



GC MAINTENANCE AND ENGINEERING COMPANY LIMITED



company profile
Commit to Success

22/2 Pakornsongkhraorat Road , Tambon Map Ta Phut
Amphur Muang Rayong , Rayong 21150 , Thailand



GC Maintenance and Engineering Company Limited (GCME)

GCME | Introduction



August 4th, 2004 :

GC Maintenance and Engineering Company Limited (GCME) was founded as NPTC Maintenance and Engineering Services Company Limited by collaboration between National Petrochemical Public Company Limited (NPC) and Toyo Thai Corporation Limited (TTCL).

November, 2007 :

All TTCL's shareholding in NPTC was liquidated to PTT Public Company Limited (PTT PLC) then changed the name to Alliance Plant Service Company Limited (APS). Shareholder structure as below :

June 18th, 2009 :

APS was renamed to PTT Maintenance and Engineering Company Limited (PTTME)

July 3rd, 2017 :

All PTT's shareholding in GCME was liquidated to PTT Global Chemical Public Company Limited (GC).

December 6th, 2018 :

PTTME was renamed to GC Maintenance and Engineering Company Limited (GCME)

**"A Leader of Maintenance and Engineering
Solution Provider in ASEAN"**



Vision

A Leader of Maintenance and Engineering Solution Provider in ASEAN

Mission

To provide excellence in Maintenance and Engineering services to Valued clients and support Growth of GC Group

Vision

M : Mastering the Challenge	I : Innovation
E : Employee Dedication	R : Responsibility for Customers & Community
S : Service Excellence	I : Integrity & Ethics
P : Professionalism	T : Teamwork & Knowledge Sharing



GCME

provides Core Services
3 Businesses including

Maintenance Business
Engineering Business
And Plant Inspection Business

"A Leader of Maintenance and Engineering Solution Provider in ASEAN"



Maintenance Business



Engineering Business



Plant Inspection Business

>> Since 2004

GC Maintenance and Engineering Co.Ltd. or GCME has provided services; Specialist Maintenance, EPC Project Management for Plant and Major equipment and Plant inspection to support valued client needs and focus on creating value added to production plant; Petrochemical, Polymer, Utility and Power.

GCME

Maintenance Business

“Capability For Services,
The Combination
of Masterly Expertise”



Static Services

1. Fired Heater and Boiler Maintenance
2. Tank Maintenance
3. Chemical Cleaning
4. Catalyst Change Out
5. Turnaround Management

Rotating Services

6. Maintenance Engineering
7. Critical Machine Maintenance
8. Medium Machine Maintenance (>50kW)
9. Valve/Control Valve/ Safety Valve Maintenance
10. Field Instrument Calibration

Plant Maintenance Services

11. Long Term Maintenance Contract
12. Warehouse Management Service



Fired Heater and Boiler Maintenance

GCME provides integrated solutions for the periodical and Repair Maintenance, Coil Replacement. Fired Heater, Furnace and Boiler are Critical machines which directly impact safety and reliability.

GCME provides specialist, sufficient tools and experienced team to support the sustainability of our valued clients.

Tools and Equipment:

- Beavering Machine 2" to 6"
- Welding Machine 300 AMP
- Automatic Welding Machine

Service:

- Repair, Replacement and Modification
- Furnace
- Boiler
- Fired Heater

Reference:

- Furnace at GC2, GC3, GC11 Boiler at GC2, GC 3, TOCGC Fired Heater at GC4, GC5, GC6



GCME provides total solution Tank Maintenance service including Tank Cleaning, Repair, Inspection, Painting and Coating. We have experience team to analyze failure and recommendation for solution as professional, related standards and regulations strictly in consideration of API-653 and ASME.

Tools and Equipment:

- Air Compressor 390 CFM.
- Welding Generator
- Grinder 4"/5"/7"
- Electrical Drill
- Air Ventilation Fan 20"/24"
- LED Lamp
- Torque Wrench 60 – 1500 nm.
- Spray Nozzle
- Scaffolding 50,000 cm³

Tank Maintenance

Service:

- Tank Cleaning Operation Maintenance
- Manual Clean (Spray Nozzle)
- Non-routine maintenance
- Tank Repair/Tank Recondition
- Roof/Shell/Bottom Repair
- Piping
- Fireproof

- Air Cooling Ventilation for Confined Space
- Tank Inspection : API 653
- Scaffolding : Volume 50,000 cm³
- Painting : External Paint, Internal Paint

Blasting & Painting Equipment:

- Blasting pot 600 LBS. with host & accessories
- Air-less spray pump 50:1 with hose & accessories
- Air receiver tank 1000 l.
- Inspection tool
- Digital coating thickness gauge
- Sling Hygrometer
- Pin hole detector
- Digital surface profile gauge
- Adhesion cross hatch cutter
- Thickness gauge for surface profile
- Climate monitoring gauge



Chemical Cleaning



Chemical Cleaning is one of our service that we provide to customers with special manufactured equipment and piping system in skid for continuous re-circulation to remove scales, deposits and unwanted Materials from type of process equipment, piping system and wetted/heated surface.

During each chemical operation, we provide GCME Laboratory and system monitoring which specialized analytical device onsite to get result immediately for saving operating cost.

Tools and Equipment:

- CIP Machine
- CIP Machine -001-004
- CTV-001
- STV-001

- STH-001
- SAC-001
- Waste Tank (3 Unit)
- Mixing Tank



Service:

- Chemical Cleaning/ Passivation
- Decontaminate
- Tank Cleaning (Light/Heavy Product)

- Vacuum Cleaning
- Pipeline Cleaning

Catalyst Change Out



We can perform all operations of the unloading and loading catalysts. We are working with all types of catalysts, reactors, convertors, columns and other vessels of the refining and chemical industries. Our service not only maintained but also improved reliability with our best solution include safety and environment concern.



Tools and Equipment:

- Loading platform with roller weight scales (reduce risk of manpower from tripping)
- Cyclone large unit (specially designed for PAREX vacuuming)
- Dust Collectors
- Loading Hoppers
- Grid Inspection Platform
- Grid Lifting Baskets
- Standing Loading Platform
- A-Frame for inspection area
- Rental equipment (Special equipment)

Reference:

- Unloading and Loading Catalyst at Reactor R-1201A/B (PPCL) 2016
- Q-MAX Unloading and Loading Catalyst (PPCL) 2017
- Unloading and Loading Catalyst at Reactor & Vessel (GC) S/D 2017

Turnaround Management



Turnaround Services Provide Turnaround Management and packages to Petrochemical, Refinery, Aromatic and Chemical Plant with high skill and experience workforce with best practice that lead to effectively deliver on time within budget.

Service:

- Turnaround Management
- Blind Management
- Material Management
- Turnaround Crew for operation Support
- Turnaround Packages
 - Rotating Packages
 - Stationary Packages
 - E & I Packages
 - Inspection Packages

Reference :

- GC ,Olefins Plant
- GC , Ethylene Glycol Plant
- PTTAC , Chemical Plant (AN, MMA)
- PPCL, Phenol Plant
- GC , Refinery Plant
- GC , PDH Plant
- GC , Aromatics 2





Maintenance Engineering

Safety Integrity Levels (SIL)

- SIL Assessment Implementation
- SIL Verification Implementation
- SIL Methodology & Software Training
- Safety Instrument Systems Reliability Improvement
- Priorities & Optimize Proof Test Interval

Computerized Maintenance Management System (CMMS)

- Asset Registration for Document
- Equipment Characteristic Code and Value
- Critical Ranking Assessment
- Failure Mode Effect for Equipment
- Preventive Maintenance

Reliability Centered Maintenance (RCM)

- Reliability Centered Maintenance (RCM) Analysis, Implementation and Training
- Failure Mode Effect and Criticality Assessment (FMECA)
- Preventive Maintenance
- Priorities & Optimize Performance Maintenance Program

Critical Machine Maintenance



Tools and Equipment:

- Work Shop Included Overhead Crane 10 & 25 Ton, Machine Shop
- Hydraulic Torque Bolt
- Laser Alignment, Bore Scope
- Vibration & Analysis Check

Service:

- Gas turbines (Heavy Duty Type and Aero Type)
- Steam turbines (Steam Turbine Generator and Steam Turbine Drive Compressor)
- Compressors :- Axial Flow, Centrifugal, Screw
- Turbo expanders & Turbo Compressor
- Remove and Reinstallation Generator Rotor
- Bore Scope Inspection
- Trouble Shooting

Critical Machine Maintenance Service
GCME is a market leader in providing integrated solutions for the periodical and repair maintenance, overhaul for oil & gas, power plant and other industries. Critical machine directly impacts safety and reliability.

GCME provides specialist, sufficient tools and experienced team to support the sustainability of our valued clients.



Medium Machine Maintenance (>50kW)



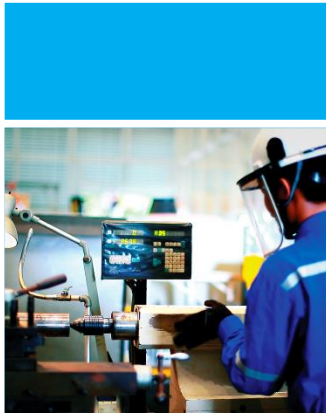
GCME provides integrated solutions for the periodical and repair maintenance, overhaul for Screw Compressor, Reciprocating Compressor, Small Steam Turbine, Pump, Fan Blower, Cooling Tower Gear Box & Reduction Gear, Agitator, Extruder, Dryer, Centrifuge and Emergency Plant Shut Down and other Rotating Medium Machine directly impacts safety and reliability. GCME provides specialist.

Tools and Equipment:

- Work Shop Included Overhead Crane 10 & 25 Ton, Machine Shop
- Hydraulic Torque Bolt
- Laser Alignment, Vibration & Analysis Check

Service:

- LTSC, Umbrella Service Contract for Overhaul Rotating Machine
- Shut Down & Turnaround Service For Overhaul Rotating Machine
- Emergency Plant Shut Down Service



Valve Control Valve Safety Valve Maintenance

GCME provides Total Solution of Valve Maintenance Services, (Valve Overhaul, Valve Calibration) including Performance Test Certification of Valve Calibration Service in Manual Valve, Ball Valve, Pressure Safety Valve, Safety Relief Valve, Control Valve, Butterfly Valve and Check Valve, related standards and regulations strictly.

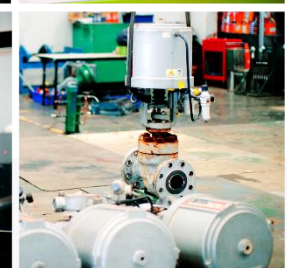


In consideration of

- API-527 Safety Relief Valve
- ASME-8 Pressure Relief Device
- API-598 Valve Inspection and Testing
- ANSI/FCI-70-2-2006 Control Valve Seat Leakage

Service:

- Leak Test & Overhaul Control Valve 1/2"-16"
- Leak Test & Overhaul On-off Valve 1/2"-12"
- Leak Test & Overhaul Safety Valve 1/2"-12"
- Leak Test & Overhaul Manual Valve 1/2"-16"
- Pressure Seal Valve 1/2"-12"
- MOV Valve 1/2"-12"
- Valve Lapping
- Pressure Gauge & Temp Gauge Calibration





Field Instrument Calibration



Moreover, GCME provides Electrical Maintenance Services including electrical tools installation and analysis report base on IEC standard with professional suggestion. Not only maintenance service but also we will recommend for plant reliability improvement with our best solution.

GCME provide instrument maintenance services including installation tools, accuracy measurement and analyst report suggestion base on IEC standard. GCME also improved your reliability with our best solution.



Tools and Equipment:

1. Installation and Replacement instrument tools Service
2. Calibration Service
 - Electrical: Analog/Digital multi-meter, Analog/Digital Clamp meter
 - Pressure: Transmitter, Pressure switch, Control valve& On-off valve
 - Temperature: T/C, RTD, LIG, Thermometer, IR Thermometer
3. Quality Measurement Instruments (QMI)
 - Flue gas analyzer and CO2 monitor : Gas Chromatograph,
 - Oxygen Analyzer, Continuous Emission Monitoring (CEMs) Analyzer etc.

Electrical Maintenance Services

- Power transformer/NGR/OLTC and Oil Di-electric test
- Current transformer & Voltage transformer test
- Switchgear and Breaker (Low-Medium Voltage)
- Protective Relay test
- Metering and Transducer test
- Bus bar and Bus duct
- Capacitor bank
- Electric Motor (Low-Medium Voltage)
- Power cable DC high potential test
- Earthing & Grounding system



LONG

TERM MAINTENANCE CONTRACT

- Maintenance Planning & Scheduling
- Operator Coordination
- Spare Part Management
- Tool and Equipment Management
- Contractor Supervision
- Routine Work Execution and Maintenance
- SLA Reporting with Qualified Staffs and Standard Work Control System

GCME provides Site Maintenance Team to Handle Routine Maintenance Activities in order to achieve Plant Safety, Integrity and Reliability at Optimized Maintenance Budget including :



Warehouse Management Service



Warehouse Management Service is key management of Spare Part Total Solution System in order to meet target of Plant Reliability and Cost reduction of your Company.

Tools and Equipment:

- CEDAR Program
- MSC Code
- WH Management Service
- Material Supply
- SPO

Certification & Standard Reference :

- MESC



Main Resource of GCME is Specialist which has Expertise on Work System and Certified by Integration Management System (IMS), ISO 10006.

We also have Workshop Facilities, Tools and Equipment with High Technology.

Main Resource of GCME

GCME



GCME concentrates



to provide Service Excellence in order to create Plant Production Efficiency with our Experience in Maintenance and Engineering in Plant Owner and expand to be a Leader in ASEAN.

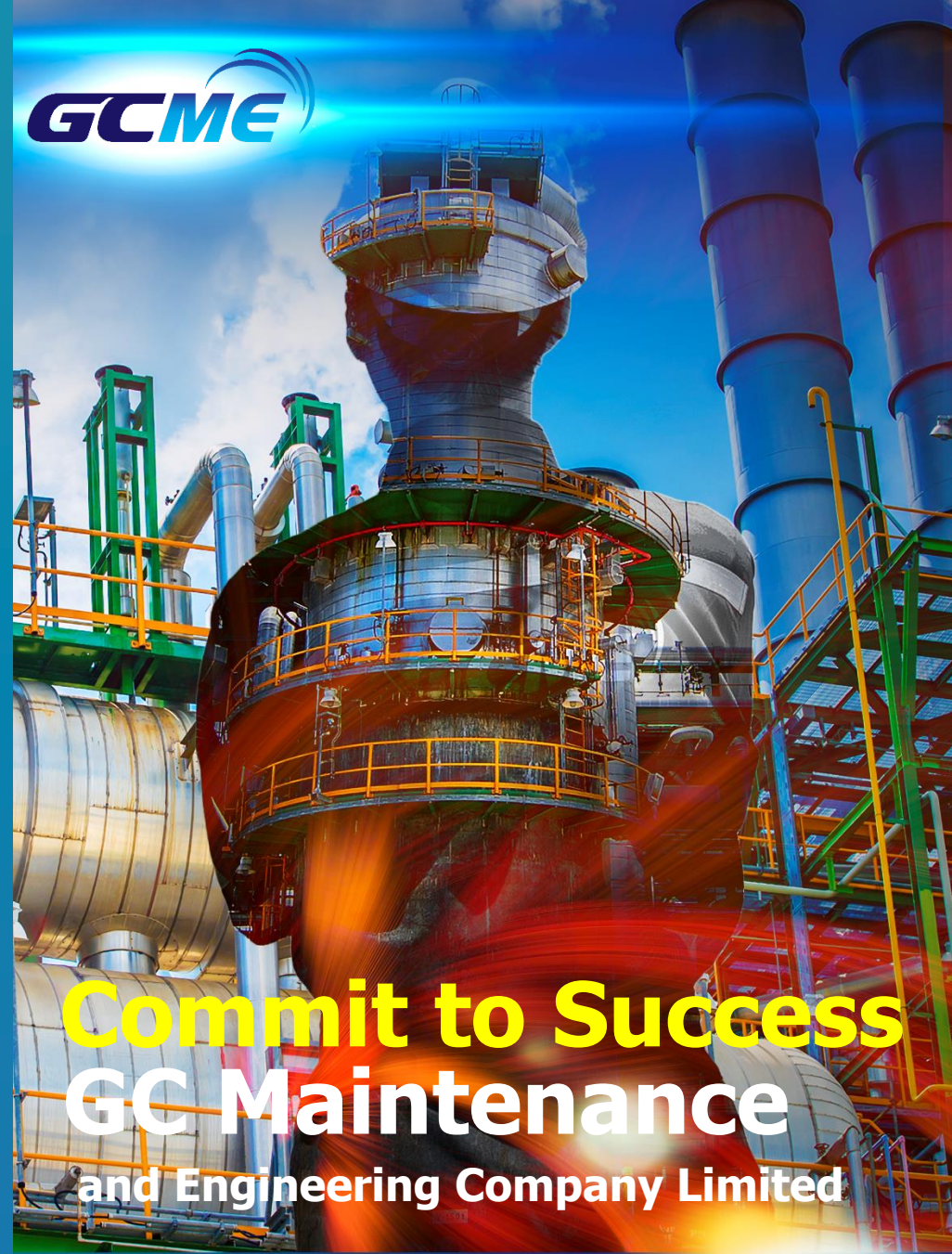


GC Maintenance and Engineering Company Limited



Contact us

Maintenance Business
MR. Tepparit Chayapiwat
E-mail : tepparit.c@pttggroup.com
Tel. 038977800 ext. 78865



Commit to Success GC Maintenance and Engineering Company Limited



22/2 Pakornsongkhraorat Road , Tambon Map Ta Phut
Amphur Muang Rayong , Rayong 21150 , Thailand



Thank you

