

**SEW**  
EURODRIVE

# Drive India

The SEW-EURODRIVE Customer Magazine

**Hannover Messe 2018:  
SEW's tryst with the future.**  
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**Innovative automation  
solutions for stirrup  
making technologies.**  
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## Dear Reader

Strong industrial and capital growth numbers for India till February have moderated sharply in March with a slight recovery in April. However, for us the order flow continues to remain exceptionally strong (and rising) and we are working round-the-clock to align internal capacities and our supply chain, to ensure that our best-in-class delivery reliability is not impacted. Periods of strong growth like this is precisely when you, our customer, can least afford delivery failures from your suppliers, and we at SEW are keenly aware of this.

The construction industry is one which is particularly dependent on unskilled manpower, which leads to both productivity and quality issues. There are a number of innovative companies addressing the opportunities in the construction value chain, and for our cover story we feature one such company: VEER Machinery in Ahmedabad. They manufacture machines for converting TMT bars into stirrups (BASB machines), and SEW engineers worked together with VEER to deliver a package solution for complete machine automation along with easy selection of pre-stored stirrup shapes from the HMI as well as for fault diagnostics.

The boom in e-commerce has led to a burgeoning demand for sortation

machines, and for our product story we cover our SLC series synchronous linear motor, which is an ideal product for this application due to the benefits of large energy saving and zero maintenance.

Our feature story gives some glimpses of SEW's participation at the Hannover Messe, the world's largest industrial trade fair. I myself did not attend, but I got messages from several of our customers who did and were truly amazed at the directions in which SEW is evolving, globally. It is not an exaggeration to say that we are at the leading-edge of designing the factories of the future.

I wish you happy reading!



**M J Abraham**  
Managing Director  
SEW-EURODRIVE India

# SEW and VEER Machinery partner to lead the way in stirrup making machines.



SEW-India recently partnered with VEER Machinery to provide a complete machine automation solution for their Bidirectional Automatic Stirrup Bender (BASB) machine. In a project that was completed almost in record time, SEW's engineers addressed the multiple problems and limitations of the conventional system using comprehensive and customized solutions.

VEER Machinery is a leading manufacturer of wire straightening and cutting machines for TMT / plain Wire. The company is India's only player to manufacture the BASB machine for multiple bars and caters to a wide range of industries.

## BASB Vs. convention.

All construction work is labor-intensive. Concrete columns and beams are supported by several horizontal and vertical rods that are required to be tied together to give the structure the requisite strength. The traditional manual way of workers bending stirrups leads to increased construction lead time, increased labor cost to produce various stirrup sizes and decreased accuracy.

## The challenge.

VEER Machinery approached engineers at SEW with the challenge to develop a machine that could achieve mass production of various shaped stirrups with a high degree of accuracy, low wastage and high flexibility to adjust to material of any shape and size. The challenge was two-fold:

- To achieve any kind of 2D-shaped stirrup, especially the perfect circle.
- To achieve the desired bending at high speed continuously.

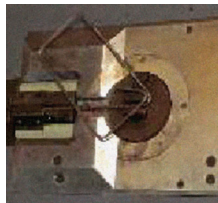
SEW-EURODRIVE approached this challenge with a comprehensive view, offering not just the gearbox but proposing a complete machine automation solution for the BASB machine.

### Problems with old system.

- Frequent failure of output shaft of gearbox.
- Poor service support.
- Several limitations in controls.

## The solution.

Going beyond the initial brief, engineers at SEW



visited the site, studied the application in depth and suggested a complete machine automation solution. The machine comes with two axes: the Feeder axis and the Bender axis. Both are controlled by CMP Servo GM along with MOVIAXIS® with MOVI-PLC®. The shape is fed into SEW HMI as a table with length and degree inputs. The MOVI-PLC® takes the inputs from the table and commands the Feeder and Bender axes in accordance with the inputs and sequences fed in. SEW has developed the program for Auto as well as Manual mode.

## Advantages of the new BASB system.

### Features:

- Almost unlimited memory to save different stirrup profiles.
- Automatic bend angle control, 2D profile generation.
- Multiple bar bending feature (more than one at a time).
- Auto-diagnostics for identification of any machine faults on HMI.
- User-friendly speed setting by POT.
- Production data report: Day-wise report of

current and last month's production data displayed on HMI.

### Benefits:

- Any desired shape achievable, including perfect circle.
- Single point of contact: complete automation solution.
- Reliable, even in harsh loading conditions.
- Local competence and excellent technical as well as commissioning support.

"We required a sturdy and accurate drive system for this machine. Harsh working conditions of the site were the foremost reason for the selection of SEW-EURODRIVE as our partner. We received great technical support and service support, which played a key role in the success of the machine."

— Mr. Mukesh Shah, Director,  
& Mr. Samip Shah, Director, Veer Machinery

To know more about Veer Machinery,  
please visit: <http://veermachinery.in/>



# Sortation solutions from SEW offer zero maintenance, energy savings.

SEW-EURODRIVE's SLC Series Synchronous Linear Motors are used for industrial and commercial systems, for sorting plants and long travel distances. These are typically of use in post and parcel, airport baggage handling and warehouse distribution centers.

Users benefit from substantial energy savings (as much as 60%), high availability and zero-maintenance requirement. Furthermore, their simple, modular design greatly benefits sorting plants, because this flexibility of design does away with the limitations of rotating drives for the overall construction.

## SLC Synchronous Linear Motors



### Need for a new system.

The traditional sorter with rotary motors in chain and chainwheel or friction wheel comes with the following disadvantages:

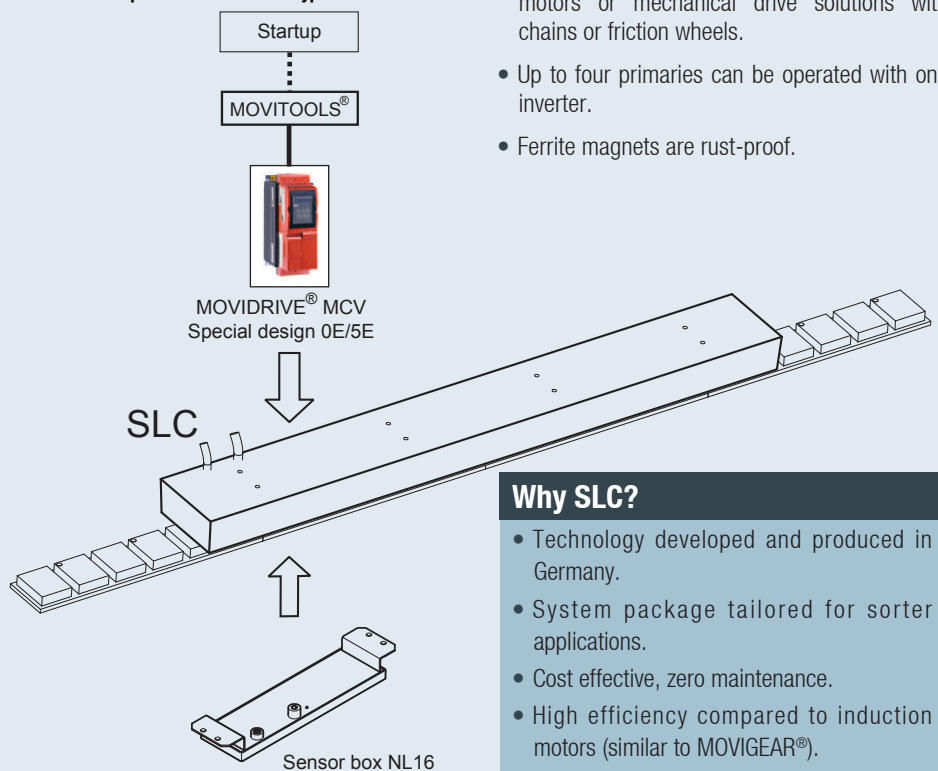
- Mechanical wear, requires maintenance.
- Extra noise with people working close to the sorter.
- Polygon effect of the chain wheel (periodic force peaks).
- High force peaks into the chain at little input stations resulting in thick heavy chain.
- High friction with friction wheels, especially during start / stop.

### Advantages of SEW-EURODRIVE's SLC Linear Motors.

SLC Linear Motors can be operated with MOVIDRIVE® Compact MCV40A Special design with a suitable linear encoder NL16 system. The advantages of this new system are many:

- Cost-effective realization of longer distances, thanks to ferrite magnets.
- Simplified steel construction with a nominal air gap of 4.5 mm.

#### Product description and overview of types.



- Higher efficiency level than asynchronous linear motors or mechanical drive solutions with chains or friction wheels.
- Up to four primaries can be operated with one inverter.
- Ferrite magnets are rust-proof.

### Why SLC?

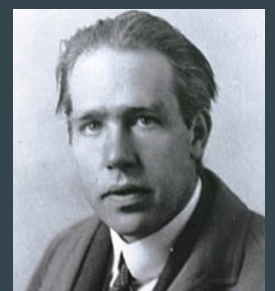
- Technology developed and produced in Germany.
- System package tailored for sorter applications.
- Cost effective, zero maintenance.
- High efficiency compared to induction motors (similar to MOVIGEAR®).

## Offside

### A fizzy tribute to Bohrdom.

To the Danes, Niels Bohr was more than just a great physicist. He was a national hero and perhaps the most loved man in all Denmark. So when he won the 1922 Physics Nobel Prize for his contribution in the investigation of the atomic structure and radiation, he was gifted a house by Carlsberg, next to a brewery.

But it was not an ordinary house. Carlsberg put a pipeline to the house directly from the brewery with an unlimited supply of the premium beer. Best way to honor a physicist, indeed!



# SEW offers a glimpse of the future at Hannover Messe 2018.

## From machine automation to intralogistics – solutions for the reality of Industry 4.0.



The world's leading trade show for industrial technology, Hannover Messe 2018 was held from April 23 to 27 at Hannover, Germany this year. The trade fair grounds were filled with exhibits that perfectly reflected this year's lead theme 'Integrated Industry – Connect & Collaborate'. SEW-EURODRIVE also focused on this topic, showcasing innovative products, intelligent system solutions and an end-to-end service portfolio.

"It was interesting to see SEW pivoting its business model from being just a supplier of drive systems to being a complete Industry 4.0 solutions provider. I always used to associate SEW with simple geared brake motors and inverter drives, but the technology and solutions on display at the Messe were indeed miles ahead of the image that I carried in my mind."

**Tushar Mehendale**  
Managing Director, ElectroMech, Pune

### The SEW stall.

The SEW portfolio was showcased in a total exhibition area of just under 1500m<sup>2</sup>. The concept was designed, on the one level, to showcase the present day 'standard' portfolio of SEW; innovations and further developments for machine automation. But also created was a 'path beyond the stand', to give guests a glimpse of future concepts shaped by Industry 4.0 which culminated in SEW's most impressive piece – the large moving exhibit.

### Highlights of the SEW stall.

- All-round Industry 4.0 advice.
- Classic and smart drive technology designed to keep Industry 4.0 in motion.
- Brand-new offerings for machine automation.
- Intelligent solutions for intra-logistics and warehouse logistics.
- Customized industrial gear unit solutions.

### Technologies showcased.

SEW's moving model was a tribute to Industry 4.0 and a demo of what tomorrow's factory production cells will look like: tasks made easier with intelligent assistants and mobile systems offering increased support to humans. The goal is to attain maximum flexibility and efficiency and achieve batchsize-1 production while also keeping costs at optimum.

Another new solution on show was the new DRN motors with a small output of 0.55 kW, which have been designed for the future in compliance with upcoming stricter energy regulations to further perfect the modular motor system.

The indoor space showcased Services, Industrial Gear Units, Didactics, Procurement and Human Resources. The outdoor area was dedicated to SEW's modular gear unit solutions for screw conveyors and apron feeders, or as crushers and sugar mill drives. A special highlight in the outdoor space was a film that drew attention to SEW's industrial gear unit exhibition.



### Modular automation module MOVI-C®.

The modular MOVI-C® automation system from SEW-EURODRIVE delivers solutions for controlling and driving all aspects of complex work processes and motion sequences. With numerous software and hardware extensions available for this modular system, MOVI-C® offers an impressive end-to-end concept and an intuitive user experience.

It offers a comprehensive automation kit from a single source with its four modules: Engineering Software, Control Technology, Inverter Technology and Drive Technology. Which means it is the technology to turn to for 100% automation from a single source.

The MOVI-C® module provides its users the following benefits:

- Savings in time and money.
- More freedom in terms of parametrization, less programming work.
- Control and monitoring of every motor.
- A complete range of application options.

"As a Crane Builder and Handling Equipment System Developer for Automation, I am extremely impressed by SEW-EURODRIVE's exhibits in Hannover Messe. I got a lot of information about Industrie 4.0. In India we are yet to start implementation of Industry 4.0, and the exhibits gave me a lot of confidence to proceed further."

**M. Durairajan**  
Managing Director, MM Engineers Private Limited, Coimbatore