

**Technical Proficiency.  
Engineering Excellence.  
Specialised Knowledge.**



**CASY**  
ENGINEERING  
CONSULTANCY

*biz*SAFE<sub>3</sub>





**Our team of mechanical and electrical engineers are acknowledged for their reliability, specialised industry knowledge, out-of-the-box thinking, holistic approach to delivering long-term solutions and a client-first mentality.**

## Who We Are

CASY Engineering Consultancy Pte Ltd was incorporated in Singapore in 2017. Prior to this incorporation, the company was operating as CASY Consultancy Services since 2004.

We offer a broad range of engineering services including consultancy, design calculations, risk assessments, inspections and submissions to authorities.

Our team of mechanical and electrical engineers are acknowledged for their reliability, specialised industry knowledge, out-of-the-box thinking, holistic approach to delivering long-term solutions and a client-first mentality. We have been in operation since 2004, providing a range of services to the public and private sectors in Singapore.

Our clients include MNCs as well as large national organisations such as Resorts World at Sentosa, Singapore Sports Council, Republic Polytechnic, Inland Revenue Authority of Singapore and others.



## Our Services

We provide a broad range of services to our clientele. These include engineering consultancy, project management, design calculations & reviews, fire safety consultancy, inspections and submissions to authorities. We are driven by several priorities: to serve the long-term interests of our clients, fast turnarounds, cost-effective delivery and always being committed to high standards.



### Engineering Consultancy Services

CASY Engineering Consultancy delivers mechanical and electrical project solutions for commercial, industrial, offices, residential and other building facilities. We provide consultancy on the design of air conditioning and mechanical ventilation systems, gas, plumbing and sanitary services, as well as fire protection systems.

We will be able to implement any project quickly and efficiently as we are able to deploy engineers with specialty expertise for each project. They will be further guided by experienced seniors on projects. The long-term interests of our clients are particularly important to us. We focus on providing reliable and effective services that not only lowers the initial cost outlay but which also minimises costs over the long term.

### Design Calculations and Reviews

CASY Engineering Consultancy provides design calculations for lifting brackets, frames, lugs, pressure vessels, pump and compressor skids, spreader bars, steam pipelines, tailing frames, tanks, test cells and ventilation systems. We are focused on precision – we undertake all relevant checks and understand all key parameters in our approach. We also perform multiple reviews of the formulae to ensure that the correct approach is adopted.

We follow all relevant industry standards as well as authority requirements. We deploy experienced design engineers who will take into account all necessary precautions and measures.





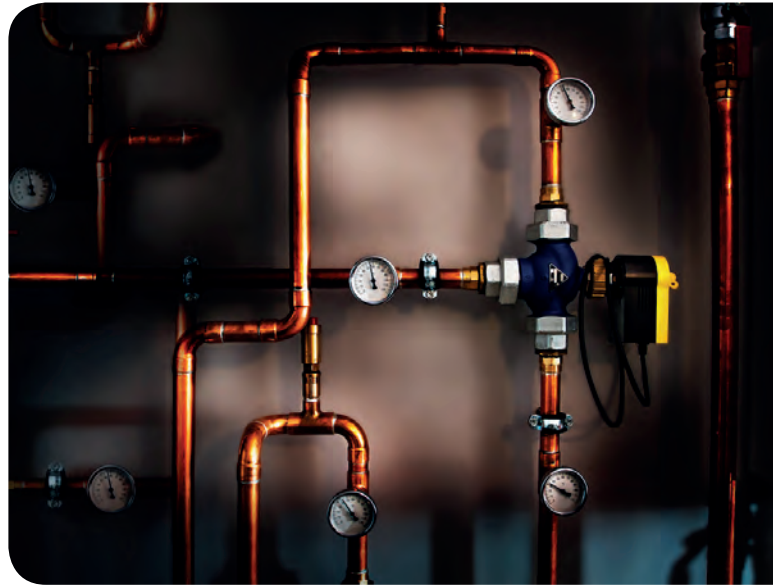
## Engineering Process Review

Our reviews of clients' engineering processes and documents are rigorous. They strongly adhere to code requirements.

Specific expertise includes:

- Reviews of design, material, standards, procedures, non-destructive testing (NDT) and inspection documents ensuring compliance with Ministry of Manpower (MOM) requirements for steam pipelines and pressure vessels
- Reviews of design and manufacturing documents, ensuring compliance with Singapore Civil Defence Force requirements for flammable storage tanks
- Reviews of design and manufacturing documents, ensuring compliance with National Environment Agency requirements for hazardous storage tanks
- Reviews of design, standard, procedures, NDT and inspection documents, in compliance with the Energy Market Authority requirements for fuel gas piping

- Stress analysis of pipelines, chilled water supply, return headers, warm oil pipelines and chilled pipelines
- Analysis of hot and cooling pipelines
- Reviews of pipeline cooling tower system



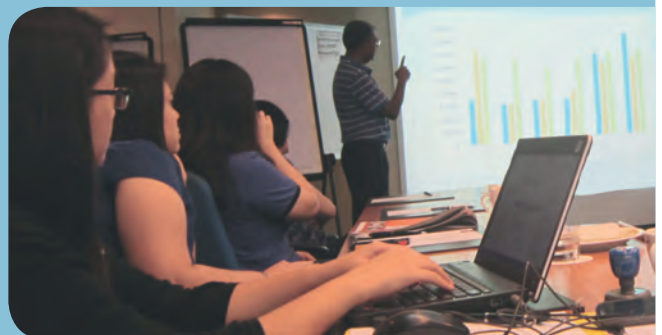
**Our reviews of engineering processes and documents are rigorous.**

## Project Management Services

Our personnel are registered with the Institution of Engineers' project management registry to provide project management services. We only select engineers with the right expertise and qualifications to work on your projects. They will be further guided by senior experts.

Once you entrust us with a project we will handle every aspect of it, according to agreed timelines. We will liaise with all relevant authorities on projects, as well as with qualified architects, C&S, QS and others, to ensure that projects are carried out well. We will also supervise all appointed subcontractors on your behalf, ensuring that they deliver.

We are reputed for delivering high quality projects within the client's budget. We will provide independent counsel to ensure that the solutions are optimal. Given our expertise and experience, we are also in a good position to understand and manage the risks inherent.





## Fire Safety Consultancy

When it comes to fire safety, we make no compromises. We will combine comprehensive fire risk assessments with scenario analyses to create safety plans. In addition, we will also conduct fire surveys and audits, hazardous area classifications and provide advice on legislations. We continually keep abreast of evolving regulations such as the local fire code and NFPA. We will evaluate the efficacy of fire protection systems such as sprinklers, extinguishers, fire detection devices, evacuation alarms, smoke and heat removal devices.



**We continually keep abreast of evolving regulations such as the local fire code and NFPA.**

## Inspection Services

We provide a broad suite of inspection services, covering a wide range of industries and equipment. Among our key priorities are safety, reliability and adherence to code requirements.

Our engineers have relevant qualifications as well as experience providing inspection services to clients in the following sectors:

### 1. Amusement Rides

- Design reviews, liaison with conformity assessors and inspection services
- Inspections to obtain amusement ride licensing for new rides and modifications of existing rides
- Inspections for renewal of amusement ride licenses, on an annual basis

### 2. Pressure Vessels

- Inspection services for air receivers, steam receivers, boilers, heat recovery steam generators and autoclaves
- Extension schemes for pressure vessels

### 3. Pipelines

- Inspection services for steam lines, natural gas line and fuel gas line



### 4. Tanks

- Inspections of diesel tanks, liquefied natural gas (LNG) tanks, chemical storage tanks, other flammable and hazardous storage tanks

### 5. Gasworks

- Certificate of fitness inspections



**We advise our clients on processes and procedures in the planning, designing, construction and implementation of projects according to the code.**



### **Submissions to Authorities**

CASY Engineering Consultancy assists and advises clients who are not familiar with regulatory requirements to make submissions to authorities. We advise our clients on processes and procedures in the planning, designing, construction and implementation of projects according to the code. We are widely experienced in this area and have good relationships with key government authorities for whom we provide the following services:

- Ministry of Manpower (MOM)
  - Registration and certification of pressure vessels
  - Extension of statutory inspection period of pressure vessels
- National Environment Agency (NEA)
  - Temporary sanitary facilities submission
  - Applications for hazardous substances licenses and permits
- Public Utilities Board (PUB)
  - Water services works and sanitary/sewerage works
- Singapore Civil Defence Force (SCDF)
  - Fire certificate applications and inspections
  - Petroleum and flammable material storage license (CNG, LPG, diesel, acetylene, nitrogen etc.)
  - Fire safety certificate (FSC) application

# Industries We Serve

Some of the most well-known brands in Singapore hire CASY Engineering Consultancy. We serve the needs of clients in the building and construction, amusement rides and oil & gas industries.

## Building & Construction

CASY Engineering Consultancy Pte Ltd provides M&E Services expertise for residential, commercial, industrial as well as institutional buildings. Our approach is to first understand the needs of the client, and to translate them into designs for facilities, equipment and systems.



**Our priority is to provide solutions that are reliable and cost-effective in the long-term.**

We provide consultancy services to the client throughout the process, from the feasibility study stages to the design, tender and finally construction stage. We will also liaise with all relevant authorities, such as the National Environment Agency, Building & Construction Authority, Singapore Civil Defence Force, Public Utilities Board and Ministry of Manpower, ensuring compliance with regulatory requirements.

Specific services include:

- Engineering consultancy services
- Assessment and design of building M&E systems
- Feasibility studies of existing building M&E systems
- Evaluations, surveys and engineering studies of buildings
- Energy efficiency assessments of existing buildings
- Project management of building construction projects
- Cost-evaluations of building M&E systems



Our expertise includes:

- Air-conditioning and mechanical ventilation systems
- Sanitary and plumbing systems
- Automatic fire alarm systems (smoke and heat detector systems)
- Pumped (indirect feed) fire hose reel and fire hydrant systems
- Town gas and LPG systems
- Lifts and escalators
- Pneumatic waste systems
- Smoke extraction systems
- Filtration system for pools
- Corrosion analysis





## Lifts & Escalators

We provide engineering consultancy on all aspects of the design and engineering of lifts and escalators, with specific focus on safety, cost-effectiveness and efficiency. We will be involved in the entire process from the feasibility study stage to the design, tender and construction stages. We have an intimate understanding of regulatory requirements to ensure compliance with standards.

## Amusement Rides

We currently provide engineering consultancy services to various theme parks in Singapore. Our suite of services include consultancy, design reviews, inspection of new and existing rides, liaison with conformity assessors and submissions to authorities. We also work with authorities to obtain relevant permits for installations, modifications and operations.

Where new rides are concerned, we are extensively experienced in undertaking design reviews, applying for installation and operation permits and carrying out inspections and testing. For existing rides, we are engaged every year to undertake inspections and testing and also to apply for operation permit renewals. We frequently work with and have good relationships with government authorities such as the Building & Construction Authority and the Singapore Civil Defence Force.

Our team includes mechanical and electrical engineers as well as specialists in amusement rides. The safety of the rides is of the utmost priority to us, and we make sure that no stones are left unturned as we build total redundancy into the rides.



**We also work with authorities to obtain relevant permits for installations, modifications and operations.**





## Oil, Gas, Chemical and Power Plants

Our services for the oil, gas and chemical sector include inspections of pressure vessels, steam pipelines, gas pipelines, hazardous storage tanks and fuel pipelines. We also provide fire safety consultancy and audit services, as well as hazardous zoning services. When providing consultancy in this area, we treat the safety and integrity of the facilities as of the utmost priority. Engineers we deploy will have domain expertise and experience. They will be further aided by specialist professional engineers.

We will also liaise with third parties and government organisations such as the National Environment Agency, the Singapore Civil Defence Force, Ministry of Manpower and the Building & Construction Authority (all of whom we have forged close working relationships with over the years) to ensure standards-compliance.



**We treat the safety and integrity of the facilities as of the utmost priority.**

## Accreditations

As an illustration of our strong focus on standards, best practices and regulatory compliance, CASY Engineering Consultancy has received accreditations from various industry bodies and ministries:

- Registered Professional Engineer in Mechanical Engineering
- Specialist Professional Engineer in Amusement Ride Engineering
- Specialist Professional Engineer in Pressure Vessel Engineering
- Noise and Monitoring & Control Consultant
- ASEAN Chartered Professional Engineer

## Contact Us

**CASY Engineering Consultancy Pte Ltd**

Company Reg: 201700640G

Block 168 Lorong 1 Toa Payoh

#01-1036

Singapore 310168

Tel: +65 6255 5176

Email: [ccs@casyconsultancy.com](mailto:ccs@casyconsultancy.com)