

CASE STUDY 106

(NEAT OIL FOR HOBGING APPLICATION)



PROFILE OF COMPANY:

A customer in South manufacturing and in distribution of steering and suspension systems. The main components manufactured by the company include Manual Steering Gear Products (SGP), Suspension & Steering Linkage Products (SSLP) and other products include tie rod assemblies, drag link assemblies, center link assemblies, gear shift ball joint



TRIAL CRITERIA

1. Less Heat Generation and low mist
2. No EHS Issues (Skin & eye irritation)
3. To reduce the cost of oil.
4. Need to achieve the required finish- Visual finish



OPERATING/ APPLICATION DETAILS :

1. Machine Make : Emag , Liebherr
2. Component : Pinion Racks
3. Material : Steels (Different EN Series)
4. Cycle time: 60 Secs
5. Operation : Hobbing
6. Tank capacity : 250 Ltrs

7. Filtration : Magnetic chip conveyor
8. RPM : Depends on model
9. Tool – Carbide
10. Tool life : ~10 resharpening
(Resharpening frequency : once in 500 No's)
11. Tool life : Depends on Material and part size
12. Existing product : XXXX XXX 335B



COMPONENT DETAILS



PRODUCT RECOMMENDED: HICUT 32 H

TRIAL CONCLUSION



No Heat generation –
Low mist compare to
existing product



Achieved Required finish
– Good visual finish



No burn marks
in finished parts



No EHS
Issues observed



Hob life similar to existing
- Overall Cost savings
achieved - 5%