

RF 100 VA/NF - high-performance roughing end mills for stainless steels

Based on our RF 100 end mill now with variable helix angles in combination with a newly developed roughing geometry. The result is a dramatic increase in tool life in comparison to conventional rough milling cutters with round or flat knuckle-type teeth. At the same time, the surface quality of the workpiece is improved to a peak-to-valley height of appr. $R_a = 2-3 \mu\text{m}$, making in many cases finishing operations unnecessary.

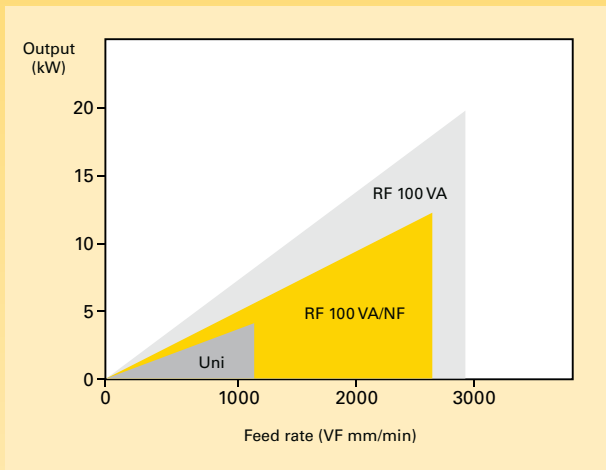
At the same time, the innovative design reduces power consumption in comparison to conventional RF 100 end mills allowing the application in unstable conditions and on less powerful machines.

Summary of advantages

- decreased cutting pressure and power consumption
- vibration-free operation
- increased feed rates possible
- increased surface qualities ($R_a = 2-3 \mu\text{m}$)
- improved tool life



Workpiece surface
 $R_a = 2-3 \mu\text{m}$



with neck clearance

36°

38°

with micro-corner protection for longer tool life

Material	Alloyed Steel		Tool Steel	Cast iron	Stainless steel		Aluminium		Ti-special alloys		H
	up to 28HRC	over 28HRC	up to 180 HB 30	over 180 HB 30	up to 28HRC	over 28HRC	up to 3% Si	over 3% Si	Ti-based	Ni-based	
RF 100 U	○	●	●	●					●		○
RF 100 U/HF	○	●	●	●					○		○
RF 100 F	●	○	○		○	●		○	○	●	
RF 100 VA	●	○	○	○	●	●		○	●	○	
RF 100 VA/NF	●	○	○	○	●	●			●	○	
RF 100 A							●	●			
RF 100 A/WF							●	●			
RF 100 Ti	○	●	○	○					●	○	○
RF 100 H		○		○							●
RF 100 SF	●	●	●	●	●	●	○	○	●	●	○

● = optimal suitability

○ = limited suitability