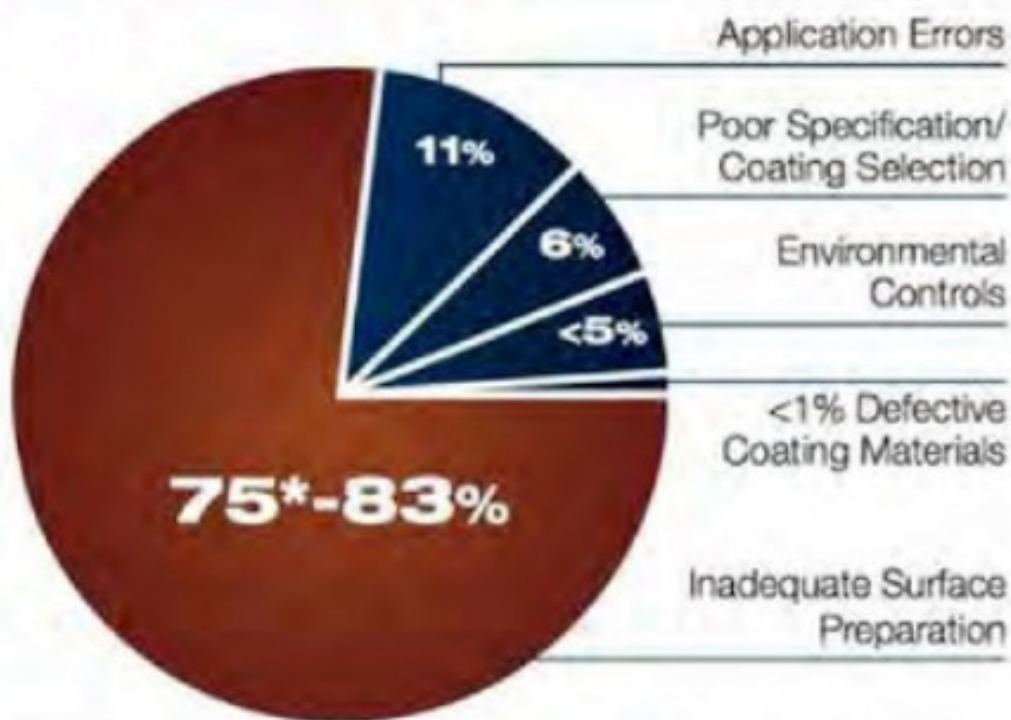


SURFACE PREPARATION WITH TECHNOLOGIES FOR SUBSEA & FIELDJOINT COATING

Why Coatings Fail



*Reference: *NACE CIP 1 Course Training Materials, Paint Square Reader Survey December 2009. Similar but varying results have been reported in Journals and US Military reports from 1990 to 2011.*

Active corrosion protection and coatings are vital for longevity of pipeline integrity. The application of coatings is considered a standard practice to save pipelines from the damaging effects of corrosion. How-

ever, before a coating can be applied, the pipe surface needs to be prepared to ensure long-term protection. The direct correlation between the surface preparation and the coating performance is often un-

derestimated. Nonetheless, according to NACE statistics, incorrect surface preparation is responsible for 75 % of coating failure.

New technologies can avoid some of these damages for example, a new hydraulic underwater device for cleaning the surface and simultaneously preparing it for further preventative treatment by various kinds of coatings is in the market.

The Bristle Blasting technology has a few unique characteristics. The key feature is the accelerator Bar. It temporarily halts and subsequently accelerates each bristle during rotation and causes it to increase the kinetic energy of the bristle tip impacting the surface. The U-shaped anchored bristles are sharpened in a precisely defined manner. Immediately after the bristle tips strike the surface they retract providing both corrosion removal and micro identification that exposes a new fresh structured surface. In this manner, even existing coatings, rust, mill scale, and other oxidation products presenting a challenge for conventional tools such as grinders can now be removed easily achieving a near white or even white metal cleanliness.

Another important effect is that it excludes damaging of the treated surface. The bristle tips strike almost vertically against the surface removing rust and coating as well as leaving the treated material intact.

This water driven technology provides a profiled surface which is dense, regular, and angular for mechanical bonding of protective materials against subsea or splash zone corrosion.

Another recent development called Prepper Q10, enabling optimal coating performance through a programmable and automated process. This Prepper Q10 is excellent for pipeline fieldjoints and other flat surfaces such as decks. It provides a constant and reliable roughness profile to the substrate surface. The system delivers regular peak height and peak density through an automated, programmable process and can be monitored to auto-adjust to the defined profile grades. Prepper Q10 is also available as a handtool version called the Prepper Q4. This version is cordless and or aquadriven including dust control options. 1 man can achieve 6-12m2 per hour near white ' sandblasting' cleanliness results. Due to low vibration and sound pressure generation and the fact that no elaborate protective clothing is needed; the tools remain very safety relevant and user-friendly.

The market is moving towards technologies that guarantee more safety, reliability and reduction of risks and costs.



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