

CASE STUDY 77

(HICLEAN LASHD 133- USE OF DEPHOSPETING CLEANER FOR FASTNERS)



PROFILE OF COMPANY:

The Company is involved in the manufacture and distribution of export quality MS fasteners , steel wires.



TRIAL CRITERIA

1. Need to achieve the phosphate free fasteners in pre cleaning before hardening.
2. No EHS Issues - Operator & Environmental Friendly.



OPERATING/ APPLICATION DETAILS :

1. Machine: San Yung Continuous Furnace
2. Tank Capacity: 3500 Its
3. Part: Fasteners
4. Material: Mild Steel
5. Application: Dephosphating
6. Cycle time: 30 secs
7. Initial Loading: 210 Its
8. Concentration: 4.8%
9. PH: 12 -14 %
10. Filter: No filtration process in tank
11. Maintenance: Complete change of tank in 15 days.
12. Post Dephosphating Process: Hardening in Continuous Heat Treatment Furnace
13. Dephosphating Testing Procedure: In detail at the end of the case study.



COMPONENT DETAILS



Vldhushi Fasteners Photos

PRODUCT RECOMMENDED: HICLEAN LASHD 133



PREPARATION OF REAGENT FOR DEPHOSPHATE TEST. (VANADAT-MOLYBDATE)

1. Dissolve 8 gm of ammonium molybdate in 80 ml of distilled water.
2. Add 12 ml concentrated hydro chloride acid (d=1.14), 20 gm ammonium chloride and 10 ml of saturated potassium persulphate solution.



PREPARATION OF SAMPLE FOR TESTING

1. Take the sample after pre wash and dry the sample by using hot air/compress air.



TESTING METHOD

1. Add one drop of reagent to the plane surface.
2. The appearance of a blue color within 30 seconds indicates the presence of a phosphate coating then material is NOT OK.)

TRIAL CONCLUSION



Trial Evaluation with the
period of 1 month



Achieved Phosphate free fasteners
products



No EHS Issues observed: Operator &
Environmental Friendly