

CASE STUDY 2

(GEAR HOBBING OIL)



CUSTOMER DETAILS :

One of the leading automotive parts manufacturer. They are involved in manufacturing of commercial vehicle Gear Box.



OBJECTIVES FOR CONDUCTING THE TRIAL

- a) To have better surface finish
- b) To improve the die life
- c) Reduce the consumption & cost.
- d) Operators friendly



OPERATING / APPLICATION DETAILS:

- a) Machine Make : LIEBHERR MACHINE
- b) Model No : LC- 380
- c) Tank capacity : 720 LTR.
- d) Type of Operation : Gear Hobbing
- e) Work Piece : Gear Shafts- Auto components
- f) Work piece material : 20Mn Cr 5
- g) Cycle time : 3 Mins
- h) Tool Type : SRP HUB -20 Teeth PRESSURE ANGLE 25°
- i) Material of tool : HSS
- j) Strokes per minute(SPM) : 200
- k) Product in Use : Competitor Product



MACHINING COMPONENT VIEW



Machine



Tools



COOLANT SYSTEM:

- A) TYPE : INDIVIDUAL
- B) APPLICATION METHOD : FLOODING

PRODUCT RECOMMENDED : ISOCUT SH TML

TRIAL RESULTS

The following trial objectives have been met successfully



**Achieved the
required finish**



Operator friendly



**Overall cost saving –
Direct & Tool life: ~25%**