

**SEW**  
EURODRIVE

# Drive India

The SEW-EURODRIVE Customer Magazine

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Dear Reader,

It is hard to believe that we have already crossed the halfway point of 2026. The year has once again been marked by geopolitical tensions, trade disruptions and other global uncertainties that have made the business environment increasingly challenging. Against this backdrop, SEW-EURODRIVE India achieved its best-ever quarter and highest-ever monthly sales, recording growth of more than 20% in the first half compared with the previous year. I sincerely thank our valued customers, for your continued trust and support.

Our customer story illustrates SEW-EURODRIVE India's holistic approach to application engineering. For Revomac, our integrated servo-controlled solution increased production by more than 75%, eliminated product breakage and enabled smoother, more controlled motion, thereby reducing mechanical stress and supporting greater reliability and longer machine life. This project brings our core value proposition—delivering solutions rather than products—to life.

Our new DR2C.. IE5 synchronous motor series is a testament to SEW-

EURODRIVE's continued commitment to energy efficiency and sustainability. This edition's product story introduces the series and its contribution to more sustainable industrial operations.

I am pleased to share that our stall at Automation Expo 2026 received the Golden Award "For Display of Exceptional Innovation, Technology and Product Excellence". This recognition reflects our DNA—engineering innovation, integrated solutions and tangible customer value. Our feature article provides a closer look at the technologies and solutions we showcased at the exhibition.

I wish you happy reading!



S. Vasudevan  
Managing Director, SEW-EURODRIVE India

# Revomac Introduces India's First Fully Automatic Servo-Controlled Cuber System with SEW-EURODRIVE

Automation is transforming the concrete products industry, where manufacturers are under constant pressure to increase productivity while ensuring consistent product quality. Recognising this need, Revomac Industries Pvt. Ltd. partnered with SEW-EURODRIVE India to develop India's first fully automatic servo-controlled cuber system, setting a new benchmark in block handling automation.

Replacing conventional hydraulic and pneumatic technology with an intelligent electro-mechanical motion control solution, the new system delivers significantly higher productivity, smoother operation and virtually damage-free handling of finished products.

**Customer**

Established in 2010, Revomac Industries Pvt. Ltd., Gujarat, is a leading manufacturer and exporter of concrete product machinery, including fly ash brick, block and paver making machines. Known for its turnkey manufacturing solutions and continuous innovation, Revomac has installed more than 450 machines in India and overseas. The servo-controlled cuber represents another milestone in the company's drive towards smarter manufacturing.

**Application**

A cuber is the final stage of an automatic concrete block manufacturing line. It picks, grips and stacks finished bricks, blocks and pavers into predefined patterns before dispatch. Since it directly handles finished products, the machine must combine high speed with precise positioning and controlled gripping force to prevent product damage.

**Challenge**

Revomac wanted to reduce cycle time while improving the quality and reliability of block handling. Conventional hydraulic and pneumatic systems presented several challenges:

- Jerky movement affecting positioning accuracy

- Inconsistent gripping force resulting in damaged products
  - Frequent maintenance due to oil leakage and wear
  - Limited control over motion and stopping
  - Reduced productivity and higher operating costs
- To achieve its vision, Revomac required more than replacement components—it needed a complete automation solution.



**SEW Solution**

SEW-EURODRIVE worked closely with Revomac to analyse the application and develop a complete electro-mechanical solution comprising CMS/CMSM electric cylinders, servo gearmotors, MOVIDRIVE® and MOVITRAC® drives, and the UHX45A controller.

Through closed-loop position control and precise torque control, the system delivers smooth acceleration, accurate positioning and controlled gripping force, enabling safe handling of concrete products without damage. By replacing hydraulic and pneumatic systems with intelligent electric motion control, SEW also eliminated oil leakage, reduced maintenance and improved machine reliability.

**Delivering Measurable Results**

The servo-controlled cuber has transformed machine performance:

| Performance               | Conventional Machine | Latest Machine |
|---------------------------|----------------------|----------------|
| Cycle time                | 35 seconds           | 20 seconds     |
| Production (8-hour shift) | 57,540 bricks        | 100,800 bricks |
| Product breakage          | ~10%                 | 0%             |
| Machine breakdown         | 8–10%                | 1–2%           |

The machine was successfully showcased at CONEX and EXCON 2025 and is now part of Revomac's commercial product portfolio.

SEW developed an industry-first solution that enhances productivity, product quality, and machine reliability.

| Technical Specifications          |                           |
|-----------------------------------|---------------------------|
| Nomenclature                      | Specifications Torque, kW |
| Servo GM: RF47 CM3C63S            | 2.70 Nm                   |
| Helical GM: FA47/G DR2L80MK4      | 6.30 Nm                   |
| Helical-bevel GM: K97 DR2L112M4   | 31.00 Nm                  |
| Servomotor with cylinder: CMSMB71 | 9.00 Nm                   |
| MOVIDRIVE®: MDX91A                | 0.75 kW<br>3 kW           |
| MOVITRAC®: MCX91A                 | 15 kW<br>2.2 kW           |

Great experience working with the SEW team. Outstanding support, quick responses, excellent technical expertise, accurate automation solutions, and professionalism throughout the project. Thank you, SEW team, I look forward to many more successful automation projects together.

Umesh Patel, Managing Director

# SEW-EURODRIVE DR2C.. IE5 Synchronous Motors: Two Technologies for Efficient Motion

Improving the energy efficiency of industrial drive systems is a key priority for manufacturers aiming to reduce operating costs and meet sustainability targets. SEW-EURODRIVE’s DR2C.. synchronous motor series brings IE5 efficiency to industrial motion with two complementary technologies designed exclusively for inverter operation: the DR2C..A interior permanent magnet motor and the DR2C..U synchronous reluctance motor.

### Two Technologies, One IE5 Platform

The DR2C..A uses interior permanent magnets to deliver high power density, compact dimensions and fast dynamic response. Its low mass moment of inertia reduces acceleration losses, making it ideal for applications with frequent starts, stops and speed changes.

The DR2C..U generates torque through magnetic reluctance using a rotor made from stamped electrical steel laminations. It contains no permanent magnets or rare-earth materials, offering a robust and resource-efficient option for continuous-duty applications.

### Energy Efficiency Across the Operating Range

Both motors achieve IE5 efficiency in accordance with IEC TS 60034-30-2, with motor efficiency determined according to IEC 60034-2-3. Importantly, the DR2C.. series maintains high efficiency at partial load—a common operating condition for many industrial drives—and can reduce motor energy losses by up to 50% compared with a similarly rated IE3 line-operated induction motor.

Actual energy and cost savings depend on operating hours, load profile, speed control and the efficiency of the complete drive train.

### Selecting the Right Motor

- DR2C..A – Interior Permanent Magnet: Power range from 0.25 to 17 kW, with speed classes of 2000 and 3000 rpm. It is best suited to compact, dynamic and frequently cycling applications and can be up to two motor sizes smaller than a comparable IE3 asynchronous motor.
- DR2C..U – Synchronous Reluctance: Power range from 11 to 90 kW, with speed classes of 1500, 1800 and 3000 rpm. It is suited to robust, continuous-duty applications where independence from rare-earth materials is important. The 1500 rpm speed class applies to 400 V systems and 1800 rpm to 460 V systems, while 3000 rpm is available for both system voltages within the applicable power range.

The DR2C..A offers an overload capacity of approximately 200–250%, depending on

the motor size, while the DR2C..U provides an overload capacity of up to 200%.

### Flexible Integration into SEW Drive Systems

DR2C.. motors are integrated into SEW-EURODRIVE’s modular drive portfolio and are available as gearmotors or IEC foot- or flange-mounted motors. They require operation with a suitable frequency inverter and can operate with or without speed feedback, depending on the inverter and application.

Available options include brakes, encoders, connectors, forced cooling fans and the MOVILINK® DDI digital motor interface. MOVILINK® DDI enables digital motor identification, simplified commissioning and access to drive data. When combined with suitable sensors and digital services, this information can also support condition monitoring and predictive maintenance.

For retrofit applications, mounting dimensions, speed and torque requirements, inverter compatibility and accessory requirements must be verified. DR2C.. motors should therefore not be considered universal direct replacements for line-operated motors.

### Applications Across Industry

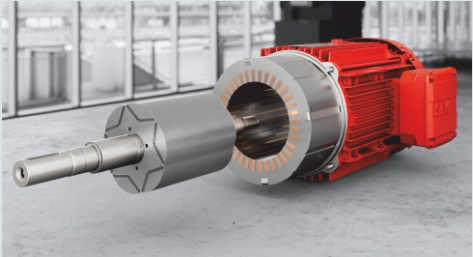
- DR2C..A: Sorter belts, roller conveyors, palletizers, rotary tables and positioning systems involving frequent acceleration and deceleration.
- DR2C..U: Continuous conveyors, pumps, mixers, fans, compressors and aeration systems requiring sustained and energy-efficient operation.

### Technical Specifications

| Motor Type         | Frame Size | Speed       | Torque (Nm)  | Power (kW)  | Speed       | Torque (Nm) | Power (kW)  |
|--------------------|------------|-------------|--------------|-------------|-------------|-------------|-------------|
| DR2C...<br>A IPM   | 71         | 2000<br>RPM | 1.19 to 4.95 | 0.25 to 1.0 | 3000<br>RPM | 1.18 to 5.3 | 0.37 to 1.7 |
|                    | 80         |             | 7.1/10.8     | 1.5/2.3     |             | 7.6/11.3    | 2.4/3.5     |
|                    | 90         |             | 17.3/22.5    | 3.6/4.7     |             | 18.5/22.5   | 5.8/7.1     |
|                    | 100        |             | 28/34.5      | 5.9/7.2     |             | 30/34       | 9.4/10.7    |
|                    | 112        |             | 47           | 9.8         |             | 47          | 14.8        |
|                    | 132        |             | 63           | 13.2        |             | 54          | 17          |
| DR2C...U<br>SyncRM | 160        | 1500<br>RPM | 70/96        | 11.0/15.0   |             | 35/47.5/59  | 11/15/18.5  |
|                    | 180        |             | 118/140      | 18.5/22     |             | 70/96       | 22/30       |
|                    | 200        |             | 191          | 30          |             | 118/143     | 37/45       |
|                    | 225        |             | 235/285      | 37/45       |             | -           | -           |
|                    | 250        |             | 350          | 55          |             | -           | -           |
|                    | 280        |             | 475/570      | 75/90       |             | -           | -           |



DR2C..A



DR2C..U

### Moving Towards More Sustainable Production

By offering two IE5 technologies, SEW-EURODRIVE enables manufacturers to match the motor concept to the application: compact and dynamic performance where space and acceleration matter, or robust, rare-earth-free operation where continuity and resource efficiency are priorities.

Combined with inverter control and application-specific drive selection, the DR2C.. series helps reduce energy losses, lower operating costs and support more sustainable production.

# SEW Showcases MOVI-C® Machine Automation and MAXOLUTION® Factory Automation at Automation Expo 2026

Asia's largest automation and robotics show, Automation Expo 2026, was held from 22–25 July at Bombay Exhibition Centre, Mumbai. Its 19th edition featured 2,000+ exhibitors, 40,000+ products and visitors from manufacturing, logistics, pharmaceuticals, automotive and process industries.

## The SEW India Stall

SEW-EURODRIVE India showcased working demonstrations on the MOVI-C® modular automation platform, covering energy management, motion control, robotics and decentralised drives, plus MAXOLUTION® material handling. Each model addressed machine-builder and plant-operator challenges, combining hardware, software, installation and commissioning from a single source, it enables smarter and sustainable solution.

## Counter Torque System

Gear backlash causes measurable positioning error in precision applications. SEW's counter torque model, using MOVIKIT® Multi Axis Controller, defines tension between two axis in the group to minimise slack, reduce gear backlash and manage load distribution between drives. Setting the torque ratio distributes torque between axes or applies opposing torque for balancing. The result is high-precision positioning with near-zero backlash for radar systems, turntables, horizontal/vertical drives and other high-precision applications, reducing mechanical stress, wear and maintenance.

## Anti-Sway and Anti-Slosh Control

SEW's MOVIKIT® Multi Axis Controller manages and synchronises complex multi-axis motion. A single demonstration model showcased Pendulum Anti-Sway, Tower Anti-Sway and Anti-Slosh functions that reduce oscillation affecting safety, positioning accuracy and operational efficiency. Pendulum Anti-Sway suppresses swinging suspended loads on overhead, shipyard, port, construction tower and gantry cranes, reducing stabilisation time. Tower Anti-Sway minimises lateral oscillation in cranes, high-rise towers and automated storage/retrieval systems using tower height, trolley distance, lifting trolley mass and payload for motor-controlled corrections. Anti-Slosh uses Fluid Sway motion profiles to reduce liquid oscillation, spillage and filling errors. SEW products used included MOVI-C® UHX65A, MOVIDRIVE® MDX90A and CMP50M servomotors.



## Power and Energy Solutions

SEW's PES application model uses MOVIKIT® software modules, an MDP92A power supply with controlled DC-link voltage, and supercapacitor storage to reduce peak-power demand in dynamic applications such as gantries, regenerative heavy loads and logistics. Power Mode cuts peak power from 6.2 kW to 0.4 kW (up to 15x lower). Regenerated braking energy is stored for reuse without braking resistors, reducing grid requirements, while capacitor backup supports safe operation during interruptions.

## Gantry Robot with MOVIKIT® Robotics

SEW and Rollon presented a three-axis Cartesian gantry robot as a plug-and-play package. Three-axis Gantry solution demonstrates highly accurate synchronized motion using advanced servo technology. The integrated MOVIKIT® software automatically generates IEC-compliant control code, significantly reducing programming effort while ensuring smooth and precise multi-axis coordination. It also supports predefined gantry, roller gantry, SCARA, delta and other kinematics, SEW Robot Language programming, teach-in functions and MOVISUITE® RobotMonitor 3D simulation for offline commissioning without PLC programming knowledge. Components included MOVI-C® UHX45A, MOVIDRIVE® System MDX91A, CMP/CM3C servomotors and WOP11D-100.

## Decentralised Drive Technology

SEW's decentralised portfolio reduces cabinet space, wiring and commissioning effort in conveyor and material-handling applications. Displays included MOVIGEAR® performance with motor, gear unit and electronics in 200/400 Nm classes; MOVIMOT® performance, combining synchronous motor and inverter, 0.75–4.19 kW and 300% overload; MOVIMOT® advanced/flexible, 0.37–7.5 kW with PROFINET®, EtherNET/IP™ and EtherCAT®; MOVIONE® inverter with IP54

for new/retrofit projects; and 48 V DCA, DFC and ELVCD drives for storage, communication-based and precise compact motion, with up to 360% overload in ELV compact drives.

## Factory Automation: Vision-Guided Omnidirectional Mobility

Under "Vision finds - Omni Aligns and Automation delivers", the MAXOLUTION® live demonstration showed intelligent next-generation pallet movement. A vision camera detects pallet position and orientation, sending data to the SEW Vehicle Controller (UHX), which calculates the optimal path. The omnidirectional forklift aligns, picks up misaligned pallets and transports them autonomously, integrating with Bi-directional BOPT for seamless transfer between stations. Both vehicles carry 1,500 kg, use SLAM natural navigation at 1.0 m/s, achieve ±10 mm accuracy, and include 2D lidar plus STO, SS1, SLS, SDI and SDA safety, fleet coordination and MES/WMS/ERP connectivity.

## Highlights:

- Vision-based pallet detection with automatic orientation correction
- Omnidirectional movement for confined paths and spaces
- Seamless pallet transfer between stations using integrated BOPT material transfer
- Safe human-robot collaboration with advanced safety technology
- Scalable, I4.0-ready architecture for future-ready manufacturing

## Why it matters:

- Improved material flow efficiency (application-dependent) and reduction in manual handling and operator dependency
- Better space utilisation through omnidirectional movement
- Increased safety and operational flexibility

