

Innovation

Novel Construction Spring Session

The Spring Novel Construction Meeting was held at the Ripa Roma hotel in Rome, Italy, on Wednesday, 19 and Thursday, 20 April.



More than 80 delegates from across the world participated in the event. On Wednesday morning, presentations were made by IPLOCA members and guest speakers on their innovative developments and initiatives with the aim of improving pipeline design and construction.

The following subjects were presented:

- **The Role of Green HDD for Eco-Friendly Pipeline Installation**
Simon Herrenknecht, Herrenknecht AG

- **Laurini IBEX – Four Track Drive Skid**
Marco Laurini & Michelangelo Blasi, Laurini
- **Evaluation of Pipeline Surface Preparation ***
Frits Doddema, MONTI- Werkzeuge GmbH
- **Project Construction Quality Management: Insights and Analytics on Project Progress, Safety and Quality**
Rene Ramirez, Blue Sky Evolution
- **Pipe-in-Pipe Construction and Preheating of Pipelines**
Joseph Gilmartin, Fluor
- **New Flexible System for Abrasion-Resistant Overcoat ***
Natale Fabrizio Civardi, LK2 Srl
- **Digging Deeper: New Innovations in Trenchless to Revolutionise Infrastructure Development ***
Kim Abrams & Roberto Zillante, Petra

* Articles on these initiatives follow this report.

Copies of all the presentations are available at www.iploca.com/event/iploca-novel-construction-spring-session-2023

On Wednesday afternoon and Thursday morning, group work sessions and presentations took place to review the existing and the new chapters that need to be completed, as well as additional subjects to be developed for **"The Road to Success"** app. We would like to thank all of those who participated in the Spring Novel Construction Meeting.

If you would like to take part in the Novel Construction Initiative, please contact the appropriate group leader or gregoire.demontmollin@iploca.com. We look forward to our next session which is planned for **25-26 October 2023** in Munich, Germany. The hotel is yet to be defined.

Surface Preparation for Pipelines

Frits Doddema, CEO MONTI-Werkzeuge GmbH

During the IPLOCA Novel Session in Rome, the MONTI Group gave a presentation on the purpose of surface preparation.

Surface preparation is the removal of imperfections such as weldspatters, visible and invisible contaminants, rust, existing coatings, treatment of coatings such as linepipe coatings, bevelling and creating profile for coatings and sealants ensuring the best possible bond, likely to be exposed to severe environments, such as water immersion and continuous condensation conditions. Extra consideration should be given to testing for soluble salts and other invisible contaminants on the visually clean surface by the physical and chemical methods which form the subjects of the various parts of ISO 8502 [2].





The roughness characteristics of the surface should also be considered by reference to the various sections of ISO 8503 [3].

The Bristle Blaster® suite of products offers a unique surface preparation solution when a blast-quality finish is required, but abrasive blasting is not feasible, economical, or is prohibited. The Bristle Blasting method enables operators to remove coatings, corrosion and scale while simultaneously generating an anchoring surface profile. The tool is a combination of a wire bristle "belt" dynamically tuned to a drive unit and is designed to allow the bristle tips to strike the corroded surface with the same kinetic energy as blast media.

Tools are available in both electric and pneumatic models as well as our new cordless version. The new Bristle Blaster® Cordless can deliver a level of surface preparation on a par with abrasive blasting. Corroded/pitted steel surfaces can be restored to a near-white metal appearance and an anchor profile of 2.6 to 3.3 mil is routinely obtained on standard API 5L steel. Features include a non-locking safety switch, anti-vibration handle and rope access connection. The optional Dust Collection Shroud features

a closed protective cap with a transparent and quickly removable side panel for bristle belt change. The shroud can be connected to a portable, battery powered backpack vacuum. Batteries and chargers are part of the Cordless Alliance System called CAS, allowing for combination with different machines and manufacturers. Users will experience about 25 minutes of surface preparation time from an 8Ah/18v battery.

For increased production, the Bristle Blaster® Double Electric can treat up to 3m²/hr. per operator. The Double employs two 23mm bristle belts simultaneously and can be used on open surfaces for grit blast equivalent surface preparation. The Double also features a non-locking safety switch, vibration controlled handle and rope access connection.

The Bristle Blaster® has been deployed extensively on pipelines, refineries, bridge refurbishment, marine fabrication and repair, and other industrial construction and maintenance applications. For more information, please refer to the presentation from MONTI-Werkzeuge GmbH on Surface Preparation Methods, available on the IPLOCA website, or visit www.montipower.com.

AroEagle

Flexible System for Abrasion Resistant Overcoat

Natale Fabrizio Civardi, owner of LK2

HDD - Horizontal Directional Drilling - is the most widely used technique to install sections of pipelines across areas that must remain undisturbed, such as roads, lakes, buildings, railroads, or rivers.

This method allows the passage of pipes in areas considered to be high risk, with the least environmental impact and ease in realising the work. During decades of experience in oil &

gas and corrosion prevention, LK2 has tried different outer mechanical protection material and experienced the critical issues related to them. The start of the AroEagle project was driven by different factors: the need, to bypass long delivery term and short shelf life; to have a material ready for installation as soon as it has been produced, to have a market competitive product; to have a customisable product; and, to have market potential.