

# COMBUSTION ISSUES

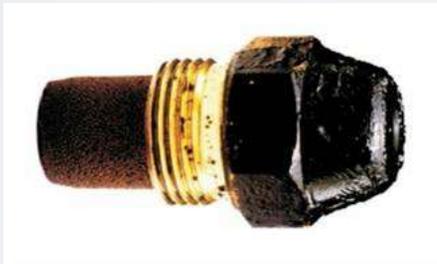


innospec 

UIP-SIP 5-0

# ECOTHERM® FUTUR 3 – NOZZLE TEST

Clean Nozzles → Improved Fuel Consumption

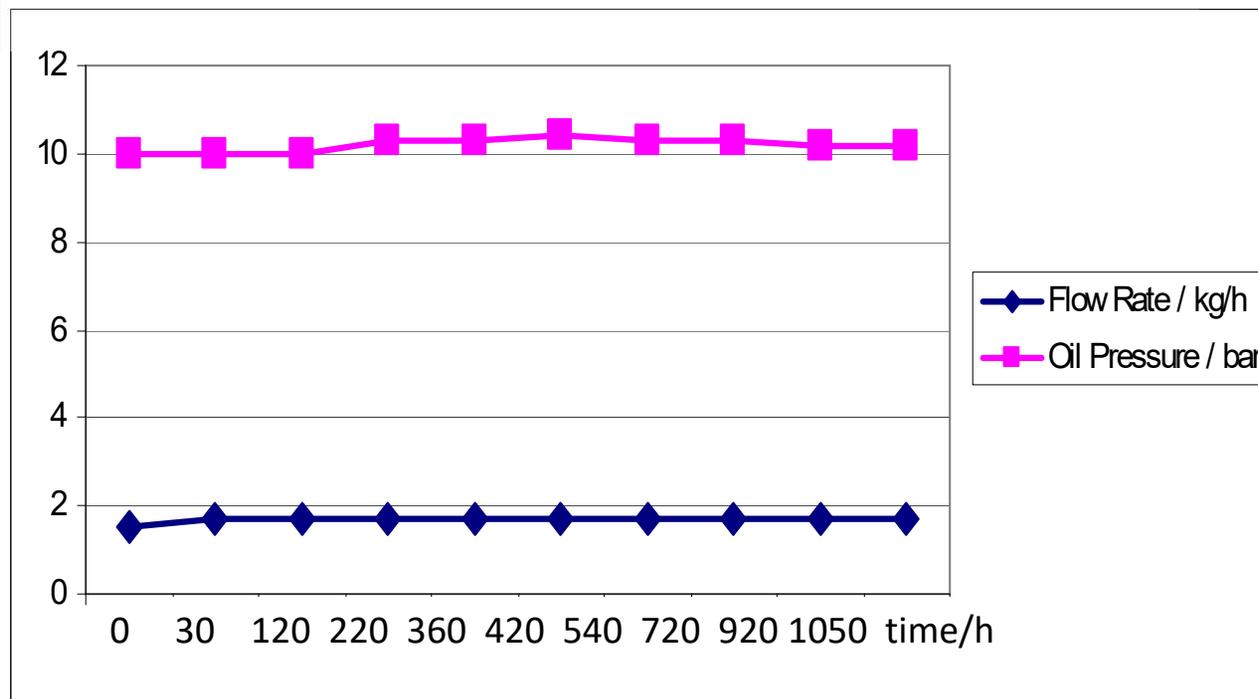


Standard LHO un-additised  
worse injection → consumption  
increase



Premium LHO with ecotherm®  
futur 3  
optimised injection

# ECOTHERM® FUTUR 3 – NOZZLE TEST



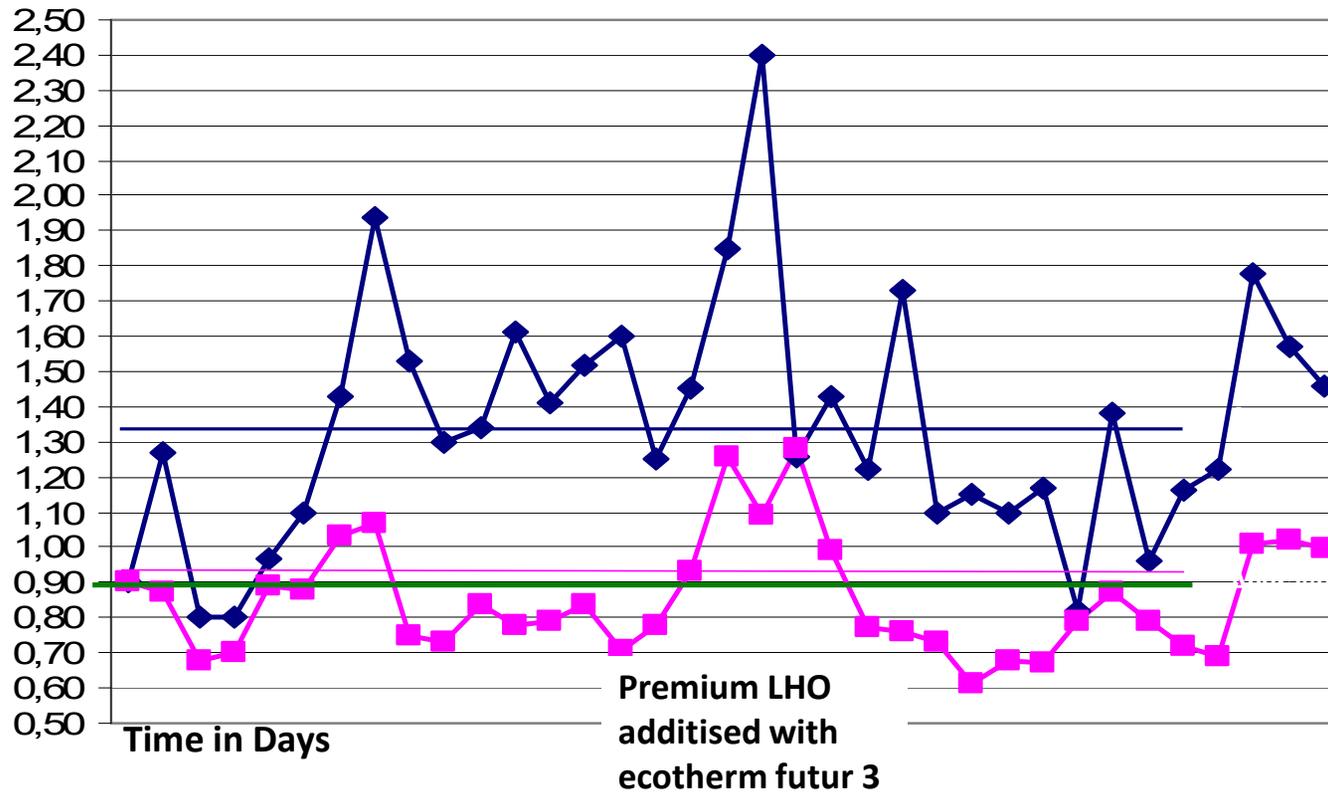
## ecotherm® futur 3 – Nozzle Test

Danfoss Nozzle, new, no. 14, 0,50/60°,

Oil Pressure 10,0 bar, Standard LHO, T 10min/10min

# ECOTHERM® FUTUR 3 – LONG TERM BURNER TEST

**Bacharch Soot Numbers TÜV-Test**



## ECOTHERM® FUTUR 3 – LONG TERM BURNER TEST

### Key Results of Burner Comparison:

- Soot formation of Premium LHO continuously below SN 1
- Soot formation of Premium LHO is > 40% less than LHO un-additised
- CO content of Premium LHO is 80% less than LHO un-additised
- Efficiency loss of Premium LHO is one third in comparison to LHO un-additised

## ECOTHERM® FUTUR 3

- Is a unique and world class product which has been proven through extensive testing:
- Stability tests with all LHO grades according to:
  - Storage Stability (DGMK 570-2)
  - Thermal Stability (DGMK 570-1)
- Long Term Nozzle Test
- Long Term Burner Test carried out at TÜV Nord