

AUTOMATIC feathering mechanism

Hydro-generation of electric power on RECHARGE position

Improves boat speed under sail & under power

Improves backwards thrust and reduces prop walk

Underwater installation or pulling in 5 minutes

Underwater pitch-setting in 20 seconds

Vibrations free thanks to synchronized blade alignment and dynamic balancing

High-Grade Stainless Steel construction

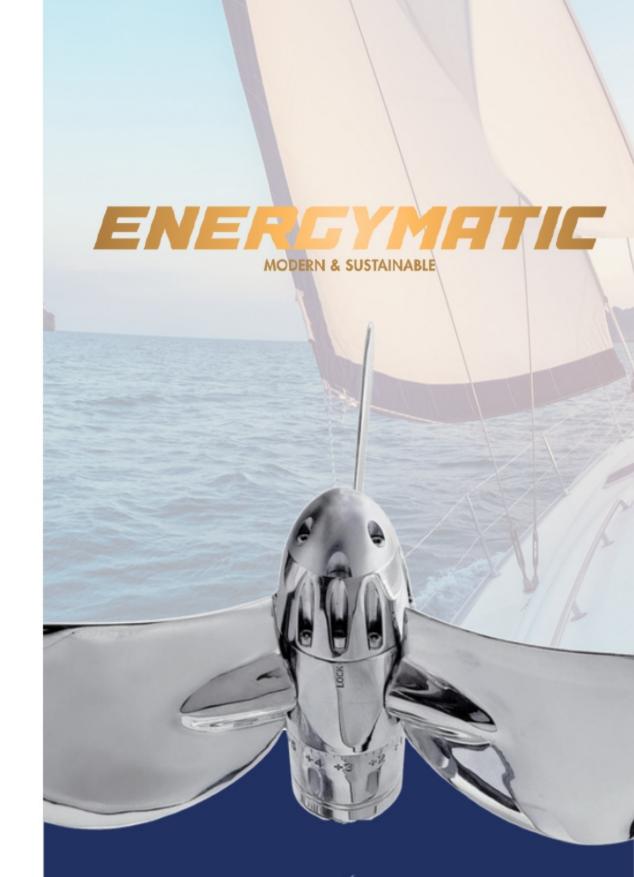
Smooth shifting from forward to backward preserving gear-box integrity

Interchangeable wear bushings

Built-in extraction device



EWOL PROPELLERS
Milan - Italy





EWOL Propellers is a reliable partner providing state-of-theart products for sailboats and offering high quality aftersales service. We constantly strive for excellence and continue to invest in Research and Development to ensure efficiency, safety and environmental friendliness while sailing.

# ENERGYMATIC



EnergyMatic was designed with a focus on sustainability and performances.
It integrates an innovative automatic feathering mechanism to easily position itself with a minimum drag on electric powered boats or even on fuel powered boat with hydraulic gearbox without the need to lock the shaft.



Thanks to its feathering position, EnergyMatic allows your boat to reach from 0.5 to 1.5 knots more speed under sail compared to a fixed propeller.

### UNDER POWER

**UNDER SAIL** 

EWOL's micrometric pitch-setting device allows to optimize the cruising speed of your boat under power, while the maximum attainable speed is the same of a well calculated fixed propeller.

### IMPROVED BOAT HANDLING

Maneuverability in reverse is a major problem with folding propellers which tend to shut, creating difficulties when mooring especially in strong winds or high sea. EnergyMatic improve backwards thrust and strongly reduces the prop walk effect, therefore enabling much better and safer boat handling in any conditions.



Enclosed Gear Drive assures that marine growth cannot affect smooth blades rotation from forward to backward position. Other propellers on the market display exposed gears, subject to frequent jamming due to fouling growing on the gears when the boat is not in use. For boats equipped with Sail-Drive, EWOL props incorporate an anti-shock joint called FlexDrive which is able to furthermore guarantee smooth and quiet shifts.





Another advantage of the EnergyMatic is the hydrogeneration position known as the battery charging function; while sailing, the EnergyMatic propeller can be placed in the Recharge position to act as an electric turbine, generating a significant amount of power. Recharge power depends on many factors depending on speed, prop size, number of blades, hull shape, propeller position.

EnergyMatic is suitable for boats with electric, hybrid or diesel propulsion

EnergyMatic is covered by patents owned by EWOL Srl

### **PITCH SETTING**

Pitch setting can be easily performed underwater in less than 20 seconds; EWOL EnergyMatic fine pitch setting device allows a range of blade angles from 14° to 26° in steps of 0,25°, which corresponds to engine speed increments of about 50 rpms.

# BLADES ORIENTATION AND VIBRATION PREVENTION

The blades of a propeller must always get the same identical pitch in order to avoid vibrations, so EWOL props integrates a central pinion gear which assures that blades gets synchronized to the same angle at any time. Some other propellers on the market, not having a central pinion, run big risks of strong vibrations in case one or more blades gets jammed by marine fouling.

## INSTALLATION, REMOVAL AND MAINTENANCE

EWOL is supplied completely pre-assembled, pre-greased and dynamically balanced; its installation is extremely simple and can easily be done underwater in 5 minutes. Thanks to an incorporated extractor, EWOL removal does not required any external hub puller and can also be performed in 5 minutes. EWOL EnergyMatic prop maintenance is limited to the yearly greasing of the internal parts through its external lubricator. Prop bearings can be replaced locally in case they are weared-out after many years of operation.