

CASE STUDY 50

(NEW GENERATION FORGING LUBRICANT)



CUSTOMER DETAILS :

One of the leading auto ancillary manufactures specializing in the field of precision forging and supplying components to two-wheeler & automotive segment.



OBJECTIVES FOR CONDUCTING THE TRIAL

1. Reduction in CPC
2. To achieve Die Life requirements -
 - a. For Fresh Die Life : 4000-5000 Components
 - b. Polishing Frequency: 1500 – 2000 Components
3. Smooth process with minimal rejection
4. Better component finish with easy removal from die (Avoid Die Stickiness)



OPERATING / APPLICATION DETAILS:

1. Press : V11 1600 Ton
(Hongda Metal Forming – China Make)
2. Press Load : 1600 TON
3. Part Name : LH Kopa (Part Weight : 1450gm)
4. Material : S48C
5. Application : Hot Forging
6. Billet Temperature °C : 1050°C - 1100°C
7. Die Temperature °C :
 - a. Before Lubricant Spray:- 180°C - 220°C
 - b. After Lubrication Spray:- 150°C - 180°C
8. Die Material : Die Steel D2 Grade
9. Application : Automatic Gun through both sided spray facility
10. Lubrication Mixing Tank : Tank with Air Agitation
11. Forge Stages : Blocker –Finish
12. Billet Specification : Length : 110mm/ Dia :- 46-52mm/
Weight : 1450gm)
13. After Forging, Part Specification : Dia:- approx. 120mm/
Depth :- 180mm
14. Dilution Ratio : 1:10 & 1:11
15. Die Life (Fresh Die & Die Polishing) :-
 - a. Fresh Die @ 4500Parts
 - b. Die Polishing @ After 2000Parts



COMPONENT VIEW



PRODUCT RECOMMENDED: HILUBRIC FW02 M

TRIAL RESULTS



Reduction in CPC from 0.45-0.50 to 0.36



Improvement in die life as well as die polish frequency



No die sticking issue



Less smoke