



Kort Propulsion Co Ltd

**TAKE ADVANTAGE OF  
KORT EXPERIENCE**

# Kort Propulsion

With over eighty years experience, Kort Propulsion has become synonymous with developing and supplying marine propulsion packages for towage, inland waterway, coastal shipping, dredging, fishing, ROV, offshore and workboat applications.

As any naval architect or vessel operator knows, a propulsion system which is matched to complement a vessel's hull design will maximise the vessel's performance, fuel economy and manoeuvrability.

We provide consultancy services to designers, owners and builders as well as bringing together complete propulsion packages of Kort Nozzles, Propellers, Thrusters, Conventional Rudders, High Lift Rudders, Bearings, Seals, Shafting, Sterngear, Steering Gear, Hatches, Box and keel Coolers.

This total service approach has proven to be a particular asset for smaller shipyards and boat builders, which may not have access to their own consultancy or technical departments.

Kort Propulsion remains independent of any particular manufacturers and hence provides a single source from which vessel designers, builders or operators can obtain a complete package of propulsion and manoeuvring devices with confidence.

## Why Choose Kort?

- *We are independent and offer a wide variety of propulsion systems for you to choose from.*
- *We have over 80 years experience.*
- *We are Propeller experts and designers.*
- *Our expert team can advise you on the single system or combination of systems, which will best suit your particular vessel.*
- *We can offer customised packages and consultancy.*
- *We understand our market and invest in new technologies for evolving applications in the world today*
- *We supply unique products including our own range of Tunnel Thrusters and Steerable Propulsion units.*

# Nozzles & Propellers



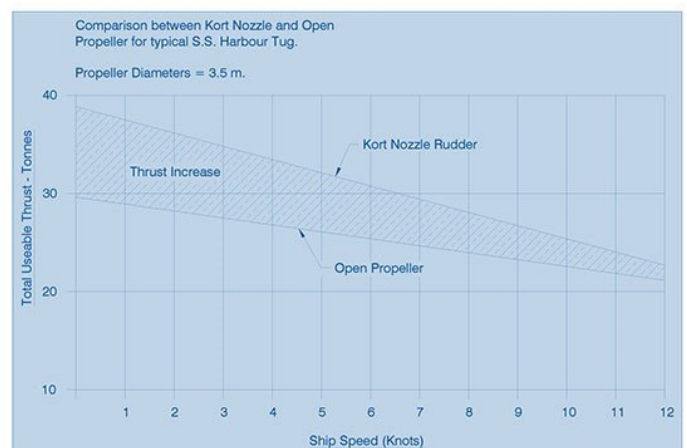
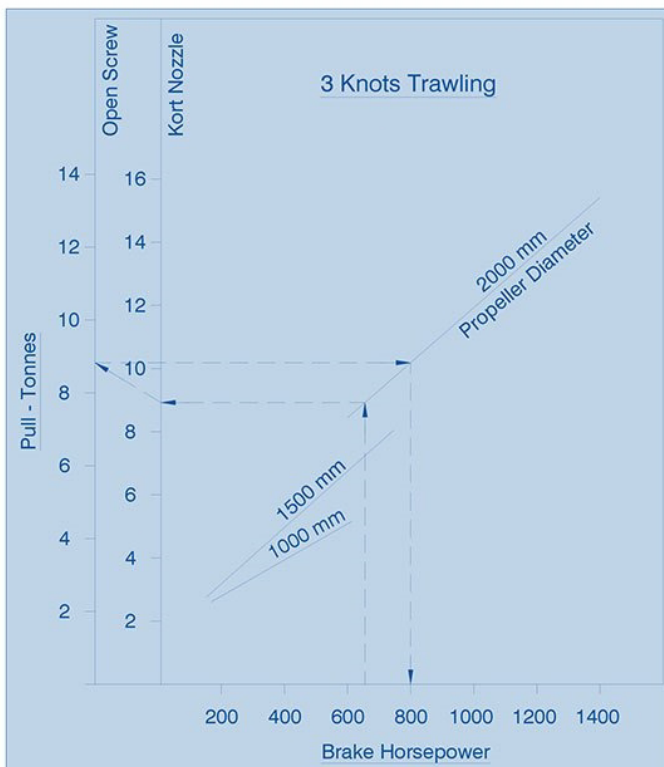
With today's high fuel prices and the likelihood of further rises in the future, propulsive efficiency is a must for any operator of a working vessel.

When the Kort Nozzle was first used on inland waterways vessels on the Rhine, the nozzle section was very long with faired hull connection to match the vessel waterline. The duct profile had a very full entry area and curved outer surface at the forward end similar to the XL section shape being used at the present time. Over the years section profiles have tended to reduce in length to reduce resistance, reduce manufacturing costs and make installation simpler.

Kort Nozzles are now installed on all kinds of vessels across the globe including large numbers of towing vessels such as tugs and fishing boat, where the advantages of high bollard pull and increased thrust at trawling speed, linked to increased manoeuvrability are widely appreciated.

Similar significant improvements in performance can also be achieved on vessels such as coasters, inland waterways craft and bulk carriers using designs optimised for each vessel type.

The key to vessel performance is in the combination of propeller and nozzle design to match the owners' operating requirements and over the years Kort Propulsion has been involved in many model tests and full-scale trials for a wide variety of vessels.



The Kort XL system has an inner surface with flared inlet and outlet and shallower outer profile but increased entry area giving improved nozzle thrust. Kort have also adopted a new pitch distribution with pitch reduction at the tip and root together with reduced tip clearance between propeller and nozzle inner surface.

The benefits of a Kort Nozzle system are well known and in today's economic climate the advantages are even more significant.

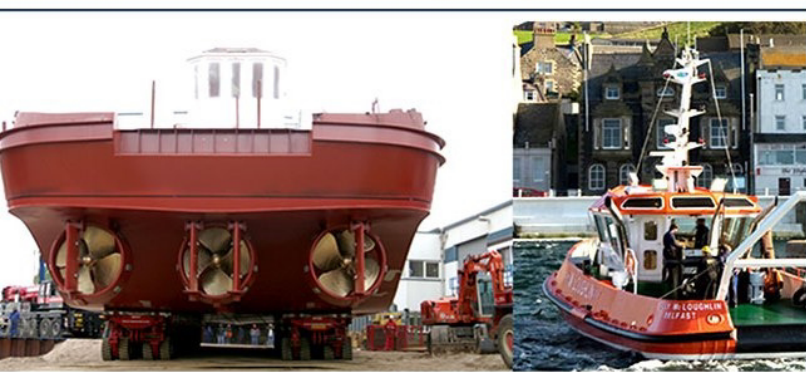


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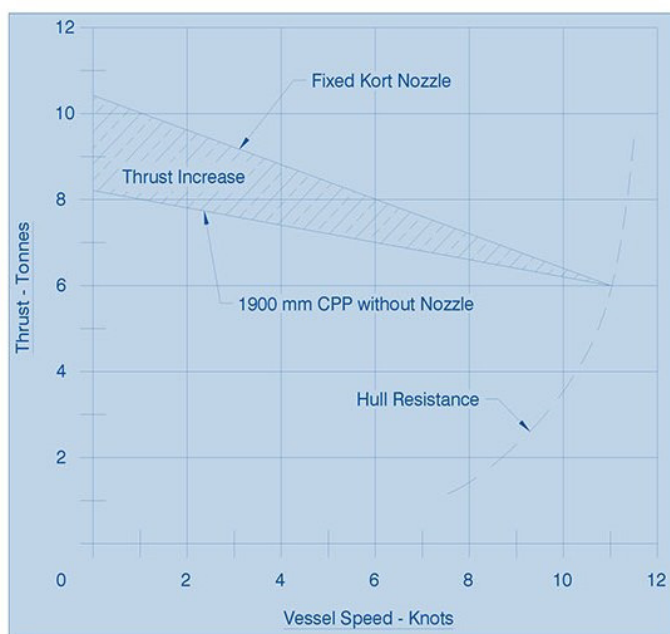
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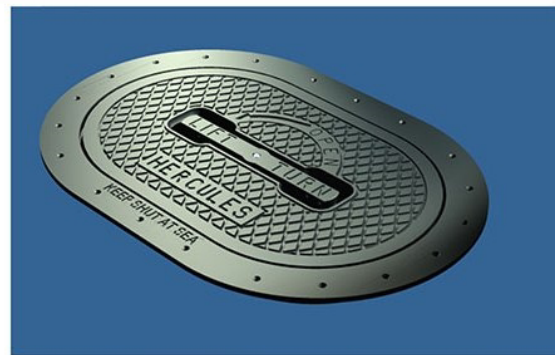
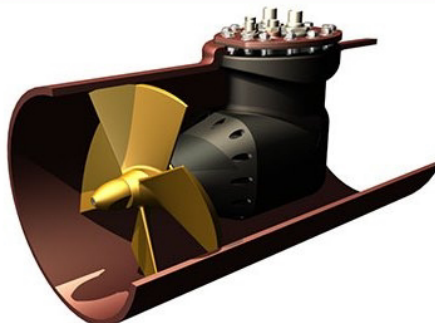
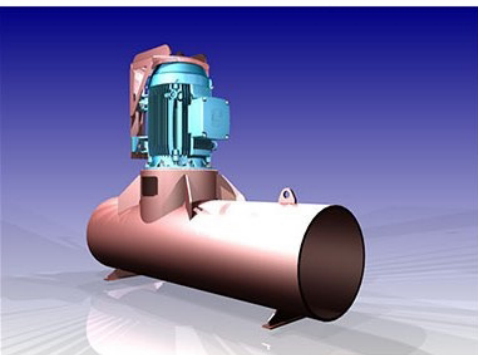
An owner can work his existing fishing gear using less engine power than is needed with an open propeller, resulting in reduced fuel consumption. We have reports from skippers showing 12-20% fuel saving, depending on method of operation and the time spent steaming to and from the grounds.



Our engineers have the expertise to provide powering and performance estimates for every application from 100mm diameter propellers for an ROV Thruster to 4000mm and above for commercial vessels.

We have created designs for controllable pitch propeller blades within Kort nozzle and have also supplied high definition propellers and impellers for high-speed craft with conventional propulsion, surface piercing drives and waterjets as well as designing and supplying propellers for azimuthing units and tunnelthrusters.

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## Thrusters

Our reputation is for provision of impartial advice and effective propulsion packages and the demands of our customers, led us to develop our own range of efficient Tunnel Thrusters

Our Thrusters are available in hydraulic and electrical drive, designed primarily for commercial displacement vessels but have been successfully fitted to planing craft and inland waterways pleasure craft.

Long service life and ease of maintenance have been key factors in design and development. All models can be supplied to suit a range of system operating pressures, can be integrated with either closed loop or open loop hydraulic systems and are supplied with a comprehensive instruction manual.

Our joint experience working with shipbuilders and repairers has influenced the design of our Thrusters, resulting in lower installation costs and more reliable commissioning. Hydraulic services and testing can be carried out on site in conjunction with Hydraulics engineers.

Tunnels are supplied in standard lengths in mild steel, aluminum or grp with stainless steel ring in way of the propeller.

Our intelligent wheelhouse controller gives big boat performance at small boat cost. Incorporating proportional control, warning lights and a test for alarm it can be integrated with an autopilot and either single or multi-station systems with full control can be supplied.

## Hercules Hatches

**Hercules**  
HATCHES

Hercules Hatches are designed to withstand years of punishment in the harshest of marine environments.

### Strength

The hatch cover and flange ring are cast from corrosion resistant marine grade aluminium, with deep section webs on the underside to prevent distortion under load.

### Durability

All moving parts are engineered from type 316 marine grade stainless steel and components made to exacting standards and proportioned with strength and reliability in mind.

### Water Resistance

Hercules Hatches offer exceptional waterproof integrity and have a fuel and chemical resistant neoprene sealing ring fitted to the underside of the cover giving maximum protection against damage.

### Ease of Operation

The unique Hercules locking mechanism utilises large diameter stainless steel shooting bolts, which engage in Ertalyte bushes within the frame. On deck the hatch is opened and closed using a recessed handle and below deck operation is by a hand wheel.

### Safety

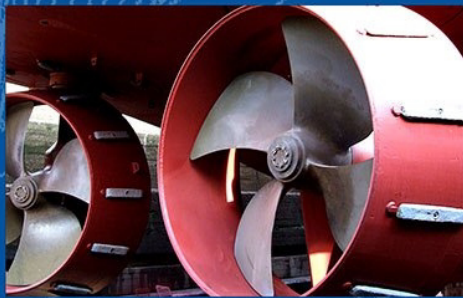
The locking mechanism is precisely engineered for strength and security. Once the shooting bolts are engaged, the hatch cannot be accidentally opened.

### Accessories

Hinges can be fitted to allow Hercules Cast Hatches to open and fold back flat on the deck or to provide a watertight door in bulkheads and for extra security whilst in port, they can be locked from below deck.

### Made-to-Measure Hatches

Hercules Made-to-Measure Hatches are the same high quality watertight deck hatches but designed to meet your individual requirements and can be fitted into any type of deck and any size of rectangular or square aperture.



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