GVA is a world-leading designer and provider of licensed technology for semi-submersible and monohull marine platforms and vessels to owners, operations and fabricators in the offshore oil and gas and renewable power markets. We are proud of having produced a series of breakthrough design solutions that have reshaped the industry, and we have successfully delivered more than 1,100 projects in 30 countries over the last 20 years.

Our origins are in Götaverken Arendal Shipyard, where the original GVA series of semi-submersibles was developed and fabricated. Our project teams undertake complex and demanding design tasks, working in an open atmosphere of creative innovation.

GVA's headquarters and main operations are based in Gothenburg, with subsidiary operations in Houston and sales offices in Rio de Janeiro and Singapore. Through GVA’s parent company, KBR, vast additional resources are available for any offshore marine project GVA undertakes.

GVA Milestones

1841 Götaverken Shipyards formed
1952 GVA Shipyard formed
1970 Focus on offshore oil & gas
1978 First semi-submersible
1980 World’s largest floating dock
1982 Own semi-submersible design
1984 GVA 4000 delivered
1985 GVA 3000 launched
1986 GVA 5000 first FPU
1987 GVA 4500
1988 GVA Shipyard closed down
1989 GVA established
1990 GVA 4000 delivered
1991 GVA acquired by Celrais
1992 GVA acquired by KBR-Halliburton
1993 GVA acquired by BMT
1997 GVA acquired by KBR
1998 GVA 4000 Thunder Horse
2001 GVA 3000
2005 GVA 40000
2006 GVA 27000
2007 GVA a KBR company
2008 GVA 5000
2009 GVA 7500
2013 GVA 33000 Jack & St. Malo
2014 GVA 4000 NCS (Cat D)
Anywhere, Any Depth, Any Weather

GVA’s nearly 300 personnel support our customers with a wide range of high-value engineering and technical services, including conceptual design, Basic Design / FEED (Front-End Engineering Design), detailed engineering, fabrication, commissioning, marine operations and, when required, upgrades or conversions.

Our products include semi-submersibles for production, drilling, well intervention, accommodation and heavy lift, and monohulls for FPSO (floating production, storage and offloading), FSO (floating storage and offloading) and drillships. Other products include offshore wind facilities and floating drydocks.

Comprehensive Design Services

In the offshore marine sector, we support our clients with a wide range of design and engineering services. GVA provides design and engineering throughout the processes of: feasibility, concept, basic design / FEED (Front-End Engineering Design), model tests, Classification Society approval, development of specifications and inquiry packages, detail engineering support, fabrication support, commissioning and marine operations support, as well as upgrade or conversion work. Our services include:

- Feasibility & Concept
- Basic Design & FEED
- Detailed Engineering Support
- Project Support
- Surveys
- Project Management
- Procurement Support
- Fabrication Support
- Site Supervision
- Commissioning
- Marine Operations Support
- Licenses and Proprietary Technologies
- General Offshore Engineering
- Semi-submersible Conversion
- FPSO Conversion
- PROMS
- DP Add-On

Engineering Excellence

GVA provides a full range of engineering services for the design of advanced floating offshore and marine solutions. We have all the necessary in-house engineering disciplines required for designing units and vessels for drilling, production, heavy lift and accommodation.

GVA typically performs a wide range of types and sizes of projects in parallel. In addition to our own engineering resources and personnel, GVA has access to KBR’s global resources and a network of carefully selected external partners — allowing us to supply our clients with optimum solutions for every project.

Among GVA’s highly skilled, well-qualified engineering professionals, approximately 65 percent have Master of Science degrees and many are PhDs or higher. Our main engineering disciplines are:

- Global performance including hydrodynamics
- Stability
- Arrangement and layout
- Sizing, weight and load conditions
- Health, safety and environment (HSE)
- Drilling
- Machinery and utility systems
- Electrical, instrumentation and telecom (EIT) systems
- Heating, ventilation and air conditioning (HVAC) systems
- Structural analysis
- Structural design
The GVA Semi-Submersible

GVA is a world leading designer and provider of licensed technology for semi-submersible marine units for the offshore oil and gas industry worldwide.

The GVA semi-submersible series was revolutionary when first introduced in the 1970s, and the series gained wide market acceptance due to the inherent simplicity of its hull. Today, GVA semi-submersibles are in service worldwide, across a wide range of operational environments — including ultra-deepwater and harsh conditions. GVA semi-submersibles designs are based on proprietary technologies and include drilling, accommodation, heavy-lift and production units. These advanced technologies, including patents for GVA’s four-column stabilized unit, ring pontoon and DP add-on for semi-submersible conversion, are some of the factors that enhanced our success.

Benefits of the GVA Design

GVA semi-submersible series have a reputation for extremely high utilization. The many benefits of the proprietary GVA design technologies include:

- A robust and simple hull structure
- Fatigue-sensitive connections are minimized
- The rigid upper hull deck-box provides extra strength and buoyancy, for enhanced safety in extreme conditions
- The deck-box design provides an unusually large open deck area, with fully enclosed and protected escape routes
- Full access for inspection from within the hull helps reduce maintenance costs and may significantly extend operating life
- The integration of upper and lower hulls is an inherently efficient solution that provides additional structural support
- The large air gap provides for operation in harsh conditions
- Excellent motion characteristics
- A favorable deck payload-to-steel weight ratio

Product Applications

- Drilling and well intervention
- Production
- Accommodation
- Heavy Lift and Construction
- Accommodation
GVA is a leading designer and provider of licensed technology for semi-submersibles and monohull-type marine platforms and vessels for the offshore oil and gas and renewable power markets.

**Drilling**

GVA’s wide range of semi-submersible units are based on the same proven design concept. The semi-submersible drilling units meet the harshest environmental requirements and client needs. Our designs are available in versions suitable for shallow, midwater and deepwater drilling, and from calm to harsh environments. GVA’s ultra-deepwater drillships are dynamically-positioned (DP3) for operation in moderate environments, capable of drilling down to 40,000 feet, in water depths of up to 12,000 feet.

**Production**

As a leading provider of large floating production semi-submersible units (FPSO), GVA has a large number of proven references of hulls for the offshore oil and gas industry worldwide. Safety and environmental considerations, and other combined factors, govern a design process resulting in significantly enhanced operability. Fabrication-friendly and designed for efficiency, GVA’s FPSO and FSO hulls have excellent load capacity-to-light-ship weight ratio and low motion characteristics.

**Living Quarters**

GVA offers complete basic design for all type of marine and offshore Living Quarters. The Living Quarters are designed in close conjunction with all other disciplines, integrated with structural arrangement and including all needed space for cabling, piping, ducts etc. GVA has a proven experience in designing accommodation areas to fulfill international rules and regulations, such as Norsok, ABS, DNV, Lloyd’s, NMA and MLC 2006.

**Accommodation**

GVA is a world leading provider of semi-submersible accommodation units for the offshore oil and gas industry worldwide. The units are designed for safe and reliable operations for all weather conditions and in all water depths. The accommodation units have a large open work deck and high deck-load capacity. GVA’s demanding design criteria ensure full compliance with industry standards — and set the highest standards for offshore habitability. GVA has a large number proven design references in operation worldwide.

**Heavy Lift**

The GVA semi-submersible design is an ideal hull configuration for offshore heavy lift crane vessels. The most recent heavy lift crane vessel we designed is the GVA 20000 HLV. This state-of-the-art vessel has a world record offshore crane lifting capacity of 2 x 10,000 metric tons. The unit has optimized hull shape and is self-propelled for maximized transit speeds. The GVA 20000 HLV is designed and optimized for the highest health, safety and environmental requirements.

**Conversions**

GVA offers a comprehensive range of engineering services for the conversion of offshore marine units. In addition to providing multidisciplinary engineering services, we support clients with key personnel to cover critical expertise areas for conversion projects. We also assist with overall planning and preservation supervision for conversion projects. We follow the upgrade or conversion, through fabrication or installation to commissioning and verification.

**Floating Docks**

GVA provides Basic Design packages for floating docks. The dry docks are used for construction, maintenance, and repair of ships, boats and other watercraft. GVA has designed and built one of the largest floating docks in the world.

**Offshore Renewable Power**

GVA offers development and design of fixed and floating structures for offshore renewable power. GVA has designed HVDC transformer substation platforms, accommodating equipment for gathering, switching and transferring power produced by large offshore wind farms. GVA is engaged in designing floating structures for wind turbines for offshore wind farms.
Health
Health, Safety and the Environment (HSE) is a broad area, and there are complex interfaces with other disciplines. HSE is always in focus in GVA’s design work. The potential hazards to people, installations and the environment are identified and minimized.

Safety Engineering
The objective is to include safety in each design, integrating the results of risk analyses and exploring specific design and construction solutions. GVA’s work typically covers regulatory requirements, the preliminary general arrangement and functional requirements.

Technical Risk Analysis
GVA’s aim is to identify and quantify risk elements and their potential impacts, and then propose elements in a design to enhance safety. This work is based on recognized risk analysis tools founded on regulatory requirements, together with conceptual design and environmental conditions.

Work Environment
GVA’s goal is to identify hazards and problem areas throughout the work environment field and propose recommendations for improvements, to increase both safety and efficiency. Regulatory requirements shape this work, together with the character of the preliminary general arrangement. Deliverables typically include working environment analysis and a Work Environment Impact Assessment (WEIA).

Environment
GVA specialists study the interaction between environmental considerations, regulatory requirements and the design development process, to apply sound environmental principles.

Quality
We recognize that quality enhancements lead to the best outcomes, from design to delivery and client support. GVA’s Integrated Management System (IMS) is the essential contributor to high-level quality and ensures more efficient processes, procedures and flexibility. With the expertise of our staff, our IMS permits us to succeed in our mission — to create value for clients and partners.

GVA continuously measures, analyzes, reviews and enhances the effectiveness of our IMS. We measure quality in terms of:

• Client satisfaction
• Fulfillment of requirements
• Development of skills and talents
• Shared learning
• IMS adaptation

Certification
We are certified by Lloyd’s Register Quality Assurance to the Occupational Health & Safety Management Standard OHSAS 18001.

ISO 9001 / ISO 14001
We apply the international standards ISO 9001 (ISO 14001) for managing the quality of our products and services.
Master of the Oceans

Our vision:

Leading the way for innovative and reliable high performance floating offshore and marine solutions.