



# Powering Social Infrastructure with Pride and Genuine Sincerity



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As a leader in the industry, Kanden Plant Corporation (KPC) plays a pivotal role in the vast field of plant engineering with business operations spanning from construction and maintenance of thermal and nuclear power plants to sustainable energy solutions.

Backed by engineering and innovation for safely and securely supplying power, we serve customers by fully meeting the most stringent specifications and requirements. However, what we are truly proud of is the high level of our services in bringing additional value beyond what customers expect. A diligent, inspiring spirit is alive in the heart of our people.

KPC is fully committed to continuing our support of the innovation and values our customers seek, through tireless efforts.

# Message from Management

Corporate Philosophy  
Vision

## Putting our past performance, proven reliability and endless improvement efforts towards greater customer satisfaction

KPC began in October 1953 as Kanden Kogyo Co., Ltd. and was renamed Kanden Plant Corporation in October 2004, having steadily grown by meeting customer expectations as an equipment installation and maintenance company for thermal, nuclear and other source power stations that provide the basis of safe and stable supplies of electricity.

Going forward, we will continue to serve customers in the industrial (power and manufacturing) plant and renewable energy fields by polishing and improving the advanced technologies we have cultivated with power equipment and systems, and providing safe, high-quality services that surpass prior levels of customer satisfaction.

At KPC, the entire workforce remains united in our cause to serve the customer and society, so I ask for your guidance and support.



Niichiro Kitamura  
President and Representative Director

## Corporate Philosophy

We contribute to society  
by focusing plant engineering  
on energy and the environment.

### Because Customer Satisfaction Is Paramount

As a construction company with abundant creativity, we strive for cost and process management. Our continual improvements in construction management add value to the services we provide so that our customers can be thoroughly satisfied.

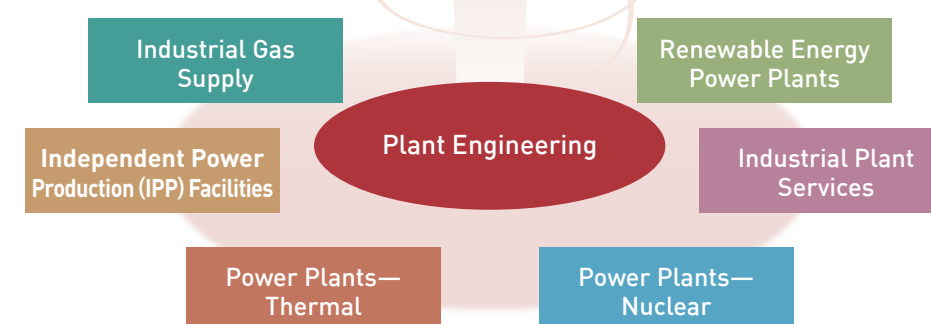
### For Further Market Growth

We are working to expand business in the power generation industry as well as cultivate new business fields that can respond to new environments using our developed technologies as the best partner customers can find in plant engineering.

### Company of Choice for Customers

### Robust Corporate Structure. Company Culture That Values People.

KPC encourages autonomy and innovation for stronger technology and better performance on project sites, and we continuously maintain our organization and training environment to keep our corporate value and competitiveness high. We value everyone in our workforce, as they are the backbone for our business, and strive to increase employee satisfaction to create an active and efficient workplace.





# Power Plants—Thermal

Construction / Remodeling  
Periodic Maintenance / Repair Service

KPC provides top-notch services—  
the culmination of decades of  
quality plant engineering.

## Construction / Remodeling

### Decades of Expertise in Power Plant Construction That Contribute to New Energy Mixes

Our plant engineering technologies and expertise have delivered the highest level of safety and quality for many power plant construction projects. That includes conventional and combined systems employed at KEPCO's Maizuru coal-fired power plant, and Sakaiko and Himeji No. 2 combined cycle power plants.

#### Services

- Power station equipment installation
- Fuel-shift equipment installation
- Piping/Wiring design and construction



Maizuru Power Station Unit 2 construction, KEPCO



Sakaiko Power Station rejuvenation, KEPCO



Himeji No. 2 Power Station rejuvenation, KEPCO

## Periodic Maintenance / Repair Service

### Extensive Expertise and Safe, Advanced Technologies Backed by Best Practices for Stable Power Supply

Customer trust and stable power supply are always paramount. KPC quickly responds to safety and quality requests from the customer through our on-site maintenance project offices at all of KEPCO's power stations.

#### Services

- Overhaul of boiler, turbine, generator, and instrumentation
- Auxiliary overhaul
- Testing, conditioning, and commissioning before and after disassembly



Turbine maintenance and overhaul, Nanko Power Station, KEPCO



Turbine maintenance and overhaul, Himeji No. 2 Power Station, KEPCO



Electrics and generator rotor pull-out maintenance and overhaul, Aioi Power Station, KEPCO

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# Power Plants—Nuclear

Periodic Maintenance  
Repair / Installation Service

**Experienced, top-notch specialists are standing by to provide customers with tailored solutions that assure safety.**

## Periodic Maintenance

**A Full Suite of Safety and Quality Control Services Bolstered by Engineering Strengths—That's what KPC offers for maintenance.**

We provide complete maintenance packages that start with maintenance planning and go as far as disassembly, inspection, reassembly, and commissioning of whole systems at nuclear power stations, such as machinery, electrics, and instrumentation, along with industry-leading technologies that assure reliable safety, quality, and radiation control.

### Services

- Main turbine maintenance
- Nuclear fuel unloading/loading
- Transformer maintenance
- Feedwater pump maintenance
- Feedwater pump motor maintenance
- Instrument readings inspection and conditioning for central control room



Steam turbine disassembly, Mihama Power Station, KEPCO



Instrumentation maintenance, Ohi Power Station, KEPCO



Fuel pool maintenance, Ohi Power Station, KEPCO

## Repair / Installation Service

### Latest Technologies for Increased Reliability of Nuclear Power Plants

We apply our best, latest technologies and efforts to repairing, updating, and installing primary and auxiliary systems, and provide solutions to meet up-to-date regulatory requirements, as we believe that is one of the tasks a real contributor to more reliable nuclear power generation does.

### Services

- System upgrade to meet new regulatory requirements
- Equipment installation and upgrade
- Heat exchanger, piping repair



Tornado protection installation for seawater pump



Seismic safety reinforcement for primary system heat exchanger



Tornado protection installation for condensate tank



# Independent Power Production Facilities

Construction / Installation  
Maintenance

**We can complete whole projects from construction to maintenance.**  
**KPC offers trusted technology solutions accumulated from decades of utility thermal power plant experience.**

## Construction / Installation

### Tailored Power Generation/Plant Systems That Meet Any Needs of Customers

The deregulated electricity market is now seeing rapid growth in the number of IPPs and private power generators, for both of which KPC has extensive experience and advanced technologies. For any kind of project, whether for construction/installation or power generator or plant system configuration, we provide a complete package that accurately caters to the customer's needs.

#### Services

- Power station equipment installation and upgrade
- Fuel-shift equipment installation
- Installation of rotating equipment, e.g., pumps, fans, and blowers
- Piping (gas, steam, water, air), wiring, ducting, and structural design and construction



Steam drum installation, Tanigawa Mill, Hyogo Pulp independent power generation system



Construction of thermal power plant



Independent power generation system installation, Tanigawa Mill, Hyogo Pulp

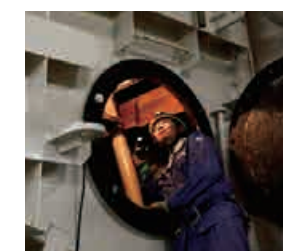
## Maintenance

### Extensive Expertise and Safe, Advanced Technologies Add Assurance to Maintenance Services We Offer.

Wide-ranging experience accumulated through KEPCO's facilities maintenance projects have given us an edge in ensuring safety and top-rate maintenance that meets any requirements customers pose for their power generator/plant systems.

#### Services

- Assistance in maintenance planning and safety management audit (periodic supplier inspection)
- Periodic inspection and maintenance package covering boiler, turbine (steam/gas), generator, and instrumentation
- Inspection and maintenance of auxiliaries of boilers, turbines, and generators
- Inspection and maintenance of rotary equipment, e.g., pumps, fans, and blowers
- Inspection of fuel tank and boiler/turbine pressure parts, piping, heat exchangers, pumps, and valves



Condenser inspection



Motor valve inspection



Independent power generation system maintenance, Osaka International Refining



# Renewable Energy Power Plants

Planning / Design / Procurement /  
Construction / Maintenance

Building on a robust  
technology platform,  
KPC helps customers operate  
their green energy power plants.

Planning / Design / Procurement / Construction / Maintenance

## EPC and Maintenance Technologies Customized to Meet Stringent Construction Specifications

Today, renewable energy power plants are drawing more and more attention. KPC offers a comprehensive range of integrated solutions that cover planning, design, procurement, construction, and maintenance of customer power stations.

### Services

- Planning, design, equipment procurement and installation, electrical/instrumentation work and maintenance of biomass and solar power systems



Woody biomass power generator  
installation, Ono City, Fukui Pref.



Arita Solar Power Station construction, Wakayama Pref.

# Industrial Plant Services

Planning / Design / Procurement /  
Construction / Maintenance

For utility and industrial facilities,  
KPC provides a full range of  
services and support backed  
by extensive expertise  
we have accumulated.

Planning / Design / Procurement / Construction / Maintenance

## Plant Construction and Maintenance Services Founded on Experience and Technology, and That Cover Everything

Our industry service offerings include plant construction, installation, and maintenance. Each solution package we offer is designed to meet customer-specific requirements and is the culmination of decades of devotion to accumulating expertise and technology in thermal power plant construction and maintenance.

### Services

- Installation and maintenance of water supply and treatment facilities
- Installation and maintenance of petrochemical plants
- Design, installation, and maintenance of incineration facilities
- Construction, maintenance, and equipment installation of various plants, machinery/electrical/instrumentation maintenance work, and piping/wiring design and construction
- Plant equipment diagnosis



Fuel cell installation, contracted  
research for the Kyoto Eco Energy  
Project, NEDO



Seawater desalination equipment  
installation, Takahama Power Station,  
KEPCO



Water treatment pump installation



# Industrial Gas Supply

Construction / Installation / Maintenance

Our knowledge base that we have obtained from a plethora of LNG power plant projects caters to customer-specific requirements.

## Construction / Installation / Maintenance

### Flexible Solutions and Services— Industry-Leading Technology and Safety/Quality Management That Take into Account Wide-Ranging Customer Needs

Industries are seeing a boiler fuel shift towards eco-friendly LNG. As an all-around player, KPC helps customers to efficiently shift their energy sources by providing comprehensive services that include construction of satellites and LNG terminals, gas piping, and maintenance.

#### Services

- For Satellites
  - Facility engineering
  - Equipment procurement and installation
  - Design and construction of gas piping and electrical instrumentation systems
- For LNG Terminals
  - Equipment installation and maintenance
- For Boiler Fuel Shift
  - Design and construction of high and low pressure gas system piping



Boil-off Gas (BOG) compressor installation, Sakai LNG



Liquid hydrogen tank and auxiliaries installation, Hydro Edge



Satellite construction, Ako Gas Plant, KEPCO

# Tank/Boiler Cleaning

Tank Cleaning / Boiler Chemical Cleaning

For increased safety, we select and combine cleaning techniques best suited for the customer's equipment.

## Tank Cleaning / Boiler Chemical Cleaning

### Our Portfolio of Proprietary, State-of-the-Art Cleaning Techniques Accommodate a Variety of Industrial Plants and Boilers.

KPC's cleaning services are focused on efficiency and safety. We make the most of the know-how we have obtained from cleaning thermal power fuel tanks, to offer customers our highest level of pipeline installation technology. With a wide range of chemical cleaning techniques for boilers, we also help customers maintain equipment efficiency and prevent piping breakage.

#### Services

- Cleaning of oil refinery tanks
- Cleaning of chemical plant ethylene dichloride (EDC)/methanol tanks
- Cleaning of power plant fuel tanks



Temporary pipeline for tank cleaning



Temporary pipeline for boiler cleaning



# Technology

A solid technology platform assures maintenance packages are perfectly customized to meet challenging environments and stringent specifications.

## Design / Construction / Maintenance

From instrumentation system configuration to design, construction, and maintenance of satellites or plant piping, KPC offers a complete system best suited to the customer's facility.



Instrumentation system design

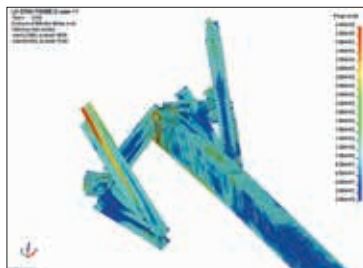
## Ice Plugging

For a local repair within a pipe system, Ice Plugging establishes freeze plugs that isolate sections of pipe with devices or valves that cannot be isolated from the system. Ice Plugging service can be used for stainless steel or carbon steel pipes. Globally acclaimed technology originally developed by FTI, Inc. is the base of Ice Plugging.



## Seismic Design Evaluation for Piping

Taking full advantage of seismic design engineering proven through nuclear power plant design, KPC offers seismic design evaluation packages that include facility remodeling planning based on structural analysis, in order to meet the requirements for Class S structures.



Collision analysis of projectiles striking small structures

## Condenser Tube Cleaning Gun (Auto Water-Air Jet Gun)

Cleans tubes faster and uses less water. A single squeeze of the trigger activates a water jet that propels a projectile brush through a tube, effortlessly removing deposits, and then, purges water with compressed air in one cycle. Its gripping mechanism absorbs most of the reaction force so as to reduce operator fatigue.



## Three-Dimensional Measuring System

KPC's 3D scanning coordinate measurement system provides three-dimensional data of a project site. Complete customer support from scanning to data visualization realizes efficient, cutting-edge construction management that covers just about any process including interference calculations for equipment installation/change-over, process checks, and converting the data into drawings.



# Products

KPC's portfolio lists products from home and abroad that prove their excellence. The broad expertise we have enables us to pick out the best product for customers of major industries.

## Electrostatic Oil Filtration System\*

This system uses static charging to remove contaminants in oil. The capability of removing just about any contaminant regardless of particle size makes it an efficient filtration system for sludge that contains fine contaminants. The benefits of using this system are a longer usable life of oil, improved precision of machine components, and reduced flushing time.

\*OIL CONDITIONER & MONITOR



## Phosphate Ester Filtration System

Purifies used phosphate ester fluid for reuse. The system offers an effective solution to the challenges faced by power plants by making phosphate ester reusable again—waste and environmental load reduction, maintenance cost cutting, and finding storage area for waste phosphate ester.



## Video Monitoring System

For a variety of applications, remote video monitoring technology has become ubiquitous in the visible world today. KPC started to design and construct facilities employing this relatively new system earlier than others. We offer a wide array of monitoring systems from compact video eyes to large-scale, integrated surveillance systems for industrial plants.



Compact explosion-proof camera



Explosion-proof dome camera (new product)

## Pocket Multimeter KP1

A safe 600 V class volt tester compliant with the safety requirements of IEC 61010, CAT IV, 600 V. The push-activated single button system prevents misoperation. It is compact, but it is entirely capable of auto AC/DC detection and allows the operator to use the attached probes for single-handed and non-contact measurements.



## Portable Coal-Fired Boiler Scope

Visualizes inside of a coal-fired boiler furnace to enable early detection of anomalies and prevent overuse of costly boiler compound. Real-time video images can be viewed, recorded, analyzed, and managed from a laptop connected to this compact, lightweight scope.



Contact Us: 9:00–17:00 (Weekdays only)

For electrostatic oil filtration systems, phosphate ester filtration systems, video monitoring systems, or Pocket Multimeter KP1

Nuclear Power Supervisory Dept., Nuclear Power Div.

TEL: +81 6-6359-7420 / FAX: +81 6-6359-7566

For portable coal-fired boiler scopes

Plant Sales Dept., Plant Div.

TEL: +81 6-6359-7537 / FAX: +81 6-6359-7607

Contact Us: 9:00–17:00 (Weekdays only)

For design, construction and maintenance

Plant Sales Dept., Plant Div.

TEL: +81 6-6359-7537 / FAX: +81 6-6359-7607

For condenser tube cleaning guns (auto water-air jet guns), ice plugging, three-dimensional measuring systems, or seismic design evaluation for piping

Nuclear Power Supervisory Dept., Nuclear Power Div.

TEL: +81 6-6359-7420 / FAX: +81 6-6359-7566



# Services

We meet the diverse needs of customers utilizing our extensive expertise and capabilities developed over time.

## Manufacturing and Maintenance

### Takasago Techno-Factory—newly built for manufacturing and maintenance to assure high-quality construction while reducing costs

Takasago Techno-Factory has been newly built in Takasago, Hyogo Prefecture. It consists of a manufacturing area for prefabricating piping, building tanks or other components, and a maintenance area where equipment is overhauled. Also, it services metalworking and welding facilities, all to expand our customers' businesses.



**Contact Us:** 9:00–17:00 (Weekdays only)

**TEL: +81 79-439-0005 Takasago Techno-Factory** We accept inquiries and applications for the use of our facilities.

## Education and Training

Two training facilities provide educational programs for acquiring practical knowledge and skills, equipped with a range of hands-on training areas.

### Techno-Center

#### One of the finest in-house training facilities in the industry, providing extensive practical training in a comfortable environment

The Techno-Center features classrooms of different sizes, a variety of hands-on training areas to foster the practical skills needed for inspecting and maintaining power station equipment, and lodging facilities. Our personnel with advanced technical expertise serve as instructors, providing technical training in power station equipment and hands-on safety training.



**Contact Us:** 9:00–17:00 (Weekdays only)

**TEL: +81 79-560-2911**

We welcome inquiries and applications for training or taking seminars with us, or for use of the conference facilities.

### Nuclear Technology Training Center

#### A facility that provides training to boost knowledge and skills related to nuclear power station equipment

Trainees can receive extensive training in a rich natural environment. Our personnel with advanced technical expertise serve as instructors, teaching skills related to nuclear power station equipment, as well as training in maintenance and inspection.



**Contact Us:** 9:00–17:00 (Weekdays only)


**TEL: +81 770-72-3954**

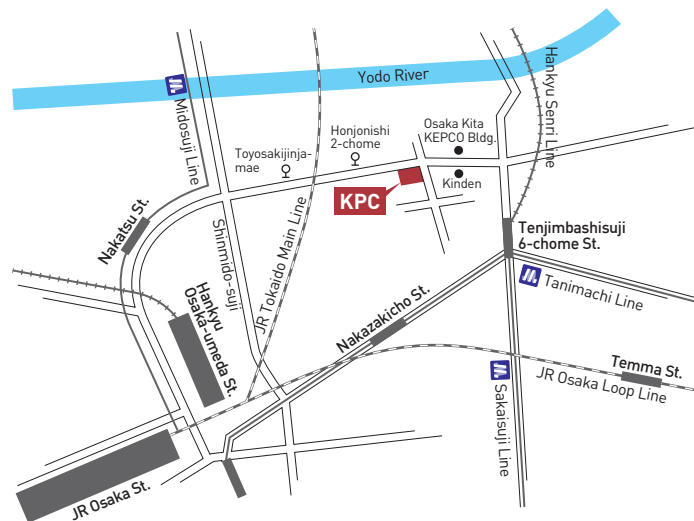
We welcome inquiries and applications to train with us.





### Access to KPC

Walk north 10 minutes from Tenjimbashisuji 6-chome Station on the  Osaka Metro, or take the #34 Osaka City Bus from Osaka Station to Honjonishi 2-chome and walk a little.



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