

The Waterjet Reimagined

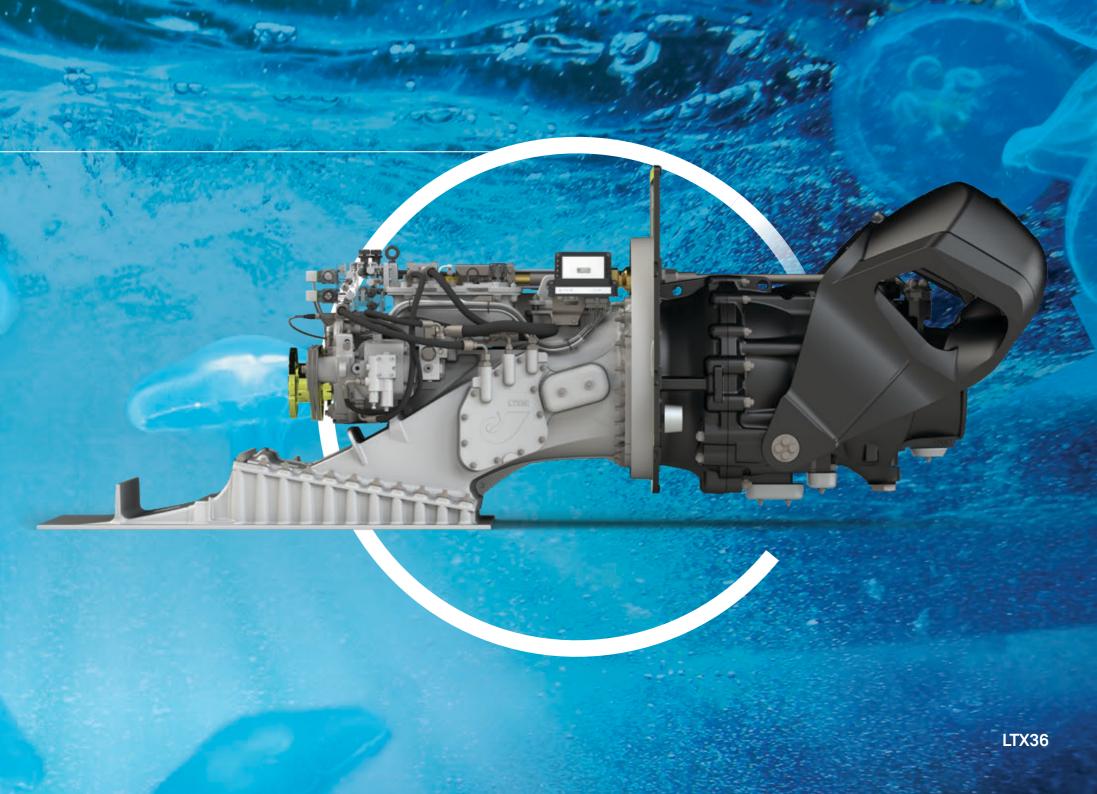
THE WATERJET REIMAGINED

Technology inspired by Mother Nature

Waterjets have always been the most efficient choice for going fast across the water. The absence of hull-appendages and our highly optimised pump geometry have allowed HamiltonJet customers to save fuel for generations. But not everyone wants to go fast.

Setting our sights on producing the most efficient propulsion system on the market for low to medium speed applications, we looked to Mother Nature for inspiration. Travelling using a low-velocity jet of water, the moon jellyfish expends far less energy than any other swimming animal. They achieve this with a large diameter 'nozzle', a lightweight body, and a pump design that has evolved over millions of years of natural selection. They truly are a marvel of efficiency. Introducing the LTX waterjet. It is low-speed efficient, lightweight, and lean. With its large nozzle, lower input energy, lower jet velocity, and lightweight structure, it emulates its natural cousin. LTX is the first waterjet to rival the performance, energy efficiency and bollard pull of the very best propeller systems at low to medium speeds (0-30 knots). This is a game changer.

Customers can not only enjoy best vessel efficiency but also all the benefits of a waterjet. Moving slower has never been more appealing.



A NEW DIRECTION

The climate is changing and so are the priorities of our customers. Operators want to reduce their impact on the environment and lower their energy costs, while also maximising efficiency. Some will achieve this by operating at lower speeds, while others are turning to electrification of the driveline rather than continue relying on fossil fuels. Whether operators are seeking to optimise their entire enterprise or simply gain incremental benefits in manoeuvring, loitering, and transit, the efficiency of propulsion is key.

High Efficiency

The LTX series is supremely efficient in low to medium speed applications from 0-30 knots. Its compact design means a jet with a larger diameter can be fitted in narrow hulls while lower-input power capability allows it to remain lightweight and run at a lower cost.

High Bollard Pull Performance

LTX jets deliver up to 40% more bollard pull and greater sway thrust than any other waterjets on the market. This best-inclass bollard pull improves manoeuvring response, position holding capability and vessel acceleration.

Unparalleled Manoeuvrability

All HamiltonJet waterjets utilise low-loss steering systems which save fuel when course keeping and minimise speed loss during tighter turns. Low speed manoeuvring is also super-efficient due to the trust-vectoring capability of the steering and reverse system.

Safety and Shallow Water

Due to their design and inboard impeller, our jets can operate in shallow waters. This also makes them safe for swimmers and marine animals, such as whales.

DURABILITY

Our products work as hard as the vessels they power.

Corrosion Resistant

Through careful material selection, refined anode layout and optimised coating systems, we have achieved up to 10x greater corrosion resistance in challenging brackish waters.

To improve service levels, we've extended the internal anode life to two years, which means work can be easily aligned with other scheduled maintenance.

Low-wear Steering

Across the range, LTX waterjets all feature new and improved steering systems. They deliver high precision, minimise performance loss in turns and deliver lower loads at the helm.

Improved Hydraulic Sealing

Optimised seal pack design prevents contamination, damage from the marine environment and has been proven to last over millions of cycles. The fully integrated hydraulic system and its components have been designed to be inboard for maximum protection.





INSTALLATION

LTX features an ultracompact inboard footprint, narrow jet-spacing, lowprofile and lightweight design.

Waterjet Installation

The compact size of the entire LTX series means all models are capable of being installed late in the build, reducing overall vessel installation costs.

The fully integrated hydraulics and controls use space efficiently and ease incorporation into any platform.

Powertrain Compatibility

HamiltonJet has considered electric and hybrid drive from the outset. The jets are compatible with all the major electric motor manufacturers. In addition, the LTX is compatible with a diverse range of diesel engines from global manufacturers. Our wide range of impeller ratings allow optimal power-source and gearbox selection. In some cases, direct-drive brings efficiency improvements and cost reduction.

Electronic Controls

LTX has been designed to pair with AVX and AVXexpress, our latest control systems.



LTX FEATURES

Improved hydraulic sealing Prevents contamination damage and extends seal pack life.

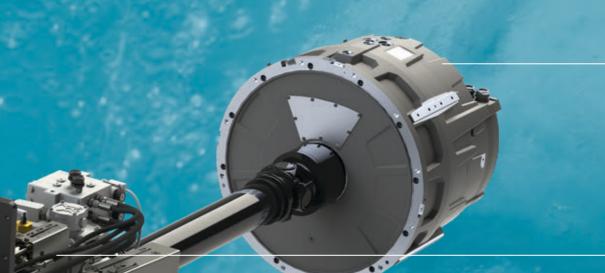
New hydrodynamic design

Our newly optimised mixed flow design increases low to medium speed efficiency for speeds of up to 30 knots. This delivers greater bollard pull for better position holding capability, manoeuvrability and acceleration.

Refined anode layout

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Extends product life and better aligns maintenance schedules.



Direct Drive

Smaller models, such as the LTX36, can be direct driven by electric motors or diesel engines. This reduces cost, weight, and improves efficiency.

Improved steering systems

More precise manoeuvring, minimised performance loss in turns and lower loads at the helm.

Smoothed flow passage Thoughtfully designed internal fairings cover anodes to help improve efficiency.



CASE STUDY Ferry EV Maritime Low Wash Electric Ferry

EV Maritime's 25-knot low wash, quiet electric ferry is a carbon fibre build, designed for modern, smart city commuting. It runs on battery electric for short journeys with fast shore-charging capabilities and is built with quad LTX36 jets and controls from HamiltonJet.

The EVM200-commuter, set to be launched in 2024, is the workhorse of a rapid transit commuter ferry network. It is engineered to move many people quickly and safely in a modern, friendly, comfortable environment.

VESSEL SPECIFICATIONS

Service: Electric Ferries Location: New Zealand Length: 24 metres Designer & Integrator: EV Maritime Builder: McMullen & Wing Owner: Auckland Transport Propulsion: 4 x LTX36, AVX controls, 100% battery electric







CASE STUDY Ferry Green City Ferries, Electric Ferry

This 24m zero-emissions commuter fast ferry, with hydrofoil technology, runs on batteries or hydrogen and is being specifically designed and built for commuters on urban waterways.

Scheduled to hit the water in 2024, the Beluga24 is the most energy efficient and technically advanced ferry of its type. It comes with two emission-free options: battery electric for short journeys; hydrogen fuel cell for long journeys. This vessel is using the latest LTX36 jet and controls design from HamiltonJet.

VESSEL SPECIFICATIONS Service: Ferry Location: Stockholm, New York and San Francisco. Length: 24m Designer: Technikraft Builder: Green City Ferries Owner: Green City Ferries Propulsion: 4 x LTX36, AVX controls, 100% battery electric

WORLD-CLASS PRODUCT SUPPORT

We are backed by more than 70 years in business as the pioneer and market leader in waterjets and controls.

Our product support and parts availability is truly class-leading. With a global network of regional offices and over 50 appointed distributors, help is always on hand. No matter where you are, in the unlikely event of a problem, downtime is minimised.

Our products all come with a commitment to at least 20 years' support after the end of series production*.

*This applies to all HamiltonJet products which reach series production and can be extended longer if a particular project requires it. Beyond this point, we still endeavour to keep you moving where possible.





WORK WITH US

Over the decades we've become trusted partners to boat builders, naval architects and marine operators around the globe. They tell our story better than we do, so if you'd like some references, please get in touch.

Our network is global. Wherever you are, you'll find experienced distributors supported by our own regional office staff to assist you with your project. We'll walk you through the process and can deliver simple or complex projects.

Our market experience is extensive. It covers offshore, pilot, rescue, fire, military, patrol, windfarm, fast ferry, fishing, aquaculture and recreational applications.

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