



Certified Coating Specialists Inc.

Professionalism in painting, safety, environmental stewardship – realizable value

Surface Tolerant Coatings for Ultra High Pressure Water Jetting



Surface Preparation of Heli-Deck on offshore Oil Rig



Stripping of Dock Ramp Column



CCS Ultra High Pressure Water Jetting Fleet of Six Guns

GLOBAL POSITION ON JETTING

The selection of SSPC-SP12, as a pretreatment method for the substrate of an asset to be refurbished /recoated is a well proven and viable option when combined with the appropriate surface tolerant coating. Today, throughout the world, **UHP WJ** and surface tolerant coatings are a recognized, leading corrosion inhibitor system.

UHP WJ is the primary system used by the oil & Gas offshore drilling industry for maintenance coating, arguably one of the most severe services for anti-corrosion systems. UHP WJ is deployed daily by US ship yards and ship yards around the globe for exterior ship hulls, voids, most everywhere. Chemical and gas plants deploy the system for corrosion inhibition and the minimization of the potential for explosion resident in abrasive blasting. There are applications for every industry.

Dry abrasive blasting is a problem because of contamination of equipment, dust, disposal of used media, and general health, safety and environmental issues.

UHP WJ is used around the world, because it delivers excellent performance results when appropriately employed as a component of a coating system, while addressing many of the concerns of regulatory bodies.

ANCHORING SURFACE TOLERANT COATINGS TO UHP WJ PREPARED SURFACES

UHP WJ as a surface preparation method does not provide an anchor for re-coating, but is dependent on the extent of the existing profile under the coating being removed. Selection of the prime coat will quite often be dependent on the depth of the profile once it is revealed. To be effective, a profile must be at least 1/3 of the depth of the primer thickness.

On heavily pitted steel **UHP WJ** can often outperform abrasive blasting due to HIGH PRESSURE JETTING'S outstanding cleaning ability and the anchor provided by the pitting. It is very difficult to clean out pits with low pressure washing and abrasive blasting leading to a real risk of rapid system failure, due to entrapped chlorides, rust and other contaminants.

Anchor profile is the number one consideration in selection of an **UHP WJ** anchored coating system.



**BCF C Class Ferry, Lead Abatement
executed with UHP WJ**

COST COMPETITIVENESS

UWP WJ generally offers cost savings over abrasive blasting which can in some instances be quite significant.

Baseline cost of **UWP WJ** is comprised of the use of the equipment, fuel, consumables, maintenance and labour.

Additional cost considerations can consist of % of waste water that must be captured, stored and handled; disposal cost of waste water; decontamination facilities; special containment requirements and lab testing.

Baseline cost of abrasive blasting is comprised of equipment; fuel; consumables; maintenance; labor; cost of grit; freight of grit; handling of grit; management, freight, and disposal cost of waste grit.

Additional cost considerations consist of support equipment, (decontamination facilities, dust collectors, dehumidifiers, forklifts, vactor trucks); special containment requirements; special air monitoring; water monitoring; special dust monitors and lab testing.

Depending on the size of the project, substrate contaminants, the location of the work, the standards, regulations and customer rules that must be adhered to; **UWP WJ** can deliver significant savings.

STANDARDS FOR UHP WJ

ISO, SSPC, NACE all support a standard which guides specifier, contractors and quality control inspectors in insuring that UHP WJ pre-treatment is accomplished as required. The following chart is but one section of the spec and gives one the idea of quality variance that can be delivered.

VISUAL SURFACE PREPARATION DEFINITIONS

Term	Description of Surface
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| WJ-1 | Clean to Bare Substrate: A WJ-1 surface shall be cleaned to a finish which, when viewed without magnification, is free of all visible rust, dirt, previous coatings, mill scale and foreign matter. Discoloration of the surface may be present. |
| WJ-2 | Very Thorough or Substantial Cleaning: A WJ-2 surface shall be cleaned to a matte (dull, mottled) finish which, when viewed without magnification, is free of all visible oil, grease, dirt, and rust except for randomly dispersed stains of rust, tightly adherent thin coatings, and other tightly adherent foreign matter. The staining or tightly adherent matter is limited to a maximum of 5% of the surface. |
| WJ-3 | Thorough Cleaning: A WJ-3 surface shall be cleaned to a matte (dull, mottled) finish which, when viewed without magnification, is free of all oil, grease, dirt, and rust except for randomly dispersed stains of rust, tightly adherent thin coatings and other tightly adherent foreign matter. The staining or tightly adherent matter is limited to a maximum of 33% of the surface. |
| WJ-4 | Light Cleaning: A WJ-4 surface shall be cleaned to a finish which, when viewed without magnification, is free of all visible oil, grease, dirt, dust, mill scale, loose rust and loose coating. Any residual matter shall be tightly adherent. |

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