




# GEA MARINE SEPARATOR

Pushing the limits





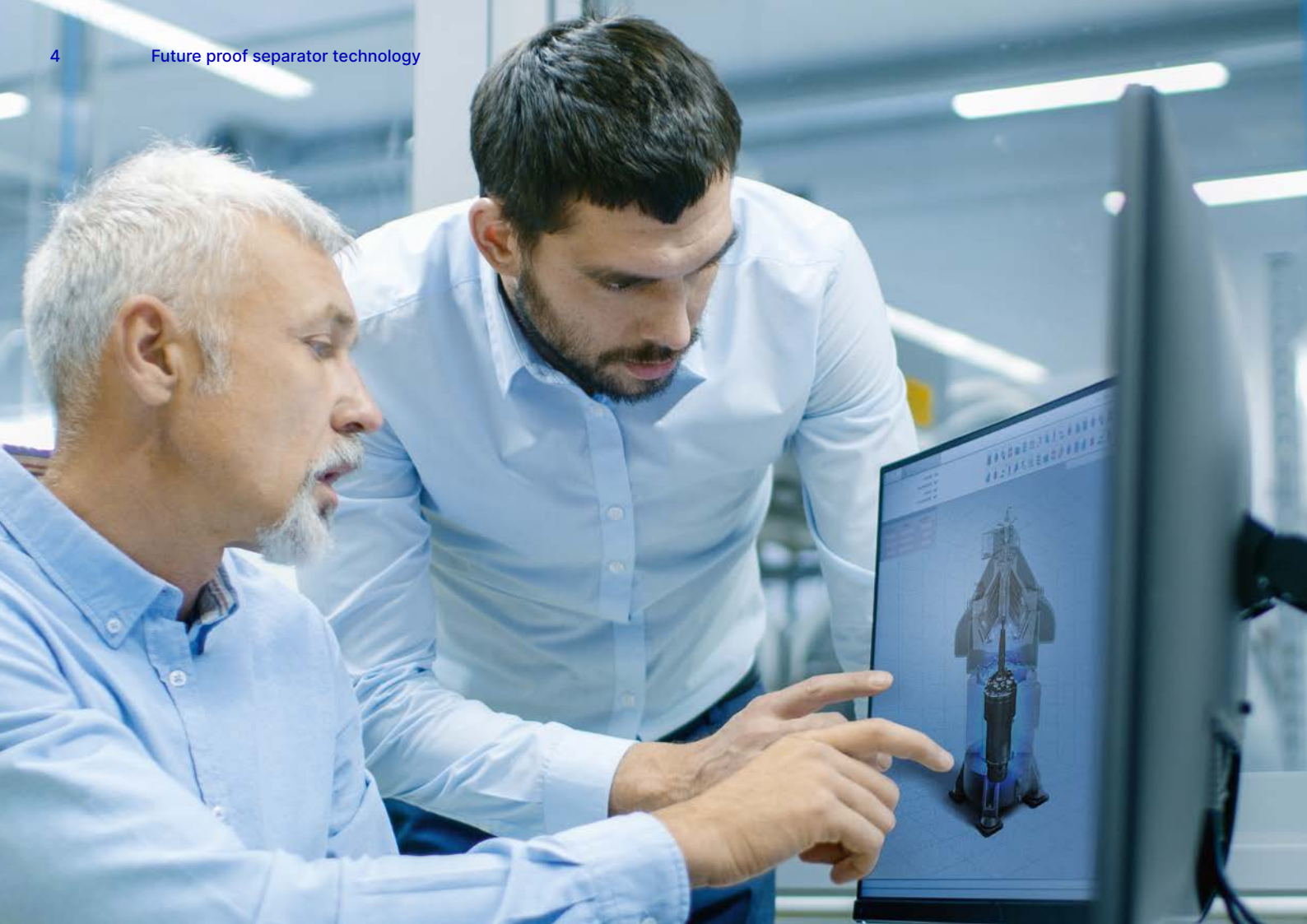


# TO PUSH THE LIMITS, YOU FIRST HAVE TO CHALLENGE THEM.

Meeting and mastering a challenge requires experience, skill and above all the courage to try something new.

Big wave surfers never tire of meeting new challenges and regularly break records mastering them.

The record-breaking extreme athletes provided our engineers with the inspiration to push the limits of product development. The most recent result is the GEA marine Separator.



# FUTURE ON BOARD. TODAY.

**Maritime separation technology that sets new standards.**

Nowadays, those involved in the commercial shipping, liner and cruise businesses face a growing number of complex and demanding challenges. One of these is the processing of heavy fuel oil and lubricating oil. For years separators have helped owners and yards meet this challenge.

But to future proof separator technology it was necessary to completely rethink marine separators and set new standards in terms of ease of maintenance, personnel deployment, energy efficiency, operating costs and environmental protection – through the use of ultra-low sulphur oil for example. The result is a revolutionary solution that offers integrated direct drive, compact design, more performance per square meter of footprint, innovative features and an extremely simple service concept: Pushing the limits.



# RESOURCE-EFFICIENT SOLUTION

As one of our most resource-efficient solutions, our GEA marine Separator carries the Add Better label.\*

The high efficiency motor of the GEA marine Separator transfers the energy directly to the bowl without the use of belts and clutches.

This reduces the energy consumption by 9% compared to the predecessor model, resulting in energy savings of up to 30,000 kWh per vessel per year.

\*The Add Better label relates to the serial product GEA marine Separator, released in September 2018. The comparison refers to its predecessor model, the GEA OSE Separator.







# SEVEN SEAS. ONE REVOLUTIONARY SERVICE CONCEPT.

Ultra-simple servicing thanks to quick  
and easy drive replacement.

To make your life as easy as 1-2-3, the latest GEA generation of separators is designed with simplicity in mind. That's why it is no longer necessary to remove and replace individual parts when doing scheduled drive maintenance. Instead, all you need to do is order an exchange drive and swap the unit – a

process that takes no time at all. In addition to time savings, the new technology radically extends services intervals and makes cleaning the separator a breeze. Exchange drive units are overhauled to OEM standards and do away with the need to carry replacement parts on board.

**EASY** as

# 1-2-3

## **Easy to swap drives**

Drive maintenance on the latest generation of GEA marine separators could not be easier. To exchange the drive unit, it's just three simple steps: lift the hood (1), remove the bowl (2), exchange the drive unit (3) and you're done!

**RUNS**

# 16,000

 hrs

## **Double the running time**

The integrated direct drive extends the standard 8,000-hour service interval for conventional separators to 16,000 hours for the GEA marine Separator. With servicing now taking 30 minutes to one hour every two years compared to six to eight hours every year previously, the time savings are also considerable.

**CLEAN** in just

# 20

 min

## **Fast cleaning**

GEA EffiClean cleans the separator's disks packs in only 20 minutes. Taking place inside the running machine, it also reduces the workload by up to 95 percent compared to manual cleaning.

**SHIPPING** within

# 24

 hrs

## **General overhauls certified to OEM standards**

Every two years we overhaul the integrated direct drive in our factory. Overhauled units are like new – something we document and certify – and leave our warehouse within 24 hours of ordering.

# INNOVATIVE SEPARATOR TECHNOLOGY WITH REAL BENEFITS.

A revolutionary design that puts integrated drive at the heart of your system.

## Easiest maintenance on the market

The direct drive doesn't require a conventional motor, belt or clutch. But perhaps the biggest plus point is that the spindle and motor are available for the first time as a compact plug and play exchange unit – something that makes maintaining the separator very simple indeed.

## 50 % smaller footprint

The rotationally symmetrical design of the separator with its single lifting point not only simplifies installation and maintenance but also reduces the unit's footprint by 50 %. To aid quick installation and maintenance, the separator is also accessible from all sides.

## Save 30,000 kWh

Thanks to the efficiency of the drive and the lack of belts, almost all the energy is transferred directly to the bowl. This saves you up to 30,000 kWh per year and provides sustainability that not only benefits your wallet but also the environment when used on a large fleet.

## New standards in efficiency

Based on the CWA15375 standard, the GEA marine Separator sets a new standard in separator efficiency, offers full transparency, the best certified flow rates (CFR) on the market and comes precisely tailored to your machine's dimensions.



### Getting you started –

Seamless support for instant productivity and performance

### Keeping it running –

The cost-efficient way of ensuring safety and reliability

### Constantly improving –

Sharing our knowledge to safeguard your investment

### Together with you –

Enduring commitment to you and your business





# READY FOR SMART CONNECTIVITY? YOU ARE WITH THE GEA MARINE SEPARATOR.

With the new generation of separators, tomorrow's intelligent shipping is already on board.

The future of shipping is digital. In accordance with the needs of big data, demand for more transparent processing and real-time operating data is increasing. As part of this, equipment needs to be interfaced with the ship's management system and numerous processes controlled, visualized and analyzed within the network.

Making it easy to meet these maritime challenges, our separators are digital ready across a range of functionalities including preventive maintenance, proactive optimization, and continuous unmanned machine room operation.



## **GEA IO Control**

Pushing a button on the touch-sensitive interface is all that is required to control the separator or select features such as maximum yield, performance, minimal energy consumption or additives. Remote access via a tablet or PC is also available as an option.



## **Condition monitoring**

The intelligent condition monitoring system collects data and provides useful analyses, helpful reports as well as reliable recommendations for optimal system operation.



## **OPC UA field bus ready**

The latest industrial communication protocol OPC specification provides the basis for transporting machine data and making it machine-readable.





# EASY, COMPACT AND JUST RIGHT FOR YOUR REQUIREMENTS.

## Models and technical data at a glance.

GEA marine Separators are available with capacities to suit all sizes of ship. And because their footprint is half that of the previous generation, they offer twice as much performance per square meter. What better prerequisites for easy installation, fast maintenance, and flexible planning?

| GEA marine Separator      |     | 6         | 12        | 25        | 35        | 50        | 90        |
|---------------------------|-----|-----------|-----------|-----------|-----------|-----------|-----------|
| Max. capacity for IF 380  | l/h | 1650      | 3250      | 7100      | 9300      | 13500     | 23800     |
| Max. capacity for IF 700  | l/h | 960       | 1900      | 4200      | 5300      | 7750      | 13700     |
| Connection voltage        | V   | 380 - 690 | 380 - 690 | 380 - 690 | 380 - 690 | 380 - 690 | 380 - 690 |
| Frequency                 | Hz  | 50 - 60   | 50 - 60   | 50 - 60   | 50 - 60   | 50 - 60   | 50 - 60   |
| Footprint (length x wide) | cm  | 51 × 61   | 56 × 65   | 62 × 71   | 65 × 73   | 80 × 95   | 92 × 110  |



# NEXT GENERATION. PROVEN STANDARDS.

Innovative technologies are good –  
and with proven standard functions  
they make our separators even better.



## **Hot separation add-on**

Where high cat fine levels are an issue, the robust design of our separators makes it possible to increase the separation temperature to 110° C. The advantage is reduced viscosity and significantly increased separation efficiency.

By increasing the separation temperature, the modular technology option increases viscosity and reduces abrasion caused by cat fines, protecting the main engine and other key components. GEA is the only manufacturer on the market to offer this technology.



## **GEA unitrolplus**

The automatic monitoring and control system keeps heavily contaminated fuels and lubricating oils under control at all times, automates the processes and ensures maximum operational safety – even in unmanned machine rooms.



## **OPC UA field bus ready**

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# PUSHING THE LIMITS

Your benefits of GEA marine Separator at a glance:

- Run 16,000 hrs instead of 8,000
- Easy exchangeable drive system
- Quick and easy installation
- Disk cleaning in 20 minutes
- Save on your energy bill
- Small footprint and 360° accessibility
- Ready for future shipping and big data
- Fast delivery of spare parts
- Adaptable to the latest fuel technologies
- Best certified flow rate in the marine market
- Hot separation add-on

Ready to push the  
limits with us?  
We are.  
Contact us now.



**GEA Global Marine Business**  
Werner-Habig-Straße 1  
59302 Oelde, Germany

Tel +49 2522 77-2869  
[gea.com/marine](http://gea.com/marine)