



TRENCHLESSWORKS

THE VOICE OF THE TRENCHLESS COMMUNITY **ISSUE 181** SEPTEMBER 2021

Official Magazine & Media Partner:  **UKSTT**

Official Publication of the International Society for Trenchless Technology  **ISTT**

NEW SEWER PROJECT PROTECTS EMSCHER RIVER

ANNULAR SEALING BAGS ASSIST IN ELIMINATING
ODOURS AND WATER INGRESS

APPLICATION LIMITS OF LED CURING:
WHAT WORKS, WHAT DOESN'T?

SPONSORS



SUPPORTED BY





RSM Lining Supplies
CHOICE AND TECHNOLOGY



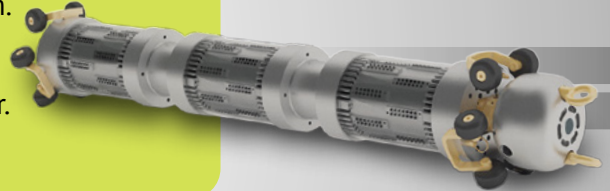
SEWERTRONICS
applied robotic engineering

JOIN THE LED REVOLUTION



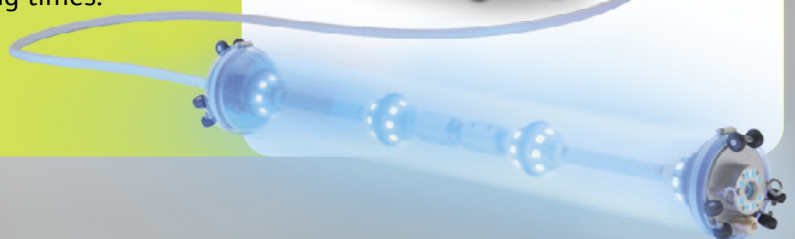
SpeedyLight+ XL Curing Head:

- Increases curing speed & working capability of the SpeedyLight System.
- Cures liners up to 600mm in diameter.



Sewertronics QuickPatch Lite:

- LED cure point repair in diameters up to 600mm.
- Exceptional curing times.
- Shadowless technology.



QuickPatch LED
SECTIONAL REPAIR LED CURING

SpeedyLight+
UV LED CURING TECHNOLOGY

+44 (0)1709 864 271
sales@rsm-web.com
www.rsm-web.com



CONTENTS

Click on an item for instant access

To submit editorial for Trenchless Works next issue please email copy and images to: editorial@trenchless-works.com by the 12th of the month. For Trenchless Works sponsorship and advertising rates [click here](#)

ARTICLE	PAGE	RENOVATION	
SPOTLIGHT	5	ANNULAR SEALING BAGS ASSIST IN ELIMINATING ODOURS AND WATER INGRESS	52
NEWS		SUCTION EXCAVATION	
NO-DIG LIVE SUCCESS FOR MILWAUKEE	6	NEW VERMEER VXT300 TRUCK-MOUNTED VACUUM EXCAVATOR	55
PAUL HARWOOD REFLECTS ON NO-DIG LIVE	10	PIPELINE REHABILITATION	
RSM PREMIERE NEW PRODUCT RANGE AT NO-DIG LIVE	16	APPLICATION LIMITS OF LED CURING: WHAT WORKS, WHAT DOESN'T?	56
EUROPEAN PATENT GRANTED FOR 'IN-PLACE' SOLUTION FOR LEAD SERVICE LINES	19	NEW EXTREME COLD RESIN	64
M GROUP SERVICES BUSINESSES ACHIEVE ROSPA RECOGNITION	20	SUPPORT EQUIPMENT	
TA DRILLING APPOINTED AS DISTRIBUTOR FOR PREMIUM GERMAN HDD EQUIPMENT	23	VERMEER AND CONMEQ ELECTRIC MINI SKID STEER LOADERS FOR EUROPE	66
GERMAN TRENCHLESS SOCIETIES GSTT AND RSV ANNOUNCE MERGER PLAN DISCUSSIONS	25	ISTT SOCIETY NEWS	
HOW TO ATTRACT WOMEN TO STEM EDUCATION AND HELP THEM FLOURISH IN THE FIELD	26	ISTT A MESSAGE FROM THE CHAIR	69
MCELROY UNIVERSITY UNVEILS NEW COURSES AND A NEW WEB PAGE	30	UKSTT SOCIETY NEWS	
PIER UK CELEBRATES ANNIVERSARY	32	HELLO FROM THE CHAIR	73
STYRENE-FREE DIBT APPROVAL	35	UKSTT AWARDS 2021	74
BARHALE APPOINTS NEW OPERATIONS DIRECTOR	38	SCOTTISH WATER SUPPORTING NO-DIG ROADSHOW IN GLASGOW	83
HDD		NIGEL GARDENER WINS UKSTT LIFETIME ACHIEVEMENT AWARD	84
GRUNDODRILL FITS THE BILL	39	EVENTS AND MEETINGS	88
MAXIMISING THE TRENCHER OPERATOR EXPERIENCE	42		
TUNNELLING			
NEW SEWER PROJECT PROTECTS EMSCHER RIVER	45		
MULTIPLE ACHIEVEMENTS FOR ROBBINS TBMS	48		

Paul Harwood, Publisher
pharwood@westrade.co.uk

Ian Clarke, Editor-in-Chief
editorial@trenchless-works.com

Austen Lees, Editorial
marketing@westrade.co.uk

Gary King, Group Sales Director
gking@westrade.co.uk

Trevor Dorrell, Group Sales Manager
tdorrell@westrade.co.uk

Stuart Hillyard, Sales Manager
shillyard@westrade.co.uk

Leigh Abbott, Group Marketing & Communications Manager
labbott@westrade.co.uk

Hollie Little, Media Coordinator
hliddle@westrade.co.uk

Julie Harris, Design & Production

Lexi Di, Chinese Agent
lexi.di@bestexpo.cn



Trenchless Works is published 12 times a year by Westrade Group Ltd | Carotino House | Bury Lane | Rickmansworth | WD3 1ED | UK

Contributions: Contributions are invited and articles should be emailed to editorial@trenchless-works.com. No responsibility can be taken for drawings, photographs or written contributions during delivery, transmission or when with the magazine. In the absence of an agreement, the copyright of all contributions, regardless of format, belongs to the publisher. The publishers accept no responsibility in respect of advertisements appearing in the magazine and the opinions expressed in editorial material or otherwise do not necessarily represent the views of the publishers. The publishers accept no responsibility for actions taken on the basis of any information contained within this magazine. The publishers cannot accept liability for any loss arising from the late appearance or non-publication of any advertisement for any reason whatsoever.

ISSN 2049-3401

Subscribe for free: www.trenchless-works.com

CHANNELINE GRP Structural Lining Systems



ANY SHAPE – ANY SIZE

Large diameter pipelines and culverts represent the backbone of any city's utility network for the collection and disposal of sewerage and effective drainage of stormwater. The need arises to consider the means by which the structural rehabilitation of these pipelines and ducts can be achieved whereby a new, 100-years plus life expectancy can be provided with a high degree of confidence. Channeline international has been providing bespoke Structural Glass Reinforced Plastic (GRP / FRP) lining systems since the early 1980's, during which time we have accumulated unrivaled engineering and manufacturing experience for both Circular and Non-circular buried infrastructure worldwide. **At Channeline, we are proud of our heritage and are committed to offering economic custom solutions to our existing and future customers in the Storm and Wastewater Sectors.**

Channeline International Fiber Glass Manufacturing L.L.C.
P.O. Box 8091 Dubai,
United Arab Emirates
Tel: +971 4 8848383
Fax: +971 4 8848384
E-mail: timwebb@apsdubai.com /
sales@channeline-international.com
Website: www.channeline-international.com

Applications:

- Sewer Main Pipelines
- Sewer Overflow Pipelines
- Sewer Interceptor Pipelines
- Sewer Inverts
- Storm Water Drains
- Seawater Cooling Pipelines
- Large Diameter Culverts and Tunnels
- Railway & Road Culverts
- Manhole Liners
- Multisegmental Liners

Channeline International North America
Tel: +1 514 2424495
E-mail: andysherwin@channeline-international.com



Beyond the Ordinary

SPOTLIGHT



Paul Harwood, Managing Director,
Westrade Group and Publisher,
Trenchless Works

"Trenchless Middle East – the region's only conference and exhibition focusing entirely on trenchless technology and is increasingly relevant given that it is home to some of the most ambitious infrastructure projects in the world."

Following the phenomenal success of No-Dig Live 2021, we can now turn our attention on the exciting opportunities the rest of 2021 has in store. These kick off with the first in our series of roadshows at the Westerdale Hotel in Glasgow on 7 October. This one-day event, supported by Scottish Water, comprises an integrated exhibition and seminar programme and provides delegates with an opportunity to participate in high-quality forums on trenchless technology whilst networking with a diverse audience. Keynote presentations on the days include:

Scottish Water net zero – emissions-free construction

Gordon Reid, General Manager for Zero Emissions at Scottish Water

Supporting a flourishing Scotland – working to increase customer trust by reducing disruption

Phil Beardmore, Water Response Manager at Scottish Water

Post-Glasgow, our attention turns to Trenchless Middle East on 13 and 14 December at the Festival Arena in Dubai. This is the region's only conference and exhibition focusing entirely on trenchless technology and is increasingly relevant given that it is home to some of the most ambitious infrastructure projects in the world. The event will showcase international machinery, products, services, and methods, attracting high calibre audiences from United Arab Emirates, GCC countries, Middle East and North Africa (MENA) regions. Alongside the global exhibition space is an exciting conference programme, assembled in collaboration with the International Society for Trenchless Technologies (ISTT).

For those unable to attend one of our events, I would encourage you to look at the opportunities on offer in our market-leading Trenchless Works magazine – you may even have seen one of the printed copies which were distributed at No-Dig Live. We always welcome your news and editorial contributions and try to include as many of them as possible – please send them through to editorial@trenchless-works.com. If you need help producing your content, please do let me know we would be happy to help. I am sure you would have seen our media team interviewing, filming and posting during No-Dig Live.

Some of you may also have seen us out and about filming at No-Dig Live or watched the short videos on our social media channels. Over the coming months, we are planning to develop our Trenchless Works TV platform with more in-depth interviews, features and case studies from across the sector. If you would like to get involved, please drop us an email.

I look forward to seeing many of you again in Glasgow or Dubai.

Take care,

Paul

SPONSORS



RSM Lining Supplies
CHOICE AND TECHNOLOGY



The prime solution for pipes.



NO-DIG LIVE SUCCESS FOR MILWAUKEE



MILWAUKEE® attended the recent No-Dig Live 2021 event in Peterborough, UK. The event is the largest in the UK targeting the trenchless space sector, covering multiple target users, which for Milwaukee focused on Drain Cleaning, Relining, and Inspection industries. A large variety of distributors, users, and manufacturers were at the event to showcase their products. Whether this was a service, such as a relining company, or a manufacturer, like Milwaukee®, this allowed companies to demonstrate the latest innovations within the sector. >

SPONSORS



TRACTO





The Milwaukee stand at No-Dig Live.

For Milwaukee® the company has great confidence in its products, and encourages users to get hands-on with all its tools, and No-Dig was no exception.

Across the stand the company had dedicated demonstration units for each of its products from a pull demonstration showing the weight capability of its Sectional Sewer Machine, to an interactive race wall showing the maximum length of its Drain Cleaner Power Feed.

Show Success

According to Jake Cleverley EMEA Marketing Manager for Milwaukee, No-Dig Live 2021, was a huge success for the company. Not only did it assist the company locally in getting more positive leads and become more well-known within the sector, it was also extremely helpful from a product stand point. Milwaukee develops its products around the user's needs.

In order to continue to do so, it has to understand their way of working, thinking, reacting. Shows like No-Dig Live, help to communicate with users, to even better understand what their daily 'issues' are and how, with Milwaukee products, the company would be able to serve their needs, not just with the products now available, but also with the products that are still to come. Milwaukee never stops developing innovations for the trades it occupies and gathering so much information from these shows is extremely valuable.

That also goes for the company's re-sellers. Milwaukee® depends heavily on its partners too ensure a happy end user. As Milwaukee® does not sell anything directly to the end user, always via its distribution network, No-Dig Live was a big help to demonstrate its new products and provide information about them, to make sure the relationships between the company and its distributors and end-users, stay healthy and strong. That is the only way to serve the users, within this sector. >

SPONSORS



RSM Lining Supplies
CHOICE AND TECHNOLOGY





"No-Dig Live 2021 was a fantastic event for the UK market. It enabled us to showcase our specialist drain cleaning and inspection range to a targeted and select group of attendees helping us gain 75 positive leads with trade distribution partners."

"No-Dig Live 2021 was a fantastic event for the UK market. It enabled us to showcase our specialist drain cleaning and inspection range to a targeted and select group of attendees helping us gain 75 positive leads with trade distribution partners," said Alex McBean UK Digital Marketing Manager. "Our presence at the show really helped us make an impact and made our mark as a serious player within No-Dig/Trenchless applications. Having the joint largest stand footprint and so many engaging demonstrations and products on stand helped drive interest and conversation with attendees, contributing to the quality of the collected leads."

Going forwards Milwaukee® have made positive inroads with many high-quality leads as well as industry press, Trenchless Works, which we are now working with to drive our brand presence within the industry even further. With the on-going support of its dedicated JSS team and new relationships, No-Dig Live 2021 has given a real boost to Milwaukee's local team and put the Milwaukee brand at the forefront of the industry.

Jake Cleverley and Hendrik Loggen Senior Product Manager with Milwaukee further commented: "Clear blocked drain pipes with our professional cordless drain cleaners, the lightest on the market. We are committed to providing drain cleaning professionals with the most portable and versatile drain cleaning solutions. We worked closely with plumbers to fully understand their needs, frustrations and current imitations to allow us to completely rethink a solution, delivering game-changing innovation."

<https://uk.milwaukeetool.eu/en-gb/trades/plumbing/>

SPONSORS



TRACTO



RSM Lining Supplies
CHOICE AND TECHNOLOGY

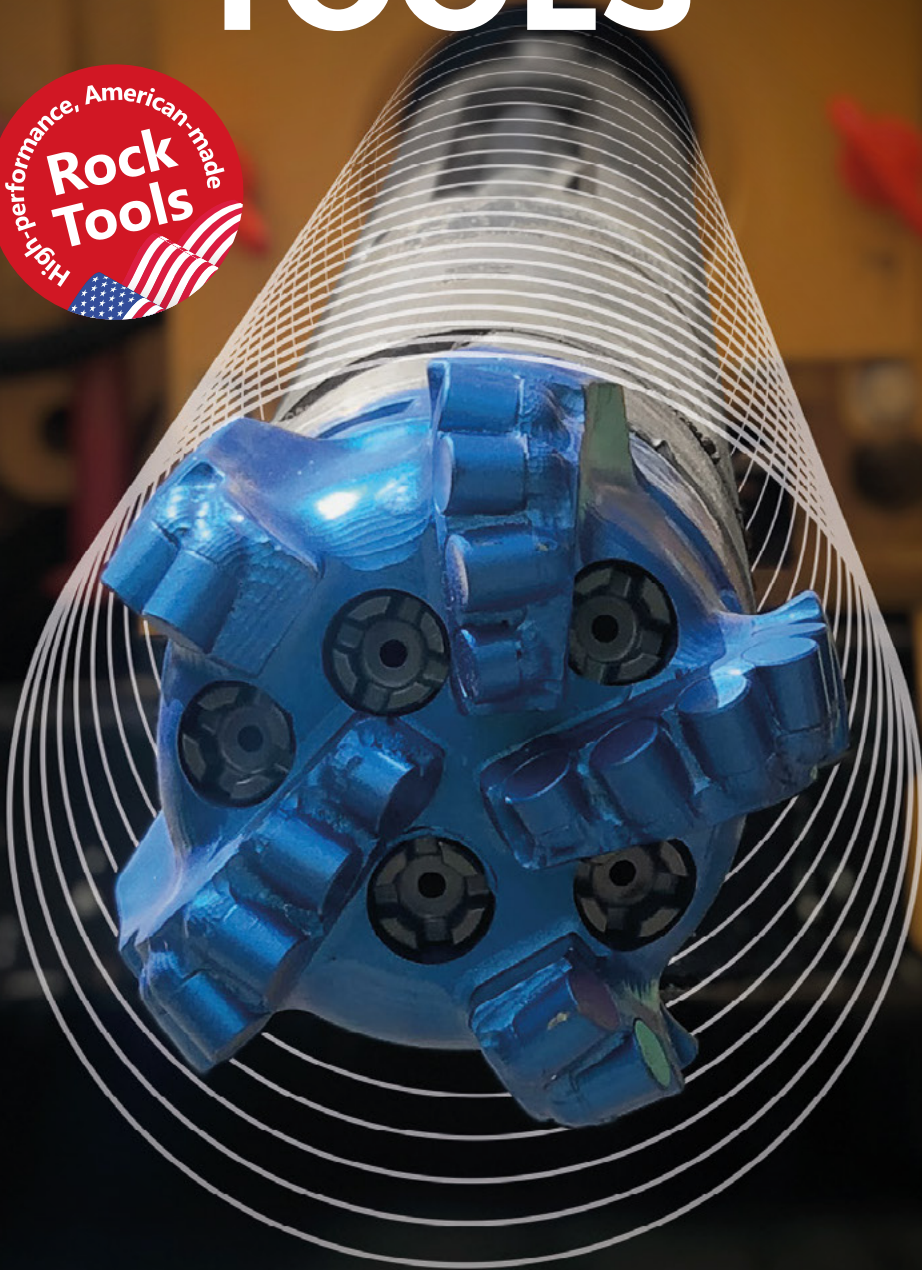


The prime solution for pipes.





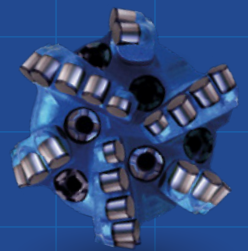
HDD ROCK TOOLS



TRICONE HOLE
OPENERS



TRICONES



PDC BITS



PDC REAMERS



DIRECTIONAL
HAMMER BITS

+44 1422 484984 | infinitytoolmfg.com



PAUL HARWOOD REFLECTS ON THE RECENT NO-DIG LIVE



"The most successful show I have exhibited at in over 30 years. This is an exhibition that heads straight out to the industry, it's got the audience that you want."

Russell Fairhurst, Director,
MTS Suction Systems UK Ltd

Firstly, I would like to say a massive thank you to all the exhibitors, visitors and sponsors who made No-Dig Live such a tremendous success. It was fantastic to be back out on the exhibition floor and seeing people face to face.

Particular thanks go to all the exhibitors who made so much effort with their stands and created such a vibrant and interactive experience for our visitors. The exhibition space was 30% larger than the previous year and featured several first-time exhibitors including American giant The Milwaukee Electric Tool Corporation. Additionally, the high level of rebooking we have already received means we look well placed to continue this growth at the next event. >

SPONSORS



Ditch Witch
UK & Ireland



TRACTO



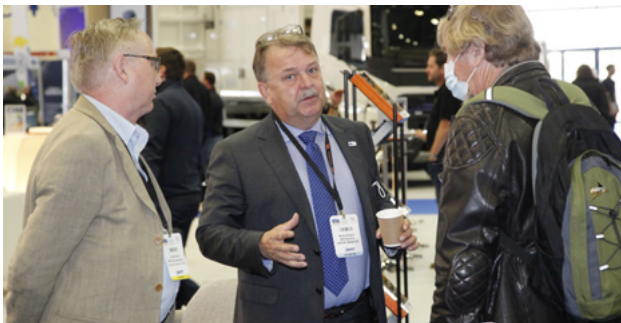
RSM Lining Supplies
CHOICE AND TECHNOLOGY

McELROY
www.mcelroy.com

PRIMUS LINE

The prime solution for pipes.

VMT



We have always been a show differentiated by its targeted and engaged audience, and it was gratifying to see the industry coming together again and the energy and enthusiasm was tangible and created such a vibrant and interactive experience for visitors. This was reflected in the show's visitor attendance which was the highest ever recorded. Thank you to everyone who took the time to visit, it was great to hear such positive feedback in relation to the number of visitors and but perhaps even more importantly, the quality of visitors.



The visitor quality was born out by the number of deals which were agreed at the event itself. One exhibitor, CJ Kelly International, managed to sell a unit on every day of the show including the build-up on Monday – 4 sales at a 3-day show is pretty good going by anyone's standards! Congratulations also to MTS Suction Systems UK Ltd and Force One Limited on signing a multimillion-pound deal on the opening day. >



SPONSORS



RSM Lining Supplies
CHOICE AND TECHNOLOGY



The prime solution for pipes.





Success was not limited to the exhibition floor. The brand new conference programme was very well received and provided a great platform for sharing experience and innovation to an international audience. Consummately hosted by the Reverend Richard Coles, the UKSTT Awards Gala Dinner also went off with a bang with the sell-out audience treated to a show by The Red Hot Chilli Pipers – bagpipes like you have never heard them before.

I would like to finish how I started by thanking everyone for contributing to a such a fantastic event. We will be back in touch soon with news on dates for the next show.

SPONSORS



TRACTO



RSM Lining Supplies
CHOICE AND TECHNOLOGY



The prime solution for pipes.





2021

NO-DIG LIVE

CLICK ON THE IMAGES
BELOW TO VIEW THE
SHOW INTERVIEWS



Amiblu



DCR



Buckhurst



ENZ



Channeline



Hermes



CScope



Impulse Radar



CLICK ON THE IMAGES BELOW TO VIEW THE SHOW INTERVIEWS



Innovex



Pipehawk



Ipek



ProKasro



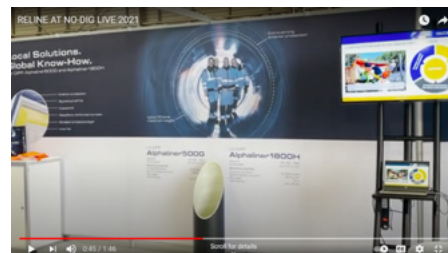
Lanes Group



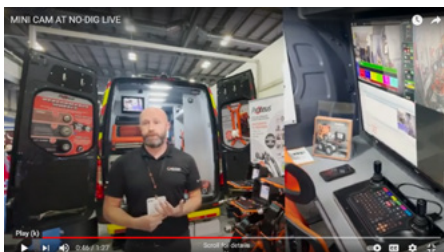
Radius Subterra



Milwaukee



Reline



Mini Cam



RSM Lining Supplies



MTS Suction Systems UK



RSP



CLICK ON THE IMAGES BELOW TO VIEW THE SHOW INTERVIEWS



Sanivar



Suez



Scanprobe



TA Drilling



Sewer Robotics



Trenchless Group



SlimDrill



ULC Robotics



Steve Vick

RSM PREMIERE NEW PRODUCT RANGE AT NO-DIG LIVE

The RSM outdoor stand at the recent No-Dig Live event.

With the launch of some fantastic new additions to the RSM Lining Supplies Global Ltd (RSM) extensive product range, those that attended the exhibition were lucky enough to see a variety of demonstrations of RSM's new and existing product range, such as the premiere of their diameter change UV Speedyliner!

Like standard UV glass liner, this is installed using the drag-in method but has the capability to cope with a diameter change. With the increased strength characteristic of traditional UV liner but added benefit of diameter change, this one-of-a-kind product really fills a gap in the market.

Further increasing the working capacity of the Speedylight+ System, Sewertronics recently introduced the brand-new XL Spectralight head. The powerful 1800 W head has the capability to cure felt liners up to 400 mm diameter and standard UV glass liners in diameters up to 600 mm. To demonstrate these fantastic capabilities RSM cured a length of UV impregnated Magmaflex Liner with the head every day during the exhibition.

The newest addition to RSM's UV LED portfolio, the Sewertronics QuickPatch Lite, also made its debut at No-Dig Live. The Sewertronics UV LED QuickPatch Lite cures pre-impregnated UV material for spot repair in diameters ranging from 80 mm to 600 mm. Offering exceptional curing times, the QuickPatch Lite's high-power UV LED incorporates a breakthrough, shadowless technology that guarantees full radiation reach onto the entire surface of fibreglass impregnated with UV resin. The QuickPatch Lite is set to change the game in the sewer rehabilitation industry, by bringing incredibly fast curing times, portability, and easy-to-use features to the market. >

SPONSORS



TRACTO



The prime solution for pipes.



RSM Lining Supplies
CHOICE AND TECHNOLOGY



"All at RSM Lining Supplies would like to thank everyone that attended No-Dig Live 2021 for making it such a memorable show, especially after a long two years in and out of lockdown!"

Another of RSM's specialist liners (Echo Liner) was impregnated with a leak-tight UV resin and then cured using the Sewertronics Speedylight System at No-Dig. Exclusive to RSM Lining Supplies, Echo Liner is a highly flexible, seam-free liner with the capability to go round bends of up to 90°. It is suitable for all installation methods and compatible with RSM's full range of Epoxy, Silicate, and UV resins.

The incredibly popular Dancutter Superflex and Maxiflex systems were put to good use throughout the week as well! Suitable for diameters ranging from 75 mm to 150 mm, the Superflex is ideal for reopening laterals or removing hard deposits (such as concrete) whilst the Maxiflex is one of the most powerful cutting tools in the industry. It has an incredibly robust motor, making it fast and efficient whilst maintaining a reasonable level of flexibility (suitable for bends of up to 45°). It is ideal for use in larger pipes and is suitable for use in diameters ranging from 150 mm to 300 mm. Both units are compatible with pipes manufactured from PVC, cement, concrete, cast iron or steel.

Another strong talking point at RSM's stand revolved around its WRC approved, EU Skills accredited, CIPP Lining and Patching Training Course which is an in depth delve into the world of CIPP, providing an understanding of all levels of lining and patching to increase the quality of workmanship within the CIPP industry. This has been designed specifically for drainage engineers, water authorities, site managers, and Tier 1 contractors to offer confidence that all attendees are trained to a high skill level and are able to successfully install liners and patches up to 300 mm diameter.

All at RSM Lining Supplies would like to thank everyone that attended No-Dig Live 2021 for making it such a memorable show, especially after a long two years in and out of lockdown!



SPONSORS



TRACTO



RSM Lining Supplies
CHOICE AND TECHNOLOGY



The prime solution for pipes.



UK No.1



The leading supplier of suction systems

Tel: +44 (0)1353 664888 Email: info@mammoth-mts.co.uk www.mammoth-mts.co.uk



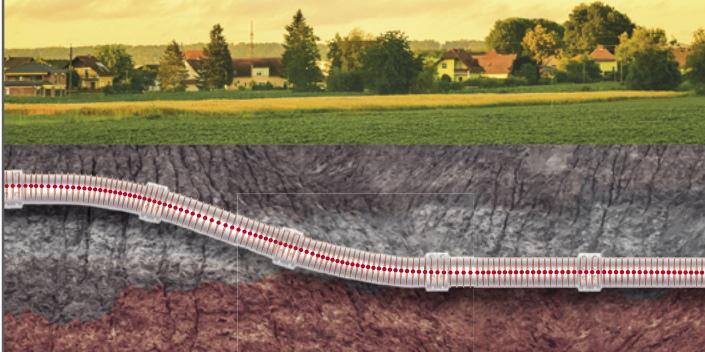
Traditional methods

Point frequency: 3 to 10 m



REDUCT method

Point frequency: 1-2 cm



As Big Data is revolutionizing management of above-ground objects, awareness is growing that high resolution underground utility infrastructure data is essential for future network management challenges.



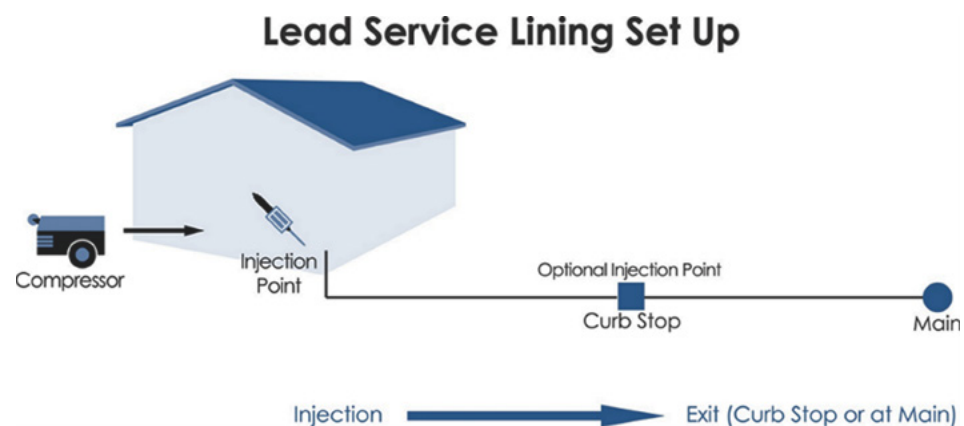
Our high point frequency XYZ delivers the right import for.

- Installed project acceptance.
- 3D as-built maps
- Highly detailed bend radius & undulation data
- Highly accurate inclination data.

www.reduct.net

EUROPEAN PATENT GRANTED FOR 'IN-PLACE' SOLUTION FOR LEAD SERVICE LINES

Pipe Restoration Technologies, LLC, (PRT) makers of the ePIPE®, Lead-Free, Leak-Free™ and LeadSmart® product lines, recently announced that it has been granted European Patent 2744605.



This invention relates to the use of specialised protective barrier coatings and processes that are applied 'in-place' to the interior of drinking water piping systems. Pipes from 12 mm (½ in) diameter can be protected, ready for return to service in as little as 1 hour. Patent coverage has also been granted on several related US patents.

USEPA and Water Research Foundation sponsored WRF Report 4351 concluded: "Coating technologies can effectively reduce or eliminate release of lead (Pb) from Lead Service Lines (LSLs). Recommended for consideration by both public water systems and property owners."

The patented ePIPE process provides protection of the LSL, from inside a building to the curb stop or water main, eliminating partial or incomplete line replacement. Lead leaching will be brought into compliance with WHO guidelines for lead (Pb).

The process significantly minimises the time and expense usually associated with current methods used to replace lead service lines.

US and UK authorities claim there are more than 16 million LSLs still in use. In the US alone, President Biden's American Jobs Plan describes lead service lines affect as many as 22 million people.

Recently, in the US, considerable focus on Government funding and programmes to address lead service lines and lead in schools has once again brought the nation's attention to the dangers of lead and the need to 'get the lead out' of drinking water.

www.epipeinfo.com

SPONSORS



TRACTO



RSM Lining Supplies
CHOICE AND TECHNOLOGY



The prime solution for pipes.



M GROUP SERVICES BUSINESSES ACHIEVE ROSPA RECOGNITION



Health & Safety Awards 2021

HEADLINE SPONSOR

[#rospawinner](#)

Eight M Group Services businesses have received prestigious health and safety awards from RoSPA. Avonline, Dyer & Butler, Magdalene, Milestone Infrastructure, M Group Services Plant & Fleet Solutions, Morrison Data Services, Morrison Telecom Services and Morrison Utility Services have all been recognised for demonstrating the highest standards of health and safety excellence in their respective sectors.

Every year, almost 2,000 entrants vie to achieve the highest possible accolade in the UK's longest-running health and safety industry awards. Organisations receiving a RoSPA Award are recognised as being world-leaders in health and safety practice. >

SPONSORS

**TRACTO****RSM Lining Supplies**
CHOICE AND TECHNOLOGY

The prime solution for pipes.



“We recognise the vital importance of achieving working environments that are healthy, safe and injury-free as our people deliver essential infrastructure services across the UK’s energy, water, telecom and transport sectors.”

Avonline Networks

Avonline, a specialist provider of telecom network build and installation services on behalf of network providers, alternative networks and local authorities, has received a RoSPA Gold Award.

Dyer & Butler

Dyer & Butler has received the Order of Distinction in recognition of its sixteenth consecutive RoSPA Gold Award. RoSPA has also recognised Dyer & Butler for its health and safety focus across the aviation, highways and rail sectors. The RoSPA Order of Distinction was awarded to Dyer & Butler’s Aviation Team in association with clients, Heathrow Airport Ltd and Gatwick Airport Ltd (a sixteenth consecutive Gold Award for both). In addition, Dyer & Butler’s Rail Team received the RoSPA President’s Award (10 consecutive Gold Awards) and its Highways Team achieved its first RoSPA Gold Award.

Magdalene

Magdalene, a leading telecom infrastructure and technology solutions provider, has been awarded a RoSPA Gold Award.

Milestone Infrastructure

Milestone Infrastructure, a specialist provider of highways and street lighting maintenance services and civil engineering projects, has received a RoSPA Gold Award for its street lighting operations.

Morrison Data Services

Morrison Data Services, a leading data services provider to energy and water utility retailers in the UK and Ireland, has received a RoSPA Gold Award.

Morrison Telecom Services

Morrison Telecom Services, a leading provider of infrastructure design, build and maintenance in the fixed telecom market, has been awarded a RoSPA Gold Award, completing a hat trick of awards for the M Group Services Telecom Division.

Morrison Utility Services

Morrison Utility Services, that has since transitioned into Morrison Energy Services Ltd. and Morrison Water Services Ltd., received the Commercial Sector Award in recognition of consistently high standards in health and safety performance. >

SPONSORS



RSM Lining Supplies
CHOICE AND TECHNOLOGY



The prime solution for pipes.



M Group Services Plant & Fleet Solutions

M Group Services Plant & Fleet Solutions has received the RoSPA Gold Medal Award for Fleet Safety in recognition of its support operations across all M Group Services businesses. M Group Services Plant & Fleet Solutions provides commercially effective vehicles, plant and specialist equipment, ensuring that they are safe, compliant and fit for purpose.

Jim Arnold, Chief Executive, M Group Services, commented: "We recognise the vital importance of achieving working environments that are healthy, safe and injury-free as our people deliver essential infrastructure services across the UK's energy, water, telecom and transport sectors. The last 18 months have shone an even brighter light on the importance of health and safety and this recognition from RoSPA is testament to the strong values and practices that our businesses have worked so hard to maintain during the pandemic period. Morrison Utility Services was one of a select group of organisations to win RoSPA's highest accolade, the Sir George Earle Trophy, on two occasions and our aim now is for Morrison Energy Services and Morrison Water Services, along with other M Group Services' businesses, to build on this legacy of health and safety excellence."

Julia Small, RoSPA Achievements Director, added: "The RoSPA Awards scheme is the longest-running of its kind in the UK, making it one of the most sought-after achievement awards for health and safety worldwide. RoSPA is very proud of the achievements of its entrants, and with this award we recognise the best of the best, an organisation that has raised the bar for the delivery of safety in the workplace. Our RoSPA Award winners are central to achieving this goal, driving up standards and setting new safety benchmarks for organisations across the world."

www.mgroupservices.com

"The RoSPA Awards scheme is the longest-running of its kind in the UK, making it one of the most sought-after achievement awards for health and safety worldwide."

SPONSORS



Ditch Witch
UK & Ireland



TRACTO



RSM Lining Supplies
CHOICE AND TECHNOLOGY

McELROY
www.mcelroy.com

PRIMUS LINE

The prime solution for pipes.

VMT



Pete Atkins of TRACTO trains Jim Styles of TA Drilling at TRACTO's headquarters in Bedford.

TA DRILLING APPOINTED AS DISTRIBUTOR FOR PREMIUM GERMAN HDD EQUIPMENT

TA Drilling is a familiar name in the trenchless technology sector and TRACTO is delighted to announce the company's appointment as a distributor for TRACTO UK and sister company, PRIME DRILLING. Under the agreement, TA Drilling is now able to offer the full range of TRACTO GRUNDODRILL rigs from 40 to 280 kN (4 to 28 t) in mainland UK, and larger PRIME DRILLING rigs from 300 to 6,000 kN (30 to 600 t) in the UK and Ireland.

Established in 2000, TA Drilling has regional offices in Northamptonshire, Northumberland and Ireland, as well as training facilities in Derbyshire and is well known as an authority in HDD and trenchless technology. The company is expanding into Europe and the new range of products both complements the existing product portfolio and offers access to swift parts availability. Phil Benford, Managing Director, is very optimistic about the opportunities presented by the agreement saying: "We now have a broader range than we have ever had before to sell to our customers and we have certainly had significant interest; which has already resulted in the sale of a used GRUNDODRILL 18ACS. The build quality of the drills is second to none. They are extremely well manufactured and offer very impressive residual values. We have taken a number of customers to the Bedford HQ and without exception the feedback is very positive. We are expecting to close more deals soon by demonstrating the long-term value, productivity and reliability of these highly durable and sophisticated machines."

Roger Wahl is Managing Director of TRACTO UK and is looking forward to working with TA Drilling saying: "This is a significant step forward for us in distributing our machines. TRACTO fills gaps in the smaller end of the product range with products such as the 4X, the 15XP, 18ACS and 28N+, whilst PRIME DRILLING offers an exceptional range of larger drills including the PD500/600. It is a hugely positive development for all three parties."

www.tracto.com/uk or www.tadrilling.uk/

SPONSORS



TRACTO



RSM Lining Supplies
CHOICE AND TECHNOLOGY



The prime solution for pipes.



The whole world of HDD Technology



PD 45/19 CU-Hybrid



PD 80/45 CU



PD 150/70 CU+



We are distributed in UK and Ireland by:
TA Drilling (Sales) Ltd.
Churchfields Industrial Estate,
Sidney Little Road
St Leonards on Sea,
East Sussex TN38 9PU
United Kingdom
Phone: 01424 854112

MDD-Rigs



PD 600/180 RP



Prime Pipe Pusher



Mud pumps X-series



...FOR
YOUR SUCCESS!

MADE IN GERMANY

www.prime-drilling.de

More robust than ever: The Alphaliner with the new exterior protection

RELINEEUROPE®

Extra robust exterior protection

Styrene proof foil

Coated foil

Glassfibre reinforced complex

Abrasion protective layer

Inner foil

EXTRA GREAT
SERVICE



www.relineeurope.com

GERMAN TRENCHLESS SOCIETIES GSTT AND RSV ANNOUNCE MERGER PLAN DISCUSSIONS



The German pipeline rehabilitation association RSV and the German Society for Trenchless Technology, GSTT, are holding talks about a possible merger. In a statement, the associations have informed their 227 members, both companies and personal members.

"GSTT and RSV have many common areas of activities. Therefore, the executive boards of both associations have decided to hold exploratory talks about a merger. The aim is to establish a strong joint federal association, of which the name has not yet been determined the associations wrote in an email circular. The German Society for Trenchless Technologies is one of the 26 regional Affiliated societies of the ISTT (the International Society for Trenchless Technology), a worldwide network, which aims to advance the science and practice of trenchless technology for the public benefit.

RSV and GSTT also stated: "The common goal is to establish strong lobbying for trenchless construction methods and for pipeline rehabilitation, which we can implement in future as a joint association with greater power and market presence. With bundled competence, the new association would have more possibilities to be the contact partner for network operators and citizens, to strengthen the work on regulations and to represent the spectrum of trenchless technologies nationally and internationally. "We are thus following the frequently expressed wish of the members " they continued.

The decision on whether and how the merger can be implemented is now to be taken together with the members of both associations. The next step is a survey in which ideas and wishes are to be expressed by the members.

SPONSORS



Ditch Witch
UK & Ireland



TRACTO



RSM Lining Supplies
CHOICE AND TECHNOLOGY

McELROY
www.mcelroy.com

PRIMUS LINE

The prime solution for pipes.

VMT

HOW TO ATTRACT WOMEN TO STEM EDUCATION AND HELP THEM FLOURISH IN THE FIELD



Undergraduate Engineer Verena Reid



Quality and Continuous Improvement Engineer Kathryn Haisman



People & Capability Business Partner Fern Ryan

As a society, our potential to excel in the areas of science, technology, engineering, and maths (STEM), is stifled by the underrepresentation of girls and women in STEM education and careers. Of the STEM fields, Engineering has the lowest rate of female participation, at just 12.4%. Addressing this problem requires a multifaceted approach that tackles the stereotypes and stigmas that dissuade girls from showing interest in engineering early on, and the inadequacies of workplace culture within STEM fields.

Unleashing STEM potential through education

Attracting females to STEM begins with laying a strong educational foundation. Bringing more than 80 years of civil engineering solutions in the pipeline infrastructure space, Australia-based Interflow, recognises the importance of quality education in the STEM field. >

SPONSORS



The prime solution for pipes.



“The lack of awareness around opportunities within the field of engineering, paired with the gender stereotypes regarding the nature of ‘women’s work’, is considered a significant barrier to increasing female participation.”

Employing in excess of 70 engineers across Australia and New Zealand, and a further 500 field and support staff, the organisation is committed to supporting the next generation of bright minds, with a clear focus on creating an environment where female engineers can thrive.

The company's People & Capability Business Partner, Fern Ryan, discussed Interflow's long-standing cadetship programme, and the efforts the organisation has taken to promote the development of its emerging engineers.

“Our cadetship programme is open to all third-year civil engineering undergraduates who are looking to gain real-world experience in an industry-leading firm,” she said. “The programme provides students with the autonomy to take ownership of their work whilst also providing them with the mentorship and guidance necessary to help develop their skills and jumpstart their careers.”

Mentoring is known to improve the retention, development and leadership potential of employees, particularly for women in male-dominated fields such as engineering. Interflow currently has seven undergraduate engineers in its cadetship programme, three of whom are female.

Increasing visibility and enhancing understanding

Whilst programmes aimed at university-aged students are one piece of the puzzle, it is largely accepted that pre- and primary-school education also play a critical role in increasing girls' interests in STEM subjects.

The lack of awareness around opportunities within the field of engineering, paired with the gender stereotypes regarding the nature of ‘women’s work’, is considered a significant barrier to increasing female participation.

Third-year university student and undergraduate engineer, Verena Reid, is one of the emerging engineers participating in Interflow's cadetship programme.

Reflecting on her education, Verena acknowledged that growing up, she did not have a clear understanding of all the facets of engineering. “I was always interested in science and maths as a child, but it was not until I was offered a STEM scholarship in high school that I really became aware of what engineering was,” she said.

Now in her final year of study, Verena is passionate about providing the next generation of students with equal access to a STEM learning environment that's free from prejudice.

“Providing the next generation with equal and unbridled access to a quality STEM education is a precursor to innovation and progress as a society,” she said. “Particularly for young girls who may not be aware of how exciting or fulfilling a career in STEM can be, I would love for them to be given the chance to try it out in an unbiased, supportive environment.” >

SPONSORS



Ditch Witch
UK & Ireland



TRACTO



RSM Lining Supplies
CHOICE AND TECHNOLOGY

McELROY
www.mcelroy.com

PRIMUS LINE

The prime solution for pipes.

VMT

Supporting women in STEM careers

STEM fields do not just struggle to attract women, but also to retain women in employment. A common cause of this is the male-dominated workplace culture and lack of flexible working arrangements.

According to the Australian Department of Industry, Science, Energy and Resources, STEM employees are often employed under less flexible working conditions than other fields. Particularly for engineers, the time-sensitive projects, long-hours and on-site requirements can make flexible work arrangements challenging to accommodate.

Interflow's Quality and Continuous Improvement Engineer, Kathryn Haisman, began with Interflow in 2013 as a Project Engineer. After spending four years in Operations, Kathryn decided to take some time off to start a family. Upon her return, she transitioned into the Quality Department to enable a better work-life balance. Kathryn shared how the move impacted her career.

"While there is a general perception that the field of Engineering is incompatible with work-life balance or parental leave, there are so many opportunities available within this sector," Kathryn said. "With two young children, remaining in my operationally focussed role was difficult, but with Interflow's support I successfully transitioned into the Quality team, where I still get to apply my knowledge of engineering to support our Operations team. I take great pride in my work and am very grateful that I can continue to support my former team in this new and exciting way." Kathryn continued.

Fern shared how flexible working arrangements and team member development pathways, like those provided by Interflow, are enabling more women to be return to work after taking parental leave. "By providing women with the reassurance that they can balance a fulfilling career with their personal lives, we are maximising the percentage of women who do choose to return to their engineering careers after taking time off to start a family," she said. "There are so many fulfilling career opportunities within the field of engineering. By showcasing these opportunities and breaking down the barriers to entry, we are giving females a chance to design for a brighter future for themselves and their communities."

www.interflow.com.au

"While there is a general perception that the field of Engineering is incompatible with work-life balance or parental leave, there are so many opportunities available within this sector."

SPONSORS



TRACTO



RSM Lining Supplies
CHOICE AND TECHNOLOGY



The prime solution for pipes.



iINTERNATIONAL **NO•DIG** 2022

HELSINKI
THE 38th INTERNATIONAL NO-DIG

Conference and Exhibition
3-5 October 2022

Messukeskus Helsinki Expo and
Convention Centre, Finland



International No-Dig Helsinki is the major annual international gathering for trenchless technologists to meet and discuss the latest industry developments.

- Reach new markets at this major event targeting influential audiences to be drawn from the European markets, as well as attendees from further afield
- An opportunity to display and demonstrate products to a highly targeted audience
- Ensure your brand has a profile in the presence of the industry's premier decision makers
- Take a leadership position and play a major role within the Trenchless/No-Dig sector
- Be seen at the region's only industry specific exhibition and conference with a proven track record that truly demonstrates Trenchless/No-Dig technology and its capabilities
- Be seen alongside influential supporters representing Europe

To be seen amongst the worlds leading providers and show your innovations, book a stand at International No-Dig Helsinki.

Contact Paul Harwood at pharwood@westrade.co.uk or +44 (0) 1923 723990

Organised by



Diamond Sponsor



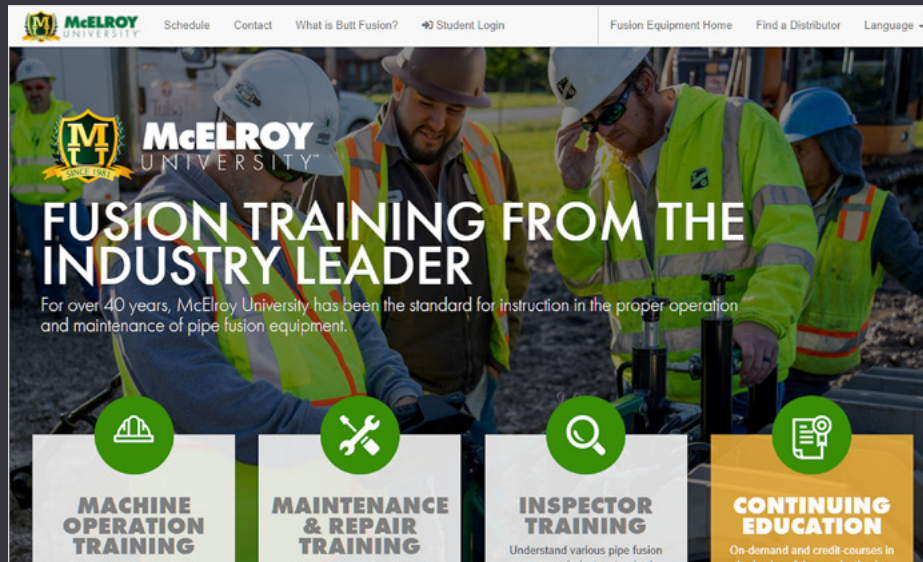
Supported by



Platinum Sponsor



MCELROY UNIVERSITY UNVEILS NEW COURSES AND A NEW WEB PAGE



McElroy University's online homepage has a new look! Individuals looking to enrol in training and educational courses now have more options and the site is easier to navigate.

McElroy
University
Home Page.

McElroy University provides a wide range of training to address needs across the industry, including operator qualifications and re-qualifications, equipment maintenance and repair, and continuing education. For many classes, in-person, hands-on training accompanies the online training so students receive practical experience on equipment. Other classes are offered 100% online for students to learn on their own time from almost anywhere in the world. Over the past 18 months, McElroy University has added more online classes to better meet students' needs.

"Our certified instructors are here to meet a variety of educational needs within the industry, just like we have continuously since 1981. The updates to our university's webpage make it easier to look at course options, find the right training to fit students' needs, and connect with us to schedule custom training," said Paul Brodsky, McElroy University Manager.

The website also provides an overview of each course, details about topics and equipment covered, and available dates and locations for any in-person training. In addition, we now have the option to further customise our operator qualification training, through à la carte options, allowing students to only select the topics they need.

Continuing Education courses are now available and offer a convenient way to learn more about many aspects of pipe fusion. These courses may meet requirements for both Continuing Education Units (CEUs) and Professional Development Hours (PDHs) to maintain existing professional qualifications.

www.mcelroy.com/university

SPONSORS



RSM Lining Supplies
CHOICE AND TECHNOLOGY



The prime solution for pipes.





PICOTE-RENOS SLIPLINING



- ✓ Flexible, fast, efficient & low emission option for lining non-pressure pipes DN100 to DN300
- ✓ Can be installed through existing manholes, while pipe remains in service
- ✓ Unique Flexrohr pipe is DIBt certified. HPWJ to 180 bar according to WIS 4-35-01 2008 appendix B, tested by WRc
- ✓ Full training & service support available from Picote from planning to completion



Email: technicalservices@picotesolutions.com or call: 07827 223237 | www.picotesolutions.com

RECORD. DOCUMENT. DELIVER. ANALYZE. NONSTOP.

THE NEW DATALOGGER 7

The new DataLogger® 7's long-life battery and hot-swappable battery option allow your fusion jobsite to keep working no matter how long the workday. Capture a comprehensive record of your entire job on one rugged tablet — from machine/operator information to pipe specifications and GPS locations. Analyze reports to ensure that industry standards have been met.



LEARN MORE AT
MCELROY.COM/DATALOGGER7

 **McELROY**

©2021 MMI block and Datalogger are registered trademarks of McElroy Manufacturing, Inc. All Rights Reserved.



PIER UK CELEBRATES 20TH ANNIVERSARY

One of Pier UK's newly liveried truck celebrating the company's 20th anniversary.

Pier (UK), which claims to be the UK's and Europe's largest provider of vacuum excavation hire, today turns 20. Founded in 2001, by Managing Director, Sean Quinn, as a civil engineering and drainage company. After seeing the safety benefits of vacuum excavation first-hand in 2008, the company switched to focus solely on vacuum excavation hire in 2012.

Sean Quinn explained: "As a company, we have gone from strength-to-strength over the past two decades and we are now the UK market leader in vacuum excavation with a hire fleet that continues to grow year on year."

Over the last 20 years, the company has seen many highlights including becoming the UK's largest provider in 2015 and Europe's in 2016, raising nearly £10,000 for UK cancer charities in 2016/17 and developing the first ever Tracked Vac an off-road vacuum excavator that has been specially designed to travel over the roughest of terrain to reach previously inaccessible sites. >

SPONSORS



TRACTO



RSM Lining Supplies
CHOICE AND TECHNOLOGY



The prime solution for pipes.



“As a company, we have gone from strength-to-strength over the past two decades and we are now the UK market leader in vacuum excavation with a hire fleet that continues to grow year on year.”

Sean continued: “The Tracked Vac was a particularly proud achievement. We wanted to continue to lead the way in Vacuum Excavation and as it’s use continued to grow, we predicted the problem was going to arise with gaining access to certain areas with the standard wheeled system. The Tracked Vac means our clients do not have to install ground protection mats or temporary haul roads to access the site.” To mark the anniversary, Pier (UK) commissioned a unique black truck with 20th Anniversary livery.

The company acknowledges the importance of its clients over the last 20 years, as Sean said: “We have had 20 great years and we simply could not have done it without the continued support of our customers. Whether they have worked with us since day one or hired our team for the first time yesterday, we will always be extremely grateful for their business”.

Sean also wanted to thank another important group, his staff saying: “Without doubt, the company would not be where it is today without its people. They work tirelessly both in front and behind the scenes to consistently deliver a first-class service to customers”.

Furthermore, the future looks bright for the company as Sean explained: “We will continue to invest in our fleet, our systems and our people to remain the number one supplier of vacuum excavation in the UK. We have come through a very challenging period for everyone, but the company remains strong and despite issues elsewhere in our target industries, August has been our busiest month this year and our order book continues to grow.”

www.pier-uk.co.uk

SPONSORS



TRACTO



RSM Lining Supplies
CHOICE AND TECHNOLOGY



The prime solution for pipes.





TRENCHLESS MIDDLE EAST 2021

12th International Exhibition and Conference

Festival Arena by InterContinental, Festival City, Dubai, UAE

13-14 December

Trenchless Middle East 2021 returns to Dubai for its twelfth popular event, focusing entirely on trenchless technology (NDRC) in the Middle East, and North Africa (MENA) regions.

With megaprojects continuously being planned from Municipalities, authorities and developers, Dubai continues to host some of the most ambitious projects in the world.

Although the latest global crises are adding challenges to their implementation across the construction sector, the use of Trenchless Technology in infrastructure projects continues at a pace across the Middle East. These projects, across the GCC, are vital to progress economic diversification plans.

2021 will also see Dubai host the first World Expo to take place in MENA & SA region.

To be seen amongst the world's leading providers who have already signed up to participate in this prominent event and showcase your innovations, book a stand at the Trenchless Middle East 2021.

Exhibition

- Exhibiting at Trenchless Middle East 2021 is a smart investment
- The only dedicated conference & exhibition focusing entirely on Trenchless Technology
- The longest running Trenchless Technology event in the UAE, the GCC and MENA regions
- Join over 100 exhibiting companies
- Showcase your innovation to key industry figures
- 20 countries represented
- Officially supported by ISTT



Contact: Paul Harwood or Stuart Hillyard

Email: pharwood@westrade.co.uk or shillyard@westrade.co.uk Telephone: +44 (0)1923 723990



Organised by



Supported by



Platinum Sponsors



Gold Sponsor



Official Media Partner

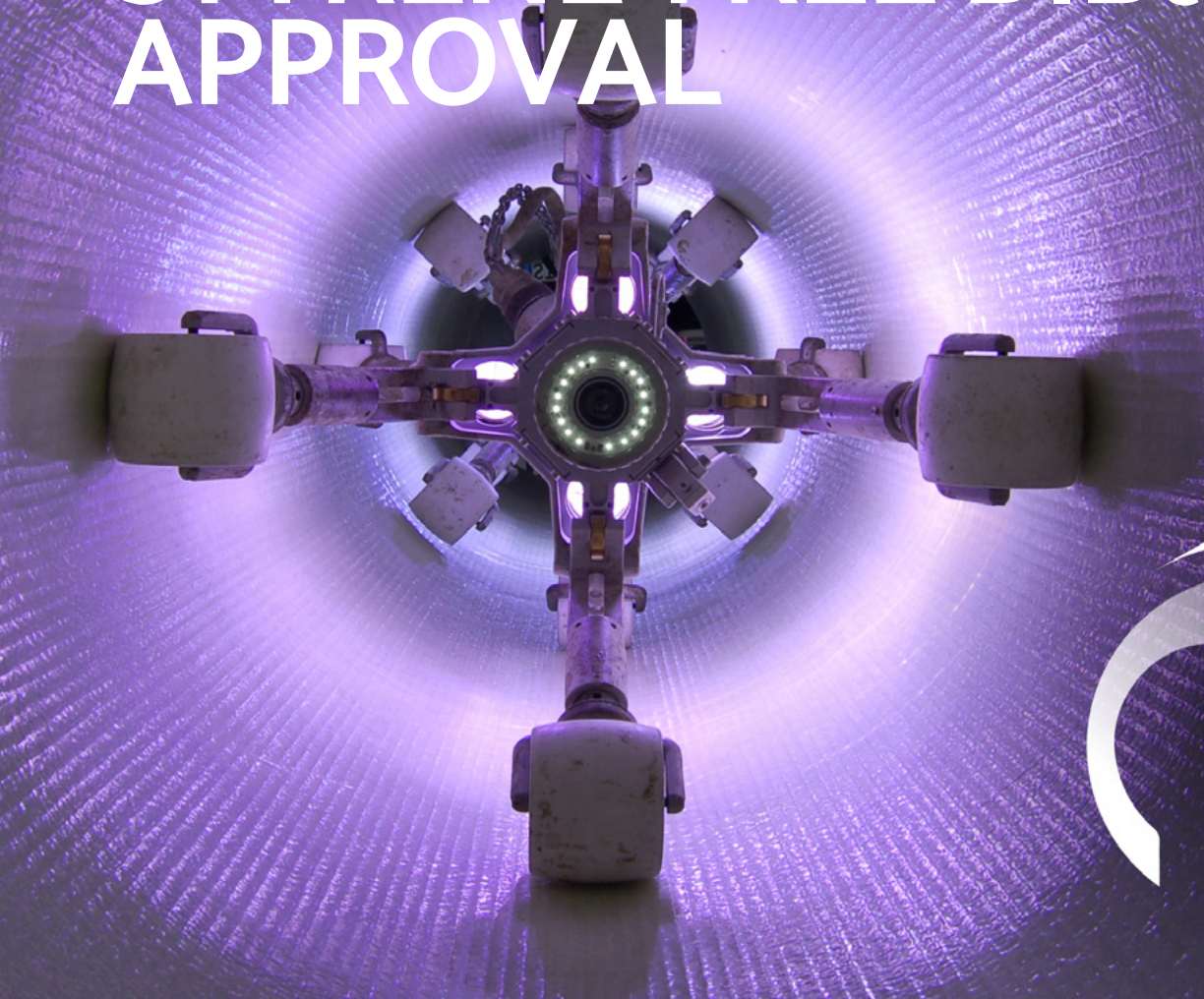
TRENCHLESSWORKS

Media Partner



www.trenchlessmiddleeast.com

STYRENE-FREE DIBt APPROVAL



SAERTEX-LINER ENVIRONMENT pipeline rehabilitation system is the first GRP liner with styrene-free VE resin on the market to be approved by DIBt.

The styrene-free SAERTEX-LINER ENVIRONMENT pipeline rehabilitation system is the first GRP liner with styrene-free VE resin on the market to be approved by DIBt, as of May 28, 2021. This improves the range of products offered by SAERTEX multiCom for the trenchless rehabilitation of wastewater pipes, especially for applications where it is important to avoid the typical odour of styrene.

"We are seeing increasing demand for styrene-free liners for trenchless rehabilitation in some select applications," said Nils Füchtjohann, Global Director of Products at SAERTEX multiCom. "Especially in areas with a lot of foot traffic, our customers are concerned about avoiding the typical styrene odour of the lining process." >

SPONSORS



TRACTO



RSM Lining Supplies
CHOICE AND TECHNOLOGY



The prime solution for pipes.



“Since the end of May 2021, we have been able to extend the existing DIBt approval for SAERTEX-LINERS to the SAERTEX-LINER ENVIRONMENT.”

“Our customers in the automotive and food industries in particular have also been requesting structural approval for our styrene-free liners for some time.” added Daniel Wehner, Product Manager at SAERTEX multiCom. “We are therefore pleased to announce that since the end of May 2021, we have been able to extend the existing DIBt approval for SAERTEX-LINERS to the SAERTEX-LINER ENVIRONMENT.”

SAERTEX multiCom uses styrene-free vinyl ester resin when impregnating the SAERTEX-LINER ENVIRONMENT at the factory. This means that when the liner is installed using the light-curing UV CIPP process, the typical styrene odour is eliminated.

The DIBt has approved the S+ type for the free-flow area. The styrene-free liners are typically used in the rehabilitation of production facilities and logistics areas in the automotive and food industries. Other applications include the rehabilitation of wastewater and rainwater pipes in public areas, such as marketplaces, pedestrian zones or even train stations.

The SAERTEX-LINER ENVIRONMENT product range is complemented by the S+ variant for pressure applications up to 1 bar and the S+XR. The latter has an additional reinforcing layer in the liner that makes it applicable for pressure lines with operating pressures of up to 33 bar.

Also suitable for pressure lines and styrene-free is the SAERTEX LINER H2O product range. Compared to the SAERTEX-LINER ENVIRONMENT, the liners within this range also meet the highest hygiene standards including approvals for use in drinking water pipes.

www.saertex.com

SPONSORS

**TRACTO****RSM Lining Supplies**
CHOICE AND TECHNOLOGY

The prime solution for pipes.



Amiblu®

Pipes designed for generations

We can strengthen the cities we love

Amiblu NC Line

Non-circular pipe profiles in all shapes and sizes

- Sustainable rehabilitation of urban pipe networks
- Open cut and trenchless installation
- Excellent structural stability
- Increased acid resistance
- Asset lifetime 150 years+

www.amiblu.com

united.kingdom@amiblu.com

Tel: +44 7786 013574



Suction Excavator Manufacturer of The Year

0844 543 4575

www.rsp-uk.co.uk



BARHALE APPOINTS NEW OPERATIONS DIRECTOR



David Lally, Operations Director, Barhale

"With more than 20 years in civil engineering, including 10 years at Barhale, he fully understands the delivery challenges we face and the core values that the company pursues in all of its projects."

Civil engineering and infrastructure specialist Barhale has promoted David Lally to the position of Operations director.

David originally joined Barhale in 2011 becoming senior general foreman after his work on the London Olympics projects and his leadership of the Optimise teams in the Thames Water, AMP5 programme. He was promoted to Southern Region operations manager in 2015 and supervised the delivery of the Thames Water, AMP6 framework for eight20.

David will report directly to the new Barhale CEO, Martin Brown, who joins the business in September.

Barhale director, Andy Flowerday said that David would be a great fit for the role: "With more than 20 years in civil engineering, including 10 years at Barhale, he fully understands the delivery challenges we face and the core values that the company pursues in all of its projects. David's role will focus on providing direct engagement between frontline operational teams and senior management throughout all business units. His primary responsibilities will be maximising productivity and resource utilisation, programme achievement and 'Right First Time' delivery, together with supporting and responding to operational needs to mitigate issues and maximise opportunities."

SPONSORS



TRACTO



RSM Lining Supplies
CHOICE AND TECHNOLOGY



The prime solution for pipes.



GRUNDODRILL FITS THE BILL



The 18ACS GRUNDODRILL on site drilling in Ballywalter

A popular 'King of Rock' 18ACS GRUNDODRILL has been delivered to Ireland for customer G Hill Pipe & Civil; an experienced piping contractor based in County Derry, Northern Ireland.

TRACTO UK supported new dealer, TA Drilling, with machine delivery and operator training on the unit's inaugural drill in Ballywalter. The job, which took place along Main St, the A2 highway running through the town centre, comprised of the installation of a new sewer pipe along 14 km of highway. The work was predominantly completed by horizontal directional drilling using the 18ACS GRUNDODRILL and, despite the challenging ground conditions, the machine was able to successfully complete the installation of 180 mm diameter MDPE pipe, supplied in 100 m long coils. One innovative feature that facilitated the job was the Auto Paddle mode which enabled the GRUNDODRILL to take control of the drill head, automatically steering it past large stones and rocks by pushing at a particular percentage of rotation as sensed by the machine. Auto Paddle enables a precise and controlled drill and eliminates the risk of losing drill rods and heads underground which can be the case during a manual paddle. It also reduces operator fatigue. >

SPONSORS



TRACTO



RSM Lining Supplies
CHOICE AND TECHNOLOGY



The prime solution for pipes.





Pulling in the new pipeline



Positioning the 18ACS Grundodrigill prior to starting a new bore

Bernard Bradley is a director of G Hill Pipe & Civil and bought the machine after discussing his requirements with Jim Styles of TA Drilling, who was also in attendance for the two-day training session on site. Jim believes the machine is ideal for works on roads and highways thanks to its compact overall dimensions saying: "The beauty of the 18ACS is its phenomenal power combined with narrow working width, which meant we could carry out the HDD operation without closing the road completely. This ensured minimal disruption to the general public and road users during the work and, thanks to the Bentonite collection tray at the front of the boom, the jobsite was also kept clean at all times. A hose connected to the discharge pump took the waste directly back to the reception pit. Bearing in mind the strict health & safety requirements of any drilling job, this feature is a bonus."

The machine operated from a small excavation pit at the start of the drill which ensured minimal reinstatement was required and used a 5½ in (140 mm) diameter Eagle Claw bore head to tunnel under the road. A further exit pit was then created to pull back the rod using a reamer to increase the bore size to accommodate the 180 mm diameter PE pipe. The pits were easily backfilled and reinstated. Bernard Bradley, director and Pipeline Contractor at G Hill Pipe & Civils, who is impressed with the performance of the 18ACS said: "The more we operate the GRUNDODRILL 18ACS the more we are impressed, especially with the Auto Paddle and the innovative Auto Stall system which also senses the ground conditions and automatically changes the rotary speed and pull back to prevent the machine stalling out. It was great having Pete Atkins from TRACTO and Jim Styles from TA Drilling to help us get up to speed with the 18ACS over a couple of days of operator training on a live job."

The sale of this GRUNDODRILL 18ACS is the second in quick succession in Ireland and demonstrates its ability to deliver efficient HDD services.

www.tracto.com

SPONSORS



TRACTO



RSM Lining Supplies
CHOICE AND TECHNOLOGY

McELROY
www.mcelroy.com

PRIMUS LINE
The prime solution for pipes.

VMT

AQUACURE RP®

Fiberglass reinforcement for inside-out strength, stitched

No matter the type of fiber, coating, seam or cure needed for your project, Applied Felts - the leading global manufacturer of CIPP liners and CalTubes™ - truly has you covered.

*QUALITY MATERIALS
BRINGING QUALITY RESULTS
- SINCE THE 1970s!*

AQUACURE®

Multiple-layer felt liner with impermeable coating/seams, flame-bonded

appliedfelts.com

276.656.1904 US Office

+44(0)1924 200535 UK Office



APPLIED FELTS

YOUR SUCCESS IS OUR SUCCESS™

TRACTO

GRUNDODRILL 18ACS
THE KING OF ROCK



The GRUNDODRILL 18ACS is not an ordinary HDD rig. This is German precision engineering and reliability from TRACTO.

From the finest silts to impossibly hard rock, the 'King of Rock' works where others give up.

To find out more about this HDD rig and our financing options please get in touch.

customerservices@tt-uk.com
T +44 1234 342 566

ADVANCED TRENCHLESS TECHNOLOGY

TRACTO.COM

MAXIMISING THE TRENCHER OPERATOR EXPERIENCE



To enhance utility and the fibre contractor's experience, while tackling tough jobs on tight schedules, Ditch Witch® has introduced the RT70 ride-on trencher. The newly designed trencher is equipped with features that increase operator comfort and visibility, helping to boost efficiency and profitability on the jobsite.

The new Ditch Witch RT70 ride-on trencher.

For example, the ergonomically designed operator station features an open layout with a 90° swivel seat, more leg room and intuitive controls. This enhanced visibility gives operators a full view of the machine, from front tyre to back tyre and the attachment, helping operators of any experience level increase productivity. The RT70 also includes a patented cooling fan to reduce temperature levels in the operator station by moving hot, uncomfortable exhaust out of the side of the machine rather than toward the operator like traditional fans. This helps keep workers safer and more comfortable during long days. >

SPONSORS



Ditch Witch
UK & Ireland



TRACTO

McELROY
www.mcelroy.com



RSM Lining Supplies
CHOICE AND TECHNOLOGY

PRIMUS LINE

The prime solution for pipes.

VMT



The Ditch Witch Microtrencher.

"At Ditch Witch, we understand the challenges that electric and fibre contractors face daily," said Steve Seabolt, product manager, ride-on tractors, Ditch Witch Organisation. "The RT70 is compact and manoeuvrable, yet powerful. This new unit, with its unique features, will allow the operator to tackle tough jobs in tight conditions."

Powered by a 72hp Yammer® Tier 4 Stage V Compliant diesel engine, and built with a narrow footprint of 73 in (1.85 m) wide, the RT70 rubber-tyre trencher can handle heavy-duty jobs and still easily manoeuvre around tight jobsites, corners and cul-de-sacs with ease. This makes it the perfect go-to trencher to take on even the toughest jobs. It is also the only ride-on trencher available with crab and coordinated steering modes, which allows operators to turn the machine with a steering wheel instead of using two separate levers. This makes it easier to use and frees them up to focus on other parts of the job.

The machine's modular design features a single base unit with the option to move from tyres to tracks. With different attachments, including microtrenchers and ploughs, plus a variety of optional add-ons, operators can endlessly reconfigure their machine throughout its lifecycle to customise it for specific jobsite needs.

The RT70 is built to increase operator productivity with daily maintenance points in one easy-to-access location and a single-piece, easy-open hood. Fast and simple maintenance means that operators can spend their valuable time where it matters most, on the jobsite.

www.ditchwitch.com/ride-on/rt70

SPONSORS



TRACTO



RSM Lining Supplies
CHOICE AND TECHNOLOGY

McELROY
www.mcelroy.com

PRIMUS LINE
The prime solution for pipes.

VMT



A red and black Ditch Witch AT32 directional drill is shown in a rocky, wooded environment. The machine is compact and features the Ditch Witch logo and 'AT32' model number. A smaller image of the machine is visible in the bottom right corner of the main image.

A NEXT-GEN ROCK DRILL BACKED BY A ROCK DRILLING DYNASTY.

Rock might be a barrier to some—but not the Ditch Witch® AT32. The latest in a veteran line of rock drills, the compact AT32 lets you work in small spaces, pulverizing rock with 1,200 ft/lbs of inner rotational torque—and over 25 years of experience behind you. For more, visit ditchwitch.co.uk

AT32
DIRECTIONAL DRILL

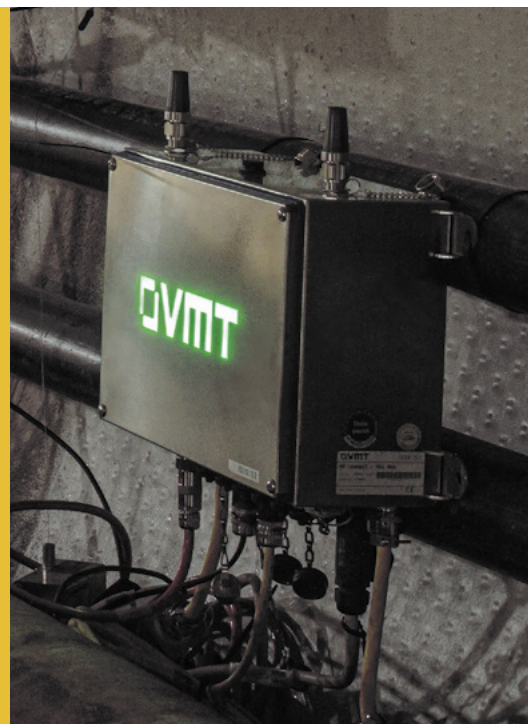
Ditch Witch®
UK & Ireland

WLAN included!

A real advantage that provides great support and time savings during repair and maintenance work in small diameter tunnels.



Just one of the benefits offered by TUNIS Navigation MT - our new, unique microtunnelling navigation platform.



www.vmt-microtunnelling.com

VMT



NEW SEWER PROJECT PROTECTS EMSCHER RIVER

Removing the TBM on completion of one of the Hüller Bach and Emscher River drives.

The Hüller Bach, a stream which flows through Herne in North Rhine-Westphalia, Germany, is the largest tributary of the Emscher River in the Ruhr area. For years the stream has effectively functioned as an above-ground sewer, with underground pipework not possible due to the region's coal mining activities.

As part of a project to protect both the Hüller Bach and Emscher River from wastewater discharges, under the designation of the Emscher conversion project, the sewerage system in and around Herne is undergoing a transformation. A cease in underground coal mining has brought with it the opportunity to move sewerage below the earth's surface, with the construction of a new 2.6 km sewer pipe string running underground and parallel to the stream.

Since 1992, the Emschergenossenschaft has been planning and implementing the Emscher Reconstruction project in close coordination with the surrounding municipalities, in which almost €5.5 billion will be invested over a period of about 30 years. Sonntag Baugesellschaft mbH & Co. KG, the contractor appointed to undertake the recent microtunnelling works, elected to work with VMT as long-time partner and guidance specialist. A Herrenknecht AVN1600 machine, enlarged to >

SPONSORS



TRACTO



McELROY
www.mcelroy.com

RSM Lining Supplies
CHOICE AND TECHNOLOGY

PRIMUS LINE
The prime solution for pipes.

VMT



Two more of the Hüller Bach and Emscher River drives completed.

2,160 mm o.d., was utilised for the project, supported by VMT's navigation systems SLS-Microtunnelling LT and TUNIS Navigation MT^{LaserTotalstation}.

Excellent collaboration between VMT and Centerline, that undertook the surveying for the project, contributed to the quick and successful completion of the excavation.

Three Successful Curved Drives

The new sewer sections were to be installed in three drives. Drive 1, covering a length of 350 m with a minimum curve radius 480 m, was completed in December 2020. Drive 2, completed between February and April 2021, had a length of 900 m with a minimum curve radius of 450 m. Drive 3 had a length of 700 m with a minimum curve radius of 450 m. This final drive was completed between April and May 2021.

Drive 1 utilised the standard SLS-Microtunnelling LT navigation system. This system is designed with a laser target unit, with a tunnel laser mounted in the start shaft of the drive and an active target unit placed in the machine. Data from the laser target continuously determines the exact position of the machine and displays any deviations from the desired alignment immediately on the monitor at the operator's position. According to Sonntag Baugesellschaft, Drive 1 was described as 'a winding 350 m long drive' which 'broke through the target seal with pinpoint accuracy'. >

SPONSORS





Breakthrough on one of the Hüller Bach and Emscher River drives.



For the two longer drives with tighter curves, the contractor utilised TUnIS Navigation MT^{LaserTotalstation}, VMT's latest incarnation of its laser-based guidance systems. In addition to the long distance and tight curvature of the latter drives, further challenges arose as a result of drilling restrictions on site. Usually, installation of the VMT system hardware takes place with the drilling and tightening of screws, allowing an easy workflow and flexibility in case of line-of-sight problems. For this project, however, drilling was not allowed in the tunnel as the inner surface of the pipe string needed to remain unaltered. As a result, sight distances needed to be precisely calculated in advance. In order to securely mount VMT hardware without the use of standard screws, tension rings were used during installation.

TUnIS Navigation MT^{LaserTotalstation} allows precise and efficient navigation of curved and long-distance drives. The expert system is based on the principle of invariance, where the horizontal and vertical position of the machine is determined by a laser total station in conjunction with several reference and target prisms and an electronic target unit inside the machine. The laser total station is permanently installed in the pipe string. An inclination sensor integrated in the electronic target unit measures pitch and roll of the machine. The system is drift and refraction-independent and requires 50% less control measurements than the gyro-based all-rounder system. This equates to less interruption of tunnelling, shorter downtimes, and significantly increased tunnelling performance.

With the main pipe string successfully completed, the project will end later in 2021 with the connection of the lateral sewer connections. This includes the connections at the Herne-Königsgrube pumping station, Herne-Hordeler Heide and the connection of the Herne-Röhlinghausen pumping station to the new sewer of the Emschergenossenschaft.

www.vmt-gmbh.de

SPONSORS



RSM Lining Supplies
CHOICE AND TECHNOLOGY





MULTIPLE ACHIEVEMENTS FOR ROBBINS TBMS

History has been made twice over at Turkey's Eşme-Salihli Railway Tunnel where a 13.77 m (45.18 ft) diameter Robbins Crossover XRE TBM has set new world records for best day, week, and month in the 13 to 14 m (42.6 to 46 ft) diameter range.

History has been made twice over at Turkey's Eşme-Salihli Railway Tunnel where a 13.77 m (45.18 ft) diameter Robbins Crossover XRE TBM has set new world records for best day, week, and month in the 13 to 14 m (42.6 to 46 ft) diameter range. The machine broke all three records first in May 2021 with 25.3 m (83 ft) in one day, 117 m (383.8 ft) in one week, and 345.6 m (1,134 ft) in one month, then again in June with 28.5 m (93.5 ft), 133.2 m (437 ft), and 455.4 m (1,494 ft) respectively. The TBM, which sat in storage for seven years before being newly upgraded for this project, proves the robust durability of Robbins machines.

The Crossover TBM surpassed all previous performance rates by a machine in its size range. The closest another 13 to 14 m (42.6 to 46 ft) machine has come to these numbers was a 13.7 m (45 ft) diameter mixed ground TBM that achieved a 7 m (23 ft) average per day and a best day of 12 m (39 ft) at the Eurasia Tunnel project. >

SPONSORS



TRACTO



RSM Lining Supplies
CHOICE AND TECHNOLOGY

McELROY
www.mcelroy.com

PRIMUS LINE
The prime solution for pipes.

VMT

Thus far the Robbins machine has encountered a mix of mudstone and gneiss, achieving records of 28.5 m (93.5 ft) in one day, 133.2 m (437 ft) in a week, and 455.4 m (1,494 ft) in one month.



The MDM5000 (standing for Mine Development Machine with dimensions of 5.0 m x 4.5 m) is capable of excavating a flat tunnel invert in hard rock.

Onur Kansu, TBM Manager for project contractor Kolin Construction, attributes the machine's success to the team operating it: "The most important reason for achieving fast advance rates is that we have an experienced and qualified team. If we open it up even further, such a team allows us to anticipate the malfunctions and to go to the solution in a very short time. In addition, all necessary maintenance is carried out on time, and the appropriate consumables are selected to increase the performance."

The machine launched on its 3.05 km (1.90 mile) bore at the end of March 2021 as part of the Ankara-Izmir High Speed Railway Project for the Turkish State Railways (TCDD). Thus far the machine has encountered a mix of mainly mudstone with gneiss. "When we look at the overall tunnel geology," said Kansu, "We are excavating in complex and weak ground. In this geology, the advantages of the Robbins XRE TBM are highly favourable. The Robbins XRE TBM shows high performance in both complex and weak ground. It should also be noted that the TBM is very strong when looking at parameters such as torque and thrust." To get through the challenging conditions, the large diameter XRE has a number of unique features. The large diameter design enables both a screw conveyor and belt conveyor to remain in place, enabling swift conversion between modes, and operation in full EPB and hard rock modes.

Regarding the future of the Turkish tunnelling industry, Kansu is optimistic about the effects these new records will have saying: "It has been seen how well the engineers and application teams in Turkey have excelled in complex geologies and the large-scale tunnelling industry. At the same time, it has shown to the whole world, especially Turkey, that with the right choices, it is possible to carry out excavations of this scale and complex geology without any problems and quickly. This project will be a pioneer in the Turkish tunnelling industry, showing that faster and more economical tunnels can be built." >

SPONSORS



The prime solution for pipes.





Developed by Robbins for use in rock up to 200 MPa UCS, the MDM5000 excavates with a reciprocating cutterhead and swinging cutterhead motion to create a rectangular cross section tunnel.



A crew member operates the MDM5000 in Fresnillo, Mexico from a state-of-the-art, air-conditioned control cabin using touch screen technology.

Mine Development Machine

Meanwhile, Robbins' latest innovation is making good headway on a non-circular tunnel excavation in hard rock. The rectangular TBM, known as the MDM5000 (standing for Mine Development Machine with dimensions of 5.0 m x 4.5 m) is capable of excavating a flat tunnel invert for immediate use by rubber-tired vehicles. Employed by Mexico's oldest silver mine, Fresnillo Plc, the MDM5000 is boring a mine access tunnel in andesite and shale with quartz intrusions that has defied earlier attempts using roadheaders. The successful operation is the result of extensive discussions between Robbins, that designed and supplied the machine, with TOPO machinery and Fresnillo Plc.

"We decided to work with Robbins for their experience. A lot of people have tried to provide these kinds of machines but nobody has done it. Robbins used its experience and skills to provide us with a rectangular profile machine." said Fidel Morin, Projects Superintendent for Fresnillo Mine.

The technology is not only useful for the mining industry, but also for many applications in civil tunnelling. While other machines have been developed for soft ground, the MDM5000 represents the first successful foray into rectangular hard rock tunnelling. "We are very pleased to add non-circular tunnelling to our wheelhouse of solutions that continues to include TBMs, conveyors, cutters, and more. We see applications for the MDM wherever a rectangular profile is needed, such as train tunnels requiring a flat invert. In a traditional circular tunnel, the invert is filled or an invert segment >

SPONSORS

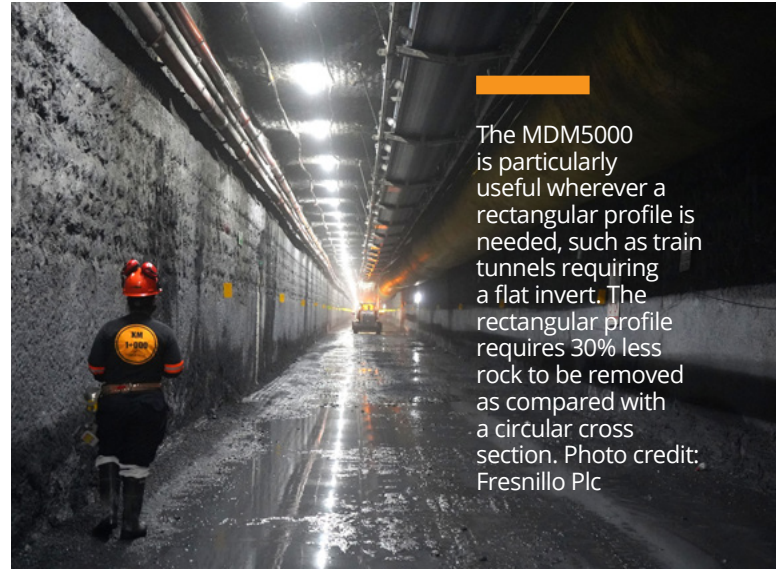


RSM Lining Supplies
CHOICE AND TECHNOLOGY





Robbins Field Service personnel inspect the cutting face of the MDM5000 tunnel operation. To date, the machine has bored more than 1,700 m at rates up to 52 m in one week and 191 m in one month.



The MDM5000 is particularly useful wherever a rectangular profile is needed, such as train tunnels requiring a flat invert. The rectangular profile requires 30% less rock to be removed as compared with a circular cross section. Photo credit: Fresnillo Plc

is needed, but with the MDM 30% less rock is required to be removed from the profile.” said Robbins President Lok Home.

With more than 1,700 m of advance thus far at rates up to 52 m in one week and 191 m in one month, the MDM is significantly faster than drill & blast excavation. “We are making history. Fresnillo is always looking for new technology, and we believe that the usage of the MDM5000 is going to be something extremely successful, not only for our company but also for the industry.” said Morin.

The MDM5000 has undergone major component enhancements during the course of its successful bore at Fresnillo mine. It was first transported to the -695 m level of the mine and underwent final assembly and launch in a cavern, where sections of the MDM were moved by crawlers and pieces were lifted by hoist. The machine is now boring a 270-degree spiral to end above the original tunnel. It will then be backed up to the original tunnel and continue driving straight ahead.

Developed for use in rock up to 200 MPa UCS, the MDM5000 utilises disc cutter technology proven on traditional, circular TBMs. During excavation a reciprocating cutterhead and swinging cutterhead motion create a rectangular cross section tunnel.

The MDM offers a number of advantages over drill and blast. MDM tunnelling has advance rates roughly twice those of a drill and blast heading, and results in smooth tunnel walls, less overbreak, and minimised ground support. The increased advance rates are partly due to the machine’s continuous progress, unlike drill and blast operations where crews must exit the tunnel during blasting for safety. In addition, simultaneous ground support installation further increases overall advance rates compared with drill and blast operations that must install ground support sequentially.

www.robbinstbm.com

SPONSORS



TRACTO



ANNULAR SEALING BAGS ASSIST IN ELIMINATING ODOURS AND WATER INGRESS

The SVI Contract Services team, part of Steve Vick International Ltd, was recently recruited by a contractor, working in partnership with a Gas Distribution Network, on the GD1 mains replacement programme, to seal the annular space of an 18 in (450 mm) diameter gas main. >

SPONSORS



TRACTO



Inserting the new pipe into the old main prior to sealing. Bottom: Preparing an SVI Annular Sealing Bag.



Preparing an SVI Annular Sealing Bag.

The main had reports of residual gas smells and water ingress. In order to prevent this recurring, the annular space in the host pipe required sealing to prevent water entering, or odours escaping.

The edges of the main were jagged and so it was not possible for the SVI Contract Service team to use an SVI Dead Endseal, instead the SVI Annular Sealing Bag offered the ideal solution. The benefit of Annular Sealing Bags is that they can be installed without the added process of a straight cut. They are also quick and simple to install.

The Annular Sealing Bags are made up of compartments which house the standard SVI FOAMPACK sachets. FOAMPACK™ is an annular sealant that can be used when a steel service has been inserted with PE pipe. FOAMPACK™ comprises PU foam and a hardener contained in a two-part sachet. Once the central strip is removed from the sachet, the contents can be thoroughly mixed together without the operator coming into contact with the sealant.

Being an expanding sealant, FOAMPACK™ provides an extensive distance of travel when longer lengths of annular space need to be filled. Once the sachets are mixed, the foam expands inside the bag giving it the crescent moon shape and then excess foam leaks from the porous panels to create a barrier eliminating gas movement and water ingress around the PE. This results in the annulus being completely sealed.

www.stevevick.com

SPONSORS



TRACTO



RSM Lining Supplies
CHOICE AND TECHNOLOGY



The prime solution for pipes.



Specialists in Grout Filling of Abandoned Pipework & Voids



A highly skilled team offering cost saving solutions

OUR SERVICES:

- ✓ Sealing off redundant pipes and voids from direct or remote locations, using our range of pipe sealants
- ✓ Abandoning gas pipes, water pipes, electricity ducts, filling manholes, cellars, storage tanks and annular spaces

BENEFITS:

- ✓ Prevents surface slump
- ✓ Prevents the passage of water, odour and vermin
- ✓ Stabilises ground prior to construction
- ✓ Remote application reduces disruption

35 Years Experience | Reliable | Emergency Call Out | Free Site Visit

www.stevevick.com | 01225 864864



ADVERTISE YOUR PRODUCTS
AND SERVICES
TO THE HEART OF
THE TRENCHLESS COMMUNITY

Call us on +44 (0)1923 723990 or email tdorrell@westrade.co.uk

TRENCHLESSWORKS

THE VOICE OF THE TRENCHLESS COMMUNITY

NEW VERMEER VXT300 TRUCK-MOUNTED VACUUM EXCAVATOR



The new Vermeer VXT300 truck vac.

Vermeer recently upgraded its truck-mounted vacuum excavator range with the new VXT300 truck vac. The VXT300 is outfitted with an 8 cubic yard (6.1 m³) spoil tank, 6 in (152 mm) dig tube and the ability to carry up to 800 gallons (3,028 l) of water, so crews can maximise productivity on the job. It is one of the lightest truck vacs in its class and designed with a low overall height of just 11½ ft (3.51 m) to efficiently transport spoils from the jobsite to the dumpsite.

According to Jake Jeffords, director of sales, marketing and global accounts at Vermeer MV Solutions®, the VXT300 is the next generation of 8 cubic yard (6.1 m³) truck vacs, replacing the VXT8 Mega vacuum excavator in the Vermeer line. “We have made several upgrades to this truck vac and updated the model number to better align with the rest of the Vermeer truck vac line,” he explained. “It is a mid-sized PTO vacuum excavator for utility contractors working on projects where several holes need to be dug and for drilling crews using large volumes of drilling fluid. It is also a great fit for municipalities and contractors working on sites that only allow for soft digging methods, such as solar farms and data centres.”

The Vermeer VXT300 is built on a Kenworth T370 truck chassis with a 350 hp (261 kW) diesel engine and a 6-speed automatic 3,000 RDS Allison transmission. The truck's PTO drive powers its Roots 624 vacuum blower with a maximum flow of 3,500 cfm (99 m³/min) and maximum suction of 18 in Hg (0.6 bar). With a water pump capable of producing 10 gpm (37.9 l/min) at 3,000 psi (206.8 bar), the VXT300 delivers productivity on large jobs as well as when digging at deeper depths. In addition, this truck vac's PTO drive system allows the vac to keep running while repositioning the truck between holes, rather than requiring full machine shutdown, for optimal efficiency on the job.

The control system on the VXT300 makes it possible to be operated by one person using a durable full-function belly-pack or handheld remote. The VXT300 also comes with a reverse flow option to assist with spoil offloading and clearing hose clogs.

The spoil tank in the VXT300 has a cam-over hydraulic door and in-tank washout. Optional equipment includes winter packages with a 420k BTU water heater, as well as an onboard PTO-driven air compressor.

www.vermeer.com

SPONSORS



RSM Lining Supplies
CHOICE AND TECHNOLOGY



The prime solution for pipes.



APPLICATION LIMITS OF LED CURING: WHAT WORKS, WHAT DOESN'T?

A liner cured using LED techniques.

While light curing of non-flexible pipe liners in sections and main sewers has undoubtedly been a standard technique for more than a decade, light-curing processes for curing flexible pipe liners for property drainage have only established themselves in the market in recent years.

The Per Aarsleff A/S, Bluelight process, based on flexible synthetic fiber carriers, styrene-free vinyl ester resin and patented LED curing in the wavelength range of blue light, was brought to product maturity from 2008 to 2014. With the establishment of Bluelight GmbH, the system was initially available to German-speaking market areas from 2016 as part of a B2B concept. A little later, the Bluelight concept was also transferred to Central and Southern Europe. In a final step, the technology is now available worldwide through licensees. >

SPONSORS



TRACTO



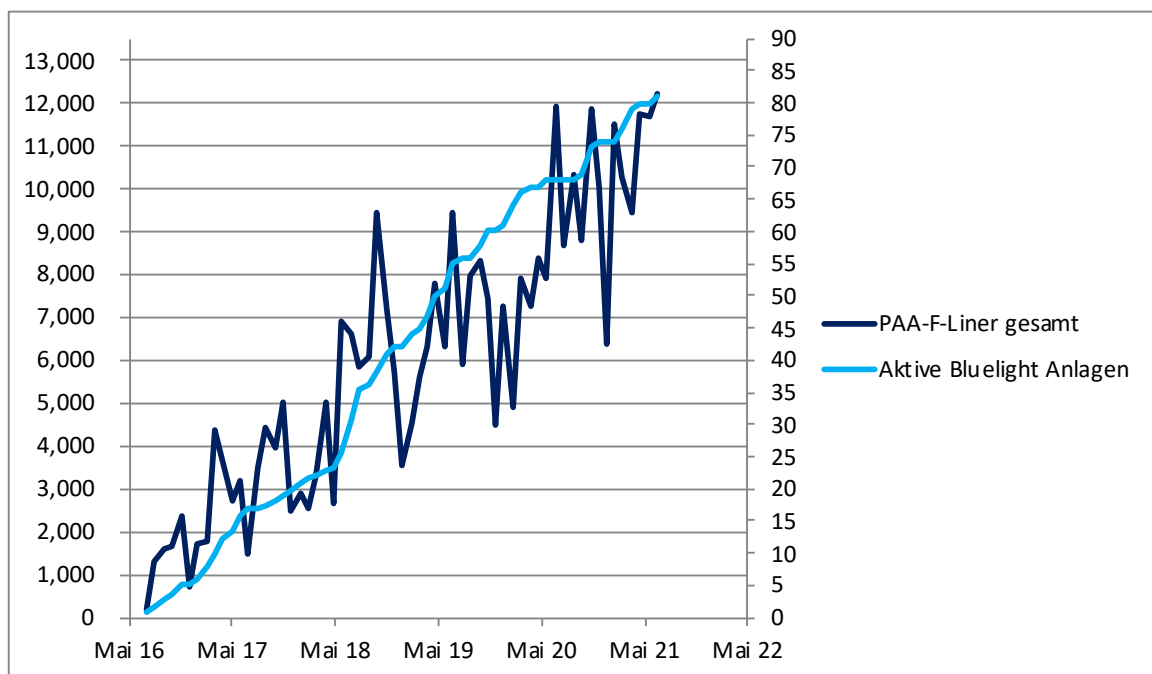
RSM Lining Supplies
CHOICE AND TECHNOLOGY



In Europe alone, the Bluelight LED system now has the establish experience with the installation of almost 750,000 m of installations, and 100,000 individual installations, including installations from Per Aarsleff's own installation crews as well as Bluelight GmbH users.

At the end of 2020, 171 active Bluelight supply and control units as well as 377 curing units were active worldwide, about 40% of them within the area of responsibility of Bluelight GmbH.

Bluelight sees itself as a system provider. Bluelight light sources are only intended and suitable for curing its own pipe liners, the PAA-F-Liner and PAA-G Liner. Both the device technology and the resin are patented and only available as a package. The Bluelight resin was specially developed for this application and wavelength range. Liners can be pre-impregnated. The wavelength of the light-curing resin is in the range of visible blue light at 450 nm. It is, contrary to repeated false assumptions or statements, not UV light.



Business development of Bluelight GmbH | Ratio of active Bluelight LED systems and installed PAA-F liner meters per month

What are the success criteria for light curing in property drainage? The light curing of pipe liners in property drainage offers:

- higher speed than heat curing,
- high process reliability and lower error potential,
- a system-dependent storage stability of the pipe liners,
- Depending on the system, the option to purchase factory impregnated liners or impregnation on site.
- potential savings in fuel costs compared to hot curing and

SPONSORS



RSM Lining Supplies
CHOICE AND TECHNOLOGY



The prime solution for pipes.



“The Bluelight LED system has proven to be reliable, robust and sustainable in the market.”

better CO2 balance,

- lowest emissions in terms of noise or odours
- minimal waste
- a highly portable technology.

The Bluelight LED system has proven to be reliable, robust and sustainable in the market. Initial scepticism towards the ‘supposedly new’ technology gave way with the steadily increasing number of satisfied users and end customers, as well as due to more and more successfully implemented measures and projects.

How do the pipe liners (PAA-F Liners) harden with the Bluelight LED System? Bluelight GmbH answered this question in 2020 with residual methacrylate provisions. Classic light curing works by polymerisation. For unsaturated styrene-containing polyester resins (mainly used in the main channel), the determination of the residual styrene content can serve as an indicator of the degree of curing. The target value is ≤ 2 mass%. Styrene-free vinyl ester resins (mainly used in property drainage) contain methacrylates or acrylates instead of styrene. The Institute Siebert und Knipschild (S&K) has been able to determine residual methacrylate contents in liner samples since 2020. As part of the annual DIBT monitoring site, Bluelight GmbH will then have the residual methacrylate content determined at the site samples obtained since 2020. In addition, in cooperation with S&K, residual methacrylate contents were determined on further PAA-F-liner samples hardened with Bluelight.

The residual methacrylate content of the PAA-F liners cured with Bluelight LED technology ranges from 0.1% to 0.2%. In terms of the quality of the curing, they are comparable to the residual styrene content of hot-cure liners and even better (lower) than the residual styrene content of UV light-curing GRP liners that can normally be achieved.

However, the Bluelight results for the PAA-F-Liner are purely system-specific. They are not generally valid for other systems or even combinations of curing technology and resins.

However, the results show that excellent curing can be achieved with LED curing if the lighting technology has been optimally matched to resin and carrier material, sufficient light intensity is available for curing and curing speeds have required securities.

In addition, Bluelight GmbH is the only system provider with the main area of application in property drainage repeatedly submitted to the IKT Liner Report. After 2018, Bluelight GmbH again achieved 100% in all test categories with the LED-curing PAA-F liner in the 2020 report. As a system provider, Bluelight GmbH is not audited by the customer without processing work contracts. Therefore, samples for the liner report were collected

SPONSORS



TRACTO



McELROY

PRIMUS LINE

The prime solution for pipes.

RSM Lining Supplies
CHOICE AND TECHNOLOGY

VMT



A cut-away through a lined pipe.

"In March 2020, the PAA G-Liner standard with styrene-containing UP resin in different speed ranges (20, 30, 40, 50, 60 m/h) was hardened with this prototype for UV light curing."

at various construction sites of the own demonstration and rental plant, exclusively by Bluelight application technicians. The result shows that the system technology can reach 100%, provided that the employees know 100% how to proceed during installation, curing and sampling.

Can the experiences and successes of LED technology also be transferred to light curing of pipe liners for larger nominal widths and should not LED technology also be used for curing non-flexible GRP pipe liners in main channels? Does the UV LED curing of GRP/UP liners work at all?

In social media there are repeated advertising promises with the corresponding message: "With UV-LED diodes, any standard GRP pipe liner can (allegedly) be cured with styrene-containing unsaturated polyester resin. UV LED diodes could (allegedly) replace the existing UV gas discharge lamps."

Does this claim consist of a fact check? As of August 2021, no UV-LED light source was approved by a GRP pipe liner manufacturer for DIBT-compliant curing of UV-curing GRP pipe liners. The DIBT approvals do not cover UV LED curing.

Due to the aforementioned advertising promises, Bluelight GmbH repeatedly received inquiries from its own users, whether with modified device technology (LED diodes in the UV range ≤ 400 nm instead of in the blue light range of 450 nm) the curing of light repeatedly claimed by others is not possible.

In coordination with Per Aarsleff A/S, a cylindrical prototype equipped with UV LED diodes was built for clarification. The cylinder shape was chosen to achieve the longest possible exposure time at maximum intensity.

In March 2020, the PAA G-Liner standard with styrene-containing UP resin in different speed ranges (20, 30, 40, 50, 60 m/h) was hardened with this prototype for UV light curing.

Residual styrene levels were determined in an external laboratory for plastics technology. These were between 5.4% and 10.3% of the total application and thus significantly too high compared to the usual results with conventional UV curing (target $\leq 2\%$).

As a result, the following should be noted:

- UV-LED diodes do NOT achieve complete qualitative curing of the UV-curing liner impregnated with styrene-containing polyester resin currently available on the market.
- In order to completely polymerise these liners, the photo initiators currently used would first have to be modified specifically to the wavelength of the LEDs.
- LED diodes provide hardly any heat energy compared to UV gas lamps, which is obviously required for polymerisation of styrene-containing UP resins with standard photo initiators.

SPONSORS



The prime solution for pipes.



“After knowledge of the experiment initiated by RS-Technik, Bluelight GmbH decided to test its own light-curing system PAA-F-Liner LED.”

A further aspect of the light-curing flexible pipe liners for use in property drainage was ‘ring gap formation’. In this regard, the question was raised as to whether an annular gap-free installation with flexible light-curing pipe liners and styrene-free VE resin can be realised.

In the summer of 2019, RS-Technik AG first published a report on a successfully carried out test for ‘rear-travel-free house connection renovation (using hose liners) with epoxy resins’. The proof of the watertight connection of the RS MaxLiner epoxy resins to plastic and cast pipes was demonstrated in the test. The rehabilitation goal of the watertight and trailing connection was achieved via the connection of the liner with the pipe.

The design was successfully carried out for a selection of plastic and cast pipe materials. The test was accompanied and documented by experts.

After knowledge of the experiment initiated by RS-Technik, Bluelight GmbH decided to test its own light-curing system PAA-F-Liner LED equally. It had to be clarified whether a positive test result could be achieved due to the lower adhesive effect and the chemical volume shrinkage of the styrene-free vinyl ester resins compared to epoxy resins. The test was accompanied and documented by experts. The test set-up included complete greasing of the previously roughened tubes, high-pressure cleaning, liner cleaning and curing, as well as drilling the outside of the tube with attachment of test hoses and filling with test liquid to build up a water column.

The result was an annular gap-free installation of the PAA-F liner during curing with Bluelight LED light sources depending on the pipe materials. Chemical volume shrinkage occurs due to curing overpressure on the inner liner side and does not lead to an annular gap between liner and old pipe.

As a result, the following should be noted:

- Pipe liners with styrene-free light-curing vinyl ester resins can be installed ring-gap-free under certain defined conditions depending on the old pipe material.
- In order to reproduce the test result, a sufficient adhesive base must be produced in advance and the old pipe material must be precisely known.
- The waiver of subsequent connection work at pipe ends or side inlets is not a DIBT approval component.
- The static design concept according to DWA-A 143-2 is based on a positive-fit pipe liner. According to the current static design concept of the DWA, a force or material adhesion cannot be calculated by the algorithms of the available standard software.

Last but not least, the topic of light-curing epoxy resins will be

SPONSORS



RSM Lining Supplies
CHOICE AND TECHNOLOGY



The prime solution for pipes.



“As of August 2021, no UV-LED light source was approved by a GRP pipe liner manufacturer for DIBT-compliant curing of UV-curing GRP pipe liners.”

highlighted. Is light-curing epoxy resin possibly the future?

In social media, there are repeated advertising promises such as: ‘Light-curing epoxy resin is the future in property drainage, as it would (allegedly) glue.’ Various suppliers boast to have corresponding resins on offer.

The topic is also mentioned here and there in technical articles, but with a little more restraint than on Facebook or LinkedIn. What are the current facts?

As of August 2021, there is no DIBT approval for a tube liner system based on light-curing epoxy resin. There are also no registrations outside Germany.

Bluelight GmbH has intensively tested and evaluated light-curing epoxy resins in coordination with Per Aarsleff A/S. After the first unsuccessful experiments, functioning solutions are now available under laboratory conditions.

What are the advantages of light-curing epoxy resin over the proven styrene-free light-curing VE resins?

According to the current state of the art, light-curing epoxy resin can be useful in the future in flexible pipe lining in the domestic area, since no minimum ring stiffness is required there and the resin consumption per meter is low. The currently available resins are not suitable for wide use in property drainage. >

	Light-curing styrene-free PU resin	Light-curing EP resin
Selling price / Market price	13 - 17 € / kg *)	25 - 45 € /kg *)
E-module short-term	2,200 - 3,200 N/mm ²	950 - 1,600 N/mm ²
Bonding	generally possible, can be modified	very possible
Shrink	Volume shrinkage about 4-6%, but depending on the carrier material without impact, risk of thermal shrinkage	Low volume shrinkage, but risk of thermal shrinkage

Comparison of light-curing styrene-free VE resin with light-curing epoxy resin.

SPONSORS



Ditch Witch
UK & Ireland



TRACTO

McELROY
www.mcelroy.com



RSM Lining Supplies
CHOICE AND TECHNOLOGY

PRIMUS LINE

The prime solution for pipes.

VMT

“Further developments are to be expected. However, by far not everything that is touted as a future here and there already works. A critical examination of overly optimistic advertising promises is worthwhile.”

Summary

The light curing of flexible pipe liners has arrived in the small nominal widths of the plot drainage and has successfully established itself there. There are well and safely functioning techniques. However, general and special application limits and areas of application must be carefully observed. In order to ensure optimally coordinated solutions, system provider models seem to prevail in land drainage. Any combination of hardening technology, pipe liners and resins, however, have so far been classified as questionable and possibly even dangerous, especially since for wild combinations neither a complete initial and aptitude test is still a DIBT approval.

Further developments are to be expected. However, by far not everything that is touted as a future here and there already works. A critical examination of potentially overly optimistic advertising promises is worthwhile.

PBF Drainage is the UK sales agent for the Bluelight system and materials, carrying out ongoing training. Ongoing investments into Bluelight equipment means that clients can use PBF's hire equipment once trained, until they generate work volume to warrant purchasing additional equipment of their own.

Working with existing and new contractors within the UK has benefitted the industry by increasing quality and providing the end client with a high quality, long lasting finished product. This increased quality is what should be provided to all customers due to the severe implications of failed drainage.

SPONSORS



TRACTO



RSM Lining Supplies
CHOICE AND TECHNOLOGY



The prime solution for pipes.





Benefit from Bluelight LED curing system

Are your liners still curing with heat or ambient cure resins?
Do you know the advantages of using LED lights?



Patented LED Technology
(EP 2 129 956 B1)



PAA F-Liner
WRC Certified
PT/437/0519



Curing System
WRC certified
PT/437/0519

All from a single source with support and materials supply along with installation equipment and materials, including Krasotech inversion equipment compressors and generators.

PBF Drainage Services Ltd, 27 Rothersthorpe Crescent, Northampton NN4 8JD
01604 753558 **sales@pbfdrainage.co.uk** **www.pbfdrainage.co.uk**

SMART Torque®
Electronic Torque Wrench By Norbar®

THE SMART WAY TO RECORD MECHANICAL JOINT INSTALLATION

Accurate Torque Force Data | Geo-Log Images
Sequence Assistance | Full Traceability & Assurance

AVAILABLE FOR HIRE NOW

Contact us 01582 699343



NEW EXTREME COLD RESIN

“The Perma-Liner Industries Clearwater headquarters and all distribution centres will stock and supply the new extreme cold 4:1 resin to its customers in North America.”

Waterline Renewal Technologies, a portfolio company of Behrman Capital, recently announced that Perma-Liner Industries is now offering an extreme cold 4:1 resin that provides its customers with a lower viscosity product when used in colder temperatures and more stability during transportation. The new 4:1 mixture is a styrene-free epoxy resin used for mainlines, laterals, and verticals in extremely cold conditions.

The Perma-Liner Industries Clearwater headquarters and all distribution centres will stock and supply the new extreme cold 4:1 resin to its customers in North America. The resin will come in 40 lb (18 kg) buckets consisting of A resin and B hardener sold separately. Additional product features include 15-minute pot life, 30-minute work time in 50oF to below 30oF (10oC to below 1oC), cure times ranging from 1½ to 4 hours, and meets and exceeds ASTM F1216 standards.

“The addition of the 4:1 extreme cold resin now rounds out our resin portfolio, providing our customers one-stop for all their trenchless needs,” stated Chris Duda, vice president of sales and marketing for Waterline Renewal Technologies. “The extreme cold 4:1 resin is just one of many ways we are providing trenchless solutions for our customers and helping them to grow their business.”

Perma-Liner Industries offers 12 different resins for all types of rehabilitation projects that are eco-friendly, compatible with its products and provides minimal shrinkage for maximum adherence to the host pipe. The resin portfolio consists of 100% solids epoxy resins that are used for standard lateral lining in ambient and heat-assist options, CIPP industry-standard resins, and specialty resins for specialised projects in industrial and environmentally sensitive regions.

Waterline Renewal Technologies and its portfolio of brands is a leading provider of engineered products used in trenchless repair and rehabilitation of wastewater/stormwater infrastructure for municipal, commercial/industrial and residential applications, and provides a diverse range of products and services through its brands APM, LMK Technologies, Perma-Liner Industries, and LightRay.

www.waterlinerenewal.com

SPONSORS



TRACTO



RSM Lining Supplies
CHOICE AND TECHNOLOGY



The prime solution for pipes.



PointLiner-System BODENBENDER

For over 20 years now, the Point-Liner® system has been an established and proven solution for the partial repair of damaged sewers and pipes, delivering the essential conditions for achieving a high-quality outcome.

It is one of the cornerstones of our compatible systems:

> **Multi Point-Liner® resin:**

The two-component polyurethane resin developed by us.

> **FibreglassMatting:**

The supporting element of the PL® system with excellent chemical properties and excellent resistance (e.g. against lyes and acids).

> **Bodenbender Packer:**

Reinforced rubber material for flexible handling.
Now also with a connector for steam feed.



As standard up to DN 300 - special sizes on request!

Already over 350,000 Point-Liner® systems fitted worldwide!

Bodenbender CombiPack:
Cover, resin and matting.
All you need - ready to use.



Bodenbender miniSet:
All you need to start partial
pipe rehabilitation.
Including training!



www.bodenbender.com
info@bodenbender.com
Phone: +49 6461 98 52 0

UTILITIES UNLEASHED

Moving plant around in difficult site conditions, takes time and effort, can lead to delays and ultimately costs money. The new Atlas Track Mounted Grundowinch RW10 takes the strain out of tough conditions. It's track-mounted for rough terrain and features a hydraulically operated blade to anchor and stabilise the winch during pulling operations.

If you need a winch, talk to the experts. Talk to Atlas.

TRACK MOUNTED GRUNDOWINCH RW10

- 10tonne line pull
- Constant tension capability
- 1,000metres of usable rope length
- Full radio remote control system
- Touch screen data-logging technology with printer and USB download facility



T: +44 (0)1899 221 577 (Scotland)
T: +44 (0)1371 859 555 (Essex)
E: info@winchhire.com W: winchhire.co.uk

ATLAS
WINCH & HOIST SERVICES LTD.



VERMEER AND CONMEQ ELECTRIC MINI SKID STEER LOADERS FOR EUROPE



A Swietelsky-Faber GmbH
team on site.

Vermeer Corporation has entered into a distribution agreement with Conmeq Construction Equipment & Machinery B.V., to supply Conmeq-branded electric mini skid steer loaders to be sold, serviced and supported through Vermeer industrial dealers in Europe.

Based in Budel, The Netherlands, Conmeq manufactures a fully electric, rubber-tired mini skid steer model, the AS15, with a 500 kg lifting capacity. The Conmeq AS15 has been in production at the company's Budel facility since late-2020 and has been sold through independent dealers in the Benelux region. >

SPONSORS



TRACTO



McELROY
www.mcelroy.com

PRIMUS LINE

The prime solution for pipes.

RSM Lining Supplies
CHOICE AND TECHNOLOGY

VMT

“Bringing a fully electric loader to market with Conmeq is another important step in the Vermeer strategy to rapidly offer electric options for our customers who are demanding emission-free, high-performing equipment.”

With this agreement, Conmeq is now delivering units to be sold through those existing distribution partners in Benelux and exclusively through Vermeer dealers across the rest of Europe from the third quarter 2021.

“Bringing a fully electric loader to market with Conmeq is another important step in the Vermeer strategy to rapidly offer electric options for our customers who are demanding emission-free, high-performing equipment.” said Doug Hundt, president of Vermeer Industrial Solutions. “These electric mini skid loaders with their compact size and cleaner running capability are well suited to help increase productivity and reduce labour for indoor demolition, interior construction and other applications where zero emissions and minimal noise are required.”

The AS15 is configured using a fully electric propulsion system that is unique to the electric compact loader market. Unlike electric-over-hydraulic systems that are more common, this configuration offers more direct power to each of the four independent wheel motors, offering efficient battery usage and high expected run times. The only hydraulic components are the boom functions and the auxiliary hydraulic feature. Additionally, the electric system uses a stackable, rechargeable battery power system, meaning more batteries can be added onto the unit to increase run time between charging.

With the growing need for cleaner-running equipment, particularly in Europe, Vermeer is building an electric equipment focus that is dedicated to rapidly bringing practical, electric technology to market, first in Europe and then other developed markets where electric-powered equipment demand is growing. The AS15 partnership builds on the company's decade-long history with stationary and semi mobile electric products and the recent acquisition of electric horizontal directional drilling systems technology.

The AS15 will not be immediately available in markets outside of Europe as it is currently configured to match the needs and regulations of that market. As the company focuses first on Europe with this product, Vermeer will continue to build out its electrification strategy globally. This includes continuing the global commercialisation of innovative electric horizontal directional drilling systems and exploring how to quickly bring electric compact equipment options that fit the demands of markets in other regions of the world.

www.vermeer.com

SPONSORS



TRACTO



RSM Lining Supplies
CHOICE AND TECHNOLOGY



The prime solution for pipes.





NO-DIG EVENTS

International No-Dig events brought to you by the industry's world experts



NO-DIG ROADSHOW GLASGOW

7 October 2021

DoubleTree by Hilton Westerwood, Glasgow

www.nodigroadshows.co.uk



TRENCHLESS MIDDLE EAST 2021

12th International Conference and Exhibition

13-14 December 2021

Festival Arena by InterContinental, Festival City, Dubai, UAE

www.trenchlessmiddleeast.com



TRENCHLESS ASIA 2022

12th International Conference and Exhibition

27-28 July 2022

Kuala Lumpur Convention Centre, Kuala Lumpur, Malaysia

www.trenchlessasia.com



NO-DIG LIVE 2022

16th Biennial Exhibition, Live Demonstrations and Technical Sessions

13-15 September 2022

East of England Arena and Events Centre, Peterborough, UK

www.nodiglive.co.uk



NO-DIG HELSINKI 2022

ISTT's 38th International No-Dig Conference and Exhibition

3-5 October 2022

Messukeskus Helsinki Expo and Convention Centre, Helsinki, Finland

www.nodighelsinki.com



t: +44 (0)1923 723990

e: trenchless@westrade.co.uk

w: www.westrade.co.uk

twitter: @WestradeGroup



ISTT SOCIETY NEWS

ISTT News brought to members by Trenchless Works

A MESSAGE FROM THE CHAIR



Jari Kaukonen, Chair, International Society for Trenchless Technology

Hi ISTT members!

I feel a bit more free from the Covid-19 pandemic although it is here and live and will be with us many years from now.

People of my age are vaccinated twice in many areas. That will help to open the borders. That means that I am very convinced that the next ISTT's No-Dig international conference will take place in from 3 to 5 October, 2022 in Helsinki in the usual face-to-face style. That will be like a trenchless week, starting on Friday the 30 September with an ISTT research colloquium ending on Thursday the 6 October with a post conference tour.

I am so proud to inform you that two Finnish companies have already agreed to be sponsors for the Helsinki Conference: Picote and Geonex. Now we are waiting for the main foreign companies to join the sponsoring group. Visit the website: www.nodighelsinki.com for more details.

The pandemic period has also meant that the ISTT Board has served one extra year. Our Board decided to make an exception and extend the normal three-year period for the Board to four. That means we will have the next election for Board members in Helsinki where we have the Council meeting on Sunday 2 October. I am so eager to see you all in Helsinki next Year. But before that we have many other possibilities to meet. I have two vaccines already and therefore ready to travel again. I promised to be in Montpellier in France during the FSTT meeting in the end of September, and in October in Taipei when CTSTT has its annual meeting. I hope that these visits are able to come true.

We have received some inquiries from different regions to establish an Affiliated Society to ISTT. We will see if they can build up a local society and then join to ISTT. I wish all best for those trials.

Meanwhile I wish you all a nice autumn period!

SPONSORS



TRACTO



RSM Lining Supplies
CHOICE AND TECHNOLOGY



The prime solution for pipes.





TRENCHLESS ASIA 2022

27-28 July

Kuala Lumpur Convention Centre, Kuala Lumpur, Malaysia

The twelfth event in this outstanding series returns to Kuala Lumpur.

Floor plan extended due to phenomenal demand – Book your stand now

- Trenchless Technology
- Underground Infrastructure
- Pipeline Technologies
- Underground Utilities
- Trenchless Solutions for Urban Flooding
- Knowledge Transfer
- Green Technology

For more details regarding exhibiting and sponsorship opportunities please contact:

Paul Harwood at pharwood@westrade.co.uk or +44 (0)1923 723990

Stuart Hillyard at shillyard@westrade.co.uk or +44 (0)1923 723990

Book your stand today – pharwood@westrade.co.uk



Organised by



Supported by



Official Media Partner

TRENCHLESSWORKS

Media Partner



Platinum Sponsors

CMEI Group, Inc.



FORWARD



TANGXING
Pipe Jacking Machine

Gold Sponsors

DIGITAL CONTROL

PICOTE
LIFE FOR PIPES



www.trenchlessasia.com



AFFILIATED SOCIETIES

ISTT Affiliated Societies around the world



Austrian Association for Trenchless Technology (AATT)

c/o TU Wien Resselgasse 5,
1040 Wien, Austria
Phone: +43 664 5184084
Email: office@grabenlos.at
Web: www.grabenlos.at



Brazilian Association for Trenchless Technology (ABRATT)

Alameda Santos, 1773 – Jardim
Paulista Sao Paulo
01419-002 Brazil
Phone: +55 11 983893450
Email: hrosas@abratt.org.br
Web: www.abratt.org.br



Australasian Society for Trenchless Technology (ASTT)

18 Frinton Place Greenwood,
6024, WA, Australia
Phone: +61 (0)8 9420 2826
Email: jeffpace@astt.com.au
Web: www.astt.com.au



Bulgarian Association for Trenchless Technology (BATT)

Kaprinka Lake Village Kazanlak
6100, Bulgaria
Phone: +359 2 4901381
Email: info@batt-bg.org
Web: www.batt-bg.org



China Hong Kong Society for Trenchless Technology (CHKSTT)

Tsimshatsui Post Office 91499 Kowloon
Hong Kong
Phone: +852 9201 1952
Email: chkstt@gmail.com
Web: www.chkstt.org



China Society of Geology - Trenchless Technology Committee (CSTT)

Xicheng District Room 151, 26
Baiwanzhuang Street, Xicheng District,
Beijing 100037 China (PR)
Phone: +86 10 6899 2605
Email: yan64843889@126.com
Web: www.cstt.org



Chinese Taipei Society for Trenchless Technology (CTSTT)

3F, No 92, Roosevelt Rd., Sec. 4,
Zhongzheng Dist, Taipei City, 100
Taiwan
Phone: +886 2 2362 0939
Email: zoradcrc@gmail.com
Web: www.ctstt.org.tw/en_index.asp



Czech Society for Trenchless Technology (CzSTT)

Bezova 1658/1, 147 14 Praha 4 Czech
Republic
Phone: +420 244 062 722
Email: office@czstt.cz
Web: www.czstt.cz



Danish Society for Trenchless Technology - NoDig Infra (DKSTT)

Odinsvej 29 Silkeborg Denmark
Phone: +45 50894489
Email: tina@juul-consult.dk
Web: www.nodiginfra.dk/nodiginfra/startside



Finnish Society for Trenchless Technology (FISTT)

c/o Sari Pietilä
Haapasuonkankaantie 10
90830 Haukipudas, Finland
Phone: +358 504132484
Email: info@fistt.net
Web: www.fistt.net



French Society for Trenchless Technology (FSTT)

4 rue des Beaumonts, F-94120
Fontenay Sous Bo, France
Phone: +33 1 53 99 90 20
Email: contact@fstt.org
Web: www.fstt.org



German Society for Trenchless Technology (GSTT)

Kurfürstenstr. 129 (Building:
German construction association)
Berlin, Germany
Phone: +49 30 81 45 59 84
Email: beyer@gstt.de
Web: www.gstt.de



AFFILIATED SOCIETIES

ISTT Affiliated Societies around the world



Italian Association of Trenchless Technology (IATT)

Via Ruggero Fiore, 41 Rome Italy
Phone: +39 06 39721997
Email: iatt@iatt.info
Web: www.iatt.it



Iberian Society for Trenchless Technology (IBSTT)

C/ Josefa Valcarcel, 8 - 3a
PTLA 28027, Madrid, Spain
Phone: +34 913 202 884
Email: ibstt@ibstt.org
Web: www.ibstt.org



Japan Society for Trenchless Technology (JSTT)

3rd Floor, Reed-C Bldg., 2-11-18,
Tomioka, Koto-ku, Tokyo 135-0047 Japan
Phone: +81 3 5639 9970
Email: office@jstt.jp
Web: www.jstt.jp



Latin American Society for Trenchless Technology (LAMSTT)

Medellín Highway (Calle 80) KM3.5
via Bogotá-Siberia south side, Bogotá
Terrestrial Cargo Terminal, Office C-12,
Cota - Cundinamarca, Colombia
Phone: +57 1 8764675
Email: cistt.arlex.toro@lamstt.org
Web: www.lamstt.org



Malaysia Association for Trenchless Technologies (MATT)

No 44, Jalan Dungun, Damansara Heights,
Kuala Lumpur 50490 Malaysia
Email: trenchless@matt.org.my
Web: www.matt.org.my



North American Society for Trenchless Technology (NASTT)

14500 Lorain Avenue #110063
Cleveland, OH 44111 United States
Phone: +1 888 993 9935
Email: info@nastt.org
Web: www.nastt.org



Netherlands Society for Trenchless Technology (NSTT)

Postbus 79, 3769 ZH Soesterberg,
Netherlands
Phone: +31 346 723450
Email: info@nstt.nl
Web: www.nstt.nl



Polish Foundation for Trenchless Technology (PFTT)

Ul. Warkocz 14, 25 - 253 Kielce, Poland
Phone: +48 41 34 24 450
Email: parkaa@tu.kielce.pl
Web: www.pftt.pl



The Russian Society Trenchless Technology Association (RSTT)

Severnoy proezd 12, Balashikha Moscow
region, Russian Federation
Phone: +7 (495) 521 78 82
Email: gnb.06@mail.ru
Web: www.s-gnb.ru



Southern African Society for Trenchless Technology (SASTT)

1053 Hyde Avenue, Eldoraing ext 1,
Centurion Gauteng, South Africa
Phone: +27 (0) 82 551 7458
Email: director@sastt.org.za
Web: www.sastt.org.za



Singapore Society for Trenchless Technology (SgSTT)

84 Toh Guan Road East, Singapore Water
Exchange, #02-02 608501, Singapore
Phone: +(65) 97124054
Email: singaporestt@gmail.com
Web: www.sgstt.org.sg



Scandinavian Society for Trenchless Technology (SSTT)

SSTT Service AB, Box 22 307 104 22,
Stockholm, Sweden
Phone: +46 8 508 938 00
Email: Kontakt@sstt.se
Web: www.sstt.se



Turkish Society for Infrastructure and Trenchless Technology (TSITT)

Kucukbakkalkoy Mah. Ali Ay Sok. No:3/2
Atasehir 34750 Istanbul, Turkey
Phone: +90 216 469 75 65
Fax: +90 216 469 75 69
Email: info@akated.com
Web: www.akated.com



Ukraine Association for Modern Trenchless Technology (UAMTT)

83A Srednyaya Str., Odessa 65005 Ukraine
Phone: +380 50 3953280
Email: trenchless.as@novatec.ua
Web: www.no-dig.odessa.ua



United Kingdom Society for Trenchless Technology (UKSTT)

Camden House, Warwick Road,
Kenilworth, Warwickshire, CV8 1TH, UK
Phone: +44 (0)192 651 3773
Email: admin@ukstt.org.uk
Web: www.ukstt.org.uk

SOCIETY NEWS


ukstt.org.uk

Society News brought to members by Trenchless Works

HELLO FROM THE CHAIR



Dawn Greig, Chair, UKSTT

"No-Dig Live was AMAZING!! I am sure everyone who was there will agree that it was possibly one of the best shows ever."

No-Dig Live was AMAZING!! I am sure everyone who was there will agree that it was possibly one of the best shows ever. Okay, so there was a wee bit of drizzle on the first day but when the sun came out it was glorious. Wonderful to see so many familiar faces, as well as make new acquaintances. The feeling of camaraderie was palpable. Westrade did a fantastic job throughout, as did Lynn and Linda at the spacious and relaxing UKSTT stand.

Now, what about that Awards & Gala evening?! It was incredibly special. Congratulations once again to all of the award winners and shortlisted entrants. What you all do for Trenchless is quite frankly remarkable. I felt very privileged to present three Lifetime Achievement awards during the proceedings, to very deserving recipients, Chris Rees, Martin Kane and Nigel Gardener. From three titans of Trenchless to two Young Professionals, what an incredible start to any career to be nominated for and win such a prestigious award. Not only that, both winners were awarded a £2,000 bursary from UKSTT to continue their development and explore how Trenchless Technologies are utilised in other countries. Good luck to Gordon McMillan and Josh Bentley, exciting times!

Of course, I have to mention the entertainment. The Reverend Richard Coles was a fantastic co-host and really helped keep the evening running smoothly, not to mention being an incredibly funny and fascinating personality. Then there was the Red Hot Chilli Pipers, they certainly did not disappoint! I still well up thinking about being piped onto the stage. What a way to end the evening too, with rousing bagrock and phenomenal vocals. Thanks to everyone who came and really got behind the spirit of the occasion, it is a night I will always treasure.

So, what next? If No-Dig Live has left you wanting more, fear not, the Roadshow in Glasgow is only a few weeks away on 7 October. Supported by Scottish Water, this promises to be a superb event with an excellent conference and exhibition. You do not have to wear your kilt for this one, but hey we won't stop you if you want to!

Stay safe,

Dawn x

SPONSORS



TRACTO



RSM Lining Supplies
CHOICE AND TECHNOLOGY



The prime solution for pipes.



The UKSTT Awards 2021

27TH ANNUAL DINNER & AWARDS CEREMONY

in Association with Westrade



The UK Society of Trenchless Technology (UKSTT) held its 27th Annual Dinner and Awards Ceremony, in association with Westrade Group, on 15 September, 2021 at the Atrium, East of England Showground in Peterborough. A drinks reception sponsored by RSP was the first port of call for all guests.



The UKSTT Awards 2021

Awards Ceremony: 15th September

in Association with Westrade



Hosted by the Society's Chair Dawn Greig and radio and television presenter and vicar of Finedon, Reverend Richard Coles, the evening had a very Scottish feel to it. Escorted to the stage by one of the Red Hot Chilli Pipers, Chair Dawn Greig opened the evening with an emotive speech after almost two years since the UKSTTs last awards ceremony held in Bristol in 2019.

The Charity for the evening was chosen long before the pandemic hit and we never realised then just how relevant it would be this year. Mates in Mind is a leading UK charity that raises awareness and addresses the stigma of poor mental health focussing particularly on the construction industry. Donations are still coming in and an update on the final figure raised will be announced in the next few weeks.

This year UKSTT invited Reverend Richard Coles to co-host the awards ceremony and he provided an excellent start to the evening. The Reverend regaled everybody with entertaining anecdotes from his life. He had the whole audience in stitches as he recalled his time on the 80's pop scene as one half of pop duo the Communards, his journey into church life and his time on the dance floor of Strictly Come Dancing. His fabulous charm, wit and personality won everybody over.

In between each course a selection of awards were made in the following order.



RENOVATION WATER & WASTEWATER

SPONSORED BY



This year there were 2 winners:

WINNER: TPMD & SOUTHERN WATER – HEADING UNDERGROUND.

Upgrading Thanet's Sewers – The sewers beneath the streets of Ramsgate and Broadstairs are unique; constructed more than 100 years' ago, and some more than 28 m below the surface, pipes rest at the bottom of hand-dug chalk tunnels. Southern Water is investing more than £30 million upgrading this ageing network, ensuring it is fit for future generations. Delivered by confined space and trenchless technology experts, TPMD, this complex engineering challenge comprises of tunnel repairs and strengthening, patching, CIPP lining, manhole upgrades and new storage tanks. Working in more than 170 streets, over two summer seasons, specialist construction skills reduced the impact on these bustling seaside towns.



WINNER: TERRA SOLUTIONS, IRISH WATER & BYRNE LOOBY – DUBLIN'S PHOENIX PARK & RIVER LIFFEY

The Liffey Siphons are twin 900 mm diameter foul sewers approximately 3.4 km in length, under Dublin's Phoenix Park & River Liffey. It is a key section of sewerage infrastructure for Dublin's needs. The siphons were constructed in the mid-1980s to connect the Blanchardstown to the Grand Canal Sewer System and onward to Ringsend for treatment. After cleaning and CCTV surveying the lines, a suite of challenging trenchless installation/remedial works were deployed to rehabilitate the siphon inlet/outlet chambers, the two tunnels through which the siphons pass, tunnel access shafts, as well as upgrade works to the hatchboxes and flow-meters on the siphon line.

LIFETIME ACHIEVEMENT AWARD – CHRIS REES

This year UKSTT awarded three lifetime achievement awards. The first of the evening went to Chris Rees. Chris unfortunately was not able to attend in person and on his behalf the award was accepted by Matt Durbin. Chris began his trenchless career back in 1960. He was responsible for pioneering development of Seerthrust Pipe Jacking, which was a revolutionary technique at the time. Only five years later, he became managing Director of Rees Construction and began to focus on relining sewers with Seergun and was instrumental in setting up the Pipe Jacking Association to promote the technology.

He has also collaborated with WRc and Wessex Water to formulate the equations for GRP panel lining design, forming the basis of the WRc Sewer Renovation Manual in the 1980's. We all agree that Chris Rees has contributed a great deal to the industry over his lifetime and is a very worthy recipient of the award.



NEW INSTALLATION WATER & WASTEWATER

SPONSORED BY


RSM Lining Supplies
CHOICE AND TECHNOLOGY


WINNER: O'CONNOR UTILITIES LTD, IRISH WATER & ERVIA – CORK HARBOUR MAIN DRAINAGE SYSTEM

The Cork Harbour Main Drainage System project was developed to end the discharge of raw sewage into Cork Harbour and to achieve compliance with the Urban Wastewater Treatment Directive. 14 Pumping Stations and 27 km of sewers have been installed to collect 40,000 wheelie bins per day of sewage for treatment at the new Shanbally Wastewater Treatment Plant.

O'Connor Utilities were contracted to design and install two parallel kilometre long x 500 mm diameter pipelines beneath the Rive Lee estuary by HDD to connect 20,000 properties on the east side of the harbour to the treatment works on the west.

NEW INSTALLATION ENERGY & COMMUNICATIONS

SPONSORED BY



WINNER: ECO DRILL LTD, VOLKER INFRASTRUCTURE, A F HOWLANDS ASSOCIATES & ALRESFORD ASSOCIATES – HORNSEA 2 WIND FARM ONSHORE

Eco-Drill Ltd undertook horizontal directional drilling at 62 locations along a 40 km route from Horseshoe Point, south of Grimsby, to the National Grid onshore substation in North Killingholme, installing 3 individual directional drills at each location for the Hornsea 2 Wind Farm (an addition to the world's largest offshore wind farm). Each of the individual 186 drills involved installing 3-way 250 mm diameter SDR 11 electric cable duct in trefoil configuration from 40 m to 400 m in length. The use of Radius Pipe systems "ClearDuct" pipe resulted in no internal de-beding required which meant the elimination of CCTV survey.

INNOVATIVE PRODUCT

SPONSORED BY



For the first time in UKSTT Awards history there was a three-way tie. This unprecedented occasion resulted in each of the tied entries being presented with an award.

WINNER: QINOV8 UK LTD – THE AQUAPEA

Recent advances in polymer technology have enabled the development of a ground-breaking alternative to traditional pipeline leakage reductions and repairs called the Aquapea.

This is a pea-sized product made from a specially formulated two-part polymer with a buoyant polypropylene core, which allows it to free swim inside customers service pipelines and in most cases, repair the leaks without unnecessary costs of excavations and with little impact on the customers and environment.

The Aquapea is WRAS Approved and is water quality tested to BS6920 'for use in contact with water intended for human consumption'.

This is in every sense a trenchless technology.

WINNER: WESSEX WATER LTD, HEADLIGHT AI LTD, BRIGHT INNOVATIONS GROUP LTD – 'TELESTO' 3D LIDAR MODELLING OF TUNNELS IN SEMI-TURBULENT FLOW

Telesto is a multi-sensor system with intelligent software that attaches to a floating platform that traverses underground assets for 3D modelling in semi-turbulent flow. It enhances the health and safety for workers involved in the surveying of subterranean assets by preventing confined spaces entry, thereby removing the associated hazards. It goes beyond CCTV and laser profiling solutions on the market and provides a more cost-effective route towards asset digitalisation compared with traditional surveying techniques. The customer obtains the 3D information and the position of defects and anomalies, which are automatically extracted and reported using traditional and machine learning approaches.

The UKSTT Awards 2021

Awards Ceremony: 15th September

in Association with Westrade

WINNER: SGN, ULC TECHNOLOGIES & RPS – ROBOTIC ROADWORKS & EXCAVATION SYSTEM

SGN and ULC Technologies have collaborated to develop an advanced robotic system to pave the way for change in the way utility roadworks are performed. The Robotic Roadworks and Excavation System (RRES) will replace conventional methods of excavation, utility interaction and reinstatement.

Using a precision robotic arm with hot swappable tooling including a below-ground locating sensor package, RRES will use AI, machine vision, and “soft-touch” excavation tools on an electrically powered mobile platform to provide an end to end solution.

By eliminating the need for traditional equipment and processes, the system promises a range of benefits including minimising disruption, emissions and safer working conditions for operatives in the field setting a new standard for the future of roadworks.

YOUNG PROFESSIONAL SPONSORED BY TRACTO



WINNER: GORDON MCMILLAN, SGN

Innovation is key to unlocking the potential of trenchless technology within the utility industry. Gordon McMillan has worked diligently on developing the world's first all-electric autonomous robot, combining artificial intelligence, cutting edge robotics and advanced custom tooling. The Robotic Roadworks and Excavation System (RRES) has the potential to revolutionise roadwork operations and set a new standard, with safety, economy, and the environment at the forefront.



LIFETIME ACHIEVEMENT AWARD – MARTIN KANE

Our second Lifetime Achievement award of the evening went to Martin Kane. Martin has not only advanced pipeline infrastructure throughout the years, but also tirelessly promoted Trenchless Technologies, as Chair of the UKSTT in the late 90's and for a great number of years as guarantor for ISTT.

Starting out as a wastewater treatment specialist at Severn Trent, Martin later created a team specialising in pipeline rehabilitation. He became Director of Engineering in 2005 and joined the main Board of Severn Trent two years later. It's fair to say that his contribution to the industry has been truly outstanding, and we were honoured to invite Martin Kane to collect his well-earned award.

APPLICATION OF DIGITAL TECHNOLOGY

SPONSORED BY

PROKASRO



WINNER: WESSEX WATER LTD, HEADLIGHT AI LTD & BRIGHT INNOVATIONS LTD – 'TELESTO' 3D LIDAR MODELLING OF TUNNELS IN SEMI-TURBULENT FLOW

Telesto is a multi-sensor system with intelligent software that attaches to a floating platform that traverses underground assets for 3D modelling in semi-turbulent flow. It enhances the health and safety for workers involved in the surveying of subterranean assets by preventing confined spaces entry, thereby removing the associated hazards. It goes beyond CCTV and laser profiling solutions on the market and provides a more cost-effective route towards asset digitalisation compared with traditional surveying techniques. The customer obtains the 3D information and the position of defects and anomalies, which are automatically extracted and reported using traditional and machine learning approaches.

ENVIRONMENTAL SPONSORED BY



WINNER: PUBLIC SEWER SERVICES, ANGLIAN WATER SERVICES LTD, SYKES PUMPS & HIGHWAY SAFETY MANAGEMENT LTD – WOODFIELD ROAD, BENFLEET, ESSEX

A 300mm foul water pipe was 75% deformed, along with significant root infiltration with further structural defects upstream causing a risk of bank erosion, landslides and damage to badger setts along with residential properties. PSS devised a way to mix, match and adapt a methodical system to repair the pipe with little impact to the environment.

The works were completed in a fraction of the time, significantly reducing the budget cost to the satisfaction of the client, stakeholders and residents.

YOUNG PROFESSIONAL SPONSORED BY



WINNER: JOSH BENTLEY, WESSEX WATER

Josh discovered the wonderful world of trenchless technologies when he joined Wessex Water's Sewer Rehab Team as part of his civil apprenticeship. Seeing first-hand the creativity of his peers, and the resulting beneficial impact on the industry has inspired him.

He has worked on several challenging schemes delivering CIPP lining, such as polyester lining for structural interventions, epoxy lining for groundwater infiltration sealing and for exfiltration pollution prevention, finding ways to reduce costs and disruption. Congratulations to a very worthy winner.





LIFETIME ACHIEVEMENT AWARD – NIGEL GARDENER

The third and final Lifetime Achievement Award of the night went to Nigel Gardener. Nigel's career started out in heavy plant, but after assisting with a moling demonstration, he was hooked on Trenchless Technology! Finding ways to solve challenges using these new techniques became a passion, travelling the world showcasing the technology to various utility companies and contractors.

Interestingly, introducing Trenchless Technologies to the Asian market was the biggest challenge of his career. He prevailed by demonstrating the benefits to their infrastructure versus traditional techniques. What a great legacy and worthy recipient of this award.

UKSTT would like to thank everyone who entered an award this year. We received an incredible amount of great quality entries that made it a very difficult task for our expert judges.

After the awards had been made it was time for the incredible Red Hot Chilli Pipers!

The RHCP are a Scottish pipe and drum group that have combined guitars, keyboards, drums and, bagpipes to create a style of music they have labelled 'bagrock'. The band performed a fusion of traditional pipe tunes and contemporary songs bringing an energetic end to the evening.

The evening was a resounding success and special thanks go to Paul Harwood, Alice Nolan and all of the amazing Westrade team for making it happen and for getting into the Scottish theme with so much flair!



Need pic of team in tartan?!

2021

NO-DIG ROADSHOW

SCOTTISH WATER SUPPORTING NO-DIG ROADSHOW IN GLASGOW



Scottish Water
Trusted to serve Scotland

Scottish Water, the official supporter of the No-Dig Roadshow Glasgow, which will take place on Thursday 7 October 2021, at the Hilton Glasgow Westerwood Spa & Golf Resort, has been taking action to mitigate greenhouse gas emissions and to adapt to the impacts of climate change on services for around a decade and remain absolutely committed to doing all they can to reduce the impact we have on the environment.

The company has also embarked on the most ambitious carbon targets of any UK utility to date and have a lot to say about how the industry will need to help it get to carbon neutral by 2035. Fitting in with the company's Carbon Neutral Challenge will be a Keynote Speech from Gordon Reid, General Manager for Net Zero Emissions.

Phil Beardmore, Water Response Manager at Scottish Water will also present on 'Supporting a Flourishing Scotland – working to increase customer trust by reducing disruption'.

"We will play our full part in achieving the Scottish Government's climate change commitments through an ambitious plan to secure net zero emissions by 2040 and going beyond that thereafter. This will be an immense – but necessary – challenge," said Phil Beardmore.

UKSTT is once again pleased to be supporting Westrade Group and looks forward to another successful event.

For further enquiries about this event contact:
Alice Nolan anolan@westrade.co.uk

For sales enquiries, please contact:
Gary King gking@westrade.co.uk or
Trevor Dorrell tdorrell@westrade.co.uk T:01923 723990

SPONSORS



TRACTO



RSM Lining Supplies
CHOICE AND TECHNOLOGY



NIGEL GARDENER WINS UKSTT LIFETIME ACHIEVEMENT AWARD



RSP UK is thrilled to announce, Nigel Gardener, Customer Support Manager has received a UKSTT Lifetime Achievement Award.

Nigel, who has been with RSP since it launched in 2016 has devoted his entire career to Plant and commercial vehicles. His career began in 1971 at a plant hire company in his hometown of Bedford. Since then, his work has taken him around the globe, managing innovative trenchless technology to deliver iconic developments and in recent years, showcasing RSP suction excavators.

Last month, Nigel was surprised by his team with the announcement of his Lifetime Achievement Award. Nigel said: "I could not understand why there was such secrecy about Friday. My wife had been invited along and insisted on both of us wearing something nice. I was told it was for our Breaker Boom (RSP's latest technology) only to find out that it was to tell me about this award. I was so shocked, never in my wildest dreams did I think I would get an award like this."

Nigel had been nominated for the award by his team, led by Charlie and Lloyd Gardener, Directors of RSP UK. "Nigel could not be more deserving of this award, his knowledge, dedication and reputation within our industry is outstanding. We could not be prouder of him and all he has achieved." said Lloyd Gardener.

The ceremony took place in mid-September at the No-Dig Live event UKSTT Awards Dinner, where Nigel was formally presented with his Lifetime Achievement Award by the UKSTT. RSP is proud to be platinum sponsors of the event, Charlie Gardener commented: "This has been in the making for some time, it has been a challenge to keep it quiet for as long as we have but it was worth it to see Nigel's reaction. The recognition he has achieved is something we have hoped for, for many years. We all looked forward to celebrating with him."

Nigel was the very first person in the UK to sell a suction excavator. Although he does not see himself as a salesperson, he made his first deal in 2005 and is very proud to say that the suction excavator is still going today. "Plant and trucks have been my life for so many years and how they build the machines today still amazes me. It is a pleasure to work with such innovative technology." commented Nigel.

SPONSORS



TRACTO





£1500 +vat

CORPORATE PLUS

SAVE ££££'S

Same great benefits as Corporate Membership PLUS some amazing additional savings worth thousands of pounds! PLUS additional advertising & social media coverage.



SPONSORED LINK ON UKSTT HOMEPAGE WORTH £2400!

Get noticed with your company logo prominently displayed on the UKSTT Homepage for the entire year, worth £2400!

SAVE UP TO £3K WITH TRENCHLESS WORKS

Trenchless Works, official media partner of UKSTT, are offering Corporate PLUS Members 30% off ALL advertising including annual packages, potentially saving up to a whopping £3k !!



MASTERCLASSES

TWO TICKETS to one of our UKSTT Masterclasses per year, including CPD Certification, worth £300 in total!

- + GUARANTEED MONTHLY SOCIAL MEDIA POSTINGS
- + QUARTERLY AD IN UKSTT TRENCHLESS BUZZ ENEWS
- + DEDICATED CORPORATE PLUS MEMBER LOGO

5th EDITION Trenchless Romania

Conference & Exhibition

SAVE THE DATE



19-20th of October 2021

Bucharest

World Record - Bucharest Unirii Fountains

Local Sponsor

RomNed
INDUSTRIAL FOUNDATION EQUIPMENT

Vermeer
Romania

Initiator

TRACTO

Bronze Sponsor

PRIMUS **OLINE**
The prime solution for pipes

DEFIGO **Ditch Witch**

Platinum Sponsor

HERRENKNECHT

Tunnelling Systems

Official Media Partners



Supporters



www.trenchless-romania.com



China-Euro PTT 2021

2021中欧管道工程与非开挖修复技术国际学术会议

2021 China-Europe International Conference on
Pipelines and Trenchless Technology

November 5-7, 2021 · Tianjin China

Topics

The main topic of the conference is "Standardization and intelligentization of trenchless technology for urban water and drainage pipelines".

- (1) Pipeline engineering and trenchless repair technology laws, regulations and standardization.
- (2) Urban pipeline inspection technology and equipment.
- (3) Urban pipeline dredging and pretreatment, sewer sludge treatment and disposal.
- (4) Trenchless repair of urban pipelines.
- (5) Intelligent pipeline network and intelligent water services.
- (6) Environmental rehabilitation and town sustainability.



Organizers

- China-Euro Joint Center for Trenchless Technology
- College of Mechanical Engineering, Tianjin University of Science & Technology
- Tianjin Marine Environmental Protection and Restoration Technology Engineering Center
- College of Marine and Environmental Science, Tianjin University of Science & Technology
- College of Chemical Engineering and Materials Science, Tianjin University of Science & Technology

Co-organizers

- Tianjin Municipal Engineering Design & Research Institute · TusStar (Tianjin Ecopolis)
- Tianjin Huamiao Water Supply and Drainage Research and Design Institute Co., Ltd.
- Stecol Corporation of Power China · Shanghai Guanli Construction Engineering Co., Ltd.
- Nanjing Institute of Surveying, Mapping & Geotechnical Investigation, Co., Ltd.
- Speciality Committee for Pipeline Inspection and Rehabilitation, China Municipal Engineering Association
- Germany RÖDERS TEC · PRIMUS LINE (China) Ltd. · Innovative Sewer Technologies GmbH (I.S.T.)
- Saertex Multicom Pinghu Co., Ltd. · Jinling Aliancys Co., Ltd. · Shanghai Civil Engineering Co., Ltd of CREC
- Municipal Experimental Teaching Demonstration Center of Chemical Foundation (TUST)
- City Environment Research Institute, North China Municipal Engineering Design & Research Institute Co., Ltd.

For more details regarding exhibiting and sponsorship opportunities please contact:

Lexi Di at Lexi.di@bestexpo.cn or +86-18910184986

www.ptt2021.org

Hosts:



Sponsors:



Supporters:



Media Support:



EVENTS AND MEETINGS

2021

October 5-8: No-Dig Down Under
Sydney, Australia
Details from: www.nodigdownunder.com

October 7: No-Dig Roadshow 2021
Glasgow, Scotland.
Details from: www.nodigroadshows.co.uk

October 13-14: 8th NSTT No-Dig Event
Nijkerk, The Netherlands.
Details from: www.no-dig-event.com

November 2: Masterclass –Large Diameter Circular & Non-circular Rehabilitation

November 24- 25: STUVA Expo 2021
Karlsruhe, Germany
Details from: www.stuva-conference.com

December 13-14: Trenchless Middle East 2021
Dubai, UAE.
Details from: www.trenchlessmiddleeast.com

If you have an event, course or meeting scheduled and would like to add it to this listing please forward details to: editorial@trenchless-works.com

2022

April: SAO Paulo No-Dig Show
Sao Paulo, Brazil. Details from: www.saopaulonodig.com.br

April 15–17: ITTC China 2022
26th China International Trenchless Technology Conference (ITTC) & Exhibition
Suzhou International Expo Centre, Suzhou, China
Details from: www.showsbee.com/fairs/ITTC-China.html

May 30-June 3: IFAT 2022
Munich, Germany.
Details from: <https://www.ifat.de/en>

June 17-24: North American Tunnelling Conference (NAT) 2022
Philadelphia, USA.
Details from: <http://natconference.com/>

July 27-28: Trenchless Asia 2022
Kuala Lumpur, Malaysia.
Details from: www.trenchlessasia.com

13-15 of September: No-Dig Live 2022
Peterborough, UK.
Details from: www.nodigliver.co.uk
Includes the UKSTT Gala Dinner and Awards Ceremony

October 3-5: No-Dig Helsinki 2022
Helsinki, Finland
Details from: www.nodighelsinki.com

October 24–30, 2022: bauma
Munich, Germany
Details from: www.bauma.de/

SPONSORS



TRACTO



RSM Lining Supplies
CHOICE AND TECHNOLOGY



The prime solution for pipes.

