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Project Overviews

Synectics is a world leader providing integrated surveillance solutions to the Marine sector. We have 30 years' experience designing, manufacturing and deploying turnkey systems for the world's largest and most demanding applications.

Q-Max

The Q-Max vessels were first ordered by Qatar Gas Transport Company in 2005, built by DSME and the first delivered in 2007. It is estimated that Q-Max carriers have about 40% lower energy requirements and carbon emissions than conventional LNG carriers. Q-Max vessels are equipped with an onboard re-liquefaction system to handle the boil-off gas, liquefy it and return the LNG to the cargo tanks. The onboard re-liquefaction system allows for a reduction in LNG losses, which produces economic and environmental benefits.

Q-Flex

Until the first service of the Q-Max LNG vessels, the Q-Flex LNG Carriers were the largest in the world with a capacity of 1.5 times greater than a typical LNG carrier. They are built using the same technology and specification as the Q-Max ensuring energy efficiency and economic savings.

KOGAS

KOGAS LNG Carriers are used to bulk ship LNG between Yemen and Russia's Sakhalin-2 project to KOGAS import terminals at Pyong Taek, Incheon and Tong Yeong.

FSRU Toscana

This LNG carrier has been converted into a Floating Storage and Re-Gasification Unit (FSRU) turning the vessel into a floating terminal that can be situated offshore or at a new or purpose-built jetty or pier. The FSRU will receive liquid natural gas (LNG) from offloading LNG carriers, and the onboard regasification system provides gas send-out through flexible risers and pipeline to shore.

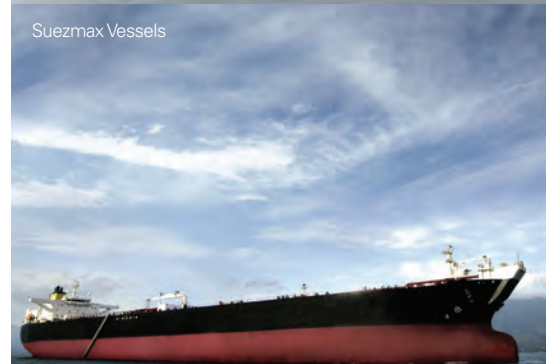
Saipem 10000 Drillship

The Saipem 10000 is Saipem's innovative highly technological drillship for the exploration and development of hydrocarbon reservoirs in deep and ultradeep waters. Its position is controlled in realtime by a dynamic positioning system based upon a satellite (GPS) and a hydro-acoustic reference system. It maintains a steady operating position by using six azimuth thrusters and a computerised system that corrects the effects of wind, wave, and current, also in realtime. The vessel is capable of operating in water depths of up to 3,000 m and can drill wells to 10,000 m. The Saipem 10000 has a crude oil storage of 140,000 bbl and process facilities capacity of 20,000 b/d.

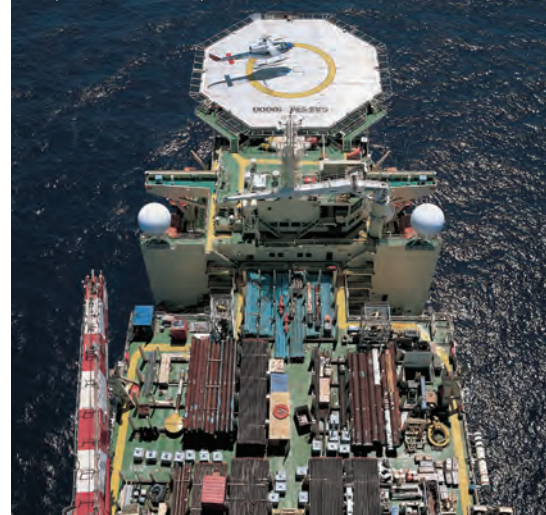
KOGAS LNG



Suezmax Vessels



Saipem 10000 Drillship



Container Vessels -
Hapag Lloyd



Valle Bianca



James Clark Ross



Suezmax Oil Tankers

Atlântico Sul Shipyard was established in November 2005 to rejuvenate the Brazil shipbuilding industry. It is the biggest and most modern naval and offshore construction and repair shipyard in the Southern hemisphere. These vessels were the first to be manufactured at the shipyard.

Oil Product Carriers

Valverde, Valle Bianca, Valle Azzura, Valrossa are oil product carriers owned by Navigazione Montanari. These highly specialised vessels, built by SPP Shipyard, Korea, have features such as double hull longitudinal bulkheads and high pumping capacity. These features make the vessels reliable and safe, complying with the latest requirements for oil pollution prevention.

Oil Carriers – VLCC

Samco America, Europa, Asia, Scandinavia and China are Very Large Crude Carriers (VLCC) with a length of 333 m, width 60 m, draught 22.5 m and a deadweight capacity of 318,000 tonnes. These vessels can transport up to 346,261 tonnes of crude oil.

Container Vessels – Hapag Lloyd

Prague, Sofia, Vienna, Basle, Budapest and Frankfurt Express are container vessels operated by Hapag Lloyd with a capacity of 100,000 tonnes of freight.

Isle of Wight Ferries

Wightlink's three fuel efficient vessels (Wight Light, Wight Sky and Wight Sun), which were built in the Brodogadiliste Kraljevica shipyard in Croatia, provide better passenger facilities on route between Lymington and Yarmouth. Each vessel can carry 350 pedestrian passengers and 13 cars.

TI Asia / Africa FSO's

These Floating Storage and Offloading vessels (FSO) were originally constructed as Ultra Large Crude Carriers in 2002 / 2003 by DSME and were the largest double-hulled supertankers in the world (named Alhambra and Metropolis). Tankers International LLC purchased and converted these vessels to FSO's in 2009 / 2010. They are currently located in the Al Shaheen oilfield, offshore Qatar.

Ice Class Vessels

RS James Clark Ross is a research vessel owned by British Antarctic Survey. The vessel can steam at a steady two knots through level sea ice one metre thick. To assist passage through heavy pack ice, a compressed air system rolls the ship from side to side freeing the passage. The ship is designed with an extremely low noise signature to allow sensitive underwater acoustic equipment to operate effectively.

Marine Project List

Client	Owner	Country	Project
Daewoo Shipbuilding and Marine Engineering (DSME)	Maran Gas Maritime	Greece	H2288, H2291-2292 & H2295-2296 Maran LNG Carriers
DSME	Awilco LNG	Norway	H2289-2290 Awilco LNG Carrier
DSME	TMS Tankers	Greece	H2297-2298 H2400-2401 Oceanus LNG Carrier
DSME	Excelerate LNG	USA	H2402 LNG Carrier
DSME	Sonangol	Angola	H2280-2282 LNG Carriers
DSME	RasGas / MOL	Japan	H2249-2253 LNG Carriers Q-Flex LNG Carriers
DSME	QatarGas	Qatar	H2255-2257 LNG Carriers Q-Max LNG Carriers
DSME	Stena Bulk Gothenburg	Sweden	H2268 "Stena Crystalsky" & H2278 "Stena Clearsky" LNG Carriers
Hyundai Samho	Golar LNG	Norway	S658 "Golar Glacier" & S659 "Golar Kelvin" LNG Carrier
DSME / Hyundai Heavy Industries (HHI) / Hanjin Heavy Industries	KOGAS	Korea	H2260-2261 LNG Carriers H1903 LNG Carrier N192-193 LNG Carrier
HHI	Shell Nigeria	Nigeria	H1295-1296 LNG Carriers
HHI	Brunei Gas Carriers	Brunei	H2606 LNG Carrier
HHI	NLNG Bonny Gas Transport	Nigeria	H2636-2637 LNG Carrier
DSME	Sovcomflot	Russia	H2241-2242 LNG Carriers

Client	Owner	Country	Project
DSME	MOL	Japan	H2419 FSRU
Elsag Datamat SpA	OLT Offshore LNG Toscana	Italy	FSRU Toscana
Samsung Heavy Industries	Saipem	Italy	Saipem 10000 Drillship and Upgrade

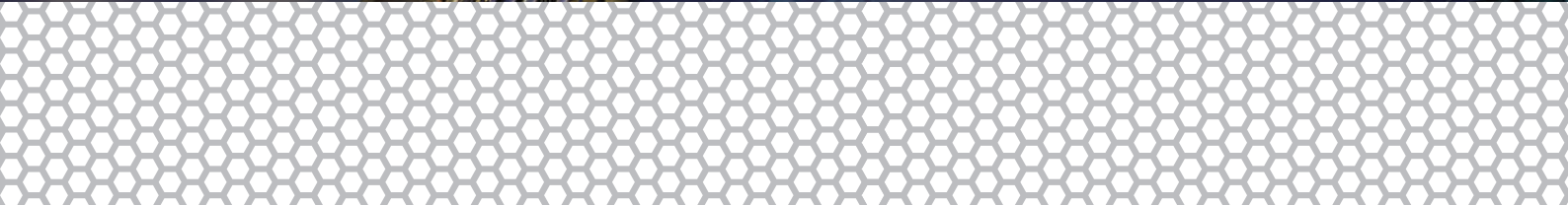
Client	Owner	Country	Project
Esteleiro Atlantico Sul	Transpetro	Brazil	Suezmax Oil Tankers x 10
Tesma	Samco	Korea	Samco Oil Carrier x 5
DSME	Hellespont	Greece	H5183-5184 "Alhambra" and "Metropolis" 402,000 Ultra Large Crude Carriers (ULCC) Tankers (now TI Asia and Africa FSOs)
Yangfan	Essberger	Germany / Netherlands	H2181-2183 Bulk Carriers
HHI	Knutsen	Norway	157,000 Shuttle Oil Tanker
HHI	Pertamina	Panama	H1540-1541 260,000 DWT Oil Carriers
SPP Shipyard	Montanari	Italy	HN1009-1012 Oil Product Tankers

Marine Project List

Client	Owner	Country	Project
Valles Steamship	Valles	Canada	"Sea Frontier" & "Sea Meridian" Chemical Tankers
Hyundai Mipo Dockyard (HMD)	Montanari	Italy	H0032-0033 and H0103-0104 35,000 Chemical Tanker
HMD	D'Alesio	Italy	H0353-354 35,000 DWT Product / Chemical Tankers
Protobase	Total	Congo	N'Kossa Production Barge

Client	Owner	Country	Project
DSME	Neptune Orient Lines	Singapore	H4240-4249 H4260-4261 9,200 TEU Container Vessels
HHI	Hapag Lloyd	Germany	H2497-2500 Container Vessels
VT Halter Marine	Pasha Hawaii	USA	Hull No 433-2005 "MV Marjorie C"
Uljanik Shipyard	Inarme	Italy	NB482 "Grande Togo" & NB483 "Grande Costa d'Avorio" Container / Car Carriers
Uljanik Shipyard	Grimaldi Group	Italy	NB472-476 Container / Car Carriers
Uljanik Shipyard	Ray Car Carriers	UK	NB466 "Opal Leader" Car Carrier
AMO Safety	Cosco Shipyard	China	Cargo Vessels x 5
HHI	Hapag Lloyd	Germany	H1793-95 8,600 TEU Container Carriers

Client	Owner	Country	Project
DSME	Technip / Odebrecht / Petrobras	Brazil	H3403-3404 Multipurpose Subsea Construction Vessels
Brodogradiliste Kraljevica	WightLink	UK	Isle of Wight Ferries x 3
Remontowa Shipyard	Caledonian MacBrayne	UK	Calmac 3 Ferry
JSC SAIT Marine	GosMorSpasSlujba	Russia / Far East	Multipurpose Salvage Vessels x 2
Acergy	Acergy	Asia Pacific	Toisa Proteus Expansion (Heavy Construction and Dive Support Vessel)
Radio Holland Singapore	BP Shipping Ltd	Singapore	H145-148 Platform Support Vessels
Vard Braila	Caspian Offshore Construction	Kazakhstan	Mangystau 1/2/3 Fire Fighting Vessels
SCAN Geophysical	SCAN Geophysical	Norway	"Stigandi" Research Vessel
INP Heavy Industries Co Ltd	Swire Pacific Offshore	Singapore	H1126-1129 Supply Boat
HMD	Alcatel	France	H0001-0003 Cable Layer Ship
Technip	Technip Offshore UK Ltd	UK	"Deep Blue" Pipelay Vessel
British Antarctic Shipping	British Antarctic Shipping	UK	James Clark Ross Ice Class Research Vessel



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