

# GAC EnvironHull

Revolutionising underwater hull cleaning



Diver-free, cost-effective and environmentally-friendly solution for underwater hull cleaning.



Delivering your strategy.



Holland Diving  
International bv

Marine fouling has a significant effect on a vessel operator's bottom line. Even the slightest fouling adds water resistance, slowing a ship down and increasing fuel consumption by as much as 20%.

GAC EnvironHull tackles that problem with unique brushless cleaning technology delivered by its Remotely Operated Vehicle (ROV) HullWiper, without compromising the marine environment.



Our innovative cleaning technology enables ship owners/operators to reap the full benefits of a clean hull with minimum diver intervention and no impact on the delicate marine environment. After pollutants are removed, a vessel's speed and fuel consumption are proven to be significantly improved, resulting in a swifter, safer and much cheaper voyage.

#### **Safe and effective ROV technology**

GAC EnvironHull has developed the HullWiper ROV to pioneer unmanned underwater hull cleaning technology. The ROV uses high pressure water jets as the cleaning medium, eliminating the need for brushes, abrasives and divers, to deliver a safe, speedy, consistent and clean result.

The HullWiper ROV is fitted with a light and camera, allowing its operator to control the cleaning process below the waterline from the support vessel. The entire operation is recorded on video, which is presented with the cleaning report documentation.

#### **Time efficiency**

The high-speed HullWiper ROV is designed to clean up to 2,000 m<sup>2</sup> hull per hour, completing a full hull

in a just a few hours. And as there is no need for diver intervention, the cleaning job can be carried out whilst cargo work is underway or at anchor, thus saving valuable time.

#### **No damage to anti-fouling**

Unlike conventional underwater hull cleaning relying on abrasive brushes operated by divers, HullWiper ROV utilises seawater under high pressure as the cleaning medium. Water jets on the underside of the ROV collect the waste with no direct physical contact with the vessel, helping to prolong the life of anti-fouling and reduce down-time maintenance costs.

#### **Safety and environment**

The entire process is in line with the GAC Group's stringent Health, Safety, Security & Environment (HSSE) and compliance policies as well as all local and regional environmental regulations.

Residues and harmful marine growths captured during cleaning are filtered and disposed of in an environmentally-friendly manner instead of being discharged into the sea as done using traditional methods.

HullWiper's eco-friendly technology delivers the benefits of a foul-free hull for container, LNG and VLCC vessels at several ports around the world.

## **CLEAN AND GREEN HULL CLEANING SERVICE**



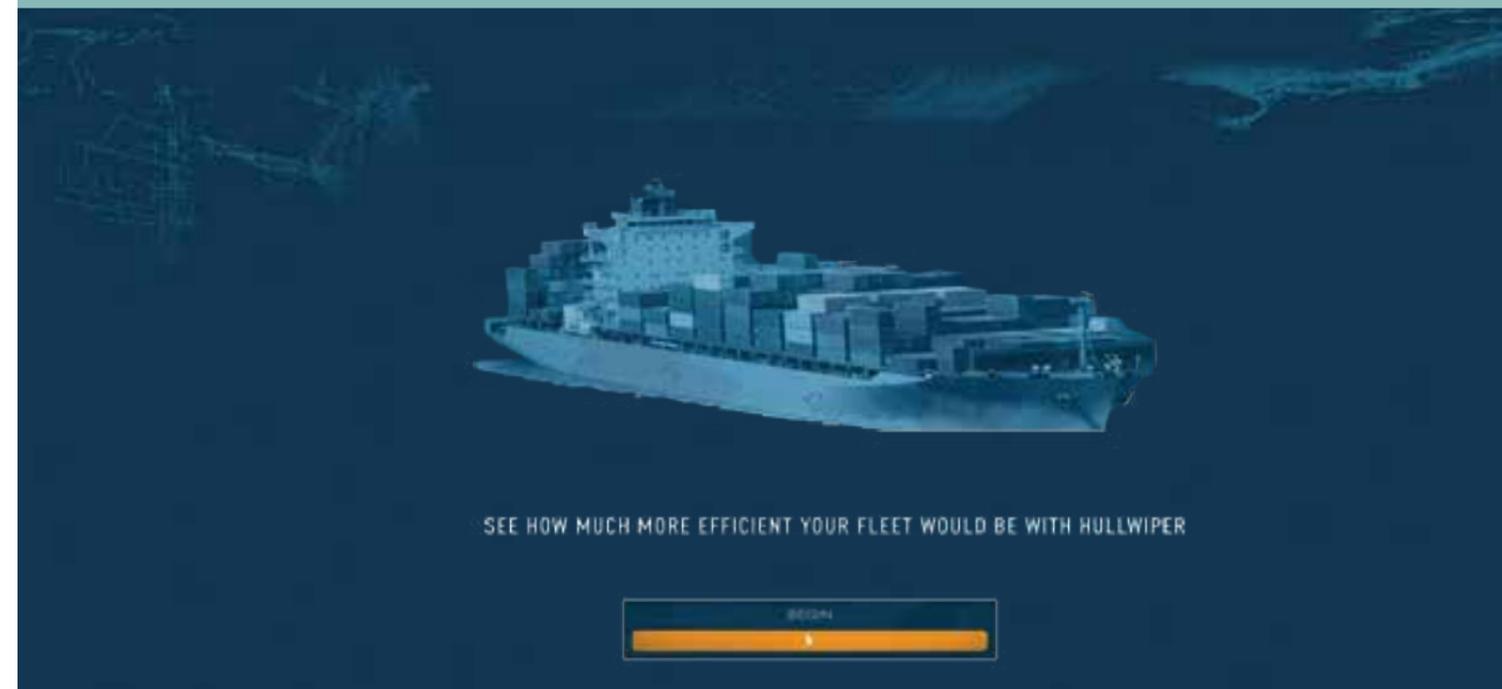
## **ECONOMIC SAVINGS OF A CLEAN HULL**

Studies show a slight build-up of slime on a vessel's hull causes a speed loss of 0.5 knots, increasing fuel consumption by up to 20%.

For a ship using 60 tonnes of fuel daily for 250 days of trading, that means a loss of 3,000 tonnes is incurred every year. Thus, keeping a

ship's hull in smooth condition can result in significant savings.

Compare the financial benefits of hull cleaning with the HullWiper ROV with results achieved using traditional methods, with GAC EnvironHull's online fuel savings calculator at <http://gacc.environhull.com>





## Fast, efficient and safe option for regular cleaning of vessels of any size or design

### About the GAC Group and GAC EnvironHull

GAC EnvironHull is part of the GAC Group, a global provider of integrated shipping, logistics and marine services. Emphasising world-class performance, a long-term approach, innovation, ethics and a strong human touch, GAC delivers a flexible and value-adding portfolio to help customers achieve their strategic goals. Established since 1956, the privately-owned group employs over 9,000 people in more than 300 offices worldwide.

GAC EnvironHull provides cost-effective, efficient and environmentally-sound marine cleaning services for vessels of all shapes and sizes.

### The GAC advantage

- Complete range of support services for the shipping and marine industries, thanks to GAC's global ship agency, logistics and manning services capabilities
- Cost-efficient solution with minimal impact on the environment
- In-depth knowledge of local regulations and practices
- Strict Health, Safety, Security & Environment (HSSE) compliance
- Dedicated teams with extensive technical and operational skills
- Online fuel savings calculator compares results with traditional methods

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