



Authorised ASME  
U & R Stamp Holder



**CHE**YOLUTION

## INTRODUCTION

CHE Group Of Companies was incorporated in 1991 and our service has been recognised since our inception in the region . CHE is a private owned Malaysia company and our factories are located in the southern region of Malaysia which is a famous strategic location for international business activities and logistics. Our services can be as simple from parts fabrication to a whole complete process equipments build up. CHE have the capabilities and resources in supporting your needs. Our company is always targeting to achieve product quality, short lead time and cost effectiveness. Our constant consistence improvement is achieved through improvement of our in-house technologies be it software or machineries, taking into consideration the yield and quality of the output, production automation and the utmost important, the steadfast culture of the company.

CHE personnel will consist of highly skilled Engineers, Welders, Fitters and Machinists to serve you. Our qualified drafters are conversant in both ACAD and Solidworks softwares. We also have the Process Engineers to support hooking up of process equipments complete with the electrical and electronic instruments.

Our factories are fully equipped to accomplish all detailed design, steel and pipe fabrication, electrical, instruments installation, coating and insulation. We also provide final fit-up, factory acceptance test and factory commissioning for quality assurance of your product.

CHE company operates in a fully integrated operation system. We have the state-of-the-art software as our working platform in order to manage whole operation and business activities. With the joint collaboration with the IT professionals, we have spent more than 5 years to develop this software and with this software , 'Operation Process Control & Management System' , it has further strengthen and enhance our daily operation in our Engineering, Fabrication, Quality Control, Production and Deliveries. Our proprietary software (OPCMS) will integrate information and data from Engineering to generate accurate costing, budgeting, project scheduling and job execution.

### PRODUCTION PROCESS CAPABILITIES

Other than the fabrication process control , the mobilization of all fabricated items especially huge components, is one of the critical factors have to be taken seriously into consideration when fabricating. More mobilization during fabrication will mean inefficiency and it will also affect the product quality. Our fabrication yard has been strategised and planned thoroughly with all factors taken into consideration before setting up the fabrication yard. The fabrication process flow will determine the efficiency of the fabrication and therefore all mobilization equipments like cranes and rails will be equipped at appropriate designated locations for accessibility.

CHE is experience in handling all kinds of steel fabrication ranging from simple structural to complicated processing equipments eg. Rotary Dryer, Rotary Kiln, Rotary Tube Bundle Dryer, Reactors etc. Our in-house fabrication facilities will be sufficient to provide you a one stop fabrication solution ranging from metal fabrication to precision machining even Gear Hobbing process.



**CHE** Customised Equipment Manufacturing

CHE currently operates in Malaysia and Singapore. Malaysia will be our fabrication yards whereas Singapore will be spearheading the global sales and marketing activities. Our core business is divided basically in three major fields namely :

## **Equipments Manufacturing - Turnkey Project - Fabrication Services**

### **EQUIPMENTS MANUFACTURING**

CHE manufacture wide ranges of industrial processing equipments and we are also capable in serving the market as OEM. Our production is bespoke to handle production line process flow system. From this system, we are able to identify and magnify on all tiny aspects of problems and hence remedy it in a nick of time. Our consistency and repeatability In manufacturing output is one of our core strength as all our fabrication are being controlled with the aid of our in-house generated detailed fabrication drawings and our quality plan in accordance to International standard.

### **TURNKEY PROJECT**

We are experience in handling turnkey projects in the process industries and our service ranging from detailed engineering, construction, mechanical installation and dismantling to processing industry installation. We have also acquire the competency to serve these industries for commissioning .Our rich in resources enable us to take charge of a spectrum which include :

- ~ Piping Works
- ~ Electrical & Instrumentation Plant
- ~ M & E Engineering
- ~ Processing Equipments Installation and Commissioning
- ~ Other Ancillary Tasks.

### **FABRICATION SERVICES**

CHE can be your quality fabricator to value add to your production or even projects. Our skilled and experience workforces are trained to work onto standards will certainly adhere to international standards and other reputable regulatory compliance while handling your fabrication work. All our welders are qualified and our welding process and quality will be inspected and controlled using WPS/PQR. All our CHE workers is compulsory to go through training program prior relinquishing any tasks to them even as simple as cleaning of tanks and etc. CHE has set an in-house quality plan to ensure quality welding and fabrication is being met at all time.

As part of our continuous improvement program, CHE has always look into technology based fabrication machineries and equipments to support our production in providing efficient and cost effective service to our customers. Some of the selected fabrication process are supported by semi or fully automated processing facilities so that the production process capabilities can be controlled at all time with reliability and repeatability without having much hassles.

## ***Our Value Added Service***

### **RENEWABLE ENERGY SOLUTION PROVIDER**

After all these years serving the industries in providing solution to handle their waste, we realise that our clients need to access to more advanced processing technologies in order to fully optimise their waste to generate additional value to their organisation. When asking about their preferences, our customers always prefer advanced technologies but due to the high investment cost, they have no choice but rather investing into more conventional methods. In order our customers to be able to compete with the current fast moving market, we have decided to take a bold move to work together with advanced technologies solution providers from advanced countries to provide renewable energy solution to our existing customers. Our objective is to introduce to the market the advanced processing concepts yet cost affordable investment. Our customers will benefit from accessing to advanced technologies and we will try to maximise local portion manufacturing to save the cost of transportation, labour etc thus the initial investment will be more affordable.

We undertake renewable energy projects such as :

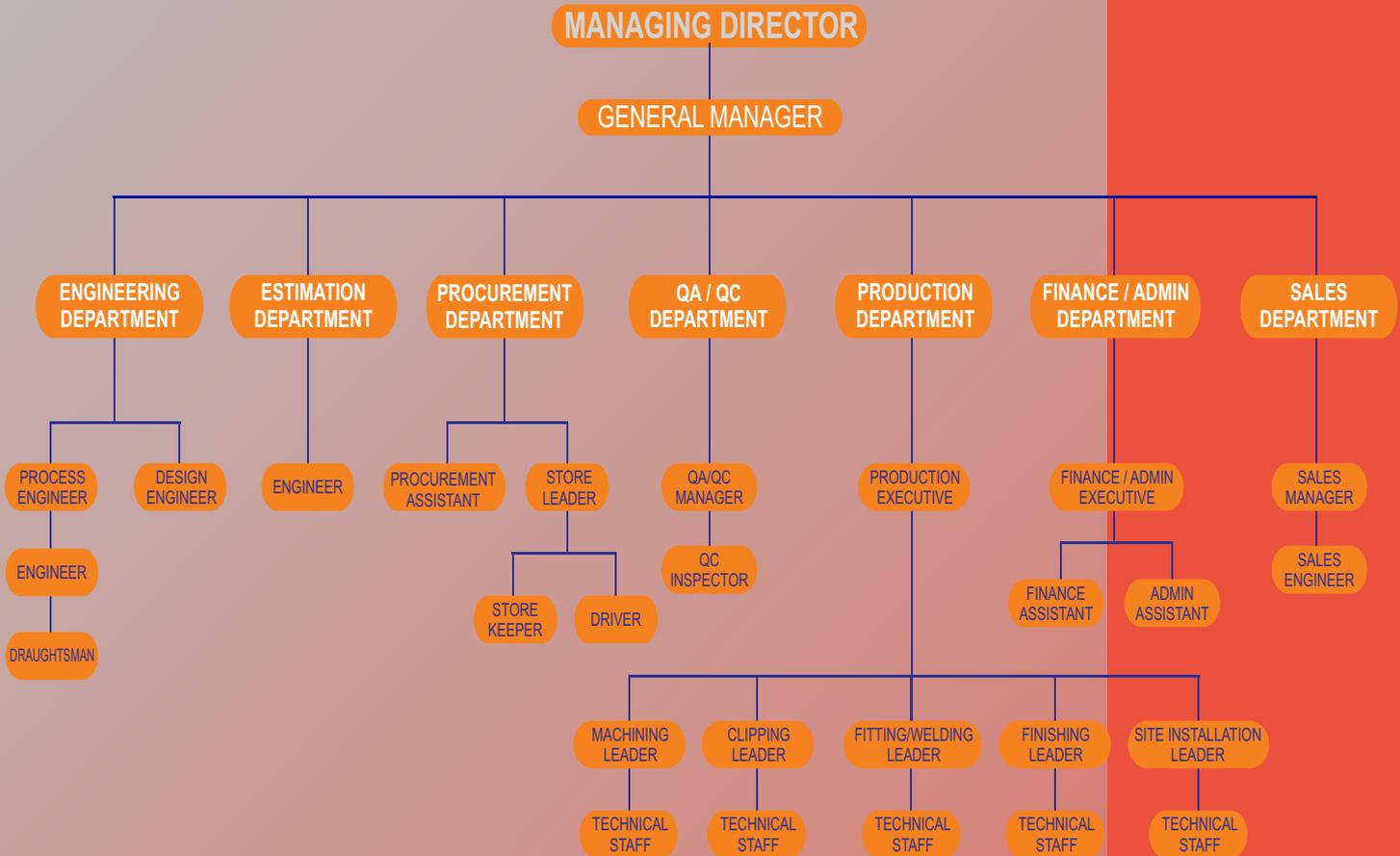
**Biomass Handling - MSW Handling - Waste To Energy - Biomass Size Reduction - Heat Recovery System**

Drying | Pelleting| Briquetting | Milling | Classifying | Grinding | Crushing | Combustion | Pyrolysis | Torrefaction | Gasification

***'Don't Waste The Waste!'***

# ORGANISATION CHART

CHE has total of 120 Direct workforces approximately including our executives and technical staffs. All our workforces have gone through intensive training and the selection of workforces are conducted using our company 'Employee Appraisal System'.



## CHE GROUP OF COMPANIES

**CHE Metal Works Sdn Bhd**  
**CHE Engineering Sdn Bhd**  
**CHE Pte Ltd**  
**Southern Gear Sdn Bhd**

**Green Energy Technology Sdn Bhd**  
**Replete Systems Pte Ltd**  
**Megamech Automation Pte Ltd**  
**CHETEC Sdn Bhd**

## PRODUCTION

Factory A - 12,500SqF (Johore Bahru , Malaysia)  
Factory B - 85,000SqF (Johore Bahru , Malaysia)

## WORKFORCE

Technical & Executives - 30 Pax  
Production Personnels - 90 Pax

## FACILITIES

- CNC Laser Cutting (Cap. CS Max. T20mm / SS Max. T8mm)
- High Definition CNC Plasma Cutting( T150mm, W4.5m X L36m )
- Welding Machines (Type : GMAW/ GTAW/ SMAW/ SAW/ FCAW/ RSW)
- Bandsaw With Adjustable Angle (Adjustable Semi-Auto Cap. 800mm)
- Hydraulic Roll Forming (3 Sets / Cap. Wd 6Ft / Steel Max. T22mm)
- CNC Machine Center (Cap. RPM18,000 , Auto Tool Changer)
- CNC Turning Machine (Cap. RPM 26,000 , Auto Tool Changer)
- Bandsaw (Fixed Type Semi-Auto Cap. Dia400mm)
- Hydraulic Shearer (Cap.:Wd 10Ft / Steel Max. T8mm)
- Hydraulic Bending(Cap.:Wd 10Ft / Steel Max. Thk8mm)
- Hydraulic Dished Head Former (Cap : Max. Dia500mm )
- CNC Bending (Cap.: Wd 10Ft / Steel Max. Thk8mm)
- Column & Boom ( 2 Units, Cap. Dia4.5m X L6m )
- Horizontal Boring (Cap. Dia1000mm , 1500RPM)
- Auto-Plasma ( 2 Sets / Steel Max. Thk40mm)
- Turning Roll (6 Sets, Cap. 10 ~ 30 Tons)
- Hydraulic Power Press (Cap. 100 Tonne)
- Slotting Machine With Indexer (2 units)
- Gear Hobbing Machine ( 2 Units)
- Conventional Milling (5 Units)
- Conventional Lathe (7 Units)
- Overhead Cranes 10 Ton - 2 Units
- Overhead Cranes 5 Ton - 2 Units



## ***INDUSTRIES THAT WE SERVE***

CHE has been involving in multi-disiplined tasking over the years to support the regional industries in a full fabrication service company and as time passed, we have trim to focus onto some industries which we can value add most to our clients .Our long steadfast relationship with reputable vendors and state-of-the-art lean manufacturing processes allow CHE to provide the optimum value and the highest quality products for our customers. All our employees are trained specifically to handle specific tasks. CHE has the manufacturing capabilities, knowledge, experience, capacity and most important, the willingness to upgrade continuously in all area to supply quality industrial equipments or products for any application. Industries that we mainly serve are :

Oil & Gas  
Oil & Fats  
Biodiesel / Refineries  
Food & Beverages  
Fertilizer / Agri / Agro

Chemical  
Petrochemical  
Cement  
Ceramic  
Ingredient

Pharmaceutical  
Power Plant  
Heavy Machineries  
Offshore / Oilfield  
Oleochemical

Renewable Energy  
Biomass / Biofuel  
Waste Water Treatment  
Ultra Pure Water Treatment  
Environment Pollution Control

## ***OUR CORE COMPETENCY - Pressurised Processing Equipment Manufacturing***



Today, CHE has been acknowledged in the market of their core competency in pressurised processing equipments manufacturing such as Pressure Vessels, Reactors and Heat Exchangers. With our vast experience and know-how in terms of design and fabrication has been consistently providing value-add services and uncompromising quality as well as precision products to our clients for the past decade. CHE Processing Equipments Manufacturing are available in multiple configurations whether for high or low pressure rating, thermal processing, heating or chilling or others. CHE handles variety of material construction and mainly are Carbon Steel, Abrasion Resistance Steel, Stainless Steels, Hastelloy or Duplex. CHE processing equipment manufacturing are mainly apply in Chemical, Refining, Distilling, Water Treatment, Oilfield and Offshore Industries. CHE also serve the renewable energy industries in processing all kinds biomass and waste where design, engineering and final fabrication for pressurised processing equipments and machineries specifications requirement are unique and bespoke to individual project.



## ENGINEERING CAPABILITY

CHE has a team of engineers to support and facilitate the operation and fabrication needs. It all starts as simple as a single sketch and requirements from clients and from there the engineers will prepare for the rest of the planning and execution of work orders. The preparation are as follow :

**Design** - To prepare all mechanical calculation, structural design, selection of quality inspection methods and selection of process to use for fabrication.

**Drafting** - Convert the sketch and data given by Designers into detail engineering drawings. All drawings are created in 3D. Pre-assembly or functional assembly troubleshooting is done in the software to avoid error. Drafters will also produce Sheetmetal Unfolding drawings for fabrication process. Full nesting drawings will be produced to control the optimisation material usage. Detail assembly drawings complete with exploded view will be created for instrumentation assemblies. Verification Drawings ( as Built Drawing ) will be prepare to send to Clients for verification prior fabrication. In order to provide better visualisation of drawings, CHE will provide 3D rendering effect drawings to clients.

**Production** - Master Production Schedule (MPS) will be planned according to committed dateline and complete with individual process scheduling and manpower requirements. MPS will be issued to Production to control and monitor every single process during Work-in-Progress (WIP). **Purchasing** - Engineers will prepare Material Requisition (MR) for Purchasing Department to procure for the raw materials, instruments and etc.

**Customer Service** - Engineers will be clients 'Sparring Partner' during the engineering detailing period whereas all discussions will be noted in the customer requisition form and hence will not miss out any information especially verbal form.

**Process Improvement** - Fabrication process is constantly monitored and analyse by the Engineers in order to achieve effectiveness and efficiency.

**Quality Improvement** - Continuous improvement in Fabrication quality is very critical and the Engineers will work hand-in-hand with the QA/QC Department in implementing inspection methods to control in-house fabrication quality.



## CONTRACT EQUIPMENTS MANUFACTURING (OEM/CEM)

We at C.H.E. are dedicated to providing our valued customers with the Contract Equipments Manufacturing (CEM) services they come to expect of delivering the highest and finest quality workmanship, cost effective products and committed services on a timely basis.

By choosing C.H.E. , you gain instant access to a wide range of our comprehensive manufacturing capabilities. We are a total integrated manufacturer who can provide proven services be it from fabrication, assembly and commissioning. Let us make your life easier by providing the services to handle your products from scratch to final.

C.H.E. manufacturing mission is to offer our valued customers with a Completely Integrated Manufacturing Solution that meets or surpass your requirements. We will give your products a real competitive edge as well as supporting to your business initiative. Our list of satisfied customers range from large corporations to small manufacturers. We consistently deliver the benefits of every competitive pricing, high quality workmanship, responsive turnaround time and flexibility to tailor services to specific manufacturers.

Selecting a Contract Equipment Manufacturer is all about creating synergies which means to strategically combining core capabilities as well as competencies to produce an end result better than previously. C.H.E. focus seriously into some major considerations in order to reduce your product price, rejects, lead times, inventory levels and internal administrative expenses. The major considerations are namely :

### Quality Control/Quality Assurance

One of the primary issues is Quality. This goes back to the type of processes that we utilise to ensure that the highest quality is given to the end product. Clients searching for contract manufacturing services should assure themselves that their selected operators comply with international production standards. These standards, which should be set out in writing, set the base-line for in-house manufacturing and production.



### Customer Services

Trust is not something that is given freely, but is earned with ongoing reliable business and support. When selecting a Contract Manufacturer, clients should look for a business that listens to their needs and willing to respond accordingly. This is a right to expect that C.H.E. knows your business, this assist you in serving as a source of information and guidance, resulting in team work. Staying accessible to the client reassures both parties that the relationship is along term one. This build customer loyalty, a priceless commodity in a rapidly changing industry. One crucial part of customer service is remain flexible. C.H.E. has the flexibility to change and acclimatize with customer's needs.



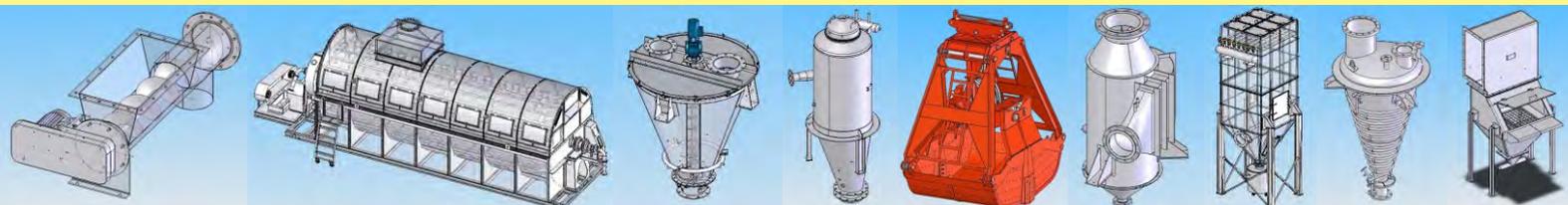
### Consistency

C.H.E. guarantees exact reproductions and repeatability of a product each time it is manufactured. With our in-house quality plan and standard operating procedures implementation, we will ensure that product repeatability will adhered. Customers are looking for companies with credibility.



### On-Time Deliveries

Competitive Lead Times mean nothing without on-time deliveries. At C.H.E., we are steadfast in On-Time Deliveries. We practise a quality system that eliminate common rejects and reduces the likelihood that non-conforming products flow onto a secondary process or to finished goods inventory. We also perform preventive maintenance on all our production equipments, which virtually eliminates unplanned equipments downtime. Backup equipments for some of our most critical production equipments is always accessible. We employ knowledgeable and experienced staffs and manage production staffing carefully and make use of additional production shifts and overtime as necessary.



# MANAGEMENT PRINCIPLES

## *Priority To Quality*

Adhering to the principle of 'Quality First', we are always enhancing our manufacturing technologies in order to further upgrade the quality. We firmly believe that **"Quality Is A Guarantee To The Livelihood Of Our Staffs"** and **"Quality Is Our Company Lifeline"**.

## *Innovative And Seeking Changes*

In contriving ideas and one should seek for details and in operating a business, one should seek for a total system. In applying technologies, one should seek advancement, and in establishing products, one should ensure they are precise and right. The drivers to the continuously strengthening our self-competitiveness and at the same time assisting our customer in upgrading their productivity and competitiveness; are the continuous innovative passion without discarding advanced technologies and knowledge, the readiness in investing and expanding the facilities and the strengthening the foundation in full automation.

## *Service From The Heart*

We sincerely understand our customers' needs and we even understand more of their problems. We need to fulfill their present needs and to see their needs right into the future. Therefore, every problem of every customer shall be dealt with by our most direct, the fastest and the most satisfactory response. A perfect after-sales service is our unchanged policy. we will never allow our inadvertence to cause problems to our customers.

## *Benefits For Each And Everyone*

Low production costs and high efficiency are the basic fundamentals for survival. Upgrading the quality of materials, increasing the process stability and increasing our productivity will be the ones that can provide a perfect service to the customers. We regard our suppliers as our business partners. Between us, it the sharing of benefits like the relationship of proverbial shared destiny of lips and teeth. We let our suppliers combine resources with us to increase efficiency in both product design and manufacturing, that could reduce the production costs, lower the inventory levels, shorten the product development period and reduce both the production time and product-to-market cycle times. Our employees are diligent at work and fully dedicated to their continuous support to the company's effort in achieving profits from the customers. we really take care, protect and develop our employees accordingly and remunerating them reasonably well. Through such benefits, we can provide better services to our customers and to achieve a win-win relationship with each and every entity.

# OUR PHILOSOPHY

An organisation's success and failure are greatly dependent on the perfection of its operation systems, assimilating modern management styles, to ultimately establish a perfect system with long term applicability.

The company will not only build more factories, procure high capability facilities, it will positively promote computerisation, will strengthen the management setup and will establish new inroads into future business developments.

Qualified personnel forms the greatest momentum in driving the company's growth. They are being regarded as the most important intangible assets of the company, where they are actually the greatest resource and the most important factors for the company to develop and provide perfect service.

Therefore, the company is always emphasizing on the importance of training and development of our employees. The company will formulate a series of comprehensive educational training which continuously upgrade the employees' professional competencies and to nurture much competent and much efficient staffs, that could further establish the employees' correct personal perception and values.

We will continuously supervise and improve ourselves to be able to reach a perfect state. We will progressively and step-by-step seek and accumulate more experience, in order to establish a reputable organisation that has a high level of competitive competency.



Being recognised as a quality fabricators in the region, for the past decades, CHE have been given opportunities from our supportive customers to involves in many kinds of fabrications and manufacturing. Be it simple or complicated , we promise to handle your jobs professionally with full sincerity and commitment.



*Picture Speaks A Thousand Words !*



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Scrubber

Flue Gas Ducting



Desolventizer

Stacks



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Rotary Kiln



Steam Dryer

Tube Bundle



# Our Working Environment

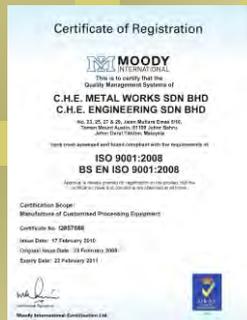


## OUR LOGO



# CERTIFICATION

- BIOMASS-SP Certification, Malaysia Renewable Energy Program
- ISO9001-2008 QMS (UKAS, Moody Int'l)
- ANAB (ANSI-ASQ National Accreditation Board)
- JPK Malaysia, Department Of Skill Development Malaysia
- LMW License - Licence Manufacturing Warehousing
- DOSH JKPP Pressure Vessel License , Malaysia
- ASME 'U' Stamp
- ASME 'R' Stamp



Authorised ASME Stamp Holder



**MALAYSIA**

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**SINGAPORE**

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- Website -

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