

LÜTZE-REPORT

The international magazine of the Lutze Group

LUTZE PRESENT

AT INTERNATIONAL
TRADE FAIRS

WIFAG

WIFAG GETS
PRINTING MOVING

ELPEX

HEADING FOR SUCCESS

DOPPELMAYR

DOPPELMAYR STANDARDISE
CONTROL SYSTEM
PRODUCTION

METRIC SCREW-TYPE CABLE FITTINGS

THE END OF THE
ARMOURED THREAD

HANOVER FAIR 2000

INNOVATIONS FROM LUTZE



Systematic Technology

e d i t o r i a l

EDITORIAL



Friedrich Lütze
Founder of the
Lutze Group

Our LSC specialists are professional service providers

For some years now, the Lutze company has been offering a service, which, if taken advantage of, can bring considerable savings to our customers with regard to control system manufacturing.

Our LSC wiring system sales engineers are professional service providers! They can support your design department when they are working on control systems. They will show you how to save space and reduce costs.

In this way, working in close co-operation with yourselves, we can achieve superiority in the field of control system production and create added value you might otherwise have lost.

Take our word for it – we'll be happy to provide the proof.

Yours sincerely,

Friedrich Lütze

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TRADE FAIR PRESENCE

Lutze goes around the world:

Trade Fair	Location	Date	
Maschinenbaumesse	Nitra	29.05. – 02.06.2000	Lutze A
Eltec	Munich	28.06. – 30.06.2000	Lutze D
S.A.W.	Basle	05.09. – 08.09.2000	Lutze CH
Electrotechnik	Dortmund	06.09. – 09.09.2000	Lutze D
InnoTrans	Berlin	12.09. – 15.09.2000	Lutze D
Maschinenbaumesse	Brünn	18.09. – 22.09.2000	Lutze A
Sobodna	Laibach	02.10. – 06.10.2000	Lutze A
Efa	Leipzig	06.10. – 06.10.2000	Lutze D
Smart	Linz	11.10. – 13.10.2000	Lutze A
SPS/IPC Drives	Nuremberg	28.11. – 30.11.2000	Lutze D

WIFAG GETS PRINTING MOVING

The Bern machine manufacturer, WIFAG has a worldwide presence – virtually everywhere that newspapers are read. This trendsetter in the field of printing press production relies entirely on conservative forms of technology. The highest demands are placed on the design and construction of switch cabinets, components and materials. Consequently all key products are produced in-house by WIFAG's 800-strong workforce, even control elements, where WIFAG uses LSC wiring systems from Lutze, in order to be able to offer its customers optimum, space-saving solutions.

Fritz Herren, in charge of switch cabinet assembly at WIFAG and Kurt Schiesser from Lutze's field sales team states the following:

Fritz Herren: «When we started co-operating, we had one particular challenge:

the 1998 Football World Cup in France. We were aware of the fact, at that time, the daily press wanted to print higher editions with current match results with even faster turnaround times. The requirements we had to satisfy included, for instance, plate-changing on the fly, less waste and faster printing start-up, flexibility in local editions, smooth roll changes, etc. And one more thing, the delivery deadline, of course!»

Kurt Schiesser: «Fritz Herren came to me because of this back in 1996/97. And we thought out together how we could optimise the switch cabinets even further. With increased automation you have to have even more complex control systems with even more individual components...»

Fritz Herren: «...which, of course, must not take up too much space! Therefore, we decided on the LSC wiring system from Lutze. Working very closely together, we developed a new concept and then a prototype, which was difficult because we still hadn't made a detailed selection of individual items of equipment. **In a situation that was far from simple, Lutze proved themselves to be very flexible. And they were always on the spot if there were any outstanding questions at the planning stage.**

Initially, the new system required a rethink on the part of our people. But there were no problems in this respect – which is probably thanks to the young average age of our team and its high level of motivation. The advantages of the LSC wiring system are quite obvious: the arrangement of the equipment at one level is easy to see and the individual connections are very accessible. **By doing away**



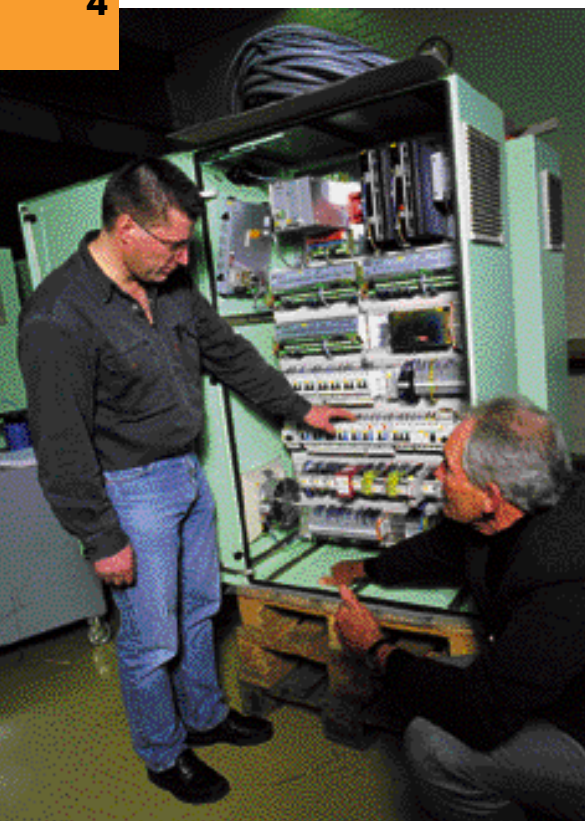
with the cable ducting, there are no longer any build-ups of heat. Electromagnetic compatibility (EMC) is guaranteed. And the space saving achieved really is remarkable!»

Kurt Schiesser: «Everything certainly was ready for the World Cup and ran exceptionally well.»

Fritz Herren: «Since then, we have used no other systems whatsoever. **Our customers in Argentina, Italy, Korea, China, USA, etc. are just as convinced about the LSC wiring system as we are.**»

Kurt Schiesser: «**And what about the future?**»

Fritz Herren: «Our order situation is very good; a further increase in production at WIFAG is planned. As «Press Pioneers», we also want to convince our international customers with our revolutionary innovations.»



HEINZ MUELLER, MANAGING DIRECTOR OF ELPEX AG: "HEADING FOR SUCCESS WITH SAFETY"

Control system manufacturing using the very latest, state-of-the-art technological developments – this is where the professionals of Elpex AG, which has its headquarters at Grenchen, are most at home. The systems produced in the Leuzigen manufacturing facility are put into service by well-known companies all over the world. In the most varied sectors of industrial automation: from the machine industry, industrial engineering and automation technology to the food-stuffs industry. «As a sideline» Elpex AG has established itself as a specialist in the field of safety engineering. This small but flexible business can supply everything from the same source – from planning via implementation and commissioning right up to service. **Together with Lutze's field sales executive, Kurt Schiesser, we had a chat with Managing Director, Heinz Mueller.**

Heinz Mueller founded Elpex AG in 1989. His former customer, ABB, enabled him to become independent, thanks to service contracts and orders for international commissioning jobs. This self-made man has been steering on a course for success for a good nine years. He had

to develop all of the elements relating to safety with protection for Rolex. This is in close co-operation with «SUVA»: with a «safety tour», Elpex and SUVA visited interested companies with a truck and presented their findings. From there came even more contact for the Grenchen-based company. In the meantime, Heinz Mueller is frequently called in as a specialist in the event of industrial accidents, so that he can give his expert opinion and work out suggestions for future improvements.

Meeting challenges with quality products

«Safety risks can lie-in-wait in the smallest detail», Heinz Mueller explains. «If a single cable is faulty, for example in the automobile industry, that can lead to dead time and losses. Everywhere you look, people are trying to increase production speeds and economic viability. This means that the demands on all the links in the chain also become greater: motors become more powerful, tools work faster, coolants become more effective – and more aggressive and cables must be able to withstand more and more both mechanically and chemically.» **With Lutze as our reliable supplier of Superflex cable, Elpex can rely on total safety here. The cables which Lutze developed in co-operation with ABB that are capable of being towed thanks to special sheathing have proved themselves to be exceptional in extreme situations.**



Expansion planned

For eleven years now, a fully co-operative partnership has existed between Elpex and Lutze AG, which also supplies electric components and parts to Grenchen. «**Our relationship is highlighted by trust», Heinz Mueller believes. «I also find it a good thing that Lutze encourages an exchange of know-how between customers. In the end, everyone benefits from this open dialogue.»**

At the end of our conversation, the company founder tells us of his plans for the future: «We are going to expand and increase the workforce from 14 to 17. With this expanded team, we want to pick up more customers in the Zurich area, as well as Eastern Switzerland. Also, we shall be taking on an apprentice for the first time to train as an automation engineer.»

Lutze will continue to accompany Elpex AG along the path to success. Field sales executive, Kurt Schiesser: «We look forward to being able to develop individual, optimised solutions together with our customers in the future.»



DOPPELMAYR CABLE CARS: DOPPELMAYR STANDARDISE CONTROL SYSTEM PRODUCTION



The Doppelmayr company is the world's largest supplier of circular single-cable railway systems, high-performance chair-lifts and the most up-to-date local passenger carrying systems. Even you will almost certainly have made your way quickly and comfortably to the top of a mountain using Doppelmayr equipment. Doppelmayr technology has already achieved worldwide fame. Over 8,000 systems have been installed in 67 countries all over the world. Since 1998, Doppelmayr has also been using the unique LSC system from Lutze for the control systems in their switch cabinets. The reason for this is that, in the wake of redesign work, they were endeavouring to standardize cabinet layout and, in so doing, reduce wiring costs. Despite standardization, the various prerequisites of the customer resulting from the limited amount of space available in mountain stations, which in turn affects the dimensions of switch cabinets, which had to be adhered to.

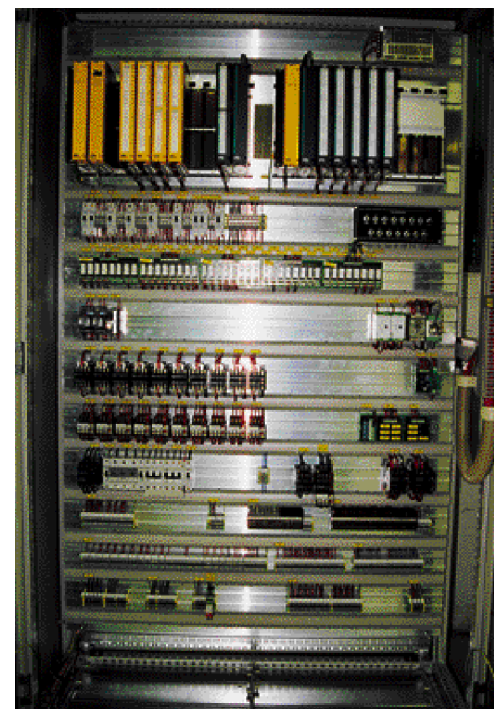
Over and above this, Doppelmayr wanted to achieve a massive cost-saving, by integrating the top-of-the-range version of the control system, inclusive of all possible features in the smallest possible cabinet design.

Working in close co-operation with the experts from Lutze, who were able to fall back on many years' experience in the planning and design of control systems, a structure was created which made it possible to manufacture a uniform version. All the necessary elements and optional extras according to the customer's requirements could now be mounted on a standardised LSC chassis.

With LSC from Lutze, it was possible to save so much space that vertical terminal strips, which previously had to be mounted on the walls of the cabinet, could now be fitted horizontally on the base. It was even possible to include a special track as the lowest ele-

ment in the cabinet for cable clips and EMC clamps which support screened cables.

This also enabled the company's tight schedules to be better adhered to because a company like Doppelmayr must prepare its products in the spring, assemble them in the summer, put them into operation in the autumn and then maintain them throughout the winter. **The benefits that Doppelmayr gained from this only helped to enhance the reputation of a cable-car and chair-lift company which, it goes without saying, insists on the highest possible safety standards, as well as outstanding levels of quality and reliability in its products.**



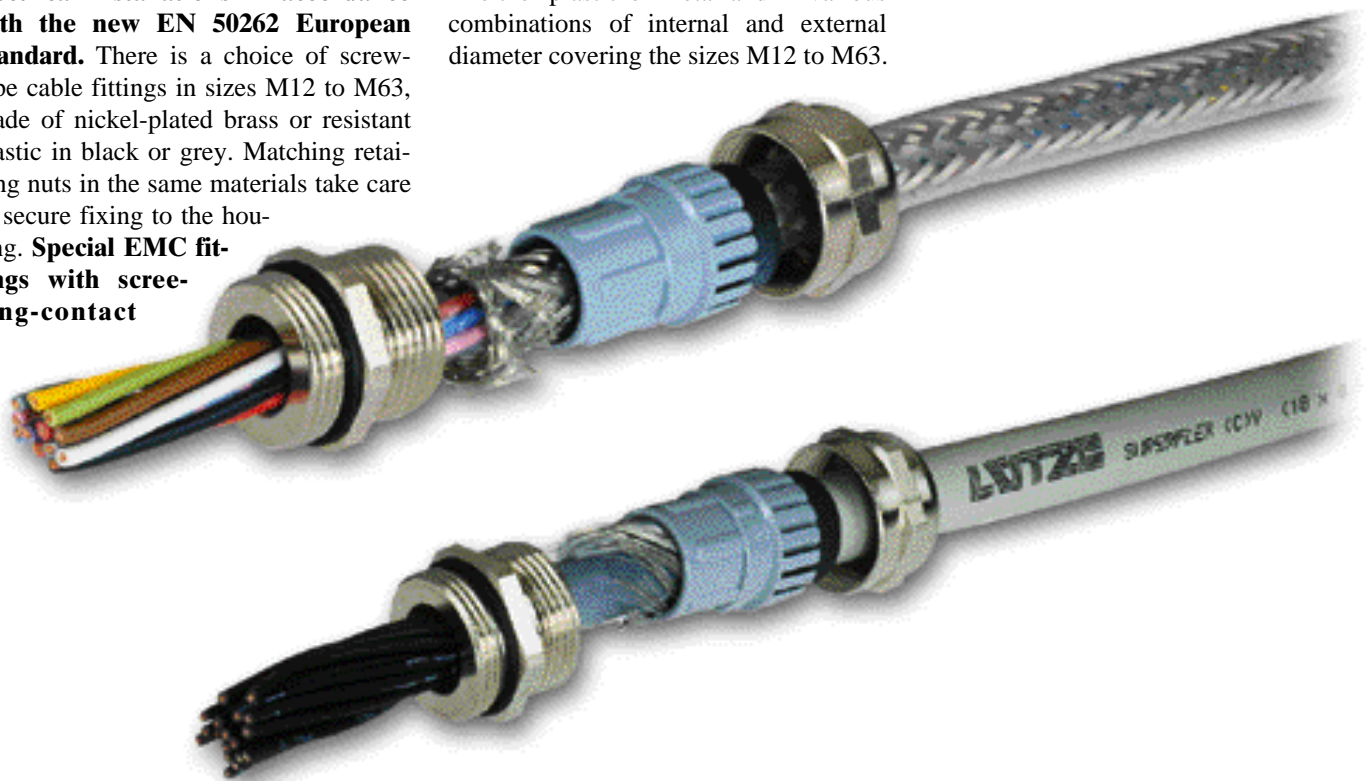
METRIC SCREW-TYPE CABLE FITTINGS FOR ELECTRICAL INSTALLATIONS: THE END OF THE ARMoured THREAD

At the start of this new millennium, the DIN Standard for screw-type fittings finally ran out (DIN 46320). With it, a history of virtually 75 years worth of armoured threads came to an end. In the future, the old threaded connectors will be replaced by metric ones. **Anyone currently planning and setting up electrical installations should, therefore firstly take a look at the new European Standard EN 50262 for metric screw-type cable connectors** to avoid costly special solutions in the future.

The system specialist, Lutze, has an extensive assortment of metric screw-type fittings in its range, along with matching accessories, making possible electrical installations in accordance with the new EN 50262 European Standard. There is a choice of screw-type cable fittings in sizes M12 to M63, made of nickel-plated brass or resistant plastic in black or grey. Matching retaining nuts in the same materials take care of secure fixing to the housing. **Special EMC fittings with screening-contact**

guarantee the best possible protection against electromagnetic disturbance at the interface between line and housing. Retaining nuts with cutting edges have been developed for potential equalization which also ensure that optimum contact is achieved, even in the event of thick layers of paint or powder coating. There are also M20 screw fittings with inserts matched to the line cross-section for the bus cable of the AS interface now widely used in machine installations.

The range is completed by reducing rings and enlargements for varying external and internal diameters. It is also not a problem if the holes drilled do not fit the diameter of the cable exactly. The reducing rings and enlargements are available in either plastic or metal and in various combinations of internal and external diameter covering the sizes M12 to M63.



HANOVER FAIR 2000: INNOVATIONS FROM LUTZE

From Ethernet networking to switch cabinet components: system engineering from the same source

In many branches of industry today, system engineering is making its presence felt. Friedrich Lutze GmbH of Weinstadt has already made a name for itself as a supplier of practical system solutions for machine and system installations. The latest development was on show at the Hanover Fair 2000:

Industrial networking with Ethernet

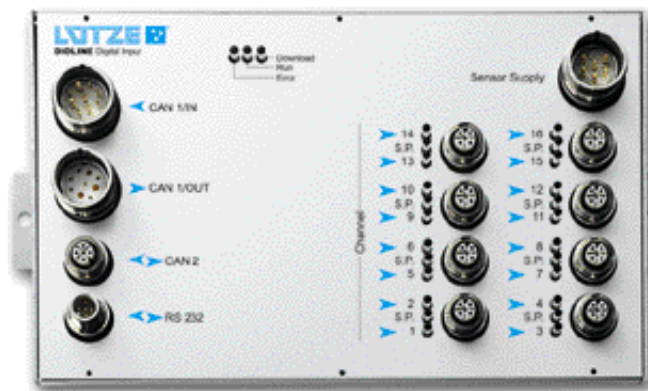
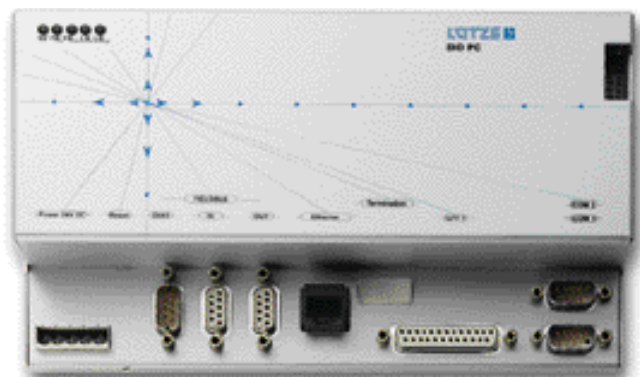
At the moment in the world of automation engineering, there is one trend on everybody's lips: industrial Ethernet. Ethernet technology and the TCP/IP protocol used with it make completely new approaches to solving problems possible in the field of industrial automation. **On the Lutze stand, the components enabling the use of the new options were on show: the complete DIOLINE program includes everything necessary, starting with the decentralized control system, via top-hat rail PCs for visualization of the process and work and powerful software up to the interfaces with conventional field bus equipment.** Among the highlights at the Fair were the new DIOLINE modules, executed to IP67 standard, which can be used as robust field connectors with direct Ethernet access. Thanks to integrated computing, they are also used simultaneously as decentralized miniature control systems according to DIN/ISO 1131-3.

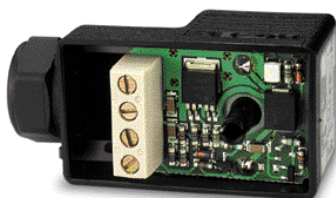
Semi-conductor coupling at the price of a relay coupling

Other new products at the Fair were AC and DC semi-conductor couplers which cost no more than versions using relays. In this way, all applications can benefit from the long service life and reliability of the electronic switches. The non-wearing semi-conductor couplers are availa-

ble in both AC and DC versions in a compact micro-housing that is a mere 6.2 mm in width. They are particularly well-suited to the switching of large or

small inductive or capacitive loads. Inductive loads are separated in the zero crossing. Matching semi-conductor switches are also supplied for special applica-





tions. In Hanover the system specialist represented itself as the first manufacturer of short-circuit-proof versions of valve connectors.

Practical systems for drag chains and switch cabinet construction

Practical handling, reduced installation costs and the minimum possible space requirement also characterise the other systems from the House of Lutze. Drag chain systems, for instance, are a particularly ideal solution for the series production of machines. The highly flexible cables in the drag chains are designed for maximum stress caused by repeated bending and are available in an extensive range of combinations of cross-sections and numbers of wires. For switch cabinet production, there are now available from the tried and tested LSC system, complete standard frames for building in which considerably simplify and reduce the number of items to be ordered and installed. The LSC compact system, especially developed for decentralized control systems, can also, if requested, even be delivered with everything fully fitted in the cabinet.

We, from Lutze, would like to thank all visitors who have accepted our invitation to visit our stands.

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Make direct contact with your local Lutze partner.



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Topic _____ Page _____

_____ Page _____

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E-COMMERCE WEBSITE FOR THE CONTROL INDUSTRY AND THE AUTOMATION ENGINEERING:



Company headquarters in Charlotte, USA.

Charlotte, NC – 1999 was the year that Lutze Inc. Made a full-fledged commitment to servicing the customers over the Internet. The Internet can not change our lives because it already has done so. No matter if we use it directly or benefit from the information provided through a third party, the Internet is here to stay and it is going to play a major role in our industry.

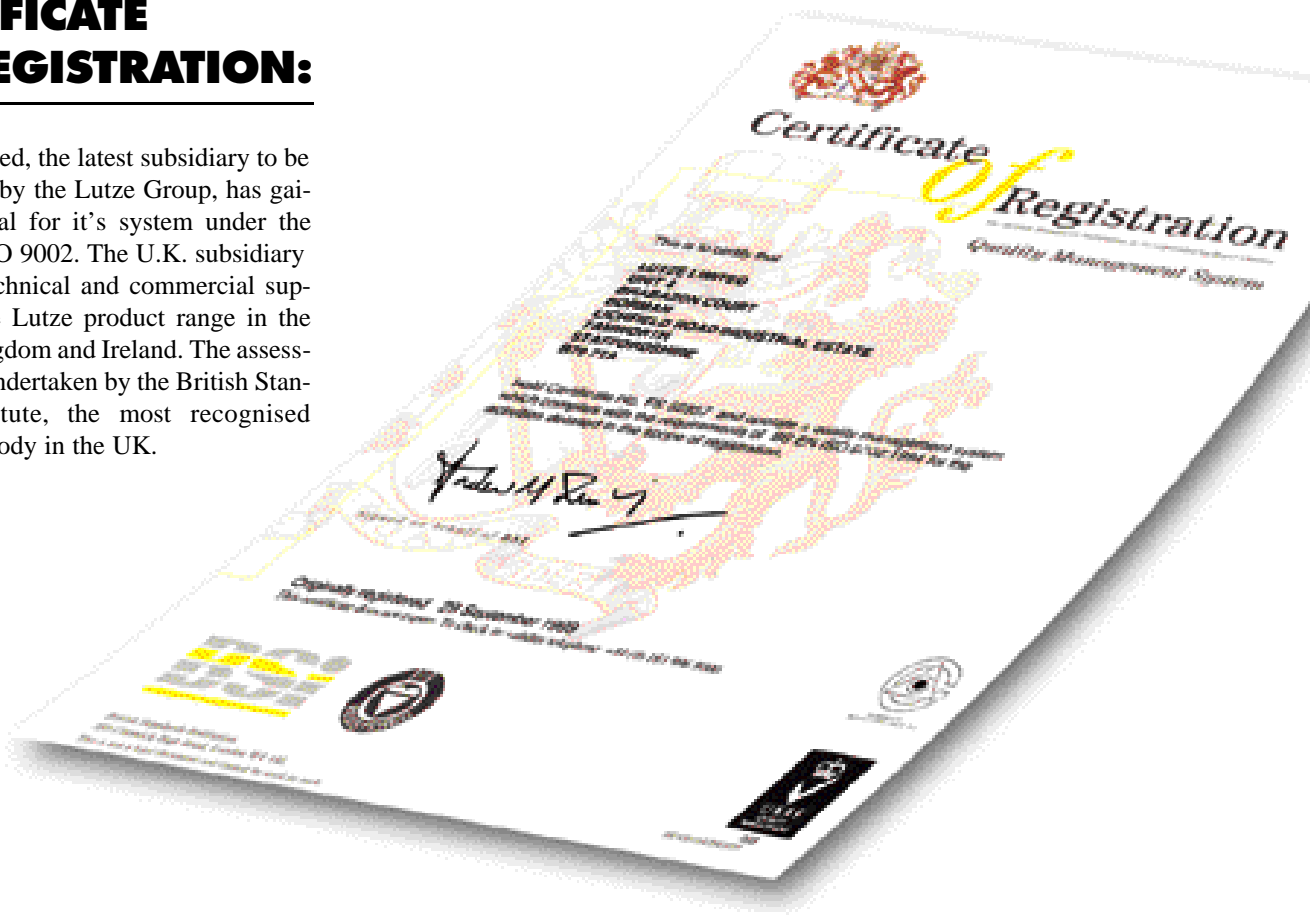
The goal of e.lutze.com is to create a one-stop information center that is open to Lutze customers and partners 24 hours a day, 7 days a week. Projects are not being realized on a nine to five schedule and engineers need more information than just the catalog or printed brochures. E.lutze.com was developed for our customer, Reps and distributors alike.

Visit our E-commerce Website:
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CERTIFICATE OF REGISTRATION:

10

Lutze Limited, the latest subsidiary to be established by the Lutze Group, has gained approval for its system under the scope of ISO 9002. The U.K. subsidiary provides technical and commercial support for the Lutze product range in the United Kingdom and Ireland. The assessment was undertaken by the British Standards Institute, the most recognised approvals body in the UK.



AUTOMATION: COMMUNICATE WITH ALL INDUSTRIAL APPLICATIONS



LUTZE SA has held two successful meetings about its DIONet product range for network solutions.

These two meetings took place together with the companies KUKA and ABB at the offices of the French subsidiary company, TAVERNY in the Paris area.

The representatives of fifty customers were present, which included RENAULT, PEUGEOT, COMAU, SNECMA, SNEF, FINUCHEM

These customer representatives were given practical demonstrations of solution packages with KUKA and ABB robots, during which the excellent experience of the LUTZE Group in the field of decentralised I/O technology in connection with networks was displayed..

Below are a few of the reactions of those present:

«Lutze is something of a pioneer in the field of high storage capacities and Ethernet connections...»

«It is interesting that the solutions also appear to make sense economically for somewhat smaller numbers of inputs and outputs...»

«A brand new perspective has now opened up for us and we shall be orientating ourselves much more in the direction of field bus systems which offer more flexibility, efficiency and security. For us it is a completely new perspective...»

«On that day, our view of LUTZE SA was merely confirmed. The IP67 decentralised

I/O modules offer greater modularity and can be connected to different networks. At last, the breakthrough we have been waiting for.»

«Each of these events days demonstrated the possibility of successful co-operation with the two robotics specialists. We hope that this will be the beginning of a great number of new projects with our customers.»

«The products showed their usability in multiple network systems. Yet further evidence of the improved quality of LUTZE's range with its products that are not only flexible, but also increasingly intelligent.»

