

# REPORT

FEHLMANN

## PICOMAX® 75 with articulated-arm robot





## Common global denominator: Technical progress

**The face-to-face exchange between professionals — both on the customer and the supplier side — is one of the most interesting aspects of our industry. The numerous trade fairs give visitors the opportunity to gain a deeper insight into our range of products and services, as well as to meet the people who stand behind them. Last year alone, we were able to present our products and solutions at more than 20 national and international trade fairs and exhibitions.**

Special exhibition highlights were no doubt the premieres of FEHLMANN PICOMAX 56 L TOP — with extended X-travel for even more flexibility and FEHLMANN PICOMAX 75 with 6-axis articulated-arm robot — for handling blanks and pallets with only one system. The proven FEHLMANN machines and other innovations were also on display and could be tested on the spot. We had numerous engaging discussions and the pleasure to encounter many interesting people.

### FEHLMANN Symposium 2015

Together with our exhibition partners Fraisa, Mastercam/Vuilleumier Technology, Nachreiner, SFS Unimarket and Siemens, we presented the latest trends and methods in metal cutting technology. The mix of specialized lectures, live presentations and personal dialogue provided a unique opportunity to experience high technology in practical use by professionals and thus gain valuable input for practical implementation.

The FEHLMANN team is working for you — we look forward to the next meeting at a trade fair or our premises in Seon.



## ISO 9001 re-certification and outlook



Quality and precision are an integral part of all processes at Fehlmann AG. The outstanding performance of our employees has been proven by certificates over and over again. In mid-March, for example, the ISO interim audit for the quality standard ISO 9001:2015 was successfully passed. FEHLMANN is, therefore, on the right track and ready for re-certification next year. However, our ambitions reach even further: In 2016, the 14001 certificate will be requested for environmentally friendly and sustainable production. With this step, FEHLMANN demonstrates its intention to continue to improve and to take responsibility — ultimately for all of society.

## Preview

### Welcome to the EMO Milano 2015

Experience two exhibitions at once in Milan. We are pleased to welcome you to our booth **A08 B07 in hall 4** at the EMO Milano from 5–10 October 2015.

At the same time, you can use the opportunity for a detour to the world exhibition EXPO 2015, being held in Milan until 31 October.

Find current exhibition and event dates at:  
[www.fehlmann.com](http://www.fehlmann.com)



## Hard Swiss Franc — Where are we headed?

Dear Reader

Today, nine months after the “J” date, 15 January 2015, the pressure waves of the currency tsunami have not yet subsided. According to speculations, the extent of the changes is only starting to emerge now. Each company had to

face the question: Should we tackle the challenge or just sit back and do nothing?

We at FEHLMANN decided: We will tackle the challenge! We had already picked the low-hanging fruit; we are now taking a step up the ladder, and will be implementing additional measures, some painful, to ensure that competitiveness is maintained:

- Currency gains must be passed on without exception
- Process innovation must be pushed forward
- Utilization of our production equipment must be checked and optimized
- Discussions with our supply partners
- etc.

The whole process is a like a déjà vu: In 2011 we were in a similar situation. The resulting long-term efforts in product innovation and investment in our machinery have made us even stronger today. One thing is clear: Vital process innovation goes hand in hand with investment in new production equipment. We want to continue to produce in-house precision-critical components and assemblies cost-effectively. Only then can we guarantee our high quality and service expertise.

Success is brought on by an assortment of measures — some of which can be quite small. Today, FEHLMANN is positioned with a very young product range. Approximately 80 % of our turnover is achieved with machines that have been on the market for less than six years! Here are some further exciting innovations:

- The FEHLMANN PICOMAX 56 L, long version for even more flexibility when clamping workpieces (multiple clamping). Now also available with coolant supply through the spindle. Even faster setup with small quantities!
- The new, powerful 24,000 rpm universal spindle HSK-A63 for FEHLMANN VERSA 825 and PICOMAX 95. Even more productivity!
- Automation for series and single-part production: In the spirit of Industry 4.0, articulated-arm solution with the convenient, easy to use FEHLMANN MCM. Longer spindle running hours — made easy!

As you can see, the FEHLMANN team is working on a daily basis in order to achieve our vision. FEHLMANN is a long-term reliable and competent partner for the production of machining solutions for precise milling and drilling products.

Thank you very much for your trust and I hope you will enjoy reading our informative and entertaining magazine.

With kind regards,

Frank Fehlmann, CEO

## 02 FEHLMANN global

Symposium Days at FEHLMANN in Seon  
National and international trade fairs



## 04 Focus on

Production site in Switzerland is expanding  
Blue Competence — FEHLMANN and  
sustainability



## 06 Technology & development

NEW! FEHLMANN PICOMAX 56 L TOP  
NEW! FEHLMANN PICOMAX 75  
with articulated-arm robot  
FEHLMANN-Innovations  
Industry 4.0

## 12 Customers & work

FEHLMANN from the customer's perspective



## 14 FEHLMANN in China

Opening of office with showroom in Suzhou

## 15 FEHLMANN internal

In commemoration of W. Fehlmann Sr.

### IMPRINT

Published by Fehlmann AG Maschinenfabrik, Birren 1,  
5703 Seon/Switzerland Edition 10,000 copies

Published in September 2015

Contact mail@fehlmann.com, Phone +41 62 769 11 11

## Production site in Switzerland is expanding

**The development of innovative products and assurance of highest quality standards, as well as efficiency, are among our main concerns. That's why we continuously invest in our production plant in Seon, Switzerland.**

During the last year, Fehlmann AG again made extensive investments: An additional production hall, as well as the complete grinding shop, were equipped with new air-conditioning. New equipment and production machinery for manufacturing high-precision components were purchased. In particular, a FEHLMANN PICOMAX 75 5-axis machining centre is newly available for high-precision machining of small cubic 5-axis parts. In addition, the FEHLMANN VERSA 825 5-axis machining centre with the new Leonardo automation system and FEHLMANN rack magazine guarantee efficient 5-axis high-precision part production during unmanned operation as well.

### Increased customer value

**Thanks to these measures, manufacturing processes have been further optimized and simplified. The automation of individual process steps dramatically reduces downtime and ensures productivity during unmanned operation as well. Thus, FEHLMANN is consistently boosting flexibility and cost effectiveness.**

**The use of new, leading-edge cutting materials and tools improves process reliability and tool life, enabling a considerable reduction in machining times.**

Ongoing investments in state-of-the-art production and environmental technologies, lean and efficient processes, longstanding expertise and, not least of all, our dedicated expert staff, guarantee quality, reliability and safety — the outstanding features of FEHLMANN high-precision milling machines.



*The site in Seon is a competence centre for Fehlmann AG in every respect: Development, planning, production and administration are housed here.*



*In the air-conditioned production halls, high-precision components are manufactured according to ISO 9001 quality standards.*

## FEHLMANN innovations

**Recently, the Fehlmann AG line-up has been supplemented by two machines for manufacturing high-precision components.**

The FEHLMANN PICOMAX 75 5-axis machining centre easily manages the high-precision machining of small cubic 5-axis parts. A FEHLMANN VERSA 825 5-axis machining centre has also been added to the fleet, complemented by the new Leonardo automation system for 20 pallets and the FEHLMANN rack magazine for 218 tools.



# Blue Competence — FEHLMANN supports sustainability initiative



**Sustainability already has a long tradition at our company. FEHLMANN has been a partner of Blue Competence, the sustainability initiative of the German Engineering Association (VDMA) for some time now.**

Blue Competence defines reliable criteria and standards for the sustainability of companies. To anyone looking for a partner with sustainable products and solutions, Blue Competence provides assurance that he has the appropriate company at his side.

The sustainability criteria of Blue Competence relate to all company areas and the whole life cycle of products — from development to environmentally-friendly disposal.

It is based on a management system which includes sustainability objectives and is assigned to a person within company management. What's more, sustainable action is anchored in all relevant processes — from sustainability guidelines for product design to product documentation for resource-conserving operation and advice to the customers on energy efficiency of products and, finally, to proper disposal. Companies participating in the Blue Competence initiative provide mutual support to each other by sharing their experiences through the use of quantified case examples.

**In addition to the Blue Competence initiative, Fehlmann AG has also implemented the following sustainability measures:**

Criteria such as optimal building insulation and well-planned orientation of windows for best temperature control and light incidence were considered in the building's design. The building was also designed as a multi-story building to ensure the optimum use of building land. FEHLMANN makes an important contribu-

tion to the reduction of CO<sub>2</sub> emissions by reducing transport routes to a minimum, thanks to the high degree of in-house production and the central production site.

We will gladly provide you with any further information. Please contact us.

**The machines also make a contribution to efficiency and sustainability, thanks in particular to the following features:**

- FEHLMANN machines control cooling capacity according to actual needs. The energy-optimized cooling saves up to 25%.
- Working-point optimized coolant pumps use up to 30% less energy.
- Various loads are shut down in a timely and needs-based manner. After the NC programme, the machine goes into standby mode or is switched off completely.
- Short distances during setup reduce downtimes and thus increase efficiency.
- Quality and low energy consumption were key criteria in choosing components.

## EnAW certificate



### Energy management for SMEs

The Energy Agency of the Swiss Private Sector (EnAW) provides a professional energy management system for medium-sized companies. It includes customized advice, optimized energy consumption and reduced energy costs. After an energy check-up, a target agreement is made. FEHLMANN has, therefore, engaged to save 15% electricity and gas / fuel oil until 2024. The company has been certified by EnAW since 2014 and will be supported in the coming years by an EnAW consultant in the implementation of the agreed-upon measures. With this commitment, FEHLMANN can now benefit from all the advantages of reduced energy consumption.

[www.enaw.ch](http://www.enaw.ch)

## ISO 14001

### Targeting the next quality level

As a partner of the Blue Competence sustainability initiative, FEHLMANN consistently pursues sustainability in all areas of business and will apply for ISO 14001 certification next year. In the environmental management standard ISO 14001, environmental life cycle assessment — which takes into account the whole life cycle of a machine from its original conception to environmentally sound disposal — plays an important role. ISO 14001 sets globally recognized requirements for the environmental management system of a company. In addition to defined and controlled environmental performance, a continuous improvement process is set up by the company itself.

[www.bureauveritas.com](http://www.bureauveritas.com)



# FEHLMANN PICOMAX® 56 L TOP — now also with coolant through the spindle with 40 bar

The versatile TOP milling machine with enlarged clamping area is now also available with coolant through the spindle (40 bar) for deep drilling and internally cooled tools.

FEHLMANN PICOMAX 56 TOP users can change quickly and flexibly between CNC and manual machining. This versatile machine is now also available with extended 800 mm X-travel. It, therefore, allows even a broader range usage:

- Machining of extra-long workpieces without re-chucking, in a single step
- Mounting of up to four fixtures at the same time on the large 1400 × 480 mm clamping surface
- 4-axis machining of even longer workpieces with the dividing unit



It goes without saying that the L version of FEHLMANN PICOMAX 56 TOP also offers the known highlights:

- Changeover between manual and CNC machining is flexible, fast and safe. This reduces programming and set-up work in single part production.
- The compact and very clear machine concept offers a perfect view of the workpiece and spindle at all times.
- Highest precision is achieved by a direct measuring system with linear glass scales.
- An oil-cooled high speed spindle with optimum stability ensures flawless surfaces and maximum productivity for cutting-edge milling strategies.
- The innovative Swiss Made product impresses with its favourable cost effectiveness. FEHLMANN guarantees excellent service and highest availability of spare parts.
- The enhanced TOP functions and fine depth in-feed via handwheel are further reasons why the FEHLMANN PICOMAX 56 L TOP is the machine of choice for even more applications.

## Innovation with proven Swiss quality

The new coolant through the spindle with 40 bar ensures reliable and effective heat dissipation at exactly the required location. This enables high machining efficiency and best precision, also for internally cooled tools and for deep hole drilling.



**Technology & development**

**NEW! PICOMAX 75 with articulated-arm robot**





# FEHLMANN PICOMAX® 75: New automation solutions for increased performance and comfort

FEHLMANN offers a range of flexible automation solutions to further improve productivity. The FEHLMANN Milling Center Manager (MCM) enables fast, reliable and intuitive operation of the complete system. FEHLMANN offers all services for efficient and trouble-free operation with minimum space requirements.

## Flexible and efficient: Automation with 6-axis articulated-arm robot

FEHLMANN offers an automation solution with a 6-axis articulated-arm robot which enables handling pallets and blanks in a single system.

- Automated re-clamping enables all-over machining without manual intervention: Parts leave the machine completely finished.
- Efficient large batch machining with flexible manufacturing of small series in-between
- Perfect accessibility and simple, uncomplicated operation
- Loading during the machining process is possible
- Automatic tool changer with 50 places (optionally 80) — rapid, compact and generous
- Thanks to the direct handling of workpieces, even fewer fixtures are required in the production of large batches



## Automatic workpiece loading with Erowa ERC 80

The productivity of the FEHLMANN PICOMAX 75 can be further improved with the pallet changer system Erowa Robot Compact ERC 80 - ensuring an optimal price-performance ratio.

With its pull-out magazine levels and extremely compact design, the new ERC 80 workpiece loading system is easy and safe to operate. It can be combined with ITS and UPC pallets, allows the use of mixed magazines and offers convenient access to the workpieces. Needless to say, the integrated loading station permits loading during the machining process. The ERC 80 can be arranged according to requirements and always offers optimum access.



## VERSA® 825 with Leonardo automation system

With the new Leonardo automation solution, the productivity of the FEHLMANN VERSA 825 can be boosted even further — an investment that will pay off rapidly. The workpieces are automatically fed via 28 pallet positions (24 UPC pallets) and quickly and reliably machined.

The Leonardo automation system has been consistently designed for optimum workflows. The multi-level system ensures compact dimensions at high pallet capacity. The integrated loading station can remain open while the robot loads the machine. The machine is easily accessible at any time and the magazine can be viewed from all sides. The WLAN-connected, hand-held touch panel allows simple, intuitive and rapid operation of the system. The Leonardo automation system is easy to retrofit at any time.



## Motor spindle for FEHLMANN VERSA® — even more flexibility

The VERSA by FEHLMANN boasts a robust and stable HSK-A63 spindle, with 14,000 rpm, 20,000 rpm or 24,000 rpm, enabling precise and highly productive machining. In applications with very fine tools rotating at extremely high speeds, it is possible to use a motor spindle with up to 80,000 rpm. This allows even broader and more versatile use of the FEHLMANN VERSA.



The implementation is simple and practice-oriented: The motor spindle is called up like a normal tool and automatically loaded into the spindle. The desired speed is selected in the programme and the motor spindle is switched on and off via an M-function. The motor spindle is marked as a special tool in the tool table. The FEHLMANN VERSA thus automatically considers a possible zero point offset. Automatic measurement by laser is, therefore, also ensured. If the customer has Dynamic Collision Monitoring (DCM), the machine also takes into account the shape of the auxiliary motor spindle.

## Ideal milling strategies shorten machining times

**Can milling be done even faster and more productively? With the ideal milling strategy, the correct tool selection and a powerful programming system, machining times can be significantly reduced.**

Three symposium days held in April 2015 gave visitors the opportunity to convince themselves of the performance of the newest machining processes. The latest generation of tools and machines allow new processing methods such as trochoidal milling. At various FEHLMANN

machines, participants could admire how the new strategies allow complex workpieces to be machined in half the time compared to previous high-performance milling processes. Do you want to learn more about the new possibilities? FEHLMANN will gladly take time to advise you.



## Industry 4.0: The future has arrived

**Industry 4.0 — the fourth industrial revolution — is the buzz word of the moment. Comprehensive networking and digitalization of manufacturing processes allow industrial manufacturers to once again step up their performance in a sustainable manner. Although Industry 4.0 is still just a vision in many aspects, FEHLMANN machines already provide the basis for carrying this development into the future.**

The first industrial revolution was the mechanization of production through water and steam power. The second industrial revolution introduced mass production through assembly lines and electric power. It was followed by the digital revolution, which saw a further automation of production processes through electronics and information technology. Continuous advances in the networking of end devices and continuously increasing transmissible data volumes have triggered the latest revolution — Industry 4.0.

Ever since the term “Industry 4.0” was coined in Germany in 2011, companies and government agencies in the German-speaking countries have strived to create the ideal conditions for using net-

worked means of production. As a pioneer in the field, FEHLMANN is already able to offer several innovative solutions for the automated production of individual workpieces and small batches.

Cost-effective production of a wide variety of parts – as single pieces or small series — is the daily challenge faced by many companies. This is where FEHLMANN offers excellent solutions. For example, the pallet-based automation system with accurately defined mechanical interfaces permits reproducible presetting on coordinate measuring machines. This enables processing tasks to be prepared and assigned flexibly to a particular machine according to available capacity. The required offset data are either sent direct-

ly to the machine by the management system or they are directly read from the machine control unit. This gives you full flexibility — beginning with a batch size of one.

The FEHLMANN Milling Center Manager (MCM) enables unattended operation of machine tools and loading robots. The MCM controls and monitors machines and robots in unmanned operation. System events are logged and, in the event of malfunction, the MCM takes pertinent measures to ensure uninterrupted operation, such as the notification of the operator via SMS/e-mail, or the selection of other workpieces. In addition, FEHLMANN also offers synchronized maintenance requests on the CNC screen.



### Incorporation into production lines

FEHLMANN milling machines can be incorporated into any company’s network, for example as part of a larger production line. FEHLMANN adapts fully to your requirements. Integration into production management systems such as Erowa, Soflex or Promot, or tool identification via barcode — these options are also available if you need them.

## Customers & work

FEHLMANN from the customer's perspective



The FEHLMANN VERSA 825 and the rack magazine for 346 tools are core components of the automation solution at Test-Fuchs.

# Safe aircraft — thanks to Test-Fuchs and FEHLMANN

**The Lower Austrian plant manufacturer Test-Fuchs GmbH develops and produces highly specialized test and measurement systems, as well as individual components for the aerospace industry. To maintain the company's leadership in this segment, third-generation CEO Volker Fuchs has invested in the machining centre FEHLMANN VERSA 825. With this automation solution, Test-Fuchs GmbH can look forward to a successful future, as the customized individual developments that are at the core of their test systems can now be realized more cost-effectively, thanks to enhanced flexibility and efficiency of the manufacturing processes. The FEHLMANN VERSA 825 is the perfect solution for this task.**

Anyone who has ever boarded a plane is aware of the amount of engineering expertise that goes into such a machine. And they might ask themselves: "Why are aeroplanes actually the safest means of transport?" — Answer: Not least because companies such as Test-Fuchs GmbH and Fehlmann AG have striven tirelessly to improve the quality of their products and services in the past decades. This is because test and measurement systems by Test-Fuchs GmbH check all components and systems that are installed in an aeroplane. The development and production costs in the aviation industry are usually very high, because production is often for single components or small series. For example, Boeing and Airbus strive for series of 600 pieces per type. Volker Fuchs, therefore, insists that the necessary components for the testing equipment are developed and manufactured in-house. "With our high vertical range of manufacture, we offer our customers superior flexibility in development and production, as well as safety, by reducing interfaces and optimizing spare parts supply," the CEO explains the adaptability that is the key to the company's success.

## Decision in favour of FEHLMANN VERSA 825

For Roland Schlosser, Production Manager at Test-Fuchs GmbH, it was love at first sight: "It has significant advantages that perfectly meet our requirements. Firstly, its capability of single-part production is uncontested and, secondly, it can be automated without limiting flexible accessibility." In Schlosser's depart-

ment, approximately 32 employees are engaged in the processes of turning, milling, grinding, eroding, lapping, honing, as well as surface finishing. A wide variety of materials are used in mechanical production — from aluminium to various steel and stainless steel grades, as well as titanium and superalloys. The manufacturing tolerances are within the micron range. Due to the wide, unpredictable variety of parts, flexible machine tools are required. Also for Roland Sandmeier, FEHLMANN Sales Manager Northwest Europe, the FEHLMANN VERSA 825 was the only machine up to the challenge, simply because of the advantages of simultaneous five-axis machining with a large swivelling range of 240 degrees and its highly dynamic behaviour.



A look at the rack magazine.



The automation cell with rail system, loading and unloading station, robot and host computer was supplied by Promot Automation.



Test-Fuchs handles an extremely broad range of parts — flexible machine tools are therefore required.

### Mechanical production under a new roof

Due to the limited space available, mechanical production was relocated to a new building. While the new building was erected, a new automation project was launched with the clear specification of having an automation with a rail system (by Promot Automation), that was to be expandable at any time in the future, and a large tool magazine. The latter requirement was perfectly met by FEHLMANN with the specially designed tool magazine. The other project partners involved: Automation: Promot Automation; PLC control unit: Beckhoff; robots: KUKA; storage system: Kardex; tool management: TDM systems; tool measurement: Zoller; clamping system: System 3R; CAD/CAM: AM Engineering; quality assurance: Hexagon.

So-called soft skills also play an important role alongside the "hardware" in these types of purchasing decisions. For CEO Volker Fuchs, FEHLMANN exhibited these skills with its matching company philosophy, its willingness to respond to specific customer needs and the short distances when it comes to support or service.

The cooperation between FEHLMANN and Test-Fuchs is, therefore, based on a solid foundation. And the next time you board a plane, you can say confidently: "I am flying safely and conveniently... thanks to Test-Fuchs and FEHLMANN."

### Test-Fuchs GmbH

Test-Fuchs GmbH was founded in 1946 by Ing. Fritz Fuchs. Today, Volker Fuchs is third generation CEO and Managing Partner of the company which specializes in test systems, geared in particular to individual components for the aerospace industry. Test-Fuchs is one of the world's leading companies in this segment. The company resides about 100 kilometres northwest of Vienna in Groß-Siegharts. With its 400 employees, Test-Fuchs generates an annual turnover of approximately 40 million euros.

[www.test-fuchs.com](http://www.test-fuchs.com)

### Statements



"With our high vertical range of manufacture, we offer our customers superior flexibility in development and production, as well as additional safety, by reducing interfaces and optimizing spare parts supply."

Volker Fuchs, Managing Partner / CEO  
Test-Fuchs GmbH



"We process approximately 6,500 jobs a year with around 140,000 parts in different batch sizes and, therefore, needed a very flexible machine like the FEHLMANN VERSA 825, not least with a view to the reduction of idle times."

Robert Schlosser, Production Manager  
Test-Fuchs GmbH



"For consistently good accessibility, the sliding doors to the working area, the CNC control desk with the Heidenhain iTNC 530 HSCI control unit and the tool changer loading system are instantly within the operator's grasp."

Roland Sandmeier, Sales Manager Northwest Europe, Fehlmann AG Maschinenfabrik



*The new building in Suzhou houses everything: showroom, offices, repair shop and warehouse.*



*The air-conditioned showroom offers the opportunity to inspect FEHLMANN machines on site and also to carry out small milling tests.*



*Frank Fehlmann, CEO, welcomes the numerous guests with a short opening speech.*

## Branch office with showroom in China

**For almost 20 years, Fehlmann AG has been transacting business with China through a network of selected agents and agencies. Machines have been mainly supplied to state-owned enterprises and institutions, which have a growing need for high-precision machine tools. Meanwhile, European customers have also joined the Chinese adventure and as a result, in 2010 FEHLMANN decided to establish a sales branch in Suzhou — approximately 1½ hours from Shanghai.**

As a result of the growing success, a sequel to the the initial 80 m<sup>2</sup> small sales office in a 22-floor office building was 'released' last summer.

Thanks to the outstanding commitment of the local team and after a construction period of almost two years, during which many country-specific obstacles had to be overcome, FEHLMANN was able to celebrate the opening of the new office with showroom, warehouse and repair shop on 20 August 2014.

### **Grand opening by Frank Fehlmann, CEO, and Markus Beck, General Manager Fehlmann China.**

More than 80 illustrious guests, consisting of customers, authorities, suppliers and trade press, accepted the invitation to the ceremony. The personal presence of CEO Frank Fehlmann and his wife, as well as his opening speech, gave a touch of dignity to the occasion and it can be said without exaggeration that another milestone in the company history was laid on that day. Markus Beck, long-time employee of FEHLMANN, is General Manager of Fehlmann China Ltd.

### **Current activities in China**

Fehlmann China Ltd. is a pure sales and service branch. No parts are produced or assembled for the high-quality machines. The team now consists of five people, who are responsible for service, sales and administration. To safeguard Swiss values and ensure FEHLMANN's services meet the demands and expectations of the customers, General Manager Markus Beck has committed to spending 50 % of his time on site in China and supporting the otherwise purely Chinese team in its activities.

Covering an area of about 800 m<sup>2</sup>, the newly opened branch includes a modern, air-conditioned showroom, where the FEHLMANN machines are exhibited and demonstrated, offices, as well as ample space and suitable facilities to carry out seminars, conferences and training courses.

Smaller milling tests for customers can also be carried out by the FEHLMANN application engineer on-site.

With the newly-opened branch in China, FEHLMANN wants first and foremost to attend and support its European customers quickly and expertly with professional, regional service. Another goal is to win new local customers and build customer relationships, in order to ensure healthy and independent growth in this economically significant region on a permanent basis.

### **Contact address**

Fehlmann China Ltd.  
No. 200, Middle Suhong Road, Building E, EPZA  
215021 Suzhou, Jiangsu China

Phone +86 512 6296 6503  
E-Mail [mail@fehlmann.com](mailto:mail@fehlmann.com)

## In commemoration of Willi Fehlmann (1932–2014)

On 8 December 2014, Willi Fehlmann passed away at the age of 83, after a rich and full life. As of 1954, Willi Fehlmann was at the helm of W. Fehlmann Maschinenbau Seengen (Aargau canton) in the second generation and expanded the company to Fehlmann AG Maschinenfabrik Seon. In 2006, he handed over the management to his son, Frank Fehlmann. After retiring from the board in late 2012, Willi Fehlmann continued to take an active part in the company's events until shortly before his death. Under his leadership, the family-owned Fehlmann AG grew into an renowned company based at the production site in Seon/Switzerland, with over 180 employees worldwide.

In the 1950s, Willi Fehlmann recognized the growing need for precise yet handy machines that could be used in any mechanical workshop. Shortly after completing his engineering studies in Le Locle, he presented the milling and drilling machine P18 with cross table, with which he was able to score a great success. As the company

flourished, the space requirements also grew. When space in the factory in Seengen became tight, Willi Fehlmann was forced to look for a plot of land nearby, and found the ideal location in Seon in 1972.

At the international machine tool fair EMO in 1975, the company proudly presented its first numerically controlled milling machine PICOMAX 50 NC — a sensation at the time — with which Fehlmann AG gained great recognition and respect among experts. The company gradually shifted its focus to the manufacture of high-precision machine tools, which are used mainly in industrial milling and drilling machining, from simple to complex and high-precision parts. After his sons Willy Fehlmann Jr. and Frank Fehlmann joined the company, Willi Fehlmann was confident to have found a suitable successor. The then-new 5-axis technology and an automatic workpiece loading and unloading system were introduced in the mid-1990s. In 2010, he was delighted to celebrate the company's 80th



birthday together with the workforce.

We have lost a good-hearted and dedicated person who, as a modest and far-sighted leader, was consistently committed to the welfare of the company's employees and business partners and to Switzerland as a workplace.

Frank Fehlmann — CEO Fehlmann AG



## The smallest one goes way up high

**A FEHLMANN PICOMAX 20-M was recently delivered to the Eiger glacier station at 2320 m above sea level.**

June 2015: The smallest FEHLMANN machine turns out to be a summiteer. However, it did not have to climb all the way to the top, as Jungfrau Railways needed it at the glacier station, at the feet of the three famous mountains Eiger, Mönch and Jungfrau — just before the long tunnel which leads up to the Jungfraujoch. Up there in the inhospitable cold, the FEHLMANN PICOMAX 20-M will be very much in demand: Here, most of the vehicle maintenance and overhaul work are carried out.

*Captions for the pictures:*

*The FEHLMANN PICOMAX M-20 shortly before unloading at the Jungfrau Railway workshop, where it will be providing its valuable services.*

*Images by courtesy of: Herrn Heinz Inäbit, Head of Workshop and Eiger Glacier Station.*



**Machining centres in portal design**



**Machining centres**



**Milling / Drilling machines**



**Customer service / spare parts**

**Fehlmann AG Maschinenfabrik**

Birren 1 – 5703 Seon / Switzerland

Phone +41 62 769 11 11

mail@fehlmann.com – www.fehlmann.com

Your Precision Advantage.®

