

LÜTZE-REPORT

The international magazine of the Lütze Group

SkyBLUE

METRO SHANGHAI

FRESH AIR IN LARGE HALLS

**LÜTZE DRIVEFLEX™ - EFFICIENT
TRANSMISSION OF ENERGY**

SMALL-SCALE WIND TURBINES

**QUALITY INITIATIVE:
C-TRACK CABLES**

VALVE CONNECTOR SUPPRESSORS

LESS SPACE, LESS COOLING - LSC



SYSTEMATIC TECHNOLOGY

e d i t o r i a l

EDITORIAL



Udo Lütze
CEO Friedrich Lütze
International Group

Values - the cornerstone of a company!

Normally, a company is defined by its products and services. We want to go one step further. With SkyBLUE, we have also defined values that act as the cornerstone of our company. After all, sustainable action with consideration for the world around us is more important than short-term success. Our aim is for our products and services to draw sparingly on resources, be manufactured using environmentally friendly materials and help our customers to save energy and raw materials. LÜTZE has worked according to these values for a long time, but with SkyBLUE, we are now communicating them, too.

I hope you enjoy reading this special sustainability-themed edition of the LÜTZE REPORT!

SkyBLUE - Innovative solutions for a more efficient world!

With kind regards,
Udo Lütze

SkyBLUE
LÜTZE



Additional information concerning the SkyBlue sustainability campaign from LÜTZE is available on the Internet at: www.luetze.de or at the following direct link: <http://bit.ly/t7U1LX>



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Metro Shanghai – LÜTZE is on board!

Olaf Gerberding/Frank Dong, Lütze Trading (Shanghai) Co.,Ltd.

China's Mega-Metropolis cities are facing the challenge of fast growing traffic. To relieve the environment from pollution caused by individual motor car traffic the development of urban mass transportation systems is one of the major topics and investments of the Chinese government.

This strategy fits perfect into the new "SkyBLUE" campaign of LÜTZE by taking over environmental responsibilities based on reliable quality products and their production.

The municipal of Shanghai operates one of the largest Metro networks in the world. 11 metro lines handle the amazing amount of 5.5 million passengers every day. This exceeds the total daily amount of train and metro passengers of the whole of Germany.

An underground incident may have devastating consequences. Not only could human lives be jeopardised, but there is also the possibility of environmental disaster. Guaranteeing the

safety of passengers and traffic is the challenge for engineers and designers.

In CSR (China South Railway) the engineers chose a special Fire Alarm System to detect and prevent possible emergency situations, such as abnormal temperature changes, smoke detection, control of external alarm device or similar.

A high level safety device demands a reliable and constant voltage supply even under most critical environmental influences. In close joint design cooperation between the customer and Luetze Trading (Shanghai) Co.,Ltd. a battery and voltage regulator solution was developed. This solution will help to ensure that every Shanghai citizen can enjoy a fast, convenient and ecologically friendly transportation. We call this "SkyBLUE".

Who would imagine that underneath these Metro vehicles, Luetze components are working as trusted safe-guards



Fresh air in large halls

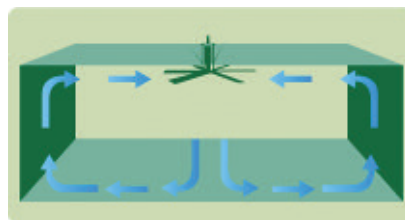
- Eloi Gomez, LÜTZE Spain



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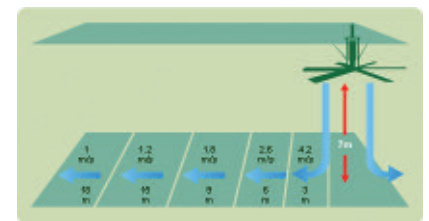
Magnovent is a company that specialises in industrial ventilation and energy efficiency. Its large ceiling fans shift enormous quantities of air using a minimum of energy, thus achieving optimum temperature distribution and saving on heating and cooling costs. An ideal and contemporary solution for efficient air conditioning, in keeping with the *SkyBLUE* philosophy - sustainability from LÜTZE.

These fans use HVLS (High Volume, Low Speed) technology, which allows a rapid turnover of air in closed halls. The fans have a maximum consumption of 1.6 kWh, but their blade design (1.82 m – 7.32 m) allows them to shift much more air than conventional ceiling fans. In large, heated buildings with high ceilings, there is usually a temperature difference of 1 °C per metre between the



floor and the ceiling. The fans push the warm ceiling air back down, increasing the temperature at ground level. When used together with other heating systems, they can generate energy savings of up to 45%! The large fans provide an even distribution of air without the need for expensive piping.

Thanks to the condensation effect on the skin, the Magnovent fans provide a cooling effect of 2 °C to 6 °C in summer. To-



gether with air conditioning systems, they also help to circulate cool air and generate huge savings by amplifying the temperature generated by the thermostat.

All fans possess a "reverse" function which can be used to channel moist or overheated air out through the roof of the hall. Furthermore, a central tactile control unit is available. This can be connected to a fire alarm system using customised software, which monitors the



corresponding operation times, temperature curves and other aspects of up to 64 fans.

This is exactly where LÜTZE and its products help with the installation of

sustainable systems. Perfect data connection play a key role in this system. LÜTZE network cables provide a high-quality, reliable solution. Specifically, the frequency converters for the individual fans are controlled by the central control unit. The BUS cable used in this system is the LÜTZE ELECTRONIC BUS (Art.-Nr.: 104207) or, if the owner wants a halogen-free version, the variant with a PUR outer jacket (Art.-Nr.: 104208).

Delivery for the LÜTZE products used in previous projects was extremely quick and flexible. The cable was sent directly from the LÜTZE warehouse to the end customer's construction site, right on time for the start of cable field installation. This meant there was no

need to transport the cable back and forth across the site.

With this application, LÜTZE has a presence in the exact areas where sustainability and energy savings directly benefit the customer – in keeping with the **Sky-BLUE** philosophy.

VFD and Servo Motor Cable for the efficient transmission of energy

In the USA, sales of Variable Frequency Drives continue to grow rapidly. The energy savings obtained by the use of VFDs are making the use of this technology more and more interesting as OEMs are looking for more ways to save money in their manufacturing processes.

The advantages of using VFDs to control motor speed and torque come with certain challenges, in particular in combination with long cable runs from drive to motor. The “Pulse Width Modulation” used in VFD applications causes a number of unique electrical issues which should not be ignored and must be addressed properly for safe operation. Cable is often an afterthought in the planning process but represents actually a very important component in the whole application. A cable that is not designed for use with VFDs may not be able to sustain the stresses caused by high voltage spikes and fast switching frequencies, thus causing operating malfunctions and may result in premature cable failure and downtime. Today’s VFDs require cable that takes all the unique electrical and EMC related issues into consideration and in the end improves the application and equipment lifetime.

LÜTZE DRIVEFLEX™ VFD and Servo Cable: A premium solution with XLPE insulation

XLPE is a very low capacitance insulation offering superior electrical characteristics for use as a VFD cable, especially in long cable runs. The XLPE insulation is a thermo-set material with a very high voltage breakdown level, thus inherently addressing the corona discharge effect and making it the premium insulation for any type of drive application.

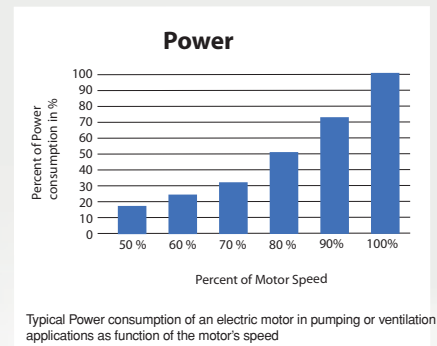
Lutze DRIVEFLEX™ XLPE is the most flexible XLPE cable in its class - offering easy stripping & installation, thus saving time and money.



DRIVEFLEX™ has also been evaluated by UL and is listed as “flexible VFD and Servo cable” and is multi-listed also for use as “tray cable exposed run (TC-ER)”.

The DRIVEFLEX™ cable family includes many different configurations compatible with many standard Drive and Servo Systems.

Lutze DRIVEFLEX™ cables are able to improve the Motor/Drive installation and transmit energy more efficiently than other wiring methods. This leads to a sustainable solution for your applications.



Small-scale wind turbines in France

Alain Lancelle, LÜTZE France

EOLYS is a company based in Vendée, western France, which manufactures small-scale wind turbines for farmers, communities and private use. Its speciality is wind turbines with a capacity of up to 36 kW. The company's range of services encompasses everything from research and development work, design, assembly and installation to maintenance and technical support for its systems.

When designing wind turbines, EOLYS's engineers draw on know-how from the aerospace, automotive and telecommunications industries.

EOLYS systems are designed around a horizontal axis. This technology, which can also be seen in old windmills and ae-

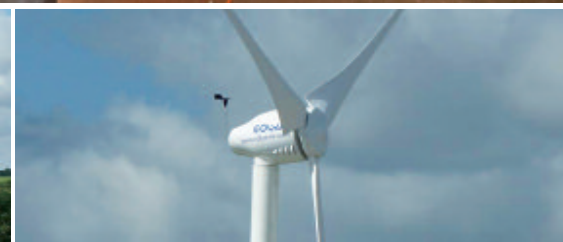
roplane construction, offers maximum performance for wind power installations.

EOLYS wind turbines use a synchronous generator with permanent magnets, which generates power and develops a frequency voltage proportional to the speed of rotation. In turn, this varies depending on the wind conditions. As such, the EOLYS generator type offers very high performance even at low wind speeds.

The turbines are installed on hollow steel towers, which offer greater resistance and a much better aesthetic impact than other solutions. The lifting station is sup-

plied by a hydraulic system with a 12 V engine, which can be powered by a car battery.

The materials used in wind turbines – especially the cables – are often subjected to tremendous strain. In order to ensure the reliability of the electrical connections under different currents and in the CAN network, EOLYS uses sturdy, compact LÜTZE SUPERFLEX® cables. In addition to their high resistance to environmental conditions, these cables are particularly noted for their resistance to movement – a factor that is of great importance when it comes to wind turbines.



Quality Initiative: C-Track Cables



LÜTZE has launched its C-track cable quality initiative and by doing so has set new standards for excellent engineering for the mechanical and plant engineering industry. With the new "LÜTZE SUPERFLEX® Connected" label, engineers can signalise to customers their commitment to the finest detail and their zero-compromise attitude. The "LÜTZE SUPERFLEX® Connected" label is synonymous with premium engineering and A1 quality for C-track cables. "LÜTZE Inside".

Customers buying a car will always first check the power, fuel economy and weight of the vehicle yet rarely inquire about which tyres are fitted. Industrial companies who invest in a new production line will also carefully study the performance specifications but do not pay attention to the cabling. However, it is precisely the cabling that causes premature breakdowns and unscheduled downtime of complete production lines! No wonder that the bending radius, travel distance, speed and acceleration have re-

sulted in an early death for some C-track cables.

This is why LÜTZE has developed the LÜTZE SUPERFLEX® cable program especially for C-track applications. The best electrical characteristics as well as a service life of up to millions of flex cycles are guaranteed thanks to an innovative construction, high-quality selection of materials and modern production processes.

The "LÜTZE SUPERFLEX® Connected" label is an indication that quality-conscious engineers have carefully selected and designed the cabling of moving system parts.

More information about LÜTZE C-track cables at <http://blog.luetze.de>

30 Years LUTZE Inc. USA

It was 30 years ago when our founder Mr. Friedrich Luetze (89) had the foresight to establish a business in the USA. As an entrepreneur it was clear to him that the future lay in global expansion. Participation in the world's largest economy was a "no brainer" and Lutze Inc. was founded in 1982.

And what a foresight it was. Today Lutze Inc. has become the largest member of the LUTZE INTERNATIONAL GROUP outside Germany. Excelling on the core values; "ship on time all the time, ship all products and the right products" has become one of the key elements for the success.

Whether it is wire & cable, factory automation or public rail transportation, Lutze Inc. is on top and provides state of the art solutions valued throughout the indus-



tries. "To maintain and grow the business over the last 30 years is not only a business challenge but also the result of the continuous efforts of our customer-focused employees, who strive to improve on an ongoing basis," summarizes Juergen Seybold, President of Lutze Inc.

It is Lutze Inc's pleasure to thank all the business partners and customers for their continuous support in developing an automation solution provider you can count on.

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Exhibitions 2012



Exhibition	Place	Country	Date
InnoTrans 2012	Berlin	D	18.-21.09.2012
MOTEK	Stuttgart	D	08.-11.10.2012
VIENNATEC	Vienna	AT	09.-12.10.2012
MATELEC	Madrid	ES	23.-26.10.2012
SPS/IPC/DRIVES	Nürnberg	D	27.-29.11.2012
Modern Railways 2012	Beijing	CN	27.-30.11.2012

Valve connector suppressors with power-saving features now available for harsh environments



The new LÜTZE suppressors for valves meet the demands of many industrial users who are looking for ready-made, pre-assembled components.

This suppressor fulfils protection class IP 67 with its pre-assembled PUR cable. Thanks to its moulded design, this energy reducer can be used in harsh environments and outside the control cabinet. The major advantage of the LÜTZE suppressor is a maximum of 50% reduction in energy consumption which means that the purchase price will be fully recovered within a year. The suppressor is commonly used for the power supply of hydraulic valves. It can also be used in a working temperature range between -25 °C and +80 °C.

The new LÜTZE suppressor is configured with a protection device and LED status indication. It can be used with a current range of up to 2 amps. In compliance with design A requirements, it has a contact distance of 18 mm. The new suppressor for valves meets the EN 175301-803 (DIN 43 650), ISO 4400 standards and the cable is UL and CSA certified.

LÜTZE dedicated to energy reduction

As part of its "SkyBLUE" corporate guideline, LÜTZE has been monitoring the sustainability of all its products and business activities for some time. The new LÜTZE suppressor for valves already fulfills the internal sustainability specifications. The power consumption of the controlled hydraulic valve can thus be cut by a half. Internal calculations conducted by LÜTZE estimate that the purchase price of the suppressor can be recovered within a year with permanent use. Another advantage: In the event of a power failure, an uninterruptible power supply only has to operate at 50% capacity, in other words, it can supply double the amount of time.



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Take it to the next level with SkyBlue – The new LÜTZE exhibition stand



Being innovative doesn't mean you have to neglect care and responsibility.

In fact, this combination is what has led to the result LÜTZE has been aiming for ever since its inception. SkyBlue is an emotional expression of this responsibility. This corporate philosophy was the motivation behind the new trade fair exhibit seen in Hanover in April.

Giant arches that mesh and connect with one another form the architectural expression of LÜTZE's corporate values. The architecture and design are accentuated by world of colour and imagery that create a feeling of well-being and are harmoniously integrated into the clear structure of the set. Entrance gateways, connecting bridges and ceiling elements that provide comfort and protection.

These highly emotional juxtapositions have been carefully selected to bring our message to life. However, that doesn't mean that our innovation and technical expertise for products and solutions has fallen by the wayside. Quite the contrary.

The arches create space for the individual service areas, which are simultaneously integrated into the communication level.

The product presentation takes place in the communication environment. Products are developed by people, so they require a continuous exchange of ideas.

The new stand concept allows visitors to "experience and feel" our wonderful combination of innovation and expertise with a heightened sense of responsibility and humanity in a technical world.

We invite all our visitors to experience our dedication to innovation and sustainability by talking to the LÜTZE team.

Less space, less cooling – LSC helps save energy

Energy-optimised plastic processing machines from Soplar are products for the global market. At LÜTZE, we are proud of the contribution made here by the LSC compact wiring system - part of our SkyBLUE philosophy.

Soplar s.a is based in Altstätten, Switzerland, and is not only a well-known provider of stretch blow moulding and blow moulding machines for plastic packaging, but also the market leader in this field. Many of the machines are shipped to the growth markets in Asia, the USA and South America.

Soplar's machines clearly place Soplar in a niche market. There are competitors that make machines for the plastic processing industry, particularly in Germany, Italy and France, but no-one can offer the same complete package for a wide range of blow forming machines.

However, the company's success is also down to another factor: "innovation" is the magic word. New machines have to be launched at ever decreasing intervals. It is extremely important to stay one step ahead of the game – and these days, this also applies to the ecological side of the business.

After all, plastic products leave their mark on the environment. Staff at Soplar have an increased sense of environmental respon-

sibility, and employ ongoing optimisation processes to reduce the company's effect on the environment to a minimum. Weight reductions and sophisticated recycling systems aid in the achievement of this goal.

In keeping with its **SkyBLUE** sustainability campaign, LÜTZE has made a valuable contribution to this drive. The LSC wiring system reflects environmental thinking in two significant ways. Firstly, the saving on space taken up by the control section has obvious advantages. But there is also another positive in terms of energy balance: the free-standing control ele-

ments optimise the temperature distribution so that less power is used on cooling.

The fact that this wiring system is used in Soplar machines demonstrates another of the LSC's advantages: its versatility. It is easy to combine with conventional sub-plates to meet individual requirements.

With this system, LÜTZE has once again demonstrated how energy-optimised products can contribute a little to sustainability in industrial production, all around the world.



The Future is BLUE

Sustainable enterprise means thinking and planning ahead, understanding and embedding the belief that long lasting success is more important than short-term profit maximisation.

This is an attitude that has existed within LÜTZE for quite some time.

Economic and environmental responsibilities complement each other well and are reflected in the sustainable management and product policy - and from now in the SkyBLUE campaign.

We manufacture our products in a resourceful and energy-conscious manner. We use long lasting, environmentally-friendly materials. And our products, in turn, help our customers save energy and resources.

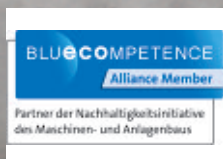
Good for everyone: for us, for the environment, for our customers a win-win situation.

Additional information about the LÜTZE SkyBlue sustainability campaign:

www.luetze.de or:
<http://bit.ly/t7U1LX>



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SkyBLUE
LÜTZE

From products to solutions!

Installation • Cabinet • Automation • OEM • Transportation

