

silentdynamics



customized rim thruster technology for maritime applications

„it is without doubt the most important piece of equipment on the yacht with regards to comfort while at anchor.. since the start of the boss trip the stern thruster has been running 24/7... still this is another conversation. suffice to say all yachts... all yachts should be fitted with a stern/bow Electric Rim Thruster and DP control... from the guest comfort aspect it's amazing.“

Citation of a happy captain, after two month experience with silent rim thruster technology.



www.silentdynamics.de

Products

Tunnel Thruster

Our ERTs are perfectly applied as bow and stern thruster. They are ideal especially in skeg applications because of the minimum width of the unit.

Please find more informations about our standard Tunnel Thruster on our website.

Swing-out Thruster

We can offer our ERT technology also for retractable bow and stern thrusters.

Customized light weight solutions are realizable with compact dimensions, which are perfect especially for sailing yachts.

The swing-out mechanism can be driven electrically or hydraulically.

Swing-out Fully Azimuthing Thruster

As advanced application, we can offer a swing-out **fully azimuthing** thruster. The ERT is 360° endless turnable. Realized with a hydraulical or electrical steering drive and customized slip rings. Equipped with a permanent monitoring system within the steering unit to detect leakages and to make intended maintenance possible.

Integrated into the ships DP system, it is the ideal tool to raise the comfort of your yacht to a nowadays unequalled level.

All applications are available up to 300kW.



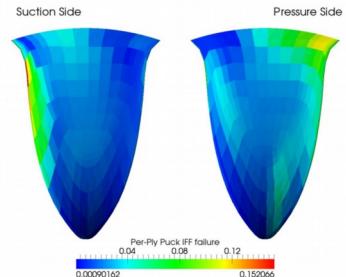
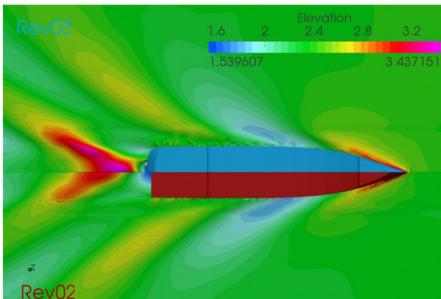
Services

Engineering

- Technical support in every project phase
- Support due to installation proposals
- Adjustment of tunnel design concerning customer requirements if needed
- Customized engineering of retractable/ swing-out azimuthing units

Numerical Simulations / Engineering Calculations

- Computational Fluid Dynamics (CFD)
- Finite Element Simulations (FEM)
- Parameterized Optimizations (fluids and structures)



Our scope of supply

- ERT
- Tunnel
- Box and actuators for swing-out azimuthing/ retractable units
- Engineering services for customized applications
- Control panels (bridge and wing)
- Switch box incl. Frequency converters, Filters and chokes
- Interface to ships alarm system
- Interface to autopilot/ DP system
- Documentation and manuals



Your major advantages at a glance

Low noise and vibration emissions

Because of the CFRP blades with high structural damping, less cavitation due to undisturbed inflow (no gearbox and shaft) and no clearance between propeller tip and tunnel hull, our **ERT** is the most silent thruster you can find.

High dynamic performance

A high torque PMSM motor allows to reverse the thrust from 100% Ps to 100% Stb within seconds. The disappearance of struts, propeller hub and gearbox within the thruster tunnel offers equal thrust in both directions.

Because of the minimum width of our ERTs, the thruster unit can be placed as near as possible to the bow, what again enhance the lever between force application point of thruster and pivot point of the ship.

Low maintenance effort

No gears, no dynamic sealings and no oils to grease the mechanic is needed to operate the ERT.

Green efficiency

No oils, no gearbox and no propeller hub with struts within thruster tunnel, less installation space to allows better room exploitation and better performing ship lines and a not needed cooling system for the under water thruster unit, all these characteristics creates a smart and efficiency thruster unit.

Compactness

The complete Rim Thruster unit is placed within the thruster tunnel, outside the ship.

Therefore the typical thruster room where the electric motor from a conventional thruster is placed, is not needed anymore. Now the crew cabins for instance, can be placed much closer or even above to the ERT tunnel because of the amazing lower noise and vibration emissions.

Contact us

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