

## Repair of corroded Impeller

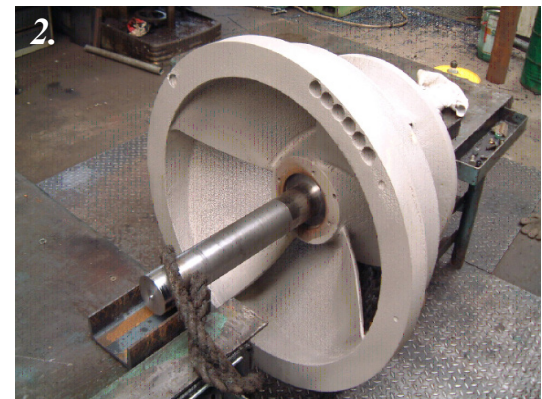
<b>Application:</b>	Repair of corroded Impeller
<b>Place:</b>	Rotterdam, NL
<b>Date:</b>	July 2002
<b>Job and report done by:</b>	Repair Management Nederland B.V.
<b>Wencon products used:</b>	Rapid, Coating white & blue, Cleaner, appl. tools



1.  
Impeller - sandblasted and balanced prior to repair.



2.  
Impeller put on a shaft, to improve handling in the workshop.



3.  
The visible damage on the surface of the impeller.

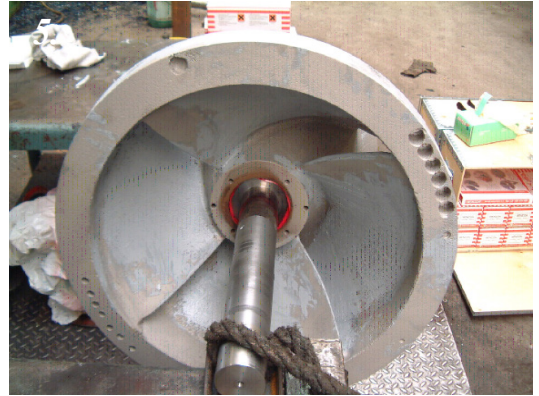


4.  
In order to make a smooth surface for the Wencon Coating, Wencon Rapid is used to fill up the holes.



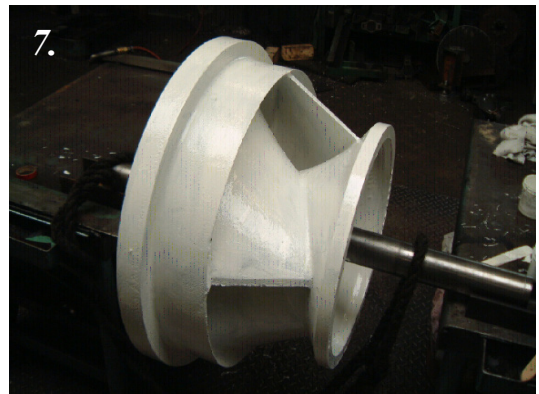
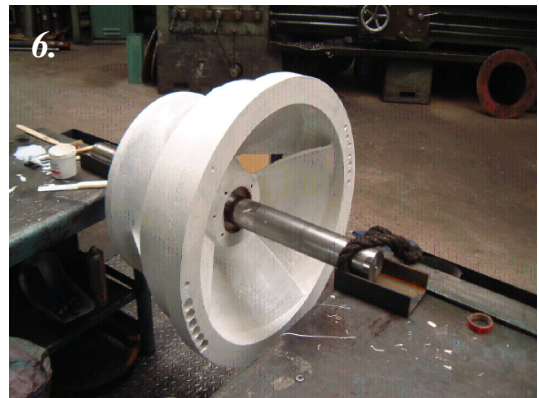
5.

Result is a smooth surface. Please be aware, that there are no air bubbles, underneath the Wencon Rapid.



6. & 7.

The first of the Wencon Coating white applied with a brush.



8.

Make sure, the entire surface is covered.



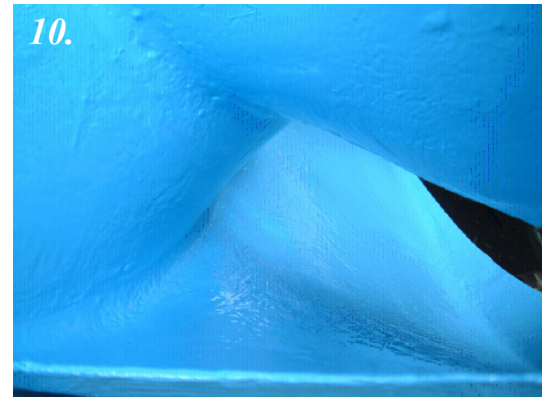
9.

The Impeller cured for an hour, and second layer of Wencon Coating blue was applied, while first layer is still sticky. This is to ensure good adhesion.

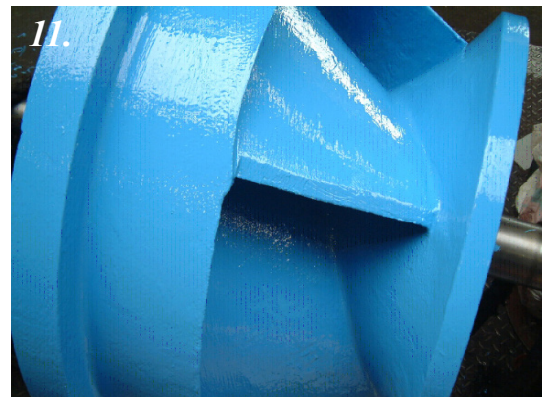


10.

The end result is a smooth surface, as smooth as possible for this kind of impeller.



Job carried out in dry weather, temp. approx. 20°C, and curing time was about 14 hours.



**Choose the relevant surface preparation, according to the nature of the job. Seek advice from a Wencon Technician if needed.**

## **Specification for surface preparation for Dry Applications**

Defined as applications, where the Wencon product will be applied to a surface at a temperature minimum 3 degrees above dew point. Use the Wencon Products: Wencon Cream, Wencon Rapid, Wencon Coating, Wencon Ceramic Cream, Wencon Ceramic Coating, Wencon Hi-Temp, all requiring a dry surface.

1. Blast the machine part to SA 2 ½ using sharp-edged blasting media, to a roughness of min. 75 microns.
2. Leave the part for sweating out salts in a warm place for at least 12 hours or heat it up to 30 - 40 °C (86-104 °F) using gas torches.
3. Blast again to SA 2 ½ immediately prior to the application.
4. For parts containing lots of water and salt, it may be necessary to repeat 2. and 3. until the surface remains light grey for at least 2 hours after blasting.
5. Always use Wencon Cleaner prior to application.

## **Specification for surface preparation for Wet/Damp Applications**

Defined as applications, where the Wencon product will be applied to a surface at a temperature less than 3 degrees above dew point. Use the products Wencon UW Putty, Wencon UW Cream and Wencon UW Coating for applications on wet or damp surfaces.

1. Water jet the entire surface with water and sand to a standard equal to SA 2½, as described above.

## **Specification for surface preparation for Emergency/Temporary Applications**

### **Perago Treatment**

Perago is a rubber disk with hard steel spikes mounted on the periphery. Perago can be mounted in a normal drilling machine, and gives a surface close to a blasted surface - clean and rough with sharp edges. Perago dishes can be ordered at Wencon and at all Wencon Distributors.

### **Grinding**

Wheel grinding is often an acceptable surface preparation for emergency applications, where shot blasting is not possible. When grinding use a coarse stone or flap. Use the Wencon Cleaner before and after grinding. Grinding with sandpaper or emery cloth is only advisable when, for example, carrying out shaft-repair on a lathe. Often the grinding will not hit the dents.

### **Needle Gunning**

Needle gunning is a method that has almost been forgotten in recent years. Or should we say is mostly used for very rough cleaning or removal of rust. It is possible to do a very nice job using a needle gun, but it takes time and should be closely supervised. It is essential that the marks from the sharp needles cover the whole surface so that none of the original surface remains. It is recommendable to steam clean the surface before needle gunning.

### **Wire Brushing**

Wire brushing can be a good way of removing scales, rust and old paint. However, you will need to grind the surfaces after the wirebrushing to make the surface as rough as possible.