Increase of material removal rate when milling stainless steel

Material removal rate $Q$ [cm$^3$/min]

- 6
- 5
- 4
- 3
- 2
- 1
- 0

**Tool**
Carbide endmill Z4

**Workpiece**
Stainless steel > 700 N/mm$^2$
1.4571 (SUS 316Ti, AISI 316Ti)

**Cutting parameters**

Coating 1 (TiAlN):
- $v_c = 65$ m/min
- $f_t = 0.03$ mm

Coating 2 (BALINIT® ALNOVA):
- $v_c = 120$ m/min
- $f_t = 0.07$ mm

$a_p = 8$ mm; $a_e = 0.8$ mm wet

**Source**
Tool manufacturer Germany