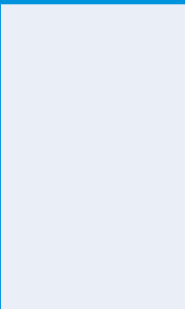
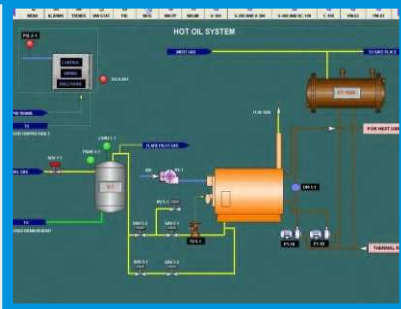




Energising Growth Naturally

ENGINEERING
PROCUREMENT
CONSTRUCTION

EPC (E & I)



KEAS CONTROL SYSTEMS INDIA PRIVATE LIMITED

KCSIPL was established in the early 21st century as a Private Limited Company to provide quality **Engineering, Procurement and Construction (EPC)** services to major industries in core sectors such as Oil and Gas, Power, Steel, Cement, Chemicals etc. KCSIPL is a technology-driven company that infuses Engineering with imagination. With an experience spanning more than half a decade, we offer a wide range of advanced solutions, services and products.

Head quartered at Coimbatore (India), KCSIPL has executed Projects at Chennai, Hyderabad, Mumbai, Kolkata, Orissa, Bangalore and Ahmedabad. We also have executed International projects at Brazil, Indonesia, Malaysia, Singapore, China and Saudi Arabia.

On the technical front, we have been certified by the Electrical Licensing Board of India with an ESA Grade Contractor License to execute electrical works without any limitations in Voltage or Capacity.

Our Company's successful growth over the years can be attributed to our deep understanding of economic stimuli and customer needs, and our ability to translate them into customer-desired offerings. Our in-house technical capabilities are complemented by tie-ups with worldwide market leaders. We provide state-of-the-art services and solutions to a large and diverse customer base.

QUALITY POLICY

As an ISO 9001:2008 certified organization, our QMS is rated very high and has been certified by Det Norske Veritas (DNV). We are also a certified member of the TRACE body, an achievement possible only after the completion of an extensive background review.

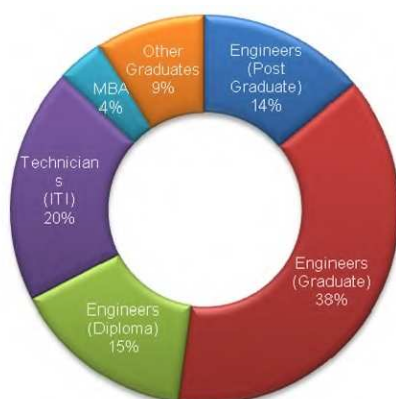
To sustain this, we are committed to provide Engineering and Automation solutions, conforming to applicable statutory and regulatory requirements to the complete satisfaction of our Customers by:

- Providing latest, innovative and cost effective solutions, in time, and with flexibility for up-gradation.
- Supplying accurate, reliable products and services.
- Continually improving our services, processes and systems.
- Upgrading the knowledge of our employees.



OUR HUMAN ASSETS

KCSIPL is a technocrat driven company with more than 80% of its Employees having engineering/ technical qualifications. In addition, the senior management team comprises of seasoned professionals with outstanding technical expertise and over 25 years of experience in the Engineering Industry.



OUR EXPERTIZE IN ENGINEERING PROCUREMENT CONSTRUCTION(EPC)

KCSIPL has consolidated its strengths in process technology, design engineering, modular fabrication, procurement, project management, construction and commissioning. The integrated business offers single-point-responsibility to meet stringent delivery schedules.

With a brilliant track record of successful project executions, KCSIPL has established itself as a niche player in the **Engineering, Procurement and Construction (EPC)** business with interests in market segments such as Oil & Gas, Power, Steel, Cement, Chemicals, Manufacturing and Infrastructure.

We play a crucial role in these core sectors and provide services from the earliest stages of pre-project development up to start-up. Our competent team of engineers brings expertise to the industries that we serve, while applying core competencies and skills to all their works.

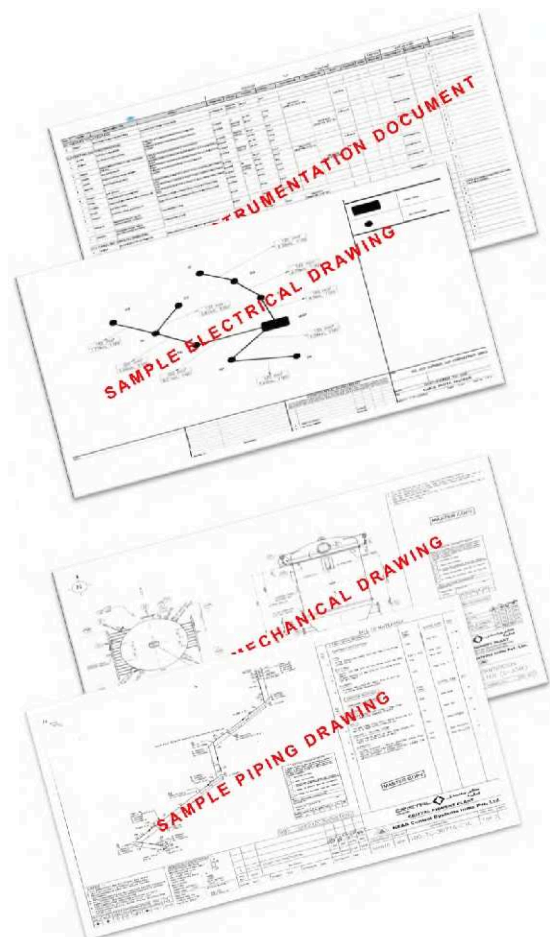
We provide 'design-build' / turnkey / concept-to-commissioning EPC solutions in all major engineering disciplines including plant design/mechanical, electrical, instrumentation and process control/ automation. We offer the following areas of expertise:

1. **Design Engineering** (both concept design as well as detailed engineering)
2. **Global Sourcing and Supply** (procurement of competitively priced engineering products)
3. **Field Services** (testing to installation to commissioning)

ENGINEERING

Our Engineering Services encompass Conceptual Design, FEED, Basic Design and Detailed Design, all of which is carried out on distributed computing facilities connected to a Local Area Network. The major activities can be categorized in the following manner:

1. **Pre-bid Engineering**
 - a. Bid Evaluations
 - b. Risk Assessment
 - c. Bid Support
2. **Detailed Engineering**
 - a. Site Survey for Detailing
 - b. Electrical Design
 - c. Instrumentation Design
 - d. Control Systems Design
 - e. Mechanical and Piping Design
 - f. Civil and Structural Design
3. **Engineering Supervision Services**
 - a. Installation
 - b. Pre-commissioning
 - c. Commissioning
 - d. Start-up operations
 - e. As-built site survey and design



Site Survey activities from our EPC Package



KCSIPL can perform onshore/offshore site survey with a qualified technical team to determine the required modifications to existing facilities or requirements for the new facilities.

In case of other requirements which include 3D modeling, our subject experts will also be included in the site survey team.

On completion of the site survey, a detailed site survey report will be submitted which will include all modifications and suggested additions to the new or existing facilities.

Testing and Calibration activities from our EPC Package

Our team of testing and calibration engineers can meet requirements of all instruments that need to be calibrated prior to their installation and also instruments which have been installed but require calibration or re calibration, if they can be removed.

All equipments and instruments under this scope will be calibrated in the units of the measurements selected for the project, normally SI units. Each item will be provided with a calibration report and certificate. KCSIPL ensures that the standard of accuracy of testing and calibration will meet the manufacturer's stated accuracy for the instruments tested.



Our FAT procedures comprises of testing the manufactured equipments and panels at our factory works for visual inspection checks, functional checks, redundancy checks, interlock logic checks, communication checks etc. The FAT procedures and tests are carried out in the presence of our clients.

Once the equipments and panels are erected and installed by KCISPL, our construction team will implement SAT procedures along with other pre commissioning activities. Tests similar to FAT are conducted at the plant/facility. Reports of both tests are submitted in the detail to our clients.



Manufacturing activities from our EPC Package

KCSIPL can undertake fabrication and assembly of E-houses and various types of control, power and instrumentation panels such as PCC/MCC panels, ATS/AMF/APFC panels, DCS/PLC panels, AC/DC Drive panels, HIPPS panels and Synchronizing panels.

Our E-houses are manufactured to suit hydrocarbon as well as non-hydrocarbon environments. They are constructed to strictly comply with the applicable class requirements and designed to house the electrical and instrumentation equipments.

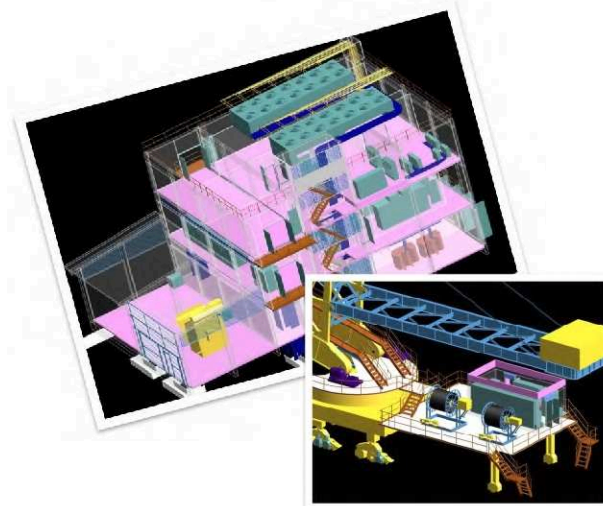
All our electrical panels are modular, metal clad, fully or semi-withdraw able types, totally enclosed, dust free and vermin proof designed to IEC standards

In addition, our panels are also tested by the Central Power Research Center Institute.



The following state-of-the-art process simulation software packages are used to develop the exhaustive list of engineering design deliverables and process flow sheets:

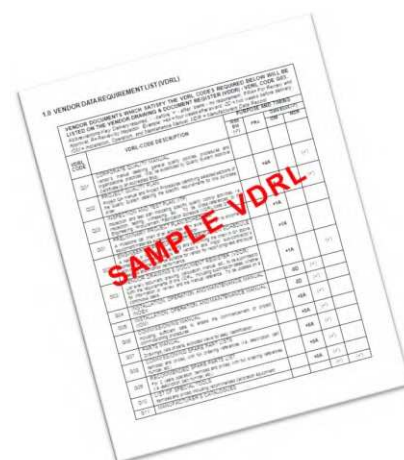
- Auto PLANT/PDMS for 3D modelling of process Plants/packages/skids
- ETAP for Electrical Design
- Primavera for Project Management



PROCUREMENT

More than half a decade of strong, customer-focused approach and the continuous quest for world class quality has enabled us to attain and sustain leadership in all our major lines of business. We assist our customers to optimize their internal processes and improve their overall performance.

Our procurement services encompass creating Functional Specification, Purchase Specification, Technical Data Sheets, Issuing RFQs, Vendor Identification and Evaluation, Vendor Data Requirement List (VDRL) and Preparing Techno-Commercial Analysis. Our solutions are designed to enable our industrial customers to improve Safety, Efficiency, Productivity and overall Profitability.



To ensure a global sourcing policy, we have long-term working relationships with multinational companies across countries like Germany, Turkey, Italy, Singapore, China, United Kingdom and United States of America, and also multinational brands such as Emerson, Honeywell, ABB, Areva, Rockwell, Siemens, etc.

CONSTRUCTION

As part of our EPC package, we offer a wide gamut of construction activities, both on-shore as well as off-shore. Our construction offerings and services include the following:

1. Site Survey
2. Testing and Calibration
3. Manufacturing
4. Cable Routing and Laying
5. Installation
6. Industrial and Process Automation
7. Commissioning
8. Operation and Maintenance
9. Safety, Health and Environment



Our team of highly competent and experienced construction engineers and managers will ensure quality that is guaranteed to meet customer satisfaction at each stage of the construction process.

Cable Routing and Laying activities from our EPC Package

We undertake all related design and construction activities such as:

- Scheduling
- Cable sizing and routing
- 3D modeling
- Sourcing and supplying
- Conduit / cable tray erection
- Multi - cable transit (MCT)
- Cable laying
- Glanding and termination



Installation activities from our EPC Package

For installation of electrical panels, E-houses and other equipments, our engineering team will prepare foundations suitable with respect to site conditions. After installing the equipment, all welding and bolting works will be carried out. Cable entry points will also be made as per the design.

We have qualified, certified and experienced engineers and technicians handling all our site installation activities.



Industrial and Process Automation activities from our EPC Package

KCSIPL automation solutions are synonymous with excellence because of our commitment to usage of superior technology with project management. Our solutions and systems cover all industry requirements on all domains like process automation which includes oil and gas, power steel, cement, bulk material handling, machine automation and building management.

We have expertise on the following PLC/DCS/SCADA systems:

- ABB
- SIEMENS
- ALLEN BRADLEY
- GE FANUC
- HONEYWELL



Commissioning activities from our EPC Package

For electrical panels, visual inspection checks, megger value checks and all other functional checks will be carried out by our commissioning personnel before energizing the panels. For the automated process systems, SAT procedures will be carried out in addition to pressure testing and plant flushing.

Once the pre-commissioning activities are completed, the plant/ process is run for a stipulated time in the presence of the commissioning engineers. Any troubleshooting activities, if required, will be carried out before handing over to the client.



Operation & Maintenance activities from our EPC Package



After commissioning the plant, KCSIPL trains the clients' discipline engineers, technicians and operators. Detailed information about the operation of the facility including purpose, safety precautions, limits, set points and references for operating the control system are imparted during training.

Standard guidelines and procedures for operating and maintaining the equipments and processes are also prepared and handed over to the client.

Health, Safety, Environment activities from our EPC Package

KCSIPL is committed to providing workplaces and services which comply with current applicable legal requirements and HSE standards. Our HSE goal is pursued during all phases of project execution.

Our HSE commitment is pursued through the following elements:

- Minimizing the environmental impact because of our activities
- Optimizing process safety risk analysis and systems
- Eliminating health threats
- Striving for a "zero accident" workplace
- Endeavouring towards continuous improvement
- Implementing HSE in all our projects
- Having a trained team headed by an experienced Safety Manager



In addition, all our construction and site employees are covered under statutory benefits such as PF and ESI, and also provided with accidental insurance policies.

OUR MAJOR EPC PROJECTS

OIL AND GAS PROJECTS

Refinery	Mangalore Refineries and Petrochemicals Limited / India
Amine Sweetening Package	SBM Atlantia / Texas
FPSO Brotojoyo	Pt. Petrochina International Companies / Jakarta

STEEL PLANT PROJECTS

Sinter Plant	SBQ Steels Limited
Stacker-cum-Reclaimer	Bhushan Steels Limited
Stacker-cum-Reclaimer	Essar Steel Limited

CEMENT PLANT PROJECTS

Wagon Tippler	Binani Cements Limited
Wagon Tippler	Orissa Cements Limited
Stacker-cum-Reclaimer	Bharathi Cements Limited

ATOMIC ENERGY

Building Management System.	Indira Gandhi Centre for Atomic Research
DAE, GSO, Distribution Substation, LT Panel, AMF Panel, & Bus Duct.	Indira Gandhi Centre for Atomic Research
DAE, IGCAR Research Laboratory Internal Electrification.	Indira Gandhi Centre for Atomic Research

INDUSTRIAL ELECTRIFICATION

External Electrification	GK Industrial Park Limited
132 KV HT Switchyard	Areva Limited
5MW Compressor Test Facility	Siemens Limited

POWER PLANT PROJECTS

10MW Bio-mass Power Plant	Empee Distilleries Limited
2.5MW Captive Power Plant	Suguna Poultry Farms Limited
3MW Captive Power Plant	Sutlej Textile Industries Limited
10MW Independent Power Plant	Synergy Shakthi Renewable Energy

Few of our EPC projects and clients have been listed above. Kindly visit www.keascontrols.com for a detailed reference list

Our International Offices

Kuala Lumpur - Malaysia

Ras Al Khaimah - UAE

Regional Offices

Branch Offices

Delighted Customers Worldwide



Note: The logos featured above are the logos of the respective companies and KCSIPL is involved with these companies by providing services either directly or indirectly.



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