

#1 | 2017

NEWS

CUSTOMER MAGAZINE

40
YEARS
CUTTING
EDGE

6

GUARANTEES CONSISTENT, PRECISE
AND COST-EFFICIENT CRIMP QUALITY

14

"COMMON VALUES THAT UNITE US
WITHOUT THE NEED FOR GREAT WORDS"

komax WIRE



COMPANY NEWS

- 4 Red Dot Award for Komax's Corporate Industrial Design
- 5 Komax expands its presence in Asia
- 5 New Head of Global Area Sales Management

PRODUCT NEWS

- 6 Guarantees consistent, precise and cost-efficient crimp quality
- 9 The all-rounder that offers excellent performance
- 10 New taping machine taps into future potential

REPORTS/TOPICS

- 14 Following the take-over of the THONAUER Group
- 18 Location Switzerland
- 20 Skillfully catering to customer wishes

CHANGE MAKES US STRONG

Dear Reader,

Essential today, passé tomorrow – continuous transformation is an indispensable part of staying successful. With us, this change is particularly easy to see. Step by step, we're expanding our range of offerings to include solutions all along the value creation chain. For you as our customer, that means even more solutions tailored to your needs and helping you to enhance your competitiveness.

One driver of change is innovation, which is one of our core competencies. Leaving the road well travelled to strike out on new paths is a concept deeply embodied in our company culture. Industry 4.0 represents one of the most important revolutions of recent decades. We regard this development as an opportunity to take advantage of digitalization to offer you even greater added value and enhance your competitiveness.

Another key factor is our continued expansion abroad and the changes associated with that. We're now even closer to the customer and develop products locally that are uncompromisingly adapted to the requirements of the respective markets – global expertise tailored to local conditions.

We have some core characteristics that make us especially well adapted to constant change – flexibility and openness toward the new. Continuous change guarantees long-term success.

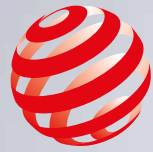
In this issue, you can read about how starkly the changes are impacting Switzerland as a development and production location.

I hope you enjoy reading this issue of the NEWS.

A handwritten signature in blue ink, appearing to read "M. Schürmann".

Marc Schürmann
Vice President Marketing, Sales & Service





reddot award 2017
winner



KOMAX GROUP

RED DOT AWARD FOR KOMAX'S CORPORATE INDUSTRIAL DESIGN

Komax Wire becomes the first company in the industry to win a Red Dot Award with the Mira 230 stripping machine. This award is given to products that combine exceptional design with the best in performance.

The Red Dot Award has been a seal of quality in product design since its establishment in 1954. For this year's award, the international specialist jury received submissions from 54 different countries. These were then individually evaluated over several days, with assessments made based on the criteria of degree of innovation, aesthetic quality, functionality, formal quality, environmental sustainability, ergonomics, durability, symbolic and emotional significance, peripheral equipment and self-explanatory nature.

The Mira 230 is a benchtop machine designed for professional-level full stripping of electrical wires. It is the flagship product of the new Komax Corporate Industrial Design. This integrated approach also incorporates user interface design and ergonomic considerations.

KOMAX GROUP

KOMAX EXPANDS ITS PRESENCE IN ASIA

Komax is strengthening its position in the growing market in Asia with the takeover of assets of Practical Solution Pte Ltd, Singapore, and also Practical Solution Trading (Shanghai) Co., Ltd, China.

The asset deal with Practical Solution, signed on 3 February 2017, is a further step by Komax to increase its global reach. At the beginning of March 2017, Komax took over assets and around 30 employees at the development and production site in Singapore (Practical Solution Pte Ltd), as well as at the distribution location in Shanghai (Practical Solution Trading Shanghai Co., Ltd). With this takeover, Komax now has a total of three development sites in Asia: Singapore, Shanghai and Tokyo.

Practical Solution has made a name for itself in Asia with innovative cable processing products for the automotive industry, among other things. With this new development team, Komax now has the opportunity to

develop additional solutions specifically for the Asian market. Komax and Practical Solution have already had a distribution partnership for a number of years in which they sold each other's products.

To ensure continuity, Hong Hee Meng, the vendor of the Practical Solution assets, will assist Komax in Singapore in an advisory role.

URS ZURKIRCHEN

NEW HEAD OF GLOBAL AREA SALES MANAGEMENT

In January, Urs Zurkirchen succeeded Andreas Schenk as Head of Global Area Sales Management. In Urs Zurkirchen we have found a highly qualified and experienced successor. He has gained more than 20 years of experience working at Komax in various positions in sales, including as Key Account and Area Sales Manager. Since 2014, Urs Zurkirchen had been Sales Director responsible for the EMEA region.

Andreas Schenk is staying with Komax. He has assumed responsibility for managing strategic and operational special projects. We sincerely thank him for his performance as Head of Global Area Sales Management. We wish both Urs Zurkirchen and Andreas Schenk continued success and satisfaction in their new areas of responsibility.



MICROFORCE QUALITY ASSURANCE

GUARANTEES CONSISTENT, PRECISE AND COST-EFFICIENT CRIMP QUALITY

Our customers require absolutely flawless quality when it comes to cable harnesses. This requirement can only be met if every single crimp is monitored for its functionality and checked for missing strands and crimped insulation elements. MicroForce 70 and MicroForce 80 are the ideal systems for crimp force monitoring. They enable errors to be avoided and productivity to be increased.

The production of different wires at the required level of quality at a price in line with the market calls for extremely agile, efficient and productive processes. But the quicker the wire is produced, the greater the risk of errors. To avoid these risks and to keep the lead times as short as possible, comprehensive quality assurance is essential. Komax has developed two devices specifically for these situations. MicroForce 70 is the entry-level model for effectively safeguarding the quality of the crimp. MicroForce 80, meanwhile, is one of the best solutions on the market due to its expanded process analysis capacity and ability to document measured values. An optimized and documented crimping process enables productivity to be increased significantly.



MicroForce 80 – expanded process analysis capacity and ability to document measured values

Quality assurance during retrofits

It is easy to retrofit conventional crimpers and semi- and fully automatic wire processing machines with the MicroForce quality assurance device. This is a basic procedure and can be performed without the need for much further investment. A sensor can be attached to the frame of the crimper or crimp module quickly and easily using just a single fixing screw. The sensor measures

the force exerted by the pressing cycle and sends this information to the device. The device is extremely effective at detecting missing strands and crimped insulation elements. It also allows the user to compare the current force curve with the reference curve. MicroForce 70 indicates whether a crimp is good or bad using a color code. MicroForce 80 goes a step further: it prepares a visual representation of the results and shows the curve on the five-inch color display. The proven functional technology means that both MicroForce devices are absolutely reliable and are not prone to faults. The frame sensor and the aluminum housing with the touchscreen are built to industry standards, making them robust, long-lasting and excellent quality. They ensure that performance remains consistent even in harsh environmental conditions.



Frame sensor – quick and easy to mount

Analysis facilitates process optimization

The detailed process analysis performed by MicroForce 80 allows the process to be improved and accelerated as required. Production can be comprehensively documented and traced. A crimp force curve is recorded and plotted for every crimp. The user can then assess deviations between the current curve and the referenced curve and detect errors in the process. To ensure control over the entire process, the system displays the relevant curve along with normal distribution and trend data. The normal distribution provides information about the dispersion of the measured values. The series of measurements (encompassing up to 50 crimps) plots any trends on the curves and drifts if present. The USB port allows the user to easily save the measured values on a data carrier. The machine-readable

data can be utilized across various formats as required (Excel, Access) and also fed back into a central system.

Efficiency leads to high cost effectiveness

For small, rapidly changing production series, short changeover times and a quick setup are the greatest advantages. MicroForce 80 provides these thanks to its automatic product data storage feature that stores all key production data: wire and terminal type, number of learning crimps, and batch size. This eliminates the need for this data to be entered manually, a process that is time consuming and prone to errors. The user saves a significant amount of time with both devices thanks to simple, intuitive operation on the high-resolution touchscreen. Access to key functions can be protected by a password on either

system. User rights are predefined for the MicroForce 80. This prevents an operator from changing tolerance settings or batch sizes, for example. Both MicroForce models are synonymous with high flexibility. On the MicroForce 70, the tolerance and sensitivity settings can be changed during production. In a defined cross-section range of 0.35 to 6 mm², the measuring performance of the test systems is excellent, detecting up to 5% of missing strands (this depends on the stability of the process and the headroom).

As the newest addition to the range of Komax quality assurance systems, MicroForce 80 keeps crimp force monitoring cost-effective, productive and flexible. As well as sharing the features of the entry-level model – the MicroForce 70 – it is able to detect, analyze and document the crimping process.



MicroForce 70 – the entry-level model for effectively safeguarding the crimp quality

PRODUCT NEWS



IOTA 330 CUTTING MACHINE

THE ALL-ROUNDER THAT OFFERS EXCELLENT PERFORMANCE

The Iota 330 cutting machine is systematically tailored to meet the requirements of industry. It is ideal for cutting continuous materials to length, including cables, heat-shrink tubing, pneumatic tubing, plastic tape and more.

The Iota 330 is a genuine all-rounder. It processes a range of materials in various widths and diameters, and ensures the perfect production of maximum batch sizes even during four-lane parallel processing. Despite its extremely compact external dimensions, it meets all performance, power and quality requirements, and provides process safety, precision and maximum flexibility for every processing set. This robust and powerful cutting unit guarantees the perfect cut for strands of up to 35 mm² (AWG2).

Material maintains its original shape

Everything is optimized to ensure that the continuous material maintains its original shape as much as possible during the cutting procedure. The machine uses a belt

drive with multiple supports whose closure is positioned by the cutting blade. Furthermore, the contact pressure and closing distance of the drive unit can be adjusted at will.

Changeover in no time at all with no tools

One highlight of the user interface is its simple, intuitive operation. The combination of a touch display and five key buttons for the most common operations enables the user to quickly change between materials without the use of any tools. The machine has an Ethernet port, an external encoder output and two I/O interfaces.



Production samples



Feeder for a wide variety of coiled material

KABATEC TAPING TECHNOLOGY

NEW TAPING MACHINE TAPS INTO FUTURE POTENTIAL

Cable harnesses are becoming increasingly more complex and the requirements on OEMs are growing, and as a result cable manufacturers can address the associated challenges only in a partially automated manner in the future. To better support taping, the Komax subsidiary Kabatec has developed the KTR 160 taping machine, making it possible to achieve the required quality with the highest performance.

Kabatec has developed the new flagship KTR 160 especially for the taping of complex, heavy cable harnesses, and in the future also for high-voltage cables with a large cross section. Based on the KTR 100, Kabatec has developed a particularly stable and agile taping machine with user-friendly operation for cable manufacturers who, for cost reasons, are required to manufacture their products more and more efficiently and in a higher quality. The demands on the operability, handling and process accuracy of the machines are also becoming greater.

Where process efficiency is required

In the automobile industry, the number of vehicles produced each year is growing by around 3%. The complexity of vehicle electrical systems is increasing and the demands continuously rising. The new KTR 160 taping machine achieves significantly improved efficiency for the manufacture of cable harnesses thanks to specific optimization such as the exact belt feed, the intuitive and visual touchscreen operator guidance and the self-closing protective hood.

Simple, quick and safe

Operation is simple and quick thanks to the large touchscreen, and the operator guidance shows the production process step by step. The instructions can be supplemented by visualizations such as photos or drawings and through further directions. Visual representations are a great help, particularly with regard to complex and different cable harness geometries. Two servo drives make it possible to change the rotational speed and feed rate within a winding step without pausing, saving a considerable amount of time. The protective hood, which is closed on both sides, opens and closes automatically above the winding head. The start is triggered as soon as the hood is closed – without the need for a two-hand system or foot pedal. A gap of only around \varnothing 25 mm is left open for the cable entry during the manufacturing process.

Pneumatic gripper of the linear transport system for cable transport



1,000x preprogrammable

The taping lengths and feed rates can be preprogrammed for the individual winding steps, and they can be processed one after the other. The user-friendly program structure has over 1,000 memory locations with an unlimited number of processing sets. Alternatively, the job programs can be cho-

sen via a bar code scanner. They can be recorded, imported and exported on the machine or by other storage media. The remote maintenance option can be realized simply by integrating it into the network.

Flexible, exact and careful

The linear system for the cable transport works with a pneumatic gripper, making it possible to flexibly generate different start positions and process different wire lengths with or without plug connectors. The new belt feed system improves the accuracy of the length measurement and feed thanks to reduced slippage. It also holds larger cross sections and heavy cable harnesses without difficulty and ensures careful transport of each individual cable harness.

The new KTR 160 is the perfect solution for taping door and roof cable harnesses, mirror wiring, battery cable harnesses, cable modules and much more – with high productivity and in reproducible quality.



New belt feed system for improved accuracy

TRADE FAIRS 2017

“EXPERIENCE OUR PRODUCTS IN ACTION – VISIT US AT A TRADE FAIR NEAR YOU.”

Date	Trade fair	Exhibitor	Further Information
9/6/2017 – 9/7/2017	Electronex in Melbourne, Australia	Suba Engineering	www.electronex.com.au
9/14/2017 – 9/16/2017	Productronica India in Pragati Maidan, New Delhi, India	Komax India	www.productronica-india.com
9/27/2017 – 9/28/2017	All about automation in Leipzig, Germany	Komax Deutschland GmbH	www.all-about-automation.com
10/4/2017 – 10/6/2017	M-Tech in Osaka, Japan	Komax Japan K.K.	www.mtech-kansai.jp
10/12/2017 – 10/13/2017	Automotive Supplier Forum in León, Guanajuato, Mexico	Komax Mexico	www.foroautomotrizgto.com
10/18/2017 – 10/20/2017	AUTOMOTIVE HUNGARY in Budapest, Hungary	Thonauer Kft.	www.automotivexpo.hu
10/18/2017 – 10/20/2017	Monodukuri Fair 2017 in Fukuoka, Japan	Komax Japan K.K.	www.nikkanseibu-eve.com
11/8/2017 – 11/11/2017	Messe Nagoya in Nagoya, Japan	Komax Japan K.K.	www.messenagoya.jp
11/14/2017 – 11/17/2017	Productronica in Munich, Germany	Komax Deutschland GmbH/ TSK Prüfsysteme	www.productronica.com
11/22/2017 – 11/26/2017	Metalex in Bangkok, Thailand	Komax Singapore Pte Ltd (Thailand)	www.metalex.co.th
11/28/2017 – 11/30/2017	SPS in Nürnberg, Deutschland	Komax Deutschland GmbH	www.mesago.de/SPS

FOLLOWING THE TAKEOVER OF THE THONAUER GROUP

“COMMON VALUES THAT UNITE US WITHOUT THE NEED FOR GREAT WORDS”

In 2015, the Thonauer family decided to hand over the THONAUER Group, which they had established in 1988, to us. This takeover, which has retrospectively proven highly successful, also involves various human aspects, which we will specifically look into in this article.

We have discussed the topic with Angelika Thonauer, Supervisory Board member and daughter of the company founder Friedrich Thonauer, Komax CEO Matijas Meyer and Werner Renner. The latter now runs the company together with Marc Schürmann, Vice President Marketing, Sales and Service at Komax.

The first impression confirms that the takeover by Komax has been successful. Even now, a good year later, THONAUER is still as the company has been known for decades. But how exactly did the handover proceed? Why did it work so well? How do those involved feel afterwards? “It goes without saying that, after 28 years of sweat and tears, such a break is always hard,” replies Angelika Thonauer in answer to our last question: “My father and I started completely from scratch when we established the company and put in a lot of hard work, together with the whole family, to make it a success.”

» **IT WOULD NEVER HAVE CROSSED OUR MINDS TO SIMPLY SELL TO AN INVESTOR** «

Nevertheless, the decision to accept the takeover came about in a rather different manner than many might have believed. Friedrich Thonauer was 82 and his daughter has been managing her own advertising agency, Lighthouse, since 1995. “Following some good, but somewhat static years, we were enjoying a wave of success in 2015, recording the best year in our company history,” relates Angelika Thonauer. “I had been managing the company together with



“Komax is a very pleasant owner, and we all maintain inspiring contacts with them,” confirms Managing Director Werner Renner, seen here together with co-founder and Supervisory Board member Angelika Thonauer at the SMART Automation trade show in Linz, Austria.

my father again, alongside my agency, for two years. We had brought our marketing thoroughly up to scratch, hired a highly marketing-oriented sales manager in the form of Mr. Renner, gained an accomplished controller in the form of Ms. Stepanek and were looking optimistically to the future. We weren’t exactly thinking about succession.”

“Although the company was already in an excellent position, we had just expanded hugely again as Komax CEO Matijas Meyer broached the subject. ‘Would you perhaps like to sell the company to us as part of an assured succession arrangement?’ was approximately what he asked us,” recalls Angelika Thonauer. “That made sense to us, as it would never have crossed our minds to simply sell to an investor – even if we might have been able to obtain a better price. Matijas Meyer stated very clearly that THONAUER would retain its essence. That was very important to us – not only with respect to our customers, but of course also with respect to our employees. So, following several months of consultation, all family members gave their consent.”

» **OUR COUNTERPARTS WERE ACCOMPLISHED BUSINESS PROFESSIONALS WHO SHOWED EMPATHY AND STRATEGIC VISION** «

For Komax, the continuation of what had been established for decades was the main reason for this offer. “We have always enjoyed excellent collaboration with THONAUER and greatly appreciated its corporate culture,” confirms Matijas Meyer: “Eastern Europe and Romania in particular have become increasingly important for major automation projects in recent years. If a manufacturing company wants to be successful here, it must be willing to make advance payments and take risks. We can tackle this more consistently than a representative.”

Angelika Thonauer has a good recollection of the negotiations with Komax: “They proceeded in a pleasant atmo-

sphere. Our counterparts were accomplished business professionals who showed empathy and strategic vision. They were convinced that our ‘machine’ runs smoothly and is ideally equipped for the future. On the other hand, we were assured that they were not interested in intervening unnecessarily in an organization that already works perfectly by itself. In short, the sale to Komax was the ideal solution for everyone involved – for far into the future.”

Alongside the corporate culture, the employees at THONAUER also played an essential role in the continuity. “We already knew a large number of them and had come to appreciate them over the course of the years,” confirms Matijas Meyer. “We therefore knew what and who we were getting involved with. As a result, it also soon became clear how we should best incorporate THONAUER into the Komax family.”

Positive feedback among managers and employees
With the sale to Komax, the previous Sales Manager Werner

Renner assumed responsibility for managing the company together with Marc Schürmann. “The Thonauer family informed me about the sale early on and I was also involved in compiling the key figures that allowed Komax to gain an impression of our situation.”

It was then up to the Thonauer family to notify the managing directors of the company’s national subsidiaries – with the aim of ensuring that they were willing to continue working in a motivated manner for the company after the takeover. “The feedback was definitely positive,” recalls Angelika Thonauer. “Komax was our most important trading partner and they knew what they were in for.”



Komax CEO Matijas Meyer (left), signing the contract in December 2015 together with company founder Friedrich Thonauer, his wife Gertrude Thonauer, and his daughter and co-founder Angelika Thonauer



Even today, the THONAUER Group is like a big family, with customers and employees alike highly appreciating the winning climate.

The employees were informed on the occasion of the 2015 Christmas party, and probably already suspected something as they were all celebrating together for the first time in Vienna, where Komax CEO Matijas Meyer was surprisingly also present. "This was of course followed up with numerous individual talks with employees," relates Werner Renner: "I didn't sense any concerns whatsoever on their part. Many expressed their conviction that Komax was clearly the best possible buyer."

» IT WAS A GREAT ACT OF TRUST «

Matijas Meyer remembers this momentous Christmas party well: "The very strong attachment of employees to the Thonauer family – and vice versa – was clearly evident. For this reason, the initial discussions revolved greatly around the future of the employees. Selling a life's work means a lot more than putting a signature on a sales contract. Personal histories, dangers and uncertainties that have been overcome, human relationships and shared experiences are all part of it – in short, a wealth of great emotions. It was precisely this that could be sensed in the room as Friedrich Thonauer announced the handover to Komax."

Matijas Meyer appreciated the value of all that he encountered on that day: "It was a great act of trust that deeply impressed, honored and touched me. Something as valuable as that should be treated responsibly."

Continuity in the interest of customers

Directly following the announcement to employees, the company's customers were also informed. "We briefed our sales employees especially for the purpose," explains Werner Renner: "I spoke to major customers myself. Here, too, there was great optimism, with many hoping that our offering would in fact be even better with Komax behind us. Only a few expressed concerns that products from other manufacturers could disappear from our range. I was able to assure these customers that we had agreed with Komax to ensure continuity in their interests."

Even today, the THONAUER Group is like a big family, with customers and employees alike highly appreciating the winning climate. Werner Renner comments on this as follows: "Although Komax is clearly present, their influence is moderate. However, we regularly coordinate things with one another. They continue to view us as the jewel in their distribution network. As part of the integration project, we have defined the manner of customer support, addressed all points and reached the conclusion that our concept is in line with current requirements."

» EACH ACQUISITION IS AN INDIVIDUAL CASE «

Is it usual and does it make sense to largely preserve the autonomy of the company that has been taken over? We put this question to Matijas Meyer. "Each acquisition is an individual case and this is especially true for familial succession arrangements. I am therefore not able to give a general answer. Our acquisitions are complementary and supple-

mentary. Our aim is to take existing businesses and make them even better. Sometimes we take over uncut diamonds or companies that are unable to develop further due to a lack of financing. Other times we take on companies that are doing really well and carefully integrate them into the Komax Group. The acquisitions are not only a commercial success for us. The employees involved in the takeover also benefit. After all, we are usually able to improve their jobs by offering them both short-term and long-term prospects."

with the managers of the national subsidiaries, with employees and, of course, with the management team at Komax. I am very happy to see that the corporate spirit coined by my father is still visible."

Matijas Meyer, too, is delighted that the takeover has been so successful. "As a result of the merger, existing relationships have become even stronger. We have common values that unite us without the need for great words. I believe that

» THE CORPORATE SPIRIT COINED BY MY FATHER IS STILL VISIBLE «

How does Werner Renner now assess the takeover? "It progressed in a highly positive manner. We didn't have problems at any stage. Komax is a very pleasant owner, and we all maintain inspiring contacts with them."

Angelika Thonauer makes similar comments: "As I am still on the Supervisory Board, I continue to maintain good contacts with the company, with Managing Director Werner Renner,

the teams, which are working together more intensively than before, are sure to grow even closer together and be mutually supportive. That is the key factor in customer service such as Komax has been providing for a long time. We view the role of Komax as a strong backbone, able to provide even greater support for the development of the THONAUER Group. In this way, the company's existence is assured in the long term – spanning many generations."

Co-founder and Supervisory Board member Angelika Thonauer continues to maintain good relations with the company and customers. Here, she can be seen together with Managing Director Werner Renner at the SMART Automation trade show in Linz, Austria.





LOCATION SWITZERLAND

“‘MADE BY KOMAX’ IS IMPORTANT TO OUR CUSTOMERS”

Komax is planning a new building in Dierikon, scheduled to be ready for use in the second half of 2019. We have talked to CEO Matijas Meyer about this major project, the associated development of the location of Switzerland and the role of further locations.

Matijas Meyer, what are the reasons for the new building?

As a result of its excellent order situation, Komax has reached the limits of its capacity in Switzerland. For this reason, we were forced to rent a third site in central Switzerland in Küssnacht am Rigi in 2016. Our aim with the new building is to unite all Swiss employees as far as possible in Dierikon.

great importance to cross-departmental collaboration between development, product management and marketing. Several departments are distributed across different sites because we don't have room to keep them together. We are currently wasting a lot of time because employees constantly have to commute back and forth between the sites – often during peak

» **A CENTRAL LOCATION IS ESSENTIAL FOR MUCH OF WHAT MAKES KOMAX SUCCESSFUL** «

Is a central location so important? Dierikon, Rotkreuz and Küssnacht am Rigi are situated close to one another.

A central location is essential for much of what makes Komax successful. We attach

times. If they are united at a single site, it will become much more likely that they will come into contact with one another during their day-to-day work. That encourages spontaneous, informal exchanges.

However, there are also strong logistical reasons. Having a single warehouse, for example, eliminates the need for numerous transfers.

Will the focus on Switzerland as a production location be retained despite relatively high manufacturing costs?

Yes, certainly. The new building will be a vertical factory with a basement, ground floor and five upper floors. We could produce on all of these floors. We are planning a mix between production facilities, office space and storage facilities.

How is Komax managing to continue producing in Switzerland despite relatively high personnel costs, while other companies are relocating to other countries?

There are several reasons. In our company, assembly – that is, the work done by people – accounts for a relatively small proportion of costs compared to materials. Moreover, having a larger site has various advantages, for example making us more agile.

Why does a large site increase flexibility?

The size makes it easier for us to compensate capacity fluctuations. If, for instance, there is a reduction in demand for a certain type of machine, we can deploy the employees on the same premises for the production of another type. If the sites are relatively small, a long distance apart and specialized in a single model, that is hardly possible. What's more, two years from now we will have state-of-the-art production logistics with which we aim to further streamline, accelerate and optimize our processes.

» **THE SIZE MAKES IT EASIER FOR US TO COMPENSATE CAPACITY FLUCTUATIONS** «

What other benefits does the location of Switzerland have?

We have highly qualified specialists here, thanks to whom we can continue to demonstrate our innovative strength and remain a technology leader. They are our most valuable asset. As other companies also seek such specialists, it is important that we continue to promote the MINT professions in Switzerland – in other words, those based on mathematics, information technology, the natural sciences and technology.

How important are Swiss technical colleges and other renowned universities for the development location of Switzerland? How does Komax collaborate with them?

Strong universities are a key factor for the success of Switzerland as an innovation location and thus also for

companies such as Komax that place a strategic emphasis on innovation. We maintain a continuous, close and fruitful research collaboration with the Lucerne University of Applied Sciences and Arts. We are providing financial support for the development of the new School of Information Technology and are also a partner for their Smart-up – Support for Start-ups project. The aim of this project is to provide students with the motivation and competence to put their business ideas into practice and establish their own start-up. Roland Siegwart, a high-caliber representative of ETH Zurich, is a member of our Board of Directors. He is Professor of Robotics and head of the Autonomous Systems Lab (ASL) at the Institute of Robotics and Intelligent Systems (IRIS).

» **WHEREVER OUR PRODUCTS ARE MANUFACTURED, WE GUARANTEE CONSISTENT, HIGH QUALITY** «

How important is “Made in Switzerland” for our customers?

“Made by Komax” is important to our customers. Wherever our products are manufactured, we guarantee consistent, high quality. This can be attributed to our uniform quality standards, applicable throughout the entire Komax Group. Our Operational Excellence experts implement and monitor them, and also conduct audits. Many of our sites are also certified. Our Operational Excellence team is constantly striving to streamline, accelerate and optimize all aspects of our processes.

Komax is expanding more rapidly abroad than in Switzerland. Will Dierikon become less important in the medium term?

No, the location of Switzerland will also remain important for Komax in the future – not least because we still register more than half of our sales in Europe. What's more, we have substantial expertise in Dierikon that has been developed over four decades.

Nevertheless, we have more than twenty sites outside of Switzerland – in other European countries, North/South America, Asia and Africa – that are just as crucial for our success. We have development and/or engineering teams at more than ten of these sites. Our company has grown considerably over the past ten years, especially in places where our customers have production sites and are also enjoying substantial growth. We therefore seek to be close to our customers, as this plays a key role in our success. In this regard, we have consistently been applying and living out our motto “globally local” for many years.

THE SOLUTIONS DIVISION OF KOMAX

SKILLFULLY CATERING TO CUSTOMER WISHES

Our Solutions division has been developing customer-specific solutions along the value creation chain, seamlessly complementing our series products, for many years. During our visit, we spoke with Product Manager Simon Abegg, who is the source of all quotes in this document.

Customer inquiries in the Solutions division usually begin with a cable harness or special cable and the desire for greater automation in their processes. What motivates the harness manufacturers in this scenario? "Automation enhances process security and ensures a consistently high level of quality. But it also enables solutions for processes that are scarcely capable of being completed manually due to advancing miniaturization. In practice, this applies primarily to the manufacture of special cables and wire harnesses."

The result is that more and more customers are demanding solutions that fulfill their very special requirements. It enables them to increase their competitiveness and have more success on the market. And that is a key reason why the Solutions division enjoys such great demand.



Global organization for optimal customer proximity

The division is organized on a global level and has Solutions hubs in the markets in addition to various plants in Europe. The hubs include Buffalo Grove and El Paso (USA/Mexico), Nuremberg (Germany) and Shanghai (China). They bring our technical sales closer to customers and their respective cultures – global expertise tailored to local conditions. Our focus is on comprehensive customer consultation during the sale and project implementation and customer service for custom solutions. This includes special machines and equipment, solutions for the taping required in the implementation of wire harnesses, or customer-specific adaptations to series machines from Komax.

Team competence: solid basis for success

The quality and experience of our employees are the most important success factors for groundbreaking series machines as well as solutions based on special customer requests. As the divisions cooperate closely with each other, solutions and capabilities developed by one team at one location can be shared throughout the company. "One typical feature of the work in the Solutions division is project-style jobs. These jobs call for high flexibility and the ability to deliver intense performance at short notice."

Fluid transition from the series product to the customer-specific solution

The technical sales team takes on projects wherever a series product from the comprehensive Komax portfolio is unable to cover a particular customer need. "We work consistently to eliminate the boundaries and enable the customer to experience Komax as a single, cohesive unit."

Whenever possible, our solution is based on a series machine from the Alpha, Gamma, Kappa or Zeta product families, on the basis of which we develop a customer-



Product Manager Simon Abegg (left): "By re-using modules and concepts, we can achieve the objective more easily, on schedule and with a calculable risk."

specific application. This includes adapting the machine and integrating new process modules from Komax and those of third-party providers. Our Solutions hubs are taking on more and more of such tasks. "If the adaptation of a series machine is not possible or sensible, we may develop a solution for special cables, for example, on the basis of our proven Lambda machine platforms. In this process, we can develop



The quality and experience of our employees are the most important success factors for groundbreaking series machines as well as solutions based on special customer requests.

the degree of automation that meets the needs and budget of the customer: from the bench top to partially automated and even fully automated solutions.”

We also offer automation along the entire value creation chain and make machines for the production of cable harnesses. Such solutions might label wires with lasers, for example, or tape cable harnesses or mount clips on the cable harness with spot taping. Sometimes, it's the concatenation of processes that leads to savings in production costs and increases repeat accuracy.

Implement projects faster with the modular concept

Whenever possible, we develop modular concepts. “This modular approach enables us to provide solutions that precisely fulfill the requirements of the customer with minimal adaptation. By re-using modules and concepts, we can achieve the objective more easily, on schedule and with a calculable risk. The customer, in turn, benefits from outstanding value for money.”

Our solutions can start very small, for example, with a knife or guide tube for a series machine. No customer's wish is so small that we won't approach it without accustomed expertise, professionalism and, depending on the project size and platform, specialized teams dedicated to the job. There's no upper limit on how large they can be. It could, for example, be fully automated plants with over 30 processing stations for the manufacture of special cables – from the wire cutting stage to the inspected final product.

New processes added all the time

Our goal is to automate the entire value creation chain in cable processing step by step. New processes are added all the time. Innovative developments in laser technology in the form of LASELEC process modules, for example, are increasingly integrated in our systems. Together with LASELEC, we close existing gaps in the automation of the cable harness, including in the aerospace industry. We also advise customers regarding solutions for Manufacturing Execution Systems (MES) as well as suitable logistics

concepts for the integration of assembly islands and warehouses. Of course, we also integrate modules for quality control of our own brand TSK and those of partners.

Compelling reasons for innovative solutions

Customers of our division come to us to talk about a wire harness, special cable or customer-specific requirement. We sit down with them and search for the ideal solution. This is then used as the basis for an auto-



More and more customers are demanding solutions that fulfill their very special requirements. It enables them to increase their competitiveness and have more success on the market.

mation solution that does not come from the series portfolio. We're also the ideal partner for handling tasks in the fields of laser technology and taping.

Are you interested in innovative solutions? Then get in touch with your usual contact person at Komax. If you're an existing customer for customer-specific solutions, you can contact your partner in the Solutions division.



Your success – our challenge

Whichever path you take to your goal: with us, even your most demanding tasks are in good hands. We have a highly motivated staff of experts in a wide range of fields who work closely together. They enable us to develop groundbreaking solutions along the value creation chain that will continue to make Komax the global leader in the future.

40
YEARS
CUTTING
EDGE



Komax AG
Industriestrasse 6
6036 Dierikon
Switzerland
+41 41 455 04 55

komax WIRE
komaxwire.com