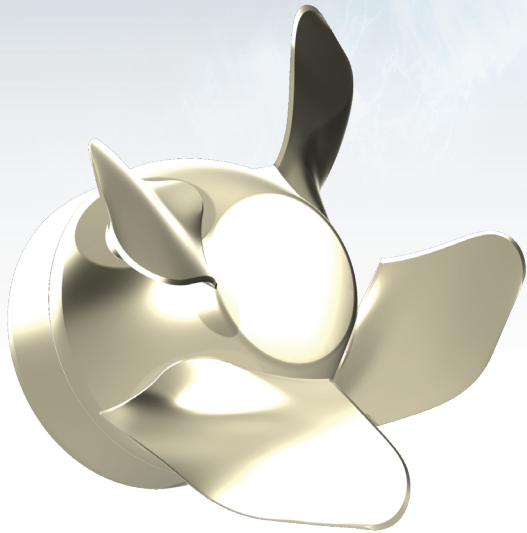




# ERMA FIRST

## FLEXCAP

THE MOST ADVANCED ESD SOLUTION GLOBALLY



The propeller cap helps to reduce the formation of hub vortex, which can cause cavitation, noise, and reduces the propeller's efficiency. The fins cancel out the vortices generated at the root of each blade, reducing the torque demanded for the same RPM and can occasionally generate additional thrust.

## THE ERMA FIRST FLEXCAP PROMISE

IMPROVING EEXI. REDUCING EMISSIONS. STAYING REGULATED.

### ✓ FLEXCAP BENEFITS

- Optimized CII & EEXI performance
- Reduced power consumption
- Minimized operational expenses
- Increased propulsive efficiency
- Improved engine load, wear and part lifecycle
- Modular design

### ✓ ERMA FIRST ADVANTAGE

- 45+ years of experience
- 3,500 served vessels
- In-house CFD expertise
- 24/7 technical support
- Worldwide service network
- Best-in-class turnkey solutions



**BULK CARRIERS**

**CONTAINERS**

**TANKERS**

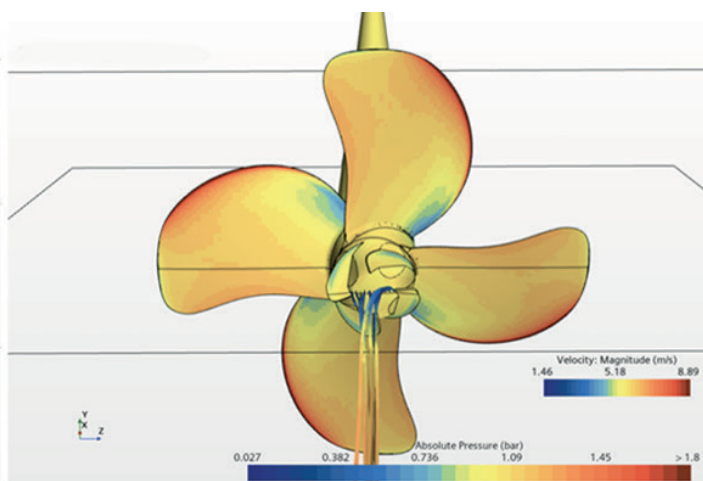
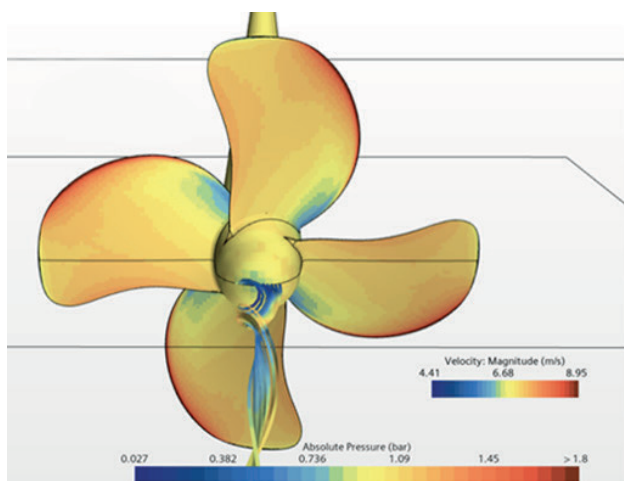
## DESCRIPTION

Improved propulsive efficiency by weakening the propeller hub vortex. This decreases propeller torque and occasionally produces increased thrust. The cap makes use of the swirl, while the fins effectively catch and absorb the force of the rotating water, eliminating the vortex and feeding the energy back into the propulsion drive train. In addition to the improved propulsive efficiency, the FLEXCAP can also be applied to reduce propeller-induced noise and vibrations. The FLEXCAP is made from the same material as the propeller (NiAlBronze) and replaces the normal propeller boss cap.

Installation of the FLEXCAP is simple, as it can even be installed when the vessel is afloat provided the vessel can be sufficiently trimmed. Once the FLEXCAP is installed, the only required maintenance is polishing during regular cleaning intervals. With proper Underwater services, underwater installation of most of the FLEXCAP is also possible, without taking the vessel out of service.

## EXPECTED PERFORMANCE

Installing the ERMA FIRST FLEXCAP can enhance a vessel's efficiency by 2%-5%. Our solution is versatile, compatible with a wide range of vessel types. Moreover, FLEXCAP can be integrated with other Energy Saving Devices (ESD) to further boost performance.



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