MARCELO PENNA
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FAST SUPPLY INTERVENTION and CREW TRANSFER VESSEL
M P 1 5 0 L

MAIN PARTICULARS

LENGTH OVER ALL	39.86 m
LENGTH WATER LINE	38.66 m
BREADTH MAX	13.00 m
DRAUGHT MAX	1.90 m
DEPTH	4.66 m
MAX SPEED	39 knots
ECONOMIC SPEED	26 knots
RANGE	+ 400 nm @ 26 knots

CAPACITIES

INDUSTRIAL PERSONNEL	56 seats
	150 auxiliary seats
CREW	8
SEATS	Lay flat business class
FUEL OIL	22 m^3
FRESH WATER	8 m^3

The **MP150L** is a CTV / SOV DP-1 or DP-2 class vessel designed to support offshore activities in unrestricted navigation area.

Key features: high hydrodynamic efficiency, low fuel consumption, high speed, good intact and damage stability, large usable working-deck area, superb seakeeping, ergonomics and comfort on board for crew and passengers. Shallow water operations capable.

Helicopter and swing rope operations replaced.

POWER PLANT

MAIN ENGINES	3xCAT 3516E 2525 bkW @ 1800 rpm (US EPA Tier 4)
INSTALLED POWER	7575 kW
PROPULSION	3x Waterjets jets
BOW THRUSTERS	2x Bow thruster 100 kW
GENERATOR SETS	2x CAT C9.3 / 274 kW each
	1xCAT C4.4 / 51 kW

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OPTIONAL EQUIPMENT

Daughter vessel (optional)
Dynamic compensated crew transfer gangway.
Basket transfer system
Hybrid marine propulsion capable

TRANSFER SYSTEM

Landing Height	up to 28 m ASL
Gangway Length 28 m	
Sea State	up to Hs = 3.50 m
Capacity	Transfer flow 50 PAX / 5 min.
Fully electric system using	150 kW the S-Type (Gen CAT C9.3)

BASKET TRANSFER SYSTEM

Sea State	up to Hs = 4 m
Wind speed	up to 40 knots
Capacity	6 pax/lifting

DESIGN CRITERIA

Operational areas	Worldwide operations, except for Artic areas
Dynamic positioning	Capable to remain on position up to sea states with waves of Hs=2 m
Transfer system	Continuous people flow up to Hs=3.5 m
Landing height	Up to 28 m ASL
Vessel top speed	39 knots maximum (depending on installed power)
Autonomy	Cruising range to be not less than 400 nautical miles at 26 knots

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POWER PREDICTION (PRELIMINARY)

Four installed foils to reduce resistance and fuel consumption.

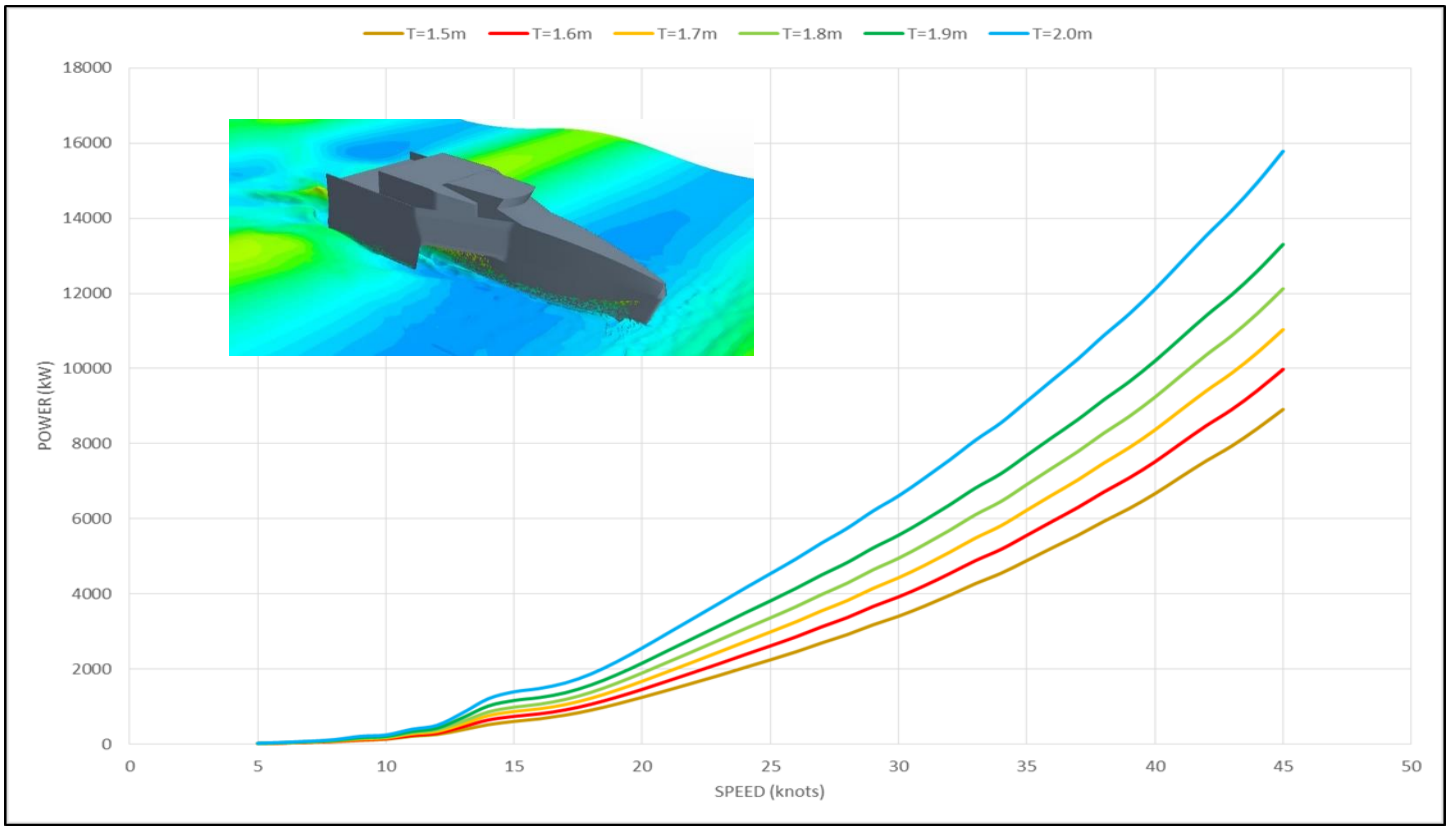

Figure.1 - Power curves

AVERAGE CONSUMPTION

ITEM	SAILING	DP +/-90 deg	DP +/-45 deg	DP +/-30 deg	HARBOUR	EMERGENCY
PROPULSION PLANT	6.060	3.091	4.121	4.909	0	0
FORE THRUSTERS & AUX.	5	237	316	376	0	0
MISSION	0	50	50	50	13	3
HVAC	45	53	48	48	24	12
SYSTEMS	42	58	50	50	26	19
OUTFITTING	36	45	45	45	19	9
TOTAL	6.187	3.533	4.630	5.478	82	43
CONSUMPTION (m^3/day)	34,0	19,5	25,5	30,2	0,5	0,2
UTILIZATION (% m^3/day)	13,6	1,6	3,6	5,1	0,1	0,0
FACTOR	40%	8%	14%	17%	21%	0%

The average fuel consumption for the operational profile shown above is about **24 m^3/day** where the vessel is sailing at 80% MCR of the engines providing a cruising speed of **34 knots**, and under the worst DP scenario while the vessel is remaining in position at zero speed with sea states of Hs 2m

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DYNAMIC POSITION

Two bow thrusters are installed to get DP-2 class vessel designed to support offshore activities in **unrestricted navigation area**.

No Gyro neither Fin stabilizers needed to stay in position while working

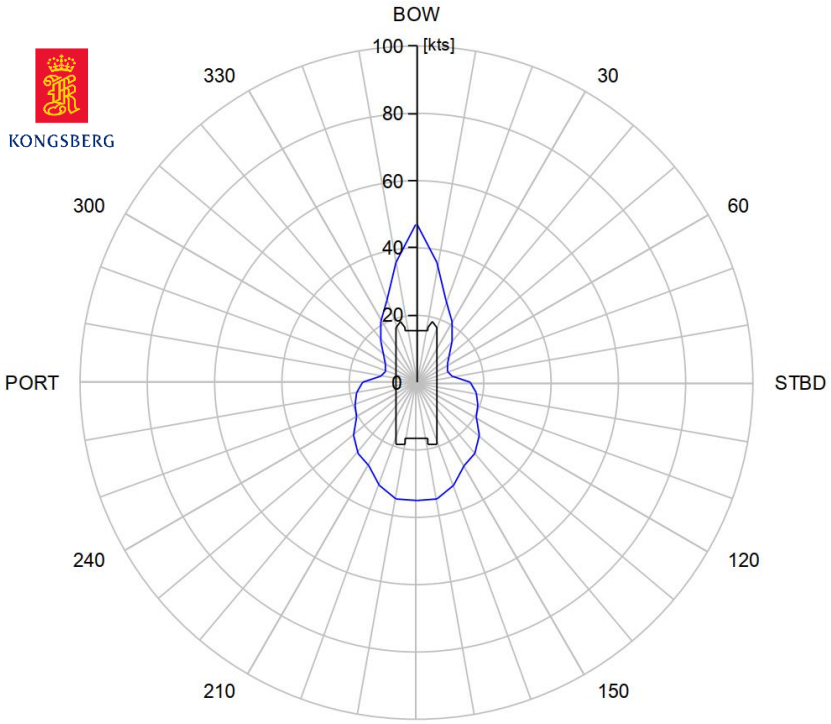

Figure 2 - DP capability envelope 1.78 m wave height

COMFORT

MP150L has been designed to keep good comfort conditions up to 3.5 m wave's height during crew transfer operations.

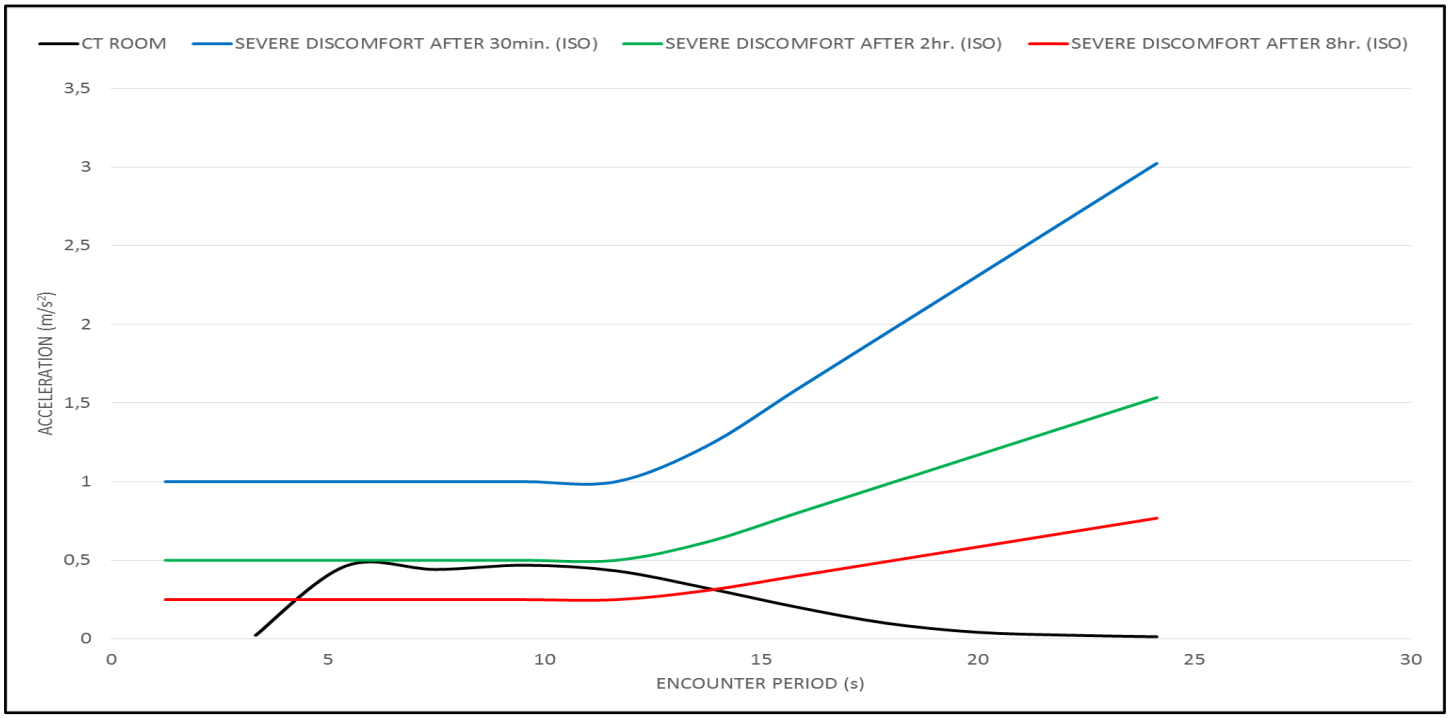

Figure 7 –MSI at 3.5 m wave height and 90 deg. wave direction.

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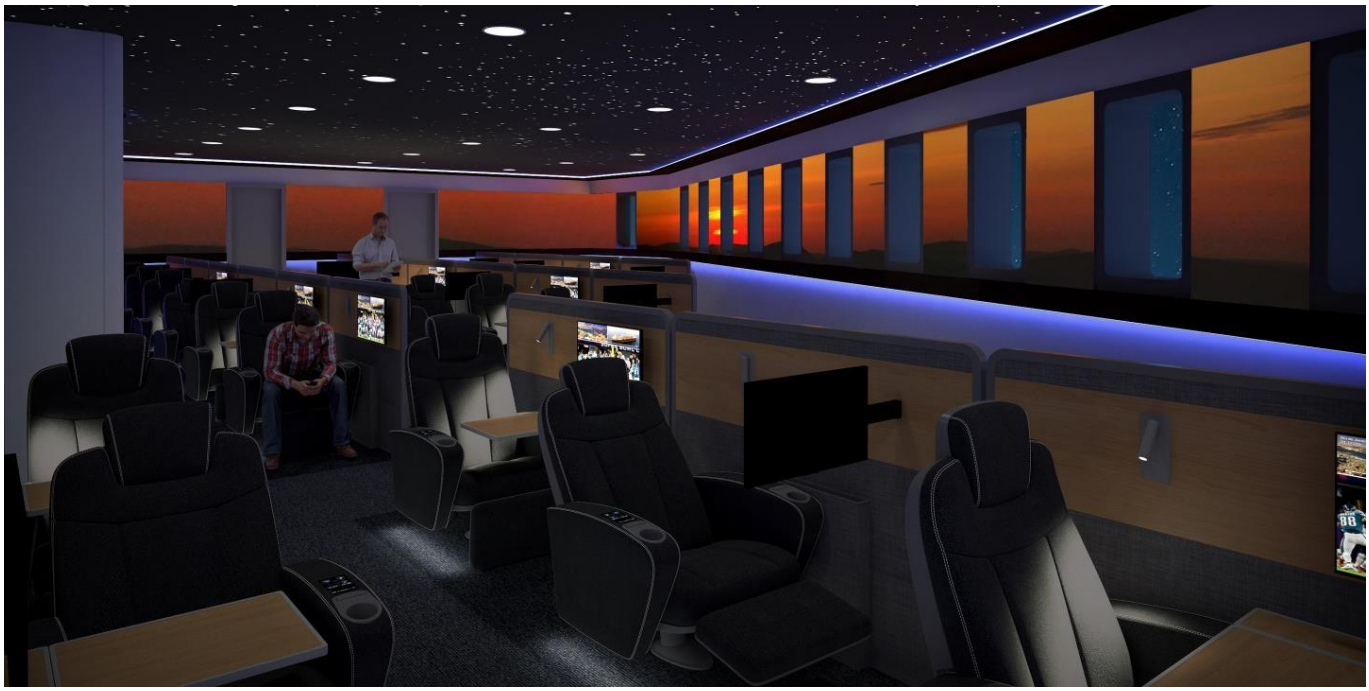
INTERIOR DESIGN



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MEETING ROOMS LED SCREEN SYSTEM 360º

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