to Deliver

As a major contractor in the Midwest area, TKS has the influence to assure a competent and efficient site work force. This experience can be translated to jobsites throughout North America.

TKS provides all tools and equipment necessary for the project including cranes, helicopters, etc. We can also provide purchased equipment as needed for turnkey system installations, if desired by the client.

Integrated Approach

Installation capabilities include the turnkey delivery of integrated systems utilizing all trade work from sheet metal and iron through electrical, pipefitting and painting.

Safety and Quality

Our site teams focus on efficient work practices that center around safety to both workers and clients’ property. Work practices include compliance to safety programs with continuous review of daily practices starting with toolbox talks continuing up through site wide safety coordination. As an ISO 9001 registered organization, our work methods are consistent and documented, affording a higher level of quality assurance to our clients.
WORLDWIDE RESEARCH AND DEVELOPMENT

Application Research

Taikisha dedicates a significant amount of resources every year to applications research and development in the markets we serve.

Ongoing research includes applications for:

- Thermal drying of materials
- Air Pollution control systems
- Particulate scrubbing systems
- Paint Application systems

Taikisha holds many international patents for products developed for specific industrial applications. Our ability to evaluate subsystem integration and process build ability assure clients that new products are “process ready” before they are installed into the system.

ZAMA Research Facility

Our Zama Research Facility in Japan contains full-sized, fully operational spraybooths, ovens and pretreatment equipment.

Taikisha can simulate many different line types, conditions, etc. for customer specification development.

TIANJIN Research Facility

Our Tianjin China research facility contains full sized liquid and dry spraybooths as well as ovens and Automation.
ENERGY/UTILITY DESIGN AND CONSTRUCTION

Process Utility Subsystems

As part of the overall system design and integration, TKS delivers basic utility subsystems to support the process operations.

TKS Experience includes:

- Psychometrically Controlled Air Handling
- Chilled Water Systems
- Boilers
- Substations
- Rectifiers
- Water Treatment Systems
- Utility Distribution Systems

TKS has designed, procured, and installed these systems utilizing our process knowledge, buying power and customer preferences to deliver functional, cost effective systems.

Energy Design

With the global cost of energy soaring, TKS always considers energy savings in our equipment design.

TKS can provide an energy audit of an existing system, or provide a Greenfield system that maximizes energy savings possibilities.
AEROSPACE FINISHING SOLUTIONS

TKS, with our partner company Encore Automation can provide complete finishing solutions to the Aerospace industry including the following products:

- Paint Spraying Hangars
- Paint Spraying Booths
- Fully Robotic Aircraft Paint, Sealing and Cleaning Systems
- Cost Effective VOC control for Small and Large Aerospace operations
- Material Handling Systems
- HVAC systems
- Utility systems
- Energy Reduction Systems

FLUIDIZED BED VOC CONTROL SOLUTIONS

TKS offers VOC Control solutions for all industries needing VOC abatement.

Our Fluidized Bed Carbon (FBC) system offers lowest capital and operating costs for VOC control.

Solvents are concentrated at very high levels through fluidized carbon adsorbers.

Oxidation or Solvent Recovery is possible after high concentration is achieved.

Low CO2 and Energy levels are possible compared to RTO and Rotary Concentrator solutions.

BATTERY MANUFACTURING SOLUTIONS

TKS through our Taikisha GT group can provide complete battery manufacturing solutions to the lithium battery industry including:

- Clean Rooms
- Process Equipment
- Solvent Recovery Systems

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TKS INDUSTRIAL CAPABILITIES

- Water Wash Spraybooths
- Dry Filter Spraybooths
- Dry Powder Spraybooths
- Paint Automation Systems
- Curing Ovens
- Fluidized Bed VOC Concentrators
- Thermal VOC Oxidizers
- Utilities
- Energy Systems
- Work Decks
- Conveyor/Material Handling Systems
- Paint Circulation Systems
- Air Supply Houses/HVAC
- Process Buildings
- Metal Pretreatment Systems
- Electrocoating Systems
- Cleaning Systems
- Waste Water Treatment Systems