

EDITORIAL



Philipp Bayat, Dr. Monika Bayat, Heinz Bauer (l. to r.).

Over the past six months, the coronavirus pandemic has plunged us into an exceptional situation that is a huge challenge for us all. However, by introducing strict hygiene and protective measures at an early stage and combining them with mobile working and cloud-based communication, we have succeeded in protecting the health of our workforce, and thanks to their dedicated efforts, we have kept our customers' supply chains in place. In many countries we were assisted by emergency measures that classified BAUER as critical infrastructure. Given this, we look forward to our 75th anniversary next year with happiness and optimism and are planning a grand celebration in the second half of the year that will also incorporate ROTORCOMP's 40th anniversary. Stay healthy!

Heinz Bauer
Dr. Monika Bayat
Philipp Bayat

BAUER KOMPRESSOREN DIVE AND DRIVE



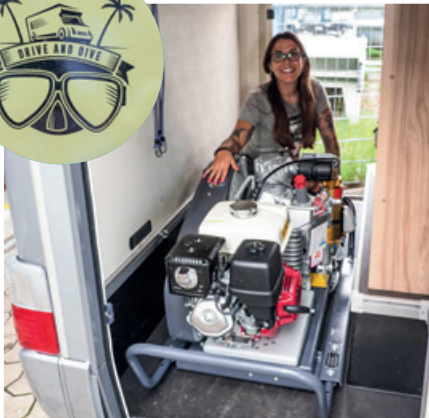
Tobias Friedrich and Patricia Guardiola Rico are heading off on tour with BAUER.

Underwater photographer Thomas Friedrich and his partner, Patricia Guardiola Rico, have a dream that is probably shared by many other divers – with the difference that they are making theirs come true. The couple is embarking on a motorhome tour and exploring the best underwater diving spots along the way in the company of well-known locals. They'll meet free diver Phil Sima to visit the Verzasca granite labyrinth and join shark expert Isaias Cruz in Bilbao to encounter Atlantic blue and mako sharks. Further destinations along their route will be the caves and caverns at Alicante, the colourful gorgonian forests off the Costa Brava, and Second World War submarine wrecks at Marseilles. Their journey will be a celebration of freedom and independence. Many of the dives will be in remote areas. Here

they naturally need an onboard supply of pure breathing air which is safe, reliable and – most important of all – independent of a mains power source. The solution is a petrol-driven mobile BAUER compressor. The brand-new PE200-TB from the POSEIDON EDITION series, with its sleek new fan protector, is good-looking and much more besides; the iconic design also optimizes the cooling air flow, making the compressor



PE-TE 200 from the POSEIDON EDITION series



The PE-TE 200 fits perfectly into the luggage space.



BAUER is the couple's constant companion on their road trip.



the ideal choice for use at diving locations where high temperatures can pose a challenge. Despite an impressive charging rate of 200 litres per minute, the PE200-TB fits so smoothly into the motorhome luggage space that it could have been made for it. When collecting the compressor, the adventurers took the opportunity to tour the state-of-the-art BAUER assembly plant in Geretsried, south of Munich, before heading off to southern climes on their exciting journey. BAUER wishes them both a good trip and lots of fun and thrills! Follow Patricia and Tobias on their road trip! ■

BAUER KOMPRESSOREN EXCELLENCE – NOW EVEN BETTER

BAUER has launched a comprehensive product drive in its Breathing Air and Industry sectors, focusing on expanding the variety of models on offer – to the benefit of customers. The latest systems offer appreciably higher performance and an array of extra technical features, which enable them to be used for significantly broader scopes and even new applications. For example, the B-MEMBRANE 550/40 can be used to produce nitrox with 40 per cent oxygen content instead of the previous 36 per cent, even at higher charging rates. This extends divers' time under water by reducing decompression stops. Another new model, the B-MEMBRANE 700/36, joins BAUER's family of stationary nitrox systems with top charging rates. It can deliver 700 litres of oxygen-enriched breathing air with 36 per cent oxygen content.

The popular MINI-VERTICUS stationary compressor family has likewise added a new 420-bar variant for its 200 and 250 l/min models, enabling the compressors to be used for efficient filling of high-pressure storage units and raising the cost-effectiveness of the system.

The tried-and-tested P41 and P61 purification systems, used with virtually all stationary systems, are now also available as external wall-mounted systems. They are particularly useful for system operators using multiple compressors or compressors with smaller-scale puri-

fication systems and seeking to add downstream redundancy. Integrated purification systems have also seen new developments; PE500/550-VE systems are now optionally available with P61 purification system for even longer filter cartridge life.

Industry customers will benefit most from the faster charging rates and higher pressures offered by these new models; in booster systems, the new high-end GIB 15.3-11 booster for the VERTICUS series and POSEIDON EDITION improves the charging rate by 200 l/min to 950 l/min. The stationary POSEIDON EDITION systems with atmospheric pressure intake also offer an impressive rise in performance to 800 l/min at 350 bar operating pressure.

The MINI-VERTICUS Industry series now has a new addition – a high-pressure compressor model for 420-bar final pressure. The I120-5.5-MV delivers 190 l/min to max. 420 bar and is ideal for purposes such as test and experimental



External BAUER purification systems for wall mounting



420 bar final pressure from the MINI-VERTICUS

applications. The two new water-cooled GB23.2-37 and GB23.2-45 compressors in the GB family are designed specifically for compressing helium and heliox. They have a higher pre-pressure range of 0.6–1 bar, enabling them to reach FAD of 1820 l/min at 300 bar. ■

BAUER KOMPRESSOREN UK OIL AND GAS

At the end of 2020, BAUER KOMPRESSOREN UK will hand over one of the largest system projects ever to be commissioned and developed in the entire history of the company. The turnkey project is located in Kazakhstan. A rapid filling system for breathing air was commissioned by BAUER ITALY and developed in close collaboration with the company with the assistance of BAUER FRANCE. The system will be installed at an oil and gas extraction plant in the northern Caspian Sea, an area with large reserves of “sour crude oil”. This substance

takes its name from its high sulphur content of over 0.5 per cent. While the majority of this sulphur is bonded to the carbon atoms in the oil, a small percentage occurs in the form of toxic and volatile hydrogen sulphide, which may escape into the atmosphere during extraction.

Construction of H₂S protection systems as custom system packages to prevent injury to oil rig workers from this hazardous gas comprises a key market for the plant in Haydock, England.

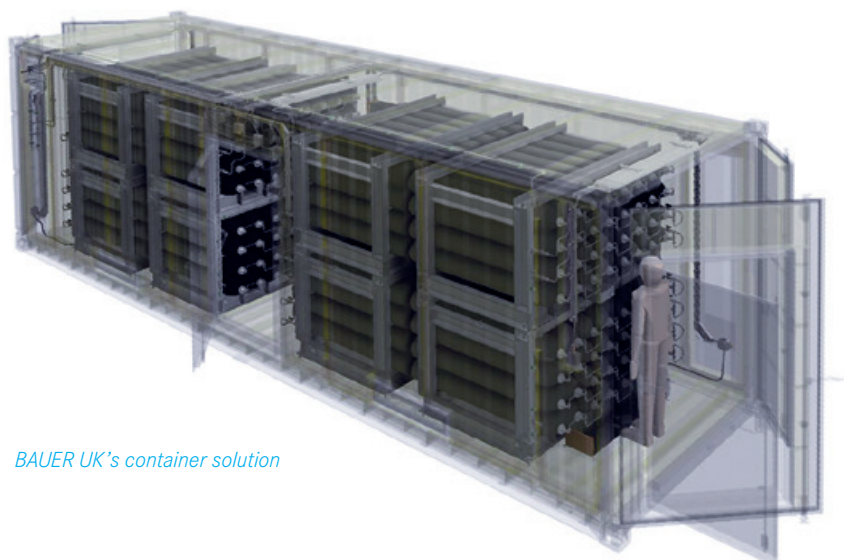
Offering core expertise in the area, BAUER UK won the order to develop a system concept for rapid filling of 400 breathing air cylinders, which will enable rig workers to restore production levels within one hour of an H₂S gas blowout. The vast quantities of breathing air required will be produced by three Duo systems, each with two powerful compressor blocks. An appropriate storage solution also had to be designed to ensure rapid availability in an emergency. This took the form of a breathtaking 768 storage cylinders, each holding 80 litres and set up in twelve storage banks of 64



Testing the storage system

cylinders each. One of the systems will operate as an outdoor container system, while the other two will be installed as modules within the building.

In-depth safety checks naturally play a crucial role. Each individual cylinder first undergoes an initial pressure test to 340 bar, followed by a test at 390 bar. Testing concludes with a flow test



BAUER UK's container solution



Oil and gas rig on the high seas

to determine the optimum filling rate for the MSA composite cylinders.

Given the scale and technical complexity of the project, BAUER UK is delivering truly pioneering work! The project is an outstanding example of cross-border and cross-company collaboration over advanced large-scale projects, which is the cornerstone of the BAUER GROUP's international success. ■

BAUER KOMPRESSOREN OUR CORONA HEROES



Voluntary fever screening soon became a daily routine.

Kristijan Jardas has been with BAUER KOMPRESSOREN for over ten years. He currently works at Plant I in Geretsried and is responsible for incoming goods deliveries, the central warehouse and shipping operations. But he's also one of BAUER's highly dedicated coronavirus heroes.

When did you first encounter the subject of the coronavirus?

After the first TaskForce meeting at the end of February, our plant manager, Alfred Höcherl, informed us about the initial measures that would be introduced.

How did you feel about that?

I'm the kind of person who tends to assume the worst. What would we do if the plant was closed down for several weeks by the authorities? I was really concerned about what would happen to my colleagues and my own job if the plant really did have to close, but naturally also worried about the company's operations. So I obviously thought about what I could personally do to help delay a closure, or even avoid it altogether. I was determined to do everything I could.

No giving up without a fight for me! After talking to Mr Höcherl and Mr Schmidt, I realized that of course I could play an active role in the anti-coronavirus measures by taking over the job of measuring my colleagues' temperatures and by constantly ensuring they wore protective face masks and kept the necessary distance. These are all areas where I can provide active support and lead by example. In addition, I immediately volunteered to take over disinfection duties in the production facility. After the first measures were introduced, I drew up a plan of everything that would need to be disinfected (around 30 different points throughout the facility) and have been working through this plan twice a day ever since. If anything does happen, we can provide documentation of our actions and, if an emergency does occur, perhaps restrict any closure to individual areas instead of the whole plant.

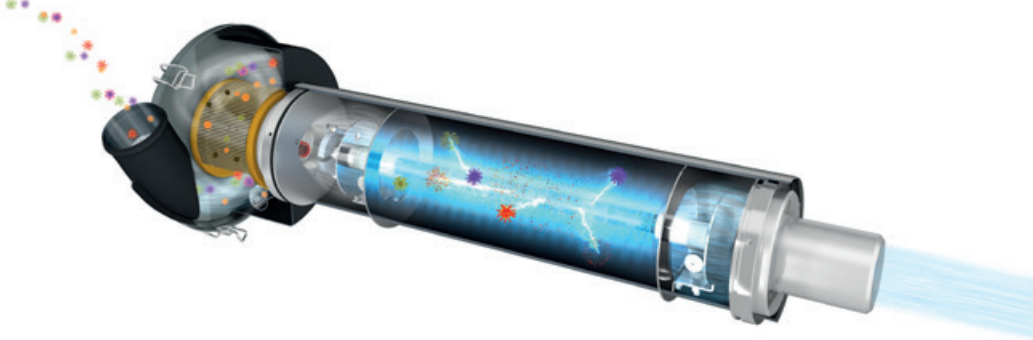
The regular information updates have brought clarity and calm to the situation. Some colleagues have taken the information sheets home with them, for their partners to take to their own companies. From talking to my friends, I realized more and more how fast and targeted our reactions at BAUER have been, which definitely places us at the forefront of our region.



Kristijan Jardas fills a disinfectant dispenser at the production facility - masked, of course.

DID YOU KNOW?

How* does B-VIRUS FREE work?



Due to the extremely high infection potential of coronavirus (SARS-CoV-2) and its transmission through ambient air, the virus presents a particular risk for individuals such as fire-fighters and divers who require heavy-duty breathing apparatus in their work or are utterly dependent on virus-free breathing air during their dives. To protect these and people like them, BAUER KOMPRESSOREN developed the B-VIRUS FREE system.

Unlike HEPA particulate filters, which only remove particles from the air, B-VIRUS FREE uses UV-C radiation to actually inactivate coronavirus and other viruses as well as bacteria and (fungal) moulds, with a minimum 99.9 per cent* inactivation rate. Because the coronavirus has a diameter of just 0.12 micrometres, not even the finest HEPA filters can be sure of removing it, and once the droplets containing the virus dry into even smaller aerosols, it may even be released again. BAUER worked with a specialist company to develop a lamp with exceptionally powerful UV-C radiation. The high radiation level provides the intensity needed to neutralize the virus even at high intake air flow speeds. Unlike commonly available UV products, it does not produce aggressive ozone during radiation which could cause significant health problems if inhaled.

Installed in front of the compressor air intake, the virus filter effectively prevents pathogens from entering the compressor. The virus-contaminated air first passes through the UV radiation source inside the B-VIRUS FREE filter. On its way, the DNA of the virus in the air absorbs the short-wave

rays, which have a wavelength of only 254 nm. The photons of these rays directly destroy the bonds between the DNA strands, thus inactivating the pathogens which would otherwise pass through the compressor unharmed and enter the breathing air cylinders.

Some viruses are so resistant that they can even withstand the heat and pressure inside the compressor. Temperature-based inactivation of coronavirus would require exposure to temperatures of 95°C for a minimum period of three minutes or 65°C for a minimum of 15 minutes based on the current state of the art. However, during compression the air flows through the compressor chamber so fast that these minimum periods would be impossible to achieve. The total presence of the air in a BAUER breathing air compressor – depending on the compressor model – is between just 9 and 17 seconds. Temperatures over 125°C are reached for a maximum of 1.8–2.7 seconds.

The pressure levels inside a compressor are likewise too low to neutralize the virus; a breathing air compressor reaches a maximum pressure of 420 bar. While the pressure needed to inactivate a virus is many times higher, at between 2000 and 6000 bar.

Because of this, only B-VIRUS FREE from BAUER provides effective protection of breathing air from coronavirus!

Heinz Bauer

*The B-VIRUS FREE Filter inactivates a minimum of 99.9% of SARS CoV-2 viral pathogens. The inactivation rate for further viruses, bacteria and moulds is type-dependent.

How did your colleagues respond?

At first I was laughed at and had to take quote a lot of teasing. But I took the problem very seriously from the start. By two weeks after the shutdown, every last one of my colleagues understood what I had been doing and thanked me personally for my work. In this phase particularly, we were all afraid of the unknown enemy that was so hard to combat.

Did you step up your activities?

The voluntary temperature measurements became a regular habit; my colleagues came to me daily to confirm that their temperature was normal. Thanks to the fast support we received from the Holding and from Mr Hühn in Strategic Purchasing, we always had enough disinfectant and protective equipment to carry out the tasks that were needed.

What are the main points to watch for now?

At the moment I have the feeling that everyone is relaxing their guard during the summer months, so from September I'll step up my proactive approach again and be more assertive about measuring temperatures and the face mask rule. During shutdown we kept the outer gates closed and dealt with all incoming deliveries in front of the plant. Some suppliers got into a lot of trouble with me by not sticking to the rules. I also talked to the trainees in depth and made sure they were aware of their responsibilities.

Were there any personal moments you found particularly touching?

Oh, yes. My colleagues clubbed together and presented me with a hamper for my

dedication. Some of them were afraid of losing their jobs and were happy to have someone to talk to about the coronavirus situation – or an alpha wolf, as some of them called me! Once a colleague's temperature came up at over 38 degrees. We kept calm and brought in a whole bunch of different fever screening devices – and were delighted to discover that it was the device that had been wrong, and our colleague was fine after all. But it was a very uneasy moment for everyone involved.

How do you see the situation now?

It feels pretty good to me. We've all been pulling together in this emergency and been quickly supplied with clear information. The posters remind us every day that we're still in the thick of it, and many people are behaving very commendably. I've always had full and immediate support from my family and from the top management team, Mr Schmidt and Mr Höcherl.

Our thanks go to Kristijan Jardas for his dedication and commitment! We're very proud to have such active coronavirus heroes in our ranks! ■

BAUER KOMPRESSOREN GÜNTNER – COOLING SPECIALISTS

In the Guntner Group's 80 years of history, the company has developed into a global leader in ventilation and refrigeration technology. In this sector of industry environmental protection



VERTICUS systems in operation at cooling specialist Guntner

and saving resources have moved into a particularly important role in recent years, inspiring the company to develop a heat exchanger which operates mainly with CO₂ in a closed cycle instead of the environmentally harmful coolants used in conventional heat exchangers. Because these heat exchangers must be absolutely leak-tight, they undergo dry-air testing at pressures of up to 180 bar after production.

Continuous availability of high-purity testing air is essential to ensure production operations run smoothly. As compressor systems by BAUER KOMPRESSOREN are synonymous with reliability in continuous operation, Guntner decided to switch their compressor supplier.

After completing successful projects with BAUER in Indonesia and Hungary, the company once again turned to the Munich-based high-pressure specialists when choosing a system for its new plant in Sibiu/Romania.

Three BAUER GROUP companies from Austria, France and Munich joined forces in a cross-border partnership

and designed a customized system for Güntner's new mega-factory. They also brought a unique design concept to life: vast planters packed with greenery transform the production facilities into something resembling a botanic garden, and create a healthy climate and excellent working conditions. BAUER's innovative compression concept was the perfect fit for this design.

Four powerful VERTICUS compressors produce compressed air and store it in 12 cylinders, each with a capacity of 80 litres. Each compressor is fitted with a B-KOOL refrigeration dryer for outstandingly economical operation.

Four modified FCC control units designed by BAUER France then measure the highly compressed air for each test cycle to high precision levels. BAUER Austria was the project lead in the engineering and design of the system concept. Further projects are in the development stage. ■

BAUER KOMPRESSOREN BUSINESS BIKE

A new sense of freedom is here for both family outings and journeys to work. The "0.25% rule" (previously the "0.5% rule") now enables all employees to make the most of the benefits from bike leasing. It's so simple, and it offers genuine advantages for everyone – both individuals and the company as a whole. The milestone of 50 bike leasing contracts was passed in July 2020. The service has now been embraced by all companies in the German BAUER GROUP.



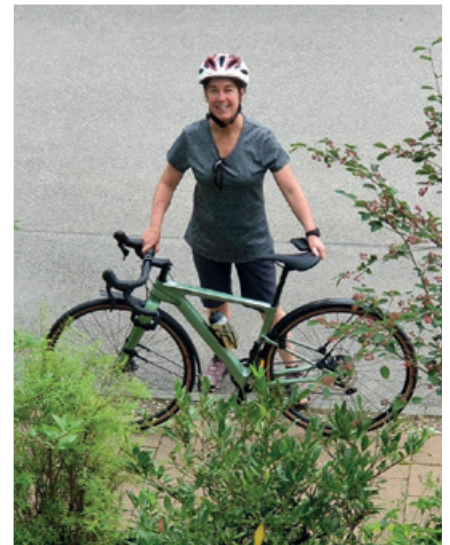
Christian Ziganeck on tour in the Alps around the Stilfser Joch.



Christian Troll riding his BusinessBike



Alfred Höcherl with his bikes



Viviane Koch with her gravel bike

"My husband and I also decided on an e-bike from BusinessBike. I love using the bike to get to work on sunny days", says Dr. Monika Bayat.

Christian Ziganeck from BKM is also a BusinessBike user. "BusinessBike offers the opportunity to ride a latest-generation bike every three years at very reasonable cost. This maximizes reliability, and thus riding safety, while the state-

of-the-art technology enables me to reach new activity goals. The comprehensive insurance package (fully comprehensive cover/damage insurance or theft/service) gives peace of mind. And of course, a good bike makes the daily commute much easier", says Christian Ziganeck. He was particularly happy with the exceptional speed and smoothness of the lease organization, involving in-

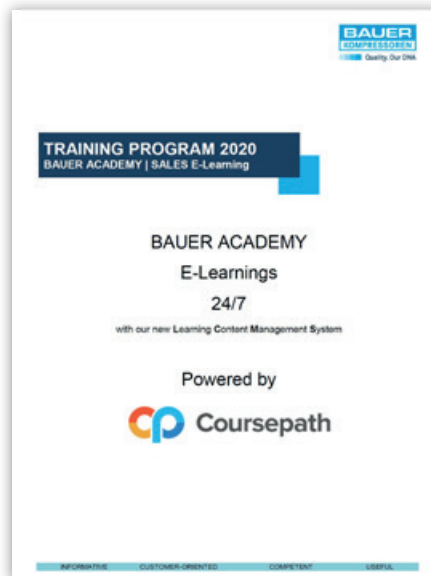
house and external arrangements with HR and BusinessBike. Christian Troll from UNICCOMP is also delighted with his BusinessBike. “BAUER GROUP’s offer of bike leasing for commuters has been going for almost a year. It’s extremely worthwhile financially, not least because the owners have approved a generous funding package. And it’s great that the company also takes care of maintenance during the lease period – a further incentive to sign up. It’s a very low-cost way of getting a high-quality bike and at the end of the lease term I can decide whether to return the bike or keep it. At the moment I’m having such fun with my leased bike that I don’t want to part with it”, admits Christian Troll with a laugh.

Viviane Koch and Qi Wei from BAUER KOMPRESSOREN and Alfred Höcherl from UNICCOMP are likewise huge fans of BusinessBike: “I’m very grateful to BAUER for providing the opportunity, and it was great that the lease was arranged so fast and simply”, enthuses Qi Wei. ■

BAUER KOMPRESSOREN BAUER ACADEMY E-LEARNINGS

Two years ago, BAUER began to expand its range of training courses, adding webinars and eLearning to its schedule of face-to-face training.

During the coronavirus crisis this well-established infrastructure proved to be worth its weight in gold. It enabled the company to use the near-global shut-down to build up the programme of courses more rapidly, and then make



BAUER ACADEMY’s 2020 Sales Training program



BAUER ACADEMY’s 2021 Technical Training Program

the most of the modern training services with our subsidiaries and partners. “Our system now offers a total of 46 eLearning courses in the Sales Training sector, and has added 20 new courses this year alone. The Applications field has seen particular expansion, adding Helium Recovery, Heatform Hot Working, Laser Cutting and Nitro-



Petra Meinel is delighted about the extremely positive response to eLearning courses for Sales.

gen applications to our training portfolio. But we also spent the time bringing existing courses up to date to refresh existing knowledge bases. The system currently has around 160 users, and since each user takes part in an average of 10 training elements, that means around 1,600 participations simultaneously”, concludes Petra Meinel, Head of Sales Industry.

Technical training courses were also converted from face-to-face to webinars and an eLearning sector was added. In the period April to June alone, 34 webinars were held in three languages, attracting 260 users from 20 countries. ■

PUBLISHING CREDITS

Published by

BAUER KOMPRESSOREN GmbH
Stäblistr. 8, 81477 Munich
bauer-kompressoren.de

Editorial Team

Annette Adam, Ralf Deichelmann

Texts

Ralf Deichelmann, Richard Schmidt

Layout

Annette Adam

Photos

Page 1: FOTODESIGN Bettina Theisinger, Bernhard Lehn, Ralf Deichelmann
Page 2/3: Ralf Deichelmann, 2W Technische Informations GmbH & Co. KG, BAUER UK
Page 4/5: istockphoto.com, Richard Schmidt, 2W Technische Informations GmbH & Co.
Page 6/7: BAUER Austria, BAUER employee
Page 8: Richard Schmidt