magazine #5 Washington Background Backgroun

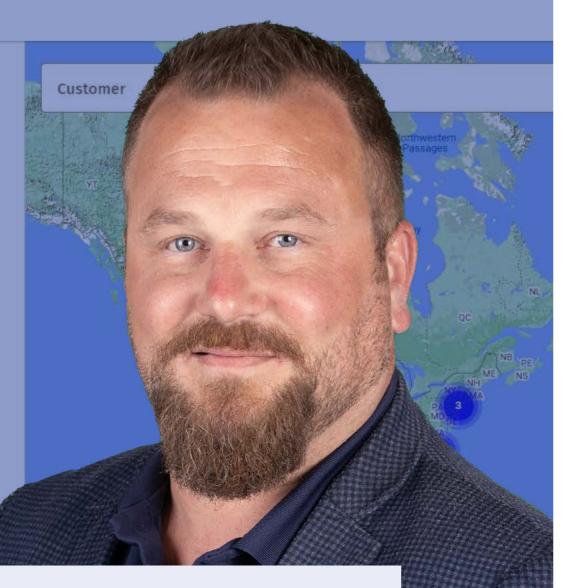
Drilling with the LRS 275 in Poland

Home for data ROAK is our own data platform **The MP 1 pump** Back and better than ever **Powerful and agile:** Optimal combination in the MRS 200

ROAK



- Visit management
- III Data analysis



I look back on a remarkable year, once again full of innovations. It was a year in which we truly recognised the power of data and what this can mean for all our products. This has manifested itself in our first own data platform, ROAK. We are working on making more and more of our existing products smart and collecting more and more smart data, which helps us develop new solutions.

ROAK is the bridge between all those smart products, which helps to correlate all data about soil and water. We combine data about water level and quality with, among other things, the powerful data from sonic drills, CPT rigs and the hand penetrologger.

In the coming year, we will continue to learn, innovate and develop unique solutions. For example, the MP 1/Redi-Flo2 pump is back and better than ever; this pump remains a unique tool for sampling groundwater at great depths. We are working on a new variant, built entirely from PFAS-free components.

And let's not forget: the Royal Eijkelkamp Academy is growing with us, so that we can continue to make our ideal of knowledge sharing come true with great new training courses.

Those who visited our Royal Eijkelkamp Experience Day in June already got a sneak peek of all our new developments. And now, we're looking forward to our next Experience Day in 2026, where we hope to present even more unique, integral solutions.

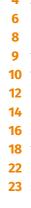
Enjoy reading!

Huug Eijkelkamp



Read all about the World of Royal Eijkelkamp







WORLD OF ROYAL EIJKELKAMP | 2024





Contents

- 4 All eyes on sustainability CSRD compliance
- 6 Discover the new Royal Eijkelkamp Academy
 - Royal Eijkelkamp enters the market for geothermal energy
- 9 The MP 1 pump: back and better than ever
 - The power of our Service & Rentals department
- 12 Photo report: Royal Eijkelkamp Experience Day
- 14 ROAK: a new platform for environmental data
- 16 Sri Lanka: a milestone project with local partner Arinma
- **18** This is CPT at Royal Eijkelkamp
- 22 Discover the MRS 200
- 23 Soil Valley: a movement for food security and climate change

Colophon

The World of Royal Eijkelkamp magazine has been compiled with the utmost care. Nevertheless, it is possible that information is outdated or changed at the time of publication. No rights can be derived from the content of this magazine. Nothing from this publication may be duplicated without permission.

©2024 - World of Royal Eijkelkamp is a publication of

3

Royal Eijkelkamp Nijverheidsstraat 9 6987 EN Giesbeek Netherlands

www.royaleijkelkamp.com



All Eyes on Sustainability

COMPLYING WITH THE NEW CORPORATE SUSTAINABILITY REPORTING DIRECTIVE

Starting in 2025, companies in Europe will be required to report on their sustainability efforts in their annual report. One of the requirements of the CSRD is that every company you work with is also compliant with this new legislation. Royal Eijkelkamp takes the CSRD seriously and we are committed to this, so you can safely continue to do business with us. Innovation for sustainability and giving back to society are always high on our agenda, and this is reflected in our projects and solutions.

IMPORTANT THEMES

We use our expertise in soil and water projects to continuously contribute to global progress in economic, social and environmental areas. Our focus is on sustainability, so we can leave the world to future generations in a better state than we inherited it ourselves.

Together with our stakeholders: partners, suppliers and customers, but also our neighbours, we investigate which themes are material to us. In a double materiality analysis, we have drawn up a longlist, inspired by the Sustainable Development Goals that we have been using as a guideline for years. In the CSRD, we link these goals to a benchmark.

OUR MATERIAL THEMES:

- Water quality and balances
- Innovation for insights
- Climate mitigation
- Use of fossil fuels
- Soil quality and balance
- Biodiversity and ecosystem services
- Influence on the nitrogen cycle
- Energy consumption
- CO2 footprint
- Transport and distribution

WHAT IS THE CSRD?

The Corporate Sustainability Reporting Directive emerged from the European Green Deal from the Paris Agreement, which aims to make Europe climate neutral by 2050. This is only possible if everyone participates. With the CSRD, companies are required to make an impact within the following three themes.

ENVIRONMENT

What does the company do for the climate, people and nature?

SOCIAL

How is the company committed to improving the working conditions of employees in the chain, for example?

GOVERNANCE

How does the company ensure that it complies with legal regulations and how is this communicated? By giving substance to these themes in our strategy, multiple value creation is created, which means that we not only create financial-economic value with our activities, but also aim for the realisation of socialsocietal and ecological value. A 'triple win': profit for Royal Eijkelkamp, profit for the stakeholders and profit for the natural ecosystem - which contributes to the future sustainability of Royal Eijkelkamp and society.

SDG 2: ZERO HUNGER

To secure our food supply for years to come we offer innovative solutions that protect and boost soil health. Soil parameters are made available for projects that aim to increase food security. And our smart mining systems reduce the environmental impact of the mining industry.

Our goal: smart drilling, insight in soil characteristics, and soil enhancers for healthy soil.

SDG 2: CLIMATE ACTION

Our company is focused on the minimisation, and reuse, of raw and auxiliary materials. An environmental management system (ISO 14001) has been set up for internal control. We've formulated environmental objectives based on a context analysis, taking environmental theme, aspects, effects and risk analysis into account.

Our goal: reduction of CO2 and waste

Examples of our projects

AFaktive

AGROFORESTRY FOR CLIMATE ADAPTATION



With Agroforestry, the AFaktive project hopes to improve water retention in the landscape. This form of climate adaptation helps to protect against drought, erosion and flooding due to changing weather conditions.

Scan for information

SOLSA

INNOVATIONS TO MAKE MINING MORE SUSTAINABLE



The aim of the SOLSA project is to make the mineral exploration phase in mining less time and cost intensive. On the one hand by drilling more efficiently with our Sonic technology, on the other hand by enabling sample analysis in the field, so that soil samples no longer have to be transported from remote mine locations to the laboratory.



SDG 6: CLEAN WATER AND SANITATION

Our innovative solutions enable our customers to monitor, visualise and manage data on water quality and quantity. In addition, Royal Eijkelkamp provides smart solutions for clean drinking water in remote and rural areas.

Our goal: water sampling and monitoring systems for healthy water.

SDG 15: LIFE ON LAND

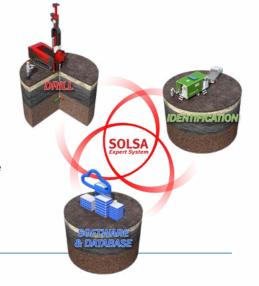
With our integrated solutions we provide a comprehensive set of data, that can provide insight in the status of soil and the water balance. In addition, we deliver tools to help improve soil life. We believe these are key elements to support sustainable life on land, protect and restore ecosystems, combat desertification, and reverse land degradation.

Our goal: offer integrated solutions for life on land.





Co-funded by the European Union



From Knowledge to Application DISCOVER THE RENEWED ROYAL EIJKELKAMP ACADEMY

At the Royal Eijkelkamp Academy, we look beyond the product and the application. We believe that every research starts with the right knowledge. That is why we go into depth during our training courses, which are based on our years of experience with soil and water. We then translate theory into practice.

The focus in our training offer has long been

A BIT OF HISTORY...

The Eijkelkamp Academy started as the Eijkelkamp Training Center in 1998. At that time, there was a lot of demand for training in the field of environmental science. This has grown into the training offer that we have today for soil and water research. In 2024 we've expanded our offer with training for sonic drilling and cone penetration testing.

Our training courses take place in our training facility in Giesbeek, but can also be booked in-company.



View our trainings

on soil and water research. We have now expanded this. As a producer of sonic drilling rigs and CPT rigs and accessories, we believe it is important to also offer training for these techniques so we can help people who want to develop into a driller or CPT operator to gain the necessary knowledge. Especially with CPT, it is important to interpret the data correctly and also to validate whether the data is correct. Only then can you achieve the best results with your research.

Lack of knowledge about these technologies is often the reason for choosing an alternative. But sonic drilling and cone penetration testing can have many advantages, also in terms of impact on the environment. That is why we believe it is important to spread that knowledge in order to accelerate the transition.

EXPANDING OUR TRAINING OFFER

We are hard at work on the development of new training courses. Our range for soil and water is now mostly aimed at Dutch students, but we are researching how we can expand it further and maybe offer it to customers abroad as well – and in compliance with the latest NEN standards.

ONLINE ACADEMY

Lastly, we are working on a digital learning environment for our customers, where theoretical knowledge about our different product groups is available so that you can achieve the best results with the right knowledge when using our products.

Want to know more about our training and consultancy services? Visit our website or get in touch via <u>academy@eijkelkamp.com</u>.



Eijkelkamp Academy

At the Royal Eijkelkamp Experience Day, Academy Manager Gabriëlle Wagenvoort presented the new Silvercard, which is awarded to participants after completing a training.

Via the Silvercard, participants have access to all their Royal Eijkelkamp certificates.



Our New Training Offer

SOIL AND WATER RESEARCH

• Training Diver

CONE PENETRATION TESTING

- Introduction Day CPT Technology
- CPT Operator Training for Beginners
- CPT for Engineers



SONIC DRILLING

- Sonic Driller Assistant
- Sonic Driller Basic
- Sonic Driller Advanced
- Mechanic Sonic Drill Rigs Basic

Royal Eijkelkamp Enters the Geothermal Energy Market

MAKING THE PHILIPPINES AND NEIGHBOURING **REGIONS LESS DEPENDENT ON FOSSIL FUELS**

Having access to electricity is still not a given for many people across the globe, let alone having access to clean energy. But if we want to leave the world a better place for future generations, it is imperative that we make clean energy available for everyone. Access to clean and reliable electricity helps to boost the development of developing countries. Geothermal energy has the potential to become an important resource to achieve this goal.

Royal Eijkelkamp is honoured to be part of a consortium of partners for the Biliran II Geothermal project in the Philippines. It is our vision to make the Philippines and neighbouring regions less dependent on (imported) fossil fuels by developing a local geothermal resource that can fulfil the country's need for energy.

WHY GEOTHERMAL ENERGY?

Consider the following: geothermal energy offers a sustainable, reliable, and environmentally friendly solution to meet growing energy needs. Unlike solar and wind energy, geothermal energy is not dependent on weather conditions. It provides a consistent and reliable power supply. Geothermal energy is derived from the natural heat of the Earth, which is continuously produced and replenished.

As such, geothermal heat has the potential to be a completely green and sustainable form of energy. It is extracted by pumping up water from deep within the earth, where it has been heated by geothermal activity. It's possible to store the warmth from this water and use it to heat houses, building, greenhouses and more. The cooled water is pumped back into the earth, where it is heated up again. It is a closed loop, with no other resources.

HOW ROYAL EIJKELKAMP CONTRIBUTES

Extraction of geothermal energy first requires exploration and analysis of the soil. We will be responsible for delivering integrated solutions, equipment and training for deep drilling exploratory activities, as well as provide instruments for water monitoring and data analytics solutions for real-time monitoring of the project.

It's an honour to enter into this strategic project and we are aiming to scale our geothermal activities, contributing to other geothermal projects in the region and globally. Royal Eijkelkamp also attended the global geothermal conference in Malaysia 23rd/25th September.

PARTNERS

For this project we are partnering with AG&P, Cresphil Inc., and Energy Stream Power Corporation.



Signing ceremony for the Memorandum of Understanding

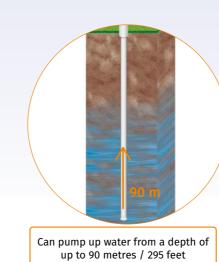


Collaborating partners for the project





Adjustable frequency converter High capacity for quick purging of monitoring wells Low capacity for accurate sampling



Fits in monitoring wells with a diameter of 50 mm / 2 inch

The MP 1/Redi-Flo2 submersible pump: back and better than ever

The MP 1 pump is produced exclusively in the Netherlands by Royal Eijkelkamp since 2021. Through our global distribution network, we can deliver the pump anywhere in the world, so that you can continue to benefit from the special, trusted advantages of the MP

> Cooling sleeve for use in wells with a diameter larger than 75 mm

Stainless steel pump housing

Hose reel cart available in various sizes: for cable lengths of 30, 60 or 90 metres / 98, 196, or 295 feet

Monday

The Power of Our Service & Rentals Department

Tuesday



From maintenance and calibration to repairs and rentals: every day, our experienced specialists aim to keep your equipment in top condition and to interrupt your daily production as little as possible.

MAINTENANCE ALL OVER THE WORLD

Both on location and in our own facilities, our technicians travel all over the world to perform maintenance. No location is too crazy; for maintenance on sonic machines, they have already visited Angola, New Zealand, Chile, Australia, Sri Lanka, Poland, Hungary, Norway, and more.

Our service department at the head office in Giesbeek works closely with the offices of Eijkelkamp North America and Eijkelkamp Fraste UK to be able to provide a suitable service quickly. Whether it concerns planned maintenance, a repair or a replacement part, our collaboration allows us to serve you quickly.

With a machine from our rental fleet, you can minimise delays in your project.





THE BENEFITS OF RENTAL

Our range of rental products is continuously expanding and includes almost all of our product groups. Renting is a good option to temporarily increase your capacity, explore new research methods, for short projects, or as a backup during maintenance.

The Scuba BGA is perfect for temporary use during the summer months



our website for service requests, rental requests, and more.

Visit the Service & Rentals page on





MAXIMISE THE LIFESPAN OF EQUIPMENT

We extend the lifespan of products through timely maintenance. With good service, a product can last for years!

With the right maintenance, even an old peristaltic pump can last many years longer



EIJKELKAMP SERVICE ASSISTANT FOR SONIC DRILL RIGS

The Eijkelkamp Service Assistant is an advanced track & trace system that is available to both the drilling master on location and the customer in the office, via a mobile app or web browser.

The ESA is a great solution, especially for companies with multiple drilling rigs in their fleet. It provides an overview of all machines, shows how many hours they have been running and when they need maintenance, so that you can plan accordingly.

With the Eijkelkamp Service Assistant you can also remotely read out the engine of the machine and set various alarms. For example, when the machine is started outside of operating hours or moves outside the boundaries of a certain location.

A Look Back

Royal Eijkelkamp Experience Day 2024

The Royal Eijkelkamp Experience Day took place at our headquarters on 6 June this year. It was a great day, filled with product demonstrations, information sessions, networking opportunities, and good food and drinks. We hope to welcome you again to the next edition!















Discover ROAK A NEW PLATFORM FOR ENVIRONMENTAL DATA

ROAK is specially developed to not only house data from our own products, but all environmental data that is tied to a location. Every sensor that measures

It's possible to interact with the data and create reports that provide the insights

you need. ROAK is built for flexibility and performance and offers various options

By adding a data platform to our product portfolio, you will now find a one-stop-

shop for a wide range of solutions that use environmental data. With ROAK, the

circle is complete: from sampling and analysis to data insights and evaluation,

so that the focus is on finding the right solution to the problems posed.

something at a specific location can be linked, both our own sensors and those from other suppliers. It allows you to create a complete overview of all

At the recent Royal Eijkelkamp Experience Day, we launched ROAK: our own data platform. ROAK is the new home for all environmental data. Whether you collect data on soil, water, meteorology or drilling - all sensor data that is connected to a specific location can be transferred to this innovative platform.



WHAT CAN YOU DO WITH ROAK?

ROAK is a platform for the collection of all environmental data, but is particularly suitable for water monitoring and drilling projects.

ADVANCED WATER MONITORING

Whether you want to measure groundwater levels or surface water quality, ROAK's functionalities offer the possibility to collect valuable insights across the board. All remotely, in real-time and available 24/7.

TRACK DRILLING PROJECTS IN REAL TIME

ROAK is also the home base for Monitoring While Drilling, our data solution for drilling projects, specially developed for sonic drilling. With the MWD system, you can monitor the performance of your sonic drilling rig and the progress of your projects in real time. This allows you to directly adjust drilling settings to the geology, based on the measurements, and manage projects remotely.

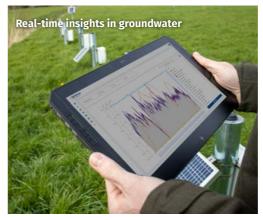






READY FOR THE FUTURE

- management



WHAT DOES ROAK OFFER?

for customisation.

environmental insights you need in one place.

The platform has been developed with the future in mind, to enable a data-driven approach and to facilitate the transition to Industry 5.0. Some of the possibilities include: • Integrate all systems that you already have or plan to use in the future • Easily connect ROAK to other platforms using APIs

The cloud-based software enables data modelling and ensures efficient user



 \rightarrow 24/7 access to monitoring data \rightarrow Connect third party sensors

Ground Water Monitoring in Sri Lanka A MILESTONE PROJECT WITH LOCAL PARTNER ARINMA

By Sanjiv Malalasekera, Joint Managing Director of Arinma Holdings

Arinma Holdings (Pvt) Ltd. collaborated with Royal Eijkelkamp on a milestone project in Sri

Lanka, focused on the establishment of a Groundwater Monitoring Network. The objective

essential and increasingly over-utilised natural resource. The country's growing population

and economic development has resulted in heightened demand for groundwater, making it

of this project was to protect and safeguard Sri Lanka's groundwater table, which is an

crucial to assess and monitor its availability and quality for sustainable development.

ARINMA

Maduru Owa

Kumbuldsan Oya

Malwathu Oya

THE PROJECT COVERS THE FOLLOWING AREAS:

Malwathu Oya: 85 well locations

Kumbukkan Oya: 20 well locations

Maduru Oya: 20 well locations

Puttalam: 27 well locations

Iaffna: 38 well locations

Total: 190 well locations

Dimension

HOW IT BEGAN: BRINGING THE TECHNOLOGY TO SRI LANKA

During our collaboration with Royal Eijkelkamp, we had the opportunity to utilise and experience a variety of their products and services. Our engagement primarily involved the transfer of technology to Sri Lanka, as the country lacked the necessary technical infrastructure for groundwater monitoring.

Recognising the significance of employing advanced technology for this task, we identified Royal Eijkelkamp as a provider of cutting-edge solutions in this field. They offer an extensive range of groundwater monitoring tools, including both singleparameter and multi-parameter devices. Additionally, they provide specialised drilling machines tailored for specific geographic

SOLUTIONS FOR DATA MANAGEMENT

terrains.

In terms of data collection and management,

Royal Eijkelkamp offers a diverse selection of dataloggers designed for groundwater monitoring. These dataloggers are capable of measuring various parameters, including water level, temperature, and conductivity. Furthermore, the company provides data management software that facilitates the collection, storage, and analysis of data obtained from groundwater monitoring systems.

The technological resources provided by Royal Eijkelkamp played a vital role in our project's successful implementation and completion. Their advanced tools and software significantly contributed to the overall effectiveness and efficiency of our work.

ABOUT THE PROJECT

The pilot project, officially named "Establishment of Groundwater Monitoring Network - Pilot Project," initially focused on the Malwathu Oya, Maduru Oya, and

C Overall, the combination of Royal Eijkelkamp's professionalism, expertise, and customercentric approach has been a standout feature of our working experience with them

Kumbukkan Oya River Basins in Sri Lanka. Originally planned for a duration of 36 months, the project encountered unexpected challenges due to the COVID-19 pandemic, necessitating two extensions totaling an additional 21 months. Geographically, the project scope was also expanded to include the Jaffna Peninsula and Puttalam Madurankuliya area.

The project operated under the Ministry of Irrigation and Water Resources, presently known as the Ministry of Irrigation, with the aim of implementing a sophisticated groundwater monitoring system. This system would enhance the capabilities of the State Water Resources Board, enabling them to optimise their expertise and technical capacities in conducting various monitoring activities.

On the successful completion of the project, a total of 190 groundwater monitoring points including 20 rain gauge stations were established across five different regions in Sri Lanka. Data collected from these monitoring points is displayed on a web portal and analysed at the data centre of the Water Resources Board. This information aids in making well-informed decisions to effectively manage the groundwater resource.

EXPECTED OUTCOMES OF A

PROJECT:

SUCCESSFUL COMPLETION OF THE

GROUNDWATER USE IN SRI LANKA

Sri Lanka encompasses a wide range of groundwater users, including domestic, commercial, agricultural, and industrial sectors, each facing unique challenges related to diminishing resources and potential contamination. However, prior to this project, a comprehensive assessment of the groundwater resources under these external stresses had not been systematically conducted. Without a well-informed understanding of the situation, the future utilisation of these resources would have been severely compromised.

Groundwater serves as the sole source of water supply in certain regions of Sri Lanka, such as the Jaffna Peninsula, Kalpitiya, Puttalam, Mannar, and Vavuniya Districts. In other parts of the country, groundwater is utilised in conjunction with surface water sources. Hence, the availability and sustainability of groundwater resources play an integral role in the overall water requirements of the nation, contributing to both well-being and economic development of the country's population.

Forecasting groundwater-related issues

- Establishing and maintaining an effective groundwater management system nationwide
- Providing data to decision-makers, researchers, stakeholders, and the general public to enhance awareness of groundwater-related matters.



16



COLLABORATING WITH ROYAL EIJKELKAMP

One of the aspects that we highly appreciate about working with Royal Eijkelkamp is the exceptional level of professionalism demonstrated by their team. Their expertise in groundwater management and water technology is truly impressive. With a diverse range of specialised knowledge, they were able to address any unforeseen issues that arose during the project, providing effective solutions and valuable insights.

Furthermore, the company's customerfriendly culture and collaborative approach significantly enhanced our working relationship. The entire project team, particularly the project manager, displayed a remarkable ability to foster cooperation and teamwork. Their willingness to actively engage with us and understand our specific requirements ensured a smooth and productive collaboration.

We greatly value their commitment to delivering high-quality solutions and maintaining a collaborative partnership throughout our engagement.

- Implementing timely remediation measures for these issues within the basins
- Developing a real-time groundwater database for all basins in the country

This is CPT at Royal Eijkelkamp

CPT, or cone penetration testing, is a reliable soil investigation technique that was developed in the Netherlands in the 1930s. It's an in situ testing method, which means that it doesn't require extracting samples from the ground. This makes it a less destructive process, and fast as well: test results are displayed on the screen in real time.

Modules, pieces of equipment that can be mounted on the back of a cone to collect additional data about the soil, make the application of the CPT technique even more versatile. And finally, the CPT test itself is relatively low energy. We see a lot of potential for CPT, with regards to sustainability but also the energy transition. It's become a focal point in our innovation.

With the opening of a new production facility and appointment of William Bond as General CPT Manager within Royal Eijkelkamp, our CPT development and service will take another step forward.

EVERYTHING YOU NEED FOR SUCCESSFUL SOIL INVESTIGATION

We build our solutions based on years of experience in everything related to soil and water. And thanks to our merger with GeoPoint SoilSolutions in 2018, we are able to harness more than 25 years of CPT experience.

The result is that we can offer turnkey CPT packages that contain everything you need for cone penetration testing, from

CPT pushers and crawlers to cones, data acquisition systems, modules and even training.

FUTURE-PROOF SERVICE

Last year saw the opening of a new CPT factory in Giesbeek, while the original GeoPoint facility in Sassenheim has doubled in footprint and greatly increased its production capacity. This allows us to work on even more innovations while also boosting cone production and cone servicing.

We've seen our cone return time actually going down, despite a growing customer base, and believe we have a lot of capacity to grow without negatively impacting the lead time for customers.

Cone production and maintenance is specialists' work



The biggest asset to the Royal Eijkelkamp CPT business line are the people.

Everyone's really enthusiastic about contributing to technology that helps us build a better world for people to live in. We always need more people with that mindset, so if this resonated with you, aet in touch!

William Bond, General Manager - CPT

APPLICATIONS OF CONE PENETRATION TESTING

Fast, accurate, and repeatable: non-destructive and relatively low energy; these characteristics make CPT a useful technique for ground investigation contractors and geotechnical engineers. It's applied widely in construction, for soil investigation prior to construction but also for land re-use.

CONSTRUCTION AND FOUNDATION DESIGN

Cone Penetration Testing is a great technique to quickly investigate soil behaviour. It lets you identify soft and hard layers in the soil and assess their strength and response to load, which is particularly useful for foundation design. Our range of CPT rigs are suitable for all sites, with crawlers being deployed for the roughest terrain. The Compact Crawlers are narrow and have a reduced stroke pusher, which makes them suitable even for tight locations with low headspace.

SITE REHABILITATION

When a plot of land is repurposed, however, you're dealing with sites that might have potentially contaminated material in the ground. Conventional sampling and testing is tricky here, as you bring up materials that may contains hydrocarbons or asbestos. In situ testing is a way to go around that.

DANGEROUS SUBSTANCE DETECTION

Our video module is a great asset here, especially the new high definition edition. We can see the soil in a lot more detail. The HD video module also incorporates UV light, which allows you to detect hydrocarbons or other volatile compounds in the ground.

Alternatively, when the dangerous substance is possibly a bomb or remnants of metal structures, the Geomagnetic module helps out. It detects anomalies in the magnetic field that could indicate the presence of buried metals.

THERMAL CONDUCTIVITY ASSESSMENT

Currently, the way to assess thermal conductivity is to take a sample from the soil and send it to a laboratory for testing. This can be a very time-consuming process. Our upcoming thermal conductivity module enables a continuous in situ testing. Negating the need for sampling makes the investigation not just less invasive, but far quicker and more cost effective.

The data produced is useful for the burial of power cables, because these generate heat and need to be thermally insulated. Insight in the thermal conductivity, coupled with the strength data from the CPT allows for the perfect burial depth and cable insulation requirement to be determined. All in one push!



The Royal Eijkelkamp CPT line includes:

- CPT rigs
- CPT pushers
- Cones
- Modules Clamps
- Rods, friction reducers and cross-
- overs



WORLD OF ROYAL EIJKELKAMP | 2024









THE ONE-STOP-SHOP FOR CPT

- Data-acquisition system
- Depth registration system
- Software System for cone saturation
- Training

SEE PAGE 7 FOR THE NEW TRAINING OFFER



REBRANDING OF OUR CPT EQUIPMENT

Just like the rest of the Royal Eijkelkamp product portfolio, our CPT line is also getting a makeover. The CPT rigs and pushers are now also available in Eijkelkamp silver and Royal orange, and they have new names that better represent the machines.

Old name	New name	Short name
Compact Crawler CPT130	Compact Crawler 130 kN	CC 130
Compact Crawler CPT200	Compact Crawler 200 kN	CC 200
Boxed Crawler CPT100	Boxed Crawler 100 kN	BC 100
Boxed Truck Crawler CPT180	Boxed Truck Crawler 180 kN	BTC 180
Parvus	Stand-alone pusher 35 kN	SP 35
CPT pusher 130	Stand-alone pusher 130 kN	SP 130
CPT pusher 200	Stand-alone pusher 200 kN	SP 200
Drill'n CPT	Drill'n CPT 200 kN	DN 200
<image/>		



Geosonda has been active in the world of CPT since the 70s, but they also offer the rest of the full package of soil research. They were already familiar with the sonic drilling machines of Royal Eijkelkamp for soil sampling. When they came into contact with Cone Penetration Testing at a Demo day, they knew that they also wanted to use this technology to expand their services.

BTC 180: THE MISSING LINK AMONG CPT RIGS As the highlight of their CPT range, Geosonda recently added the Boxed Truck Crawler 180 kN to their fleet. "That was the highliner for us, especially because of its design," says Jeroen Jacobs. "The futuristic look that the vehicle exudes immediately appealed to me. That also allows us as a company to say: Geosonda is taking the next step.

We already have several large CPT crawlers, a CPT truck on pneumatic tires, mini crawlers and a separate CPT pusher in our fleet. But the BTC 180 was the missing link. Mostly because of the combination of crawlers and tires, something we did not yet have in Belgium."

MUTUAL INNOVATION

Geosonda did not decide to purchase the BTC lightly. Jeroen continues: "I spent hours at Royal Eijkelkamp to do research, was given the opportunity to come and see how the vehicles are made, to test them in the field. So I knew, if they were going to build our truck like that, it would be fine."

During construction, Geosonda was also given the opportunity to make suggestions themselves. "Royal Eijkelkamp was very open to taking our wishes into account, within the limits of what was possible. They even included a few of our suggestions in the standard design. That makes the collaboration special, that I can also provide input for them in this way."

FROM CUSTOMER REQUEST TO NEW TECHNIQUES

In addition to the CPT rigs, the company also uses the cones and modules from Royal Eijkelkamp. The modules are instruments that are attached behind the cone to collect even more information about the soil. "We have the video module, the geomagnetic module and soon we will also start with seismic CPT."

Geosonda is active in the archaeological market, construction and infrastructure, and civil engineering. They offer CPTs whenever they can be of value. The company started

Complete CPT Solutions WHY GEOSONDA CHOSE THE BOXED TRUCK CRAWLER

"CPT is a fast and relatively easy way to do soil research," says Jeroen Jacobs, Team Manager CPT at Geosonda. He calls it a very reliable way to quickly get information from the ground, provided you work with skilled people and suitable material. For that material, the company has found its way to Royal Eijkelkamp.

> working with modules when a customer asked: wouldn't it be nice if we could look into the ground to see what is there? That was the trigger to start using the Video Module.

I think that the more Royal Eijkelkamp will offer, the more we will include in our program.

"We actually tell customers that we can do anything." The Team Manager CPT explains that they introduce new techniques within the company by daring to do it. The rest will follow automatically. "If an order comes in, we make sure that we can carry it out on that date. Where necessary, new equipment is purchased to meet the demand."

They do whatever it takes to keep up with innovation and increasingly demanding customer requests: "I think that the more Royal Eijkelkamp offers, the more we will include in our range."

THE VALUE OF SERVICE

The fact that Geosonda can respond so quickly is partly made possible by the service of Royal Eijkelkamp. "If we give them a call now because we need something, it will be in a box to be sent in half an hour, so to speak. They do everything they can to ensure that we can continue to produce, and that is great."

The MRS 200 OPTIMAL POWER AND MANEUVERABILITY IN ONE MACHINE

The MRS 200 is the latest addition to our range of sonic drilling rigs, designed to bridge the gap between the powerful LRS 275 and the compact CRS 170. With 50K sonic power and 275 HP, the LRS 275 delivers maximum power and drilling depth, while the CRS 170 excels in maneuverability, packing 34K sonic power and 170 HP into a compact package. The MRS 200 combines these advantages in a single versatile machine, with 40K sonic power, 188 HP and the flexibility to tackle both heavy duty and space-restricted projects.

Equipped with the MidRotoSonic 40K drill head, the MRS 200 delivers advanced performance and enables a more efficient drilling process. The Sonic frequency of 0-150Hz makes it possible to drill quickly and with minimal resistance through various soil layers, from soft clay to hard rock.





THE MRS 200 IS EQUIPPED WITH:

- Remote control for all drilling functions
- Steel chain crawler with rubber pads
- DUO option
- Triple floating clamp 60-280 mm
- On-board drill rod manipulator
- ManipAll 250 for casing handling
- 3.6T main winch and 1T wireline winch on jib boom
- L11-22 FMC bean pump
- High pressure pump
- Safety cage
- Hydraulic set-up with quick connects for several auxiliaries

The MRS 200's strength lies not only in its performance but also in its versatility. This machine is highly suitable for applications such as environmental drilling, geotechnical investigations, and exploration. The compact design makes transport easy and ensures that the machine is agile on-site. At the same time, its robust build guarantees quality and reliability, even in challenging conditions. For operators, this means less downtime and a smoother process, boosting productivity and continuity.

In short, the MRS 200 offers the perfect balance between power and flexibility. It's ready to take on tough jobs without the limitations of large rigs while maintaining the mobility of a smaller model. With the MRS 200, you're choosing a machine that not only meets today's demands but is also prepared for the challenges of tomorrow.

How Soil Health Can Change (and Save) the World SOIL VALLEY FOUNDATION COMMITS TO FOOD SECURITY AND CLIMATE

CHANGE MITIGATION

InnoFields, the innovation area of Royal Eijkelkamp, is the home base of Soil Valley: a movement that revolves around protecting the soil. Initiator Fons Eijkelkamp saw through his years of experience with soil and water research that things have to change, and they can change. With the foundation, of which Royal Eijkelkamp is one of the participants, he hopes to bring about a change that will help leave the world in a better state for future generations.

"Our soil is actually the basis for everything; not just for food production, but also for healthy and safe people. Without a well-functioning soil, we will face more problems than just famine; floodings and droughts will also increase," says Fons. "But there is still too little knowledge about that."

THE POWER OF COLLABORATION

Since 2022, Soil Valley has been operating from InnoFields, the innovation area of Royal Eijkelkamp in Giesbeek. And with success: the foundation now has around twenty participants. These are companies or organisations that recognise and support the objectives of Soil Valley, and the number is growing steadily. In collaboration lies the strength of Soil Valley; the partners each bring their own expertise and their involvement is motivated by their own ideals.

"Our participants offer the solutions to the problems we want to tackle, from research to technology. For example, Royal Eijkelkamp is a supplier of instruments for sampling and monitoring, and HAL 24K Agri takes care of the collection and interpretation of data on soil life and crop monitoring. We also collaborate with educational institutions, which provides not only sound research, but also an influx of young talent. Many motivated students know how to find their way to Soil Valley for an internship or research project."

INNOVATIONS FOR SOIL RESTORATION

Gaining awareness is now Soil Valley's top priority. The importance of soil health is still unknown to many, as is the necessity to protect the water and soil system in spatial planning. "By restoring soil health, you also restore the sponge effect of the soil, for example. Water can then be retained much better," Fons explains.

"So soil improvement can help with water management, among other things."

The foundation also invites people to pay a visit and get to know Soil Valley. They've already welcomed children from primary schools, but also organisations such as the SALTA cluster. This knowledge cluster wants to combat salinization of the soil and groundwater and Soil Valley is the ideal party to develop innovations for these types of challenges. The Soil Valley Impact Days, with presentations and expert panel discussions, are also a good opportunity to visit.

HEALTHIER SOILS BEGIN WITH THE FARMERS

It is important to seek cooperation with the farmers, because they ultimately have to bring about the change. "Fortunately, more and more farmers are finding their way to Soil Valley. They want to change their working methods, but they don't know how, so they come to us asking for help. We are now working with various farmers to improve soil health

We also advise on regenerative gardening, a method in which agriculture goes hand in hand with nature restoration. Such a process always starts with the application of compost to boost soil life. Because organisms in the soil determine soil health. You can't just take from the soil, you also have to give something back. That is why we make high-quality worm compost ourselves at InnoFields. The Bodemliefde farm proves how well this works. Worms do wonders for the soil."



CURRENT SOIL VALLEY PARTICIPANTS

- Royal Eijkelkamp
- HAL 24K Agri
- Eijkelkamp Altop Innovations
- Tuinderij Bodemliefde
- InnovatieHub InnoFields
- OnRoGo
- ADAELTA
- Matrix Drilling Products
- AERES MBO
- OnePlanet Research Center
- De Biesterhof
- Soil Valley Development Corp
- AI Hub Oost Nederland
- Oost NL
- The Economic Board Arnhem Nijmegen
- Boerderij VOF den Hartog
- Boerderij Köning
- De Hoalderkamp
- EIT Climate KIC
- IT Student Lab
- Landgoed de Houberg
- NL Space Campus
- De Liemerse Ambassade
- Rabobank
- TAUW
- Rijkswaterstraat Leefomgeving





Coming soon: Terramac crawlers with integrated Royal Eijkelkamp sonic rig

Terramac crawler carriers are designed to traverse the most challenging terrains. Thanks to our collaboration, sonic drilling will soon even be possible in those difficult to reach areas.

The first designs are ready for the **Terramac RT7U** with an integrated **CRS 140 DUO sonic rig.** This unique machine will be powered by the 3port funk drive of the RT7U's Cummins engine.

By mounting a sonic rig on a Terramac crawler, the vehicle will have **higher driving speeds**, very **low footprint accessibility**, and **extreme terrain capabilities**, including all kinds of obstacles.

This combination will become available for the following drill heads:

- SmallRotoSonic 34K
- CompactRotoSonic 34K
- MidRotoSonic 34K
- LargeRotoSonic 50K

The vehicles are CE and ROPS certified, and will be available in the following setups:

- Single unit use Mast down to the ground, operator is on the ground.
- Double unit setup
 For use with a service vehicle;
 with foldable platforms,
 operator and drilling assistant
 are on the ground.

WANT TO LEARN MORE?

Send an email to <u>sales@eijkelkamp.com</u>, our specialists are happy to tell you more!





I royaleijkelkamp.com T +31 (0) 313 880 200