

## HSE POLICY

- To provide and maintain safe and healthy working environment and system of work for all employees without risks to health and to provide and maintain the means access to and agrees from it that are safe and without such risks.
- To provide of such information, instruction, training and supervision as is necessary to ensure the safety and health at the work place for all the employees.
- To make arrangements for ensuring safety and absence of risk to health in connection with the use or operation, handling, storage and transport of plants and substances.
- To be responsibility for the health and safety of other people who may be affected by any activities in the premise and we emphasize that safety is not only the Management's sole responsibility but also every employee's responsibility in the organization.
- To achieve excellence in safety, all employees are urged to be safety conscious and give their full commitment and support to safety and safety committee.

## ENVIRONMENTAL POLICY

In recognition of our environmental responsibilities, it is the objective of STEEL HAWK ENGINEERING SDN BHD, to do all that is reasonably practical to maintain and improve the best manufacturing techniques with the least impact on the environment.

This can be achieved by education and training of employees, monitoring and reviewing progress and commitment to continuous improvement of:

- Minimizing waste and minimizing the use of solvents.
- Avoid or reduce the possibility of air, water and noise pollution.
- Dispose of all waste in an approved container and recycle material where possible.
- All mechanical equipment is serviced regularly to ensure optimal efficiency to minimize fuel wastage and to reduce environmental pollution.
- Identify, review and manage our environmental impacts, potential risks and opportunities for improvement.

## ANTI-CORRUPTION POLICY

Our Anti-Corruption Policy is simple: Steel Hawk Engineering Sdn Bhd and its employees and representatives are forbidden from offering anything - money, gifts, or services to gain an advantage in business dealings. They are also barred from abusing a position of trust to gain undue advantage. The policy defines the company's commitment to integrity, upholding the trust of her clients, the responsibilities of its employees, and prohibited actions.

Sharman K. Michael  
Chief Technical & Operations Director

## VISION STATEMENT

SHESB has the vision of becoming one of the market leaders in providing innovative solutions and new technology for the Oil and Gas Industry in Malaysia.

## MISSION STATEMENT

- Our mission is to be an environmentally conscious, fiscally responsible, well managed for-profit enterprise that reinvests for future growth and development for the betterment of our country.
- Our mission is to grow by employing a benefit based use of technology and resources.
- Our mission is to innovate. We will strive to fully understand the problem or opportunity.

## MRO / TRADING DIVISION

### PRESSURE SAFETY VALVES

We represent Tai Milano SpA for all PSV/PRV valves. We have Conventional, Pilot Operated and Snap Action types.

Relief Valves - Pilot Operated, Relief Valves - Spring Loaded. Steam valves, Gas and Liquid Service, Relief Valves - Electrically Actuated & Changeover Valves.

Following results of tests and controls, our valves have been certified by Notified Body in accordance with Pressure Equipment Directive 97/23/EC and by ASME/National Board in accordance with ASME VIII. Our valves have been also approved by ISPESL (ex ANCC), RINA, Lloyds Register of Shipping, ABS America Bureau of shipping & DNV. Please visit [www.taimilano.it](http://www.taimilano.it) for more products information.

### RUPTURE DISCS

Rupture discs are the main products of Donadon Safety Discs and Devices Srl ("Donadon SDD"). The range of safety devices for protection of equipment from pressure variations manufactured by Donadon SDD includes

- Rupture Discs in Stainless steel, Nickel, Titanium, Tantalum, special alloys, and graphite.
- Rupture indicators also for explosive atmosphere applications.

Products are certified according to European Directive 97/23/CE (PED) and European Directive 94/9/CE (ATEX). Please visit [www.donadonsdd.com](http://www.donadonsdd.com) for more products information.

### LEVEL & FLOW INSTRUMENTS

EMCO Controls is a Danish instrumentation company. EMCO Controls originates back to 1966 and has right from the beginning been recognized as a manufacturer of process control equipment including primary elements for flow measurement. Our instruments are manufactured according to the EU Pressure Equipment Directive (PED) 97/23 EC and CE marked when required by the process conditions. Please visit [www.emcocontrols.com](http://www.emcocontrols.com) for more products information.

### PROCESS CONTROL SYSTEMS

Forberg Scientific is a leading solutions provider of products dealing with level, pressure, flow, temperature and filtration. We provide customers with solutions including process control panels, gas distribution systems, heater/dryer panels as well as process and sample filtration systems. Please visit [www.forberg.com](http://www.forberg.com) for more products information.

## CORPORATE INTRODUCTION

STEEL HAWK ENGINEERING SDN BHD (SHESB) is a Malaysian based international service provider to the Oil & Gas industry. It is a 100% Malaysian owned company with Bumiputera status and is a registered vendor with PETRONAS for several of its standardized work and service categories.

SHESB an ISO 9001:2008 Certified Company the pioneer in providing Engineering, Designing, Consulting Engineering, EPCC service provider focusing on upstream & downstream processes. The company offers integrated design and engineering consultancy services from concept to completion for a wide range of projects.

SHESB consists of a group of professionals with proven capability in the area of Feasibility Studies, Equipment and System Design, Piping Design & Engineering, Electrical & Instrumentation System Design and Project Management.

The directors of the company, all first generation entrepreneurs, have individual experiences in the field of Mechanical & Process Engineering.

At SHESB, we combine top-quality equipment and system design integrity with exceptional personal service. You can depend on getting the right equipment recommendation the first time, as well as comprehensive start-up and customer service.

We offer products and services through seven operating divisions namely

1. Offshore Helicopter Refuelling System FEED, EPCIC & Consultancy.
2. Process & Utility Skid Packages / Chemical Injection Skids
3. Instrumentation Products Tank Gauging Systems, Process Control Systems
4. CO2 / N2 Vent & Flare Snuffing and Purging Packages
5. Pressure Safety Valves, Rupture Discs and Devices.
6. FEED & HUC services for M&E Offshore works
7. After Market MRO Spares & Shutdown Maintenances

We specialize in provision of engineering design, fabrication, assembly/packaging, installation, start up and commissioning services. This will cover process packages and entire process plants for upstream and downstream hydrocarbon industries.

We are equipped to undertake projects within the target industry sectors as follows;

1. Upstream onshore and offshore Exploration and Production.
2. Downstream plant operations including Petrochemical.
3. Industrial Process segment.
4. Power Generation segment.

## STEEL HAWK ENGINEERING SDN BHD (1019338-X)

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## STEEL HAWK ENGINEERING

FIRMA KEJURUTERAAN EPCC MEKANIKAL & PROCESS  
EPCC INTEGRATED ENGINEERING TURNKEY CONTRACTOR



ISO 9001:2008 Certified Company

## CHEMICAL INJECTION SKIDS

Steel Hawk Engineering (SHESB) is offering total responsibility for engineering, procurement and construction of chemical injection systems for offshore applications. Each system will be designed to customer requirements and with respect to local regulations.

Since SHESB operates fully independent from any pump manufacturer, we are able to offer the best suitable solution for each individual application.

Chemical injection skids are mainly used to inject various chemicals, usually as dilute solutions into process piping and wells, to facilitate process flow or improve oil recovery. The injection of chemical requires precision and accuracy in amount of chemical used, the pressure required and intervals of injection. Specialist service can timely deliver high quality, sophisticated chemical injection systems conform to international standards. We can also provide Multi compartmental tank skid for handling various chemicals from same location and Multipoint injection skids where space is a main constraint.

Chemical Injection Skids serve the purpose of injecting a precise and accurate amount of chemical into a system at a required pressure either continuously or intermittently.

Our range of applications includes for but is not limited to injection of

- Methanol
- Glycol
- Corrosion Inhibitor
- Scale Inhibitor
- Wax Inhibitor
- Demulsifier
- Antifoam
- Biocide

Pump types from industrial standard to high specification for process power pumps

- Plunger or Diaphragm type
- Industrial standard
- API-674 (triplex power pumps)
- API-675 (pumps with stroke adjustment)
- Single pump-head design
- Multiple pump-head design

Power supply

- Electric driven, fixed speed or frequency controlled
- Solar powered
- Air or Gas driven
- Hydraulic driven
- Diesel engine driven

Accessories

- Pulsation dampeners
- Calibration gauges
- Distribution rack and panels
- Injection nozzles
- Injection manifolds

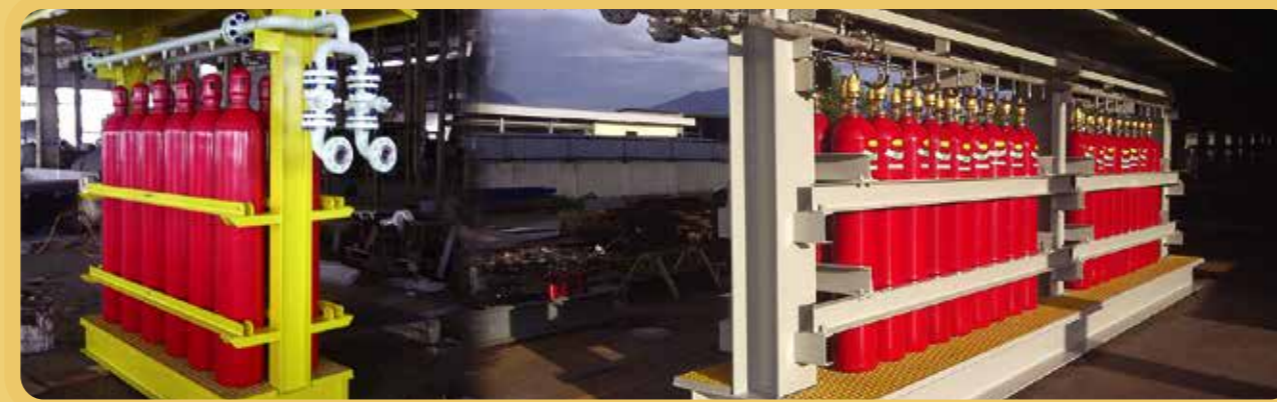
Conventional Skids are suitable for operation in both Hazardous as well as Safe Zones.



## CO2 SNUFFING (FLARE & VENT)

With engineering expertise covering all aspects of high pressure flare design, supply and project management, Steel Hawk Engineering Sdn Bhd (SHESB) engineers are able to offer our clients a full range of snuffing system custom engineered, commissioning, trouble shooting and refurbishment. Over recent years, SHESB have replaced, modified, refurbished, consulted and as well as providing new flare & vent snuffing systems for new platforms and facilities.

The SHESB HP Carbon Dioxide system provides protection for a variety of offshore applications. Every system is manufactured according to client specifications and may assume various configurations depending on the features that are selected. Standard systems are made of cylinder assemblies, valves, actuators, a manifold and discharge nozzles. For each system, one or more cylinders are configured as pilot cylinders and therefore they are equipped with an actuator that provides local and remote valve opening. The rest of the cylinders are configured as slave cylinders, hence they receive a pneumatic command from the pilots to open their own valve or else with our own patented piping design assembly, the back pressure flow triggers each slave continuously and thus build the pressure to replicate the same until all the cylinders are activated. The process achieves total activation of up to 100 cylinders within 12 seconds. All cylinders are secured to a cylinders' rack that may be wall type, self standing open type, or self standing closed cabinet. We also have designed our own racking system for quick interchange of cylinders for refilling and its intellectual property patented.



### OUR DETAILED ENGINEERED SERVICE & FUNCTIONAL GUARANTEE INCLUDES

- ◆ Flare & Vent Design Calculation
- ◆ We generate ITP/VDML/GA/PNID/FABRICATION SCHEDULE in 24 hours upon ARO.
- ◆ Recommendation of total cylinders required for application & takes full performance responsibility
- ◆ Design, Simulation & Engineering verification
- ◆ Procurement, Fabrication, FAT Testing & Functional Guarantee
- ◆ Offshore Installation & Commissioning Services
- ◆ Pressure Switch Customization
- ◆ Restricted Orifice Design
- ◆ HAZOP Study & Recommendation
- ◆ First Fill Consumables, Pre-Comm & Post-Comm Spares, Operational Spares included in supply.
- ◆ 10 years functional guarantee & 25 years design life.
- ◆ WORLD MOST COMPACT engineered skid battery limit.
- ◆ Specially patented coating on discharge piping to avoid piping crack or fracture and eliminate freezing.
- ◆ Seven (7) Built-In SAFETY features to optimize the functionality of a Snuffing System.
- ◆ Complete Package Class Certification is available for FPSO & TOPSIDE clients.
- ◆ Offshore commissioning is executed by In-House engineers.
- ◆ 9 years of experience with 50 skids of CO2 Snuffing Packages installed Worldwide
- ◆ All documents appraised by Third Party Inspectors (own or client specified)
- ◆ We provide design optimization from FEED stage to consultants with NO COST.

## HELICOPTER REFUELLING SYSTEMS (ONSHORE & OFFSHORE)

Steel Hawk Engineering (SHESB) designs, engineer, fabricates and supplies helicopter refuelling systems to customer requirements and conform to local and/or international regulations.



Our systems are successfully in use on offshore production platforms, drilling rigs, FSO's and FPSO's. We design and build a wide range of helicopter refuelling systems for offshore, marine and land based applications, some are bespoke but wherever possible, we try to promote standard configurations for reasons of economy for both ourselves and our customers.

Our 'Typical' system comprises of 3 basic packages: Transportable Helicopter fuel storage tanks, pumps / primary filtration skid and a refuelling dispenser cabinet.

All of our offshore refuelling systems are built to meet the customer's exact and specific requirements. As we supply a worldwide market, our systems are approved by all relevant bodies.



The system can be supplied as an "open" skid mounted unit, or installed in a cabinet with roller shutter.

Our systems include mobile trailer bowlers, marine bunkering installations, airfield refuelling sets and bulk fuel transportation as well as offshore and marine helicopter refuellers.

In addition, we are able to carry out bulk flow meter refurbishment and recalibration to weights and measures specification, we manufacturer our own Manual Rewind Bonding Reels, Inline Visual CheckJars, Lanyard Reels and Nozzle Stowage Systems.

### Codes and Regulations

SHESB helicopter refuelling systems can be designed and supplied in accordance with:

- ◆ International codes such as CAP 437 and NFPA 407
- ◆ Mining Regulations Dutch Continental Shelf
- ◆ NORSOK specifications
- ◆ UK Regulations
- ◆ Military specifications
- ◆ PETRONAS Technical Standards (PTS), CSP, MPDS, SHELL Standards

### System Description

Each helicopter refuelling system normally consists of below listed equipment:

- ◆ Tank laydown skid or Jettison platform
- ◆ Deluge system
- ◆ Storage tanks (stationary or transportable)
- ◆ Fuel pumps
- ◆ Filter / water separator, Filter monitor
- ◆ Local Control Panel & Flow meter PD
- ◆ Hose Reel with filling nozzle
- ◆ Earth prover system

