

QUICK REACTION FORCE WATERCRAFTS



Photography: Jonas Wall

MADE IN SWEDEN



www.equipnor.se

With nearly 20 years of experience from developing and building reliable watercrafts and RIB hybrids for professional use, Safe at Sea and Equipnor AB has developed two fast, rugged and reliable QRF-platforms for Military and Law enforcement purposes. These two platforms offer enhanced water transportation capabilities aimed at maximizing the benefits of small tactical boat systems.

All development and construction takes place in Sweden in dialogue with the customer. We offer a high level of readiness in our support organization and the opportunity to further develop the platform. We offer a training program where we ensures system longevity and efficient utilization. We have a background in and understanding of the end-user side as well strategic partners that enable tactical system development. At Safe at Sea we are boat builders by trade, together with our business partner Equipnor AB we offer unique watercrafts built to bring operators into and out of hostile environments.



BOAT BUILDERS BY TRADE

Safe at Sea are boat builders by trade and the boats are handcrafted in Gothenburg on the west coast of Sweden. Inhouse capacity includes; plastic works, steel works, joining, painting and coating, electrical design and installation, drivetrain builds and engine tuning. Build capacity of about 70-80 boats/watercrafts per year.



PURPOSE BUILT TO CUSTOMER SPECS.

Every project starts in dialogue with the customer. We know by experience that there is not ONE patent solution for all operations, therefore we offer extensive opportunities to adapt the platforms for your specific needs. We understand the meaning of reliability, it must never be the operators equipment that is setting limits in solving a task. Adaptations and delivery times is set in dialogue with the customer.

TACTICAL OPTIMIZATION

We understand the customer environment and with experience from a variety of projects and requirements we continuously evolve our capabilities within building purpose built boats with mission specific features.

We have the ability to design hulls and tubes for specific needs, we use polyrea coating and keel guards for ultimate protection so that our boats withstand abuse and beach landings.

Hull/aft extensions and chassi modifications together with electrical installations and drivetrain modifications is examples of procedures performed in our facilities in Sweden.

FEATURE EXAMPLES

- Yamaha drivetrain 180 - 300 hp | 40-65 knots
- Auxilliary electric circuits for enhanced redundancy and mission safety
- Lifting points for transport by helicopter and crane , designed according to STANAG 3542
- Double fuel tanks 70 x 30 litre unleaded fuel provide a range of 100-120 nautical miles
- MOLLE attachment solution on tubes • Wiseled IR-lights for use in conjunction with NVG
- Attachment points for towing (front/aft) • Weapon mounts from Fjord defence • Ballistic protection



WHEN TIME IS CRITICAL

Our watercrafts are built to withstand RAPID REACTION launch methods without taking damage and is ready for action immediately after launch.

Complete systems solutions and after market support

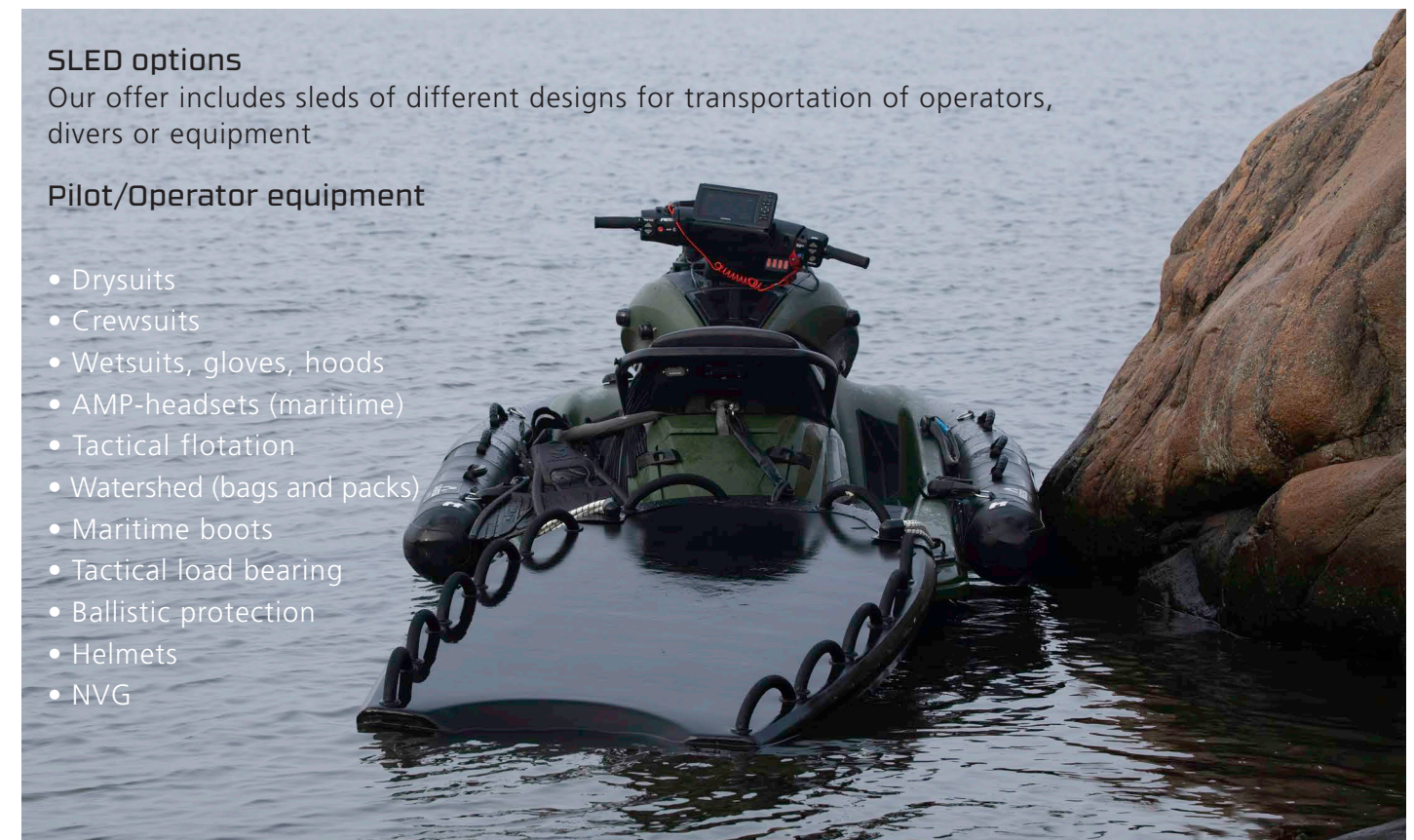
Depending on customer requirement, budgets and need we can supply the boats alone or as complete systems solution including launch platforms for launch from vessels and piers, storage and maintenance containers, a great number of optional accessories and safety equipment for pilot and operators.

SLED options

Our offer includes sleds of different designs for transportation of operators, divers or equipment

Pilot/Operator equipment

- Drysuits
- Crewsuits
- Wetsuits, gloves, hoods
- AMP-headsets (maritime)
- Tactical flotation
- Watershed (bags and packs)
- Maritime boots
- Tactical load bearing
- Ballistic protection
- Helmets
- NVG



GUARDRUNNER QRF™



Pax: 1 operator + Pilot | +2 with Sled option

The Guardrunner QRF is a fast, rugged and reliable watercraft based on the Yamaha waverunner chassi. It has a reinforced hull coated with an extremely strong and abrasion resistant polyurea coating. It has a protective keelguard and will withstand extensive abuse and hard beach landings. The Guardrunner QRF is equipped with stability tubes surrounding the lower front and side areas of the craft. This gives the Guardrunner QRF unique stability and handling performance in all environments and ables it to work close to large ships (boarding) and in heavy seas.

We offer 3 different drivetrain power options based on the Yamaha 4-cylinder, 1.9L, 4-stroke engine which is one of the most reliable engine constructions in this watercraft segment. All of our drive train options are built and tuned for optimized reliability and rideability for extended professional use. Power options are: Suction type, Electrical Turbo or Supercharger.

Our engines/jet-propulsion is modified and tuned by Stenborg Powersports in Sweden.



Our watercrafts are built to bring professional users into and out of hostile areas. The Guardrunner QRF have a number of safety features as for example auxilliary electrical circuits for optimized electrical redundancy and double fuel cells (70 x 35 liters) for extended range capacity. This together with the rugged hull reinforcement and stability tubes provide the end-user with a highly reliable platform that can be equipped with a number of tactical accessories and capabilities.

Features

- Length: 3.75m
- Beam: 1.53m
- Draught: 0.3m
- Weight: 395kg*
- Fuel capacity: 70+30L
- Fuel: Unleaded
- Range: 100-120 Nm
- Hull and sponson protective coating
- Keelguard for protection of hull and keel
- Lifting points: For handling by crane / helicopter
- Attachment points for towing (front/aft)
- Integrated or external battery charger
- Auxilliary Electric Circuits
- Internal splashproof storage 130L

Engine options

- 4-cylinder, 1.9L High Output, 4-stroke, fuel injected
- Turbocharged, 4-cylinder, 1.9L High Output, 4-stroke, fuel injected (External Turbo system, activated by operator)
- Supercharged, 4-cylinder, 1.9L Super Vortex High Output, 4-stroke, fuel injected

When looking at engine options; Fuel consumption and Maintenance intervals have to be considered.

SEARANGER QRF™



Pax: 2-4 operators + Pilot | +2 with Sled option

The SeaRanger QRF is built on the same chassi as the Guardrunner QRF and with the same hull and drive train features. It is a unique and highly capable watercraft designed to be used for fast and agile transportation of small units and equipment. The design enables operations in all types of water; shallow water, narrow bays, narrow passages or in open water with strong seas. The SeaRanger QRF creates an unmatched capability for both fast and stealthy movement as the platform enables the same inaccessible paths of advancement as a normal jet ski.

The final body configuration is designed in dialogue with the customer. To this date we have designed two body versions, one single and one twin seater option. The single seater option offer an aft deck with enhanced load capacity and a lid/tunnel for quick field cleaning of the jet propulsion system. The extended load area of the single seater can be equipped with our loading rack system including attachment rails and hard cases of various sizes. The tubes of the Searanger QRF is equipped with fixed MOLLE-patches so that mission specific equipment can be attached directly to the tubes.

Image to the right show the single seater version.



Stability, Easy handling, Load capacity
Power & Performance

Features

- Length: 34.20m
- Beam: 2.30m
- Draught: 0.3m
- Weight: 495kg*
- Fuel capacity: 70+30L
- Fuel: Unleaded
- Range: 100-120 Nm
- Hull and sponson protective coating
- Keelguard for protection of hull and keel
- Lifting points: For handling by crane / helicopter
- Attachment points for towing (front/aft)
- Integrated or external battery charger
- Auxilliary Electric Circuits
- Internal splashproof storage 160L

Engine options

- 4-cylinder, 1.9L High Output, 4-stroke, fuel injected
- Turbocharged, 4-cylinder, 1.9L High Output, 4-stroke, fuel injected (External Turbo system, activated by operator)
- Supercharged, 4-cylinder, 1.9L Super Vortex High Output, 4-stroke, fuel injected

When looking at engine options; Fuel consumption and Maintenance intervals have to be considered.

A MULTI-ROLE PLATFORM for RECCE / QRF / DIVE UNITS

We prefer to say "platform" as the boats are individually built for each specific customer and need. Our production partner Safe at Sea perform all types of builds and modifications.

- Hull extensions, modifications and rebuilds
- Modification and tuning of drivetrain
- Design and modification of electrical system
- Modification and installation of fuel cells
- Modification of tubes
- Installation of all optional accessories
- Maintenance, service and up-fit
- Launch and storage systems for launch and recovery from larger ships
- Launch and recovery systems for road transport
- Storage systems



GUARDRUNNER QRF™





Auxilliary electrical system

With two parallell separated circuits which provides optimized electric redundancy. If one circuit breaks you just switch to circuit 2.



Extended fuel capacity

70 + 30 Litre fuel capacity divided on 2 separate tanks, providing an effective range of 100-120 nautical miles.



Extraction Power button

When the shit hits the fan, push the extraction button and the Turbocharger kicks in providing power to quickly get the hell out of Dodge.



Night vision enhancement

As partner with Danish Wiseled we can equip our watercrafts with IR-illumination in various wavelengths, variations and strenghts.



A variety of drivetrain options

Our boat builds rely on the well proven Yamaha 1.8Litre 4-stroke concept. Depending on customer need we can offer 3 different engine packages.

- 1.8L High Output
- 1.8L Turbocharged High Output
- 1.8L Super Vortex High Output

Our demo unit is equipped with a unique Turbocharged engine which deliver "extraction power" only when you need it. This solution saves the engine and maintenance costs, reduce the fuel consumption as well as bringing the team back to safety in 60+ knots



Switch panel

Beneath the right side of the steering handle there is a switch panel for various control options. The switch panel is programmable and standard configuration below can be changed.

From left to right:

- Bilge pump
- Handle heater
- GPS on/off
- Kill switch acoustic alarms



Tube Accessory Attachment System

Our Tube Accessory Attachment System provide the user/unit to quickly attach/detach optional mission equipment. A variety of highly durable lasercut MOLLE attachment patches is fixed to the tube and uses a variety of attachment straps and multi-adapters to fix optional equipment to the tube.

Loading rails/racks can be attached on the aft platform or in the deck sections in between the tube and the frame construction.

SEARANGER QRF™



QUICK REACTION WATERCRAFTS BUILT TO CUSTOMER REQUIREMENTS

Regardless of model, engine or equipment options, our platforms offer very good maneuverability, safety and performance, independent of the operational environment. In shallow water, narrow bays, narrow passages or in open water with strong seas our SeaRangerX provide very high reliability. We know with our long experience that there is not ONE patent-solution for all operations, therefore we offer extensive opportunities to adapt the platforms, for your specific needs. We understand the meaning of reliability, it must never be the operator's equipment that is setting limits in solving a task. Adaptations and delivery times is presented in dialogue with the customer.

ADAPTATION TO CUSTOMER NEEDS

We are experts in boat building with inhouse competence and capacity to design and build our boats from scratch to customer specific needs. We usually start from our fundamentally very competent basic platforms and can do everything from minor interventions in electrical systems to major modifications such as e.g. hull extension, aft work platform, engine modifications, etc.

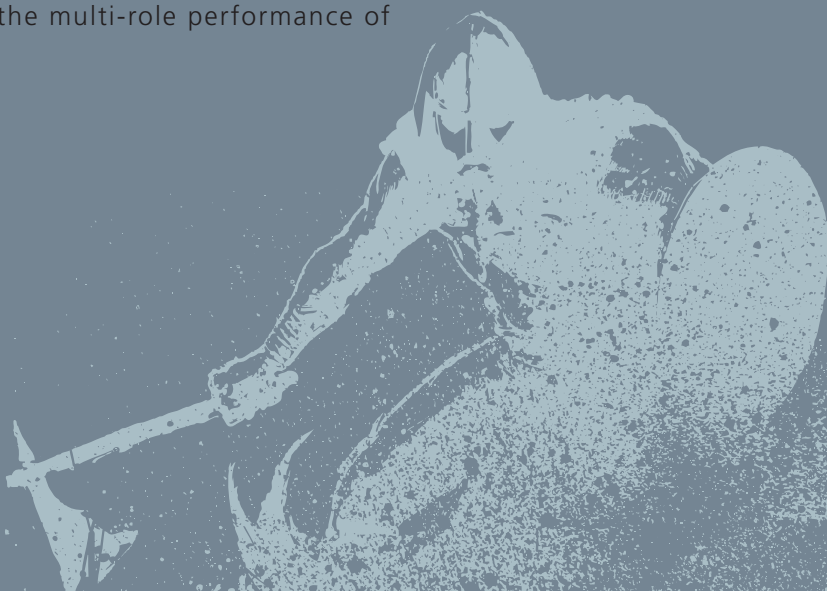
We build our boats in Gothenburg, Sweden and offer a full service factory. We have a strong network of local industry partners supporting with steel constructions, special coatings, engine conversions, etc.

 **equipnor** | Strategic partner | Defence sales rep.

Equipnor AB is a Swedish supplier of defence equipment and is part of the NFM Group. Equipnor AB was founded in 2008 and holds a great number of large contracts with Swedish government customers within the LEAF-business area. The maritime section of Equipnor AB holds extensive competence within maritime equipment for military and law enforcement activities at sea and act as sales partner to Safe at Sea. Equipnor AB holds extensive business and hands-on competence on watercrafts, tactical diving equipment, weapons, multi-spectral camouflage systems, night vision/thermal/illumination sensors, ballistic protection and other components and systems increasing the multi-role performance of tactical watercrafts built by Safe at Sea AB.

Some of our partners:

- Teledyne FLIR
- Dillon Aero Inc
- Fjord Defence
- GENTEX/Ops-core
- Persistent Systems
- First Spear
- Core Survival
- Aqualung Group
- ScubaPro
- Waterproof PRO
- Watershed
- TYPHOON Diving
- RTSys
- SUEX Special Ops
- SRS
- WiseLED
- Tactical Electronics
- TEAL Drones



For more information or quote, please contact: jonas@equipnor.se