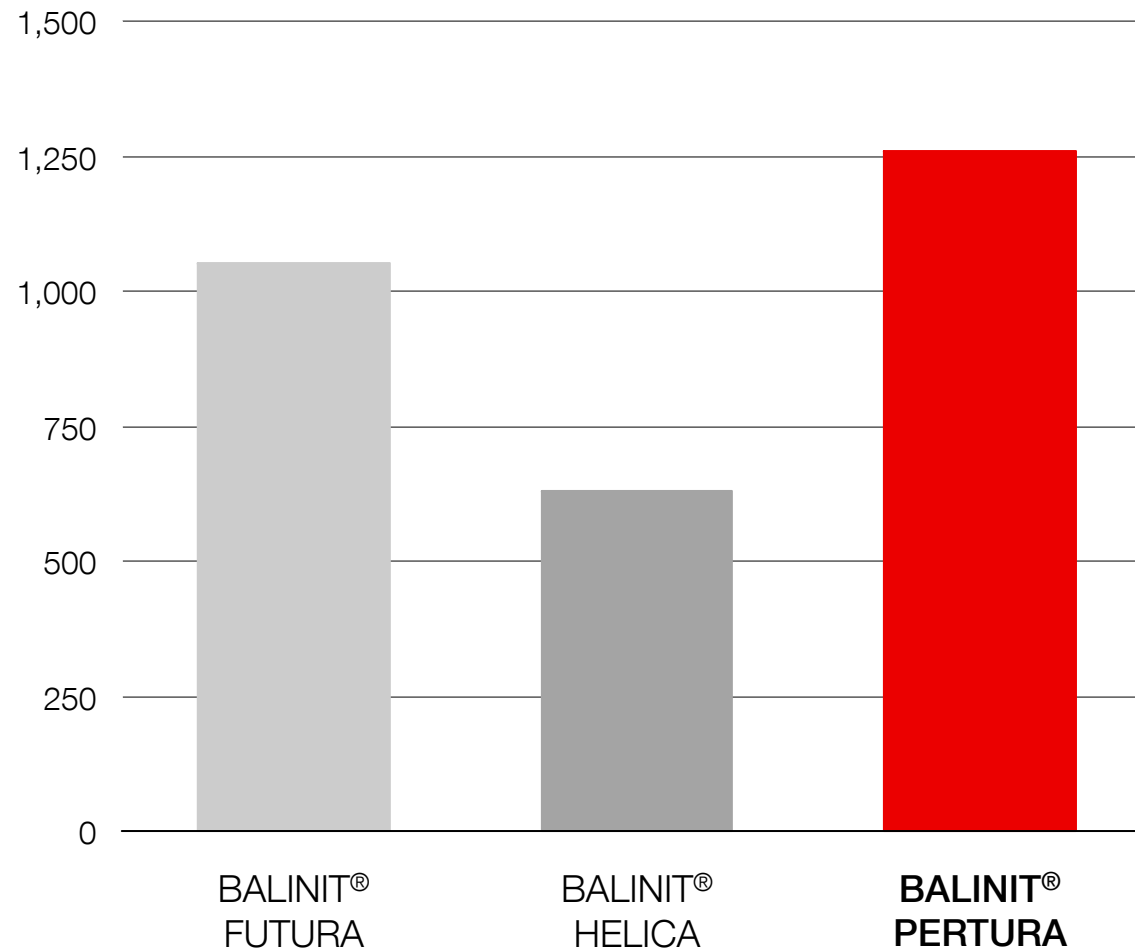


Drilling of steel at high speed and feed

Number of produced holes



Tool

Carbide drill, $\varnothing = 8.5$ mm

Workpiece

Steel 1.7225 (AISI4140,
SCM440)
900 N/mm²

Cutting parameters

$v_c = 160$ m/min
 $f = 0.20$ mm / rev
 $L_D = 5 \times D$ (through hole)
Emulsion (internal cooling)

Criteria for end of tool life

VB = 0.3 mm

Source

Oerlikon Balzers
Cutting Laboratory