

# CASE STUDY 82

## HIGH PERFORMANCE NEAT OIL FOR BROACHING INTERNAL RINGS



### CUSTOMER DETAILS :

Customer is global leader in the power transmission industry & manufacturing the gear motors, drive systems and planetary gearboxes to satisfy needs for industrial processes, automation, mobile and renewable energy.



### OBJECTIVES FOR CONDUCTING THE TRIAL

1. Need to achieve the required finish – RI :< 3.2 max
2. Reduction in consumption cost
3. No EHS Issues ( No Odour , Skin & eye irritation )
4. Good flushing properties



### OPERATING / APPLICATION DETAILS:

1. Machine- Tasa Micron / Crane Bel, etc.
2. Operation - Internal broach (3stages)
3. Tank capacity -1800ltrs
4. Material-steel.
5. Component – Internal rings / tooth rings
6. Size -Dia 300 to 380mm
7. Broach tool- Asp20-30
8. Broach force - 450 to 800 KN.
9. Broach tool life – Depends on model ( will vary )
10. Cycle time - up to 120secs
11. Filtration - Magnetic chip conveyor (chip wringer is available for oil recovery)
12. Chiller – Available , Maintained at 27°C
13. Existing product : XXX 960/4E



### COMPONENT VIEW



**PRODUCT RECOMMENDED: ISOCUT 960/36**

## TRIAL RESULTS



**Achieved required finish- RI : 2 ~2.5**



**No Chip weld or stick issues in tool- Good Flush ability**



**No EHS Issues observed - No skin or eye irritation**



**Mist / Smoke not observed - Good working environment**



**Overall cost saving achieved – 10%**