

SEW
EURODRIVE

Drive India

The SEW-EURODRIVE Customer Magazine



**Service Vehicle -
Another first from SEW.**

Read more on Page 3.



Dear Reader

Industrial growth numbers have definitely disappointed after the sharp increase in the first quarter, and for sure the global economy seems to be nowhere near the end of its problems. However, the news for India on commodity prices and inflation just keeps getting better and the rupee seems to be a lot more stable than it was last year. Government intent also seems to be in place; therefore one has to assume it is only a matter of time before the investment cycle restarts. Of course, it would be a big help if the RBI decides that it is finally safe to start easing interest rates.

SEW-EURODRIVE had a successful week at AUTOMATION 2014 at the Bombay Exhibition Centre. In the time I spent talking to visitors to our stall, it was clear that the momentum towards reliable, locally supported and cost-effective automation solutions that we provide keeps growing. As Indian industry matures, profit margins and success are going to be increasingly determined by winning the productivity battle and the energy-efficiency battle. Here at SEW, we are clearly positioning ourselves to give our customers the edge in these two critical areas, and that is what we did our best to demonstrate at the exhibition.

In the last issue of *DriveIndia* we featured one of our specialised industrial gearboxes for cooling tower applications. In this issue we look at one of our standard industrial gearboxes in an application story with a 100% Indian company that leads the world in their chosen field. We are proud to be associated with them.

Finally, we have a feature on how we make our after-sales value proposition work in the north of the country where we have no assembly plant.

I wish you happy reading!

M J Abraham
Managing Director
SEW-EURODRIVE India

SEW, AIA partner for a new Breaker Drum application.

The recent collaboration between AIA Engineering and SEW-EURODRIVE to upgrade and evolve AIA's Breaker Drum application at its premises set a great example of how teamwork and a multi-skill pool can overcome numerous problems and come up with customized solutions.

The Breaker Drum application at AIA Engineering runs 24 hours. An array of balls with different diameters are fed into this big, heavily loaded drum of 60 MT self-weight that is rotated at a certain RPM, and broken into almost ball shapes as a final product. The rotation uses four geared motors installed at four different locations, and the drum is supported on heavy air-filled vehicle tires which are driven by the motors.

The problems that needed solving.

The conventional motors that were in use continually faced maintenance problems due to oil leakage, failure of the gear element, etc., which resulted in frequent stopping of the lines. The underlying reason could have been load-sharing by the geared motors which wholly depended on the setting of the position of the tires with respect to the drum, often leading to too severe a load on one/two of the motors, leaving the others under-loaded. The function suffered as a result, with long repair time at the vendor's plant, including transit time and in turn a high downtime in production. The solution lay in having geared motors with a higher service factor than normal, in view of the application parameters.

Finding a solution together.

When SEW studied the situation it was clear that the application called for absolute reliability. Any stoppage would result in the entire line coming to a halt, since the application was installed in line with the automatic line operating round-the-clock.

The technical team from SEW studied the application and took into account all factors like ambient temperature, the dusty environment, and special oil requirement in the gearbox. A suitable selection was made of FF157 DRS180LC4/TH (30KW). Each drum was powered by four such gear motors.

For AIA's new expansion the capacity of the drum had to be hiked to make larger diameter balls. After multiple brainstorming sessions with AIA's technical team, SEW engineers suggested the Industrial Gear Box MC3PLS06 with motor (45KW).

A unique answer.

While motor specifications with higher than normal service factors were decided upon, the solution didn't end there. The size of the resulting motor was found to be outside the normal range of

standard SEW gearboxes. SEW's engineers studied the range of gearboxes and offered a customized solution whereby the standard gearbox model was converted into a flange-mounted geared motor with custom-built interconnecting arrangements between the motor and the gearbox, and on the output side of the gearbox, to facilitate the flange mounting system. The flange mounting on the output side was necessary as the entire tire assembly with the drive needed to be shifted with respect to the surface of the drum during the setting of the tires initially, and periodically during the operation of the drum.

The custom-built gearmotors are in operation for the last nine months with none of the earlier problems recurring.

The fruits of teamwork.

To go beyond conventional and readymade solutions the two technical teams from SEW and AIA pooled their expertise. AIA's engineers succeeded in perfectly briefing their SEW counterparts on the application and its various bottlenecks. SEW's engineering team made several visits to

the AIA factory and spent several brainstorming sessions with the client team to finally select the exactly right gear motors and went on to customize them perfectly.

It took a lot of commitment and conviction to undertake the task. SEW took pains to convert its standard gearbox into a geared motor with mounting to suit the application. The attempt ran the risk of many unforeseen problems that could have resulted in failure, financial losses and embarrassment for SEW. But the teams at SEW and AIA joined hands to cross every hurdle and come out with a successful new application.

-- Project Team
AIA Engineering Limited, Ahmedabad

Advantages of the new application.

- Equipment can run 24-hours without any downtime
- Maintenance costs have significantly come down
- Production losses are avoided

About AIA Engineering.

- Established in 1979 at Ahmedabad; certified ISO 9001 company
- Specializes in the design, development, manufacture, installation and servicing of high chromium wear, corrosion and abrasion resistant castings & balls used in the cement, mining and thermal power generation industries
- Second-largest Hi-Chrome casting producer in the world
- Read more at www.aiaengineering.com

**DID YOU
KNOW?**



They heard the universe begin!

They were not gods, wizards or clairvoyants. They were two radio astronomers listening, and listening carefully. Robert Wilson and Arno Penzias were working with the Holmdel antenna in New Jersey in the year 1964 when their instrument crackled and gave them something that sounded like radio static. But the duo did not dismiss the sound in irritation. They listened.

And thus was discovered the prevailing theory that the universe began with a Big Bang! Wilson and Penzias carefully ruled out interference from urban areas, nuclear tests and even pigeons living in the antenna. They finally found out that the noise was in fact the radiation leftover from a universe-forming big bang that now acts as the background cosmic radiation. The two radio astronomers went on to win the Nobel, and no wonder; they listened till they knew radio static from the throes of a universe being born.

The smart, intuitive, sustainable solution to a simple application.

SEW-EURODRIVE presents the ideal solution for simple applications in drive technology; MOVIA-RU® frequency inverters. This no-frills application comes without any unnecessary additional features. It focuses only on the essentials: the simple open-loop speed control of asynchronous motors with a new, simple, and intuitive operating concept. Besides, the high degree of protection from IP54 further allows for the use of MOVIA-RU® outside the control cabinet, like, for instance, close to the application for controlling conveyor belts.

Some of the essential features of MOVIA-RU® frequency inverters are as follows.

- **Basic requirements:** Fulfilling basic drive technology needs
- **Intuitive operation:** Very easy start-up and innovative operating concept
- **Sustainability:** Recyclability, high energy efficiency
- **Assembly concept:** Logistic advantages for a worldwide production and assembly concept

MOVIA-RU® in IP54



Some of the Target Applications of MOVIA-RU® are as follows:

- Material handling (eg., continuous conveyor).
- Auxillary drive systems
- Stand alone & portable applications (eg., agriculture sector, small food production facilities)
- Replacement of line-powered drives for customers who start applying with AC drives
- Replacement of drives with motor starters or soft starters

Designed to be easy, intuitive, sustainable.

MOVIA-RU® is designed for easy and effortless operability. Its high-quality control knob/pushbutton, LED-display, two simple menu levels and user-friendly display of menu items, status values (eg., speed) and errors make it simple and intuitive to work with. With its degree of protection IP54 as standard, it can be wall-mounted outside electrical enclosures, thus making its installation easy and cost-effective.

The device is designed with a sustainable raw material concept:

- Reuse of aluminium housing
- Return of product after usage → Closed raw material cycle

Thanks to four basic tenets, MOVIA-RU® is

energy efficient: Intelligent use of materials; innovative and eco-friendly production; resource-efficient utilization phase and re-integration into material and raw material cycles.

Voltage supply VAC : 3x 380 ... 500 ± 10%.

MOVIA-RU® type	Power (kW)	Output current (A)	Degree of protection	Dimensions W x H x D (mm)
MUWA025-503-S00-00	0.25	0.7	IP54	70 x 191 x 176
MUWA037-503-S00-00	0.37	1.1		
MUWA055-503-S00-00	0.55	1.6		
MUWA075-503-S00-00/PF	0.75	1.7		
MUWA110-503-S00-00/PF	1.1	2.5		

Input frequency Hz: 50 ... 60 ± 5%

Advantages of MOVIA-RU®.

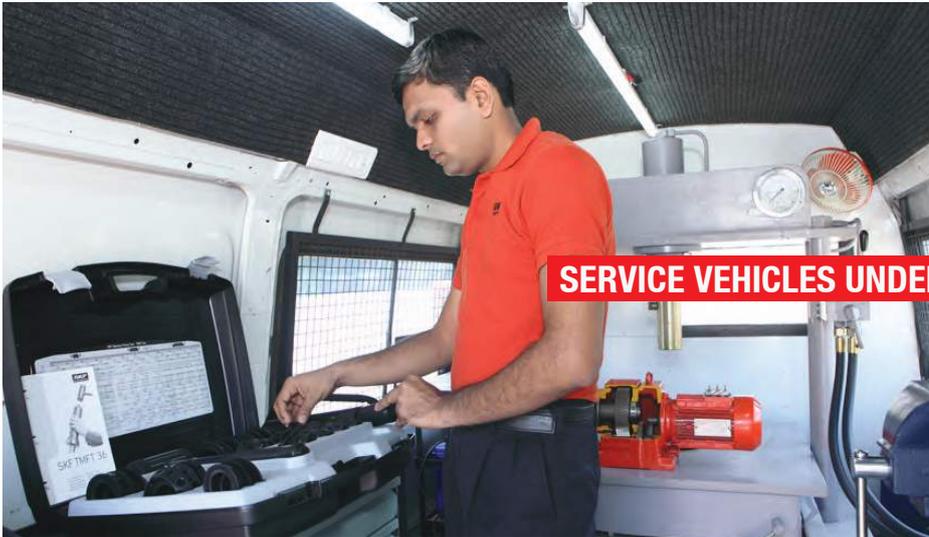
- Intuitive operating concept for short start-up times and simple handling
- Modular design for fast unit replacement
- Degree of protection IP54 for wall-mounting outside the cabinet control
- Guaranteed integration into cycle of materials: MOVIA-RU® is based on a sustainable product concept that allows for reintegration into material and raw material cycles

Automation 2014 – A big success for SEW India.

In mid-October this year SEW-EURODRIVE participated in Automation 2014, an internationally recognized technology exhibition in Mumbai. The expo attracted a global audience and the SEW stall saw footfalls of about four

hundred visitors over four days. The focus of the stall was on 'Energy Efficient and Cost-effective Automation Solutions' and there were working models to demonstrate each application, which was much appreciated by the visitors. Applications exhibited were SCARA Robot, Automated Guided Vehicles (AGVs), Movigear and Electrified Monorail System (EMS).

Another first from SEW – Service vehicle that reaches the customer's doorsteps.



Service & Support To End-Users (SEU) from SEW-EURODRIVE is a service vertical that goes beyond conventional after-sales support. A unique initiative that is part of SEW's globally acclaimed CDS® (Complete Drive Service), SEU is offered out of SEW's three assembly plants in Vadodara, Gujarat; Chennai (Sriperumbudur), Tamilnadu; and Pune (Chakan), Maharashtra. It is supported by a dedicated team of trained and experienced engineers. From start-up to inspection, maintenance or even application programming, SEU offers a wide bandwidth of post-installation services to the customer. Services may be availed either under Telephonic Support or On-Order Requests in case of emergencies.

Service Vehicle.



In November 2013, the SEU vertical launched a fully equipped mobile Service Vehicle that is a first of its kind in India. The van is specifically designed keeping in mind customers in the north, who are not close to an assembly plant and are often

forced to attempt repairs on their own. It caters to customers who are within a radius of about 500 km around Delhi, and covers an expanse of almost 800 km to the south, 900 km to the east, 750 km to the west and 400 km to the north.

Quality service from SEW's own team is now available at the application site, saving time, money and the hassles of documentation.

Delivering value.

The Service Vehicles of SEU deliver value in more ways than one:

- Authentic SEW-EURODRIVE service using genuine spares and proper tools, delivered by SEW's expert engineer
- Same quality of service as at SEW's Factory, but without the transit delays and the hassles of interstate documentation
- Customers need not move gearmotors out of their premises
- Speedy resolution of service related issues
- Service and repair of gearbox units till sizes 87, and also till 97 with assistance from customers
- Service and repair of almost all sizes of standard motors
- **6 months' warranty for replaced parts and service quality**

A very positive experience.

The Delhi Service Vehicle has met with positive response from the start, and is now operating at almost full capacity. Seeing the vehicle in operation has given several customers the confidence to opt for Annual

Service and Maintenance Contracts. Many others have availed the Short Service PO for general health checkups of installed SEW units.

A typical service issue takes a maximum of 2 working days to solve. If the customer is not sure about the source of the problem in the application, a SEW Engineer first visits the site (without the Service Vehicle) for a preliminary examination, to submit a report to the customer as well as to the concerned Sales/SEU Engineer. Post this all spares are arranged prior to the Service Engineer's visit, so that the issue is closed without further delay.

In case the customer is able to diagnose the problem before the SEW Engineer's first visit, the issue is normally solved during the Service Engineer's first visit itself.

For the future.

The success of the Delhi Service Vehicle has prompted a rollout to the south, with the second vehicle now operational at Sriperumbudur, Chennai.

Quality service from SEW's own team, and with the right tools, is now available at the application site saving time and the hassles of interstate documentation.