



SubSea Naval Propulsion and Maneuvering Electric Drive Systems

Key Features:

- High reliability, Rugged Design
- Pressure Compensating / Oil Filled
- Unique Sealing Technology
- Continued Operation in the event of seal failure
- Full Azimuthing & Retractable
- Various Voltage Options
- Series from 25 up to 175 Kw
- Direct Drive Reliability (no gearbox)
- Drive Electronics
- Proportional Thrust with VFD Low Harmonic Drives...
- Effective Thrust Underway.....
- Excellent Maneuvering with Emergency Steering.....



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Naval Auxiliary Propulsion Units - APUs

For Naval Frigates - Cruisers - Carriers - Submarines

Marine Propulsion Solutions – Subsea Group is recognized as one of the worlds leading Electric Podded Thruster and Propulsion Systems Manufacturer and introduces its unique Auxiliary Electric Podded Azimuthing / Retractable pressure compensated.... oil filled Propulsion Units for all types of Naval Vessels.

.... Naval Solutions ...

Subsea Electric Azimuthing Propulsors are designed and offer "Dynamic Electric Propulsion" using its podded thruster design eliminating reduction gears offering compact designs, **Silent Operation** with low maintenance costs which are only a few of the Remarkable properties. Typical propulsors are prone to water entering or oil leaking through the propeller shaft seals. The MPS Subsea Propulsor design eliminates this problem by using an internal epoxy protected stator assembly isolating the rotating sealed components.... Water cannot reach the stator windings or electronics through the shaft seals.



Ease of Installation with Reduced Costs...

With the electric motor designed as part of the thruster pod and water cooled, there are no forced air ventilation of the electric motor requirements, no shafting with couplings and/or alignments necessary. Units Pressure Compensated for full depth of operation.

Noise Suppression Technology...

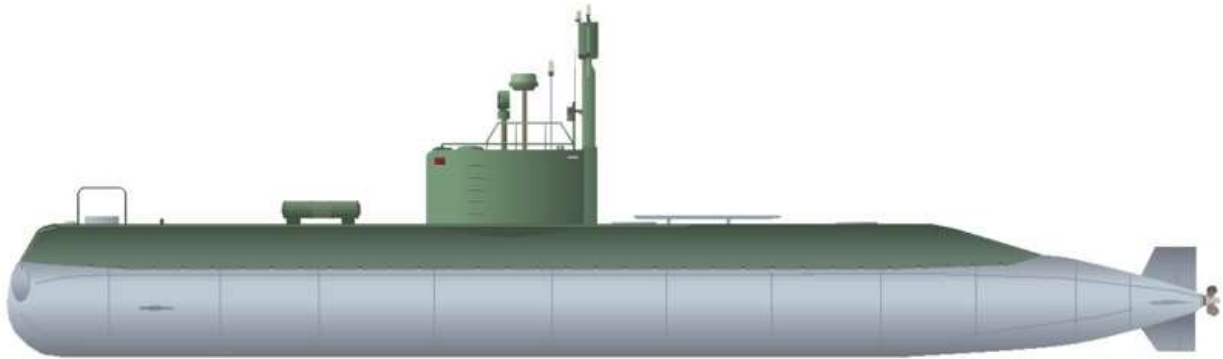
Because the electric motor is designed as an integral part of the thruster hub and attached directly to the propeller shaft, there are no gear boxes or gear reductions providing maximum system efficiency with lower noise and vibration levels produced.

Can meet or exceed Mil-901D Shock Specifications.....

The Standard Single Propeller Drive with Motor Controllers (ECU) is offered for full speed control functions. Depending on the application and customer requirements the stator/rotor housing can be part of the pressurized hull or outside the pressurized housing, oil filled and pressure compensated.



Marine Propulsion Solutions – Naval Group Auxiliary Propulsion Units designed for **Midget Submarines**



... Designed For“Silent & Vibration Free Operation”...

General Specifications								
Model	Power		Voltage	Prop Dia (mm)	Prop Rpm	Bollard Thrust @ Zero Speed of Advance		Retraction Stroke
	Hp	Kw				Lbs-f	Kgs-f	
A25RTE	33.5	25	400/400/690 50/60 Vac Options	360.0	1775	955	434	As required by Installation
A40RTE	53.6	40		406.4	1500	1,530	695	
A75RTE	100.5	75		508.0	1200	2,865	1,302	
A115RTE	154.2	115		609.6	1000	4,395	2,000	
A150RTE	201.0	150		812.8	780	5,725	2,602	

All Models feature a NAB Propeller, designed for bi-directional rotation with Kort nozzles for high bollard thrust & open water efficiency. Clockwise & counterclockwise rotation propellers available for all models.

Direct e-motor drives with no planetary gear reduction units resulting in “Silent” and “Reliable” operation with lightweight & compact designs at competitive pricing. Custom configurations include alternate voltages, subsea connectors, power ratings, mountings & depth ratings, etc.

... RUTHLESSLY RELIABLE ...



Special & Naval Shipbuilding Division
Hyundai Heavy Industries Co., Ltd
Korean Navy – Shipped 2017
Midget Submarine (SSM) P141 & P142

