

HELLO!



Ganesh Kotavadekar

At this time, my four-and-a-half-year-old daughter Swara and I were enjoying the sun at a waterfall. Before that we visited the famous Cave Shiva Temple, where quests need to watch out for venomous snakes.

Ganesh Kotavadekar is Product Manager at GF Piping Systems in Ratnagiri, India.



Eleonora Ellen

Jakarta Indonesia September 27 2017 1:15 PM CET

On this day I (2nd from right) was having dinner with my friends at our favorite restaurant Bakerzin. We studied engineering together and still keep in touch and support each other, both in business as well as in our private lives.

Eleonora Ellen is Head of Sales and Marketing at GF Piping Systems in Jakarta, Indonesia.

JOIN IN AND WIN!

What are you doing on January 9, 2018 at 9:00 AM local time? Send your snapshot with "Hello!" in the subject line and a short description to: globe@georgfischer.com
All entries will be included in our competition on page 40.

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22 years. With this
responsibility for his
birds he has matured
as a person.





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Ladies with green fingers
Selena Yang and Grace
Sun from GF Piping
Systems in Shanghai,
China, provide greenery for their colleagues' offices.

My home
Eric Bates from
GF Urecon is inspired by
the cultural and natural
diversity around his
home town of Montreal.



EDITORIAL

With chips and grips

Dear colleagues,

Digitalization is penetrating our private lives and changing processes, products and the working environment in our professional lives. The fact that GF has acquired the German software company Symmedia GmbH, with 60 employees, is sign enough of the ongoing change.

Our site in El Monte, where GF Signet produces innovative sensors and supports GF Piping Systems to become even more successful in the area of digitalization, has completely changed since it was acquired 30 years ago. Central human resources processes will also change with a new GF-wide online platform. As a result we will save time and costs and make it easier for managers and employees to work together across all divisions and countries.

Despite all the benefits of digitalization, it's refreshing now and again to pursue those hobbies where it's all about pure craftsmanship, empathy and the human ability to anticipate – 100 percent analog. Stephan Bremicker, Quality Manager at GF Automotive, is a successful minigolf player who has won several national and international titles.

Which shows: digital or analog is not the question. Both used correctly create the perfect combination.



Beat Römer Head of Corporate Communications

J. Jun

I hope you have an informative and entertaining read. Do you have any feedback? We look forward to receiving your input at globe@georgfischer.com

IN BRIEF



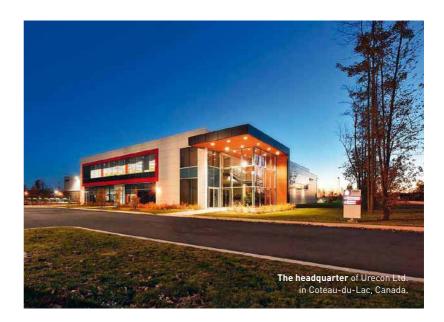
Klostergut Paradies near Schaffhausen has been owned by GF for 100 years.

Anniversary year at GF

2018 will be a special year for GF as the Corporation will be celebrating not one but two important anniversaries. Klostergut Paradies has been owned by GF for 100 years – the former convent, which is close to Schaffhausen, Switzerland, is used as a training center today. GF employees from all over the world gather here for a variety of events and Corporate training sessions. In addition, vocational training at GF has been a cornerstone of the Corporation for 100 years. Today GF trains more than 500 apprentices in different professions each year. There will be various activities to mark both anniversaries in 2018. Find out more on our social media channels! ■

Increased presence in North America

Urecon Ltd is the newest member of the GF Piping Systems family. The division acquired the Canadian specialist for pre-insulated piping systems in July 2017. The acquisition will allow GF Piping Systems to expand its footprint in North America and accelerate the introduction of its pre-insulated piping system COOL-FIT 2.0. Urecon was founded in 1969. Today, the company holds a strong market position in the fields of freeze protection, chilled water and district heating. In 2016, Urecon generated sales of about CHF 20 million with around 100 employees. Its two production sites are located in Coteau-du-Lac, Quebec, and Calmar, Alberta. ■



New facility opened in the USA

GF Linamar LLC's new high-pressure die casting facility was officially opened on October 5, 2017. 300 guests, including international customers, suppliers as well as representatives from the local political and business communities, came to Henderson County in the US federal state of North Carolina for the celebration. The new facility offers 33 000 m² of space

for 300 employees and twelve modern high-pressure die casting machines. GF Linamar will produce light metal components for the strategically important North American automotive market at the facility. Thanks to the orders that have already been placed, the site will be running at 85 percent capacity up until 2021.



5070

In recent months two GF companies have celebrated their long-standing existence. System 3R, part of GF Machining Solutions since 2001, celebrated its 50th birthday in August. Today, the Swedish company is known worldwide as a specialist for automation and machine software. GF Piping Systems in Italy had its 70th anniversary in October. The sales company Georg Fischer S. p. a. today sells GF Piping Systems products to more than 500 distributors. ■

Two big

anniversaries

Renewal of PC workstations

In order to provide GF employees with modern and efficient PC workstations, the IT infrastructure will be renewed in 2018. T-Systems will remain GF's IT service partner worldwide. In this function the service partner will pay special attention to the suggestions received. Further information can be found on the intranet.

PRODUCT IN FIGURES



in the new Audi A8 – indeed, never before have there been so many in a model of this brand. Audi is aiming to set standards in the areas of driving dynamics, safety and efficient energy consumption with its new luxury sedan. For this reason, the manufacturer has opted for the light and stable magnesium and aluminum castings from GF Automotive. These parts are used in the car interior and at the crash-relevant points in the vehicle body. They replace a large number of sheet metal parts with a small number of light structural components. GF Automotive has therefore made a decisive contribution to the intelligent lightweight construction concept of the new Audi A8, also in the plug-in version with hybrid drive.

Start of production of the parts: June 2017
Development: Schaffhausen, Switzerland
Development and production: Altenmarkt
and Herzogenburg, Austria
Order period: Seven years
Audi A8 models produced annually: 50 000

IN BRIEF

Highlights in fall

September brought two important events for GF Machining Solutions: The division welcomed Symmedia GmbH to the GF family. Symmedia is a leading specialist in the digitalization of production operations. A workforce of about 60 employees in Bielefeld, Germany, develops software solutions for connecting machines.

Another highlight was the EMO in Hanover, Germany, which attracted some 130 000 trade visitors. At the world's largest metalworking exhibition, GF Machining Solutions presented several novelties, including the AgieCharmilles CUT P 350 electric discharge machine with its new high-performance generator (see p. 20). ■



GF Machining Solutions presented its innovations at an interactive stand at EMO, the world's largest metalworking exhibition.

Growth at GF Automotive

GF Automotive has strengthened its position in the area of high-pressure aluminum die casting. The division has acquired Eucasting Ro SRL, a specialist with two production sites in Romania. The acquisition follows the strategy of expanding the divisions' presence in the growing light metal components business. Eucasting was founded in Italy in 1960 and started to expand to Romania in 2006. With approximately 500 employees, Eucasting generates sales of around CHF 50 million. 60 percent of this figure comes from the automotive sector, followed by lighting solutions and further industrial applications. ■



Three new Clean Water projects

GF's Clean Water Foundation is supporting three new projects with a total of CHF 240 000. The money will be used to improve the supply of clean drinking water for around 5000 people in Asia and Africa. Two of the projects, in Nepal and Kenya, are focusing primarily on schools and communities in rural areas. The third project, in Bangladesh, is geared towards people living in large cities under particularly difficult conditions. The partner on site is Caritas Switzerland, which has been active in all three countries for years and works closely with local institutions.



For more pictures and videos on the news in brief, see: globe.georgfischer.com



HOW DID IT GO? 28 YEARS AT GF

Jeffrey You Technical Manager at GF Machining Solutions in Singapore

28 years ago ... Jeffrey You's career at GF began. He joined GF Machining Solutions as one of two Field Service Engineers, providing operational training to customers and repairing machines. Since then, his professional growth has been continuous, and his work has covered customer service, databases, IT, and logistics, among others. Of the many projects in which he was involved, the "data harmonization project" in 2005 stands out in particular. He later received a letter of recognition for his contribution from the management, something that he is especially proud of.

And in the upcoming years? An experienced employee and a long-term visionary by nature, Jeffrey You plans to use the next five years to transfer his knowledge to the next generation. "I hope that the younger members of the team can gain from my experience," he says. He will also continue running regularly. "The most important thing is to stay healthy so that you can dedicate yourself to both your work and your family."

Yes, we made it!

Employees at GF Automotive in Werdohl, Germany, have just completed a very special training course and received the "Werdohl diploma." The qualification makes everyone an expert on the site.

ot many of the 350 employees working at Werdohl had planned to go back to school – but that is exactly what happened last year. Every one of them attended fifteen short training units and took the corresponding exams. They are now all proud holders of the "Werdohl diploma."

"Our intention was that everyone had a basic understanding of how our company works," explains Symbios Manager Marius Chylka, who organized the training. "In order to improve site productivity, our employees need to understand how the work of the individual departments fits together," he adds.

Comprehensive syllabus

The training for the Werdohl diploma was designed to provide a broad range of company-related information. It was divided into fifteen units and introduced employees to a variety of topics, ranging from production processes in the foundry through planning and logistics to Human Resources and financial controlling. The content was taught by department heads and other experts.

The program was launched on March 8, 2016. Lessons were scheduled every week on Tuesday and Thursday, with two classes running at the same time and each unit lasting 30 minutes. The classes were not taught separately by department; instead people were mixed together. This approach had the positive effects of bringing together employees from different areas and encouraging dialog. At the end of each unit there was a test.

The multiple choice tests included questions such as "What is the first 4DX discipline?", "Which three factors determine overall equipment effectiveness?", and "What is the melting temperature in a shaft furnace?" Happily, employees didn't suffer from exam nerves: "It was basically impossible to fail," chuckles course organizer Marius Chylka. He adds: "The tests additionally boosted motivation."

It was a real challenge to organize eleven months of training during ongoing operation. After all, the Werdohl diploma project couldn't be allowed to disrupt the workflows. "We had roughly 5 000 teaching units, which had to be coordinated with teachers, managers and shift leaders," comments Marius Chylka. "We wanted to make sure that all employees could attend the lessons during work hours," he adds.

Imitations welcome

The effort was well worth it. In total, 94 percent of the workforce has received the Werdohl diploma. "A special thank you goes to former Symbios Manager Manfred Winkler, who came up with the original idea and laid the foundations for the Werdohl diploma," says Marius Chylka, who wants to continue developing the project. In the future, new colleagues should have the possibility to participate in the training online. Marius Chylka hopes that other GF Automotive sites will use the idea for similar training courses. He knows that the approach has already been replicated by certain sites: "The colleagues in Suzhou and Kunshan now have a Chinese version of our diploma." ■





THE SITE

GF Automotive aluminum pressure die casting plant in Werdohl, Germany

THE TASK

To teach all employees about the different departments and processes within the site

THE AIM

To create a better understanding of and curiosity about interrelations and linkages across the site

THE TIMEFRAME

Eleven months

THE TRAINING

Fifteen units on different topics such as technologies, operating processes and organizational matters, followed by tests

THE RESULT Graduation rate of

Graduation rate of 94 percent



THE PROJECT LEADER

Marius Chylka, Symbios Manager at GF Automotive in Werdohl, Germany

For more pictures, see: globe.georgfischer.com





t has just gone half past six on a summery Saturday morning. The first players are chatting as they stroll towards the course, sports bag in one hand, club in the other. The gray Eternit surfaces are still glistening from the morning dew. The first "clack" can be heard above the players' voices. This is what it sounds like when a minigolf club hits the small plastic ball. It is a sound that Stephan Bremicker cannot live without. He is standing at the third hole and reflecting. His first shot missed. He determinedly puts his hand in his pocket and takes out a yellow minigolf ball. He drops it briefly on the run to test it - the ball hardly bounces. The 53-year-old nods his approval. Now he places the little ball in the tee box, bends his knees slightly and pulls his shoulders back. Then, with the obstacle clearly in sight, he places the club just behind the ball and hits it. It goes in!

"The choice of ball is crucial," he says. He always carries a large selection with him for this reason. On this occasion, he has 30 types of ball differing in size, weight, degree of hardness and surface. The professional minigolf player decides which ball is the right one when he is on the course, depending on the weather. Because the tricky thing in minigolf is: how a ball rolls and bounces depends on the temperature, humidity and wind. "The same hole is different every time you play it," Stephan Bremicker explains. The challenge of calculating the unpredictable is what fascinates him about the sport.

Always on the road

Stephan Bremicker travels around 15 000 km each year for his major passion, regularly measuring himself against the best. He has already played almost every course in Germany and, within Europe, has taken part in competitions from Greece to Norway. He makes a note of the exact weather conditions and the ideal ball for each hole. "I like to tinker and am quite meticulous," he concedes. So he feels very much at home working in Quality Management at GF Automotive in Mettmann, Germany. His area of responsibility – analysis – is all about precise numeric values.

In Mettmann, GF Automotive produces castings for the big players in the automotive industry according to the strictest requirements. To check the chemical composition, each batch of molten iron is analyzed with a spectrometer. "Apart from iron, it contains around 20 further elements, including carbon, trace elements and gases," Stephan Bremicker explains. "The material quality is determined by their respective proportions." He evaluates the results on his PC, compares them with target values and documents them.











CONCRETE, ETERNIT AND FELT

Minigolf was "invented" by the Swiss garden architect Paul Bongni. He designed the first standard concrete course with 18 precisely specified obstacles and had it patented as "minigolf" in 1953. Four vears later, the German Albert Pless built the first Eternit course with holes which, at 6.25 meters long, are far shorter than the twelve-meterlong holes on the concrete course. Felt is the third main surface material used after concrete and Eternit. Minigolf has been popular since the 1920s in the US and the UK, with most games being played nowadays on artificial courses ("adventure golf"). The sport has developed rapidly, primarily in Europe, but is also becoming more popular on other continents. The Asian championships were held for the first time in 2001, followed by the first African

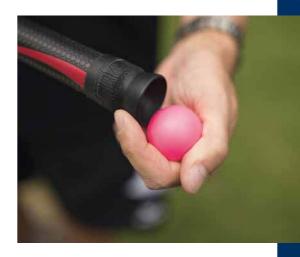
championships in 2016.

The procedure is the same for the inspection of the incoming raw materials, including sand, which is processed into molds with the help of bonding agents and compression technology.

The foundry operates round the clock, and Stephan Bremicker has his hands full. He often clocks up a lot of overtime, which he quickly uses up again, thanks to his time-intensive hobby. Both he and his superior found a good agreement on this. They have a friendly relationship, having worked together at GF for 35 years. Stephan Bremicker started out in Human Resources and switched to Quality Management in 2009. "Without the fantastic support of my boss, I'd never have managed the transition," he says.

Off to minigolf in the stroller

He has been playing minigolf ever since he first learned to walk. His parents founded one of the first minigolf clubs in Germany back in the 1970s, and always took him there as a small child. Once his father had taught him the technique, there was no stopping him. Stephan Bremicker took one title after the other. He won the German school championships at the age of eleven. As an adult he has been runner-up in the German championships four times and winner of the team championship title three times, and was senior champion in 2015. With his former club teams, Velbert Neviges Hardenberg and Dortmund-Brechten, he won the European









Winning is all in the head

The 18 holes are played four times in a tournament. The players are on the course for up to ten hours. Stephan Bremicker therefore works on his general fitness twice a week, building up stamina by going for a run. "Competitions are extremely strenuous - physically and mentally," he says. Staying concentrated even after hitting the ball more than 50 times wears you out. The pressure grows from hole to hole, from round to round. "You must never ever doubt yourself, not even when facing an obstacle you dread! If you do, you usually produce a bad shot."

But sometimes everything goes smoothly, even if you are under immense pressure to succeed. Take the German championships in 2015, for example. After three days of competition and twelve rounds, Stephan Bremicker was in first place with the same number of points as another player. In other words, a play-off according to the knock-out principle would decide who was champion: whoever sinks the ball with fewer strokes wins. His opponent got a hole in one at the first hole. Stephan Bremicker struck back and also sank his first ball in one stroke. The second hole: the opponent hit the ball and it got stuck on an obstacle, which meant he needed two shots. "I knew straight away: my ball's going in!" Stephan Bremicker recalls. And he did get a hole in one again, and won the German

all a matter of testing the course thoroughly

and getting the ball in the hole on the day of

the competition.

For video and more pictures, see: globe.georgfischer.com

3x3



Claudia Havlik Sustainability Specialist, GF Automotive, Herzogenburg, Austria



Maximilian Von Kurthausen
Engineering Intern,
GF Piping Systems,
Little Rock, USA

Newspaper or

online magazine?



Trevor Edmond
Sourcing and Parts Specialist,
GF Machining Solutions,
Huntersville, USA

My favorite book right now:

'The Little Prince' by Antoine de Saint-Exupéry.

Claudia Havlik

At the weekend and on vacation,
I prefer a newspaper. In daily life,
I like to get information online.
Claudia Havlik

Print newspaper.

Holding a physical object
helps me remember
the information I'm reading.

Maximilian Von Kurthausen



'The Colour of Magic' by Terry Pratchett.

Maximilian Von Kurthausen

'The 48 Laws of Power' by Robert Greene.

Trevor Edmond



Online magazine 'Women's Health.'

Trevor Edmond



My typical work

clothing is ...

... a pair of black pants, my "Zero risk" polo shirt and safety shoes.

Claudia Havlik

... tightly-cut khaki pants, comfortable wingtip shoes, and a short-sleeved shirt of a coordinating color.

Maximilian Von Kurthausen

... a blouse, slacks, and comfortable flats.

Trevor Edmond



And here are the new questions:

- 1. This is the number of digital messages I've sent today:
- 2. The best digital helpers for my daily life?
- 3. Face-to-face communication at work is important because ...

Take part and send your answers along with a portrait photo and with "3x3" in the subject line to: **globe@georgfischer.com** All entries will be included in our competition on page 40.



PORTRAIT MEHMET OKURGAN

The pigeon whisperer

Mehmet Okurgan, a security guard at Georg Fischer Hakan Plastik, was given his first pair of pigeons by a neighbor as a present. Mehmet, who was 12 at the time, had no idea what an impact this gift would have on him.

t doesn't stay quiet for long when Mehmet Okurgan steps into his garden. That's because his 25 pigeons greet him with excited coos. The 34-year-old opens the door to his dovecote and throws feed inside. The birds bend their delicate necks and hungrily peck at the seeds. For the past 22 years, Mehmet Okurgan has been breeding a very special type of pigeon: Takla pigeons, which have a very special way of flying. Even as a boy, Mehmet was fascinated by the way these unusual birds would lift themselves off the ground with wide sweeps of their wings and how they did backward somersaults while rising. After he was given his first pigeons at the age of 12, he quickly gained enormous knowledge of how best to raise and look after this species of bird. Because his flock of pigeons constantly grew, he eventually converted an old chicken coop into a dovecote.

Winding down at the end of the day

When he comes home from work, the first thing Mehmet Okurgan does is go see his birds. He gently picks up one of his pigeons and strokes its shiny feathers. "When I'm with my pigeons, I can wind down and leave my everyday stress behind me," he says. Mehmet Okurgan works for the security service at Georg Fischer Hakan Plastik in Çerkezköy, Turkey. He is responsible for ensuring that only authorized personnel enter the site. His job requires him to be extremely vigilant and focused. He checks employees and visitors entering the front gate, directs domestic and foreign transporters to the relevant loading

bay from the tradesman's entrance, and monitors the entire site via closed-circuit cameras. "I don't only prevent unauthorized access to the site. In an emergency, I also have to call for an ambulance and mobilize the relevant departments. That way I can ensure I get support quickly and efficiently if need be," Mehmet Okurgan explains.

A formative relationship

He likes nothing better than looking after his birds and watching them walking around or doing acrobatics in the sky. The more Mehmet Okurgan cared for his pigeons, the more his personality changed. "They need to be looked after, they need affection. They wait for you every day. That responsibility is formative, especially if you're young," he says. While many of his teenage friends spent their free time hanging around idly, Mehmet's pigeons helped him mature into an adult. Mehmet Okurgan is convinced: "Having my pigeons gave me a balanced personality and made me considerate. It taught me to treat all creatures with the same respect. I have to thank these animals for the fact that I am now on the straight and narrow." ■



ARIAL ACROBATS

Pigeons are not just great navigators - some species are also true airborne acrobats. One of these is the Takla pigeon, which is widespread in Turkey. Takla means "tumble." Takla pigeons do countless backward somersaults as they rise up into the air. As if that weren't enough, they sometimes twist sideways at the same time. These whirling acrobats were observed as far back as the 14th century in what was then Persia. Their human masters perfected these pigeons' innate flying skills through breeding and training. To this day, breeders train birds like the Takla pigeons, showcasing their charges' flying skills at local, national and international competitions.



For more pictures, see: globe.georgfischer.com

WHO INVENTED IT? INTELLIGENT POWER GENERATOR

Fast and smart

The technology behind wire EDM dates back to the beginning of the 1950s – and remains a mainstay to this day for a number of manufacturing processes. The most recent GF innovation in this field is the latest generation of the Intelligent Power Generator, which is part of the new AgieCharmilles CUT P range of wire EDM machines.

n a whole range of industries, manufacturers have to speed up their manufacturing processes while keeping quality as high as possible. Automotive suppliers, for example, need to manufacture an increasingly high number of electronic components in a given time. Whereas in 1990 a BMW 7 Series had about 2 000 connectors, today a mid-range car has up to 20 000. Miniaturization is another ever-present topic, such as in the medical industry where micro-surgical tools for non-invasive surgery have become commonplace. And smartphones are also increasingly complex, with some current models featuring up to three cameras. For these and many more applications, wire EDM is positioning itself as a key technology.

To deliver the required performance and quality, the generator of the wire EDM machine is at the heart of the process. Following several years of research and development, GF Machining Solutions has recently released the latest generation of the Intelligent Power Generator (IPG), which is being integrated into the new AgieCharmilles CUT P wire EDM machine – a true milestone. In fact, the CUT P turned heads in September at the EMO Hannover trade fair in Germany. "For us the generator is very important, because it is the cornerstone of our unique position in the market," reveals Product Manager Alexandre Gabella. In short, the IPG controls each spark between the wire of 0.07 to 0.3 millimeters in diameter that carries currents of up to 1000 amps to machine solid material.

Speed and intelligence

In contrast to previous generator solutions, the IPG has a number of advantages: Much shorter electric cables are needed, so impedance is smaller. Gap detection and width control are better. Wire breakage is eliminated, and very little heat is emitted. The IPG also provides for better geometry and surface properties. But perhaps the greatest achievement is the combination of speed and intelligence that the new generator offers. "That's because we have added fast computing power to control the electronic pulses," explains Marco Boccadoro, Head of EDM Research and Innovation. He points out that other manufacturers

have also been equipping their wire EDM machines with digital generators, but GF Machining Solutions is unique in that it can draw on years of know-how. Not surprisingly, the IPG from GF Machining Solutions boasts the highest cutting speed and efficiency in the market – about 85 percent.

Aside from the IPG, the new AgieCharmilles CUT P wire EDM series offers a higher degree of automation. Plus, in alignment with Industry 4.0, monitoring of processes within the machine – including IPG – is also possible.

The effort of many

Developing the IPG was a joint effort involving people from a number of areas within the industry. "Plus, almost two years of customer tests and benchmarks are behind the innovation," adds Alexandre Gabella. While wire EDM is a mature technology per se, the engineers at GF Machining Solutions have proven that there is always room for innovation. And ultimately, that helps customers meet the challenges they are facing.



Marco Boccadoro

During the work on the IPG development, Marco Boccadoro was the Head of the Generator Cluster. Since then he has become the Head of EDM Research and Innovation. The trained engineer has worked on countless innovation projects over the course of his career, which started at Agie in 1979.



Alexandre Gabella

The mechanical engineer joined GF in 2013 as a Graduate Trainee before becoming a Product Manager for wire EDM machines. Today he is responsible for high-end wire EDM machines as well as the new AgieCharmilles CUT P wire EDM series.







Sales Engineer Robin Manigatterer from GF Machining Solutions has been looking after Swarovski for ten years.

Christian Dior. In 1956, for example, Swarovski created the so-called "aurora borealis" effect, which makes crystals shimmer like the northern lights. Christian Dior was the first designer to use crystals with this effect for his creations. Labels such as Yves Saint Laurent, Armani, Versace, Gucci or Prada also set such sparkling accents today.

Partnership since 1956

These extravagant customers as well as Swarovski are satisfied with nothing less than absolute brilliance and the finest cut. In order to be able to offer both, highest precision and quality are essential in the production process. Therefore, Swarovski has been relying on the innovative machines and the expertise of GF Machining Solutions for a long time. The shared history of the two partners goes back to 1956, when Swarovski purchased the first Agie die-sinking EDM machine. The spark erosion technology for machining workpieces was something totally new at that time. Up until today a total of more than 70 machines and systems from GF Machining Solutions have been used at Swarovski, including HSC milling machines and automation solutions alongside die-sinking EDM and wire EDM machines.

Technology for the smallest crystals

"Swarovski has always attached major importance to innovation. Furthermore, the company has at all times been interested in the best technologies to modernize its production," explains Robin Manigatterer. He must know, after all the Sales Engineer from GF Machining Solutions has been looking after the customer for ten years. Swarovski

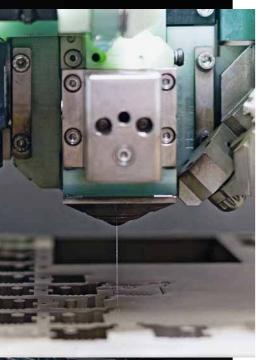
ollywood star Penelope Cruz
caused quite a stir on the red
carpet at the film festival in
Venice at the beginning of
September – and not just
because of her dress. A pair
of sparkling earrings and a
glistening mosaic ring also attracted the photographers' attention. Swarovski's jewelry
and crystal products played a major role in
creating her glamorous look.

The crystals manufactured by the Austrian company are important elements of haute couture and the international design world today. Some of the delicate pieces of jewelry have more facets than diamonds. With craftsmanship, creative ideas and the latest technology, Swarovski creates crystals in a broad variety of shapes, cuts, colors and finishings.

Over the course of the company's history, close partnerships have been formed with fashion designers such as Karl Lagerfeld or







Shimmering like the northern lights:
the "aurora borealis" effect has been
a Swarovski trademark since 1956.
Christian Dior was the first to use it for
his creations (picture below left).
Swarovski relies on the latest wire
EDM machines, such as the
AgieCharmilles CUT 2000 S (picture
above left) to manufacture the tools
and molds for crystal production.

> does not use GF's machines for the production of the finished crystal products themselves, but for manufacturing the tools, molds and devices used to produce the crystals. The molds in which the crystals are cast from liquid glass are one example. GF's die-sinking EDM machines allow Swarovski to create precise molds with the highest surface quality for even the smallest crystals with a diameter of less than one millimeter.

Regular market studies confirm that GF's solutions are best suited to Swarovski's requirements. This means that products can be manufactured not only with the greatest precision, but also at the lowest possible cost. Apart from their technical capacity, the company appreciates the durability of the machines as well as their favorable price/performance ratio.

Finding new solutions together

Around 20 of the latest machinery from GF Machining Solutions are currently in operation at Swarovski. In addition, the two longstanding partners work closely together on developing new production solutions. For example, Swarovski and GF Machining Solutions have come up with new concepts in the field of erosion and HSC milling which precisely match the customer's specific requirements. "Of course, we at GF Machining Solutions benefit from this too," Robin Manigatterer comments. "We have been able to introduce some features which are a result of this cooperation as a standard for all of our machines, for example special clamping tools or software functions for automation."

The customer's high demand for innovation is also an incentive for Robin Manigatterer: "In order to impress Swarovski with our technology, we have to keep our finger on the pulse." At the latest this will pay off on the red carpet at the next film festival, when all eyes turn once again to the sparkling Swarovski crystals. Robin Manigatterer and his team can then proudly say: "GF Machining Solutions has also contributed with its know-how to each and every one of these pieces."



Historic memory: an early Agie machine at Swarovski.

Long-standing partnership

1956 Use of the first Agie die-sinking EDM machine

1969 Use of the first spark erosion wire-cutting machines

1980s Conversion to the new, efficient EDM generator technology

1996 First computer-controlled CNC milling machine Mikron VC 1000

2000s Introduction of the HSC high-speed milling machines

2007 Entry into automation with solutions from System 3R

2015 The latest interconnected automation of entire production processes with the combined use of milling and erosion technologies

20 of GF Machining Solutions' latest machines are currently in operation at Swarovski, including several high-speed machining centers, a high-precision milling machine with a System 3R automation solution as well as several die-sinking EDM and wire EDM machines.

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For video and more pictures, see: **globe.georgfischer.com**



Committed to innovation

"How do you bring innovation to the forefront?"

Answering this question is part of the daily agenda at GF Signet. The company based in El Monte, California, USA, is not simply a leader in sensors; with its diverse workforce, strong R & D and lean processes it is also a model of the contemporary organization.

hange has always been at the heart of GF Signet. The US company is part of GF Piping Systems and a specialist for measuring and controlling industrial fluids. Formerly called Signet Scientific, the Californians developed the first plastic paddlewheel sensor in 1969, creating an innovative, cost-effective way to monitor liquid flow rates.

At the time of the company's acquisition by GF in 1987, Signet was still active in the maritime and beverage industries. Now the focus lies on water treatment and wastewater management, researching and producing 1000-plus parts in sensor instrumentation, and batch-control systems. GF Signet is a net exporter. 55 percent of its products are sold overseas. "This is quite unique for a US company," says Michael Smith, who took over as President and Managing Director in 2016.

"A special feature," continues Smith, "is that Signet products are readily shippable – many being the size of a mobile phone – and can be quickly deployed." Asia is an important export market; the region's high investment in infrastructure is pushing demand for water treatment products. After the US, China is the largest market for GF Signet, making up almost half of its exports and around a quarter of total sales year-to-date. Germany, Korea, Mexico, Canada and Singapore follow.

Great diversity

Internationality within GF Signet is not limited to its product reach. Its 115 employees – nearly half of which are women – is reflective of the diverse Los Angeles County population in which it is embedded. The production department alone employs people from China, El Salvador, Guatemala, Laos, Mexico, the Philippines, Vietnam and the US.

Forming another indispensable part of GF Signet personnel are people from the Lincoln Training Center (LTC). Locally based in El Monte, the center provides gainful employment for individuals with disabilities. 16 people from LTC are currently at GF Signet, working on base sub-assembly and manufacturing support activities. This partnership dates back 25 years and provides a tremendous sense of community within the Signet team.

Creating customer value

"Historically, Signet has always been viewed as a fairly innovative company," Michael Smith remarks. "Our products are of high value because they were always easy to use: simple, economical and reliable. We continue to deliver on that today."

One of Michael Smith's first steps as Managing Director was to improve operational excellence in production and R&D. By implementing lean methodology, which focuses >



John Gamez – the challenge seeker

John Gamez enjoys the challenges of being Quality Engineering Technician at GF Signet, a position he's held since May 2015. "Being able to spot changes and trends on the production floor and throughout the product development phase is crucial to maintaining a consistent guality product," says John Gamez. For fun. he races cars for the adrenaline rush, and hikes tall mountains for fresh air and tranquility.



Sandra Fonseca – the student

For Production Manager Sandra Fonseca, the past two years have been very busy ones. Lean manufacturing is her focus at work. "The department has grown with lean experience and improved dramatically with noticeable results," Sandra Fonseca says. At home, she's been busy working on a master's degree in Marriage and Family Therapy; it's both her "hobby" and a chance for "personal growth."



Kamran Afshari – the people person

People fascinate Kamran Afshari. This serves him well as Director of Engineering at Instrumentation, a role he began in October 2016. He spends time understanding his team members in order to help them develop "the most effective yet advanced engineering solution that truly addresses the users' needs." Traveling, skydiving and being with his parents are his favorite pastimes.



Fisher Yu – the newbie

One of the newest members of GF Signet, Strategic Sourcing Manager Fisher Yu wants to lower costs and negotiate better terms for the company. She's proud of having "negotiated a win-win situation to maintain a long-lasting relationship with suppliers," within her two-and-ahalf-month tenure. Fisher is an NBA fan and enjoys gaming and cooking. Japan and Mexico are two of her favorite destinations.





> on creating value for the customer, unnecessary steps in key processes were eliminated. "We've been able to pour more resources towards adjacent and transformational growth in new customers or markets, as well as continuing to look at new products for existing customers," he continues.

17 people are currently dedicated to GF Signet's R & D. They work on software, hardware, and mechanical development, as well as base research for chemistry and electrochemistry for sensor development. In this regard, GF Signet is almost entirely self-sufficient in R & D.

«We're here to help GF Piping Systems be more successful in automation.»

Michael Smith Managing Director, GF Signet, El Monte, USA

These efforts are bearing fruit. GF Signet recently launched a new transmitter – the Signet 9950 Dual Channel Transmitter – and is launching a new pH pre-amplifier, the Signet 2751 DryLoc pH/ORP Smart Sensor Electronics, which enables remote calibration.

Designed for installations that are difficult to access or cannot be taken offline for long periods, it's ideal for industrial air scrubbers, metal removal and pollution control systems, among others, and takes the hassle out of field calibration.

Automation is key

The new product launches are part of a bigger vision. GF Signet is taking a different approach to creating new business opportunities. "We're here to help GF Piping Systems be more successful in automation," Smith explains. GF Piping Systems is strong in building technologies, cooling, and utilities – areas in which the company from El Monte has not been active historically but could strategically tap into.

"We have a very talented group of people who are looking for a better avenue to execute and drive ideas into execution," says Michael Smith. With their passion and engagement, he is confident that they can carry on the legacy of innovation at GF Signet.



At a glance

Company:

Georg Fischer Signet LLC

Site:

El Monte, USA

Division:

GF Piping Systems

Part of GF since:

1987

Competences:

Engineering and manufacturing of innovative products for industrial fluids measurement in piping systems

Number of employees:

115, thereof about 50 percent women

Employees from:

USA, China, Mexico, Germany, Romania, Vietnam, Philippines, Egypt, Iran, Guatemala, Peru, Laos, India ... just to name a few!

Average number of sunny days a year:

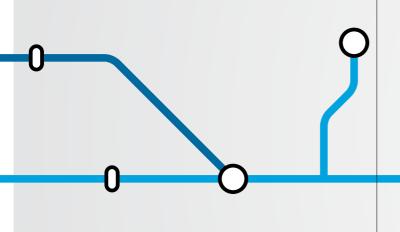
263



A personal video tour through the site and even more pictures can be found at

globe.georgfischer.com

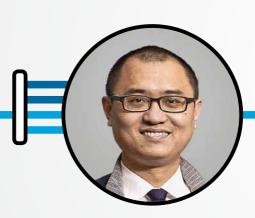
Over the next few years, important HR processes at GF are to be standardized across all divisions and countries and merged into a shared IT platform. The focus is to enhance communication between line management, employees and Human Resources (HR).



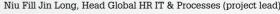
or an international company with about 15 000 employees, professional HR management is one of the key factors for success. Whether it is the development of employees or the recruitment of new talents, the HR activities of GF provide an important basis for implementing Strategy 2020. After all, the Corporation can only be successful in business if the HR processes support day-to-day operations efficiently.

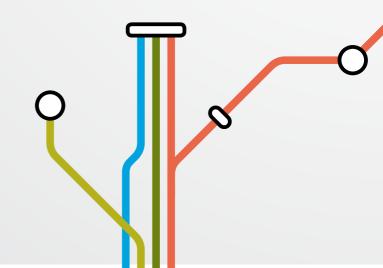
A common understanding of values and leadership

Since early 2017 a project group consisting of representatives from all divisions has been working on strategic HR processes at GF. The overall objective is to standardize central processes across all divisions and companies and to bring them together into a shared IT platform. This will not only raise the quality of data and processes, but also strengthen the common understanding of values and leadership. As line managers, employees and HR will work with the same processes in the future, collaboration will become easier - both within and across the divisions. Given the confidentiality of data, an important focus of the project is, of course, also on data protection and data security.



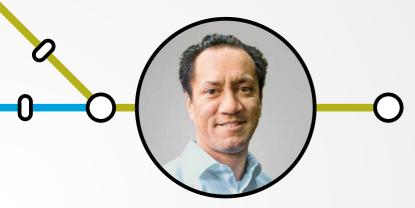
«In business, innovation comes from people. Therefore, global HR processes which are based on the same values are essential. They ensure that we share the same culture across three divisions. In addition, we need a dynamic and interactive platform for everyone.» Niu Fill Jin Long, Head Global HR IT & Processes (project lead)





Working together for a new solution

Since early 2017, representatives from all three divisions have been working on standardizing strategic HR processes. Based on the Design Thinking method, they have thought about what contemporary HR processes look like and what the expected requirements are for a modern, user-friendly platform. Here some employees reveal what they expect from the project and what they appreciate about the collaboration:



«The new processes will link all employees to value and growth – both personally and strategically. By using a harmonized system, there is huge potential to more easily recognize and share expertise between companies to be more competitive.»

> Nick Fizette, Industrial Engineering Manager, GF Piping Systems, El Monte, USA



«I found it very useful that all relevant stakeholders, meaning HR, line management and employees, have been involved in the development of the new, Corporation-wide harmonized processes. I am convinced that the new platform will effectively support us – especially line managers like me.»

Martina Schildendorfer, Head of HR Administration, GF Automotive, Herzogenburg, Austria

Global and local processes go hand in hand

The project group has a clear roadmap: in the next few years, five strategic HR processes are to be harmonized and made accessible to all divisions and sites on a shared IT platform. Which companies will benefit from the solution, and how, depends on the conditions, needs and technical requirements of the respective site. The implementation of the project will start in early 2018 with the MbO process [Management by Objectives], followed by the Performance Development process in mid-2018. Local processes such as HR administration, time and attendance or payroll will not be affected by the harmonization. These will continue to be handled at the respective sites.

Result of interdisciplinary workshops

The new processes are the result of several interdisciplinary workshops which have taken place in Europe, Asia and the USA. On all three continents, GF employees from various disciplines came together to analyze existing processes and to discuss how they could be improved: Which processes do we need to be successful in business? What supports our day-to-day operations? What is efficient and what is feasible? These and other questions were discussed by line management, employees and HR representatives in order to set common standards.

Teamwork as the key to success

Peter Ziswiler, Head of Corporate HR, has been the driving force behind the reshaping of the strategic HR processes and the introduction of a shared IT platform since 2016. In his opinion, the advantages of the project are obvious: "We want to create significant added value for the company. By designing all strategic HR processes at GF more efficiently and bringing them up to date, we will be able to work together better." The main drive behind the project was the desire of the three divisions to evaluate a common solution. "The new, standardized processes will strengthen collaboration between divisions and between countries. This will help us enormously in achieving our strategic goals," is Peter Ziswiler convinced.



"During the workshops, employees from different disciplines collaborated to come up with one solution for the new processes. The new processes will lead to more ownership and satisfaction among employees."

Ken Choi, Director Service & Marine Sales, GF Piping Systems, Seoul, Korea



«I am honored that I was given the opportunity to contribute my suggestions to the new processes. I am sure that they will ensure interactive communication between employees and line managers.»

> Oian Yongchao, HR Manager, GF Machining Solutions, Beijing, China



suggestions to improve and standardize the first processes





OUR MARKETS UTILITY MARKET SOUTHEAST ASIA

Growth market Southeast Asia

As the economy in Southeast Asia continues to grow, demand for the stable delivery of utilities such as gas and water increases. GF Piping Systems is set to meet this rising need with its innovative products and solutions, know-how and local presence.

outheast Asia (SEA) is booming. The eleven countries that make up the region are an economic force, with a current combined gross domestic product (GDP) of USD 3 trillion. Indonesia alone is projected to become the world's fourth-largest economy by 2050 – after China, India, and the US. With this growth comes the need for a stable and robust infrastructure for delivering utilities such as gas and water to all regions.

Despite impressive combined growth rates, socioeconomic development within SEA varies considerably. The GDP per capita and the average income of its 640 million inhabitants differ vastly from country to country. How to serve such widely diverse markets? Ever since the opening of its first office in Singapore in 1994, GF Piping Systems has been extending its local presence all over SEA. The division now has representative offices in the Philippines and Vietnam, manufacturing companies in Indonesia and Malaysia, and a sales company based in Singapore, with a total of more than 300 employees in the region.

Opportunities in both gas and water

Indonesia, the region's largest economy, is also the largest market for GF Piping Systems in the area. In 2016, PT Eurapipe – a high-quality producer of pipes and fittings made from polyethylene (PE) – became part of the GF family. Its acquisition was in line with the division's strategy to expand in growth markets. And it was a strategic local move, because Indonesia is developing its natural gas infrastructure to provide a stable gas supply and move the country to cleaner energy.

In other SEA countries such as Singapore, Vietnam, Malaysia or the Philippines, projects in water treatment and water supply play a crucial role for GF Piping Systems. One recent success was the Manila Water Company's order for the equipment of a water treatment plant in the Philippines. The key factor for the customer was the ability of GF Piping Systems to provide the biggest diameter PE pipes in the region.

Solutions for urban and remote areas

GF Piping Systems is most active in urban areas, where close to half of SEA's population resides. Many large-scale projects are located in megalopolises such as Jabodetabek in Indonesia (27 million inhabitants) or Mega Manila in the Philippines (35 million inhabitants). "Our biggest project in the Philippines is at a resort casino," says Leon Valdes, Regional Sales Manager Southeast Asia. "We take advantage of the division-wide product range – and provide utility and industrial products for a building technology project."

Projects in more remote corners, in regions full of islands and volcanoes, are also relevant for the division. Water resource management, especially in rural areas, is one of the region's biggest challenges. A GF study reveals that many water distribution systems in SEA are plagued with leakages, creating non-revenue water (NRW). In order to master this challenge, GF Piping Systems has established first contacts with the Asian Development Bank (see box on p. 36). "The objective is to educate infrastructure developers on the importance of building efficient water management systems. This will ultimately improve

the lives of people in smaller communities," says Justin Wong, Sales Manager Utility, Malaysia, who is responsible for the cooperation with the bank.

Exciting times

"These are exciting times to be in the region. It is developing and there is investment," adds Leon Valdes. "The fact that we can serve all segments effectively – utility, industry and building technology – in all of these countries is significant. With our product quality, local presence and technical know-how, we are well positioned to be part of the region's continuous advancement."



Justin Wong

Justin Wong is passionate about his work. He travels to remote regions, sharing his expertise and helping develop local knowledge of water resource management to bring about lasting change.



Leon Valdes

Global citizen Leon Valdes feels at home in Southeast Asia where he's been developing GF Piping Systems' presence in the region for the last four years. He is excited to be part of SEA's dynamic landscape.





"Known for high quality"

David Cantwell is Managing Director of GF Indonesia. He became part of GF when the company acquired PT Eurapipe Solutions Indonesia in May 2016.



A chemical engineer by profession, David Cantwell has been part of GF since May 2016.

In which markets is GF Indonesia active?

The majority of our business currently comes from locally produced polyethylene (PE) piping, which is sold to the mining and utility markets. These markets represent around 50 and 30 percent of our total sales respectively. This year, we expect to produce approximately 10 000 tons of PE products, including fittings in sizes ranging from 20 to 1 200 millimeters.

Where do you see the most potential?

We want to grow in all market segments. The gas market holds great potential, thanks to the Indonesian government's roadmap to develop the domestic gas distribution network. Considering that the total number of house connections will be around 200 000 in 2018 – in a country with a population of around 250 million – the market opportunity is significant. In 2016 we won one gas project

and we have already secured six in 2017. Our objective for the future is to realize ten or more gas projects per year.

What sets GF Indonesia apart from other market players?

We are the only local manufacturer of PE pipes that also provides a complete range of molded and electrofusion fittings under a single brand. The market is inundated with low-quality and low-cost products. GF Indonesia, however, is known for high quality. Our ability to supply complete systems of pipes and fittings combined with design, installation and field support gives customers peace of mind.

Where are you in terms of Strategy 2020?

Our goal is to increase sales to USD 50 million by 2020. This year we expect sales of USD 30 million. To meet our Strategy 2020 targets we'll have to grow from our current workforce of 120 employees to around 180 people.

What are your next steps?

We want to increase our production capabilities and our regional presence in Indonesia. To meet the growing demand we plan to produce polypropylene random (PPR) pipes and continue to import fittings from our sister company in Malaysia. We will use this strategy in other areas too: local PE pipe production complemented by imported GF fittings from Europe, the USA and China. Additionally, we need to increase our regional presence in Indonesia. To this end we are currently establishing offices in Bali and East Java. This will help us strengthen our position in the building technology and industrial markets. ■



HEART AND SOUL
SELENA YANG & GRACE SUN

Ladies with green fingers

hen people go to work, they need to see more than just a desk, computer and gray lever arch file. That's what Grace Sun and Selena Yang at GF Piping Systems in Shanghai believe. So dozens of pot plants have taken up permanent residence in their offices.

Their passion for plants has turned into an office greening program. The two women no longer limit their activities to their own workplaces: they are determined to convert their colleagues' desks into miniature oases as well. So they buy one plant and distribute the cuttings around other offices. "We make up a special soil mix for the plants, which helps them to absorb air and nutrients," explains Selena Yang. Gradually the benefits of office greening are being extended to all the workers in their office. "We use plants with large green leaves - they are particularly good for relaxing the eyes after long periods of screen work," Grace Sun explains, "while cacti and ferns absorb the radiation emitted by computers." But plants are also important for mental wellbeing, according to Selena Yang: "Looking at the plants calms the mind and lifts your mood." ■





The green team from China
Grace Sun (left) has worked as Logistics Manager
at GF Piping Systems in Shanghai, China since
2006. Her colleague Selena Yang has worked in
the finance department since 2015. The two
women have a shared love of plants, both at home
and in the workplace.

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For more pictures, see: **globe.georgfischer.com**

MY HOME MONTREAL, CANADA

ne of Canada's most exciting metropolises is Montreal in the province of Quebec. The multicultural city is known for its diversity and cosmopolitanism. Montreal will mark its 375th anniversary this year. I live with my wife and my two children in Saint-Lazare, a charming suburb of Montreal, just a stone's throw from where I work at GF Urecon. The region is simply wonderful with its many lakes and green spaces – the perfect environment for families and nature lovers. It's a real paradise for anglers, cyclers and other sporting enthusiasts.

Visitors to Montreal can be sure of the generosity and hospitality of its residents. The close link with the French culture, expressed not least in the summer during the "FrancoFolies" festival, is certainly something special. Food-wise I recommend the specialty "poutine," which originated in our province of Quebec and consists of French fries topped with cheese curds and brown gravy – simply delicious. Every visitor should also try our maple syrup, presumably the best in the entire world!



Eric Bates

is Senior Director Engineering at GF Urecon in Coteau-du-Lac near Montreal, Canada. The 47-year-old engineer has worked at the company, which has belonged to GF Piping Systems since summer 2017, for 18 years. Eric Bates heads up a team which offers technical support for both customers and GF Urecon employees.

Not to be missed in Montreal

Little culinary delights

The smoked meat sandwich typical for Montreal is particularly good at Schwartz's, Canada's oldest delicatessen.

www.schwartzsdeli.com/ca/en

Historical center

Montreal has a wonderful old town. In the summer you can take a carriage ride and admire the architecture, which is reminiscent of Europe. www.vieux.montreal.qc.ca/eng/accueila.htm

City of festivals

Apart from the world's largest jazz festival, the "Festival International de Jazz de Montréal," the city also hosts the largest international comedy festival as well as numerous other events.

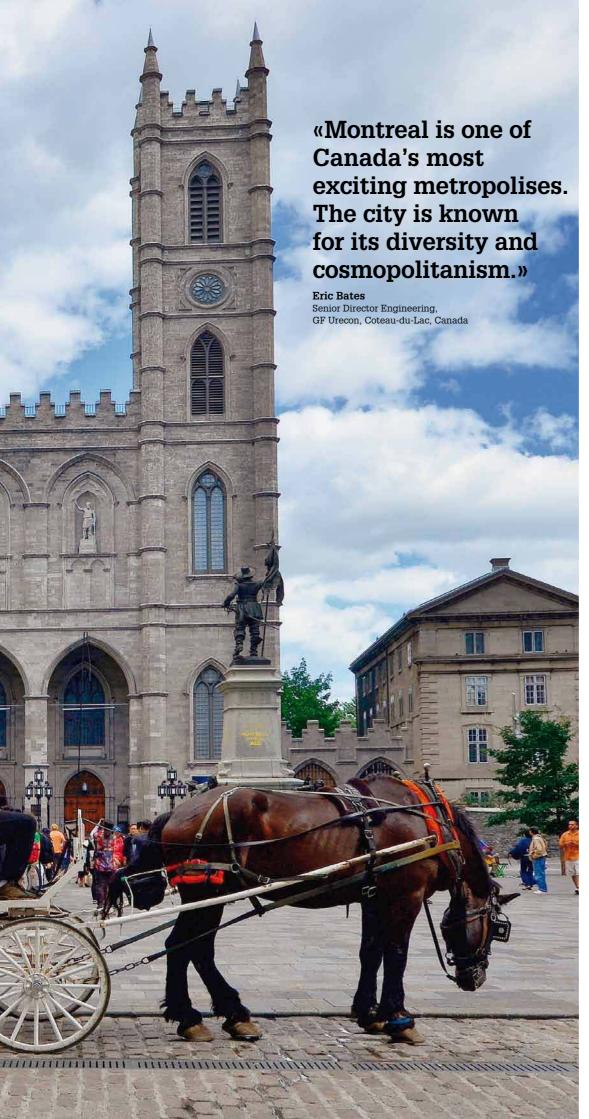
www.montrealjazzfest.com/en-CA

Experience nature just outside the city

There are numerous parks in Montreal, including the magnificent "Parc Mont-Royal." Nature's beauty can be admired best in the idyllic region of Vaudreuil-Soulanges.

www.mrcdevaudreuil-soulanges.com/en





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More on Globe Online!

You can now conveniently enjoy reading the magazine for GF employees on your smartphone or tablet, too. Click on in and make the most of a whole new reading experience:



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COMPETITION

Take your chance!

Win an iPad Air 2, Bose wireless headphones or a JBL Bluetooth speaker. A prize draw will be held among all employees who send in entries under the sections Hello!, 3×3, Heart and soul and My home. Send an e-mail to **globe@georgfischer.com** with the appropriate subject line. We look forward to hearing from you. The winners will be announced in the next Globe.

Here are the winners of the last competition:

1st prize: Jen Williams (GF Piping Systems in the USA) **2nd prize:** Ivan Tedjawinata (GF Piping Systems in Singapore) **3rd prize:** Kedar Mangaonkar (GF Piping Systems in India)

All entries which could not be included in the printed magazine can be viewed online at: globe.georgfischer.com

The closing date for entries is January 11, 2018.

Conditions of entry

The competition is organized by GF. All employees of GF are entitled to take part. The winner will be established by means of a draw among all submissions entered within the deadline. Cash payment, payment in kind or an exchange of prizes are excluded. Participants agree to their name being published if they win. Any recourse to legal action is excluded.

