

# ROUGH-TECH ALU / GS 100 A roughing cutters for aluminum, alloys and soft steel

GS 100 roughing cutters excel primarily thanks to their general purpose application possibilities enabling almost any combination of cutting depth (DOC) and cutting width (WOC). In comparison to roughing/finishing cutters with a flat knuckle-type geometry, the considerably lower power requirement ensures a reliable and economical machining process especially with less powerful machines. Thanks to its round knuckle-type geometry with a staggered pitch angle (see illustration) the feed engagement is spread across the full length of the cutting edge even with less rigid workpiece clamping conditions or long tool neck lengths. In spite of a lower tooth feed rate compared to flat knuckle-types a high rate of metal removal is achieved.



GS 100 A: special geometry for aluminum:

- The 3-flute, 30° RH helix GS 100 A is suitable for the machining of aluminum, aluminum-alloys and other soft materials up to 700 N/mm<sup>2</sup>.

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

In comparison with conventional tools, GS 100 A roughing cutters with internal cooling excel with considerably longer tool life and higher feed rates as well as increased feed engagement widths and depths. Guhring milling cutters with radial coolant exits at 64° 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	up to 28 HRC	up to 3% Si	Ti-based	up to 52 HRC	over 52 HRC
Rough-Tech ALU	○				● ●			

● = optimal suitability

○ = limited suitability