HUVR

How HUVR Helps Corrosion Control

# Realize the benefits of your coatings with HUVR

- Asset coatings are a critical part of ensuring their longevity
- HUVR digitizes the inspection workflows, ensuring procedural adherence
- HUVR makes a complex practice efficient at scale
- HUVR generates reports to ensure all stakeholders are on the same page

Painting a structure was once more of an art than a science; it delayed corrosion, but was largely cosmetic. It is also a costly and repetitive art: the Eiffel Tower must be repainted every 7-years, taking 3-years to complete and 60-tons of paint–and that is just one asset. Multiplied out across every asset in existence, and you're talking about more than a single trip to your local paint store. As such, an industry has developed, not just specific to the paint itself, but encompassing the surface preparation, the primer, the thickness of paint applied and the drying times of each. Painting assets is no longer art, it is the science of coating technologies.

As with any science, there are guiding principles and rules, conveyed in the form of procedures to ensure the product meets the expectations of the end user. The challenge is to ensure that these procedures are followed to achieve the advertised result—thereby prolonging the life of the asset. Furthermore, inspection technologies are advancing on an almost daily basis, providing ever greater insight to material degradation and corrosion—and coating inspection technologies are no different. Coatings can now be inspected in detail, measuring application thickness, hardness, adhesion and contamination, among other factors.

So, beyond successfully coating the asset, teams must also document the adherence to procedure and manage the ever-increasing volumes of verification or inspection data. This serves the long-term goal to maximize the return on your corrosion control strategies and subsequent expenditure. The HUVR platform digitizes the required workflows to ensure procedural adherence while ingesting data from any inspection device, in any format, collating, sorting, labelling and reporting in the exact format that meets your specific needs. HUVR makes this complicated process as efficient as possible—at scale. The result is an auditable trail of what was done, when, by whom and how, resulting in the reduction of unexpected downtime, improved operational efficiency and meeting regulatory requirements. In short, HUVR ensures that the science of coatings is effectively and efficiently put into practice.
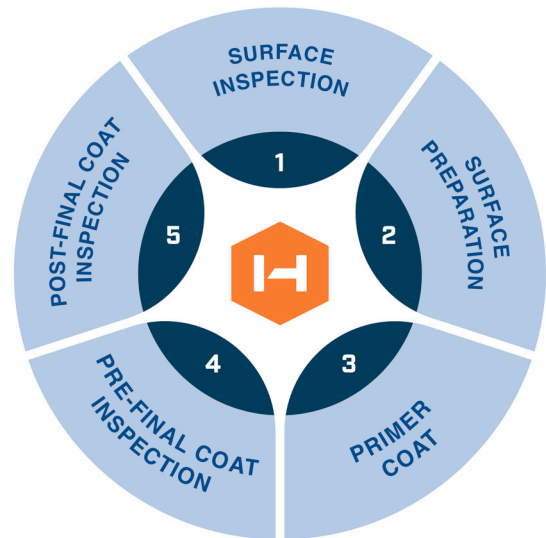
Five steps to coating for corrosion control

The application of coatings is a science and can be approached methodically. A coating project can be broadly divided up into 5 key procedural steps that must be followed systematically, recorded and communicated to ensure a successful result is delivered efficiently and effectively.

Step #1: Surface Inspection
How many times have you been told that "it's all about the preparation"? Well, add one more to the tally, as the successful application of asset-specific coating requires solid prep work. Visual inspection is the first logical step in the process, identifying and documenting anomalies or challenging areas prior to abrasive blasting, as dictated by the Society for Protective Coatings (SSPC) Visual Standards. Once blasting is completed, all surfaces must be thoroughly inspected for contaminants and cleaned accordingly.

Step #2: Surface Preparation
Following the initial preparation, an inspector must conduct a thorough visual inspection of the prepared surfaces as stipulated by the SSPC guidelines. Not only must all dust and debris be removed, but the surface profile of the substrate must also be inspected. Surface profile inspection

tools provide accurate measurement of the peak-to-trough height of the substrate following abrasive blasting—too little and the coating bond strength may be reduced, too much and the coating thickness on the peak may be too thin. Each measurement and observation must be documented and reported to assure that the appropriate corrective actions are employed.

Step #3: Primer Coat
Once the surfaces have been prepared and passed inspection with the results documented and reported, priming the asset can begin. Correctly priming the surfaces requires that the coating coverage, color and consistency be inspected as often as feasible, and the dry film thickness measured using a digital film thickness gauge so deviations can be repaired accordingly. Once again, documenting and communicating these digital measurements, along with any visual inspection findings, such as where the coating has been applied over dirt or debris, is essential to facilitate corrective actions prior to applying the intermediate coat.

Step #4: Pre-Finishing Coat Inspection
Once the primer and intermediate coating are applied, a thorough inspection of the asset is required; it should be systematically documented

to facilitate the approval process or any repairs in accordance with SSPC PA-2 guidelines prior to applying the finishing coat. As with previous steps, the coated surfaces must be visually inspected for coating coverage, color, consistency and absence of underlying dirt and debris, with a digital dry film thickness gauge utilized to identify deviations. Documenting and communicating these measurements and observations are again critical requirements, both for quality assurance and the facilitation of the approval/acceptance process prior to applying the finish coat.

Step #5: Post Finishing Coat Inspection

It is readily apparent that strict adherence to each of the previous steps is the foundation of a successful coating project. A final inspection must be performed upon completion of the finish coat. The inspection required in this step is no less important than those previously performed with a Dry Film Thickness Survey (DFTS) carried out in accordance with SSPC PA-2 to identify deviations from the specified requirements that would require repair. Additionally, the surfaces are inspected for coating coverage, color, consistency and areas where the coating has been applied over dirt or debris. Lastly, a report summarizing the complete coating operation, inspections, equipment used and any corrective actions undertaken through the process must be prepared and delivered to the appropriate engineer or QA/QC manager for review and acceptance.

It is clear a disciplined approach is required through each step of the process to ensure procedural compliance and deliver a product that meets the OEM specifications. It is also very apparent that the success or failure of the project can hinge on the thoroughness of the inspector and the documentation and communication of measurements and observations through the overall process—and importantly—at the end of each step to garner the approval to move forward. A well-documented application and inspection process is essential, not only to ensure procedural and OEM material compliance, but a valuable component of a continuous improvement process to reduce cost through improved efficiency, which also reduces risk to personnel, equipment and the environment.

HUVR's Inspection Data Management Platform

Conclusion

The information available from modern day coating operations is vast. Digital measurements generate a host of numbers that must be interpreted and analyzed as necessary for the project. Furthermore, dedicated secure subcontractor workflows provide the ability to collate the enormity of this data and information outside of the customer firewall, minimizing the risk to cybersecurity. All this information can only be useful if converted into insights and given the right context. Regardless of the space you occupy in the coating process, the HUVR platform removes the tedious recordkeeping and complex procedural hurdles that can result in siloed or lost information, ensuring your team with respect to your projects and entire asset portfolio is working efficiently, effectively and—of course— safely. While the actual value and dollar amount varies by project and asset, HUVR can help you realize the result.

Interested in learning more about HUVR?
Schedule a 1-on-1 demo.

Contact sales@huvrdata.com to schedule today.