BERNSTEIN

DETECT
We make
safety happen.

PROTECT
We keep your
visions safe.

From the idea to practice

The right solution for every application

The right solution for sure

**Industries around the world use countless machines, plants and processes.
SAFETY is the top priority here – to protect the operating processes and, above all,
the people who work with them.**

**We show you safety technology and operating solutions for the most diverse requirements.
What do you expect from us?**

CONTENTS

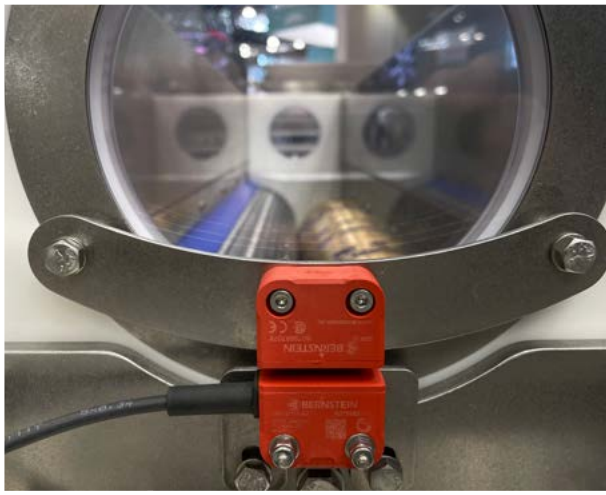
BERNSTEIN

On the following pages, we will show you illustrative application solutions from the DETECT range that have already proven themselves in practice.

The SMART Safety System – our scalable solution for the smart protection of complete machines and systems – takes centre stage. In addition, our versatile switches and sensors, such as insulated or metal-encapsulated limit switches, foot switches and safety switching devices offer the right answer for almost any application.

Click here for the video






High north and airy heights
Safety technology from BERNSTEIN for North German lifting platforms

"Lifting heavy things easily" – Janzen Lifttechnik has made this credo its own. The company from the far north in Niederlangen builds customised hydraulic lifting tables, lifts and aerial work platforms for its customers. Particularly when it comes to transporting people, high demands are placed on occupational safety. The company has found a reliable partner for the realisation of reliable safety technology in BERNSTEIN – in the case of a current project, even particularly SMART.

On platform:
The SRF is mounted into the plug-in railing to detect if it is properly plugged in.

Attached under the platform:
The SRF offers no possibility to bypass the protective measure. As long as the guardrails are not properly inserted, the lift cannot be moved.

"The requirement of our customers is quickly explained," Stefan Winter (Janzen Lifttechnik) makes clear. "They want a solution that is as inexpensive as possible in order to be able to transport as much weight as possible, as high as possible." For a current customer project, three aerial work platforms of different sizes and payloads were completed. The transport of people is also an issue here, which according to the valid standard for safety requirements for lifting tables (EN1570-1) requires a particularly high safety standard.

Janzen Lifttechnik works together with BERNSTEIN AG to implement this demanding requirement for safety technology.
In concrete terms, several components are used to ensure safety on the lifting platforms. On the working platform itself, six push-in railings and two self-closing doors provide fall protection during a lifting or lowering operation. Once at the top or bottom, the railings can be removed to access a hard-to-reach work area. The railings and doors are monitored by the SRF (Safety RFID) non-contact safety sensor. The SRF secures the doors and plug-in railings by not allowing the lift to move up or down in the first place until these separating protective devices are properly locked, i.e. the railings have not been properly anchored.

In contrast to a mechanical position switch, for example, the sensor does not allow any manipulation: "The SRF offers no possibility to bypass the protective measure. As long as the railings are not properly inserted, the lift cannot be moved," explains Robert Thesing from BERNSTEIN, who is the contact person on site for Janzen Lifttechnik.

"When a worker is standing on the working platform and notices at the top position that the platform cannot be moved, then a time-consuming troubleshooting began up to now. He had to check every plug-in railing and every door, every single safety device. Depending on how big the platform is, this can take several minutes," Robert Thesing describes further.

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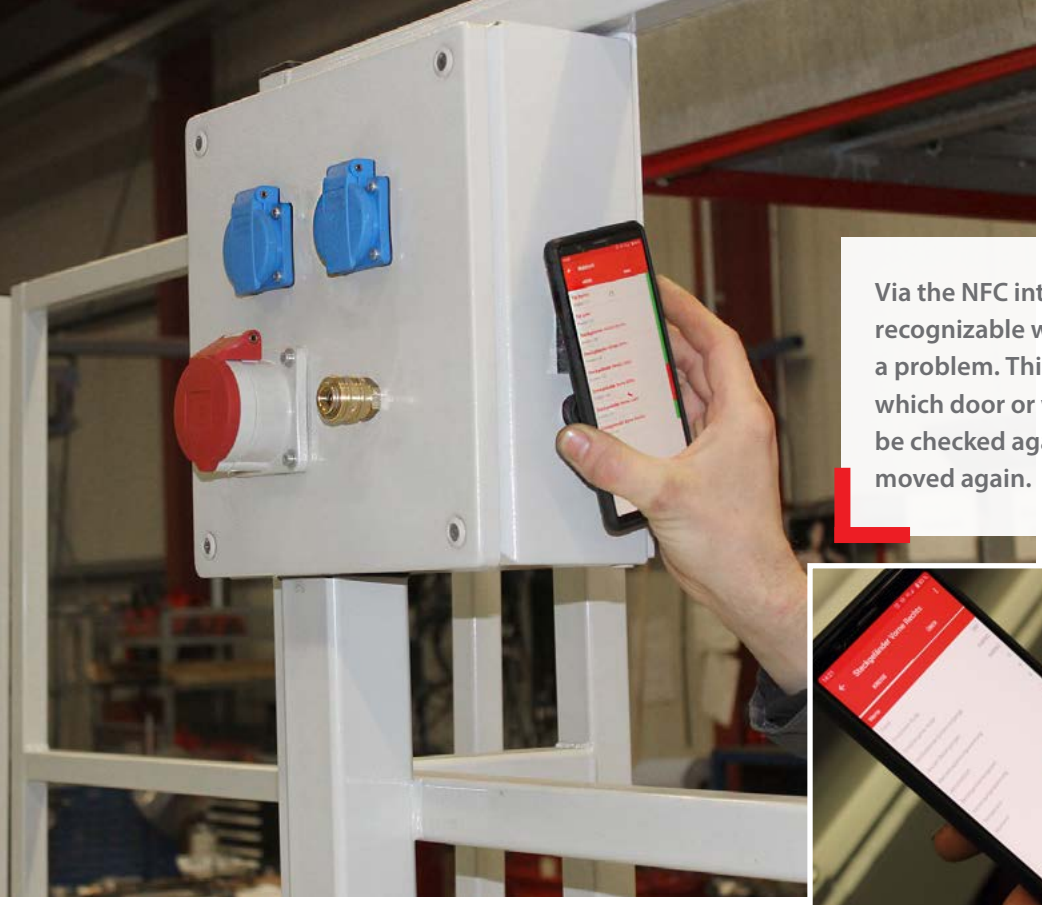
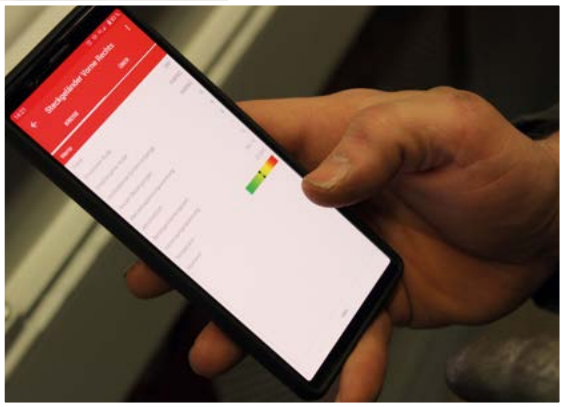
Smart Safety products



Via the NFC interface, it is immediately recognizable which sensor is reporting a problem. This allows the worker to see which door or which railing needs to be checked again before the lift can be moved again.



The SRF safety sensor counteracts this effort. During development, BERNSTEIN placed special focus on the diagnostic system that goes with the sensor: It reads out a large amount of data and makes it available centrally and flexibly. The diagnostic data is displayed on the smartphone via NFC technology, for example. A function that Janzen Lifttechnik also uses. "If the platform does not move, the person on the working platform reads out the data via NFC interface and immediately learns which SRF sensor is reporting a problem. The corresponding railing can be checked without detours and quickly closed again correctly."

"We have already worked with BERNSTEIN on a previous project and were able to gain experience with the SRF safety sensor. It is exactly the right one for our requirements because, on the one hand, it is suitable for outdoor use. On the other hand, working with non-contact safety technology offers advantages for many applications. Malfunctions due to dirt, for example, are not an issue here, nor is manipulation. The fact that we can obtain different safety solutions from a single source and scale them according to requirements also influenced our decision," says Stefan Winter, explaining the reasons for working with BERNSTEIN.

In addition to the SRF, the aforementioned lifting platforms from Janzen Lifttechnik also use the SLC (Safety Lock) guard locking on the access door of a staircase leading to the platform. As soon as the lifting platform moves, it must be ensured that the door to the staircase can no longer be opened and that other persons remain outside the danger zone.

This task is performed by the SLC interlocking switch from BERNSTEIN. It is a hybrid solution of metal and plastic components. All mechanically stressed components are made entirely of metal, which makes it particularly robust – a useful feature when used in an access door that is primarily intended to be functional and is not handled gently during operation. The less stressed enclosure, on the other hand, is made of glass-fibre reinforced plastic, which makes the SLC lightweight and cost-efficient.

The stairway access to the working platform is secured with the SLC safety locking device. As soon as the platform is in motion, the SLC keeps the access closed.

Click here for our guard lockings

Off to the waste press?
Smart safety technology for the disposal industry

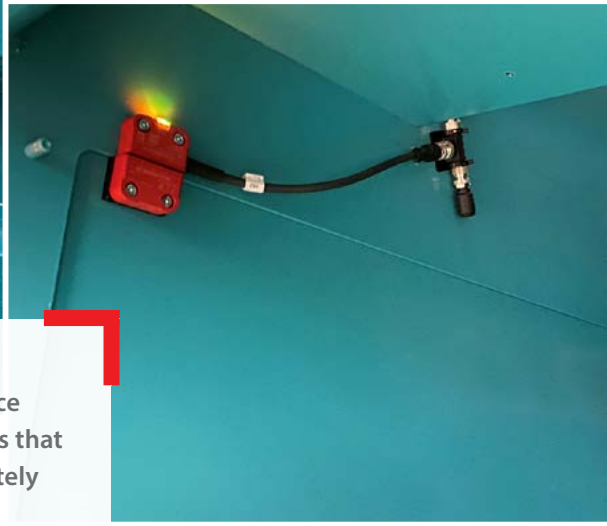
45 million tonnes of waste are produced by Germans alone every year – if you were to load this amount into waste collection vehicles and place them one behind the other, they would reach once completely around the earth. As a mechanical engineering professional specialising in environmental technology, Ludden & Mennekes designs, constructs and implements systems for use in the waste disposal industry. For one of these, the company relied on smart safety technology and enlisted BERNSTEIN AG as a partner.

The application

The people responsible at Ludden & Mennekes see waste as a valuable raw material. In order to be able to recycle this raw material, sophisticated plant solutions are necessary, the development and implementation of which they are committed to.

The stationary compaction plant of the KBW series, for example, offers such a solution. It is used where larger quantities of residual materials and recyclable raw materials are to be compacted before transport. This enables optimal utilisation of the permissible load of a transport vehicle and thus cost-effective transport. The system is suitable for compacting residual waste, commercial waste, green waste, film, paper and cardboard.

The Ludden & Mennekes compaction plant is used where larger quantities of residual materials and recyclable raw materials are to be compacted before transport. BERNSTEIN implemented the safety technology for the plant.



The non-contact safety sensors SRF from BERNSTEIN check whether the maintenance flaps are properly closed. If the SRF detects that this is not the case, the system is immediately taken out of operation.

The safety technology

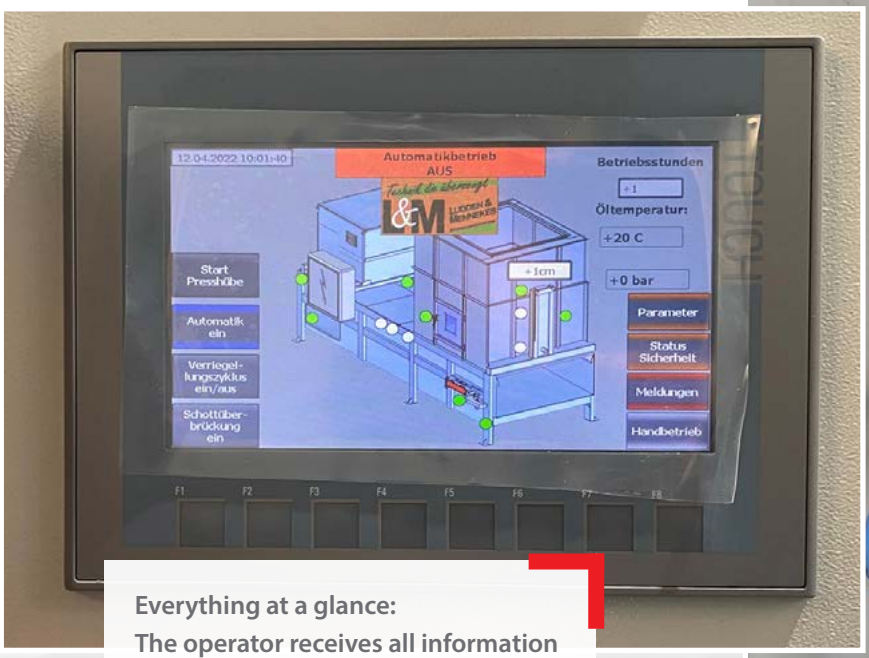
BERNSTEIN AG from Porta Westfalica assisted the manufacturer with the implementation of safety-related solutions for a smooth and safe compaction process.

Specifically, several contactless RFID safety sensors (SRF) are used at the compaction plant of the company Ludden & Mennekes. They take over the task of checking whether four different maintenance flaps are properly closed. If the SRF safety sensor determines that this is not the case, the system cannot be put into operation. In addition, the smart SRF sensors help to find the unlocked flap accordingly quickly in order to rectify the fault. This is because BERNSTEIN placed a special focus on the diagnostic system associated with the sensor during development: It reads a large amount of data and makes it available centrally and flexibly.

Another SRF safety sensor performs an extremely important function inside the compaction plant: "When the plant is restarted after a malfunction, it must be ensured that the compaction ram, which compacts the waste, returns to a safe position. This simple safety function prevents serious accidents and guarantees a defined start position so that the safety protocols function cleanly," explains Robert Thesing (BERNSTEIN AG), who is the on-site contact for the Ludden & Mennekes managers. Checking whether the stamp has reached its safe position inside the system is also one of the tasks of a non-contact SRF safety sensor from BERNSTEIN.

The challenge

"In the case of the Ludden & Mennekes compaction plant, there was a requirement to integrate an external conveyor belt leading to the compaction plant as well as an emergency stop installed on it. Requirements of the Machinery Directive for a safety-related link were to be implemented. Finally, it is crucial that the conveyor belt and the compactor "work together" and that the current status of the other is known. If, for example, the conveyor belt is unstoppably conveying waste into the system, but the system is just not ready for operation because, for example, an SRF sensor has detected a malfunction, this is an unfavourable interaction that should be avoided at all costs," Robert Thesing explains the challenge for BERNSTEIN.



Everything at a glance:
The operator receives all information about the system that is relevant for operation clearly on a display. It is also easy to see which SRF safety sensor is reporting a fault.

The SCR P evaluation minimises the wiring effort and significantly saves space in the control cabinet by combining several safety relays in one device.

The solution

But even for this, those responsible found an individual customer solution. Among other things, the BERNSTEIN SCR P evaluation provides a remedy. Where as many as 8 safety relays were previously used in the compaction plant, the SCR P alone now replaces a total of 6. Two more remain for the conveyor belt and the emergency stop installed on it. "On the one hand, costs for hardware can be saved with the SCR P. On the other hand, the wiring effort is reduced.
On the other hand, the wiring effort for the customers is considerably lower, which saves a lot of time.
By combining several safety relays in one device, the SCR P takes up significantly less space in the control cabinet. Thanks to the intuitively operable software, programming is no problem at all for the user," explains Robert Thesing. Of course, diagnostic data also play an important role in the SCR P. They are made available to the user via Ethernet protocol.

"We see ourselves as a solution provider and provide our customers with scalable electronic safety solutions. Depending on the application and requirements, different components can be combined and in the end form a SMART Safety System that is perfectly tailored to individual needs. During the development of the system, special emphasis was placed on the patented DCD diagnostic system, which provides comprehensive data of each connected device and thus makes each machine SMART," Robert Thesing explains BERNSTEIN AG's approach.

Click here for our Smart Safety products

The best of the 90s and the best of today

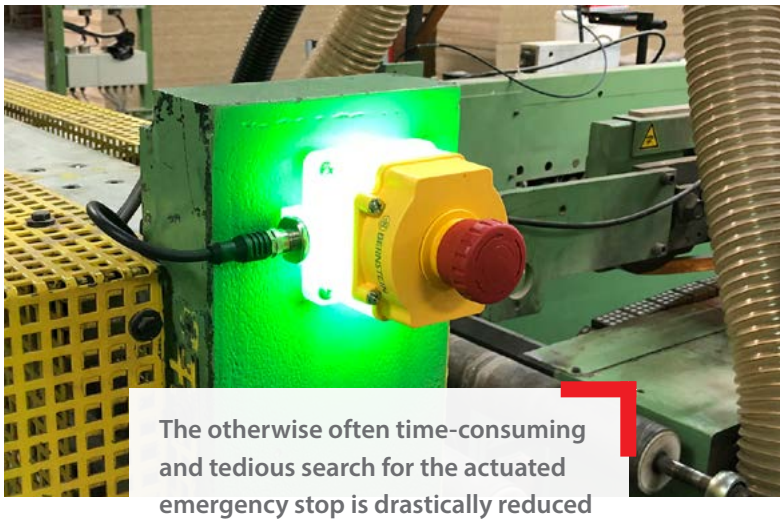
Retrofit of a laminating line with the latest safety technology

Implementing an electronic series connection of safety components in a laminating line from the 1990s – this was the task that zfr control faced together with BERNSTEIN as part of a retrofit at a customer in the East Westphalia region (Germany). In the course of this modernisation, one or two challenges had to be solved. But in the end, the system not only meets the most modern requirements for safety technology, but now also provides extensive diagnostic data for easy troubleshooting and analysis.

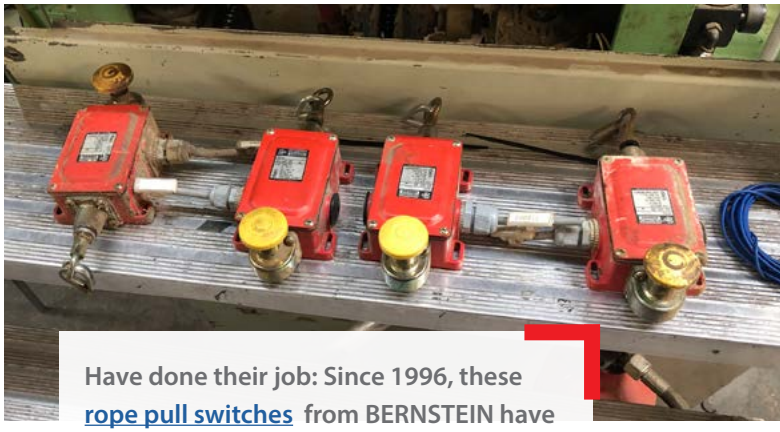
Retrofit of a laminating line from 1996: Among other things, rope pull-switches and illuminated emergency stop devices from BERNSTEIN are now used in an electronic safety chain.

This report begins in Weinsberg near Heilbronn, where the company zfr control has made a name for itself in the fields of electrical design, (PLC) programming and conversion of machine controls. The company itself sees its main focus in wrapping machines and laminating lines. It was the latter that brought zfr control to a customer in the East Westphalia region. There, a laminating line for chipboard from 1996 at Friedrich Priess GmbH & Co.KG in Hille required a retrofit. The modernisation included the replacement of control components as well as safety components.
"Troubleshooting should be easier and faster. In addition, diagnostic options had to be created," Jürgen Föll, who accompanied the project for zfr control, summarises the requirement. "In order to also be able to implement a series connection of all components, the choice quickly fell on the SMART Safety System from BERNSTEIN AG."

In concrete terms, those responsible decided to use several pull-wire switches. Thanks to the connection box, these could be integrated into the electronic safety chain just as easily as the contactless safety sensors SRF and the illuminated emergency stop devices SEU. Thanks to the large LED status display, it is quickly visible directly on the emergency stop device which has been actuated. "The otherwise often time-consuming and tedious search for the actuated emergency stop is drastically reduced by the possibility of visual perception directly on the device. Unnecessary downtimes can be shortened or avoided altogether by the clearly visible LED display," says Sebastian König, who accompanied the project for BERNSTEIN.



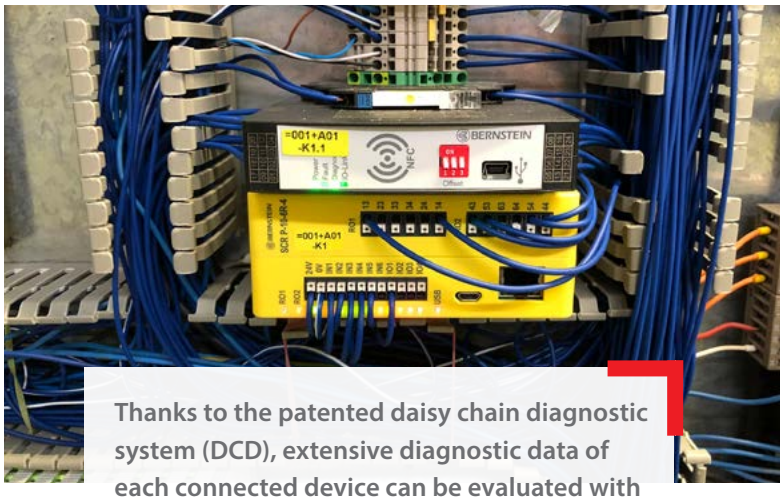
The otherwise often time-consuming and tedious search for the actuated emergency stop is drastically reduced by the possibility of visual perception directly at the unit.



Have done their job: Since 1996, these rope pull switches from BERNSTEIN have provided safety and have now been replaced by modern safety components with diagnostic function.

Thanks to the patented daisy chain diagnostic system (DCD), extensive diagnostic data of each connected unit can be evaluated with the SCR P safety evaluation, for example via Ethernet. One such safety evaluation SCR P is used in the main line of the system, as well as two others on movable modules. All installed safety components and the possibility of collecting and evaluating diagnostic data from all units come from BERNSTEIN.

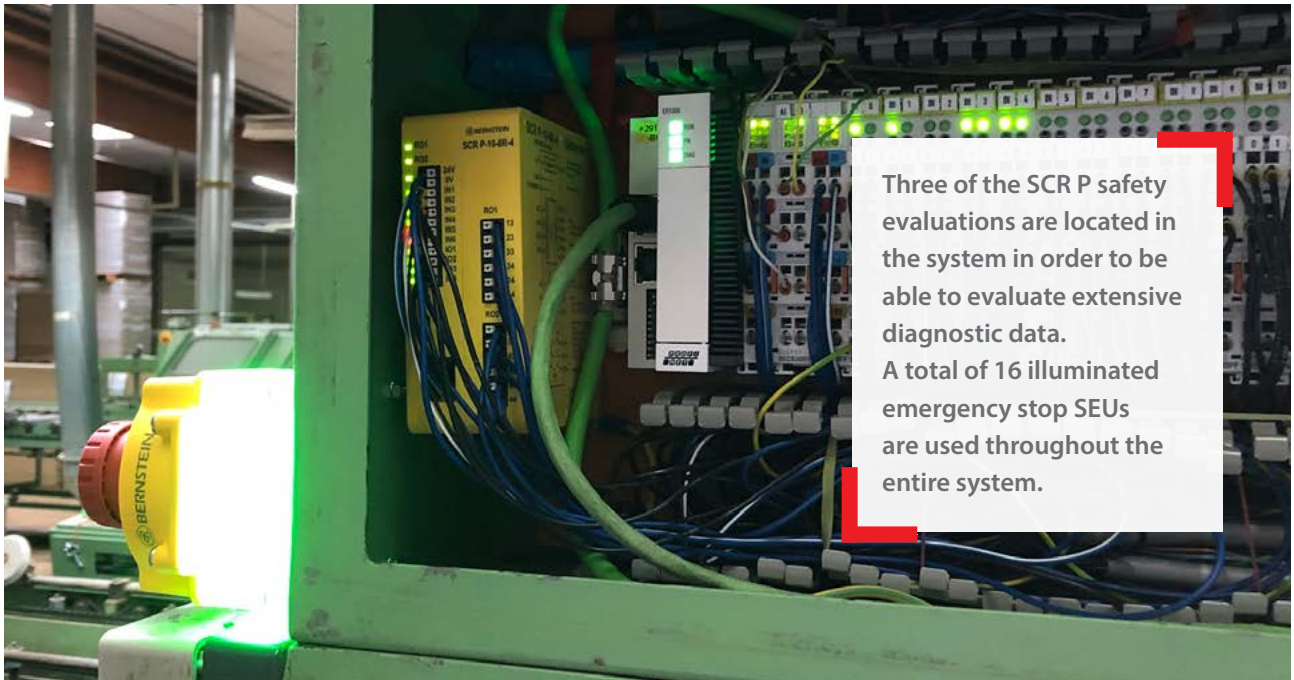
"One challenge was to implement the series connection of all components over the entire length of the laminating line in one piece," says Jürgen Föll. This is because the Friedrich Priess GmbH & Co KG line consists of a main line and two modules – laminating block and gluing machine – which are inserted into the main line. In total, the line extends over about 30 metres, which means that the safety components are connected in series over a total of about 100 metres.
„The combination of special line length and at the same time heavier load from illuminated emergency stop devices led to an increased voltage drop in the system. Thanks to the Daisy Chain diagnostic system, however, this could be localised immediately, as each participant in the series connection also transmits its currently applied operating voltage. In the end, we were able to solve the problem quickly and easily with an additional power supply at the end of the series connection instead of a terminating plug," explains Marvin Schinkel.



Thanks to the patented daisy chain diagnostic system (DCD), extensive diagnostic data of each connected device can be evaluated with the SCR P safety evaluation, for example via Ethernet. Three of the safety evaluations can be found in the entire system.

The advantages of connecting components in series outweigh the disadvantages, especially for retrofitting machines and systems. For example, a reduced wiring effort leads to lower costs without having to make concessions in terms of diagnostic possibilities. "The SMART Safety System provides a scalable solution for every customer and every requirement," says Marvin Schinkel.

Just a few days after the retrofit was completed, Friedrich Priess GmbH & Co KG's conclusion was positive. Among other things, the diagnostic option has greatly simplified troubleshooting in the past few days.

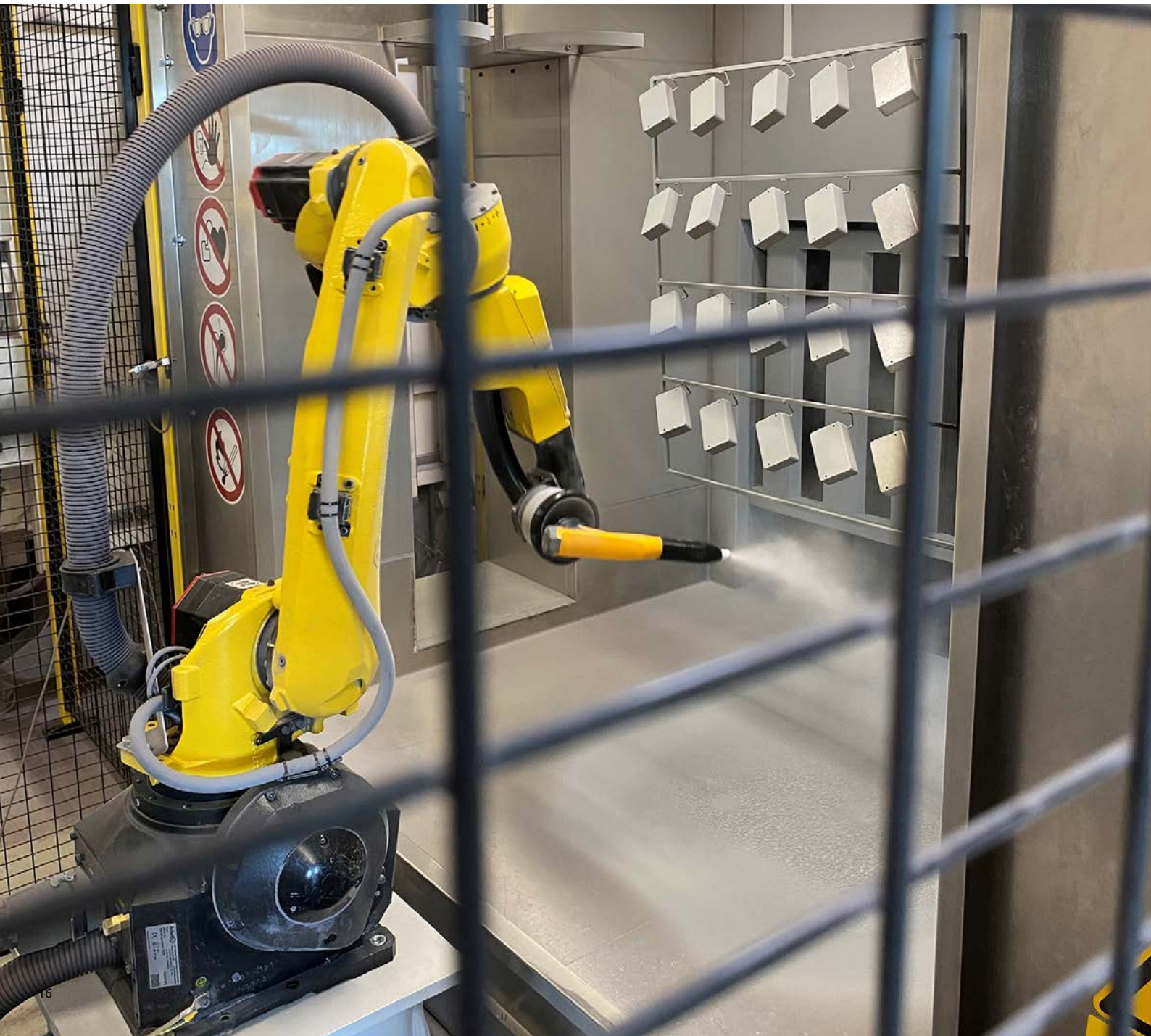


Three of the SCR P safety evaluations are located in the system in order to be able to evaluate extensive diagnostic data.
A total of 16 illuminated emergency stop SEUs are used throughout the entire system.

Fully automatic coating system meets quality and optimisation requirements

BERNSTEIN AG relies on its own (smart) products for safety technology

In search of two reliable coating robots for its production site in Hille/Hartum, BERNSTEIN turned to the engineers of an experienced supplier of complete coating systems. This was because BERNSTEIN needed two fully automatic coating robots for the successive powder coating of the front and rear sides of enclosures. One criterion that those responsible set for the robots was the particularly high repeat accuracy of the coating process in order to guarantee a consistently high quality of the coating. On the other hand, the robots had to work very efficiently, i.e. apply the powder coating sparingly and be programmed so precisely that as little as possible was missed.



As long as the respective coating robot is in motion, the locking switch with guard locking "SLC" prevents access. The clearly visible emergency unlocking device, mounted on the front, enables immediate opening from the outside in an emergency.

The escape release, located on the back of the SLC, enables immediate opening from the inside by turning, should an emergency occur.

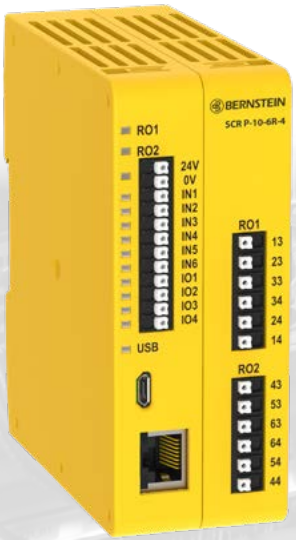
Click here for our SLC

For safety reasons, the robots work "behind bars" in one robot cell each, so that nobody gets hurt when they are in motion. "As a supplier of industrial safety and enclosure technology, it was obvious to rely on our own products for the necessary safety technology," says Bernd Borcherding, head of production in Hille/Hartum.

No sooner said than done: as long as the coating robot is in motion, BERNSTEIN safety technology prevents access. Two guard locking switches "SLC" are used for this purpose. The SLC is located on the safety door that provides access to the safety area of the respective robot cell. The emergency release, mounted on the front of the SLC, enables the safety door to be opened immediately from the outside in an emergency. In contrast, the escape release, located on the rear of the switch, enables immediate opening from the inside should an emergency occur. The mechanically stressed component of the locking switch, for example the rotating head, is made of metal. This makes it extremely robust and durable. Lightweight and functional, on the other hand, is the enclosure made of plastic.

The monitoring of the two locking switches SLC is also handled by a BERNSTEIN product, namely the programmable safety relay "SCR P". Here, each robot cell is equipped with a separate SCR P, which is wired to the corresponding locking switch SLC of the access door. When the door is opened, therefore, only the coating robot of the associated safety area stops, but not the second robot behind the other grid door, which can continue to work unhindered.
The safety evaluations, on the other hand, are interconnected in such a way that the connected emergency stop devices stop the entire machine when it is necessary. The external emergency stop of the conveyor system that conveys the enclosure parts through the coating booths can also be evaluated by the SCR P devices and thus stop both robots in the event of a standstill.

"With the newly integrated coating robots, we reduce the powder requirement per part while at the same time achieving a recurring high quality of the coated surface. We are more than satisfied with the implementation. The fact that we can rely on the safety technology was predictable, after all we know the advantages of our own products very well," adds Bernd Borcherding. "All in all, a successful project and an investment in the future and in the satisfaction of our customers."



The monitoring of the two guard locking switches SLC is also carried out by a BERNSTEIN product, namely the programmable safety relay "SCR P".

One step, more safety
BERNSTEIN foot switch revolutionises tyre processing

Bear Machines GmbH, a mechanical engineering company specialising in the machining of commercial vehicle wheels, has significantly increased its efficiency and safety with an enabling foot switch from BERNSTEIN. This special foot switch enables the operator to work on the machine with both hands and at the same time safely control the machine sequence with his foot. The company has already received several awards for the "Bear-Cut" machine, most recently the Federal Innovation Award 2024.

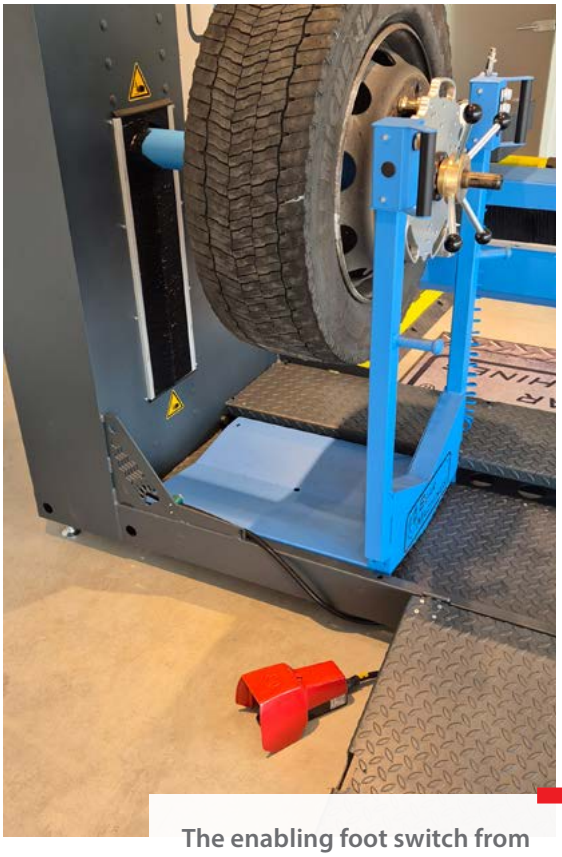
Mark Berendsen, Managing Partner of Bear Machines GmbH, decided in favour of BERNSTEIN foot switches.

Bear Machines GmbH from Heek specialises in regrooving commercial vehicle wheels, which extends the service life of wheels by 25%. Their excellent Bear Cut machine enables fast and precise regroovable tyres to be regrooved.

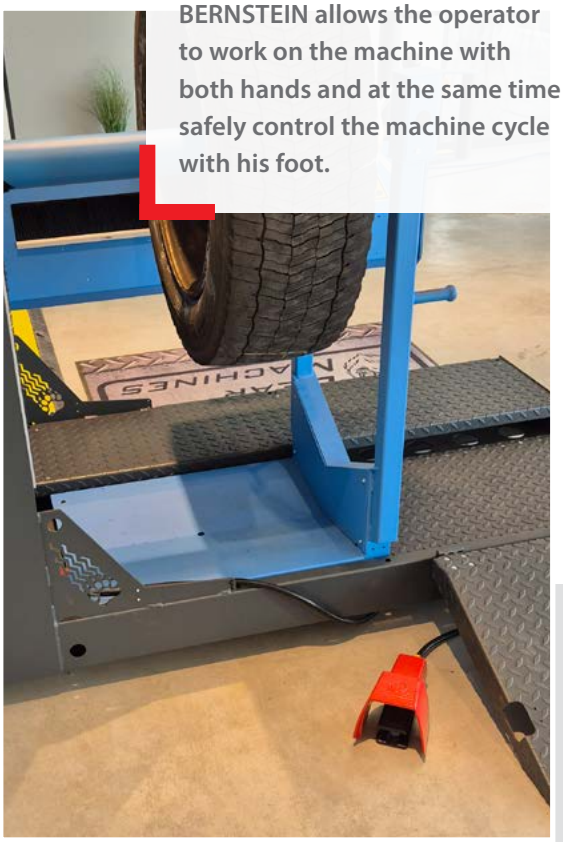
“The challenge was to find a foot switch that would allow the safe continuation of the tyre during the machining process,” says Mark Berendsen, Managing Partner Bear Machines.

As a result, a BERNSTEIN enabling foot switch was chosen, which was specially developed for demanding industrial applications. The foot switch is used in the Bear-Cut to safely rotate the tyre as soon as it is mounted and in the upper position. Actuating the foot switch enables the tyre to be moved safely without having to touch the tyre with your hands. This solution significantly minimises the risk of injury.
“In addition, the foot switch's enclosures, which can withstand the harsh industrial conditions, was a decisive factor in our choice of the BERNSTEIN foot switch,” says Mark Berendsen.

Click here for our foot switches



The enabling foot switch from BERNSTEIN allows the operator to work on the machine with both hands and at the same time safely control the machine cycle with his foot.



Hidden Safety

SMART Safety Sensor from BERNSTEIN monitors conveyor system in Fulda Hospital

The Klinikum Fulda is the most modern and efficient hospital in terms of maximum care in East Hesse. With more than 1,000 inpatient beds and a wide range of specialized consultation hours, it ensures high-quality medical care for the more than 500,000 citizens of the region. In close cooperation with the resident doctors and the surrounding hospitals, the hospital is the centre for a broad range of medical care. Every year, more than 100,000 patients, 40,000 of whom are in-patients, are treated and cared for by more than 2,700 highly qualified staff.

The logistics required for this are as extensive as they are complex, and for the most part take place unnoticed by patients in secret. In the basement of the hospital, for example, there is a conveyor system for bridging long transport routes for food or laundry.
The conveyor system counts around 1200 autonomous movements in conveyor shafts per day and thus connects all parts of the hospital building. It has a total length of around 1.2 km and copes with a height difference of 200 m. Of course, here too, strict attention must be paid to safety and events in the winding shafts must always be monitored.
At this point, BERNSTEIN AG came on the scene for those responsible at the Klinikum Fulda.

Specifically, the non-contact SMART Safety Sensor SRF has been used on the conveyor system of the Fulda hospital since the beginning of 2019. The SRF, abbreviation for "Safety RFID", monitors movable separating protective devices such as flaps, doors or protective grids. This particularly small sensor protects employees from injury by switching off machines and systems or not starting them at all until the hard guard is properly closed. "What mattered most to us was the reliable and safe functionality", Jürgen Schneck, who is in charge of the project on behalf of the Fulda Hospital, explains the decision FOR the implementation with BERNSTEIN:
"After we had no luck with the solution of another supplier in the run-up, we finally became aware of BERNSTEIN and the SRF at the SPS 2018 in Nuremberg".

BERNSTEIN's particular focus with the sensor is on the associated diagnostic system, which has not yet been used by the Klinikum Fulda in a first step: The system reads out a large amount of data and makes it available centrally and flexibly in the sense of intelligent production.

By means of the non-contact SMART Safety Sensor SRF, events in the shafts of the extensive conveyor system can be safely monitored.

Furthermore, BERNSTEIN's CS-4000 neXt suspension system helps the hospital's staff to keep an eye on what is happening in the hoisting shaft and to be able to follow and influence the individual transports on the screen. The CS-4000 neXt offers a simple and cost-effective implementation of visualisation. A rotatable stand ensures a direct view of the display and ergonomic comfort, and the display and keyboard shelf are also height-adjustable.

"Our application project at the Klinikum Fulda is a particularly good illustration of the interplay between our DETECT (safety technology) and PROTECT (enclosure technology) business divisions to create an optimum and individual customer solution: While the SRF provides the necessary security, the responsible persons keep an overview of what is happening thanks to the CS-4000 neXt column – and all this under optimal, ergonomic conditions. We are proud to have implemented the project successfully and to the complete satisfaction of our customer," summarize the project managers at BERNSTEIN AG.

Click here for the CS-4000 neXt

The CS-4000 neXt suspension system with its rotating stand and height-adjustable keyboard shelf enables optimum data visualisation – under optimum ergonomic conditions for employees.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Our PROTECT team offers modern enclosure technology in an industrial environment. The flexible solution of individual customer requirements is the central component of our work for you.

Click here for our enclosure technology

PROTECT

Because standard is boring
Convertible lightweight control enclosure rounds off systems, intelligent sensor ensures protection

No one would contradict that: The smooth and long-term economic functioning of machines and systems is the focus of all condition monitoring. The question of optics, on the other hand, is rarely asked by most small and medium-sized enterprises, while the question of calculable costs is often present. But what if all aspects can be implemented with the right partner? The reliable and (cost-)calculable monitoring of safety-relevant conditions as well as the fulfilment of aesthetic demands. This is exactly what the Lumberg Group attempted in Plant 2 at the Cloppenburg site with the support of BERNSTEIN AG from Porta Westfalica.

Lumberg is one of the leading suppliers of connector and contact systems. Its expertise lies in the in-house development and production of connectors, electromechanical components and mechatronic components. One promise of quality that Lumberg makes to its customers is its high internal vertical range of manufacture: the design and construction of assembly lines or even tools is an essential core competence of the company that has been proven in many reference projects. The company specialises in the business areas of automotive, building and household appliance technology.

The third-generation owner-managed company with 1,300 employees worldwide relies on BERNSTEIN's CC-4000 lightweight control enclosure to encapsulate operating units, IPCs or display components, both for its own machines and for systems it develops and builds for its customers. "We were looking for an enclosure that could safely house the technical equipment in our plants and protect it from damage. But every new system we build for our customers also brings different requirements. A standard solution would not have helped us. In BERNSTEIN, we have found a partner who

The CC-4000 lightweight control enclosure in a production line developed in-house by Lumberg.

Click here for our operating enclosure

Semi-automatic machines developed by Lumberg – also equipped with the CC-4000 – enable efficient and quality-monitored assembly of wire harnesses with connectors using insulation displacement technology.

can act just as flexibly and individually as we do for our customers," says Rainer Schwinefot (Lumberg), explaining the decision. Within two years, more than 100 enclosures from BERNSTEIN have been used at Lumberg – and more are to follow.

The CC-4000 scored points because it is particularly uncomplicated to adapt to specific requirements with the help of a modular concept. BERNSTEIN offers a comprehensive portfolio of enclosures, operating terminals and suspension systems as well as industrial safety technology – individual solutions that meet internationally valid safety and machine guidelines.

The aluminium profiles of the CC-4000, which convinced Lumberg, can be cut to any desired length and flexibly assembled with aluminium corner modules. If a customer also combines different aluminium profiles with each other, the enclosure becomes as deep as desired and offers the desired and required space for the operating unit. The next step is to connect it to the machine: the selection of the appropriate suspension system takes into account the weight of the enclosure, the position of the operator and the angle at which he looks at the screen. Turning, tilting, hanging, standing – basically everything is possible.

Those responsible also refer to semi-automatic machines that can be individually configured for the respective connector type, which are also a Lumberg development and have been equipped with BERNSTEIN's CC-4000. These are semi-automatic machines that make it easier for the operator to strip the cable and attach the contacts for Lumberg's connectors.

In addition to different widths, heights and depths, further variations of the CC-4000 can be implemented: integrated handle strips, any colour design or a front panel finish with screen printing or engraving. Lumberg opted for a design in bright green for its enclosures – in line with its corporate design. "This makes it recognisable at first glance that it is a Lumberg system. This recognisability was important to us," says Rainer Schwinefot.

Which way to Panama?
BERNSTEIN Denmark supports new navigation system for ships

Jens Peter Bendixen (left, BERNSTEIN Denmark) and Dennis Bomholdt (Trelleborg Marine Systems) are proud of the result of their joint project.

From 1 October 2023, all ships passing through the Panama Canal must be equipped with a special system that reliably locates them and can display the exact position of the ships to the pilots on site via an app. With the support of BERNSTEIN Denmark, Trelleborg Marine Systems has developed a solution that fulfils all the requirements of the new law and can be accommodated on the ships in a space-saving manner.

Trelleborg Marine Systems supplies the corresponding system, the app and the complete solution including GPS, iPad, cables, GNNS antennas and AIS antenna. BERNSTEIN gives this technology a "home" and, with an optimally prepared enclosure, ensures that everything can be installed sensibly and protected in the smallest possible space on the ships.
"In this case, every detail counted. The preparation of the enclosure is very precisely planned. But that is precisely our core competence: understanding and realising our customers' wishes precisely", says Jens Peter Bendixen, CEO of Bernstein A/S.

With the new system, ships can navigate through the canal with absolute precision and to within a centimetre of the quay and other ships. This means that more ships can now pass much faster, more efficiently and, above all, more safely than before. Incidentally, the system is appropriately named "SafePilot".

BERNSTEIN

Click here for our standard enclosures

Operating and monitoring on production lines for heat pumps

Stiebel Eltron relies on operator stations from BERNSTEIN AG

Stiebel Eltron is one of Germany's leading heat pump manufacturers. The company has been focussing on environmentally friendly technology for almost 50 years and manufactures innovative products that set trends at its main plant in Holzminden.
Stiebel Eltron uses the CS-4000 neXt operator stations from BERNSTEIN AG for its new heat pump production lines.

"Our initial task was to equip 10 assembly workstations for the heat pump production line with our operator stations. We advised, drew, changed, discussed and adapted again. We worked out the specific requirements together with the customer", says Oliver Kossmann, Head of the Enclosure Technology Division (PROTECT) at BERNSTEIN AG, describing the time it took to finalise the project. The tasks carried out at the workstations are different.
Accordingly, although the structure of the columns is similar, they are not completely identical. The parts and components to be assembled are checked in or out digitally at all workstations. However, these are very different, which is why different types of tools are required at the operating stations, which are positioned in different tool holders.

"The CS-4000 neXt was chosen because it can be customised and ergonomically adapted to production processes and employees. This makes it unique on the market", says Oliver Kossmann.
Thanks to the modular design, system components can also be added at a later date.

Click here for the CS-4000 neXt

BERNSTEIN

DETECT We make safety happen.

PROTECT We keep your visions safe.

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