

Reduce fuel costs and maintain your schedule

The ESP 1000 Speed Pilot is an advanced propulsion control system that lets the ship's Master optimise the application of propulsion power to achieve voyage objectives in the most efficient manner possible.

21st Century propulsion control

The Speed Pilot continuously monitors voyage progress and propulsion efficiency. Using precision electronic throttle control, the system fine tunes engine RPM as conditions change to ensure an on time arrival using the minimum amount of power required. The result, is significant fuel savings without compromising the vessels schedule.

Maximum speed minimum fuel burn

For trips that require the fastest transit time possible, the Speed Pilot's exclusive Best Speed mode maximizes performance at full power by fine-tuning engine RPM to minimize propeller slip. Reduced propeller slip improves the conversion of engine power to thrust, which translates to higher speeds and lower fuel consumption.

Works safely with your existing controls

The Speed Pilot monitors existing engine controls, automatically disengaging when manual control is used. An integral alarm system provides visible and audible alarms if a hardware or software malfunction occurs.

Suitable for a wide range of vessels

The ESP 1000 Speed Pilot is a proven success in both ocean and inland water environments on a variety of vessel types.

Key Benefits

- **Reduces fuel consumption up to 11 percent**
 Automatically minimizes fuel burn at different loads & cruising speeds.
- **Fuel savings with no loss in speed**
 Maximizes performance at full power producing fuel savings of at least 5 percent or more.
- **Reliable and easy to use**
 The Speed Pilot makes voyage planning easier and simplifies ETA prediction. Typically, system utilization while underway averages 95 percent.
- **Satellite based tracking & messaging**
 Delivers daily operational summaries and status reports directly to your desktop. Polling function provides immediate vessel position & status information.

A Sound Investment

- **Pays for itself in less than one year**
 Typical savings range from 1 to 2 dollars per horsepower per month. On a 6000 Hp vessel, an ESP 1000 Speed Pilot system will pay for itself in just 3 to 6 months.

Some of our customers

- | | |
|------------------------|----------------------------|
| Seaspan International | Sause Bros. Inc. |
| BC Ferry Services Inc. | Crounse Corp. |
| Kirby Inland Marine | Canal Barge Company |
| Canadian Coast Guard | US Army Corps of Engineers |
| Ingram Barge Company | Magnolia Marine Transport |

Independently tested

U.S. Coast Guard Research & Development Centre
 "The RDC analysis of selected test runs demonstrated fuel savings of 10%"
 "...the ESP performed as it should seeking out the best fuel consumption"
 "Measurements from an independent and highly accurate positive displacement fuel meter tracked well with the derived fuel from the ESP."

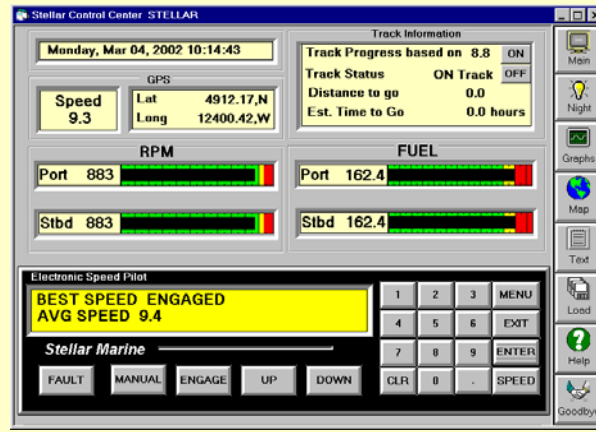


The ESP 1000 Electronic Speed Pilot – Advanced propulsion control that saves you money

Additional Features

- Facilitates optimum speed running**
 Sets throttles based on distance and time to go.
- Reduces vibration & engine wear**
 Automatically balances engine loads and synchronizes engine RPM.
- Voyage data logging and analysis**
 Daily fuel & distance totals, operating modes, standby & running hours.
- Cuts vessel emissions**
 Lower fuel consumption reduces GHG emissions.
- Easier throttle setting**
 Set & balance engine RPM at the touch of a button.
- Precision Ground Speed**
 Maintains requested speed to within 0.1 knots automatically as sea conditions change.

Voyage Data Logging & Performance Analysis



Stellar Control Center main screen

Electronic Gauge Panel

Displays engine parameters, vessel performance and navigational data on the ships PC.

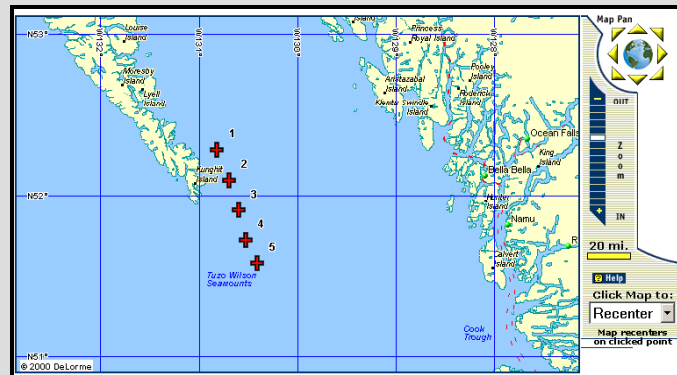
Voyage Data Logging

Records; vessel speed, position, engine RPM, fuel burn rate and efficiency data once each minute.

Performance Analysis

Generates daily totals, averages and other statistical data about vessel operation using data logged by the system. Data can be downloaded on the vessel, or transferred by satellite or cellular data link to shore.

Monitor Vessel Activity via the Internet



Private secure website plots the last 5 position fixes on a detailed map. Vessel location appears as Red "X".

Satellite Tracking

Fully integrated MSAT link provides tracking information and two-way text messaging capabilities.

Automatic Reporting

Daily summary report delivers fuel usage, main engine running hours, and distance travelled stats directly to your desktop. Report content and frequency are user configurable.

Multiple Operating Modes

The ESP 1000 Speed Pilot accommodates different styles of vessels and operating profiles by providing 5 operating modes.

- Best Speed:** Maintains the highest possible ground speed.
- Set Speed:** Vessel speed is set to a specified value and maintained automatically.
- Automatic Mode:** Vessel speed is set according to distance & time parameters entered by operator.
- RPM Mode:** Engine RPM is set from the Speed Pilot control panel. Engines are balanced automatically to improve propulsion efficiency.
- Manual Mode:** Speed Pilot is disabled, engine RPM is set using vessels throttle controls.

System Specifications

- Speed Control: ± 0.1 knots (set speed mode)
- Fuel Measurement: $\pm 1\%$
- RPM Control: ± 1 RPM
- Engine Tachometers: ± 1 RPM
- Distance Measurement: ± 1 mile per 1000 miles travelled
- Current Measurement: ± 0.1 knots
- Power Requirements: 12 VDC @ 5 Amps Max.



Stellar Marine
 3411 Shenton Road Nanaimo, BC Canada V9T 2H1
 Contact: Bob Speed
 Voice: (800) 565-9339 Fax: (250) 756-9802
 Email: sales@stellarmarine.com