Edition 18

LUTZE-REPORT

The international magazine of the Lütze Group

Systematic Technology

LÜTZE CORPORATE DESIGN

NEW SALES AND MARKETING COMPANY IN BARCELONA

SPECIALISTS FROM STREULI AG

DOUBLE PACK!

THE QUANTUM LEAP

LÜTZE GETS AIRPLANES OFF THE GROUND FASTER

TAILOR-MADE CABLES

LÜTZE GOES ON STAGE!

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EDITORIAL



Friedrich Lütze Founder of the Lütze Group

Into the future ...

Whilst building up and expanding the Lütze Group during the years that have gone by, I have had the opportunity to get to know and appreciate the importance of first-rate cooperation with many customers, suppliers and members of staff.

This period of time represented a new part of my life, having lost my homeland and been a prisoner-of-war, and it gave me a great will to live and the great optimism needed to tackle a new beginning.

Consequently, as I look back, I can say: «The efforts needed to build everything up were well worth it!» Now the time has come to carry on the work I started with lots of energy and confidence. And nobody could understand this better than my son, Udo, who took over control of the Lütze Group with effect from 1 January 2006. I sincerely hope that you will continue to put your trust in us, in order to build up a prosperous partnership together.

Finally, I would like to express my sincere thanks to those of you who have remained loyal to our group of companies and I hope that cooperation between our companies will continue long into the future, to the mutual benefit of both parties.

I will continue to help the company in the years to come with both advice and practical assistance and take an active part in the future challenges of the Lütze Group.

Yours sincerely, F. Lütze

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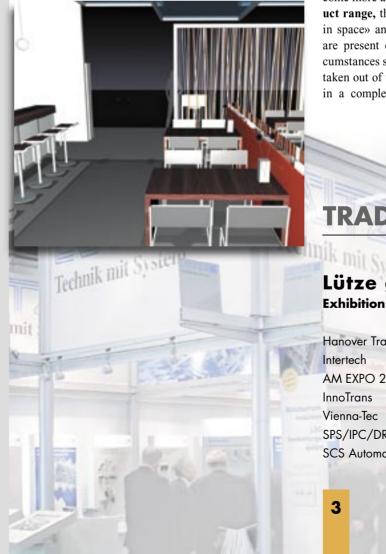
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FUTURE FOCUSING OF LÜTZE CORPORATE DESIGN

Wolfram Hofelich, Germany

At the 2006 Hanover Trade Show, Lütze continued down the path towards projecting a standardised image to the outside world. Working together with the internationally active exhibition and design agency MMD GmbH from Munich, a new exhibition concept has come into being with innovative ideas and unconventional solutions.

Our top priority is always the recognition of the Lütze brand on the market. With the aid of the use of the visual key space station, observers should have a durable image of Lütze



hibition stand.

Thanks to the use of high-quality materials, unostentatious elegance and clear lines, visitors to the Lütze exhibition stand should experience a feeling of well-being and will be encouraged to linger a little. Inside is a lounge with a bar area, where visitors can be served with the culinary highlights of Southern German cuisine, but at the same time become more acquainted with the Lütze product range, thanks to presentations, «objects in space» and samples. Lütze products that are present everywhere will under no circumstances seem obtrusive, as they are often taken out of their usual environment, shown in a completely new context and perhaps

TRADE

Lütze goo Exhibition

Hanover Trade Fa Intertech AM FXPO 2006 InnoTrans Vienna-Tec SPS/IPC/DRIVES SCS Automation



printed products and Internet sites, and the same now applies to visitors to our new exsometimes will only be perceived subconsciously. So, for example, a cable will appear to be nothing more than a room divider or screen in the lounge, but seen from the outside the cable will serve as a demonstration of Lütze's extensive product range. The external part of the stand is divided into four sections, allocated to our four product ranges. After an initial overview of the wide product range on the large display cabinet wall at the front of the stand, the customer can then look for individual specialist areas and get more specific information.

Lütze's new exhibition presence is the crowning glory of six months' preparatorv work and will, in its own way, certainly support the materialisation of many interesting discussions and contacts.

FAIRS			
es arou		vorld	
	Date		Place
air	24 – 28	April	Hanover
	11 – 13	May	St. Gallen
	16 – 17	May	Greenville
	19 – 22	September	Berlin
-	1 <mark>0 – 1</mark> 3	October	Vienna
-	2 <mark>8 – 3</mark> 0	November	Nuremberg
& Control	05 – 08	December	Paris

Lütze S.L. Spain **NEW SALES AND MARKETING COMPANY IN BARCELONA**

With the arrival of Mr. Martin Brinkmann in March 2005, the sales and marketing company Lütze S.L. started up its activities in Spain. The aim is to actively look after and support existing customers in the automotive industry, as well as to expand the business to include other branches of industry in Spain. To achieve this, a network of technically competent distributors will be set up that will cover the main regional and industrial centres on the Spanish mainland.

In fact, Spain is the country in the European Union that has experienced the greatest industrial change over the last 30 years. A large number of car manufacturers have established themselves there and in so doing have contributed to a growth rate that is yet to be beaten in Europe. Spain has become an interesting production location which has quickly attracted the attention of other branches of industry.

Apart from the building up of the sales and marketing structure, another of Martin Brinkmann's main duties will be giving technical advice to distributors and customers. Also, his direct contact with HQ in Weinstadt will guarantee rapid reaction times when working out customer-specific solutions. «It is clearly visible how the company motto of «System solution» will actually be implemented here,» comments Martin Brinkmann, who has now lived in Spain with his family for 13 years.

As a result of his previous professional activities, he has a very practical knowledge of the application of Lütze products. Having trained to be an electronics engineer working on energy systems with German Railways and after his studies in electrical engineering at the universities of Osnabrück and Limerick, Ireland, he first worked as a project engineer in Asturia, Northern Spain, where he was involved in the automation of sewage treatment plants. Then followed many years of employment with the subsidiary of a German automation company based in Barcelona. Here, as Project manager, he brought to fruition roduction lines in the most varied sectors of the automotive industry in Europe, Central

and South America. These included the automation of presses, welding systems, floorstanding and suspended conveyor systems, paint lines, cavity preservation systems, material flow systems, air conditioning systems for large halls, etc. In a subsequent job as service manager for a printing house, he gained considerable know-how in the printing industry.

«I had already got to know and appreciate Lütze products in my many years working as a system builder, so the decision to get actively involved in marketing them was an easy one to make. It is clear to me as someone with a technical background that I can only offer products in a credible manner if I am personally convinced of their quality. That is never a problem where Lütze components are concerned.»

Klaus Jüngling, Germany

Physics does not work completely without analogue measurements. Even if digital freaks would like it to.

State-of-the-art technology: a new era in signal conditioning is beginning thanks to a modular design realised by the Schuhmann and Lütze companies. The first available module in an extensive product family is already winning people over with certain features that were unknown up to now. The next stages are wireless transmission with BlueTooth, Zig Bee and WLAN, as well as various field bus coupling options.

New, slender temperature transducers for universal sensor linking

The new universal transducers for different sensor signals will be used for precision temperature measurement in virtually all temperature sensors. Measurements can be made in both low and high ranges, e.g. in air conditioning and process engineering applications. Their flexibility means they can be used in a range extending from -200°C to +2400 °C. Sensor breaks and short circuits are signalled and can be used for safety functions. In the case of Pt sensors, various connecting systems are available for selection with 2-, 3- and 4-conductor technology. In this respect, even in the case of 3- or 4conductor connections, the measuring line detects breaks in the wire or short circuits.

The redundant connection of thermocouples to the transducer offers a higher level of operating safety. Safety function and error messaging thanks to signalling via LED. The low-voltage version of the transducer boasts safe electrical isolation. Both the input and output sides are also made safer by overvoltage protection and transient protection.

Outstanding features

- Compact design, 6.2 mm
- Universal temperature transducer, Pt100, Pt500, Pt1000, Ni500, Ni1000, PTC, KTY • Thermocouples, types J, K, L, N, S, pots. 0 – 5k

- Offset and measuring range flexibly adjustable, calibrated measuring range switching and selection • Definition of alarm function, detection of sensor breaks and short circuits,
- temperature drop, tendency function
- High verification level, amongst other things due to TAG number and serial number · Selectable function setting for redundant thermocouples

- Status and error display on front of unit Safe isolation 2.5 kV
- All functions in a single unit



Double pack! **TWO RELAYS IN A SINGLE MODULE**

Lütze presents its new «Microcompact» DC relay interface range. Despite a design with a minimal width of just 6.2 mm, two relays and two closers are soldered into it.

Amongst the strengths of the new Lütze Microcompact relay module are the high level of electrical isolation between the input and output circuits, flexible adaptation to various signals and non-sensitivity to electromagnetic fields and voltage peaks. The two separate relays in the Microcompact modules are suitable for switching direct and alternating current with very low switching loss. The nominal input voltage per relay is

24 V DC with a nominal current of 10 mA. On the output side, the maximum switching voltage is 250 V (AC/DC) with a maximum switching current of 3 A (AC/DC). These new Microcompact modules are equipped with status LEDs plus a free-wheeling diode and polarity reversal protection diode. Lütze offers its Microcompact relays with top-quality connecting systems using either screw or spring connections. Both versions snap easily into TS 35 mounting rails.



A quantum leap in the conditioning and standardisation of analogue signals FREELY PROGRAMMABLE SIGNAL CONDITIONING

- High level of accuracy, Pt100 range -200...50 °C
- Universal outputs, 0(4)...20 mA, 0...10 V, up to 21.2 mA/10.6 V
- Output function as per NAMUR NE43
- High level of operating safety, redundancy thanks to 2 thermocouples
- · Internal and external neutralising compensation in case of thermocouples

H. STREULI AG THE SPECIALISTS IN LIQUID FILTER SYSTEMS AND MAGNETIC SEPARATORS

Karl Heberle, Switzerland

Founded in 1970, Streuli AG, with its head office in central Switzerland, has developed in recent years into a highly proficient specialist in the field of liquid cleaning. In 2001 the company moved into its own, new, custombuilt premises in the town of Meierskappel. 18 members of staff currently work here.

The Streuli product range at a

• Automatic magnetic filter systems

• Deep bed filter systems with endless

• Flat-bed filter systems with endless belts

• Paper belt filter systems

• Trough scraper systems

• Funnel magnetic filters

Streuli worldwide

Germany, France, Great Britain,

Centrifuges

Norway, USA www.streuliag.ch

alance

belts

It is above all manufacturers of grinding machines, such as Studer, Kellenberger, HTT and Voumard, to name just a few of the more well-known ones, that depend on liquid cleaning systems from Streuli. More and more manufacturers of industrial processing centres are putting their faith in this type of system. With these types of liquid cleaner, all kinds of emulsion and oil can be cleaned via the filter unit, set up for particle sizes from 5 to 40 µm.

Streuli's customers place great importance on the quality and functionality of these peripheral devices. Also, these systems often have to comply with the high demands of national and international standards, as well as satisfying in-house regulations. Streuli depends on individualised construction that is still in compliance with the relevant standards, along with a high quality standard and an excellent price-to-performance ratio.

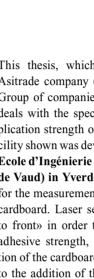
It is for this reason that Streuli AG relies on its suppliers to also conform to the demands and specifications of its customers when it comes to their materials.

In the conductor field, the Lütze product range of PUR conductors fully complies with the requirement for complete resistance to oil and other lubricants (a requirement of grinding machine manufacturers). It is also often the case that the technical requirements of customers with regard to EMC must be taken into consideration when designing systems. With Lütze anti-interference modules, motors, valves and contactors are switched to protect the electronically controlled machine environment from inductive voltage peaks, as well as to increase the service life of contact elements (contact protection).



In discussion with Mr. Stump (proprietor of Streuli AG) a few arguments for cooperation with Lütze came to light which were also decisive when it came to using Lütze components.

«As a small company, we have to have reliable suppliers. In Lütze we have found a long-term business partner with a large product range at its disposal that is able to offer both competent advice and customer-specific solutions. Furthermore, the high availability level of materials, short delivery times and flexible, prompt order processing are of great benefit to us. Lütze is a business partner and supplier I am only too happy to recommend to other people.»

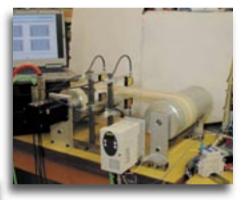




HEIG THESIS BY JULIEN BOBST

This thesis, which was proposed by the Asitrade company (part of the Swiss Bobst Group of companies), amongst other things deals with the specification of adhesive application strength on cardboard. The test facility shown was developed by HEIG (Haute Ecole d'Ingénierie et de Gestion du Canton de Vaud) in Yverdon-les-Bains and is used for the measurement of adhesive strength on cardboard. Laser sensors are applied «back to front» in order to be able to display the adhesive strength, irrespective of the position of the cardboard in the machine. Thanks to the addition of the signals from a pair of laser sensors, you get a signal for adhesive strength input that is always constant. The special feature of these sensors is that they deliver 4 to 20 mA at the output, whilst the recording card works with input values from 0 to 10 V. Model WAA 6-0506 transducer modules from Lütze supply the correct operating voltage for recording the signals.







The most important advantage offered by this Lütze product in comparison with a circuit that has an operating amplifier is the avoidance of a non-linear effect. Inputting the overlay amplification and offset in the data acquisition program makes a higher level of measurement accuracy possible. With this data acquisition system, a measurement accuracy of 0.02 mm is achieved (using a laser sensor with a resolution of 5 um).





cating crew up to the enclosed cabins from

the ground where they are exposed to such

hazards as winter weather, de-icing spray

Additional time savings are achieved thanks

to faster take-off times after application due

to the close proximity to the runway and

thanks to the fact that aircraft engines can

be kept running during the de-icing process,

allowing for an immediate take-off, which

is not possible with the traditional de-icing

systems where sometimes a second applica-

Lütze is excited to be part of such innovative

and advanced technology. Global Ground

Support now trusts Lütze Superflex Plus

control cables in their state-of-the-art de-

icing systems as the Lütze cable has shown

no signs of deterioration even after several

vears of operation while being exposed to

the winter weather elements as well as the

glycol-based de-icing fluid mixture. It is

evident that the use of Lütze Superflex Plus

cables has greatly improved the reliability of

the C-track that is part of these fascinating

de-icing systems. Due to the superior per-

formance of the Lütze Superflex Plus con-

trol cable at the Pittsburg International Air-

port de-icing systems, Global will implement

the use of Lütze Superflex Plus and a wider

range of Lütze cables in their other existing

and future applications.

and moving traffic.

tion is needed.

Superflex Plus contributes to keeping aircraft on time in winter conditions LUTZE GETS AIRPLANES OFF THE GROUND FASTER

Sari Gregson, Lütze USA

«ICEWOLF (SM) is an award-winning, state of the art aircraft de-icing system withunparalleled engineering and design features that offer significant cost savings, operational efficiencies, increased reliability, and environmental benefits when compared to conventional de-icing methods. With its unique capabilities, ICEWOLF (SM) provides the best options for de-icing aircraft in any situation under any weather conditions.» www.icewolfdeicing.com

Global Ground Support, LLC is an ISO-9001:2001-certified manufacturer of truck and pedestal-mounted aircraft de-/anti-icing systems as well as other truck-mounted high-lift cabin cleaning and catering trucks. Headquartered in Olathe, KS, Global Ground Support is an **industry leader** in innovative fluid-efficient de-icing systems and a major supplier to airlines, airports, ground handling companies, and military forces with equipment in service at over 85 airports worldwide.

Global is committed to the delivery of **topquality products and services** to its customers. Together with **Michael Baker Corporation** (Pittsburgh, PA) Global developed the **ICEWOLF Aircraft De-icing System** that uses **Lütze Superflex Plus** control cables in the computerised pedestal booms and operator cabs. This innovative technology offers distinct advantages over traditional de-icing operations getting more airplanes de-iced and off the ground faster. The ICEWOLF system replaces conventional de-icing trucks and moves the de-icing process from gates to a **centralised de-icing pad** close to the runway **freeing up gates** for incoming aircraft. There are two pedestal booms, one on each side of the aircraft, at each de-icing slot. There is an enclosed hydraulic cabin at the end of each boom, providing the operator an elevated vantage point over the aircraft. Consequently, the operator can manoeuvre the cab to the left or right, front or back, up or down, spraying de-icing fluid accurately where needed.

This innovative technology has **impressive cost savings** due to reduced glycol usage (precision mixing for existing weather conditions and centralised de-icing pads reduce capture costs), savings in operator costs (reduction of crew size needed), and reduced fuel costs for aircraft and trucks.



De-icing platform and booms.

Glycol conservation brings environmental benefits as well, which is a central issue in today's world. Other advantages include **enhanced safety** of de-icing personnel by relo-

Pictures courtesy of Global Ground Support, LLC.

CERTIFICATION AS PER DIN EN ISO 14001

Dr. Klaus Heyer, Germany

Initial situation

For many years, the subject of environmental protection has been an **important part of our company policy.** We understand environmental conservation to be our responsibility for the coming generations. We are of the opinion that economy and ecology complement each other meaningfully when it comes to environmentally responsible and sustainable company management. Consequently, a decision was taken to apply for **certification of our environmental management system (EMS) according to DIN EN ISO 14001.**

Successful system appraisal

Z E R TIFIKAT

Outlook

The environmental programme at Lütze is not closed, but is an **ongoing process** that is constantly being **adapted and updated**. We intend to continue improving our environmental performance on the basis of our environmental policy and EMS. In this respect, the development of integrated concepts takes centre stage, embracing the environmental compatibility of new products, their use and possible reintegration into the economic cycle.

In **May 2004**, we achieved our goal. In a combined audit, both our quality and environmental manage-

combined audit, both our quality and environmental management systems were appraised successfully, and for the first time a certificate was awarded for the company's EMS.

Building up an integrated management system

Since 1995, the quality management system of the Lütze Group has held a DIN EN ISO 9001 certificate. When building up the EMS, we took the opportunity to integrate our quality and environmental management systems. Health and safety at work were also incorporated at the same time. **Based on process orientation, a coordinated management system came**

into being which takes into consideration all significant company procedures.

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LÜTZE INTERNATIONAL

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

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Please send us more information about articles in this magazine.

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 $\hfill\square$ Please send us information about your entire product range.

☐ We would like some advice. Please call us.

From:

Firm

Surname/Forename

Address

Tel./Fax

E-mail

⁸

Lights, camera, action -LÜTZE GOES ON STAGE!

Nigel Broad, Great Britain

A visit to the theatre is always something to sayour and the entertainment value of shows and performances enriched by special effects and dramatic scenery. It comes as no surprise that behind these stunning results are complex control and automation systems.

One company which specialises in this field is Stage Technologies, based in London, who provide high quality automation solutions for any performance and entertainment application.

Decades ago, automation mechanics and control systems were designed on a «production by production» basis which resulted in lengthy and expensive commissioning. Identifying the need for modular systems which provide all the benefits of maintainability and upgradeability, Stage Technologies designed a standard product range from winches to control consoles. This means that applications involving large fixed installations to rental equipment for one-off events can be handled cost-effectively.

10

Stage Technologies work in a variety of different performance venues such as theatres, concert halls, performance venues and cruise ships, emphasising the need to provide a complete engineered solution for their customers.

Lütze has worked together with Stage Technologies in the design of special cables for use in the theatre environment. The cables are designed for continuous movement as the modern stage sets are extremely dynamic and many are controlled by servomotors. The overall number of cables required has been reduced by including different core and screen structures within one cable.

Stage Technologies undertook a project at the London Palladium, which is host to a new show called «Sinatra» aptly named so because it involves the music and life of the legendary Frank Sinatra. This show required the automation of a large number of moving scene elements, including projection screens and an aircraft wing propeller. To achieve the production deadlines, Stage Technologies required a fast turnaround in the manufacture of the cable assemblies, which was facilitated by Lütze.

Know-how offers many advantages CABLE ASSEMBLY

Luciano Begnini, Italy

After in-depth technical and commercial assessment processes, a significant international organisation that is involved in the field of lifting technology has taken the decision to use Lütze technology for the assembly of cables. The advantages resulting for the customer from this important decision lay, above all, in the service and precision of the assembly work. The economic aspect also had a significant role to play, here, because of the various cost factors that normally lie hidden and the scale of which is not always immediately recognisable.

With ready-to-use, assembled cables, customers can put the batches they receive into stock immediately using the bar codes which appear on the products in the form of an adhesive label. Then, after a few days, the assembled cables leave the warehouse for various assembly or maintenance locations all around Europe, to which they can easily be allocated thanks to the customer's drawing number and an alphanumeric code Allocation errors are virtually completely ruled out from the start thanks to this «3-way» technology of bar code, drawing number and alphanumeric code. In this way, drastic savings in costs and time are made, and for those customers that depend on a supplier of ready-to-use assemblies, certain disadvantages are finally a thing of the past:

We look forward to working with Stage Technologies on future projects in this very exciting industry.

Waste

- · Assembly errors
- · Carrying out electrical-acceptance testing
- Getting in touch with a number of suppliers for the purchase of different components
- Constant checking of inventory
- · Delivery delays

Cables come into stock and go out for use on time and in perfect condition technically. This is all possible thanks to the trust this customer has placed in us and thanks to Lütze's know-how where cable assembly is concerned.

Previously, our customer used to assemble the machines in his factory, carry out a test run for fine adjustment and procedure validation purposes and then detach the wiring before despatching the unit to his client. He set up the cable connections again on site and carried out a series of tests for performance acceptance purposes. Now the customer wanted to become more cost-efficient by simplifying the wiring, reducing the risk of wiring mistakes when installing the machine again on site and, above all, excluding certain tests, such as testing the phases of the motor for example. The solution was quickly

Optimisation of wiring service life: TAILOR-MADE CABLES

Raphaël Rossi, France

As a result of a special customer request, Lütze SA has developed an extension plug for conveyor system motors. This extension system is being found more and more in industrial applications because of reduced costs and a reduction in production downtime when carrying out repairs and regular maintenance. But these are not the only reasons.

> For example, one of our customers in the packag-

ing industry based in Paris confronted us with the following problem. As a manufacturer of packaging machines with 40% going for export, he equips his systems with low power induction motors.



to hand, because it sufficed to come up with an extension for the control system and power supply, as is the case with brushless motors.

Therefore, the task in hand consisted of finding a standard product that could be attached to any carrier medium, i.e. with a metric thread and under all operating conditions. Working together with our customer, we created a specification and Lütze defined the appropriate product as follows:

- a fixed plug connector with an M20 thread instead of the compression gland on the motor junction box, equipped with cable lugs for direct connection to the motor terminals
- an appropriate cable with M23 plug and Lütze cable

Thanks to the extensive range of Lütze cables available, the customer also found a cable that was perfect for his particular application and suitable for his machine environment.