

CASE STUDY 92

(USE OF LV OILS IN BEARING ROLLERS)



CUSTOMER DETAILS :

Company is leading manufacturer of taper roller manufacturer and supplying to major Swedish and Indian OEMS



OBJECTIVES FOR CONDUCTING THE TRIAL

1. To increase hardness and microstructure more than 90% martensite
2. To control distortion



OPERATING / APPLICATION DETAILS:

1. Furnace: Simplicity 350kg/Hr
2. Application: Quenching
3. Component: Tapwe rollers
4. Material: SAE 52100
5. HPPL Product: Hiquench ISX17LV
6. Competition Product: *** 42
7. Case depth: 1-1.1 mm
8. Hardness required: 60-63 BHN for Forged steel & 65-70 BHN for Cast Iron
9. Tank Size: 8000 Ltrs
10. Trial period: 1 Month



COMPONENT VIEW



PRODUCT RECOMMENDED: HIQUENCH ISX 17LV

TRIAL RESULTS



Uniformity in hardness within the 3RC is achieved



Distortion issue has been resolved



Microstructure achieved with martensite with less than 7% retain austenite