Customer test 2: Increasing the speed to 300 m/min – still the same long tool life

Tool:
PM-HSS hob (S390)
D = 90 mm

Workpiece:
Steel 1.7131 (AISI 5115)

Cutting data:
\( v_c = 200 \Rightarrow v_c = 300 \)
\( m_n = 1.62 \)
\( f_a = 6.0 \text{ mm} \)
dry
Gearbox for passenger car

Benefit:
+50% cutting speed at same tool life

Source:
Oerlikon Balzers/Automotive Enduser