

APPLICATION REPORT

STRUCTURAL COATING OF PAPER DRYING MACHINE



AT
ITC PAPER INDUSTRY
ANDHRA PRADESH

INTRODUCTION:-

DIFFCOR division of DIFFUSION ENGINEERS LTD successfully completed job work for Structural coating of PAPER DRYING MACHINE. This job work was carried out for our customer ITC PAPER LTD. Our customer were facing problem of high corrosion. Coating was done with DIFFGLASS PRIME & DIFFCERAWET.

In paper industry contact drying with steam heated cylinders is the predominant method of paper drying. Besides conductive heat transfer between hot cylinder surface and the wet web, the role of air that is either the drying medium or surrounds the drying atmosphere is very significant. The heat energy released when steam condenses is transmitted through the dryer shell to the wet paper and this constitutes the heat transfer aspect of drying. The air receives the water vapor evaporated from the paper.

The removal of this vapour from the sheet causes corrosion to paper drying machine & structures.. Loose scale & corrosion degrades quality of paper & causes loss of production.

PROBLEM:-

The corrosion problem is due to excessive carryover of chemical fumes and High humidity on the paper machine. Corrosion of mild steel and cast iron surface is exacerbated by concentration of these chemicals particular high steam humidity in the WET DRY section of the paper machine structure.

Fatigue metal particle, loose scale and corroded metal particle falls on drying paper conveyor which damages the paper on conveying belt, tearing paper during drying process. The Overall Impact was Stopping of production line, resulting in loss of production & revenue losses.



Fig. Problem of Corrosion and Pitting of Structure

PRODUCT RECOMMEND:-

DIFFGLASS PRIME:-

DIFF-GLASS PRIME is a Two-pack polyamine cured epoxy priming surface tolerant compound incorporating a rust inhibitor and passivator.

DIFFCERA-WET:-

DIFF-CERAWET is High solid, Heavy duty glass flake filled modified epoxy coating system designed to meet aggressive environments with excellent resistant to acid, bases, solvents and High humidity and Wet areas.

APPLICATION PROCEDURE:-

A.SURFACE PREPARATION

1. Before application of any kind of coating surface preparation is must so that coating will have better bonding with the base surface. Chipping was done to remove previous coating, loose rust, scale etc.
2. The surface preparation is done by surface grinder.



Surface Preparation done by Chipping & Grinding.

B. PRIMING:-

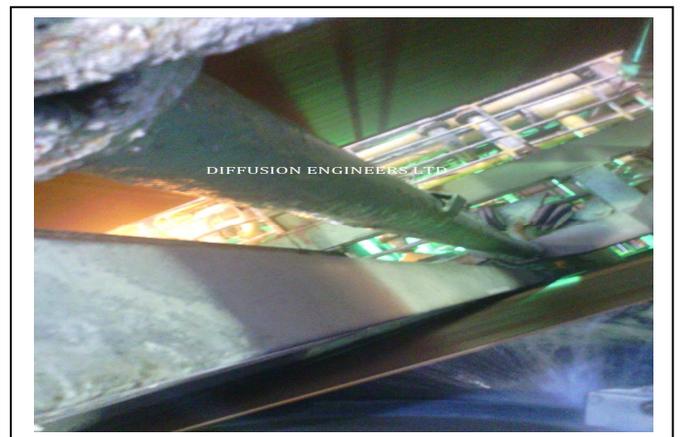
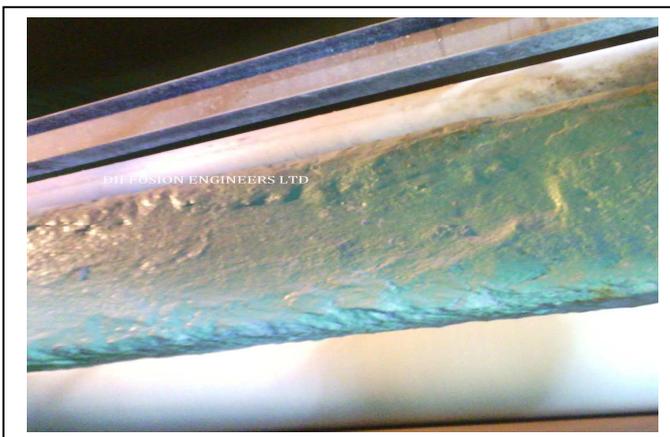
1. After surface preparation priming is done by DIFFGLASS PRIME.



Priming done by DIFFGLASSPRIME

C. COATING:

After priming DIFFCERAGLASS WET was applied to give corrosion resistance in moist & humid atmosphere...



Application of DIFFCERAGLASS WET

Performance of coating inspected after 2 years:-



Observation :-

- ❖ *No Production Stoppage. protection Of structure*
- ❖ *Highly resistance corrosion coating*
- ❖ *Protect base plate from corrosion.*

ACKNOWLEDGEMENT:

AREA ENGINEER:

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AGENCIES INVOLVED:

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