

# ROUGH-TECH 48 GS 100 U

## roughing cutters for materials < 48 HRC

GS 100 roughing cutters offer extensive general purpose application possibilities. These roughers have a unique round knuckle-type tooth profile which requires less HP than traditional flat knuckle-type end mills.

The unique geometry also has a staggered pitch angle (see illustration), spreading the feed engagement across the full length of the cutting edge and allowing for a high rate of metal removal.

### GS 100 U: special geometry for materials < 48 HRC

- The 4-flute GS 100 U with its 30° RH spiral and fine knuckle-type teeth is suitable for the machining of all general steels up to 48 HRC, high-alloyed steels as well as titanium or chrome nickel alloys.

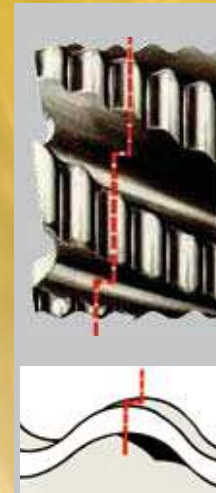
### GS 100 H: special geometry for materials < 56 HRC

- The GS 100 F 5- and 6-flute end mill has a 45° right hand spiral with the NF style knuckle design suitable for machining high tensile steels up to 56 HRC hardness.

### Advantages at a glance:

- reduced power requirement and cutting pressure
- suitable for less powerful and less stable machines
- suitable for less favorable workpiece and tool clamping conditions
- high metal removal rate thanks to the utilization of the complete cutting edge length

Guhring milling cutters with radial coolant exits at 64° (series #3365) provide particular protection to the sensitive corners. The specifically aimed coolant exits completely prevent built-up edges and ensure complete chip evacuation, especially with deep pockets and channels.



Material	Alloyed Steel	Tool Steel	Cast iron		Stainless steel		Aluminium		Ti-special alloys		H	
	up to 28Hrc	over 28 HRC	up to 180 HB 30	over 180 HB 30	up to 28 HRC	over 28 HRC	up to 3% Si	over 3% Si	Ti-based	Ni-based	up to 52 HRC	over 52 HRC
Aero-Tech	○	●	○	●	○	●	○	●	○	○	○	
Alumi-Tech	○						●	●				
Rough-Tech ALU	○						●	●				
Aero-Rough 48	●	●	●	○	●	○	○	○	○	○		
Aero-Rough 56	○	●	●	●	○	○			●	○	●	○
Rough-Tech 48	●	●	●	○	●	○	○	○	○	○		
Rough-Tech 56	○	●	●	●					○	●	●	○
Finish-Tech 50	○	●	●	●	●	●	○	●	●	●	●	
Finish-Tech 62			○	●						○	●	●
GF 500	○	●	●	●	○	○			●	●	●	
GF 300		○	○	●					○	○	●	●
Uni-Pro (all)	●	○	●	○	○	●	●	○	○	●		

● = optimal suitability

○ = limited suitability