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Company Background

• GRUPPE DYNAMIC SDN BHD

is a market leading engineering company focused in multiulletdisciplinary onshore and offshore facility design mainly for oil and gas, petrochemical and power plants industry. We are emphasizing on ease of operation and constructability mainly in basic engineering design related to the product development for various kind of process facilities. This critical integration is positive because we have innovative solution and experience that transcends every project phase, including **initial conception**, FEED, detailed engineering, fabrication, installation commissioning and operation, from the complicated projects to the optimization of classic design. We provide design solution meet the clients' objectives to achieve optimum that performance of their facilities in both techno- commercial aspects. 3

ASSOCIATE GROUP



ASSOCIATE GROUP / MEMBERS

Asso.Prof Hayati

HSE

STEERING COMMITTEE TECHNICAL TEAM GRUPPE HITECHNIC UMP/USM ESG WN LEAD DYNAMIC CONSULTANT Hilmi Isa Dr.Noram Datuk Ir Wan Irwan Nazri Civil Mechanical & Piping FEA & CFD Project Architect Ir.Tengku Fariz Implementation Ar.Suria Ir. Faizal **GDSB** Static **Electrical &** Feasibility ICT CD Specialist Ir Azizi Instrumentation Study Strategic WD Mr.Luridko Dynamic Dilapidation Planning & Specialist Ir. Azizi **Mechanical Process** Development Survey Planner Dr.Doh Seismic & EIA Geotechnical TIA Ir Mazlan/

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GRUPPE

OUR ENGINEERING SERVICES

Conceptual Design

- To identify the general type of solution based on client ideas or requirement.
- To generate basic guideline based on Good Engineering Practise or International Code related to develop the required products or process systems.

Front End Engineering Design (FEED)

- To develop the engineering definition based on conceptual ideas.
- To develop the overall process facilities basic design to derived the project costing and strategy.

Detailed Engineering, Procurement, Construction and Commissioning

Providing the comprehensive detail engineering design by traditional method or latest technical design tools which is covering overall engineering discipline; hjhg

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PROCESS DESIGN

Providing comprehensive PROCESS skid system design including mechanical equipment (static & rotating), piping, structural, electrical & instrumentation with complete 3D models.

We are modeling from simple to the most complicated skid by utilizing the CAD Worx Plant and AutoCAD Inventor Routed Systems Suite.

- Produced Water Treatment
- Water Injection System
- Fuel Gas Skid
- Glycol Regeneration Skid
- Pump skid
- ElectrochlorinatorSkid

- Compressor Skid
- Metering Skid
- Chemical Injection
- Skid
- Hot Water Calorifier Skid
- Oxygen And Nitrogen Generator Skid



MECHANICAL & PIPING DESIGN

Pressure vessel, heat exchanger (shell & tube and double pipe) storage tank (cylindrical and rectangular) and other static equipment in process systems.

We are using comprehensive design and analysis tools such as PV Elite and TANK from COADE for the code calculation and reputable engineering formula for common mechanical solution.

Providing 3D modeling for skid piping. The complete piping flexibility and stress analysis is provided to study the varieties of load on the piping system subject to pressure, thermal, seismic and other environmental condition.

STRUCTURE & CIVIL DESIGN

Providing skid structural design and analysis,lifting frame for offshore container, process equipment mounting structure, process vessel internal and lifting equipment for process equipment.

For onshore construction phase especially on the oil storage facilities, we are providing foundation design by our Professional Engineer.



GRUPPE

FINITE ELEMENT ANALYSIS (FEA) & COMPUTATIONAL FLUID DYNAMIC ANALYSIS (CFD)

Providing (FEA) for process equipment components and (CFD) for fluid flow & thermal study. The scope of analysis consists of ;-

- Modeling the components.
- Meshing the model for FEA or CFD.
- Applying boundary conditions on the finite element & fluid dynamic
- model. Solving the model, post processing & report generation.



HEAVY TRANSPORTATION & LIFTING STUDY

We are provide engineering study for heavy inland transportations of overweight and oversized cargoes to include acceleration / deceleration forces, wind forces, transport stability and checking of hydraulic trailer overall capacity. Transport feasibility study can be also be done by performing transport route surveys and identification of existing road obstacles.

We also can perform marine engineering analysis which includes loadout ballasting calculations, vessel trim stability, vessel intact and damage stability, sea fastening design and others.

With our capability to perform heavy lifting study which includes crane lifting capacity study, lifting gears capacity check and providing detailed lifting plan, we can ensure that every lift operations can be done safely and efficiently with minimal cost by the optimum selection cranes and lifting equipments.

PRESSURE RELIEF SYSTEM DESIGN, ANALYSIS AND MANAGEMENT

We are providing flare vapor/liquid disposal system analysis and equipment-based pressure relief system analysis to ensures the integrity of the analysis and optimal of engineering resources.



OUR FABRICATION, PLANT MAINTENANCE & PROJECT MANAGEMENT SERVICES

• Manufacturing of process equipment:

pressure vessels, heat exchangers and storage tanks

- Fabrication of process skids
- Manufacturing of equipments lifting frame and ISO tanks for offshore container
- Engineering, Procurement, Construction and Commissioning work
- Plant maintenance and turnaround

GRUPPE

CONTACTS



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THANK YOU