CASE STUDY 89

(FORGING LUBRICANT FOR STEEL FORGING COMPONENTS)

CUSTOMER DETAILS :

One of the leading forging industry based at South India, manufacturing a wide variety of steel forgings components in various grades of Carbon, Alloy, Micro-Alloy and Stainless Steels in the weight range of 0.20 Kg to 60 Kg.

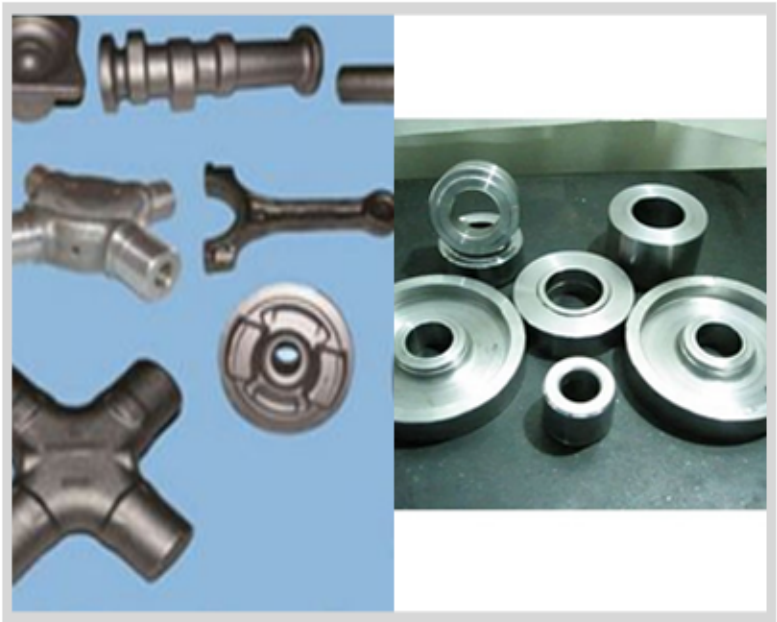
OBJECTIVES FOR CONDUCTING THE TRIAL

1. To lower consumption and cost Reduction
2. Achieve the required Die life – 5000 Numbers
3. No die stickiness
4. Less scales formation
5. Better Surface Finish –Visual (No wrinkle marks/ cracks)

OPERATING / APPLICATION DETAILS:

1. Press: National Maxipress / Voronezh
2. Load: 2500 Tons / 2000 Tons
3. Part: Gear (Flashless) / Rail shaft/Housing
4. Spray type: Manual spray
5. Material: EN series
6. Billet: Dia: 25 mm
7. Length : 300 mm
8. Billet Temp: 1150°C
9. Die Preheat: 180~210 °
10. Dilution: 1:20 / 1: 30
11. Water: Raw water
12. Die temp while running: 120 ~400°C
13. Spray type: Manual spray
14. Billet weight: 6.5 kg (Deep cavity part)- 3 stages (Upsetting >blocker > finisher)
15. Billet temp: 1150°C ~ 1250°C
16. Existing product: XXX 635 / XXX 5000 HD
17. Required die life: 5000 No's (nitride coated die)

COMPONENT VIEW



PRODUCT RECOMMENDED: HILUBIC FW 02 M-1

TRIAL RESULTS

- Less die catch up in critical components forging
- Good ejection after forging
- Required surface finish achieved
- Less scale formation
- 2% reduction in consumption