

SEW
EURODRIVE

Drive *india*

The SEW-EURODRIVE Customer Magazine

**Partners, associates benefit from
SEW Drive Center at Gurugram.**

Read more on Page 3.

**New SEW technology
flips coinage industry
into its future.**

Read more on Page 1.



Dear Reader

The year we just closed was a really good one for us at SEW-EURODRIVE, and I am sure for most of you as well. We see a good level of order book and sales going into the new year, though not the high growth numbers that characterized the beginning of 2018. Elections are upon us and we all hope for a stable, sensible government that keeps the economy on track.

For our lead story in this issue we feature our work with a premier manufacturer of non-ferrous copper alloy strips in Faridabad where we did an in-depth study of legacy DC drive systems and controls in their equipment and manufacturing processes. Working closely with the customer's engineering team, we have retrofitted these legacy systems with current generation SEW technology, greatly enhancing productivity, quality, energy efficiency and safety.

At SEW we have developed a strong didactic competence for our products

and technologies which we deploy for internal training, but also increasingly to train you, our customers, in both technology and maintenance. Our product story features the training models we use during these training sessions which are also available for sale to customers.

Our feature story looks at our brand new Drive Center in Gurgaon, which takes our capabilities and competencies in the NCR region to a whole different level.

I wish you happy reading!



M J Abraham
Managing Director
SEW-EURODRIVE India

Coinage industry gets its money's worth with new SEW technology.



In an ongoing partnership with a leading manufacturer of non-ferrous copper alloy strips in Faridabad, SEW-EURODRIVE has set new standards in significantly upgrading conventional technology. The customer's plant, which is into the continuous casting of alloys and metal sheets, has been upgraded to the new application which does away with the numerous glitches of the conventional system.

The customer is India's largest integrated producer of coin blanks and copper / copper alloy strips, with about 70% of its output going into export. To meet its exacting quality requirements and increasing business demands, the company partnered with SEW-EURODRIVE to replace its old technology entirely with a new set of automated solutions.

Problems with the old system.

The plant was being driven by cyclo-gearboxes and DC motors, which are obsolete technologies plagued by frequent breakdowns and high maintenance costs. Spares for the DC drives were difficult to obtain, which often led to loss in production.

Why convention wouldn't do.

- Old machine with Analog DC drives & DC Motor; few documents of DC motor and drives available.
- Position accuracy not achieved in every cycle movement. All 4 cycles not possible due to programming limitation.
- Total production detail and casting speed data not available.
- Frequent failures during casting, so loss of production & huge wastage of material in furnace.
- PLC of older version; program logic and support not available.
- Spares and support of DC motor, DC Drives and PLC not available.

Challenges for the SEW project team.

Shift from DC to AC systems is always a complex task. There were multiple factors that needed to be taken care of at every step of the switch. Even the minutest errors in torque, cycle time and cooling time, or a slight compromise in accuracy of the

back and forth movement could mar the quality of casting, which is the most critical parameter in the coin making process.

Furthermore, the customer's engineering team had only limited information on the core technology because the entire line was procured from an end-user in Europe instead of an OEM, so that the team didn't get the hands-on support they would have normally. SEW's challenge, hence, was not only to understand the application but also to deeply study the old system.

Benefits of the new SEW application.

With the new SEW solution came tangible benefits like better cycle time and enhanced productivity, programmability up to the required accuracy to maintain quality of casting, and lower maintenance costs.

- Thanks to servo drive, machine operation is very dynamic with highest position accuracy.
- Proper sizing of gear motor and component selection of VFD and PLC.
- Panel designing with clear operating manuals.
- Highest accuracy using positioning modes, minor and major hold in forward and reverse direction.
- All user defined values changeable from HMI.
- All production data, casting speed, cycle speed available in HMI.
- Due to proper sizing of gear motor no stoppage

during operation; no wastage of material from furnace during casting process.

- Interchangeability of cycles during operation makes it flexible and user-friendly.
- Reduced cycle time to increase productivity, programmable up to required accuracy to maintain quality of casting. This is especially important for the export market.
- Systems with low maintenance cost because AC drive systems are easily available.
- Any service support from SEW is just one phone call away.

Precise planning, immaculate execution.

SEW-EURODRIVE, in partnership with the customer's engineering team, was able to install the application in three months. SEW has already delivered prompt after-sales service with two visits for speed adjustments. The system has been working perfectly post installation, for the past one year now.

"The system supplied by SEW-EURODRIVE is working satisfactory and still running without any problems since installation. We are thinking of going with SEW to replace the remaining casting line systems as well."

-- Vice President, customer company.

Training automation engineers for a smarter tomorrow.

Industries the world over are fast upping their levels of automation. It is imperative that the professionals who operate the technology that goes into these be aptly trained and equipped to design, implement, operate and maintain them. To meet this ever-growing demand for specifically trained engineers and other professionals, SEW-EURODRIVE has set up the DriveAcademy®, a global training initiative for SEW's own employees, customer teams and engineering students. SEW's training models, along with associated explanatory documents, are designed to meet the diverse needs of different groups of engineers.

SEW TRAINING MODELS



Better training for better productivity.



Every factory maintenance engineer needs to be thorough with the maintenance parameters of the drive system to keep the machine running smoothly at all times. The SEW training models simulate and thus help the trainee experience real-life situations of different applications using different product combinations. This helps them correctly identify the problem and take immediate corrective action when a failure happens, thus minimizing downtime. Similarly, project engineers or Original Equipment Manufacturers need to have firsthand skills to select and program the motion and logic sequences of a given machine. SEW's DriveAcademy® modules help them understand how to program and simulate the required motion sequences for respective machines.

Multiple needs, one program.

These training models and their teaching aids are also part of SEW's modular didactics concept. They can therefore be adapted for the specific teaching requirements of Engineering colleges,

especially students of the mechatronic department. Students not only get hands-on practical experience, experts at SEW work with professors to design the curriculum as well as train them.

Cut Section Models:

- Different types of gearboxes (R / F / K / S / W).
- Induction motor and electromechanical brake.

Product Training Models:

- Movidrive training model with DRN brake motor, encoder and MoviPLC.
- Movidrive training model with Servo brake motor, resolver and MoviPLC.
- Movitrac training model with DRN brake motor and MoviPLC.
- Movi Axis training model with servo brake motor with Master module.
- Movifit training module with DRN motor.
- Movimot training module with different field distributors.

Besides these, customized application training models can be manufactured based on specific requirements from customers.

A unique learning concept.

SEW-EURODRIVE has the capability to manufacture training models for all its products, including centralized and decentralized drive systems, Servo drive systems and specialized application models for our mobile material handling system portfolio. Features of

the program that facilitate quick and practical learning are:

- User-friendly.
- Ready-to-use.
- Safe.
- Readymade documentation guide.
- Learning made easy.

A user-designed program.

SEW-EURODRIVE does not have dedicated trainers to deliver this training, using standard content. Instead this is done by application engineers who actually work in the field and are fully familiar with real-world issues faced by customers. This makes it a dynamic program that can grow and adapt along with the changing needs of SEW's customers and other audiences.



"Industry-Institute collaboration between SEW-EURODRIVE and BIT is really bridging the gap between industry and institute. This MoU emphasizes connecting the theory in classroom to the application in practice in the industry."

SEW drives excellence through new Drive Center at Gurugram.

SEW India has recently inaugurated a Drive Centre at Gurugram, in keeping with the global format, that will bring its full range of capabilities closer to its customers. The DriveIndia team speaks to the minds behind this concept to bring several interesting facets of a Drive Center to its readers.



What do you mean by a Drive Center? How is it different from an assembly plant?

The Drive Center (DC) is a decentralized competence center. The Drive Center at Gurugram includes the geared motor service centre, the Drives & Automation laboratory for electronics service, a technical training center, and the regional application engineering team which is focused on serving the Northern region.

It is a simple and efficient interface for customer projects: from project planning and software development to commissioning.

A Drive Technology Centre (DTC), or an assembly plant will also include the assembly of geared motors and inverters in addition to the above.

Why did you decide to start the Drive Centre at Gurugram?

In the West and South regions we have already established ourselves as a motion solutions provider; here we undertake the most technologically advanced projects and solutions for our customers. We have identified the Northern region as a high-potential region for motion solution and project business. Building the local competence of a high-level applications engineering team is the foundation to build our motion solutions business in North region.

A localized service and training facility aids in the transformation process from a product delivery to a motion solutions delivery company.

The Drive Center will provide technical solutions using SEW's complete solutions capability. The entire product portfolio of SEW-EURODRIVE, which includes the geared motor range, mobile material handling, cabinet drive technology, decentralized drive technology and servo technology, will be employed.

The training facility at the DC is equipped with training models of various products like Movigear, Movimot, Movidrive, Movitrac, Moviaxis, etc., for customer training, internal training and application development & simulation.

Circuit boards, test boards, power and control components, hybrids, etc. are kept in stock for quick customer service.



Drive Centre – North Facility.

- Sales Office for Gurugram region.
- Service Electronics:
 - Movidrive and Movitrack Card level diagnosis and repair (up to 11 kW).
 - Movimot (up to 1.5 kW).
- Service Mechanical:
 - Gearbox – 7 series starting from 37 to 137.
 - Motors – complete range.

Who would be the main beneficiaries of the Gurugram Drive Center?

With the establishment of this center we will be able to better deliver the entire value proposition to our customers, from the technologically most advanced products and solutions to truly outstanding after sales service.

Customers in the region will be able to choose from a range of hi-tech solutions from SEW to improve their productivity, energy-efficiency and smart logistic solutions.

What are the products and applications that will form part of the Drive Center?

Distance of major industrial hubs in NCR from proposed Gurugram Drive Centre:

