Drilling of steel at high speed and feed

Tool
Carbide drill, \( \varnothing = 8.5 \text{ mm} \)

Workpiece
Steel 1.7225 (AISI4140, SCM440)
900 N/mm²

Cutting parameters
\( v_c = 160 \text{ m/min} \)
\( f = 0.20 \text{ mm/rev} \)
\( L_0 = 5xD \text{ (through hole)} \)
Emulsion (internal cooling)

Criteria for end of tool life
\( VB = 0.3 \text{ mm} \)

Source
Oerlikon Balzers
Cutting Laboratory

Number of produced holes

- BALINIT® FUTURA
- BALINIT® HELICA
- BALINIT® PERTURA