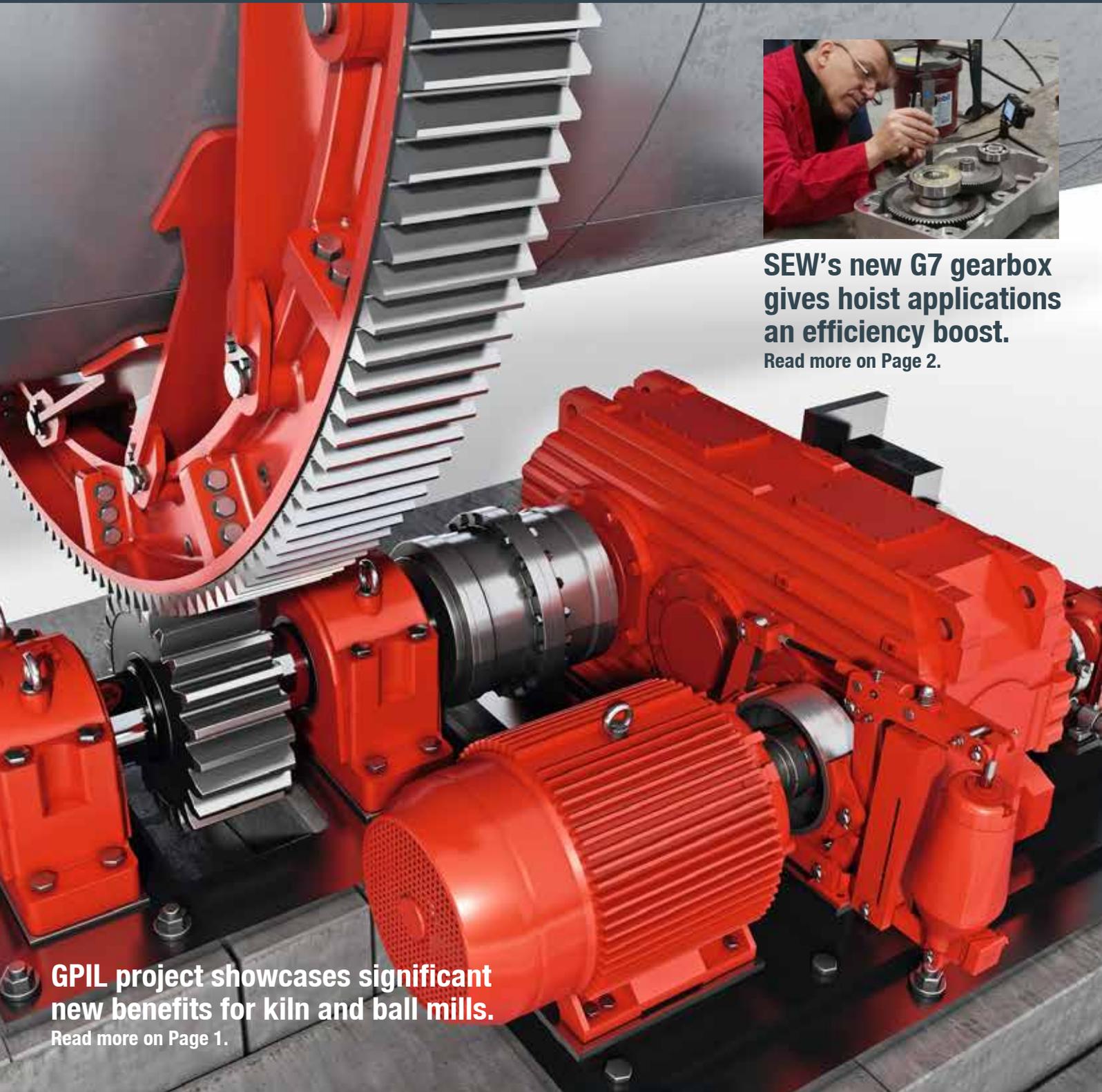


**SEW**  
**EURODRIVE**

# Drive India

*The SEW-EURODRIVE Customer Magazine*



**SEW's new G7 gearbox gives hoist applications an efficiency boost.**  
Read more on Page 2.

**GPIL project showcases significant new benefits for kiln and ball mills.**  
Read more on Page 1.

## Dear Reader

The political and economic situation, both globally and for us in India seems characterized by higher levels of uncertainty and volatility. Making forecasts has therefore become more difficult. For now our order flow continues to remain at the much higher level we have now seen since September last year, and we have completely aligned our supply chain and internal capabilities to meet this higher level of demand, with adequate spare capacity if there is an even further increase.

I am happy to share that we will be opening our Drive Competence Center in Gurgaon this month, which will enable us to deliver a much higher level of local service and engineering support for our entire product range in the National Capital Region (NCR)

The kiln is at the heart of the process in several major industries, whether for cement plants making clinker or for beneficiation plants making iron ore pellets, and the girth gear is at the heart of the kiln. Our customer story in this issue covers Godawari Power & Ispat Ltd., located near Raipur, which has used the segmented girth gear (SGG) from SEW for the last 5 years in their plant and is very happy with the results and the benefits of

this new technology.

With the current recovery in investment in manufacturing plants, the crane industry is booming and our product feature covers SEW's G7 gearmotor series, tailor-made for the crane hoist application.

3 years ago, we had previously covered the inauguration of SEW's joint CSR initiative with Akshara for a computer literacy center. Our feature article is an interview with Dr. Harsha Joshi, the Founder Head of Akshara Foundation on



her experience of running this initiative with SEW and the results achieved.

I wish you happy reading!

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

# SEW's mega project for GPIL showcases unique application for kiln and ball mills.



The Segmented Girth Gear (SGG) application installed by SEW-EURODRIVE at the Pellet Plant of Godawari Power & Ispat Ltd. is a mega project that can offer significant new benefits for the steel and cement industries of India. The 14-segment tension spring type SGG, fitted in the Pellet Plant kiln, generates big savings on lubrication (up to Rs. 10 lakh per year), along with reduced maintenance costs and downtime.

GPIL is an Integrated Steel Plant that manufactures iron ore pellets, sponge iron (DRI), MS billets, Ferro alloys and MS wires.

## The application.

The 14-segment tension spring type SEW SGG application is fitted in a 5-meter diameter kiln for GPIL's Pellet Plant. The single drive girth powers the entire kiln to rotate at a speed of 1.54 rpm. The kiln heats up to approximately 1350°C inside and 200 to 220°C outside its periphery. The metallurgical changes in the kiln produce pure iron pellets from iron ore fines. The segmented curves in this application provide enhanced efficiency overall, as SEW is able to split it into up to eight segments.

## Catering to multiple needs.

SEW SGG application caters to several industry requirements.

- Cement / Mills and Kilns.
- Mining and Minerals / Mills, Kilns, Rotary Dryers.
- Pulp & Paper / Kilns, Debarking Drums, Drum Pulpers.
- Power Plants / Mills (Coal and Limestone Grinding / FGD).
- Chemical / Fertilizer Industry / Kilns, Dryers.
- Bulk Material Handling / Rotary Car Dumpers.
- Metal Industry / Converters, Smelters.
- Iron ore pelletization.

## So why is it a unique application?

The SGG application from SEW affords several new advantages to its users.

### ADI material:

- High material strength enables lighter design

compared to traditional cast steel solutions.

- Less weight combined with segmented construction lowers transportation and installation costs.
- High material resistance to wear offers greater lifetime of girth gear and pinion.

### Manufacturing advantage:

- Smaller size enables girth ring segments to be machined faster than whole ring together.
- Shorter delivery time compared to conventional solutions.

### Casting advantage:

- Smaller size guarantees flawless casting quality on critical areas.
- Lower pattern cost as only one pattern for a segment is needed.

### Maintenance, installation and transport:

- The width of the segmented girth gear is half of the conventional solution; therefore cost of lubrication to be continuously sprayed on the gear while running comes down significantly (making possible a saving of Rs. 10 lakh per year).
- Since wear is negligible due to construction material of girth gear, a single segment can be replaced even after several years of running without being a mismatch to the remaining segments, unlike a conventional solution where the entire girth gear has to be replaced as a result of any damage anywhere.

- Since the segments are interchangeable, only one segment has to be kept as spare instead of an entire girth gear.

## Smooth journey.

The Segmented Girth Gear (SGG) application at GPIL from SEW-EURODRIVE has been operational at Godawari Power & Ispat Ltd., Raipur. With cutting-edge technology and reliable, local after-sales support, this application is setting a trend for related industries to follow.

Experienced frequent failure of earlier disc feeder gearbox and replaced with SEW geared motor. The SEW Girth gear installed at 1.5 Pellet plant in the year 2013 for Rotary Kiln has been working satisfactorily without a breakdown from the date of the installation. Its user-friendly maintenance and less consumption of lubrication because of its less width have resulted in 40% reduction of lubrication consumption. Girth gear is comprised of multiple segments for easy replacement of the defaulted segment, in case of any failure resulting in effective and timely maintenance. SEW-EURODRIVE has well-equipped technical personnel for timely delivery of services as and when required by the user with proper solutions.

-- Mr. K.V.S.K.N. Raveendra  
Head – Pellet Plant

# New G7 gearbox for hoist application offers higher efficiency, less noise and a maintenance-free design.



For the crane industry, the SEW portfolio already offers the gear motor with integrated brake and inverters for long travel / cross travel and hoist application as well as industrial gearbox for heavy duty hoist application of the bridge crane and many other heavy lifting and handling applications. The newly developed European-style Electric Wire Rope Hoist is fast replacing the traditional electric hoist across markets.

The new G Series Geared motor provides the entire driving scheme for large and small cranes, from running and lifting to speed control. The new design offers customers higher efficiency, and less noise with its maintenance-free design.

## The conventional system.

The typical hoist application in cranes comes in two variants. The first is the traditional light duty electric hoist that uses a conical rotor motor and suffices for small loads of up to 16 tons. And the second, for heavy duty application, is the hoist type that uses the Industrial Gearbox and is capable of lifting heavy loads.

The newly developed European Type Electric Wire Rope Hoist (Smart-EWRH) is a smarter design in many ways:

- Thinner than the SEW general purpose parallel shaft gearbox F..7.
- Longer center distance than the F..7 series gearbox.
- Short, solid spline shaft.
- Spline shaft of gearbox is directly inserted into the drum, supporting it.
- Split type housing for easy maintenance.
- Flange of motor connected to gearbox directly.
- Almost the same dimension design as standard 7 Series.
- Bigger pinion shaft of motor than standard.

## G..7 construction overview.

- Three-stage design (parallel assignment).
- Split type of housing.
- Solid spline output shaft as standard design.
- Housing material: cast aluminium (ASTM B26 A356 T6).
- First stage same as F..7 gearbox.

## The advantages of Smart-EWRH.

The design of the G Series does away with several negatives of its predecessors and offers numerous advantages:

- Higher payloads of up to 100 tons.
- Greater efficiency.
- Higher speeds.
- Higher lifting height.
- Gear motor can be disassembled alone from the hoist.

- More compact design that saves on mounting space.
- Aluminium housing reduces weight.
- Low noise, maintenance-free design.
- Ease of assembly with locating pins.
- More ratios of gearbox and combinations with motors possible.



**DID YOU KNOW?**

short message service

## What Europe texted to the world.

It was 1987, and a handful of European bureaucrats sat down to draw a new technical standard for mobile phones. With the advent of new, fully digital cell phones, the officials needed a system that would work across Europe, and promote harmony among citizens.

Into the script they wrote a small detail for telecom engineers to test the system to send short messages back and forth among themselves, so they could manage the mobile network. It was consumers who discovered that this 'Short Message Service' – later dubbed SMS – was a lovely tool to keep in touch! Our fingers have been trotting upon our phones since.

# SEW partners with Akshara to bring computer literacy to rural India.

In an illuminating chat Dr. Harsha Joshi, founder member of the Akshara Outreach Program in Maharashtra reveals how a partnership with SEW-EURODRIVE helps her drive a more fruitful education initiative among India's rural communities.



Dr. Harsha Joshi holds an M.Phil and Ph.D. in Reproductive Physiology from Gujarat University. She has been associated with different rural development initiatives across several states in India for the last 25 years. Her focus areas are women's health and empowerment, and the education sector. As part of its Corporate Social Responsibility, SEW-EURODRIVE has teamed up with Dr. Joshi's Akshara program to power this initiative at the ground level.

## **Tell us about Akshara? What are your objectives?**

Akshara was established in the year 2005. It is home to anyone who wishes to learn, grow and share — it can become their safe haven, their force of strength, with which they can emerge victorious in any trial that life may put them through. Akshara focuses on empowering not only students through education but the entire community by taking education to a different level.

## **Please give us some details about the computer lab sponsored by SEW-EURODRIVE?**

The computer lab is an ideal example of the PPP (Public Private Partnership) model. The infrastructure for the lab was provided by the Gram Panchayat of Asde village. Financial support was extended by SEW-EURODRIVE and it has been operated by Akshara.

Located at the center of the village, the lab gives access to many stakeholders. Furthermore, it operates from 9 am to 10 pm, making it convenient for different stakeholders to work around their leisure time. Hence the lab is being used by students from primary schools to farmers and women of the vicinity. And programs are designed based on the needs of the various stakeholders.

The center has trained more than 500 students, 25 youths and 30 women so far.

## **What are the main benefits of a computer lab such as this?**

Computer is the cultural heartbeat of the young generation. However, rural youth are always deprived of such technologies. But this center

has created opportunities for them. For example, the center has designed a tally course for the working youth. This skill has opened for them a new avenue for getting better jobs. Imparting computer skills to rural school teachers has made their administration work easier than what it used to be.

Additionally, this has provided a platform, especially for women and farmers to know about the technologies and its wider use in agriculture and daily life.

## **How long has the computer lab been operational and how has it evolved over that time?**

The lab has been operational since two years. Initially, it used to have participants only from the village where it is located. However, over a period of time, the lab is used by many stakeholders from the surrounding villages as well. Many dropout students have started coming. The lab has created a space where not only computing skills are imparted but many discussions and talks take place. These have a wide-reaching social impact.

In future, in order to reach out to interiors, my team envisages the creation of a mobile lab along with other facilities that can go to the interior parts and impart knowledge.

## **Tell us about your association with SEW-EURODRIVE?**

It is very pleasant to work with SEW, because they not only support the program financially, but also play a prominent part in implementation, monitoring and other technicalities. This association is not only from the junior staff but also from the top management, who participate in the program with active interest and enthusiasm.

## **What is your advice to companies that are serious about CSR?**

It is very important for the corporate world to know about their CSR partners. They have to engage with them emotionally as well. I also strongly feel that every employee must participate in such activities to understand the realities and become a partner in solutions as well.

