

# LÜTZE-REPORT

The international magazine of the Lütze Group

**LÜTZE UK HAS MOVED**

**LÜTZE NEWS**

**SPS/IPC/DRIVES 2004  
IN NUREMBERG**

**«JURASSIC PARK»  
POWERED BY LÜTZE**

**LÜTZE IN GLASS AND  
STEEL PRODUCTION**

**DEGREE THESES IN  
DEVELOPMENT**

**WHAT AGIE CHARMILLES  
AND LÜTZE HAVE IN  
COMMON**

# EDITORIAL



Friedrich Lütze  
Founder  
of the Lütze Group

The Alpine republic of Austria is not only known for its superb mountain scenery, lakes and many tourist attractions, but also because of its up-and-coming economy and many manufacturing operations. These include a remarkable number of companies with a global reputation. Quite simply, Austria is an European commercial centre par excellence.

Thanks to an efficient team working under the management of Mr. E. Tanzer, a qualified engineer, Lütze Ges.m.b.H. in Austria has made some remarkable achievements. It realised the importance of setting up a network in close cooperation with a large number of customers, whereby the emphasis has always been on those well-known expressions «proximity to customers» and «customer benefits» .

I therefore give particular thanks to the many Austrian customers with whom we have enjoyed cooperation as business partners for almost three decades.

Yours sincerely,  
F. Lütze

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## TRADE FAIRS

### Lütze goes around the world

Trade fairs	Place	Date	
Hanover fair	Hanover	11 – 15 April	Lütze D
SMART Automation	Vienna	05 – 07 October	Lütze A
SPS/IPC/DRIVES	Nuremberg	22 – 24 November	Lütze D
Eisenbahntechnik ET 2005	Basel	07 – 09 December	Lütze CH

## A NEW HOME FOR LÜTZE IN THE UK

### Nigel Broad

**Lütze Ltd.** moved into their new premises during December, the building designed specifically for the company's needs represents **a major step forward for the Lütze operation in the UK.**

**Nigel Broad**, director, commented: «The new facility provides an excellent working environment for our staff **and the in-house presentation area will enable us to share with our customers the many solutions the Lütze product range can provide.**»





Wolfgang Dewenter  
Product Manager

## Lütze Germany ... NEW COLLEAGUES

On 1 September 2004, Wolfgang Dewenter took over as Product Manager for the LSC wiring system, thus allowing Mr. Schauer mann to go into well-earned retirement at the end of the year. For many years, Wolfgang Dewenter was Project Manager with a company specialising in automation and for the last five years has worked for a well-known machinery construction company.

Next year, the focus of his work will be the revision of the LSC wiring system, including accompanying marketing campaigns (to introduce new products onto the market), the improvement of internal and external information exchange, the introduction of a new 3-D CAD system and securing new customers and markets for the LSC wiring system. He will be supported in this work by the experienced LSC team, consisting of Mrs. Koch, Mrs. Mauersberger, Mrs. Stark and Mr. Kloss.

Having spent 12 years in various positions in the graphics industry, Wolfram Hofelich has been Lütze's new Group Manager Marketing Services in Weinstadt since August 2004. Most recently, he spent eight years as Deputy Managing Director and Technical Manager of a media agency, where he mainly dealt with customers from industry. His duties there included design activities, supervising the corporate identities of various customers, various prepress and premedia jobs, as well as taking care of production equipment and a network.



Wolfram Hofelich, Group  
Manager, Marketing Services

The first improvement worthy of mention is the prepress-oriented expansion of the Marketing Department to incorporate professional retouching and layout applications that has already been completed. Jobs that would previously have had to be subcontracted to external organisations can now be dealt with quickly in-house by Marketing Services staff, therefore reducing costs.

In the next step, catalogue production, which has to a great extent been outsourced up to now, will be handled in-house by Lütze itself. Within the context of this project, the complete database will be set up in Weinstadt and looked after by Mrs. Martina Mergel. Producing catalogues and data sheets internally does not just have cost advantages, but also most importantly brings with it improved service and faster reaction times. This project was started up quickly and is already at an advanced stage.

The third crucial change is the establishment of Marketing Services as media service provider for the entire Group. This covers the organisation of our presence at trade fairs, the procurement and production of advertising materials, printed products and catalogues, press work and of course the design, production and maintenance of our global Internet presence, which is managed by Mrs. Martina Löw.



## Summary of trade fairs SPS/IPC/DRIVES 2004 IN NUREMBERG

Lutz Diedrich

«Lebkuchen» (biscuits), «Bratwürste» (german sausages) and the «Christkindl» market are all linked with the city of Nuremberg in the pre-Christmas period. You can now add something else, namely the **SPS/IPC/DRIVES** exhibition. Without a doubt, this trade fair has turned **into the most important meeting point for experts in the field of modern electrical automation technology.** At the three-day SPS, we again exhibited the latest developments from Lütze, such as the **DIOSWITCH MINI 8TX** and **DIOSWITCH 6TX compact industrial switches.** Both stand out thanks to their tiny width of only 22.5 mm and are equipped with six or eight 10/100 Mbit/s ports, depending on the particular version. Over and above this, the **DIOSWITCH MINI 6TX** is a sure-fire winner thanks to its innovative combination of an RJ-45 connector and a plug-in terminal connector (2 ports). The trendsetting technical orientation of the company is further endorsed by the extended range of MICRO-KON signal converters, starting with a housing that is only 6.2 mm wide.





With an **increase in visitors of 5,000** compared with the previous year **to a total of 32,000**, SPS has been a bigger show for us this year and therefore become more important to us. The 1,032 exhibitors occupying a space of 65,000 m<sup>2</sup>, spread out over seven halls, all reported extremely positive results this year – this exhibition has never been this good before. **The general increase in the number of show visitors meant that Lütze was able to register a record number on its stand.**

SPS/IPC/DRIVES offered a compact, yet complete overview of the industry. For the first time, the halls were themed according to specific points of focus. Visitors took particularly well to the option of being able to concentrate on specific subjects. Lütze exhibited not only individual components, but also **complete system solutions based on automation technology**. One of them, which started in a switch cabinet with Lütze LSC, our **innovative, space-saving wiring system**, was explained in greater detail to interested trade visitors by a professional external presenter. A competition to win prizes was also linked in with the presentation.



The Lütze exhibition stand at SPS/IPC/Drives 2004.

The live presentation **enabled visitors to see a complete LSC rack being integrated into a switch cabinet and then used**. Also shown was the mounting of equipment and terminals on the racks, and then the wiring being carried out. This enabled viewers to get an insight into the functionality of the **Lütze LSC** wiring system. The winners of our LSC competition included, amongst others, Mr. Frank Hoss of Metabo AG, Mr. Josef Moritz of ETC and Mr. Bernd Dittmann of Bessy, who were all presented with their prizes at the end of the exhibition.

**Lütze exhibited** everything to do with electrical automation, from installation through to communications technology, also highly flexible control and data lines ready-assembled into a drag chain, as well as complete **interface technology** – from power supply via traditional relay equipment to high-precision temperature converters. The large numbers of visitors were particularly appreciative of our **TOP connecting system for 6.2 mm wide interface components**.

**Also worth mentioning** is the positive reaction of our stand visitors to the **quality of the technical discussions held**, as well

as **the range of products and solutions Lütze was able to supply with regard to actual projects.**

The **dates** are already set for **SPS/IPC/DRIVES 2005**: it will take place from **22 to 24 November 2005**, again at the **Nuremberg Exhibition Centre**. We are already looking forward to it!



The LCS live presentation.



# The Delta Power Supply as modern dinosaur hearts «JURASSIC PARK» POWERED BY LÜTZE

Timur Oezer

**United Automation** was founded 1987 in Lewisville, Texas, which is 20 miles away from Dallas. **United Automation** was always driven to offer their customers the most cost-effective and innovative products. They have alliances with the best American, European and Asian manufacturers of pneumatic and electrical components to better the needs of their customers. **United Automation** has a strong focus to use the most effective technology for their products.

This was another reason why they chose to use the new **Lütze, Inc. Delta Power Supplies**.

United Automation is building dinosaurs for different zoos all over the USA, like the zoos in Cleveland, San Francisco, San Diego, Boston (New England) and Milwaukee. The New England Zoo has opened a Dinosaur Kingdom with a «realistic Mesozoic jungle where life-like moving, roaring, and even breathing, animatronic dinosaur replicas from the Triassic, Jurassic, and Cretaceous periods coexist together.»(<http://www.zoonewengland.com/>).

All these motions are powered by the **Lütze Delta Power Supply**. The 110 V-24 V DC is used to supply electrical energy to solenoid air valves. With these air valves the dinosaurs get the ability to move their head, tail, open their eyes and mouth.

**In every dinosaur there is a Lütze Delta Power Supply.** United Automation uses them because they are the smallest in their class, **compact, reliable, and they are DIN rail-mountable as well.** Especially the small

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Here is a Tyrannosaurus rex, measuring 47 feet in length, and 25 feet in height. This picture was made in the New England Zoo.







The Cleveland Zoo does offer twenty amazing prehistoric dinosaurs. Here is a Triceratops.

footprint makes them perfect for the dinosaurs' ultra-compact electronic cabinet. In order to be prepared for «Mother Nature's call» **Lütze offers a full line of 24 V switched DC Power Supplies in the**

**following sizes: 210 mA, 420 mA, 750 mA, 1,25 A, 2,5 A, 5 A and 10 A.** The power supplies autoselect the voltages and have a voltage adjuster potentiometer on the front side. Additionally they have a front side DC indication light.

The Cleveland Zoo writes that «the world of prehistoric giants is recreated using sophisticated electronics, air pistons and a state-of-the art sound system. The advanced animatronics generate the dinosaurs' realistic movements and roars.» (Cleveland Zoo, [www.clemetzoo.com](http://www.clemetzoo.com)). **The Lütze power supplies are the heart of the reborn dinosaurs.** If they failed, all movements would stop and the dinosaurs would extinguish again. **United Automation trusts the reliable power supplies, and with the Delta Power Supplies the survival of the dinosaurs is guaranteed.**





# DEGREE THESES IN DEVELOPMENT

## Platform for a modular control unit that can be used universally



Dirk Otterpohl

For some time now, Lütze has been developing control components for the railway industry. One of our customers in this sector is Bombardier Transportation. Lütze is proud to have been a reliable and capable business partner of this manufacturer of rolling stock for quite some time. It is for this reason that we were commissioned to design a control unit for the exterior lighting of railway vehicles.

Within the context of a further development project, two existing Lütze lamp control units were relocated onto a more ef-

ficient microcontroller from Motorola's HCS12 range. The reason for this is the expansion of the previous control system by a serial interface.

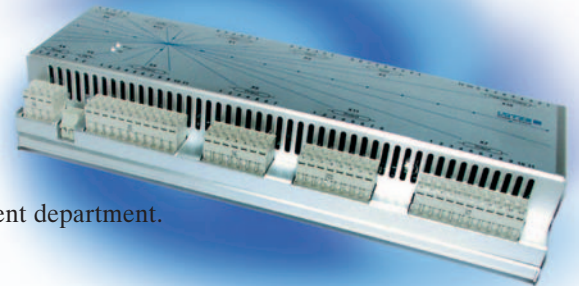
The controller used in the previous model had reached its performance limit. Therefore, moving the lamp control unit onto a more efficient controller was a necessary step. In this way it was also possible to control more outputs, in other words more lamps, therefore making the unit even more efficient. Thanks to its modular design, the lamp control unit is capable of replacing both of its predecessors.

The result of Dirk Otterpohl's development work is the basis for the LSG 3 lamp control unit, which has already been ordered by various customers.

### Dirk Otterpohl

1981 Born in Rheda-Wiedenbrück  
2000 «Abitur» at the Gymnasium Nepomucenum in Rietberg  
2001–2004 Course of studies at the Berufsakademie Stuttgart  
Specialisation: electrical engineering/automation technology

Mr. Otterpohl works as a development engineer in our Design + Development department.



## Microcontrolled hybrid relay component with a modular design for universal use

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In certain applications, both electromechanical relays and semiconductor relays have proved to be far from ideal because of specific properties. If a long service life is required where the stressing is high, an electromechanical relay is often overstretched. On the other hand, the use of a semi-conductor relay is frequently not practical because of the space required for the heat sink. As Lütze develops products predominantly for the

### Branko Czibrin

1983 Born in Altenburg  
2001 «Abitur» at the Platanen-Gymnasium in Altenburg  
2001–2004 Course of studies at the Berufsakademie Stuttgart  
Specialisation: mechatronics

Once he had finished his studies, Mr. Czibrin left the company.

industrial sector, high demands are placed on the reliability and service life of its electronic and mechanical components. A combination of both technologies in the form of a hybrid relay was to prove to be the answer to these requirements.

Necessitated by the hybrid technology, Branko Czibrin had to develop suitable control electronics that could satisfy the timing and technical safety requirements of the industry and yet remain controllable with plenty of flexibility. Also the mechanical components would have to be capable of withstanding the effects of an industrial environment and protecting the electronic components used.

The result of Branko Czibrin's work is a fully functioning prototype at a full stage of development. After a development period of three months, a product was created which not only satisfied the formulated requirements, but, over and above these, has also proved to be very universal in terms of functionality and electrical properties. This was achieved by the great number of possible equipment alternatives and the modular design of the software.

The finished device which is ready for series production will be presented at the 2005 Hanover trade fair.





# LÜTZE IN GLASS AND STEEL PRODUCTION

Jimmy Oebel



When planning and building a galvanising plant with an annual capacity of **400,000 tonnes** of galvanised steel at its **MARDYCK factory in northern France, STEIN HEURTEY** decided to put its trust in **ARCELOR**, a worldwide leading steel producer.

Over the last century, **STEIN HEURTEY** has been able to build up an excellent reputation as a manufacturer of high-tech kiln systems that are supplied to buyers all over the world. According to a statement from its General Manager, the declared objective of the company is as follows: occupying a worldwide lead-

ing position in glass and steel production in combination with a high level of added value. This is achieved by the development of innovative, more efficient technologies, with which customer requirements can best be satisfied.

As far as the works managers in the steel division are concerned, **gaining or saving space** always has a key role to play. When planning manufacturing facilities for the production of laminates (galvanised steels), the **switch cabinets** are installed **above the kilns** in a so-called «gantry configuration» **in order to gain floor space.**

However, even on these gantries the available space still proved to be extremely limited, meaning the technicians of **STEIN HEURTEY** were confronted with the problem of having to accommodate not only the switch cabinets but also all the automatic components necessary for the equipment.

This is where the **Lütze LSC wiring system** was the **ideal solution.** It not only allowed the installation of all the components and spares, **but also made it possible to shorten the almost 5 m long switch cabinets by 400 mm per cabinet at the same time. The length gained in this way is the equivalent of six switch cabinets if they have been wired in a conventional manner.**

# LÜTZE INTERNATIONAL

Think global, act local. Get in direct contact with your local Lütze partner.



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# Did you already know ... ... WHAT AGIE CHARMILLES AND LÜTZE HAVE IN COMMON?

Karl Heberle



With a market share of approximately 40%, **AGIE CHARMILLES** is the leading manufacturer of machines for electrodischarge machining (EDM), as well as milling machines in the high-speed machining (HSM) sector. In this sector of industry, this company is the world's **number 1** and **technological leader**.

All market sectors are covered by the range of machinery that AGIE CHARMILLES has to offer. Mouldmakers and toolmakers of all sizes (even SMEs) benefit from the high quality standard of its machines and systems, as well as from an **outstanding price to performance ratio**. The company is also a **world leader** in terms of service, maintenance, spare parts and consumables.

The two companies, **CHARMILLES TECHNOLOGIE** in Schaffhausen/Geneva and **Lütze AG** in Siebnen, **have cooperated as business partners for many years**. Apart from control components from **Lütze's** extensive product range, such as relay modules, interference suppression units, etc., two special applications have also been implemented. This is why **Lütze** was involved in the solution of an interference suppression problem on pump motors in the area of a coolant supply to die-sinking and wire EDMs. With the unit **that Lütze developed and built for**

**CHARMILLES**, not only the interference problem could be solved (diversion directly on the cause pump) of inductance that could prove hazardous for the electronic environment, but it was simultaneously also possible for several logistic and cost-reducing measures to be introduced. This **interference suppression module** (please see illustration) was supplied by **Lütze** fully **assembled, sealed and ready for connection**. The connecting cable is extended, fitted with protective sheathing and plug connectors. The wires at the motor end are also ready for connection (fitted with fork and ring cable lugs). Both connecting ends are marked in such a way that there is absolutely no danger of mixing them up when connecting to devices or in the switch cabinet.

As an option **CHARMILLES** offers its customers an automated tool changer in the case of die-sinking EDMs. The control unit for this option was built a year ago with a conventionally wired baseplate

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In discussion with

**Mr. Jean José Paccaud (Managing Director)**

of CHARMILLES TECHNOLOGIE Maschinenbau AG, Schaffhausen, we found out a few facts and figures about the AGIE CHARMILLES GROUP ...

- The most important companies in the Group are **CHARMILLES, AGIE, MIKRON, SYSTEM 3R**
- The EDM and milling machines are manufactured at a total of seven production locations in Europe and Asia (China).
- Every year the Group builds about 2,000 machines.
- Also, the company has over 30 sales and service companies located in Europe, North and South America, as well as Asia.
- Group turnover is CHF 1,000 million.
- The company employs 3,100 people.

After several years of difficult economic conditions, some structural adaptations within the Group, but also on the basis of pleasing figures as regards order intake, Mr. Jean José Paccaud is convinced that the AGIE CHARMILLES Group has already passed through the economic low point and is now on the up.







Interference suppression module

with a footprint of approximately 450 x 350 mm. As this was very costly and involved a lot of wiring and **CHARMILLES** was on the look-out for a more favourably priced solution, Lütze was given the job of working out a new design for this control unit.

The problem facing us was clear: nothing could be modified that would affect the operation of the control unit, but at the same time all possibilities for savings had to be taken advantage of.

A **special Lütze model** from the **Varioprint 2000** series resulted from the old-fashioned baseplate. This unit can be snapped into DIN track and has a footprint of just 210 x 75 mm (the previous version was 450 x 350 mm). The direct plug-in method was used for the connecting terminals. Together with the 50-pole ribbon connectors, this new **Lütze special module** is fast, service-friendly and cost-effective to install.



In discussion with

**Mr. Cemil Tugral (Purchasing)**

of **CHARMILLES TECHNOLOGIE**

Maschinenbau AG, Schaffhausen,

we learned of a few arguments that were decisive in the decision to use these special Lütze applications at CHARMILLES...

#### **Interference suppression modules for pump circuitry**

- An improvement in quality (no failures in the case of Lütze interference suppression modules)
- Interference suppression module and service (assembly) from a single source
- Short communication paths
- Cost savings thanks to simplification of logistic procedures
- Product-related cost savings

#### **Control unit for tool changer**

- Space saving in case of control unit
- Efficient, time-saving wiring and installation
- Cost savings thanks to simplification of logistic procedures
- Product costs could be reduced by virtually 50%

Mr. Cemil Tugral also mentions that he is «...convinced that the Lütze company is in a class of its own thanks to the advice it provides, its support with deliveries, as well as its great flexibility. Lütze is a business partner and supplier I am only too happy to recommend to other people.»

