

# CASE STUDY 6

## (METAL CLEANER FOR HEAT TREATMENT APPLICATIONS)



### CUSTOMER DETAILS :

A leading manufacturer of precision forged bevel gears, pinions, differential case assembly for automotive and other applications.



### OBJECTIVES FOR CONDUCTING THE TRIAL

1. To improve surface cleanliness
2. To improve sump life



### OPERATING/ APPLICATION DETAILS:

- Machine Make: Oriental (02 nos), Ipsen (02 nos), Hightemp (01 nos)
- Tank capacity: 3000-6000 Ltr in prewash, 4500-5500 Ltr in postwash
- Component: Gears and Pinions
- Material: Forged Steel
- Soil (Prewash): Forging chips
- Soil (Post wash): Quenching oil (65 to 200 cST viscosity)
- Cycle time: 70 Minutes in pre and post wash.
- Spray Pressure: 3-5 Kg/cm<sup>2</sup> (in pre and post wash both)
- Water: DM Water (hardness less than 10 PPM, Chloride less than 10 PPM, pH 6.5)
- Operation: Washing
- Concentration: 3-5 %
- pH: 9.0-9.5
- Bath Temp: 70 Deg C
- Oil Skimmers: Very Effective
- Trial Period: 14 days



### COMPONENT VIEW



**PRODUCT RECOMMENDED: FeroClean NSF (in pre as well as post wash)**

## TRIAL RESULTS



Component Surface finish improved significantly



Component rework reduced substantially



Consumption Reduced by 25 %



Sump Life increased by 50 %



Machine bed finish improved