



EW-EURODRIVE: Enhancing Crane Efficiency at Mundra Port

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Dear Reader.

The year 2025 has brought challenges such as trade wars, cyber threats, and supply chain disruptions that are reshaping global markets. As protectionism rises, India must navigate these uncertainties while leveraging its industrial strength. SEW-EURODRIVE India is well-prepared to address these challenges through a value-driven approach that ensures long-term, sustainable growth. By focusing on innovation, efficiency, and sustainability, SEW India continues to reinforce its leadership in automation and mechatronics while adapting to evolving market demands.

Providing engineering solutions remains central to SEW-EURODRIVE's value proposition. In this edition's customer story section, we highlight our successful retrofit of gearbox in existing RTG cranes at MICT, operated by DP World. This project demonstrates our application expertise and technical support capabilities, ensuring reliable operations and long-term product support.

The product section features the MOVIGEAR® Performance by SEW-EURODRIVE, a decentralized drive solution designed for efficiency and adaptability. With its compact design, energy-efficient IE5 motor, and high overload capacity, it offers reliable performance across various material handling applications.

In the feature section, Denis Scheller, District Manager for India at SEW-EURODRIVE, shares insights into his role, SEW's growth trajectory, India's strategic importance, and upcoming innovations. His perspective underscores the company's commitment to sustainability and technological advancement.



S. Jangary

S. VasudevanManaging Director, SEW-EURODRIVE India

SEW-EURODRIVE: Enhancing Crane Efficiency at Mundra Port

Mundra International Container Terminal (MICT), operated by DP World, is one of India's most advanced and strategically important ports. Located on the west coast of Gujarat, MICT plays a pivotal role in India's maritime trade. The port is equipped with state-of-the-art cranes, including 7 Quay cranes, 28 Rubber Tire Gantry (RTG) cranes, and 3 Rail Mounted Gantry cranes. Since its inception in 2003, these cranes have been vital to MICT's operations. However, after two decades of service, challenges began to emerge that required innovative solutions.

Challenge:

By 2023, DP World recognised the need to upgrade its equipment at MICT to ensure long-term reliability and productivity. With safety and operational efficiency as top priorities, the focus was to retrofit the gearboxes in the RTG cranes - Gearboxes are critical components that are equivalent to the heart of the cranes. The gearboxes, supplied by a non-SEW manufacturer, had reached their operational limits. The original supplier was unable to provide adequate service support or timely replacement of these units. Any delay in replacing these critical components could result in significant monetary losses and operational disruptions for the port.

Solution:

SEW-EURODRIVE stepped in with a proactive and tailor-made solution, leveraging its application expertise, technical support strength, and product quality. Despite SEW products not being originally installed at MICT, DP World placed its trust in SEW's proven capabilities to deliver reliable solutions for the port industry worldwide.

SEW's technical support team worked closely with DP World's teams in India and Dubai to address the following key challenges:

- Dimensional Compatibility:

Ensuring that the new gearboxes matched the required torque and speed while fitting seamlessly into existing systems.

- Fitment Constraints:

Developing solutions without modifying the existing crane structure.

- Product Selection Expertise:

Identifying the optimal gearbox for performance without altering mounting positions.

SEW's technical team designed a customised shaft and selected the perfect gearbox for retrofitting. The first successful installation demonstrated SEW's engineering strength and built DP World's confidence in SEW as a reliable partner. Over time, SEW replaced 108 gearboxes across gantry and travel drives of 18 out of the 28 RTGs at

Key Benefits Delivered

Reliable Operations:

Reduced downtime significantly improved overall productivity at Mundra Port.

Before



Technical Specifications

Application	Type of Gearmotor	Technical Parameters	
Trolley Gearbox	KH97/T AMS180	Torque: 4300 Nm; Speed: 41.87 RPM	
Gantry Gearbox	K107 AMS200	Torque: 6800 Nm; Speed: 16.75 RPM	

Cost and Time Efficiency:

Retrofitting without structural modifications saved both time and cost for DP World.

Long Term Support:

SEW India's extensive service network provided reliable ongoing maintenance.

Looking Ahead:

The successful retrofitting of 108 gearboxes at Mundra Port has solidified SEW-EURODRIVE's partnership with DP World. Operating seamlessly for over eight months, these gearboxes highlight SEW's engineering and product capabilities to deliver reliable end user solutions under demanding conditions. Building on this success, SEW and DP World are collaborating on further projects to enhance efficiency.

After



SEW-EURODRIVE gearboxes have consistently delivered excellent performance in our RTG cranes at Mundra International Container Terminal. We would like to extend our sincere appreciation to the SEW technical team for their valuable support throughout the feasibility study and the successful completion of the gearbox replacement as part of our crane refurbishment project."

Samuel S. Rajan - DGM Engineering - DP WORLD, Mundra.

MOVIGEAR® Performance: Redefining Decentralized Drive Solutions



The MOVIGEAR® Performance drive unit by SEW-EURODRIVE is designed to improve decentralized automation by integrating a permanent-field synchronous motor, an energy-efficient gear unit, and a decentralised inverter into a single compact system. This efficient drive unit enhances the MOVI-C® portfolio, providing a cost-effective solution that excels in performance and versatility.

Designed for industrial applications that demand high efficiency in confined spaces, the MOVIGEAR® Performance features a lightweight aluminum die-cast housing that reduces overall weight by nearly 50% compared to traditional systems. It also offers an overload capacity of up to 300%, making it suitable for dynamic applications. Additionally, with certifications such as CE/UL, it meets high standards for safety and energy efficiency, making it an ideal choice for various industries seeking to optimize their operations.



Key benefits:

- Energy-Efficient Design

The IE5 motor (IEC TS 60034-30-2) enables exceptional energy savings, reducing overall system losses by up to 50% (IES2 classification, IEC 61800-9-2).

- Compact & Lightweight

Integrating the motor, gear unit, and inverter into a single unit reduces size and weight by nearly 50% compared to traditional drive systems.

- High Overload Capacity

Supports up to 300% of I_N (5 sec), making it highly adaptable to dynamic and highload applications.

- Quiet Operation

Fanless design ensures low noise levels, contributing to a more comfortable work environment.

- Flexible Integration

Compatible with standard industrial communication systems, allowing seamless integration across various applications.

- Enhanced Functional Safety

Integrated Safe Torque Off (STO) function (IEC 61800-5-2) meets SIL 3 (EN 61800-5-2: 2017, EN 61508: 2010) and PL e (EN ISO 13849-1: 2015) safety standards.

Key Features:

- Optional Motor Encoder

Multi-turn absolute encoder /AZ1Z for positioning and extended control range 1:2000

- Optional Special design for Wet or Harsh Environments (IP66)

Surface Protection (HCP200) provides high corrosion protection allowing use of cleaning agents and disinfectants.

- DynaStop® Function

DynaStop® electrodynamic deceleration function (/DSP) creates a speed-dependent torque when the motor is de-energized which prevents the application from over accelerating due to external forces (e.g. sagging on inclining tracks).

Areas of application:

Intralogistics & Parcel Logistics: Particularly in horizontal conveyor systems.

Food and Beverage Industry:
 Efficient and compact drives for moving products in food processing.

- Automotive Industry

Suitable for various automated material handling processes.

- Airport Baggage Handling

Ensuring efficient and reliable baggage conveyance.

- Pharmaceuticals

Compliance with hygienic standards and low noise enhances sterile production environments.



Technical Specifications

Connection voltage: 380 V - 500 V at 50/60 Hz

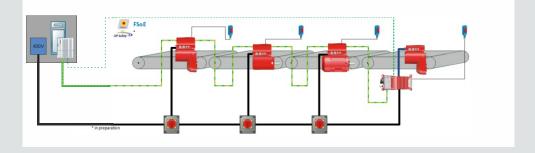
Series/Design	Weight KG	Torque class Nm	Nominal power kW	Output speed range min-1	Hollow shaft diameter mm
MGF2-C	16	200	0.8	0.9 - 593	20/25/ 30/35/40
MGF4-C	26	400	1.5	0.9 - 566	30/35/40
MGF4-C/XT	28		2.1		

Communication/installation variants:

- DFC Direct Fieldbus Communication (PROFINET, EtherNet/IP[™], Modbus TCP, POWERLINK/CiA 402)
- DBC Direct Binary Communication
- DAC Direct AS-interface Communication
- DSI Direct System bus Installation (EtherCAT®/SBus^{PLUS}, EtherCAT®/CiA 402)

Topology

MOVIGEAR® performance drive unit offers interfaces to any communication bus. Direct connection to the controller is just one of many options.





India as Driving force in SEW's global strategy.

Denis Scheller - District Manager, International Markets 2 at SEW-EURODRIVE Headquarters in Germany, in a conversation with DriveIndia Team.

Firstly, could you tell us something about yourself and your role in the SEW organization?

My name is Denis Scheller, I am 43 years old, married and have one daughter.

I started my career with SEW in February 2016 as a Regional Sales Coordinator for the Middle East region, where, among other topics, I was also responsible for establishing our new entity in Dubai - SEW-EURODRIVE

A short time later, I became District Manager for the same area and additionally for SEW Ukraine and our sales partners in Lebanon and Mongolia.

At the same time as the management responsibility at SEW India was being passed from MJ Abraham to S. Vasudevan, there was also an internal Headquarters reorganisation, in the course of which I took over the role as a District Manager for the Indian market. Since 2022 I have now been in charge of all matters relating to the Indian market at Headquarters, and I am also the interface for any matters that are brought to me from colleagues of SEW India.

How has the SEW organization developed over the years, and what are some of the significant changes it has undergone?

Beyond steady growth in turnover and workforce since 2016, SEW has continuously evolved to meet changing global demands. One of the most significant turning points in our development however was certainly the COVID-19 crisis, which forced businesses worldwide, including SEW, to rethink their operational strategies. During this period, SEW prioritized stabilizing its supply chain by diversifying the supplier base and securing back-up suppliers for key products, ensuring resilience against disruptions.

Simultaneously, we embraced remote working, integrating digital collaboration tools and redefining workflows to maintain seamless productivity. This shift enhanced flexibility and built a more agile workforce.

As part of our long-term strategy, SEW continues to invest in digital transformation, risk management, and operational resilience, ensuring we remain adaptable in a dynamic business landscape.

Where does India fit into SEW-EURODRIVE's global strategy?

India, as the world's most populous country and one of the fastest-growing consumer markets, plays a critical role in SEW's global strategy. Additionally, global geopolitical shifts, driven by protectionist policies and the "local-for-local" approach, have made India an increasingly important market - not only for SEW but for many German and European companies.

Unlike many companies who have only recently recognized India's potential, SEW identified this trend almost 30 years ago. By consistently investing in the Indian market and its people, we have built a strong and trusted brand that continues to fuel our growth and expansion in the region.

To stay ahead of competitors and unlock India's full market potential, SEW is further expanding its presence and investments. This includes strengthening local assembly capabilities, enhancing our service network, and deepening customer partnerships to ensure that SEW remains at the forefront of innovation and industry leadership.

Additionally, SEW is committed to being an attractive employer for the highly qualified workforce in India, offering career growth opportunities and fostering a work environment that promotes innovation and excellence.

What are the new innovations that Indian customers can expect from SEW-EURODRIVE in the next few years?

Innovation is central to SEW's strategy, and we remain committed to staying a market leader in the drive technology market by delivering solutions that align with market demands. A significant focus will remain on developing solutions for core markets such

as material handling, logistics, and automation, where SEW already has a strong presence. By advancing our portfolio in these key areas, we aim to provide cuttingedge technology that enhances efficiency and productivity.

A key focus is on sustainability, with the development of eco-friendly products and energy-efficient solutions that minimize environmental impact while maintaining high performance. We are dedicated to supporting a greener future by integrating sustainability into our product designs.

The buzz-word AI is also a focal topic for SEW. We are already integrating Al-driven solutions to enhance efficiency, improve customer experience, and streamline operations. By leveraging artificial intelligence, we can offer smarter, more adaptive products and services (e.g. in predictive maintenance) that cater to evolving market needs.

Ultimately, our goal is to anticipate customer needs and drive technological advancements that enable SEW to maintain a competitive edge in an evolving business environment.

Work apart, what are the things that you look forward to when in India?

Like many foreigners visiting India, I enjoy the delicious food and good tea (Masala Chai!), but what truly stands out for me is certainly the warm hospitality and the team spirit of SEW India. For me, India in particular shows that SEW is still a family company with strong core values. I always feel very welcome and look forward to my next trip to India every time.