



Glass giant at the summit

Fitzcarraldo sends his regards: How Verallia Brazil moved half a mountain to make space for a new glassworks

Vacuum control system

The new reject system is able to detect errors in the vacuum process at an early stage

People developer

Benjamin Christ, new Head of Automation, steers his teams through future challenges

Strong ties

How the companies of the Bucher Group profit from networks and synergies



Editorial

Dear readers,

2020 has been an unusual and difficult year. We all share a common hope: that we can make it through the crisis relatively unscathed during the next twelve months. We've gone to considerable lengths here – on the one hand, to comply with all the hygiene rules, reorganise our procedures and process accordingly, allow our employees to work from home and so on. On the other, to keep our business operations going as normal. And I believe we've made a pretty good job of it!

In this latest issue of our Journal, we report on how we launched a new product in the market: the vacuum control system. Our cover story describes the spectacular construction of a new glassworks inland from São Paulo, which only went into operation at the end of 2019 and is like something from another era. And to mark the 40th anniversary of Jetter, our parent company, we take a look at cooperation within the Bucher Group, of which we have meanwhile been a part for around seven years.

Elsewhere, we tell you about our new Head of Automation, our new trainees and other events of interest at futronic. In short, about a piece of normality, which I'm sure is everyone's greatest wish right now.

On that note – stay well!

Sincerely,

Michael Preuss

Info

By the way: You can also find news and reports about our company on our website (www.futronic.de) as well as on Facebook, Twitter and YouTube. Please feel free to check them out.

- www.facebook.com/futronicGmbH
- www.twitter.com/futronicGmbH
- www.youtube.com - futronic GmbH

Vacuum control system

Detecting errors in the vacuum process

User expectations regarding container glass quality are extremely high. However, quality also has to be controlled. The principle is basically the same every time: sensors identify faulty containers automatically and reliably, and those containers are then accurately removed by the reject unit. However, there are umpteen possible defects which can develop during the glassmaking process. futronic's ASDR-III reject system, for example, identifies any containers which are broken, have fallen over, are too close together or have stuck together along with cullet or fragments and removes them from the conveyor belt with compressed air. Containers which are smaller or larger than a specified, freely selectable diameter or which exceed any other tolerance limits are likewise rejected.

Vacuum errors

The VCS vacuum control system is a new reject system from futronic that enables manufacturing problems which develop at individual sections during the vacuum process to be detected at an early stage. The sensors of the VCS measure the vacuum that is applied to each job and compare the value with a setpoint which is individually defined for each section. If a discrepancy is determined, the reject unit immediately removes the faulty glass container and an alarm appears prompting the operator to identify and clear the problem. The VCS makes a significant contribution to reducing the error rate – and to improving the quality of both the products themselves and the production process.

Standalone version allows seamless integration

The VCS is available as an option for all IS machines equipped with our proven FMT24S machine control system. It can furthermore be retrofitted to any existing equipment featuring an FMT24S control system. The VCS is implemented as a seamless add-on for the FMT24S's OT software. We can also supply the VCS in a standalone version with a separate interface for integration into the control infrastructure of other manufacturers.





The people developer

Benjamin Christ is new Head of Automation

Aged 32, his job is to steer futronic’s developers and designers through future challenges and coordinate their work at the interface to Sales and Project Management.

Benjamin Christ, aged 32, originally trained as an electronics technician for industrial engineering at Verallia, the Bad Wurzach glass manufacturer. He is an ambitious young man who has always been eager to learn more and get ahead. Additional qualifications in automation technology, IT and leadership were consequently high on his agenda. It wasn’t long before he was also charged with optimising production processes. He felt very much at home at Verallia – what you might call an out-and-out “glass person”. But soon his curiosity – his desire to explore new paths and his thirst for even more knowledge – got the better of him. He longed to develop further on a personal level and become adept at leading others. He accepted a job as Project Manager Automation and Drives at a plant

and equipment manufacturer in the local region. He found the work highly satisfying but the chemistry just wasn’t right. At his next port of call the opposite was the case – he was totally underchallenged. Benjamin finally arrived at futronic last August to take over as Head of Automation. He admits that it was like hitting the jackpot. After all, process expertise is particularly in demand in his new job – the ability to think laterally across electrical and mechanical engineering, development and design. “It’s a chance to apply my knowledge and my rich experience in my role as an architect”, he comments. Every day, he coordinates and orchestrates activities in a variety of projects at the interface to Sales and Project Management. Yet it’s at the personal level where his room for manoeuvre is greatest

– where he has all the freedom he needs to “develop people”, as he calls it. Benjamin, who also works as a Chamber of Commerce inspector in an honorary capacity, heads two four-strong teams of developers and designers. Amongst other things, it’s up to him to steer these teams through the company’s upcoming organisational changes and prepare them for future challenges. The goal is to ensure that processes and projects are as efficient as possible. He needs “self-managed employees” to achieve this – self-assured, independent, empowered and highly motivated players who are able to harness and shape their own potential. That’s what he’s aiming for. And that’s why he’s precisely the right man for futronic in this position.

News in brief



Follow-up order from Mulia Glass

Early in 2019, futronic received an order from PT Mulia Glass, the Indonesian glass manufacturer, to modernise one of the production lines at a plant south-east of Jakarta, the country’s capital city. The project specifically concerned Line 4, comprised of a glass moulding machine and a welding machine for making glass blocks. The specialists at futronic drafted new circuit diagrams and adapted the software; one particular challenge was that all sensors and actuators on the production line needed to be integrated into the system. In the meantime, the line is up and running smoothly and reliably. The customer was so happy with the way the project went

that plans for a follow-up order were announced immediately afterwards. And that second order has now arrived: in October, futronic was asked by Mulia Glass to retrofit another of its lines. This newest project entails a revamp of Line 3.2, which apart from a few minor details is almost identical to Line 4. futronic’s technicians will be required to exchange controls, drives and wiring and there will also be a new human-machine interface (HMI), customised in part. The modernised plant will go live sometime next year – though it’s difficult to say exactly when owing to Covid-19.

What is probably Brazil's most modern glassworks now stands where a mountain crest once proudly dominated the hilly landscape surrounding Jacutinga.



futronic worldwide: Retrofit project for Verallia in Jacutinga

Glass giant at the summit

Verallia Brazil has relocated its glassworks from the Água Branca district of downtown São Paulo to the outskirts of Jacutinga – a small town in a landscape marked by mountains. The new plant's three production lines currently manufacture around one million bottles a day for the domestic beverage industry. futronic supplied the controls and drives and was involved from the outset. Even for a glass giant like Verallia, this was an unusually large and complex project.



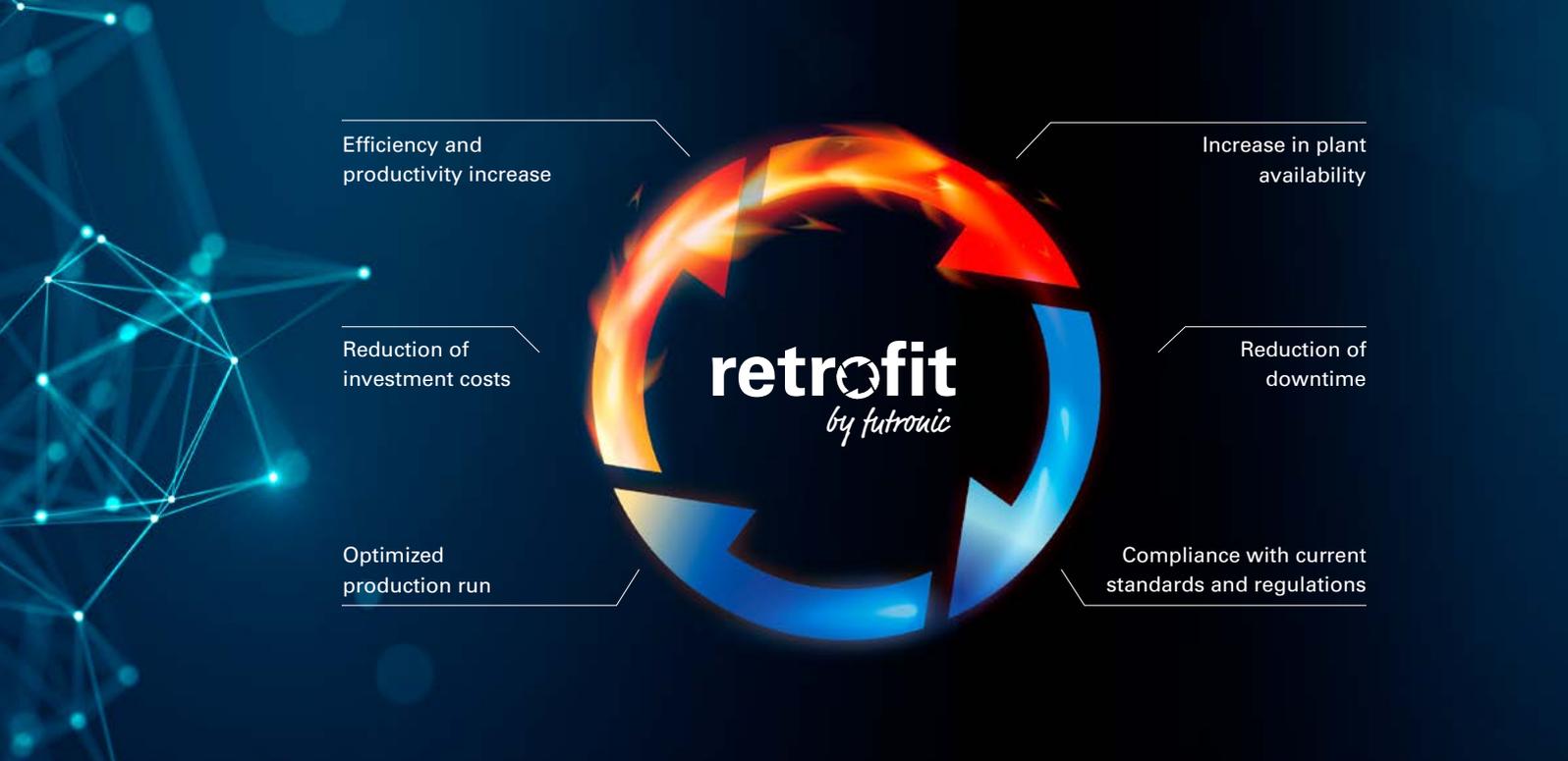
Verallia is one of the biggest container glass manufacturers in the world – a global player by any definition. The company employs around 10,000 people and comprises 32 glass production facilities in 11 countries throughout Europe and Latin America. In 2019, the Group reportedly achieved turnover of 2.6 billion euros. In short, it's a mammoth organisation, where things are constantly on the move. There's always something being extended, converted, replaced or modernised somewhere at one of the numerous manufacturing facilities. Verallia has specialists for this purpose – indeed whole departments with experienced project managers who accomplish even the most complex missions ably. Nevertheless, the Jacutinga project turned out to be a monumental task, even for Verallia.

Mountain makes way for a new glass plant

Verallia Brazil has its headquarters in the São Paulo metropolitan area. For many years, one of this huge country's three Verallia glassworks was located just a stone's throw away in an industrial park in the city's Água Branca district. During the early tens of this century, it became clear that capacity for production and growth would soon be exhausted, with no more local reserves available. There appeared to be no other option but to build a new plant. The question was, where? It didn't take long to find the ideal spot – on the outskirts of the small town of Jacutinga in the state of Minas Gerais, some 200 kilometres north of São Paulo. The area surrounding Jacutinga is quite hilly, though, and graded land is a rarity. The management thereupon decided to move half a mountain in order to make space for the new plant!

The region's pride

This construction project of almost biblical proportions is documented in a video. The scenes it depicts are more than a little rem-



iniscient of “Fitzcarraldo”, the Werner Herzog epic film from 1982, in which the protagonist of the same name – played by Klaus Kinski – dreams of building a lavish opera house in the middle of the virgin Amazon rain forest. Fitzcarraldo, obsessed by his grand vision, forces his indigenous crew to haul an old steamship over a mountain. Fortunately, there was none of this madness to be witnessed at the construction site in Jacutinga. On the contrary: Brazil’s – if not the entire South American continent’s – most modern glassworks was systematically charted out and completed in a mere 26 months and Carlos Messina, Verallia Jacutinga’s Project Director, admits that “we at Verallia – and literally the whole region – are very proud of it”.

In May 2017, an army of excavators, bulldozers and trucks moved in to remove about 630 tons of earth and create a gigantic graded area for the new plant to stand on. All in all, around 30,000 tons of concrete and 1200 tons of steel were used. 164 kilometres of cables and almost five kilometres of pipelines were laid. The new Verallia works, which was inaugurated in July 2019, provides around 270 direct and 90 indirect jobs for the local population.

Advanced technology made in Germany

Verallia invested something like 77 million euros in the new plant – and in state-of-the-art technology to match. “Our new factory complies with even the strictest safety and environmental regulations”, Messina emphasises. Verallia sets itself high standards and the production shop is no exception. Two complete lines were transported from Água Branca to Jacutinga in connection with the move. A new, German-built IS machine from Heye International is also installed there. The two existing systems were modernised by futronic as part of an extensive retrofit.

The retrofit project was prepared by experts at Verallia and futronic well in advance. “I was invited to the first meeting with Verallia representatives in São Paulo in spring 2017”, recalls sales engineer Marc Meersschaut, who is responsible at futronic for business with South America. Eduardo José M. da Fonseca, the project manager at Verallia who also oversees technologies and processes at all Verallia Vidros plants, was similarly in on the negotiations from the start. The two of them spoke to each other regularly on the phone during the months that followed, discussing various details as well

as specific safety features. Meersschaut eventually took a second trip to São Paulo to wrap up the contract. The controls and drives for the three production lines were shipped and put into operation at the end of June 2019. Only days later, the complete plant went productive.



Built for the future

“A project on that kind of scale can only succeed if you bring in the best of the best to help you – competent partners who you can rely on absolutely from day one”, da Fonseca stresses. “That’s why we went straight to futronic, to get the specialists from Lake Constance on board.” The two partners know each other and they hold one another in high regard – in fact, they have done for many years now. In spite of that, “The new plant in Jacutinga was an unusually large and complex project even by our standards”, Meersschaut adds. “That’s the reason we’re particularly proud of the contribution we had the privilege of making.”

Of course, he’s also hoping to get a chunk of the pie whenever more refurbishments or expansions are planned in the future. The three production lines currently manufacture around one million bottles a day for beer, wine and spirits. Yet the market is growing – and in Brazil, too, there is a noticeable trend away from plastic packaging in favour of glass. It goes without saying that the new plant is geared to this growth potential. The present factory buildings have enough space for three more lines and preliminary talks are already under way with futronic, amongst others. Additional capacity exists as well in the outdoor areas. “The Verallia plant in Jacutinga”, Meersschaut concludes, “is built for the future”.

Strong ties for international success

Jetter AG, which celebrated its 40th anniversary last year, took over futronic back in 2006. The aim was to bundle the two firms' strengths and profit from their enormous pool of experience. Today, both automation specialists belong to the Swiss Bucher Industries Group. As companies of the Bucher Specials division, they reap the benefits of various formal and informal networks within the Group coupled with the concentration of resources and competencies in international projects.

Martin Jetter, Jetter's founder and present Chairman of the Supervisory Board, was very enthusiastic at the time about the attractive synergies that would be created by the cooperation. The two companies have forged close ties since then. "We've been working together in a trustful partnership for many years now", says Michael Feider, VP Sales & Marketing at Jetter. "It's extremely successful on all levels." The main focus of the cooperation is on control cabinet construction – a branch of production that "futronic excels at". People from futronic are involved in numerous Ludwigsburg-managed projects: they take care of the entire electrical engineering, supply the control cabinets with controls and drives and commission the machines on site at the customer's. In return, futronic purchases a higher proportion of printed circuit boards and complete modules from Jetter, for instance for its FMT24S control systems, rather than from external suppliers. For Feider, it's a classic win-win situation.

Internationally competitive

This is not an exclusive deal, of course. In the end, it's the firm that submits the best and most economically advantageous quotation that gets the order. Even more so since Jetter, along with futronic, was acquired by the Swiss Bucher Industries Group. In 2013, this technology group – whose headquarters are in Niederwenigen, not far from Zurich – acquired a majority share in the Ludwigsburg firm, which was subsequently incorporated into its Bucher Specials division. Amongst other things, the division makes wine production equipment as well as processing machinery and technologies for fruit juice, beer and instant products – and also control solutions for automation systems. Feider explains that, although cooperation between the Group's various companies is explicitly encouraged by the top management and, unsurprisingly, quite a few close relationships have grown up over the years, "it's a basic rule that each individual firm must be competitive and capable of standing its own in the international arena".



Michael Feider,
VP Sales & Marketing at Jetter



Roland Ebi, project engineer
at Bucher Unipektin.

Three partners on equal terms

Jetter
automation

BUCHER
unipektin

futronic
automation

Insourcing is a top priority

The takeover opened up completely new horizons, not least for futronic. For example, insourcing is also a top priority in projects for the beverage industry: the Group's individual companies are urged to take advantage of each other's competencies wherever this is feasible and appropriate. According to project engineer Roland Ebi, futronic is Bucher Unipektin's number one choice as a supplier and project partner. The machines and systems developed and built by the Swiss manufacturer include fruit juice and beer filtration equipment, as a business segment that holds considerable promise. "If ever our own resources – or the time available – become too scarce, futronic is always our first port of call", Ebi insists. "We've got a direct line to them and the chemistry between us is good."

Collaborative platform

Under this cross-border cooperation arrangement, colleagues from Lake Constance take care of, say, the electrical design and building the control cabinets, and in some projects they're additionally responsible for PLC programming. Specialists from futronic are often also on site at the customer's to assist with commissioning. In some cases, that means travelling to exotic destinations: the two firms are currently working on a beer filtration system for UCB Union Camerounaise de Brasseries, Cameroun's biggest brewery located in Douala. futronic is attending to the hardware planning and supplying an MCC cabinet to this Central African seaport along with several control boxes.

The cooperation works so well that the two companies are now also harmonising their digital infrastructure and setting up interfaces to enable loss-free data transmission as well as compatible (software) systems. "The idea is to establish a collaborative digital platform", Ebi replies when asked about the underlying strategy. "That way, we can involve futronic's developers in projects even sooner and even more closely." In the opposite direction, futronic will be able to make use of any free resources at Unipektin and harness the resulting synergies.

New paths to new industries

The Swiss already have a few projects in the pipeline. As one example, futronic will collaborate with colleagues at Unipektin on the implementation of a so-called beer recovery plant for a Russian client. And in another joint endeavour, experts at the two companies plan to cooperate closely with one another on the development of new filtration technology based on shell limestone.

Jetter has meanwhile gone a step further. Our Ludwigsburg parent has been a successful player in the packaging business for many years. A while ago now, Jetter purchased a form, fill and seal machine, which now stands in a hall at the headquarters where it is used to carry out in-depth analyses and tests. "About 110 firms manufacturing these machines exist in Germany alone", Jetter's VP Sales & Marketing points out, "and the design is always very similar". Jetter now wants to get together with futronic to develop a control system combining roughly 80 percent of the total feature set. The aim is to come up with what will de facto be a standard control system that can be used for practically any machine of this kind – with customised solutions for the rest.

Feider puts the strategy in a nutshell: "By doing that, we can bring down the costs for purchasing a form, fill and seal machine significantly, much to the benefit of our customers". The first project with a client in Italy was highly promising and Feider is now hoping to take the market by storm. With futronic on board.

A heart for animals

Maren Holland is a kind and sympathetic colleague who's universally liked. It's thanks not least to her that futronic is such a great place to work. She's the glue that holds us together. She's kept it going for 25 years now.

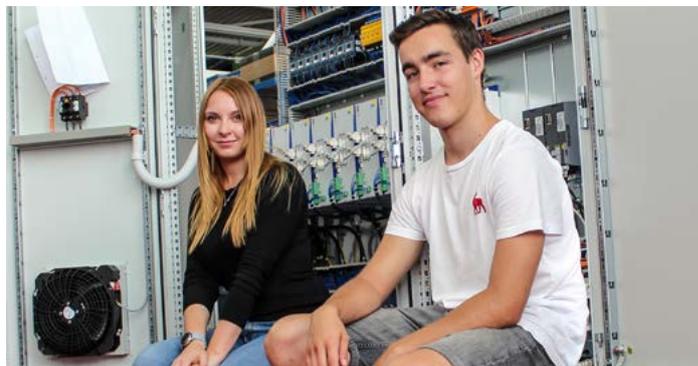


Maren used to be a medical laboratory assistant. However, she never really felt at home in the world of test tubes and pipettes, blood and stool samples, parasites and cell cultures. In 1995, when futronic was searching for a new assistant to support the boss, she took the plunge and applied as a lateral entrant. She doesn't like to dwell on the fact that the boss in question was her father, who was at the helm here for about 18 years – after all, “that kind of thing always has a whiff of preferential treatment about it”. In practice, it was never

a problem. Maren soon rid herself of those chains and has always insisted on going her own way. Her tremendous enthusiasm and passion have played a big part in writing the futronic success story. Throughout the years, she's been there whenever anyone has needed her, even late in the evening or at the weekend. And you can still count on her to this day. Alongside her duties in Back Office Sales and the secretary's office she also acts as a lubricant of human relations – helping to make our company a great place to work and attending to all the little details

that can make such a difference. And yet most of the time she remains invisible. She draws the strength she needs from her distinct love of animals. The creatures she and her partner give a new home to are often neglected and abused. They nurture and care for them as volunteers at animal shelters, not only locally but also at their favourite holiday destinations – Rhodes and Portimão. Cats especially, but sometimes dogs as well. And if a snail crosses her path when she's out walking, she can't resist carrying it to safety. That's just the way she is!

futronic inside



Around for a long time

When a firm honours its employees for longstanding service, you're reminded once again of how quickly time flies. Yet having said that, anniversaries of this kind are further confirmation of what a good company futronic is to work for. That's something we're very proud of. And we're delighted for Silvia Schmid, who's been working for us for 20 years now in Accounts and Purchasing – initially as a trainee and in the meantime as department head. The same goes for Ralf Heitele (photo left) and René Schampel, who have been with us for 10 years and are currently responsible for building control cabinets. Plus, of course, Wolfgang Edel (photo right), one of our “old faithfuls” who's been on the futronic payroll for 25 years. When it comes to wiring, there's practically nothing he doesn't know. Congratulations from us on your anniversaries and thank you for all those years you've dedicated to futronic.

Two young people start their career

Last September, futronic once again welcomed two new recruits. Diana Kraismane began training with us as an Industrial Management Assistant with a higher-level qualification in “International Management with Foreign Languages”. Aged 26, she grew up in Latvia and emigrated to Friedrichshafen about six years ago. Diana, who has a particular fondness for the far north, did two years at Tettang Electronics College (EST) specialising in automation before finally deciding on a commercial apprenticeship. Jannik Härle of Eriskirch, who has just turned 18, has set his sights on becoming an electronics technician for industrial engineering. Having completed his first year of training at the EST, he is now spending his practical phase in Development, Production and Testing & Service. When he's not at work, Jannik loves to get out on his motorbike and he's a qualified lifeguard too. We wish our two new trainees an exciting and naturally also instructive time at futronic!

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