

SEW
EURODRIVE

Drive India

The SEW-EURODRIVE Customer Magazine

SEW-EURODRIVE has contributed hardware and software for the PCW Primary Slitter Re-winder machine used by Kaipvrux a leading supplier to the flexible packaging industry.

Read more on Page 1.



India and the global market – Interview with Oliver Bollian.

Page 3.



Dear Reader

GDP growth in India has gone down for 6 quarters in a row now, to sink below 6% in the opening quarter of this financial year. Over the last two quarters of the same period, global growth has finally picked up quite strongly in the US, Europe, China and Japan. An optimistic reading of these trends would be that India's growth, especially in manufacturing, has been temporarily impacted by the twin effects of demonetization and GST implementation, but that as the more long-term benefits of one or both of these major changes take effect, India will join the rest of the world in a growth recovery. As Mark Zuckerberg said in a speech last month, the pessimists are often right but the optimists are the ones who are successful; so let's be optimistic.

For our lead article in this issue we are very happy to feature KALPAVRUX, our OE customer from Vadodara. SEW's automation product range, local expertise and deep working relationship with our customers have been helping European machine builders stay at the cutting-edge of reliability and performance in a host of industries, so it is a matter of great pride for us in SEW India to be working for a decade now with KALPAVRUX to develop and deliver world-class converting machines that compete and win in the global market.

For our product story we feature ECDriveS, SEW's new, modular, integrated and reliable low-voltage roller motor for light load conveyor applications with inbuilt encoder, and decentralized intelligence capability especially suited for intra-logistics or machine infeed-outfeed solutions.



Lastly, over the next two issues we have an interview with Oliver Bollian from headquarters in Germany, whose area of responsibility includes India, as he shares his unique perspective on life and work.

I wish you happy reading!

M J Abraham
Managing Director
SEW-EURODRIVE India

A longstanding partnership and cutting-edge solutions for the converting industry.



Kalpvrux Converting Products Pvt. Ltd. is a leading global supplier of web converting solutions for the flexible packaging industry. For the last seven years the company has found the perfect technology partner in SEW-EURODRIVE, working together to innovate more features, benefits and advantages for their hardware platform.

The converting industry – also known as web industry or flexible packaging industry – specializes in combining raw materials like polyesters, adhesives, silicone and others, to create new products. Kalpvrux, a leader in the field, was looking for a technologically sound partner to help it reach its four-fold goals of growing with the customer, flexibility in product usability, superlative service and consistent innovativeness.

Towards a vision.

The main focus area has been to realize the above goals through newer and more cost-effective technologies. That's where the partnership with SEW-EURODRIVE has added value over the last seven years. SEW's hardware and software capabilities have been explored to the fullest, thus enabling Kalpvrux to come up with newer and better machines in turn for its customer.

Challenges along the way.

One of the most complex, innovative machines from Kalpvrux has been the PCW Primary Slitter Re-winder, which came with the following challenges:

- Nine axis, wireless communication, high-speed control scheme along with regenerative module for energy saving (effective usage of regenerative energy).
- Accurate tension control over wide range.
- High speed-high dynamism control scheme.
- Compact size & user friendliness.
- Ease and speed of setting up.
- Fast recipe management.
- Safety interlocks.
- Reliability of operation.
- Performance data acquisition system for management information system.

Effective collaboration.

Through constant and seamless collaboration between the two teams, these challenges were addressed one by one. The four axes have been configured to perform in a wireless condition, with reference drawn from another wired axis. Power to the axes is delivered through an MDR into a shrouded DSL busbar system. The communication of all logic signals is over wi-fi, and locally over the EtherCAT. Even the safety logic is over wi-fi.

- Inverters mounted on main machine itself and powered by busbars.
- For the first time, inverters mounted close to the motor, similar to the decentralized technology concept, so that very less wiring is used on the machine, along with a smaller panel size.
- Grouping of rewind axis drives in a load-sharing arrangement by two motors successfully implemented, so that different loads and various width of material can be used.

Advantages.

- Usage of regenerative power module enables good energy management and very low power consumption.
- Machine has no slip rings or wires running across it, as the entire product is on wireless communication.
- Very high speeds possible with all electricals and electronics integrated on the machine itself.

A successful solution.

The entire composition of the PCW Primary Slitter Re-winder is unique and successful. The end-customer is highly satisfied and the machine with equipment is working perfectly for the past two years.

Hardware used

- T2 HMLs DOP11B-50 and DOP11B-30
- 9 Movidrives MDX61B with Ethernet / EtherCAT communication.

Do visit www.kalpvrux.com to read more about Kalpvrux.

"It's been 7 years working with SEW-EURODRIVE India. It started with one special project and slowly we have started working with SEW-EURODRIVE as the sole supplier in terms of drives and automation products. We at Kalpvrux believe in delivering new concepts with maximum optimisation. Challenges occur every day and the SEW team always stands with us to accept them. In all these years, SEW-EURODRIVE has become a part of Kalpvrux."

-- Ankur Patel, Director,
Kalpvrux Converting Products Pvt. Ltd.

Simple, cost-efficient drive system for light load conveyors.

In the last few years, increasingly flexible intra-logistics solutions have been developed for transporting, sorting, and distributing small units rapidly. In the field of light-duty material handling technology, these developments have led to a shift away from classical asynchronous motors to extra-low voltage drives.

Roller motors and gear motors in the extra-low voltage range - usually DC 24 V – are particularly important in roller conveyors, accumulating roller conveyors, and shuttles for transporting containers or cardboard boxes up to 50 kg. The introduction of the ECDriveS® 24 V drive system from SEW EURODRIVE provides a simple, efficient, cost saving, comprehensive and reliable drive solution for these roller conveyors.

The name ECDriveS® stands for Electronic

Commutated Drive System and includes the complete portfolio of roller motors, gear motors, controllers, and accessories from SEW-EURODRIVE. It is the latest entrant in SEW's portfolio of standard gear motors, motor starters and decentralized drives for intra-logistics in the lower power range.

The technology is ideal for use in infeed and discharge belts for machines and machine systems, and for transporting cardboard boxes and containers.

ECDriveS® at a glance.

- Brushless DC gear motor that is directly integrated into the roller conveyor and is also universally usable.
- External commutation electronics with Ethernet-based zone controls or binary control.



Ethernet controls feature integrated conveyor logistics that can provide both conveying with zero pressure and decentralized solutions for a wide range of other conveying tasks.

- 250% overload capacity at 40W S1 power rating.
- Optimized gear unit construction for a long service life, even at high-capacity utilization.
- Precise positioning of the material to be conveyed, thanks to integrated encoder.



Easy to setup, easy to use.

The technology that goes into ECDriveS® makes it the easiest drive to install and to work with. It is literally ready for plug-in and play.

- DC drives optimized for lower power range of roller conveyors in light load conveyor technology.
- Simple to handle.
- High degree of flexibility.
- Simplified integration and start-up.
- Impressive endurance and durability in operation.
- Compact design for installation in the side frame

of the conveyor; no need to take into account layout and mounting positions.

Advantages of ECDriveS®.

- Driven roller (ECR) and gear motor (ECG) from SEWEURODRIVE modular system of products.
- Higher power rating and overload capacity (250%).
- Improved service life and durability of the gear unit.
- Integrated encoder for positioning tasks.
- Intelligent centralized or decentralized motor control possible; eg.: with accumulating roller

Product features – an overview.

Users have hailed ECDriveS® as being smart, simple, efficient and economical to use. A quick look at its key features illustrates why.

- Drives with 40W continuous power.
- Overload > 250%.
- Robust solid metal planetary gear unit with bearings on both ends.
- Efficient BLDC permanent magnet motors.
- Thermistor for full motor protection.
- Motor control with communication.
 - PROFINET/EtherNet/IP/TM/EtherCAT®.
 - Binary.
- I/O modules as system expansion.

It's opportunities versus challenges for India in the global market.

Oliver Bollian, Head of International Accounts & Markets and Cluster Manager, Central Europe, in the first of a two-part series with *DriveIndia*.

Firstly, could you tell us something about yourself and your role at SEW-EURODRIVE?

Sure. I'm almost 47-years-old, married and with two kids. I've been with SEW-EURODRIVE since Aug 1993. I hold a Bachelor's in electrical engineering with focus on Automation. Starting with my early years in R&D, I have held numerous positions in Germany and Canada.

Since 2012 I've been Head of Account & Industries (International Key Account and Contract Management). Since 2014 I've also been additional Head of EMEA, India, Turkey and African Markets, combined with the contract cluster manager, Central Europe.

When it comes to hobbies, I've been a volunteer fire fighter and a deputy commander in the local fire service.

You work across multiple countries and industries. What are some of the big emerging trends that you see?

The biggest challenge in a dynamic world is the present geopolitical situation. Next to that would be the transformation from the world of automation to the world of digitalization. Still we do have to struggle with the main topic – or the mega trend, if you will – of 'energy saving' which is now the mantra across the world. Even India, with the present introduction of IE2 standards, is following this mega trend today; it started 10 years ago in the USA, Australia and Europe. The challenge here is that no harmonized parameters, norms and regulations exist and almost each country is setting up individual regulations. This is causing a lot of friction and a lack of transparency in that globalized marketplace called the WORLD.

I think one of the major issues is – focusing on 2030, for example – the global population growth of up to 9 billion people and the resulting need for food supply, medical standards as well as safety and freedom. Food supply will be a motivation for all kinds of machine markets, supply chains, agricultural processes as well as substitution processes, e.g., mass protein production out of insects, etc..

Industry 4.0 is a buzzword. But in the context of the industrial revolution from 1850 until today it's the next step in development. Take the 'r' out of revolution and you get EVOLUTION; a fast evolution – highly dynamic – almost unpredictable. The world is in the early kinder shoes of digitalization – almost everything is possible in the new economy; the brainy people, their networks and their emerging and disruptive ideas. It's different from the 1990s when we

introduced VFDs as an innovative technology for machine automation. These topics already exist and they will increasingly become the main challenge for all enterprises in the future. Think about the foundation of Google in 1997. And in 2007 the iPhone Gen 1 was introduced. Isn't that a revolution within the evolution?

You handle large global accounts and contracts. What are some of the unique challenges that these put forth, compared to typical contracts?

This is a really challenging question. Global accounts act differently depending on the industry and the markets. The expectations from a global partner – like SEW – are most likely similar, "... support us as we would act and live in a one global market environment without borders and full transparency ...". We, as SEW-Group, fully understand this simplified approach. The trick is to combine the above mentioned global changes and transfers, as well as each single enterprise business model, and to act accordingly ... or to explain the limits, due to the fact that SEW, as a family-owned business, has also a business model and therefore limitations and values we have to respect discuss and explain.

International Contracts may have several reasons and motivations. For sure one reason could be 'risk management, combined with global T&Cs' or 'harmonized global supply chains'. Compared to local, national contracts or supply agreements – this is the challenge itself. The approach of 'no borders' is not reality. Local content remains local content. Taxing, import regulations, geopolitical limitations as well as transfers of goods and market price levels with high quality standards do have to be discussed with our clients, but also internally with the involved entities of the SEW-Group to create transparency, value and trust for perfect, win-win solutions.

If you had to guess how Indian Industry is going to evolve over the next 3-5 years, what would you say? How does this compare with other developing economies like China?

For my view and my vision I'd target the 2030 timeline. Many changes will come along during this time – and as mentioned by a forecast, the world population could be 9 billion.

Another major factor of transformation would be the development of population in China and India at this time, accompanied by all the needed supplies in a transforming world. China freed the dragon about 15 years ago. The result was –



based on labor, infrastructure, regulations and more – a disproportionate growth. But the growth was also based on a shift. Many US- and Europe-based companies switched their production and source of supply chains to China. This has reached its limits, as we can see.

India announced an upcoming strong production industry 10 years ago. For sure, India enriched the industrial landscape, national and international. But the breakthrough as a global production place was somehow limited. We could rather see a boom in services and brain work places like Electronic city, Bangalore and many more. The pharmaceutical industry also boomed in India. Automotive as a global player can be strong; see Hyundai in Chennai. I would say – with all due respect to the high variety of landscapes and climate zones, people, values and inner borders of India – there is huge potential. It has to be activated and therefore India has to align its political, managerial and labor forces. Yes, India can do it.

Work apart, what are some of the things that you look forward to when in India?

My first trip to India was 2 years ago. I had mixed feelings and I prepared myself as good as possible. You know, the Germans do always have a plan, try to find the risks or try to avoid the unknown. At the end I was positively surprised.

I'm pretty much open to new things. And to be honest, I was very touched and surprised after my return. The impact was overwhelming. Next to the mega cities, the pulse of life, the communities and the wide variety of the countryside – the different levels of industries, production places and the resulting opportunities are immense. I would like to learn more about the opportunities, how to catch them and turn them into projects and create business for now and for the future.

"India has huge potential. But it has to be activated with the country aligning its political, managerial and labor forces. Yes, India can do it."

Read more about Oliver's take on Indian industries, the country's place in SEW's global strategy and much more. In a continued chat in the next issue of DriveIndia.



It's sunny side up for SEW's Baroda plant.

SEW India's Vadodara (Baroda) plant has gone green since August 2017. The installation of an 85.5 KWp (installed capacity) solar rooftop PV plant is a significant step towards clean, green energy for the plant's own requirement, catering to 50% of the connected load.

The plant will generate around 1,29,000 kWh (units) through the solar plant.