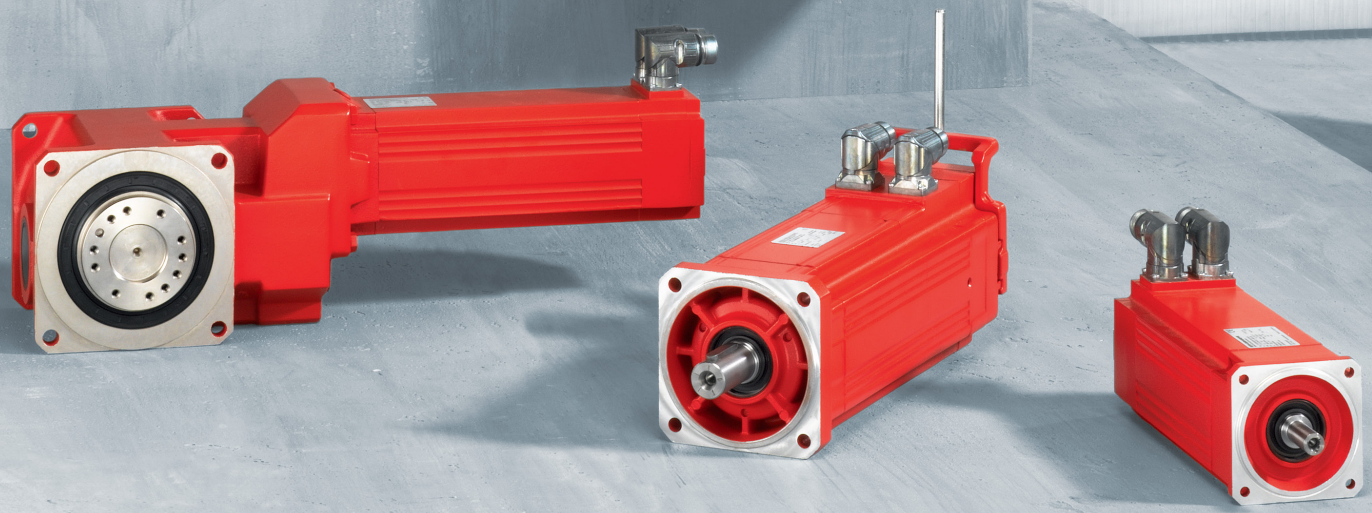
SEW EURODRIVE

Drive India

The SEW-EURODRIVE Customer Magazine

SEW's new service centre opens in Bhilai. Pan-India service now a reality.

Page 3.



Dear Reader

This is really an action packed few months for all of us with the launch of GST, but especially so for those of us selling a product with a motor in it. Apart from launching GST on the 1st of July, the government has also mandated that only high efficiency (IE2 or above) motors can be sold in India from 1st October 2017. Most of the world has already implemented this energy saving initiative, and in Europe IE3 motors are mandatory for the last 2 years; so India is actually late to this trend. We welcome this move, and since SEW has always believed in giving more than what is mandated, we will be selling only IE3 motors with our SEW manufactured DRN motor range. However, for applications that are driven by optimum capital costs, we can supply our locally sourced DIBE range of IE2 motors.

Increasingly, manufacturing plants are looking for support in realizing customized solutions to automate material handling on their shop-floor. Providing the technology and products to do this has always been one of SEW's core strengths worldwide. However, with the design and execution competence we have built locally in India at our 3 plants in Vadodara, Chennai and Pune, we are increasingly able to offer end-to-end solutions that combine global product technology with Indian engineering costs – an unbeatable combination, you would agree! Our customer story in this issue covers one such solution for PMAC, a Chennai-based precision parts supplier.

In our feature section we cover the breadth of our service network with the addition of a service facility in Bhilai, and in our product section we cover MOVIAXIS, our powerful, multi-axis servo inverter that is ideal for high-end motion control applications.

I wish you happy reading!

M J Abraham
Managing Director
SEW-EURODRIVE India

SEW application takes the load off materials transfer.

A new example in technology, collaboration and end-to-end project execution was set recently when SEW-EURODRIVE joined hands with the engineers at Precision Machine & Auto components Private Limited (PMAC), to set up a system that transfers materials from the warehouse to the different CNC machines. The project has provided PMAC with a quicker, safer and more economical load-carrying alternative and should equally benefit customers with a similar requirement for bulk material transfer.

PMAC is an ISO 9001:2008 company that manufactures precision machined components for industrial valves, earthmoving, automobile and many other industries across India. PMAC does machining for Ashok Leyland, Caterpillar, Siemens, ABB and TAFE, among others.

The hurdles.

Engineers at PMAC were facing regular issues in material logistics like scarcity of workforce, product damage, space wastage, more takt time, etc., and required a reliable partner, not just for immediate solutions but for long-term service and maintenance. SEW partnered with PMAC to provide the complete technology for vehicle designing, programming and commissioning for the rail-guided vehicle, vehicle fabrication and rail track.

The challenge.

- The group of raw materials weighing about one ton had to be moved for machining, from the warehouse to one or several of the CNC machines stations, up to a maximum distance of 150 meters.
- The finished goods from different CNC machines needed to be transferred to the quality section.
- The loading and unloading of materials had to be done by crane.
- Materials transfer had to be done via the Hand Operated Pallet Truck (HOPT).

The SEW application.

After considering a variety of options from the SEW portfolio – Auto Guided Vehicle, Shuttle Car, Rail Guided Transfer Trolley, etc., the Rail Guided Transfer Trolley was chosen as the most apt and cost-effective solution. Two automated Rail Guided Transfer Cars (RGVs) replaced the manual trolleys. They were installed with a radial track length of 150 meters and 18 stations, thus reducing the space used by the manual trolleys. The following are the particulars of the SEW installation:

- MOVITRANS® contactless energy transfer system for power supply to the mobile RGV.
- Decentralized MOVIMOT® Geared motor (KA47DRS80M4BE2/MM11) as prime mover for the drive wheel of the RGV.
- Precise positioning of the RGV at different stations done using contactless positioning technique by using The Movi-PLC® Advanced controller with the RFID-based transponder.
- For human and machine safety, SICK Safety Scanner model S300 (Professional) used for each RGV.
- Movi-PLC® advanced (DHE21B/OMH41B-T0/UOH21B) used for complete control of the trolley

Advantages of the application.

- Less takt time for operation & less space required compared to manual handling.
- 100% safety operation for both man and machine.
- Reduced manpower, increased accuracy and productivity.
- MOVITRANS® is operable in any environmental condition.
- Flexible and scalable.
- Maintenance-free.

Performance post installation.

PMAC appreciated the engineers at SEW for commissioning the entire system in a record time of under one month. The solution saves time and space, and also provides better accuracy and safety.

Do visit **www.pmacindia.com** to read more about PMAC.

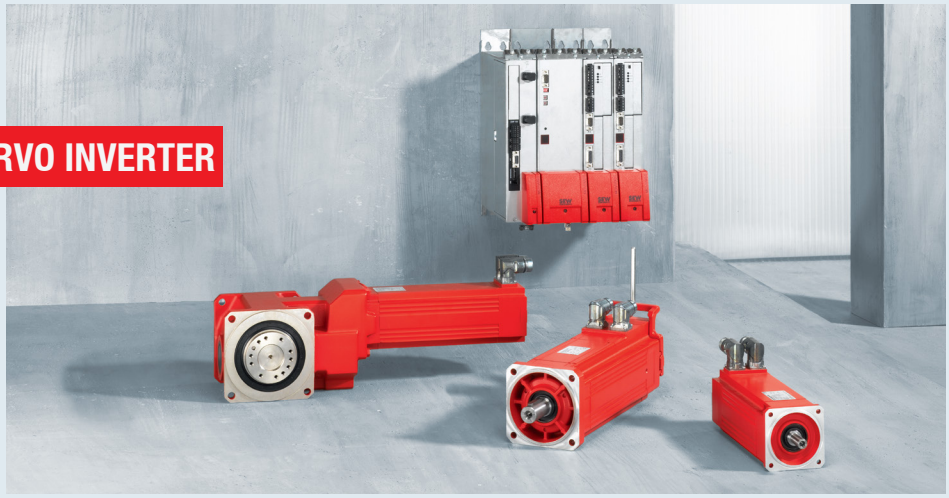
"PMAC is a 42-year-old high precision machine shop catering to leading OEMs. It always aims to adopt advanced technologies. One such improvement is the automation in material movement in our CNC machine shop. The RGVs we have installed with SEW technology helped us eliminate fork lift movement, reduce 450 man-days in a month, and reduce floor-space for WIP, thus offering us greater saving and seamless movement of material with 100% safety."

-- K. Balasubramanian, Managing Director, PMAC

Motion control at its flexible, intuitive and productive best.

In SEW-EURODRIVE's portfolio of Servo drive systems, MOVIAXIS® occupies a prominent position. A high degree of flexibility is what sets this series apart. The highly dynamic Servo drives combine technology and motion control functions that meet the highest standards, together with energy-efficient components and global availability.

MULTI-AXIS SERVO INVERTER

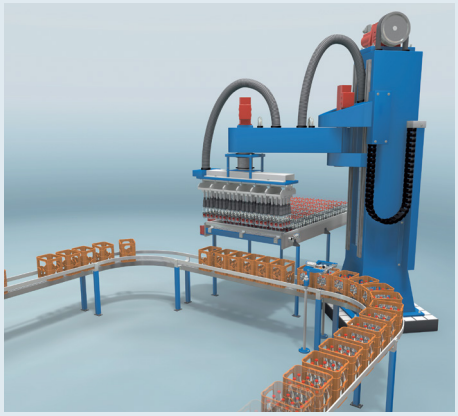


The powerful, reliable, flexible and scalable MOVIAXIS® provides the just-right multi-axis Servo inverter solution that saves time, costs and effort.

Application options for variable machines and systems:

- Power range from 10 kW rated supply power up to 187 kW peak power.
- A maximum peak current of 250 A.
- Integrated safety technology.
- Robust housing design and simple mounting.
- Support of all common encoder systems.

Perfect combination of productivity and intelligence.



The MOVIAXIS® product series and the complementary Servo drive technology portfolio from SEW combine productivity and intelligence through optimum adaptation to the application and maximum flexibility of the entire drive/automation system. They do it in terms of:

- Product scalability (hardware and software).
- Communication and networking options.
- Drive functionality and automation options.
- Engineering, start up, configuration and diagnostics using MOVITOOLS® MotionStudio.

Benefits par excellence.

There are four major facets on which MOVIAXIS® scores above conventional technologies.

Technology.

- Simple, involving no programming.
- Powerful – Overload rating, Cycle times, Control range and Stiffness.
- Scalable motion controller.
- Comprehensive – Key motion functions are integrated (e.g.: 40 electronic cams).

Communication.

- Scalable communication performance – CAN-based or EtherCAT®-compatible system bus.
- Central interface– No fieldbus cards.
- Open – Can be expanded with MOVIDRIVE®, MOVITRAC®.
- Flexible – Custom communications configuration with PDO Editor.

Connection technology.

- Fast motor connection – Connector technology up to 32 A.
- Multi-motor operation – Simultaneous connection of up to three motors.
- Simple connection – Prefabricated cables for all power and communication lines.
- Failsafe – Auto addressing of CAN1.

Target Applications.

- Handling, portals, SRS, robotics.
- Packaging, palletizing, labelling.
- Cartonizing, filling, sealing.
- Unloading, loading.
- Processing machines.

Unit components.

- Uniform cooling concept (convection).
- Can always be installed in 300 mm control cabinets.
- Easy installation with uniform 30 mm hole spacing.
- Optimal maintenance and diagnostics access because everything is accessible from the front.
- Can be upgraded with option cards.

Building a pan-India service capability with a new service centre at Bhilai.

SEW-EURODRIVE believes in catering to the entire lifecycle of the products it offers and therefore offering a complete end-to-end solution to customers. To this end, we have invested in both people and capabilities for superior after-sales service.

Giving quality service to all customers on a pan-India basis is a complex undertaking, given the vast geographic coverage involved. SEW has three plants located at Vadodara, Chennai and Pune to cater to the customer-base in the West and South. All three plants are equipped with full-fledged facilities for repair services.

In order to provide similar levels of service to customers in the the North and East also, SEW now has a service vehicle that is operational at Gurgaon and a service center at Bhilai, near Raipur.

Service vehicle at Hyderabad & Gurgaon

Comprehensive service.


Service Centre at Bhilai

Customers are provided an optional repair and overhaul service, both in-house and on-site, for electro-mechanic and electronic-drive products. Repair services include the replacement on request of both defective and affected components. SEW specialists also prepare service protocols and analysis reports. Customers are given a six-month warranty on replaced parts.

Scope of SEW repair services.

Gearbox 7 series:

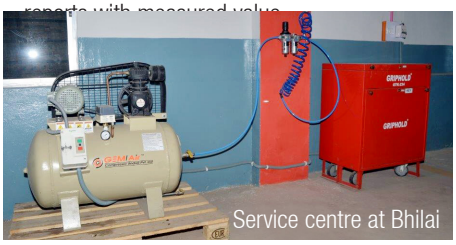
- Complete oil replacement.
- Replacement of seal kit, bearings and gears including all Circlip, Keys, Fasteners, Breather plug, Shim packages, etc.
- Complete overhauling of gearbox and testing by experts.
- Complete unit painting as per SEW standard; in case of quick delivery, unit dispatched without painting to save time.

Motor:

- Resistance of winding and insulation.
- No load trial before inspection.
- Resistance of brake coil for brake motor and condition of rest for break assembly.
- Condition of rotor, oil seal and bearing.
- Complete set of fasteners replacement.
- Painting of motor.

Benefits to the customer.

- Repairs carried out by experts using standard tools, equipment and procedures, ensuring factory-like results and enhanced life for the gearbox or motor.
- Customer saves considerable time and resource that would otherwise be engaged if self-repair undertaken.
- Assurance of genuine spare parts with six-months warranty on replaced parts.
- Customer knows the cost of service and spares well in advance.
- Facility available at nearest location, which saves time in transportation.
- After repairs, every product undergoes standard quality checks and customer receives test reports with measured value.


Service centre at Bhilai

	Capacity	Coverage
Service center	All size motors and gearboxes up to 97 size series.	Entire East.
Service Vehicle	All size motors and gearboxes up to 87 size series.	Gurgaon: Haryana, Delhi-NCR, UP, Punjab, Uttarakhand and Rajasthan. Hyderabad: AP and Telangana.

DID YOU KNOW?

The head whirls, but the feet are firm.

The Skywalk, Grand Canyon is probably one of the most dizzying feats of engineering in the world. Literally. This is a horseshoe-shaped glass walkway that stretches out over the edge of the Grand Canyon in a half circuit. It stands apparently suspended in air, 1,219 meters above the Colorado River, stretching precariously 21 meters off the cliff-edge.

The idea of David Jin, a Las Vegas businessman, The Skywalk was open to the public in 2007. It uses about 83,000 pounds of glass and one million pounds of steel, and can hold a total weight of 71 million pounds; roughly the bulk of 71 fully-loaded 747 aircraft!