

## Press Release

# Intelligent Control Technology for Multi-Gas Carriers: SpiraTec Group delivers high-performance systems for international shipbuilding

*Speyer, September 17, 2025 – Technology meets challenge: Under the strict conditions of international shipbuilding and the associated high demands, the SpiraTec Group, as a key supplier to TGE Marine Gas Engineering GmbH, has developed and manufactured the complete switchgear technology for controlling complex liquefied gas processes for state-of-the-art multi-gas carriers. The project impressively underscores the successful cross-company collaboration within the SpiraTec Group – always with a focus on tailor-made solutions in the customer's interest.*

For the international deployment of advanced multi-gas carriers for Fortitude Shipping Pte Ltd, built at the Chinese shipyard Nantong CIMC Sinopacific Offshore & Engineering Co., LTD, SpiraTec Group delivered the complete switchgear technology for controlling challenging liquefied gas processes, as well as engineering and software development. The ships, each with a cargo capacity of 24,000 m<sup>3</sup>, are designed for transporting LEG, LPG, ammonia, and VCM, meeting the highest safety and performance standards. The successful implementation was carried out in cooperation between onoff automation services gmbh, a subsidiary of SpiraTec AG, and the Line of Business Industrial Automation Solutions (IAS) of SpiraTec AG.

Heiko Kröber, Vice President IAS, SpiraTec AG and Managing Director of onoff automation services gmbh, explains the cross-company project: "The core of the project was the development of a highly available control solution that reliably maps both gas handling and central safety-relevant processes. Among other things, a redundant Control and Alarm System (CAS), an Emergency Shutdown System (ESD), and customized switchboards were used – all manufactured individually for each ship."

Engineering was carried out by the IAS of SpiraTec AG – from creating circuit diagrams to implementing the individual control concepts and visualizations developed with TGE Marine, all the way through software programming, simulation, and the still pending commissioning. onoff automation services gmbh complemented this scope of services with professional switchgear construction, including Factory Acceptance Testing (FAT). "Through the close integration of both areas of expertise, a complex automation project could be realized reliably, efficiently, and with the highest technical precision," emphasizes Heiko Kröber.

### Complexity under extreme conditions

The limited space on board, international classification according to DNV, ABS, LR, BV, RINA, etc. as well as operation in potentially explosive areas, impose high demands on the required solutions.

In this project, classification was carried out according to BV class rules:

- Switchboards with 2x 3,000 A, modular design, compact for maximum space efficiency.

#### Pressekontakt:

Marei Kröber  
presse@spiratec.com  
Tel. +49 5031 9686-0

Jutta Rossié / Barbara Dornwald  
spiratec@move-communications.com  
Tel. +49 89 452219-22 /24

- Control and Alarm System & ESD System with highly available redundant control architecture, MRP ring, H-CPU's, explosion-proof components, and worldwide remote access via VPN in accordance with IACS UR E26/E27.
- Safety architecture in accordance with SIL 2 standards with intrinsically safe sensor/actuator components.
- Simulation of all challenging processes with WinMOD – for early error detection and practical testing in the software FAT.


### Safe & ready for worldwide deployment

Thanks to global remote access via satellite connection, the system is future-proof and particularly maintenance-friendly, designed for the highest demands at sea. The standardized software architecture with user-friendly faceplates also enables intuitive operation and flexible adaptation, while ensuring maximum process safety.

The tight project schedule as well as the highest requirements for documentation, execution, and choice of materials were met – all switchgear cabinets and software were completed, tested, and made ready for export on time.

More information about the companies involved can be found at: [www.spiratec.com](http://www.spiratec.com), [www.onoff-gmbh.com](http://www.onoff-gmbh.com) and [www.tge-marine.com](http://www.tge-marine.com)

### Images

	<p>Multi-gas Carrier</p> <p>Copyright: TGE Marine Gas Engineering GmbH</p>
	<p>Every centimeter counts: modular switchgear cabinets with isolated power units for precise control of</p>

#### Press contact:

Marei Kröber  
 presse@spiratec.com  
 Tel. +49 5031 9686-0

Jutta Rossié / Barbara Dornwald  
 spiratec@move-communications.com  
 Tel. +49 89 452219-22 /24



highly complex pumping and  
reliequation systems on board.

Copyright: SpiraTec AG



Soft starter

Copyright: SpiraTec AG



Heiko Kröber, Vice President IAS,  
SpiraTec AG and Managing Director  
of onoff automation services gmbh

Copyright: SpiraTec AG

**Press contact:**

Marei Kröber  
presse@spiratec.com  
Tel. +49 5031 9686-0

Jutta Rossié / Barbara Dornwald  
spiratec@move-communications.com  
Tel. +49 89 452219-22 /24

**About SpiraTec AG:**

SpiraTec AG is one of the largest independent IT and engineering service providers for digitization and automation of the process and manufacturing industry in Europe. As a globally operating partner, SpiraTec enables its customers to achieve digital transformation. The focus lies on integrating cutting-edge technologies into proven industrial processes along the horizontal and vertical value chain. This generates clear efficiency benefits for customers and optimizes resource use.

With more than 650 employees at over 40 locations in Europe and the USA, the SpiraTec Group offers a comprehensive, modular range of services: from strategic consulting and planning to the development of digital applications to the implementation and optimization of production plants. Its expertise covers interdisciplinary services such as digitization, automation technology, robotics, digital twin, industrial IT, and engineering.

SpiraTec sets standards in the digital evolution of industry and drives the forward-looking transformation toward the digital industrial landscape. With a holistic approach and interface-optimized processes, SpiraTec ensures the realization of future-proof projects for national and international customers.

Since its founding in 2007, SpiraTec has grown profitably and increased its total output to around €80 million in the 2023/24 financial year.

**About onoff automation services gmbh:**

onoff automation services gmbh was founded in 2021 from the switchgear construction and assembly department of the former onoff engineering gmbh. At that time, the department already had 32 years of experience. Today, the company can draw on more than 35 years of expertise in the production of switchgear and EMSR assembly.

The business division of onoff automation services gmbh includes hardware engineering, switchgear construction, and EMSR assembly as well as all directly or indirectly related activities: from field cabling to commissioning to service and maintenance.

As a partner in automation services, onoff ensures high quality of the respective systems using state-of-the-art manufacturing processes. The experienced EMSR assembly team implements customer requirements regarding the installation of the respective systems.

Since 2024, onoff has been part of the SpiraTec Group and enables the development of large-scale projects by utilizing the know-how of more than 650 experts from different fields.

**About TGE Marine Gas Engineering GmbH:**

TGE Marine Gas Engineering GmbH is the leading provider of liquefied gas systems and specializes in the design and development of gas plants and tanks for all types of liquefied gas carriers, bunker vessels, and FSRUs.

As part of EPCS contracts, TGE Marine Gas Engineering designs and develops liquefied gas carriers and fuel gas systems for LPG/LEG carriers, LNG, ammonia (NH<sub>3</sub>), and future fuels. TGE Marine is a pioneer in the dynamic field of LNG fuel gas systems, LNG bunker ships, and LNG floating storage and regasification units (FSU, FSRU).

With a great passion for innovation, TGE Marine supports the industry with technical solutions for a sustainable future, such as alternative fuels or CO<sub>2</sub> transport for CCS projects.

**Press contact:**

Marei Kröber  
presse@spiratec.com  
Tel. +49 5031 9686-0

Jutta Rossié / Barbara Dornwald  
spiratec@move-communications.com  
Tel. +49 89 452219-22 /24