LEBUS® germany
INTERNATIONAL
1963 - 2023

The LEBUS® system
In Germany for 60 years, more than 80 years in the world

1963 – 2023

Shipping from Finning in Bavaria

to customers all over the world

The LEBUS® Counterbalanced Spooling System was developed by Frank LeBus in Longview, Texas, and patented in 1951. It solved the problem of how to prevent winch system failure by ensuring wire rope spooled smoothly and evenly when wrapped in multiple layers.

The LEBUS® system rapidly became the standard system for multi-layer spooling throughout the world in a host of industrial applications. Frank LeBus set up Lebus Germany in 1963 in partnership with Karl Seidenather, beginning production in Germany in 1967 for international markets. While Longview remains the birthplace of the LEBUS® system, it is from Bavaria that it has been exported all around the world, as the focus of the brand's international operations.

For the past 20 years, Lebus International Engineers GmbH has made its home in a new factory in Finning, on the banks of Lake Ammersee. From here, it supplies custom-designed, precision-engineered wire rope spooling systems to customers from Brazil to Bali, and Chile to China.

The digital design technology and CNC machinery have revolutionised industrial manufacturing over the past 60 years, and LEBUS® International Engineers GmbH has remained at the forefront. But some things have never changed: the principles of geometry that underpin the success of the LEBUS® system and the company's dedication to customer service, with absolute satisfaction guaranteed.

The LEBUS® team in Finning 2022

Aerial view of LEBUS® Germany headquarter

371 kg

Steel consumption per capita in Germany 2020

21,700 kg

Steel consumption per capita LEBUS® 2022

Source: https://de.statista.com

Perfect from the start – The original LEBUS® multi-layer wire rope spooling system

LEBUS® technology guarantees smooth spooling on Hong Kong's Peak Tram

Since the original 1951 patent for the LEBUS® Counter-balanced Spooling System expired, many have attempted to copy the basic geometry of the distinctive LEBUS® groove. But the secrets to perfect multi-layer spooling go beyond the groove. While the depth and width of the groove itself have to be tailored to the specific rope it will be spooling, other factors must also be considered, including the distance between the flanges, the distance to the first sheave (fleet angle) and the load conditions.

Only LEBUS® has 60 years of experience in multi-layer spooling; no one can rival our expertise. Many of our customers have come to us to solve the problems caused by imitators – by those who purport to understand the LEBUS® system but lack our know-how.

One of the characteristics of the LEBUS® organisation, in addition to our strict quality standards, is our service promise. All wire rope drums and sleeves produced by LEBUS® come with a certificate of authentication. This way, the end customers know that their machinery contains genuine LEBUS® technology inside. In the rare event of a malfunction, we are quickly on site to provide support – anywhere on earth and usually within 48 hours.

The shortest and the longest distance to the customer

6.4 km **Utting at Lake Ammersee**

13,632 km **Perth/Australia**

156 mm

largest wire rope on the LEBUS® system

2 mm

smallest wire rope on the LEBUS® system

20,200 kg

heaviest product

0.2 kg

lightest product

largest split sleeves:

7,797.3 mm

smallest split sleeves:

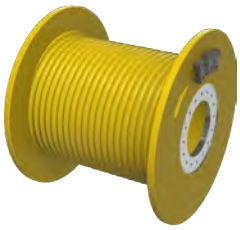
102 mm

Experts in spooling wire rope in multiple layers

The benefits of the original LEBUS® wire rope spooling technology are recognised by engineers all around the world. Thanks to the geometry of the parallel groove on the drum, LEBUS® enables wire ropes to be spooled in multiple layers with complete reliability and in a controlled manner. This results in a perfect spooling pattern. Preventing mis-spooling not only maximises system up-time, it also increases the service life of the wire rope, since it prevents the kind of pinching and crushing often seen in other spooling systems. And by guaranteeing the performance and safety of multi-layer spooling, the LEBUS® system facilitates the use of shorter drums, saving space for machinery installations, as well as saving weight and money.

The LEBUS® system offers almost unlimited facility for spooling wire ropes and synthetic ropes, irrespective of the diameter or length of the cable, and of the load to which it is subjected. We not only have the design expertise, from more than 60 years of experience, we also have the machine work and production skills associated with the finest German precision engineering.

LEBUS® groove



The LEBUS® groove can either be machined directly into the drumcore or, more usually, onto two shells – or sleeves – that are then bolted or welded onto the face of the drum. The benefit of our split sleeves system is that, because the groove geometry is tailored to the size and construction of the wire rope, if a new type of rope is needed, it is much easier, quicker and cheaper to simply change the LEBUS® sleeves rather than the whole drum. Lebus® split sleeves can be retrofitted on site in the remotest locations, even on offshore oil rigs and cranes.

LEBUS® accessories

Optimising the performance of any spooling system requires certain operating conditions. LEBUS® produces several accessories to create optimum conditions where they do not already exist. If the first fixed sheave is too close to the drum, the fleet angle is too large, in this case diamond screw level-winders are used. If the fleet angle is too small, we use kickers. The accessories are quickly installed and individually adapted to the wire rope drum.

CNC machining

The mechanical machining of steel, stainless steel, aluminium and plastic is our daily business. As subcontractors, we produce large parts in unique dimensions of up to 6 m turning length and 4.2 m diameter. In this way, individual parts, prototypes and system components are produced according to plan.

Welding

Only the best are at work when it comes to welding: Highly qualified employees perform welding using MAG or submerged arc processes, depending on the application. The wire rope drums are welded in compliance with special offshore rules, the seams are tested and thus withstand the rough conditions on the high seas for a long time.

Sandblasting & painting

Our expertise does not end with metalworking. Surface treatment such as sandblasting and painting – from the primer to the top coat with a robust multi-layer structure – are also part of our core business and we offer them as contract work. The sandblasting unit and the painting unit can accommodate workpieces in sizes up to 5 x 10 x 5 m.

LEBUS® around the world

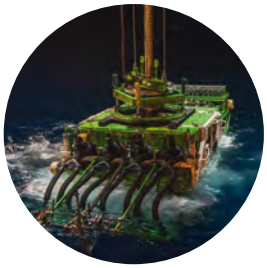
LEBUS® wire rope spooling technology can be found on tankers, cargo and passenger ships, on drilling rigs, cranes, derricks, cable cars, in mining and in diving robots all over the world. Here's an overview of some of the most spectacular projects since 2001, as well as all the places where LEBUS® products have been installed in the last few years.

Montreal Olympic Tower
- 1986 and 2013 split sleeves, helical grooving
- 2022 wire rope drum, normal grooving
- 2,880 mm[1]
- 1,390 mm[2]
- 36 mm[3]

LEBUS International Engineers GmbH
Finning, Germany

MSC cruise ship
- Zip Line
- Split sleeves, LEBUS® grooving
- 140 mm[1]
- 228 mm[2]
- 3 mm[3]

Floating crane 7,000 tonnes
- Split sleeves, LEBUS® grooving
- 1,535 mm[1]
- 3,636 mm[2]
- 60 mm[3]
- 3,840 m[4]
- 11 wire rope layers

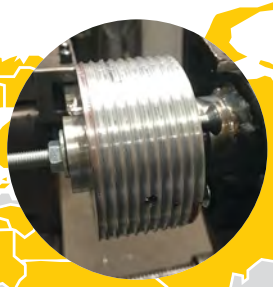


Patania II
- Split sleeves, LEBUS® grooving
- 3,850 mm[1]
- 5,670 mm[2]
- 49.3 mm[3]
- 5,500 m[4]

Countries with customer sales since 2001

[1] PCD (pitch circle diameter)
[2] Length between flanges
[3] Wire rope diameter
[4] Wire rope length

Research ship Polarstern
Complete equipping with several wire rope drums and split sleeves in various dimensions



Car wash at Neufahrn near Freising
· Wire rope drum with bolted flange discs
· 102 mm[1]
· 48.7 mm[2]
· 5 mm[3]

Hong Kong Peak Tram
· Wire rope drum
· 5,058 mm[1]
· 843.5 mm[2]
· 50.5 mm[3]
· 1,365 m[4]
· 1,200 m track
· Speed 6 m/s
· 120 passengers/trip

La Réunion – construction of coast road
· Double wire rope drum, helical grooving
· 1,400 mm[1]
· 2x 1,482 mm[2]
· 34 mm[3]

A look back at the past and forward into
Tim Seidenather and Matthias Kunkel in

Cris Seidenather has been working for LEBUS® Germany for 57 years.

LEBUS® International Engineers Germany has now been in existence for 60 years. Three years after its foundation by Karl Seidenather, Cristof Seidenather joined the company to take over the management in 1987. Three decades later he handed over operational management to Tim Seidenather and Matthias Kunkel. So the 60th anniversary is a suitable occasion to look back together at the past and forward into the future.

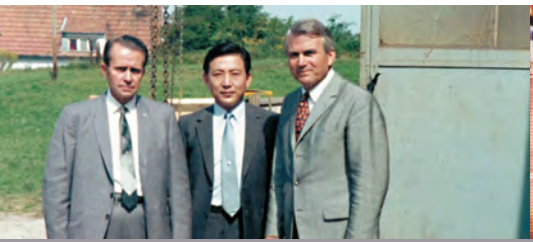
LEBUS® has been represented in Germany for 60 years and contributes wire rope drums with the original LEBUS® groove to projects all over the world. What makes LEBUS® unique?

Cris Seidenather: It is clearly the original LEBUS® groove. It is the heart of our wire rope winding system, which has been optimised for cost advantages in all application areas. This considerably reduces wire rope wear in multi-layer spooling and generally results in a fivefold longer service life of the wire ropes. This is an enormous savings factor for our customers.

Matthias Kunkel: Besides the benefits of our groove, however, I also see our way of working as unique. Throughout the years, we have communicated with our partners at eye level. We work our way into each project and together we find a solution for the most efficient wire rope spooling technology.

In this way, the patented LEBUS® manufacturing process has now become a brand of choice. What factors have driven the positive development of LEBUS® in recent years?

Cris Seidenather: One factor in our success is the interplay of quality, expertise and consulting. We live by our corporate guiding principle, combining collaboration with guaranteed product quality and world-class service. Absolute customer orientation and profitable partnerships are the goal. As a customer, you don't just buy a product from us but always a solution with a service guarantee. As with the further development of steel ropes, we have invested heavily in the development of new control technologies and CNC machines in recent years, especially for the production of the LEBUS® grooving. For many years we have also been offering our customers cost-saving retrofit solutions: By installing, converting or replacing half sleeves, wire rope drums can be reused several times and their service life multiplied.



the future: Cris Seidenather, an interview

Even though many companies around the world are trying to match the quality of LEBUS®. In the end, they fail. What challenges does LEBUS® face in these times and in the years to come?

Cris Seidenather: Our markets are changing. This is especially true for oil production technology. We cannot afford to relax our efforts but need to earn our success anew every day. This means we have to become more crisis-proof and stand on several solid legs. At the same time, we know that our expertise in metal cutting technology and our machine equipment can accomplish much more. We have to be prepared for that. At present, we see potential growth bottlenecks particularly with regard to skilled workers, to whom we also owe our quality image. That's why we will be placing special emphasis on apprenticeship and in-service training in the coming years. The future stands open for us. We just have to embrace and mould it offensively and creatively.

Matthias Kunkel: You are right about that. The markets are changing faster and faster. At first glance, CNC technology seems to make it easier to copy our systems. But the experience of six decades and the information gained through exchanges with customers and wire rope manufacturers cannot be copied so easily. That's why it is important for us to have very collaborative relationships with all parties involved.

Tim Seidenather: In addition, we are currently building up another mainstay with the offer of contract work for large turned parts. As subcontractors we not only work exclusively according to drawings, but also contribute our expertise. Customers can then purchase the complete programme of consulting, machining, welding and painting. We see great potential for the future, especially in large-part machining with diameters of up to 4,200 mm. For example, we have currently received an order for a hollow shaft with a diameter of 2,300 mm. We at LEBUS® will move with the times, adapt our offerings and thus be able to maintain our position in the market.

Tim Seidenather and Matthias Kunkel have been managing the operational business together since 2017.

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Title image: Unloading of RS Polarstern, supplying of Neumayer Station III