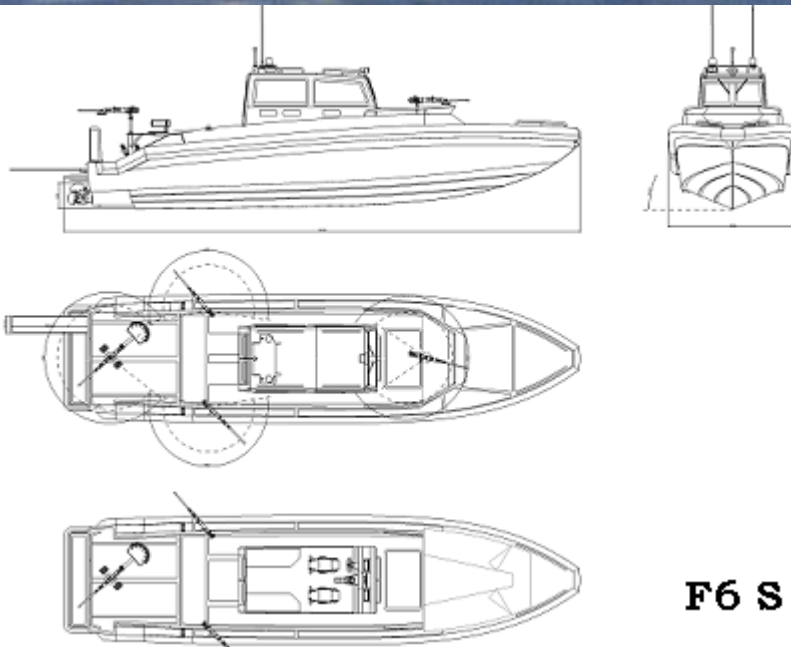


FORCE 6 ROYAL ORCA



F6 S

COCKPIT VERSION

UNION FORCE MARINE GROUP

Jean-Marc Gregori, President

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FORCE 6 ROYAL ORCA

The FORCE 6 ROYAL ORCA is designed for high-speed (up to 60 knots), extraordinary maneuverability, and exceptional sea keeping. It is ideal for coastal operations and severe conditions up to sea state 6/7.

MULTI-MISSIONS

- Fast Patrol Boat with cruising speed of up to 60 Knots, in sea state 6/7
- Patrolling of coastal and territorial waters (Law enforcement with regards to maritime duties)
- Prevention or repression of illegal activities
- Medium range special operations (400 NM at 40 Kts)
- Search and rescue (including diving) under severe conditions (sea state 6/7)
- Escort commercial vessels through pirate infested waters
- Surveillance and protection of straits, canals and shipping lanes, ports accesses, ship entrances, offshore petroleum platforms, sensitive islands and other landmasses.
- Prevention/interception of intruders, smugglers, illegal professional fishing boats
- Facility for fast boarding and inspection of other vessels
- Able to maintain contact with an unwilling ship
- Visual detection of suicide attack boats, launcher of special drones before they reach their targets
- Fast transport of special forces in swallow waters , oil rig crew and others (10 people with special equipment)
- Detection of submarine delivery vehicles (SDV) with special little sonar
- Environmental testing, damage response and pollution control
- Towage of drifting wrecks over a short distance
- The unique shape of UFM hulls permit intervention near the coast in curling waves

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STABLE PLATFORM, OUTSTANDING SEA-KEEPING, EXTREME MANEUVERABILITY

The FORCE 6 is able to cruise at speeds up to 60 knots without slamming, rolling, or porpoising. This stability makes it possible for crews to focus on the mission instead of trying to keep their balance. The stable platform also significantly improves the accuracy of on board firearms.

The very sharp turning circle allows the FORCE 6 to outmaneuver its target at high speeds in tortuous environment such as mangroves.

The FORCE 6 ROYAL ORCA can be equipped with a small weapon system such as two 0.5" caliber naval guns.

SPECIFICATIONS

Overall Length: 12.5 m (41')

Hull Length: 12.00 m (39' 4")

Width: 3.0 m (9' 10")

Breadth: 3.2 m (10' 6")

Draft: 0.65 m (2' 2")

Displacement, full load: 7.5 Tons

Construction materials: AA5083 marine grade Aluminum or Composite Multiaxial, Kevlar, resin isophthalic (NCAM Standards)

Quality control: Ultrasonic inspection

Certifications: HSC RINA/VERITAS/American Bureau Shipping

Shipyard classification: UNI EN 29902-ISO 9002/2001

Hull design: Moderate to deep V, low drag, anti-slam, anti-roll, anti-yaw, anti
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FORCE 6 ROYAL ORCA

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Engine Options:

Number of Engines	Fuel	Brand	Horse Power	Max Speed
2	Diesel	VOLVO Penta D4	300	45 Kts
2	Diesel	Volvo Penta D6	500	60 Kts
Additional engine options are available based on performance requirements				

Anti noise and Anti vibration: Sound proofing, anti-resonance, shock absorber engine mount. Meets CE standards

Gearboxes: Twin Disc

Stern Drive: Volvo Penta DPR (Duo prop) or 2 Arneson ASD 8 drives, Vulkan shafts with Rolla Surface Piercing propellers

Propulsion System Alignment: In line with the transmission for longer life, efficient power transfer and minimum vibration (UFMG/JMG patent) Arneson version

Fuel consumption: Approximately 50 liters/hour/engine (Volvo Penta D 4 engines) This is 25% less than typical consumption

Fuel capacity: 1000 liters

Fuel tanks: Robust marine stainless steel tanks constructed to racing standards

Water capacity: 200 liters fresh water

Crew accommodations: Up to 5 crew plus transport of up to 10 people plus gear

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PERFORMANCE

Maximum Speed:	60 Kts (D6 Volvo engines))
Time to planning:	Less than 20 seconds
Time to reach 40 Kts:	Less than 40 seconds
Time to reach 45 Kts in Sea state 5:	90 seconds
Cruising range at 40 Kts:	400 NM in sea state 2/3 (D4 Volvo engines))
Stopping distance:	14 meters
Propulsion chain temperature increase:	Less than 1 degree at 40Kts for 10 hours
Engine speed:	2100 RPM at 45 Kts.
Operating temperature:	Air 45 C Water: 35 C
Maximum /Minimum temperature:	Max Air 50° Celsius Water: 35 ° C , Minimum: Air 5 C Water: 10 C For maximum continuous power
Maximum humidity:	60% to 100 %

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FORCE 6 ROYAL ORCA

MANEUVERABILITY AND SEAWORTHINESS

Sea state speeds:

Max Speed (Kts)	40	45	60
Sea State	7	5/6	2/3

Circle radius: 15 meters at 20 Kts and 30 meters at 30 Kts

Deck conditions at cruise: Never wet

Sea-keeping Stability: Anti-slam, anti-roll, anti-yaw and anti-porpoising hull design

MILITARY CONFIGURATION

Bullet Proofing: The composite version of FORCE 6 complies with 7.62 x 51 NATO and 7.62 x 39 AP Stanag standards.

Armor: Optional Ceramic (or other specified material) can be incorporated into the cockpit and fuel tanks thus offering the same armoring level as combat helicopters. Other parts of the ship are armored by quadriaxial fiberglass/Kevlar and adequate structural resin applications (Vacuum). It is possible to further increase the armor for 14.5 mm API-B32 ammunition with new high tech material with a reasonable increase in weight.

Firearms: Two 0.5" caliber naval guns ,possibility of 12,7 mm

Optional: Drone,

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