



# up grade

Newsletter for customers, employees and partners

Volume 20, issue no. 20, October 2022

## ■ LASCO TRENDS

### **bauma 22 - trade fair of superlatives**

After a compulsory break of two years, the international construction industry expects bauma 2022 in Munich to be a trade fair of superlatives once again. LASCO will be exhibiting in Hall B1.

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## ■ LASCO KNOW-HOW

### **Decisive advantages through new PSP line**

The PSP compact (2<sup>nd</sup> gen.) is the further development of LASCO's award-winning vario-block press system. The fully automatic production line offers additional advantages over the first generation. Key factors are the two-component mold system and the LASCO hydraulic servo direct drive®.

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## ■ LASCO PRACTICE

### **Production expansion in Kazakhstan**

In the city of Semej (Republic of Kazakhstan), the sand-lime block manufacturer TOO "Silikat" Semej has expanded its production output and product range. Once again, LASCO technology is used.

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**bauma**  
OCTOBER 24-30, 2022, MUNICH



## Editorial



### Extreme burden from increase in raw material and energy costs

The development of energy prices has known only one direction in recent times: steeply upward. The significant increase is now causing major problems for large parts of the economy. Regardless of which business survey you currently look at - almost all industrial companies describe energy and raw material prices as the greatest risk to their economic prosperity. Unfortunately, the expansion of renewable energies is expected to make electricity even more expensive in the future.

At the same time, our companies are burdened by massive price increases for raw materials and intermediate goods as well as ongoing disruptions in supply chains. Thus the idea of cutting back on investments is an obvious one. But if this makes it no longer possible to speed up modernization and increase in efficiency, then it severely damages competitiveness.

The better answer to the extremely demanding challenges of these days is to invest in technology right now to improve energy efficiency. This is paying off due to government subsidy programs, still low interest rates in the capital market, and because of high energy prices and high inflation for the foreseeable future. For instance the new generation of LASCO sand-lime block presses is equipped with four-quadrant converters as standard and thus offers the possibility of recuperation. Professional solutions for energy recovery and savings are nothing new to us and have been successfully used for decades in hydraulic presses and other systems. In the case of sand-lime block presses, this technology is not only available for new equipment, but also for retrofit and conversion projects. Of course, as designers and system manufacturers, we also have ideas and suggestions for the individual optimization of production facilities. Please contact us!

Yours Lothar Bauersachs  
CEO

## LASCO TRENDS + MARKETS



### Experts of the construction industry meet in Munich BACK IN THE LIMELIGHT

After months of global economic paralysis caused by the COVID 19 pandemic, the world of construction is starting to turn faster again. As the world's largest trade fair for the industry, bauma in Munich looks set to become a trade fair of superlatives.

Climate change, finite natural resources, shortage of skilled workers: The construction machinery industry is globally facing up to the major challenges of the present day. Modern construction methods, machines and materials can be part of the solution here. For traditional building materials such as sand-lime blocks, market requirements and prospects are changing.

A comprehensive overview of the state of the art and major development trends in this sector will be provided by bauma, the 33rd World's Leading Trade Fair for Construction Machinery, Building Material Machines, Mining Machines, Construction Vehicles and Construction Equipment, which will be held in Munich from October 24 - 30, 2022. LASCO will be exhibiting at

the same location as during the previous event in 2019: At booth number 218 in hall B1, we will present the innovative vario-block press system PSP compact with variable mold system virtually, whose high efficiency in the production of modern sand-lime blocks will already be outlined in this issue (p. 4 u. 5).

bauma is the world's largest and probably most important trade fair in the field of construction and a hub for international business as well as an information and networking fair. In 2019, almost 3,700 exhibitors from 62 countries and regions presented products and services to nearly 628,000 visitors from 217 countries and regions on the huge area of 641,000 square meters.



LASCO cordially invites market partners and interested parties to visit its exhibition in Hall B1, Booth No. B1.218.

**H + H International uses favorable time window for modernization**

**OPPORTUNITY FOR TECHNOLOGY UPGRADE**

**H+H International A/S (Copenhagen) relies on LASCO's expertise when it comes to maintenance, repair and modernization of machines, systems and automation technology for CS block production. Currently, power electronics and control technology are being updated to the latest state of the art.**

Frequency converters, control systems, bus systems – a number of assemblies in the power electronics and control technology of older sand-lime block systems are no longer available. The component manu-

facturer has switched to a new generation, but this is no longer compatible with the previous technology. This involves risks for the operating process and can, in the worst case, lead to a system standstill. Therefore, LASCO offers the modernization of systems - even if they do not originate from its own company. H + H uses a favorable time window for the company to have the upgrade carried out.

The project, which will be carried out successively over the coming weeks and months, adds another chapter to the long and intensive cooperation between H + H and LASCO. Since 1990, LASCO has been contracted more than 70 times by the

corporate group for the engineering and supply of machinery and systems, maintenance and repair work, as well as modernization projects.

H+H International A/S is one of the leading producers of wall-building materials from calcium-silicate and aerated concrete in Europe, with plants in Germany, Great Britain, Poland and Switzerland. Modern solutions, such as the CS-QUADRO building system, stand for fast, inexpensive and at the same time high-quality construction. A large assortment of small- and medium-sized blocks, levelling blocks and supplementary products fulfills the desire for the widest possible choice of formats and applications.



The German KIMM Group is responding to the trend towards large-format wall elements.

**KIMM secures production at Elxleben plant**

**ACCORDING TO PLAN**

**The company KIMM has expanded its CS block production at its Elxleben plant (Thuringia) by one press system for large formats.**

For this purpose, LASCO supplied a sand-lime block press type KSP 1250, equipped with the LASCO hydraulic servo direct drive®. In addition, LASCO was entrusted with the conversion of the control system at the existing third-party line to a modern S7 control system. The owner-operated family business KIMM, with headquarters in Wabern (Hesse) produces various building materials at four locations in Hesse and Thuringia. In Elxleben, just outside Erfurt, two presses have been used so far to pro-

duce small and medium formats and one press for the production of large formats. In order to continuously meet the demand, one of the presses was replaced by the LASCO KSP 1250.

The LASCO KSP 1250 with double-acting compaction and an adjustable press force of up to 10,000 kN is predestined for CS elements up to a block height of 623 mm. This hydraulic press achieves permanently outstanding product quality with optimum energy use at high cycle frequency. Thanks to support from LASCO in the planning of the mass feed and overspill removal in the press basement, it was possible to dispense with the usual structural work when replacing the existing system and to use the existing installation space/basement.

**KSE 1250 B for Oral SALES FLOURISHING**

**The construction industry in the Republic of Kazakhstan is flourishing. That is why JSC West Kazakh Corporation Uralsk (Oral) is expanding production.**

In addition to the LASCO KSP 801 press, which has been successfully in operation since 2008, the company has now ordered a KSE 1250 B including gripper and mold system for the production of sand-lime blocks in the 250 x 88 x 120 mm format. With ideal mass supply and mass composition, up to 24 solid blocks of this dimension can be pressed with the unit in one stroke. High output is achieved thanks to the short cycle frequency of min. 12 seconds. The JSC West Kazakh Corporation, founded in 1976, has around 450 employees in Oral.

**FAIRS + DATES**

**bauma 2022**  
Munic, Germany  
**October 24 – 30, 2022**





## ■ LASCO KNOW-HOW

### Resource-efficient sustainable CS block production with LASCO's 2<sup>nd</sup> generation vario-block press system

# ENERGY-SAVING, WASTE-FREE, HIGHLY FLEXIBLE – AND FASTER THAN EVER BEFORE

**At bauma 2022, LASCO presents the further development of its successful vario-block press system PSP compact to the general public. The numerous improvements and innovative new features to the award-winning predecessor system justify the version leap to "2<sup>nd</sup> generation". Driven by the "LASCO hydraulic servo direct drive®" and equipped with the first "fully automatic two-component mold system", the unit meets climate protection requirements for ecologically produced sand-lime block masonry.**

With the **LASCO PSP compact (2<sup>nd</sup> gen.)**, a system for resource-efficient sustainable sand-lime block production has been developed. The typical feature of the LASCO vario-block press system is that ready-to-install hardened standard elements no longer have to be cut into fitting formats, because the green blocks are already pressed in exact dimensions. This also includes special formats, such as height, gable and bevel blocks, which are made up using integrated cutting technology.

#### Raw material recovery

Excess raw mass is returned to the process, so that no valuable resources have to be disposed of as waste or recycled at great expense. As a counterpart to the proven PSP 460 press, the PSP compact is the best solution for confined spaces in the modular concept of the vario-block production lines thanks to its optimized mold system.

#### Optimum use of energy

The key innovation of the new **LASCO PSP compact (2<sup>nd</sup> gen.)** lies in the drive and mold system. The production line is driven by the LASCO hydraulic servo direct drive®, with which the energy efficiency of processes can be drastically increased. Compared to conventional hydraulic drives, the hydraulic servo direct drive requires on average about one third less energy. In addition, the technology offers advantages for the controllability, scalability and availability of the system as well as the reproducibility of the processes.

In the servo direct drive, servo motors are directly coupled with hydraulic pumps. The positioning of the hydraulic piston, the adjustment of the pressing speed and the specification of force values are carried

out without valve technology and at high speed. Kinetic energy is only called up when required and is recovered proportionally in the form of electrical energy through recuperation during braking and decompression. In conjunction with lower energy losses due to the design (fewer valves) and higher efficiency in partial-load operation, this results in a clearly better energy balance than conventional drive technology. Side aspects such as lower cooling requirements, lower apparent power, low susceptibility to faults and high ease of maintenance bring additional cost effects. Compared to conventional hydraulic systems, wear can be classified as low.

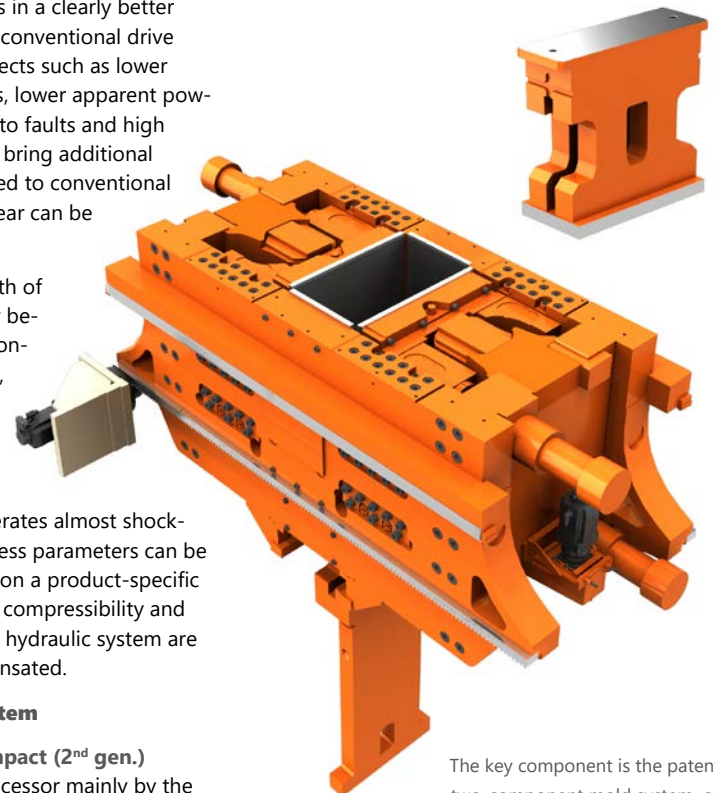
The particular strength of this drive technology becomes clear in positioning tasks. The torque, speed and position of the pump motor are controlled electronically. The hydraulic system operates almost shock-free. The digital process parameters can be stored and retrieved on a product-specific basis. Fluctuations in compressibility and potential leaks in the hydraulic system are automatically compensated.

#### Patented mold system

The **LASCO PSP compact (2<sup>nd</sup> gen.)** differs from its predecessor mainly by the hydraulic two-component mold system. The mold has side walls that are dynamically adaptable to different block thicknesses and via robotics for changing the punch heads required for each block format. 8 different wall thicknesses can be produced with a single mold system.

The processes are software-controlled, synchronized and database-supported. Format or product changes are thus carried out at a speed that is unattainable for "rigid" molds. This major, cost-saving advantage also makes the new system interesting for retrofitting.

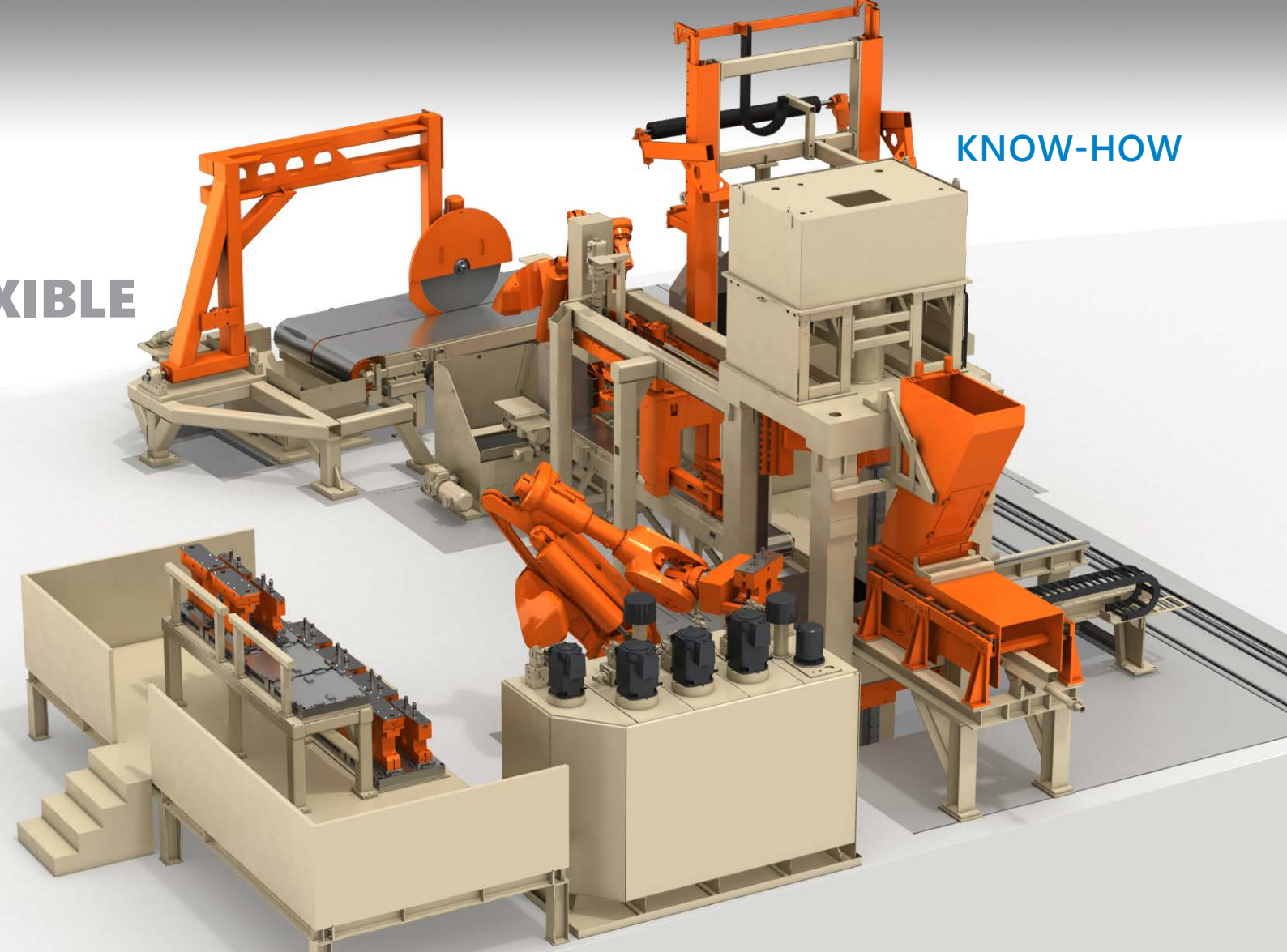
Cutting technology for special formats and stacking systems are an integral part of the **LASCO PSP compact (2<sup>nd</sup> gen.)**. Thus, this press is optimally suited for the production of system blocks in fully automatic processes up to optimized customization regarding construction site and construction process.



The key component is the patented two-component mold system, consisting of a mold box with hydraulic adjustment (bottom) and robot-assisted automated change of punch heads (top).

KIBLE

KNOW-HOW



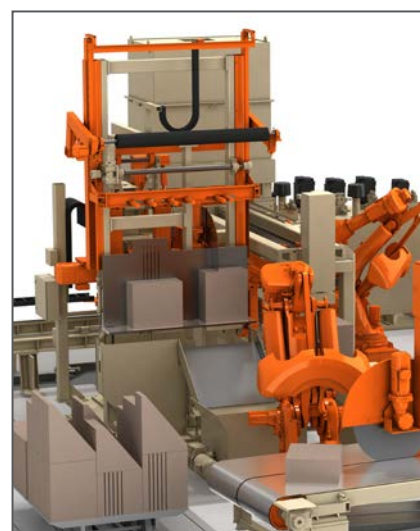
**Résumé**

The LASCO PSP compact (2<sup>nd</sup> gen.) produces all supplementary formats for CS block masonry in a resource-efficient and waste-free manner with optimum energy use; mold change times are reduced to minutes!

**The variable mold system is designed for the following block formats:**

Thickness [mm]	Length [mm]	Height [mm]
115	100 – 750	623
150	100 – 750	623
175	100 – 750	623
200	100 – 750	623
240	100 – 750	623
300	100 – 750	623
<b>Optional:</b>		
300	100 – 750	623
min. 100 – max. 300	100 – 750	623

The block length is adjusted via the stroke of the lower punch, the thickness via the adjustable side wall. A change of wall thickness takes approx. 3 minutes.



Green block saws are integrated into the line and enable fully automatic production flow.



## Service for high-precision three-dimensional measurement **PROGRESSIVE TECHNOLOGY**

**LASCO uses the most advanced laser measurement technology and 3D visualization in the solution of mechanical engineering tasks, e.g. in modernization projects of older production plants. With "LASCO LASER MEASUREMENT", technology and know-how are also provided separately as a professional service on request now.**



Impressions of the results of the "LASCO LASER MEASUREMENT" are provided by the website [3dscan.lasco.com](http://3dscan.lasco.com)

Long planning times, the risk of measurement errors, and the associated high project risks in construction have always been of concern to builders, developers, architects, construction planners and site supervisors. Up to now, measurements have often been generated in a time-consuming manner by

manually determining individual measuring points and then transferred to 2D drawings or the 3D CAD system in the design office, with the risk of measurement and/or documentation errors creeping in.

LASCO now provides a remedy with the new service "LASCO LASER MEASUREMENT". This progressive measurement technique consists of three-dimensional scanning of objects, subsequent processing of resulting raw data and digital provision of the scan results. Thus, an exact three-dimensional model (scatter diagram) of the environment is created from several million measurement points, which can then be used in a wide variety of software applications. All dimensions can be taken from the digital image regardless of location, and the scanned environment serves as a highly precise basis for efficient planning and digital optimization.



## **CONTRIBUTION TO CO<sub>2</sub> REDUCTION**

You could almost say LASCO has planted a forest on the roof - at least in terms of the effect, because like a forest, the solar cells operated there relieve our planet's atmosphere of carbon dioxide. While trees bind CO<sub>2</sub> during photosynthesis, electricity generation in the flat solar power plants does not produce the harmful greenhouse gas after all. LASCO installed the first photovoltaic system of 2,163 square meters and a total output of 256.8 kWp at the beginning of 2012. At the end of 2019, a second plant with 1,622 square meters of usable area and total installed power of 328.9 kWp was put into operation. According to the company's own calculations, this has saved a total of around 1,110 metric tons of carbon dioxide since 2016. To bind the same amount of CO<sub>2</sub>, countless trees would have had to be planted. However, they would not have fit on the roof.

## **Spotlights**

**A strong team:** Fitness, stamina and discipline were demonstrated by our relay team at the "DATEV Challenge Roth Triathlon" on the first weekend of September 2021. Swimmer Nora Reinhardt, cyclist



Michael Schnabel and runner Harald Barnickel (from left), all LASCO, are passionate recreational athletes and participated for the first time in the top event of the triathlon sport. With a total

time of 9:58:06 hours, the successful trio finished second in the team relay. The DATEV Challenge Roth, an annual event since 2001, is one of the largest triathlon competitions in the world.

**Vocational training remains constant at LASCO:** School leavers started their vocational training in industrial-technical and commercial professions at LASCO in fall 2021. This brought the number of apprentices in the company back up to 52 - a constant level for years. LASCO has always seen it as an important task to cover its own medium and long-term needs for highly qualified specialists, with the aspect that young motivated people receive first-class company-related vocational training. LASCO's training rate during the past decades has been significantly higher than the industry average in the machine tool industry.

**Tec Upgrade:** In LASCO's apprenticeship training center, a further upgrade of its machinery by the new CNC lathe technology E30 from WEILER (picture below) was joyfully welcomed. LASCO relies on WEILER as a German manufacturer that produces high-quality lathe technology in the domestic market for vocational training in metalworking. The apprentice cutting machine operators, industrial mechanics and mechatronics at LASCO work with the machine from the 2nd year of apprenticeship and also program its control system.



## LASCO honors the achievements of long-serving employees

# LONG-TERM CONTRIBUTION TO SUCCESS

**Once again, LASCO had the opportunity to honor the achievements and loyalty of its employees. Four employees have been with the company for 40 and 25 years, respectively, and actively contribute to the success of the machine tool manufacturer.**

### WE CONGRATULATE:

#### 10 years with LASCO

Pavel Benner	01.01.2022
Robert Feder	06.02.2022
Tobias Fiedler	19.03.2022
Martin Marterer	01.07.2022
Daniel Leicht	16.07.2022
Stephan Kuhn	15.08.2022
Markus Geiger	01.09.2022
Stefan Paul	01.09.2022
Fabian Schütt	01.09.2022
Robert Bätz	01.09.2022
Peter Wache	01.10.2022
Stefan Powalla	01.10.2022
Kai Krzyzanowski	01.10.2022

#### 25 years with LASCO

Michael Erbstöber	01.01.2022
Harald Barnickel	01.08.2022
Gerald Marx	01.09.2022
Matthias Goer	01.09.2022
Simone Großmann	01.09.2022
Sabine Bauer	01.10.2022
Marek Hadyk	20.10.2022

#### 40 years with LASCO

Jürgen Trucks	01.09.2022
Frank Dismar	01.09.2022
Gernot Losert	16.12.2022

#### 50 years with LASCO

Heiderose Höfler	13.03.2022
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In a ceremony, Friedrich Herdan, Chairman of the Board of Management LASCO Langenstein & Schemann, Holding as well as CEO Lothar Bauersachs, LASCO Umformtechnik, and the Managing Directors Thomas Götz and Robert Welsch thanked the long-serving employees Michael Kessel (40 years), Andrea Streicher, Mathias Taubmann and Tanja Appenrodt (all 25 years) for their work and loyalty to the company. As a sign of recognition, certificates and loyalty bonuses as well as the Badge of Honor of the Board of Trustees of the Bavarian Employers' Association and CCI honorary certificates were presented in the presence of Peter Wache, Chairman of the Works Council.

**Michael Kessel** began his professional career as a machine fitter at LASCO in 1981. He subsequently acquired profound specialist knowledge in numerous further training measures and advanced to the position of service technician. His high qualification enables him to independently carry out assembly, acceptance and commissioning of complex mechanical engineering systems at home and abroad. LASCO customers around the globe appreciate his personality as well as his technical know-how.

**Andrea Streicher** joined the company in 1996 with a qualification and profession-

al experience as a paralegal and further training as a certified secretary. Initially, she worked as a sales clerk for the customer division in Germany and other European countries. In 2001, she was promoted to the position of personal assistant and has since been responsible for the correspondence of the company's management as a professionally qualified key employee.

**Mathias Taubmann** (graduate physicist) has been working as an experienced machine designer in technical planning and development since 1996. As an expert especially in the field of mechanical presses and electric upsetting systems, Mathias Taubmann develops highly technical system concepts for customers in the automotive, energy and medical technology areas. In addition, his expertise is particularly in demand for the mathematical-physical design of new system/machine concepts with regard to energy efficiency.

**Tanja Appenrodt** trained as an industrial clerk at the company from 1996 to 1999 and then worked in the purchasing/material requirements planning department as a clerk. Since completing her part-time degree in business administration (VWA) in 2008, she has been a qualified specialist in the area of contract management.



Management and employee representatives congratulated long-serving employees. In the picture (from right): Friedrich Herdan, Chairman of the Board of Management LASCO Langenstein & Schemann, Holding, Lothar Bauersachs, CEO, Mathias Taubmann, Andrea Streicher and Michael Kessel (long-serving employees) as well as Peter Wache, Chairman of the Works Council. Tanja Appenrodt is missing.

### SADLY MOURNED:

Werner Völk	+ 11.07.2021
Peter Reißberger	+ 15.08.2021
Elisabeth Dekorsy	+ 09/2021
Klaus Bischoff	+ 15.10.2021
Herrmann Müller	+ 22.11.2021
Marianne Jung	+ 14.12.2021
Manfred Wagner	+ 10.01.2022
Günter Hofmann	+ 23.04.2022
Dschau Konggann	+ 29.06.2022





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**Interview**



Altinbek Segizbaev  
Commercial Director  
TOO „Silikat“ Semej  
Semej, Republic of Kazakhstan

**TOO „Silikat“ Semej  
THIRD LASCO SYSTEM**

**For almost two decades, TOO “Silikat” Semej in Kazakhstan has been producing wall building blocks with LASCO technology. The fact that the third CS block system was put into operation a few months ago speaks both for the success of the technology partnership and the growth prospects that the medium-sized company and its region have.**

**Positive trend**

**up grade: Mr. Segizbaev, your company seems to have good sales prospects, as it has drastically increased its production output in a few years.**

**Altinbek Segizbaev:** Since proclaiming independence in 1991, Kazakhstan has experienced positive economic development, which gained additional momentum after the turn of the millennium. The prospects remain good, as our country is rich in raw materials and energy sources that are in demand worldwide. The Semej region, as an important transport and economic hub, is benefiting strongly from growth, which is driving construction activity. In addition, the general demand for building materials in the country continues to provide us with full order books.

**up grade: How did the technology partnership with LASCO come about?**

**Segizbaev:** If you have a quality strategy as a producer of wall-building materials containing calcium silicate, you will inevitably come across LASCO when looking for manufacturing solutions on the world market. 18 years ago, the purchase of the first LASCO machine may have been a bit of a venture for us. Today, we have a wealth of experience - and very positive experience at that.

**up grade: That sounds like relaxed negotiations for the purchase of the new KSE 401 B?**

**Segizbaev:** We appreciate the good, personal relationship with LASCO representatives and look forward to opportunities to meet again. When it comes to business, however, too much relaxation is rarely an advantage.

The hydraulic LASCO presses type KSE 400 from 2004 and type KSE 801, year of manufacture 2006, have now been supplemented by a KSE 401 B. Equipped with state-of-the-art press hydraulics, the pressing speed of the ram can be continuously adjusted up to approx. 18 mm/s. In conjunction with the idle down speed of approx. 180 mm/s and an adjustable pre-pressing/ejection speed of up to 180 mm/s, cycle times of up to 12 seconds are possible with the production system.

However, the company's aim is not only to increase capacity and performance with the new equipment, but also to expand the product range. With the press table measuring 1,030 x 650 mm, block formats up to a height of 138 mm can be produced with the KSE 401 B (2 x 7).

Due to the positive economic development of Kazakhstan, residential and commercial construction is still booming in the independent republic. For reasons of efficiency, the trend in wall construction is toward larger block formats. Synchronously

TOO “Silicate” Semej adapts its product range in the sand-lime block sector. Currently, solid and perforated blocks of the standard formats 250 x 120 x 65 mm or x 88 mm and x 138 mm are produced. With 500 employees, the owner-managed company produces around 80 million wall building blocks annually.

Mechanical engineering and industry have settled in the eastern Kazakh city of Semej, which is located on the banks of the Irtysh River and was called Semipalatinsk until 2007. Companies producing cement, reinforced concrete or other building materials are located there. Marble and granite are also processed, as well as slate. The city of 350,000 inhabitants is also known for leather goods and textile production. In addition, there is food industry producing milk, alcoholic drinks and meat for the Kazakh market. TOO “Silicate” Semej supplies state and private companies. One of the main customers is the BiGroup, based in the country's capital Nur-Sultan (formerly Astana).



Pictures taken in the production hall of TOO “Silikat” Semej during the assembly of the new sand-lime block press KSE 401 B from LASCO.