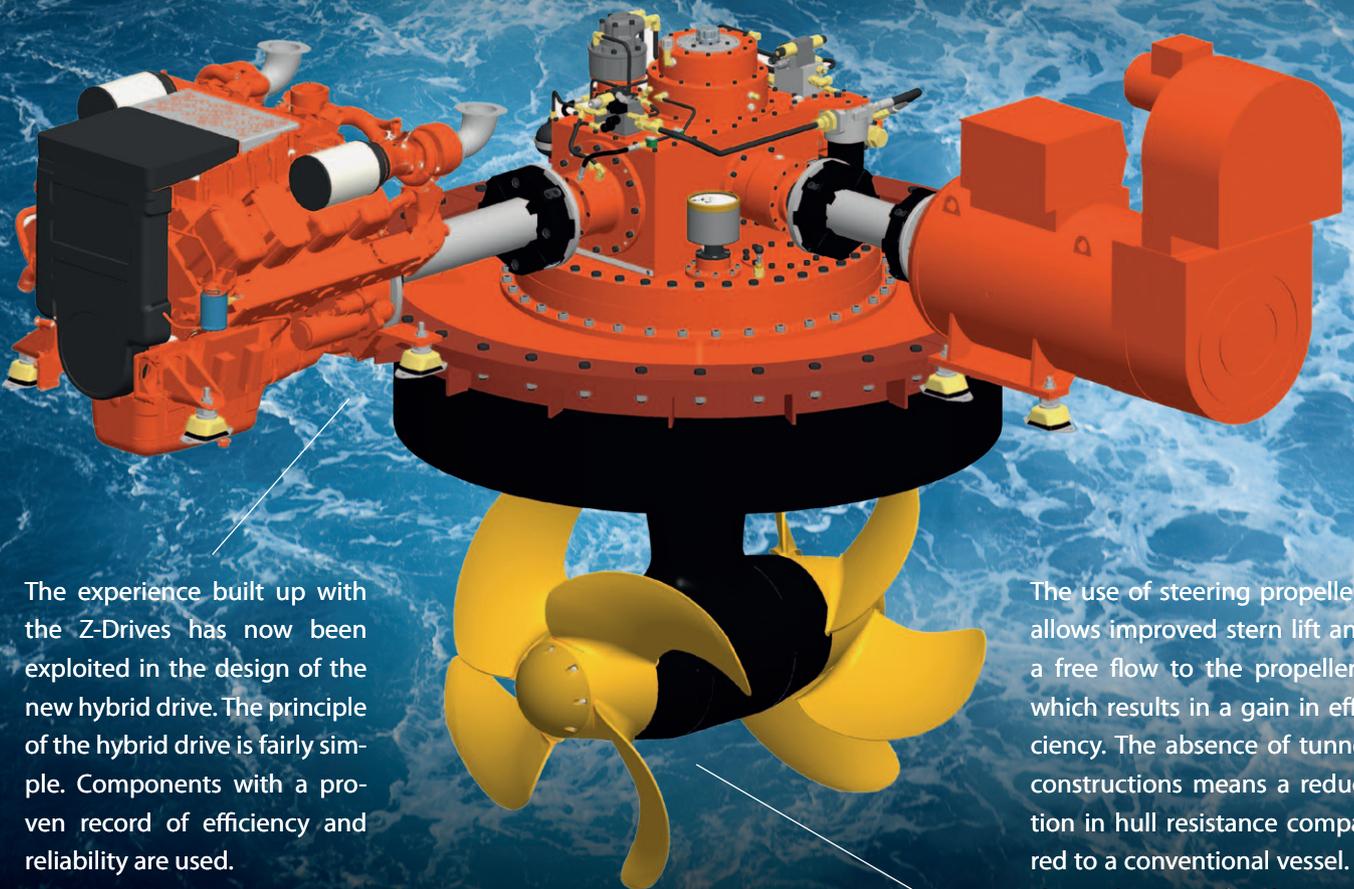


Veth Propulsion introduces the

# Veth Hybrid Drive

A combination of a direct diesel  
and a diesel-electric drive

Veth Propulsion is synonymous with innovation and the Veth Z-Drive has a proven record of reliability, both on inland waterways and at sea. Veth Propulsion demonstrated that high reliability and optimal steering ability can be combined with this independently developed and manufactured steering propeller.



The experience built up with the Z-Drives has now been exploited in the design of the new hybrid drive. The principle of the hybrid drive is fairly simple. Components with a proven record of efficiency and reliability are used.

The use of steering propellers allows improved stern lift and a free flow to the propellers, which results in a gain in efficiency. The absence of tunnel constructions means a reduction in hull resistance compared to a conventional vessel. A clear advantage for dry cargo vessels is that the entire hold is now available for cargo.

[www.veth.net](http://www.veth.net)

**VETH**  
PROPULSION

# Veth Hybrid Drive:

*“A hybrid drive allows choosing the most efficient source of propulsion, based on sailing area and conditions.”*

The innovative aspect of the new development is the Veth Hybrid Drive's capacity to take its propulsion from two different sources. The ability to choose between the diesel and/or electrical motor drives depending on the load profile means that the Veth Hybrid Drive can offer the optimal solution for numerous voyage profiles. Both propulsion technologies can be used within their optimal performance curves, and the combination offers all the advantages of a diesel-electric drive without the downsides. Every new project requires a consideration of the appropriate solution and Veth Propulsion is the ideal partner to weigh up the options.

The Veth Hybrid Drive also has another significant benefit: The asynchronous electrical motor can also function as a generator. When the main engine is in service but not running at maximum capacity, the spare capacity allows one to use the electrical motor as a propeller shaft generator, with virtually no additional fuel consumption. The power generated can then be used to feed the on-board network or other major consumers via a static convertor. The electrical motor can also be battery-driven in anticipation of future developments.

PROPELLER POWER CURVE

