Based on experience from several FPSOs and other large vessels, ICE has developed a robust hull design that is:

- suitable as a platform for wide range of floating production, storage and offloading (FPSO) facilities for offshore oil and gas,
- barge-shaped, with double sides, single bottom and a rounded bow to minimize slamming,
- economical to build using conventional shipyard technology, including to be assembled from joinable hull modules built in more than one yard,
- adaptable to topside configurations weighing up to 30,000 tons and capable of up to 150,000 barrels of oil per day production rate,
- capable of storing 1.6 million barrels of oil available for offloading, with an offloading capacity of one million bopd,
- spread moored with risers on the side, with the design adaptable to a turret moored version,
- capable of a 25 year service life without dry-docking,
- providing accommodation for 110 persons.
Adaptability

Robust ship design adaptable to:

- Floating LNG / LPG arrangement;
- Floating Drilling Production Storage Offloading (FDPSO) arrangement;
- Internal / External (disconnectable) turret arrangement;
- Various standardized (generic) and field specific topside modules arrangement;
- Field / Client specific requirements.
**Principal Dimensions**

Length o.a ........................................... 300.00 m  
Length b.p ........................................... 286.15 m  
Breadth mld. ....................................... 55.00 m  
Depth mld. .......................................... 30.00 m  
Draught, design .................................... 22.32 m  
Hull form ............................................ FPSO service tailor-made shape; double side; single bottom.

**Capacities**

Deadweight (design) .................. abt. 300,000 t  
Crude Oil Overall Offloading Capacity ... 1,600,000 bbl  
Crude Oil Overall Storage Capacity .... 1,775,000 bbl  
Slop tanks ........................................ 2 x 3,574 m³  
Water ballast tanks ....................... 123,492 m³  
Diesel Oil .......................................... 6,252 m³  
Fresh water ................................. 1,353 m³

**Mooring System**

Type (base design) ...................... Spread-moored  
Water depth ..................................... max. 2,500 m  
Number of mooring lines .............. 24

**Accommodation & Safety**

Accommodation for 110 persons  
Temporary quarters in containers for 50 people  
Life saving appliances for 160 people on board:  
- 4 x Lifeboats 80 pers.;  
- Fast rescue boat 6 pers.;  
- Rescue and work boat;  
- Davit launched rescue boat.

**Helideck**

Sikorsky S-92, S-61N and Eurocopter EC-225.

**Cargo System**

Processed oil flow rate ..................... 120,000 bopd  
Cargo tank pumps ......................... 2 x 16 submerged, hydraulic pumps flow 1200m³/h; 13 bar;  
1 Oil operation metering for max. capacity of 7200 m³/h;  
Offloading: Stern & Bow Discharge System, offloading rate 1,000,000 barrels of oil in 24 hours;  
Slop tank pumps ............................. 2 x 2 submerged hydraulic pumps flow 800m³/h; 15 bar;  
1 Clean slop overboard discharge pump, submerged flow 120m³/h; 5 bar;  
1 Hydrocyclone separator with capacity of 120 m³/h.

**Ballast System**

Ballast pumps ......................... 2 x 2,800 m³/h, 4 bar in pump room

**Power Generation**

High Voltage (HV) Generation Plant (installed as a module in the topside area):  
- 4 (four) dual-fuel (fuel gas and diesel) turbo-generator 25MW / 13.8kV / 60Hz, located on topside module;  
Low Voltage Generation Plant:  
- 1 Diesel-driven Auxiliary Generator set, rated 1,800kW / 480V / 60 Hz  
- 1 Emergency Generator set, both rated 1,800kW / 480V / 60Hz and located on main deck in accommodation area.

**CLASS – DNV**

Oil Ship Shaped Oil Production and Storage Unit POSMOOR IG COW VCS-1 CRANE HELDK-SH F-AMC ICS CCO.  
Other leading Class designations are optional.

**Operational life:** 25 years.

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The specifications and data given in this leaflet are for guidance only and subject to applicable metocean data and change.
ICE GROUP CAPABILITIES AND RESOURCES

ICE is an independent full service marine design company with a substantial capacity, serving clients world-wide. Our experience includes 40+ FSO / FPSO projects (new construction, conversions and various studies), jack-up drilling platforms, drill ships, semi-submersible drilling rigs, self-elevating vessels for wind turbine installation, well intervention vessels, converter platforms, etc. We are familiar with the rules of the major IACS Classification Societies and with Brazilian, UK and Norwegian (NORSOK and PSA) regulations. Most of our work is done for repeat clients.