



becker marine systems



RUDI Remote Underwater Digital Imaging

SEE YOUR VESSEL'S PROPULSION SYSTEM IN OPERATION

RUDI is our special underwater imaging system offering customers underwater flow visualisation along with hydrodynamic analyses. It consists of a camera attached to the ship hull which records flow features in areas of interest. RUDI features fully flexible positioning capabilities with a wide range of imaging options and no penetration of the hull necessary. RUDI helps us to detect, analyse and find solutions to propulsion problems encountered during operations. Its key features are:

- **An underwater view with the vessel underway**
- **High-quality images of up to HD resolution (1920 x 1080), even during full-speed manoeuvres**
- **Synchronous simultaneous GPS data recording**
- **Post-production of recorded video performed in-house**
- **Can be converted into all common video and file formats**
- **Long-term storage of final video and raw footage**
- **Worldwide support**
- **A final report summarising the results of the video or optional hydrodynamics analyses**





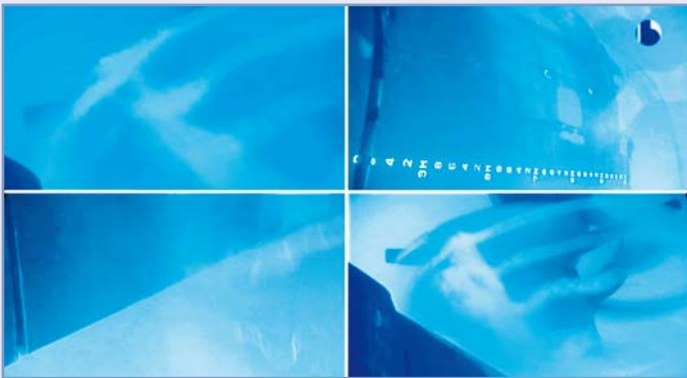
On-site inspections under real-world conditions

The RUDI system is a great way to perform on-site inspections at port without losing time. Once the vessel has performed its normal berthing manoeuvres the installation and dismantling operation will start immediately. Our standard mounting bracket supports most existing lifting lugs. No penetration of the coating or hull is required.

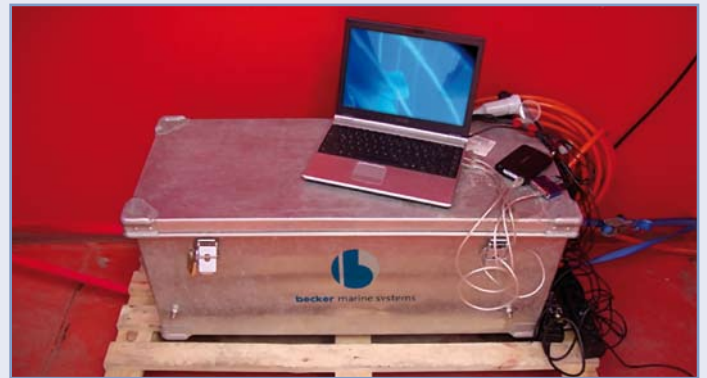
The underwater device is designed for harsh environments and can operate at full vessel speed. For this reason, the customer's daily business remains uninterrupted. In prime conditions all of the

required data can be collected within just a few days. The video signal can be monitored on deck in real time and the camera can be controlled remotely and features a pan-tilt-zoom function.

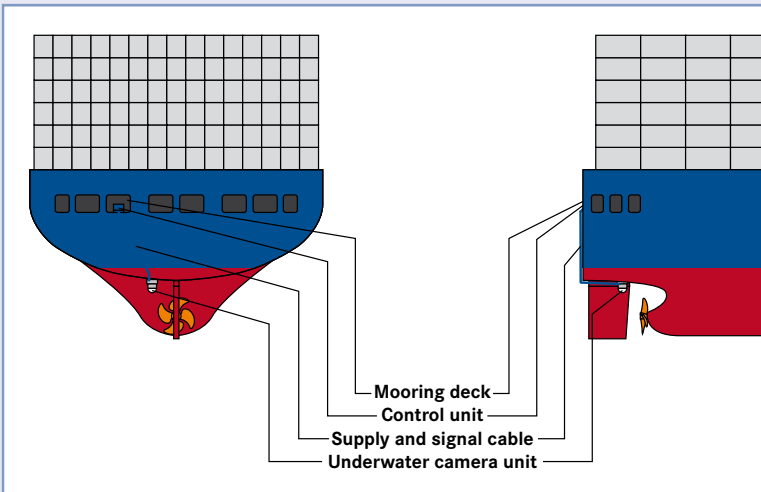
In the end, the customer receives the video material and a final report with optional CFD analyses by request. Our monitoring system can help to optimise propulsion systems and/or create a record of events such as cavitation or vibrations occurring at specific speeds and rudder angles.



Views of the propeller and rudder



The control unit on the mooring deck



Cable link between camera and control unit on the mooring deck

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