NEWS FROM YT JUNE 2019



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yt network

"Creating a **Network** which nurtures and **develops** young talents to tackle the challenges of **tomorrow**"



Denmark



Rune Tranborg Tuxen has left the YT-network. Rune has been a key member of the YT network, and we wish him continued success and development within the Aarsleff organisation. In his place we welcome Andreas Blaabjerg Jørgensen from CP Test.

Lighthouse

The Tallest Building in Denmark.

Virtual Design in Construction, better known as VDC, is expanding quite fast in our department. We are using it on several projects now - not only in Denmark but also Norway and some in Sweden. Hopefully we'll be using it even broader in the coming years. It's worth mentioning that UK are expanding it to a whole new area which is really exciting to follow on the side-line. One of the more exciting projects where we use some of the services within VDC are Lighthouse located in Aarhus. This building is going to be the tallest building in Denmark with approximately 140 meters in height.

For Ground Engineering we must drill piles with a diameter between 1800-2000 mm with a total length of 70 meters. This is the first project in Denmark with such big and long piles and only the second in the history of Per Aarsleff – Karla Tower was the first.

Regarding VDC; the purpose has been to model the existing sheet piles and merge them with the new design; steel, sheet and concrete piles and ground anchors. Thereto, we have used some time so model the excavation. VDC have contributed to...:

- modelling existing construction in the ground.

- modelling existing conditions in the building site.

- stage plans based on the 3D model.
- model coordination on site.

- 3D model used as the base for calculations to the constructions.

The designers have been a real integral resource in construction the 3D model, therefore they have also used it quite much to ensure that their design was sufficient. A good example is the anchor length; to be sure that





Peter Andreas Novak Hansen, VDC Coordinator



they were long enough to reach a certain earth-layer, they used to model to check each individual anchor length. This also had the effect of a more optimised design for the anchor and they didn't have to manually calculate the length.

In the picture above the anchors extends 10 meters further down the earth-layer. We have worked in a buffer which means that the earth-layer has been moved downwards a meter because we were not 100% sure of its position.

In the same picture we can see some existing pipes that we also had to respect doing the instalment of anchors. Again, we are only able to measure the visible part of the pipes (which are the part within the pit, to the left) – That means that everything to the right of the sheet pile wall is under ground - so we weren't sure of the current placement of the pipes. But the 3D model helped to easily rotate the anchors, so we won't collide with the pipes. We are laving the finishing touches on the design now and entering the execution phase where we will use our GIS system to manage the information from here. This GIS system is like Google Maps where we apply a layer on top which holds our information. Thereto, we can enrich the layer with information on the actual process and execution. In the end we'll have the as built information all gathered in one system, where we easily can extract it to Excel or reports.

"Personally, I learn a lot from working with these big projects but most importantly; it ensures that our VDC organisation is prepared to handle these big projects more productively in the future."

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The picture above is from another pile project, but it shows the potential of the GIS system. All the dots are piles that we have to install. The blue colour indicates that the pile is not yet installed; the green is the finished installed pile; and the red is a pile deviation (either it's broken or out of tolerances). If we press on one of the dots, we get all the information from that pile, further we are able to enter new information and attach pictures. All of this is available from your tablet or smartphone and when you submit your information, it's all handled in real-time – the information is synchronized with the cloud which ensures that all the projects participants have the newest information at all time. It's easy to supply changes without printing new drawings and we can log each contribution done to the individual pile.

We have used this GIS system on several projects before; Esbjerg Beach, Ronne Harbour, The Electrification (Railway project) and other smaller projects.

The Lighthouse project is really exciting to work with; It's a big project where we use some of our newest technology within ground engineering. But most excitingly is obviously the amount of different VDC services we use.

The expansion of Rønne port

The harbour expansion project of Rønne port is going strong and we handed-in the first quay area on May 31st making it possible for the first cruise ship to dock as schedule. My responsibilities were to maintain a consistent production while ensuring proper quality management of the quay wall and installation of deadman-anchors. The quay wall was chosen as a combi-wall, which in this case consists of an equal amount of HZ- and AZ-profiles, commonly known as King piles and sheet piles, which is strong around one axis and less strong around its other axis. The concept of combining king- and sheet piles is a well-known solution and may be put together in various combinations depending on the requirements.



Anders Kjær Huntley Site Manager



Figure 1: Vibrating a sheet pile down between two king piles.

The order of production may differ from project to project, however we reached the highest efficiency by first driven all the king piles and subsequently drive the sheet piles. We used Aarsleff's biggest vibrator - the ICE 1412C with moment capacity of 110 Nm, to vibrate first the King piles and then the sheet piles down as far as possible. We drove the profiles the last few meters due to highly consolidated soils and we did so with a Junttan HHX hammer, impact capacity of 210 kNm, for the King piles and an IHC S90, impact capacity of 90kNm, for the sheet piles.



Figure 2: IHC S90 for driven sheet piles.



Figure 3: Junttan HHK for driving King piles.

After a successful installation of the quay wall the area between the quay and land is filled with sand, which was either shot through a canon or pumped through large pipelines with a water and sand ratio of 80/20. It took almost 1.000.000 m³ to fill up the entire hinterland.



Figure 4: Sand pumped through pipeline



Figure 5: Sand shot through canon

"I found out how important it is to let the workers have a say in the matter and use their years of hands-on experience"

When the hinterland was filled with sand we could begin installing anchors in each King pile. The anchor type was a so called deadman-anchor, which is a large anchor plate placed twenty to thirty meters in land and covered with consolidated sand. The dimensions of both the anchor rod and plate varied depending on the circumstances but most of them has a 4m x 2m anchor plate placed either 23 m or 35 m in land.



Figure 6: Anchor plates placed 23m or 35m in land.

After the anchors were installed and the area was filled with consolidated sand the combi-wall is now active and the area may be applied pressure up to 800 MPa, which was a strict requirement from the client due to the future industrial activities. The last task, but perhaps the most important, was to hand in a complete quality report with all installation data gathered in a well-structured form, to please the client of course.

										Model		Cffekt [kNm]		
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PAA ID	SWECO ID	TK	SK	Længde	Type	Vibrering Start	Vibrering Slut	TKVib	Start Ramning	Slut Ramping	TK Ram	Status	Bernankninger	Koli
K34-AZ-01	A2-K-23b	2,1	-15,0	17,30	AZ26-700	14-08-2018 05:10	14-08-2018-05-25	2,97				Udført m. afvigelser	Se Afvigerapport nr. 30	\$35
K34-AZ-02	A2-K-24	2,1	-15,0	17,10	A226-700	17-08-2018 15:15	17-08-2018 15:18	3,70	22-08-2018	22-08-2018	2,11	Udført		\$35
K34-AZ-03	A2-K-25	2,1	-15,0	17,10	A226-700	17-08-2018 15:19	17-08-2018 15:21	4,00	22-08-2018	22-08-2018	2,10	Udført		\$35
K34-A2-04	AZ-K-26	2,1	-15,0	17,50	AZ26-700	17-08-2018 15:24	17-08-2018 15:25	4,50	22-08-2018	22-08-2018	2,10	Udført		535
K34-A2-05	A2-8-27	2,1	-15,0	17,50	A226-700	17-08-2018 15:28	17 08-2018 15:30	4,00	22-08-2018	22-08-2058	2,10	Udført		535
K34-AZ-06	AZ-K-28	2,1	-15,0	17,30	AZ26-700	17-08-2018 15:33	17-08-2018 15:35	3,90	22-08-2018	22-08-2018	2,10	Udført		533
K34-AZ-07	AZ-X-29	2,1	-15,0	17,30	AZ26-700	17-08-2018 15:37	17-08-2018 15:40	3,85	22-05-2015	22-08-2015	2,10	Udført		533
K34-AZ-08	AZ-K-30	2,1	-15.0	17,10	AZ26-700	18-08-2018 05:39	18-08-2018 05:41	3,90	22-08-2018	22-08-2018	2,10	Udført		\$31
X34-A2-09	A2-K-31	2,1	-15.0	17,50	AZ26-700	18-08-2018 05:43	18-08-2018-05:45	3,60	22-08-2018	22-08-2018	2,10	Udført		535
X34-A2-50	A2-K-32	2,1	-15.0	17,50	A226-700	18-08-2018 05:48	18-08-2018-05:50	3,70	23-08-2018	23-08-2018	2,10	Udført		535
K34-A2-11	A2-K-33	2,1	-15,0	17,10	A226-700	18-08-2018 05:52	18-08-2018 05:55	3,60	23-08-2018	23-08-2018	2,10	Udført		535
K34-AZ-12	A2-X-34	2,1	-15,0	17,10	A226-700	18-08-2018 05:58	18-08-2018 06:00	3,90	23-08-2018	23-08-2018	2,10	Udført		535
K34-AZ-13	A2-8-35	2,1	-15,0	17,50	A226-700	18-08-2018 11:04	18-08-2018 11:05	3,80	23-08-2018	23-08-2018	2,10	Udført		531
X34-A2-34	A2-K-36	2.1	-15.0	17.10	AZ26-700	18-08-2018 11:07	18-08-2018 11:08	3.80	23-08-2018	23-08-2018	2.10	Udfert		533
x34-AZ-15	A2-K-37	2.1	-15.0	17,10	AZ26-700	18-08-2018 11:09	18-08-2018 11:10	4.00	23-08-2018	23-08-2018	2,10	Udfert		535
K34-A2-16	A2-K-38	2.1	-15.0	17.10	AZ26-700	18-08-2018 11:13	18-08-2018 11:14	3.80	23-08-2018	23-08-2018	2.10	Udfert		535
K34-A2-17	AZ-K-39	2.1	-15.0	17.10	A226-700	18-08-2018 11:16	18-08-2018 11:18	3.70	23-08-2018	23-08-2018	2.10	Udfert		533
K84-AZ-18	AZ-X-40	2.1	-15.0	17.10	AZ26-700	18-08-2018 11:21	18-08-2018 11:23	4.30	23-08-2018	23-08-2018	2.10	Udfert		515
K34-AZ-29	A2-K-41	2,1	-15.0	17,10	A226-700	18-08-2018 11:25	18-08-2018 11:26	3,90	23-08-2018	23-08-2018	2,10	Udfert		531
K34-AZ-20	A2-K-42	2,1	-15.0	17,10	A226-700	18-08-2018 11:28	18-08-2018 11:29	3,95	23-08-2018	23-08-2018	2,10	Udfart		
K34-A2-21	A2-K-43	2.1	-15.0	17.10	A226-700	18-08-2018 11:30	18-08-2018 11:32	4.25	23-08-2018	23-08-2058	2.10	Udfert		535
K34-A2-22	A2-K-44	2.1	-15.0	17,30	A226-700	18-08-2018 11:35	18-08-2018 11:38	4.35	23-08-2018	23-08-2018	1.80	Udfert	Se Advigenapport nr. 09	535
K34-AZ-23	A2-8-45	2.1	-15.0	17.10	AZ26-700	18-08-2018 11:40	18-08-2018 11:41	4.40	23-08-2018	23-08-2018	2.10	Udfert		51
K36-A2-24	AZ-K-66	2.1	-15.0	17.10	AZ26-700	18-08-2018 11:45	18-08-2018 11-67	4.20	23-08-2018	23-08-2018	2.10	Udfert		52
K34-A2-25	AZ-K-67	2,1	-15,0	17,50	AZ26-700	18-08-2018 11:49	18-08-2018 11:50	4,25	23-08-2018	23-08-2018	2,10	Udført		531
K34-A2-26	A2-K-48	2.1	-15.0	17.30	AZ26-700	30-07-2018 13:30	30-07-2018 13-45	3,40	23-08-2018	23-08-2018	2.10	Udfert		53
K34-A2-27	AZ-X-49	2.1	-15.0	17,30	AZ26-700	18-08-2018 11:53	18-08-2018 11:55	4.15	23-08-2018	23-08-2018	2,10	Udfert		535
K34-A2-28	A2-8-50	2.1	-15.0	17.10	A226-700	02-08-2018 14:08	02-08-2018 14:14	4.35	03-08-2018	03-08-2018	2.10	Udfert		535
K34-A2-29	AZ-8-51	2.1	-15.0	17.10	AZ26-700	02-08-2018 14:00	02-08-2018 14:05	4.37	03-08-2018	03-08-2018	2.10	Udfert		533
K34-AZ-30	AZ-K-52	2.1	-15.0	17.10	A726-700	02-08-2018 18:49	02-08-2018 13:53	4.12	01-05-2018	03-08-2018	2.10	Udlet		510
K34-A7-31	A7:K-53	2.1	-15.0	17.10	A726-200	02-05-2018 13:33	02-08-2018 13:43	433	03-08-2018	03-08-2018	2.10	Lider		
124.47.22	47.4.54	1 2 2	-15.0	12.50	A736-300	02-06-2018 12:20	01.08.3018.13.34	410	03.09.3019	03-08-2028	2.10	Lidlag		

Figure 7: Installation report of the King and sheet piles.



Figure 8: King piles measured with GPS.



Figure 9: Anchor plates measured with GPS.

Overall the project was a success and I learned many things production-wise, which guaranteed will help me in the future. I also found out more about how I act as a site manager and how important it is to let the workers have a say in the matter and use their years of hands-on experience.

The coordinates of the quay wall and the anchor plates were measured with a stationary GPS with an accuracy of +/- 10mm and gathered, as the project went along, in one big CAD-file.

Apartment Buildings in Aarhus

In the beginning of April, I was back at the Aarhus office after 16 months at the Copenhagen office, and I was assigned a driven precast piling job called "Brokvarter (inner city area) Block C+D". The job was located in the centre of Aarhus.

The piling will provide the foundations for two separate apartment buildings (see figure 1) with five to seven floors. The project has a total value of approx. DKK 13 million and the total amount is 2272 No. 300mm square precast concrete piles (43,560 meters).

Part one

This part is mainly about gathering information on the underground by driving 129 coupled piles with a length of 24 meters. The piles are strategically selected so that the geotechnical engineer gets information from the entire construction field, but the piles are still a part of the finished piling foundation.

Besides the information from the driving log, the geotechnical engineer requests that 40-50 PDA measurements (shock wave measurement) are performed on selected piles. The client hopes that the PDA measurements can contribute to the optimisation of the length of the remaining piles and in this way save money.

We started the piling installation on May 3rd.

Part two

This part is about driving of the remaining piles from August using 3-4 piling rigs.

Stig Mikkelsen Site Manager



Germany



Unfortunately we had to say our goodbyes to Nele Hennig as she leaves Aarsleff at the end of June to join a local organisation. Nele has been an integral part of the YT network, and she will be greatly missed. We wish her the best of luck and success in all her future endeavours.

Nils Christian Witt of DMT also leaves the YT Group. We extend our sincere thanks for his valuable contributions to the network.

United Kingdom



Ready Player One?

It's been a hive of 'digital' activity in the marketing department since we last met together in December. We've launched two new corporate films which have been really well received - both internally and externally. On the back of the film's release, American manufacturer and popular retailer Timberland ® approached us about a brand collaboration for their workwear sub-brand Timberland Pro ®. A marketing agency were in the midst of sourcing photoshoot locations for the organisation when they spotted our company video on LinkedIn. With a brief of finding "epic" scenes - think large industrial units, and rugged landscapes - Aarsleff Ground Engineering were a 'match made in heaven'. Look out for our Centrum Pile's manufacturing facility and Aarsleff's plant workshop in Timberland Pro ®'s upcoming Fall 19/Winter 20 campaign!

We invested in a virtual reality room 'VROOM' for our Head Office. The 'Google Earth' app aids Estimators in their project proposals, allowing staff to virtually visit project sites, observe site access points to determine appropriate rig type, and see the surrounding environment before ever having to step foot on site. This benefits the business by less road/travel risk, carbon footprint and time savings for long journeys which is great for bolstering our company's green credentials - and it is also a really attractive feature of our office that our graduates and new recruits find exciting.



Jessica Banham Group Marketing & Brand Manager





Fig 1. Overground construction sequence of Drilling and Grouting operations in the VR App

Fig 2. Traversing underground in the VR App



Having partnered with 3D technology and software development studio Luminous Group, we have since completed our new virtual reality application. Traversing through Rail, Commercial, Residential, Mining and Industrial zones, the user is able to take a closer look at rigs and machinery by leading innovators Junttan, Klemm and Movax and experience the ground engineering techniques that we deliver on site every day - both above and below ground. Through these partnerships with the leading rig providers, the promotion of the VR App has a much more extended and international reach. The application shows the construction sequence of sectional flight auger in a residential basement, sheet piling for a car park, driven piling in an industrial zone, soil nailing next to a rail and drilling and grouting operations in a mining location. The VR experience has been created using the latest Unity games engine and HTC Vive Pro headset providing full natural interaction with six degrees of freedom and high-quality visuals. Users can view a mini table top view of the Aarsleff world or fly down to see interactive cut aways of the ground below. Games engines with their real time rendering capabilities and ability to port content to multiple devices and platforms are becoming the preferred choice for creating interactive computer graphics, VR experiences and visual effects.

As I mentioned in the last newsletter, I love to focus on the "little details" because it's often the little details that leave a lasting impression. Within the "virtual" office, we have replicated our own organisation's environment by displaying the same artwork, clock, frosted window art, chairs, banners and even our very own precast concrete pile table. We are predominantly demoing the virtual application at careers fairs and university shows but also at our clients request. With half a million workers set to retire over the next 10 years, the application has primarily been designed to address the growing skills shortage in the construction sector with a view to help attract the next generation of digitally native gamers into the industry.





Fig 3. Sectional Flight Auger shown in VR



Fig 4. Screengrabs showing the "little details" within our replicated 'virtual' office



Warehouse work!

Parth Patel Senior Contracts Engineer

Since the last Young Talent newsletter, I've predominantly been working on delivering driven precast concrete piling projects. We recently completed installing over 1,200 nr. Piles for a St. Modwen's development which is a large warehouse in an industrial and logistics area in Burton, Derbyshire.

St. Modwen Park Burton will be a new 50-acre industrial & distribution park based off the A38, providing direct transport links for both rail and road. The site has planning for over 1 million square foot of industrial space, making it one of the largest developments in the East Midlands.

Aarsleff have previously installed piles for 3 warehouses in 2018 on the same development. I was also the contracts engineer on the previous project and we have a great relationship with our client.

We utilised 2 of our Junttan PMX22's to deliver the project in a 5 week period. Over 12,000m of precast concrete piles of diameter 250mm & 300mm size were driven into the ground. The ground conditions were challenging in certain areas of the site, this was unexpected; we were able to react quickly to utilise 244mm diameter steel tubular piles to penetrate through obstructions in the ground. The client were very happy with our delivery and our solutions to issues which arose on site. Aarsleff received 'excellent' feedback for the design & delivery of this piling project.

I'm also pleased to announce I've recently been promoted to Senior Contracts Engineer. The increased levels of responsibility have been challenging and rewarding at the same time. I'm looking forward to the next coming months as we have exciting projects in the pipeline.



Uncovering the Underground



Chris Purvis Estimator

Northern England has a long history of confronting and overcoming ground risks from former mining activity such as land subsidence, damage to the water environment and air pollution from toxic gases. In the modern day, the UK has strict planning and building regulations that require developers to treat any former mining activity or face financial penalties and liability claims.

In December 2018, Aarsleff UK were appointed by Taylor Wimpey (a major UK house builder) to treat all former mine workings beneath a housing development located in "Kenton Bankfoot" near Newcastle Airport (pictured Left). Here we utilised 5 rigs including 2 x Boart-Longyear's, Klemm 806-3G, Klemm 909 and a 26t Volvo JCB excavator with rotary-head to drill 606no 75mm diameter holes to 38m below ground level (bgl). We then operated a 20t capacity bulk-mixer to inject approximately 1000t grout composed of 10-parts "Pulverised Fly Ash" (PFA), a bi-product from coal fired power stations and 1-part Ordinary Portland Cement (OPC). Although our rigs suffered from persistent breakdowns, and the winter conditions were not favourable, this project was still a success and we learned many lessons for future work.



Photographs above show two Boart-Longyear rigs working at Kenton Bankfoot in January 2019

Another major drilling and grouting project that I am currently working on as Project Engineer is in Gildersome near Leeds (pictured Right). Our client "Euro-Garages" have established themselves as one of the UK's fastest growing and most recognisable forecourt operators and intend to construct a petrol station, Costa Coffee and several commercial units above a site which has been classified as high-risk for shallow mine workings. Since Aarsleff mobilised to site in early April 2019 we have discovered several mining related features including shallow coal mine workings in two coal seams between 15-18m and 27-29m, some ironstone mine workings from 0-10m in the form of bell-pits, a masonry lined water well from an old farm-house and a disused Victorian railway tunnel running beneath the site at 35m bgl measuring 150m long, 8m wide and 7m high. This project is still on-going and in the coming weeks we intend to drill into the tunnel lining and lower specialist laser scanning and video equipment to investigate further prior to possible filling with grout. I look forward to sharing our progress on this project in the next publication.



Left Image shows Gildersome site layout drawing overlain with Aarsleff's drilling and grouting grid.





Simon Cottington Senior Contracts Engineer

Bicker Fen, Boston

Following on from our previous meet up, I have worked on a number of driven piling projects, some more challenging than others, but all important projects to keep us ticking over during what has been a slightly quieter period than we would have liked. One project of note that we have recently completed, is piling in Bicker Fen, Boston, installing piles for the substation section of the Triton Knoll Offshore Windfarm project. The new substation, which is connected to the windfarm for the National Grid. Once completed, the windfarm will be capable of providing clean and sustainable energy to over 800,000 UK homes. Over the course of 7 week, we installed just under 1600No. driven precast piles (200mm / 250mm) to depths ranging from 5m – 13.5m utilising a Junttan PM20HLC and a Junttan PM20L. As we were priced on a "price per pile" basis, following a probing exercise and initial pile testing, we were able to maximise our profit margins by casting piles in 0.5m increments. These lengths were further confirmed by the 17No. static load tests carried out and the 46No. dynamic tests throughout the course of the project. Throughout the project we provided more than we usually would do in terms of standard attendances (thorough testing regime, fencing off our own works areas, full time supervisor, setting out of 1600No. pile positions etc) which required slightly more coordination than our normal day to day projects. Production on site was good, and there were no major issues, which meant that we managed to finish the project ahead of schedule to a high standard which left us with a happy client. This always looks good and gives us hope of repeat business going forward.



NEWS FROM YT

Poland

Michał Maj departs the YT Group to focus on the development of the monitoring department in Metris. We thank Michał for his part in the YT group's own developent.

Passenger-friendly Railway Service

The main role of the sales/contract procurement office is efficient tendering. Tendering efficiency in the construction sector is influenced by a number of factors, including:

- price,

- creativity of solutions,
- company's reputation and references,
- experience in similar investments,
- long-term partnership-based cooperation,
- and many, many more.



Sylwia Tarnowska Sales Specialist

During negotiations we make every effort to present Aarsleff to our potential clients as a company meeting all the above requirements, so that our Company could be selected as preferred contractor for geotechnical works. To achieve that, while working on any project important to us, from the enquiry to the final choice of solutions, we strive to apply the technologies best suitable to site conditions and the existing infrastructure.

We always try to search for geotechnical works markets, in which we could be able to mark our presence as a reliable contractor. In recent times, huge funds have been allocated to the modernization of the Polish railways in order to transform them into a quick, popular and passenger-friendly means of transport.

We have been monitoring this market for quite a time, concentrating on geotechnical projects, such as railroad bed improvement in terms of vertical stability of the modernized railway embankments, slope stability of the existing embankments and support systems for local landslides. In this way, we have been able to win a few contracts for railroad bed/embankment improvement.

In recent months, we have executed major contracts (some works are still under way) near Cracow for different General Contractors, such as:

- Torpol S.A.: "Modernization of Railway Line E-30, section Trzebinia-Krzeszowice". The works consisted in the installation of 8,000lm of FDC columns, both unreinforced and reinforced with steel profiles, as well as 23,757lm of reinforced and unreinforced DSM columns with a diameter of 1,200mm. The technology was selected on the basis of the local site conditions.





- STRABAG: "Modernization of Railway Line E-30, Kraków Główny – Rudzice, Section 7" – railroad bed improvement with precast piles (nearly 3,799lm).

As a curiosity, member of YT: Janek Grobelny was a site manager on this contract. With these projects we have gained valuable experience that we could make use of in the future.

For efficient tendering, we should concentrate on the construction market sectors that provide the most opportunities for geotechnical works in our region, i.e. (apart for the infrastructure construction market) the industrial facilities (halls, large stores, industrial plants) and residential and commercial construction in city centres.

The estimation of market size and potential in a selected construction sector has a significant and direct impact on winning contracts. This information is vital for creating sales development strategies and adapting our current activities to changing market conditions.







"Buzzing with work"

It has been a busy time here in Poland since our last Newsletter and none of our divisions have complained about being bored. We have won a lot of interesting contracts, which are currently under way. However, it is not just our construction sites buzzing with work. During the last few months I have had the opportunity to work on a number of interesting marketing projects. Supported by our design, sales and production teams, we have promoted our Company at many events and shared our knowledge with younger people who are still developing their career plans. Please find below the events we have participated in and organised lately.



Natalia Pamuła Marketing Coordinator

GAUS - GEOLOGICAL ASSOCIATION OF UNIVERSITY STUDENTS

GAUS Conference is devoted to geology in the broad sense and organised with the cooperation of students from the leading Polish geological and geotechnical high schools. Targeted not only at students but also the companies from the power and construction sectors, which are closely interrelated with the faculties of engineering geology and geotechnics, the conference gives an excellent opportunity for students to learn about their future profession and to the potential employers to establish cooperation and find well-educated employees.

During this event, our colleagues from the Design Office, Wojtek Tomaka and Jurek Pliszka, ran a workshop entitled "How to Ensure Safety of Foundation: An Overview of Examples".

The workshop was aimed at presenting the currently applied foundation technologies, with special attention given to the precast pile solution.

Nowadays there are a wide number of deep foundation and soil improvement technologies available in the Polish construction market. What is the difference between them? Why are precast piles such a reliable solution? How to deal with insufficient foundation capacity? These and many more questions were answered during our workshop. Upon discussing the basic notions and definitions related to precast piles and deep foundation, the participants also could see how the theory is applied in practice in the calculating software and on the construction sites.



27th Edition of the International Fair of Machines and Facilities for Water



WOD-KAN is the major economic event in Poland and one of the biggest fairs in Europe dedicated to the water supply and sewage system industry. Each year attended by 400 exhibitors and 10,000 visitors, including technical directors, designers, fitters, operators, engineers and CEO's of water supply and sewage system companies, it provides a great opportunity to establish business contacts with partners, both from Poland and abroad. If you are surprised to hear that we promoted our Company at an event targeted at the trenchless technology sector, let me explain: in the beginning of 2019, Per Aarsleff Polska sp. z o.o. and Aarsleff sp. z o.o. were integrated under Aarsleff sp. z o.o. brand. As a result, our offer has been expanded with trenchless sewer renovation and thus we could have not missed this major event for Poland's water supply and sewage system sector.

Students and Designers' Visits to Our Construction Sites

Our works always seem very impressive to those who are not closely connected with the geotechnical industry. Universities and design offices often ask if we could arrange site visits to show our machines in action. Since the last newsletter, we have organised a large number of such meetings, however, the most popular one turns out to be our job in Wrocław, where we are installing excavation support system on the premises of the former MAMUT Bakery. The support system is designed as steel sheet piles installed with the vibration-free pressed-in method. The excavation, designed to reach a final depth of 10m b.g.l., is made for the construction of a modern residence hall and BaseCamp hotel, planned to be erected here in several months. Please see the photos of this job.



These are only a few examples of our activities in Poland. Moreover, we also attended various conferences and trainings for designers, such as:

- Soil Improvement and Foundation 2019,
- Wrocław Bridge Days,
- Concrete Bridge Design to Eurocodes,
- CIPP Technology Days 2019,
- seminars for students of Gdańsk University of Technology, and many more...

WWW.PALE-PREFABRYKOWANE. PL (PRECAST PILE VORTAL)

Finally, information about the project we have been working on since April 25, 2018 and about which you could already read in the last Newsletterwww.pale-prefabrykowane.pl (Precast Pile Vortal), aimed at development of the precast reinforced concrete pile technology, which is the most reliable, transparent, widely available and easy to design and execute deep foundation technology. The vortal provides all the necessary information and tools for designing piled foundations and precast piles. Moreover, it is a great source of knowledge about precast piles, as well as designing scenarios, calculation formulas,drawings, case studies and technical specifications. The website is constantly powered by new content. We run numerous promotional campaigns in the media wishing to increase the reach of the portal and information on precast piles technology.



Sweden



Przemyslaw Chrobot will be departing the YT network as one of his new colleagues, Ruben Hammergren joins us.

Increasing efficiencies with smart admin

In Sweden we have something called "Shared Service Center – SSC". This means that the administrative functions at Centrum Pile AB and Aarsleff Ground Engineering AB are working together to increase efficiencies through the division of labour by specialisation and organision of certain administrative functions. We started this group at the end of 2017 and the group collaboration has proven itself very successful since we now have the ability to be very flexible and are able to quickly support others when it's needed.

I work as an administrator and I am a part of the Shared Service Center. I spend half of my week at our pile factory in Älvängen and the other half at the Aarsleff office in Gunnilse, both located just outside of Gothenburg. Every week is different since I have things that I do regularly combined with bigger projects that I both manage myself and help others with. Underneath you can see two of the things that I have spent time on recently:

1. New Identification cards for all our Swedish colleagues



In Sweden it is mandatory to have something called ID06 to work at building sites. ID06 is an identification card which specifies your name, the name of the company you work for and a picture of you. You use it to log in and out of the building sites every day. The card is used to make sure that we have safe building sites and it is a part of the fight against undeclared workers. It is every company's duty to make sure that all their employees have valid ID06 cards and if they don't have it and the building site is visited by the Swedish Tax Agency, the company will be fined.



Sofie Ivarsson Administrator

This year they have made ID06 even more secure and updated it to ID06 2.0. This means that we have to change all of our cards from ID06 to ID06 2.0. The original ID06 was easily ordered by an administrator just by knowing the personal number of the coworker who was in need of an ID06 card but the new ones, being more secure, need to be verified and activated by the worker themselves. For me, this meant collecting/taking new pictures of all our personnel, ordering the cards, making sure that every card is both verified and activated by my coworkers and delivering the cards. Being 80 employees strong, and divided into five sections (incl. the Centrum Pile factory) with building sites all over the middle and south of Sweden made this a challenge. June 20th is the last day to change our cards and I am glad to say that we are almost finished and will be able to keep the deadline.

2. Implementing our new business system Microsoft Dynamics Navision



When you change a business system it is not only the system itself that you change. There are also a lot of things around the system that needs to be updated, like routines, manuals etc. And don't forget the learning and teaching process. I have played a supportive role in the implementation of NAV, helping both my administrative colleagues to set it up and making sure that everything works as it should and also helping and teaching my other colleagues how to use it. I think that NAV is a great system and so easy to work in and I am glad that I have got to be an instrumental part of the implementation as I have got to know the system from the beginning and see the improvements that have been made.

