Fitted tugs held their fuel use. The unfitted tug's rose 27%.

A Chilean harbour tug operator fitted GLOBAtech ultrasonic antifouling to its tugs at docking from July 2018. Over the next 18 months the first fitted tug's fuel use per engine hour stayed within about 5% of its first quarter after docking, while an unfitted tug in the same fleet kept climbing: up 27% in the second half of 2019 against 2018, as the fitted tugs came down 3%.



Before fitting: weed and barnacles at the waterline, the same on every tug that came in.



Second fitted tug, a year after docking (underwater camera, December 2019).

~47,000 L

Diesel avoided, one tug, 2019 (est.)

+27% / −3%

Fuel per engine hour, H2 2019: unfitted / fitted

10

Tugs and launches protected by 2019

THE FLEET

The operator runs harbour tugs and port launches in the Valparaíso Region. The tugs spend long hours alongside or at low speed in cold, productive water, and every tug that came in for fitting showed the same thing: weed and barnacles at the waterline, and heavy fouling on the hull and running gear by the time it reached the dock.

WHAT WAS FITTED

From July 2018, at docking: GLOBAtech's H2oBioSonic system, the predecessor of ENVSonic. Control modules on board, transducers bonded to the inside of the hull, working alongside the existing antifouling paint. Seven tugs and the operator's launches, ten vessels in all, were protected by November 2019, installed and supported by GLOBAtech's Chilean partner.

HULL CONDITION

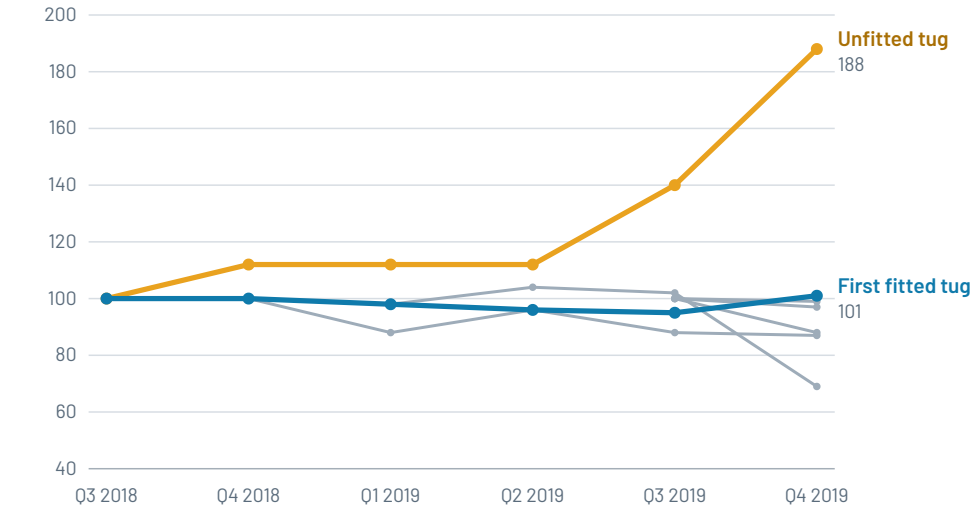
Underwater camera inspections a year after docking found clean paint and no weed or barnacles on the first and second fitted tugs.

THE LAUNCHES

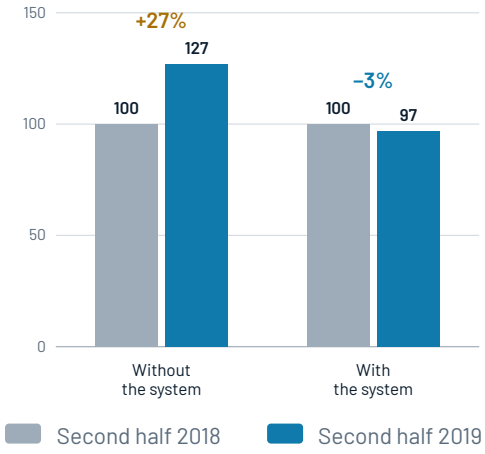
A port launch that had needed a dive clean every two months went more than six months without one.

The first fitted tug held within 5% for 18 months while the unfitted tug kept climbing

Fuel burned per main-engine hour by quarter, indexed: each tug's first quarter shown = 100



Second half of 2019 against 2018: up 27% without the system, down 3% with it



FUEL

The partner tracked fuel burned per main-engine hour from the operator's records. Had the first fitted tug deteriorated like the unfitted one, a 28% rise, it would have burned about **47,000 litres more diesel** over its 850 engine hours in 2019 (partner's estimate): roughly 125 tonnes of CO_2 from one tug in one year.

How to read this. Source: GLOBAtech's Chilean partner, results review of December 2019, from the operator's fuel and engine-hour records. The operator's figures are confidential: values are indexed and read from the partner's charts, rounded. One unfitted comparison tug; not an independent trial. Fuel per engine hour also moves with the work a tug does, so the comparison shows a direction rather than a controlled result. In a same-port comparison in December 2019 the fitted vessel also carried some fouling, less than the unfitted one. Results reflect these vessels and operating conditions.



ENVSONIC TODAY

ENVSonic tests and calibrates every channel daily and records the result on the dashboard, so protection can be shown, not assumed. Three-year warranty, or five years with a Monitoring & Maintenance plan.

Read the full case study
envsonic.com/studies/chilean-harbour-tug-fleet

Talk to the engineers
envsonic.com/contact

ENVSonic is designed, built and supported by GLOBAtech Australia Pty Ltd, Coomera, Queensland, the original ultrasonic antifouling OEM since 2006. Named fleet references are available to prospective customers on request. Case story CL-01, November 2026.