

seranews

The customer magazine of the **sera** Group

Issue 2017



A close-up, artistic photograph of a bicycle's drivetrain, showing the chain, gears, and pedals in sharp focus against a blurred background. The lighting is bright, highlighting the metallic textures of the components.

8,000 km

This is how many kilometres our colleagues travelled from the beginning of May until the end of September by bicycle in the course of the North Hesse Bike Challenge 2016. This distance corresponds quite accurately to the distance as the crow flies from our headquarters in Immenhausen near Kassel to Vancouver on the west coast of Canada. An incredible achievement and the victory in the medium-sized companies category! Perhaps they will achieve another 10%, i.e. 800 km, this year? Then they would have cycled all the way to our branch **sera ProDos SA (PTY) Ltd.** in Gauteng, South Africa!

The cycling competition "Bike Challenge North Hesse", organised by the North Hesse regional management, motivates employees to no longer travel to work by car but to change to a bicycle. The competition thus provides valuable support to make employees healthier and more able-bodied and thus also less susceptible to long-term sickness absences.

The competition thus fits in perfectly with our "**be sera – be healthy be fit**" motto of our internal company project for health promotion of the employees. We are proud that many **seraners** also stepped on the pedals again this year and we are eagerly waiting for the results of the Bike Challenge North Hesse 2017.

EDITORIAL



Dear Reader,

sera has completed another successful year and was able to realise many interesting and challenging projects jointly with its partners and customers. We are very proud of the result, but at the same time we are not resting on our laurels and also want to further develop our company jointly in the future.

Because we believe the key to our success is our employees. Our **"be sera"** principles have proven themselves. **sera** has been successful in the market for more than 70 years. We have grown from the pioneer in diaphragm pump technology to a worldwide leading manufacturer for dosing and compressor technology. We would not have achieved that without the commitment of our, in the meantime more than 220, employees. The elan and expertise of each individual person have advanced **sera**. Like the company, all **seraners** are required to constantly improve themselves, accept responsibility and contribute their own ideas. That requires fun and joy in what one does every day and interest in continuously learning and further developing themselves. It is important to us that we are innovative and have the courage to explore new things, take responsibility and that people can rely on us and our work. We shape our successful future jointly in accordance with our **"sera in motion"** project and create added values for human and environment.

In this issue, we want to give you a look behind the scenes and introduce you to some of the people whose knowledge and expertise are united in our product solutions. For example, how is a dosing system developed and which colleagues make the best possible contribution of their know-how there? In addition, we give you an overview of what constitutes our particular corporate culture. Because we believe that we can only master the challenges of the future with people who feel comfortable with us and identify with the company.

Learn what **sera** stands for and what is important to us. Let yourself be captivated by the elan and optimism. I wish you inspiring reading and a lot of pleasure with the latest issue of **seranews**.

Best regards
Carsten Rahier



SERA INTERNATIONAL

Marco Josephs, Managing Director of **sera ProDos SA** in South Africa, has already been involved with the famous Comrades charity run for several years.

DEVELOPMENT²

The employees of our development departments are constantly working on many new ideas. New, exciting product developments arise not in competition but with each other. An interview with Enrico Ertle (**sera ProDos**) and Patrick Zeisberg (**sera ComPress**).

INTEGRATED ECONOMY

sera takes its social responsibility seriously and is committed to the integration of young immigrants.

THE PATH OF A DOSING SYSTEM

How is a dosing system from **sera** actually developed? We describe the functions involved in the process and how a finished product emerges from a first telephone call. In doing so, we introduce the people behind a successful project.

MAKE THE DIFFERENCE

sera has a modern corporate culture. We see this as a success factor for everyone. Employees as well as customers and partners benefit.

SHINING EYES OF CHILDREN

sera together with its partner of many years, the MT MELSUNGEN Handball Bundesliga club, has spent a whole day making children's eyes shine. A report of the first **sera** Handball Day.

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The mystique of the Comrades Marathon captures the imagination of South Africans every year. The organisers call it "The Ultimate Human Race". With its running distance of just under 90 km and approx. 20,000 participants annually, the Comrades Marathon is the most popular ultramarathon in the world. Approx. 600,000 spectators cheer the runners along the course and on some sections give the impression of running a city marathon.

It is difficult to understand why so many people run Comrades, because anyone who has tackled this epic challenge will testify to the grueling nature of it. How can the popularity of the ultramarathon be explained? I think that the Comrades marathon gives ordinary people like you and me the opportunity to do something truly extraordinary. It is a great challenge – and we South Africans love the challenge. The race also belongs to the masses

as it belongs to the perhaps 100 hopefuls who believe they have a chance of winning it.

"You don't just stand up and run".

The Comrades Marathon is an ultramarathon with a length between 87 and 89 km, which is run annually in the KwaZulu-Natal region between the cities of Durban and Pietermaritzburg. It is the world's largest and oldest ultramarathon; the first race took place in 1921. The running direction of the race alternates annually between the "Up Run" (87 km) that starts in Durban and the "Down Run" (89 km) that starts in Pietermaritzburg. The number of participants is limited to 23,000 runners; these come from more than 60 countries. Since 1988, more than 10,000 runners in all except three races have managed the distance below the specified time of twelve hours. Runners over the age of 20 qualify when they

MY COMRADES JOURNEY

We create added values for human and environment – following our principle, we are involved in many areas with sponsoring activities and donation actions. Therefore, we were immediately enthusiastic when our colleague Marco Josephs, Managing Director of the South African branch, sera ProDos SA (PTY) Ltd., asked us to support his run in the Comrades Marathon – ultimately, he ran the 90 km route to collect donations for the Starfish Foundation. Marco has written an experience report about his effort for the well-being of AIDS orphans in South Africa.

**ubuntu= designates an African philosophy of life that is practised in everyday life from African traditions. The word "Ubuntu" comes from the Bantu languages of the Zulu and the Xhosa and means approximately "humanity", "charity" and "sense of community" as well as the experience and awareness that you yourself are part of a whole.*

are able to complete an officially recognised marathon (42.2 km) in under five hours or a 100 km run in less than 13 hours. During the event an athlete must also reach five cut-off points in specified times to complete the race. The spirit of the Comrades Marathon is said to be embodied by attributes of camaraderie, selflessness, dedication, perseverance, and ubuntu*.

Comrades Marathon 2016 – my story

I started my Comrades Marathon journey as early as 2003; I have completed six races in the past 14 years – the 2016 race should be my last one. A special run that should somehow be even more special. I decided to ask my friends and family, my loved ones and my colleagues for a donation for the Starfish Foundation that takes wonderful care of AIDS orphans. The condition was that I

finish the race and earn a medal, i.e. require less than eleven hours. My target was to run for ZAR 10,000, approx. EUR 670.

The day of the race

The last 30 minutes before the race were great and humbling: Ladysmith Black Mabazo's version of "Shosholoz" boomed from the loudspeakers of the music system (the isiZulu word means approximately "look ahead with courage" or "we attack") – and all 20,000 starters joined in. Afterwards, the South African national anthem was played and my whole body was covered in goose bumps. Finally, five minutes before the gun, the well-known sounds of Chariots of Fire filled the chilly early morning. Then I knew: this was special. I was one of 20,000 people of different races, religious views



well". I was pleased about her compliment and silently hoped that I would run my race just as well.

It was dark and cold in Pietermaritzburg on this morning at 05:30 at the end of May. I started slowly; for some reason, my muscles were not quite ready yet. I did not find my rhythm nor regular breathing. The start of the race did not run at all well for me. It became better after about an hour on the road: The field of runners had thinned out; it was finally possible for me to run at my own pace. I had set myself a limit of 6:50 minutes per kilometre for the first half of the race. I wanted to reach Drummond (half way) in 5:15 hours, however everything under 5:30 hours would have been fine. Thus, I had 6:30 hours time to master the second half.

In contrast to the name, the first 21 km of the Down Run were mainly uphill. Nevertheless, I had intermediate times of 1:49 hours for kilometre 17 and 3:30 hours for kilometre 32 – I came up with an average time of 6:38 minutes per kilometre. That was clearly quicker than planned and I knew that could be revenged in the course of the race. Luckily for me, I had my beautiful wif Sally supporting me on route. She provided me with much needed supplements and also emotional support on my long journey.

I passed the Ethembeni school for handicapped children at kilometre 35, at the foot of the Inchanga. Fresh food for thought: Moste of these childre could not even walk. It was a privilege that I was healthy and could challenge this unusual run. This realisation burned in my head and soothed the pains for a few hundred metres.

or social classes, some poor, some rich, had only one common objective: to reach Durban in less than twelve hours. I realized that we are all the same and that social status means nothing. We were all in the same boat and respected each other as athletes, fellow runners, people. The lady in front of me turned to me with a wide smile and said: "You know all the songs and lyrics! You sing





Difficult times

I went through Drummond slightly ahead of schedule in 5:05, but I was beginning to get tired. I battled to convince myself that I had enough gas in the tank to do another 45km in under 5.54. My aim was to finish under eleven hours. To make matters worse, the first 8km after Drummond is a long, nasty climb commonly referred to as the back of Botha's Hill. I walked most of the time. My only hope was that I could reactivate my forces on the 20 km downhill section between Hillcrest and Pinetown. But first I had to get there.

"You don't think about the distance – you think step by step"

I managed to pick up the pace once I reached Hillcrest. The downhill running brought me new company – strong pains in both knees and the thigh muscles. I had to hang in there, put the focus on rhythm and breathing and supply myself with sufficient liquid at the stations. I had to imagine how I would reach Durban in one piece. I looked at the orange coloured Starfish wrist band on my wrist, it reminded me of my selfless plan to collect donations for poor children who had less luck in life. As if to reinforce my motives, the marathon led me past Kearsney College. I saw the boys in school uniforms and with them the massive difference between the "haves" and the "have-nots" in our country.

I reached Pinetown – and the pain in my left thigh reached its peak. I still had 21 km ahead of me, so I took a pain tablet to keep the pain at bay and be able to continue my way to Durban. In passing I should mention that heat and humidity in the KwaZulu-Natal province could also now no longer be ignored.

The finish in sight

I reached 45th Cutting (7km to go) after almost ten hours of running. I had 2 hours and 10 minutes to finish the race and 1 hour 10 minutes to run under my personal goal of 11 hours.

All the runners on the road were quiet. Everyone was focused on simply putting one foot in front of the other, moving forward at all costs. Only severe cramping or some other unforeseen disaster could prevent me from finishing in time.

"You feel like a hero".

I can't explain the relief and elation when I entered the stadium with a big smile, punching the air in sheer delight. It felt as though the thousands of frenzied supporters were all shouting for me. I finished in 10:45. It was a hard day at the office, to say the least. The Ultimate Human Race? Pretty inhuman, if you ask me.





Marco Josephs is 45 years old and married. He started working for **sera ProDos SA (PTY) Ltd.** in 2012 as Branch & Sales Manager and has been responsible since then for our branch in the vicinity of Johannesburg. He describes his management style himself as dynamic, direct and consistent. His team describes him as an absolute role model and experience Marco as always positive, amusing and loaded with energy. His philosophy of life is only logical: live your life for the here and now and regret nothing. **sera ProDos SA (PTY) Ltd.** was founded in 2010 and since then has been our successful representation on the African continent.



The Comrades Marathon was started by Vic Clapham, a veteran of the First World War. He had walked 2,700 km during the offensive of the Allied Forces in East Africa and wanted to set up a living monument for his fallen comrades with the marathon. The run should reflect the hardships that were endured by the soldiers during the war. The first 34 runners for the first Comrades Marathon started on May 24, 1921 with support of the League of Comrades of the Great War.

Distance: between 86 and 90 kilometres

Running direction: *Down Run* from Pietermaritzburg to Durban
Up Run from Durban to Pietermaritzburg

Participants: approx. 20,000 annually; every person over the age of 20 years who can prove that he has completed a marathon in less than five hours or a 100 km run in less than 13 hours is permitted to participate

Time limit: twelve hours

Awareness: the whole race is televised; more than 3.5 million people watch regularly. Approx. 600,000 people cheer on the runners at the roadside

Medals: Gold medals: for the first ten runners

Wally Hayward medals (won a total of 5 times and was the first runner who stayed under six hours): for runners outside the top ten who stayed under six hours

Silver medals: for all other runners who stayed under seven and a half hours

Bill Rowan medals (winner of the first run in 1921): for all runners between seven and a half and nine hours

Bronze medals: for all runners between nine and eleven hours

Vic Clapham medals (founder of the Comrades Marathon): for all runners between eleven and twelve hours

Course records: *Down Run*

Men: 05:18:19 h, 2016

Women: 05:54:43 h, 1989

Up Run

Men: 05:24:49 h, 2008

Women: 06:09:24 h, 2006

On average...

... a runner makes 111,250 steps

... 2.1 million water bags are issued at the supply stations

... 43% of the runners have cramps

... participants are Comrades Marathon repeat participants

... less than 50% of the runners complete the race in the specified twelve hours

More information can be found at www.comrades.com



Patrick Zeisberg and Enrico Ertle - development managers at sera.

DEVELOPMENT²

Since the company foundation in 1945, the **sera** name has stood for innovation, reliability and flexibility, and since then is one of the worldwide leading German companies in the area of dosing and compressor technology. But how is such positioning successfully developed? It is only by constant further development of existing products and technological innovations that it is possible to succeed in keeping pace with the changing market conditions and customer needs. And by people who implement our corporate culture of continuous change in the daily life. Enrico Ertle and Patrick Zeisberg give an outlook into the future of the **sera** product world. Because innovations are made by people.

We show how hard, but also how attractive the work of the developers can be using our two **sera** developers who are on the move in two completely different product worlds. Nevertheless, many parallels can be recognised.

As system provider for dosing systems, **sera** can draw on over 60 years of experience. Many innovations and further developments have been created in this period. Some have even won awards in the past year.

Enrico Ertle with his age of 36 years has already come a long way. He has been Development Manager in the area of dosing technology at **sera** since the middle of 2015. Immediately on joining the company, Enrico was able to be immersed in any of the outstanding past development projects at **sera**.

*Enrico, which challenges were waiting for you at the start of your career with **sera**?*

“Joining any new company is per se always exciting. Immediately being involved in an exciting project was already a hard nut, but development is always a challenge which is why I love this job. It is like a competition that you want to win.”

Were there obstacles on the way to the product success?

“After I had familiarised myself very quickly with the subject of dosing technology, it was clear that the major technological progress that was being striven for with the new iSTEP pump was a great challenge for everyone. But we mastered this challenging task with a super team and developed a great product at the end.”

The iSTEP was nominated as finalist for the 2016 Industry Award and was only narrowly beaten for the 2017 Best of Industry Award. These are clear indicators that the iSTEP is a very good product. What makes it so special?

“The iSTEP combines the advantages of a stepper motor and the accuracy of a diaphragm dosing pump and thus significantly increases reproducibility and reliability. Hardly any limits are set for possible applications due to a wide adjustment range of 1:1000 and variable speed adjustment. In combination with the microprocessor-controlled electronics, the completely new drive concept makes a variety of new functions possible. The operation is performed via a detachable graphical display using buttons and click wheel which enables simple adjustment of the parameters. Thanks to the multi-language and intuitive menu guidance and a power supply of 100 to 240 V, 50/60 Hz, the pump can be used worldwide.”



The iSTEP has now been on the market for two years. How is it being accepted and which further developments have there been in the meantime?

“The customer feedback is excellent so that we have

included three other versions in the planning since the market launch and can thus cover even more application areas.

We have presented a further highlight at the Hanover Fair this year: The new **sera** Interface Module now enables the integration of the iSTEP and in the future also other pump types in a PROFIBUS / PROFINET system that is used for the central evaluation and control of sensors and actuators in automation technology. With this, we can meet the increasing requirements for production processes of the future as it enables intelligent, sustainable and mainly efficient control."

If you try to look into the future, what do our products for dosing technology in five years look like?

"The subject of the future is Industry 4.0 which in the meantime has also incorporated the rather traditional mechanical engineering industry. Future products must not only be able to be integrated in existing networks; they must also communicate with and learn from each other. However, for all technology that must also be integrated in the future, we will also not lose sight of what is proven. Our products stand for durability and simple operation; therefore a balancing act between high technology products and what is proven must be created. Therefore, the "simple" products will also continue to be significant. Many customers appreciate our modular system, with which we provide them with standardised, application-specific solutions that combine reliability and efficiency."

There is a lot going on in the area of dosing technology. One of them represents the focus for **sera**: users must have a benefit, a genuine added value from our technology. We are working on that with colleagues who are highly motivated to move things and consistently orient technologies to the requirements of our customers.



sera has been active in the area of diaphragm compressors since the end of the 1950s and has constantly extended the range of compressors.

The compressor market is highly competitive although, or exactly because, only a few providers venture into the hermetic and very clean compression of critical media for pressures that reach 3,000 bar and more for some applications.

In order to cope with this market pressure, the **sera** compressor technology division is reorganising and working intensively on innovations and the further development of existing products in order to be able to provide a wide range of technology.

Patrick Zeisberg (40) has been development manager in compressor technology for somewhat more than a year and is facing great challenges there.

*Patrick, how would you describe your start at **sera**?*

"It also meant rolling up my sleeves immediately and hitting the ground running with challenging development projects. My colleagues were already in the middle of the development of a range for dry-running piston compressors.

But that's exactly what the work as a developer is all about: accepting new challenges, improving what exists and jointly developing something great in the team."

How was the feedback on the presentation of the new



hydraulically driven dry-running piston compressor at the 2017 Hanover Fair come about and what is the customer response?

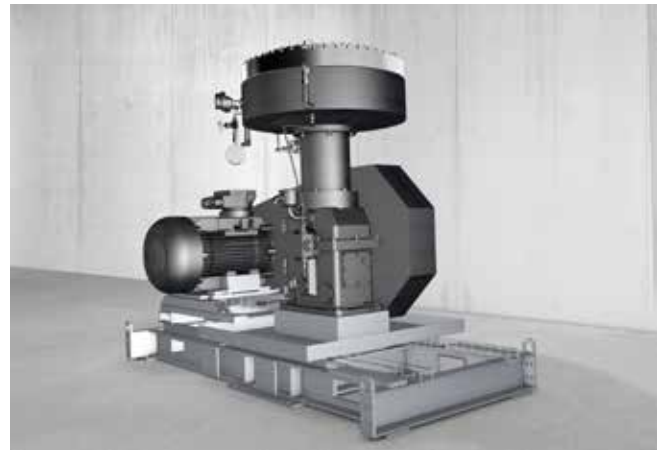
"The energy market expects products with high flow rates and high pressures; we will more than meet these requirements with this development.

The new piston compressor compresses free of lubricant and reliably free of particles gases such as hydrogen,

nitrogen, helium, argon and ethylene and is predestined for energy technology. It will become a key product in the hydrogen market."

What other products are you currently working on?

"We are about to launch some new products on the market. I cannot yet talk about everything, but from 2018 we will be able to present compressors to our customers that can master previously unresolved challenges - also in new market segments. By the way, that is also a point that makes my job so exciting: going completely new



paths to eliminate problems - and that with ideas and innovations that nobody has previously thought of.

What I can already say is that there are optimisations on and around the old proven metal diaphragm compressor and the hydraulically driven compressor introduced this year will be presented in a new design."

What will there also be?

"We continue to be involved very strongly in the future subject of hydrogen technology. We are working on further development of our products for hydrogen filling stations that we will present at the Hanover Fair next year."

Two product areas with very different technical requirements. The answers to these are therefore also quite different. And nevertheless, it is a joint challenge for all of us. We are solving this at **sera** with a corporate culture that relies on freedom, creativity and courage. With people like Enrico and Patrick who implement their ideas and concepts in future-oriented products. Ultimately, it becomes apparent: success is when everything fits together.



From left to right: Akram Mohammadi, Michael Wagner, César Alfonso Tomás Martínez, Volker Schübler, Zakarie Ali Abukar

INTEGRATED ECONOMY

Every year, people in need of help without prospects come to Europe from crisis areas. In the current year 2017, around 168,000 applications for asylum have been made to date in Germany. A subject that concerns us all – and people who need our support.



At **sera** we are happy and grateful that we are doing well and that we have super jobs. Therefore, it goes without saying for us to be involved in the subject of integration and apprenticeship of young immigrants. With approx. 20 other companies from the region, we are making it possible for young immigrants to complete apprenticeship in the framework of the "Integrated Economy" project.

Since summer 2016, we have employed: César Alfonso Tomás Martínez (24 years), Akram Mohammadi (20 years) and Zakarie Ali Abukar (20 years). In cooperation with "Integrated Economy", they are striving to complete their apprenticeship as mechatronics engineer / specialist in metal technology.

César came to Germany from Mexico via Spain and Switzerland for private reasons. He had already started an apprenticeship in Spain in automation and electrical engineering; therefore it was clear to him quickly which path he wanted to take with us: an apprenticeship as mechatronics engineer.

Zakarie originally comes from Somalia and has been fetched later by his father who has already lived longer in Germany. Using the job centre, he obtained his secondary school leaving certificate in Kassel and then started initially an integrative internship with us.

Akram originates from Afghanistan and has also passed his secondary school leaving certificate in Kassel to obtain his apprenticeship qualification.

The three people started their time at **sera** in summer 2016 with an internship. Supported by "Integrated Economy", they were able to initially become familiar with the work in an industrial company and get to know the daily workflow. In this time, the three new colleagues were introduced to handling various tools and machines and could prove their dexterity. In parallel to this, they were made fit for the vocational college in theoretical lessons at VSB (Verein für Sozialpolitik, Bildung und Berufsförderung e.V. / "Association for social policy, education and vocational promotion"). César, Akram and Zakarie already learned a lot during the internship and integrated very well. They quickly understood the processes at **sera** and already showed their potential.

We were very pleased when all three finally confirmed wanting to do their apprenticeship with us. In summer 2017, César started his apprenticeship for mechatronics engineer, and Akram and Zakarie started their apprenticeships for specialist in metal technology.

During the apprenticeship, they, like all trainees at **sera**, pass through the various departments to acquire technical knowledge for their profession and of course also language skills.

In this time, César, Akram and Zakarie have apprentice patrons - an apprentice from a higher year of apprenticeship - at their side who they can approach with questions or problems at any time. The trainer and works manager, Volker Schübler, is of course also available for support and assistance. Volker, employed at **sera** for 40 years, knows the company and the processes like the back of his hand and is therefore a great support for the

three young colleagues. Michael Wagner is also a support for the young men. Michael is the industrial training supervisor for **sera** and one of the guys' central contact persons. Whether hurdles for the implementation of a task or cross-departmental questions - he supports the young men where he can. In addition to the support with us, Akram, Zakarie and César are supported over the entire apprenticeship by educators and teachers of the project in order to master the best possible professional qualification.

We all agree: we have gained three dedicated new colleagues in the past year thanks to the "Integrated Economy" project who do a lot to create a good professional foundation. Akram, César and Zakarie were able to enormously improve their knowledge of German and make friendships with colleagues.

This is a perfect example of how integration can function and we are very proud of being able to make a contribution.

"Integrated Economy" has been implemented by VSB since May 2016. Felicia Westermann is the coordinator for VSB and controls the projects in Kassel and Bad Hersfeld. Just under 80 immigrants between 16 and 27 years old are currently participating in the project in Kassel. 20 of 29 participants who passed through the entrance qualification in the past year have been directly taken over in apprenticeship this summer.

Facts Check



"Wirtschaft integriert" - "Integrated Economy" is a project of the Hessian Ministry for Economy, Energy, Transport and Rural Development and is supported by resources of the Hesse federal state, the European Social Fund, employment agencies and the job centres.

Cooperation partners are also the Hessian Regional Directorate of the German Federal Labour Office, the Hessian Craft Association and the Working Group of the Hessian Chambers of Industry and Commerce.

With "Integrated Economy", the successful completion of apprenticeship for young refugees and other young people with increased language support requirement is realistic. Using a sequential support chain, the young people are introduced to in-company training and supported until completion of the apprenticeship.

The path for the apprenticeship starts with the three months BOplus vocational orientation. The professional preferences should be established here and technical skills determined. The objective is to start in the selected profession afterwards with an EQplus entrance qualification.

The entrance qualification takes 6-12 months and prepares the young people for the requirements of the apprenticeship. This then follows.

STATEMENT

FELICIA WESTERMANN
Project Coordinator
Integrated economy



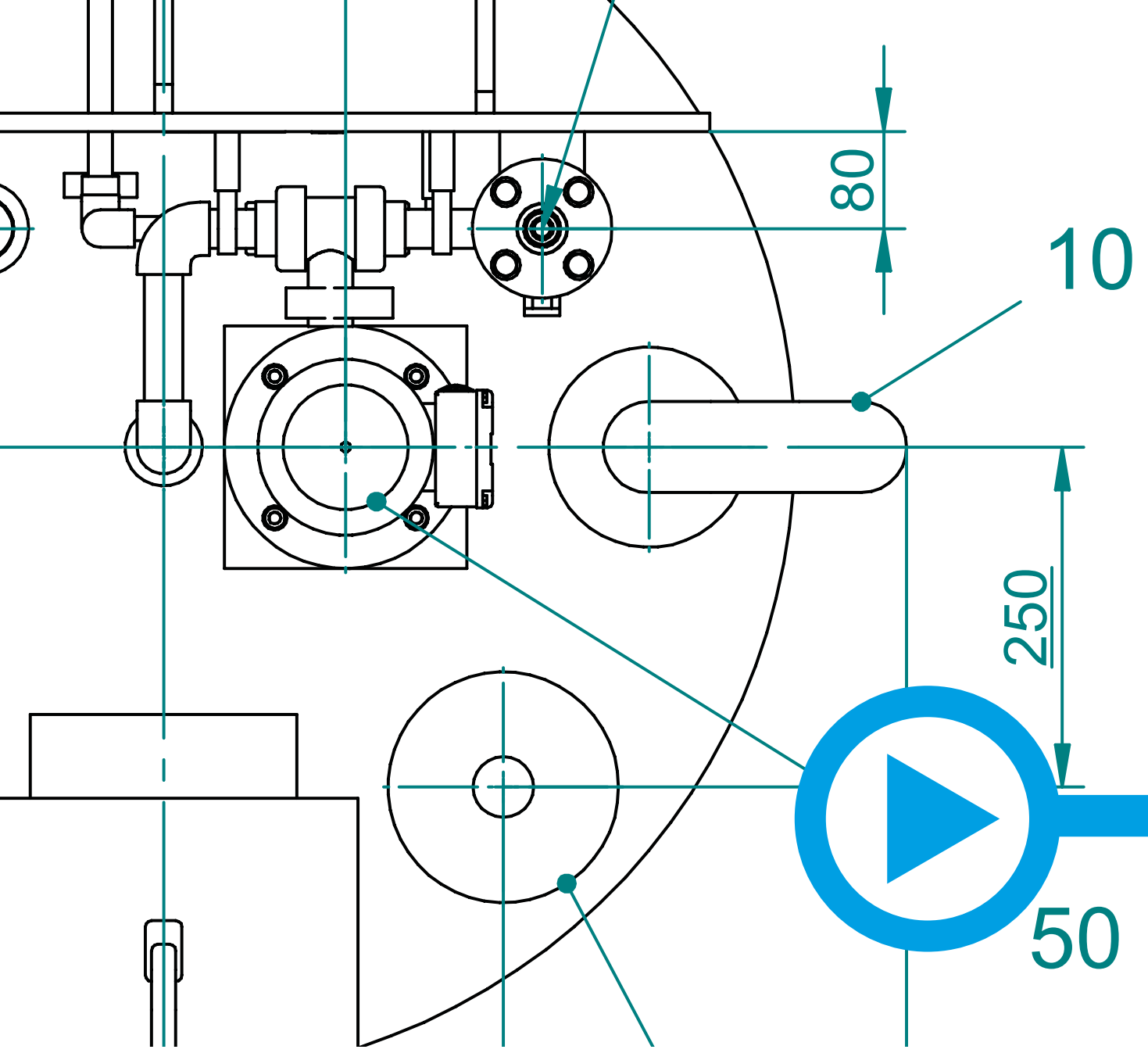
"Professional integration is driven by two factors: young, motivated people who would like to make their own path and committed businesses who open the doors for these people. 'Integrated economy' unites these two factors and accompanies the path with language development and educational support."

STATEMENT

CARSTEN RAHIER
Managing Director
sera GmbH



"Many of these people have come to us in Germany out of necessity and difficult conditions. At **sera**, we see it as our humanitarian and societal responsibility to help these people and give them a chance for a future worth living that they can form actively and independently."



THE PATH OF A DOSING SYSTEM

As a sera customer, you are used to placing an order and receiving a dosing system designed according to your requirements on the agreed delivery date. Perhaps you have called your responsible sales contact or even a designer sometimes and clarified details. But have you ever wondered who the people are who have been involved in working on your system? Which departments and persons are the companions of your dosing system until it leaves our factory? This is precisely what we would like to show you today. As example, we will accompany the path of a dosing system that a system supplier for breweries has ordered from us.



The path of our dosing system started in the classical way with a customer enquiry to our Sales department. In this specific case, a solution for the CIP cleaning is required on the one hand; on the other hand, dosing systems for the assurance of constant water quality in the brewery – in short: we ensure with our solutions that the brewed beer

SALES

also really tastes like beer. An extensive project that is supervised at **sera** by Herbert Schmidt, Sales Application Manager in the Food & Beverage team.

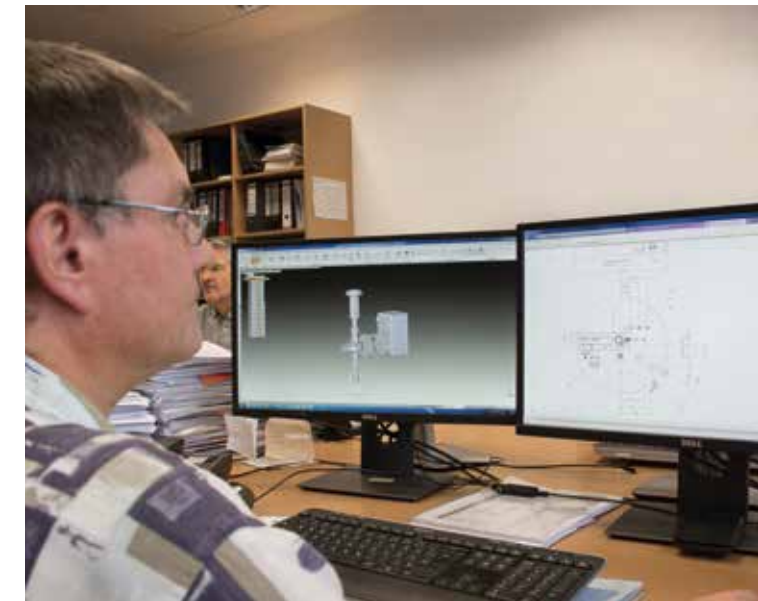
Herbert, who has been part of the **sera** family for more than 40 years, knows immediately of course which dosing systems are the correct ones for this project. With hundreds of possible combinations of pumps, materials and possible applications in the **sera** construction kit, that is not too easy – however, not a challenge for a long time for Herbert. He designs the appropriate systems on a computer: three CVDs (Compact Vertical Dosing) for the CIP cleaning in the brewing process and in each case two dosing systems for dosing phosphoric acid (H_3PO_4) and for preparing calcium chloride ($CaCl_2$). Based on these designs, Herbert now creates the quotation for the customer. As we at **sera** attach great importance to personal customer contact, there is usually a customer visit where the quotation is discussed again in detail and open issues can be clarified.

After the order by the customer, Herbert as project manager gathers all involved colleagues from the design, purchasing, order processing centre and sales departments in a kick-off meeting. He has provided all information to the colleagues for preparation in advance. They discuss the further procedure jointly and agree on a schedule. Our three CVDs are only discussed briefly as these are standard systems from our modular system. However, the other dosing systems are customer-specific solutions and thus require special consideration: On the one hand, special components such as tanks must be bought in; on the other hand, the systems must be specifically designed. A schedule and a provisional delivery date for the customer are defined in discussion with each other. Using the



results of the kick-off meeting, it is now possible for Herbert to confirm the customer order with a delivery date.

KICK-OFF



Volker Rücker now designs the customer-specific systems based on the order. Volker is part of the Food & Beverage sales unit and has been employed at **sera** since 1976, initially as technical draughtsman and in the meantime as design engineer. The diversity in systems engineering and the many different customer requirements are the major challenges for Volker's activity – but he likes facing them and always finds the appropriate individual solution thanks to his extensive know-how and his professional experience. As also in our case: Volker designs the four customer-specific systems that are needed for the preparation of calcium chloride ($CaCl_2$) and for the addition of phosphoric acid (H_3PO_4) within a few days. After technical approval by the customer, Volker hands over the final design drawings with the associated parts lists to the order processing centre.

DESIGN

ORDER PROCESSING CENTRE

The work of Britta Homburg already begins in parallel with Volker's designs. Britta has already been employed at **sera** for 35 years and has controlled the construction of numerous dosing systems in this time. In the last two years alone, she has coordinated more than 1,000 systems.

After the kick-off meeting with the relevant departments, Britta puts the project in our ERP (Enterprise Resource Planning) system. There is also a components list and a schedule there in addition to the design drawings of the standard systems. Using the system, it is possible for Britta to see the total order book and thus also the utilisation of the individual production units. She can thus plan the respective required parts and work steps according to the scheduling of the project. Britta is in constant discussion with the purchas-



ing and the production departments and can plan when which work steps will be performed on the systems and also controls any adjustments or delays.

sera stands for quality and high level of vertical integration. This means that many components of our systems are manufactured by us in-house and not bought in. Whether sawing, turning, welding or painting – we like doing things ourselves to ensure high, constant quality. For example, Dieter Vogl has been standing at our CNC machines since 1979. Dieter, CNC industrial specialist, produces pump bodies, nozzles and much more there. In doing so, he monitors not only the work of the machines but also programs them. Dieter receives a dimen-

PRODUCTION PREPARATION



sional drawing depending on the order of the required components and then creates the appropriate program in each case for the parts. This requires maximum concentration and precision; ultimately there should not be any deviations. Therefore the work at our CNC manufacturing stations is also always performed according to the principle of dual control. Finished parts are checked, measured and checked again. This also applies for all parts: Individual and series parts, made of metal or plastic. The finished individual parts are not passed on to the next station until then.

PAINTING

For example to the paint shop. Juri Moor has been ensuring for 15 years that our pumps arrive at our customers in the distinctive **sera** blue – and this with always constant high quality. As well as pump housings, drive housings and base rings, Juri also paints our large compressors – the greatest challenge, but nevertheless not a problem for the trained painter and varnisher. The finished painted parts then go into our inventory to be directly available for projects. As soon as these are transmitted to the ERP system, they are automatically available for all further work steps.



Bernd Predak becomes involved as soon as all required parts are available, whether bought in or manufactured at **sera**. He has been working in our materials management for 17 years and really knows every screw, every small part of our stock – not a matter of course as our small parts inventory comprises more than 7,500 items. Equipped with the parts list from the order processing centre, Bernd picks all individual parts of our dosing systems – the tanks procured by the purchasing department as well as

MATERIALS MANAGEMENT



the pump housings milled by Dieter and painted by Juri, and dozens of other components such as pipes, screws, fittings and many more. In doing so, he starts with the picking of the individual parts that are needed for the respective dosing pumps as these are required as component of the finished assembled dosing systems.

All parts for the dosing pumps installed in our dosing systems arrive first in our pump assembly. Andreas Lotze, a 25 years old industrial master craftsman, installs up to 15 pumps there every day. Also the pumps installed in our dosing systems: two RF410.2-570e, two RF410.2-280 and three RF409.2-140e. The appropriate parts are assigned to each individual pump using a Kanban system. All the parts to be installed – over 50 individual parts depending on the pump type – and the associated order with parts list are located on trolleys. With thousands of possible pump combinations, it is essential to ensure that exactly the pump is installed that the customer needs for his project. Before starting the assembly, Andreas checks again whether all parts that are required for the production have been provided. His activity requires a lot of skill and concentration; some individual parts are very small and the work has to be performed delicately. The finished assembled pumps are finally checked for functionality and safety at the testing bay and "notified ready" after successful testing. This notification is the enable for the order processing centre to initiate the next work steps.

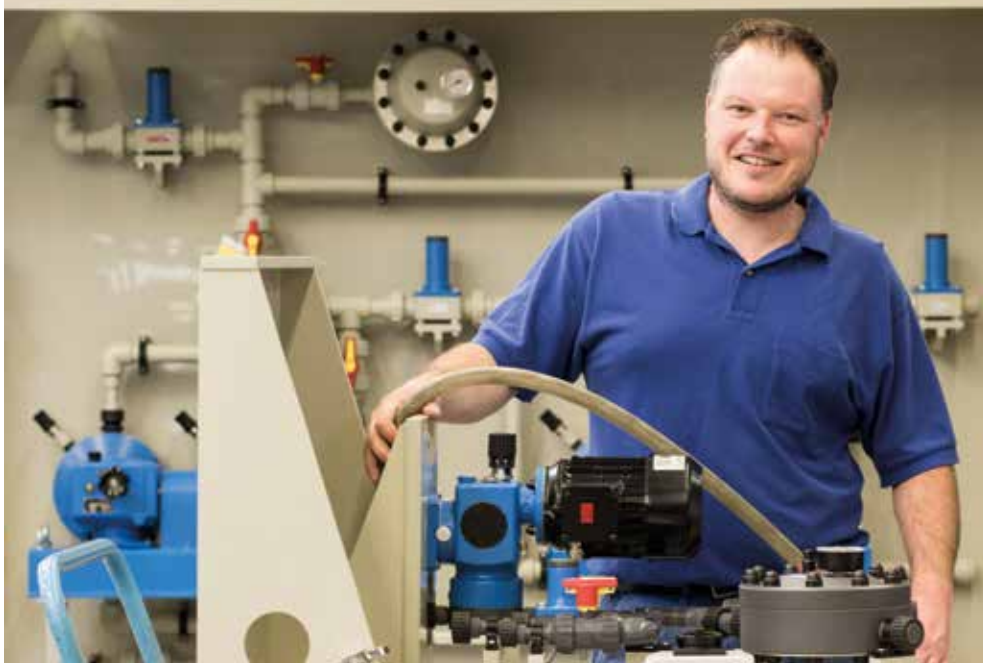
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PUMP ASSEMBLY



SYSTEM CONSTRUCTION

Bernd collects the finished pumps at the testing bay and assigns them to the respective order. Together with all provided parts, he then brings these to our machine construction – again order-related. Lars Kersting is already ready here to mount and weld the individual parts of the dosing systems. Lars, who has been employed in

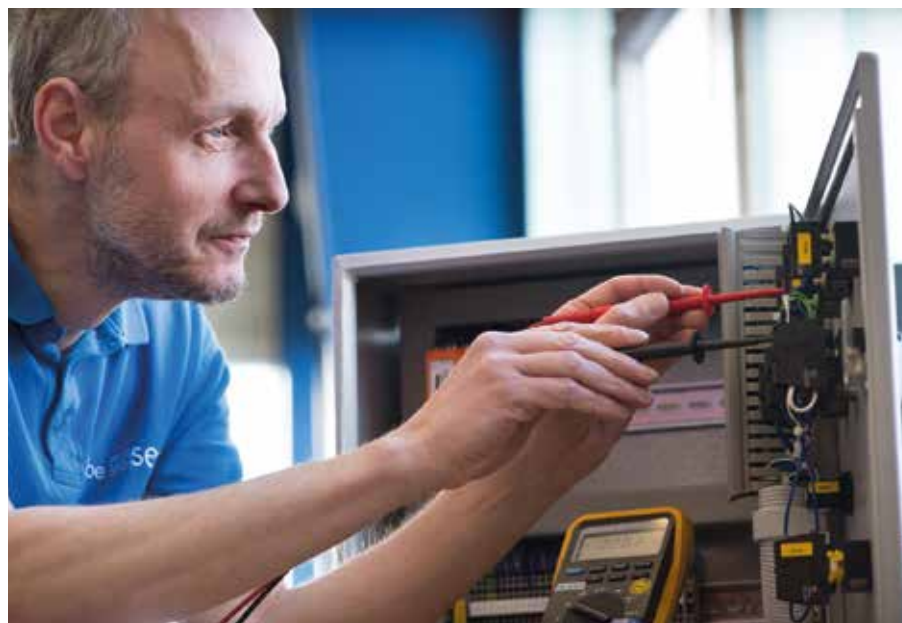


the **sera** production since 1996, initially welds the walls milled by us to a wall mounting plate with drip pan and drain nozzle, and in the next steps mounts all other planned and picked individual parts for the system such as piping, pumps, fittings, ball valves and valves on this. The check in the meantime is always made in accordance with the principle of dual control. Do the parts that he has received from stock match the parts list of the production order? If Lars discovers discrepancies that concern the design of the system during the construction of the system, he reports these immediately to the design department. This ensures constant high quality of our systems.

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ELECTRICAL INSTALLATION

After he has equipped the system with rating plate and serial number as well as our **sera** logo, the final work step in the system construction is the leak test of our dosing systems. He tests our plastic systems using water at 5 bar as standard. The work of Lars Kepper starts if everything there is OK as expected. Lars has been employed at **sera** for almost 30 years and ensures in the electrical installation that all electrical connections of the system are correct. He installs switches, controllers or switch cabinets and then checks these for their safety. As well as the comparison with the customer order, Lars also performs the high-voltage test, insulation measurement and earth conductor track test according to VDE standard.



QUALITY ASSURANCE

All upstream tests in the pump assembly, plant engineering and electrical installation are now completed, all checked areas are recorded in the test log and signed off by colleagues. Now Stefan Richter becomes involved. Stefan is part of our quality management and responsible for our dosing systems only leaving the factory when they meet all customer requirements and are completely faultless. He performs the final acceptance. Like the overall production process, this final acceptance takes place based on the ISO 9001:2015 standard. Thanks to documentation without gaps, Stefan knows which systems are in front of him and also that there have already been a function and safety test for the installed pumps and a leak test of the entire system. With the aid of the production order and the **sera** test log, Stefan now makes the comparison between the system that has been produced on paper and the now finished system in front of him: Do the installed parts with serial numbers such as pumps match the serial numbers in the production order? Have the colleagues performed, documented and signed off the formal inspections of the pumps and systems? Yes, everything has been

checked correctly and all serial numbers match. Next, Stefan checks the dimensions of the systems and compares these with the drawings. All connections have been set correctly and special dimension requirements from the customer side have also been complied with. Another quality point that Stefan can tick off in the test report. Then he performs another visual inspection. In doing so, he removes the last chips or labels, sometimes also conceals a screw and ensures that the system looks just as faultless as it will function. Stefan concludes the quality inspection with the official release: On the one hand, he provides the system with an "Approved" sticker, on which he records the serial number, inspector and date; on the other hand, he also reports the total order in the system as finished and thus initiates the final steps of our dosing system in the **sera** factory.

SHIPPING

The unit is registered in the system as finished. While the customer-specific documentation is being issued, Stefan Bachmann fetches the units from the plant engineering. Stefan, 30 years old and already at **sera** since his apprenticeship is part of our outgoing goods team and really has a lot to do at the end of October 2017. A short week, thanks to Reformation Day, ensures very full outgoing goods – after all, we do not want to keep our customers waiting for their systems just because there is a public holiday. So it is full in our outgoing goods. No problem for Stefan, the doer: the small dosing systems are quickly stowed in **sera** shipping containers and the systems with tanks find their transport place in appropriate transport crates. All export and shipping documents are available in multiple copies and thus ends the path of our dosing system at **sera**: Well packaged and safe for transport, the total of seven dosing systems are now collected by a shipping company and continue on their path to perform their service in a brewery and to ensure that the brewed beer also really tastes like beer.





OUR HOUSE-MADE BAND IS ABOUT TO GET ON STAGE



WE CELEBRATE OUR SUMMER PARTY



OUR CAFETERIA OFFERS VARIOUS SNACKS AND MEALS



OUR EMPLOYEES ARE CREATIVE BAKERS



OUR APPRENTICES ORGANIZE THEIR APPRENTICE DAY



OUR FITNESS COACH KRISTOFFER



ONE OF OUR FOOTBAL TEAMS



OUR MARATHON TEAM 2017



WHENEVER YOU NEED SOME REST



APPRENTICES ABROAD



YOU SHOULD BE ABLE TO MASTER THIS



MAKE THE DIFFERENCE ...

Whoever wants to develop further must change. Every change is therefore simultaneously an opportunity to improve things. It is clear: innovative technologies and easy to use products will be significant for the future success of sera. Both would not exist without the qualified and motivated people who work for sera out of conviction. Therefore, in order to further increase our attractiveness, we rely not only on a modern corporate culture but also on new concepts. And further develop both intensively.

What does it depend on whether a culture successfully further develops? Mainly on the capability to react appropriately to coming challenges and to have the appropriate answers. But what does that mean for an organisation like **sera**? Markets are increasing more volatile, technology cycles are shortening and internal processes must constantly adapt to new conditions.

The challenges also include external factors such as demographic change or the shortage of specialists. The German Federal Ministry of Labour and Social Affairs has calculated there will be a shortage of around 6.5 million in the working population in Germany alone in 15 years. "Many companies have still not yet understood what that means for the future of the Germany technology location", says our Personnel Officer Natalie Lieder. "We are in the middle of change there. And one thing is certain: the battle to win the best candidate will be increasingly harder in the future."

The corporate culture makes the difference internally and externally

Due to the shortage of specialists and managers, a shift from the employer market to the employee market is currently taking place in the job market. "In the future, we as a company will apply to the specialists", is how Natalie points out the development. "A particular corporate culture can become the distinguishing characteristic for companies", Are salary, the actual tasks and the industry still not yet everything? "These hard factors do not yet make a company unique – and these things alone no longer attract any specialists and managers, at least not permanently and sustainably", says Carsten Rahier, managing partner of the **sera** Group.

Therefore, we at **sera** have already been focusing for a long time on a corporate culture that makes a maximum contribution and implementation of ideas possible. "We

always orient ourselves to the values of our company - "**be sera**". And they have maximum transparency internally because our culture should not be any artificial construct but authentic", says Stefan Merwar, Head of Communication.



Rely on what is proven – open up to something new

However, a good corporate culture is not a project but the result of general conditions (such as transparent information) that must be created. In doing so, we rely on the continuous development and improvement of our offers and concepts. It is not the individual action there that makes the difference. It is the package that must be right so that it is not only a job for all of us but a new consciously selected task every day.

Show commitment – “be sera”

A central corporate value of **sera** is “We create added values for human and environment”. This is also shown in the commitment of our colleagues. We are widely committed and want to get things moving beyond our everyday doing. **sera** organises an Environment Day annually where the entire workforce participates in various environmental projects. Whether this is disposing of waste in the surrounding landscape or also reforestation in the nearby urban woodland,

Be and stay healthy – “be healthy”

We want to ensure that our colleagues always keep an eye on their health. This also includes that there are drinking water dispensers in every work area on our premises. We also provide our colleagues with fruit at no charge and have a comprehensive sport and relaxation programme. In addition to the offer of participating in various in-house courses, there is a cooperation with the local fitness studio as well as several training options, for example the company’s own football team. Many initiatives also come directly from our employees. We take part in the Kassel Marathon with several teams who have trained themselves independently.

Well-being

Sometimes it is the small things that can sweeten the day. Therefore we provide a super range of small meals, salads and snacks in our cafeteria. An institution thereby is the breakfast together that is repeatedly extensively used jointly by many teams. For those who prefer a playful recovery, this can be done on our legendary table football tables, the dartboard or the available games console. If colleagues prefer to take a little breather in peace and quiet, they can also retreat to our small library or the Room of Inspiration.

Provide creative freedom

sera relies on trust and cooperation. Every colleague is encouraged to take on responsibility and make decisions himself. Therefore, with the exception of the production areas – where the work is in shifts – we work in trust working time. We create scope with this to act in the best possible way and put our maxims a little more into practice every day. This applies both for **sera** as well as privately.

Development opportunities

You can develop yourself at **sera**. The constantly changing challenges also provide many opportunities. Apprentices with particularly good educational achievements have the possibility to acquire valuable international experience for a specific time in our foreign subsidiaries. Incidentally, this promotes the integration of the international units and the exchange between the individual functions.

Joint activities

Irrespective of whether during the joint Apprentice Days or the annual Summer Festival, **sera** colleagues undertake many joint activities. This is also an expression of the cooperative interaction that we see as a part of our success. Because we all know from team sports that a well-functioning team is more successful.



Support new colleagues

New colleagues are intensively supported by us right from the start. Because we also want to give our newcomers an impression of how we think and act as quickly as possible. Therefore, it is already emphasised and importance attached to it that the candidates fit in with us. Our introductory event on the first day helps in finding your way quickly and simply in the **sera** world. An individually designed induction programme also ensures that every new colleague can start his work easily and directly.

The whole is more than the sum of the individual parts

All these elements create the framework for our corporate culture. We pursue an holistic approach with this and want to be sustainably effective with our actions. According to Natalie, whatever the future brings, you should never lose sight of: “We are well-equipped, but must keep going, not rest and not be overconfident.” Ultimately, the human resources work is a continuous challenge and actually never finished. “And that is ultimately what characterises the fun in the work.”

OUR COMPANY IN FIGURES



With an average age of 38 years, we have exactly that mixture of experience and fresh input that we need to also reach our challenging objectives in the future.

Our employees were born in 13 different countries. This is an expression of our diversity in the company and makes us open to new influences.



220 COLLEAGUES

With more than 200 employees, we provide a secure and solid starting basis to grow for all requirements. In doing so, we ensure that our procedures and processes are always optimally matched to the size. Therefore, we are already certified according to DIN ISO9001:2015.



↑ 12,4%

Our apprenticeship ratio is far above the industry standard. We do this because we believe that we need even more well-trained specialists for the future.

3 IN 1

The **sera** Group consists of three competent companies. This makes it possible for us to provide each customer with the customised solutions they need. And despite this, WE are all jointly one: "**be sera**".

With out Spanish branch, the third foreign representation has now already started successfully. Thus we are continuing to pursue our consistent strategy for internationalisation.



era
D TECHNOLOGY



We achieved sales of more than 20 million euros in 2016. Sound economic action and entrepreneurial thinking of all employees are a key to success and sustainable growth for us.

 **2.674** YEARS

Competence and many years of experience can be measured. As a company with more than 70 years of tradition, we have recourse to a rich treasure trove of know-how of our employees. A total of 2,674 years length of service is also a sign of high loyalty to **sera**.

SHINING EYES OF CHILDREN





sera creates added values for human and environment. Therefore, we take our social responsibility very seriously and also get involved beyond the limits of our company. Our company has been a partner of the Bundesliga club MT Melsungen for many years. Fairness, performance, respect and team spirit are not only of critical importance in handball. These values are also elementary factors of the corporate culture for us. Therefore, we support MT as a strong partner. In doing so, we pay particular attention to the promotion of young talent. For this reason, we organised the first sera Handball Day with MT Melsungen.

The sun did not shine on May 1 – however all the more the 65 children when they were welcomed by the Bundesliga professionals of MT Melsungen to the **sera** Handball Day. A large crowd with children full of anticipation, excited parents and curious relatives had already formed in front of the Rothenbach Hall in Kassel long before the admission.

When it was finally time, the first surprise was waiting for the handball kids: MT captain Michael Müller and key player Timm Schneider distributed T-shirts and drink bottles with the names of the participants. Then for the changing clothes, it was of course stylish in the original MT cabin that is normally absolutely taboo for outsiders. The entire squad of the MT handballers, including coach Michael Roth and mascot Henner, took ample time on this “Day of Work” to complete diverse exercises and games all about the subject of handball with the kids.

In doing so, the fun in the movement was clearly in the foreground, but one or another strenuous challenge also had to be overcome. Two Bundesliga professionals in each case instructed the children and gave them professional tips proven in practice at eight different gaming stations. Dribbling, aiming and throwing far were done. The greatest ambition was aroused for the seven metres throw as the young talents delivered duels with the Bundesliga goalkeepers.

MT head coach Michael Roth with his familiar casual-charming manner guided through the afternoon and interviewed the children now and again, asked them about their idols or what they had always wanted to know from a genuine Bundesliga professional.

“Generally, role model functions are expected from a team at the top of the Bundesliga” said Axel Renner,

youth coordinator of MT. "We have this requirement for ourselves and also want to fulfill it in the youth area. With the **sera** Handball Day, we are opening our doors for handball talents from the region." In his view, the encounters with the professionals are unique experiences for the children. "Jointly with our partner **sera**, we are showing that handball has high importance here. This is good for our sport, but mainly for the children who we can excite with it". And the enthusiasm could be felt. Not only for the children but also for the professionals, it was clearly noticeable that fun with handball was present on this day.

As participants, they received a certificate at the conclusion and a sport bag that contained two tickets for the Bundesliga home game of MT against HC Erlangen on May 14. Teodor Pulja, who wanted to give his place quite selflessly to his sister who was not drawn and thus captured the hearts of the organisers, received a handball with all autographs of the professionals. Due to the cancellation of one child as participant, he could however still be admitted. The crowning finale for the children was the autograph hour with trainer Michael Roth, mascot Henner and all professionals.

At the follow-up meeting on May 14, the children received portrait photos of themselves and a MT player in front of the hall and a large group photo as souvenir. Shortly before the start of the game, they were welcomed by the hall announcer Bernd Kaiser and a film that was recorded during the Handball Day was played on the large screen in the hall – goose bumps atmosphere! "We have certainly come a step further with this day to our objective of advancing the handball sport in North Hesse. It was a quite special experience for the children. This will certainly encourage a few weeks in training. We are already looking forward to the next Handball Day", said Stefan Merwar, Head of Marketing and



Communication at **sera** on behalf of the whole team who had taken care of the positive course of the event.





STATEMENT

AXEL GEERKEN
Chairman MT Melsungen
Spielbetriebs GmbH



“In the meantime, we have created structures and offers for talents of all age classes in the MT young talent area. That is unique in the region in this form. With our partner **sera** and the **sera** Handball Day, we are succeeding in bridging the gap to young handballers who do not belong to our club but nevertheless should have the chance to show their ability in the surroundings of a Bundesliga team. How well this offer has been accepted revealed itself for the premiere of this event in May when far more applications were received than participant places could be allocated.”

STATEMENT

MICHAEL ROTH
Coach MT Melsungen
Bundesliga Team



“When you as a coach see what enthusiasm the children at the **sera** Handball Day have for the subject, you know that a lot has been done correctly. As well as the work with the professionals, it is important to me to always have views into the young talent area. It is clear that not all can play in the Bundesliga later. But the children and young people need an orientation that motivates them and encourages them to further achievements. If a Bundesliga team does not do that, who else should do it?”



Exactly on May 7, 2005, it meant for the Melsungen handballers: "Never again second league!". The promotion to the highest German league had finally succeeded. According to the then coach Trtik, MT Melsungen competently stirred up the league with "crazy attack handball" and clearly left the second league competitors behind. However, the economic course was already set at the end of the 1990s with the foundation of a Spielbetriebs GmbH. Under the management of Martin Lüdicke and the later established supervisory board with Barbara Braun-Lüdicke at the head, MT took the decisive start for the jump into the highest German handball league.

First of all, it was necessary to keep the new "1st league" – MT handball had now definitively arrived at the professional level. This is not usual for a promoted team. But it succeeded. MT gradually established itself after five "learning years" with placements in the second half of the table. It then continued upwards with the commitment of Michael Roth as coach who took over the team on October 2010 in a difficult sporting phase. Better season results, a squad manned with more German players with strong identification potential for the increasing fan base and sporting highlights like the two final four participations in the 2013 and 2014 DHB cup made the positive process clear.

MT has been holding its home games in the Rothenbach Hall in Kassel since 2007. Up to 4.300 spectators cheer on their North Hessian handball heroes there. The professional structure of the club was further optimised with the acquisition of the former national player Axel Geerken as new manager and the transformation of the economic organisation of the Bundesliga team from a GmbH (limited company) to an AG (joint stock company) not listed on the stock exchange in 2012. That also had effects on the sporting development. After the advance to the best six teams of the Bundesliga in 2014, MT also made the jump to the international level in the same year. MT reached the quarter finals there at the first attempt in the EHF Cup in 2015 and confirmed the 6th place of the previous year in the national championship.

Preliminary sporting highlight was the 2015/2016 season when MT reached fourth place and thus the best result of the club's history. At the same time, the renewed participation in the European Cup was thus secured. The home handball fans rewarded the committed performances of the team with growing attendance figures in the following season – the Rothenbach Hall in Kassel was 90 percent full on average. And that although the high expectations after the fourth place could not be fulfilled and in the end "only" a seventh place resulted. Johannes Golla was in any case one of the "heads of the season", the 19 years old junior national player made the jump from MT's own young talent into the Bundesliga team.

The motivation in the entire club is now very high to do better than in the previous year in the current 2017/2018 season, incidentally the 13th for North Hesse in the "strongest league in the world". The achieved personal upheaval in the team at least nurtures the hope that this can also succeed. As well as goalkeeper Nebojsa Simic from the Swedish champion IFK Kristianstad and key player Lasse Mikkelsen from Skjern Håndbold (DK), the red and whites have engaged three German European champions: Tobias Reichmann (right winger, VIVE Tauron Kielce, PL), Finn Lemke (left back, SC Magdeburg) and Julius Kühn (left back, VfL Gummersbach).

With 15:5 points after 10 games of the current championship round, the North Hessian club as fourth place in the table is hot on the heels of the top three in the league. "But", says coach Michael Roth, "we must keep our feet on the ground and continue to compete with direct competitors such as Berlin, Magdeburg, Leipzig or also Wetzlar. The expectations in the environment have of course increased due to the high-calibre newcomers. But I think we are well advised in this first year of our breakthrough to aim for a place in the top six which is already a good success in this strong league."

LEGAL NOTICE

Publisher sera GmbH // **Editors** Hannah Krutz /
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Photos Paavo Blåfield / Alibek Käsler MT Melsungen /
Anna Kessmann / Thomas Lichte / Fabrice Neth /
Jannoon028, www.Freepik.com / Comrades Marathon
Association //

Frequency of publication once per year //

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sera-Straße 1 / 34376 Immenhausen / Germany /
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