



VAHLE KONKRET

Dear readers.

The past year was in many respects a very special one in the more than 100-year history of the VAHLE company. We completely rebuilt the logistics center in our headquarters in Kamen while operations were still ongoing, converting it into one of the most modern in Europe (see page 6) and that's not all. Things are in motion at VAHLE for the long-term. You can be sure you'll be hearing more from us in the coming years.

We are a powerful medium-sized company and it is our aim and my personal aspiration for us to operate dynamically in the market — simply to be fast. I always like to quote Klaus Schwab, the founder and executive chairman of the World Economic Form, "In the new world, it is not the big fish which eats the small fish, it's the fast fish which eats the slow fish." In other words: It is speed and agility that are critical, not the size of a company.

Even today, our core business still consists primarily of the conductor system, but at the same time we have clearly furthered our development in recent years in the direction of automation. It is our aspiration to be regarded as a system provider in the market and to be in the position to solve customer challenges. Custom solutions are standard at VAHLE. The conductor system is of course a central component of the system consisting of electrification, automation, positioning, and communication. Be it for conductors or inductive solutions, I am certain that the industry will continue to count on VAHLE systems.

Our focus is of course on the development and further development of our product systems. But in addition to product solutions, we are also continuously developing our digital service solutions. Customers have recently been able to take advantage of the newly designed VAHLE Customer Hub (see page 4).

In this edition of VAHLE konkret, you'll get an overview of how broadly we are positioned on the market with our product range. In addition to the automotive industry, one of our key areas is the retrofitting of ports. (Example, the ports of Kattupalli and Mundra in India (see page 8).) We also electrify and automate cruise terminals around the world, so that passengers can enter and leave their dream ship safe, dry, and air-conditioned (see page 4).

With VAHLE technology, supermarkets get their food (example Edeka, page 8), spices are in the right mix (see page 9) – and last but not least, our technology is also used in spectacular roller coasters (see page 10).

Used around the world – at home in Kamen. The VAHLE logistics center is a clear commitment to the location, as is our new training center. With our trainee initiative, we're supporting young people from the region and taking action against a future skills shortage. And who better to promote our attractive apprenticeships in schools than our trainees themselves? (see page 12)

The course has been set for continued success in the future.

I hope you enjoy reading this edition of "VAHLE konkret".

Sincerely

Achim Dries



SIMPLE, BUT INDIVIDUAL

VAHLE is optimizing its online shop and turning it into the Customer Hub

From now on, customers can access the redesigned VAHLE Webshop via www.customerhub.vahle.de. This offers a range of new functions making online shopping for our products even easier and more attractive. The possible applications extend far beyond the simple ordering process: Customers can configure VAHLE systems tailored to their individual needs and order components for the electrification of their systems. The whole process is simple, fast, and flexible; the upgrade to the user interface has made it even more user friendly.

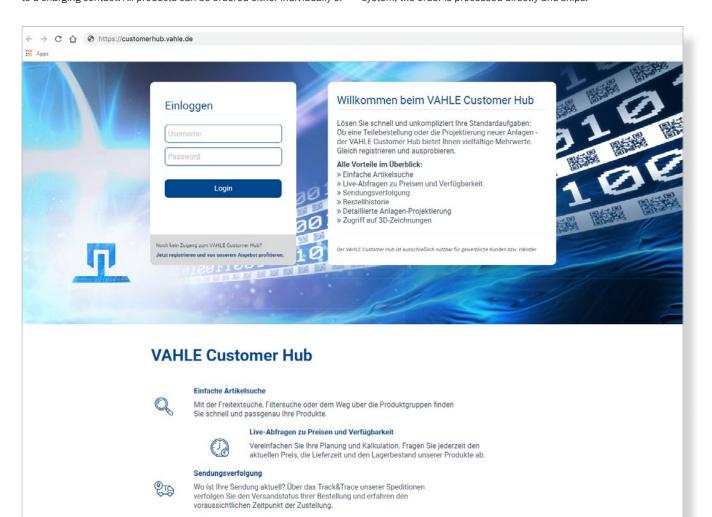
"Our online shop is not simply a purchasing tool. It's a customer portal combining all the information and calculations for electrification solutions needed for an order in one online application," says Achim Dries, CEO of Paul Vahle GmbH & Co. KG. "As soon as our customers have registered using their login, they can use the portal any time, day or night. There are more than 50,000 items available – from a conductor system to a charging contact. All products can be ordered either individually or

combined to create a system. The project planning tool then automatically generates the list of materials, calculation and offer."

Starting now, not only can these project plans be saved and viewed in the individual customer area, but spare parts can be reordered based on previous orders without the need for an item search, and the shipment digitally tracked.

There are 3D CAD models available for a range of product groups that are subsequently available for download in the STP file format. Previous features such as item search, availabilities and standard delivery times as well as project planning with and without electrical calculation are of course still available.

The shopping cart is transmitted through an interface to VAHLE's ERP system, the order is processed directly and ships.







COMFORTABLE AND SAFE ON BOARD A DREAM SHIP

The holiday experience starts from the moment you step on the gangway.

The cruise ship industry has been booming for many years. The ships are getting bigger and passenger numbers are continuing to rise: in the previous year there were approximately 27 million passengers worldwide. In Germany alone the number has tripled since 2007 and currently stands at more than 2.2 million cruise ship tourists. And because guests are increasingly demanding better service, the requirements for efficient and effective passenger logistics are also increasing.

The boarding industry must continuously set itself new challenges: the strictest safety regulations, faster throughput times, and cost-efficient operations all stand in the way of the increasing need for an "on-board experience". The glass passenger boarding bridges are comparable with the bridges at airports. They dock in the port at a cruise ship so that passengers can enter or leave the ship safe, dry, and air-conditioned.

Thousands of tourirsts cross the boarding bridge every time the ship docks. And here, as so often in life: first impressions count! The ADELTE company, the leading international developer and manufacturer of Seaport Passenger Boarding Bridges (SPBBs) relies on full electrification and automation from VAHLE.

The requirements in terms of energy supply are very challenging: Seaports are often very hot, and the salty seawater encourages corrosion. The insulated U25 AE conductor system offers the ideal solution here: its stainless steel tread ensures consistently excellent transmission quality, year after year. For more extensive automation requirements, the vCONDUCTOR can be combined with the SMGX data transmission (vCOM) and the APOS positioning system (vPOS) to create a suitable system solution.

In this way, VAHLE along with its partners has electrified and automated cruise ship terminals around the world. Barcelona, Lisbon, Venice, Southampton, Miami, Seattle, Hong Kong, Taipei and many others have received one ore more boarding bridges in the past two years.







REMOTE-CONTROLLED CONTAINER PORTS IN INDIA

VAHLE awarded contracts for port projects in Kattupalli and Mundra

In the most populated country on earth after China, exports are booming and as a result so is the port industry. To unload containers more quickly and without disruption, the biggest port operator in India, the Adani Group, relies on VAHLE products: On the south-eastern tip of India, in Kattupalli in the Bay of Bengal, is one of the most modern ports in the country. It is located just 30 kilometers north of the city of Chennai, home to millions, and is basically the new gateway to the hinterland with its highly-industrialized cities.

The Adani Group wants to convert Kattupalli into a multi-commodity port and has brought VAHLE in to retrofit 18 container aisles and 15 RTG cranes in the port of Kattupalli. 3km of the insulated 4-pole U35/600AE conductor system and 3km of the vPOS positioning system were installed. Even before completion in later summer 2019, the operator had commissioned the retrofitting of 14 additional corridors with a length of 2.3 km of conductor systems.

VAHLE relies here on the proven Trimotion system. It enables eRTG cranes to be remotely controlled in the corridors. Only the vCOM SMGX data rail needs to be added. The cranes move autonomously and fully automatically, however the crane operator can monitor them at all times with a video signal. The retrofitted cranes are low-maintenance and environmentally friendly, as they are moved 95% electrically.

A particular challenge with the project was the time specification of the operator: In just 8 months, 15 Trimotion systems including software modification were to be installed. The VAHLE team delivered on this challenging task with ease: Following the retrofit, the Adani Group port in Kattupalli is the first remote-controlled container terminal in India.

And there's sufficient space for any expansions: The back-up area of Kattupalli port is 322 hectares in size – equivalent to 451 football fields.

After this successful work, VAHLE received an additional contract from the Adani Group for a retrofit project, this time right at the other end of the country: Approximately 2,000 km from Kattupalli, in the northwest of India, is the largest privately operated port in the country, Mundra.

Here too the operator was seeking extensive modernization: 16 aisles and 9 eRTG cranes were fitted with the Trimotion system. The project called for the installation of 2 km of the insulated U35/600 AE conductor system, as well as the positioning system and the secure SMGX data communication rail. The SMGX system is resistant to the tropical environmental conditions such as dust, heavy rain, high humidity, and heat as well as all electrical radio interference. The automated arm is integrated into eRTG crane made by ZPMC.

The data transfer rate of the SMGX system is 300 Mbit/s and meets the requirements for full automation of the eRTGs in the container terminal in Mundra.

And here too the signs point toward expansion: By March 2019 more than 200 tons of container freight will have passed through the port of Mundra. Following the planned extension of the quay length, the Adani Group is looking to almost double its capacity here to 385 million tons.













CLEAR COMMITMENT TO THE LOCATION

VAHLE opens a state-of-the-art logistics center in Kamen

On June 28th, 2019 the moment finally arrived: on a sunny day, PAUL VAHLE GmbH & Co. KG opened one of the most modern material handling systems of its kind in Europe, at its headquarters in Kamen. The ribbon was symbolically cut on the new warehouse in front of representatives from politics, business, and management.

"In just 8 months, our logistics area has almost doubled to its current size of 3,500 square meters. The whole procedure was more or less "open heart", since operations were ongoing during all of this," explains VAHLE CEO Achim Dries, not without pride. "And we even managed to stay below the budget of EUR 2.5 million. They could learn a thing or two from us in Berlin," he added with a grin in the direction of the invited politicians.

Visitors were particularly impressed by the new automated small parts warehouse (SPW). The 7,314 rack spaces are served by the most modern storage and retrieval system currently on the market: the STC from the specialist Hamburg company Jungheinrich. It moves along the aisles – on the VAHLE VKS

4 conductor system, of course – at a speed of 6 meters per second, removes the relevant containers and transports them to the picking stations.

Just how fast 6 meters per second really is becomes clear when the device starts moving as if on command during the talk by Achim Dries: the Miniload races directly alongside the aisle, adjusting its height at the same time and looking more like a roller coaster than an industrial tool. It even astonished the VAHLE partners, almost all of whom were present. "Now that is seriously fancy," was the comment from Marlen VAHLE, the great-granddaughter of the company founder.

50,000 orders are processed and delivered here each year. Hard to imagine that until now, the pickers had taken each product individually from the shelves – with the aid of ladders that they climbed up and down all day. A task that Martin Wiggermann remembers well: the Deputy District Administrator of the Unna District and a high-school teacher by profession, worked as a picker in the Kettler company during his studies. "Even back then, the parts would go flying, but only downwards, because we let them fall," he recalls with a laugh.

With the SPW, these human errors are removed and the speed is many times faster, something that became apparent just a few weeks after commissioning: "Our goods throughput has increased by an average of 60%," says Achim Dries.



And that's not all: at the same time as the SPW, an ultra-modern pick-to-light system was installed. Along the aisle, LEDs light up in the same color in front of the various components required for an order, so the picker can pick all products required in just one pass.

Even Kamen's mayor, Elke Kappen, could only praise the new hall during the tour: "VAHLE has recognized the sign of the times. This is where the course for the future has been and continues to be set. Not just for Industry 4.0, but for Industry 5.0! VAHLE is an exemplary model of which we can all be proud. In addition to the modern production process, there is a major emphasis on the wellbeing of employees. An important issue, which will hopefully allow VAHLE to escape a skills shortage."

Something that employees won't escape in the foreseeable future is construction work: following the opening of the new training center in the past year and the opening of the SPW this summer, the next celebration is expected at the end of 2020: the new VAHLE production facility should be completed by then.





CLOSER TO THE CUSTOMER: VAHLE CHINA OPENS A NEW LOGISTICS CENTER

This year our subsidiary in the Land of the Red Dragon – VAHLE China – is celebrating its 15th anniversary.

As part of the celebrations, the new 2,500 square meter logistics center was opened at the same time along with the management team from the VAHLE Group. In addition to the storage area in the new logistics center, customers now have the chance to view VAHLE systems in the new showroom. Both internal and external product trainings can also be held here.

Against a backdrop of direct customer contact, the Asian market, particularly the Chinese sales region, can now be served more quickly with standard and key products (U10, KBH, VKS or charging contacts).





FRESH ON THE TABLE EVERY DAY

VAHLE is electrifying the extension of Edeka in Rheinstetten



"We love food" – that's Edeka's slogan – and customers clearly love the company's own-brand products: In Rheinstetten near Karlsruhe is the headquarters of Edeka Südwest Fleisch. From here, 1,300 supermarkets from Lake Constance to Saarland are supplied with approximately 250 tons of meat and 125 tons of sausage products every day. Added to that is an expanded range of cheese and fish products, all of which has left the distribution center in Rheinstetten, built in 2011, bursting at the seams.

Along with the Dutch general contractor Vanderlande, Edeka Südwest Fleisch has already started the extension, and VAHLE is proud to be electrifying one of the most modern food distribution centers in Europe. The contract comprises more than 8 kilometers of a VKS-type conductor system, including double current collectors for energy transmission to a total of 306 multi-level shuttles provided for the automated small parts warehouse (SPW).

The SPW forms the heart of the extension: it includes a total of 108,000 rack spaces, added to which are 3,800 rack spaces in a high-bay warehouse (HBW) – in each case more than double what was previously there.

Output should also double accordingly: Edeka Südwest Fleisch expects to be able to deliver up to 190,000 transport units in roller containers to customers after the extension.

The particular challenge of this project – including for VAHLE – is to complete the extension during ongoing operation and at the prevailing temperatures: they are at a constant zero to minus two degrees Celsius. VAHLE engineers working closely with the customer have decided to use the proven 6-pole compact VKS conductor system. In addition to its compact dimensions, this also ensures secure voltage and signal supply as well as a long carbon brush lifetime. For the customer, this means the highest level of safety and availability in the system.

The Edeka Südwest Fleisch extension in Rheinstetten is expected to commence operation in 2020 and form a unified system with the existing logistics.





IT'S ALL IN THE MIX

With VAHLE, it can be sweet and sour or fiery hot



The Dutch city of Eindhoven is home to one of the leading international spice mixing facilities. Ever-changing powder mixtures for the food industry are created here based on each customer's requirements. 24 fully-automated mixing machines blend various powders and spices into a homogeneous mixture, package it into the correct batch size, and label it as directed by the purchaser.

The operator, the Huijbregts Group, relies on the tried and tested individually insulated VAHLE U25AE (aluminum stainless steel) conductor system, including 15 current collectors. More than 400 meters of this system have been installed at the Eindhoven location. Added to this are 15 reading heads for the WCS positioning system for exact positioning of the vehicles. They travel to the various storage locations of the powders and transport them to a large mixing container. Spices from all around the world are blended into unique recipes, which are delivered just-in-time to the customer in customized packaging units.

On December 12th, 2018, the production facility in Eindhoven was "honored" in the truest sense of the word: His majesty King Willem-Alexander of the Netherlands paid them a visit and was provided with comprehensive information on the production process, the innovative mixing facility – and he spoke with tutors and students about the pro-



motion of young talent in the locality: the Huijbregts Group operates a company school together with local companies, where employees are trained as process operators.

Like VAHLE, the Huijbregts Group is a family company that has positioned itself firmly and reliably on the market and which is continuously developing and innovating. Efficient, flexible, and creative on behalf of the customer – that's the winning formula that connects us.



MAJOR CONTRACT FOR VAHLE AUSTRIA

VAHLE electrifies a steel mill in Mexico

The major Mexican steel producer, ArcelorMittal, has awarded a contract for a hot strip mill to the Austrian metal plant builder Primetals Technologies for its production location in Ciudad Lázaro Cárdenas on the Mexican Pacific coast. This will allow the slabs manufactured to be processed directly on site.



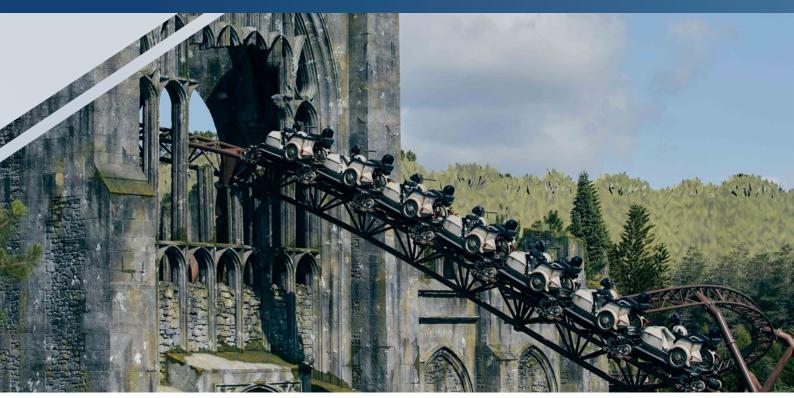
The hot strip mill will be constructed to a turnkey finish, including electricity supply, mechanical equipment, drives, and automation.

Vahle Vertriebs-GmbH is delivering 2,700m of the F45 open conductor system for a total of eight heavy-duty crane systems as well as 920m of the insulated U25 conductor system for the coil transport carriages. With a contract volume of €800,000 - this is the largest contract awarded to date to the VAHLE location in Austria.

The hot strip mill in Mexico is slated to produce 2.5 million tons of steel a year. It is expected to commence operation in 2020.









FANTASTIC CONDUCTOR RAILS AND WHERE TO FIND THEM



New attraction in Orlando gets its energy from VAHLE

Harry Potter fans around the world have long been feverishly waiting for this date: On June 13th, 2019, Universal Orlando Resort (Florida) opens the new family roller coaster, "Hagrid's Magical Creatures Motorbike Adventure" – and for the electrification, the operators of one of the world's largest amusement parks are again turning to VAHLE products.

The spectacular "Harry Potter and the Forbidden Journey" ride has raced through the Universal Studios theme park for 9 years without incident on VAHLE conductor rails, now Harry's giant friend Hagrid (2.29 m tall in real life) is inviting visitors to take a trip on his "motorbike": Every guest can take a seat either on the motorcycle or in the sidecar, allowing them to experience very different journeys. In each carriage there are seven rows for two passengers each, totalling 14 spots.

The wild ride rushes at speeds of up to 80 km/h through the Forbidden Forest, teeming with magical creatures: centaurs, elves, unicorns, gnomes and Fluffy, the three-headed dog. He alone in his robot form weighs more than 4 tons. The only real things in the forest are the trees: 1,200 were specially planted around the roller coaster.

And those aren't the only impressive facts: at 1.6 kilometers, the ride is easily the longest roller coaster in Florida. It moves alternately forward and backward and has no less than 7 stops and starts along the track: A world record! On the way, there's a free fall of a good 5 meters, and a so-called "spike" that catapults guests into the air at an angle of more than 70 degrees, followed by a fall backwards in one movement.

This breathtaking experience has created a stampede right from the opening day: Visitors to the park waiting in line for up to 10 hours for the attraction.

For the VAHLE engineers, "Hagrid's Motorbike" was a challenge in several respects: Firstly, the project was under enormous time pressure right from the very start (the timeframe for the project was just 10 months), therefore the traditional installation plan was done away with. Instead, the entire installation including the power supply was simulated using 3D data.

Small adjustments to the conductor rails were made in close collaboration with the customer Intamin directly on the construction site. For example, the 12-pin conductor system (6 right and 6 left of the center of the track) was not mounted continuously along the rail track, but only partially. VAHLE specialists decided on the U20 conductor system. It's extremely long-lasting due to its solid copper profile and works reliably at temperatures from -4 °C to +52 °C.

It was also necessary to develop a funnel-capable current collector with the greatest tolerances possible in a very constricted building space. For use outside of the conductor system, a special holder was developed so that the current collector could also withstand the high G-forces.

Fearless Muggles can now also race through the Forbidden Forest just like in the original. Hagrid's motorcycle is sure not to run out of "juice" – thanks to the company who can be named at any time: VAHLE!



IN POLE POSITION WITH VAHLE

Conductor rails from Kamen provide high speed in Suzuka



The racetrack in Suzuka is known around the world from Formula 1. The Grand Prix in Japan is awarded here every year. And it's a race track that German drivers have clearly gotten to grips with: Michael Schumacher won six races here, Sebastian Vettel four so far. Anyone who has ever felt the need for speed can now put their driving abilities to the test on site – and VAHLE is giving these fast cars the necessary grip.

Right beside the race track in Suzuka is the "MOTOPIA" amusement park – and it contains a totally new motorsport business: "Duel GP," the world's first self-steering racing coaster on a track that recreates the original Suzuka Formula One circuit.

"Duel GP" is a type of life-sized slot car track, where you yourself sit in and do the 400-meter lap at 38 km/h. On two pre-set tracks, two vehicles with two seats positioned in front of each other are sent along the track at the same time. There is a steering wheel attached in the front seat, with which the driver can accelerate, brake, change gears and steer.

During implementation, Japanese roller coaster and amusement park ride experts Hoei Sangyo turned to VAHLE and requested support. A system was required that could withstand the toughest external weather conditions, be it temperatures below freezing or up to 40 degrees in summer with extreme humidity. Hoei Sangyo decided on the tried and trusted insulated U20 conductor system from the VAHLE Group. It is known in the industry for its resistance and long life, and combined with special long-life carbon brushes, it guarantees the customer extremely low maintenance costs and times.

It took less than six months for this world first to be installed in Suzuka with VAHLE systems, with former Formula One driver Takuma Sato as project consultant.

"Unlike the old go-carts, the driver can actually use the force of the engine to drive by operating the gears and steering wheel. This means everyone can feel like a Formula One driver, from adults to kids," says the two-time father.





VAHLE TRAINEES PROMOTE IN-COMPANY TRAINING

Whether in accounting, purchasing, marketing, sales, or manufacturing:

At VAHLE you can become many things, but one thing is for sure: you'll become really good!

To let high school students from schools in the area know about the exciting fields of work they could enter with in-company training, VAHLE participates in the so-called "AzuBo" program from the Dortmund Chamber of Industry and Commerce (IHK) and Unna business development. Trainees from the company receive training from the IHK on presentation techniques and public speaking, and then present their company at information days in schools in the region – independently and autonomously, face to face with high school students of almost the same age. A promising model to counteract the skills shortage. VAHLE konkret spoke with 2 of the 6 current trainees at VAHLE:

"I NEVER REALIZED THE JOB WAS SO VARIED"

Jennifer Hufer (20) is a second-year industrial clerical officer trainee



Jennifer, you're in your 2nd year of training and still something of a newbie here at VAHLE...

Yes, that's right. But I was never made to feel that way, even at the very start. I was able to take on tasks independently even at an early stage, including contact with customers. In sales for example, where I was at first, I really enjoyed that. But also in the other areas that I'm still working through, they all have something to offer: Accounting, controlling, marketing, purchasing... the role of industrial clerical officer is just so varied and multi-faceted. You basically learn everything you need and after the training you're an "allrounder". I believe you have good opportunities on the job market in all kinds of areas.

You completed your high school diploma at the comprehensive school in Kamen. That means you could also have gone on to study...

That's exactly what you always hear as a high-school graduate: "Now you have to study!" Most of the others from my year did do that... or at

least started to. Some have dropped out of their course since then or changed the subject. I'm the only one who has seen their plan through – and I'm really happy with it. Especially as I also decided on the right company. VAHLE is a great educator.

We'd like to hear a bit more about that...

Well, you hear a lot from the other students in the vocational school. Sometimes I just can't believe what I'm hearing. Whether it's the pay, the atmosphere at work or even the working hours: we're pretty much the only ones with a 35-hour week! For example if we have vocational school for 6 or 7 hours, then after that we're free. A lot of other people then have to travel quite a few miles by train to the office and work another 1 or 2 hours there. So when we talk about problems here at VAHLE, they're really luxury problems!

It sounds like you're a good ambassador for in-company training.

Thank you! I really enjoy being a trainee. At school in the IHK in Dortmund we were taught how to do PowerPoint presentations and to present our company in front of a group. This furthers your education and helps you grow as a person. From our trainers at VAHLE we now get the dates on which we are to go to the schools in the Unna/Dortmund district. And there we represent our company completely independently. When we're speaking alone with the students, without teachers or parents, then they're generally much more open and ask questions that they wouldn't otherwise dare to ask. Recently, I even represented VAHLE at the "Job-Fit" vocational training fair. In what other company would

you get the chance to represent your company at such a public event in only your first year of training?

You mentioned at the start that there are a lot of doors open to you on the job market after training...

... but ideally I'd like to be taken on here of course! I'm in the first year of intake where more are being trained than are required. Which I actually think is good, because it allows even more young people the opportunity to get a good education. We'll see if it goes well here, maybe VAHLE will also need people – and maybe I'll be lucky!



"WE HAVE IT REALLY GOOD HERE"

Marc Simpson (21) is a third-year industrial clerical officer trainee

Marc, the same question to you: After you graduated from high school in Kamen – did you ever consider studying?

To be honest, the training was only Plan B. I actually wanted to be a professional pilot in the German armed forces, because I also like flying in my spare time: I have my glider license. But the selection process for the armed forces was very long and drawn out, there were constant tests and exams – and it was only after about a year that I got the rejection. Then all the closing dates for registering had passed, so at first I did some temporary work in an Amazon warehouse in Werne. I knew VAHLE from holiday jobs and because my father works here in the company. I applied for a traineeship as an industrial clerical officer and was accepted.

And how do you like Plan B now?

It was the best thing that could have happened to me! The job as an industrial clerical officer covers so many areas and is so comprehensive, I really had no idea beforehand. In school you don't learn how an industrial company works, and what's behind it all. I was "all-in" from day one of my training, I was trusted and was quickly given responsibilities. That's something you grow into and it's fun, especially when the job is very wide-ranging, not run-of-the-mill.

So you don't envy your friends from school who went on to study?

Not at all! A lot of them are still in the discovery phase, working abroad, taking a year out, or battling through their study with the mantra: "I've started it, so I have to finish it somehow." I have no interest in that. My training is fun, my colleagues are nice, and the pay is above average. We have it really good here...

You go around as a trainee to high schools to promote in-company training. What's the response like?

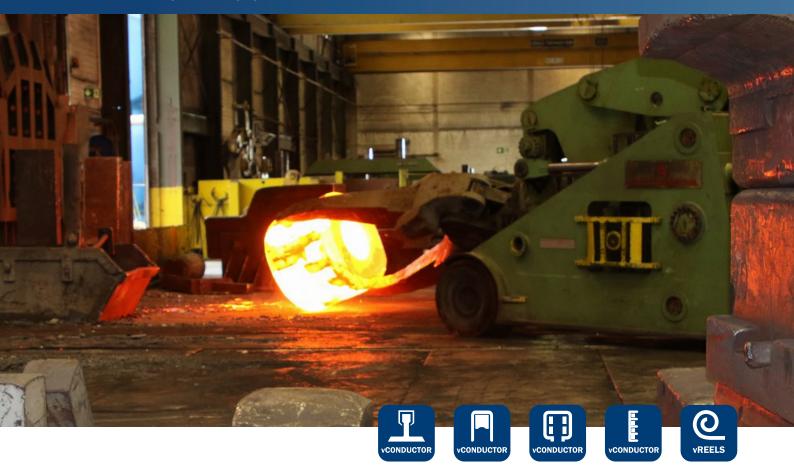
In some of the high schools it's okay, in the more academic ones most people are set on "studying", they don't have training on their radar, and so only a few students tend to turn up. I think it's a real shame, because for many of them it would be an interesting alternative.

Currently all the trainees in the commercial area in VAHLE are highschool graduates. Why?

I think it just has to do with age and maturity. Like I said, we're assigned tasks here very quickly that we are allowed to take care of independently. Including contact with customers. At 15 or 16, which is the age junior high graduates would generally be, that would be fairly difficult.

You are among the last intake that is guaranteed to be taken on by the company...

I was really lucky there! I'm really happy that I get to stay on here at VAHLE after my training. There are a lot of areas that interest me here. Let's see where I finally end up.





"WE ALWAYS THINK LONG-TERM, THAT'S WHAT CONNECTS US"

Dirostahl in Remscheid has been a VAHLE customer for more than 40 years

"You have to strike while the iron is hot" – what's really behind this figure of speech can be seen in the steel roll and hammer mill of Karl Diederichs GmbH & Co. KG in Remscheid: rods, discs, cylinder rings – there's almost nothing that can't be forged or milled at Dirostahl.

Although forging is one of the oldest crafts in the world, it is still impressive when a bright red glowing block weighing tons is taken out of the furnace, the slag is knocked off and it is then worked by hammer, press or roller into the finished product. It sometimes takes 2 days for the blank to be heated up in the core (at up to 1,200 degrees Celsius) – and cooling takes just as long.

Like VAHLE, Dirostahl is a family company. Around 490 employees produce forgings of up to 35 tons in delivery weight and rings of up to 3.5 meters in diameter. The finished products are used in a diverse range of areas: from the drive shaft for AIDA cruise ships to compressors and couplings, to gears for wind turbines.

"Our forgings can also tolerate large differences in temperature. We offer our customers customized solutions and can also work with very large steel pieces," says Torsten Katzberg, plant service project manager at Dirostahl. He himself has worked at the company for 40 years – "and as long as I'm here, we'll work together with VAHLE," Katzberg says with a grin.

The cranes that transport the steel parts from their storage location to the oven, as well as for cooling and lastly for delivery, get their energy over generations from several VAHLE enclosed conductor systems. Starting from the KSG to the KBH and KSL up to the LSV, which is insulated with aluminum rather than plastic and is therefore suitable for hot environments. U30 conductor systems, spring cable reels and many other VAHLE products are installed in various locations in the factory halls. "Some of the systems are in use in uninterrupted three-shift operation," says Torsten Katzberg. "That is truly an enormous load, but other than normal wear and tear on the spare parts, everything is working smoothly."

VAHLE sales representative Tobias Grewe is a regular and welcome guest at the steelworks in Remscheid. "Sometimes the long lifetime of our products is a blessing and a curse at the same time," he jokes, referring to the KSG conductor system, which have not been produced since 2003. He would have various modern and low-maintenance solutions from VAHLE up his sleeve.

When Dirostahl got a new high-bay warehouse in 2008, they again turned to the proven quality from VAHLE and decided on the VKS 10 for electrification of the storage and retrieval system.

"If we ever need a new part somewhere else, we know who we'll call on," says project manager Katzberg, with a wink towards Grewe.

COOL JERSEYS AND ROBOT FEEDERS

VAHLE takes responsibility as sponsor in the region

As a traditional family company, the VAHLE Group feels a close connection with the city and the region, which is why for many years we have supported social and community projects in the area surrounding our company headquarters in Kamen. CEO Achim Dries: "The promotion of young talent in our neighborhood is something very close to our hearts. We have strong roots in the Ruhr and want to give young people in the region the best opportunities. That is without doubt a worthwhile investment in all of our futures."

We would like to present two examples of our VAHLE sponsorships, representative of many other projects and teams that the VAHLE Group promotes and supports in our region: Sport connects people and promotes teamwork, which is why VAHLE has been involved in youth sport for many years. Among other things, the U12 basketball players of the SVD 49 in Dortmund play in brand new VAHLE jerseys. "This project is really close to our hearts," says Philipp Weber, corporate communications spokesperson at VAHLE, "because this team is more than 'just' a successful young sports team. The young basketball players are an example of successful integration – and behind that is a lot of voluntary work. This commitment is truly marvelous and cannot be praised highly enough."



The boys have two reasons to celebrate, because immediately after receiving their new jerseys they went on to a clear and well-deserved win 56–36 in their league match against Wickede. We are very happy to support this talented and ambitious young team. Keep up the good work!

Another exciting project is the Roboter AG "Schollibotics" of Geschwister-Scholl-Gesamtschule in Lünen. Here too we are a proud sponsor. In the past year the young inventors sensationally won the silver medal at the World Robot Olympiad (WRO) in Thailand! The students from Lünen: Samira, Ronja, and Alexander impressed the jury with their elaborately programmed school garden and held their own against teams from all around the world.

The self-designed aquaponic system (a portmanteau of aquaculture and hydroponics) of the "Schollibotics" connects in the smallest of spaces the cultivation of fruit and vegetables in a circulatory system with a fish farm: a robot interacts with the students, feeds the fish, takes water samples, and removes the plants from the system. In addition, the students developed an app that serves as an e-learning platform and keeps users updated on the growth of the plants. This school garden model should provide high-quality food for school cafeterias – particularly in developing countries, to fight against malnutrition there.

"The third jury round went smoothly and ultimately earned us a place on



the podium. Before that we struggled with minor technical problems," reported young engineer Alexander. He and his teammates demonstrated not only extraordinary technical know-how, but also outstanding teamwork, which was singled out for praise by the jurors. Ultimately "Schollibotics" was beaten by just one team from Russia. "Despite the very close result we are really happy with second place. We would again like to thank all our sponsors who enabled us to travel to Thailand," said team coach Birgit Straker.

"We were very glad to do it," says Achim Dries. "On behalf of the VAHLE Group I would like to pay tribute to this commitment and passion! Congratulations on second place, we are delighted with this successful collaboration. And who knows – perhaps as experts in automation we'll hear much more from these creative students..."

AVAHLE

YOUR VISION - OUR SOLUTION

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ADELTE (page 4), Vanderlande Industries GmbH (page 8),

Brainport Eindhoven (page 9), Primetals (page 9), 2018 Universal Orlando (page 10), Hoei Sangyo & MOTOPIA (page 11),

SVD 49 Dortmund (page 15), Geschwister-Scholl Gesamtschule (page 15) |

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