

Global

+GF+

THE GLOBAL MAGAZINE
FOR GF EMPLOYEES

ISSUE 1 • 2019

Adrenaline therapy

Axier Alvarez from GF Machining Solutions in Barcelona (Spain) loves rock climbing in his free time

CEO change

Andreas Müller succeeds Yves Serra at the helm of GF

Electrifying

GF Casting Solutions is all set for the transition to e-mobility in China

XXL in Peru

A new sewage system in Lima uses couplers made by GF Piping Systems

HELLO!



Pham Thuat

Ho Chi Minh City
(Vietnam),
January 8, 2019,
1:30 p.m.

In this picture, you see me with my husband and son. On this day, it was my son's second birthday. We were in the middle of planning his birthday party. My family means everything to me!

Pham Thuat is Sales Engineer at GF Piping Systems in Ho Chi Minh City (Vietnam).





**JOIN IN
AND WIN!**

What are you doing on
March 29, 2019
at 3:15 p.m. 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.



Mauro Cittadino

Novazzano (Switzerland),
January 8, 2019,
1:30 p.m.

At this time, I (right) had a delicious cup of coffee with my
colleague Salvatore Marzioli. Just the right preparation
for our afternoon shift in the quality control department.

Mauro Cittadino is Inspector of Radiographic X-ray at
GF Precicast in Novazzano (Switzerland).



You can find further submissions
to HELLO! online at
globe.georgfischer.com

CONTENT

1·2019

MADE IT!

XXL project in Peru

The new sewage system in Lima contains the biggest electrofusion couplers from GF Piping Systems. **10**

COVER STORY

Adrenaline therapy

Axier Alvarez, a family man and Service Engineer at GF Machining Solutions, gets his thrills by daring to conquer the many climbable rock faces in the Basque Country of northern Spain. **12**

OUR MARKETS

Electrifying future

GF Casting Solutions is ideally positioned to participate in the transition to e-mobility and meet growing demand in China. **22**

OUR LOCATIONS

The pre-insulation specialists

The two GF Urecon locations in Canada became part of GF Piping Systems in mid-2017. The company supplies pre-insulated piping to customers in North America. **32**

TAKE AWAY

Spring feeling

Interesting spring facts. **37**

MY HOME

On the edge of the world

Jamie Powers of GF Piping Systems loves surfing. He tells us where to find the perfect wave in his home city of Perth (Australia). **38**

02 **HELLO!**

06 **IN BRIEF**

07 **PRODUCT IN FIGURES**

09 **TWO POINTS OF VIEW**

17 **3×3**

36 **HEART AND SOUL**

39 **IMPRINT**

40 **COMPETITION**

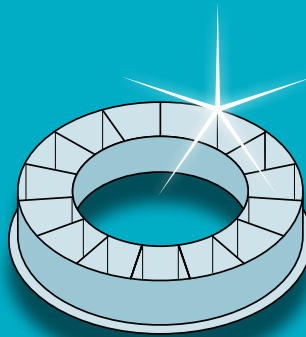


18

A DAY WITH

Raising awareness

Hannes Altenburger is increasing awareness of risks in the workplace at GF Casting Solutions in Leipzig (Germany).



20

THAT'S HOW IT WORKS!

Entering the third dimension

A new solution from GF Machining Solutions uses additive manufacturing to produce complex metal parts at a lower total cost of operation.

28

OUR GOALS

CEO Change

In April, Andreas Müller takes over from Yves Serra at the helm of GF. Find out in the interviews what the present CEO is most proud of and what his successor intends to achieve.





24

OUR CUSTOMERS “We can rely on GF Precicast”

Doosan Heavy Industries based in South Korea manufactures power generation equipment and has been working closely with GF Precicast since 2017.



EDITORIAL

Thank you!

Dear all,

It has been a privilege to work with you over the last eleven years as your CEO.

Together we went through a great recession and then steadily recovered. Together we changed the portfolio of GF to make our company less cyclical, and increased in a major way our global footprint.

Together we consistently reached our objectives, thus gaining the respect and the trust of our shareholders. Together we launched corporate-wide initiatives like the 7 Habits®, the Four Disciplines of Execution (4DX), Design Thinking and Value Selling which, I am convinced, have helped us and will help us to differentiate ourselves from competition.

For me, the most rewarding experience has been to witness and support the rise of so many talented GF employees and to celebrate your successes. May I thank you all for your dedication, your perseverance and for the impressive teamwork which pervades GF.

I am sure that, under the leadership of Andreas Müller, you will continue on our successful path. After 22 years in our company, successively at GF Piping Systems, GF Casting Solutions, and lately as CFO, he knows GF very well and understands clearly the opportunities and the challenges ahead of us. I am sure you will support him the same way you have been supporting me.

In a Globe editorial, it is a tradition to refer to the respective cover story. I am happy to follow this tradition, because our colleague – and passionate amateur climber – Axier Alvarez is in many ways a prime example of an attitude, which leads to success: he is always well prepared, keeps a cool head in tricky situations, sets great store on teamwork and is always positive and open to new experiences.

Globe is the fan magazine of GF employees, and so it is my magazine. I am and will remain a fan of GF.

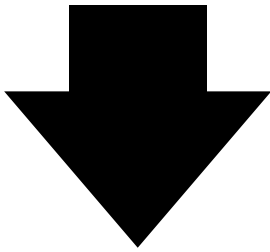
Thank you again. I wish you all the greatest success. You deserve it.

Yves Serra



IN BRIEF

**-372 kg
CO₂**



Producing more sustainably

A new fuel cell mini-power plant is enabling the GF Piping Systems site in Bakersfield, California (USA), to save energy and ensure the sustainable production of PVC and CPVC piping systems. The electricity generator, from Bloom Energy, a US start-up, runs on natural gas and has an output of 500 kilowatts. It makes for enhanced security in the event of power shortages and outages and can cut CO₂ emissions by 60 percent compared with the average of energy generated by combustion in the USA. This amounts to savings of some 372 kilograms of CO₂ a year for GF Harvel. ■

BLUE ZONES APPROVED

Healthier living and working

In December 2018, GF Piping Systems in Shawnee (USA) was the first production site in the state of Oklahoma to be awarded by the Blue Zones initiative. To take part in the initiative, employers need to have successfully implemented specific measures aimed at improving employee wellbeing. In Shawnee, for example, a micro break alert reminds employees to take regular, short breaks. Other measures include offering healthy cooking classes during lunch time and a walking track to help employees get more active. ■



"It's about helping each other lead the best life we can live" – this is the motto of the GF team in Shawnee, here at the award ceremony in December 2018.

NADCAP CERTIFICATION

Accredited Aerospace Manufacturer

As the first company worldwide, the AMotion Center of GF in Stabio (Switzerland) has received the latest NADCAP certification 2019 for its Additive Manufacturing production processes. NADCAP is the most important certification in the Aerospace industry worldwide. ■



The owners of the newly-founded Fondium B.V. & Co. KG (f.l.t.r.): Achim Schneider, Arnd Potthoff and Matthias Blumentrath.

DIVESTMENT

Focus on light metal

Demand for parts molded from aluminum and magnesium is on the rise around the world. GF Casting Solutions is responding to this by focusing more on light metal components and building up new facilities, for example in China and the USA. In line with this portfolio reshaping the division divested its two iron foundries in Singen and Mettmann (Germany) at the end of 2018. The foundries are now owned by the Fondium Group, a company founded by three former managers of GF Casting Solutions with a great deal of experience of the industry. ■



More pictures and videos on the news in brief at globe.georgfischer.com

PRODUCT IN FIGURES



0.05

The new AC CUT Micro SP-Z wire for the AgieCharmilles CUT P 350/550 wire EDM machines from GF Machining Solutions is a mere 0.05 millimeters across. The wire is used to manufacture tiny metal components with incredibly good surface finishes, and it can cut components with a radius of as little as 0.04 millimeters. The minimum surface finish is Ra 0.08 micrometers. The new EDM wire is perfect for manufacturing high-precision, complex metal components, such as for watches and medical devices. The secret to achieving this accuracy lies in the mix of materials used to make the wire: a stainless steel core in a highly conductive brass coating. The wire-cutting process involves sending electrical discharges between the wire (electrode) and the workpiece to erode the material one layer at a time. EDM machines cut through hard metals like a hot knife through butter – but the wire never actually touches the metal.

Product: High-performance wire for use in wire-cutting EDM
Compatible machines: AgieCharmilles CUT P 350/550 series
Length of wire on spool: 5'000 meters
Suitable for cutting: Steel and carbide
Height of parts to be cut: 1–20 millimeters



SUPPLIER AWARD

GF Casting Solutions honored

After several years of working well together, Jaguar Land Rover has honored the GF Casting Solutions site Altenmarkt (Austria) with the “JLRO Award”. The auto manufacturer presented this award in November 2018 to suppliers that met the highest quality and delivery performance standards. The components produced by GF Casting Solutions in Altenmarkt include the cross car beam for Jaguar Land Rover vehicles. Congratulations to the team in Altenmarkt! ■



SUCCESSFUL MARKET LAUNCH

COOL-FIT 4.0 takes off

COOL-FIT 4.0 from GF Piping Systems improves energy efficiency by 30%, halves average installation times and is completely corrosion free. The new complete system with pre-insulated piping can be used for industrial and commercial refrigeration – e.g. food and drink production – at fluid temperatures as low as minus 50 degrees Celsius. Following the successful market launch in 2018, a number of COOL-FIT 4.0 projects have already been realized. ■



As part of Audi's sustainability ratings, twelve sustainability criteria are checked, including issues such as the careful use of resources and safety on the job. (Source: AUDI AG, Copyright: AUDI AG)

AUDI SUSTAINABILITY RATING

Sustainability audits passed successfully

Six GF locations have passed the 2018 sustainability audit by Audi. As part of Audi's sustainability ratings, twelve criteria were checked directly at production sites. In this way, the car manufacturer ensures that its suppliers comply with the environmental, social and integrity standards of the Volkswagen group. The audit was passed successfully by GF Casting Solutions at the locations Altenmarkt and Herzogenburg (Austria), Mills River (USA), Suzhou and Kunshan (China) and Werdohl (Germany). ■

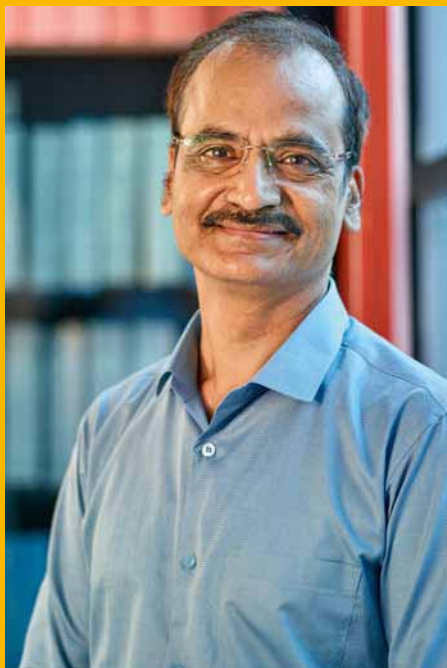
TWO POINTS OF VIEW

How do you see performance development for yourself?

I believe that our employees are our most valuable asset. The key part of performance development for me is that we come together to identify areas of improvement and take joint action. These discussions will lead to higher performance and sustainable results.

I am impressed with the Performance Development process that's in place at GF, and I was fortunate to have participated in the train-the-trainer program in July 2018. It's an excellent approach that supports employees and managers in having honest discussions on individual performance and development. Employees are encouraged to reflect and share valuable feedback with their line managers. Together, they build consensus on the employee's development and identify important and actionable tasks.

If we seize the opportunities provided by the new process and take ownership of our own development, we will grow both as individuals and together, and achieve greater results. The journey ahead of us all is very exciting, and it has only just begun! ■



Bhuvan Varshney
The Country Manager for GF Machining Solutions in Bangalore (India) joined GF in spring 2018 and supported the introduction of the new Performance Development process at his location. He is sure that the updated development process will be successful in fostering his employees' and the company's growth.



For me, performance development is a key element for overall growth of both my team and the organization. I lead a team of four individuals with different interests and skill sets. I encourage my team to share their unique perspectives and knowledge, as it creates teamwork and allows them to take ownership of their contributions as individuals and as part of a team. Strong teams and employees are valuable to our organization. They allow us to leverage that strength to grow and build our company.

As a line manager, I am responsible for keeping my team focused and engaged. It's important to find out what interests them inside and outside of their normal job scope and to encourage them in pursuing it. I believe that if an individual wants to pursue a project, passion or hobby nothing should stop them from contributing to his or her own self-development. We are individually responsible for navigating our own outcomes.

Personally, I like to be challenged and I always look for opportunities to grow and improve. It's important for me to enhance my skills and find ways of acquiring new ones. The updated Performance Development process we have in place helps to create consistency across the company, and supports me in both my roles as a line manager and as an employee. ■

Marina Valentine

As Marketing Communications Manager at GF Signet in El Monte (USA), Marina Valentine is responsible for ensuring that her team members are equipped to grow, improve and acquire new skills. She has been working for GF since February 2008.



More pictures of Bhuvan Varshney and Marina Valentine at globe.georgfischer.com



ELECTROFUSION

In the electrofusion process, a wire permanently molded into the fitting is heated by low-voltage current, causing the material around the wire to melt and expand. The gap between pipe and fitting starts to close. The pipe itself also heats and melts in the welding zone. The result is a homogeneous fusion connection.

Irene Minguell and Peter Barth, both Product Managers Utility at GF Piping Systems, are looking forward to more large-scale projects.

MADE IT!

ELECTROFUSION COUPLERS FOR LIMA

XXL project in Peru

The biggest electrofusion couplers from GF Piping Systems are part of a utility upgrade project in Lima (Peru).

The population of Lima, the capital of Peru, is over 8 million people. With the Andes to the east and the Pacific Ocean to the west, there is only so much room for the city to expand. Lima's population density is increasing. Yet the more people there are in an area, the more strain there is on public utilities. That is one of the reasons why the sewage system in the city's Rimac district needed an upgrade.

"SEDAPAL, the water company in charge, decided on a large-scale upgrade of the sewage system. They chose a piping system with a diameter of 1'200 instead of 600 millimeters," says Irene Minguell, Product Manager Utility at GF Piping Systems in Schaffhausen (Switzerland). The installation required digging larger trenches and closing some roads, which is challenging enough with Rímac's high traffic volumes. Not wanting to add to an already complex project, the method for jointing the pipes had to be easy to employ and safe. That is why the water company chose electrofusion over other jointing methods.

First choice: GF Piping Systems

After several tests, distributor AQATEC opted for electrofusion couplers from GF Piping Systems, namely ELGEF Plus electrofusion couplers in a diameter of 1'200 millimeters – the largest in the portfolio. The scope of supply was 151 couplers, two MSA 4.0 electrofusion units, tools needed to prepare the piping for installation, and training and support.

The project is the first time 1'200 millimeter GF couplers are being installed with electrofusion in Peru, so there was a strong focus on training the installers, who had not worked with products of this size before. Prior to the start of construction in June 2018,

Irene Minguell and fellow Product Manager Peter Barth held training sessions in Lima for the installation team. "The first day mostly covered theoretical aspects. The very next day, we went into the field to install the first ELGEF Plus coupler together," says Irene Minguell. "Right from the beginning, I could feel the installation team's excitement at being part of such a significant project. Supporting the team in installing that first coupler on site in Lima was a definite milestone and a great experience," she recalls. For the project in Lima, Irene was in close contact with Liliana Ruiz, Sales Manager at GF Piping Systems Mexico, who has been familiar with the local situation for years.

Follow-up order

AQATEC was so pleased with the quality and ease of installation, the training and technical support provided by GF, that in the initial project stage a second order was placed for an additional 21 GF couplers. The XXL project in Lima allowed GF Piping Systems to gain exposure to a new and growing market for its largest diameter electrofusion couplers – as well as water, sewage, and gas applications. So Irene and her team members will most certainly be busy with more large-scale projects in the future. ■

**AT A GLANCE****The project:**

Renewal of the sewage system in the Rimac district of Lima

The challenge:

Train the installation team to work with the largest GF couplers and electrofusion technology

The team:

The project team included experts from product management, manufacturing, engineering, logistics, and support; close collaboration with local sales colleagues in Peru

The contribution:

172 ELGEF Plus couplers in 1'200 mm diameter, two MSA 4.0 electrofusion units, utility tools, training, and support

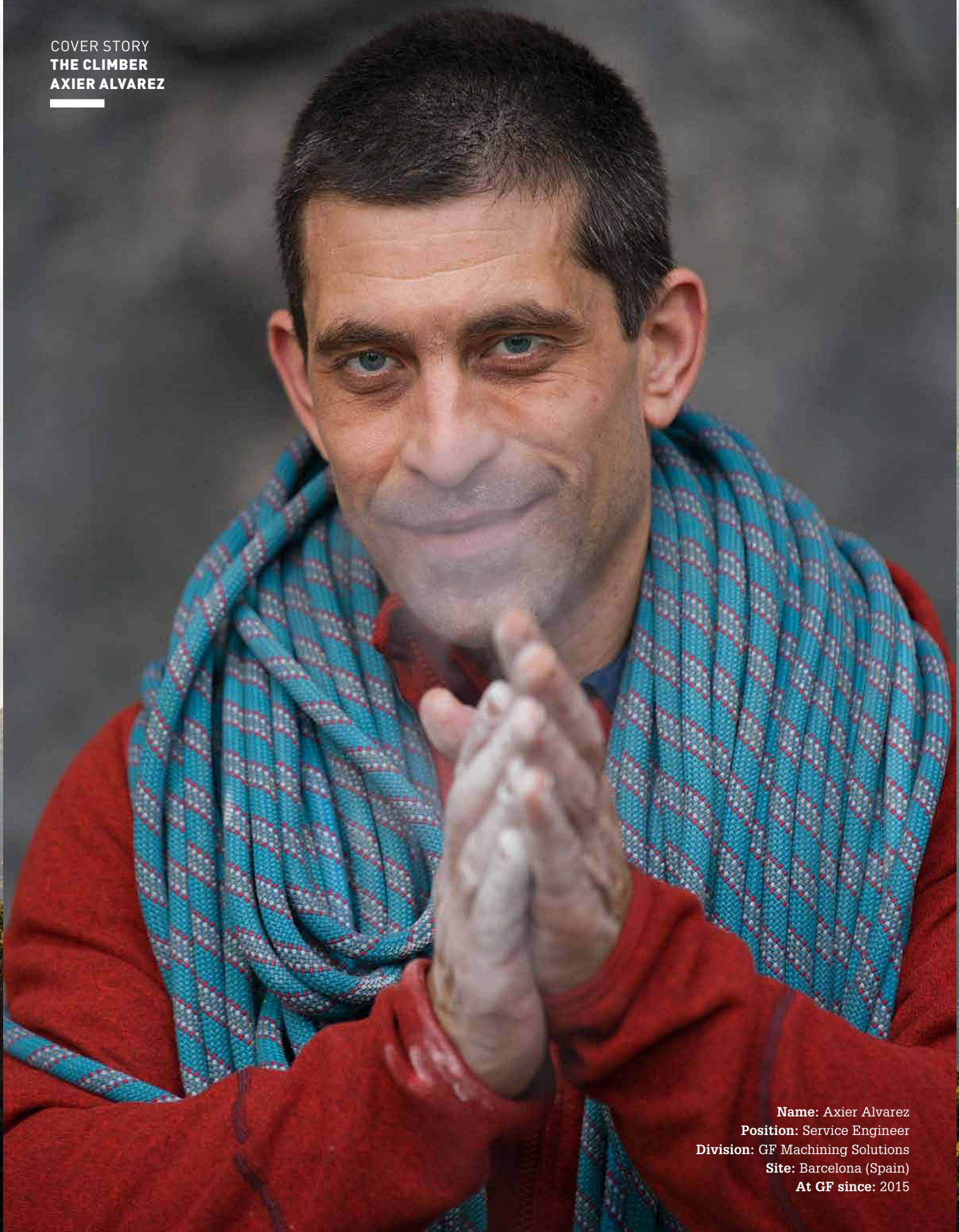
The highlights:

First GF couplers in 1'200 mm diameter installed in Peru and biggest electrofusion jointing ever performed in Peru



More pictures at
globe.georgfischer.com

COVER STORY
THE CLIMBER
AXIER ALVAREZ



Name: Axier Alvarez
Position: Service Engineer
Division: GF Machining Solutions
Site: Barcelona (Spain)
At GF since: 2015



Adrenaline therapy

In the Basque Country of northern Spain, family man and GF Machining Solutions Service Engineer Axier Alvarez finds his peace. It is also where he gets his thrills, by daring to conquer the region's many climbable rock faces.





Calm attitude: Axier Alvarez relies on his emotional control to ensure he can complete his climbing tours successfully – and on equipment in peak condition.



3 MOST IMPORTANT SAFETY TIPS FOR CLIMBING

- Look after your equipment well and make sure it is in good condition before every ascent, especially your rope. Also check the weather report.
- Make sure there is good communication between all climbers on one rope.
- Do not do anything premature when you are nervous. The first and most important rule is to remain calm.

Winter, 2014. It is almost noon. Two climbers are clinging to the face of the ice waterfall La Historia del Agua in the Izas Valley of the Pyrenees of northeastern Spain. One of them is Axier Alvarez. Underneath the layers of weatherproof clothing and climbing gear, he breaks out in a sweat. Temperatures were hovering at around -10 degrees Celsius when he and his climbing partner started the climb six hours ago, but it is now above freezing. To their dismay, they can hear the sound of running water. With 100 meters still left to climb above them, the frozen wall they are on is beginning to melt.

"In the mountains, conditions change and you cannot do much about it," Axier explains, thinking back to that particular situation. "If the equipment doesn't work or when the ice loses its consistency, it can get very dangerous

very quickly." Yet panicking never occurred to him. "If you keep your mind quiet and think through things properly, you can find your way out." With this calm attitude, Axier and his climbing partner successfully scaled the ice. They even came back three years later, climbing it faster and with increased confidence.

When he is not out testing his limits, 40-year-old Axier leads a settled life. The GF Machining Solutions employee lives in the small seaside town of Portugalete in northern Spain, ten minutes away from his childhood home of Sanfuentes. On the weekends, he spends time with his wife, their five-year-old son and their three-year-old daughter. This was not always the case, however. In his 20-plus years as a passionate amateur climber, Axier has conquered hundreds of routes all over Spain, Central Europe, Ireland, and Wales.

Climbing close to home

But around seven years ago, when it became clear to Axier that he would settle down, he decided to bring his adventuring closer to home. Tucked between the road and the sea in the village of Ontón, a 15-minute drive northwest of Portugalete, is a local rock climbing area. It boasts four sectors and 27 routes that bear names such as "Crónicas de una Obsesión" and "White Knuckle Ride". Axier knows them like the back of his hand – because he created them together with his climbing friends, some of whom he has known for years.

"We wanted to use this area after work. So my friends and I studied the terrain to see whether or not it was suitable for climbing. And then, we built it," Axier says. This statement characterizes him well. What sounds so matter-of-fact was in reality a complex undertaking that took 25 people around two years to complete. Axier himself was personally involved in setting all 27 routes, which included, among others, drilling bolts onto the rock walls. "At first we used long cables to power the drill. Then we raised funds to buy a proper drill to do the rest," he recalls.

A climbing area is more than just routes, however. Paths to the top and bottom of the routes were built, including one that crossed a stream. The bottoms of the routes were sometimes packed with wild, dense undergrowth and trees, which the volunteers also had to clear out. Though it was a lot of work, Axier thinks back with a smile: "we had a really great time".

Controlling adrenaline

Axier was 18 years old when he got hooked on climbing. He was in Atxarte (Spain) with friends attempting his first multi-pitch route. Such routes have at least one stop at a belay >



Axier Alvarez feels most at home on the local climbing routes in the Basque Country. His 20-plus years as a passionate climber have taught him: "When you are climbing, you cannot let the fear of falling disturb you."





Axier has been working for GF Machining Solutions since 2015. As a Service Engineer for Milling Machines he works a lot with customers. Just like his hobby, also his job requires him to adapt quickly to new situations.

Expecting the unexpected

Climbing has many parallels with Axier’s job as Service Engineer for Milling Machines. Just like tackling new climbing areas and routes, working with customers from different areas — dental engineering, aerospace, or the tool and mold making industry — requires having a grasp of new terrains, expecting the unexpected, and being flexible. “I am learning something new all the time,” he says. Problem solving at every junction is also required of him, much like in climbing. “Every day is a new challenge in terms of how I can provide the right support to our customers,” he continues. “I really like what I do. I am part of a fantastic team, that’s a great feeling.” In fact, both at work and when climbing, teamwork is the key to success.

Local roots

Somewhere in northern Spain, right next to a beach, is a climbing area that was once abandoned and has since been restored. You cannot Google it; it is not on the Internet. It was made specifically for local climbers to enjoy. This site is also the fruit of Axier’s and his friends’ efforts. To protect the area and prevent an influx of visitors, they kept its location secret.

The Basque Country, Axier has found, is where his heart is. “Close to home, maybe 30 minutes away, I have 700 climbing routes,” he says. “I can spend a lifetime climbing them. I don’t need to travel far. I have everything right here.” ■

› station. The section between each station is called a pitch, hence multi-pitch. They can take from a few hours to several days to complete. Theirs was a two-hour climb. “After that trip, I bought a few books about nuts and ropes,” he remembers. “I delved deeply into the technique and started to take climbing more seriously.”

Today Axier prefers to be a lead climber, which requires great emotional control more than anything else. On auto-protection routes in particular, leaders have nothing above them to latch onto because it is their job to secure their climbing team to the wall with protective gear they bring with them. This requires strength, stamina, and great technique. And it means potentially free-falling many meters if something goes wrong. “When you are climbing, you cannot let the fear of falling and not making it disturb you,” Axier explains. “You focus only on the moment.”

It is this focus that keeps Axier and his friends coming back. “Controlling adrenaline is a kind of addiction,” he confesses. “At the end of the day, it relaxes me. It’s like therapy.”



More pictures and a video of Axier Alvarez at globe.georgfischer.com

3x3

1. I would love to be able to:
2. For me, pleasure means ...
3. After work: relaxing or action?



Ayu Adita Primasari
Junior Marketing Executive,
GF Piping Systems,
Jakarta (Indonesia)



1. Travel around the world to see and feel other cultures.

2. ... a priceless value.

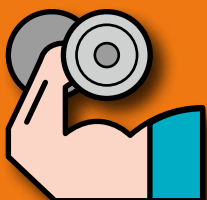
3. Exercising to stay healthy.



Marius Trasca
Sales Logistic,
GF Casting Solutions,
Pitești (Romania)

1. Stop the time to have more time with my family.

2. ... spending time with my family.



3. Relaxing, while doing my athletic training.



Ngoc Tuyen Hoang
Service Engineer,
GF Machining Solutions,
Singapore

1. Travel to discover new places.



2. ... enjoying rock shows screaming out loud. :-)

3. Playing soccer to connect with more people.

JOIN IN AND WIN!

Here are the new questions:

1. My favorite GF product?
2. Today for lunch I had ...
3. For me, sustainability means ...

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



You can find further submissions to 3x3 online at globe.georgfischer.com

A DAY WITH
HANNES ALTENBURGER

Name: Hannes Altenburger
Position: Specialist for Occupational Safety and Environment
Division: GF Casting Solutions
Location: Leipzig (Germany)
At GF since: 2015



8:05 a.m.

For Hannes, every day starts with a short meeting with the site's department heads. They check the current accident figures and Hannes tells everyone about a Zero Risk exercise planned for the afternoon.

Raising awareness

Hannes Altenburger is responsible for everything related to safety at work at GF Casting Solutions in Leipzig. As the Specialist for Occupational Safety and Environment, Hannes provides training and is the point of contact for the roughly 250 employees at the facility. His goal is to raise awareness of risks in the workplace and to create a Zero Risk culture in order to prevent accidents.



12:13 p.m.

At lunchtime, Hannes heads to the canteen with two colleagues. He doesn't always have time for a leisurely break, but today he gets to enjoy his lunch in peace: it's pasta salad with meatballs.



2:32 p.m.

Since it started in 2015, the Zero Risk campaign has increased employees' awareness of risks in the workplace. Today Hannes is measuring noise levels in production, while his colleagues make their own estimates. It soon becomes apparent that the compulsory hearing protectors are invaluable.



9:37 a.m.

One colleague from the mold processing team needs new safety shoes. Hannes provides safety boots that are easy to put on and take off. The use of safety equipment at work that is in good working order is essential.



11:22 a.m.

Hannes' duties include also the ongoing monitoring of accidents and other incidents. It is crucial for him to understand the potential hazards in order to identify risks and raise awareness about certain issues.



4:24 p.m.

Hannes always begins his after-work hours with a long walk. He and his dog Pepper make their way through fields and meadows that skirt the southeastern limits of Leipzig.



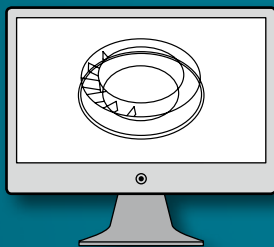
More pictures and a video of Hannes Altenburger at globe.georgfischer.com

THAT'S HOW IT WORKS!
ADDITIVE MANUFACTURING

Entering the third dimension

GF Machining Solutions and 3D Systems combine many years of experience in additive manufacturing and conventional metal manufacturing processes. With the DMP Factory 500, they have brought a solution to the market that facilitates the seamless integration of metal Additive Manufacturing technology into the manufacturing chain. Customers from the aerospace segment, for example, are now able to produce complex metal parts at a lower total cost of operation. The multiple-stage process, shown using the example of an aircraft engine part, works like this:

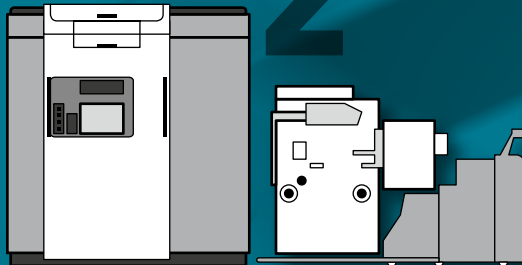
1



Data preparation

Prior to the printing process, an engineer defines the essential data needed for manufacturing the part. The applied software is an integral part of the DMP Factory 500. It creates a three-dimensional model of the product to be built, in this case a turbine rear vane for an aircraft engine. This process can require several iterations in order to create the optimum geometry for the model.

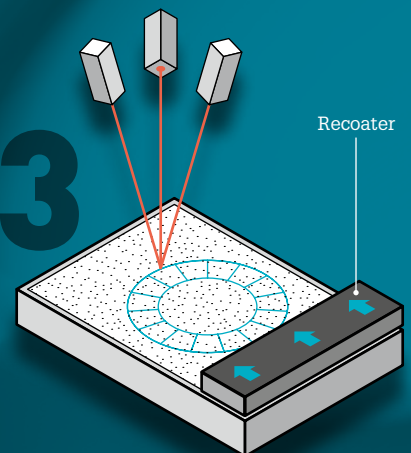
2



Printing preparation

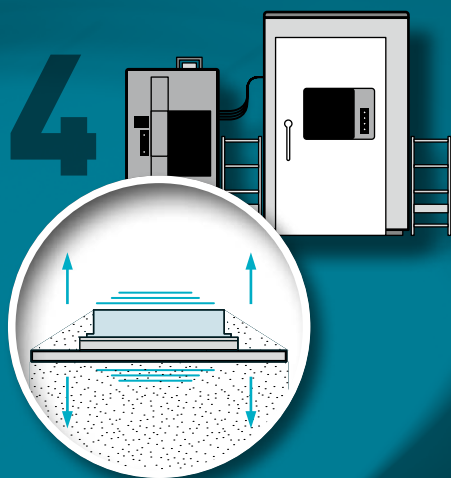
The DMP Factory 500 consists of a number of modules. One of them is a replaceable cartridge (Removable Print Module, on the right in the illustration above). It stores the metal powder from which the workpiece is made using additive manufacturing. In addition to the powder, the cartridge contains a build plate. The workpiece is printed on this build plate in the next step. The build plate is fixed with a System 3R clamping system, which ensures exact positioning during the process. For printing, the cartridge is loaded into the Printer Module (on the left in the illustration above).

3



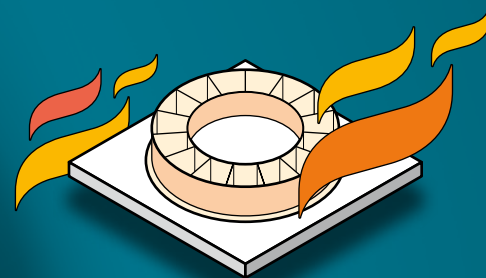
3D printing

The workpiece is built in layers in the so-called laser powder bed process. In the first step, the recoater evenly and thinly spreads the metal powder on the entire build plate. Three lasers sinter the metal powder according to the 3D model. The brief heating solidifies the powder at the defined locations. These two steps are repeated until the workpiece has been fully built. The DMP Factory 500 makes it possible to build some of the market's biggest additive metal parts of up to 500×500×500 millimeters in size.



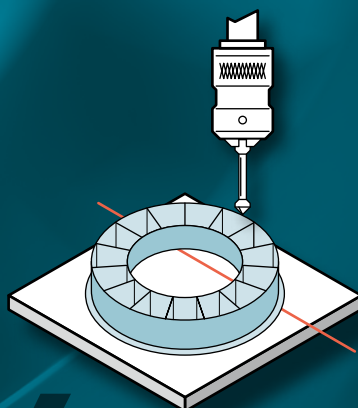
Removing the powder

The removable cartridge with the printed workpiece is now unloaded from the Printer Module and loaded into the Powder Management Module. The module removes the remaining unsintered metal powder from the manufactured part and from the build plate through a vibrating and tilting mechanism. The powder that is not needed can be recycled and used for the next job.



The heat treatment

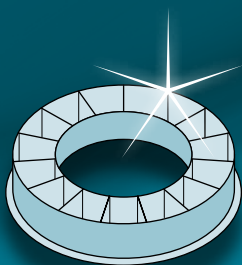
The next step is to heat the workpiece together with the build plate in an oven. This step is required to release internal stress and to give the part the desired hardness.



Separation with a wire-cutting EDM machine

Post-processing

The workpiece is now ready for post-processing. The part is still connected to the build plate. Thanks to the System 3R clamping system, the workpiece can be precisely positioned in a Milling machine. The Milling machine improves the surface finish of the part and removes support material or drills holes. The workpiece is then separated from the build plate, which can be done with the help of a wire-cutting EDM machine. For this purpose, GF Machining Solutions has developed a dedicated, custom-fit EDM CUT AM 500 which will be launched in autumn 2019.



The final part

The production process has now been completed. Additional steps in the processing may be necessary, such as polishing and cleaning by hand. The build plate can be reused for a new job. It is then re-installed on the top of the replaceable cartridge (see 2. Printing preparation).

OUR MARKETS
E-MOBILITY

Electrifying future

Electromobility is advancing at a rapid pace in China. With its product portfolio and innovative lightweight components for electric vehicles, GF Casting Solutions is ideally positioned on the ground.

Never-ending boom” and “colossus of the Far East” – these superlatives are associated with China. Strong growth in new vehicle sales has made China a major car country in recent years. At the same time, it is a trailblazer of electromobility: in 2018 registrations of new battery electric vehicles (BEVs) and plug-in hybrid electric vehicles (PHEVs) in China topped one million for the first time. By 2024, sales are expected to be in excess of 8.4 million cars.

Subsidized boom

The boom is above all thanks to government subsidy programs, paid to buyers for certain e-models, depending on their range. In addition, China is focusing on aspects like charging infrastructure and battery production. A new electric car quota for manufacturers takes effect in 2019, through which China hopes to tackle high air pollution and industrial policy considerations: it intends to establish itself as the superpower for electromobility.

Promising market

These developments are reflected in the order books of GF Casting Solutions: over 50 percent of all orders in China were components for BEV and PHEV models in 2018. “The ever-higher number of cars on Chinese roads offers

great potential for our products. Solutions for electric drives are just one part of this,” says Iris Li from GF Casting Solutions in China. Products such as engine blocks and differential housings, which GF manufactures for vehicles with conventional drive systems, are also used in plug-in hybrids. Light structural parts such as spring supports are needed no matter what type of drive system. The trend towards lightweight components remains unbroken. They help to optimize the weight of the car body and structure, which in turn can increase the range of BEVs or lower the gas consumption of conventional vehicles.

Close to customers

As of spring 2019, the division will be manufacturing gear box housings and e-housing covers at Suzhou (China) for the new generation of vehicles. The site also covers a research & development center for lightweight components. “This way we can support our customers in the development of new parts early on and monitor the direction in which the sector is heading,” explains Iris Li. This approach is important not only for the Chinese market, with demand for new drive systems growing in Europe, too. Close collaboration between locations puts GF Casting Solutions in the best-possible position for meeting future requirements. ■

**Iris Li**

has been working at GF Casting Solutions in China since 2009. As Head of Marketing & Market Intelligence, she is responsible for market monitoring and all image and sales promotion activities, such as trade fairs, roadshows and customer events.



30'000

From 2019, manufacturers with annual sales of more than 30'000 cars will have to meet a quota of 10 percent for vehicles with battery or plug-in hybrid drive systems. This level will rise to over 30 percent by 2030.

30%

New registrations of electric or plug-in hybrid electric vehicles were up around 30 percent on 2017.

30%

In 2018, 30 percent of all orders worldwide at GF Casting Solutions related to components and solutions for hybrid and electric vehicles. With regard to China alone, this percentage was over 50 percent.

24 million

In 2018, 24 million cars were sold in China and 1.01 million of these were battery electric or plug-in hybrid electric vehicles.

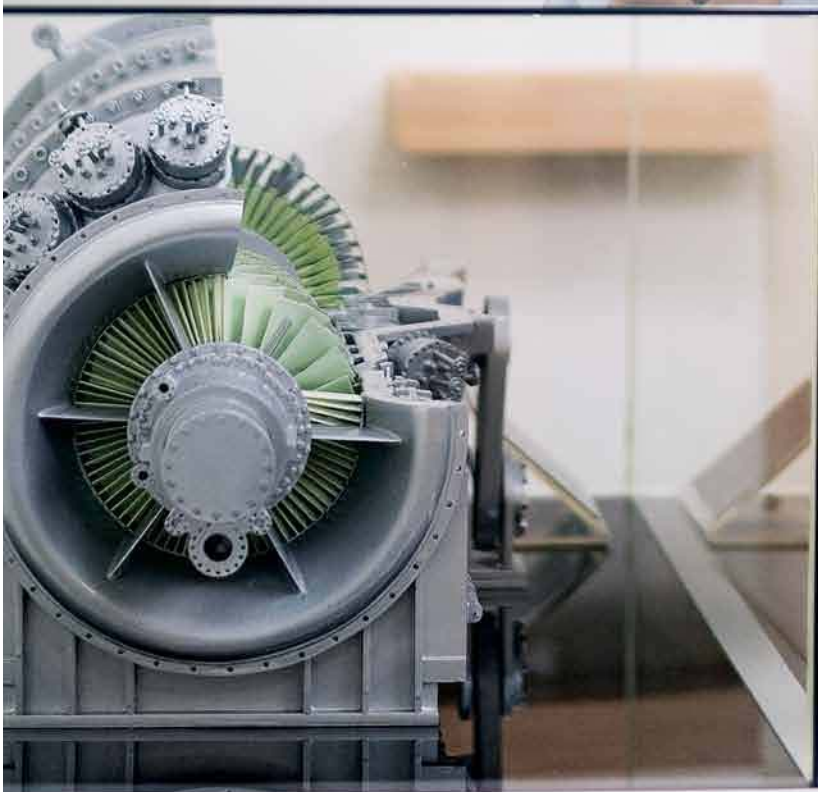
100

The Chinese car market includes approximately 100 Chinese manufacturers, numerous joint ventures with European, Japanese and US manufacturers as well as some newcomers and companies that have diversified into the field.



OUR CUSTOMERS
DOOSAN HEAVY INDUSTRIES

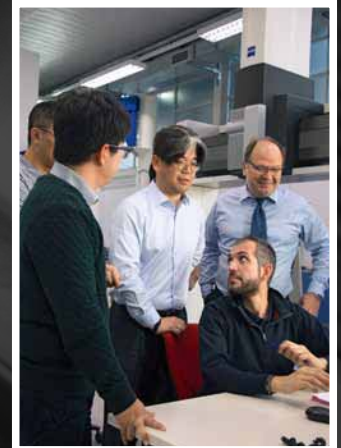
**“We can rely on
GF Precicast”**



GF Precicast is supplying three high-temperature application turbine airfoils for DHI's new 270-megawatt gas turbine. Jeon Chae Hong, team leader of the Hot Part Engineering Team and Principal Research Engineer at DHI, is working closely with the GF Precicast Team in Novazzano (Switzerland) on this project.



The turbine airfoils are being manufactured for DHI at GF Precicast in Novazzano (Switzerland). The production process also includes heat treatment (top) and finishing of the parts (left). Jeon Chae Hong (below, during a visit to Novazzano) is convinced: "GF Precicast is the right strategic partner for us."



Doosan Heavy Industries (DHI) is a leading manufacturer of power generation equipment. In 2020, the South Korean company will bring to market its first gas turbine designed in-house. GF Precicast, part of GF Casting Solutions, is DHI's strategic partner, equipping the turbine with heat-resistant precision-casting parts.

In recent decades, global electricity consumption has risen steadily. The reason for this is unabated and ongoing economic growth, particularly in emerging markets such as China, Russia, and India. In order to meet the rising demand for electricity, many countries are promoting the operation of gas power plants. Doosan Heavy Industries (DHI) in Changwon (South Korea), with annual sales of more than USD 5.7 billion in 2017, is one of the world's leading manufacturers of power generation equipment and systems. The company provides electricity producers in South Korea and abroad with boilers, steam turbines, generators, and components for gas turbines.

Extensive experience in precision casting

Gas turbine power plants are the most commonly used alternative to coal and nuclear power generation and as backup power plants are a perfect complement to renewable energy production.

Based on its extensive expertise and experience in component manufacturing, DHI therefore decided to bring a powerful 270-megawatt gas turbine of its own design to the electricity generation market. "This turbine is the result of six years of research and development work," explains Jeon Chae Hong, team leader of the Hot Part Engineering Team and Principal Research Engineer at DHI. GF Precicast has been a partner of DHI since 2017 and was involved in the development work. It is producing three different precision-casting airfoils for the new DHI turbine. "DHI selected us as their supplier because of our many years of experience in producing high-temperature application precision-casting parts for the gas >



Daniel Crot, Head of Sales and Marketing at GF Precicast, appreciates DHI's willingness to collaborate. In the picture on the right he is demonstrating a precision-cast turbine air-foil that will be mounted in the gas turbine at the DHI plant in Changwon, South Korea (top-right).



ABOUT GF PRECAST

In line with its Strategy 2020, GF Casting Solutions is expanding into higher-margin businesses and offering even more global solutions. For that reason, GF Casting Solutions acquired Precicast Industrial Holding S.A. at the beginning of 2018. GF Precicast produces precision-casting parts as well as Additive Manufacturing components for customers in the energy and aerospace industry. Seventy-five percent of its precision-casting parts go to the European market, while ten percent are destined for the US market. Asia accounts for a 15 percent share. Through its strategic partnership with DHI, GF Precicast is significantly increasing the latter share. GF Precicast has more than 700 employees in Switzerland and Romania.

› turbine industry,” explains Daniel Crot, Head of Sales and Marketing at GF Precicast in Novazzano (Switzerland). “Besides DHI we currently supply more than 15 other customers in this field,” he states. These include market leaders such as Siemens, GE Power, and Ansaldo Energia.

Jeon Chae Hong is convinced of the value of the collaborative arrangement: “GF Precicast has very modern, high-tech manufacturing processes. And it has a good reputation in the gas turbine industry. That is why GF Precicast is the right strategic partner for us.”

Since November 2018, GF Precicast has been equipping the new DHI gas turbine with three high-temperature application turbine airfoils. “In the current market, we estimate that we will sell up to ten gas turbines a year,” says Jeon Chae Hong. “Initially we are focusing on the US and Saudi Arabia markets, currently the two most important markets for IGT.” For GF Precicast, ten gas turbines a year means supplying more than 2’000 additional parts per year.

Growth of electricity consumption is pushing up demand for gas turbines

Rising electricity consumption combined with sustainability challenges and the natural gas reserves available are making gas power plants a very relevant part of electricity production. “We believe in continuous growth opportunities in the IGT business for GF Precicast, as the energy produced from gas is still among the most competitive energies,” says Daniel Crot. GF Precicast seeks to utilize this potential, he says. “We want to maintain a broad customer base around the world and we want to do all we can to make our customers successful.” From this perspective, DHI and GF Precicast make perfect partners. This is already evident in the work they have done together so far.

“DHI initially set tight delivery schedules,” recalls Daniel Crot. “To meet these deadlines, our project management team worked very closely with DHI on a solution to make development of the precision-casting airfoils faster and more efficient,” explains Mr. Crot. He greatly values DHI’s willingness to collaborate and is proud of their good working relationship as partners. Jeon Chae Hong readily repays the compliment: “Professionalism, proactive management, and state-of-the-art precision-casting processes make it easy to deal with challenges that arise.” That applies both to DHI’s new 270-megawatt gas turbine and to even more powerful future developments. ■



“With GF Precicast, we can rely on our requirements being met”

Jeon Chae Hong is team leader of the Hot Part Engineering Team and Principal Research Engineer at Doosan Heavy Industries in Changwon (South Korea). He has worked for the company for eleven years in various positions. In the production of the 270-megawatt gas turbine, he and his engineering team, led by DHI’s Senior Research Engineer Jeongsung Lee, are working closely with the engineering team from GF Precicast.

Mr. Chae Hong, what is the challenge in building a gas turbine?

The major challenge in this development is keeping to the timeline. To ensure we stay on schedule, DHI tries to squeeze the development period, especially the casting.

How does GF Precicast support you?

The production of precision-cast airfoils with internal cooling passages that have to withstand extremely high operation temperatures is very challenging. In addition, the solution has to be suitably competitive on price and offer rapid availability of the precision-casting parts. With GF Precicast, we can rely on our requirements being met.

What do you appreciate about working with GF Precicast?

Within a very short period, we developed a good relationship. GF Precicast’s ability to meet all our demands is impressive. In our sector we value solution-driven work – at the end of the day, it is about high-quality products. Close collaboration often gives rise to long-standing partnerships with suppliers. We look forward to our shared journey with GF Precicast.



More pictures at
globe.georgfischer.com



A smooth handover

For eleven years, Yves Serra has been at the helm of GF. He now hands over the reigns to Andreas Müller who will become the new CEO of GF after the Annual Shareholders' Meeting of April 17, 2019. How does Yves Serra look back at his 27 years at GF, eleven of which as CEO? What is he most proud of? What are the plans of his successor? And where does he see the challenges GF faces? Find it out in the interviews with the present and the incoming CEO.

“Together we consistently achieved our goals”

Yves Serra looks back on eleven successful years at the helm of GF.

When you look back at your eleven years at the top of GF, what are your personal highlights?

It has been such a privilege for me to be the CEO of this company, able to work with so many talented individuals. Together, over the last eleven years, we consistently achieved the goals we set for ourselves. Despite the appreciation of the Swiss currency we, year after year, increased both sales and profits in line with our published goals. We established a much more balanced presence worldwide with more than fifty percent of our turnover now generated in Asia and America. We could also transform GF's portfolio towards less cyclical businesses with GF Piping Systems now by far the largest Division.

We benefited however from reasonably good market conditions so far. We still need to prove during a downturn that GF is much more resilient than before.

You launched a number of initiatives during your CEO tenure: Are you happy about them?

Over the years, we launched a number of initiatives to first create a team culture across borders (7 Habits®), to better implement our strategic goals (4DX), to innovate faster (Design Thinking) and to be more proficient in our sales approach (Value Selling).

I do believe they helped us differentiate ourselves from the competition and certainly hope they will remain part of our culture.

As CEO, you constantly visited customers as well as our worldwide facilities. Was there an experience or an event you have never forgotten?

During my tenure at GF, I visited as many customers as I could, especially in faraway countries. One learns so much from these visits, whether we are on the right track regarding our quality and our competitiveness. Customers are the best source of innovation ideas, as long as we listen to them. But celebrating the successes of our employees remains the most rewarding experience in my heart.

What will GF look like in ten years?

Some trends are clear like electric cars or digitalization and as long as we remain very much customer-focused, we will recognize the new and emerging trends early on and continuously adapt ourselves. Over the years, we will certainly experience supportive and less supportive market conditions. A humble attitude during successful phases and a positive one during tough times should help in that respect.

Do you have any advice for your successor?

Andreas Müller has already a long GF career behind him. He knows two of our Divisions, GF Piping Systems and GF Casting Solutions, very well. As CFO of the Corporation he has had a broad exposure to our shareholders and analysts and understands very well what the overall opportunities and challenges are. I am sure he will keep GF on its successful path.

If the Annual Shareholder's meeting elects you, you will become a member of the Board: How do you see your role there?

One of the key roles of a Board is to support and be a good sparring partner for management. If elected as a Member of our Board, this is what I will endeavor to do, together with my colleagues, with the slight advantage of knowing a bit more about the company. ■



Yves Serra will remain bound to GF, when he is elected a member of the Board of Directors in April.

«It has been such a privilege for me to be the CEO of this company, able to work with so many talented individuals.»

Yves Serra



NEW CEO ANDREAS MÜLLER

Born 1970 in Radolfzell (Germany), married, one son

Education:

Graduate in Business Administration, University of Applied Sciences, Konstanz (Germany)

Employment history:

2017- April 2019: CFO of GF Corporation, Member of the Executive Committee

2008-2016: CFO of GF Automotive

2002-2008: Head of Controlling, Business Unit Industry & Utility, GF Piping Systems, Schaffhausen (Switzerland) / Commercial Managing Director, Georg Fischer Simona Fluoropolymer Products, Ettenheim (Germany)

2000-2002: Head of Finance and Operations, GF Piping Systems companies, Australia

1998-2000: Head of Controlling, GF Piping Systems, Schaffhausen (Switzerland) / Head of Controlling Business Unit Industry, GF Piping Systems

1996-1998: CFO Business Unit Asia, GF Piping Systems, Schaffhausen

1995-1996: Product Manager Polypropylene at GF Piping Systems, Schaffhausen

Hobbies:

Downhill mountain biking

“Teamwork and team spirit play an important role for further success”

Andreas Müller talks about role models, values and the upcoming challenges for GF.

Congratulations on your appointment. What was your first reaction?

Thank you! I felt very honored. It is a huge privilege to lead this company and I feel inspired by the opportunities that lie ahead for GF.

How will you lead the company? What is your management philosophy?

Our five GF values provide a good, solid basis to run a company successfully. Above all, we have to trust each other, which results from respecting people and from doing what we say. One of our most important initiatives implemented in the last 15 years is the 7 Habits® of highly effective people. I am convinced that by following these principles our company will continue to prosper.

One thing is certain: the success of our great company is not the result of one single person; it is the achievement of 15'000 employees in combination with a well-coordinated and disciplined execution of our strategic milestones. Customer success is our success and we often find inspiration in discussions with our customers. We mustn't forget teamwork and team spirit – both play an important role for further success. As the new CEO, I need the support of my management team and every single person in this company.

Do you have a role model for your career?

I cannot say I have a single role model. Generally, people who convert vision into reality impress me. For example, Chrysler boss Lee Iacocca with his successful change management, Queen singer Freddy Mercury with his passion to succeed or Steve Jobs because he drove vision and innovation. Yvon Chouinard, the founder of Patagonia, an outdoor clothing company, also fascinates me. He is totally inspired by customer needs and intertwines his business concept with sustainability.

In my private life, the physical strength and determination of my father really impresses me. He started running when he celebrated

his 40th birthday and gave up smoking at the same time. A few years later, he ran his first marathon in three hours. Now, at 83 he still runs three times a week. He always says, “You need to have a goal and apply discipline”.

What do you like most at GF?

Many things make GF unique! All our three Divisions are well positioned in their respective markets and the immense capabilities of our organization allow us to leverage new technologies into new products and solutions.

Look at our great customer portfolio worldwide – big names from Apple to ZF, from Schaffhausen to LA to Shanghai.

GF is a learning organization with many great personalities full of ideas and a remarkable team spirit. We have a strong company culture and we offer great opportunities for talents with our unique mixture of tradition and future-oriented solutions. GF cares about people!

What are you looking forward to the most in your new position?

To developing GF into an even more innovative company, to continuing to implement our Strategy 2020 with my management team, to mastering the new opportunities such as digitalization and the change of the GF Casting Solutions portfolio; and last but not least to getting to know more of our 15'000 employees.

A few weeks ahead of your official start as new CEO, what will you focus on in your first months in the role?

I will dedicate the first months to our employees and customers around the world. It is important to continue to put our customers first and to understand their needs. I want to encourage our employees to speak up and establish an open dialog. For me it is important that all colleagues worldwide understand that I will continue with the implementation



The present and the incoming CEO in conversation: Yves Serra (L.) and Andreas Müller put employees and customers at the heart of their work.

«I will dedicate my first months to our employees and customers around the world. It's important for me that all colleagues worldwide understand that I will continue with our very successful Strategy 2020.»

Andreas Müller

of our successful Strategy 2020, that I stand for our values and that I am an approachable person.

What are the biggest challenges for GF in the next years?

After nearly ten years of sunny economic conditions, there are some clouds on the horizon. We have to accept failure and apply the lessons learned. We must share success stories and multiply things we do well. We must strongly pursue our Design Thinking initiative to gain speed with our innovative customer solutions – as a Swiss-based company we have to be smarter and more innovative to make ourselves stand out among our global competitors. It is also key to leverage the digitalization wave as a means to successfully implement our Strategy 2020. We have to be careful not to digitalize our offerings without putting our customers' needs at the center of attention.

GF must be attractive for talents. We have to get young employees on board as well as experienced experts and generally promote a diverse workforce. We will continue to reward

performance and aspire to make GF more attractive for our employees and customers by building innovation centers and modern workspaces that foster collaboration and innovation. Our value "we act fast" requires not only speed but also agility to proactively adapt to customer requirements in a constantly changing environment. And finally, by focusing on higher margin businesses we will secure sustainable profit for our company. ■



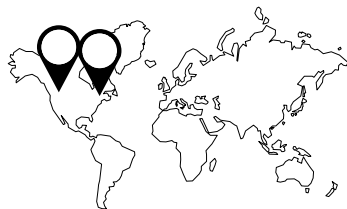
OUR LOCATIONS
GF PIPING SYSTEMS, COTEAU-DU-LAC AND CALMAR (CANADA)

The pre-insulation specialists

From two locations in Canada, GF Urecon supplies customers mainly in North America with pre-insulated piping for use in the municipal, construction, and industrial sectors.

Up to 140 employees work at GF Urecon, most of them in operations. The two sites in Coteau-du-Lac and Calmar are well equipped to manufacture all COOL-FIT product lines.





Renée Norman – the runner

As Forewoman of Shipping & Receiving in Calmar, Renée Norman has the needs of the entire organization in view: “I strive to support our sales, production, and distribution teams to provide excellent customer service.” It can be challenging, for example when delays come up or when trucks arrive late. To relax after a hard day at work, Renée laces up her shoes and hits the running track. She’s fast – as proven by a gold medal she won in a women’s strength and fitness event.



Jean-Philippe Pilon – the boxer

Jean-Philippe Pilon joined Urecon in Coteau-du-Lac 14 years ago when he was 19. His dedication and leadership skills earned him a promotion to Lead Hand in the Pre-Insulated Pipe Department at the age of 21, a position he still holds today. He coordinates a team of around 12, always challenging his co-workers to be more efficient. Jean-Philippe spends his free time with his daughter – and boxing. He even offers boxing classes to kids and adults: “It’s important for me to give back to the community.”

Winters in Canada are legendary, with temperatures consistently below –30 degrees Celsius in many parts of the country. That has a huge impact on day-to-day life. For example, in winter many people use an electric block heater to keep their car engine warm enough to start on subzero mornings. And wherever there are pipes, the risk of freezing temperatures causing them to burst is ever present. If there is a need for insulated piping, it is here.

In 1969, Urecon Limited was established in Quebec to market factory-insulated piping systems to contractors and piping distributors. From day one, the focus was on superb service and customer proximity. Not surprisingly, the business grew. Managing Director Nicholas Nickoletopoulos on the contributing factors: “For one, our product line included all the sundry items needed for piping installation, including electric heat trace systems to prevent freezing. And more than anything, the company regularly adapted its offering to remain relevant to the market and to its customers.” In mid-2017, Urecon became part of GF Piping Systems.

Serving the Americas

GF Urecon operates two locations in Canada: The Coteau-du-Lac site in Quebec, just outside Montreal, and the Calmar site in Alberta. “With manufacturing operations in the country’s East and West, we are able to save transportation >





**Anestin Gaulton –
the team player**

Straight out of high school, Anestin Gaulton joined Urecon in Calmar as a floor hand 23 years ago. Today he is Foreman in the Insulation Department. “Having made my way to where I am now is my greatest professional achievement – thanks to a company that has allowed me to grow and advance,” he says. A focus for him is fostering team morale, which he also does as a coach for his son’s baseball team. “In fact, the years of coaching have helped me be a better leader at work.”



**Sara Cristina de la Cerda –
the karate black belt**

One of the things Sara de la Cerda likes about her position as a Technical Inside Sales Specialist is that she manages jobs from A to Z: “Beginning with drafting a suitable quote, to searching for the best components, all the way to taking care of logistics and export formalities.” Sara has a strong sense of responsibility. In fact, besides holding a karate black belt, she encourages young women to take responsibility for what’s important to them during her volunteer activities at the 9-14-year-old Girls’ Club. Here they are encouraged to approach life in a balanced way.

› costs and provide faster delivery times,” explains Nicholas Nickoletopoulos. Depending on the time of year, up to 140 employees work at both sites combined, most of them in operations. That number also includes around 20 sales employees and an engineering team for customer and project support.

The Coteau-du-Lac site stands out as the only GF Piping Systems location to feature the new COOL-FIT tilt table. This patented innovation for inserting foam between the inner and outer pipes without the use of spacers was driven by GF Urecon. “But we didn’t do it alone,” Nicholas Nickoletopoulos stresses, “as we drew on knowledge and assistance from the entire GF organization.” Both GF Urecon sites are well equipped to manufacture all COOL-FIT product lines, including COOL-FIT ABS Plus, COOL-FIT 2.0 and COOL-FIT 4.0.

The products manufactured in Coteau-du-Lac and Calmar are shipped to customers throughout North and South America. Sales are generated in the three primary market segments industry, utility, and building technology. Sub-segments include freeze protection for municipal, mining, and industrial installations, district heating, and chilled water.

Big plans ahead

Since its acquisition in mid-2017, Urecon has been fully integrated into GF Piping Systems. Along with the COOL-FIT tilt table, contributions to the latest innovations have also included the development of a controller for heat trace cable and a new series heat trace cable. Future growth of GF Urecon will be driven by the COOL-FIT portfolio and by continuing to concentrate on services and customer proximity – factors that have lent to the company’s success from the beginning. ■



The products manufactured in Coteau-du-Lac and Calmar are shipped to customers throughout North and South America. Nicholas Nickoletopoulos (below) has been the President and Managing Director of GF Urecon since 2013.



More pictures at
globe.georgfischer.com



AT A GLANCE

Company:
GF Urecon, Coteau-du-Lac
and Calmar (Canada)

Founded:
1969; part of GF Piping
Systems since July 2017

Employees:
Up to 140

Production:
Pre-insulated piping systems

Market segments:
Industry, utility, building
technology

Target markets:
North America, Caribbean,
Central America, northern
regions of South America

HEART AND SOUL
GIOVANNI BOSCO**JOIN IN
AND WIN!**

Are you committed to social causes?
Does your colleague help those in need?
Then we would like to hear your story:

globe@georgfischer.com

All entries will be included in our
competition on page 40.

Skipper, teacher, volunteer

Sailing and teaching come naturally to Giovanni Bosco. In his free time, he trains young adults and organizes educational sailing trips, from the waters of Lago Maggiore (Italy) to the shores of the Mediterranean.

A passionate sailor and teacher – that is Giovanni Bosco. The Area Sales Manager from GF Machining Solutions in Losone (Switzerland) caught the sailing bug when he was six years old. “I’ve been sailing for 41 years,” he says. “I love the freedom, being close to water, moving with the wind.” Sailing expanded Giovanni’s own horizons, an experience he wanted to share with others. He therefore began teaching at his local lake, which had a school dedicated to junior sailors.

That was 20 years ago. Since then, Giovanni has expanded his sailing territory to include the high seas. In 2012, he joined the Velamica Association in Lugano (Switzerland). As one of 16 members, Giovanni voluntarily organizes week-long tours to Croatia and Greece. Every summer, around 40 people – educators, skippers, and students aged 14 to 22 – sail five to six boats around the Mediterranean as an educational venture.

As skipper, Giovanni is responsible for navigation and safety. But mostly, he teaches the students how to work the wind, stay safe at all times, and navigate with the stars. “The real challenge, which I enjoy, is to pass on my knowledge.” He connects well with teens and young adults. “It helps that I’ve never really let go of the child inside of me,” he laughs. ■



Giovanni Bosco

Area Sales Manager Giovanni Bosco is often on the road, ensuring that the customers, many of whom are watch and jewelry manufacturers, are well taken care of. He is responsible for the after-sales of consumable parts, applications, and services in Switzerland. Giovanni has been with GF Machining Solutions since 1989.



TAKE AWAY



... THAT SPRING BEGINS AT DIFFERENT TIMES?

Only the meteorological beginning of spring is fixed, and that's for statistical purposes: it's March 1st in the northern hemisphere and September 1st south of the Equator. Astronomically speaking, spring starts on the date when day and night are both exactly twelve hours long. That's generally March 20th in northern latitudes, and either September 22nd or 23rd south of the Equator, depending on whether the year is a leap year. Hardest to determine, though, in global terms is the phenological start of spring, which depends on geographical longitude and latitude, altitude and climatic region, and falls on the day on which certain plant species start to bloom.



... HOW TO OVERCOME SPRING LETHARGY?

When the weather starts getting warmer in spring, the body has to adjust after having got used to colder conditions. Blood vessels widen as the temperature rises, and many people's blood pressure falls, reducing in turn the supply of oxygen to the brain. In the first weeks of spring, this brings about tiredness and listlessness. So now's the time to get out of doors and into nature, to go for walks in the fresh air, and to keep your diet balanced. That will get your metabolism going and make you more energetic.

Spring feeling

Birds are starting to twitter, the weather's getting warmer and the first flowers are coming up. Spring is when nature wakes up, and it's also when we start to see the world around us in a different way. Everything's fresher, livelier, and feels new.

Did you know ...



... THAT SPRING ROLLS SYMBOLIZE AN ANIMAL?

There are many different kinds of spring rolls, and they all originate from the Chinese celebration of spring and New Year. According to traditional belief, eating them brings prosperity. Favored as starters in Asian cuisine, they are made from sheets of dough, come with a variety of fillings, and can be served fried or cooked in some other way. Spring rolls were originally supposed to symbolize the silkworms that hatch out around the time of the spring and New Year festival between the ends of January and February.



... WHY YOU GET THAT SPRING FEELING?

Rising temperatures in springtime interact with the increase in sunshine to bring about hormonal changes. Positive neurotransmitters such as serotonin or dopamine make people feel happier. At the same time, less of the sleep hormone melatonin is produced. This natural "hormone treatment" makes lots of people more active and also keener to make contact with others. Meanwhile, plants coming into bloom transmit the positive feeling that there's something magical in every new beginning.



... HOW THE COMING OF SPRING IS CELEBRATED AROUND THE WORLD?

People around the world find the hope of a reawakened nature or the joy of it something to celebrate. In many central Asian cultures and on the Indian sub-continent, New Year and spring are celebrated together. For example, the Chinese celebration of spring and New Year starts as early as New Year's Day, which was February 5th in 2019. The ancient Iranian spring and New Year's festival "Nowruz" starts on March 20th or 21st and the Indian spring festival "Holi", also known as the "Festival of Colors" on the day of the first full moon in the month of Phalgun (February/March). In Germany, Switzerland and other European countries, the start of spring is traditionally an occasion for carnivals; in the USA, the start of spring is announced by a groundhog on Groundhog Day (February 2nd).

MY HOME
PERTH (AUSTRALIA)



**JOIN IN
AND WIN!**

Would you like to present your home to your GF colleagues? If so, please send an e-mail with "My home" in the subject line to globe@georgfischer.com. All entries will be included in our competition on page 40.

On the edge of the world

Perched on Australia's western coast, Perth is surrounded by nature: to the south we have the rain forest, to the east and north the Australian Outback, and to the west the Indian Ocean. There's something for every taste. I myself am a coastal man. At least once a week I go to the beach to surf. Our weather is perfect for outdoor activities with daytime temperatures between 20 and 30 degrees Celsius the year round.

Many people don't realize Perth, with its population of over two million, is one of the most isolated cities on the planet. The next

major city is nearly a three-hour plane ride away. Over the years Perth has established itself as the center for Australia's natural resource industry. So it was only fitting for GF Piping Systems to expand our presence here in July 2017 by opening a new warehouse with offices. I spend the majority of my time supporting customers in all market segments throughout the state of Western Australia, which is 64 times larger than Switzerland. There are only two of us covering the region, and we sell the entire GF Piping Systems portfolio. ■



Jamie Powers

joined GF Piping Systems in 2012 and is responsible for sales in Western Australia. He lives in the Forestdale area of Perth with his wife and daughters, aged 4 and 6.

A day in Perth



MORNING

CATCH A WAVE



Start the day by getting up early to surf at Cottesloe Beach or Trigg point. You don't surf? Then take a morning swim. In any case, always stay safe by adhering to beach warning flags and lifeguard instructions. After the morning sports you're certain to have worked up an appetite, so have breakfast at Bib and Tucker, a beachside restaurant owned by former Aussie Olympians.



LUNCHTIME

ARCHITECTURAL HERITAGE

Head to the port city of Fremantle. The best thing is to wander around and let yourself get lost between the colonial heritage buildings and new age shops with an Australian twist. Other highlights you won't want to miss are the beach, the jetty, the historic Fremantle Markets and the esplanade. A great place for lunch is Little Creatures Brewery, which also serves local beer.



More impressions of Perth can be found at globe.georgfischer.com



EVENING

SOMETHING FOR EVERY TASTE



End the day at Perth's youngest part of town: Elizabeth Quay. There's something for everyone, from rowing races to tours that explore Perth's Aboriginal past. Or just soak in the harbor atmosphere with views of the river and downtown. For dinner, you can't go wrong with any of the restaurants there. And if you still have energy: Elizabeth Quay also has a great nightlife scene.

GLOBE 1-2019
IMPRINT

Published by

Georg Fischer Ltd.
Beat Römer, Corporate Communications
Amsler-Laffon-Str. 9
CH-8201 Schaffhausen

Phone: +41 (0) 52 631 1111
Fax: +41 (0) 52 631 2863

globe@georgfischer.com
georgfischer.com

Project Manager

Lena Koehnen (GF)

Contributing Editors

Carsten Glose (GF),
Lorena Hofmann (GF Piping Systems),
Isabelle Scherzinger (GF Casting Solutions),
Sophie Petersen (GF Machining Solutions)

Production

Signum communication GmbH,
Mannheim (Germany)

Translation

CLS Communication AG, Glattbrugg-Zürich
(Switzerland)

Printing of the Chinese edition

DE Druck Europa GmbH, Berlin (Germany)

Printing of other editions

abcdruck GmbH, Heidelberg (Germany)

Image credits

Alberto Bernasconi, Álvaro González Santillán, Arindom Chowdhury, AUDI AG, David Zentz, Helmuth Scham, Jaguar Land Rover Limited, Nik Hunger, Nikita Kozin from the Noun Project, Peter Eichler, Riccardo Cellere

Other images: GF



Globe is published four times a year in German, English, French, Italian, Romanian, Turkish, Spanish, and Chinese with a total print run of 9'000 copies.

The next issue will be published in June 2019; the editorial deadline is the end of March 2019.

More on Globe Online!

You can 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:



globe.georgfischer.com



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.

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.

**JOIN IN
AND
WIN!**

Here are the winners of the last competition:

- 1st prize:** Derya Hünér (GF Piping Systems in Turkey)
- 2nd prize:** Anthony Alvarado (GF Machining Solutions in the USA)
- 3rd prize:** Erdal Dursun (GF Casting Solutions in Austria)

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

The closing date for entries is the end of March 2019.