

NAVY SHIPS P O R T F O L I O

CREATING SOLUTIONS, CREATING FUTURE



NAVY SHIPS

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CREATING SOLUTIONS, CREATING FUTURE



Smart Solutions for Safer Seas



Delta Marine founded in 1996 by a group of naval architects, is a ship design and consultancy firm established to meet the demands of engineering solutions for maritime sector and shipbuilding activities. The company provides design, engineering and consultancy services for building of merchant/naval, yachts and offshore structures.

From very beginning of its establishment, Delta Marine has begun to present integrated solutions covering basic design, production engineering, post-production services, advanced engineering analysis, project management, building supervision and consultancy. By following the latest developments both in professional and computer technologies Delta Marine's continuously improved service quality has drawn big interest from clients. Thus the company has become the most reputable ship design consultancy in Turkey and a favorite partner in World market.

Delta Marine always cares about working with a multidisciplinary staff who bring added value into each phase of the design process. Throughout the years the company has always acted as an academia from where many young engineers and technicians have graduated. Delta Marine relies on blending the experience with dynamism to establish a strong, focused and efficient team while embracing different approaches in a manner to reach professional perfection.

Delta Marine follows the approach of client-focused design development and expanding the corporate knowledge by benefiting from every feedback which happens in various projects. This philosophy has been proven many times so that the organization started to be known as a solution creator providing economical, safe, comfortable, aesthetic and environment-friendly products to maritime sector. Today Delta Marine is proud to present a big fleet sailing in different parts of the World's seas.

INDEX

Milgem Corvette	6
LF-2400 Light Frigate	8
C-1200 Corvette	10
LCT-S Tank Landing Craft	12
LPD Landing Platform Dock	14
AOR-22 Fleet Tanker	16
LSS Logistic Support Ship	18
NFT Navy Fleet Tanker	20
MOSHIP Submarine Rescue Mother Ship	22
RATSHIP Rescue & Towing Ship	24
OPV-D80 Offshore Patrol Vessel	26
FBP-D60 Fast Patrol Boat	28
SAT Special Force Boat	30
HSBP High Speed Patrol Boat	32
MBH1774 Naval Training Ship	34
MBH1773 Naval Training Ship	36
NDTSB Naval Dive Training & Support Boat	38
E-Class Training Ship	40

MILGEM

CORVETTE

The MILGEM project, from the Turkish words "MILLI GEMİ" (National Ship), is the name of Turkish national warship program. MILGEM Corvette is a monohull, double screw type vessel designed to meet the speed, seakeeping and stability requirements of Turkish Naval Forces Command with using the principles of stealth technology in its design. The objectives of MILGEM corvette are to enhance the littoral warfare capabilities and to meet the operational requirements of Turkish Navy by introducing a platform which lies between the spectrum of frigate and patrol boat. MILGEM Corvette meets the reconnaissance, surveillance, target identification, early warning, defense of base and harbours, anti submarine warfare, surface to surface and surface to air warfare, amphibious operation and patrol requirements. The vessel is designed in collaboration with Savunma Teknolojileri Muhendislik (STM) of Turkey.

MAIN TASKS

- Economic exclusive zone (EEZ) monitoring & surveillance
- Coastal and offshore patrol & monitoring
- Conducting anti-surface (ASuW) and anti-submarine (ASW) operations
- Conducting Electronic Warfare (EW)
- Search and Rescue (SAR) operations
- To show flag
- Performing coordinated operations with other naval and air assets which take part at sea control operations
- Carrying out counter-terrorism activities at sea



COMBAT SHIPS



AMPHIBIOUS SHIPS



SUPPORT SHIPS



PATROL SHIPS



TRAINING SHIPS



MILGEM CORVETTE SPECS



CAPACITIES

Fuel (F-76)	170 t
JP-5	20 t
Fresh Water	42 t + 20 t/day

SPEED / ENDURANCE

Max Speed	+ 29.0 kn
Economical Speed	15.0 kn
Endurance	3500 nm @ 15 kn

MAIN PROPULSION

Main Engine	31600 kW (1 x Gas Turbine & 2 x Diesels)
Propeller Propulsion	2 x Shaft & CPP
Diesel Generator	4 x 588 kW

ACCOMMODATION

- 93 including aviation officers, with accommodation for up to 106
- Galley, dry provisions, freezing rooms, wardroom/mess halls, offices, CIC etc.
- Length of stay at sea: 10 days (autonomous) 21 days (with logistic support)

MAIN DIMENSIONS

L _{OA}	99.50 m
L _{WL}	90.54 m
Beam	14.40 m
Draught (design)	3.59 m
Displacement	2300 t

SHIP EQUIPMENT

- 2 x RHIB

WEAPONS / SENSORS

- Combat Management System: G-MSYS
- Search Radar: SMART-S Mk2
- Weapon Control: STING EO Mk2
- Sonar: TBT-01 Yakamoz
- IPMS: UniMACS 3000
- Others: Laser/RF systems, ASW jammers, DG, SSTD
- Guns: 1 x 76 mm, 2 x 12.7 mm Stabilized Machine Gun, 8 x Harpoon
- Anti-aircraft missiles: 21 x RAM (PDMS)
- Torpedoes: 2 x 324 mm Mk.32 triple launchers

AVIATION FACILITIES

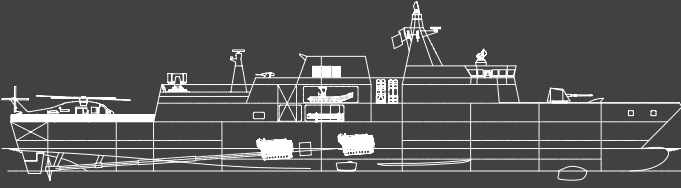
- Helicopter deck for landing and take off of helicopters up to 1 x 10 ton

SCOPE OF SERVICES

- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses

REFERENCES

- ⚓ TCG HEYBELIADA
- ⚓ TCG BUYUKADA



LF-2400

LIGHT FRIGATE

LF-2400 is a monohull Light Frigate, designed to perform offshore patrol, ASuW, ASW, air defence operations and act as command & control ship, equipped with conventional diesel propulsion system, conforming naval norms/standards and classification rules. The vessel is designed in collaboration with Savunma Teknolojileri Muhendislik (STM) of Turkey.

MAIN TASKS

Acting as command&control ship and participating in selected offensive operations

Economic exclusive zone (EEZ) monitoring & surveillance

Naval and Law Enforcement applications

Coastal and offshore patrolling&monitoring

Air Defence Duties

Conducting anti-surface (ASuW) and anti-submarine (ASW) operations

Air, surface and sub-surface surveillance and sea control including helicopter operations

Engagement of surface, air and sub-surface targets

Naval Gunfire Support (NGFS)

Conducting Electronic Warfare (EW)

Protection Sealines linking harbours to open seas

Conducting special forces operations

Search and Rescue (SAR) operations



COMBAT SHIPS



AMPHIBIOUS SHIPS



SUPPORT SHIPS



PATROL SHIPS



TRAINING SHIPS



LF-2400 LIGHT FRIGATE SPECS



CAPACITIES

Fuel (F-76)	320 t
JP-5	20 t
Fresh Water	40 t



SPEED / ENDURANCE

Max Speed	+ 27.0 kn
Max Cont. Speed	15.0 kn
Endurance	5000 nm @ 15 kn



MAIN PROPULSION

Main Engine	4 x 5920 kW
Propeller Propulsion	2 x Shaft & CPP
Diesel Generator	4 x 588 kW



ACCOMMODATION

- Comfortable accommodation for 99 crew (including air crew)
- Galley, dry provisions, freezing rooms, wardroom/mess halls, offices, etc.
- Length of stay at sea: 21 days



MAIN DIMENSIONS

L _{OA}	108.00 m
L _{WL}	100.10 m
Beam	14.50 m
Draught (design)	3.60 m
Displacement	2350 t



WEAPONS / SENSORS

- Full 3-Dimensional Combat Management System
- 3D Surface and air Search Radar/IFF
- Fire Control Radar with EO Suit (TV/IR, LRF)
- E/O Director
- Electronic Warfare System (EWS)
- Laser Warning System
- SSM & SAM Launching System
- 1 x Forward Main Gun
- 2 x 12.7 or 20 or 30 mm Stabilized Platform Guns
- CHAFF RF/IR Decoy Control and Launching System
- Torpedo Launching System (triple launcher Port&Stbd)
- Hull Mounted Sonar (HMS)



SHIP EQUIPMENT

- 2 x RHIB
- 8 x Life Rafts



AVIATION FACILITIES

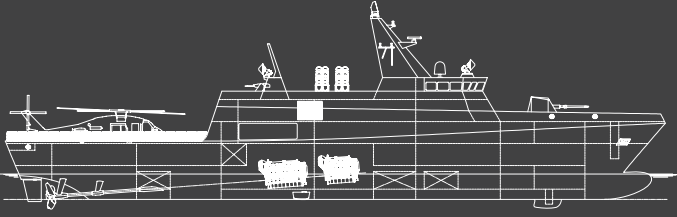
- Helicopter deck for landing and take off of helicopters up to 1 x 10 tons
- JP-5 & HIFR system

SCOPE OF SERVICES

- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses

REFERENCES

⚓ No References Yet



C-1200

CORVETTE

C-1200 Corvette is a monohull vessel, designed to perform Anti-Surface, Anti-Air and Electronic Warfare, acting command & control ship, conducting special force operation, equipped with conventional diesel propulsion system, conforming naval norms/standards and classification rules. The vessel is designed in collaboration with Savunma Teknolojileri Muhendislik (STM) of Turkey.

MAIN TASKS

Acting as command&control ship and participating in selected offensive operations,

Economic exclusive zone (EEZ) monitoring&surveillance,

Naval and Law Enforcement applications,

Coastal and offshore patrolling&monitoring,

Air Defence Duties,

Conducting anti-surface operations,

Air and surface surveillance and sea control including helicopter operations,

Engagement of surface and air targets,

Naval Gunfire Support (NGFS),

Conducting Electronic Warfare (EW),

Protection Sealines linking harbours to open seas,

Conducting special force operations.



COMBAT SHIPS



AMPHIBIOUS SHIPS



SUPPORT SHIPS



PATROL SHIPS



TRAINING SHIPS



C-1200 CORVETTE SPECS



CAPACITIES

Fuel (F-76)	180 t
JP-5	20 t
Fresh Water	20 t



SPEED / ENDURANCE

Max Speed	+ 27.0 kn
Max Cont. Speed	15.0 kn
Endurance	3000 nm @ 15 kn



MAIN PROPULSION

Main Engine	2 x 2000 kW
Propeller Propulsion	2 x Shaft & CPP
Diesel Generator	3 x 735 kW
Em'cy Generator	1 x 735 kW



ACCOMMODATION

- Comfortable accommodation for 57 crew (including 12 special force crew)
- Galley, dry provisions, freezing rooms, wardroom/mess halls, offices, CIC etc.
- Length of stay at sea: 21 days



MAIN DIMENSIONS

L _{OA}	78.00 m
L _{WL}	74.37 m
Beam	12.00 m
Draught (design)	3.00 m
Displacement	1200 t



WEAPONS / SENSORS

- SSM launching System
- SAM launching System
- 1 x 76 mm twin gun
- 2 x 30 mm STOP
- 3D Search Radar/IFF
- ARPA/LPI Navigation Radar
- Fire Control Radar with EO Suit
- E/O Director
- Mine Avoidance Sonar (MAS)
- ESM
- Laser Warning System



PLATFORM CAPABILITIES

- 2 x RHIB



AVIATION FACILITIES

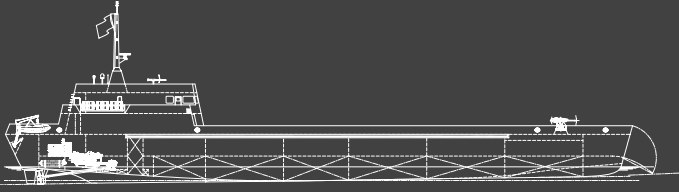
- Helicopter deck for landing and take off of helicopters up to 1 x 10 ton

SCOPE OF SERVICES

- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses

REFERENCES

⚓ No References Yet



LCT-S

TANK LANDING CRAFT

LCT-S is a monohull vessel, designed to perform high speed amphibious operations with participation of joint and coalition forces and to be used as a transportation ship for civilian purposes, equipped with conventional diesel propulsion system, conforming naval norms/standards and classification rules.

MAIN TASKS

To provide flexibility and expedition during amphibious operations

To perform peace support, humanitarian aid and public evacuation

Transportation services for civilian purposes



COMBAT SHIPS



AMPHIBIOUS SHIPS



SUPPORT SHIPS



PATROL SHIPS



TRAINING SHIPS



LCT-S TANK LANDING CRAFT SPECS



CAPACITIES

Fuel (F-76)	46 t
Fresh Water	128 t



SPEED / ENDURANCE

Max Speed	20.0 kn
Max Cont. Speed	19.0 kn
Endurance	900 nm



MAIN PROPULSION

Main Engine	2 x 2200 kW
Propeller Propulsion	2 x Shafts & FPP
Diesel Generator	2 x 250 kW



ACCOMMODATION

- Comfortable accommodation for 18 crew
- Galley, dry provisions, wardroom/mess hall, office etc.
- Length of stay at sea: 7 days



MAIN DIMENSIONS

L _{OA}	72.28 m
L _{WL}	69.13 m
Beam	13.15 m
Displacement	875 t



WEAPONS / SENSORS

- Navigation Radar and Communication Systems
- 2 x 25 mm Stabilized Platform Guns
- 1 x 12.7 mm Machine Gun
- Ballistic protection



SHIP EQUIPMENT

- 1 x RHIB



TRANSPORTATION CAPACITY

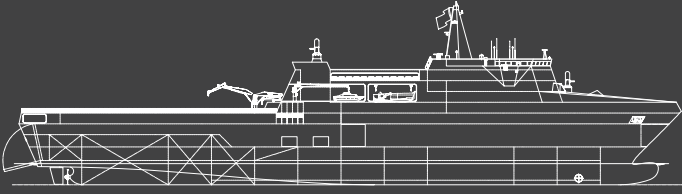
- Well Dock Capacity: 420 m²
18 Unimogs or 5 Lorries
or 5 Tanks or 30 Jeeps
or 19 Armoured Vehicle
- Bow Door / Ramp System:
Load Capacity: 60 t

SCOPE OF SERVICES

- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses

REFERENCES

- ⚓ No References Yet



LPD

LANDING PLATFORM DOCK

LPD is a monohull vessel, designed to perform amphibious and logistics support missions including high sea state conditions with large vehicle garage and helicopter deck, equipped with conventional all diesel-CPP propulsion system, conforming naval norms/standards and classification rules. The design was developed in collaboration with Savunma Teknolojileri Muhendislik (STM) of Turkey.

MAIN TASKS

MAIN TASKS

To improve force projection capability

To provide flexibility and expedition during amphibious operations

To perform peace support, public evacuation, humanitarian aid and disaster relief operations, while accomodating and supporting a battalion size force and operations head quarters



COMBAT SHIPS



AMPHIBIOUS SHIPS



SUPPORT SHIPS



PATROL SHIPS



TRAINING SHIPS



LPD LANDING PLATFORM DOCK SPECS



CAPACITIES

Fuel (F-76)	700 t
JP-5	200 t
Fresh Water	300 t



SPEED / ENDURANCE

Max Speed	20.5 kn
Max Cont. Speed	18.0 kn
Economical Speed	14.0 kn
Endurance	+6000 nm @ 14 kn



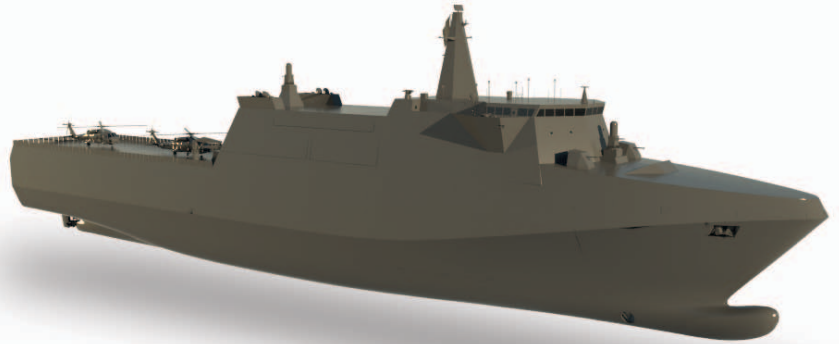
MAIN PROPULSION

Main Engine	4 x 2500 kW
Propeller Propulsion	2 x Shafts & CPP
Diesel Generator	4 x 1500 kW
Em'cy Generator	1 x 750 kW



ACCOMMODATION

- Comfortable accommodation for 805 crew
- Galley, dry provisions, freezing rooms, wardroom/mess halls, offices, CIC etc.
- Length of stay at sea: 30 days



MAIN DIMENSIONS

L _{OA}	171.66 m
L _{WL}	154.52 m
Beam	27.00 m
Draught (design)	5.50 m
Displacement	13 500 t



WEAPONS / SENSORS

- 2 x 40 mm twin guns
- 2 x Phalanx CIWS (fore and aft)
- 4 x 12.7 mm Machine Guns (STAMP)



SHIP EQUIPMENT

- 1 x RHIB
- 1 x 25-ton crane (at starboard side) on helicopter deck



TRANSPORTATION FACILITIES

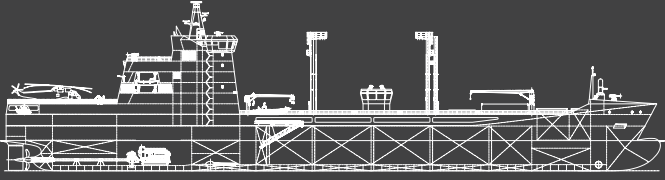
- Dock Capacity: 4 x LCM or 2 x LCAC
- Vehicle Garage: Area : 1285 m² (13 Tanks and 21 APC/AAV) 25 tons elevator, 1 x 5 tons gantry crane
- Aviation Capabilities: Helicopter deck for 2 x 15 tons; Hangar for 2 helicopters

SCOPE OF SERVICES

- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses

REFERENCES

⚓ No References Yet



AOR-22

FLEET TANKER

AOR-22 is a double-hull vessel, designed for providing logistics support to the ships at sea in terms of dry and liquid cargo both during peace and war, equipped with conventional all diesel-CPP propulsion system, conforming naval norms/standards and classification rules. The vessel is designed in collaboration with Savunma Teknolojileri Muhendislik (STM) of Turkey.

MAIN TASKS

Peacetime:

To provide logistics support to the ships at sea in term of dry and liquid cargo

To conduct limited SAR Operations through embarked helos

Wartime:

To provide logistics support to the ships at sea in term of dry and liquid cargo

To support ASW/ASuW operations through embarked helos

To provide limited medical support to the ships at sea



COMBAT SHIPS



AMPHIBIOUS SHIPS



SUPPORT SHIPS



PATROL SHIPS



TRAINING SHIPS



AOR-22 FLEET TANKER SPECS



CAPACITIES

F-76 / HSDO	12350 t (Cargo)
	2050 t (Bunker)
Fuel (F-76)	588 t
JP-5	315 t (Cargo)
	30 t (Bunker)
Fresh Water	1478 t (Cargo)
	256 t (Bunker)
Dry Cargo	200 t
Dry Cargo(Ration)	400 t



SPEED / ENDURANCE

Max Speed	20.5 kn
Max Cont. Speed	20.5 kn
Endurance	+10000 nm @ 15 kn



MAIN PROPULSION

Main Engine	2 x 7000 kW
Propeller Propulsion	2 x Shafts & CPP
Diesel Generator	4 x 1080 kW
Em'cy Generator	1 x 300 kW



ACCOMMODATION

- Comfortable accommodation for 239 persons
- Galley, dry provisions, freezing rooms, wardroom/mess halls, offices, CIC etc.
- Length of stay at sea: 15 days



MAIN DIMENSIONS

L _{OA}	171.00 m
L _{WL}	165.25 m
Beam	27.00 m
Draught (design)	7.90 m
Displacement	21 930 t



WEAPONS / SENSORS

- 1 x Close In Weapon System (CIWS)
- 2 x 12.7 mm Machine Guns
- 2 x 25 mm Semi Automatic Guns with Tracking Radar/EOD



PLATFORM CAPABILITIES

- 4 x Stations for abeam replenishment of liquid cargo
- 2 x Stations for abeam replenishment of solid cargo
- 1 x Station for stern replenishment of liquid cargo
- 2 x RHIB
- 2 x Utility Boat



AVIATION FACILITIES

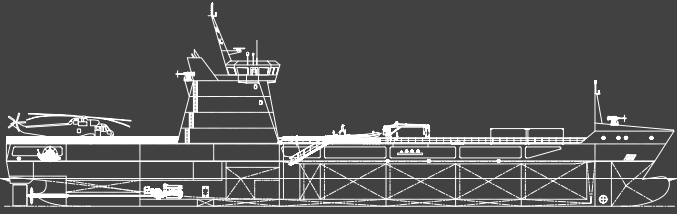
- Helicopter deck for landing and take off of Seaking size helicopters
- Helicopter hangar for 2 Seaking size helicopters

SCOPE OF SERVICES

- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses

REFERENCES

⚓ No References Yet



LSS

LOGISTIC SUPPORT SHIP

Logistic Support Ship is a monohull vessel, designed to provide logistic support to marine units at sea in terms of dry and liquid cargo both during peace/wartime and flexibility for special operations through a helicopter landing deck. The vessel is equipped with conventional diesel propulsion system, conforming naval norms/standards and classification rules.

MAIN TASKS

Supplying ships at sea with food, fresh water, fuel, ammunition and weapons

Strategic sea transport, including debarkation and embarkation of staff and material

Receiving and utilizing waste from other ships



COMBAT SHIPS



AMPHIBIOUS SHIPS



SUPPORT SHIPS



PATROL SHIPS



TRAINING SHIPS



LSS LOGISTIC SUPPORT SHIP SPECS



CAPACITIES

F-76 / HSDO	3100 t (Cargo) 123 t (Bunker)
JP-5	320 t (Cargo) 13 t (Bunker)
Fresh Water	715 t (Cargo) 67 t (Bunker)



SPEED / ENDURANCE

Max Speed	12.0 kn
Max Cont. Speed	10.0 kn
Endurance	15000 nm @ 10 kn



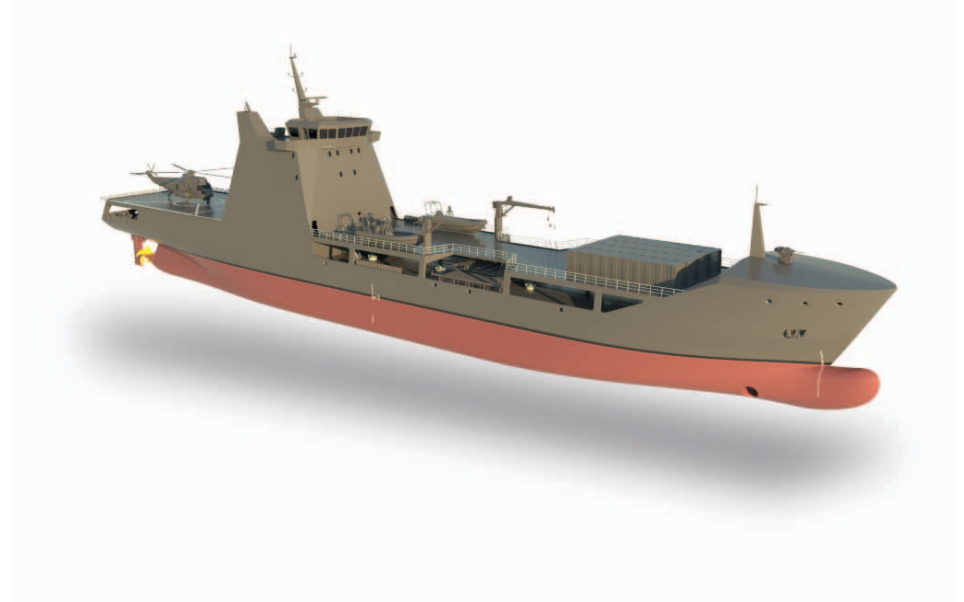
MAIN PROPULSION

Main Engine	2 x 900 kW
Propeller Propulsion	2 x Shafts & CPP
Diesel Generator	2 x 350 kW



ACCOMMODATION

- Comfortable accommodation for 64 crew
- Galley, dry provisions, freezing rooms, wardroom/mess halls, offices etc.
- Length of stay at sea: 7 days



MAIN DIMENSIONS

L _{OA}	114.25 m
L _{WL}	108.30 m
Beam	16.80 m
Draught (design)	5.15 m
Displacement	6993 t



WEAPONS / SENSORS

- Navigation Radar and Communication Systems
- 2 x 25 mm Machine Guns (fore and aft)



SHIP EQUIPMENT

- 2 x RHIB
- 1 x Utility Boat
- 1 x FAS station for stern replenishment of liquid cargo
- 2 x 6 t Cargo Hose Crane
- 1 x 3 t Provision Crane



AVIATION FACILITIES

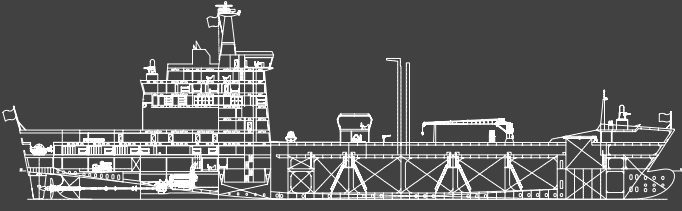
- Helicopter deck for landing and take off of helicopters up to 1 x 10 ton

SCOPE OF SERVICES

- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses

REFERENCES

⚓ No References Yet



NFT

NAVY FLEET TANKER

Navy Fleet Tanker is a double-hull vessel, designed for providing logistic support to the ships at sea in terms of dry and liquid cargo both during peace and wartime, equipped with conventional all diesel-CPP propulsion system, conforming naval norms/standards and classification rules. The vessel is designed in collaboration with Savunma Teknolojileri Muhendislik (STM) of Turkey.

MAIN TASKS

- To provide logistics support to the ships at sea in term of dry and liquid cargo
- To conduct limited SAR Operations through embarked helicopter
- To support ASW/ASuW operations through embarked helicopter
- To provide limited medical support to the ships at sea



COMBAT SHIPS



AMPHIBIOUS SHIPS



SUPPORT SHIPS



PATROL SHIPS



TRAINING SHIPS



NFT NAVY FLEET TANKER SPECS



CAPACITIES

Fuel (F-76)	7500 t (Cargo) 1150 t (Bunker)
JP-5	175 t (Cargo) 35 t (Bunker)
Fresh Water	825 t (Cargo) 225 t (Bunker)
Dry Cargo	650 t



SPEED / ENDURANCE

Max Speed	20.0 kn
Max Cont. Speed	15.5 kn
Endurance	10 000 nm @ 15 kn



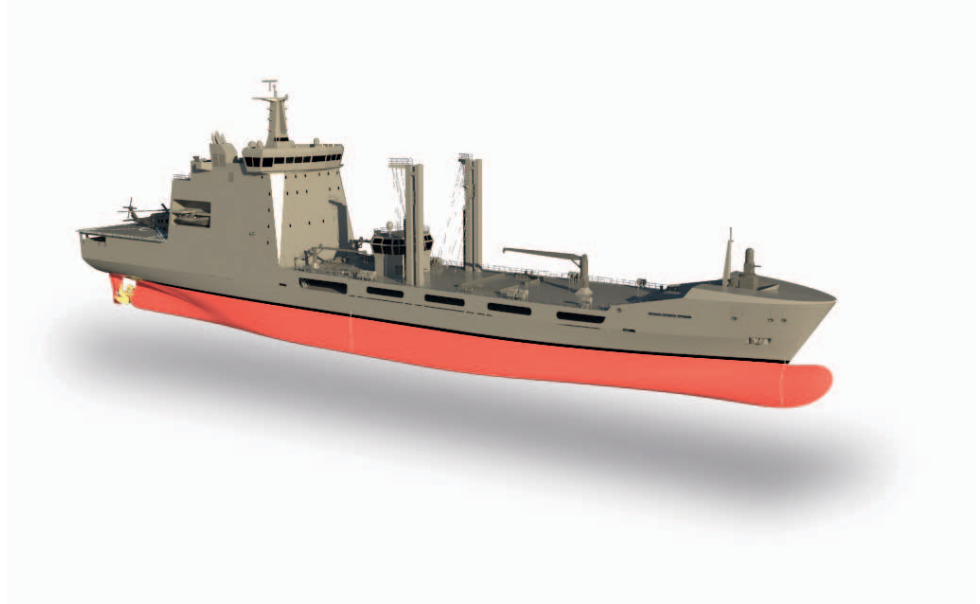
MAIN PROPULSION

Main Engine	2 x 6000 kW
Propeller Propulsion	2 x Shafts & CPP
Diesel Generator	4 x 1050 kW



ACCOMMODATION

- Comfortable accommodation for 206 crew (extendable to 222 in total)
- Galley, dry provisions, freezing rooms, wardroom/mess halls, offices, CIC etc.
- Length of stay at sea:
 - 15 days (fresh provision)
 - 90 days (dry provision)



MAIN DIMENSIONS

L _{OA}	158.40 m
L _{WL}	155.86 m
L _{BP}	147.23 m
Beam	22.00 m
Draught (design)	6.85 m
Displacement (deep)	15 600 t



WEAPONS / SENSORS

- 2 x Close in Weapon System (CIWS)
- 2 x 12.7 mm Machine Guns
- IR & Chaff
- Infra Red Surveillance & Tracking System



PLATFORM CAPABILITIES

- 2 x Stations for abeam replenishment of liquid cargo
- 2 x Stations for abeam replenishment of solid cargo
- 1 x Station for stern replenishment of liquid cargo
- 2 x RHIB
- 1 x Utility Boat



AVIATION FACILITIES

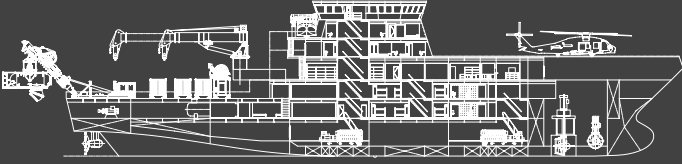
- Helicopter landing deck capable of day and night operations and VERTREP
- Helicopter hangar for 1 x Seaking helicopter and 1 x Dolphin helicopter

SCOPE OF SERVICES

- ☑ Conceptual Design
- ☑ Contract Design
- ☑ Production Engineering
- ☑ Post Production Services
- ☑ DeltaLoad Ship Loading Software
- ☑ Advanced Engineering Analyses

REFERENCES

- ⚓ Pakistan Navy Fleet Tanker



MOSHIP

SUBMARINE RESCUE

MOTHER SHIP

Submarine Rescue Mother Ship (MOSHIP) is a monohull vessel, designed to perform subsea and surface rescue missions including heavy seas, equipped with redundant diesel-electric propulsion system allowing flexible power share and strong position keeping, conforming naval norms/standards and classification rules.

MAIN TASKS

- To provide life support to the crew of a damaged submarine
- To rescue crew (up to 600 m. depth) in maximum 72 hours
- To handle rescue and salvage operations for surface ships
- To provide subsea repair works and wreck removal



COMBAT SHIPS



AMPHIBIOUS SHIPS



SUPPORT SHIPS



PATROL SHIPS



TRAINING SHIPS



MOSHIP SUBMARINE RESCUE MOTHER SHIP SPECS



CAPACITIES

F-76 / HSDO	863 t
JP-5	21 t
Fresh Water	48 t



SPEED / ENDURANCE

Max Speed	+18.0 kn
Max Cont. Speed	18.0 kn
Economical Speed	14.0 kn
Endurance	+4500 nm @ 14 kn



MAIN PROPULSION

Main Engine	5 x 1700 kW
Propeller Propulsion	2 x 3450 kW, 3 200 mm dia Azimuth Thruster



ACCOMMODATION

- Comfortable accommodation for own ship crew, rescue personnel and saved crew of 135+4 in total
- Galley, dry provisions, freezing rooms, 4 x wardroom/mess halls, offices, CIC, Crypto room etc.
- Length of stay at sea: 30 days



MAIN DIMENSIONS

L _{DA}	93.20 m
L _{WL}	86.20 m
Beam	19.20 m
Draught (design)	4.75 m
Displacement	4537 t



WEAPONS / SENSORS

- Navigation Radar, Communicaton Systems and Underwater Telephone
- 2 x 12.7 Machine Guns (STAMP)



SHIP EQUIPMENT

- Atmospheric Diving Suit (ADS), Emergency Life Saving Support (ELSS), Remotely Operated Vehicle (ROV), Towed Side Scan Sonar (TSSS), Mc Cann Rescue Chamber
- 2 x 16 persons pressure chambers
- 1 x RHIB and 2 x Rescue Boats
- Transverse bow thruster, 1 x 1500 kW; Retractable azimuth bow thruster, 1 x 1200 kW, 360º steerable
- Helicopter deck for helicopters up to 12 tons

SCOPE OF SERVICES

- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses

REFERENCES

⚓ No References Yet



RATSHIP

RESCUE & TOWING SHIP

Rescue & Towing Ship (RATSHIP), is a monohull vessel, designed to perform subsea and surface rescue missions including heavy seas, equipped with conventional all diesel-CP propulsion system, with strong position keeping capability, conforming naval norms/standards and classification rules.

MAIN TASKS

To handle rescue and salvage operations for surface ships, to provide support for such operations

To provide life support to the crew of a damaged submarine up to 600 m. depth, to provide support for rescue operations

To handle subsea repair works, wreck removal

To intervene with ship fires and sea-pollution

To rescue crew of air vehicles landed/fallen into the sea

To tow targets, to recover targets and torpedos during naval exercises



COMBAT SHIPS



AMPHIBIOUS SHIPS



SUPPORT SHIPS



PATROL SHIPS



TRAINING SHIPS



RATSHIP RESCUE & TOWING SHIP SPECS



CAPACITIES

F-76 / HSDO	623 t
JP-5	18 t
Fresh Water	35 t



SPEED / ENDURANCE

Max Speed	18.0 kn
Max Cont. Speed	14.0 kn
Endurance	+4500 nm @ 14 kn



MAIN PROPULSION

Main Engine	4 x 1600 kW
Propeller Propulsion	2 x Shafts x CPP
Endurance	+4500 nm @ 14 kn



ACCOMMODATION

- Comfortable accommodation for own ship crew, rescue personnel and saved crew of 104 (expandable to 108 in total)
- Galley, dry provisions, freezing rooms, 4 x wardroom/mess halls, offices, CIC, Crypto room etc.



MAIN DIMENSIONS

L _{DA}	80.50 m
L _{WL}	75.45 m
Beam	16.80 m
Draught (design)	4.20 m
Displacement	3 240 t



MANEUVERING EQUIPMENT

- Transverse bow thruster, 1 x 1200 kW
- Transverse stern thruster, 2 x 1200 kW
- Retractable azimuth bow thruster, 1 x 1100 kW, 360° steerable



WEAPONS / SENSORS

- Navigation Radar, Communication Systems and Underwater Telephone
- 2 x 12.7 Machine Guns (STAMP)



WEAPONS / SENSORS

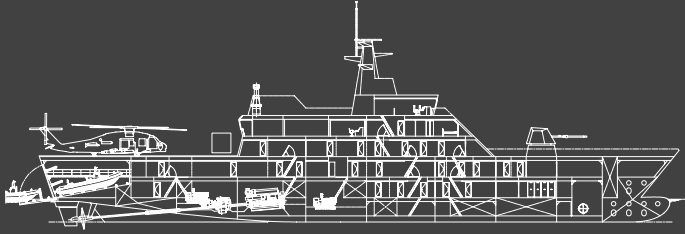
- Atmospheric Diving Suit, Emergency Life Saving support, Side Scan Sonar, Remotely Operated Vehicle
- A hydraulic/telescopic crane of 20 tons to serve aft deck area
- Pressure chamber for 6 people
- A sick-bay with 4 beds, surgical intervention room and X-Ray room
- Subsea breathing air supply means

SCOPE OF SERVICES

- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses

REFERENCES

⚓ No References Yet



OPV-D80

OFFSHORE PATROL VESSEL

OPV-D80 Offshore Patrol Vessel is a monohull vessel designed to perform surface rescue, surveillance and support missions including heavy sea conditions. The vessel equipped with conventional Diesel Engine-CPP propulsion system, conforms the naval norms, standards and classification rules. Vessel's connection with land is maintained by helicopter and RHIB operations.

MAIN TASKS

- Exclusive Economic Zone Surveillance
- Fishery Inspection & Protection
- Counter Drugs & Weapons Trafficking
- Piracy & Smuggling Interdiction
- Search & Rescue Operations
- Disaster & Humanitarian Relief
- Logistic Support
- Firefighting
- Pollution Control



COMBAT SHIPS



AMPHIBIOUS SHIPS



SUPPORT SHIPS



PATROL SHIPS



TRAINING SHIPS



OPV-D80 OFFSHORE PATROL VESSEL SPECS



CAPACITIES

F-76 / HSDO	300 t
JP-5	4 t
Fresh Water	60 t



SPEED / ENDURANCE

Max Speed	+20.0 kn
Max Cont. Speed	14.0 kn
Economical Speed	12.0 kn
Endurance	6 000 nm



MAIN PROPULSION

Main Engine	2 x 3300 kW
Propeller Propulsion	2 x Shafts & CPP
Diesel Generator	4 x 500 kW



ACCOMMODATION

- Comfortable accommodation for 66 crew and 14 spares
- Spacious bridge
- Separate OPS room for surveillance and gun control
- Flight office, administrative office, ship office
- Galley, dry provision, pantry, wardroom/mess halls, etc.
- Length of stay at sea: 21 days



MAIN DIMENSIONS

L _{OA}	84.20 m
L _{WL}	80.80 m
L _{BP}	78.65 m
Beam	14.00 m
Draught (design)	3.25 m
Displacement	1 750 t



WEAPONS / SENSORS

- Main Forward Gun up to 76 mm
- 2 x 12.7 mm Stabilized Platform Machine Guns (STAMP)
- Medium Range Survival Radar
- E/O Fire Control Sensor



SHIP EQUIPMENT

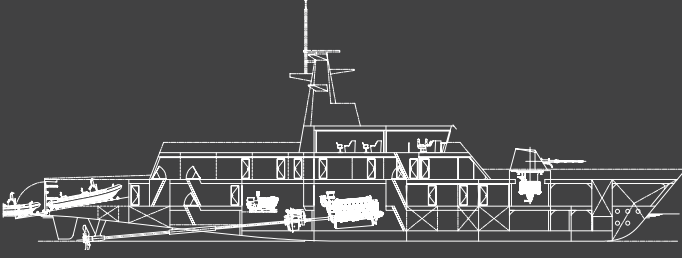
- 1 x 10 t Telescopic Crane for handling container
- 2 x RHIB
- 2 x Containerized Mission Modules
- 1 x Stern Launching Ramp
- Wave Compensated Davit (sea state 5)

SCOPE OF SERVICES

- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses

REFERENCES

⚓ No References Yet



FBP-D60

FAST PATROL BOAT

OPV-D80 Offshore Patrol Vessel is a monohull vessel designed to perform surface rescue, surveillance and support missions including heavy sea conditions. The vessel equipped with conventional Diesel Engine-CPP propulsion system, conforms the naval norms, standards and classification rules. Vessel's connection with land is maintained by helicopter and RHIB operations.

MAIN TASKS

- Exclusive Economic Zone Surveillance
- Counter Drugs & Weapons Trafficking
- Piracy & Smuggling Interdiction
- Search & Rescue Operations
- Disaster & Humanitarian Relief
- Pollution Control
- Fishery Inspection & Protection



COMBAT SHIPS



AMPHIBIOUS SHIPS



SUPPORT SHIPS



PATROL SHIPS



TRAINING SHIPS



FBP-D60 FAST PATROL BOAT SPECS



CAPACITIES

Fuel (F-76)	90 t
Fresh Water	30 t



SPEED / ENDURANCE

Max Speed	28.0 kn
Max Cont. Speed	18.0 kn
Economical Speed	12.0 kn
Endurance	2200 nm @ 18 kn



MAIN PROPULSION

Main Engine	2 x 4000 kW
Propeller Propulsion	2 x 2800 mm, CPP
Diesel Generator	2 x 590 kW + 1 x 200 kW



ACCOMMODATION

- Comfortable accommodation for 44 crew and 11 spares
- Spacious bridge
- Separate OPS room for surveillance and gun control
- Administrative office, ship office
- Galley, dry provision, pantry, wardroom/mess halls, etc.



MAIN DIMENSIONS

L _{OA}	62.00 m
L _{WL}	58.75 m
L _{BP}	56.55 m
Beam	9.60 m
Draught (design)	2.65 m
Displacement	560 t



WEAPONS / SENSORS

- Main Forward Gun up to 76 mm
- 2 x 12.7 mm Stabilized Platform Machine Guns (STAMP)
- Medium Range Survival Radar
- E/O Fire Control Sensor



SHIP EQUIPMENT

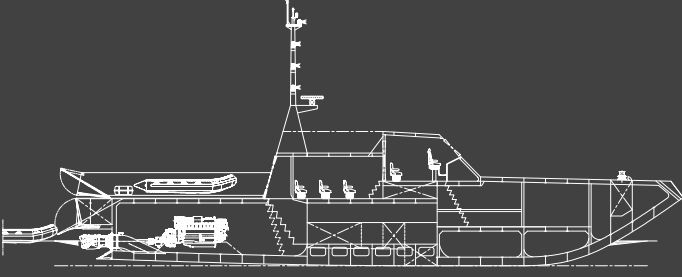
- 1 x RHIB
- 1 x Stern launching ramp

SCOPE OF SERVICES

- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses

REFERENCES

⚓ No References Yet



SAT

SPECIAL FORCE BOAT

Special Force Attack Boat is a high speed, single deck, deep V type, planing vessel with high maneuvering abilities and low ship signatures and having its mission defined as carrying the materials and explosive equipment that would be needed by special forces mission units during underwater attack missions, in compliance with military norms and standards and with classification society's rules.

MAIN TASKS

Counter terrorist protection of the coastal and offshore installations

Search and Rescue operations

Anti smuggling operations

To meet Police, Customs, Health Authority etc. missions as to be reconfigured upon request



COMBAT SHIPS



AMPHIBIOUS SHIPS



SUPPORT SHIPS



PATROL SHIPS



TRAINING SHIPS



SAT SPECIAL FORCE BOAT SPECS



CAPACITIES

Fuel (F-76)	6.3 t
Fresh Water	2.4 t



SPEED / ENDURANCE

Max Speed	+50.0 kn
Max Cont. Speed	+30.0 kn
Economical Speed	15.0 kn
Endurance	350 nm @ 45 kn



MAIN PROPULSION

Main Engine	2 x 1790 kW
Propeller Propulsion	2 x Water Jets & Gearboxes



ACCOMMODATION

- 16 pax UAT personnel cabin
- 4 pax capacity wounded person transferring cabin
- Crypto cabin
- The possibility to accommodate 8 more UAT unit chair



MAIN DIMENSIONS

L _{OA}	28.00 m
L _{WL}	23.29 m
Beam	6.00 m
Draught (design)	1.13 m
Displacement	50 t



WEAPONS / SENSORS

- Navigation Radar
- 2 x 12.7 mm Machine Guns
- 1 x 12.7 mm Stabilized Platform Machine Guns
- 2 x 40 mm Grenade Launcher
- Reduced Radar Cross Section



SHIP EQUIPMENT

- 2 x RHIB



CAPABILITIES

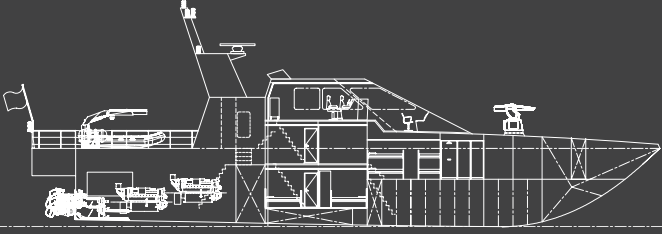
- The capability to perform missions in Black Sea, Mediterranean Sea and Aegean Sea fully for 3 sea state and limited for 4 and 5 sea states
- Low ship signatures: Low Radar Cross Section Area, low infrared signature and low acoustic signature
- Aluminum alloy construction providing easy maintenance and repair possibility
- Two propulsion systems, each including a diesel engine, a gearbox and a waterjet, totally independent from each other and high maneuverability

SCOPE OF SERVICES

- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses

REFERENCES

⚓ No References Yet



HSBP-D35

HIGH SPEED PATROL BOAT

HSPB-D35 High Speed Patrol Boat is a mono-hull deep V vessel designed to perform surface rescue, surveillance and support missions including heavy sea conditions. Mastery of the littoral cannot be presumed. It does not derive directly from command of the high seas. It is an objective which requires our focused skills and resources. The vessel equipped with conventional Diesel Engine-Water jet propulsion system, conforms the naval norms, standards and classification rules. HSPB-D35 "High Speed Patrol Boat" has improved sea keeping, stealth characteristics and is able to carry larger mission equipment/payload such as a 30 mm stabilized gun, EO sensors, gun fire control systems.

MAIN TASKS

Patrol / Escort / Fast attack

Anti-piracy operations

Anti-terrorist protection of the coastal and offshore installations

Surveillance / Covert surveillance

Search and rescue operations

Anti smuggling operations



COMBAT SHIPS



AMPHIBIOUS SHIPS



SUPPORT SHIPS



PATROL SHIPS



TRAINING SHIPS



HSBP-D35 HIGH SPEED PATROL BOAT SPECS



CAPACITIES

Fuel (F-76)	18.0 t
Fresh Water	2.0 t



SPEED / ENDURANCE

Max Speed	45.0 kn
Max Cont. Speed	20.0 kn
Endurance	600 nm @ 20 kn



MAIN PROPULSION

Main Engine	3 x 1900 kW
Propeller Propulsion	3 x Water Jets
Diesel Generator	2 x 100 kW



ACCOMMODATION

- Accommodation for 15 Crew
- Galley, mess rooms



MAIN DIMENSIONS

L _{OA}	34.50 m
L _{WL}	28.70 m
L _{BP}	28.70 m
Beam	7.50 m
Draught (design)	1.60 m
Displacement	110 t



WEAPONS / SENSORS

- Navigation Radar and Communication Systems
- 1 x 12.7 mm Stabilized Platform Machine Guns (STAMP)
- Reduced Radar Cross Section (RCS)



SHIP EQUIPMENT

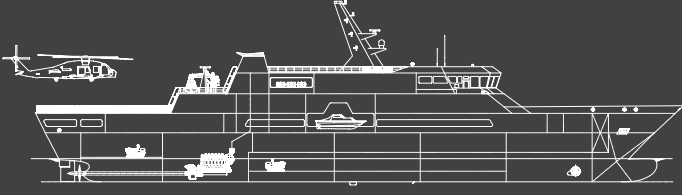
- 1 x RHIB

SCOPE OF SERVICES

- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses

REFERENCES

⚓ No References Yet



MBH1774

NAVAL TRAINING SHIP

MBH1774 is a monohull vessel, designed for Naval cadets' short and long term active onboard theoretical and practical training including heavy seas, equipped with every aspects of a real training ship, conforming naval norms/standards and clasification rules. The vessel is designed in collaboration with Savunma Teknolojileri Muhendislik (STM) of Turkey.

MAIN TASKS

To accommodate 100 cadets and their trainers, providing long term open seas training

To show flag all around the World

To serve as helicopter landing/take-off training platform



COMBAT SHIPS



AMPHIBIOUS SHIPS



SUPPORT SHIPS



PATROL SHIPS



TRAINING SHIPS



MBH1774 NAVAL TRAINING SHIP SPECS



CAPACITIES

Fuel (F-76)	210 t
JP-5	20 t
Fresh Water	75 t



SPEED / ENDURANCE

Max Speed	18.0 kn
Max Cont. Speed	16.0 kn
Endurance	4500 nm @ 16 kn



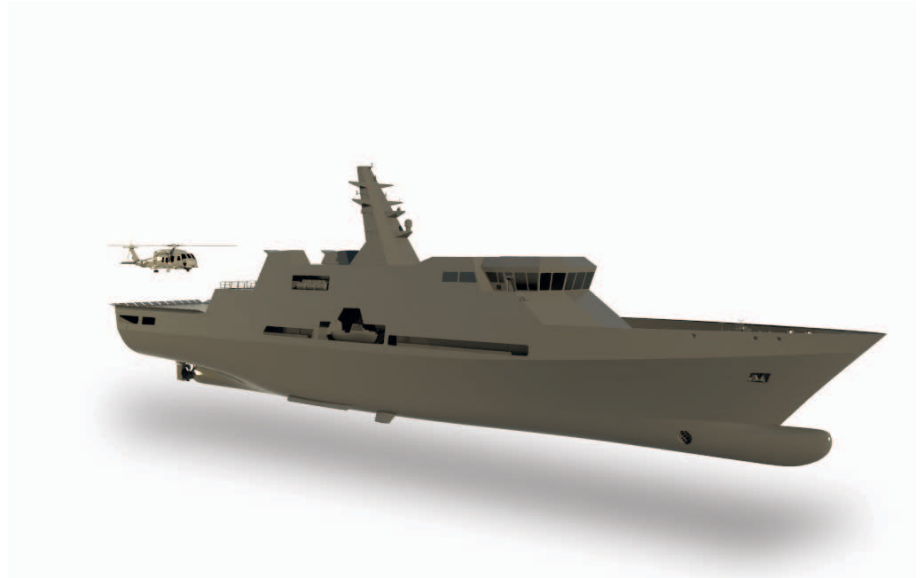
MAIN PROPULSION

Main Engine	1 x 3500 kW
Propeller Propulsion	1 x Shafts & CPP
Diesel Generator	3 x 600 kW
Em'cy Generator	1 x 100 kW



ACCOMMODATION

- Comfortable accommodation for 120 crew (including 20 trainers) and 100 cadets.
- Training Bridge, Training CIC, Training Radio Room, Damage Control and Fire Fighting Training Compartments, Classrooms
- Galley, dry provisions, freezing rooms, wardroom/mess halls, offices, CIC etc.
- Length of stay at sea: 20 days



MAIN DIMENSIONS

L _{OA}	103.00 m
L _{WL}	90.50 m
Beam	16.00 m
Draught (design)	3.60 m
Displacement	2 630 t



WEAPONS / SENSORS

- ARPA Navigation Radar
- 1 x 76 mm or similar forward gun (optional)
- 2 x 12.7 or 25 mm Stabilized Platform Machine Guns (STAMP/STOP) (optional)



SHIP EQUIPMENT

- 1 x RHIB
- 2 x Rescue boats



AVIATION FACILITIES

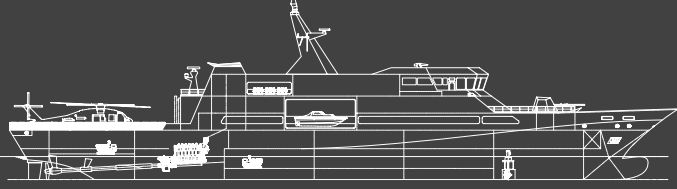
- Helicopter deck for landing and take off of helicopters up to 1 x 10 tons

SCOPE OF SERVICES

- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses

REFERENCES

⚓ No References Yet



MBH1773

NAVAL TRAINING SHIP

MBH1773 class Training Ship is a monohull vessel, designed for long term on board training activities of cadets, equipped with every aspects of a real training ship, conforming naval norms/standards and classification rules. The vessel is designed in collaboration with Savunma Teknolojileri Muhendislik (STM) of Turkey.

MAIN TASKS

To accommodate 60 cadets and their trainers, providing long term open seas training

To show flag all around the World

To serve as helicopter landing/take-off training platform

To carry out Command&Control Ship tasks in wartime



COMBAT SHIPS



AMPHIBIOUS SHIPS



SUPPORT SHIPS



PATROL SHIPS



TRAINING SHIPS



MBH1773 NAVAL TRAINING SHIP SPECS



CAPACITIES

Fuel (F-76)	275 t
JP-5	20 t
Fresh Water	100 t



SPEED / ENDURANCE

Max Speed	21.0 kn
Max Cont. Speed	15.0 kn
Endurance	4500 nm @ 15 kn



MAIN PROPULSION

Main Engine	2 x 5000 kW
Propeller Propulsion	1 x Shafts & CPP
Diesel Generator	4 x 588 kW



ACCOMMODATION

- Accommodation for 60 cadets, 108 crew and trainers
- Training Bridge, Training CIC, Training Radio Room, Training MCR, Damage Control and Fire Fighting Training Compartments, Classrooms
- Galley, dry provisions, freezing rooms, wardroom/mess halls, offices, CIC etc.
- NBC Protection
- Length of stay at sea: 30 days



MAIN DIMENSIONS

L _{OA}	101.70 m
L _{WL}	91.72 m
Beam	16.00 m
Draught (design)	4.10 m
Displacement	2 915 t



WEAPONS / SENSORS

- Command&Control, Fire Control, Navigation and Communication Systems
- 1 x 76 mm. or similar forward gun
- 2 x 12.7 or 25 mm. Stabilized Platform Machine Guns (STAMP/STOP)
- CWS/PDMS System (optional)
- Sonar System (optional)



SHIP EQUIPMENT

- 1 x RHIB
- 1 x Service Boat



AVIATION FACILITIES

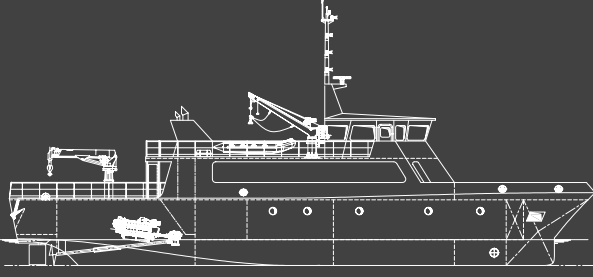
- Large helicopter deck for 15 t helicopters, suitable for landing /take-off exercises;
- Telescopic hangar

SCOPE OF SERVICES

- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses

REFERENCES

⚓ No References Yet



NDTSB

NAVAL DIVE TRAINING & SUPPORT BOAT

Naval Dive Training - Support Boat is a monohull all steel vessel, designed to perform Dive Training missions including SAR, salvage, ROV operations, equipped with conventional all diesel-FPP propulsion system, conforming naval norms/standards and classification rules. The vessel is designed in collaboration with Savunma Teknolojileri Muhendislik (STM) of Turkey.

MAIN TASKS

- Basic Diving Trainings
- Air SCUBA Diving Trainings
- Mixed-Gas SCUBA Diving Trainings (Air)
- Surface Supplied Diving Trainings (Mixed-Gas)
- Open (Wet) Bell Operations
- Recompression Chamber Operations



COMBAT SHIPS



AMPHIBIOUS SHIPS



SUPPORT SHIPS



PATROL SHIPS



TRAINING SHIPS



NDTSB NAVAL DIVE TRAINING & SUPPORT BOAT SPECS



CAPACITIES

Fuel (F-76)	25 t
Fresh Water	30 t



SPEED / ENDURANCE

Max Speed	16.0 kn
Max Cont. Speed	14.0 kn
Endurance	1300 nm @ 14 kn



MAIN PROPULSION

Main Engine	2 x 1000 kW
Propeller Propulsion	1 x Shafts & FPP
Diesel Generator	2 x 150 kW



ACCOMMODATION

- Comfortable accommodation for 6 crew, with galley and mess
- 25-30 dive trainee day capacity with separate mess/briefing-training room



MAIN DIMENSIONS

L _{OA}	33.90 m
L _{WL}	31.00 m
Beam	8.00 m
Draught (design)	1.50 m
Displacement	200 t



WEAPONS / SENSORS

- Search and Rescue Operations,
- Limited scale Salvage Operations,
- ROV Operations,
- Side Scan Sonar Operations,
- Underwater Surveys.



SHIP EQUIPMENT

- Air&Gas Supply System with Diving Control Station and storage
- 3 persons Decompression Chamber
- SWL 2.5 t Knuckle Boom Crane
- 1 x RHIB
- Bow Thruster and Stern Anchor for position keeping
- Communication and Navigation Systems
- Single Beam Echo Sounder

SCOPE OF SERVICES

- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses

REFERENCES

⚓ No References Yet

E-CLASS

TRAINING SHIP

Naval Dive Training - Support Boat is a monohull all steel vessel, designed to perform Dive Training missions including SAR, salvage, ROV operations, equipped with conventional all diesel-FPP propulsion system, conforming naval norms/standards and classification rules. The vessel is designed in collaboration with Savunma Teknolojileri Muhendislik (STM) of Turkey.

MAIN TASKS

- To accommodate 6 corporals and conscripts, providing long term sea training
- To provide navigational practice
- Anti-piracy operations as a secondary mission
- To participate Search and Rescue Operations as a secondary mission



COMBAT SHIPS



AMPHIBIOUS SHIPS



SUPPORT SHIPS



PATROL SHIPS



TRAINING SHIPS



E-CLASS TRAINING SHIP SPECS



CAPACITIES

Fuel (F-76)	9 t
Fresh Water	6 t



SPEED / ENDURANCE

Max Speed	12 kn
Max Cont. Speed	12 kn
Economical Speed	12 kn
Endurance	2250 nm @ 12 kn



MAIN PROPULSION

Main Engine	2 x 279 kW
Propeller Propulsion	1 x Shafts & FPP
Diesel Generator	2 x 92 kW



ACCOMMODATION

- Accommodation for 10 Crew
- Galley, Mess Room, CIC



MAIN DIMENSIONS

L _{OA}	28.80 m
Beam	6.00 m
Draught (design)	1.20 m
Displacement	76 t



SHIP EQUIPMENT

- 1 x RHIB



WEAPONS / SENSORS

- Navigation Radar and Communication Systems



AVIATION FACILITIES

- Helicopter deck for landing and take off of helicopters up to 1 x 10 ton

SCOPE OF SERVICES

- Conceptual Design
- Contract Design
- Production Engineering
- Post Production Services
- DeltaLoad Ship Loading Software
- Advanced Engineering Analyses

REFERENCES

- ⚓ TCG E-1 (A-1531)
- ⚓ TCG E-2 (A-1532)
- ⚓ TCG E-3 (A-1533)
- ⚓ TCG E-4 (A-1534)
- ⚓ TCG E-5 (A-1535)
- ⚓ TCG E-6 (A-1536)
- ⚓ TCG E-7 (A-1537)
- ⚓ TCG E-8 (A-1538)

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