

LÜTZE-REPORT

The international magazine of the Lütze Group

HEAVYWEIGHTS

WASTE MANAGEMENT

LÜTZE IN INDIA AND CHINA

SAIL 2010

LSC VIDEO TUTORIALS

GOOD CLIMATE WITH LÜTZE

HYBRIDLOC

SUPERFLEX® TPE

LÜTZE MAKES COWS HAPPY!



Systematic Technology

EDITORIAL



Udo Lütze
CEO Friedrich Lütze
International Group

The link between bridges and cows

Now, at first glance, the differences surely outweigh the similarities. However, when we consider that bridges have to be built and cows have to be milked, then we're getting closer.

We, at LÜTZE, solve automation problems, not just in classic machine and systems construction, but also in special areas. The control of hydraulic lifting systems for bridges or of milking machines is an area in which our technology is required and in which our solutions are used.

We are always happy when our customers confront us with unusual tasks and work on new solutions with us. And if the cows are also happy, then we can be pleased with the result.

Best regards,

Udo Lütze

INDEX

Page

HEAVYWEIGHTS

electrical solutions for the automation of hydraulic systems 3

WASTE MANAGEMENT

OTTO LIFTS Limited 4

LÜTZE SHOWS ITS PRESENCE ON THE INDIAN MARKET

5

SAIL 2010

5

NEW BRANCH MANAGER IN AUSTRIA

Michael Pfauser 5

LSC VIDEO TUTORIALS

Switchgear cabinet wiring can be so easy 6

GOOD CLIMATE WITH LÜTZE

6

BOMBARDIER ALP-45

Dual Power Locomotive with hybrid propulsion 7

EXTREMELY ROUGH

Superflex® TPE cable for drag chains 8

LÜTZE SHANGHAI FOR RAILWAY PRODUCTS WENT INTO OPERATION

9

LÜTZE MAKES COWS HAPPY!

GEA Farm Technologies 10

IMPRINT

published by

LÜTZE INTERNATIONAL GmbH

Bruckwiesenstraße 17-19, D-71384 Weinstadt

Tel. +49 7151 6053-0, Fax +49 7151 6053-277

info@luetze.de, www.luetze.de

Editorial/coordination

Friedrich Lütze GmbH & Co. KG

Marketing Services

wolfram.hofelich@luetze.de

printed by

GRESS-DRUCK GmbH

D-70736 Fellbach



INGENIA SISTEMAS develops electrical solutions for the automation of hydraulic systems, in particular in bridge construction when systems with lifting and shearing forces are required.

One of their main customers is Enerpac, market leader in the manufacture of such devices and their instrumentation. They develop and manufacture the central control unit of the hydraulic system as well as the position and stabilisation cylinders, supplying the most important construction and civil engineering companies.



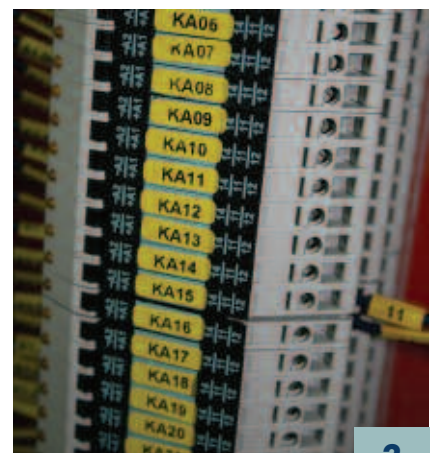
Last year, INGENIA SISTEMAS developed a versatile synchronised lifting and support system for ENERPAC. The system is used in Australia for infrastructure construction projects and road maintenance in an area of over 7 million km².

The lifting gear controlled by INGENIA SISTEMAS consists of two hydraulic systems, each with 10 cylinders, which can act individually or as an overall system with a total of 20 cylinders. Monitoring is carried out by 2 switchgear cabinets and 3 control panels. Three-phase SMPS from LÜTZE were selected as power supply units in the 24 V range, whilst robust LÜTZE relay components were used to control contactors and exchange signals. The control unit is a high-output PLC, which carries out the synchronisation of the lifting operation and the optimum distribution of the ultra-heavy loads. This is necessary to prevent material deformation, twisting or even breakage of the part to be moved. The balance of these loads is maintained by distributing the weight evenly on all the cylinders whilst keeping the centre of gravity constantly in the same place during the

entire lifting operation.

A technical plus is that the entire system can be configured and controlled from any location via remote maintenance. This produces the following options:

- System operation via Internet/Intranet.
- Polling and management of the system files.
- Download and overwriting of the configuration data via Internet/Intranet.



Waste Management Needs Good Supply Management

Robert Fearnett, LÜTZE UK

Not all businesses and industries have suffered as much as others during the recent worldwide recession.

Some companies continued to have a demand for their product range which meant that they needed supply partners that were able to maintain component availability to ensure production was not compromised.

This was true for Otto Lifts Limited (part of Zoeller Kipper GmbH) who, as a world leading supplier into the waste management business, found their company continued to develop and grow despite the financial climate at the time.

Unfortunately Otto found that not all of the companies in their supply chain reacted appropriately, with wholesale destocking of important components taking place in some areas. Consequently supply difficulties arose and the ability of Otto to deliver customer orders on time was significantly threatened. It was against this background that LÜTZE was given the opportunity to provide inter-connection solutions for use in the production of bin lifting systems manufactured by Otto.

LÜTZE has always maintained a strong stock profile locally in the UK, recognising that for many companies, ex-stock Europe is not always good enough. But in this case LÜTZE was able to offer significantly more than just standard stock on the shelf.

LÜTZE has significant experience in industrial automation solutions, including all major industrial FieldBus networks. This was

highly relevant to Otto as their 'on-vehicle' controls have become increasingly complex and the environments that the vehicles operate in are often very unfriendly to electrical systems.

We were able to offer local advice and expertise regarding the CAN connections on the lifter. Backed up by the support from the LÜTZE German technical team, the recommendations regarding cable type and screening helped ensure the vehicle systems fully complied with the public safety requirements when submitted for independent testing.

All this was achieved by working in part-

nership with both the sub-contract panel builder and the main control system supplier for Otto, whilst ensuring the supply chain was not compromised. Otto now has a reliable component supply route, with local stocks and technical support, providing long term commercial and engineering benefits.

LÜTZE are now considered a 'Connectivity Partner' for both Otto Lifts and the control system company, as both have seen the benefits of the value and experience we are able to provide.



LÜTZE shows its presence on the Indian Market

Between 21st and 24th September 2010, LÜTZE, together with its partner UL Group, presented itself at the strongly growing AUTOMATION 2010 in Mumbai.

The well positioned stand was an ideal networking platform. In countless interesting discussions, the LÜTZE service and product portfolio was made more well known in the growth market of India.



Sail 2010 - Arne Micheel, LÜTZE Germany



SAIL 2010 in Bremerhaven - the wind-jammer festival of the year – and LÜTZE was part of it!

Despite the poor weather, the estimated 1.5 million visitors to the evening event enjoyed a wonderful backdrop.

The highlights included the sailing of the “Gorch Fock“, the “Alexander von Humboldt“ in her berth and many other tall ships. And right in the centre: Captain Arne Micheel with his sailing yacht and countless enthusiastic LÜTZE customers.

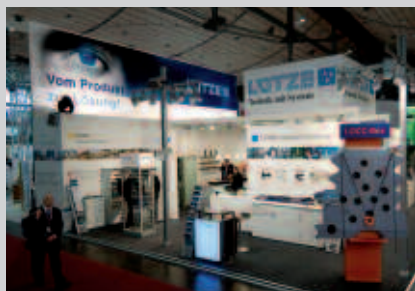
Michael Pfäuser is the new Branch Manager in Austria

On 1st October 2010, Michael Pfäuser was appointed the new Branch Manager at LÜTZE in Vienna.

The 45 year old can boast an impressive CV. For example, in the 1980s, he was a developer of meteorological measuring instruments, then a sales technician for SIEMENS-UHER AG. From 1992-2000, he was a product manager and divisional head at KLIPPON/WEIDMÜLLER (since 1996 VAN GEEL & HELLER GmbH). Then, he had responsible positions as branch manager at DATATRONIC KODIERTECHNIK GmbH and as sales manager at INTERTRADE AG in Austria. Most recently, Mr Pfäuser was the regional manager at LAPP Austria GmbH for the Eastern Austria region.



Exhibitions 2010



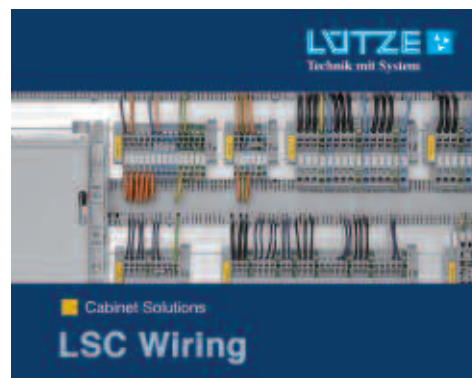
Exhibition	Place	Country	Date
ATX South	Orlando	USA	16.-17.03.2011
AMPER	Brünn	CZ	29.03.-1.04.2011
HMI	Hanover	D	04.-08.04.2011
INTERTECH	Dornbirn	AT	18.-20.05.2011
APTA EXPO	New Orleans	USA	03.-05.10.2011
SMART Automation	Linz	AT	04.-06.10.2011
MOTEK	Stuttgart	D	10.-13.10.2011
SPS/IPC/DRIVES	Nuremberg	D	22.-24.11.2011

Switchgear cabinet wiring can be so easy.

It couldn't be simpler. Free LÜTZE video tutorials explain and simplify switchgear cabinet structures.

In accordance with the principle that "A video says more than a thousand words" the automation specialist FRIEDRICH LÜTZE in Weinstadt has provided new video tutorials to explain, step by step, how simple it is to implement switchgear cabinet wiring with the LSC system. The LSC system allows even complex refitting, expansion and repair work to be carried out with just a few

actions, on account of its full access from the front. Complete wiring from A to Z is shown. The video tutorials explain the level of effective space exploitation and time savings as well as resource protection which is possible in this day and age in modern switchgear cabinet construction thanks to the cooling energy saved. The LÜTZE video tutorials are available for free download at www.luetze.com and at www.youtube.com.



Good climate with LÜTZE - Bernard Canal, LÜTZE France

RSYSTEM is a French company established since 1995 at Challes-les-Eaux in Savoie which specialises in the design and manufacture of refrigeration, ventilation, hydraulic and thermal equipment. The company RSYSTEM designs and realises machines for cooling management and production. A booming market in the food sector and particularly in the supermarkets. The objective of RSYSTEM is to provide its customers with high performance and high efficiency solutions to optimise their energy consumption for refrigeration, air conditioning, heating and air treatment.

The customers are gradually becoming aware of the impact of energy consumption on their activities. Thanks to its vast range, RSYSTEMS responds to needs for all types of large area and high buildings whatever the sector of activity : food shops, supermarkets, hypermarkets,

shopping arcades, sports shops, DIY... In the shops, the refrigeration needs of the cold places change significantly according to the periods (external climatic conditions and occupation of the shop). In order to adapt to these fluctuations, RSYSTEM proposes refrigeration equipment with advanced technologies continuously ensuring coverage of the necessary requirements with an energy consumption as low as possible.

The first commercial step with the company RSYSTEM has been researching a solution for the cabling of the solenoid valves using our pre-wired connectors. Then, RSYSTEM wanted to integrate its control cabinets in its mechanical structure. The space was very limited and a solution had to be found. Our LSC chassis has enabled the reduction of the size of the cabinets and thus solving the problems of space. The LSC was adapted

perfectly; furthermore with 6 different chassis, it is possible to cover the vast majority of the range of cooling machines.

With RSYSTEM having appreciated our solution, we have also created a relationship of confidence and partnership between our technical teams which has enabled us to supply other products from the LÜTZE range. Currently, our SILFLEX cables, our CONDUFIX sheaths and connectors are installed for linking the compressors and the cabinets. Furthermore, RSYSTEM has also adopted our Ethernet package and our connectivity solutions with our 5 and 8 port SWITCH as well as our cords with moulded RJ45 connectors.



Innovative vehicle concepts with LÜTZE technology

BOMBARDIER ALP-45* Dual Power Locomotive with hybrid propulsion

Andre Kengerter, LÜTZE Germany

BOMBARDIER MITRAC Hybrid Technology allows vehicles to be operated on both electrified and non-electrified track lines by using a standardised propulsion system that can use electricity as well as diesel power. Rail vehicles with such dual power feature as an extension can finally be operated on routes cost effectively, efficiently and environmentally friendly by limiting the use of diesel power to an absolute minimum.

Major benefit for environment and economic efficiency

A user of this technology, for example, is the transport authority New Jersey Transit in the USA. Thousands of commuters from the surrounding areas travel to New York daily by

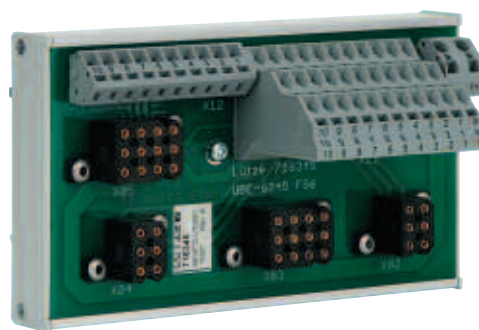
to change trains, which prolonged traveling time. With the newly developed Bombardier ALP-45 Dual Power locomotives it is no longer necessary to change trains. Thanks to BOMBARDIER MITRAC Hybrid Technology these locomotives can drive electrically as well as with diesel power. Since two propulsion systems now have to fit into one vehicle, innovative solutions are necessary in order to reduce the space requirement. Together with the project team at Bombardier in Zurich, five customer-specific preassembly units were developed at LÜTZE, which enable considerable economy of space in the control modules of the traction converters.

Optimal utilization of the mounting space

The initial version of the control module for the traction converter consisted of a standard structure on which the electronic and electromechanical components, such as diodes and contactors, were fitted on the mounting plate and wired externally via terminal strips and connectors. Due to the high packing density, two control modules with minor differences had to be mounted per converter. Apart from the large space requirements, a particular disadvantage of this structure was the high amount of time required for cabling work and the lack of flexibility for project-specific adaptations. Furthermore, no pre-assembled, tested wiring harnesses could be used, which increased error and failure risks during wiring.

Apart from the necessary electronic and electromechanical components, the assembly units supplied by LÜTZE also include

all connectors and terminals as well as all cross-connections required. Together with the housing concept of the functional assemblies designed specially for the mecha-

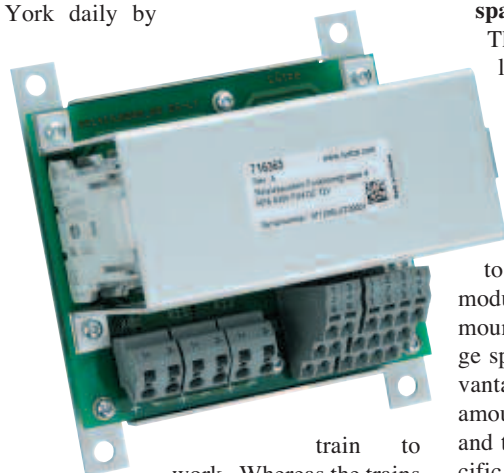


tics of the control module there is optimal utilization of the mounting space. At the same time, the increased flexibility makes it possible to use two identical control modules per converter and project-specific adaptations can be implemented without having to restructure the entire assembly unit. By integration of the functionality on the printed circuit board it is now possible to also use pre-assembled and tested cable harnesses, which save considerable assembly time and prevents wiring errors.

LÜTZE as problem solver

In close joint design cooperation between the customer and the engineers of LÜTZE Transportation an optimal solution for the space-saving design of electrical equipment for rail vehicles has resulted once again.

*Trademark(s) of Bombardier Inc. or its subsidiaries.



train to work. Whereas the trains within the area of the city are operated purely under electrical supply in order to avoid exhaust and noise emissions, the necessary infrastructure is not in place outside the city limits, the lines are not electrified and do not have the necessary catenaries. Thus, many commuters in the past had





LÜTZE, Weinstadt, the automation specialist, expands its SUPERFLEX® cable range for drag chains to include a media-resistant TPE variant for the food industry, agricultural businesses and bioenergy plants.

When used in the food and drinks industries, in the chemical and pharmaceutical industry and agricultural sector for bio-energy creation and in composting and sewage treatment plants, drag chain cables are exposed to an aggressive "bio-chemical attack" on the cable jacketing. LÜTZE developed the SUPERFLEX® TPE drag chain cable for these tough environmental conditions, which stands out through its first-class media resistance.

LÜTZE uses TPE instead of PUR

The construction secret: instead of a PUR cable jacket, LÜTZE, the German cable manufacturer, uses TPE, i.e. a vulcani-

sed, thermoplastic polyolefine-based elastomer. TPE has excellent resistance to acids, alkalis and aqueous solutions, in particular against biological media, e.g. biological oils and lactic acid, but also against cleaning agents (soaps, tensides).

The other positive material properties of the SUPERFLEX® TPE drag chain cable include its high elasticity and resistance to cutting and friction. At application temperatures of between -40 °C and 105 °C (briefly 120 °C), the SUPERFLEX® TPE drag chain cable is suitable for routing in dry and moist rooms, and even outside under certain circumstances.

The LÜTZE SUPERFLEX® TPE is thus ideal in transitional areas in order to connect continuously moving applications to areas with biological media without any transition. The jacket material is approved according to FDA 21 CFR for non-oleaginous foods and corresponds to the

European Directives 2002/72/EC and 2003/11/EC.

About the LÜTZE SUPERFLEX® cable range for drag chains

The well-known stress factors for cables used with drag chains primarily include bend radius, travel path, speed and acceleration. These are all factors which can mean rapid destruction of the cables. For this, LÜTZE has developed the SUPERFLEX® TPE cable range specially for drag chain applications. Its structure, high-quality choice of materials and modern production methods not only ensure the best electrical properties but also guarantee a lifecycle of several million bend cycles.



LÜTZE Shanghai for Railway Products went into operation

Starting with June 1st, 2010 the youngest investment of LÜTZE International Group went officially into operation.

LÜTZE Trading (Shanghai) Co.Ltd. is a 100% subsidiary of LÜTZE Germany and will focus their activities on Sale and Service of LÜTZE Railway products in China.

Frank Dong (General Manager) and his team of educated engineers will ensure full support on global customers as well as to serve the fast growing Chinese Railway industry.

In time with the opening ceremony the new LÜTZE Trading (Shanghai) Co.Ltd. was showing presence on the exhibition Metro Shanghai 2010 with an own booth together with total 228 exhibitors.

"The show was an ideal networking platform for us to show our products and services. We had many interesting contacts and enquiries for new projects. So far we look very confidentially in the future." - Udo Lütze, CEO, stated in an interview to a local Railway Magazine during the exhibition.



LÜTZE INTERNATIONAL

Think global, act local. Get in direct touch with your LÜTZE partner.



Friedrich Lütze GmbH & Co KG
Bruckwiesenstraße 17-19
D-71384 Weinstadt
Tel. +49 7151 6053-0
Fax +49 7151 6053-277
info@luetze.de
www.luetze.de



Lütze SAS
218, chaussée Jules César
95250 Beauchamp
Tel. +33 1 3418770
Fax +33 1 34181844
info@luetze.fr
www.lutze.fr



Lütze ETE GmbH
Niedermoserstrasse 18
A-1220 Wien
Tel. +43 1 2575252-0
Fax +43 1 2575252-20
office@luetze.at
www.luetze.at



Lütze AG
Oststrasse 2
CH-8854 Siebnen
Tel. +41 55 4502323
Fax +41 55 4502313
info@luetze.ch
www.lutze.ch



Lütze Inc.
13330 South Ridge Drive
USA-Charlotte, NC 28273
Phone +1 704 5040222
Fax +1 704 5040223
info@lutze.com
www.lutze.com



Lütze S.L.
Avda. Coll del Portell, 53 local 7
E-08024 Barcelona
Tel. +34 93 2857480
Fax +34 93 2857481
info@lutze.es
www.lutze.es



Lütze Ltd.
Unit 3 Sandy Hill, Sandy Way,
Amington, GB-Tamworth,
Staffordshire, B77 4 DU
Phone +44 1827 313330
Fax +44 1827 313332
sales.gb@lutze.co.uk
www.lutze.co.uk



Luetze Trading (Shanghai) Co.Ltd.
18F, Room 1822, No 699 NanJing
West Road, Jing'An District
Shanghai 200041, P.R. China
Tel. +86-21-61413731
Fax +86-21-52110177
info@luetze.cn
www.luetze.cn

☐ Please send us more information about articles in this magazine.

Subject

Theme	Page
	Page
	Page

☐ Please send us information about your entire product range.

☐ We would like some advice. Please call us.

From:

Company

Surname/forename

Address

Phone/fax

E-mail

LÜTZE makes cov

LÜTZE helps GEA Farm Technologies make dairy farms more efficient and to find the best solution for each of its customers.

Rudolf Killmann, LÜTZE Germany

More than ten years ago, WestfaliaSurge's milking carousels revolutionised milk production around the world. There is space for dozens of cows at the same time, and one milker can milk in excess of 100 cows per hour. Dairy cattle enjoy the automatic stimulation and calm, continual milking. The milkers and herd managers can profit from increased throughput and minimised working costs.

Flow of milk without milking stops

That's the plan - although, at the beginning, undefined system failures gave the manufacturers and users stressful times. The service technicians had their hands full. LÜTZE was contacted at the Hanover Trade Fair in 2003. It became apparent that, up to that point, no suppression modules had been used. Since the LÜTZE components have been refitted for valves and contactors, the mysterious milking stops have ceased. Milk flows unhindered and the desired high level of operating efficiency is achieved.

Today, WestfaliaSurge trades as GEA Farm Technologies. The German group works at 20 production sites, branches and offices around the world to produce sys-

tem solutions for all areas of animal husbandry.

Safe milking by 3D camera

For example, last year experts of the "GEA Milking and Cooling" business unit developed an automatic milking robot: each cow can find its own milking stall and be "served" by the mobile contact arm. The teats and milking cups are detected using a 3D camera and the arm moves automatically and safely to start the milking process.

After the first positive experiences with LÜTZE, products from Weinstadt continue to be used in this new generation of milking machines. To control the various actuators in the machine, all the cables must be routed, labelled and installed as simply as possible.

How could LÜTZE help here? Together with the electrical development division of GEA, two cable sets were created, reducing the installation time to a minimum.

The LÜTZE valve connectors, of extremely high quality and tried and tested thousands of times, are provided with a speci-

al UL-certified cable and are preterminated. These sets consist of nine or 41 cables: each of these has three different labels, for the connection point to the departing terminal strip and a target designation of the valve to be connected. This permits mounting without a circuit diagram, considerably reducing the production times - the product becomes a solution.

The way LÜTZE approaches customer requirements individually is also shown by the Cablefix sets used: to be able to mount them easily on thick-walled housings, they are given longer fastening screws.



ws happy!



This is how it works:

Each cow enters the comfortable milking stall on its own and according to its own regular cycle. Once there, it is "served" by a mobile attachment robot. Day after day, night after night and always with the same precision.

Once a cow is detected in the milking stall, the stall automatically adjusts itself to the cow's body size, and a precise, individualised amount of feed is dispensed.

The milking robot moves directly to the stall. A unique new teat location technology finds all of the teats with very high reliability. A camera detects the shape and location of each individual tit, while also keeping track of the teat-cups.

Once the cups are attached, the arm moves immediately to the next stall. This means that only the equipment that is necessary for milking remains under the cow. This minimises the risk of malfunctions, and allows for optimal utilisation of the attachment actuators.

The actual milking process begins directly after the teat-cups are attached, and consists of the following steps: teat cleaning, pre-milking, stimulation, milking and removal of the teat-cups.

The result: an extremely efficient and time-saving milking process. Quick transition to the next animal. As soon as the milking procedure has ended the cow leaves the milking stall and makes room for the next cow.



Our Product Your Solution!

Installation • Cabinet • Automation • OEM • Transportation