

# A HALF CENTURY

– always with the focus on the needs of our customers

From two talented engineers with a feel for the technology to a company with market-leading products in a global market. Follow along on the first 50 years with robust encoders!

**WITH GLOBAL PRESENCE** in more than 100 markets, Leine &Linde supplies incremental and absolute encoders for industrial automation for those truly heavy applications and tough environments. It all started in 1967.

Henrik Linde tells of how Per-Olov Leine had both a client who wanted to buy an angle sensor made in Sweden, and an idea for a new way of manufacturing code disks. This was the beginning of the company they founded. The ten-year period that followed is often referred to as the Inventor Epoch. The two friends succeeded in developing several production methods, took on their first employees, and after a few years, moved to an old public bathhouse in Strängnäs. Customers included companies such as Retab, Hugo Tillqvist AB and ASEA, which is now ABB.

## Production and engagement

The small company's customers seemed satisfied and more queries came in. At a trade fair in Stockholm, they met their first international agent, who took their products to France. And this was followed by contacts with distributors in other European countries. At this time, each person in production built an encoder entirely unassisted, from darkroom work and manual soldering on printed circuit boards to final assembly.

The products included the M35 encoder model, called the 35. Per-Olov Leine and Henrik Linde worked just as much with technical development and problem solving as with community engagement.

## Entrepreneurial period

The company entered the next phase in 1977. Both of the founders felt more comfortable in the inventor and developer roles. They consequently sold the company to Ulf Hedlund, who had previously worked for their customer Hugo Tillqvist AB. Ulf Hedlund was a typical entrepreneur, who saw opportunities and was quick to take action. The company grew out of its

facilities and a new, modern plant was built at the current address on Olivehällsvägen in Strängnäs. The plant was expanded several times after the move in 1979. Computerisation also made its entry, as well as specialised processes in both production and sales.

Half of the company's production is now exported and Leine &Linde has become market leading in the Nordic countries. The 086 model incremental encoders had been developed into a true bestseller and were delivered both to paper and steel mills. The customers appreciated the products' robustness and durability.



Henrik Linde outside of Strängnäs' old bathhouse where Leine &Linde moved in 1971 and that is now a technology museum.



**1967**  
P.O. Leine & Henrik Linde start the company

**1971**  
Leine &Linde moves to Strängnäs



**1976**  
ASEA places first major order



**1977**  
Businessman Ulf Hedlund buys the company

**1978**  
Adelta computer purchased as a first step in modernisation



**1979**  
Leine &Linde moves to current location



**1982**  
First delivery of the company's bestseller, the 086 model

## Expansion with a tough start

When the 1990s began with a recession, the company had experienced rapid growth and was consequently hard hit by reduced order volumes. External ownership was brought in with companies such as Euro Venture and the Incentive Group. This period got off to a tough and rather shaky start, first with a CEO replacement and then needing to nearly halve the work force. Henrik Linde was still working at the company as a development engineer, while Per-Olov Leine had moved on after serving on the board of directors for several years. In 1991, Björn Zetterlund was employed to take charge of marketing operations and later became the company's CEO.

It was in 1992 that the large German encoder manufacturer Heidenhain stepped in as the owner. A company in the same branch that had previously been seen as a competitor. Export came up to speed in 1995 and the company opened a sales office in Germany. An entirely new customer-controlled production flow was also established, which enabled all encoders to be made to order with normal delivery within ten days, and this still applies today.

## Everyone loves a good product

The relatively small Swedish company was early in ensuring quality and providing full customer support. Quickly answering questions and making mechanical adaptations won the hearts of many.

The encoders are initially chosen by motor and machine manufacturers or the systems integrators that supplied a comprehensive solution to the production unit where the machine would be used. This is often the large, multinational companies such as ABB, Siemens, Voith, Danieli, Metso, Hitachi, Hyundai and General Electric.

Next come the end-users, who order new encoders when the old ones require replacement. Because the company's robust encoders can handle even the toughest operating conditions, they quickly became popular. Companies in Leine & Linde's core sectors have much to gain with encoders that are both durable and easy to replace so that downtime is minimised.

## Internationalisation

The office in Germany has been followed by offices in Finland, Denmark, Italy, China, India, South Korea, Brazil



and Spain, as well as specially assigned staff at Heidenhain in the US and Japan. There are now distributors or company offices in all parts of the world, and together they provide service to the company's various target groups and core sectors, both in local and global operations.

Björn Zetterlund led the company in a state of constant growth for more than 20 years. Also worth noting is that many of those employed in the early years are still with Leine & Linde. The company has had relatively low personnel turnover over the years, and presently has three times as many employees as during those years when times were tough. During the same period, both production efficiency and sales have been multiplied several times over.

"Even if we have a high degree of automation in our production, it's



The first employees were hired in 1970.

**1990**  
The Incentive Group takes over the company

**1985**  
The company grows and an initial expansion is made



**1992**  
Heidenhain takes over as new owner

**1991**  
Erik Meijer becomes CEO

**1994**  
Björn Zetterlund becomes CEO



**1995**  
Export comes up to speed! Sales office opens in Germany.

**1996**  
Plant expansion & customer order control implemented. 10-day delivery time.



**1997**  
Sales figures show a doubling in 5 years. ISO 9001 certification.

**1998**  
Leine & Linde opens a branch in Finland



**2000**  
Sales office in Denmark opens. ADS Classic launched.

**2002**  
Environmental certification per 14001



The company has grown over the years. Here are some of today's staff members, outside production facility B at the main office in Strängnäs in the spring of 2017.

still the human factor that determines if an encoder is delivered of the right quality, at the right point in time and at the right price," Björn Zetterlund said. He defines the recipe for success as being close to the customer and wanting to do a good job.

#### Period of added value

Leine & Linde was early with condition monitoring in their products when ADS Classic was released back in 2000 with integrated diagnostics. During the subsequent ten-year period, the encoder grew to be something more than just a component that feeds back speed or position data in the customer's system. Leine & Linde's solutions

provide added value in various forms thanks to the development of both hardware and integrated programming capabilities. In 2007, there were four primary product series: the 300 series, 500 series, 600 series and the always appreciated 800 series. There are all of nine product series in 2017 and a number of different solutions for among other things, explosive



**2006**  
Sales office in China

**2007**  
New hyper-modern production plant with cleanrooms inaugurated

**2005**  
Leine & Linde opens Italian office

**2010**  
Sales office in Korea

**2011**  
Branch in Brazil

**2009**  
Sales office in India

**2012**  
ADS Online launched

**2014**  
Sales office in Spain

**2015**  
Håkan Högberg becomes CEO. Encoder assortment expanded for explosive environments.

**2016**  
Per Andréason becomes CEO. FSI encoder with integrated functional safety launched.

▶▶ environments, condition monitoring and integrated functional safety. The accessory assortment is also worth mentioning, which includes in-house developed signal converters and gateways that enable conversion between different communications interfaces.

Moreover, it is still important with custom solutions and being able to provide prompt deliveries.

**Speed and job satisfaction**

“Because we deliver solutions, we must always be able to help customers in need,” says present CEO Per Andréason, who likes to share stories of satisfied customers or speedy deliveries.

In recent years, Leine &Linde has provided express production in less than 24 hours, or 48 hours at the most for products that require a full day of curing. But the quickest delivery lately was probably when a customer got in touch before the winter with a serial number for a product that needed to be replaced as soon as possible. The address was difficult to provide

because it was for an encoder used on a construction machine in blasting a railway tunnel somewhere outside of Stockholm. “Could it possibly be in Strängnäs?” the sale rep asked, and was quickly able to localise the machine. Less than six hours after the fault occurred, the sales rep could place the newly produced encoder in the hands of the person who had called, nearly beneath the company’s facilities on Olivehällsvägen. It’s fun having an organisation that is able to quickly solve big problems as well as small.

“It’s important with a good place to work so that people are happy with what they do. Keep that feeling alive,” says founder Henrik Linde, when asked about any advice he could share with today’s employees at Leine &Linde.

“My goal is for everyone to constantly hone their skills and to have fun at work every day,” says Per Andréason. “If we can do that, Leine &Linde will always be the company that sets the standard for our entire industry.” ■

**Today’s core sectors**

Leine &Linde’s products are often used in operations with tough environments that place especially stringent demands.

	<b>OIL &amp; GAS</b>	
	<b>PULP &amp; PAPER</b>	
	<b>WIND ENERGY</b>	
	<b>MINING</b>	
	<b>CONSTRUCTION MACHINERY</b>	



Good communication is necessary in everything we do – from satisfying customers’ needs to enhancing production technology, and from procurement to shipping. Communication also constitutes the foundation for cooperation and job satisfaction at Leine &Linde.