

Technical Data

SAG tool operation requirements:

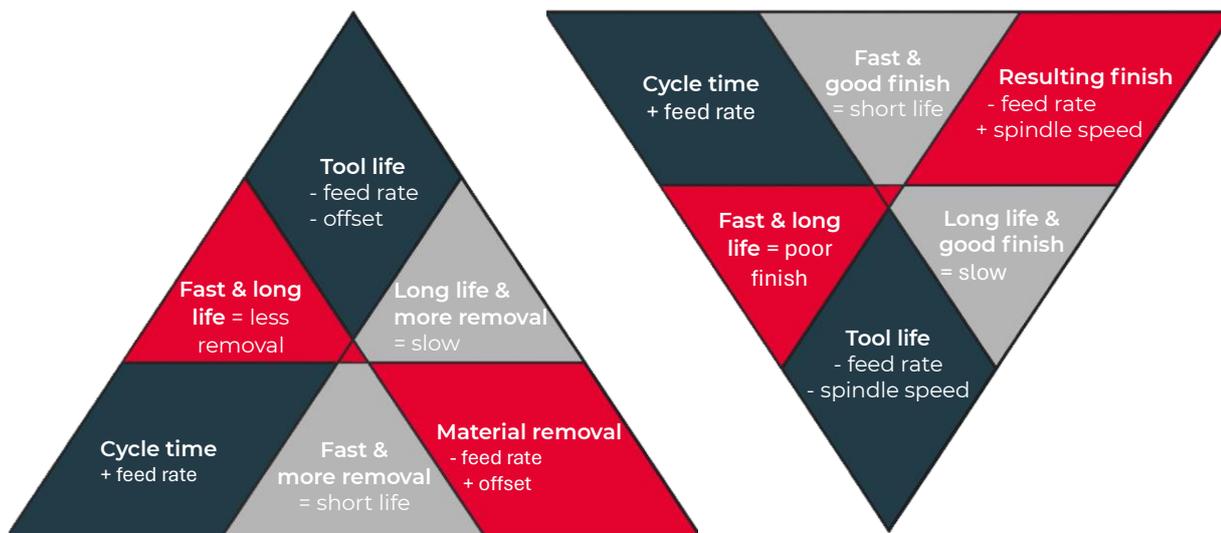
- 3 or 5 Axis CNC Machine
- 12 mm Collet
- CAM Software
- Cutting Coolant - suitable for the workpiece material

Recommended polishing conditions

Tools should be cleaned regularly using an alcohol-based solution and lint-free cloth

Material	Diamond bond method	Spindle speed (RPM)	Feed rate (mm/min)	Offset (mm)	Material removal depth (µm)
Mild steel	Roughing (NDB)	8,000	1,000	0.2	20 – 5
	Finishing (RDB)	8,000	1,000	0.3	3 – 1
Stainless steel	Roughing (NDB)	6,000	800	0.2	18 – 4
	Finishing (RDB)	6,000	800	0.3	3 – 1
Cobalt chrome	Roughing (NDB)	3,000	1,000	0.3	15 – 3
	Finishing (RDB)	3,000	1,000	0.3	3 – 1
*Titanium	Roughing (NDB)	1,300	4	0.3	10 – 2
	Finishing (RDB)	2,500	4	0.3	2 – 1
Titanium 64	Roughing (NDB)	6,000	800	0.35	15 – 5
	Finishing (RDB)	6,000	800	0.35	4 – 1
Silicon carbide	Roughing (NDB)	1,000	500	0.15	10 – 5
	Finishing (RDB)	6,000	800	0.15	4 – 1
Aluminium	Roughing (NDB)	16,000	2,000	0.1	10 – 2
	Finishing (RDB)	16,000	2,000	0.1	2 – 1
Inconel	Roughing (NDB)	6,000	800	0.2	15 – 4
	Finishing (RDB)	6,000	1,200	0.3	4 – 1

*Concave surfaces, for example a Hip Cup



Example: Increasing feed rate improves the cycle time but decreases the tool life span, surface finish, and material removal.

Polishing parameters can be altered to improve a desired output: Tool Life Span, Cycle Time, Resulting Surface Finish, Material Removal Rate.

For **Track Spacing** use our online calculator available at:

<https://sag-tek.co.uk/Track-Spacing-Spot-Size-Calculator> or scan the QR code.

Please contact us if you have any questions or need further information - sales@sag-tek.co.uk

