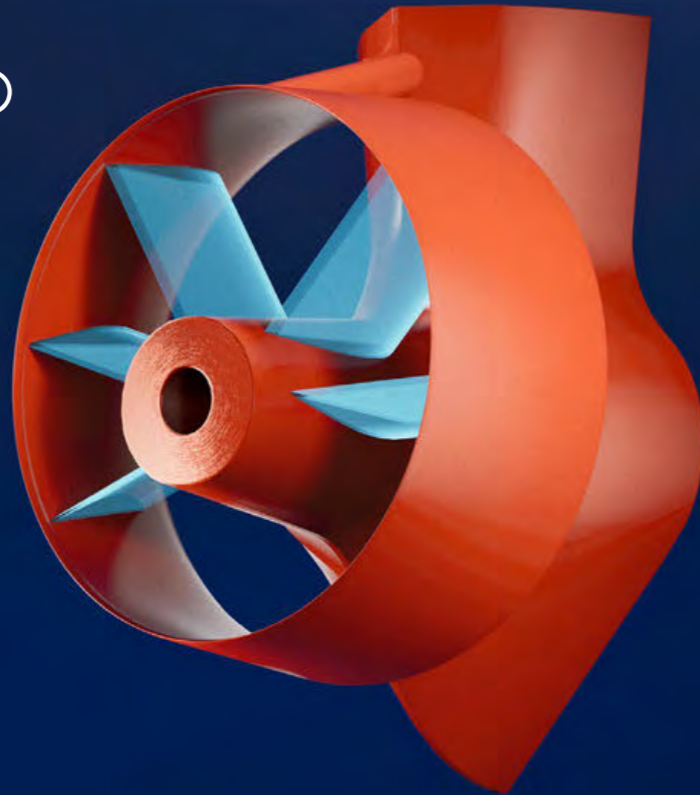


ENERGY-SAVING DEVICES

BECKER MEWIS DUCT®



Leading the way in eco-conscious shipping

The Becker Mewis Duct® sets the benchmark for energy efficiency on slow and full-form vessels such as tankers and bulkers. By streamlining the inflow to the propeller, it cuts power consumption and CO₂ emissions by up to 10%.

This proven device delivers fast payback while helping operators meet EEDI, EEXI and CII requirements. Easy installation during newbuilding stage or regular dry dock makes it a cost-efficient step towards greener, more profitable operations.

Optimised for:

Bulker

Gas Carriers

General Cargo

Tanker

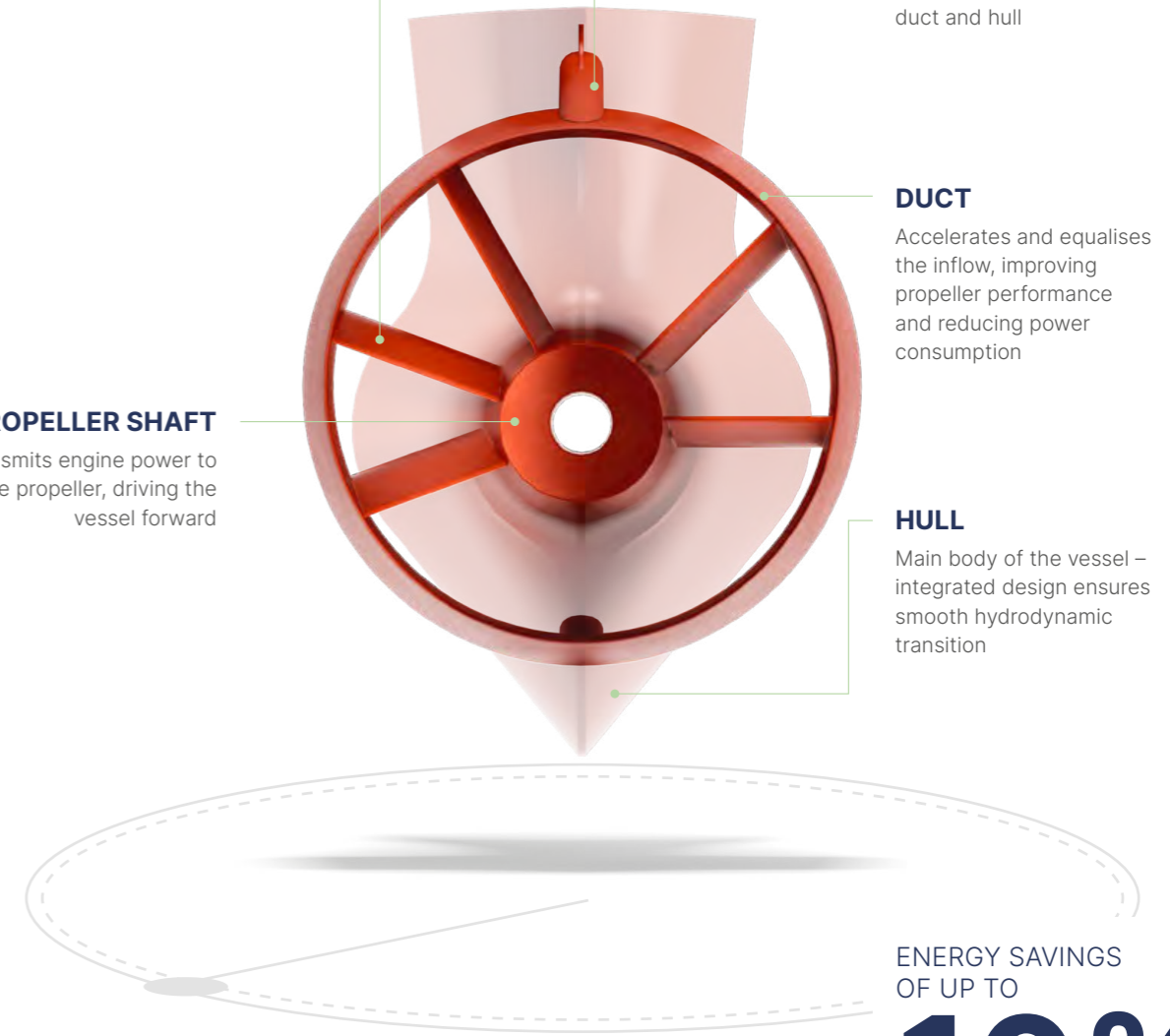
CUSTOMISED FINs
Guides water flow into the propeller, each vessel is optimised through CFD-simulations for maximum efficiency

UPPER BRACKET
Provides structural connection and stability between duct and hull

DUCT
Accelerates and equalises the inflow, improving propeller performance and reducing power consumption

PROPELLER SHAFT
Transmits engine power to the propeller, driving the vessel forward

HULL
Main body of the vessel – integrated design ensures smooth hydrodynamic transition



ENERGY SAVINGS
OF UP TO
10%

Sustainable performance for every voyage

- ✓ Reduction of power consumption and CO₂ emissions by improving the hydrodynamic efficiency of the propeller
- ✓ Supporting ship owners in fulfilling IMO requirements regarding EEXI and CII
- ✓ Easy installation during regular dry docks
- ✓ Reduction in operating costs through savings in propulsion power of up to 10%
- ✓ Wide range of applications and proven effectiveness: over 1,800 ships already successfully equipped with Becker Mewis Duct®



EASY INSTALLATION FOR NEWBUILDINGS AND RETROFITS

Newbuildings

Installation of the Becker Mewis Duct® can easily be performed during the docking or block stage with minimal effort on part of the shipyard. The yard is able to implement the installation in the production schedule.

The Becker construction team adapts the interfaces of the Becker Mewis Duct® and the ship according to the ship's steel structure.

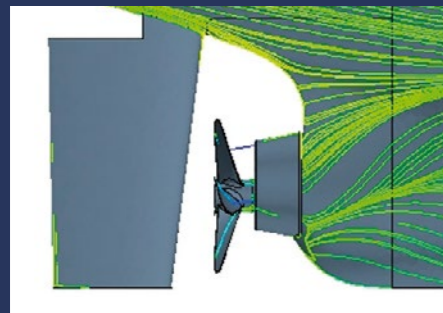
Retrofits

The Becker Mewis Duct® can be retrofitted during regular dry dockings or even intermediate dry dockings, the propeller does not have to be dismantled for this.

Becker's expertise ensures that installation is performed as quickly as possible, taking five days on average. Installation is carried out by the yard under Becker's supervision to ensure professional installation.

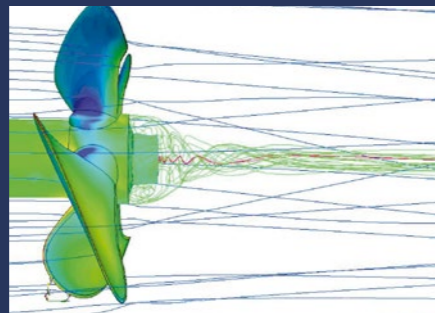
The Becker Mewis Duct® design provides the highest strength and stiffness in accordance with classification societies.

Optimisation of ship propulsion with the Becker Mewis Duct®



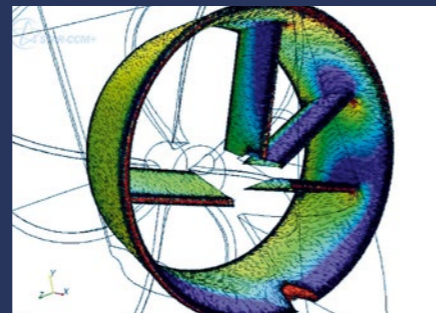
1 Wakefield equalisation

The Becker Mewis Duct® straightens the hull's wake, accelerates the flow towards the propeller and usually produces additional forward thrust.



2 Reduction of propeller hub vortex

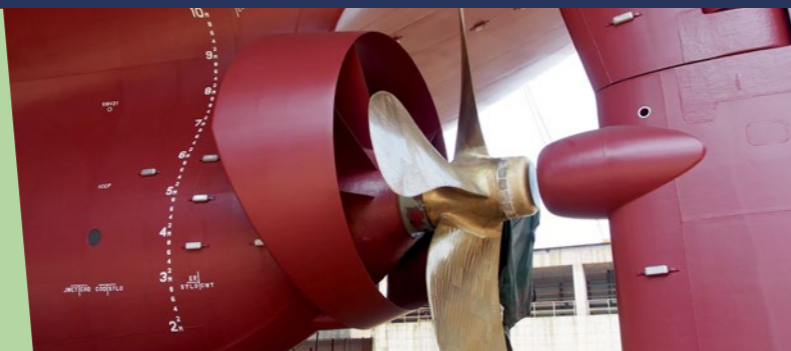
An optimised flow field behind the duct significantly reduces the hub vortex, leading to improved thrust and flow towards the rudder.



3 Contra-rotating swirl

Due to individually placed fins, a counter-rotating pre-swirl is generated, optimising the loads on the propeller blades.

The Becker Mewis Duct® harmonises and stabilises the flow, generating a pre-swirl to reduce the rotational losses in the propeller slipstream.



A RETROFIT SUCCESS

Our Becker Mewis Duct® references span all vessel types – demonstrating reliable CO₂ reduction and energy efficiency.

ALEXANDER BRAZIL, OIL TANKER
Becker Mewis Duct®



RYSTRAUM, CHEMICAL TANKER
Becker Mewis Duct® (retrofitted)



HOWARD O. LORENZEN, RESEARCH VESSEL
Becker Mewis Duct® (retrofitted)



BOW TRIUMPH, CHEMICAL TANKER
Becker Mewis Duct®

ENERGY-SAVING DEVICES

BECKER MEWIS DUCT®

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